



System i
Programming
Backup Recovery and Media Services for i5/OS
commands

Version 6 Release 1





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Note

Before using this information and the product it supports, be sure to read the information in "Notices," on page 513.

This edition applies to version 6, release 1, modification 0 of IBM Backup Recovery and Media Services for i5/OS (product number 5761-BR1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CICS models.

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Add Media to BRM (ADDMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Add Media to BRM (ADDMEDBRM) command adds a media volume to the BRMS media inventory. The volume can be a volume from another media inventory that contains active data, the volume can be a volume from some other outside source, or a new volume that you want to initialize. Once added, BRMS tracks the volume's characteristics, location, use and content.

When you add the volume, you must specify the media class of the volume. You can also specify how you want the volume to move, where the volume is located, its container (if any) and other miscellaneous attributes.

If the numbering scheme of the volumes that you are adding is consecutive, the ADDMEDBRM command will automatically add the volumes without having to add the volumes one at a time.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The operating system uses certain volume identifiers for special purposes. You should avoid using these volume identifiers in your volume labeling. Volume identifiers that you should avoid are:

TAPxxx
NLTxxx
BLKxxx
CLNxxx
ERRxxx
SLTxxx
IMPxxx

2. To add a virtual volume, you must specify the name of an existing image catalog on the **Image catalog (IMGCLG)** parameter. These additional restrictions apply when adding virtual media:
 - The name specified for the **Volume identifier (VOL)** parameter must exist as a volume name in the image catalog entries.
 - The density of the virtual volume (image catalog entry) must be the same as the density of the media class.
 - You must specify 1 for **Number to add (VOLCNT)**. Virtual volumes can only be added individually.

- You must specify *LCL or the current system name for **System (SYSNAME)**. Virtual media resides in storage on the current system.
- Cleaning and volume statistic are not maintained for virtual media.

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Parameters

Keyword	Description	Choices	Notes
VOL	Volume identifier	<i>Character value</i>	Required, Positional 1
MEDCLS	Media class	<i>Name</i>	Required, Positional 2
VOLCNT	Number to add	1-999, <u>1</u>	Optional
INZ	Initialize media	<u>*NO</u> , *YES	Optional
EXPDATE	Expiration date	<i>Character value</i> , *NONE, *PERM	Optional
MOVDATE	Last moved date	<i>Character value</i> , *NONE	Optional
MOVPCY	Move policy	<i>Name</i> , *NONE	Optional
CRTDATE	Creation date	<i>Date</i> , *CURRENT	Optional
SLOT	Slot number	1-999999, *NEXT, *NONE	Optional
SYSNAME	System	<i>Name</i> , *LCL	Optional
TEXT	Text	<i>Character value</i> , *NONE	Optional
IMGCLG	Image catalog	<i>Name</i> , *NONE	Optional
DEV	Device	<i>Name</i>	Optional
NEWOWNID	New owner identifier	<i>Character value</i> , *BLANK	Optional
CHECK	Check for active files	*YES, *FIRST, *NO	Optional
CODE	Code	*EBCDIC, *ASCII	Optional
ENDOPT	End of media option	*REWIND, *UNLOAD	Optional
CLEAR	Clear	*NO, *YES	Optional
NXTVOLMSG	Next volume message	*YES, *NO	Optional
DLY	Volume mount delay	1-900, *DEV, *IMMED	Optional
LOC	Location	<i>Name</i> , *HOME	Optional
CNR	Container ID	<i>Name</i> , *NONE	Optional
USECNT	Media uses	<i>Decimal number</i> , <u>0</u>	Optional
READERR	Read errors	<i>Decimal number</i> , <u>0</u>	Optional
WRTERR	Write errors	<i>Decimal number</i> , <u>0</u>	Optional
BYTEREAD	Bytes read	<i>Decimal number</i> , <u>0</u>	Optional
BYTEWRT	Bytes written	<i>Decimal number</i> , <u>0</u>	Optional
CURBYTES	Current bytes written	<i>Decimal number</i> , <u>0</u>	Optional
MAXBYTES	Maximum bytes written	<i>Decimal number</i> , <u>0</u>	Optional
LASTCLN	Last clean date	<i>Date</i> , *NONE	Optional
USECLN	Uses since cleaning	<i>Decimal number</i> , <u>0</u>	Optional

Top

Volume identifier (VOL)

Specifies the identifier of the volume being added to the BRMS media inventory. If the volume is being added to a media class using a virtual density, the volume-identifier must match the **Volume name** of the image catalog entry.

For volumes that specify a **Media class (MEDCLS)** parameter using an optical format, the volume identifier is a maximum of thirty-two characters in length. BRMS media inventory requires a six character volume serial. BRMS will use the **Volume prefix** specified on the **System Policy** to generate a unique six character name for BRMS to use. The volume identifier specified on the **Volume identifier (VOL)** parameter is the name that user applications will use to refer to the volume, but BRMS will use the six character volume serial that was generated by BRMS.

This is a required parameter.

volume-identifier

Specify the name of the volume being added to the media inventory.

For volumes that specify a **Media class (MEDCLS)** parameter using a tape density, the volume identifier is a maximum of six characters in length. The identifier must contain only alphanumeric characters (A through Z and 0 through 9), and cannot contain blanks.

For volumes that specify a **Media class (MEDCLS)** parameter using an optical format, the volume identifier is a maximum of thirty-two characters in length. The identifier must contain only alphabetic characters (A through Z), numeric characters (0 through 9), hyphen (-), underscore (_), or a period (.). The first character must be alphabetic or numeric and cannot contain blanks.

Top

Media class (MEDCLS)

Specifies the user-defined name of a media class for the volume you are adding. Media classes can be reviewed in the Work with Media Classes display.

This is a required parameter.

Top

Number to add (VOLCNT)

Specifies the number of volumes to add during this session. The value specified in the **Volume identifier (VOL)** parameter is increased by 1 for each volume added until the end of the count is reached. If the new volume identifier cannot be increased because of the way a volume is named, such as TAPEB9, an error message is sent. Volume serial TAPEB9 is not in the correct format for adding multiple media because there are not enough digits at the end of the volume to handle an add count without extending the entered length.

Note: You can add a maximum of 999 volumes at a time, even though the field can hold up to 31 digits.

1 Adds a single volume.

number-to-add

Specify the number of volumes to add. The maximum number of volumes that you can add at a time is 999.

For volumes that specify a **Media class (MEDCLS)** parameter using a tape density, specifying a "5" would add 5 volumes, each volume being increased by 1, such as T00001, T00002, T00003 and so on. The first volume (T00001 in the above example) is the volume specified in the **Volume identifier (VOL)** parameter.

For volumes that specify a **Media class (MEDCLS)** parameter using an optical format, specifying a "5" with a first volume specified in the **Volume identifier (VOL)** parameter would add 5 volumes. When adding these volumes, the **Volume prefix** specified on the **System Policy** (M for this example) will be used to create the volume serial associated with each volume identifier. Each volume serial and volume identifier will be increased by one, resulting in a volume serials of M00001, M00002, M00003 and so on, with volume identifiers of VOL00001, VOL00002, VOL00003 and so on.

Top

Initialize media (INZ)

Specifies whether the volumes that you are adding are to be initialized.

***NO** The volume that you are adding is not to be initialized. This is used if the volume has been initialized outside of BRMS and contains active data. You can specify the expiration date for this volume in the **Expiration date (EXPDATE)** parameter.

***YES** The volume is to be initialized with the ADDMEDBRM command and is to be added to the BRMS media inventory. The date in the **Expiration date (EXPDATE)** parameter is set to *NONE (all zeros).

If you specify *YES for the **Initialize media (INZ)** parameter, you must specify the **Device (DEV)** parameter. You must specify a device of category *VRTTAP if the media class uses a virtual density (*VRT32K *VRT64K *VRT240K *VRT256K). You must specify a device of category *VRTOPT if the media class uses a virtual density (*VRTUDF).

Top

Expiration date (EXPDATE)

Specifies the expiration date of the media volume that is added to the media inventory. If a date is specified, the file is protected and cannot be overwritten until the expiration date.

***NONE**

The media is expired media and can be used in backup or archive processing. A value of *NONE means that the volume is a new volume that has been added to the media inventory or that the volume has been reinitialized.

***PERM**

The media has a permanent retention and cannot be used in backup or archive processing.

expiration-date

Specify the date when protection for the media ends.

Top

Last moved date (MOVDATE)

Specifies the last date this volume was moved prior to being added to the media inventory.

***NONE**

You are not assigning a last moved date for this volume.

move-date

Specify the date that this volume was last moved.

Top

Move policy (MOVPCY)

Specifies the user-defined name of a move policy that you want to use for this volume.

Note: Virtual media cannot be moved. Move policies are assigned to virtual volumes so the policy can be replicated to the output media when the virtual volume is duplicated.

*NONE

You are not assigning this volume a move policy.

move-policy-name

Specify the user-defined name of the move policy that you are assigning to this media volume.

Top

Creation date (CRTDATE)

Specifies the date that the first file on this volume was written.

*CURRENT

You are assigning the current date as the creation date for this volume.

creation-date

Specify the date that this volume had data written on it. The date must be specified in job date format.

Top

Slot number (SLOT)

Specifies the slot number for the volume that you have selected to add.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*NEXT

Use the next available slot number if the specified location allows media slotting.

*NONE

No slot is assigned to the volume that you are adding.

slot-number

Specify the slot number that you are assigning to this volume. Slot numbers can be any number from 1 to 999999.

Top

System (SYSNAME)

Specifies the system identifier for the volume that you are adding.

***LCL** Specifies that the system is the local system. BRMS uses the default local location name, LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

Text (TEXT)

Specifies text to describe the media that you are adding.

***NONE**

There is no text associated with the volume that you are adding.

text Specify the text for the volume that you are adding.

Top

Image catalog (IMGCLG)

Specifies the name of the image catalog for a volume being added which is a virtual volume. The image catalog and image catalog entry for the volume being added must exist before you can add and initialize the virtual volumes.

Note: Use GO CMDCLG and GO CMDCLGE to view the menus for commands used to manage image catalogs and image catalog entries.

***NONE**

Specifies this is not a virtual volume.

image-catalog

Specifies the name of the image catalog which contains the image catalog entry for a virtual volume.

Top

Device (DEV)

Specifies the name of the device which is used to initialize the volume. This is a required parameter when *YES is specified in the **Initialize media (INZ)** parameter. The device you specify must be defined in the BRMS device table, as shown on the WRKDEVBRM display and the device must be compatible with the specified **Media class (MEDCLS)** parameter.

Top

New owner identifier (NEWOWNID)

Specifies the volume owner's identifier to write in the volume label of the volume being written.

*BLANK

The owner identification field is set to blanks.

new-owner-identifier

Specify no more than 14 characters to identify the owner of the volume. If fewer than 14 characters are specified, the field is left-justified and is filled with blanks on the right.

Top

Check for active files (CHECK)

Specifies whether a labeled volume should be checked for active data files before it is initialized for use. If an unlabeled volume is placed in the specified device, this parameter is ignored.

*YES For tape volumes, all data file labels volume are checked or and an error is sent if any active files are found. For optical volumes, an error is sent if the volume is initialized.

*FIRST

Only the first data file label on the volume is checked. If there are no data files on the volume or if the first data file has expired, the volume is initialized for use without checking for any other files on the volume. If the first data file has not expired, the operation is ended and an error message is sent.

Note: For optical devices, specifying *FIRST is the same as specifying *YES.

*NO Volume initialization continues with no checking for active files. To initialize a new or empty volume, *NO must be specified and *MOUNTED must be specified on the **Volume identifier (VOL)** parameter.

Top

Code (CODE)

Specifies the character code in which the volume label is written. All data that is not save/restore data written after the label must be in the same code; codes cannot be intermixed on a volume that is not a save/restore volume.

Note: For optical devices this parameter is ignored.

*EBCDIC

The volume label is written in EBCDIC and is an IBM standard label; all additional data must also be written in EBCDIC.

*ASCII

The volume label is written in ASCII and is an American National Standard Institute standard label; all additional data must also be written in ASCII.

Top

End of media option (ENDOPT)

Specifies whether the volume is only rewound, or rewound and unloaded after it has been initialized for use.

Note: For optical devices, *UNLOAD is the only special value supported, other special values will be ignored.

***REWIND**

The volume is rewound after it has been initialized for use.

***UNLOAD**

The volume is rewound and unloaded. Some optical devices will eject the volume after the operation ends.

Top

Clear (CLEAR)

Specifies whether all labels and data are to be deleted from the volume when it is initialized for use. If the volume must be cleared of all data, it is deleted from the location of the volume label or volume marks to the end of the volume marker.

For an optical device this parameter only applies when the volume media type is *DVD-RAM.

Note: If the volume media type is *WORM the volume is never cleared regardless of the parameter setting. If the volume media type is *ERASE the volume is always cleared regardless of the parameter setting.

***NO** Existing data is not deleted. Even though the existing data is not deleted, the data on the volume is not usable after the volume has been initialized for use.

***YES** After the beginning of the volume has been initialized for use, the remaining data on the volume is deleted.

Note: For optical devices, this option may take several hours to complete, depending on the media capacity.

Top

Next volume message (NXTVOLMSG)

Specifies whether you want BRMS to notify you through messages to place another volume on a device.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***YES** BRMS will send you messages when the device is ready to accept another volume.

***NO** You do not want BRMS to send you messages as soon as the device is ready to accept another volume.

Top

Media mount delay (DLY)

Specifies how long you want the device to delay before it begins processing the next volume on a device.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** The device should begin processing the next volume based on the device default.

***IMMED**

The device should begin processing the next volume as soon as it finishes the previous volume.

number-of-seconds

Specify the number of seconds that the device should wait before it begins processing the next volume. The number of seconds can range from 1 to 900.

Top

Storage location (LOC)

Specifies the name of the storage location for the volume you are adding. Storage locations are used to hold media and containers. Storage locations can be local, that is, your computer room, or volume inventory or offsite, like a vault or vaulting service. Storage location names are user-defined.

Storage locations are set up in the Work with Storage Locations display. The choices on the command reflect the locations that you have set up.

*HOME

The volume is assigned to a location called *HOME.

location-name

Specify the name of the storage location for this volume.

Top

Container ID (CNR)

Specifies the name of a container to which you want to add this volume. The container must be of a class that can accommodate this type of media.

*NONE

You are not storing this volume in a container.

container-ID-name

Specify the name of the container in which you are storing this volume.

Top

Media uses (USECNT)

Specifies the number of times that a media volume has been read from or written to. When the volume exceeds the usage threshold value for media in its media class, it should be taken out of service and replaced with a newer volume. The usage threshold value can be reviewed in the Work with Media Classes display. Media uses is expressed in number of uses.

0 Initializes the media uses as zero.

media-uses

Specify a number of media uses.

Top

Read errors (READERR)

Specifies the number of read errors that have been recorded for each media volume in the media inventory. When the number of read errors exceeds the value specified in the read error threshold for a volume's media class, the volume should be replaced with a new volume. The read error threshold value can be reviewed in the Work with Media Classes display. Read errors are expressed in kilobytes per read error.

The following guidelines can be used to determine the **Read error threshold** value for your media class. If a volume or cartridge exceeds the criteria, copy the contents to a new volume and discard the old volume.

3570 One temporary read error per 1000 megabytes read.

3580 One temporary read error per 10 gigabytes read.

3590 One temporary read error per 10 gigabytes read.

3592 One temporary read error per 10 gigabytes read.

3480 and 3490

One temporary read error per 50,000,000 KB read.

1/4-Inch cartridge (6341, 6346, 6366 and 9346 and 6342 and 6347 at 10,000 bpi density)

One temporary read error per 12,500 KB read.

1/4-Inch Cartridge (6342 and 6347 at 16,000 bpi density)

One temporary read error per 4,170 read.

8-Millimeter cartridges (7208)

One temporary read error per 100 KB read.

1/2-inch volume reel (9347)

One temporary read error per 50,000 KB read.

1/2-inch tape reel (9348 and 2440)

One temporary read error per 100,000 KB read.

1/2-inch tape reel (3422)

One temporary read error per 144,000 KB read.

If all volumes used in a single drive exceed these criteria, the read/write heads are probably dirty. You should also discard tape reels and tape cartridges with a hard read error.

0 Initializes the read errors as zero.

read-errors

Specify a number of read errors.

Top

Write errors (WRTERR)

Specifies the number of write errors that have been recorded for each media volume in the media inventory. When the number of write errors exceeds the value specified in the write error threshold for a volume's media class, the volume should be replaced with a new volume. The write error threshold value can be reviewed in the Work with Media Classes display. Write errors are expressed in kilobytes per write error.

The following guidelines can be used to determine the **Write error threshold** value for your media class. If a volume or cartridge exceeds the criteria, copy the contents to a new volume and discard the old volume.

3570 One temporary write error per 250 GB written.

3580 One temporary write error per 10 GB written.

3590 One temporary write error per 1 GB written.

3592 One temporary write error per 10 GB written.

3480 and 3490

One temporary write error per 12,500 KB written.

1/4-Inch Cartridge (6341, 6346, 6366 and 9346 and 6342 and 6347 at 10,000 bpi density)

One temporary write error per 1,250 KB written.

1/4-Inch Cartridge (6342 and 6347 at 16,000 bpi density)

One temporary write error per 890 KB written.

8-Millimeter cartridges (7208)

One temporary write error per 50 KB written.

1/2-inch tape reel (9347)

One temporary write error per 4,500 KB written.

1/2-inch tape reel (9348 and 2440)

One temporary write error per 5,000 KB written for 1600 bpi. One temporary write error per 8,500 KB written for 6250 bpi.

1/2-inch tape reel (3422)

One temporary write error per 8,500 KB written.

If all tapes used in a single drive exceed these criteria, the read/write heads are probably dirty. You should also discard volumes and tape cartridges with a hard write error.

0 Initializes the write errors as zero.

write-errors

Specify a number of write errors.

Top

Millions of bytes read (BYTEREAD)

Specifies the number of bytes read (in millions of bytes) from the volume since its creation date.

0 Initializes the bytes read as zero.

bytes-read

Specify a number of bytes read (in millions of bytes).

Top

Millions of bytes written (BYTEWRT)

Specifies the number of bytes written (in millions of bytes) to the volume since its creation date.

0 Initializes the bytes written as zero.

bytes-written

Specify a number of bytes written (in millions of bytes).

Top

Current millions of bytes written (CURBYTES)

Specifies the number of bytes currently written (in millions of bytes) on the media volume.

0 Initializes the current bytes written as zero.

current-bytes-written

Specify a number of current bytes written (in millions of bytes).

Top

Maximum millions of bytes written (MAXBYTES)

Specifies the maximum number of bytes (in millions of bytes) that can be written to this volume.

0 Initializes the maximum bytes written as zero.

maximum-bytes-written

Specify a maximum number of bytes written (in millions of bytes).

Top

Last clean date (LASTCLN)

Specifies the last date that the media volume was cleaned.

*NONE

No date is specified for the last cleaning date.

last-cleaning-date

Specify the last date that the volume was cleaned.

Top

Uses since cleaning (USECLN)

Specifies the number of uses since the last cleaning. When this number equals or exceeds the uses before cleaning parameter for this media class, the volume should be cleaned before using it further. The uses before cleaning value can be reviewed in the Work with Media Classes display.

0 Initializes the uses since cleaning as zero.

uses-since-cleaning

Specify a number of uses since cleaning.

Top

Examples

Example 1: Adding a Volume to BRMS

```
ADDMEDBRM VOL(T00001) MEDCLS(QIC1000)
```

This command adds volumes to the BRMS media inventory. In this example, volume T00001 is assigned a media class of QIC1000 and is added to the BRMS media inventory. The volume is not initialized and is added as expired.

Example 2: Adding and Initializing a Volume to BRMS

```
ADDMEDBRM VOL(T00002) MEDCLS(QIC1000)
           INZ(*YES) DEV(TAP01)
```

This command adds the volume T00002 to the BRMS media inventory with a media class of QIC1000. The volume is initialized using device TAP01.

Example 3: Adding a Virtual Volume to BRMS

```
ADDMEDBRM VOL(VRT001) MEDCLS(VRT256K)
          INZ(*YES) DEV(VRTTAP) IMGCLG(VRTIMGCLG)
```

This command adds the virtual volume VRT001 to the BRMS media inventory with a media class of VRT256K. The volume is initialized using device VRTTAP. Image catalog VRTIMGCLG contains the image catalog entry for VRT001.

Example 4: Adding and Initializing an Optical Volume to BRMS

```
ADDMEDBRM VOL(VOL0000001) MEDCLS(OPTUDF)
          INZ(*YES) DEV(OPT01)
```

For this example the **Volume prefix** specified on the **System Policy** is set to M. This command adds a volume with volume serial M000001 and a volume identifier VOL0000001 to the BRMS media inventory with a media class of OPTUDF. The volume is initialized as VOL0000001 using device OPT01.

Example 5: Adding and Initializing Multiple Optical Volumes to BRMS

```
ADDMEDBRM VOL(VOLUMEIDENTIFIER0000001) MEDCLS(OPTUDF)
          VOLCNT(5) INZ(*YES) DEV(OPT01)
```

For this example the **Volume prefix** specified on the **System Policy** is set to V. This command adds volumes with volume serials V00001, V00002, V00003, V00004, and V00005, with corresponding volume identifiers of VOLUMEIDENTIFIER0000001, VOLUMEIDENTIFIER0000002, VOLUMEIDENTIFIER0000003, VOLUMEIDENTIFIER0000004, and VOLUMEIDENTIFIER0000005 to the BRMS media inventory with a media class of OPTUDF. The volumes are initialized as VOLUMEIDENTIFIER0000001, VOLUMEIDENTIFIER0000002, VOLUMEIDENTIFIER0000003, VOLUMEIDENTIFIER0000004, and VOLUMEIDENTIFIER0000005 using device OPT01.

Top

Error messages

*ESCAPE Messages

BRM1134

Device &1 not found.

BRM133E

Image catalog entry does not exist for virtual volume &4.

BRM133F

Image catalog does not exist for virtual volume &4.

BRM1713

Media class &2 not found.

BRM1717

Volume cannot be renamed &3.

BRM1762

Volume &1 was not initialized.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Add Media Information to BRM (ADDMEDIBRM)

Where allowed to run: All environments (*ALL)
Threading: No

Parameters
Examples
Error messages

The Add Media Information to BRM (ADDMEDIBRM) command adds file level detail to the BRMS media inventory content volume information.

The files, and the volumes that contain them can be from another tape inventory or from some other outside source.

The purpose of the command is to allow user applications or another volume management system to insert data (volume file descriptions) into the BRMS media contents information so that the volumes and their contents can be managed.

Multiple volumes will write a media information record for each volume with the volume sequence being increased as the records are added.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You can only add media content information to an expired volume.
2. This command adds records to the BRMS media content information file based on the information you supply, particularly in regard to file sequence, volume and so on. It is critical that you are careful to apply the correct information and have a full understanding of the command before you use it.
3. The volume for which you are adding content information must exist in the media inventory and the volume, file sequence and volume sequence must be unique in the BRMS media inventory contents information.
4. You can specify only one virtual tape device for the **Device (DEV)** parameter.

Top

Parameters

Keyword	Description	Choices	Notes
VOL	Volume	Values (up to 300 repetitions): <i>Character value</i>	Required, Positional 1
VOLSEQ	Volume sequence	1-9999	Required, Positional 2
SEQNBR	Sequence number	1-16777215	Required, Positional 3
LABEL	File label	<i>Character value</i> , *TYPE	Optional, Positional 4
TYPE	Type	*LIB , *ALLDLO, *LINK, *QHST, *SAVCFG, *SAVSECDTA, *SAVSYS	Optional, Positional 5
LIB	Library	<i>Name</i>	Optional
LNKLIST	Link list	<i>Name</i> , *LINK	Optional

Keyword	Description	Choices	Notes
FILE	File origin	*FILE, *SAV, *SAVCFG, *SAVCHG, *SAVCHGOBJ, *SAVCHGDLO, *SAVDLO, *SAVLIB, *SAVOBJ, *SAVSECDTA, *SAVSYS	Optional
INCTYPE	Incremental type	*CUML, *INCR	Optional
CRTDATE	Entry date	Date, *CURRENT	Optional
CRTTIME	Entry time	Time, *CURRENT	Optional
EXPDATE	Expiration date	Character value, *PERM	Optional
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): Name	Optional
STRVOL	Beginning volume	Character value, *VOL	Optional
ASP	Auxiliary storage pool	1-255, *SYSTEM	Optional
ASPDEV	Auxiliary storage pool device	Name, *NONE	Optional
FLR	Folder	Character value, *ANY	Optional
OBJSAV	Objects saved	1-999999, <u>1</u>	Optional
OBJNOTSAV	Objects not saved	0-999999, <u>0</u>	Optional
CTLGRP	Control group	Name, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
RCD_FMT	Record format	<u>U</u> , F, V, *NONE	Optional
RCDLEN	Record length	0-32760, <u>0</u>	Optional
BLKLEN	Block length	0-32760, <u>32760</u>	Optional
BLKCNT	Block count	0-999999, <u>1</u>	Optional
TEXT	Text	Character value, *NONE	Optional

Top

Volume (VOL)

Specifies the volume identifier or identifiers of the volume or volumes that contain the file that is being added to the BRMS media inventory contents information. Volumes must be enrolled in the BRMS media inventory. A maximum of 300 volumes can be specified here.

This is a required parameter.

volume-identifier

Specify the identifier of the volume that contains the file being added to the BRMS media inventory contents information. The volume identifier is a maximum of six characters in length. The volume must already exist in the BRMS media inventory.

Top

Volume sequence (VOLSEQ)

Specifies the sequence number of the volume that contains the file that you are adding to the BRMS media inventory contents information. The volume sequence number is the sequence number of the volume that contains the beginning of the file that you are adding. If you specify a volume sequence other than 1 in the **Volume sequence (VOLSEQ)** parameter, you must specify the beginning volume of the media set in the **Beginning volume (STRVOL)** parameter. If you specify a 1 in the **Volume sequence (VOLSEQ)** parameter, the volume specified in the **Volume (VOL)** parameter must match the volume specified in the **Beginning volume (STRVOL)** parameter or be *VOL.

This is a required parameter.

Sequence number (SEQNBR)

Specifies the sequence number of the file that you are adding to the media inventory. The sequence number is the file sequence of the file on the volume that you are adding.

This is a required parameter.

File label (LABEL)

Specifies the label for the file that you are adding to the media content information.

***TYPE** The label of the file is used.

label-identifier

Specify the label identifier for the file.

Type (TYPE)

Specifies the special value associated with the file that you are adding to the BRMS media content information.

***LIB** The type of information that you are adding is library information. If you specify *LIB for the **Type (TYPE)** parameter, you must specify a library name in the **Library (LIB)** parameter.

***ALLDLO**

The type of information that you are adding is document library information.

***LINK**

The type of information that you are adding is integrated file system object information.

***QHST**

The type of information that you are adding is history information.

***SAVCFG**

The type of information that you are adding is configuration information.

***SAVSECDTA**

The type of information that you are adding is security information.

***SAVSYS**

The type of information that you are adding is system save information.

Library (LIBRARY)

Specifies the library name of the library whose content information you are adding to the BRMS media content information. This parameter is required when *LIB is specified in the **Type (TYPE)** parameter.

Link list (LNKLIST)

Specifies the link list name to be associated with the integrated file system object information that you are adding to the BRMS media content information.

*LINK

Specifies that the entry created is associated with the *LINK type save used in a control group.

list-name

Specifies the list name that the entry created is associated with.

Note: The list name that you specify is shown as the backup item name when working with media information.

Top

File origin (FILE)

Specifies the operation that was used to create the file that you are adding to the media information file.

*FILE The file that you are adding was not created using a save operation.

*SAV The file that you are adding to the BRMS media inventory contents information was created using a Save Object (SAV) command.

*SAVCFG

The file that you are adding to the BRMS media inventory contents information was created using a Save Configuration (SAVCFG) command.

*SAVCHG

The file that you are adding to the BRMS media inventory contents information was created using a SAV command with a selected reference date and time.

*SAVCHGDLO

The file that you are adding to the BRMS media inventory contents information was created using a SAVDLO command with a selected reference date and time.

*SAVCHGOBJ

The file that you are adding to the BRMS media inventory contents information was created using a Save Changed Objects (SAVCHGOBJ) command.

*SAVDLO

The file that you are adding to the BRMS media inventory contents information was created using a Save Document Library Object (SAVDLO) command.

*SAVLIB

The file that you are adding to the BRMS media inventory contents information was created using a Save Library (SAVLIB) command.

*SAVOBJ

The file that you are adding to the BRMS media inventory contents information was created using a Save Object (SAVOBJ) command.

*SAVSECDTA

The file that you are adding to the BRMS media inventory contents information was created using a Save Security Data (SAVSECDTA) command.

*SAVSYS

The file that you are adding to the BRMS media inventory contents information was created using a Save System (SAVSYS) command.

Top

Incremental type (INCTYPE)

Specifies the type of incremental save for the content information that you are adding to the BRMS media content information.

*CUML

Only save items that have changed. *CUML indicates that the incremental save includes all objects that have been changed since the last full save.

*INCR

Only save changed items. *INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

Top

Entry date (CRTDATE)

Specifies the date the file was created. Dates are entered in job date format with or without date separators.

*CURRENT

The date the file was saved is the current date of the system.

entry-date

Specify the date that the file was saved.

Top

Entry time (CRTTIME)

Specifies the time that each file was created. Time is expressed in the hhmmss format where hh = hours, mm = minutes, and ss = seconds.

*CURRENT

The time the file was saved is the current time of the system.

entry-time

Specify the time the file was saved.

Top

Expiration date (EXPDATE)

Specifies the expiration date of the file that is added to the media content information. If a date is specified, the file is protected and cannot be overwritten until the expiration date has passed. Dates are entered in job date format with or without date separators.

*PERM

The file has a permanent retention and cannot be used.

*VER nnn

Specify the number of versions that are kept in the BRMS media inventory contents information. For instance, *VER 003 indicates that three versions of the save item are kept. When the fourth version of the save item is created, the earliest version is removed and replaced by the fourth version of the save.

Note: *VER 003 is not the version number. It is the number of versions as specified in the media policy.

expiration-date

Specify the date when protection for the file ends.

Top

Device (DEV)

Specifies the name of the device or devices which were used to create the file.

Single values

*NONE

No devices are to be associated with the file that you are adding to the BRMS media inventory contents information.

Other values (up to 4 repetitions)

device-name

Specify the name of the device that you want to associate with the file that you are adding to the BRMS media inventory contents information.

Top

Beginning volume (STRVOL)

Specifies the beginning volume of the media set that contains the file that you are adding to the media information. For instance if you had a 3 volume media set, T00001, T00002 and T00003 and you were adding the fourth file in the media set (which is on T00002), the value in the **Volume (VOL)** parameter would be T00002, the value in the **Sequence number (SEQNBR)** parameter would be 4, the **Volume sequence (VOLSEQ)** parameter would be 2 and the **Beginning volume (STRVOL)** parameter would be T00001.

*VOL The first volume specified in the **Volume** list is the beginning volume. This can only be true when the **Volume sequence** is equal to 1.

volume-identifier

Specify the volume identifier that is the beginning volume for the media set that contains the file that you are adding to the BRMS media inventory contents information.

Top

Auxiliary storage pool (ASP)

Specifies the auxiliary storage pool number for the file that you are adding to the media content information.

*SYSTEM

The content information you are adding was saved from the system (1) auxiliary storage pool.

auxiliary-storage-pool-number

The content information you are adding was saved from the auxiliary storage pool identified by this number.

Note: The auxiliary storage pool number must be less than 33 if a value of *ALLDLO or *SAVCAL is specified for the **Type (TYPE)** parameter.

Top

Auxiliary storage pool device (ASPDEV)

Specifies the auxiliary storage pool device for the file that you are adding to the media content information.

*NONE

The content information you are adding was saved from the system (1) or a basic user (2-32) auxiliary storage pool. *NONE must be specified if the value for ASP is *SYSTEM or 1-32.

auxiliary-storage-pool-name

The content information you are adding was saved from the auxiliary storage pool device identified by this name. An auxiliary storage pool device name must be specified if the value for ASP is 33-255.

Top

Folder (FLR)

Specifies the name of the folder that is associated with the file that you are adding to the BRMS media inventory contents information. The **Folder (FLR)** parameter is associated with values that are specified in the **Library (LIB)** parameter and the **File origin (FILE)** parameter. If you specify *ALLDLO or QDOC in the **Library (LIB)** parameter, the value *ANY is defaulted in the **Folder (FLR)** parameter. If you specify SAVDLO or SAVCHGDLO on the **File origin (FILE)** parameter, you must specify either QDOC or *ALLDLO on the **Library (LIB)** parameter. The **Folder (FLR)** parameter defaults to *ANY.

*ANY The file that you are adding to the media content information can contain any folder.

folder-name

Specify the name of the folder for the file that you are adding to the media content information.

Top

Objects saved (OBJSAV)

Specifies the number of objects saved for the file that you are adding to the media content information.

1 The number of saved objects is one.

number-of-objects-saved

Specify the number of objects saved.

Top

Objects not saved (OBJNOTSAV)

Specifies the number of objects that were not saved for the file that you are adding to the media content information.

0 The number of objects not saved is zero.

number-of-objects-not-saved

Specify the number of objects that were not saved.

Top

Control group (CTLGRP)

Specifies the control group with which you want to associate the file that you are adding to the media content information.

*NONE

You do not want to associate the file that you are adding to the media content information with a control group.

*ARCGRP

You want to associate the file that you are adding to the media content information with the archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKUGRP

You want to associate the file that you are adding to the media content information with the backup user data control group.

*SYSGRP

You want to associate the file that you are adding to the media content information with the system data control group.

*SYSTEM

You want to associate the file that you are adding to the media content information with the backup entire system control group.

control-group-name

Specify a control group name that you have defined to associate with the file that you are adding.

Top

Record format (RCDFMT)

Specifies the record format for the file that you are adding to the media content information.

U

The record format is undefined for the file that you are adding to the media content information.

F

The record format is fixed length records for the file that you are adding to the media content information.

V

The record format is variable length records for the file that you are adding to the media content information.

*NONE

There is no record format associated with the file that you are adding to the media content information.

Top

Record length (RCDLEN)

Specifies the record length of the file.

- Fixed length records = Number of bytes in each record
- Variable length records = Maximum number of bytes in each record
- Undefined format = Zero

0

The record length is zero.

record-length

Specify the record length of the record in the file.

Block length (BLKLEN)

Specifies the number of bytes in each block.

32760 The block length is 32760 bytes.

block-length

Specify the block length for this file.

Block count (BLKCNT)

Specifies the number of blocks.

1 The block count is one.

block-count

Specify the block count for this file.

Text (TEXT)

Specifies text information about the file that you are adding to the media content information.

*NONE

No text is specified for the media content.

text Specify the text that describes the media content.

Examples

Example 1: Adding Contents to a Volume

```
ADDMEDIBRM TYPE(*ALLDLO) VOL(T00001)
          SEQNBR(1) VOLSEQ(1)
```

This command adds an entry in the media inventory content information for volume T00001. The volume's contents are updated to show that a save of the document library resides as file sequence number 1 on the first volume.

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Add Media Library Media to BRM (ADDMLMBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Add Media Library Media to BRM (ADDMLMBRM) command allows you to add volumes to a media library (MLB). The command adds the specified media volumes to a usable category and optionally enrolls them to BRMS. If the **Add volume to BRM (ADDVOL)** parameter is *YES, you can specify a media class for the volume or volumes that you are adding. If the **Add volume to BRM (ADDVOL)** parameter and the **Initialize media (INZ)** parameter are both *YES, you are supplied with additional parameters such as move policy and initialization information.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
MLB	Media library	<i>Name</i>	Required, Positional 1
VOL	Volume identifier	Single values: *INSERT Other values (up to 300 repetitions): <i>Character value</i>	Optional, Positional 2
ADDVOL	Add volume to BRM	*YES, *NO	Optional
INZ	Initialize media	*NO, *YES	Optional
MEDCLS	Media class	<i>Name</i>	Optional
MOVDATE	Last moved date	<i>Character value</i> , *NONE	Optional
MOVPCY	Move policy	<i>Name</i> , *NONE	Optional
EXPDATE	Expiration date	<i>Character value</i> , *NONE, *PERM	Optional
DEV	Device	<i>Name</i> , *MLB	Optional
NEWOWNID	New owner identifier	<i>Character value</i> , *BLANK	Optional
CHECK	Check for active files	*YES, *FIRST, *NO	Optional
CODE	Code	*EBCDIC, *ASCII	Optional
CLEAR	Clear	*NO, *YES	Optional

Top

Media library (MLB)

Specifies the name of the media library to which you are adding media. The MLB must be one that BRMS lists on its Work with Media Libraries display.

Top

Volume identifier (VOL)

Specifies the volume identifier of the media being added to the BRMS media inventory.

This is a required parameter.

Single values

*INSERT

Volume identifiers that are in the insert category in a tape MLB are to be changed to a usable category within the MLB based on the value specified in the **Add volume to BRM (ADDVOL)** parameter. If the value specified in the **Add volume to BRM (ADDVOL)** parameter is *NO, only volumes already enrolled in BRMS will be changed to a usable category. If the value specified in the **Add volume to BRM (ADDVOL)** parameter is *YES, volumes that are currently enrolled in BRMS as well as those that are not currently enrolled in BRMS will be added to BRMS and changed to a usable category.

Note: *INSERT is not valid for optical devices.

Other values (up to 300 repetitions)

volume-identifier

Specify the identifier of the volume or volumes that you want to change within the MLB.

If the **Media library (MLB)** parameter is using a tape library, the volume identifier is a maximum of six characters in length.

If the **Media library (MLB)** parameter is using an optical library, the volume identifier is a maximum of thirty-two characters in length. If the value specified in the **Add volume to BRM (ADDVOL)** parameter is *YES, BRMS will use the **Volume prefix** specified on the **System Policy** to generate a unique six character name.

Top

Add volume to BRM (ADDVOL)

Specifies whether you want to add the volumes specified in the **Volume identifier (VOL)** parameter to the BRMS media inventory.

*YES You want to add the volumes specified to the BRMS media inventory. When you specify *YES, you are asked to supply a media class in the **Media class (MEDCLS)** parameter.

*NO You do not want to add the volumes specified to the BRMS media inventory.

Top

Initialize media (INZ)

Specifies whether you want to initialize the volumes specified in the **Volume identifier (VOL)** parameter. This parameter is ignored if ADDVOL=*NO.

*NO You do not want to initialize the specified volumes.

*YES You want to initialize the specified volumes. When you specify *YES, you are asked to supply a device and initialization information.

Top

Media class (MEDCLS)

Specifies the name of a media class for the volume you are adding. Media classes can be reviewed in the Work with Media Classes display.

The media class is also used to determine the category for volumes that are being added to the media library. If the **Shared media** attribute in the media class is *NO, the category is changed from *INSERT to *NOSHARE, otherwise the category is changed to *SHARE400.

This is a required parameter if ADDVOL=*YES. This parameter is ignored if ADDVOL=*NO.

This is a required parameter if you are adding a volume.

Top

Last moved date (MOVDATE)

Specifies the date of the last time this media volume was moved prior to being added to the media inventory.

This parameter is ignored if ADDVOL=*NO.

*NONE

You are not assigning a last moved date for this media volume.

move-date

Specify the date that this volume was last moved.

Top

Move policy (MOVPCY)

Specifies the user-defined name of a move policy that you want to use for this volume.

This parameter is ignored if ADDVOL=*NO.

*NONE

You are not assigning this volume a move policy.

move-policy-name

Specify the name of the move policy that is to control the movement of this volume.

Top

Expiration date (EXPDATE)

Specifies the expiration date of the volume that is added to the media inventory. If a date is specified, the file is protected and cannot be overwritten until the expiration date.

This parameter is ignored if ADDVOL=*NO.

*NONE

The media is understood to contain no active data and can be used in backup or archive processing. Use *NONE when the volume is a new volume or when the volume is a previously used volume whose data is expired.

***PERM**

The media has a permanent retention and cannot be used in backup or archive processing.

expiration-date

Specify the date after which data on the volume is considered to be non-essential and can be overwritten. The date must be specified in job date format.

Top

Device (DEV)

Specifies the name of the device that you want to use to initialize the specified volumes. The location of the device and the location of the MLB specified in the **Media library (MLB)** parameter must be the same.

This parameter is ignored if ADDVOL=*NO.

***MLB** Any device associated with the specified MLB can be used to initialize the specified volumes.

device-name

Specify the user-defined name of the device that you want to use to initialize the specified volumes.

Top

New owner identifier (NEWOWNID)

Specifies the volume owner's identifier to write in the volume label of the volume being written.

Note: This parameter is ignored if ADDVOL=*NO.

***BLANK**

The owner identification field is set to blanks.

new-owner-identifier

Specify no more than 14 characters to identify the owner of the volume. If fewer than 14 characters are specified, the field is left-justified and is filled with blanks on the right.

Top

Check for active files (CHECK)

Specifies whether a labeled volume should be checked for active data files before it is initialized for use. If an unlabeled volume is placed in the specified device, this parameter is ignored.

This parameter is ignored if ADDVOL=*NO.

***YES** For tape volumes, all data file labels volume are checked or and an error is sent if any active files are found. For optical volumes, an error is sent if the volume is initialized.

***FIRST**

Only the first data file label on the volume is checked. If there are no data files on the volume or if the first data file has expired, the volume is initialized for use without checking for any other files on the volume. If the first data file has not expired, the operation is ended and an error message is sent.

Note: For optical devices, specifying *FIRST is the same as specifying *YES.

***NO** Volume initialization continues with no checking for active files.

Code (CODE)

Specifies the character code in which the volume label is written. All data that is not save/restore data written after the label must be in the same code; codes cannot be intermixed on a volume that is not a save/restore volume.

This parameter is ignored if ADDVOL=*NO.

Note: For optical devices this parameter is ignored.

*EBCDIC

The volume label is written in EBCDIC and is an IBM standard label; all additional data must also be written in EBCDIC.

*ASCII

The volume label is written in ASCII and is an American National Standard Institute standard label; all additional data must also be written in ASCII.

Clear (CLEAR)

Specifies whether all labels and data are to be deleted from the volume when it is initialized for use. If the volume must be cleared of all data, it is deleted from the location of the volume label or tape marks to the end of the tape marker.

For an optical device this parameter only applies when the volume media type is *DVD-RAM.

Note: If the volume media type is *WORM the volume is never cleared regardless of the parameter setting. If the volume media type is *ERASE the volume is always cleared regardless of the parameter setting.

This parameter is ignored if ADDVOL=*NO.

*NO Existing data is not deleted. Even though the existing data is not deleted, the data on the volume is not usable after the volume has been initialized for use.

*YES After the beginning of the volume has been initialized for use, the remaining data on the volume is deleted.

Note: For optical devices, this option may take several hours to complete, depending on the media capacity.

Examples

Example 1: Adding a Volume to a Media Library

```
ADDMLBRM MLB(MLB01) VOL(T00001)
        INZ(*NO) ADDVOL(*NO)
```

This command adds volume T00001 to the media library MLB01, but the volume is not initialized. Volume T00001 must be a member of the BRMS media inventory.

Example 2: Adding and Initializing a Volume to BRMS

```
ADDMLMBRM MLB(MLB01) VOL(*INSERT)
          INZ(*YES) MEDCLS(CART3490E)
```

This command adds all volumes that are in the *INSERT category to the media library MLB01, and adds the volumes to the BRMS media inventory as media of class CART3490E. The volumes are initialized with the density specified in media class CART3490E.

Top

Error messages

*ESCAPE Messages

BRM1134

Device &1 not found.

BRM1342

Volume identifier &2 not correct.

BRM1707

Media library &1 not found or not defined.

BRM1763

Device &1 cannot be used.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Analyze Libraries using BRM (ANZLIBBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Analyze Libraries using BRM (ANZLIBBRM) command prints an analysis of libraries that you have backed up as well as those that you did not back up. The size of the library and the number of objects is listed for each library.

Before you can run the ANZLIBBRM command you must have first run the Retrieve Disk Information (RTVDSKINF) command. The RTVDSKINF command creates the files required by ANZLIBBRM to analyze your libraries.

You can run the RTVDSKINF command by using **Option 1 = Retrieve disk space information** from the BRMS Backup Analysis panel (GO BRMBKUANL). If you have auxiliary storage pool devices on the system, you will need to run the RTVDSKINF command multiple times, once for each auxiliary storage pool device.

Note: The RTVDSKINF command requires you to be enrolled in system distribution directory. Use the Work with Directory Entries (WRKDIRE) command to create a distribution directory entry.

You only need run the ANZLIBBRM command once after the RTVDSKINF jobs have completed. The RTVDSKINF commands are submitted to the QBATCH job queue using a job name of RTVDSKINF. Monitor for the completion of all RTVDSKINF jobs in the QBATCH subsystem before running the ANZLIBBRM command.

The report produced by the ANZLIBBRM command is the Library Backup Analysis report. There will be multiple reports if you run the RTVDSKINF command for auxiliary storage pool devices in addition to the basic system report. The reports are written to printer file QP1ALA for the system and basic user auxiliary storage pools, and to printer file QP1ALAnnnnn for auxiliary storage pool devices, where nnnnn is the ASP identifier.

There are no parameters for this command.

The command uses the first device listed in the System Policy to determine the **Transfer rate** entry shown on the report. The transfer rate defaults to the device transfer rate as reported by the operating system. The transfer rate for a device can be changed using the **Work with Devices using BRM (WRKDEVBRM)** command, selecting option **2=Change** from the **Work with Devices** panel, and changing the value of the **Transfer rate per second** prompt on the **Change Tape Device** display.

If BRMS cannot find the device specified in the System Policy, the transfer rate used in the report will be zero, the estimated times on the report will also be zero, and the following message will be printed at the bottom of the report.

```
Error: Device information entries do not exist or  
default device not specified in the System Policy or  
the device is not available.
```

The command uses the Media Class listed in the System Policy to determine the **Media capacity** entry shown on the report. The media capacity defaults to a fixed value established by BRMS for that Media Class. The media capacity for a Media Class can be changed using the **Work with Classes using BRM**

(WRKCLSBRM) command, selecting option 2=Change from the **Work with Media Classes** panel, and changing the value of the **Media capacity** prompt on the **Change Media Class** display.

If BRMS cannot find the Media Class specified in the System Policy, the Media capacity used in the report will be zero, the estimated volumes will also be zero, and the following message will be printed on the report.

```
Error: Default media class has not been established or  
is not specified in the System Policy.
```

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

[Top](#)

Parameters

None

[Top](#)

Examples

Example 1: Analyse the Base System

```
GO BRMBKUANL  
1. Retrieve Disk Space Information  
RTVDSKINF ASPDEV(*SYSBAS)  
ANZLIBBRM
```

These commands retrieve the disk information for the system and basic user auxiliary storage pools. Analysis of the retrieved data generates report QP1ALA.

Example 2: Analyse Auxiliary Storage Pool PRIMETIME

```
GO BRMBKUANL  
1. Retrieve Disk Space Information  
RTVDSKINF ASPDEV(PRIMETIME)  
ANZLIBBRM
```

These commands retrieve the disk information for the auxiliary storage pool device which uses device description PRIMETIME and is configured as auxiliary storage pool 35. Analysis of the retrieved data generates report QP1ALA00035.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Change Link List (CHGLNKLBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Change Link List (CHGLNKLBRM) allows you to change a list of object to be used in backup or archive processing. You can include the fully qualified object name and whether you want to include or exclude the object from the list.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The CHGLNKLBRM command uses the operating system Save Object (SAV) and Restore Object (RST) commands to process the lists that you enter into the CHGLNKLBRM command. These restrictions can be reviewed in the SAV and RST command help information.
2. You cannot save QDLS or QSYS.LIB using the Save Object using BRM (SAVBRM) command.

Top

Parameters

Keyword	Description	Choices	Notes
LIST	List	<i>Character value</i>	Optional, Positional 1
TYPE	Usage type	*BKU , *ARC	Optional
OBJ	Objects	Values (up to 300 repetitions): <i>Element list</i>	Optional
	Element 1: Name	<i>Path name</i>	
	Element 2: Include or omit	*INCLUDE , *OMIT	
SUBTREE	Directory subtree	*ALL , *DIR, *NONE, *OBJ	Optional
TEXT	Text	<i>Character value</i>	Optional

Top

List (LIST)

The name of the list being changed to contain integrated file system objects. The list must be an existing BRMS link list.

This is a required parameter.

Top

Usage type (TYPE)

Specifies the intended usage type of the items that you are grouping together for processing.

***BKU** The list is used in backup processing.

*ARC The list is used in archive processing.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

Top

Objects (OBJ)

Specifies the objects that you want to include or exclude from a list of objects you want to save. A maximum of 300 object name patterns can be specified.

This is a required parameter.

Element 1: Name

'*' The objects in the current directory are saved.

'*object-path-name-pattern*'

Specify an object path name or a pattern that can match many names.

Restriction:

- You cannot list QDLS or QSYS.LIB objects in a link list. Use the appropriate *OBJ or *FLR list for objects in these file systems. To create lists of objects in these file systems, use the Work with Lists using BRMS (WRKLB RM) command.

Element 2: Include or omit

The second part specifies whether names that match the pattern should be included or omitted from the operation. Note that in determining whether a name matches a pattern, relative name patterns are always treated as relative to the current working directory. The **Directory subtree (SUBTREE)** parameter determines whether the subtrees are included or omitted.

*INCLUDE

Objects that match the object name pattern are to be saved, unless overridden by an *OMIT specification.

*OMIT

Objects matching the object name pattern are not to be saved. This overrides a *INCLUDE specification and is intended to be used to omit a subset of a previously selected pattern.

Top

Directory subtree (SUBTREE)

Specifies whether directory subtrees should be processed.

*ALL The entire subtree for each directory that matches the object name pattern will be processed.

*DIR Objects in the first level of each directory that matches the object name pattern will be processed.

*NONE

No subtrees are included in the save operation. If a directory matches the object name pattern specified, the objects in the directory are included. If the directory has subdirectories, neither the subdirectories nor the objects in the subdirectories are included.

*OBJ Only the objects that exactly match the object name pattern will be processed. If the object name pattern specifies a directory, objects in the directory are not included.

Top

Text (TEXT)

Specifies the text that describes the integrated file system object list.

text Specify the text that describes the integrated file system object list.

Top

Examples

Example 1: Changing a Link List

```
CHGLNKLBRM LIST(MYLIST) USE(*BKU)
              OBJ(('/*' *INCLUDE) ('/QSYS.LIB/' *OMIT)
                 ('/QDLS/' *OMIT) ('/NOTES/DATA/' *OMIT))
```

In this example a list of integrated file system objects includes the entire system except the QSYS.LIB and QDLS file systems, and the /NOTES/DATA directories.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Change Media using BRM (CHGMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Change Media using BRM (CHGMEDBRM) command changes an attribute or several attributes of a media volume in the BRMS media inventory.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. Consideration should be given to changing the authority to the CHGMEDBRM command from PUBLIC(*CHANGE) to a more restrictive authority to assure that changes are not made to media without proper authorization.
2. These following restrictions apply for changing virtual volumes.
 - The density of the virtual volume (image catalog entry) must be the same as the density of the media class.
 - Virtual media must reside in storage on the current system.

Top

Parameters

Keyword	Description	Choices	Notes
VOL	Volume identifier	<i>Character value</i>	Required, Key, Positional 1
MEDCLS	Media class	<i>Name, *SAME</i>	Optional
EXPDATE	Expiration date	<i>Character value, *SAME, *NONE, *PERM</i>	Optional
MOVDATE	Last moved date	<i>Date, *SAME, *NONE</i>	Optional
MOVPCY	Move policy	<i>Name, *SAME, *NONE</i>	Optional
MOVEXEMPT	Exempt from movement	<i>0-9999, *SAME</i>	Optional
CRTDATE	Creation date	<i>Date, *SAME</i>	Optional
VOLSEC	Secure volume	<i>*SAME, *NO, *YES</i>	Optional
SLOT	Slot number	<i>1-999999, *SAME, *NONE</i>	Optional
SYSNAME	System	<i>Name, *SAME, *LCL</i>	Optional
TEXT	Text	<i>Character value, *SAME, *NONE</i>	Optional
IMGCLG	Image catalog	<i>Name, *SAME, *NONE</i>	Optional

Top

Volume identifier (VOL)

Specifies the volume identifier of the volume being changed in the BRMS media inventory.

This is a required parameter.

volume-identifier

Specify the identifier of the volume being changed in the media inventory.

Top

Media class (MEDCLS)

Specifies the user-defined name of a media class for the volume you are changing. Media classes can be reviewed in the Work with Media Classes display.

***SAME**

Use the same value as is currently assigned to the parameter.

media-class

Specify the media class to which you want to change.

Top

Expiration date (EXPDATE)

Specifies the expiration date of the media volume that is changed in the media inventory. If a date is specified, the file is protected and cannot be overwritten until the expiration date.

Changing the expiration date of a volume will change the expiration date for all entries that contain data on that volume. If the data for an entry spans multiple volumes, the expiration date for those volumes may also change. The other volumes expiration dates will change only if the changed date is further in the future or the changed entry is the only entry having data on that volume.

***SAME**

The expiration date currently assigned to the media is not changed.

***NONE**

The media is expired media and can be used in backup or archive processing.

***PERM**

The media has a permanent retention and cannot be used in backup or archive processing.

expiration-date

Specify the date when protection for the media ends.

Top

Last moved date (MOVDATE)

Specifies the last date that this media volume was moved.

***SAME**

You are not going to change the last moved date currently assigned to the volume.

***NONE**

You are not assigning a last moved date for this media volume.

last-moved-date

Specify the date that this volume was last moved.

Top

Move policy (MOVPCY)

The user-defined name of a move policy that you want change for this volume.

Note: Virtual media cannot be moved. Move policies are assigned to virtual volumes so the policy can be replicated to the output media when the virtual volume is duplicated.

*SAME

You want to use the same move policy as is currently assigned to the volume.

*NONE

You are not assigning this volume a move policy.

move-policy-name

Specify the user-defined name of the move policy that you are assigning to this media volume.

Top

Exempt from movement(MOVEXEMPT)

Specifies the number of days that this media will be retained at the current location exempt from move policy processing.

*SAME

You are not going to change the movement exempt days currently assigned to the volume.

number-of-days

Specify the number of days that this media will be retained at the current location exempt from move policy processing. Number of days can range from 0 to 9999.

Top

Creation date (CRTDATE)

Specifies the date that this volume had data written on it.

*SAME

You are not going to change the creation date currently assigned to the volume.

creation-date

Specify the date that this volume had data written on it.

Top

Secure volume (VOLSEC)

Specifies whether you want to change who has access to this volume.

*SAME

You are not going to change the accessibility of the volume.

*NO This volume is not secured.

*YES This volume is secured. Only users with special authorities *ALLOBJ or *SAVSYS can read this volume.

Top

Slot number (SLOT)

Specifies the slot number for the volume that you have selected to change.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*SAME

You are not going to change the slot number currently assigned to the volume.

*NONE

No slot number is assigned to the volume that you are changing.

slot-number

Specify the slot number that you are assigning to this volume. Slot numbers can range from 1 to 999999.

Top

System (SYSNAME)

Specifies the system identifier for the volume that you have selected to change.

*SAME

You are not going to change the system identifier currently assigned to the volume.

*LCL Specifies that the system is the local system. BRMS uses the default local location name, LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

Text (TEXT)

Specifies text to describe the media that you are changing.

*SAME

You are not going to change the text that describes the volume.

*NONE

No text is specified to describe this volume.

text Specify text that describes the volume.

Top

Image catalog (IMGCLG)

Specifies the image catalog name for the volume which is being changed. If an image catalog name is specified, the image catalog and image catalog entry for the volume must exist to use the volume.

Note: Use GO CMDCLG and GO CMDCLGE to view the menus for commands used to manage image catalogs and image catalog entries.

*SAME

Use the same value as is currently assigned to the parameter.

*NONE

Specifies this is not a virtual volume.

image-catalog

Specifies the name of the image catalog which contains the image catalog entry for a virtual volume.

Top

Examples

Example 1: Changing a Volume in BRMS

```
CHGMEDBRM VOL(T00001) MEDCLS(QIC1000)
           EXPDATE(*PERM) MOVDATE('2/12/03')
```

This command changes the media information for volume T00001. The media class has been changed to QIC1000, the expiration date has been changed to *PERM and the last moved date has been changed to February 12, 2003.

Top

Error messages

*ESCAPE Messages

BRM1147

Volume &1 not found.

BRM133E

Image catalog entry does not exist for virtual volume &4.

BRM133F

Image catalog does not exist for virtual volume &4.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Change Job Scheduler (CHGSCDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

BRMS uses the operating system job scheduler as the default job scheduler. You can also choose to use the IBM Job Scheduler for i5/OS job scheduler as your default scheduler or select any other job scheduler as your default.

The Change Job Scheduler for BRM (CHGSCDBRM) command changes the job scheduler interface used by BRMS. You can use the operating system job scheduler, which is the default, IBM Job Scheduler for i5/OS or another job scheduler that you choose. You can change the commands that BRMS uses to add, list and select job schedule entries. You can also specify whether you want to be prompted when BRMS uses these commands.

The following substitution variables can be used in these commands to pass values from BRMS to the scheduler:

- &JOBNAME - QBRMBKUP or QBRMARC
- &REQUEST - will be either STRARCBRM or STRBKUBRM
- &APPL - BRMS
- &GROUP - control group name

You can change these to your operating requirements or choose to use the defaults.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Scheduler type	<u>*SYSTEM</u> , *IJS, *USRDFN	Optional, Positional 1
ADDCMD	Add a job command	Character value, <u>*SAME</u> , *IJS, *SYSTEM	Optional
ADDPMT	Command prompt for add	<u>*NO</u> , *YES	Optional
LISTCMD	List jobs command	Character value, <u>*SAME</u> , *IJS, *SYSTEM	Optional
LISTPMT	Command prompt for list	<u>*NO</u> , *YES	Optional
SLTCMD	Select jobs command	Character value, <u>*SAME</u> , *IJS, *SYSTEM	Optional
SLTPMT	Command prompt for select	<u>*NO</u> , *YES	Optional

Top

Scheduler type (TYPE)

Specifies which scheduler you want to use for scheduling BRMS control groups and commands. Any commercial or user developed scheduler can be used with BRMS.

***SYSTEM**

Specifies that BRMS is to use the operating system job scheduler and its associated command set.

Note: When you specify *SYSTEM for the **Scheduler type (TYPE)** parameter, the ADDCMD, ADDPMT, LISTCMD, LISTPMT, SLTCMD and SLTPMT parameters are ignored.

***IJS** Specifies that BRMS is to use IBM Job Scheduler for i5/OS and its associated command set.

Note: When you specify *IJS for the **Scheduler type (TYPE)** parameter, the ADDCMD, ADDPMT, LISTCMD, LISTPMT, SLTCMD and SLTPMT parameters are ignored.

***USRDFN**

Specifies that you want to use another scheduling package command set or change the way in which BRMS starts the job scheduler.

Note: When you specify *USRDFN in the **Scheduler type (TYPE)** parameter, all of the job scheduler commands are displayed and can be changed.

Top

Add job command (ADDCMD)

Specifies an alternative command to be used by BRMS to add a job schedule entry. When you are in a BRMS function that allows you to add a job to the job scheduler, the command that you specify here is started in lieu of the BRMS default command.

***SAME**

The command used does not change.

***IJS** The Job Scheduler for i5/OS command to add a job to the job schedule is used.

***SYSTEM**

The operating system command to add a job to the job schedule is used.

user-command

Specify the command that you want BRMS to use when adding a job schedule entry.

Top

Command prompt for add (ADDPMT)

Specifies whether BRMS should prompt the command specified in the **Add a job command (ADDCMD)** parameter.

***NO** The command is not prompted when started by BRMS.

***YES** The command is prompted when started by BRMS.

Top

List jobs command (LISTCMD)

Specifies an alternative command to be used by BRMS to list all jobs in the job schedule. When you are in a BRMS function that allows you to list all jobs in the job schedule the command that you specify here is started.

***SAME**

The command used does not change.

***IJS** The Job Scheduler for i5/OS command to list all jobs in the job schedule is used.

***SYSTEM**

The operating system command to list all jobs in the job schedule is used.

user-command

Specify the command that you want to use when listing all jobs in the job schedule.

Top

Command prompt for list (LISTPMT)

Specifies whether BRMS should prompt the command specified in the **List jobs command (LISTCMD)** parameter.

***NO** The command is not prompted when started by BRMS.

***YES** The command is prompted when started by BRMS.

Top

Select jobs command (SLTCMD)

Specifies an alternative command to be used by BRMS to list selected jobs in the job schedule. When you are in a BRMS function that allows you to select a list of BRMS jobs in the job schedule, the command that you specify here is started.

***SAME**

The command used does not change.

***IJS** The Job Scheduler for i5/OS command to select jobs in the job schedule is used.

***SYSTEM**

The operating system command to select jobs in the job schedule is used.

user-command

Specify the command that you want BRMS to use when listing BRMS jobs in the job schedule.

Top

Command prompt for list (SLTPMT)

Specifies whether BRMS should prompt the command specified in the **Select jobs command (SLTCMD)** parameter.

***NO** The command is not prompted when started by BRMS.

***YES** The command is prompted when started by BRMS.

Top

Examples

```
CHGSCDBRM TYPE(*USRDFN) ADDCMD('ADDJOBJS JOB(&JOBNAME)
APP(&APPL) SCDCDE(*DAILY) TIME (2300)
CMD(&REQUEST)') ADDPMT(*YES)
```

This command changes the CL command used by BRMS to add a job schedule entry. In this example, an alternative scheduler is being used. When adding a back up job to the schedule BRMS will use the ADDJOBJS command and the substitution variables specified here.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Check Expired Media for BRM (CHKEXPBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Check Expired Media for BRM (CHKEXPBRM) command is used to check to see if there is enough expired media to satisfy the media requirements of a save operation. The command calculates the media of a specified media class available for a save operation, taking into account the location of the media based on the location specified in the media policy or a location that you specify. You can calculate the available media for single or multiple media classes, with single or multiple location combinations depending on the values that you specify in the command.

For instance, if you specified 20 in the Required volumes field, FMT2GB in the Media class field and *HOME in the Location field, you would have one media class, location combination. If you changed the Location field to *ANY, you could potentially receive messages about media class availability for each of the locations that you have set up that have the specified media class. If you had a situation where you specified *MEDPCY in the Required volumes field, *CTLGRP in the Media policy field and *ALL in the Control group field, then you would expect to have multiple media class, location combinations. The command returns messages that specify whether enough media is available for each media class, location combination.

This command works in conjunction with the value specified in the **Required volumes** field. The value can be a specified number of volumes or a special value for media policy. The number of available volumes calculated by the CHKEXPBRM command is compared against the value in the **Required volumes** field. If the expired media calculated by the CHKEXPBRM command is greater than or equal to the **Required volumes** field value, the save operation can continue. If the value is less, then the save operation is canceled.

The number of expired volumes can also be checked by user jobs using the CHKEXPBRM command. For example, the CHKEXPBRM command could be incorporated into a job scheduler and used to determine at various times if there is enough expired media available for a save operation.

This command is used by all BRMS save operations.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
EXPMED	Required volumes	1-9999, *MEDPCY	Required, Positional 1
MEDCLS	Media class	Name	Optional
LOC	Location	Name, *ANY, *HOME	Optional
MEDPCY	Media policy	Name, *CTLGRP	Optional
CTLGRP	Control group	Single values: *ALL Other values (up to 50 repetitions): Name, *BKUGRP, *SYSGRP, *SYSTEM	Optional

Keyword	Description	Choices	Notes
DATE	Date for save	Character value, <u>*CURRENT</u>	Optional

Top

Required volumes (EXPMED)

Specifies the number of expired volumes required to process a save operation. You can specify a number of volumes or you can specify that you want to base the number of required volumes on a media policy. When the command is processed the number of available expired volumes that meet the criteria are counted and compared against the value specified here.

Note: If you specify *MEDPCY, the **Media policy (MEDPCY)** parameter is a required parameter.

*MEDPCY

The number of expired volumes required to process a save operation is the number of volumes specified in the **Required volumes** field of the media policy specified in the **Media policy (MEDPCY)** parameter.

number-of-volumes

Specify the number of volumes required for the save operation.

Top

Media class (MEDCLS)

Specifies the media class of the expired volumes that you want to count.

This is a required parameter when a number is entered in the **Required volumes (EXPMED)** parameter. If you enter a media policy, the media class is derived from the media policy.

Top

Location (LOC)

Specifies the location of the media to be included in the count of expired volumes.

***ANY** Expired volumes of the media class or classes at each location are included in the count of expired volumes available for a save operation.

*HOME

Only expired volumes at the home location are included in the count of expired volumes available for a save operation.

location

Specify the location whose expired volumes are to be included in the count of expired volumes.

Top

Media policy (MEDPCY)

Specifies the media policy that you want to use to determine the required number of expired volumes for the save operation.

This a required parameter when *MEDPCY is specified in the **Required volumes (EXPMED)** parameter.

***CTLGRP**

Use the media policy associated with a control group to determine the number of expired volumes required for the save operation. The **Control group (CTLGRP)** parameter is a default with the *CTLGRP choice.

media-policy

Specify the media policy to use to determine the number of expired volumes required for the save operation.

Top

Control group (CTLGRP)

Specifies the name of the control group or all control groups whose media policy you want to use to determine the required number of expired volumes required for the save operation.

This is a default field when *CTLGRP is specified in the **Media policy (MEDPCY)** parameter.

Single values

***ALL** The media policy of each backup control group is used to determine the number of volumes required for each media class, location combination for the save operation.

Other values (up to 50 repetitions)

***BKUGRP**

The media policy used by the default backup user data control group is used to determine the number of volumes required for the media class, location combination for the save operation.

***SYSGRP**

The media policy used by the default system data control group is used to determine the number of volumes required for the media class, location combination for the save operation.

***SYSTEM**

The media policy used by the default backup entire system control group is used to determine the number of volumes required for the media class, location combination for the save operation.

control-group-name

Specify the name of the backup control group, such as WEEKLY that you want to use to determine the number of volumes required for the media class, location combination for the save operation.

Top

Date for save (DATE)

Specifies the date that the control group was saved.

***CURRENT**

The current date is used to determine the control group and its associated media policy.

expiration-date

Specify the date to use to determine the control group and its associated media policy.

number-of-days

Specify a number of days to calculate a future date to be associated with a control group.

Top

Examples

Example 1: Checking on Available Volumes

```
CHKEXPBRM EXPMED(50) MEDCLS(FMT2GB) LOC(*HOME)
```

This command checks to see if there are 50 expired volumes of media class FMT2GB available for a save operation at the home location.

Top

Error messages

*ESCAPE Messages

BRM1118

No active entries found in control group &1.

BRM1157

Control group &1 not found.

BRM1169

Policy &1 not found.

BRM1441

Media usage not valid, control group not processed;

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1930

Request for &1 expired volumes for media class &3 was not successful.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Copy Media Info for BRM (CPYMEDIBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

This command is typically used when you are bringing a system into a network of systems that share BRMS media inventory information. The Copy Media Information using BRM (CPYMEDIBRM) command copies media inventory information to a work file, or copies the contents of the work file to the media inventory.

Using the CPMEDIBRM command prior to adding the system name to a BRMS network allows you to save the contents of the current media inventory into the work file. After network synchronization is complete, you can use CPMEDIBRM with OPTION (*FROMFILE) on the newly added system to copy the original media inventory information back into the media inventory. Information that is inconsistent with the system's new network level media inventory information will be reported but unresolved when OPTION(*FROMFILE) is used.

The Media Merge report is produced when the CPMEDIBRM command is processed. The report will indicate differences that have been diagnosed. The report, if printed, is written to printer file QP1AEN.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- The BRMS Network feature (Option 1) is required to use this command.

[Top](#)

Parameters

Keyword	Description	Choices	Notes
OPTION	Type of copy	*TOFILE, *FROMFILE	Optional, Positional 1
FILE	File	<i>Qualified object name</i>	Optional
	Qualifier 1: File	<i>Name</i> , <u>QA1AMED</u>	
	Qualifier 2: Library	<i>Name</i> , *LIBL, *CURLIB	
CPYMEDI	Copy media information	*NO, *YES	Optional

[Top](#)

Type of copy (OPTION)

This command is designed to allow you to merge existing BRMS information from the current system with an existing network group of one or more systems.

The command allows you to store temporary copies of the current systems BRMS information to a temporary file. After an Initialize BRM (INZBRM) command using the option *NETSYS is used, the stored temporary copies can be merged in with the BRMS information brought from the other system

***TOFILE**

You are copying media information from the media inventory to a work file. This option should be used before an INZBRM *NETSYS.

***FROMFILE**

You are copying media information from the work file to the media inventory. Information that is inconsistent with the system's new network level media inventory information will be reported but unresolved when OPTION(*FROMFILE) is used. This option should be used after an INZBRM *NETSYS.

Top

File (FILE)

Specifies the name of the work file that BRMS uses when it copies media inventory information.

Qualifier 1: File

QA1AMED

The media inventory file is copied to or from this file depending on the value specified in the **File to copy (OPTION)** parameter.

file-name

Specify the name of the file that you want to use when copying the media inventory. If the file that you specify does not exist, BRMS will create it for you.

Qualifier 2: Library

***LIBL** The library list is used to locate the file.

***CURLIB**

The current library for the job is used to locate the file. If no current library entry exists in the library list, QGPL is used.

library-name

Specify the library name where the file is located.

Top

Copy media information (CPYMEDI)

Specifies whether you want to copy media information for the media inventory that you are copying.

Note: *NO should be specified if you are planning to attach your system to a network.

***NO** Media information is not copied.

***YES** Media information is copied.

Top

Examples

Example 1: Copying BRMS Media Information To a File

```
CPYMEDIBRM FILE(WORKFILE)
```

This command copies BRMS media information to a file called WORKFILE.

Example 2: Copying BRMS Media Information From a File

```
CPYMEDIBRM OPTION(*FROMFILE) FILE(WORKFILE)
```

This command copies BRMS media information from a file called WORKFILE to the network media inventory.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Dump BRMS (DMPBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Dump BRM (DMPBRM) command saves BRMS files and related files to assist IBM support personnel in problem determination. You can specify various levels of detail and one or more job logs to dump. This command saves various files from QUSRBRM and related system files (depending on the specified level) to a device or save file. This information is used in problem determination by your technical representative. Processing this command should be done in conjunction with this representative.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	<i>Name</i> , *SAVF	Required, Positional 1
VOL	Volume identifier	<i>Character value</i> , *MOUNTED	Optional
LVL	Level	1-9, *ALL	Optional
TGTRLS	Target release	<i>Character value</i> , *CURRENT	Optional
DMPDEV	Dump device	Single values: *ALL, *NONE Other values (up to 10 repetitions): <i>Name</i>	Optional
JOBLOG	Joblog to dump	*NONE, *JOB	Optional
JOB	Job name	Single values: _ Other values (up to 10 repetitions): <i>Element list</i>	Optional
	Element 1: Job name	<i>Qualified job name</i>	
	Qualifier 1: Job name	<i>Name</i>	
	Qualifier 2: User	<i>Name</i>	
	Qualifier 3: Number	000000-999999	

Top

Device (DEV)

Specifies the name of the device or save file to which you want the dump information to be saved.

*SAVF Write the dump information to a save file.

device-name

Specify the name of the device to which you want to write the dump information.

Top

Volume identifier (VOL)

Specifies the volume identifier to dump the data to.

*MOUNTED

Any labeled volume that is placed in the specified device is used.

volume-identifier

Specify the identifier of the labeled volume to use.

Top

Level (LVL)

Specifies the level of detail to be included in the dump. The level of detail can range from 1 to 9 with 1 being the least amount of detail and 9 being the most detail. You should ask your support representative for the level of detail to specify.

*ALL Include all information required by your service provider.

level-of-detail

Specify the level of detail that you want to include in the dump.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

*CURRENT

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Top

Dump device (DMPDEV)

Specifies a device or devices for which you would like to get diagnostic information. When specified, BRMS invokes the QTADMPDV API to gather this information using the special value *SPLF as the problem identifier.

Note: When an *APPC or *NET type device is specified for this parameter, BRMS will dump the save/restore flight recorder.

Single values

***ALL** All devices defined to BRMS are included in the information to be gathered.

***NONE**

No devices are specified.

Other values (up to 10 repetitions)

device-name

Specify the device for which you want to gather diagnostic information.

Top

Joblog to dump (JOBLOG)

Specifies whether you want to dump job log information.

***NONE**

Do not dump job log information.

***JOB** Dump job log information from the specified jobs.

Top

Job (JOB)

Specifies the name of the job whose job log information is to be retrieved.

Single values

***** Dump information from the current job.

Other values (up to 10 repetitions)

Qualifier 1: Job name

job-name

Specify the name of the job to be dumped. If no job qualifier is given, all of the jobs currently in the system are searched for the simple job name.

Qualifier 2: User

user-name

Specify the name that identifies the user profile under which the job is run.

Qualifier 3: Number

number

Specify the job number assigned by the system.

Examples

```
DMPBRM DEV(TAP01) LVL(2) JOBLOG(*JOB)
```

This command causes level 2 dump information, along with the job log for the current job, to be written to tape unit TAP01.

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4060

BRMS product initialization required.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Display ASP Information (DSPASPBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display ASP Information (DSPASPBRM) command shows you the Display ASP Information display. This display shows you a summary of all auxiliary storage pools (ASP) that are set up and various statistical information about the auxiliary storage pools on your system.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

[Top](#)

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional

[Top](#)

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

The report that is produced is the Display ASP Information report. The report, if printed, is written to the printer file QP1AASP.

[Top](#)

Examples

Example 1: Printing the Display ASP Information Report
DSPASPBRM OUTPUT(*PRINT)

This command prints the Display ASP Information report.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Display Backup Plan using BRM (DSPBKUBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Backup Plan using BRM (DSPBKUBRM) command shows you the Display Backup Plan display or prints the Backup Plan report. The Display Backup Plan display or report shows you a summary of all backup control groups that are set up, the libraries, special values and lists that are in each backup control group and the type of backup that each control group performs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT _	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

The report that is produced is the Backup Plan report. The report, if printed, is written to the printer file QP1ABP.

Top

Examples

Example 1: Printing the Display Backup Plan Report

```
DSPBKUBRM OUTPUT(*PRINT)
```

This command prints the Display Backup Plan report.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Display Duplicate Media (DSPDUPBRM)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Display Duplicate Media using BRM (DSPDUPBRM) command displays all duplicate copies of a volume that you specify. The Display Duplication Cross Reference display includes volume identifier, sequence number, expiration date and duplication time and date. Volumes that are the original and the copy are identified as input (*INP) or output (*OUT) respectively.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- This command can not be run in batch.

Top

Parameters

Keyword	Description	Choices	Notes
VOL	Volume identification	<i>Character value</i>	Required, Positional 1

Top

Volume identification (VOL)

Specifies the volume identifier of the volume that you want to review for duplication. The volume and all the resulting duplicate volumes are shown. If the specified volume is a member of a media set all the original volumes and their duplicate volumes are shown.

This is a required parameter.

Top

Examples

Example 1: Displaying Duplicate Volumes

```
DSPDUPBRM VOL(T00001)
```

This command shows all duplicate copies of volume T00001 on the Display Duplication Cross Reference display.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Display Log for BRM (DSPLOGBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Display Log for BRM (DSPLOGBRM) command displays the BRMS log. The BRMS log is a display by date and time of messages that BRMS has created as a result of processing. The DSPLOGBRM command allows you to display or print all or part of the log.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	*ALL, *ARC, *BKU, *MAINT, *MED, *MGR, *RCY, *RTV, *SEC	Optional, Positional 1
PERIOD	Time period for log output	Element list	Optional
	Element 1: Start time and date	Element list	
	Element 1: Beginning time	Time, *AVAIL	
	Element 2: Beginning date	Character value, *CURRENT, *BEGIN	
	Element 2: End time and date	Element list	
	Element 1: Ending time	Time, *AVAIL	
Element 2: Ending date	Character value, *CURRENT, *END		
SEV	Severity	0-99, 00	Optional
OUTPUT	Output	_, *PRINT	Optional
DETAIL	Detail	*BASIC, *FULL	Optional
USER	User	Name, *ALL	Optional
MSGID	Message identifier	Name, *ALL	Optional

Top

Type (TYPE)

Specifies the type of entry for which you want to review log entries.

Note: The default parameter for **Type (TYPE)** parameter depends on the area that you use to access this command. For instance, if you access this command from a backup menu, the default Type is *BKU. If you access the command from the archive menu, the default Type is *ARC and so on. If you type the command on a command line or from the System Policy display, the default is *ALL.

***ALL** Selects all log entries for display or print.

***ARC** Selects only archive log entries for display or print.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** Selects only back up log entries for display or print.

***MAINT**

Selects only maintenance log entries for display or print.

***MED** Selects only media management log entries for display or print.

***MGR** Selects only migration log entries for display or print.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***RCY** Selects only recovery log entries for display or print.

***RTV** Selects only retrieve log entries for display or print.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***SEC** Selects only security log entries to be displayed or printed. Any log entries whose primary area or secondary area are security will be displayed. An entry may be logged for any reason and have security as a secondary area.

Top

Time period for log output (PERIOD)

Specifies the period of time for which the log entries are selected for the display or report.

Element 1: Beginning time and date

Log entries created on or after the beginning date and time are selected. Log entries created prior to the beginning date and time are not selected.

Element 1: Beginning time

Specifies the beginning time at which or after log entries are selected.

***AVAIL**

Any entries available for the beginning date are selected.

begin-time

Specifies the beginning time for the beginning date for which log entries are selected.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours, mm=minutes and ss=seconds. Hours, minutes, and seconds must each be exactly 2 digits (using leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Beginning date

Specifies the beginning date for which the log entries are selected.

***CURRENT**

Log entries with the current date are selected.

***BEGIN**

Log entries from the beginning of all available log entries are selected.

begin-date

Specifies the beginning date for which log entries are selected. The date must be specified in the job date format.

Element 2: Ending time and date

Log entries created on or before the ending date and time are selected. Log entries created after the ending date and time are not selected.

Element 1: Ending time

One of the following is used to specify the ending time before which log entries are included. Any items created after the specified time and date are not included in the log entries for the report.

Specifies the ending time at which or before log entries are selected.

*AVAIL

Any entries available for the ending date are selected.

end-time

Specifies the ending time for the ending date for which log entries are selected.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours, mm=minutes and ss=seconds. Hours, minutes, and seconds must each be exactly 2 digits (using leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Ending date

Specifies the ending date for which the log entries are selected.

*CURRENT

Log entries with the current date are selected.

*END Log entries to the end of all available log entries are selected.

end-date

Specifies the ending date for which log entries are selected. The date must be specified in the job date format.

Top

Severity (SEV)

Specifies the message severity level that you want to include in the display or print. For example, a severity level of 30 would include all messages that are severity level 30 and above. The severity level can be specified from 0 to 99.

00 The default severity level is zero.

severity-level

Specify the message severity level that you want to display.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
- The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

The report that is produced is the BRMS Log report. The report, if printed, is written to the printer file QP1ALG.

Top

Detail (DETAIL)

Specifies the format used for the printed output.

***BASIC**

The entries are printed in abbreviated list format.

***FULL** The detail of each entry is printed in an expanded format.

Top

User (USER)

Specifies the name of the user profile for the log entries that you want to display or print.

***ALL** Include all user profiles in the display or report.

user-name

Specify the user profile whose log entries you want to include in the display or report.

Top

Message identifier (MSGID)

Specifies the message identifier for the log entries that you want to display or print.

***ALL** Include all message identifiers in the display or report.

message-identifier

Specify the message identifier whose log entries you want to include in the display or report.

Top

Examples

Example 1: Displaying BRMS Log Entries for a Date Range and Severity Level

```
DSPLOGBRM TYPE(*BKU) PERIOD((*AVAIL *BEGIN) (*AVAIL *END))
SEV(20)
```

This command displays backup log entries and the range of dates is from the beginning of the log to the end of the log. Log entries related to backups will be displayed in the Display BRM Log Information display that have a severity level of 20 or above.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Duplicate Media using BRM (DUPMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

For tape devices, the Duplicate Media using BRM (DUPMEDBRM) command copies the contents of a single volume, a single volume in a media set, media set, or set of marked saved items to other volumes. You can specify the volumes which are to be duplicated, or specify a search be performed to identify the volumes or saved items which are to be duplicated. You can also resume a previous duplication operation which ended with errors.

Note: The tape devices do not have to support the same media classes. The media policy is specified in the DUPMEDBRM command.

Note: The density field in the file header labels are changed to reflect the true density.

Note: If you are using DUPMEDBRM to copy a file group, the output media assumes the group number of the input media. An exception to this is if a Set Media Controls using BRM (SETMEDBRM) command overrides the value for file group and type for the output volumes.

For optical devices, the Duplicate Media using BRM (DUPMEDBRM) command copies the contents of a single volume, a single volume in a set, or a media set. You can specify the volumes which are to be duplicated, or specify a search be performed to identify the volumes.

Note: For optical devices the output volume must have the same physical characteristics as the volume specified on the FROMVOL parameter, but cannot be the volume on the opposite side of the media.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The volumes to be copied must be active volumes, be members of the BRMS media inventory.
2. If you are copying a media set in batch mode by specifying a volume of the media set in the VOL parameter, you **must** use the special value *SET in the FROMVOL parameter.
3. You cannot duplicate TSM (ADSM) media using the DUPMEDBRM command.
4. Devices whose category is *APPC or *NET cannot be used to duplicate data using the DUPMEDBRM command.
5. You must have two devices to use this command. If the devices are shared devices, BRMS will vary the devices on for you. If the devices are not shared devices, you must vary them on.
6. If you are using devices with optimum block size enabled, the optimum block size supported by the output device must be greater than or equal to the optimum block size of the input device.
7. The duplication operation will determine whether to use tape or optical based on the FROMDEV and TODEV parameters. BRMS will not duplicate tape and optical volumes on a single DUPMEDBRM command.

Top

Parameters

Keyword	Description	Choices	Notes
VOL	From volume identifier	<i>Character value</i> , *LIST, *RESUME, *SCHHST, *SEARCH	Required, Key, Positional 1
RSMKEY	Resume key	1-999999, *ALL	Optional
FILEGRP	File group	<i>Name</i> , *ALL, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional, Positional 2
GRPTYPE	File group type	<i>Name</i> , *ALL, *ARC, *BKU	Optional, Positional 3
SCHMEDCLS	From media class	<i>Name</i> , *ALL	Optional
FROMDEV	From device	<i>Name</i>	Optional
TODEV	To device	<i>Name</i>	Optional
FROMSEQNBR	From sequence number	Single values: *ALL Other values: <i>Element list</i>	Optional
	Element 1: Starting file sequence number	1-16777215, *FIRST	
	Element 2: Ending file sequence number	1-16777215, *LAST, *ONLY	
TOSEQNBR	To sequence number	<u>1</u> , *END	Optional
MEDPCY	To media policy	<i>Name</i> , *SYSPCY, *NONE	Optional
FROMVOL	Input volume list	Single values: *VOL, *SET Other values (up to 300 repetitions): <i>Character value</i>	Optional
FROMENDOPT	From device end option	*REWIND, *LEAVE, *UNLOAD	Optional
TOENDOPT	To device end option	*UNLOAD, *LEAVE, *REWIND	Optional
FROMSYS	From system	<i>Character value</i> , *LCL	Optional
TOVOL	To volume identifier	Single values: *MOUNTED Other values (up to 300 repetitions): <i>Character value</i>	Optional
OBJDTL	Retain object detail	*NO, *YES	Optional
EXPDATE	Expiration date	<i>Date</i> , *MEDPCY, *PERM	Optional
MOVPCY	Move policy	<i>Name</i> , *MEDPCY, *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , *MEDPCY, *SYSPCY	Optional
LOC	Location	<i>Name</i> , *MEDPCY, *ANY, *HOME	Optional
VOLSEC	Secure volume	*MEDPCY, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional
SAVMEDINF	Save media information	*NONE, *BKUPCY, *LIB, *OBJ	Optional

Top

From volume identifier (VOL)

Specifies the volumes to be duplicated or the type of search used to identify volumes or saved items to be duplicated.

This parameter can be used in conjunction with the **Input volume list (FROMVOL)** parameter to specify the volume or volumes that you want to copy. You can copy a single volume, volumes in a media set, a

list of volumes or all volumes marked for duplication. If you want to copy a single volume or a single volume in a media set, specify the name of the volume that you want to copy in the VOL parameter and the special value *VOL in the FROMVOL parameter.

Note: If you are prompting the command, use F9 to display all command parameters before you specify a volume in the VOL parameter. The prompter will set the default value in the FROMVOL parameter to *VOL.

For instance, if you are copying a volume T00009, which is not a member of a media set, you would prompt the command, press F9, then enter T00009 in the VOL parameter. The *VOL should be the default value displayed in the FROMVOL parameter.

If the volume is a member of a media set you would follow the same procedure.

If you are not sure if a volume is a member of a media set, enter the volume in the VOL parameter and press the Enter key. If the volume is a member of a media set, the volume identifiers of all volumes in the set will be displayed in the FROMVOL parameter.

For instance, if you had a media set made up of T00001, T00002 and T00003 and you can enter T00002 in the VOL parameter and pressed the enter key. Volumes T00001, T00002 and T00003 would be displayed in the FROMVOL parameter. The volumes in the FROMVOL parameter cannot be changed at this point. This helps assure that you are duplicating all members of the set.

An alternate method of copying a media set is to specify a volume contained in the media set in the VOL parameter and using the special value *SET for the FROMVOL parameter.

You can specify *LIST in the VOL parameter to copy a list of volumes that you specify in the FROMVOL parameter.

You can specify *SEARCH in the VOL parameter to search the media inventory for the marked volumes that are to be duplicated, or *SCHHST to search the history information for marked saved items to be duplicated. When using *SEARCH or *SCHHST the FROMVOL parameter is not used.

This is a required parameter.

***LIST** Specify this special value to duplicate a list of active volumes that you specify. Enter the list of volumes that you want to duplicate in the FROMVOL parameter. Other volumes in the set will not be duplicated.

***RESUME**

Specify to resume history or media duplication operations which end with errors. Use the **Resume key (RSMKEY)** parameter to specify the duplication operation to be resumed.

Note: You must correct any errors which caused the duplication operation to end before you resume the duplication operation.

Note: This option is not valid if duplication operation uses optical devices.

***SCHHST**

All saved items that are marked for duplication, and meet the specified search values are duplicated. Search values are specified by using the following parameters:

- **File group (FILEGRP)** parameter
- **File group type (GRPTYPE)** parameter
- **Media class (SCHMEDCLS)** parameter
- **From system (FROMSYS)** parameter

Note: This option is not valid if duplication operation uses optical devices.

*SEARCH

All active volumes that are marked for duplication, and meet the specified search values are duplicated. Search values are specified by using the following parameters:

- **File group (FILEGRP)** parameter
- **File group type (GRPTYPE)** parameter
- **Media class (SCHMEDCLS)** parameter
- **From system (FROMSYS)** parameter

from-volume-identifier

Specify the name of the volume that you want to duplicate. The volume identifier that you specify must be a active volume that is in the BRMS media inventory.

Top

Resume key (RSMKEY)

Specifies the previous duplication operation to resume. You may want to resume a previous duplication if the operation ended with errors.

A resume key is returned in the recovery text of diagnostic message BRM4137 for duplication operations which end with errors.

A resume key for pending duplication of saved items is also displayed on the **Duplication** view of the Work with Media Information display. Use the Work with Media Information (WRKMEDIBRM) command to display the saved items, then use F11 to select the **Duplication** view.

Note: This parameter is required when *RESUME is specified for the **Volume (VOL)** parameter.

***ALL** All pending duplications of saved items with resume keys are duplicated.

1-999999

The pending duplication of saved items having the specified resume key are duplicated.

Top

File group (FILEGRP)

Specifies the file group that you want search for and duplicate the volumes that contain the specified file group.

***ALL** Include all file groups that meet the other specifications in the search.

***ARCGRP**

Include volumes that contain the default archive control group in the group of files to duplicate.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

Include volumes that contain the default backup user data control group in the group of files to duplicate.

***SYSGRP**

Include volumes that contain the default system data control group in the group of files to duplicate.

***SYSTEM**

Include volumes that contain the default backup entire system control group in the group of files to duplicate.

file-group

Specify the name of the file group whose volume you want to be duplicated.

Top

File group type (GRPTYPE)

Specifies the type of file group that you want to search for and duplicate the volumes that contain the specified file group type.

***ALL** Include all file groups that meet the other specifications in the search.

***ARC** The file group is an archive file group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** The file group is a backup file group.

file-group-type

Specify the file group type that you want to include in the search.

Top

From media class (SCHMEDCLS)

Specifies the media classes that you want to search for and duplicate the input volumes that are associated with the specified media class.

This parameter is only used in conjunction with the **From volume identifier (VOL)** parameter when the special value *SEARCH is specified.

***ALL** Include all media classes that meet the other specifications in the search.

from-media-class

Specify the name of the media class that you want to duplicate.

Top

From device (FROMDEV)

Specifies the device name from which the volume or volumes is copied.

This is a required parameter.

Top

To device (TODEV)

Specifies the device name on which you are placing the volume that you want to copy to.

This is a required parameter.

Top

From sequence number (FROMSEQNBR)

Specifies which data file sequence numbers are to be copied.

Note: If *ALL is specified for Starting file sequence number, or *FIRST for Starting file sequence number and *LAST for Ending file sequence number, then file sequences prior to *FIRST or after *LAST which do not reside in the history information for the volumes will not be duplicated.

Note: This parameter is ignored if the duplication operation uses optical devices.

Single values

***ALL** All files are duplicated.

Element 1: Starting file sequence number

*FIRST

All files starting with the first file sequence are duplicated.

file-sequence-number

Specify the starting file sequence number to be duplicated. The valid range of sequence numbers is 1 through 16777215. Only the files in the specified sequence number range are duplicated.

Element 2: Ending file sequence number

*LAST

All files ending with the last file sequence are duplicated.

***ONLY**

Only the file specified in the starting file sequence is duplicated. If *ALL is specified in the first element, then this parameter is ignored.

file-sequence-number

Specify the ending file sequence number of the range to be duplicated. The valid range of sequence numbers is 1 through 16777215.

Top

To sequence number (TOSEQNBR)

Specifies which sequence number the data files are to be copied to.

Note: This parameter is ignored if the duplication operation uses optical devices.

1 The data files are copied to file sequence 1.

***END** The data files are added to the logical end of tape. The next valid sequence number is used.

file-sequence-number

Specify the sequence number in which the data file will be copied to. This value is not allowed if the device does not have overwriting capabilities and the value specified is not the next logical value to be used at the end of the logical tape volume.

Top

To media policy (MEDPCY)

Specifies the media policy for the volumes to which you are copying.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.

- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

*SYSPCY

The media policy specified in the system policy is used as the value for media policy.

***NONE**

No media policy is specified for this duplication operation. Media policy values must be supplied from the command for each parameter that has a default of *MEDPCY.

to-media-policy-name

Specify a media policy that has been set up in the BRMS. You can press F4 to get a list of these media policies.

Top

Input volume list (FROMVOL)

Specifies the list of volumes that are to be copied. This parameter works in conjunction with the **From volume identifier (VOL)** parameter to specify the volume or volumes that you want to copy. You can copy a single volume, a set of volumes or a list of volumes. You can specify up to 300 volumes in the FROMVOL parameter.

To copy a single volume, specify a volume in the VOL parameter and specify the special value *VOL in the FROMVOL parameter.

Note: If you are prompting the command, use F9 to display all command parameters before you specify a volume in the VOL parameter. The prompter will set the default value in the FROMVOL parameter to *VOL.

If you are not sure if a volume is a member of a media set, enter the volume identifier in the VOL parameter and press the Enter key. If the volume is a member of a media set, the volume identifiers of all volumes in the set will be displayed in the FROMVOL parameter.

If you specify *LIST in the VOL parameter, you can enter a list of volumes to copy in the FROMVOL parameter.

If you specify *SEARCH in the VOL parameter, this parameter is not used.

If you want to duplicate the volumes in a media set, specify a volume of the media set in the VOL parameter and specify *SET in the FROMVOL parameter. You **must** use this method to duplicate the volumes of a media set in a batch job.

Note: The list of volumes must either be all tape or all optical volumes. This command only supports duplicating tape volumes to tape volumes or optical volumes to optical volumes.

Single values

*VOL You want to copy a single volume that is specified in the VOL parameter. The *VOL special value is displayed but not used when the special value *SEARCH is specified in the VOL parameter.

***SET** Specify this special value to copy all volumes in a media set when only one volume of the set is specified in the VOL parameter. If you are copying a media set in batch mode by specifying a volume of the media set in the VOL parameter, you **must** use the special value *SET in the FROMVOL parameter.

Other values (up to 300 repetitions)

volume-identifier

Specify the volume identifiers of a list of active volumes, that you want to duplicate.

Top

From device end option (FROMENDOPT)

Specifies whether the volume placed on the device specified on the **From device (FROMDEV)** parameter is rewound and unloaded after the operation completes.

Note: This parameter is ignored if the From volume identifier is in an optical media library. For optical devices *REWIND will be ignored.

*REWIND

The volume is automatically rewound, but not unloaded after the operation ends.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*UNLOAD

The volume is automatically rewound and unloaded after the operation ends.

Top

To device end option (TOENDOPT)

Specifies whether the volume placed on the device specified on the **To device (TODEV)** parameter is rewound and unloaded after the operation is completed.

Note: This parameter is ignored if the To volume identifier is in an optical media library. For optical devices *REWIND will be ignored.

*UNLOAD

The volume is rewound and unloaded after the operation is completed.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*REWIND

The volume is rewound after the operation is completed.

Top

From system (FROMSYS)

Specifies the location and network identification of the system that owns the volumes you would like to duplicate. When specifying a remote system, the input and output volumes used in the operation will be owned by the specified system.

Note: *LCL is the only valid value allowed when the duplication is using optical devices.

Note: If the media is not owned by the system doing the duplication, Receive Media Info needs to be set to *LIB in the system policy network attributes before the save occurs on the remote system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

To volume identifier (TOVOL)

Specifies the volume identifiers of the volumes to which data is being copied.

The volume identifier that you specify must be a volume that is in the BRMS media inventory.

Single values

***MOUNTED**

The volume identifier of the volume placed in the device specified on the **To device (TODEV)** parameter is used. If the source volume is a standard labeled volume and the volume placed in the device is not labeled or is initialized to the wrong density, the volume is reinitialized to the correct density using the volume identifier of the source volume currently placed in the device.

Other values (up to 300 repetitions)

volume-identifier

Specify the volume identifier of the volumes to which data is being copied. When the end of a volume is reached, you will be able to reinitialize the volume using this volume identifier. If the volume contains the correct volume identifier but is in the wrong density, the volume will be reinitialized to the correct density. The volume identifier is saved.

Top

Retain object detail (OBJDTL)

This parameter has no function. Object detail, including member level detail for physical files, is always retained for duplicated media as long as object detail was available for the input volumes.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this duplication operation.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*PERM

Output volumes from this duplication operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this duplication operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this duplication operation.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is not a move policy associated with the output volumes that are created as a result of this duplication operation.

move-policy

Specify a move policy that will be assigned to output volumes from this duplication operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for output volumes created as a result of this duplication operation.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*SYSPCY

The value for media class in the system policy will be assigned to output volumes from this duplication operation.

media-class

Specify a media class that will be assigned to output volumes from this duplication operation.

Location (LOC)

Specifies the location that you want to use for output volumes created as a result of this duplication operation.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ANY Any valid location is assigned to output volumes from this duplication operation.

*HOME

The home location is assigned to output volumes from this duplication operation.

location

Specify a location that will be assigned to output volumes from this duplication operation.

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

*YES Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Required volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any duplication can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a duplication operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS duplication operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether to mark volumes for duplication after they have been duplicated.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Do not mark volumes for duplication.

*YES Mark volumes for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether to mark history items for duplication after they have been duplicated.

Note: This parameter is ignored when using optical devices.

*MEDPCY

The value for this parameter is the media policy that is specified in the **Media policy (MEDPCY)** parameter of this duplication command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Do not mark the history items for duplication.

*YES Mark the history items for duplication.

Top

Save media information (SAVMEDINF)

Specifies whether you want to automatically save the media information after duplication has run. The media information is the changes to the save history and volume information that occur during the duplication operation. You can specify whether the save history in the media information is saved at the library or object level.

Note: Object level saved history information can only be saved if object level or member level detail was retained when the objects were originally saved.

Note: The saved media information will be appended to the last output volume used for duplication.

*NONE

Specifies you do not want media information saved after duplication has run.

*BKUPCY

Specifies you want the Backup Policy to specify whether media information is saved after

duplication has run. If this value is specified, the current value of the **Automatically backup media information** prompt on the Backup Policy will determine whether media information is saved when this command is run.

- ***LIB** Specifies you want media information saved after the duplication has run, but you only want to save library level history information. With library level history information, you must know the object names to restore individual objects.
- ***OBJ** Specifies you want media information saved after the duplication has run and you want to save object level history information. With object level history information, you can use BRMS to help you locate saved objects that you want to restore such as physical files or members.

Top

Examples

Example 1: Copying a Single Volume

```
DUPMEDBRM VOL(T00001) FROMDEV(TAP01)
           TODEV(TAP03) FROMVOL(T00001)
```

This command duplicates volume T00001 using TAP01 as the from device and TAP03 as the to device. Because T00001 is not a member of a media set, the input list (FROMVOL) contains only T00001.

Example 2: Duplicating a List of Volumes

```
DUPMEDBRM VOL(*LIST) FROMDEV(TAPMLB01) TODEV(TAPMLB02)
           MEDPCY(FMT3570) FROMVOL(VOL001 VOL002 VOL003)
```

This command duplicates volumes VOL001, VOL002 and VOL003 using media library TAPMLB01 as the from device and media library TAPMLB02 as the to device using the media class in the FMT3570 media policy for the to volumes.

Example 3: Duplicating a Volume Set

```
DUPMEDBRM VOL(VOL002) FROMDEV(TAPMLB01) TODEV(TAPMLB02)
           FROMVOL(*SET) MEDPCY(FMT3570)
```

This command duplicates all volumes in the volume set which contains VOL002 using media library TAPMLB01 as the from device and media library TAPMLB02 as the to device using the media class in the FMT3570 media policy for the to volumes.

Example 4: Duplicating All Marked Volumes for Another System

```
DUPMEDBRM VOL(*SEARCH) FROMDEV(TAPMLB01) TODEV(TAPMLB02)
           FROMSYS(SYSTEM_B)
```

If this command is run on SYSTEM_A, the command will search for all volumes marked for duplication owned by SYSTEM_B using media library TAPMLB01 as the from device and media library TAPMLB02 as the to device. SYSTEM_A and SYSTEM_B are in a BRMS network and share the media library resources.

Example 5: Resume a Previous Duplicate Media using BRM

DUPMEDBRM VOL(*RESUME) RSMKEY(123456)

This command resume a previous duplication operation which ended abnormally. The resume key **123456** was returned in message BRM4137 when the duplication operation ended with exception BRM4138.

Top

Error messages

*ESCAPE Messages

BRM15A2

Volume &3 cannot be duplicated by this system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1934

Media duplication not successful.

BRM1936

No media found for duplication.

BRM2338

Duplication completed with errors.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

BRM4138

Media duplication completed with errors.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Extract Media Information (EXTMEDIBRM)

Where allowed to run: All environments (*ALL)
Threading: No

Parameters
Examples
Error messages

The Extract Media Information (EXTMEDIBRM) command adds information about a volume in the BRMS media file. You specify the identifier of the volume and what is contained on the volume.

BRMS records content information only for media already added to the BRMS media inventory, and then only for media whose contents are currently shown as expired. If active contents information for the media already exists, or if the media has not been added to the media inventory, no content information is added.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	<i>Name</i>	Required, Positional 1
VOL	Volume identifier	<i>Character value</i> , *MOUNTED	Optional, Positional 2
FILE	File origin	*FILE , *SAV, *SAVCFG, *SAVCHG, *SAVCHGDLO, *SAVCHGOBJ, *SAVDLO, *SAVLIB, *SAVOBJ, *SAVSECDTA, *SAVSYS	Optional
ENDOPT	End of media option	*UNLOAD , *LEAVE, *REWIND	Optional

Top

Device (DEV)

Specifies the name of the device on which you are loading the volume. The device name must be defined in the BRMS device table.

Top

Volume identifier (VOL)

Specifies the volume identifier of the volume on the device whose information is being added to BRMS.

***MOUNTED**

The information on the volume identifier that is loaded on the device is added to BRMS.

volume-identifier

Specify the volume identifier of the volumes from which data is being added to the BRMS media content information.

File origin (FILE)

Specifies the type of information that is stored on the volume.

***FILE** The information on the volume is a file.

***SAV** The information on the volume is IFS information.

***SAVCFG**

The information on the volume is a save of configuration information.

***SAVCHG**

The information on the volume is an incremental save of IFS information.

***SAVCHGDLO**

The information on the volume is an incremental save of document information.

***SAVCHGOBJ**

The information on the volume is an incremental object save.

***SAVDLO**

The information on the volume is a full save of document information.

***SAVLIB**

The information on the volume is a saved library.

***SAVOBJ**

The information on the volume is a full object save.

***SAVSECDTA**

The information on the volume is a save of security information.

***SAVSYS**

The information on the volume is system save information.

End of tape option (ENDOPT)

Specifies, when tape is used, what positioning operation is automatically done on the tape volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the tape is reached.

Note: If no objects are saved the volume is not opened and the ENDOPT parameter is ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***REWIND**

The volume is rewound, but not unloaded.

Examples

Example 1: Adding Media Information

```
EXTMEDIBRM DEV(TAP06) FILE(*SAVLIB)
```

This command adds save library content information for the volume that is mounted on device TAP06 to the BRMS media inventory.

Top

Error messages

*ESCAPE Messages

BRM1134

Device &1 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

BRM6708

Command ended due to error.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Initialize BRMS (INZBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Initialize BRMS (INZBRM) command performs several types of initialization. These are:

- Allows you to estimate the time to update the BRMS product to a future version and release.
- Allows you to start BRMS product initialization after installation or update.
- Allows you to estimate the time remaining to complete BRMS product initialization.
- Initializes all major files as well as establishing default policies and control groups
- Starts the subsystem for networking in a multi-system environment
- Allows you to reset BRMS and re-initialize all major files as well as establishing default policies and control groups
- Creates auxiliary storage pool (ASP) descriptions
- Allows you to re-register all BRMS functional authority elements with the operating system's registration facility. This option is used during a full system recovery prior to restoring user profiles
- Allows you to change the system name for BRMS media information to a new system name when restoring this information to a different system or logical partition
- Allows you to merge the BRMS database files contained on one library with the BRMS database files in another library

The INZBRM command is used to add a system to a BRMS network group. The INZBRM command must be processed from the system that you are adding to the network group.

Note: All references to system name assume that the system name and the system location name are the same and are used interchangeably in the help information. If they are not the same, use the system location name instead of the system name. You can review the setting for the system name and location name by using the Display Network Attributes (DSPNETA) command from any command line.

Systems that are members of the network group share BRMS media inventory. Additions, changes and removals from shared media inventory on any system in the network result in the same changes being made to all systems that are members of the network group.

When a system is added to a network group, the media information common to the network group is copied to the system that you are adding. The system's media information is replaced by the network group's media information.

When a system is first added, it is added in an inactive status on an active network group member.

Note: This is accomplished by adding the system to a network group list using the Change Network Group display which is found in the System Policy menu. When the system name is added to the list, it is shown in inactive status.

The INZBRM OPTION(*NETSYS) option changes the status from inactive to active and synchronizes media information.

The following shared BRMS information files are replaced on this system with the information from the incoming system:

- Media inventory

- Media classes
- Media policies
- Container inventory
- Container classes
- Move policies
- Network systems
- Storage locations

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. This command should not be used by control group *EXIT item processing as results will be unpredictable.
2. All BRMS operations must be ended before running this command.
3. All object authority is required to run the *RUNPRDINZ option.
4. These additional restrictions apply when *MERGE is specified for the **Option (OPTION)** parameter:
 - All BRMS operations must be ended if library QUSRBRM is specified for the **To library (TOLIB)** parameter.
 - Ownership of the from library and its objects and the to library and its objects will be changed to QBRMS prior to the merge. The public authority will be changed to *USE.
 - Exclusive locks will be placed on the physical files in the from library objects and to library objects prior to the merge.
 - Logical files will be deleted from the from library and to libraries prior to the merge.

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Parameters

Keyword	Description	Choices	Notes
OPTION	Option	*DATA, *CHGSYSNAM, *DEVICE, *ESTPRDINZ, *ESTPRDUPD, *MERGE, *NETSYS, *RESET, *RUNPRDINZ, *SETAUT, *FLASHCOPY	Optional, Positional 1
FROMSYS	From system	Character value	Optional
PRVSYSNAM	Previous system name	Character value, *LCL	Optional
NEWSYSNAM	New system name	Character value, *LCL	Optional
FROMLIB	From library	Name	Optional
MERGE	Merge	Single values: *ALL Other values (up to 5 repetitions): *ARC, *BKU, *DEV, *HST, *MED, *MGR	Optional
STATE	State	*ENDBKU, *ENDPRC, *STRBKU, *STRPRC	Optional
TOLIB	To library	Name	Optional
TGTRLS	Target release	Character value	Optional
KEYSTORE	Key store file	Values (up to 300 repetitions): Element list	Optional
	Element 1: Source key store file	Name	
	Element 2: Translated key store file	Name	

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Option (OPTION)

Specifies which of the types of initialization you want to perform.

*DATA

You are initializing BRMS. Default control groups, policies and tables are built based on the characteristics of the system that is being initialized. Additionally, new devices are added and ASPs are configured. Default ASP descriptions for ASPs defined to the system, but not already defined to BRMS are added.

When ASPs are configured, the following default information is added:

- ASP name value is *NONE, with the exception of ASP 1, which is given the ASP name of *SYSTEM.
- Low and high threshold values are set to *NONE.
- Text is "Entry created by BRM configuration".

If the parameter contains the special value *DATA, you must process the INZBRM command on the system on which you want to initialize for BRMS.

This option does not affected the saved history.

No parameters are used with this option.

*CHGSYSNAM

Allows you to change the system name stored in the BRMS media information. The system name is used to distinguish the media information of this system from the media information of other systems in a BRMS network. The system name is applied to the media information even if you do not use the BRMS networking feature. BRMS uses the system's local network ID (LCLNETID) and default local location name (LCLLOCNAME) for the system name. You can use the DSPNETA command to view these system network attributes.

You must change the system name of the media information to the current system name when recovering the BRMS media information to a different system or different logical partition having a system name different from the saved system name. You must specify a previous system name using the **Previous system name (PRVSYSNAM)** parameter and a new system name using the **New system name (NEWSYSNAM)** parameter.

The **From library (FROMLIB)** , **To library (TOLIB)** and **Merge (MERGE)** parameters are not used with this option.

*DEVICE

You are clearing device and media library information and re-initializing the files with the devices currently described on the system. In addition to clearing and re-initializing the device file, *DEVICE also performs the same functions as *DATA. Using the *DEVICE special value causes CSI objects and APPC device information to be removed from the BRMS inventory if no APPC device entries by the same name are found. Using the *DEVICE special value does not cause NET device information to be removed.

This option does not affected the saved history.

No parameters are used with this option.

*ESTPRDINZ

Use this option to determine the approximate time required to complete initialization of the BRMS program product after installation or update. An estimate of the initialization time is returned in message BRM402B. For more precise estimates, always run this option in the same system environment as the initialization job. If this option is run concurrently with product initialization, the approximate time remaining is returned.

Product initialization is only required once following a product update. Use option *RUNPRDINZ of this command to run product initialization after the update.

No parameters are used with this option.

*ESTPRDUPD

Use this option to determine the approximate time required to complete a BRMS program product update to a future version and release. The time estimate is returned in message BRM402C.

Note: The actual time could vary from the estimated time if the update occurs on a different system or uses a different job environment.

You must specify a value for **Target release (TGTRLS)** when using this option.

*FLASHCOPY

Use this option to set the FlashCopy status for BRMS. You must specify **State(STATE)** parameter when using this option.

Note: The BRMS Network feature (Option 1) is required to use this parameter.

*MERGE

Allows you to merge the BRMS database files contained in one library specified on the **From library (FROMLIB)** parameter with the BRMS database files in another library specified on the **To library (TOLIB)** parameter using options specified on the **Merge (MERGE)** parameter. This function may be useful when consolidating multiple systems onto a single system, or copying BRMS objects from library QUSRBRM to another library for subsequent archive. Refer to Appendix A in the Backup Recovery and Media Services book for additional guidance on using this option.

Note: Because of the extensive file processing involved in the merge operation, this could be a long running process depending on the merge options you select and the size of the merged files.

Note: If you intend to merge more than one library to the current system it is recommended that you merge these libraries to an intermediate library then perform a final merge of the intermediate library into the QUSRBRM library.

The **From system (FROMSYS)**, **Previous system name (PRVSYSNAM)** and **New system name (NEWSYSNAM)** parameters are not used with this option.

*NETSYS

BRMS files will be copied from the system specified in the **From system (FROMSYS)** parameter which should be in the network system group. Prior to using this option, use the Copy Media Information (CPYMEDIBRM) command to copy the current BRMS information from this system to a temporary file. After the INZBRM *NETSYS is complete, to merge the old information, use the CPMEDIBRM again to copy the information back from the temporary file. This option will replace data in some current BRMS files.

Note: The BRMS Network feature (Option 1) is required to use this value.

Only the **From system (FROMSYS)** parameters is used with this option.

*RESET

You are resetting BRMS. When you use this option BRMS information is removed from your system and all major files are re-initialized. Using OPTION(*RESET) clears all major BRMS files and processes the INZBRM command OPTION(*DATA). This option erases all hierarchical storage management (HSM) information and resets all configurations to be consistent with those created when the product is first installed. Since APPC information is not automatically configured by BRMS, *RESET removes all APPC device information from BRMS including any CSI objects that may have been created.

No parameters are used with this option.

*RUNPRDINZ

Use this option to complete initialization of the BRMS program product after installation. The BRMS program product cannot be used until initialization is complete. Product initialization is only required once following a product update. Use this option if you receive message **BRM40A2 - BRMS product initialization required** when attempting to perform a BRMS operation after a product update.

BRMS product initialization can be a long running process. Performance can be optimized by running this option when there is little or no other activity on the server.

Use option *ESTPRDINZ of this command to retrieve an approximation of the time required to perform the initialization in the current environment.

Note: All object authority is required to use this option.

No parameters are used with this option.

*SETAUT

Allows you to re-register all BRMS functional authority elements with the operating system's registration facility. This option is used during a full system recovery prior to restoring user profiles.

No parameters are used with this option.

Top

From system (FROMSYS)

Specifies the name of any system which is already in the network group that you want the new system to join. The network media information on the system that you specify here is copied to your system. For example, if system A is a system that you want to add to the network and system B is an active member of a network group, you would specify system B in the **From system (FROMSYS)** parameter. The network media inventory from system B replace the media inventory on system A and system A has now become an active member of the network group.

The following media inventory files are copied from the active system in a network group to replace the media inventory files on the inactive system. You are notified before each file is replaced:

- Media inventory
- Media classes
- Media policies
- Container inventory
- Container classes
- Move policies
- Network systems
- Storage locations

Note: The BRMS Network feature (Option 1) is required to use this parameter.

location-name

Specify the name of the remote location associated with the from-system. The local system's network identifier, as seen by using the DSPNETA command, is used as the from-system's network identifier.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the from-system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Previous system name (PRVSYSNAM)

Specifies the previous name of the system when changing the system name in the media information for recovery to a different system or different logical partition.

***LCL** Specifies that the local system name is to be used for the previous system name. BRMS will use this system's local network ID (LCLNETID) and default local location name (LCLLOCNAME) for the previous system name.

previous-system-name

Specifies the name that is to be used as the previous system name . If you specify this value, BRMS will use the local network ID (LCLNETID) and the specified name to create the previous system name.

network-id.location-name

Specify the local network identifier and default local location name that is to be used for the previous system name. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name of the previous system.

Top

New system name (NEWSYSNAM)

Specifies the new name of the system when changing the system name in the media information for recovery to a different system or different logical partition.

***LCL** Specifies that the local system name is to be used for the new system name. BRMS will use this system's local network ID (LCLNETID) and default local location name (LCLLOCNAME) for the new system name.

new-system-name

Specifies the name that is to be used as the new system name . If you specify this value, BRMS will use the local network ID (LCLNETID) and the specified name to create the new system name.

network-id.location-name

Specify the local network identifier and default local location name that is to be used for the new system name. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name of the new system.

Top

From library (FROMLIB)

Specifies the name of the source library containing the BRMS files with the records to be merged. This should be a version of the QUSRBRM library saved from another system and restored to the current system using a different library name.

Note: Prior to the start of the merge operation, the ownership of the library and all objects in the library will be changes to QBRMS and the public authority will be changed to *USE. Also, all logical files will be deleted from this library and all physical files will be converted to the current release.

from-library-name

Name of the library containing the BRMS database files which are to be merged. Library QUSRBRM cannot be specified as the from library.

Merge (MERGE)

Specifies the options for the merge process. These options define the types of BRMS data to be merged.

Single values

***ALL** Specifies all BRMS media, device, history and policy files are to be merged.

Other values (up to 5 repetitions)

***ARC** Specifies all BRMS archive control group and archive list files are to be merged.

***BKU** Specifies all BRMS backup control group and backup list files are to be merged.

***DEV** Specifies all BRMS user devices such as Tivoli Storage Manager (TSM) of type *NET and user media library devices of type *USRMLB are to be merged.

***HST** Specifies all BRMS media information files containing backup, archive and migration history are to be merged.

***MED** Specifies all BRMS volume information and media related files are to be merged.

***MGR** Specifies all BRMS migration control group files are to be merged.

State (STATE)

Specifies the FlashCopy state for this system. This is a required parameter when *FLASHCOPY is specified for the **Option (OPTION)** parameter.

*ENDBKU

Specifies that the backup has been completed on this clone system. The BRMS history information must be sent to the production system. Do not perform any BRMS activity on this clone system.

*ENDPRC

End the FlashCopy process on this production system. This indicates that the Enterprise Storage Server (ESS) FlashCopy function is complete and backup on the clone system is complete. BRMS activity may resume on this production system.

*STRBKU

Specifies that the clone system is ready to perform the backup for the production system. The BRMS history information will appear as if the backup had been performed on the production system.

*STRPRC

Start the FlashCopy process on this production system. This notifies BRMS that the production system's data is being copied via ESS FlashCopy and the backup is being performed on the clone system. This step is required prior to performing the ESS FlashCopy function. During this state, there should be no BRMS activity on the production system.

To library (TOLIB)

Specifies the name of the target library containing the BRMS files which will receive the merge records.

Note: Always save library QUSRBRM before performing a merge operation when QUSRBRM is specified for the to library.

Note: You must end all BRMS operations before performing a merge operation when QUSRBRM is specified for the to library. The merge operation will fail if exclusive locks cannot be obtained for the files in the to library.

to-library-name

Name of the library containing the BRMS database files which will receive the merge records.

Top

Target release (TGTRLS)

Specifies the target release for estimating the BRMS product update time. This is a required parameter when *ESTPRDUPD is specified for the **Option (OPTION)** parameter.

***DEFAULT**

Specifies the default action is to be used when estimating the BRMS product update time. The default action assumes the target release is not available and a worst case update time is returned. Use this value if a future version and release of the product is not available, or the current version and release is no longer serviced and an available target release is not listed.

target-release

Specify the target release for the update in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R4M0 is version 5, release 4, modification level 0.

Top

Key store file (KEYSTORE)

Specifies the list of source key store files and corresponding translated key store files. Translated key store file names will be used for all encrypted backups being merged.

Element 1: Source key store file

Specifies the source key store file that was used for encrypted saves on the source system. This parameter must be specified for each Q1AKEY* in the QUSRBRM library from the source system.

key-store-file-name

A database file that stores the operational keys that were used for encrypted saves on the source system.

Element 2: Translated key store file

Specifies the translated key store files containing the key information which will be used for recovering encrypted saves on the target system. The specified translated key store file must exist in the library that is specified in the **To library (TOLIB)** parameter.

key-store-file-name

A database file that stores the operational keys that will be used for recovering encrypted saves on the target system.

Top

Examples

Example 1: Initializing the BRMS Product

```
INZBRM OPTION(*RESET)
```

This command initializes BRMS resetting all values to the default value.

Example 2: Activating a System on the Network

```
INZBRM OPTION(*NETSYS) FROMSYS(MYNETID.MYSYSID)
```

This command activates system MYSYSID on network MYNETID into the BRMS network. The command is run on system MYSYSID.

Example 3: Register All Functional Authorities

```
INZBRM OPTION(*SETAUT)
```

This command registers all policies and functions currently defined in BRMS to the operating system's registration facility.

Example 4: Rename Media Information

```
INZBRM OPTION(*CHGSYSNAM) PRVSYSNAM(MYNETID.MYSYSID)  
NEWSYSNAM(*LCL)
```

This command renames all BRMS media information currently owned by system MYSYSID on network MYNETID to the local network identified and default local location name as defined in the network attributes.

Example 5: Merge BRMS Database Files

```
INZBRM OPTION(*MERGE) FROMLIB(QUSRBRMSAV) TOLIB(QUSRBRM)  
MERGE(*ALL)
```

This command merges the records found in the database files found in library QUSRBRMSAV with the records found in library QUSRBRM.

Example 6: Estimate BRMS initialization

```
INZBRM OPTION(*ESTPRDINZ)
```

This command estimates the time required to initialize BRMS following installation of the product primary language. The estimate is returned in message BRM402B.

Example 7: Run BRMS initialization

```
INZBRM OPTION(*RUNPRDINZ)
```

The user has received exception BRM40A2 trying to run BRMS operations. This command completes the BRMS product initialization and allows for normal BRMS operations to continue.

Example 8: Estimate BRMS update time

```
INZBRM OPTION(*ESTPRDUPT) TGTRLS(VxRxMx)
```

Estimates the time to update the current version and release of BRMS to the version and release specified by the VxRxMx value for the TGTRLS parameter.

Top

Error messages

*ESCAPE Messages

BRM13FF

Merge operation not successful. Reason &5

BRM1521

Connection to system &1 could not be established.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A5

BRMS product initialization ended abnormally.

BRM40A6

BRMS product initialization already started.

BRM412B

Values not valid for parameters.

BRM6708

Command ended due to error.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Initialize Media using BRM (INZMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Initialize Media using BRM (INZMEDBRM) command prepares media for use in the BRMS system. This command is used to initialize a volume with a standard volume label for standard label magnetic volume processing.

Note: It is recommended that you use the INZMEDBRM command in place of the operating system INZTAP or INZOPT command. To assure the protection of media, BRMS disables INZTAP CHECK(*NO) and INZOPT CHECK(*NO) for users who do not have *SECADM, *SECOFR, *SERVICE or *SAVSYS authority. Unlike users of INZTAP and INZOPT, users of INZMEDBRM do not need these levels of authority in order to use the CHECK(*NO) option.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. This command should not be used by control group *EXIT item processing as results will be unpredictable.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	<i>Name</i>	Required, Positional 1
NEWVOL	New volume identifier	<i>Character value</i>	Required, Positional 2
MEDCLS	Media class	<i>Name</i>	Required, Positional 3
NEWOWNID	New owner identifier	<i>Character value</i> , *BLANK	Optional
VOL	Volume identifier	<i>Character value</i> , *MOUNTED	Optional
CHECK	Check for active files	*YES, *FIRST, *NO	Optional
CODE	Code	*EBCDIC, *ASCII	Optional

Keyword	Description	Choices	Notes
ENDOPT	End of media option	*REWIND, *UNLOAD	Optional
CLEAR	Clear	*NO, *YES	Optional

Top

Device (DEV)

Specifies the name of the device which is used to initialize the volume. The device name must be defined in the BRMS device table.

This is a required parameter.

Top

New volume identifier (NEWVOL)

new-volume-identifier

Specifies the identifier of the new volume.

For volumes that specify a **Media class (MEDCLS)** parameter using a tape density, the volume identifier is the volume identifier is a maximum of six characters in length. The identifier must contain only alphanumeric characters (A through Z and 0 through 9), and cannot contain blanks.

For volumes that specify a **Media class (MEDCLS)** parameter using an optical format, the volume identifier is a maximum of thirty-two characters in length. The identifier must contain only alphabetic characters (A through Z), numeric characters (0 through 9), hyphen (-), underscore (_), or a period (.). The first character must be alphabetic or numeric and the identifier cannot contain blanks.

This is a required parameter.

Top

Media class (MEDCLS)

The MEDCLS parameter defines the density used to format the volume. It does not define the media class the volume is assigned. Use the CHGMEDBRM command to change the media class assignment of the volume.

This is a required parameter.

Top

New owner identifier (NEWOWNID)

Specifies the volume owner's identifier to write in the volume label of the volume being written.

***BLANK**

The owner identification field is set to blanks.

new-owner-identifier

Specify no more than 14 characters to identify the owner of the volume. If fewer than 14 characters are specified, the field is left-justified and is filled with blanks on the right.

Volume identifier (VOL)

Specifies the existing volume identifier of the volume being initialized for use or indicates that the volume currently on the magnetic device should be initialized for use.

*MOUNTED

Any labeled or unlabeled volume that is placed in the specified volume device is initialized for use. To initialize a new or empty volume for use, *MOUNTED must be specified, and *NO must be specified on the **Check for active files (CHECK)** parameter.

volume-identifier

Specify the identifier of the labeled volume being initialized for use. This parameter value can be used only to initialize a volume for use that is already a labeled volume. If the volume on the specified device has a different volume identifier than the one specified or if it is an unlabeled volume, an error message is sent.

Top

Check for active files (CHECK)

Specifies whether a labeled volume should be checked for active data files before it is initialized for use. If an unlabeled volume is placed in the specified device, this parameter is ignored.

*YES For tape volumes, all data file labels volume are checked or and an error is sent if any active files are found. For optical volumes, an error is sent if the volume is initialized.

*FIRST

Only the first data file label on the volume is checked. If there are no data files on the volume or if the first data file has expired, the volume is initialized for use without checking for any other files on the volume. If the first data file has not expired, the operation is ended and an error message is sent.

Note: For optical devices, specifying *FIRST is the same as specifying *YES.

*NO Volume initialization continues with no checking for active files. To initialize a new or empty volume for use, *NO must be specified here and *MOUNTED must be specified on the **Volume identifier (VOL)** parameter.

Top

Code (CODE)

Specifies the character code in which the volume label is written. All data that is not save/restore data written after the label must be in the same code; codes cannot be intermixed on a volume that is not a save/restore volume.

Note: For optical devices this parameter is ignored.

*EBCDIC

The volume label is written in EBCDIC and is an IBM standard label; all additional data must also be written in EBCDIC.

*ASCII

The volume label is written in ASCII and is an American National Standard Institute standard label; all additional data must also be written in ASCII.

End of media option (ENDOPT)

Specifies whether the volume is only rewound, or rewound and unloaded after it has been initialized for use.

Note: For optical devices, *UNLOAD is the only special value supported, other special values will be ignored.

*REWIND

The volume is rewound after it has been initialized for use.

*UNLOAD

The volume is rewound and unloaded. Some optical devices will eject the volume after the operation ends.

Top

Clear (CLEAR)

Specifies whether or not existing data on the volume will be cleared during the initialize process.

For an optical device this parameter only applies when the volume media type is *DVD-RAM.

Note: If the volume media type is *WORM the volume is never cleared regardless of the parameter setting. If the volume media type is *ERASE the volume is always cleared regardless of the parameter setting.

*NO The volume is not cleared.

*YES The volume is cleared of existing data prior to initialization.

Note: For optical devices, this option may take several hours to complete, depending on the media capacity.

Top

Examples

Example 1: Initializing a Volume

```
INZMEDBRM DEV(TAP06) NEWVOL(T00004) MEDCLS(QIC1000)
```

This command initializes volume T00004 using device TAP06. The volume is assigned a media class of QIC1000 and initialized using the density specified by the QIC1000 media class.

Top

Error messages

*ESCAPE Messages

BRM1317

Volume &1 cannot be initialized now.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Migrate using BRM (MGRBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Migrate using BRM (MGRBRM) command allows you to migrate a library or first level folder to a specified auxiliary storage pool. This command is used by BRMS migration processing and by you to request migration of a specific library or folder as needed. You can specify the auxiliary storage pool to which you want to migrate the library or folder.

When the MGRBRM command is used BRMS ignores low storage threshold constraints for the auxiliary storage pool from which the item is being moved, but does honor the target auxiliary storage pool's high storage threshold.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- The BRMS Advanced feature (Option 2) is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
TOASP	To asp	<i>Character value</i> , *SYSTEM	Required, Positional 1
TYPE	Type	*LIB, *FLR	Optional, Positional 2
LIB	Library	<i>Name</i>	Optional, Positional 3
FLR	Folder	<i>Name</i>	Optional

Top

To ASP (TOASP)

Specifies the auxiliary storage pool to which the specified library or first level folder is to be migrated.

*SYSTEM

The library or folder is to be migrated to the system (1) auxiliary storage pool.

ASP-name

Specify the name of the auxiliary storage pool to which the library or folder is to be migrated. auxiliary storage pool names are assigned using the WRKASPBRM command.

ASP-number

Specify the number of the auxiliary storage pool to which the library or folder is to be migrated.

Note: UDFS, primary, secondary auxiliary storage pools are not supported for this parameter.

Type (TYPE)

Specifies the type of item that you want to migrate. You can select a library or a first level folder.

***LIB** The type of item that you want to migrate to another auxiliary storage pool is a library.

***FLR** The type of item that you want to migrate to another auxiliary storage pool is a first level folder.

Top

Library (LIB)

Specifies the library name that you want to migrate to another auxiliary storage pool.

This is a required parameter with TYPE *LIB.

Top

Folder (FLR)

Specifies the folder name that you want to migrate to another auxiliary storage pool.

This is a required parameter with TYPE *FLR.

Top

Examples

Example 1: Migrating a Library

```
MGRBRM TOASP(COMPRESS) TYPE(*LIB) LIB(GLLIB)
```

This command migrates library GLLIB to the auxiliary storage pool (ASP) named COMPRESS.

Top

Error messages

*ESCAPE Messages

BRM1867

Error writing file &1.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1F24

Cannot migrate item &1, already in ASP &4.

- BRM1F25**
Cannot migrate item &1, objects in use.
- BRM1F26**
Cannot migrate item &1, not allowed.
- BRM1F27**
Operation not allowed, resources not available.
- BRM1F34**
Cannot migrate item &1, threshold too low.
- BRM1F41**
ASP &1 does not support migration
- BRM1F42**
ASP &1 not eligible for migration.
- BRM1F44**
ASP &1 does not support migration
- BRM2112**
ASP &2 not valid.
- BRM4040**
Access denied for user &1.
- BRM4041**
Access denied for user &1.
- BRM40A2**
BRMS product initialization required.
- CPF9800**
All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Monitor Save While Active (MONSWABRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Monitor Save While Active (MONSWABRM) command reviews the save while active message queue and looks for the message indicating the end of library synchronization. When synchronization is detected, you can issue a command to the system.

The MONSWABRM command can be used as an exit (*EXIT) special value in a control group during backup processing.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
LIB	Saved library	Name, *MSGQ	Required, Positional 1
CMD	Command to run	Command string	Required, Positional 2
JOB	Job description	Single values: *USRPRF Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job description	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
JOBQ	Job queue	Single values: *JOBQ Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job queue	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
WAITMSG	Time limit in seconds	1-999999, 3600, *NOMAX	Optional
MSGQ	Message queue	Name	Optional
SYNCID	Multiple save synchronization	Element list	Optional
	Element 1: Synchronization ID	Name, *NONE	
NUMSYNC	Number of operations	2-32, 2	Optional
STRSAVWAIT	Start save wait time	1-99999, 600, *NOMAX	Optional

Top

Saved library (LIB)

Specifies the name of the library or message queue that you want to review for synchronization during a save while active operation.

This is a required parameter.

library-name

Specify the name of the library that you want to review for synchronization.

***MSGQ**

When you specify *MSGQ, you must specify a message queue name in the **Message queue (MSGQ)** parameter. The message queue name that you specify is reviewed for synchronization.

Top

Command to run (CMD)

Specifies the command that you want to process when library synchronization is achieved during a save while active operation. For instance, you may want to restart a subsystem once synchronization has occurred for the library you are saving.

Note: Effective use of MONSWABRM in a control group requires that you specify *YES, *LIB, or *SYNCLIB for "Save while active" in the control group entry for the monitored library, and that the *EXIT entry precedes the control group entry for the monitored library.

This is a required parameter.

Top

Job description (JOBID)

Specifies the job description used with this job.

Single values

*USRPRF

The job description in the user profile under which the submitted job runs is used as the job description of the submitted job.

Qualifier 1: Job description

name Specify the name of the job description used for the job.

Qualifier 2: Library

*LIBL The library list is used to locate the job description.

***CURLIB**

The current library for the job is used to locate the job description. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job description is located.

Top

Job queue (JOBQ)

Specifies the job queue in which this job is placed. This job queue must be different from the job queue in which the control group will run, so that the MONSWABRM command will run at the same time with the control group.

Single values

*JOBQ

The submitted job is placed on the job queue named in the specified job description.

Qualifier 1: Job queue

name Specify the name of the job queue on which the submitted job is placed.

Qualifier 2: Library

*LIBL The library list is used to locate the job queue.

*CURLIB

The current library for the job is used to locate the job queue. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job queue is located.

Top

Time limit in seconds (WAITMSG)

Specifies the time in seconds that the MONSWABRM command should wait for the library synchronization message in the job queue. If the specified time is exceeded, the MONSWABRM command will stop monitoring the message queue. The time can be specified from 1 to 999999 seconds, with a default time of 3600 seconds (1 hour).

3600 The default time limit is one hour.

*NOMAX

The program waits indefinitely for the arrival of the library synchronization message.

time-limit-in-seconds

Specify the time limit in seconds. The time can range from 1 to 999999 seconds.

Top

Message queue (MSGQ)

Specifies the name of the message queue that you want to review for synchronization. This parameter is required when *MSGQ is specified in the **Saved library (LIB)** parameter.

message-queue-name

Specify the name of the message queue that you want to review for synchronization during a save while active operation.

Restriction:

- The message queue name specified must match the name used on the SWA Message Queue field on the control group entries intended to be monitored, or the name specified in the **Save active message queue (SAVACTMSGQ)** parameter specified in the BRMS save command(s) intended to be monitored.

MONSWABRM always uses the message queue from library QUSRBRM.

Synchronization ID (SYNCID)

Specifies the name of the synchronized checkpoint. This name must also be specified for the **Synchronization ID (SYNCID)** parameter for each of the participating save operations.

*NONE

The checkpoint for this save while active operation is not synchronized with any other save while active operations.

name Specify the name of the synchronized checkpoint.

The **Start Save Synchronization (STRSAVSYNC)** command will be issued to start synchronizing the checkpoints for more than one save while active operation across multiple save operations.

Note: The values of the **Number of operations (NUMSYNC)** and **Start save wait time (STRSAVWAIT)** parameters will be ignored if *NONE is specified for this parameter.

Number of operations (NUMSYNC)

Specifies the number of save while active operations that will have synchronized checkpoints. All of the operations must start within the amount of time specified for the **Start save wait time (STRSAVWAIT) parameter**

2 Two save while active operations will participate in the synchronized checkpoint.

2-32 Specify the number of save while active operations that will participate in the synchronized checkpoint.

Start save wait time (STRSAVWAIT)

Specifies the amount of time to wait for all of the participating save operations to be started. If the number of participating save operations specified for the **Number of operations (NUMSYNC) parameter** do not start within the specified time, any operations that do start within that time will be ended.

600 The system waits up to 600 seconds for all of the participating save operations to begin.

***NOMAX**

There is no maximum wait time.

1-99999

Specify the number of seconds to wait for all of the participating save operations to begin.

Examples

Example 1: Processing a Command after Synchronization

```
MONSWABRM LIB(GLLIB) CMD(SBMJOB JOB(GLDAILY))
```

This command will submit the GLDAILY job when the synchronization message is sent during the save of library GLLIB.

Top

Error messages

***ESCAPE Messages**

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Move Media using BRM (MOVMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Move Media using BRM (MOVMEDBRM) command moves media based on BRMS move policies. Media that is moved as a result of processing this command must meet not only the move policy requirements (for example, allowable move day) but also the criteria specified in the command for location, media class, system name and so on.

The MOVMEDBRM command can be a job in the system scheduler that can run automatically or you can submit the command manually.

The output produced when you run the MOVMEDBRM command is either the Volume Movement report written to printer file QP1AVMS or the moved media records written to the output file.

Note: If you have a network of systems using BRMS, it is only necessary to process the MOVMEDBRM command on one of the members of the network, although the process can be done on a system by system basis.

Note: The system in the network that is running the movement for all of the other systems in the network should be physically attached to all media libraries that support the network operations. If this is not the case, you may have to run MOVMEDBRM again, specifying the appropriate move policy for the logically attached media library device.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- When using special value *OUTFILE for the **Output (OUTPUT)** parameter, refer to section General Rules for Object Authorities on Commands in Appendix D of the i5/OS Security Reference book for the authorities required for the output file and output file library.

Top

Parameters

Keyword	Description	Choices	Notes
MOVPCY	Move policy	Name, <u>*ALL</u>	Optional
LOC	From location	Name, <u>*ALL</u> , *HOME	Optional
CNR	Container	Name, <u>*ALL</u>	Optional
MEDCLS	Media class	Name, <u>*ALL</u>	Optional
SYSNAME	System name	Character value, <u>*ALL</u> , *LCL	Optional
FILEGRP	File group	Name, <u>*ALL</u> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
GRPTYPE	File group type	Name, <u>*ALL</u> , *ARC, *BKU, *NONE	Optional
OUTPUT	Output	<u>*PRINT</u> , *OUTFILE	Optional

Keyword	Description	Choices	Notes
OUTFILE	File to receive output	<i>Qualified object name</i>	Optional
	Qualifier 1: File to receive output	<i>Name</i>	
	Qualifier 2: Library	<i>Name, *LIBL, *CURLIB</i>	
OUTMBR	Output member options	<i>Element list</i>	Optional
	Element 1: Member to receive output	<i>Name, *FIRST</i>	
	Element 2: Replace or add records	<i>*REPLACE, *ADD</i>	

Top

Move policy (MOVPCY)

Specifies the user-defined name of a move policy that you want to use to select volumes.

***ALL** All media that has a move policy are selected.

move-policy-name

Specify the user-defined name of the move policy that you are using to select media volumes.

Top

From location (LOC)

Specifies the location of the media that you want to use when selecting volumes to be moved.

***ALL** Select media volumes that reside in any storage location.

***HOME**

Select volumes that reside in the home location.

from-location-name

Specify the name of the media storage location.

Top

Container (CNR)

Specifies the container that you want to select for media movement. You can specify a container or all containers.

***ALL** Select all media for media movement that is currently in a container.

container-ID

Specify the name of the container that you want to select for media movement.

Top

Media class (MEDCLS)

Specifies the media class that you want to select for media movement. You can select a specific media class or all media classes.

***ALL** Select all media regardless of the media class.

media-class-name

Specify the name of the media class that you want to use to select volumes for media movement.

Top

System name (SYSNAME)

Specifies the system name whose media inventory you want to consider for media movement.

***ALL** Include all media on all systems in the media selected for media movement.

***LCL** Specifies that the system is the local system. BRMS uses the default local location name, LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

File group (FILEGRP)

Specifies the file group that you want to use when selecting volumes that you want to move.

***ALL** Include all file groups when selecting the media that you want to move.

***NONE**

Do not include media in file groups.

***ARCGRP**

Include media that contain the default archive control group in the group of files.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

Include media that contain the default backup user data control group in the group of files.

***SYSGRP**

Include media that contain the default system data control group in the group of files.

***SYSTEM**

Include media that contain the default backup entire system control group in the group of files.

file-group

Specify the name of the file group whose media you want to select for movement.

Top

File group type (GRPTYPE)

Specifies the type of file group that you want to select for movement.

***ALL** Include all types of file groups that meet the other specifications in the search.

***ARC** Include file groups that are archive type file groups in the media that you want to move.

Note: *ARC is not a special value, but rather indicates that this is an archive file group type.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** Include file groups that are backup type file groups in the media that you want to move.

Note: *BKU is not a special value, but rather indicates that this is a backup file group type.

***NONE**

Do not include any file group types in the media that you want to move.

file-group-type

Specify the file group type that you want to include in the file groups that you want to move. An example file group type is QBRMBKUP which indicates that it is a backup control group file group type.

Top

Output (OUTPUT)

Specifies whether the output is to be printed with the job's spooled output or directed to a database file.

***PRINT**

The output is printed with the job's spooled output.

***OUTFILE**

The output is directed to the database file specified on the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file receiving the output when *OUTFILE is specified on the **Output (OUTPUT)** parameter. If the file does not exist, this command creates a database file in the specified library. New files are created using database file QO1AVMS in library QBRM with the format name QBRMMOVMED as the model.

Qualifier 1: File to receive output

database-file-name

Specifies the name of the database file receiving the output from the command. If this file does not exist, it is created in the specified library.

Qualifier 2: Library

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is used to locate the file. If no library is specified as the current library for the job, QGPL is used.

library-name

The specified library is used to locate the file.

Output member options (OUTMBR)

Specifies the name of the database file member receiving the output of the command when *OUTFILE is specified for the **Output (OUTPUT)** parameter.

Element 1: Member to receive output

*FIRST

The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the member is created with the name of the file specified on the **File to receive output (OUTFILE)** parameter and the record options.

member-name

Specifies the file member that receives the output. If OUTMBR(member-name) is specified and the member does not exist, the member is created.

If the member exists, the user can add records to the end of the existing member or clear the existing member and add the records.

Element 2: Replace or add records

*REPLACE

The existing records in the specified database file member are replaced by the new records.

***ADD** The new records are added to the existing information in the specified database file member.

Examples

Example 1: Selecting All Volumes to Move for Location *HOME

```
MOVMEDBRM LOC(*HOME)
```

This command selects all volumes for all move policies that are located at the location *HOME for media movement. A summary of the movement activity is printed as file QP1AVMS.

Example 2: Selecting All Volumes to Move for Location *HOME

```
MOVMEDBRM LOC(*HOME) OUTPUT(*OUTFILE) OUTFILE(MYLIB/MOVMEMENT)
```

This command selects all volumes for all move policies that are located at the location *HOME for media movement. A summary of the movement activity is placed in the first member in data base file MOVEMENT in library MYLIB.

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

BRM6708

Command ended due to error.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Move Spooled Files using BRM (MOVSPLFBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Move Spooled Files using BRM (MOVSPLFBRM) command provides for the movement of selected spooled files to a specified library-qualified output queue. Selection criteria includes library-qualified from output queue name, from auxiliary storage pool, spooled file, job name, job user, job number, user data, create date range, last used date range, and size range. A run option of *REPORT is provided to allow the user to review the "Move Spooled Files using BRM" report prior to moving the selected spooled files. The report, if printed, is written to printer file QP1AMSF.

Using the output queues' spooled file auxiliary storage pool attribute, BRMS determines whether spooled files will actually move from one auxiliary storage pool to another when moved from one output queue to another. If a spooled file that moves from one outq to another does not move from one auxiliary storage pool to another then BRMS does not check the auxiliary storage pool high storage threshold since the spooled file does not move. If a spooled file that moves from one outq to another also moves from one auxiliary storage pool to another, then before requesting the spooled file to move BRMS determines if the target auxiliary storage pool has sufficient space to accommodate the spooled file without exceeding the high storage threshold. If the spooled file cannot be moved without exceeding this threshold, BRMS will show that the file was not moved, and the file will be included in the summary section detail which indicates the number of files and amount of spooled data that could not be moved.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- The BRMS Advanced feature (Option 2) is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
OPTION	Option	*REPORT, *MOVE	Optional, Positional 1
TOOUTQ	To output queue	Qualified object name	Optional, Positional 2
	Qualifier 1: To output queue	Name	
	Qualifier 2: Library	Name	
FROMOUTQ	From output queue	Qualified object name	Optional, Positional 3
	Qualifier 1: From output queue	Generic name, name, *ALL	
	Qualifier 2: Library	Name, *ALL	
FILE	File	Name, *ALL	Optional, Positional 4
JOB	Job name	Name, *ALL, *	Optional
USER	User	Name, *ALL	Optional
USRDTA	User data	Name, *ALL	Optional
FROMASP	From ASP	Character value, *ALL, *SYSTEM	Optional

Keyword	Description	Choices	Notes
SLTCRTDATE	Select create date	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *END, *CURRENT</i>	
SLTUSEDATE	Select last used date	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *END, *CURRENT</i>	
SLTSIZE	Select size	<i>Element list</i>	Optional
	Element 1: Size type	<i>*KB, *MB, *GB, *PAGES</i>	
	Element 2: Minimum size	<i>0-999999, <u>0</u></i>	
	Element 3: Maximum size	<i>0-999999, *NOMAX</i>	

Top

Run option (OPTION)

Specifies whether you want to produce a report of spooled file candidates for movement or process a move operation.

Note: You should always run a report of move candidates (*REPORT option) prior to processing the move operation.

***REPORT**

You want to produce the Move Spooled Files using BRM report. The report is written to printer file QP1AHSF.

***MOVE**

You want to process a move operation.

Top

To output queue (TOOUTQ)

Specifies the name of the library and output queue to which you want to move spooled files. The result can be either a report or movement of spooled files to output queue from another output queue.

Qualifier 1: To output queue

to-output-queue-name

Specify the name of an output queue to which you want to move the spooled files.

Qualifier 2: Library

library-name

Specify the name of a library that contains the output queue.

Top

From output queue (FROMOUTQ)

Specifies the name of the library and output queue from which you want to move spooled files. A special value of *ALL is provided to indicate that all output queues on the system are to be processed. If *ALL is specified, no value can be specified for a library name. When *ALL is not specified for the From output queue name, a library name must be specified to indicate which library contains the from output queue.

A special value of *ALL is supported for the From output queue library meaning all libraries in the system, including QSYS, are searched. The result can be either a report or movement of spooled files from an output queue to another output queue.

Qualifier 1: From output queue

***ALL** Include all output queues in the report or move process. No value can be specified for library when using the special value *ALL.

generic-from-output-queue-name*

Specify the generic name for the output queue. A generic name is a character string of one or more characters followed by an asterisk (*): for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all output queues with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete output queue name.

from-output-queue-name

Specify the name of an output queue that you want to include in the report or move process.

Qualifier 2: Library You must specify a library name or the special value *ALL when you specify the from output queue name.

***ALL** All libraries in the system including QSYS are searched.

library-name

Specify the name of a library that is to be searched for the spooled file.

Top

Select file (FILE)

Specifies which spooled files based on file names are to be moved.

***ALL** Include all spooled files regardless of name in the report or move operation.

spooled-file-name

Specify the name of a spooled file that you want to include in the report or move operation.

Top

Select job name (JOB)

Specifies which spooled files, based on the name of the job that created them, are to be moved.

***ALL** Include all spooled files, regardless of the job that created them, in the report or move operation.

***** All spooled files for the jobs whose name matches the job running this command are selected.

job-name

Specify the name of a job whose spooled files are to be included in the report or move operation.

Top

Select user (USER)

Specifies which spooled files based on the name of the user that created them are to be included in the report or move operation.

***ALL** Include spooled files for all users in the report or move operation.

user-name

Specify the name of a user whose spooled files are to be included in the report or move operation.

Top

Select user data (USRDTA)

Specifies which spooled files, based on the associated user data tag, are to be included in the report or move operation.

***ALL** Include spooled files with any data tag in the report or move operation.

user-data

Specify the user data that you want to include in the report or move operation.

Top

From ASP (FROMASP)

Restricts spool file search to include only data from output queues contained in libraries residing in the specified auxiliary storage pool.

***ALL** Include all auxiliary storage pools in the report or move operation.

***SYSTEM**

Include only the system (1) auxiliary storage pool in the report or move operation.

from-ASP-name

Specify the name of an auxiliary storage pool that you want to include in the report or move operation.

from-ASP-number

Specify the number of an auxiliary storage pool that you want to include in the report or move operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Select create date (SLTCRTDATE)

Specifies a range of creation dates that you want to use when reporting or moving spooled files. The **From date** is the beginning of a date range and the **To date** is the end of the date range. Only spooled files that were created on or after the From date and on or before the To date are included in the selected spooled files.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

The earliest creation date is the beginning date of a date range.

***CURRENT**

The current date is the beginning date of a date range.

from-create-date

Specify the date in job date format with or without date separators that you want to be the beginning date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

***END** The last date found is the end of the date range for the search.

***CURRENT**

The current date is the ending date of the date range.

to-create-date

Specify the date in job date format with or without date separators that you want to be the ending date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Select last used date (SLTUSEDATE)

Specifies a range of last used dates that you want to use when reporting or moving spooled files. The **From date** is the beginning of a date range and the **To date** is the end of the date range. Only spooled files that were last used on or after the From date and on or before the To date are included in the selected spooled files.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

The earliest last used date is the beginning date of a date range.

***CURRENT**

The current date is the beginning date of a date range.

from-use-date

Specify the date in job date format with or without date separators that you want to be the beginning date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

***END** The last date found is the end of the date range for the search.

***CURRENT**

The current date is the ending date of the date range.

to-use-date

Specify the date in job date format with or without date separators that you want to be the ending date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Select size (SLTSIZE)

Specifies the size of spooled files that are to be included in the report or move operation. Three positional values can be specified to select the files. Only files that are larger in size than the Minimum size or smaller in size than the Maximum size are selected.

Element 1: Size type

***KB** The spooled file size is specified in kilobytes.

***MB** The spooled file size is specified in megabytes.

***GB** The spooled file size is specified in gigabytes.

***PAGES**

The spooled file size is specified in pages.

Element 2: Minimum size

0 Spooled files with a size that is greater than zero are included.

minimum-size

Specify the size that a spooled file must equal or exceed to be included in the report or move operation. The spooled file size can range from 0 to 999,999 and is used with the Size type and Maximum size values to determine which files to include.

Element 3: Maximum size

***NOMAX**

All spooled are included that are greater than or equal to the value specified in the Minimum size parameter.

maximum-size

Specify the size that a spooled file must not exceed to be included in the report or move operation. To be included in the selection, the specified size must also be equal to or greater than the minimum size specification and less than or equal to the specified size. The spooled file size can range from 1 to 999,999 and is used with the Size type value to determine which files to include.

Top

Examples

Example 1: Move Large Spooled Files in System ASP

```
MOVSPFBRM OPTION(*MOVE) TOOUTQ(MYLIB/MYOUTQ)
FROMASP(*SYSTEM) SLTSIZE(*MB 50 *NOMAX)
```

This command moves all spooled files currently in the system ASP that are fifty or more megabytes in size to the output queue named MYOUTQ in the library named MYLIB. This example assumes MYLIB is not in the system ASP, and the ASP attribute of the spooled file for the MYOUTQ output queue specifies that spooled files are placed in the same ASP as the output queue.

Top

Error messages

*ESCAPE Messages

BRM1131

Library &1 not found or not available.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1F18

No output queues were found meeting selection criteria.

BRM2112

ASP &2 not valid.

BRM1F27

Operation not allowed, resources not available.

BRM1F28

Migration not performed.

BRM2112

ASP &2 not valid.

BRM2270

Output queue &2 in library &3 cannot be used for migration.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Print Labels using BRM (PRTLBLBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Print Labels using BRM (PRTLBLBRM) command prints media labels that you have selected as a result of media processing. Label information includes:

- Volume serial identifier
- Creation date
- Expiration date
- Location
- Container identifier

Note: If you change the printer file description, you should keep a copy. Any release upgrade may cause the printer files to change and your version may be back level.

Note: The source for the printer files is located in QUSRBRM/QA1ASRC. There are three printer files, QP1A1LP, QP1A2LP and QP1A3LP. These correspond to 6 lines per inch, 8 lines per inch and 9 lines per inch.

To change the format of the printer labels, edit the source member corresponding to the labels you selected for the media. Editing can be done with an editor (for example Source Entry Utility (SEU)), but you must first give the members the correct member type of PRTF. You can do this through PDM when you are working with members. When changing the source, do not change the record name or any of the field names. The print programs depend on these named items being present. You can change the position. When you compile the printer file, be sure and specify level check (*NO) on the CRTPRTF command.

There are no parameters for this command.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

[Top](#)

Parameters

None

[Top](#)

Examples

PRTLBLBRM

This command prints the media labels.

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Error messages

*ESCAPE Messages

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Print Media Exceptions for BRM (PRTMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Print Media Exceptions for BRM (PRTMEDBRM) command provides information about volumes in the BRMS media inventory that have exceeded use thresholds, number of reads or writes and so on that are specified in the media class for the volume.

Based on that information, you can make decisions about the reported volumes. You can specify all volumes including exceptions or just volumes that are exceptions.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	<u>*THRESHOLD</u> , *STATISTICS	Optional, Positional 1
VOL	Volumes to list	<u>*ALL</u> , *EXCP	Optional

Top

Type (TYPE)

Specifies the type of report that you want BRMS to print.

*THRESHOLD

The Media Volume Threshold Information report includes volumes that have equaled or exceeded the usage or read/write threshold limits set by the Work with Media Classes display. The report, if printed, is written to printer file QP1AVOL.

*STATISTICS

All other volume related statistics including media life, uses before cleaning and so on are reported compared against values set by the Work with Media Classes display. The report is the Media Volume Statistics report. The report, if printed is written to the printer file QP1AVU.

Top

Volumes to list (VOL)

Specifies whether you want to list all volumes in the report including exceptions or only exceptions.

*ALL The report includes all volumes including exceptions.

*EXCP

Only exception volumes are to be included in the report.

Examples

None

Error messages

*ESCAPE Messages

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Print Media Movement (PRTMOVBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Print Media Movement (PRTMOVBRM) command prints the Media Movement report based on a specified date range, type of move that you request, locations and so on. The report shows all the volumes that have moved (or in the case of *NEXT, which volumes will move to a new location), the from and to locations, the move policy for each volume and the move date. The report, if printed, is written to printer file QP1APVMS.

The Media Movement report can be used to report volumes that have already moved or can be used to report the next scheduled media movement for a volume. Reporting of next scheduled move is performed by selecting the *NEXT variable for the Type parameter.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
SLTDATE	Select dates	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *CURRENT, *END</i>	
TYPE	Type	<i>*ALL, *NEXT, *NOTVIFY, *VFY</i>	Optional
LOC	From location	<i>Name, *ALL, *HOME</i>	Optional

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when printing the Media Movement report. The **From date** is the beginning of a date range of media movement and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

*BEGIN

Uses the earliest activity date for the beginning date of the date range.

***CURRENT**

Use the current date for the beginning date of the date range.

from-date

Specify the date entered in job date format with or without date separators for the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Note: If you specify *NEXT in the **Type (TYPE)** parameter, the number of days after the current date is used to determine the starting date of the date range.

Element 2: To date

***CURRENT**

Uses the current date for the ending date of the date range.

***END** The last date that a media moves is the ending date of the date range that you want to use for the search.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Note: If you specify *NEXT in the **Type (TYPE)** parameter, the number of days after the current date is used to determine the ending date of the date range.

Top

Type (TYPE)

Specifies the type of media movement activity that you want to include in the report.

***ALL** Includes all volumes that have ever been moved and shows the most recent media movement associated with each volume.

***NEXT**

Produces the Media Movement report for the next location that media will move to rather than completed moves. The *NEXT option will include all media movement to the next location. Ending dates should be future dates to assure that report results are meaningful for the date range selected.

***NOTVfy**

Includes only media waiting to be verified in the report for the date range selected.

***Vfy** Includes only verified media movement in the report for the date range selected. After this option has been used to report on media, the volumes that were selected in the specified date range do not appear in the report the next time the report is processed.

Top

From location (LOC)

Specifies whether you want the Media Movement report to include a single location or all locations.

***ALL** Includes all locations in the Media Movement report. Each from and to location movement that is reported will cause a page break, such as From Vault to *HOME would be one part of the report and *HOME to vault would page break and begin a new part of the report.

***HOME**

You want to include the home location (*HOME) in the Media Movement report.

from-location-name

Specify the name of the location that you want to include in the Media Movement report.

Top

Examples

Example 1: Printing the Media Movement Report

```
PRTMOVBRM TYPE(*VFY) LOC(*HOME)
```

This command prints a report that includes media entries that have been verified (*VFY) and that are moving from the home location (*HOME).

Top

Error messages

*ESCAPE Messages

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Print Report using BRM (PRTRPTBRM)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Print Report using BRM (PRTRPTBRM) command produces a report based on the Report type. Listed below are the printer files and associated reports that can be produced when the PRTRPTBRM command is processed:

- QP1ABS - Backup Statistics Report

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- When using special value *OUTFILE for the **Output (OUTPUT)** parameter, refer to section General Rules for Object Authorities on Commands in Appendix D of the iSeries Security Reference book for the authorities required for the output file and output file library.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Report type	*BKUSTAT	Optional, Positional 1
PERIOD	Time period for recovery	Element list	Optional
	Element 1: Start time and date	Element list	
	Element 1: Beginning time	Time, *AVAIL	
	Element 2: Beginning date	Character value, *BEGIN, *CURRENT	
	Element 2: End time and date	Element list	
	Element 1: Ending time	Time, *AVAIL	
	Element 2: Ending date	Character value, *END, *CURRENT	
ASPDEV	Auxiliary storage pool	Character value, *ALL, *SYSTEM	Optional
LIB	Library	Name, *ALL, *ALLUSR	Optional
OUTPUT	Output	*PRINT, *OUTFILE	Optional
OUTFILE	File to receive output	Qualified object name	Optional
	Qualifier 1: File to receive output	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
OUTMBR	Output member options	Element list	Optional
	Element 1: Member to receive output	Name, *FIRST	
	Element 2: Replace or add records	*REPLACE, *ADD	
FROMSYS	From system	Character value, *LCL	Optional

Report type (TYPE)

Specifies the type of the report you want to print or generate output file.

*BKUSTAT

This report provides summarized information about all objects that have been saved by BRMS within a specified period.

Top

Time period for the report (PERIOD)

Specifies the period of time for which the data are selected for the report. This is dependent on the value specified in the **Type (TYPE)** parameter.

Element 1: Start Time and date

Element 1: Beginning time

Any items saved on or after the beginning date and time are included in the report. Any items saved after the ending date and time are not included for the report.

*AVAIL

Anytime that is available for the beginning date is included.

begin-time

Specify the beginning time for the specified beginning date that indicates which records should be included.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours, mm=minutes and ss=seconds. Hours, minutes, and seconds must each be exactly 2 digits (using leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Beginning date

Any items saved on or after the beginning date are included in the report. Any items saved after the beginning date and time are not included for the report.

*BEGIN

Saved items from the beginning of the media content information are included in the report.

*CURRENT

Saved items with a current date creation date and between the specified beginning and ending times (if specified) are included in the report.

begin-date

Specify the beginning date. The date must be specified in the job date format.

Element 2: End time and date

Element 1: Ending time

One of the following is used to specify the ending time before which saved items are included. Any items created after the specified time and date are not included in the report.

***AVAIL**

Any time that is available for the ending time is included.

end-time

Specify the ending time for the specified ending date that indicates which saved items are to be included.

Element 2: Ending date

One of the following is used to specify the ending date on which or before which the items must have been saved. Any save performed after the specified dates are not included in the report.

***END** The saved items to the end of the save information are recovered.

***CURRENT**

Saved items whose save date are on or before the current date are included in the report.

end-date

Specify the ending date. The date must be specified in the job date format.

Top

Auxiliary storage pool (ASPDEV)

Specifies the name of the auxiliary storage pool or special value to be included in the report or output file.

***ALL** All auxiliary storage pools are to be included in the report or output file.

***SYSTEM**

Only the system (1) auxiliary storage pool is to be included in the report or output file.

ASP-name

Specifies the name of an auxiliary storage pool to be included in the report or output file.

ASP-number

Specifies the number of the system (1) or basic user auxiliary storage pool (2-32) to be included in the report or output file.

Top

Library (LIB)

Specifies which libraries should be included in the report.

***ALL** All the libraries in the auxiliary storage pools (ASPs) specified for the ASP device (ASPDEV) parameter are included.

***ALLUSR**

All user libraries in the auxiliary storage pools (ASPs) specified for the ASP device (ASPDEV) parameter are included.

name Specify the name of the library to be included in the report.

Top

Output (OUTPUT)

Specifies whether the output is to be printed with the job's spooled output or directed to a database file.

***PRINT**

The output is printed with the job's spooled output.

***OUTFILE**

The output is directed to the database file specified on the **File to receive output (OUTFILE)** parameter.

Top

File to receive output (OUTFILE)

Specifies the qualified name of the database file receiving the output when *OUTFILE is specified for the **Output (OUTPUT)** parameter. If the file does not exist, this command creates a database file in the specified library. New files are created using database file QA1ABS in library QBRM with the format name QA1ABS as the model.

Qualifier 1: File to receive output

database-file-name

Specifies the name of the database file receiving the output from the command. If this file does not exist, it is created in the specified library.

Qualifier 2: Library

***LIBL** All libraries in the job's library list are searched until the first match is found.

***CURLIB**

The current library for the job is used to locate the file. If no library is specified as the current library for the job, QGPL is used.

library-name

The specified library is used to locate the file.

Top

Output member options (OUTMBR)

Specifies the name of the database file member receiving the output of the command when *OUTFILE is specified for the **Output (OUTPUT)** parameter.

Element 1: Member to receive output

***FIRST**

The first member in the file receives the output. If OUTMBR(*FIRST) is specified and the member does not exist, the member is created with the name of the file specified on the **File to receive output (OUTFILE)** parameter and the record options.

member-name

Specifies the file member that receives the output. If OUTMBR(member-name) is specified and the member does not exist, the member is created.

If the member exists, the user can add records to the end of the existing member or clear the existing member and add the records.

Element 2: Replace or add records

*REPLACE

The existing records in the specified database file member are replaced by the new records.

***ADD** The new records are added to the existing information in the specified database file member.

Top

From system (FROMSYS)

Specifies the system name and network identification of the system whose information will be used to produce the report.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

*LCL Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Examples

Example 1: Print the Backup Statistics Report

```
PRTRPTBRM TYPE(*BKUSTAT) PERIOD((*AVAIL *BEGIN)) ASPDEV(*ALL)
          OUTPUT(*PRINT)
```

This command produces a backup statistic report which will summarize information about all objects that have been saved by BRMS within the specified period and which includes the system (1) and basic user (2-32) auxiliary storage pools as well as any auxiliary storage pool devices.

Example 2: Generate the Backup Statistics Report

```
PRTRPTBRM TYPE(*BKUSTAT) PERIOD((*AVAIL *BEGIN)) ASPDEV(*ALL)
          OUTPUT(*OUTFILE) OUTFILE(QTEMP/BKUSTAT)
```

This command retrieves information about all objects that have been saved by BRMS within the specified period which includes the system (1) and basic user (2-32) auxiliary storage pools as well as any auxiliary storage pool devices. A summary of the information is placed in the first member in data base file BKUSTAT in library QTEMP.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Remove Log Entries from BRM (RMVLOGEBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Remove Log Entries from BRM (RMVLOGEBRM) command clears the BRMS log based on a type of entry and a date range that you specify.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	*ALL, *ARC, *BKU, *MAINT, *MED, *MGR, *RCY, *RTV, *SEC	Optional, Positional 1
SLTDATE	Select dates	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value</i> , *CURRENT, *BEGIN	
	Element 2: To date	<i>Character value</i> , *CURRENT	

Top

Type (TYPE)

Specifies the type of entries that you want to clear from the BRMS log. Examples of types of entries are backup, archive and so on.

Note: The default for the TYPE parameter depends on the area of BRMS that you use to access this command. For instance, if you access this command from a backup menu, the default Type is *BKU. If you access the command from the archive menu, the default Type is *ARC and so on. If you type the command on a command line or from the System Policy display, the default is *ALL.

***ALL** Selects all log entries to clear within the specified date range.

***ARC** Selects only archive log entries to clear within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** Selects only back up log entries to clear within the specified date range.

***MAINT**

Selects only maintenance log entries to clear within the specified date range.

***MED** Selects only media management log entries to clear within the specified date range.

***MGR** Selects only migration log entries to clear within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***RCY** Selects only recovery log entries to clear within the specified date range.

***RTV** Selects only retrieve log entries to clear within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***SEC** Selects only security log entries to remove within the specified date range. Only log entries whose primary area are security will be removed. An entry may be logged for any reason and have security as a secondary area.

Top

Select date (SLTDATE)

Specifies a range of dates that you want to use when selecting entries to remove from the BRMS log. The **From date** is the beginning point in the date range and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

*CURRENT

The current date is the starting point of the range of dates used to remove entries from the BRMS history log.

*BEGIN

The earliest log entry in the BRMS log is the beginning date of the date range.

from-date

Specify the date entered in job date format with or without date separators that you want to be the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is the beginning date of the date range.

Element 2: To date

*CURRENT

The current date is the ending date of the date range.

***END** The last date in the log is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of the date range.

number-of-days

Specify the number of days before the current day that is the ending date of the date range.

Top

Examples

Example 1: Removing Entries from the BRMS Log Based on a Date Range

```
RMVLOGEBRM SLTDATE('1/1/03' '4/01/03')
```

This command removes all log entries from January 1, 2003 to April 1, 2003 from the log.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Remove Media Volumes from BRM (RMVMEDBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

[Parameters](#)
[Examples](#)
[Error messages](#)

The Remove Media Volumes from BRM (RMVMEDBRM) command removes a media volume from the BRMS media inventory. A volume is removed because of age, error rate, shipment to another location, and so on.

Note: Media can only be removed if it was previously added using the ADDMEDBRM command. All information about the volume including content and statistics, is deleted when the volume is removed. Also the total number of volumes in BRMS is decremented.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

[Top](#)

Parameters

Keyword	Description	Choices	Notes
VOL	Volume identifier	<i>Character value</i>	Required, Positional 1

[Top](#)

Volume identifier (VOL)

Specifies the volume identifier of the volume being removed from the BRMS media inventory.

This is a required parameter.

volume-identifier

Specify the identifier of the volume being removed from the media inventory.

[Top](#)

Examples

Example 1: Removing a Volume from BRMS

```
RMVMEDBRM VOL(C00005)
```

This command removes volume C00005 from the BRMS media inventory.

[Top](#)

Error messages

*ESCAPE Messages

BRM1147

Volume &1 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Remove Media Info from BRM (RMVMEDIBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Remove Media Information from BRM (RMVMEDIBRM) command is used to specify when to remove records from the BRMS media content information and how long to keep object detail. The **Media contents (MEDCON)** parameter indicates whether records are to be removed when they expire or when the expired volume is re-used. The **Object level detail (OBJDTL)** parameter indicates when the object level detail is to be removed. You can remove object level detail at the same time you remove record level information or you can specify a number of days to keep object information.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
MEDCON	Media contents	*EXP, *REUSE	Optional
OBJDTL	Object level detail	1-9999, *MEDCON	Optional

Top

Media contents (MEDCON)

Specifies whether records are removed when media expires or when the media is re-used.

***EXP** All BRMS media content information entries that have an Expiration date that are equal to or less than the current date are removed from the media content information.

***REUSE**

Media content information entries associated with a media volume are not removed from the file until the volume is re-used, even though the volume has already expired.

Top

Object detail (OBJDTL)

Specifies when you want to remove object level detail for media records in the media content information.

***MEDCON**

The object level detail information is removed based on the value specified in the **Media contents (MEDCON)** parameter.

number-of-days

Specify the number of days that object detail for an entry is kept on the file. If this number of days is greater than the number of days implied in the **Media contents (MEDCON)** parameter, such as the volume expires in 60 days and you specify 90 days in the **Object level detail**

(OBJDTL) parameter, the parameter has no meaning since the contents record has already been removed. However, if you specify 45 days and the object expires in 60 days, the object level detail is removed after 45 days and the accompanying contents record is removed after 60 days.

Top

Examples

Example 1: Removing Media Information from BRMS

```
RMVMEDIBRM MEDCON(*REUSE) OBJDTL(45)
```

This command allows you to remove BRMS media contents information. In the example, media contents information remains on the BRMS media contents file until the media is reused and accompanying object detail is removed after 45 days.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Resume Retrieve using BRM (RSMRTVBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

You can resume delayed retrieve operations for libraries, documents and bytestream files, including those held due to lack of disk space. The Resume Retrieve using BRM (RSMRTVBRM) command attempts to retrieve items from media.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The BRMS Advanced feature (Option 2) is required to use this command.
2. *ALLOBJ special authority is required to use any value other than *NONE for the ALWOBJDIF parameter.
3. You can select only one virtual device for serial retrieve operations. In addition, only one *MEDCLS can be specified when using media classes which specify a virtual device density.

Top

Parameters

Keyword	Description	Choices	Notes
HDLOBJ	Retrieve select	*ALL, *DELAY, *SECURITY, *STORAGE	Optional, Positional 1
ACTION	Action	*RETRIEVE, *REPORT	Optional, Positional 2
CFMRTV	Confirm retrieval	*YES, *NO	Optional, Positional 3
ASP	Auxiliary storage pool	Character value, *ALL, *SYSTEM	Optional, Positional 4
TYPE	Item type	*LIB, *FLR, *LNK	Optional
SAVLIB	Library	Name, *ALL	Optional
DEV	Retrieve device	Single values: *RTVPCY Other values (up to 4 repetitions): Name, *MEDCLS	Optional
PRLRSC	Parallel device resources	Element list	Optional
	Element 1: Minimum resources	1-32, *SAV, *AVAIL, *NONE	
	Element 2: Maximum resources	1-32, *MIN, *AVAIL	
ENDOPT	End of media option	*RTVPCY, *LEAVE, *REWIND, *UNLOAD	Optional
RSTOPT	Option	*RTVPCY, *ALL, *FREE, *NEW, *OLD	Optional
ALWOBJDIF	Allow object differences	Single values: *RTVPCY, *ALL, *NONE Other values (up to 4 repetitions): *AUTL, *FILELVL, *OWNER, *PGP	Optional

Top

Retrieve select (HDLOBJ)

Specifies the type of held items that you want to retrieve when you process the command. You can specify a type of held object such as an item that was not retrieved due to lack of storage space on the disk unit or you can specify all held items.

***ALL** Attempts to retrieve all items that have been held during a previous retrieve process.

***DELAY**
Attempts resume delayed retrieve operations.

***SECURITY**
Attempts to retrieve items that were held due to insufficient security during a previous retrieve request.

***STORAGE**
Attempts to retrieve items that were held due to insufficient disk unit space in a previous retrieve request.

Top

Action (ACTION)

Specifies whether you want to create a report or perform an actual retrieve.

***RETRIEVE**
You want to retrieve the requested items from the BRMS media content information.

***REPORT**
You want to create the Retrieve Report. This will allow you to review what will be retrieved prior to retrieving the selected items. The report, if printed, is written to printer file QP1ASX.

Top

Confirm retrieve (CFMRTV)

Specifies whether items that are selected for retrieve are displayed on the Confirm Retrieve display prior to retrieve.

Note: This parameter is ignored in batch.

***YES** The Confirm Retrieve display is shown before the retrieve begins.

***NO** The Confirm Retrieve display is not shown before the retrieve begins.

Top

Auxiliary storage pool (ASP)

Specifies the auxiliary storage pool into which you want to retrieve items.

***ALL** You want to retrieve items into all auxiliary storage pools.

***SYSTEM**
You want to retrieve items into the system (1) auxiliary storage pool.

ASP-number
Specify the number of the system (1) or basic user auxiliary storage pool (2-32) into which you want to retrieve items.

ASP-name

Specify the auxiliary storage pool name into which you want to retrieve items.

Restriction:

- The auxiliary storage pool specified for retrieval must be valid for the Item Type specified.

Top

Item type (TYPE)

Specifies which type of item is displayed on the Confirm Retrieve display prior to retrieve operations.

***LIB** Retrieve information for libraries is to be included.

***FLR** Retrieve information for folders is to be included.

***LNK** Retrieve information for bytestream files is to be included.

Top

Library (SAVLIB)

Specifies the library into which you want to retrieve items.

***ALL** Items are retrieved to their original library.

library-name

Specify the name of the library into which items are retrieved.

Top

Retrieve device (DEV)

Specify the device name that is to be used in the retrieve process. You must use a single device for retrieve processing.

Single values

***RTVPCY**

The retrieve device specified in the BRMS retrieve policy is used.

Other values (up to 4 repetitions)

***MEDCLS**

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined, a device that supports that media class is selected to retrieve the requested save item or items.

device-name

Specify the name of the device that is used as the default retrieve device in retrieve processing.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a restore operation.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel restore.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

Note: Transferring save files to tape does not support parallel operations.

***SAV** Specifies that the same number of device resources used for the save will be used for the restore. If the save was a serial save, then the restore will also be serial.

***AVAIL** Use any available devices up to the maximum specified. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

***NONE** No device resources are to be used. The restore will be performed as a serial restore.

1-32 Specify the minimum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Element 2: Maximum Resources

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL** Use any available devices. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum use the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***RTVPCY** The value specified in the BRMS retrieve policy is the value that is used.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***REWIND**

The volume is automatically rewound but not unloaded after the recovery operation ends.

***UNLOAD**

The volume is automatically rewound and unloaded after the recovery operation ends.

Top

Option (RSTOPT)

Specifies which items are retrieved, depending on whether the items exist in the library on the system.

***RTVPCY**

The value from the BRMS retrieve policy is used.

***ALL** All the items in the saved library are retrieved to the library. Old items on volume or in a save file replace the current versions in the library on the system. Items not having a current version are added to the library on the system. Items presently in the library, but not on the media, remain in the library.

***FREE** The saved items are retrieved only if they exist in the system library with their space freed. The saved version of each item is retrieved in the system in its previously freed space. This option retrieves items that had their space freed when they were saved. If any saved items are no longer part of the current version of the library, or if the space is not free for any item, the item is not retrieved. The retrieve operation continues, and all of the freed items are retrieved.

***NEW** Only the items in the saved library that do not exist in the current version of the library on the system are added to the library. Only items not known to the library on the system are retrieved; known items are not retrieved. This option retrieves items that were deleted after they were saved or that are new to this library. If any saved items have a version already in the library on the system, they are not retrieved, and an informational message is sent for each one, but the retrieve operation continues.

***OLD** Only the items in the library having a saved version are retrieved; that is, the version of each item currently in the library is replaced by the saved version. Only items known to the library are retrieved. If any saved items are no longer part of the online version of the library, they are not added to the library; an informational message is sent for each one, but the retrieve continues.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects. These differences include:

- **Authorization list:** The authorization list of an object on the system is different than the authorization list of an object from the save operation. Or the system on which a new object with an authorization list is being restored is different from the system on which it was saved.
- **File level identifier:** The creation date and time of the database file on the system does not match the creation date and time of the file that was saved.
- **Member level identifier:** The creation date and time of the database file member on the system does not match the creation date and time of the member that was saved.
- **Ownership:** The owner of an object on the system is different than the owner of an object from the save operation.

- **Primary Group:** The primary group of an object on the system is different than the primary group of an object from the save operation.

Note: To use this parameter, you need *ALLOBJ special authority.

Single values

*RTVPCY

The value from the retrieve policy is used for this value.

- ***ALL** All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that were saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

***NONE**

None of the differences listed above are allowed on the restore operation. See the description of each individual value to determine how differences are handled.

Other values (up to 4 repetitions)

***AUTL**

Authorization list differences are allowed.

If an object already exists on the system with a different authorization list than the saved object, the object is restored with the authorization list of the object on the system. New objects that are being restored to a system that is different from which they were saved are restored and linked to their authorization list. If the authorization list does not exist on the new system, the public authority is set to *EXCLUDE.

If this value is not specified, authorization list differences are not allowed. If an object already exists on the system with a different authorization list than the saved object, the object is not restored. New objects that are being restored to a system that is different from which they were saved are restored, but they are not linked to the authorization list, and the public authority is set to *EXCLUDE.

***FILELVL**

File level identifier and member level identifier differences are allowed.

An attempt will be made to restore existing physical files even though the physical file on the save media may have a different file level identifier or member level identifier than the physical file on the system. The physical file data will only be restored for those physical files whose format level identifiers on the save media match the format level identifiers of the corresponding physical file on the system.

If this value is not specified, file level identifier and member level identifier differences are not allowed. If an object already exists on the system with a different file level identifier or member level identifier than the saved object, the object is not restored.

***OWNER**

Ownership differences are allowed.

If an object already exists on the system with a different owner than the saved object, the object is restored with the owner of the object on the system.

If this value is not specified, ownership differences are not allowed. If an object already exists on the system with a different owner than the saved object, the object is not restored.

***PGP** Primary group differences are allowed.

If an object already exists on the system with a different primary group than the saved object, the object is restored with the primary group of the object on the system.

If this value is not specified, primary group differences are not allowed. If an object already exists on the system with a different primary group than the saved object, the object is not restored.

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Examples

Example 1: Resuming a Retrieve for Security Items

```
RSMRTVBRM HDLOBJ(*SECURITY)
```

This command resumes the retrieve operation for items that were held due to lack of authorization.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2112

ASP &2 not valid.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Restore Authority using BRM (RSTAUTBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Restore Authority using BRM (RSTAUTBRM) command reestablishes the object owner, primary group and authorization list names for objects on basic user auxiliary storage pools (2-32) if this information was saved.

This information is saved unless it was explicitly omitted from the save by specifying *USRASPAUT as the omit for either a *SAVSYS or *SECDTA entry in the backup policy omit list.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The user profiles must be restored before using the RSTAUTBRM command.
2. The libraries and objects on the saved user auxiliary storage pools must be restored before using the RSTAUTBRM command.
3. This command does not replace the native RSTAUT command. RSTAUTBRM is used in addition to the RSTAUT command when restoring the authority information of saved user auxiliary storage pool objects during a system recovery.

Top

Parameters

Keyword	Description	Choices	Notes
USRASP	Auxiliary storage pool	Values (up to 31 repetitions): <i>Character value</i> , <u>*ALLUSR</u>	Optional, Positional 1

Top

ASPs to restore (USRASP)

Specifies the basic user auxiliary storage pools (2-32) for which saved authority information is to be restored.

The libraries and objects must be restored to the basic user auxiliary storage pools before using the RSTAUTBRM command.

Note: A maximum of 31 values may be specified.

*ALLUSR

Saved authorization information is to be restored for objects that reside in all basic user auxiliary storage pools (2-32).

auxiliary-storage-pool-number

Specifies the number identifying a basic user auxiliary storage pool containing the objects for which saved authority information is restored.

auxiliary-storage-pool-name

Specifies the name identifying the basic user auxiliary storage pool containing the objects for which saved authority information is restored.

Top

Examples

Example 1: Restoring Saved Authority Information for All ASPs

```
RSTAUTBRM  
-or-  
RSTAUTBRM USRASP(*ALLUSR)
```

This command restores the owner profile, primary group, and authorization list names for objects contained in all basic user auxiliary storage pools (ASPs 2-32).

Example 2: Restoring Saved Authority Information for ASPs 2 and 3

```
RSTAUTBRM USRASP(2 3)
```

This command restores the owner profile, primary group, and authorization list names for objects contained in basic user auxiliary storage pools 2 and 3.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Restore Object using BRM (RSTBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Restore Object using BRM (RSTBRM) command restores a copy of one or more objects that can be used in the integrated file system.

For more information about integrated file system commands, see the Integrated File System Introduction book.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. For detailed restrictions on using this command to restore objects by using name patterns in the root directory, to restore objects in libraries, or to restore document library objects, see the **Restore Object (RST)** command in the Backup and Recovery book.
2. You must have authority to use the Restore Object (RST) command.
3. You must have save system (*SAVSYS) special authority, or have all of the following object authorities:
 - You must have *W and *OBJEXIST authority to restore a file if it already exists on the system.
 - You must have *WX authority to the parent directory.
 - You must have *ADD authority to the owning user profile of the directory into which the parent directories are created.
 - You must have *ALLOBJ special authority to create parent directories with a user profile other than your own.
4. You must have *ALLOBJ special authority to use any value other than *NONE for the ALWOBJDIF parameter.
5. You can restore data from a TSM server device by using this command. You can only specify one TSM device or *MEDCLS, which must select a TSM device. The TSM device selected can either be *APPC, which supports the SNA network protocol, or *NET, which supports the TCP/IP protocol.
6. This command should not be used by control group *EXIT item processing as results will be unpredictable.
7. You can restore data from an optical device by using this command. You can only specify one optical device or *MEDCLS, which must select an optical device.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	Values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 1
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, * <u>SAV</u> , *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, * <u>MIN</u> , *AVAIL	
OBJ	Objects	Values (up to 300 repetitions): <i>Element list</i>	Optional, Positional 2
	Element 1: Name	<i>Path name</i> , <u>_</u>	
	Element 2: Include or omit	* <u>INCLUDE</u> , *OMIT	
	Element 3: New object name	<i>Path name</i> , * <u>SAME</u>	
SUBTREE	Directory subtree	* <u>ALL</u> , *DIR, *NONE, *OBJ	Optional
SAVLVL	Save level	1-99, * <u>CURRENT</u> , *SAVDATE	Optional
SAVDATE	Save level time reference	<i>Element list</i>	Optional
	Element 1: Save date	<i>Date</i>	
	Element 2: Save time	<i>Time</i> , * <u>LATEST</u>	
ENDOPT	End of media option	* <u>REWIND</u> , *LEAVE, *UNLOAD	Optional
OPTION	Option	* <u>ALL</u> , *NEW, *OLD	Optional
ALWOBJDIF	Allow object differences	Single values: * <u>NONE</u> , *ALL Other values (up to 2 repetitions): *AUTL, *OWNER, *PGP	Optional
PVTAUT	Private authorities	* <u>NO</u> , *YES	Optional
OBJID	Object ID	* <u>SAVED</u> , *SYS	Optional
CRTPRNDIR	Create parent directories	* <u>NO</u> , *YES	Optional
PRNDIROWN	Parent directory owner	<i>Name</i> , * <u>PARENT</u>	Optional
FROMSYS	From system	<i>Character value</i> , * <u>LCL</u>	Optional

Top

Device (DEV)

Specifies the device name or a specific media class that is to be used to restore the object. You must use a single device for recovery processing.

You can restore data from a TSM (ADSM) server using this command. You can only specify one TSM type server or *MEDCLS, which must select a TSM server. The device selected can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

This is a required parameter.

*MEDCLS

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined, a device supporting that media class is selected to restore the requested object or objects.

device-name

Specify the name of the device that you want to use to restore the selected object or objects.

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a restore operation.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel restore.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

Note: Transferring save files to tape does not support parallel operations.

***SAV** Specifies that the same number of device resources used for the save will be used for the restore. If the save was a serial save, then the restore will also be serial.

*AVAIL

Use any available devices up to the maximum specified. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

*NONE

No device resources are to be used. The restore will be performed as a serial restore.

1-32 Specify the minimum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Element 2: Maximum Resources

***MIN** Uses the value specified for the minimum number of device resources.

*AVAIL

Use any available devices. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum use the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Objects (OBJ)

Specifies the objects that you want to include or exclude from a list of objects you want to restore. A maximum of 300 object name patterns can be specified.

For more information on specifying path names, refer to **Chapter 2** of the Command Language Reference book.

Additional information about object name patterns is in the Integrated File System Introduction book. The first element specifies the path names of the objects saved on the media. Directory abbreviations (for example, the current directory) are expanded with their current values, not the values they had at the time of the save operation.

Element 1: Name

object-path-name-pattern

Specify an object path name or a pattern that can match many names.

Element 2: Include or omit

The second part specifies whether names that match the pattern should be included or omitted from the operation. Note that in determining whether a name matches a pattern, relative name patterns are always treated as relative to the current working directory. The SUBTREE parameter determines whether the subtrees are included or omitted.

***INCLUDE**

Objects that match the object name pattern are to be restored, unless overridden by an *OMIT specification.

***OMIT**

Objects matching the object name pattern are not to be restored. This overrides a *INCLUDE specification and is intended to be used to omit a subset of a previously selected pattern.

Element 3: New object name

The third element specifies the new path name of the object.

***SAME**

The objects are to be restored with the same names they had when they were saved.

new-path-name

Specify the path name with which to restore the object. If a pattern is specified in the first element, the new path name must be the directory into which to restore any objects that match the pattern. If an object name is specified in element 1, each component in the new path must exist with the exception of the last component. If the object described in the last component doesn't exist, it will be restored as new.

Top

Directory subtree (SUBTREE)

Specifies whether directory subtrees are included in the restore operation.

***ALL** The entire subtree for each directory that matches the object name pattern is included. The subtree includes all subdirectories and the objects within those subdirectories.

***DIR** Objects in the first level of each directory that matches the object name pattern are included. The subdirectories of each matching directory are included, but the objects in the subdirectories are not included.

***NONE**

No subtrees are included in the restore operation. If a directory matches the object name pattern specified, the objects in the directory are included. If the directory has subdirectories, neither the subdirectories nor the objects in the subdirectories are included.

***OBJ** Only the objects that exactly match the object name pattern will be processed. If the object name pattern specifies a directory, objects in the directory are not included.

Top

Save level (SAVLVL)

Specifies the copy of the object that you want to restore from the media content information.

***CURRENT**

The most current copy of the object is restored.

***SAVDATE**

Specifies a save date that will be used to identify the level of object you want to restore. The save date is specified on **Save level time reference (SAVDATE)** parameter.

save-level-number

Specify the age of the copy that you want to restore from the media content information. You can specify a copy number from 1 - 99. For instance, if you want to restore the next to the last most recent copy specify 1.

Top

Save level time reference (SAVDATE)

Specifies a time reference point for the object you want to restore.

Element 1: Save date

Specifies a date for the object you want to restore. The object is not restored if there is no save of the object on the specified date.

Note: A value must be specified for this parameter if *SAVDATE is specified for the **Save level (SAVLVL)** parameter.

save-date

Specify the date that the library to be restored was saved. The date must be entered in the job date format.

Element 2: Save time

Specifies a time for the object you want to restore. The object whose save time is on or before the time specified and on the save date specified is restored.

Note: This value will be ignored if *SAVDATE is not specified for the Save level (SAVLVL) parameter.

***LATEST**

The latest time that is available for the save date is included.

save-time

Specify the save time for the specified save date that indicates which objects are to be restored.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

*REWIND

The volume is automatically rewound but not unloaded after the recovery operation ends.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*UNLOAD

The volume is automatically rewound and unloaded after the recovery operation ends.

Top

Option (OPTION)

Specifies how to handle restoring each object.

*ALL All the objects are restored to the system. Saved objects replace the objects on the system. Saved objects not on the system are added to the system. Objects in the system library but not in the saved library remain in the library.

*NEW Only the objects that do not exist on the system are restored.

*OLD Only the objects that exist on the system are restored.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects. These differences include:

- **Authorization list:** The authorization list of an object on the system is different than the authorization list of an object from the save operation. Or the system on which a new object with an authorization list is being restored is different from the system on which it was saved.
- **Ownership:** The owner of an object on the system is different than the owner of an object from the save operation.
- **Primary Group:** The primary group of an object on the system is different than the primary group of an object from the save operation.

Note: To use this parameter, you need *ALLOBJ special authority.

Single values

*NONE

None of the differences listed above are allowed on the restore operation.

*ALL All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that BRMS saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

Other values (up to 4 repetitions)

*AUTL

Authorization list differences are allowed.

If an object already exists on the system with a different authorization list than the saved object, the object is restored with the authorization list of the object on the system. New objects that are being restored to a system that is different from which they were saved are restored and linked to their authorization list. If the authorization list does not exist on the new system, the public authority is set to *EXCLUDE.

If this value is not specified, authorization list differences are not allowed. If an object already exists on the system with a different authorization list than the saved object, the object is not restored. New objects that are being restored to a system that is different from which they were saved are restored, but they are not linked to the authorization list, and the public authority is set to *EXCLUDE.

*OWNER

Ownership differences are allowed.

If an object already exists on the system with a different owner than the saved object, the object is restored with the owner of the object on the system.

If this value is not specified, ownership differences are not allowed. If an object already exists on the system with a different owner than the saved object, the object is not restored.

*PGP Primary group differences are allowed.

If an object already exists on the system with a different primary group than the saved object, the object is restored with the primary group of the object on the system.

If this value is not specified, primary group differences are not allowed. If an object already exists on the system with a different primary group than the saved object, the object is not restored.

Top

Private authorities (PVTAUT)

Specifies whether to restore private authorities with the objects that are restored.

Note: You must have all object (*ALLOBJ) special authority to restore private authorities.

***NO** No private authorities are restored.

***YES** Private authorities are restored with the objects that have had the authorities saved. If no private authorities were saved with the object, then just the object will be restored.

Top

Object ID (OBJID)

This parameter has been disabled and is no longer valid.

Top

Create parent directories (CRTPRNDIR)

Specifies whether parent directories are to be created automatically if the directories do not exist before the object is restored. This parameter only applies to "root" (/), QOpenSys, and user-defined file systems.

- *NO** Specifies parent directories are not to be automatically created.
- *YES** Specifies parent directories are to be automatically created. The parent directory owner can be specified using the **Parent directories owner (PRNDIROWN)** parameter.

Top

Parent directory owner (PRNDIROWN)

Specifies the name of the owner to be used for the parent directory when creating parent directories which do not exist.

***PARENT**

Specifies the owner of the directory into which the parent directory is created will be used for the owner of the created parent directory.

user-profile

Specifies the name of the user profile to use for the parent directory owner when creating parent directories which do not exist.

Top

From system (FROMSYS)

Specifies the location and network identification of the system from which you want to restore media information to the local system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Examples

Example 1: Restoring All Integrated File System Objects

```
RSTBRM DEV(TAPE01)
```

This command allows you to select and restore integrated file system objects that were saved using the SAVBRM command and whose contents information still exist in the media contents information. In this example, the restore operation is for all integrated file system objects and will use device TAPE01 for the restore operation.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2262

Errors occurred receiving data from TSM server.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Restore DLO using BRM (RSTDLOBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Restore DLO using BRM (RSTDLOBRM) command restores documents, folder and distribution objects (mail) to the system from tape or save files. The media policy in force when the media information was saved determines whether this information resides on tape or is stored in save files.

Note: Using the RSTDLOBRM command allows you to restore selected copies of document, folder and distribution objects to the system based on the number of copies that are in the BRMS media content information. This is accomplished by specifying a copy number for the **Save level (SAVLVL)** parameter.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. To use this command, you must be enrolled in the system distribution directory.
2. You must have authority to the Restore Document Library Object (RSTDLO) command to use this command.
3. You must have *CHANGE authority to the parent folder and *ALL authority to the document if it already exists on the system.
4. You must have *EXECUTE authority to the document library.
5. You cannot run another RSTDLOBRM, RSTDLO, SAVDLOBRM, SAVDLO or Reclaim Document Library Object (RCLDLO) command specifying DLO(*ALL) while this command is running.
6. You can restore data from a TSM server device by using this command. You can only specify one TSM device or *MEDCLS, which must select a TSM device. The TSM device selected can either be *APPC, which supports the SNA network protocol, or *NET, which supports the TCP/IP protocol.
7. *ALLOBJ special authority is required to use any value other than *NONE for the ALWOBJDIF parameter.
8. This command should not be used by control group *EXIT item processing as results will be unpredictable.
9. You can restore data from an optical device by using this command. You can only specify one optical device or *MEDCLS, which must select an optical device.

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Parameters

Keyword	Description	Choices	Notes
DLO	Document library object	<i>Character value</i> , *ALL	Required, Positional 1
SAVFLR	Saved folder	<i>Character value</i>	Required, Positional 2
DEV	Device	<i>Name</i> , *MEDCLS	Required, Positional 3
RSTFLR	Restore into folder	<i>Character value</i> , *SAME	Optional
RENAME	New object name	<i>Character value</i> , *SAME	Optional
SAVLVL	Save level	1-99, *CURRENT	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
NEWOBJ	Object name generation	*SAME, *NEW	Optional
ALWOBJDIF	Allow object differences	*NONE, *ALL	Optional
RSTASP	Restore to ASP	<i>Character value</i> , *SAVASP, *SYSTEM	Optional
FROMSYS	From system	<i>Character value</i> , *LCL	Optional

Top

Document library object (DLO)

Specifies the name of the document library object that you want to restore. This is a required parameter.

***ALL** All documents, folders and distribution objects (mail) that are saved on media and meet the criteria specified on the **Saved folder (SAVFLR)** parameter are restored.

document-name

Specify the name of the document library object that you want to restore.

Top

Saved folder (SAVFLR)

Specifies the name of the folder on the media from which the documents are restored.

This is a required field.

Top

Device (DEV)

Specifies the device name or a specific media class that is to be used to restore the object. You must use a single device that is known to the system for recovery processing.

You can restore data from a TSM (ADSM) server using this command. You can only specify one TSM type server or *MEDCLS, which must select a TSM server. The device selected can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

***MEDCLS**

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined, a device supporting that media class is selected to restore the requested object or objects.

device-name

Specify the name of the device that you want to use to restore the selected object or objects.

Top

Restore into folder (RSTFLR)

Specifies the name of the folder in which the restored folders and documents to be restored will be placed. The folder must exist on the system or when *ALL is specified on the **Document library object (DLO)** parameter, the saved folder must exist on the media.

*SAME

The folders and documents to be restored are placed into the same folder from which they were saved.

restore-folder-name

Specify the name of the folder where the restored documents and folders are to be placed.

Top

New object name (RENAME)

Specifies the new user-assigned name for the restored document.

*SAME

The document is restored with the name it had when it was saved.

document-name

Specify the new user-assigned name that the document had after being restored.

Note: You cannot specify a document name if you specify *ALL in the **Document library object (DLO)** parameter.

Top

Save level (SAVLVL)

Specifies the copy of the object that you want to restore from the media content information.

*CURRENT

The most current copy of the object is restored.

save-level-number

Specify the age of the copy that you want to restore from the media content information. You can specify a copy number from 1 - 99. For instance, if you want to restore the next to the last most recent copy specify 1.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound but not unloaded after the recovery operation ends.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the recovery operation ends.

Top

Object name generation (NEWOBJ)

Specifies whether a new library-assigned name and system object name are generated for the folders and documents being restored.

***SAME**

The library-assigned name and system object name do not change.

***NEW** A new library-assigned name and system object name are generated for each document or folder being restored.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects.

Note: To use this parameter, you need *ALLOBJ special authority.

***NONE**

None of the differences listed above are allowed on the restore operation.

***ALL** All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that BRMS saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

Top

Restore to ASP (RSTASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) number to which you want to restore document library objects.

***SAVASP**

Restore the saved document library object to the auxiliary storage pool that it resided in when it was saved by BRMS.

***SYSTEM**

The document library object is restored to the system (1) auxiliary storage pool.

restore-to-ASP-name

Specify the name of the system (1) or basic user auxiliary storage pool (2-32) to which you are restoring the document library object.

restore-to-ASP-number

Specify the number of the system (1) or basic user auxiliary storage pool (2-32) number to which you want to restore the document library object.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

From system (FROMSYS)

Specifies the location and network identification of the system from which you want to restore media information to the local system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Examples

Example 1: Restoring All DLOs in a Subfolder

```
RSTDLOBRM DLO(*ALL) SAVFLR('ACCTMST/ACCT03')
          COPY(*CURRENT) DEV(TAP09)
```

This command allows you to select and restore folders and subfolders that were saved using the SAVDLOBRM command and whose contents information still exist in the media contents information. In

this example, the restore operation is for all DLO with a folder called ACCTMST and a subfolder called ACCT03. The most recent copy is restored using device TAP09.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2112

ASP &2 not valid.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Restore Library using BRM (RSTLIBBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Restore Library using BRM (RSTLIBBRM) command allows you to restore a library that is in the BRMS media information. Any library that was saved by the Save Library using BRM (SAVLIBBRM) command or was in a control group that was saved can be restored by the RSTLIBBRM command. The RSTLIBBRM command restores the whole library, which includes the library description, object descriptions and contents of the objects in the library.

Note: Using the RSTLIBBRM command allows you to restore selected copies of a library from the BRMS media content information. For instance, a recovery request for a copy of a library will restore the full backup of the library that corresponds to the copy requested in the **Save level (SAVLVL)** parameter, plus the last incremental backup of that library preceding the next full backup of the library, plus any object level saves that are between the two full saves. This assures that the copy that you requested has all changes applied prior to the next full save.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the Restore Library (RSTLIB) command to use this command.
2. You must have save system (*SAVSYS) special authority, or have all of the following object authorities:
 - You must have *ADD and *READ authority to the QSYS library to restore libraries which do not exist.
 - You must have *OBJEXIST authority to restore over objects contained in a library.
3. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (RSTASP)** parameter.
4. You can restore data from a TSM server device by using this command. You can only specify one TSM device or *MEDCLS, which must select a TSM device. The TSM device selected can either be *APPC, which supports the SNA network protocol, or *NET, which supports the TCP/IP protocol.
5. You can restore data from an optical device by using this command. You can only specify one optical device or *MEDCLS, which must select an optical device.
6. *ALLOBJ special authority is required to use any value other than *NONE for the ALWOBJDIF parameter.
7. These additional restrictions apply when applying journal changes:

- You must have authority to the APYJRNCHG command.
 - You must have *EXECUTE authority to the libraries containing the files, journals and journal receivers.
 - You must have *OBJEXIST authority to restore any files that already exist on the system.
 - You must have *CHANGE and *OBJMGT authority to apply journal changes to journaled files.
 - You must have *USE authority to any journal or journal receiver used to apply journal changes.
8. This command should not be used by control group *EXIT item processing as results will be unpredictable.

Top

Parameters

Keyword	Description	Choices	Notes
SAVLIB	Library	Single values: *MEDINF Other values (up to 50 repetitions): <i>Name</i>	Required, Positional 1
DEV	Device	Values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 2
PRLRSC	Parallel device resources	<i>Element list</i>	Optional, Positional 3
	Element 1: Minimum resources	1-32, * <u>SAV</u> , *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, * <u>MIN</u> , *AVAIL	
SAVLVL	Save level	1-99, * <u>CURRENT</u> , *SAVDATE	Optional
SAVDATE	Save level time reference	<i>Element list</i>	Optional
	Element 1: Save date	<i>Date</i>	
	Element 2: Save time	<i>Time</i> , * <u>LATEST</u>	
ENDOPT	End of media option	* <u>REWIND</u> , *LEAVE, *UNLOAD	Optional
OPTION	Option	* <u>ALL</u> , *NEW, *OLD, *FREE	Optional
MBROPT	Database member option	* <u>MATCH</u> , *ALL, *NEW, *OLD	Optional
SPLFDTA	Spoiled file data	* <u>NEW</u> , *NONE	Optional
RSTINCR	Restore incremental	* <u>YES</u> , *NO	Optional
ALWOBJDIF	Allow object differences	Single values: * <u>NONE</u> , *ALL Other values (up to 4 repetitions): *AUTL, *FILELVL, *OWNER, *PGP	Optional
PVTAUT	Private authorities	* <u>NO</u> , *YES	Optional
RSTLIB	Restore to library	<i>Name</i> , * <u>SAVLIB</u>	Optional
RSTASP	Auxiliary storage pool	<i>Character value</i> , * <u>SAVASP</u> , *SYSTEM	Optional
FROMSYS	From system	<i>Character value</i> , * <u>LCL</u>	Optional

Top

Library (SAVLIB)

Specifies the name of the library that you want to restore.

This is a required field.

Single values

***MEDINF**

You want to restore BRMS media information. The QUSRBRM library contains the BRMS media information.

Note: Recovery for library level information consists of seven objects that are restored to the QUSRBRM library. Recovery for object level information consists of the eight objects that are restored to the QUSRBRM library. The first seven objects are required for library level recovery and the eighth object is required for object level recovery.

Other values (up to 50 repetitions)

library-name

Specify the name of the library that you want to restore. The library name must be an entry in the BRMS media content information.

Top

Device (DEV)

Specifies the name of the devices used for the restore operation. The device must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a Media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the device by multiple systems if you indicate that the device is shared.

You can restore data from a TSM (ADSM) server using this command. You can only specify one TSM type server or *MEDCLS, which must select a TSM server. The device selected can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

This is a required parameter.

***MEDCLS**

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined, a device supporting the density specified in the media class is selected to perform the save operation.

Note: The special value *MEDCLS can be specified up to four times on the **Device (DEV)** parameter only if the parallel Min Resource is of value *NONE. Otherwise, *MEDCLS can only be specified once. BRMS will attempt to use the maximum number of devices that can be allocated for this operation.

To perform a parallel restore with more devices, the value *MEDCLS can and may only be specified once and parallel minimum and maximum resources must be greater than one or *SAV.

device-name

Specify the names of one or more devices used for the restore operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial restore, only one media library device can be specified. When doing a parallel restore, multiple media library devices can be specified.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a restore operation.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel restore.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

Note: Transferring save files to tape does not support parallel operations.

***SAV** Specifies that the same number of device resources used for the save will be used for the restore. If the save was a serial save, then the restore will also be serial.

***AVAIL** Use any available devices up to the maximum specified. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

***NONE** No device resources are to be used. The restore will be performed as a serial restore.

1-32 Specify the minimum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Element 2: Maximum Resources

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL** Use any available devices. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum use the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Top

Save level (SAVLVL)

Specifies the copy of the library that you want to restore from the media content information.

***CURRENT** The most current copy of the library is restored. This will include the most recent library as well as all incremental backups of the library.

***SAVDATE** Specifies a save date that will be used to identify the level of object you want to restore. The save date is specified on **Save level time reference (SAVDATE)** parameter.

save-level-number Specify the age of the copy that you want to restore from the media content information. You can specify a copy number from 1 - 99. For instance, if you want to restore the next to the last most recent copy specify 1.

Top

Save level time reference (SAVDATE)

Specifies a time reference point for the object you want to restore.

Element 1: Save date

Specifies a date for the object you want to restore. The object is not restored if there is no save of the object on the specified date.

Note: A value must be specified for this parameter if *SAVDATE is specified for the **Save level (SAVLVL)** parameter.

save-date

Specify the date that the library to be restored was saved. The date must be entered in the job date format.

Element 2: Save time

Specifies a time for the object you want to restore. The object whose save time is on or before the time specified and on the save date specified is restored.

Note: This value will be ignored if *SAVDATE is not specified for the Save level (SAVLVL) parameter.

*LATEST

The latest time that is available for the save date is included.

save-time

Specify the save time for the specified save date that indicates which objects are to be restored.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

*REWIND

The volume is automatically rewound but not unloaded after the recovery operation ends.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*UNLOAD

The volume is automatically rewound and unloaded after the recovery operation ends.

Top

Option (OPTION)

Specifies how to handle restoring each object.

- *ALL** All the objects in the saved library are restored to the library. Old objects on tape or in a save file replace the current versions in the library on the system. Objects not having a current version are added to the library on the system. Objects presently in the library, but not on the media, remain in the library.
- *FREE** The saved objects are restored only if they exist in the system library with their space freed. The saved version of each object is restored in the system in its previously freed space. This option restores objects that had their space freed when they were saved. If any saved objects are no longer part of the current version of the library, or if the space is not free for any object, the object is not restored. The restore operation continues, and all of the freed objects are restored.
- *NEW** Only the objects in the saved library that do not exist in the current version of the library on the system are added to the library. Only objects not known to the library on the system are restored; known objects are not restored. This option restores objects that were deleted after they were saved or that are new to this library. If any saved objects have a version already in the library on the system, they are not restored, and an informational message is sent for each one, but the restore operation continues.
- *OLD** Only the objects in the library having a saved version are restored; that is, the version of each object currently in the library is replaced by the saved version. Only objects known to the library are restored. If any saved objects are no longer part of the online version of the library, they are not added to the library; an informational message is sent for each one, but the restore continues.

Top

Database member option (MBROPT)

Specifies for database files that exist on the system, which members are restored. If *MATCH is used, the member list in the saved file must match, member for member, the current version in the system. All members are restored for files that do not exist, if the file is restored.

- *MATCH** The saved members are restored if the lists of the members where they exist are a match, member for member, for the lists of the current system version. MBROPT(*MATCH) is not valid when *ALL is specified on the **Allow object differences (ALWOBJDIF)** parameter.
- *ALL** All members in the saved file are restored.
- *NEW** Only new members (members not known to the system) are restored.
- *OLD** Only members already known to the system are restored.

Top

Spooled file data (SPLFDTA)

Specifies whether saved spooled file data and attributes are restored for restored output queues.

- *NEW** Specifies new saved spooled file data and attributes are restored for saved output queues. The saved spooled files will be restored to the same output queue from which these were saved if there is no existing spooled file on the system having the same attributes.
- *NONE** Specifies no spooled file data or attributes are restored for restored output queues.

Top

Restore incremental (RSTINCR)

Specifies whether or not to restore any incremental or object level saves of the object. Currently the Restore Library BRM (RSTLIBBRM) command will restore the full backup of the library that corresponds to the copy requested in the Save level (SAVLVL) parameter, plus the last incremental backup of that library preceding the next full backup of the library, plus any object level saves that are between the two full saves. This assures that the copy that you requested has all changes restored prior to the next full save.

***YES** Specifies to restore all incremental and object level saves since the last full save of the object.

***NO** Specifies not to restore any of the incremental and object level saves since the last full save of the object.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects. These differences include:

- **Authorization list:** The authorization list of an object on the system is different than the authorization list of an object from the save operation. Or the system on which a new object with an authorization list is being restored is different from the system on which it was saved.
- **File level identifier:** The creation date and time of the database file on the system does not match the creation date and time of the file that was saved.
- **Member level identifier:** The creation date and time of the database file member on the system does not match the creation date and time of the member that was saved.
- **Ownership:** The owner of an object on the system is different than the owner of an object from the save operation.
- **Primary Group:** The primary group of an object on the system is different than the primary group of an object from the save operation.

Note: To use this parameter, you need *ALLOBJ special authority.

Single values

***NONE**

None of the differences listed above are allowed on the restore operation.

***ALL** All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that BRMS saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

Other values (up to 4 repetitions)

***AUTL**

Authorization list differences are allowed.

If an object already exists on the system with a different authorization list than the saved object, the object is restored with the authorization list of the object on the system. New objects that are being restored to a system that is different from which they were saved are restored and linked to their authorization list. If the authorization list does not exist on the new system, the public authority is set to *EXCLUDE.

If this value is not specified, authorization list differences are not allowed. If an object already exists on the system with a different authorization list than the saved object, the object is not restored. New objects that are being restored to a system that is different from which they were saved are restored, but they are not linked to the authorization list, and the public authority is set to *EXCLUDE.

***FILELVL**

File level identifier and member level identifier differences are allowed.

An attempt will be made to restore existing physical files even though the physical file on the save media may have a different file level identifier or member level identifier than the physical file on the system. The physical file data will only be restored for those physical files whose format level identifiers on the save media match the format level identifiers of the corresponding physical file on the system.

If this value is not specified, file level identifier and member level identifier differences are not allowed. If an object already exists on the system with a different file level identifier or member level identifier than the saved object, the object is not restored.

***OWNER**

Ownership differences are allowed.

If an object already exists on the system with a different owner than the saved object, the object is restored with the owner of the object on the system.

If this value is not specified, ownership differences are not allowed. If an object already exists on the system with a different owner than the saved object, the object is not restored.

***PGP** Primary group differences are allowed.

If an object already exists on the system with a different primary group than the saved object, the object is restored with the primary group of the object on the system.

If this value is not specified, primary group differences are not allowed. If an object already exists on the system with a different primary group than the saved object, the object is not restored.

Top

Private authorities (PVTAUT)

Specifies whether to restore private authorities with the objects that are restored.

Note: You must have all object (*ALLOBJ) special authority to restore private authorities.

***NO** No private authorities are restored.

***YES** Private authorities are restored with the objects that have had the authorities saved. If no private authorities were saved with the object, then just the object will be restored.

Top

Restore to library (RSTLIB)

Specifies whether the library contents are restored to the same library from which they were saved, or to a different library.

*SAVLIB

The library contents are restored to the same library or libraries in which they were saved.

library-name

Specify the name of the library to which the saved library contents are restored.

Note: If a Structured Query Language (SQL) database is restored to a library other than the one in which it was saved, the journals are not restored.

Top

ASP (RSTASP)

Specifies whether libraries and objects are restored to the auxiliary storage pool from which they were saved or to a different auxiliary storage pool. Libraries and their contained objects can only be restored to the system (1) auxiliary storage pool, a basic user (2-32) auxiliary storage pool, a primary auxiliary storage pool or a secondary auxiliary storage pool.

More information about object types which can be restored to auxiliary storage pools can be found in the Backup and Recovery book.

*SAVASP

The library and objects are restored to the ASP from which they were saved.

*SYSTEM

The library and objects are restored to the system (1) auxiliary storage pool.

auxiliary-storage-pool-name

The library and objects are restored to the auxiliary storage pool identified by this name. This can be the name of any available basic user auxiliary storage pool (2-32) or any available primary or secondary auxiliary storage pool.

auxiliary-storage-pool-number

The library and objects are restored to the system (1) or basic auxiliary storage pools (2-32) identified by this number. The range of auxiliary storage pool number is 1-32.

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From system (FROMSYS)

Specifies the location and network identification of the system from which you want to restore media information to the local system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

*LCL Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

If the FROMSYS parameter is specified and the connection to the remote system could not be established then the command will not use local data to perform the restore operation. Use the Work with Media Information (WRKMEDIBRM) or Start Recovery using BRM (STRRCYBRM) commands to select and restore the object.

Top

Examples

Example 1: Restoring a Library using BRMS

```
RSTLIBBRM SAVLIB(MYLIB) DEV(*MEDCLS) COPY(2) RSTASP(3)
```

This command restores a library called MYLIB. Any device that supports the media class assigned to the media containing MYLIB can be used in the restore operation. The second copy of the library in the media information is restored to auxiliary storage pool (ASP) 3.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2112

ASP &2 not valid.

CPF4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Restore Object using BRM (RSTOBJBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Restore Object using BRM (RSTOBJBRM) command restores an object or objects from the BRMS media content information. Any object that was saved by the Save Object using BRM (SAVOBJBRM) command or was saved as part of a control group can be restored by the RSTOBJBRM command. The types of objects that can be restored by this command are listed on the **Object types (OBJTYPE)** parameter. They can be saved either as separate objects or as part of the library save operation. The RSTOBJBRM command restores the object description and contents of each object specified in the command.

Note: Using the RSTOBJBRM command, **Save level (SAVLVL)** parameter allows you to restore selected copies of an object from the BRMS media content information. For instance, a recovery request for copy 1 of an object will restore the next to the most recent copy of the object on the BRMS media content information (current copy is the most recent copy).

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. If the user domain object user space (*USRSPC), user index (*USRIDX), or user queue (*USRQ) is restored to a library that is not permitted in the system value QALWUSRDMN (allow user objects in library), the object is converted to the system domain.
2. You must have authority to the Restore Object (RSTOBJ) command to use this command.
3. You must have save system (*SAVSYS) special authority, or have all of the following object authorities:
 - You must have *EXECUTE authority to the restore library when restoring over objects contained in a library.
 - You must have *OBJEXIST authority to the objects contained in a library when restoring over those objects.
4. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (RSTASP)** parameter.
5. You can restore data from a TSM server device by using this command. You can only specify one TSM device or *MEDCLS, which must select a TSM device. The TSM device selected can either be *APPC, which supports the SNA network protocol, or *NET, which supports the TCP/IP protocol.
6. You can restore data from an optical device by using this command. You can only specify one optical device or *MEDCLS, which must select an optical device.

7. *ALLOBJ special authority is required to use any value other than *NONE for the ALWOBJDIF parameter.
8. These additional restrictions apply when applying journal changes:
 - You must have authority to the APYJRNCHG command.
 - You must have *EXECUTE authority to the libraries containing the files, journals and journal receivers.
 - You must have *OBJEXIST authority to restore any files that already exist on the system.
 - You must have *CHANGE and *OBJMGT authority to apply journal changes to journaled files.
 - You must have *USE authority to any journal or journal receiver used to apply journal changes.
9. This command should not be used by control group *EXIT item processing as results will be unpredictable.

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Parameters

Keyword	Description	Choices	Notes
OBJ	Object	Single values: *ALL Other values (up to 50 repetitions): <i>Generic name, name</i>	Required, Positional 1
SAVLIB	Library	<i>Name</i>	Required, Positional 2
DEV	Device	Values (up to 4 repetitions): <i>Name, *MEDCLS</i>	Required, Positional 3
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, * <u>SAV</u> , *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, * <u>MIN</u> , *AVAIL	
OBJTYPE	Object type	Single values: *ALL Other values (up to 50 repetitions): <i>Character value</i>	Optional
SAVLVL	Save level	1-99, * <u>CURRENT</u> , *SAVDATE	Optional
SAVDATE	Save level time reference	<i>Element list</i>	Optional
	Element 1: Save date	<i>Date</i>	
	Element 2: Save time	<i>Time, *<u>LATEST</u></i>	
ENDOPT	End of media option	* <u>REWIND</u> , *LEAVE, *UNLOAD	Optional
OPTION	Option	* <u>ALL</u> , *NEW, *OLD, *FREE	Optional
MBROPT	Database member option	* <u>MATCH</u> , *ALL, *NEW, *OLD	Optional
SPLFDTA	Spooled file data	* <u>NEW</u> , *NONE	Optional
ALWOBJDIF	Allow object differences	Single values: *NONE, *ALL Other values (up to 4 repetitions): *AUTL, *FILELVL, *OWNER, *PGP	Optional
PVTAUT	Private authorities	* <u>NO</u> , *YES	Optional
RSTLIB	Restore to library	<i>Name, *<u>SAVLIB</u></i>	Optional
RSTASP	Auxiliary storage pool	<i>Character value, *<u>SAVASP</u>, *SYSTEM</i>	Optional
FROMSYS	From system	<i>Character value, *<u>LCL</u></i>	Optional

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Object (OBJ)

Specifies the name of the object that you want to restore, a generic group of objects that you want to restore, or all objects.

If the **Object type (OBJTYPE)** parameter is not specified when the command is run, all the object types, listed in the description of that parameter are restored, if they are in the specified library on the media or in the save file, and if they have the specified names.

This is a required parameter.

Single values

***ALL** Restore all objects that meet the other requirements specified in the command.

Other values (up to 50 repetitions)

generic-object-name*

Specify one or more generic names of groups of objects that you want to restore. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete object name.

object-name

Specify the name of the object that you want to restore. You can specify up to 50 objects to restore from the specified library.

Top

Library (SAVLIB)

Specifies the name of the library in which the objects reside that are to be restored. If the **Restore to library (RSTLIB)** parameter is not specified, this is also the name of the library to which the objects are restored. Specify the name of the library.

This is a required parameter.

Top

Device (DEV)

Specifies the name of the devices used for the restore operation. the device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS will manage the use of the device across multiple systems if you indicate that the device is shared.

You can restore data from a TSM (ADSM) server using this command. You can only specify one TSM type server or *MEDCLS, which must select a TSM server. The device selected can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

This is a required parameter.

device-name

Specify the names of one or more devices used for the restore operation. If you are using more than one device (up to four), specify the names of the devices in the order in which they are used.

Note: When doing a serial restore, only one media library device can be specified. When doing a parallel restore, multiple media libraries can be specified.

***MEDCLS**

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined, a device supporting the density specified in the media class is selected to do the restore operation.

Note: The special value *MEDCLS can be specified up to four times on the device parameter only if the parallel min resource is of value *NONE. Otherwise, *MEDCLS can only be specified once. BRMS will attempt to use the maximum number of devices that can be allocated for this operation.

To perform a parallel restore with more devices, the value *MEDCLS can and may only be specified once and the parallel minimum and maximum resources must be greater than one or a minimum value of *SAV.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a restore operation.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel restore.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

Note: Transferring save files to tape does not support parallel operations.

***SAV** Specifies that the same number of device resources used for the save will be used for the restore. If the save was a serial save, then the restore will also be serial.

***AVAIL**

Use any available devices up to the maximum specified. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

***NONE**

No device resources are to be used. The restore will be performed as a serial restore.

1-32 Specify the minimum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Element 2: Maximum Resources

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL**

Use any available devices. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum use the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Top

Object type (OBJTYPE)

Specifies the type of the object that you want to restore.

This is a required parameter.

Single values

***ALL** All types of objects are to be included in the restore process.

Other values (up to 50 repetitions)

object-type

Specify the value for the type of object that you want to restore, such as command (*CMD), file (*FILE), or program (*PGM). For a complete list of object types, position the cursor on the **Object type (OBJTYPE)** parameter and press the F4 key.

Top

Save level (SAVLVL)

Specifies the copy of the object that you want to restore from the media content information.

***CURRENT**

The most current copy of the object is restored.

***SAVDATE**

Specifies a save date will be used to identify the level of object you want to restore. The save date is specified on **Save level time reference (SAVDATE)** parameter.

save-level-number

Specify the age of the copy that you want to restore from the media content information. You can specify a copy number from 1 - 99. For instance, if you want to restore the next to the last most recent copy specify 1.

Top

Save date (SAVDATE)

Specifies a time reference point for the object you want to restore.

Element 1: Save date

Specifies a date for the object you want to restore. The object is not restored if there is no save of the object on the specified date.

Note: A value must be specified for this parameter if *SAVDATE is specified for the **Save level (SAVLVL)** parameter.

save-date

Specify the date that the library to be restored was saved. The date must be entered in the job date format.

Element 2: Save time

Specifies a time for the object you want to restore. The object whose save time is on or before the time specified and on the save date specified is restored.

Note: This value will be ignored if *SAVDATE is not specified for the Save level (SAVLVL) parameter.

***LATEST**

The latest time that is available for the save date is included.

save-time

Specify the save time for the specified save date that indicates which objects are to be restored.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound but not unloaded after the recovery operation ends.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the recovery operation ends.

Top

Option (OPTION)

Specifies how to handle restoring each object.

***ALL** All the objects in the saved library are restored to the library on the system. Objects in the saved library replace the objects in the library on the system. Saved objects not on the system are added to the library on the system. Objects in the system library but not in the saved library remain in the library.

***FREE** Only objects that exist in the library on the system with their storage freed are restored.

***NEW** Only the objects in the saved library that do not exist in the library on the system are restored.

***OLD** Only the objects that exist in the library on the system are restored.

Top

Database member option (MBROPT)

Specifies for database files that exist on the system, which members are restored. Unless *MATCH is used, the member list in the saved file need not match member for member, the current version in the system.

*MATCH

The saved members are restored if the lists of the members where they exist are a match, member for member, for the lists of the current system version. MBROPT(*MATCH) is not valid when *ALL is specified on the **Allow object differences (ALWOBJDIF)** parameter.

***ALL** All members in the saved file are restored.

***NEW** Only new members (members not known to the system) are restored.

***OLD** Only members already known to the system are restored.

Top

Spooled file data (SPLFDTA)

Specifies whether saved spooled file data and attributes are restored for restored output queues.

***NEW** Specifies new saved spooled file data and attributes are restored for saved output queues. The saved spooled files will be restored to the same output queue from which these were saved if there is no existing spooled file on the system having the same attributes.

***NONE**

Specifies no spooled file data or attributes are restored for restored output queues.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects. These differences include:

- **Authorization list:** The authorization list of an object on the system is different than the authorization list of an object from the save operation. Or the system on which a new object with an authorization list is being restored is different from the system on which it was saved.
- **File level identifier:** The creation date and time of the database file on the system does not match the creation date and time of the file that was saved.
- **Member level identifier:** The creation date and time of the database file member on the system does not match the creation date and time of the member that was saved.
- **Ownership:** The owner of an object on the system is different than the owner of an object from the save operation.
- **Primary Group:** The primary group of an object on the system is different than the primary group of an object from the save operation.

Note: To use this parameter, you need *ALLOBJ special authority.

Single values

*NONE

None of the differences listed above are allowed on the restore operation.

***ALL** All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that BRMS saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

Other values (up to 4 repetitions)

***AUTL**

Authorization list differences are allowed.

If an object already exists on the system with a different authorization list than the saved object, the object is restored with the authorization list of the object on the system. New objects that are being restored to a system that is different from which they were saved are restored and linked to their authorization list. If the authorization list does not exist on the new system, the public authority is set to *EXCLUDE.

If this value is not specified, authorization list differences are not allowed. If an object already exists on the system with a different authorization list than the saved object, the object is not restored. New objects that are being restored to a system that is different from which they were saved are restored, but they are not linked to the authorization list, and the public authority is set to *EXCLUDE.

***FILELVL**

File level identifier and member level identifier differences are allowed.

An attempt will be made to restore existing physical files even though the physical file on the save media may have a different file level identifier or member level identifier than the physical file on the system. The physical file data will only be restored for those physical files whose format level identifiers on the save media match the format level identifiers of the corresponding physical file on the system.

If this value is not specified, file level identifier and member level identifier differences are not allowed. If an object already exists on the system with a different file level identifier or member level identifier than the saved object, the object is not restored.

***OWNER**

Ownership differences are allowed.

If an object already exists on the system with a different owner than the saved object, the object is restored with the owner of the object on the system.

If this value is not specified, ownership differences are not allowed. If an object already exists on the system with a different owner than the saved object, the object is not restored.

***PGP** Primary group differences are allowed.

If an object already exists on the system with a different primary group than the saved object, the object is restored with the primary group of the object on the system.

If this value is not specified, primary group differences are not allowed. If an object already exists on the system with a different primary group than the saved object, the object is not restored.

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Private authorities (PVTAUT)

Specifies whether to restore private authorities with the objects that are restored.

Note: You must have all object (*ALLOBJ) special authority to restore private authorities.

***NO** No private authorities are restored.

***YES** Private authorities are restored with the objects that have had the authorities saved. If no private authorities were saved with the object, then just the object will be restored.

Top

Restore to library (RSTLIB)

Specifies whether the objects are restored to a different library or to the same library where they were saved.

***SAVLIB**

The objects are restored to the same library from which they were saved.

library-name

Specify the name of the library to which the saved objects are restored.

Top

ASP (RSTASP)

Specifies whether objects are restored to the auxiliary storage pool from which they were saved or to a different auxiliary storage pool. Library objects can only be restored to the system (1) auxiliary storage pool, a basic user (2-32) auxiliary storage pool, a primary auxiliary storage pool or a secondary auxiliary storage pool.

More information about object types which can be restored to auxiliary storage pools can be found in the Backup and Recovery Book.

***SAVASP**

The objects are restored to the auxiliary storage pool from which they were saved.

***SYSTEM**

The objects are restored to the system (1) auxiliary storage pool.

auxiliary-storage-pool-name

The objects are restored to the auxiliary storage pool identified by this name. This can be the name of any available basic user auxiliary storage pool (2-32) or any available primary or secondary auxiliary storage pool.

auxiliary-storage-pool-number

The objects are restored to the system (1) or basic auxiliary storage pools (2-32) identified by this number. The range of auxiliary storage pool number is 1-32.

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From system (FROMSYS)

Specifies the location and network identification of the system from which you want to restore media information to the local system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name**

(LCLLOCNAME) network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

If the FROMSYS parameter is specified and the connection to the remote system could not be established then the command will not use local data to perform the restore operation. Use the Work with Media Information (WRKMEDIBRM) or Start Recovery using BRM (STRRCYBRM) commands to select and restore the object.

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Examples

```
RSTOBJBRM OBJ(AP1000) SAVLIB(APLIB) DEV(*MEDCLS) OBJTYPE(*FILE)
```

This command restores an object named AP1000 which was saved from library APLIB. Any device that supports the media class assigned to the media containing AP1000 can be used in the restore operation. AP1000 is a file object.

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Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2112

ASP &2 not valid.

CPF4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Save Object using BRM (SAVBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Object using BRM (SAVBRM) command saves a copy of one or more objects that can be used in the integrated file system.

For more information about integrated file system commands, see the Integrated File System Introduction book.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You cannot save QSYS and QDLS file systems using this command.
2. You must have authority to the SAV commands to use this command.
3. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (ASPDEV)** parameter.
4. This command should not be used by control group *EXIT item processing as results will be unpredictable.
5. For additional restrictions when using this command to save objects by using name patterns in the root directory, to save objects in libraries, or to save document library objects, see the **Save Object (SAV)** command in Backup and Recovery book.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify

MEDPCY(*NONE) in which you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.

- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	Name, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
CTLGRPATR	Use control group attributes	*NO, *YES	Optional
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): Name, *MEDCLS	Optional, Positional 1
PRLRSC	Parallel device resources	Element list	Optional
	Element 1: Minimum resources	1-32, *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, *MIN, *AVAIL	
MEDPCY	Media policy	Name, *SYSPCY, *NONE	Optional, Positional 2
OBJ	Objects	Values (up to 300 repetitions): Element list	Optional
	Element 1: Name	Path name, _	
	Element 2: Include or omit	*INCLUDE, *OMIT	
SUBTREE	Directory subtree	*ALL, *DIR, *NONE, *OBJ	Optional
SAVACT	Save active	*NO, *SYNC, *YES	Optional
SAVACTOPT	Save active option	*NONE, *ALWCKPWRT, *NWSSTG	Optional
SAVACTMSGQ	Save active message queue	Qualified object name	Optional
	Qualifier 1: Save active message queue	Name, *NONE, *WRKSTN	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
USEOPTBLK	Use optimum block size	*BKUPCY, *DEV, *NO, *YES	Optional
SAVTYPE	Type of save	*FULL, *CUML, *INCR	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
SEQNBR	Sequence number	1-16777215, *END	Optional
TGTRLS	Target release	Character value, *CURRENT	Optional
CLEAR	Clear	*NONE, *AFTER, *ALL	Optional
PRECHK	Object pre-check	*NO, *YES	Optional

Keyword	Description	Choices	Notes
DTACPR	Data compression	*DEV, *NO, *YES	Optional
COMPACT	Data compaction	*DEV, *NO	Optional
PVTAUT	Private authorities	*NO, *YES	Optional
REFDATE	Reference date	Character value, *REF	Optional
REFTIME	Reference time	Character value, *REF	Optional
EXPDATE	Expiration date	Date, *MEDPCY, *PERM	Optional
MOVPCY	Move policy	Name, *MEDPCY, *ADSM, *NONE	Optional
MEDCLS	Media class	Character value, *MEDPCY, *ADSM, *SYSPCY	Optional
LOC	Location	Name, *MEDPCY, *ANY, *HOME	Optional
SAVF	Save to save file	*MEDPCY, *NO, *YES	Optional
SAVFASP	Save file ASP	Character value, *MEDPCY, *SYSTEM	Optional
SAVFEXP	Retain save files	Date, *MEDPCY, *NONE, *PERM	Optional
MAXSTG	ASP storage limit	1-99, *MEDPCY	Optional
VOLSEC	Secure volume	*MEDPCY, *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional
PKGID	Package identifier	*NEW, *PRVSAV	Optional
RCYEXITPGM	Recovery exit program	Qualified object name	Optional
	Qualifier 1: Recovery exit program	Name, *NONE	
	Qualifier 2: Library	Name	
RCYEXITDTA	Recovery exit program data	Character value, *NONE	Optional

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Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

*NONE

Do not specify a control group name for this command.

*ARCGRP

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKUGRP

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

If CTLGRPATR(*YES) is specified, then the control group must be an existing BRMS control group. If CTRLGRPATR(*NO) is specified, then you can specify an existing control group name, or a name that you want to be associated with the save operation, even if the name is not an existing control group.

Top

Use control group attributes

Specifies whether to use control group attributes for device, parallel device resources, media policy, save type, optimum block, sequence number, target release, clear, pre-check object, compression, compaction, reference date and time, and expiration date from the control group specified in the control group (CTLGRP) parameter.

The control group must be an existing BRMS backup control group.

Media policies using versioning cannot be used with the value *YES.

***NO** Values will not be used from the specified control group. Values for device and media policy are required.

***YES** Values will be used from the specified control group.

Top

Device (DEV)

Specifies the device or devices to be used by this command.

Single values

***MEDCLS**

Devices for this policy or control group are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual tape devices which is limited to a single value. The Parallel Device Resource (PRLRSC) parameter must be *NONE or the PRLRSC minimum and maximum must have a value of 1. BRMS will attempt to use the maximum number of devices that can be allocated for a save operation.

Note: If you want to use more than one device for a parallel save operation the *MEDCLS must only be specified once and the PRLRSC minimum and maximum responses must be greater than one.

Other values (up to 4 repetitions)

Specifies the name of the devices to be used for the save operation. the specified device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the stand alone device by multiple systems if you indicate the device is shared.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

***NONE**

There is no device for this save operation. Save files are used to store the saved data. Data in a save file created with device *NONE will never be copied by BRMS. It is intended for online access only.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a parallel save operation.

Note: Transferring save files to tape does not support parallel operations.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel save.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

***NONE**

No device resources are to be used. The save will be performed as a serial save. *NONE must be specified when using a virtual tape device, an optical device, or a virtual optical device.

***AVAIL**

Use any available devices up to the maximum of what was used for a save. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

1-32 Specify the minimum number of device resources to be used with this save command.

Element 2: Maximum Resources

Specifies the maximum number of device resources.

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL**

Use any available devices for the save operation. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this save command.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Saves using multiple parallel device resources with a target release prior to V5R4M0 will be performed using only a single device resource.

Top

Media policy (MEDPCY)

Specifies the media policy that you want to use with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

***SYSPCY**

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Objects (OBJ)

Specifies the objects that you want to include or exclude from a list of objects you want to save. A maximum of 300 object name patterns can be specified.

For more information on specifying path names, refer to **Chapter 2** of the Command Language Reference book.

Additional information about object name patterns is in the Integrated File System Introduction book.

Element 1: Name

''** The objects in the current directory are saved.

'object-path-name-pattern'

Specify an object path name or a pattern that can match many names.

Restriction:

- You cannot list QDLS or QSYS.LIB objects in a link list. Use the appropriate *OBJ or *FLR list for objects in these file systems.

Element 2: Omit or include

The second part specifies whether names that match the pattern should be included or omitted from the operation. Note that in determining whether a name matches a pattern, relative name patterns are always treated as relative to the current working directory. The **Directory subtree (SUBTREE)** parameter determines whether the subtrees are included or omitted.

*INCLUDE

Objects that match the object name pattern are to be saved, unless overridden by an *OMIT specification.

*OMIT

Objects matching the object name pattern are not to be saved. This overrides a *INCLUDE specification and is intended to be used to omit a subset of a previously selected pattern.

Top

Directory subtree (SUBTREE)

Specifies whether directory subtrees are included in the save operation.

***ALL** The entire subtree for each directory that matches the object name pattern is included. The subtree includes all subdirectories and the objects within those subdirectories.

***DIR** Objects in the first level of each directory that matches the object name pattern are included. The subdirectories of each matching directory are included, but the objects in the subdirectories are not included.

***NONE**

No subtrees are included in the save operation. If a directory matches the object name pattern specified, the objects in the directory are included. If the directory has subdirectories, neither the subdirectories nor the objects in the subdirectories are included.

***OBJ** Only the objects that exactly match the object name pattern will be processed. If the object name pattern specifies a directory, objects in the directory are not included.

Top

Save active (SAVACT)

Specifies whether an object can be updated while it is being saved.

Note: If your system is in a restricted state, this parameter is ignored and the save operation is performed as if SAVACT(*NO) was specified.

Note: If you are using the MONSWABRM command as part of an *EXIT special operation in a control group, the **Save while active** field must have a value of *YES for the entry that you want to save while active. The Monitor Save While Active (MONSWABRM) command reviews the save while active message queue and looks for the message indicating the end of synchronization. When synchronization is detected, you can issue a command to the system.

***NO** Objects that are not in use are not saved. Objects cannot be updated while being saved.

***SYNC**

Objects can be saved and used at the same time. All of the object checkpoints occur at the same time.

***YES** Objects can be saved and used at the same time. The object checkpoints can occur at different times.

Top

Save active option

Specifies options to be used with the save while active (SAVACT) parameter.

***NONE**

No special save while active options will be used. Normal save while active processing will take place; all objects will be locked and cannot be updated before the save while active checkpoint is reached.

***ALWCKPWRT**

Enables objects to be saved while they are being updated if the corresponding system attribute for the object is set. This option should only be used by applications to save objects that are associated with the application and that have additional backup and recovery considerations. For more information see the Backup and Recovery book, SC41-5304.

***NWSSTG**

Allows network server storage spaces in directory '/QFPNWSSTG' to be saved when they are active.

Top

Save active message queue (SAVACTMSGQ)

Specifies the message queue that the save operation uses to notify the user that the checkpoint processing is complete.

This parameter can be used to save the objects at a known, consistent boundary to avoid additional recovery procedures following a restore operation. Applications can be stopped until the checkpoint processing complete message is received.

Qualifier 1: Save active message queue

***NONE**

No notification message is sent.

***WRKSTN**

The notification message is sent to the work station message queue.

message-queue-name

Specify the name of the message queue that the notification message is sent to.

Qualifier 2: Library

***LIBL** The library list is used to locate the message queue.

***CURLIB**

The current library for the job is used to locate the message queue. If no library is specified as the current library for the job, the QGPL library is used.

library-name

Specify the name of the library where the message queue is located.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***BKUPCY**

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Type of save (SAVTYPE)

Specifies whether the save operation is to save all objects, objects changed since the last full save or objects saved since the last incremental save.

***FULL** Save all objects.

***CUML**

Save only objects that have changed since the last full save.

***INCR**

Save only objects that have changed since the last incremental save.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

***CURRENT**

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Saves using a target release prior to V5R4M0 with multiple parallel device resources will be performed using only a single device resource.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

***NONE**

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Object pre-check (PRECHK)

Specifies whether the save operation ends if any of the selected objects cannot be saved.

***NO** The save operation for a library continues, saving only those objects that can be saved.

***YES** If after all specified objects are checked, one or more objects cannot be saved, the save operation for a library ends before any data is written. If multiple libraries are specified, the save operation continues with the next library.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compression is performed.

***YES** If the target device supports compression, hardware compression is performed. If compression is not supported, software compression is performed.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compaction is performed.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Private authorities (PVTAUT)

Specifies whether to save private authorities with the objects that are saved. Saving private authorities will increase the amount of time it takes to save the objects, but it can simplify the recovery of an object or a group of objects. It will not simplify the recovery of an entire system.

***NO** No private authorities are saved.

***YES** Private authorities are saved for each object that is saved.

Note: You must have save system (*SAVSYS) or all object (*ALLOBJ) special authority to specify this value.

Top

Reference date (REFDATE)

Specifies the reference date that the save operation uses for an incremental save. The reference date is the date of a save that was performed under BRMS control.

***REF** Use the date of the last full BRMS save for the *LINK keyword specified in a control group as the reference date for this incremental save operation.

reference-date

Specify the date of the last full BRMS save that you want to use as the reference date for this incremental save operation.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Reference time (REFTIME)

Specifies the reference time that the save operation uses for an incremental save. The reference time is the time of save that was performed under BRMS control.

***REF** Use the time of the last full BRMS save for the *LINK keyword specified in a control group as the reference time for this incremental save operation.

reference-time

Specify the time of the last full BRMS save that you want to use as the reference time for this incremental save operation.

If CTLGRPATR(*YES) is specified, this parameter cannot be specified. The value for this parameter will be determined from the attributes of the control group specified on the CTLGRP parameter.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*PERM

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

Media movement is controlled by TSM server specifications.

*NONE

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

The save operation uses media that is selected and controlled by TSM server specifications.

*NONE

There is not a media class associated with the output volumes that are selected for this save operation.

*SYSPCY

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ANY Volumes from any location are selected as output volumes for this save operation.

*HOME

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***SYSTEM**

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

Save files generated from the save operation are not kept.

***PERM**

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Volume security is controlled by TSM server specifications.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volumes written to during a save operation will not be marked for duplication.

*YES Volumes written to during the save operation will be marked for duplication.

If CTLGRPATR(*YES) is specified, then *MEDPCY must be specified.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** History items created during the save operation will not be marked for duplication.

***YES** History items created during the save operation will be marked for duplication.

Top

Package identifier

Specifies whether the package that this save operation will be part of is for a new package or a previous package created by this job. A package is a group of related media files.

This parameter allows separate save operations to be tied to one entity of related objects from one or multiple save operations.

***NEW** The save operation will write the first or the only media file to be included in the package. Subsequent save operations could use the *PRVSAV special value to be included in the same package.

***PRVSAV**

The package identifier of the preceding save operation will be used. This allows the media file output from this save operation to be considered related to (and will be recovered with) the preceding save operation. This group of related media files is called a BRMS package.

If the maximum number of media files allowed in a single package is reached, a new package will be automatically created.

Top

Recovery exit program

Specifies the name of the recovery exit program and library that will be called on a recovery of the object.

The exit program will be called before the restore and after the recovery of the object being saved.

A recovery exit program may only be specified when *NEW is specified for the **Package identifier (PKGID)** parameter.

The exit program must exist during post processing of a recovery.

Qualifier 1: Recovery exit program

***NONE**

No recovery exit program is assigned to the current package.

recovery-exit-program

Specify the name of the recovery exit program to be called.

Qualifier 2: Library

library-name

Specify the name of the library in which the recovery exit program exists.

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Recovery exit data

Specifies the user defined data that will be passed to the recovery exit program on the recovery of the object or objects being saved.

*NONE

No recovery exit program data will be passed to the recovery exit program.

recovery-exit-program-data

Specify data to be passed to the recovery exit program.

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Examples

Example 1: Save Integrated File System Objects

```
SAVBRM DEV(*MEDCLS) MEDPCY(*SYSPCY)
```

This command saves all integrated file system objects using the device specified in the system policy.

Example 2: Save Integrated File System Objects on an Auxiliary Storage Pool Device

```
SAVBRM DEV(*MEDCLS) OBJ('/dev/PRIMETIME/*') MEDPCY(*SYSPCY)
```

This command saves all integrated file system objects in auxiliary storage pool device PRIMETIME using the device specified in the system policy.

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Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Save DLO using BRM (SAVDLOBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Document Library Object using BRM (SAVDLOBRM) command saves a copy of the specified document, folders or distribution objects (mail).

Note:

- When a folder is saved, the folder object is saved along with the documents contained in that folder and the subfolders and documents in the subfolders and all successively nested folders and documents.
- Distribution objects (mail) cannot be saved or restored for individual users. Mail can be saved only for all users.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. If *SEARCH is specified for the **Document library object (DLO)** parameter, then *CUML or *INCR must be specified for the **Type of save (SAVTYPE)** parameter.
2. If *SEARCH is specified for the **Document library object (DLO)** parameter, then *NONE must be specified for the **Omit folders (OMITFLR)** parameter.
3. If *ANY is specified for the **Folder (FLR)** parameter, then *ALL or *SEARCH must be specified for the **Document library object (DLO)** parameter.
4. You must have authority to the SAVDLO command.
5. You must have *ALLOBJ or *SAVSYS special authority to use this command. Users that do not have *ALLOBJ or *SAVSYS special authority must:
 - Have *ALL authority for each document or folder to be saved.
 - Be enrolled as Document Interchange Architecture (DIA) users.
6. This command does not support the *MAIL choice found on the SAVDLO command, **Document library object (DLO)** parameter.
7. This command cannot be used while another job is running commands such as RCLDLO, SAVDLO, SAVDLOBRM, RSTDLO and RSTDLOBRM because exclusive use of internal objects may have been obtained by these commands.
8. Determining document or folder ownership does not include checking group profiles if one is associated with the specified user profile.

9. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify MEDPCY(*NONE) in which you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.
- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
DLO	Document library object	<i>Character value</i> , *ALL, *SEARCH	Required, Positional 1
FLR	Folder	Single values: *ANY, *NONE Other values (up to 100 repetitions): <i>Character value</i>	Optional, Positional 4
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 2
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 3
SAVACT	Save active	*NO, *YES	Optional
OBJDTL	Retain object detail	*NO, *YES	Optional
CTLGRP	Control group	<i>Name</i> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
SAVTYPE	Type of save	*FULL, *CUML, *INCR	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	*BKUPCY, *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, *END	Optional

Keyword	Description	Choices	Notes
TGTRLS	Target release	Character value, <u>*CURRENT</u>	Optional
CLEAR	Clear	<u>*NONE</u> , *AFTER, *ALL	Optional
DTACPR	Data compression	*DEV, *NO, *YES	Optional
COMPACT	Data compaction	*DEV, *NO	Optional
OMITFLR	Omit folders	Single values: <u>*NONE</u> , *BKUPCY Other values (up to 100 repetitions): Character value	Optional
ASP	Auxiliary storage pool	Character value, *ANY, *SYSTEM	Optional
REFDATE	Reference date	Character value, <u>*REF</u>	Optional
REFTIME	Reference time	Character value, <u>*REF</u>	Optional
EXPDATE	Expiration date	Date, *MEDPCY, *PERM	Optional
MOVPCY	Move policy	Name, *MEDPCY, *ADSM, *NONE	Optional
MEDCLS	Media class	Character value, *MEDPCY, *ADSM, *SYSPCY	Optional
LOC	Location	Name, *MEDPCY, *ANY, *HOME	Optional
SAVF	Save to save file	*MEDPCY, *NO, *YES	Optional
SAVFASP	Save file ASP	Character value, *MEDPCY, *SYSTEM	Optional
SAVFEXP	Retain save files	Date, *MEDPCY, *NONE, *PERM	Optional
MAXSTG	ASP storage limit	1-99, *MEDPCY	Optional
VOLSEC	Secure volume	*MEDPCY, *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional

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Document library object (DLO)

Specifies the documents and folders to save. To save an entire folder, *ALL must be specified. All other values for this parameter only save documents.

This is a required parameter.

*SEARCH

All documents and folders that meet the specified search values are saved. Search values are specified by using the following parameters.

- Folder (FLR parameter)
- Last changed date (REFDATE parameter)
- Last changed time (REFTIME parameter)

***ALL** All document library objects further qualified by the FLR parameter are to be saved. Specifying DLO(*ALL) FLR(*ANY) saves all document library objects.

document-name

Specify the user-assigned name of the document that you want to save.

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Folder (FLR)

Specifies the folder or generic folder name in which the objects specified on the **Document library object (DLO)** parameter are located.

Single values

***ANY** Document library objects can be saved from any folder. Consider the following when using the FLR parameter:

- FLR(*ANY) is not valid when DLO(document-name) is specified.
- When SAVDLOBRM DLO(*ALL) FLR(*ANY) is specified, the following are saved:
 - All documents
 - All folders
 - All distribution objects (mail)

*NONE

The documents saved are not in any folder. FLR(*NONE) is valid only when DLO(*ALL) is specified.

Other values (up to 100 repetitions)

generic-folder-name*

Specify the generic name. A generic name is a character string of one or more characters followed by an asterisk (*): for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all folders with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete folder name.

folder-name

Specify the name of the folder that you want to save.

Note: Folder names that have upper and lower case characters as part of the name must be enclosed in single quotation marks.

A few examples are:

Folder Name	Entry in SAVDLOBRM
Folder	'Folder'
FOLDER	FOLDER
FOLDER/SUBFOLDER	FOLDER/SUBFOLDER

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Device (DEV)

Specifies the device or devices to be used by this command.

Single values

*MEDCLS

Devices for this command are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual devices which is limited to a single value.

Other values (up to 4 repetitions)

Specifies the name of the device to be used for the save operation. The device name must already be in the BRMS device table.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

This is a required parameter.

Single values

*MEDCLS

Devices for this command are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual devices which is limited to a single value.

Other values

*NONE

There is no device for this save operation. Save files are used to store the saved data.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: Only one media library device or one virtual device can be specified.

Top

Media policy (MEDPCY)

Specifies the media policy that you want to use with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

*SYSPCY

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Save active (SAVACT)

Specifies if an object can be updated while it is being saved.

***NO** Document library objects in use are not saved. Document library objects cannot be updated while being used.

***YES** Document library objects can be changed during the save request. Objects that are in use but are not using application recovery will not be saved. See the Backup and Recovery Book for more information on DLOs, saving while an object is in use, and application recovery.

Top

Retain object detail (OBJDTL)

Specifies whether the object detail is kept in the BRMS database for the documents saved.

***NO** Do not save object detail.

***YES** Save object detail.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

***NONE**

Do not specify a control group name for this command.

***ARCGRP**

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

Type of save (SAVTYPE)

The Type of save parameter allows you to specify whether all documents in a folder are to be saved or only those documents that have changed.

***FULL** Save all document library objects.

***CUML**

You only want to save changed documents. *CUML indicates that the incremental save includes all documents created or changed and all folders created since the last full save, and all mail.

***INCR**

You only want to save changed documents. *INCR indicates that the incremental save includes all documents created or changed and all folders created since the last incremental save, and all mail.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: If no objects are saved the volume is not opened and the ENDOPT parameter is ignored.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is rewound, but not unloaded.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the save operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*BKUPCY

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

*CURRENT

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system,

*PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

*NONE

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

*AFTER

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

*ALL

All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

*DEV

If the device has the hardware compression feature installed, processing proceeds as if DTACPR(*YES) is specified. If the compression feature is not installed or save data is written to a save file, processing proceeds as if DTACPR(*NO) is specified.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

*NO No data compression is performed.

*YES If the save is to tape and the target device supports compression, hardware compression is performed. If device compression is not supported, or if the save data is written to a save file, software compression is performed. If the save is running while other jobs on the system are active and software compression is used, the overall system performance can be affected.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*DEV Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

*NO No data compaction is performed.

Top

Omit folder (OMITFLR)

Specifies the names of one or more folders, or the generic names of each group of folders, to be excluded from the save operation.

Single values

*NONE

No folders are excluded from the save operation.

Other values (up to 100 repetitions)

*BKUPCY

The folders that are to be excluded are specified in the backup policy.

generic-folder-name*

Specify the generic name. A generic name is a character string of one or more characters followed by an asterisk (*): for example, ABC*. The asterisk (*) substitutes for any valid characters. A

generic name specifies all folders with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete folder name.

folder-name

Specify the name of a folder that you want to omit from this save operation.

Top

Auxiliary storage pool (ASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) of the document library object to be saved.

***ANY** The objects to be saved reside in the system (1) or basic user auxiliary storage pool (2-32). When *ALL is specified on the DLO parameter, all document library objects on the system are saved.

***SYSTEM**

The objects to be saved reside in the system (1) auxiliary storage pool. All document library objects in basic user auxiliary storage pools (2-32) are ignored.

auxiliary-storage-pool-name

Specify the name of the system (1) or basic user auxiliary storage pool (2-32) whose objects you want to save. All document library objects in other auxiliary storage pools are ignored.

auxiliary-storage-pool-number

Specify the number of the system (1) or basic user auxiliary storage pool (2-32) whose objects you want to save. All document library objects in other auxiliary storage pools are ignored. The number specified must designate an existing auxiliary storage pool that contains document library objects.

Note: Document library objects are not supported for UDFS, primary and secondary auxiliary storage pools.

Top

Reference date (REFDATE)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the date of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-date

Specify a date for this save operation to use as a beginning point for this incremental save.

Top

Reference time (REFTIME)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the time of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-time

Specify a time in hour, minute, second (hhmmss) format for this save operation to use as a beginning point for this incremental save.

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*PERM

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

Media movement is controlled by TSM server specifications.

*NONE

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

The save operation uses media that is selected and controlled by TSM server specifications.

***NONE**

There is not a media class associated with the output volumes that are selected for this save operation.

***SYSPCY**

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ANY** Volumes from any location are selected as output volumes for this save operation.

***HOME**

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***SYSTEM**

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

Save files generated from the save operation are not kept.

***PERM**

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

Volume security is controlled by TSM server specifications.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Volumes written to during a save operation will not be marked for duplication.

***YES** Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** History items created during the save operation will not be marked for duplication.

***YES** History items created during the save operation will be marked for duplication.

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Examples

Example 1: Performing a Save of All DLO's

```
SAVDLOBRM DLO(*ALL) FLR(*ANY) DEV(TAP01) MEDPCY(FULL)
```

This command saves all folders, documents and mail to device TAP01 using the media policy FULL.

Example 2: Saving Objects Changed After a Specific Date

```
SAVDLOBRM DLO(*SEARCH) DEV(TAP01) MEDPCY(FULL) REFDATE('1/1/03')
```

This command saves all documents changed after 1/1/03 to device TAP01.

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Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Save Folder List using BRM (SAVFLRLBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Folder List using BRM (SAVFLRLBRM) command saves backup or archive folder lists. Folder lists are groups of folders that you select to include in a user-defined list name. Various parameters are used to further define the save folder list process to BRMS.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVDLO command to use this command.
2. You must have *ALLOBJ or *SAVSYS special authority to use this command. Users that do not have *ALLOBJ or *SAVSYS special authority must:
 - Have *ALL authority for the documents and folder to be saved.
 - Be enrolled as Document Interchange Architecture (DIA) users.
3. This command cannot be used while another job is running commands such as RCLDLO, SAVDLO, SAVDLOBRM, RSTDLO and RSTDLOBRM because exclusive use of internal objects may have been obtained by these commands.
4. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify MEDPCY(*NONE) in which you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.

- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
FLRL	Folder list	<i>Name</i>	Required, Positional 1
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 2
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 3
SAVACT	Save active	*NO, *YES	Optional
OBJDTL	Retain DLO detail	*NO, *YES	Optional
CTLGRP	Control group	<i>Name</i> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
SAVTYPE	Type of save	*FULL, *CUML, *INCR	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	*BKUPCY, *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, *END	Optional
TGTRLS	Target release	<i>Character value</i> , *CURRENT	Optional
CLEAR	Clear	*NONE, *AFTER, *ALL	Optional
DTACPR	Data compression	*DEV, *NO, *YES	Optional
COMPACT	Data compaction	*DEV, *NO	Optional
REFDATE	Reference date	<i>Character value</i> , *REF	Optional
REFTIME	Reference time	<i>Character value</i> , *REF	Optional
EXPDATE	Expiration date	<i>Date</i> , *MEDPCY, *PERM	Optional
MOVPCY	Move policy	<i>Name</i> , *MEDPCY, *ADSM, *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , *MEDPCY, *ADSM, *SYSPCY	Optional
LOC	Location	<i>Name</i> , *MEDPCY, *ANY, *HOME	Optional
SAVF	Save to save file	*MEDPCY, *NO, *YES	Optional
SAVFASP	Save file ASP	<i>Character value</i> , *MEDPCY, *SYSTEM	Optional
SAVFEXP	Retain save files	<i>Date</i> , *MEDPCY, *NONE, *PERM	Optional
MAXSTG	ASP storage limit	1-99, *MEDPCY	Optional
VOLSEC	Secure volume	*MEDPCY, *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional

Keyword	Description	Choices	Notes
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional

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Folder list (FLRL)

Specifies the name of the folder list that you want to save. Lists are groups of folders that you want to save together. Lists are added, changed or displayed using the Work with Lists using BRM (WRKLBRLM) command.

This is a required parameter.

Top

Device (DEV)

Specifies the name of the device to be used for the save operation. The device name must already be in the BRMS device table.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

This is a required parameter.

Single values

*MEDCLS

Devices for this command are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual devices which is limited to a single value.

Other values

*NONE

There is no device for this save operation. Save files are used to store the saved data.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: Only one media library device or one virtual device can be specified.

Top

Media policy (MEDPCY)

Specifies the media policy that you want to use with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

***SYSPCY**

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Save active (SAVACT)

Specifies if an object can be updated while it is being saved.

***NO** Document library objects in use are not saved. Document library objects cannot be updated while being used.

***YES** Document library objects can be changed during the save request. Objects that are in use but are not using application recovery will not be saved. See the Backup and Recovery Book for more information on DLOs, saving while an object is in use, and application recovery.

Top

Retain DLO detail (OBJDTL)

You can specify whether the Document Library Object (DLO) detail is kept in the BRMS database for the DLO's saved.

***NO** DLO detail is not kept in the BRMS backup history.

***YES** DLO detail is kept in the BRMS backup history.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

*NONE

Do not specify a control group name for this command.

*ARCGRP

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKUGRP

The name of the default backup control group used to save all user data.

*SYSGRP

The name of the default system control group used to save all system data.

*SYSTEM

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

Type of save (SAVTYPE)

The Type of save parameter allows you to specify whether all documents in a folder are to be saved or only those documents that have changed.

*FULL Save all documents in the list.

*CUML

Save only changed documents since the last full save. *CUML indicates that the incremental save includes all documents created or changed and all folders created since the last full save, and all mail.

*INCR

You only want to save changed documents. *INCR indicates that the incremental save includes all documents created or changed and all folders created since the last incremental save, and all mail.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: If no objects are saved the volume is not opened and the ENDOPT parameter is ignored.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

*REWIND

The volume is rewound, but not unloaded.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*UNLOAD

The volume is automatically rewound and unloaded after the save operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*BKUPCY

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

***CURRENT**

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

***NONE**

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is

encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the device has the hardware compression feature installed, processing proceeds as if DTACPR(*YES) is specified. If the compression feature is not installed or save data is written to a save file, processing proceeds as if DTACPR(*NO) is specified.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compression is performed.

***YES** If the save is to tape and the target device supports compression, hardware compression is performed. If device compression is not supported, or if the save data is written to a save file, software compression is performed. If the save is running while other jobs on the system are active and software compression is used, the overall system performance can be affected.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If ***YES** is specified on the **Data compression (DTACPR)** parameter and ***DEV** is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compaction is performed.

Top

Reference date (REFDATE)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the date of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-date

Specify a date for this save operation to use as a beginning point for this incremental save.

Top

Reference time (REFTIME)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the time of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-time

Specify a time in hour, minute, second (hhmmss) format for this save operation to use as a beginning point for this incremental save.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If ***NONE** is specified in the **Media policy (MEDPCY)** parameter, you cannot specify ***MEDPCY** in this parameter.

***PERM**

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Media movement is controlled by TSM server specifications.

***NONE**

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

The save operation uses media that is selected and controlled by TSM server specifications.

***NONE**

There is not a media class associated with the output volumes that are selected for this save operation.

***SYSPCY**

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ANY** Volumes from any location are selected as output volumes for this save operation.

***HOME**

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***SYSTEM**

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

Save files generated from the save operation are not kept.

*PERM

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Volume security is controlled by TSM server specifications.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Volumes written to during a save operation will not be marked for duplication.

***YES** Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO History items created during the save operation will not be marked for duplication.

*YES History items created during the save operation will be marked for duplication.

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Examples

Example 1: Saving Changed Folders in a List

```
SAVFLRLBRM FLRL(LISTA) DEV(TAP01 TAP02) MEDPCY(INCR) SAVTYPE(*INCR)
```

This command saves changed folders in folder list LISTA to tape devices TAP01 and TAP02 using media policy INCR.

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Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Save Library using BRM (SAVLIBBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Library using BRM (SAVLIBBRM) command saves a copy of one or more libraries.

This command saves the entire library, including the library description, the object descriptions, and the contents of the objects in the library.

For job queues, message queues and logical files, only the object definitions are saved, not the contents. The contents of output queues can be saved using SPLFDTA(*ALL), otherwise, only the output queue object definition is saved. The contents of save files can be saved using SAVFDTA(*YES), otherwise, only the save file object definition is saved.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVLIB or SAVCHGOBJ commands to use this command.
2. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (ASPDEV)** parameter.
3. You must have either the *SAVSYS special authority or you must have:
 - Read authority for, or be the owner of, each library specified.
 - Object existence authority for each object in the library.
4. When saving to a save file, only one library can be specified.
5. No library (or object in the library) being saved can be updated by a job that is running at the same time the save operation occurs unless save-while-active is used.
6. *NONE must be specified for the **Spooled file data (SPLFDTA)** parameter if the value for the **Target release (TGTRLS)** parameter resolves to a release prior to V5R4M0. Use backup spooled file lists to save spooled files to target releases prior to V5R4M0.
7. *NONE must be specified for the SPLFDTA parameter if the value for the **Save type (SAVTYPE)** parameter is *CUML or *INCR.
8. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify MEDPCY(*NONE) in which can you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.
- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
LIB	Library	Single values: *ALLPROD, *ALLTEST, *ASP01, *ASP02, *ASP03, *ASP04, *ASP05, *ASP06, *ASP07, *ASP08, *ASP09, *ASP10, *ASP11, *ASP12, *ASP13, *ASP14, *ASP15, *ASP16, *ASP17, *ASP18, *ASP19, *ASP20, *ASP21, *ASP22, *ASP23, *ASP24, *ASP25, *ASP26, *ASP27, *ASP28, *ASP29, *ASP30, *ASP31, *ASP32, *ALLUSR, *IBM Other values (up to 300 repetitions): <i>Generic name, name</i>	Required, Positional 1
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 2
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 3
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, *MIN, *AVAIL	
SAVACT	Save active	*NO, *LIB, *SYSDFN, *SYNCLIB	Optional

Keyword	Description	Choices	Notes
SAVACTWAIT	Save active wait time	<i>Element list</i>	Optional
	Element 1: Object locks	0-99999, <u>120</u> , *NOMAX	
	Element 2: Pending record changes	0-99999, * <u>LOCKWAIT</u> , *NOCMTBDY, *NOMAX	
	Element 3: Other pending changes	0-99999, * <u>LOCKWAIT</u> , *NOMAX	
SAVACTMSGQ	Save active message queue	<i>Qualified object name</i>	Optional
	Qualifier 1: Save active message queue	Name, * <u>NONE</u> , *WRKSTN	
	Qualifier 2: Library	Name, * <u>LIBL</u> , *CURLIB	
OBJDTL	Retain object detail	* <u>ERR</u> , *MBR, *NO, *OBJ, *YES	Optional
CTLGRP	Control group	Name, * <u>NONE</u> , *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
SAVTYPE	Type of save	* <u>FULL</u> , *CUML, *INCR	Optional
ENDOPT	End of media option	* <u>REWIND</u> , *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	* <u>BKUPCY</u> , *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, * <u>END</u>	Optional
TGTRLS	Target release	<i>Character value</i> , * <u>CURRENT</u>	Optional
CLEAR	Clear	* <u>NONE</u> , *AFTER, *ALL	Optional
PRECHK	Object pre-check	* <u>NO</u> , *YES	Optional
ACCPH	Save access paths	* <u>SYSVAL</u> , *NO, *YES	Optional
PVTAUT	Private authorities	* <u>NO</u> , *YES	Optional
DTACPR	Data compression	* <u>DEV</u> , *NO, *YES	Optional
COMPACT	Data compaction	* <u>DEV</u> , *NO	Optional
SAVFDTA	Save contents of save files	* <u>YES</u> , *NO	Optional
SPLFDTA	Spooled file data	* <u>NONE</u> , *ALL	Optional
REFDATE	Reference date	<i>Character value</i> , * <u>REF</u>	Optional
REFTIME	Reference time	<i>Character value</i> , * <u>REF</u>	Optional
OBJJRN	Journalized objects	* <u>NO</u> , *YES	Optional
STRLIB	Starting library	Name, * <u>FIRST</u>	Optional
OMITLIB	Libraries to omit	Single values: * <u>BKUPCY</u> , *NONE Other values (up to 300 repetitions): <i>Generic name, name</i>	Optional
OMITOBJ	Objects to omit	Values (up to 300 repetitions): <i>Element list</i>	Optional
	Element 1: Object	<i>Qualified object name</i>	
	Qualifier 1: Object	<i>Generic name, name</i> , * <u>NONE</u> , *ALL	
	Qualifier 2: Library	<i>Generic name, name</i> , * <u>ALL</u>	
	Element 2: Object type	<i>Character value</i> , * <u>ALL</u>	
ASPDEV	Auxiliary storage pool	Name, * <u>SYSBAS</u> , *CURASPGRP	Optional
EXPDATE	Expiration date	Date, * <u>MEDPCY</u> , *PERM	Optional
MOVPCY	Move policy	Name, * <u>MEDPCY</u> , *ADSM, *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , * <u>MEDPCY</u> , *ADSM, *SYSPCY	Optional
LOC	Location	Name, * <u>MEDPCY</u> , *ANY, *HOME	Optional
SAVF	Save to save file	* <u>MEDPCY</u> , *NO, *YES	Optional
SAVFASP	Save file ASP	<i>Character value</i> , * <u>MEDPCY</u> , *SYSTEM	Optional
SAVFEXP	Retain save files	Date, * <u>MEDPCY</u> , *NONE, *PERM	Optional
MAXSTG	ASP storage limit	1-99, * <u>MEDPCY</u>	Optional
VOLSEC	Secure volume	* <u>MEDPCY</u> , *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, * <u>MEDPCY</u> , *NONE	Optional

Keyword	Description	Choices	Notes
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional

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Library (LIB)

Specifies which libraries are saved to removable media or to a save file.

Note: If you specify *ALLUSR or *IBM on this parameter, this command should be run when the specified libraries are not being used. If objects in a library are in use while the library is being saved, the objects are not saved unless you use SAVACT. To ensure a complete save of all libraries, run this command with the systems in a restricted state. For example, if SAVLIBBRM LIB(*ALLUSR) is run when the subsystem QSNADS is active the QAO* files are not saved in library QUSRSYS. To save the QAO* files, end the QSNADS subsystem before running SAVLIBBRM LIB(*ALLUSR).

Note: Doing a SAVLIBBRM LIB(*IBM) and then doing a SAVLIBBRM LIB(*ALLUSR) saves the same libraries as a SAVLIB LIB(*NONSYS), but requires two restore commands.

Restrictions:

1. The value *IBM is not valid on the **Library (LIB)** parameter when *SYNCLIB is specified on the **Save active (SAVACT)** parameter.
2. A value other than *CURRENT cannot be specified for the **Target release (TGTRLS)** parameter when *ALLUSR or *IBM is specified for the **Library (LIB)** parameter.

You can enter multiple values for this parameter.

*ALLPROD

Saves all libraries with an *PROD attribute. If you save both *ALLPROD and *ALLTEST, it is equivalent to saving *ALLUSR.

*ALLTEST

Saves all libraries with an *TEST attribute. If you save both *ALLTEST and *ALLPROD, it is equivalent to saving *ALLUSR.

*ASPnn

The system (1) or basic user auxiliary storage pool (2-32) that you want to save. For example: to save libraries in ASP 2, enter *ASP02.

Note: When you specify ASPnn, only libraries in the specified basic user auxiliary storage pool are included. No other object types are included.

Note: The usage of ASPnn applies only to system (1) or basic auxiliary storage pools. Support is not provided for auxiliary storage pools that contain only individual objects such as save files, journals, or journal receivers.

Note: The usage of ASPnn does not support UDFS, primary, or secondary auxiliary storage pools.

*ALLUSR

The special value *ALLUSR saves all user libraries.

Refer to the Special Values table for the Save Library (SAVLIB) Command in the Saving Libraries section of the i5/OS Backup and Recovery book for a list of libraries which can be restored using this special value.

Note: Libraries QGPL, QUSRSYS and QUSRBRM will be omitted in an *ALLUSR save to a TSM (ADSM) server.

***IBM** The special value *IBM saves all system (IBM) libraries.

Refer to the Special Values table for the Save Library (SAVLIB) Command in the Saving Libraries section of the i5/OS Backup and Recovery book for a list of libraries which can be restored using this special value.

library-name

Specify the names of a maximum of 300 libraries to be saved. The libraries QSYS, QSRV, QTEMP, QSPL, QSPLxxxx, QDOC, QDOCxxxx, QRPLOBJ, and QRECOVERY cannot be specified.

generic*-library-name

Specify one or more generic names of groups of libraries that you want to save. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete library name.

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Device (DEV)

Specifies the device or devices to be used by this command.

Single values

***MEDCLS**

Devices for this policy or control group are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual tape devices which is limited to a single value. The Parallel Device Resource (PRLRSC) parameter must be *NONE or the PRLRSC minimum and maximum must have a value of 1. BRMS will attempt to use the maximum number of devices that can be allocated for a save operation.

Note: If you want to use more than one device for a parallel save operation the *MEDCLS must only be specified once and the PRLRSC minimum and maximum responses must be greater than one.

Other values (up to 4 repetitions)

Specifies the name of the devices to be used for the save operation. the specified device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the stand alone device by multiple systems if you indicate the device is shared.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

***NONE**

There is no device for this save operation. Save files are used to store the saved data. Data in a save file created with device *NONE will never be copied by BRMS. It is intended for online access only.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

Note: PRLRSC must be *NONE when DEV is *NONE.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

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Media policy (MEDPCY)

Specifies the media policy to be used with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

*SYSPCY

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a parallel save operation.

Note: Transferring save files to tape does not support parallel operations.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel save.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

*NONE

No device resources are to be used. The save will be performed as a serial save. *NONE must be specified when using a virtual tape device, an optical device, or a virtual optical device.

*AVAIL

Use any available devices up to the maximum of what was used for a save. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

1-32 Specify the minimum number of device resources to be used with this save command.

Element 2: Maximum Resources

Specifies the maximum number of device resources.

*MIN Uses the value specified for the minimum number of device resources.

*AVAIL

Use any available devices for the save operation. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this save command.

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Save active (SAVACT)

Specifies if an object can be updated while it is being saved.

Note: If your system is in a restricted state and the SAVACT parameter is specified, the save operation is performed as if SAVACT(*NO) was specified.

Note: If you are using the MONSWABRM command as part of an *EXIT special operation in a control group, the **Save while active** field must have a value of *YES for the entry that you want to save while active. The Monitor Save While Active (MONSWABRM) command reviews the save while active message queue and looks for the message indicating the end of library synchronization. When synchronization is detected, you can issue a command to the system.

*NO Objects that are in use are not saved. Objects cannot be updated while being saved.

*LIB Objects in a library can be saved while they are in use by another job. All of the objects in a library reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Libraries with thousands of objects may be too large for this option.

***SYNCLIB**

Objects in a library can be saved while they are in use by another job. All of the objects and all of the libraries in the save operation reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Multiple checkpoints will occur when using *SYNCLIB with an incremental *ALLUSR backup item if new libraries were added to the system since the last save because synchronization is only within commands, not across libraries. New libraries are saved using Save Library (SAVLIB) command. Changed libraries are saved using the Save Changed Object (SAVCHGOBJ) command with a reference date and time that is the earliest occurrence of either that last full or last incremental backup. BRMS uses its own reference dates rather than those in the object description information to protect incremental saves from being affected by native save operations.

Note: The *SYNCLIB choice cannot be used for the *IBM save type.

Note: If the libraries are being saved to save files or to TSM servers, each library is saved individually rather than as a group. Synchronization messages are therefore sent individually for each library rather than for the libraries as a group and synchronization is only within one library, not across libraries.

***SYSDFN**

Objects in a library can be saved while they are in use by another job. Objects in a library may reach checkpoints at different times and may not be in a consistent state in relationship to each other.

Note: Specifying this value eliminates some size restrictions and can allow a library to be saved that could not be saved with SAVACT(*LIB).

Top

Save active wait time (SAVACTWAIT)

Specifies the amount of time to wait for an object that is in use, or for transactions with pending changes to reach a commit boundary, before continuing the save operation.

Element 1: Object locks

Specifies the amount of time to wait for the object to become available for each object that is in use. If an object remains in use for the specified time, the object is not saved.

For each object that is in use, specifies the amount of time to wait for the object to become available. If an object remains in use for the specified time, the object is not saved.

120 The system waits up to 120 seconds for each individual object lock before continuing the save operation.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for each individual object lock before continuing the save operation. Valid values range from 0 through 99 999.

Element 2: Pending record changes

For each group of objects that are checkpointed together, specifies the amount of time to wait for transactions with pending record changes to reach a commit boundary. The **Save active prompt**

(SAVACT) parameter determines which objects are checkpointed together. If 0 is specified, all objects being saved must be at commit boundaries. If any other value is specified, all objects that are journaled to the same journals as the objects being saved must reach commit boundaries. If a commit boundary is not reached in the specified time, the save operation is ended, unless the value *NOCMTBDY is specified.

*LOCKWAIT

The system waits up to the value specified on **Element 1** for commit boundaries for record changes.

***NOCMTBDY**

The system will save objects without requiring transactions with pending record changes to reach a commit boundary. Therefore, objects may be saved with pending transactions.

If you restore an object that was saved with pending transactions, you cannot use the object until you apply or remove journal changes (APYJRNCHG or RMVJRNCHG command) to reach commit boundaries. You will need all journal receivers that contain information about the pending transactions to apply or remove the changes. Until you apply or remove the changes, any future save of that object will include the pending transactions, even if you do not specify *NOCMTBDY.

Restrictions:

1. The value of the **Target release (TGTRLS)** parameter must be *CURRENT, V5R3M0 or later release to use *NOCMTBDY.
2. The value of the **Object detail (OBJDTL)** parameter must be *YES or *MBR to use *NOCMTBDY.
3. The name of the saved library cannot begin with the letter **Q** or **#** when using *NOCMTBDY.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for transactions with pending record changes to reach a commit boundary. Valid values range from 0 through 99 999.

Element 3: Other pending changes

For each library, specifies the amount of time to wait for transactions with other pending changes to reach a commit boundary. Other pending changes include the following:

- Data Definition Language (DDL) object level changes for that library.
- Any API commitment resource that was added without the option to allow normal save processing. For more information, see the **Add Commitment Resource (QTNADDCR)** API in the **System API Reference** information in the **i5/OS Information Center** at <http://www.ibm.com/eserver/iseres/infocenter>.

If a commit boundary is not reached for a library in the specified time, the library is not saved.

*LOCKWAIT

The system waits up to the value specified on **Element 1** for the types of transactions that are listed above to reach a commit boundary.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for the types of transactions that are listed above to reach a commit boundary. Valid values range from 0 through 99 999.

Top

Save active message queue (SAVACTMSGQ)

Specifies the message queue that the save operation uses to notify the user that the checkpoint processing for the library is complete. A separate message is sent for each library to be saved when the *SYSDFN or *LIB value is specified on the **Save active (SAVACT)** parameter. When the *SYNCLIB value is specified on the **Save active (SAVACT)** parameter, one message is sent for all libraries in the save operation.

Note: When multiple save operations are generated by BRMS, then one message is sent for each command generated.

This parameter can be used to save the objects at a known, consistent boundary to avoid additional recovery procedures following a restore operation. Applications can be stopped until the checkpoint processing complete message is received.

Qualifier 1: Save active message queue

*NONE

No notification message is sent.

*WRKSTN

The notification message is sent to the work station message queue.

message-queue-name

Specify the name of the message queue that the notification message is sent to.

Qualifier 2: Library

*LIBL The library list is used to locate the message queue.

*CURLIB

The current library for the job is used to locate the message queue. If no library is specified as the current library for the job, the QGPL library is used.

library-name

Specify the name of the library where the message queue is located.

Restrictions: If MONSWABRM is used to monitor the save while active message queue, and LIB(*MSGQ) is specified for the MONSWABRM, the name specified here must match the name on the MSGQ parameter for the MONSWABRM command.

MONSWABRM always uses the message queue from library QUSRBRM.

Top

Retain object detail (OBJDTL)

Specifies whether the object detail is kept in the BRMS database for the objects saved.

*ERR Error detail is kept in the BRMS backup history.

*MBR Object and member detail is kept in the BRMS backup history.

Note: Member level information is included with the object information for physical files, and saved spooled file information is kept for saved output queues if *ALL was specified for the **Save spooled file data (SPLFDTA)** parameter.

Note: This choice is the same as *YES.

*NO No object detail is kept in the BRMS backup history.

***OBJ** Object detail is kept in the BRMS backup history. No member level information or saved spooled file information is kept.

***YES** Object detail is kept in the BRMS backup history.

Note: When ***YES** is specified, member level information is kept for physical files in addition to object information, and saved spooled file information is kept for saved output queues if ***ALL** was specified for the **Save spooled file data (SPLFDTA)** parameter.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

***NONE**

Do not specify a control group name for this command.

***ARCGRP**

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

Type of save (SAVTYPE)

Specifies whether all objects in a library are to be saved or only those objects that have changed.

Note: If a backup includes new libraries and BRMS has no history of a full backup of these libraries, then a full backup will be performed regardless of the type of incremental specified.

***FULL** Save all objects in the library.

***CUML**

Only save items that have changed. ***CUML** indicates that the incremental save includes all objects that have been changed since the last full save.

***INCR**

Only save changed items. *INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***BKUPCY**

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

***CURRENT**

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

***NONE**

None of the uncleared volumes or save files encountered during the save operation are

automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Object pre-check (PRECHK)

Specifies whether the save operation ends if any of the selected objects cannot be saved.

***NO** The save operation for a library continues, saving only those objects that can be saved.

***YES** If after all specified objects are checked, one or more objects cannot be saved, the save operation for a library ends before any data is written. If multiple libraries are specified, the save operation continues with the next library.

Top

Save access paths (ACCPH)

Specifies whether the logical file access paths that are dependent on the physical files being saved are also saved. The access paths are saved only if all members on which the access paths are built are included in this save operation. Informational messages are sent indicating the number of logical file access paths saved with each physical file. All physical files on which an access path is built must be in the same library. This parameter does not save logical objects; it only controls the saving of the access paths. Information on the restoring of saved access paths is in the Backup and Recovery Book.

Attention: If the based-on physical files and the logical files are in different libraries, the access paths are saved. However, if the logical files and the based-on physical files are in different libraries and the logical files or physical files do not exist at restore time (such as during disaster recovery or the files were deleted) the access paths are not restored. They are rebuilt. For the fastest possible restore operation for logical files and the based-on physical files must be in the same library and must be saved at the same time.

***SYSVAL**

The system value QSAVACCPH determines whether to save the logical file access paths that are dependent on the physical files that are being saved.

***NO** Only those objects specified on the command are saved. No logical file access paths are saved.

***YES** The specified physical files and all eligible logical file access paths over them are saved.

Top

Private authorities (PVTAUT)

Specifies whether to save private authorities with the objects that are saved. Saving private authorities will increase the amount of time it takes to save the objects, but it can simplify the recovery of an object or a group of objects. It will not simplify the recovery of an entire system.

***NO** No private authorities are saved.

***YES** Private authorities are saved for each object that is saved.

Note: You must have save system (*SAVSYS) or all object (*ALLOBJ) special authority to specify this value.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compression is performed.

***YES** If the target device supports compression, hardware compression is performed. If compression is not supported, software compression is performed.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compaction is performed.

Top

Save contents of save files (SAVFDTA)

Specifies for save file objects, whether the description of a save file, or both the description and the contents of a save file, are saved on the tape or in another save file.

***YES** The description and contents of save files are saved.

***NO** Only the description of a save file is saved.

Top

Spooled file data (SPLFDTA)

Specifies whether to save the spooled file data and attributes for saved output queues. The saved spooled files and attributes can be viewed after the save using the Work with Saved Spooled Files (WRKSPLFBRM) command if *YES or *MBR is also specified for the **Retain object detail (OBJDTL)** parameter.

Note: Spooled file data is saved only when *FULL is specified for the **Type of save (SAVTYPE)** parameter.

***NONE** Specifies no spooled file data or attributes are saved with saved output queues.

***ALL** Specifies all available spooled file data and attributes are saved with saved output queues.

Top

Reference date (REFDATE)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the date of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-date

Specify a date for this save operation to use as a beginning point for this incremental save.

Top

Reference time (REFTIME)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the time of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-time

Specify a time in hour, minute, second (hhmmss) format for this save operation to use as a beginning point for this incremental save.

Top

Journalized objects (OBJJRN)

Specifies whether to save changed objects that are currently being journaled and that have been journaled since the date and time specified on the REFDATE and REFTIME parameters.

***NO** Objects being journaled are not saved. If journaling was started after the specified date and time, the changed objects or changed database file members are saved. The date and time of the last journal start operation can be shown by using the Display Object Description (DSPOBJD) command.

***YES** Objects whose changes are entered in a journal are saved.

Note: The value entered applies only to save types of *INCR or *CUML. For save type *FULL, this value is always treated as *YES.

Top

Starting library (STRLIB)

Specifies the library with which to begins the *IBM, *ALLUSR, *ALLPROD, *ALLTEST and *ASPnn save operations.

If an irrecoverable media error occurs during the save operation, this parameter can be used to restart the operation.

***FIRST**

The save operation begins with the first library in alphabetical order.

library-name

Specify the name of the library with which to begin the save operation.

Top

Libraries to omit (OMITLIB)

Specifies the libraries to be excluded from the save operation. This parameter is valid only if *ALLUSR, *IBM or *ASPnn is specified on the **Library (LIB)** parameter.

Single values

***BKUPCY**

The value specified for **Libraries to omit** field in the backup policy is used as the default value. The default value for **Libraries to omit (OMITLIB)** parameter is assigned in the backup policy.

Other values (up to 300 repetitions)

***NONE**

No libraries are excluded.

generic-library-name*

Specify the generic name. A generic name is a character string of one or more characters followed by an asterisk (*): for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all libraries with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete library name.

library-name

Specify the name of the library to be excluded. You can specify a maximum of 300 libraries.

Top

Object to omit (OMITOBJ)

Specifies the objects to be excluded from the save operation. Up to 300 objects or generic object values can be specified.

If the OMITOBJ parameter is not specified, no objects are excluded from the save operation.

Element 1: Object

Qualifier 1: Object

*NONE

No objects are excluded from the save operation.

***ALL** Objects in the specified libraries are excluded, depending on the value specified for the object type.

generic-object-name*

Specify the generic name of the object. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all objects with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

object-name

Specify the name of the object that will be excluded from the save operation.

Qualifier 2: Library

***ALL** The specified objects are excluded from all libraries that are part of the save operation.

generic-library-name*

Specify the generic name of the library. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all libraries with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete library name.

library-name

Specify the name of the library that contains the object to be excluded from the save operation.

Element 2: Object type

***ALL** All object types are excluded from the save operation, depending on the value specified for the object name.

object-type

Specify the type of the object to be excluded from the save operation.

Top

Auxiliary storage pool device (ASPDEV)

Use this parameter to specify the auxiliary storage pools from which libraries and objects can be included in the save operation.

*SYSBAS

Specifies libraries or objects from only the system (1) and basic user auxiliary storage pools (2-32) are included in the save.

***CURASGRP**

Specifies libraries or objects from only the auxiliary storage pool group currently set for the job are included in the save. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

auxiliary-storage-pool-device-name

Specifies libraries or objects from the named auxiliary storage pool device are included in the save operation. This must be the name of a primary or secondary auxiliary storage pool. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***PERM**

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Media movement is controlled by TSM server specifications.

***NONE**

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

The save operation uses media that is selected and controlled by TSM server specifications.

*NONE

There is not a media class associated with the output volumes that are selected for this save operation.

*SYSPCY

The value for the media class in the system policy will used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ANY Volumes from any location are selected as output volumes for this save operation.

*HOME

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***SYSTEM**

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

Save files generated from the save operation are not kept.

***PERM**

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

Volume security is controlled by TSM server specifications.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volumes written to during a save operation will not be marked for duplication.

*YES Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO History items created during the save operation will not be marked for duplication.

*YES History items created during the save operation will be marked for duplication.

Top

Examples

Example 1: Saving a Library on a Tape Device

```
SAVLIBBRM LIB(MYLIB) DEV(TAP01) MEDPCY(FULL)
```

This command saves library MYLIB to device TAP01 using the media policy FULL.

Example 2: Saving a Generic Library on Multiple Devices

```
SAVLIBBRM LIB(MY*) DEV(TAP01 TAP02) MEDPCY(FULL)
```

This command saves all libraries that begin with the letters 'MY' to devices TAP01 and TAP02 using the media policy FULL.

Example 3: Saving a Library on an Auxiliary Storage Pool Device

```
SAVLIBBRM LIB(MYLIB) DEV(TAP01) MEDPCY(FULL) ASPDEV(PRIMETIME)
```

This command saves library MYLIB which resides on auxiliary storage pool device PRIMETIME to device TAP01 using the media policy FULL.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Save Media Info using BRM (SAVMEDIBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Media Info using BRM (SAVMEDIBRM) command saves a copy of the information required to perform recovery of items saved using BRMS. Media information can be saved at the object or library level.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVOBJ command to use this command.
2. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 1
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 2
OPTION	Option	*LIB, *OBJ	Optional
CTLGRP	Control group	<i>Name</i> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional

Keyword	Description	Choices	Notes
USEOPTBLK	Use optimum block size	* <u>BKUPCY</u> , *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, * <u>END</u>	Optional
TGTRLS	Target release	<i>Character value</i> , * <u>CURRENT</u>	Optional
CLEAR	Clear	* <u>NONE</u> , *AFTER, *ALL	Optional
ACCPATH	Save access paths	* <u>SYSVAL</u> , *NO, *YES	Optional
DTACPR	Data compression	* <u>DEV</u> , *NO, *YES	Optional
COMPACT	Data compaction	* <u>DEV</u> , *NO	Optional
EXPDATE	Expiration date	<i>Date</i> , * <u>MEDPCY</u> , *PERM	Optional
MOVPCY	Move policy	<i>Name</i> , * <u>MEDPCY</u> , *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , * <u>MEDPCY</u> , *SYSPCY	Optional
LOC	Location	<i>Name</i> , * <u>MEDPCY</u> , *ANY, *HOME	Optional
SAVF	Save to save file	* <u>MEDPCY</u> , *NO, *YES	Optional
SAVFASP	Save file ASP	<i>Character value</i> , * <u>MEDPCY</u> , *SYSTEM	Optional
SAVFEXP	Retain save files	<i>Date</i> , * <u>MEDPCY</u> , *NONE, *PERM	Optional
MAXSTG	ASP storage limit	1-99, * <u>MEDPCY</u>	Optional
VOLSEC	Secure volume	* <u>MEDPCY</u> , *NO, *YES	Optional
MINVOL	Required volumes	1-9999, * <u>MEDPCY</u> , *NONE	Optional
MARKDUP	Mark volumes for duplication	* <u>MEDPCY</u> , *NO, *YES	Optional
MARKHST	Mark history for duplication	* <u>MEDPCY</u> , *NO, *YES	Optional

Top

Device (DEV)

Specifies the names of the devices used for save media information operation. Each device name must already be known on the system in the BRMS device table. If multiple devices are specified, they must use the same media classes. If more than one device is used, specify the names of the devices in the order in which they are used.

This is a required parameter.

You can enter multiple values for this parameter.

Single values

*MEDCLS

Any device that supports the media class specified in the media policy can be used for this save operation.

Other values (up to 4 repetitions)

*NONE

The save operation is to a save file.

device-name

Specify the name of the device or devices that you want to use for this save operation.

Top

Media policy (MEDPCY)

Specifies the media policy for the volumes you are creating as a result of saving media information.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

*NONE

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

*SYSPCY

The media policy specified in the system policy is assigned to output volumes from this save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Option (OPTION)

Specifies whether you want to save media information at the object or library level.

***LIB** You save media information at the library level. Recovery can only be done for libraries, not individual objects in libraries.

***OBJ** You save media information at the object level. Recovery can be done for libraries, individual objects in libraries or members in physical files.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

*NONE

Do not specify a control group name for this command.

***ARCGRP**

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***BKUPCY**

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

- *YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:
- Performance may improve.
 - The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
 - The value for the Data Compression (DTACPR) parameter is ignored.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

***CURRENT**

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

*NONE

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

*AFTER

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Save access paths (ACCPH)

Specifies whether the logical file access paths that are dependent on the physical files being saved are also saved. The access paths are saved only if all members on which the access paths are built are included in this save operation. Informational messages are sent indicating the number of logical file access paths saved with each physical file. This parameter does not save logical objects; it only controls the saving of the access paths. Information on the restoring of saved access paths is in the Backup and Recovery Book.

*SYSVAL

The system value QSAVACCPH determines whether to save the logical file access paths that are dependent on the physical files that are being saved.

***NO** Only those objects specified on the command are saved. No logical file access paths are saved.

***YES** The specified physical files and all eligible logical files access paths over them are saved.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

*DEV If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

*NO No data compression is performed.

*YES If the target device supports compression, hardware compression is performed. If compression is not supported, software compression is performed.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

*NO No data compaction is performed.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***PERM**

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is not a media class associated with the output volumes that are selected for this save operation.

*SYSPCY

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ANY Volumes from any location are selected as output volumes for this save operation.

*HOME

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Output from this save operation is not saved to a save file.

*YES Output from this save operation is saved to a save file.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*SYSTEM

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

Save files generated from the save operation are not kept.

***PERM**

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volumes written to during a save operation will not be marked for duplication.

*YES Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO History items created during the save operation will not be marked for duplication.

*YES History items created during the save operation will be marked for duplication.

Top

Examples

Example 1: Saving Media Information for a Control Group

```
SAVMEDIBRM DEV(*MEDCLS) MEDPCY(FULL) OPTION(*OBJ) CTLGRP(CG01)
```

This command saves object level information for control group CG01. The recovery information can be written to any device that supports the media class specified in the media policy FULL.

Example 2: Saving Media Information and Access Paths

```
SAVMEDIBRM DEV(*MEDCLS) MEDPCY(FULL) OPTION(*OBJ) ACCPTH(*YES)
```

This command saves all BRMS object level recovery information including access paths to any device that supports the media class specified in the media policy FULL.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Save Object using BRM (SAVOBJBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Object using BRM (SAVOBJBRM) command allows you to save individual objects or a group of objects that are in the same library.

For job queues, message queues and logical files, only the object definitions are saved, not the contents. The contents of output queues can be saved using SPLFDTA(*ALL), otherwise, only the output queue object definition is saved. The contents of save files can be saved using SAVFDTA(*YES), otherwise, only the save file object definition is saved.

The system saves the specified objects by writing a copy of each object on tape, or in a save file. The objects are not affected in the system unless the command specifies that the storage should be freed.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVOBJ or SAVCHGOBJ commands to use this command.
2. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (ASPDEV)** parameter.
3. You must have either the *SAVSYS special authority or you must have:
 - Read authority for, or be the owner of, each library specified.
 - Object existence authority for each object in the library.
4. When saving to a save file, only one library can be specified.
5. No object being saved can be changed by a job that is running at the time the save operation occurs unless save-while-active is used.
6. *NONE must be specified for the **Spooled file data (SPLFDTA)** parameter if the value for the **Target release (TGTRLS)** parameter resolves to a release prior to V5R4M0. Use backup spooled file lists to save spooled files to target releases prior to V5R4M0.
7. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify MEDPCY(*NONE) in which you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.
- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
LIB	Library	<i>Generic name, name</i>	Required, Positional 1
OBJ	Object	Single values: *ALL Other values (up to 50 repetitions): <i>Generic name, name</i>	Required, Positional 2
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name, *MEDCLS</i>	Required, Positional 3
OBJTYPE	Object type	Single values: *ALL Other values (up to 50 repetitions): <i>Character value</i>	Optional
MBR	Member	<i>Generic name, name, *ALL</i>	Optional
MEDPCY	Media policy	<i>Name, *NONE, *SYSPCY</i>	Required, Positional 4
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, *MIN, *AVAIL	
SAVACT	Save active	*NO, *LIB, *SYSDFN, *SYNCLIB	Optional

Keyword	Description	Choices	Notes
SAVACTWAIT	Save active wait time	<i>Element list</i>	Optional
	Element 1: Object locks	0-99999, <u>120</u> , *NOMAX	
	Element 2: Pending record changes	0-99999, * <u>LOCKWAIT</u> , *NOMAX, *NOCMTBDY	
	Element 3: Other pending changes	0-99999, * <u>LOCKWAIT</u> , *NOMAX	
SAVACTMSGQ	Save active message queue	<i>Qualified object name</i>	Optional
	Qualifier 1: Save active message queue	Name, * <u>NONE</u> , *WRKSTN	
	Qualifier 2: Library	Name, * <u>LIBL</u> , *CURLIB	
CTLGRP	Control group	Name, * <u>NONE</u> , *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
ENDOPT	End of media option	* <u>REWIND</u> , *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	* <u>BKUPCY</u> , *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, * <u>END</u>	Optional
TGTRLS	Target release	<i>Character value</i> , * <u>CURRENT</u>	Optional
CLEAR	Clear	* <u>NONE</u> , *AFTER, *ALL	Optional
PRECHK	Object pre-check	* <u>NO</u> , *YES	Optional
ACCPATH	Save access paths	* <u>SYSVAL</u> , *NO, *YES	Optional
PVTAUT	Private authorities	* <u>NO</u> , *YES	Optional
DTACPR	Data compression	* <u>DEV</u> , *NO, *YES	Optional
COMPACT	Data compaction	* <u>DEV</u> , *NO	Optional
SAVFDTA	Save contents of save files	* <u>YES</u> , *NO	Optional
SPLFDTA	Spooled file data	* <u>NONE</u> , *ALL	Optional
SAVTYPE	Type of save	* <u>FULL</u> , *CUML, *INCR	Optional
REFDATE	Reference date	<i>Character value</i> , * <u>REF</u>	Optional
REFTIME	Reference time	<i>Character value</i> , * <u>REF</u>	Optional
OBJJRN	Journalled objects	* <u>NO</u> , *YES	Optional
OMITOBJ	Objects to omit	Values (up to 300 repetitions): <i>Element list</i>	Optional
	Element 1: Object	<i>Qualified object name</i>	
	Qualifier 1: Object	<i>Generic name, name</i> , * <u>NONE</u> , *ALL	
	Qualifier 2: Library	<i>Generic name, name</i> , * <u>ALL</u>	
	Element 2: Object type	<i>Character value</i> , * <u>ALL</u>	
ASPDEV	Auxiliary storage pool	Name, * <u>SYSBAS</u> , *CURASPGRP	Optional
EXPDATE	Expiration date	Date, * <u>MEDPCY</u> , *PERM	Optional
MOVPCY	Move policy	Name, * <u>MEDPCY</u> , *ADSM, *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , * <u>MEDPCY</u> , *ADSM, *SYSPCY	Optional
LOC	Location	Name, * <u>MEDPCY</u> , *ANY, *HOME	Optional
SAVF	Save to save file	* <u>MEDPCY</u> , *NO, *YES	Optional
SAVFASP	Save file ASP	<i>Character value</i> , * <u>MEDPCY</u> , *SYSTEM	Optional
SAVFEXP	Retain save files	Date, * <u>MEDPCY</u> , *PERM, *NONE	Optional
MAXSTG	ASP storage limit	1-99, * <u>MEDPCY</u>	Optional
VOLSEC	Secure volume	* <u>MEDPCY</u> , *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, * <u>MEDPCY</u> , *NONE	Optional
MARKDUP	Mark volumes for duplication	* <u>MEDPCY</u> , *NO, *YES	Optional
MARKHST	Mark history for duplication	* <u>MEDPCY</u> , *NO, *YES	Optional

Library (LIB)

Specifies which library contains the objects that you want to save.

This a required parameter.

generic-library-name*

Specify the generic name of the libraries that contain objects to be saved. A generic name is a character string of one or more characters followed by an asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all libraries with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete library name.

library-name

Specify the name of the library that contains objects to be saved.

Object (OBJ)

Specifies the names of one or more objects or the generic name of each group of objects to be saved. All the objects must be in the library specified on the **Library (LIB)** parameter. If the **Object type (OBJTYPE)** parameter is not specified, all the object types listed in the description of that parameter are saved, provided they are in the specified library and have the specified names.

This is a required parameter.

You can type multiple values for this parameter.

Single values

***ALL** All the objects in the specified library are saved, depending on the values specified on the **Object type (OBJTYPE)** parameter.

Other values (up to 50 repetitions)

object-name

Specify one or more names of specific objects to save. Both generic names and specific names can be specified in the same command.

generic-object-name*

Specify one or more generic names of groups of objects in the specified library to be saved. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete object name.

Device (DEV)

Specifies the device or devices to be used by this command.

Single values

***MEDCLS**

Devices for this policy or control group are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual tape devices which is limited to a single value. The Parallel Device Resource (PRLRSC) parameter must be *NONE or the PRLRSC minimum and maximum must have a value of 1. BRMS will attempt to use the maximum number of devices that can be allocated for a save operation.

Note: If you want to use more than one device for a parallel save operation the *MEDCLS must only be specified once and the PRLRSC minimum and maximum responses must be greater than one.

Other values (up to 4 repetitions)

Specifies the name of the devices to be used for the save operation. the specified device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the stand alone device by multiple systems if you indicate the device is shared.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

***NONE**

There is no device for this save operation. Save files are used to store the saved data. Data in a save file created with device *NONE will never be copied by BRMS. It is intended for online access only.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

Note: PRLRSC must be *NONE when DEV is *NONE.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

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Object type (OBJTYPE)

Specifies the types of system objects to save. For a complete list of object types that can be saved, move the cursor to **Object type (OBJTYPE)** parameter and press the F4 key.

You can type multiple values for this parameter.

Single values

***ALL** All object types that are specified by name and are in the specified library are saved. If *ALL is also specified on the **Object (OBJ)** parameter, then all the objects in the library that are of the types that can be saved are saved.

Other values (up to 50 repetitions)

object-type

Specify the value for each of the types of object that are saved such as command (*CMD), file (*FILE), or program (*PGM).

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Member (MBR)

Specifies the database file members that are saved. You can choose a specific member, a generic member name or all members. To use the **Member (MBR)** parameter for a member or generic member, the **Object (OBJ)** parameter cannot be *ALL or generic and the **Object type (OBJTYPE)** parameter must be *FILE.

***ALL** All members are saved from the specified file.

member-name

Specify the name of the member to be saved from the given file.

generic-member-name*

Specify the generic name of the members to be saved from the specified file. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete member name.

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Media policy (MEDPCY)

Specifies the media policy that you want to use with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

***SYSPCY**

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy

values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a parallel save operation.

Note: Transferring save files to tape does not support parallel operations.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel save.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

*NONE

No device resources are to be used. The save will be performed as a serial save. *NONE must be specified when using a virtual tape device, an optical device, or a virtual optical device.

*AVAIL

Use any available devices up to the maximum of what was used for a save. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

1-32 Specify the minimum number of device resources to be used with this save command.

Element 2: Maximum Resources

Specifies the maximum number of device resources.

*MIN Uses the value specified for the minimum number of device resources.

*AVAIL

Use any available devices for the save operation. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this save command.

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Save active (SAVACT)

Specifies if an object can be updated while it is being saved.

Note: If your system is in a restricted state and the SAVACT parameter is specified, the save operation is performed as if SAVACT(*NO) was specified.

Note: If you are using the MONSWABRM command as part of an *EXIT special operation in a control group, the **Save while active** field must have a value of *YES for the entry that you want to save while

active. The Monitor Save While Active (MONSWABRM) command reviews the save while active message queue and looks for the message indicating the end of library synchronization. When synchronization is detected, you can issue a command to the system.

***NO** Objects that are in use are not saved. Objects cannot be updated while being saved.

***LIB** Objects in a library can be saved while they are in use by another job. All of the objects in a library reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Libraries with thousands of objects may be too large for this option.

***SYNCLIB**

Objects in a library can be saved while they are in use by another job. All of the objects and all of the libraries in the save operation reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Multiple checkpoints will occur when using *SYNCLIB with an incremental *ALLUSR backup item if new libraries were added to the system since the last save because synchronization is only within commands, not across libraries. New libraries are saved using Save Library (SAVLIB) command. Changed libraries are saved using the Save Changed Object (SAVCHGOBJ) command with a reference date and time that is the earliest occurrence of either that last full or last incremental backup. BRMS uses its own reference dates rather than those in the object description information to protect incremental saves from being affected by native save operations.

Note: The *SYNCLIB choice cannot be used for the *IBM save type.

Note: If the libraries are being saved to save files or to TSM servers, each library is saved individually rather than as a group. Synchronization messages are therefore sent individually for each library rather than for the libraries as a group and synchronization is only within one library, not across libraries.

***SYSDFN**

Objects in a library can be saved while they are in use by another job. Objects in a library may reach checkpoints at different times and may not be in a consistent state in relationship to each other.

Note: Specifying this value eliminates some size restrictions and can allow a library to be saved that could not be saved with SAVACT(*LIB).

Top

Save active wait time (SAVACTWAIT)

Specifies the amount of time to wait for an object that is in use, or for transactions with pending changes to reach a commit boundary, before continuing the save operation.

Element 1: Object locks

Specifies the amount of time to wait for the object to become available for each object that is in use. If an object remains in use for the specified time, the object is not saved.

For each object that is in use, specifies the amount of time to wait for the object to become available. If an object remains in use for the specified time, the object is not saved.

120 The system waits up to 120 seconds for each individual object lock before continuing the save operation.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for each individual object lock before continuing the save operation. Valid values range from 0 through 99 999.

Element 2: Pending record changes

For each group of objects that are checkpointed together, specifies the amount of time to wait for transactions with pending record changes to reach a commit boundary. The **Save active prompt (SAVACT)** parameter determines which objects are checkpointed together. If 0 is specified, all objects being saved must be at commit boundaries. If any other value is specified, all objects that are journaled to the same journals as the objects being saved must reach commit boundaries. If a commit boundary is not reached in the specified time, the save operation is ended, unless the value *NOCMTBDY is specified.

***LOCKWAIT**

The system waits up to the value specified on **Element 1** for commit boundaries for record changes.

***NOCMTBDY**

The system will save objects without requiring transactions with pending record changes to reach a commit boundary. Therefore, objects may be saved with pending transactions.

If you restore an object that was saved with pending transactions, you cannot use the object until you apply or remove journal changes (APYJRNCHG or RMVJRNCHG command) to reach commit boundaries. You will need all journal receivers that contain information about the pending transactions to apply or remove the changes. Until you apply or remove the changes, any future save of that object will include the pending transactions, even if you do not specify *NOCMTBDY.

Restrictions:

1. The value of the **Target release (TGTRLS)** parameter must be *CURRENT, V5R3M0 or later release to use *NOCMTBDY.
2. The value of the **Object detail (OBJDTL)** parameter must be *YES or *MBR to use *NOCMTBDY.
3. The name of the saved library cannot begin with the letter **Q** or **#** when using *NOCMTBDY.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for transactions with pending record changes to reach a commit boundary. Valid values range from 0 through 99 999.

Element 3: Other pending changes

For each library, specifies the amount of time to wait for transactions with other pending changes to reach a commit boundary. Other pending changes include the following:

- Data Definition Language (DDL) object level changes for that library.
- Any API commitment resource that was added without the option to allow normal save processing. For more information, see the **Add Commitment Resource (QTNADDCR)** API in the **System API Reference** information in the **i5/OS Information Center** at <http://www.ibm.com/eserver/iserie/infocenter>.

If a commit boundary is not reached for a library in the specified time, the library is not saved.

***LOCKWAIT**

The system waits up to the value specified on **Element 1** for the types of transactions that are listed above to reach a commit boundary.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for the types of transactions that are listed above to reach a commit boundary. Valid values range from 0 through 99 999.

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Save active message queue (SAVACTMSGQ)

Specifies the message queue that the save operation uses to notify the user that the checkpoint processing for the library is complete. A separate message is sent for each library to be saved when the *SYSDFN or *LIB value is specified on the **Save active (SAVACT)** parameter. When the *SYNCLIB value is specified on the **Save active (SAVACT)** parameter, one message is sent for all libraries in the save operation.

Note: When multiple save operations are generated by BRMS, then one message is sent for each command generated.

This parameter can be used to save the objects at a known, consistent boundary to avoid additional recovery procedures following a restore operation. Applications can be stopped until the checkpoint processing complete message is received.

Qualifier 1: Save active message queue

***NONE**

No notification message is sent.

***WRKSTN**

The notification message is sent to the work station message queue.

message-queue-name

Specify the name of the message queue that the notification message is sent to.

Qualifier 2: Library

***LIBL** The library list is used to locate the message queue.

***CURLIB**

The current library for the job is used to locate the message queue. If no library is specified as the current library for the job, the QGPL library is used.

library-name

Specify the name of the library where the message queue is located.

Restrictions: If MONSWABRM is used to monitor the save while active message queue, and LIB(*MSGQ) is specified for the MONSWABRM, the name specified here must match the name on the MSGQ parameter for the MONSWABRM command.

MONSWABRM always uses the message queue from library QUSRBRM.

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Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

***NONE**

Do not specify a control group name for this command.

***ARCGRP**

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

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End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

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Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*BKUPCY

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

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Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

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Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

*CURRENT

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system,

*PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

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Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

*NONE

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

*AFTER

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Object pre-check (PRECHK)

Specifies whether the save operation ends if any of the selected objects cannot be saved.

***NO** The save operation for a library continues, saving only those objects that can be saved.

***YES** If after all specified objects are checked, one or more objects cannot be saved, the save operation for a library ends before any data is written. If multiple libraries are specified, the save operation continues with the next library.

Save access paths (ACCPH)

Specifies whether the logical file access paths that are dependent on the physical files being saved are also saved. The access paths are saved only if all members on which the access paths are built are included in this save operation. Informational messages are sent indicating the number of logical file access paths saved with each physical file. All physical files on which an access path is built must be in the same library. This parameter does not save logical objects; it only controls the saving of the access paths. Information on the restoring of saved access paths is in the Backup and Recovery Book.

Attention: If the based-on physical files and the logical files are in different libraries, the access paths are saved. However, if the logical files and the based-on physical files are in different libraries and the logical files or physical files do not exist at restore time (such as during disaster recovery or the files were deleted) the access paths are not restored. They are rebuilt. For the fastest possible restore operation for logical files and the based-on physical files must be in the same library and must be saved at the same time.

*SYSVAL

The system value QSAVACCPH determines whether to save the logical file access paths that are dependent on the physical files that are being saved.

***NO** Only those objects specified on the command are saved. No logical file access paths are saved.

***YES** The specified physical files and all eligible logical files access paths over them are saved.

Top

Private authorities (PVTAUT)

Specifies whether to save private authorities with the objects that are saved. Saving private authorities will increase the amount of time it takes to save the objects, but it can simplify the recovery of an object or a group of objects. It will not simplify the recovery of an entire system.

***NO** No private authorities are saved.

***YES** Private authorities are saved for each object that is saved.

Note: You must have save system (*SAVSYS) or all object (*ALLOBJ) special authority to specify this value.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

- *NO No data compression is performed.
- *YES If the target device supports compression, hardware compression is performed. If compression is not supported, software compression is performed.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

- *DEV Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

- *NO No data compaction is performed.

Top

Save contents of save files (SAVFDTA)

Specifies for save file objects, whether the description of a save file, or both the description and the contents of a save file, are saved on the tape or in another save file.

- *YES The description and contents of save files are saved.

- *NO Only the description of a save file is saved.

Top

Spooled file data (SPLFDTA)

Specifies whether to save the spooled file data and attributes for saved output queues. The saved spooled files and attributes can be viewed after the save using the Work with Saved Spooled Files (WRKSPLFBRM) command.

- *NONE

Specifies no spooled file data or attributes are saved with saved output queues.

- *ALL Specifies all available spooled file data and attributes are saved with saved output queues.

Top

Type of save (SAVTYPE)

Specifies whether all objects in a library are to be saved or only those objects that have changed.

Note: If a backup includes new libraries and BRMS has no history of a full backup of these libraries, then a full backup will be performed regardless of the type of incremental specified.

***FULL** Save all objects in the library.

***CUML**

Only save items that have changed. *CUML indicates that the incremental save includes all objects that have been changed since the last full save.

***INCR**

Only save changed items. *INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

Top

Reference date (REFDATE)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the date of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-date

Specify a date for this save operation to use as a beginning point for this incremental save.

Top

Reference time (REFTIME)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the time of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-time

Specify a time in hour, minute, second (hhmmss) format for this save operation to use as a beginning point for this incremental save.

Top

Journalized objects (OBJJRN)

This parameter is ignored for SAVOBJBRM. Since the command does not support *INCR and *CUML backup types, the OBJJRN parameter does not apply.

Top

Omit object (OMITOBJ)

Specifies the objects to be excluded from the save operation. Up to 300 objects or generic object values can be specified.

If the OMITOBJ parameter is not specified, no objects are excluded from the save operation.

Element 1: Object

Qualifier 1: Object

***NONE**

No objects are excluded from the save operation.

***ALL** Objects in the specified libraries are excluded, depending on the value specified for the object type.

generic*-object-name

Specify the generic name of the object. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all objects with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

object-name

Specify the name of the object that will be excluded from the save operation.

Qualifier 2: Library

***ALL** The specified objects are excluded from all libraries that are part of the save operation.

generic*-library-name

Specify the generic name of the library. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all libraries with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete library name.

library-name

Specify the name of the library that contains the object to be excluded from the save operation.

Element 2: Object type

***ALL** All object types are excluded from the save operation, depending on the value specified for the object name.

object-type

Specify the type of the object to be excluded from the save operation.

Top

Auxiliary storage pool device (ASPDEV)

Use this parameter to specify the auxiliary storage pools from which libraries and objects can be included in the save operation.

***SYSBAS**

Specifies libraries or objects from only the system (1) and basic user auxiliary storage pools (2-32) are included in the save.

***CURASGRP**

Specifies libraries or objects from only the auxiliary storage pool group currently set for the job are included in the save. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

auxiliary-storage-pool-device-name

Specifies libraries or objects from the named auxiliary storage pool device are included in the save operation. This must be the name of a primary or secondary auxiliary storage pool. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***PERM**

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Media movement is controlled by TSM server specifications.

***NONE**

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

The save operation uses media that is selected and controlled by TSM server specifications.

***NONE**

There is not a media class associated with the output volumes that are selected for this save operation.

***SYSPCY**

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ANY** Volumes from any location are selected as output volumes for this save operation.

***HOME**

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*SYSTEM

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

Save files generated from the save operation are not kept.

*PERM

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

Volume security is controlled by TSM server specifications.

*NO Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

*YES Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volumes written to during a save operation will not be marked for duplication.

*YES Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO History items created during the save operation will not be marked for duplication.

*YES History items created during the save operation will be marked for duplication.

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Examples

Example 1: Saving Objects of a Particular Type

```
SAVOBJBRM LIB(MYLIB) OBJ(AP* GLMST) DEV(TAP09)
          OBJTYPE(*FILE) MEDPCY(FULL)
```

This command saves selected file objects whose names begin with the letters 'AP' and the file object named GLMST from library MYLIB using device TAP09.

Example 2: Saving Generic Objects from a Library

```
SAVOBJBRM LIB(MYLIB) OBJ(DIST*) DEV(TAP09) MEDPCY(FULL)
```

This command saves all objects that begin with the letters 'DIST' from library MYLIB using device TAP09.

Example 3: Saving Objects of a Particular Type in Parallel

```
SAVOBJBRM LIB(MBALIB) OBJ(AP* GLMST) DEV(MLB01)
          OBJTYPE(*FILE) MEDPCY(FULL) PRLRSC(2 2)
```

In this example all objects are saved that begin with AP or the object called GLMST if they are object type *FILE. The objects are found in library MBALIB. They will be saved to two device resources in MLB01.

Example 4: Saving Objects of a Particular Type on an Auxiliary Storage Pool Device

```
SAVOBJBRM LIB(MYLIB) OBJ(AP* GLMST) DEV(TAP09) OBJTYPE(*FILE)
          MEDPCY(FULL) ASPDEV(PRIMETIME)
```

This command saves selected file objects whose names begin with the letters 'AP' and the file object named GLMST from library MYLIB which reside on auxiliary storage pool device PRIMETIME using device TAP09.

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Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Save Object List using BRM (SAVOBJLBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Object List using BRM (SAVOBJLBRM) command saves objects that are specified in a BRMS object list. It does not save the list itself.

For job queues, message queues and logical files, only the object definitions are saved, not the contents. The contents of output queues can be saved using SPLFDTA(*ALL), otherwise, only the output queue object definition is saved. The contents of save files can be saved using SAVFDTA(*YES), otherwise, only the save file object definition is saved.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVOBJ or SAVCHGOBJ commands to use this command.
2. You must have *USE authority to any auxiliary storage pool device specified for the **Auxiliary storage pool (ASPDEV)** parameter.
3. You must have either the *SAVSYS special authority or you must have:
 - Read authority for, or be the owner of, each library specified.
 - Object existence authority for each object in the library.
4. When saving to a save file, only one library can be specified.
5. No object being saved can be changed by a job that is running at the time the save operation occurs unless save-while-active is used.
6. *NONE must be specified for the **Spooled file data (SPLFDTA)** parameter if the value for the **Target release (TGTRLS)** parameter resolves to a release prior to V5R4M0. Use backup spooled file lists to save spooled files to target releases prior to V5R4M0.
7. *NONE must be specified for the SPLFDTA parameter if the value for the **Save type (SAVTYPE)** parameter is *CUML or *INCR.
8. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to a Tivoli Storage Manager (TSM) server using this command. To save data to a TSM server, the following conditions must be met:

- Only user data can be saved to TSM servers. BRMS does not allow *IBM type libraries to be saved TSM servers. Also, BRMS does not allow IBM supplied libraries that are considered user data such as QGPL, QUSRBRM, or QUSRSYS libraries to be saved TSM media.
- You can only specify only one device for the **Device (DEV)** parameter and this device must be of category *NET or *APPC.
- You can specify DEV(*MEDCLS) with the **Location (LOC)** parameter to identify the *NET or *APPC category device to be used.
- You can specify a media policy name for the **Media policy (MEDPCY)** parameter if the media policy uses specifies *ADSM (TSM server) for the **Media class** attribute. Alternately you can specify MEDPCY(*NONE) in which you must also specify *ADSM for the **Media class (MEDCLS)**, **Move policy (MOVPCY)** and **Secure volume (VOLSEC)** parameters.
- The **Sequence number (SEQNBR)** parameter must be *END.
- The **Save to save file (SAVF)**, **Mark volumes for duplication (MARKDUP)** and **Mark history for duplication (MARKHST)** parameters must be *NO. If *MEDPCY is specified for these parameters, then the respective value for the **Save to save file** attribute, **Mark volumes for duplication** attribute and **Mark history for duplication** attribute of the media policy specified by the **Media policy (MEDPCY)** parameter must be *NO.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

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Parameters

Keyword	Description	Choices	Notes
OBJL	Object list	<i>Name</i>	Required, Positional 1
DEV	Device	Single values: *NONE Other values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 2
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 3
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, * NONE , *AVAIL	
	Element 2: Maximum resources	1-32, * MIN , *AVAIL	
SAVACT	Save active	*LIB, * NO , *SYSDFN, *SYNCLIB	Optional
SAVACTWAIT	Save active wait time	<i>Element list</i>	Optional
	Element 1: Object locks	0-99999, 120 , *NOMAX	
	Element 2: Pending record changes	0-99999, * LOCKWAIT , *NOMAX, *NOCMTBDY	
	Element 3: Other pending changes	0-99999, * LOCKWAIT , *NOMAX	

Keyword	Description	Choices	Notes
SAVACTMSGQ	Save active message queue	<i>Qualified object name</i>	Optional
	Qualifier 1: Save active message queue	<i>Name, *NONE, *WRKSTN</i>	
	Qualifier 2: Library	<i>Name, *LIBL, *CURLIB</i>	
OBJDTL	Retain object detail	*ERR, *MBR, *NO, *OBJ, *YES	Optional
CTLGRP	Control group	<i>Name, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM</i>	Optional
SAVTYPE	Type of save	*FULL, *CUML, *INCR	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	*BKUPCY, *DEV, *NO, *YES	Optional
SEQNBR	Sequence number	1-16777215, *END	Optional
TGTRLS	Target release	<i>Character value, *CURRENT</i>	Optional
CLEAR	Clear	*NONE, *AFTER, *ALL	Optional
PRECHK	Object pre-check	*NO, *YES	Optional
ACCPATH	Save access paths	*SYSVAL, *NO, *YES	Optional
PVTAUT	Private authorities	*NO, *YES	Optional
DTACPR	Data compression	*DEV, *NO, *YES	Optional
COMPACT	Data compaction	*DEV, *NO	Optional
SAVFDTA	Save contents of save files	*YES, *NO	Optional
SPLFDTA	Spooled file data	*NONE, *ALL	Optional
REFDATE	Reference date	<i>Character value, *REF</i>	Optional
REFTIME	Reference time	<i>Character value, *REF</i>	Optional
OBJJRN	Journalized objects	*NO, *YES	Optional
OMITOBJ	Objects to omit	Values (up to 300 repetitions): <i>Element list</i>	Optional
	Element 1: Object	<i>Qualified object name</i>	
	Qualifier 1: Object	<i>Generic name, name, *NONE, *ALL</i>	
	Qualifier 2: Library	<i>Generic name, name, *ALL</i>	
	Element 2: Object type	<i>Character value, *ALL</i>	
ASPDEV	Auxiliary storage pool	<i>Name, *SYSBAS, *CURASPGRP</i>	Optional
EXPDATE	Expiration date	<i>Date, *MEDPCY, *PERM</i>	Optional
MOVPCY	Move policy	<i>Name, *MEDPCY, *ADSM, *NONE</i>	Optional
MEDCLS	Media class	<i>Character value, *MEDPCY, *ADSM, *SYSPCY</i>	Optional
LOC	Location	<i>Name, *MEDPCY, *ANY, *HOME</i>	Optional
SAVF	Save to save file	*MEDPCY, *NO, *YES	Optional
SAVFASP	Save file ASP	<i>Character value, *MEDPCY, *SYSTEM</i>	Optional
SAVFEXP	Retain save files	<i>Date, *MEDPCY, *NONE, *PERM</i>	Optional
MAXSTG	ASP storage limit	1-99, *MEDPCY	Optional
VOLSEC	Secure volume	*MEDPCY, *ADSM, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional

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Object list (OBJL)

Specifies the name of the backup object list that you want BRMS to use during the save operation. Lists identify groups of objects that you want to save together. Lists are added, changed or displayed using the Work with Lists (WRKLB RM) command.

This is a required parameter.

Top

Device (DEV)

Specifies the device or devices to be used by this command.

Single values

*MEDCLS

Devices for this policy or control group are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual tape devices which is limited to a single value. The Parallel Device Resource (PRLRSC) parameter must be *NONE or the PRLRSC minimum and maximum must have a value of 1. BRMS will attempt to use the maximum number of devices that can be allocated for a save operation.

Note: If you want to use more than one device for a parallel save operation the *MEDCLS must only be specified once and the PRLRSC minimum and maximum responses must be greater than one.

Other values (up to 4 repetitions)

Specifies the name of the devices to be used for the save operation. the specified device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the stand alone device by multiple systems if you indicate the device is shared.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

*NONE

There is no device for this save operation. Save files are used to store the saved data. Data in a save file created with device *NONE will never be copied by BRMS. It is intended for online access only.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

Note: PRLRSC must be *NONE when DEV is *NONE.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

Top

Media policy (MEDPCY)

Specifies the media policy that you want to use with this save command.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

*SYSPCY

The media policy specified in the system policy is assigned to output volumes from this save operation.

***NONE**

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

Note: If you specify *NONE, and you are saving data to a TSM (ADSM) server, you must specify the *ADSM special value in the MOVPCY, MEDCLS and VOLSEC parameters which are part of the media policy values for this save operation. You must still supply the additional media policy values for the remaining parameters with *MEDPCY as the default. The TSM management class STANDARD, and the TSM node *LCL, are used as default values for the save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a parallel save operation.

Note: Transferring save files to tape does not support parallel operations.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel save.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

***NONE**

No device resources are to be used. The save will be performed as a serial save. *NONE must be specified when using a virtual tape device, an optical device, or a virtual optical device.

***AVAIL**

Use any available devices up to the maximum of what was used for a save. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

1-32 Specify the minimum number of device resources to be used with this save command.

Element 2: Maximum Resources

Specifies the maximum number of device resources.

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL**

Use any available devices for the save operation. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this save command.

Top

Save active (SAVACT)

Specifies if an object can be updated while it is being saved.

Note: If your system is in a restricted state and the SAVACT parameter is specified, the save operation is performed as if SAVACT(*NO) was specified.

Note: If you are using the MONSWABRM command as part of an *EXIT special operation in a control group, the **Save while active** field must have a value of *YES for the entry that you want to save while active. The Monitor Save While Active (MONSWABRM) command reviews the save while active message queue and looks for the message indicating the end of library synchronization. When synchronization is detected, you can issue a command to the system.

***NO** Objects that are in use are not saved. Objects cannot be updated while being saved.

***LIB** Objects in a library can be saved while they are in use by another job. All of the objects in a library reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Libraries with thousands of objects may be too large for this option.

***SYNCLIB**

Objects in a library can be saved while they are in use by another job. All of the objects and all of the libraries in the save operation reach a checkpoint together and are saved in a consistent state in relationship to each other.

Note: Multiple checkpoints will occur when using *SYNCLIB with an incremental *ALLUSR backup item if new libraries were added to the system since the last save because synchronization is only within commands, not across libraries. New libraries are saved using Save Library (SAVLIB) command. Changed libraries are saved using the Save Changed Object (SAVCHGOBJ) command with a reference date and time that is the earliest occurrence of either that last full or last incremental backup. BRMS uses its own reference dates rather than those in the object description information to protect incremental saves from being affected by native save operations.

Note: The *SYNCLIB choice cannot be used for the *IBM save type.

Note: If the libraries are being saved to save files or to TSM servers, each library is saved individually rather than as a group. Synchronization messages are therefore sent individually for each library rather than for the libraries as a group and synchronization is only within one library, not across libraries.

*SYSDFN

Objects in a library can be saved while they are in use by another job. Objects in a library may reach checkpoints at different times and may not be in a consistent state in relationship to each other.

Note: Specifying this value eliminates some size restrictions and can allow a library to be saved that could not be saved with SAVACT(*LIB).

Top

Save active wait time (SAVACTWAIT)

Specifies the amount of time to wait for an object that is in use, or for transactions with pending changes to reach a commit boundary, before continuing the save operation.

Element 1: Object locks

Specifies the amount of time to wait for the object to become available for each object that is in use. If an object remains in use for the specified time, the object is not saved.

For each object that is in use, specifies the amount of time to wait for the object to become available. If an object remains in use for the specified time, the object is not saved.

120 The system waits up to 120 seconds for each individual object lock before continuing the save operation.

*NOMAX

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for each individual object lock before continuing the save operation. Valid values range from 0 through 99 999.

Element 2: Pending record changes

For each group of objects that are checkpointed together, specifies the amount of time to wait for transactions with pending record changes to reach a commit boundary. The **Save active prompt (SAVACT)** parameter determines which objects are checkpointed together. If 0 is specified, all objects being saved must be at commit boundaries. If any other value is specified, all objects that are journaled to the same journals as the objects being saved must reach commit boundaries. If a commit boundary is not reached in the specified time, the save operation is ended, unless the value *NOCMTBDY is specified.

*LOCKWAIT

The system waits up to the value specified on **Element 1** for commit boundaries for record changes.

*NOCMTBDY

The system will save objects without requiring transactions with pending record changes to reach a commit boundary. Therefore, objects may be saved with pending transactions.

If you restore an object that was saved with pending transactions, you cannot use the object until you apply or remove journal changes (APYJRNCHG or RMVJRNCHG command) to reach commit boundaries. You will need all journal receivers that contain information about the

pending transactions to apply or remove the changes. Until you apply or remove the changes, any future save of that object will include the pending transactions, even if you do not specify *NOCMTBDY.

Restrictions:

1. The value of the **Target release (TGTRLS)** parameter must be *CURRENT, V5R3M0 or later release to use *NOCMTBDY.
2. The value of the **Object detail (OBJDTL)** parameter must be *YES or *MBR to use *NOCMTBDY.
3. The name of the saved library cannot begin with the letter **Q** or **#** when using *NOCMTBDY.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for transactions with pending record changes to reach a commit boundary. Valid values range from 0 through 99 999.

Element 3: Other pending changes

For each library, specifies the amount of time to wait for transactions with other pending changes to reach a commit boundary. Other pending changes include the following:

- Data Definition Language (DDL) object level changes for that library.
- Any API commitment resource that was added without the option to allow normal save processing. For more information, see the **Add Commitment Resource (QTNADDCR)** API in the **System API Reference** information in the **i5/OS Information Center** at <http://www.ibm.com/eserver/series/infocenter>.

If a commit boundary is not reached for a library in the specified time, the library is not saved.

***LOCKWAIT**

The system waits up to the value specified on **Element 1** for the types of transactions that are listed above to reach a commit boundary.

***NOMAX**

No maximum wait time exists.

wait-time

Specifies the time (in seconds) to wait for the types of transactions that are listed above to reach a commit boundary. Valid values range from 0 through 99 999.

Top

Save active message queue (SAVACTMSGQ)

Specifies the message queue that the save operation uses to notify the user that the checkpoint processing for the library is complete. A separate message is sent for each library to be saved when the *SYSDFN or *LIB value is specified on the **Save active (SAVACT)** parameter. When the *SYNCLIB value is specified on the **Save active (SAVACT)** parameter, one message is sent for all libraries in the save operation.

Note: When multiple save operations are generated by BRMS, then one message is sent for each command generated.

This parameter can be used to save the objects at a known, consistent boundary to avoid additional recovery procedures following a restore operation. Applications can be stopped until the checkpoint processing complete message is received.

Qualifier 1: Save active message queue

***NONE**

No notification message is sent.

***WRKSTN**

The notification message is sent to the work station message queue.

message-queue-name

Specify the name of the message queue that the notification message is sent to.

Qualifier 2: Library

***LIBL** The library list is used to locate the message queue.

***CURLIB**

The current library for the job is used to locate the message queue. If no library is specified as the current library for the job, the QGPL library is used.

library-name

Specify the name of the library where the message queue is located.

Restrictions: If MONSWABRM is used to monitor the save while active message queue, and LIB(*MSGQ) is specified for the MONSWABRM, the name specified here must match the name on the MSGQ parameter for the MONSWABRM command.

MONSWABRM always uses the message queue from library QUSRBRM.

Top

Retain object detail (OBJDTL)

Specifies whether the object detail is kept in the BRMS database for the objects saved.

***ERR** Error detail is kept in the BRMS backup history.

***MBR** Object and member detail is kept in the BRMS backup history.

Note: Member level information is included with the object information for physical files, and saved spooled file information is kept for saved output queues if *ALL was specified for the **Save spooled file data (SPLFDTA)** parameter.

Note: This choice is the same as *YES.

***NO** No object detail is kept in the BRMS backup history.

***OBJ** Object detail is kept in the BRMS backup history. No member level information or saved spooled file information is kept.

***YES** Object detail is kept in the BRMS backup history.

Note: When *YES is specified, member level information is kept for physical files in addition to object information, and saved spooled file information is kept for saved output queues if *ALL was specified for the **Save spooled file data (SPLFDTA)** parameter.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

*NONE

Do not specify a control group name for this command.

*ARCGRP

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKUGRP

The name of the default backup control group used to save all user data.

*SYSGRP

The name of the default system control group used to save all system data.

*SYSTEM

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

Type of save (SAVTYPE)

Specifies whether all objects in a library are to be saved or only those objects that have changed.

Note: If a backup includes new libraries and BRMS has no history of a full backup of these libraries, then a full backup will be performed regardless of the type of incremental specified.

*FULL Save all objects in the library.

*CUML

Only save items that have changed. *CUML indicates that the incremental save includes all objects that have been changed since the last full save.

*INCR

Only save changed items. *INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***BKUPCY**

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation. If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END. If you are saving to a BRMS volume, BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

***END** The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number (1-16,777,215)

Specify the sequence number of the file to be used for the save operation.

Top

Target release (TGTRLS)

Specifies the release of the operating system on which you intend to restore the objects being saved.

*CURRENT

The objects are to be restored on a system that is running the same release of the operating system currently running on your system. For example, if V5R2M0 is running on the system, *CURRENT means that you intend to restore the objects on a system with V5R2M0 installed. The objects can also be restored on a system with any subsequent release of the operating system installed.

***PRV** The objects are to be restored on a system that is running on the previous release with modification level 0 of the operating system. For example if V5R2M0 is running on your system, *PRV means you intend to restore the objects on a system with V5R1M0 installed. The object can also be restored on a system with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

target-release

Specify the release in the format VxRxMx, where Vx is the version, Rx is the release, and Mx is the modification level. For example, V5R2M0 is version 5, release 2, modification level 0.

The objects can be restored on a system with the specified release or with any subsequent release of the operating system installed.

Note: Not all objects can be targeted to another release. Objects that are new to a release typically cannot be saved to a previous release.

Valid values depend on the current version, release, and modification level, and they change with each new release. If you specify a release-level that is earlier than the earliest release level supported by this command, an error message is sent indicating the earliest supported release.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

*NONE

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first

volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

- *ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Object pre-check (PRECHK)

Specifies whether the save operation ends if any of the selected objects cannot be saved.

- *NO** The save operation for a library continues, saving only those objects that can be saved.
- *YES** If after all specified objects are checked, one or more objects cannot be saved, the save operation for a library ends before any data is written. If multiple libraries are specified, the save operation continues with the next library.

Top

Save access paths (ACCPH)

Specifies whether the logical file access paths that are dependent on the physical files being saved are also saved. The access paths are saved only if all members on which the access paths are built are included in this save operation. Informational messages are sent indicating the number of logical file access paths saved with each physical file. All physical files on which an access path is built must be in the same library. This parameter does not save logical objects; it only controls the saving of the access paths. Information on the restoring of saved access paths is in the Backup and Recovery Book.

Attention: If the based-on physical files and the logical files are in different libraries, the access paths are saved. However, if the logical files and the based-on physical files are in different libraries and the logical files or physical files do not exist at restore time (such as during disaster recovery or the files were deleted) the access paths are not restored. They are rebuilt. For the fastest possible restore operation for logical files and the based-on physical files must be in the same library and must be saved at the same time.

*SYSVAL

The system value QSAVACCPH determines whether to save the logical file access paths that are dependent on the physical files that are being saved.

- *NO** Only those objects specified on the command are saved. No logical file access paths are saved.
- *YES** The specified physical files and all eligible logical files access paths over them are saved.

Top

Private authorities (PVTAUT)

Specifies whether to save private authorities with the objects that are saved. Saving private authorities will increase the amount of time it takes to save the objects, but it can simplify the recovery of an object or a group of objects. It will not simplify the recovery of an entire system.

- *NO** No private authorities are saved.
- *YES** Private authorities are saved for each object that is saved.

Note: You must have save system (*SAVSYS) or all object (*ALLOBJ) special authority to specify this value.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compression is performed.

***YES** If the target device supports compression, hardware compression is performed. If compression is not supported, software compression is performed.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compaction is performed.

Top

Save contents of save files (SAVFDTA)

Specifies for save file objects, whether the description of a save file, or both the description and the contents of a save file, are saved on the tape or in another save file.

***YES** The description and contents of save files are saved.

***NO** Only the description of a save file is saved.

Top

Spooled file data (SPLFDTA)

Specifies whether to save the spooled file data and attributes for saved output queues. The saved spooled files and attributes can be viewed after the save using the Work with Saved Spooled Files (WRKSPLFBRM) command if *YES or *MBR is also specified for the **Retain object detail (OBJDTL)** parameter.

Note: Spooled file data is saved only when *FULL is specified for the **Type of save (SAVTYPE)** parameter.

*NONE

Specifies no spooled file data or attributes are saved with saved output queues.

***ALL** Specifies all available spooled file data and attributes are saved with saved output queues.

Top

Reference date (REFDATE)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the date of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-date

Specify a date for this save operation to use as a beginning point for this incremental save.

Top

Reference time (REFTIME)

Works in conjunction with an incremental (save changed objects) save performed under BRMS control.

***REF** Uses the time of the last full BRMS save for this save operation as the beginning point for this incremental save.

reference-time

Specify a time in hour, minute, second (hhmmss) format for this save operation to use as a beginning point for this incremental save.

Top

Journalized objects (OBJJRN)

Specifies whether to save changed objects that are currently being journaled and that have been journaled since the date and time specified on the REFDATE and REFTIME parameters.

***NO** Objects being journaled are not saved. If journaling was started after the specified date and time, the changed objects or changed database file members are saved. The date and time of the last journal start operation can be shown by using the Display Object Description (DSPOBJD) command.

***YES** Objects whose changes are entered in a journal are saved.

Note: The value entered applies only to save types of *INCR or *CUML. For save type *FULL, this value is always treated as *YES.

Omit object (OMITOBJ)

Specifies the objects to be excluded from the save operation. Up to 300 objects or generic object values can be specified.

If the OMITOBJ parameter is not specified, no objects are excluded from the save operation.

Element 1: Object

Qualifier 1: Object

*NONE

No objects are excluded from the save operation.

***ALL** Objects in the specified libraries are excluded, depending on the value specified for the object type.

generic-object-name*

Specify the generic name of the object. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all objects with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete object name.

object-name

Specify the name of the object that will be excluded from the save operation.

Qualifier 2: Library

***ALL** The specified objects are excluded from all libraries that are part of the save operation.

generic-library-name*

Specify the generic name of the library. A generic name is a character string of one or more characters followed by the asterisk (*); for example, ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all libraries with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete library name.

library-name

Specify the name of the library that contains the object to be excluded from the save operation.

Element 2: Object type

***ALL** All object types are excluded from the save operation, depending on the value specified for the object name.

object-type

Specify the type of the object to be excluded from the save operation.

Auxiliary storage pool device (ASPDEV)

Use this parameter to specify the auxiliary storage pools from which libraries and objects can be included in the save operation.

***SYSBAS**

Specifies libraries or objects from only the system (1) and basic user auxiliary storage pools (2-32) are included in the save.

***CURASGRP**

Specifies libraries or objects from only the auxiliary storage pool group currently set for the job are included in the save. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

auxiliary-storage-pool-device-name

Specifies libraries or objects from the named auxiliary storage pool device are included in the save operation. This must be the name of a primary or secondary auxiliary storage pool. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***PERM**

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Media movement is controlled by TSM server specifications.

***NONE**

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ADSM

The save operation uses media that is selected and controlled by TSM server specifications.

*NONE

There is not a media class associated with the output volumes that are selected for this save operation.

*SYSPCY

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*ANY Volumes from any location are selected as output volumes for this save operation.

*HOME

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Save to save file (SAVF)

Specifies whether the output from this save operation is saved to a save file.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify SAVF(*MEDPCY), then the value of the **Save to save file** field in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Output from this save operation is not saved to a save file.

***YES** Output from this save operation is saved to a save file.

Top

Save file ASP (SAVFASP)

Specifies the system (1) or basic user auxiliary storage pool (2-32) to which a save file is created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***SYSTEM**

The save file is saved to the system (1) auxiliary storage pool.

save-file-ASP-name

Specify the name of the auxiliary storage pool to which you are saving the save file.

save-file-ASP-number

Specify the system (1) or basic user auxiliary storage pool number (2-32) for the save file that is created as a result of the save operation.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

Retain save files (SAVFEXP)

Specifies how long save files are to be kept that are created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

Save files generated from the save operation are not kept.

***PERM**

Save files generated from the save operation are kept permanently.

expiration-date

Specify the date that indicates how long save files created from this save operation are to be kept.

Top

ASP storage limit (MAXSTG)

Specifies the maximum percentage auxiliary storage pool (ASP) utilization that is acceptable during a save operation. For example, an entry of 90 would mean that a save process would continue until the auxiliary storage pool utilization exceeded 90%. If the upper limit is reached, the save process is stopped and a message sent to the BRMS log.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

storage-limit

Specify the maximum auxiliary storage pool utilization limit.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

If the save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the VOLSEC parameter, since a TSM server controls volume security in this case, not BRMS

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ADSM**

Volume security is controlled by TSM server specifications.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NO Volumes written to during a save operation will not be marked for duplication.

*YES Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** History items created during the save operation will not be marked for duplication.

***YES** History items created during the save operation will be marked for duplication.

Top

Examples

Example 1: Saving All Objects in a List

```
SAVOBJLBRM OBJL(LISTO) DEV(*MEDCLS *MEDCLS *MEDCLS) MEDPCY(FULL)
```

This command saves all objects in the object list LISTO to any three devices that support the density specified in the media class in the media policy FULL.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Save Save Files using BRM (SAVSAVFBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save Save Files using BRM (SAVSAVFBRM) command saves save files created during BRMS processing to media.

Various parameters allow you to select which save files that you want to copy to media. For instance, you can select a range of save file creation dates to include in the save files that you want to copy to media with further qualification of control group and media class.

You can schedule the SAVSAVFBRM command through the system job scheduler, through another job scheduler or on demand.

Expired save files that are not waiting to be copied to tape are deleted when the SAVSAVFBRM command processes.

Data in a save file created with device *NONE will not be copied to media unless a device is specified on the **Device (DEVICE)** parameter when using this command.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVSAVFDTA command to use this command. The SAVSAVFBRM command does not support the transfer of saved file data to TSM (ADSM) media.
2. This command should not be used by control group *EXIT item processing as results will be unpredictable.

You can save data to an optical device using this command. The following restrictions apply when using optical devices.

- You can specify only one **Device (DEV)** parameter.
- For the **End of media (ENDOPT)** parameter, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.
- BRMS will generate and store a unique path name for the optical file to be used on the save operation beginning with the root directory of the optical volume.

Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	Single values: <u>*ALL</u> Other values (up to 50 repetitions): <i>Generic name, name, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM</i>	Optional
LIB	Library	Single values: <u>*ALL</u> Other values (up to 50 repetitions): <i>Generic name, name, *MEDINF</i>	Optional
MEDCLS	Media class	<i>Generic name, name, *ALL</i>	Optional
PERIOD	Time period for save files	<i>Element list</i>	Optional
	Element 1: Start time and date	<i>Element list</i>	
	Element 1: Beginning time	<i>Time, *AVAIL</i>	
	Element 2: Beginning date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: End time and date	<i>Element list</i>	
	Element 1: Ending time	<i>Time, *AVAIL</i>	
	Element 2: Ending date	<i>Character value, *END, *CURRENT</i>	
DEV	Device	Single values: <u>*SAVF</u> Other values (up to 4 repetitions): <i>Name, *MEDCLS</i>	Optional
MEDPCY	Media policy	<i>Name, *SAVE, *SYSPCY</i>	Optional
SEQNBR	Sequence number	1-16777215, <u>1</u> , *END	Optional
ENDOPT	End of media option	<u>*UNLOAD</u> , *LEAVE, *REWIND	Optional
USEOPTBLK	Use optimum block size	<u>*BKUPCY</u> , *DEV, *NO, *YES	Optional
CLEAR	Clear	*AFTER, *ALL, *NONE, <u>*SAVF</u>	Optional
COMPACT	Data compaction	<u>*SAVE</u> , *DEV, *NO	Optional
ALWADLSAVE	Add subsequent saves	<u>*NO</u> , *YES	Optional

Control group (CTLGRP)

Specifies the name of the control group that was processed to create the save files that you want to copy to removable media.

Single values

*ALL Save files created by any control group that meet the other parameters are copied to removable media.

Other values (up to 50 repetitions)

*NONE

No control group is used to copy save files to removable media.

generic-control-group-name*

Specify a generic control group name. For example, specifying WEEK* would cause all control groups whose names begin with WEEK to be included in the control groups whose save files are copied to removable media.

control-group-name

Specify the control group whose save files are copied to removable media. You can specify up to 50 control group names.

Note: You can specify an existing control group name, or a name that you want to be associated with the save operation, even if the name is not an existing control group. The control group name is saved with the media information and can be used with the control group name parameter in recovery processing by control group.

Top

Library (LIB)

Specifies the name of the library that is saved in save files that you want to copy to removable media.

Single values

***ALL** All libraries that are saved in save files and meet the other parameter specifications are copied to removable media.

Other values (up to 50 repetitions)

***MEDINF**

You want to copy BRMS media information saved in save files to removable media. The QUSRBRM library contains the BRMS media information.

generic-library-name*

Specify a generic library name. For example, specifying APP* would cause all libraries whose names begin with APP to be included in the libraries that are saved in save files to be copied to removable media.

library-name

Specify the name of the library that is saved in save files that you want to copy to removable media. You can specify up to 50 library names.

Top

Media class (MEDCLS)

Specifies the name of the media class associated with the control groups whose save files you want to move to removable media.

***ALL** Save files with any media class that meet the other parameter specification are copied to removable media.

generic-media-class-name*

Specify that the media class name is generic. For example, specifying CART* would cause all media classes whose names begin with CART to be included in the media classes associated with save files that are copied to removable media.

media-class-name

Specify the media class associated with save files that you want to copy to removable media.

Top

Time period for save files (PERIOD)

Specifies the period of time for which the save files are selected to save to media.

Element 1: Start time and date

One of the following is used to specify the beginning creation time at which or after save files are included. Any save files created before the specified time and date are not included in the selected save files for copy to removable media.

Element 1: Beginning time

*AVAIL

Any time that is available for the beginning date is included.

begin-time

Specify the beginning time for the specified beginning date that indicates which save files are to be included.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours, mm=minutes and ss=seconds. Hours, minutes, and seconds must each be exactly 2 digits (using leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Beginning date

One of the following is used to specify the beginning date on which or after which the save files must have been created. Any entries created before the specified date are not included in the copy to media.

*BEGIN

Save files from the beginning of the save file media content information are copied to tape.

*CURRENT

Save files with a current date creation date and between the specified beginning and ending times (if specified) are copied to media.

begin-date

Specify the beginning date. The date must be specified in the job date format.

Element 2: End time and date

One of the following is used to specify the ending time before which save files are included. Any save files created after the specified time and date are not included in the items selected for copy to media.

Element 1: Ending time

*AVAIL

Any time that is available for the ending date is included.

end-time

Specify the ending time for the specified ending date that indicates which save files are to be included.

Element 2: Ending date

One of the following is used to specify the ending date on which or before which the save files must have been created. Any save files created after the specified date are not included in the copy to media operation.

***END** The save files to the end of the save file media content information are copied to media.

***CURRENT**

The save files with a current day creation date is the last day for which save files are copied to media.

end-date

Specify the ending date. The date must be specified in the job date format.

Top

Device (DEV)

Specifies the name of the device to which you want to copy selected save files.

Single values

***SAVF** Save files are copied to the device specified when the save files were created.

Other values (up to 4 repetitions)

***MEDCLS**

BRMS determines the media class specified for the save file. Once the media class is determined, a device that supports that media class is selected to copy the save file.

device-name

Specify the device to which you want to copy the selected save files.

Top

Media policy (MEDPCY)

Specifies the name of the media policy that BRMS should use when it selects media to contain the save file data.

***SAVF** Media is assigned using the media policy specified when the save files were created.

***SYSPCY**

Media is assigned using the media policy specified in the system policy.

media-policy

Specify the media policy that you want to use for selected save files.

Top

Sequence number (SEQNBR)

Specifies, when tape is used, the sequence to use for the save operation.

Note: If you are saving to a BRMS volume that is expired, BRMS will begin writing information at the beginning of the volume, even though you have specified *END.

Note: If you are saving to a BRMS BRMS will redirect the output to begin at the logical end of the output volume (after the end of the last active file), depending on the output device that you are using. For example, a 3490 device can write to any sequence number whereas a 6525 device can only write to sequence number 1 or *END.

1 The first file is to be sequence number 1.

*END The save operation begins after the sequence number of the last active file on the volume.

file-sequence-number

Specify the sequence number of the file to be used for the save operation. Sequence numbers can range from 1 to 16,777,215.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: If no objects are saved, the volume is not opened and the ENDOPT parameter is ignored.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

*UNLOAD

The volume is automatically rewound and unloaded after the save operation ends.

*LEAVE

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

*REWIND

The volume is rewound, but not unloaded.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

*BKUPCY

Use the value from the backup policy for the **Use optimum block size** parameter.

*DEV Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

*NO The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

- *YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:
- Performance may improve.
 - The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
 - The value for the Data Compression (DTACPR) parameter is ignored.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

***SAVF** Uses the value specified when the save file was created.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

***NONE**

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

***SAVF** Uses the data compaction value specified when the save file was created.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

***NO** No data compaction is performed.

Top

Allow subsequent saves (ALWADLSAVE)

Specifies whether you intend to save save files to media in subsequent save file operations.

***NO** You do not intend to save save files on subsequent save operations. The save files will be deleted from the system when maintenance is run after these save files are saved to media or when these save files expire.

***YES** You intend to save save files on subsequent save operations. The save files will not be deleted from the system when maintenance is run. If you specify this value, you must run a subsequent SAVSAVFBRM command using ALWADLSAVE(*NO) to enable removal of these save files from the system.

Top

Examples

Example 1: Saving Save Files to Removable Media

```
SAVSAVFBRM CTLGRP(BACK*) MEDCLS(QIC1000) BEGIN(*AVAIL '1/1/03')
          END(*AVAIL *CURRENT)
```

This command saves all backup control groups whose name begins with the BACK that created save files with media class QIC1000. The device to which the save files are to be saved is specified in the save file itself and is thus not specified in the command. The save files that are to be included are save files that were created between 1/1/2003 and the current date. Creation time does not matter. Expired save files that are not waiting to be copied to tape are deleted when the command processes.

Top

Error messages

*ESCAPE Messages

BRM1500

Save file processing is canceled.

BRM1502

Save file processing is canceled.

BRM1504

Save file processing is canceled.

BRM1506

Save file processing is canceled.

BRM1520

Operation canceled by user reply.

BRM1646

Save operation canceled.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1941

Operation canceled because of reply to check of expired media.

BRM2265

Errors occurred initiating session using device &1.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Save System using BRM (SAVSYSBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Save System using BRM (SAVSYSBRM) command saves a copy of the Licensed Internal Code and the QSYS library in a format compatible with the installation of the operating system. It does not save objects from any other library. In addition, it saves security and configuration objects that can also be saved using the Save Security Data (SAVSECDTA) and Save Configuration (SAVCFG) commands.

Virtual media and devices can be used with this command. The following restrictions apply to the use of virtual media and virtual devices.

- The **Device (DEV)** parameter is limited on only one device or *MEDCLS special value for serial operations.
- Execute authority is required to the Load or Unload Image Catalog (LODIMGCLG) command.
- *CHANGE authority is required to the image catalogs.
- Execute (*X) authority is required to each directory in the image catalog path name.
- Read, write, execute (*RWX) authority is required to each image file in the parent directory that will be loaded or mounted.
- *USE authority is required to the virtual devices using the image catalogs.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the SAVSYS command to use this command.
2. You must have *SAVSYS special authority to use this command.
3. You must have *USE authority to all online auxiliary storage pool devices.
4. All subsystems will be ended when using the SAVSYSBRM command. You must have job control (*JOBCTL) authority to use the ENDSYS or the ENDSBS command.
5. Volumes created using this command that will be used for installation should be initialized with a media class with a density that is supported by the current alternate IPL device. If this is not done, the current IPL volume will have to be changed to a device that supports the density of the created SAVSYSBRM volumes before installation begins.
6. Volumes created using the SAVSYSBRM command cannot be used for automatic installation.
7. The media class associated with the device must specify Shared media *NO.
8. This command should not be used by control group *EXIT item processing as results will be unpredictable.

Top

Parameters

Keyword	Description	Choices	Notes
DEV	Device	Values (up to 4 repetitions): <i>Name</i> , *MEDCLS	Required, Positional 1

Keyword	Description	Choices	Notes
MEDPCY	Media policy	<i>Name</i> , *NONE, *SYSPCY	Required, Positional 2
DTACPR	Data compression	*DEV, *NO, *YES	Optional
COMPACT	Data compaction	*DEV, *NO	Optional
CTLGRP	Control group	<i>Name</i> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
ENDOPT	End of media option	*REWIND, *LEAVE, *UNLOAD	Optional
USEOPTBLK	Use optimum block size	*BKUPCY, *DEV, *NO, *YES	Optional
OMIT	Omit	Single values: *BKUPCY, *NONE Other values (up to 3 repetitions): *CFG, *SECDTA, *SYSDTA, *USRASPAUT	Optional
CLEAR	Clear	*NONE, *AFTER, *ALL	Optional
STRCTL SBS	Start controlling subsystem	*YES, *NO	Optional
EXPDATE	Expiration date	<i>Date</i> , *MEDPCY, *PERM	Optional
MOVPCY	Move policy	<i>Name</i> , *MEDPCY, *NONE	Optional
MEDCLS	Media class	<i>Character value</i> , *MEDPCY, *SYSPCY	Optional
LOC	Location	<i>Name</i> , *MEDPCY, *ANY, *HOME	Optional
VOLSEC	Secure volume	*MEDPCY, *NO, *YES	Optional
MINVOL	Required volumes	1-9999, *MEDPCY, *NONE	Optional
MARKDUP	Mark volumes for duplication	*MEDPCY, *NO, *YES	Optional
MARKHST	Mark history for duplication	*MEDPCY, *NO, *YES	Optional
ASPDEV	Auxiliary storage pool	<i>Name</i> , *ALLAVL, *CURASPGRP, *SYSBAS	Optional

Top

Device (DEV)

Specifies the names of the devices used for the save system operation. Each device name must already be known on the system in the BRMS device table. If multiple devices are specified, they must use compatible media classes. If more than one device is used, specify the names of the devices in the order in which they are used. A maximum of four device names can be specified.

This is a required parameter.

You can enter multiple values for this parameter.

device-name

Specify the name of the device or devices that you want to use for the system save operation.

Note: Only one media library device or one virtual device can be specified.

*MEDCLS

Any device that supports the media class specified in the media policy for this save can be used for this save operation.

Top

Media policy (MEDPCY)

Specifies the media policy for the volumes you are creating as a result of processing a system save.

Media policies are used to determine:

- The type of retention to use, such as days, date or version, for media used in control group processing.
- The move policy to use with this media policy.
- The media class to use.
- Whether or not to use save files.
- The type of retention to use, such as days or date for save files created in control group processing.

The media policy you specify must be a media policy that is in the BRMS media policy table.

This a required parameter.

*NONE

No media policy is specified for this save operation. Media policy values must be supplied with the save command for each parameter that has a default of *MEDPCY.

*SYSPCY

The media policy specified in the system policy is assigned to output volumes from this save operation.

media-policy

Specify the name of the media policy that you want to use with this save operation.

Top

Data compression (DTACPR)

Specifies whether data compression is used.

***DEV** If the save is to tape and the target device supports compression, hardware compression is performed. Otherwise, no data compression is performed.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compression is performed.

***YES** If the target device supports compression, hardware compression is performed. if compression is not supported, software compression is performed.

Top

Data compaction (COMPACT)

Specifies whether data compaction is performed.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***DEV** Device data compaction is performed if the data is saved to tape and all devices specified on the **Device (DEV)** parameter support the compaction feature.

Note: If *DEV is specified on both the **Data compression (DTACPR)** parameter and the **Data compaction (COMPACT)** parameter, only device data compaction is performed if device data compaction is supported on the device. Otherwise, data compression is performed if supported on the device.

If *YES is specified on the **Data compression (DTACPR)** parameter and *DEV is specified on the **Data compaction (COMPACT)** parameter, both device data compaction and device data compression are performed if supported on the device.

***NO** No data compaction is performed.

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to associate with the objects saved by this command. The control group name is stored with the media information and can be used with the **Control group (CTLGRP)** parameter on other BRMS commands to filter the media information or recover saved objects by control group.

Note: None of the attributes of the control group are used for the save.

If you are using version control for the items you are saving, this save operation will be recorded as part of the specified version control. Version control is specified in the media policy associated with this control group and can be reviewed by using the Work with Media Policies display.

***NONE**

Do not specify a control group name for this command.

***ARCGRP**

The name of the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group used to save all user data.

***SYSGRP**

The name of the default system control group used to save all system data.

***SYSTEM**

The name of the default system control group used to save the entire system.

control-group-name

Specify the name of the control group to be assigned to the items you are saving.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***REWIND**

The volume is automatically rewound, but not unloaded, after the operation has ended.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***UNLOAD**

The volume is automatically rewound and unloaded after the operation ends.

Top

Use optimum block size (USEOPTBLK)

Specifies whether or not the optimum block size is used for the save operation.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***BKUPCY**

Use the value from the backup policy for the **Use optimum block size** parameter.

***DEV** Use the value specified on the Work with Devices display for the **Use optimum block size** parameter.

***NO** The optimum block size supported by the device is not used. Save commands use the default block size supported by all device types. The tape volume can be duplicated to any media format using the Duplicate Tape (DUPTAP) command or the Duplicate Media using BRM (DUPMEDBRM) command.

***YES** The optimum block size supported by the device is used for Save commands. If the block size used is larger than a block size that is supported by all device types then:

- Performance may improve.
- The tape file that is created is only compatible with a device that supports the block size used. Commands such as Duplicate Tape (DUPTAP) and Duplicate Media using BRM (DUPMEDBRM) do not duplicate files unless the files are being duplicated to a device which supports the same block size that was used.
- The value for the Data Compression (DTACPR) parameter is ignored.

Top

Omit (OMIT)

Specifies whether system information, configuration objects, security objects or additional basic user auxiliary storage pool information should be omitted during a system save.

Single values

***BKUPCY**

Use the values specified in the items to omit for the *SAVSYS special value in the backup policy.

***NONE**

No omissions are to be made for this system save operation.

Other values (up to 3 repetitions)

***CFG** All configuration objects are to be omitted for this system save operation.

***SECDTA**

All security objects are to be omitted for this system save operation.

***SYSDTA**

The Licensed Internal Code and the QSYS library are to be omitted for this system save operation.

***USRASPAUT**

Omit the BRMS save of additional authority information for objects in basic user auxiliary storage pools (2-32). This authority information includes the object owner, authority list and primary group.

Top

Clear (CLEAR)

Specifies whether uncleared volumes or save files encountered during the save operation are automatically cleared.

***NONE**

None of the uncleared volumes or save files encountered during the save operation are automatically cleared. If the save operation cannot proceed because an uncleared volume is encountered, an inquiry message is sent to the operator, allowing the ending of the save operation, or specifying that the currently selected volume be cleared so the operation can continue.

If a save file is not cleared, the inquiry message is sent to the work station message queue for an interactive job, or to the operator for a batch job. All volumes used to perform the save operation should be cleared, or the save file must be empty, before the save command is issued.

***AFTER**

All the uncleared volumes after the initial volume are automatically cleared. This option is not valid for save or restore operations to a save file. If the operation cannot proceed because the first volume is uncleared, an inquiry message is sent to the system operator, allowing him to end the operation or to specify that the currently selected volume be cleared so the operation can continue.

***ALL** All the uncleared volumes or save files encountered during the save operation are automatically cleared. If tapes are used and a sequence number is specified, the volume is cleared and, starting with that sequence number, all volumes following the first volume are cleared.

Top

Start controlling subsystem (STRCTLSBS)

Specifies whether the controlling subsystem should be automatically restarted when the system save is complete.

***YES** The controlling subsystem is restarted when the save operation is complete.

***NO** The controlling subsystem is not restarted when the save operation is complete.

Top

Expiration date (EXPDATE)

Specifies the expiration that you want to use for output volumes created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*PERM

Output volumes from this save operation are assigned a permanent expiration.

expiration-date

Specify an expiration date with or without date separators that will be assigned to output volumes from this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

*NONE

There is not a media class associated with the output volumes that are selected for this save operation.

*SYSPCY

The value for the media class in the system policy will be used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Location (LOC)

Specifies the location that you want to use for selection of output volumes used in this save operation.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***ANY** Volumes from any location are selected as output volumes for this save operation.

***HOME**

Volumes from the home location are selected as output volumes for this save operation.

location

Specify the location from which volumes are selected as output volumes for this save operation.

Top

Secure volume (VOLSEC)

Specifies whether you want to apply volume security to volumes in this media class. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Volume security has not been applied to this media class. Volumes that do not have volume security can be read by anyone.

***YES** Only users with special authorities *ALLOBJ or *SAVSYS can read media volumes in this media class.

Top

Require volumes (MINVOL)

Specifies the minimum number of expired volumes that must be present before any save can be done using this media policy. The value can also be checked by user jobs using the Check Expired Media for BRM (CHKEXPBRM) command.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NONE in this parameter. If you specify MINVOL(*MEDPCY), then the value of the **Required volumes** field in the referenced media policy must be *NONE.

*MEDPCY

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NONE**

There is no check done to determine the minimum number of required volumes before a save operation begins.

number-of-volumes

Specify the number of expired media volumes that must be available before any BRMS save operation will begin. The number can range from 1 to 9999.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether media volumes will be marked for duplication. When *YES is selected, all volumes used during a save operation are marked for duplication. You can use VOL(*SEARCH) on the Duplicate Media using BRM command to duplicate the saved items after the save has completed.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKDUP(*MEDPCY), then the value of the **Mark for duplication** attribute in the referenced media policy must be *NO.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** Volumes written to during a save operation will not be marked for duplication.

***YES** Volumes written to during the save operation will be marked for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether history items will be marked for duplication. When *YES is selected, all history items created during a save operation are marked for duplication. You must use VOL(*SCHHST) on the Duplicate Media using BRM command to duplicate the saved items.

Note: If the save operation that you are performing is saving data using media of class *ADSM (TSM server), you must specify *NO in this parameter. If you specify MARKHST(*MEDPCY), then the value of the **Mark history for duplication** attribute in the referenced media policy must be *NO.

Note: This parameter is ignored if the **Device (DEVICE)** parameter specified is an optical device.

***MEDPCY**

The value for this parameter is specified in the media policy that is specified in the **Media policy (MEDPCY)** parameter of this save command.

Note: If *NONE is specified in the **Media policy (MEDPCY)** parameter, you cannot specify *MEDPCY in this parameter.

***NO** History items created during the save operation will not be marked for duplication.

***YES** History items created during the save operation will be marked for duplication.

Top

Auxiliary storage pool device (ASPDEV)

Use this parameter to specify the auxiliary storage pools from which libraries and objects can be included in the save operation.

*ALLAVL

Specifies the save of the backup item is to include objects from the system (1) and basic user auxiliary storage pools (2-32) and all available primary, secondary and UDFS auxiliary storage pools.

*CURASGRP

Specifies libraries or objects from only the auxiliary storage pool group currently set for the job are included in the save. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

*SYSBAS

Specifies libraries or objects from only the system (1) and basic user auxiliary storage pools (2-32) are included in the save.

auxiliary-storage-pool-device-name

Specifies libraries or objects from the named auxiliary storage pool device are included in the save operation. This must be the name of a primary or secondary auxiliary storage pool. Libraries or objects from the system (1) and basic user auxiliary storage pools (2-32) are omitted from the save.

Top

Examples

```
SAVSYSBRM DEV(TAP09) MEDPCY(SAVSYS)
```

This command saves a copy of the Licensed Internal Code and the QSYS library. In this example, you are saving to device TAP09 using a media policy named SAVSYS.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Set Media Controls using BRM (SETMEDBRM)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Set Media Controls using BRM (SETMEDBRM) command has two distinct parts, a set of input controls and a set of output controls.

Input controls pertain only to volumes from which data is being retrieved or read.

Output controls start with the **Media class (MEDCLS)** parameter continue through the **Text (TEXT)** parameter, and pertain to volumes on which data is being written. For example, if you plan to perform a CPYTOTAP operation, you can use the SETMEDBRM command beforehand to assign a move policy and retention period for the volumes that are used.

The controls you specify with SETMEDBRM remain in effect for your job until they are reset or otherwise changed by another SETMEDBRM command. To see control values that are currently in effect, type the SETMEDBRM command on a command line and press F4.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
LABEL	Input controls	<i>Element list</i>	Optional
	Element 1: File label	<i>Character value, *SAME, *ANY, *NONE</i>	
	Element 2: Select version	<i>1-999, *SAME, *CURRENT</i>	
ALWCNV	Allow conversion	<i>*SAME, *NO, *YES</i>	Optional
MEDCLS	Media class	<i>Character value, *SAME, *NONE</i>	Optional
MOVPCY	Move policy	<i>Name, *SAME, *NONE</i>	Optional
VOLSEC	Secure volume	<i>*SAME, *NO, *YES</i>	Optional
RET	Retention	<i>Element list</i>	Optional
	Element 1: Retention type	<i>*SAME, *DATE, *DAYS, *NONE, *PERM, *VERSION</i>	
	Element 2: Retain media	<i>Character value, *SAME</i>	
FILEGRP	File group	<i>Name, *SAME, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM</i>	Optional
GRPTYPE	File group type	<i>Name, *SAME, *ARC, *BKU, *NONE</i>	Optional
MARKDUP	Mark volumes for duplication	<i>*SAME, *NO, *YES</i>	Optional
MARKHST	Mark history for duplication	<i>*SAME, *NO, *YES</i>	Optional
TEXT	Text	<i>Character value, *SAME, *NONE</i>	Optional

Top

Input controls (LABEL)

Specifies the file label and version selection controls enforced for your job on subsequent input operations involving media. These controls remain in effect for your job until they are reset or otherwise changed by another SETMEDBRM command.

Element 1: File label

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***ANY** File label, version selection controls apply to any file subsequently processed for input by this job.

***NONE**

No file label, version selection controls are in effect for this job.

file-label

File label, version selection controls apply only to those files whose labels match the file label specified here.

Element 2: Select version

In addition to the file label, you can specify which version of the file to use. BRMS uses the file label and version specified here along with its inventory of media content to determine which volume should be mounted. If the volume is not found, a message is issued to indicate this.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***CURRENT**

The most recent version of the file is to be used.

version-number

Specify which version of the file relative to the *CURRENT version should be mounted. For example, version 1 means the version taken just prior to the *CURRENT version.

Top

Allow conversion (ALWCNV)

Specifies whether conversion controls are enforced for your job on subsequent input operations involving media. These controls remain in effect for your job until they are reset or otherwise changed by another SETMEDBRM command.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***NO** Do not convert ASCII data, if found on the media, to EBCDIC.

***YES** Convert ASCII data, if found on the media, to EBCDIC.

Top

Media class (MEDCLS)

Specifies the type of media to be used when output operations require media. The media class that you specify here is used by BRMS to control subsequent mount operations. These controls remain in effect for your job until they are reset or otherwise changed by another SETMEDBRM command.

***SAME**

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***NONE**

No media class enforcement should be done.

media-class

Specify the name of a media class. Only media of this class is allowed to be used when output operations require media.

Top

Move policy (MOVPCY)

You can specify which move policy should be used for media once it has been written on by your job. This value remains in effect for your job until it is reset or otherwise changed by another SETMEDBRM command.

***SAME**

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***NONE**

The volume will not be assigned a move policy.

move-policy

Specify the name of a move policy which will be used to control the physical movement of media once your job writes data on it. This move policy is not assigned when the media already has a move policy in effect.

Top

Secure volume (VOLSEC)

Specifies whether the volume is secured against subsequent read operations. Volumes that are secured can only be read by users with the special authorities *ALLOBJ or *SAVSYS. This value remains in effect for your job until it is reset or otherwise changed by another SETMEDBRM command.

***SAME**

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

***NO**

The media is not secured. Media that is not secured can be read by anyone.

***YES**

The media is secured. Only users with special authorities *ALLOBJ or *SAVSYS can read secured media.

Top

Retention (RET)

Specifies the type of retention that you want to use for this volume. Certain **Retention type** specifications require additional **Retain media** detail. The Retention type parameter specifies the type of retention and the Retain media parameter specifies a number or a date as appropriate with the specified Retention type. For instance, if Retention type is specified as *VERSION and Retain media is 4, then 4 versions of the information on the media will be managed by BRMS.

Element 1: Retention type

***SAME**

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*DATE

You want to assign a retention date. Dates are specified in job date format with or without date separators. BRMS does not allow media that is assigned the specified retention date to expire until the date passes.

*DAYS

You want to assign a retention period measured in days, which begins when data is written on the media. An expiration date is calculated based on the number of days specified. BRMS does not allow media with this retention to expire until the date passes.

*NONE

No retention type is assigned to the volume.

*PERM

You want to permanently keep the data. BRMS does not allow media containing *PERM data to expire.

Note: If you specify *PERM, **Retain media** specifications are ignored.

*VERSION

You want to keep a selected number of versions for this file on media. BRMS does not allow media with this retention to expire until the number of versions in the BRMS inventory exceeds the number of versions specified.

Element 2: Retain media

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

retention-date

Specify the retention date when the **Retention type (RET)** parameter is *DATE.

number-of-days

Specify the number of days when the Retention type is *DAYS.

number-of-versions

Specify the number of versions when the Retention type is *VERSION.

Top

File group (FILEGRP)

Specifies the file group that you want to use with the current SETMEDBRM command.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*NONE

No file group name should be assigned.

file-group

Specify the name of the file group to which the data being written belongs.

*ARCGRP

The data belongs to the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKUGRP

The data belongs to the default backup user data control group.

*SYSGRP

The data belongs to the default system data control group.

*SYSTEM

The data belongs to the default backup entire system control group.

Top

File group type (GRPTYPE)

Specifies the type of file group to which the data being written belongs.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*ARC The file group type is an archive file group type.

Note: *ARC is not a special value, but rather indicates that this is an archive file group type.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKU The file group type is a backup file group type.

Note: *BKU is not a special value, but rather indicates that this is a backup file group type.

*NONE

No file group type should be assigned.

file-group-type

Specify the name of the file group type to which the data being written belongs. An example file group type is QBRMBKUP which indicates that it is a backup control group file group type.

Top

Mark volumes for duplication (MARKDUP)

Specifies whether to mark the volumes for duplication after they have been duplicated.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*NO Do not mark volumes for duplication.

*YES Mark volumes for duplication.

Top

Mark history for duplication (MARKHST)

Specifies whether to mark the history items for duplication after they have been duplicated.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*NO Do not mark the history items for duplication.

*YES Mark the history items for duplication.

Top

Text (TEXT)

Specifies the text that briefly describes the data being written. This text can be displayed in the BRMS media inventory.

*SAME

The previous SETMEDBRM specification for this value, if any, is to remain in effect.

*NONE

No text is specified.

text Specify no more than 50 characters of text, enclosed in apostrophes.

Top

Examples

Example 1: Using Input Controls

```
SETMEDBRM LABEL(*ANY 1) ALWCNV(*YES)
```

This command sets the input controls so that any file with a version number 1 greater than the most current version is read. If ASCII data is found, convert it to EBCDIC.

Example 2: Using Output Controls

```
SETMEDBRM MEDCLS(QIC1000) MOVPCY(OFFSITE) RET(*DATE '3/3/03')
```

This command sets the output controls so that output operations will use media class QIC1000, a move policy of OFFSITE and a retention date of 3/3/2003 will be assigned to any volumes produced while these output controls are in effect.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Set Retrieve Controls for BRM (SETRTVBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Set Retrieve Controls for BRM (SETRTVBRM) command can be used to change the way that retrieve operations work when performed by your job.

The controls you specify with SETRTVBRM remain in effect for the duration of your job or until they are reset or otherwise changed by another SETRTVBRM command. The controls you specify with this command are not kept when the job ends. To see control values that are currently in effect, type the SETRTVBRM command on a command line and press F4.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The BRMS Advanced feature (Option 2) is required to use this command.
2. You can retrieve data from a TSM server device by using this command. You can only specify one TSM device of *MEDCLS, which must select a TSM device. The TSM device selected can either be *APPC, which supports SNA, or *NET, which supports TCP/IP.
3. *ALLOBJ special authority is required to use any value other than *NONE for the ALWOBJDIF parameter.
4. This command should not be used by control group *EXIT item processing as results will be unpredictable.
5. You can select only one virtual device for serial retrieve operations. In addition, only one *MEDCLS can be specified when using media classes which specify a virtual device density.

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Parameters

Keyword	Description	Choices	Notes
DEV	Retrieve device	Single values: <u>*SAME</u> Other values (up to 4 repetitions): <i>Character value</i>	Optional, Positional 1
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, <u>*SAV</u> , *AVAIL, *NONE	
	Element 2: Maximum resources	1-32, <u>*MIN</u> , *AVAIL	
RECALL	Retrieve confirmation	<i>Element list</i>	Optional
	Element 1: Interactive operation	<u>*SAME</u> , *DELAY, *NONE, *NOTIFY, *RTVPCY, *SBMJOB, *VERIFY	
	Element 2: Batch operation	<u>*SAME</u> , *DELAY, *NONE, *NOTIFY, *RTVPCY, *VERIFY	
RTVAUT	Retrieve authorization	<u>*SAME</u> , *ADD, *ALL, *CHANGE, *DLT, *OBJEXIST, *OBJMGT, *OBJOPR, *READ, *RTVPCY, *UPD, *USE	Optional
ENDOPT	End of media option	<u>*SAME</u> , *LEAVE, *REWIND, *RTVPCY, *UNLOAD	Optional
RSTOPT	Option	<u>*SAME</u> , *ALL, *FREE, *NEW, *OLD, *RTVPCY	Optional

Keyword	Description	Choices	Notes
ALWOBJDIF	Allow object differences	Single values: *SAME, *ALL, *NONE, *RTVPCY Other values (up to 4 repetitions): *AUTL, *FILELVL, *OWNER, *PGP	Optional
STG	ASP high storage threshold	1-95, *SAME, *ASP, *RTVPCY, *SYS	Optional
RET	Retrieved object retention	0-9999, *SAME, *ARC, *NOMAX, *RTVPCY	Optional
EXTEND	Extend retention on usage	0-9999, *SAME, *RTVPCY	Optional
RESET	Reset days used counter	*SAME, *NO, *RTVPCY	Optional

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Retrieve device (DEV)

Specifies the device name to be used for retrieve operations. You must use a single device for retrieve processing.

You can restore data from a TSM (ADSM) server using this command. You can only specify one TSM type server or *MEDCLS, which must select a TSM server. The device selected can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

Single values

*SAME

The previous specification for this value, if any, is used.

Other values (up to 4 repetitions)

*MEDCLS

BRMS determines the media class of the media on which the requested item is saved. Once the media class is determined,, a device supporting the density specified in the media class is selected to retrieve the requested save item or items.

device-name

Specify the name of the device that is to be used for retrieve operations.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a restore operation.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel restore.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

Note: Transferring save files to tape does not support parallel operations.

*SAV Specifies that the same number of device resources used for the save will be used for the restore. If the save was a serial save, then the restore will also be serial.

***AVAIL**

Use any available devices up to the maximum specified. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

***NONE**

No device resources are to be used. The restore will be performed as a serial restore.

1-32 Specify the minimum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Element 2: Maximum Resources

***MIN** Uses the value specified for the minimum number of device resources.

***AVAIL**

Use any available devices. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum use the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this restore command, up to the maximum of what was used for the save.

Top

Retrieve confirmation (RECALL)

Specifies how retrieve operations are processed in an interactive job or a batch job.

Element 1: Interactive operation

***SAME**

The previous specification for this value, if any, is used.

***DELAY**

You want to postpone retrieve operations. These objects can be retrieved later using the Resume Retrieve using BRM (RSMRTVBRM) command.

***NONE**

You do not want BRMS to perform retrieve operations.

***NOTIFY**

The object is to be retrieved immediately. Status messages indicate that the retrieve operation is taking place.

***RTVPCY**

The value from the retrieve policy is used for this value.

***SBMJOB**

You want the retrieved object to be retrieved using a batch job.

***VERIFY**

A message is sent for each object that is retrieved. You can proceed with the retrieve operation, delay or cancel it.

Element 2: Batch operation

***SAME**

The previous specification for this value, if any, is used.

***DELAY**

You want to postpone retrieve operations. These objects can be retrieved later using the Resume Retrieve using BRM (RSMRTVBRM) command.

***NONE**

You want to bypass retrieve processing.

***NOTIFY**

The object is to be retrieved immediately. Status messages indicate that the retrieve operation is taking place.

***RTVPCY**

The value specified in the retrieve policy is used.

***VERIFY**

A message is sent for each object that is retrieved. You can proceed with the retrieve operation, delay or cancel it.

Top

Retrieve authorization (RTVAUT)

Specifies the minimum authority required to allow BRMS to process a retrieve request. The value specified in the **Retrieve authorization (RTVAUT)** parameter is checked against the authority level of the user making the request. The authority list is checked at the time of the retrieve. If the user's authority level to the requested object is equal to or greater than the authority level specified in the **Retrieve authorization (RTVAUT)** parameter, then BRMS allows the object to be retrieved. If the user's authority to an object is less than the authority specified in the **Retrieve authorization (RTVAUT)** parameter, then the retrieve request does not take place.

For example, if the value in the **Retrieve authorization (RTVAUT)** parameter is *READ and the user has *OBJEXIST authority to the object, then BRMS will retrieve the requested object since the user's authority to the object is greater than the minimum authority specified in the retrieve policy. If the value in the **Retrieve authorization (RTVAUT)** parameter is *OBJEXIST and the user has *READ authority for the requested object, the retrieve request will not be processed since the user's authority is less than the minimum required authority specified in the retrieve policy.

***SAME**

The previous specification for this value, if any, is used.

***ADD** Add authority is checked.

***ALL** Object operational authority, object management authority, object existence authority and all data authority for the object are checked regardless of the object type.

***CHANGE**

Object operational authority and all data authority for the object are checked regardless of the object type.

***DLT** Delete authority is checked.

***OBJEXIST**

Object existence authority, which provides the authority to control object ownership and existence, is checked. These authorities are necessary for a user who wants to delete, free storage, save, retrieve or transfer ownership of an object. (If a user has the special save system (*SAVSYS) authority, he does not need object existence authority.)

***OBJMGT**

Object management authority, which provides the authority to manage the access and availability of an object, is checked. A user with object management authority can grant (and revoke) the authority that he has, as well as move and rename objects, and add members to database files.

***OBJOPR**

Object operational authority, which provides authority to manage the access and availability of an object, is checked. Object operational authority has no data authorities associated with it.

***READ**

Read authority is checked.

***RTVPCY**

The value from the retrieve policy is used for this value.

***UPD** Update authority is checked.

***USE** Object operational authority and read authority are checked regardless of the object type.

Top

End of media option (ENDOPT)

Specifies the operation that is automatically done on the tape or optical volume after the save operation ends. If more than one volume is included, this parameter applies only to the last volume used; all other volumes are rewound and unloaded when the end of the volume is reached.

Note: For optical devices, *UNLOAD is the only special value supported, *REWIND and *LEAVE will be ignored.

If you specify *LEAVE and the device is a shared device, the device will not be varied off after the save operation. If you specify *LEAVE and the device is not a shared device, the device will be varied off after the save operation.

***SAME**

The previous specification for this value, if any, is used.

***LEAVE**

The volume does not rewind or unload after the operation ends. It remains at the current position on the device.

***REWIND**

The volume is automatically rewound but not unloaded after the retrieve operation ends.

***RTVPCY**

The value from the retrieve policy is used for this value.

***UNLOAD**

The volume is automatically rewound and unloaded after the retrieve operation ends.

Top

Option (RSTOPT)

Specifies which objects are retrieved, depending on whether the objects exist in a library on the system.

***SAME**

The previous specification for this value, if any, is used.

***ALL** All the objects in the saved library are retrieved to the library. Old objects on volume or in a save file replace the current versions in the library on the system. Objects not having a current version are added to the library on the system. Objects presently in the library, but not on the media, remain in the library.

***FREE** The saved objects are retrieved only if they exist in the system library with their space freed. The saved version of each object is retrieved in the system in its previously freed space. This option retrieves objects that had their space freed when they were saved. If any saved objects are no longer part of the current version of the library, or if the space is not free for any object, the object is not retrieved. The retrieve operation continues, and all of the freed objects are retrieved.

***NEW** Only the objects in the saved library that do not exist in the current version of the library on the system are added to the library. Only objects not known to the library on the system are retrieved; known objects are not retrieved. This option retrieves objects that were deleted after they were saved or that are new to this library. If any saved objects have a version already in the library on the system, they are not retrieved, and an informational message is sent for each one, but the retrieve operation continues.

***OLD** Only the objects in the library having a saved version are retrieved; that is, the version of each object currently in the library is replaced by the saved version. Only objects known to the library are retrieved. If any saved objects are no longer part of the online version of the library, they are not added to the library; an informational message is sent for each one, but the retrieve continues.

***RTVPCY**

The value from the retrieve policy is used for this value.

Top

Allow object differences (ALWOBJDIF)

Specifies whether differences are allowed between the saved objects and the restored objects. These differences include:

- **Authorization list:** The authorization list of an object on the system is different than the authorization list of an object from the save operation. Or the system on which a new object with an authorization list is being restored is different from the system on which it was saved.
- **File level identifier:** The creation date and time of the database file on the system does not match the creation date and time of the file that was saved.
- **Member level identifier:** The creation date and time of the database file member on the system does not match the creation date and time of the member that was saved.
- **Ownership:** The owner of an object on the system is different than the owner of an object from the save operation.
- **Primary Group:** The primary group of an object on the system is different than the primary group of an object from the save operation.

Note: To use this parameter, you need *ALLOBJ special authority.

Single values

***SAME**

The previous specification for this value, if any, is used.

***ALL** All of the differences listed above are allowed on the restore operation. File level identifier and member level identifier differences are handled differently than the *FILELVL value. If there is a file level difference and *ALL is specified on the **Data base member option (MBROPT)** parameter, the existing version of the file is renamed and the saved version of the file is restored. If there is a member level difference, the existing version of the member is renamed and the saved version of the member is restored. This value will restore the saved data, but the result may not be correct. For other differences, see the description of each individual value to determine how differences are handled.

Note: If restoring objects that were saved with SAVOBJ or SAVCHGOBJ, BRMS will change the parameter to ALWOBJDIF(*FILELVL *AUTL *OWNER *PGP) for these objects to prevent the renaming.

***NONE**

None of the differences listed above are allowed on the restore operation. See the description of each individual value to determine how differences are handled.

***RTVPCY**

The value from the retrieve policy is used for this value.

Other values (up to 4 repetitions)***AUTL**

Authorization list differences are allowed.

If an object already exists on the system with a different authorization list than the saved object, the object is restored with the authorization list of the object on the system. New objects that are being restored to a system that is different from which they were saved are restored and linked to their authorization list. If the authorization list does not exist on the new system, the public authority is set to *EXCLUDE.

If this value is not specified, authorization list differences are not allowed. If an object already exists on the system with a different authorization list than the saved object, the object is not restored. New objects that are being restored to a system that is different from which they were saved are restored, but they are not linked to the authorization list, and the public authority is set to *EXCLUDE.

***FILELVL**

File level identifier and member level identifier differences are allowed.

An attempt will be made to restore existing physical files even though the physical file on the save media may have a different file level identifier or member level identifier than the physical file on the system. The physical file data will only be restored for those physical files whose format level identifiers on the save media match the format level identifiers of the corresponding physical file on the system.

If this value is not specified, file level identifier and member level identifier differences are not allowed. If an object already exists on the system with a different file level identifier or member level identifier than the saved object, the object is not restored.

***OWNER**

Ownership differences are allowed.

If an object already exists on the system with a different owner than the saved object, the object is restored with the owner of the object on the system.

If this value is not specified, ownership differences are not allowed. If an object already exists on the system with a different owner than the saved object, the object is not restored.

***PGP** Primary group differences are allowed.

If an object already exists on the system with a different primary group than the saved object, the object is restored with the primary group of the object on the system.

If this value is not specified, primary group differences are not allowed. If an object already exists on the system with a different primary group than the saved object, the object is not restored.

Top

ASP high storage threshold (STG)

Specifies the auxiliary storage pool high threshold value that cannot be exceeded when retrieving an object. If the limit is exceeded, the object is not retrieved, but is put on a list of objects to be retrieved later (using the RSMRTVBRM command) with an indication that a lack of space is the reason for postponing retrieval. The special value, *SYS, indicates that BRMS is to reference system information for the auxiliary storage pool's high storage threshold value.

***SAME**

The previous specification for this value, if any, is used.

***ASP** The value for auxiliary storage pool high threshold value specified in the BRMS auxiliary storage pool descriptions is used. You can view the auxiliary storage pool high threshold value by processing the Work with ASP Descriptions (WRKASPBRM) command. If the reference value is *NONE, indicating that the auxiliary storage pool is not managed by BRMS, the object will not be retrieved, and a message is placed into the BRMS log to indicate that retrieval did not occur because the auxiliary storage pool high storage threshold is *NONE. Otherwise BRMS uses the referenced limit and the size of the object being retrieved to determine if the threshold will be exceeded. If so, the object is not retrieved, but is put on a list of objects to be retrieved later (using the RSMRTVBRM command) with an indication that a lack of space is the reason for postponing retrieval. If no BRMS information exists for the auxiliary storage pool, BRMS uses the operating system's high threshold value for the auxiliary storage pool.

***RTVPCY**

The value from the retrieve policy is used for this value.

***SYS** The high storage threshold as identified by the system's auxiliary storage pool threshold is used.

ASP-high-storage-threshold

Specify the maximum percentage of an auxiliary storage pool's storage capacity that cannot be exceeded as a result of an object being retrieved. The percentage can range from 1 to 95.

Top

Retrieved object retention (RET)

Specifies how long objects that have been retrieved, are kept on the system. After the object retention period has passed, the storage associated with the object is freed when maintenance is run.

***SAME**

The previous specification for this value, if any, is used.

***ARC** The retrieved objects use the retention values specified, if any, when the archive process occurred. If no object retention was specified when the object was archived, BRMS uses *NOMAX.

***NOMAX**

The retrieved objects are kept indefinitely.

***RTVPCY**

The value from the retrieve policy is used for this value.

number-of-days

Specify the number of days that retrieved objects should remain available before their storage is freed. The number of days can range from 0 to 9999.

Top

Extend retention on usage (EXTEND)

Specifies the number of days to extend the retention of a retrieved object if it is used again after the retrieval operation. You can select the number of days, ranging from 0 to 9999 to add to the date of last use to determine a new retention date.

***SAME**

The previous specification for this value, if any, is used.

***RTVPCY**

The value from the retrieve policy is used for this value.

number-of-days

Specify the number of days to extend the retention of a retrieved object if it is used again after the retrieval operation. The number of days can range from 0 to 9999.

Top

Reset (RESET)

Specifies whether the days used count counter will be reset on the dynamic retrieval of an object.

*SAME

The previous specification for this value, if any, is used.

***NO** The days used count will not be reset to zero on the dynamic retrieval of an object.

***RTVPCY**

The value from the retrieve policy is used for this parameter.

***YES** The days used count will be reset to zero on the dynamic retrieval of an object.

Top

Examples

Example 1: Resetting Control Values for BRMS Retrieve Operations in Your Job

```
SETRTVBRM DEV(TAP01) RECALL(*NOTIFY *NOTIFY) RTVAUT(*READ)
```

This command will set control values so that retrieve operations that occur during your job will use device TAP01, will simply notify you when they occur, and require that you only need read authority to be able to retrieve an object.

Top

Error messages

*ESCAPE Messages

BRM1134

Device &1 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Set User Usage for BRM (SETUSRBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Set User Usage for BRM (SETUSRBRM) command allows you to set or reset function usage values for a user or group profile.

This command will use the registration facility to set the BRMS recommended usage options for each BRMS function registered with the system. SETUSRBRM does not control security to BRMS objects. Use i5/OS security to maintain user authority to BRMS objects.

For more information, see section "The Functional Usage Model and BRMS Security Considerations" in the Backup, Recovery and Media Services manual.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. *SECADM authority is required to use the SETUSRBRM command.
2. The BRMS Advanced feature (Option 2) is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
USER	User	Character value, *DEFAULT	Required, Positional 1
USAGE	Usage	Character value, *OPERATOR, *ADMIN	Optional

Top

User (USER)

Specifies the user or group profile to be given usage of BRMS functions. This is a required parameter.

user-or-group-profile

Specify the name of an existing user or group profile. The usage for the specified user or group profile will be set for BRMS functions.

*DEFAULT

The default public usage will be set for BRMS functions.

Top

Usage (USAGE)

Specifies the usage that will be given to the user or group profile specified in the **User (USER)** parameter. Specific usage controls can be tailored using the BRMS graphical user interface.

To navigate to Backup Recovery and Media Services functions, click on the system name in the BRMS graphical user interface hierarchy, click on the Configure Application Administration task, or choose File and click on Application Administration. Open the Backup Recovery and Media Services folder listed under the Host Applications tab.

***OPERATOR**

The user or group profile specified in the **User (USER)** parameter will be given usage to BRMS functions recommended for operators. These include:

- Basic archive activities
- Basic backup activities
- Basic media activities
- Basic migration activities
- Basic movement activities

***ADMIN**

The user or group profile specified in the **User (USER)** parameter will be given usage to all BRMS functions recommended for administrators.

Top

Examples

Example 1: Setting Administrator Usage

```
SETUSRBRM USER(payro11) USAGE(*ADMIN)
```

This command gives the group profile 'payroll' usage of all BRMS functions.

Top

Error messages

***ESCAPE Messages**

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Start Archive using BRM (STRARCBRM)

Where allowed to run: All environments (*ALL)
 Threadsafes: No

Parameters
 Examples
 Error messages

The Start Archive using BRM (STRARCBRM) command selects a control group and begins the archive process. You can start the archive immediately or you can schedule it using the system job scheduler. Processing can be batch or interactive.

Note: The default value for the **Option (OPTION)** parameter is *REPORT, which produces a report of archive candidates. To perform an archive you must change the OPTION parameter to *ARCHIVE.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

- The BRMS Advanced feature (Option 2) is required to use this command.
- The special values *LOAD and *EXIT are ignored when you choose the *REPORT option.
- This command should not be used by control group *EXIT item processing as results will be unpredictable.

Top

Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	Name, *ARCGRP	Required, Positional 1
OPTION	Run option	*REPORT, *ARCHIVE	Optional
SCDTIME	Schedule time	Decimal number, *IMMED	Optional
SBMJOB	Submit to batch	*YES, *NO	Optional
JOB	Job description	Single values: *USRPRF Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job description	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
JOBQ	Job queue	Single values: *JOBQ Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job queue	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to schedule for archive.

Archive control groups are groups of lists and special values that share common archive characteristics. You can create multiple archive control groups to complete your archive strategy.

This is a required field.

***ARCGRP**

The default archive control group is processed. The default archive control group is set up in the BRMS archive policy.

control-group-name

Specify the name of the archive control group, such as QUARTERLY, that you want to process.

Top

Run option (OPTION)

Specifies whether you want to produce a report of candidates for archive or process an archive.

Note: You should always run a report of candidates for archive (*REPORT option) prior to processing the actual archive. The special values *LOAD and *EXIT are not processed when using the *REPORT option.

***REPORT**

You want to produce the archive candidate reports. There are three archive candidate reports. The reports and the printer file to which they are written are:

- Archive DLO Candidate report - QP1A8ARF
- Archive Object Candidate report - QP1AARC
- Archive Spooled File Candidate report - QP1AOQ

***ARCHIVE**

You want to process an archive. There are three archive reports. The reports and the printer file to which they are written are:

- DLO Archive report - QP1A8ARF
- Object Archive report - QP1AARC
- Spooled File Archive report - QP1AOQ

Top

Schedule time (SCDTIME)

Specifies the time that you want BRMS to begin processing the archive.

***IMMED**

Archives are to begin immediately.

schedule-time

Specify the time in hour and minutes that you want the archive to begin. The time is expressed in 24 hour clock format 'hhmm'.

Top

Submit to batch (SBMJOB)

Specifies how you want to process the selected control group.

***YES** Submits the processing of the control group to batch. The job is dependent on the job queue and job description specified as subsequent parameters.

*NO Performs the processing of the control group within the current job.

Top

Job description (JOBDB)

Specifies the job description used with this job.

Single values

*USRPRF

The job description in the user profile under which the submitted job runs is used as the job description of the submitted job.

Qualifier 1: Job description

name Specify the name of the job description used for the job.

Qualifier 2: Library

*LIBL The library list is used to locate the job description.

*CURLIB

The current library for the job is used to locate the job description. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job description is located.

Top

Job queue (JOBQ)

Specifies the job queue in which this job is placed.

Single values

*JOBQ

The submitted job is placed on the job queue named in the specified job description.

Qualifier 1: Job queue

name Specify the name of the job queue on which the submitted job is placed.

Qualifier 2: Library

*LIBL The library list is used to locate the job queue.

*CURLIB

The current library for the job is used to locate the job queue. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job queue is located.

Top

Examples

Example 1: Producing a Report of Archive Candidates

```
STRARCBRM CTLGRP(ARCH01) SCHTIME(1230)
```

This command will start processing for archive control group ARCH01 at 12:30 p.m.. A report of all archive candidates is produced.

Example 2: Processing an Archive

```
STRARCBRM CTLGRP(ARCH01) OPTION(*ARCHIVE) SCHTIME(1230)
```

This command will start archiving, using archive control group ARCH01, at 12:30 p.m..

[Top](#)

Error messages

*ESCAPE Messages

BRM1034

Control group &1 type &2 canceled.

BRM1391

Control group &2 type &3 canceled.

BRM1393

Control group &2 type &3 canceled.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Start Media Balancing for BRM (STRBALBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Media Balancing for BRM (STRBALBRM) command balances media ownership to match the required number of media needed for systems within a BRMS network.

Note: You should make sure all BRMS activity is quiesced prior to balancing your media.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
ACTION	Action	*REPORT , *BALANCE, *SET, *REMOVE	Optional, Positional 1
MEDCLS	Media class	Name, *ALL	Optional
LOC	Volume locations to include	Name, *ALL	Optional
SYSNAME	System	Single values: *NETGRP , *LCL Other values (up to 100 repetitions): <i>Character value</i>	Optional
MEDPTY	Media priority	0-9999	Optional
MEDREQ	Number of media required	0-9999	Optional

Top

Action (ACTION)

Specifies whether you want to balance your media, produce a media requirement report or indicate your media requirements.

Note: The values of the **Media Priority (MEDPTY)** and **number of media required (MEDREQ)** parameters will be ignored if ***REPORT**, ***BALANCE** or ***REMOVE** is specified for the **Action (ACTION)** parameter.

***REPORT**

Produces a report that shows the scratch media currently available as well as the scratch media requirements for BRMS operations. This information will be provided for each system specified in the **System Name (SYSNAME)** parameter.

***BALANCE**

Balances your media according to the previously specified media requirement. If the required number of media are not available, then media that are owned by a system with lower priority will be changed to be owned by the system with higher priority as specified by the **Priority (MEDPTY)** parameter. If BRMS cannot communicate with a system, media owned by that system will not be used.

***SET** Sets the media requirement as specified by the other parameters.

***REMOVE**

Removes the previously specified media requirement.

Top

Media class (MEDCLS)

Specifies the media class for the media balancing.

***ALL** Select all media regardless of the media class.

name Specify the name of the media class.

Top

Volume locations to include (LOC)

Specifies the media storage location of the media for balancing.

***ALL** Select media from any storage location.

name Specify the name of the media storage location.

Top

System (SYSNAME)

Specifies the name of the system whose media will be used for balancing.

Single values

***NETGRP**

Include media from all systems in the BRMS network.

***LCL** Specifies that the system is the local system. BRMS uses the default local location name, LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

Other values (up to 100 repetitions)

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

Media priority (MEDPTY)

Specify the priority number to assign this system (SYSNAME) while balancing media.

Note: A value is required for this parameter if *SET is specified for the **Action (ACTION)** parameter.

0-9999 Is the numerical value of the priority you wish to assign this system. 0 is the highest priority and 9999 is the lowest priority.

Top

Number of media required (MEDREQ)

Specify the number of media required for this system (SYSNAME).

Note: A value is required for this parameter if *SET is specified for the **Action (ACTION)** parameter.

0-9999 Is the number of media required by this system for balancing. The maximum number of media that you can specify is 9999.

Top

Examples

Example 1: Print the Media Balancing Report

```
STRBALBRM ACTION(*REPORT)
```

Produces a report that shows the scratch media currently available as well as the number of scratch media required for BRMS operations.

Example 2: Start Media Balancing

```
STRBALBRM ACTION(*BALANCE)
```

This command balances your media according to the previously specified media requirement.

Example 3: Set Media Requirement

```
STRBALBRM ACTION(*SET) MEDCLS(FMT3590) LOC(TAPMLB01)
          SYSNAME(SYSTEM1) MEDPTY(1) MEDREQ(5)
```

This command Sets the media requirement for the media class FMT3590 at media location TAPMLB01 to media priority as 1 and number of media required to 5.

Example 4: Remove Media Requirement

```
STRBALBRM ACTION(*REMOVE) MEDCLS(FMT3590) LOC(TAPMLB01)
          SYSNAME(SYSTEM1) MEDPTY(1) MEDREQ(5)
```

This command removes the media requirement for the media class FMT3590 at media location TAPMLB01 with media priority as 1.

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1713

Media class &2 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4092

Location &2 not found.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Start Backup using BRM (STRBKUBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Start Backup using BRM (STRBKUBRM) command selects a control group to back up. You can start the backup immediately or you can schedule it using the system job scheduler. Processing can be batch or interactive.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. This command should not be used by control group *EXIT item processing as results will be unpredictable.
2. You must have *USE authority to backup item exit programs and *EXECUTE authority to libraries containing the backup item exit programs.

Top

Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	Name, *BKUGRP, *SYSGRP, *SYSTEM	Required, Positional 1
SCDTIME	Schedule time	Decimal number, *IMMED	Optional
SBMJOB	Submit to batch	*YES, *CONSOLE, *CTLSBS, *NO	Optional
STRSEQ	Starting sequence	Element list	Optional
	Element 1: Number	1-9999, *FIRST	
	Element 2: Library	Name, *FIRST	
APPEND	Append to media	*CTLGRPATR, *BKUPCY, *NO, *YES	Optional
JOB	Job description	Single values: *USRPRF Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job description	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
JOBQ	Job queue	Single values: *JOBQ Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job queue	Name	
	Qualifier 2: Library	Name, *LIBL, *CURLIB	
ACTIVITY	Activity	*CTLGRPATR, *FULL, *INCR	Optional
RETENTION	Retention	Element list	Optional
	Element 1: Retention type	*CTLGRPATR, *DAYS, *PERM	
	Element 2: Retain media	1-9999, 35	
DEV	Device	Values (up to 4 repetitions): Name, *CTLGRPATR, *MEDCLS	Optional

Keyword	Description	Choices	Notes
PRLRSC	Parallel device resources	<i>Element list</i>	Optional
	Element 1: Minimum resources	1-32, *CTLGRPATR, *NONE, *AVAIL	
	Element 2: Maximum resources	1-32, *MIN, *AVAIL	
MEDCLS	Media class	<i>Character value</i> , *CTLGRPATR, *SYSPCY	Optional
MOVPCY	Move policy	<i>Name</i> , *CTLGRPATR, *NONE	Optional
OMITS	Omits	*PROCESS, *IGNORE	Optional

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to schedule for backup.

Backup control groups are groups of libraries, special values and lists that share common backup characteristics. You can create multiple backup control groups to complete your backup strategy.

This is a required field.

*BKUGRP

The default backup control group is processed. The default backup user data control group is set up in the BRMS backup policy.

*SYSGRP

The default system backup control group is processed. The default backup system data control group is set up when BRMS is installed.

*SYSTEM

The default backup control group is processed. The default backup entire system control group is set up in the BRMS backup policy.

control-group-name

Specify the name of the backup control group, such as DAILY that you want to process.

Top

Schedule time (SCDTIME)

Specifies the time that you want BRMS to begin processing the backup.

*IMMED

The backups are to begin immediately.

start-time

Specify the time in hour and minutes that you want the backup to begin. The time is expressed in 24 hour clock format 'hhmm'.

Top

Submit to batch (SBMJOB)

Specifies how you want to process the selected control group.

***YES** Submits the processing of the control group to batch. The job is dependent on the job queue and job description specified on subsequent parameters.

***CONSOLE**

Transfers the processing of the control group to the system console. This special value is used with the console monitoring function in BRMS.

***CTLSBS**

Submits the control group to the Q1ACTLSBS job queue in the controlling subsystem for batch processing.

Note: If the control group requires all subsystems to be ended, this special value should only be used if the backup can complete without operator intervention because the interactive system console job is ended and will not be available.

If the control group requires all subsystems to be ended, system reference code A900 3C70 is displayed while the system is in restricted state. Unresponsive restricted state backups can be ended and the interactive system console job restarted in two ways:

1. Start DST from the control panel, sign on to DST, select option 14 - End batch restricted state.
2. Specify a value for **Maximum time for backup** on the **System Policy** which is large enough to allow the backup job to complete but small enough to end the backup job if the controlling subsystem has not been restarted in the specified time.

***NO** Performs the processing of the control group within the current job.

Top

Starting sequence (STRSEQ)

Specifies the sequence number and library from which you want to restart backup processing.

Note: If you are not restarting a control group, then you will always start at the first sequence number in the control group, regardless of the values specified in the STRSEQ parameter.

Note: You can use this parameter when *IBM, *ALLUSR, *ALLPROD, *ALLTEST,*ASPnn or a generic library name is specified as the Save item in the specified sequence number in the control group.

Element 1: Number

***FIRST**

Backup processing starts with the first item in the control group.

sequence-number

Specify the sequence number within the control group from which you want to restart backup processing.

Element 2: Library

***FIRST**

Backup processing starts with the first library in the specified sequence number.

library-name

Specify the name of the library within the sequence number from which you want to restart backup processing.

Top

Append to media (APPEND)

Specifies whether you want to append the backup data for the backup processing you are restarting to an active volume.

Note: The APPEND parameter applies only to removable media, and must be *NO if media of class *ADSM (TSM server) is used.

*CTLGRPATR

Use the value from the control group for **Append to media** .

*BKUPCY

Use the value from the backup policy for **Append to media** .

*NO Do not append backup data for the backup you are restarting to an active volume.

*YES Append the backup data for the backup you are restarting to an active volume. Backup data is written to the volume immediately following the last active file on the volume.

Top

Job description (JOBQ)

Specifies the job description to be used with this job.

Single values

*USRPRF

The job description in the user profile under which the submitted job runs is used as the job description of the submitted job.

Qualifier 1: Job description

name Specify the name of the job description used for the job.

Qualifier 2: Library

*LIBL The library list is used to locate the job description.

*CURLIB

The current library for the job is used to locate the job description. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job description is located.

Top

Job queue (JOBQ)

Specifies the job queue in which this job is placed.

Single values

*JOBQ

The submitted job is placed on the job queue named in the specified job description.

Qualifier 1: Job queue

name Specify the name of the job queue on which the submitted job is placed.

Qualifier 2: Library

***LIBL** The library list is used to locate the job queue.

***CURLIB**

The current library for the job is used to locate the job queue. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job queue is located.

Top

Activity (ACTIVITY)

The Activity parameter allows you to specify the activity that is to be used when processing the control group. You can specify that the **Weekly activity** attribute of the control group entries is to be used or specify a specific type of activity which will override the **Weekly activity** attribute of the control group entries.

Activity overrides must be enabled for the control group specified in the CTLGRP parameter when specifying a value other than *CTLGRPATR for the Activity parameter. Activity overrides for the control group can be enabled or disabled from the properties Activity tab for the BRMS backup policy using the BRMS graphical user interface. The backup policy will have the same name as the control group name.

Diagnostic message BRM400A is sent by the STRBKUBRM validity checking program if activity overrides are disabled and the value for the ACTIVITY parameter is not *CTLGRPATR.

Note: For the *SYSTEM backup control group, a full save will be forced regardless of the default weekly activity.

***CTLGRPATR**

Specifies the **Weekly activity** attribute of the control group entries is to be used when processing the control group. This is the default value.

***FULL** Specifies the **Weekly activity** attribute of the control group entries is to be overridden and processed as a full save. The override applies to all days of the week.

***INCR**

Specifies the **Weekly activity** attribute of the control group entries is to be overridden and processed as a incremental save. The type of incremental save is determined by the current value of the **Incremental type** attribute of the control group. The override applies to all days of the week. Each entry in the control group will be processed when the command is run regardless of the current value specified for the **Weekly activity** attribute for the entry. This includes exit entries. If the control group entry does not support incremental saves, the entry will not be processed and diagnostic message BRM400F will be entered into the job log.

Top

Retention (RETENTION)

The Retention parameter allows you to specify the retention attributes that are to be applied to objects saved by the control group. You can specify that the retention attributes of the media policies defined in the control group are to be used or specify new retention attributes which will override the media policy retention attributes.

Retention overrides must be enabled for the control group specified in the CTLGRP parameter when specifying a value other than *CTLGRPATR for element 1 of the Retention. Retention overrides for the

control group can be enabled or disabled using the properties Media Retention tab for the BRMS backup policy using the BRMS graphical user interface. The backup policy will have the same name as the control group name.

Diagnostic message BRM400B is sent by the STRBKUBRM validity checking program if retention overrides are disabled and the value for element 1 of the Retention parameter is not *CTLGRPATR.

Element 1: Retention type

***CTLGRPATR**

Specifies the retention attributes of the media policies defined in the control group are to be applied to the saved objects. This is the default value.

***DAYS**

Specifies days retention is to be applied to all objects saved by this control group. Saved objects remain active for the specified number of days, after which the saved objects expire. The **number-of-days** must be specified in element 2 when using this retention type.

***PERM**

Specifies a permanent retention is to be applied to all objects saved by this control group. Permanent retention means the saved objects remain active indefinitely or until explicitly expired.

Element 2: Retain media

number-of-days

Specifies a number of days from 1-9999 that saved objects remain active.

Top

Device (Dev)

Specifies the device or devices to be used by this command.

Single values

***CTLGRPATR**

Use the value from the control group for Device.

***MEDCLS**

Devices for this policy or control group are selected based on device types that support the density for the media class specified in the media policy. The *MEDCLS special value is used for devices that are part of a device pool, such as several systems that share a single or set of devices. Devices are specified in the Work with Devices display.

Note: If you want to use more than one device for a serial save operation, the *MEDCLS can be repeated up to four times, once for each device used, except for virtual tape devices which is limited to a single value. The Parallel Device Resource (PRLRSC) parameter must be *NONE. BRMS will attempt to use the maximum number of devices that can be allocated for a save operation. If you want to use more than one device for a parallel save operation the *MEDCLS must only be specified once and the PRLRSC minimum and maximum responses must be greater than one.

You can save data to a TSM (ADSM) server using this command. You can only specify one TSM type server in the list of devices or *MEDCLS, which must select a TSM server. The device type can either be *APPC, which supports SNA network protocol, or *NET, which supports TCPIP protocol.

Other values (up to 4 repetitions)

Specifies the name of the devices to be used for the save operation. the specified device name must already be in the BRMS device table.

Note: Multiple systems can share the use of a tape device or a media library device (MLB). When the device is a tape device (not an MLB device), BRMS can help you manage the use of the stand alone device by multiple systems if you indicate the device is shared.

device-name

Specify the names of one or more devices used for the save operation. If you are using more than one device (up to a maximum of four), specify the names of the devices in the order in which they are used.

Note: When doing a serial save, only one media library device or one virtual device can be specified. When doing a parallel save, multiple media library devices or virtual devices can be specified.

Top

Parallel device resources (PRLRSC)

Specifies the minimum and maximum number of device resources to be used in a parallel save operation.

Note: Transferring save files to tape does not support parallel operations.

Element 1: Minimum Resources

Specifies the minimum number of device resources required for a parallel save.

Note: If a Media Library Device (MLB) is being used and the required resources are not available, the command will wait for the MLB to become available for a time period specified by the user. The wait time is determined by the value specified on the *MLB device description for INLMNTWAIT. If a *TAP device is being used and the required resources are not available, the command will fail.

*CTLGRPATR

Use the parallel resource settings that are specified in the control group.

Note: The **Maximum resource** value is ignored when this special value is specified.

*NONE

No device resources are to be used. The save will be performed as a serial save. *NONE must be specified when using a virtual tape device, an optical device, or a virtual optical device.

*AVAIL

Use any available devices up to the maximum of what was used for a save. Specifying this value for the minimum will allow BRMS to use any available resources, but will complete using one resource if only one is available at the start of the command.

1-32 Specify the minimum number of device resources to be used with this save command.

Element 2: Maximum Resources

Specifies the maximum number of device resources.

Note: This value is ignored when **Minimum resources** is set to *CTLGRPATR.

*MIN Uses the value specified for the minimum number of device resources.

***AVAIL**

Use any available devices for the save operation. Specifying this value for the maximum will allow BRMS to use any available resources but at a minimum the value specified in the minimum element.

1-32 Specify the maximum number of device resources to be used with this save command.

Top

Media class (MEDCLS)

Specifies the media class that you want to use for selection of output volumes used in this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MEDCLS parameter, since a TSM server controls the use of media in this case, not BRMS.

***CTLGRATR**

Use the media class that is specified in the control group.

***SYSPCY**

The value for the media class in the system policy will used to select output volumes for this save operation.

media-class

Specify a media class that will be used to select output volumes for this save operation.

Top

Move policy (MOVPCY)

Specifies the move policy that you want to use for output volumes created as a result of this save operation.

If this save operation that you are performing is saving data to a device of category *NET or *APPC, you must specify the special value *ADSM (TSM server) for the MOVPCY parameter, since a TSM server controls the use of media in this case, not BRMS.

***CTLGRPATR**

Use the value from the control group for Move Policy.

***NONE**

There is not a move policy associated with the output volumes that are created as a result of this save operation.

move-policy

Specify a move policy that will be assigned to output volumes from this save operation.

Top

Omits (OMITS)

Specifies whether omit items are to be processed or ignored when the backup control group is run.

Note: This attribute does not apply to backup lists or the *SYSTEM backup control group.

***PROCESS**

Process omit items during the save. Omit items will be excluded from the save

***IGNORE**

Ignore omitted items during the save. Omit items will be included in the save.

Top

Examples

Example 1: Backing up a Control Group

```
STRBKUBRM CTLGRP(BACK01)
```

This command submits a batch job for backup control group BACK01. The batch job is not scheduled, so it will start immediately assuming batch job processing is active.

Example 2: Overriding the Save Activity

```
STRBKUBRM CTLGRP(BACK01) ACTIVITY(FULL)
```

This command submits a batch job for backup control group BACK01. The control group is set up to normally perform cumulative saves. When this backup is run, the cumulative saves will be overridden and a full save will be performed.

Example 3: Overriding the Save Retention

```
STRBKUBRM CTLGRP(BACK01) ACTIVITY(FULL)  
RETENTION(*DAYS 2555)
```

This command submits a batch job for backup control group BACK01. The control group is set up to normally perform cumulative saves with a retention of 30 days. When this backup is run, the cumulative saves and retention will be overridden. A full save with a retention of 2555 days will be performed.

Example 4: Overriding Omitted Save Items

```
STRBKUBRM CTLGRP(BACK01) ACTIVITY(FULL)  
RETENTION(*DAYS 2555) OMIT(*IGNORE)
```

This command submits a batch job for backup control group BACK01. The control group is set up to normally perform cumulative saves with a retention of 30 days and uses omits defined in the backup policy. When this backup is run, the cumulative saves, retention and omits will be overridden. A full backup which includes the omit items will be performed and a retention of 2555 days will be applied to the save.

Example 5: Submit to System Save to Batch

```
STRBKUBRM CTLGRP(*SYSTEM) SBMJOB(*CTLSBS)
```

This command submits the *SYSTEM backup control group to the controlling subsystem for batch processing. Since the backup does not use the BRMS console monitor or any interactive processing, the backup requires complete media management automation.

Top

Error messages

*ESCAPE Messages

BRM1034

Control group &1 type &2 canceled.

BRM1391

Control group &2 type &3 canceled.

BRM1393

Control group &2 type &3 canceled.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Start Expiration for BRM (STREXPBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Media Expiration Processing for BRM (STREXPBRM) command expires media that is in the BRMS media content information database. When media is expired it can be reused in save processing. Volumes are expired when the expiration date or number of days are exceeded or when the volume has been reused. Volumes that are expired are marked with *YES in the **Expired** field on the Work with Media display. The STREXPBRM command can be scheduled to run periodically or can be processed as part of the STRMNTBRM command. The Media Expiration report can be produced by specifying *REPORT in the **Active file action (ACTION)** parameter. The report, if printed, is written to the printer file QP1AEP.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
ACTFILCNT	Active file count	0-999, <u>0</u>	Optional
ACTION	Active file action	*REPORT, *EXPMED	Optional
EXPSETMED	Expire media set volumes	*NO, *YES	Optional
ACTFILRET	File retention type	*ANY, *VERSION	Optional
SLTCRTDATE	Select creation dates	<i>Element list</i>	Optional
	Element 1: Beginning creation date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: Ending creation date	<i>Character value, *END, *CURRENT</i>	

Top

Active file count (ACTFILCNT)

Specifies the number of active files that are allowed to exist on a volume before an expiration warning is issued for the volume in the Media Expiration report or automatically expired if the *EXPMED choice is selected for the **Active file action (ACTION)** parameter.

Note: If the **Active file count (ACTFILCNT)** parameter is 0, and you specify *REPORT in the **Active file action (ACTION)** parameter, BRMS produces a report and expires media with 0 active files. If the **Active file count (ACTFILCNT)** parameter is greater than 0, only a report is produced.

0 The default number of active files is 0.

number-of-files

Specify the number of active files. You can specify from 0 to 999 active files.

Top

Active file action (ACTION)

Specifies the action that you want to perform, based on the value specified in the **Active file count (ACTFILCNT)** parameter. You can print the Media Expiration report, expire media or take no action.

*REPORT

A warning is issued in the Media Expiration report for all media that have a number of active files equal to or less than the number of active files specified in the **Active file count (ACTFILCNT)** parameter.

Note: An exception to this is that if the **Active file count (ACTFILCNT)** parameter is 0, media with no active files will be expired.

*EXPMED

Media is expired that has a number of active files equal to or less than the number of active files specified in the **Active file count (ACTFILCNT)** parameter and the active file count is less than the total number of files on the volume. For example, if you specified 1 in the **Active file count (ACTFILCNT)** parameter and the media held only one file, the media would not expire. If the media held two files and one file was active and the other had expired, the media would be allowed to expire.

Top

Expire media set volumes (EXPSETMED)

Specifies whether to expire all eligible media in a media set with no active files when the STREXPBRM command processes. This will cause media that are members of media sets to expire even if there is unexpired media with active file sequences at subsequent positions in the set. This allows the media to be reused prior to expiration of the set and reduces the number of active media being managed. By default, BRMS will not expire media in a set prior to unexpired media unless the entire set can be expired.

*NO Volumes in a media set are not expired unless the entire set is expired.

*YES Volumes in a media set are expired.

Note: Expiring all eligible media in a set can reduce the size of the set or create two or more new sets.

Note: It is recommended that you run this function periodically and it can be a long running process.

Top

File retention type (ACTFILRET)

Specifies the type of retention for the active files that you want to include in media expiration.

*ANY Include active files with any type of retention.

*VERSION

Include only active files whose expiration is based on version retention.

Top

Select creation dates (SLTCRTDATE)

Specifies a range of creation dates that you want to use when selecting media to expire or report. The **Beginning creation date** is the beginning of a date range of media selected and the **Ending creation date** is the end of the date range of creation dates.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Note: This parameter is active only when you specify *EXPMED in the **Active file action (ACTION)** parameter.

Element 1: Beginning creation date

***BEGIN**

Uses the earliest media volume creation date that is on the file for the beginning of the creation date range.

beginning-creation-date

Specify a date that is the beginning of the creation date range. The date must be less than or equal to the current date.

***CURRENT**

Uses the current date as the beginning of the creation date range.

number-of-days

Specify the number of days before the current day that is used to determine the beginning date of the date range.

Element 2: Ending creation date

***END** The last creation date in the media inventory is used as the end of the creation date range.

***CURRENT**

Uses the current date as the ending of the creation date range.

ending-creation-date

Specify a date that is the ending of the creation date range. The date must be equal to or greater than the beginning creation date and less than or equal to the current date.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Examples

Example 1: Expiring Volumes Under Version Control

```
STREXPBRM ACTFILCNT(2) ACTION(*EXPMED) ACTFILRET(*VERSION)
```

This command starts expiration processing for any volume that has 2 or less active files on it and whose media expiration is controlled using version control.

Example 2: Expiring Volumes in a Set

```
STREXPBRM ACTION(*EXPMED) EXPSETMED(*YES)
```

This command starts expiration processing for expiring volumes contained in a set if there are no active files on the volumes.

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Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Start Migration using BRM (STRMGRBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Migration using BRM (STRMGRBRM) command allows you to specify a migration control group to process. You can start the migration immediately or you can schedule it using the system job scheduler. Processing can be batch or interactive.

The default for the OPTION parameter is *REPORT, which produces the Migration Item Candidate report. This allows you to process a report and review what will be migrated prior to performing the migration operation. To perform a migration for the items in the Migration Item Candidate report created by the *REPORT option or to restart a migration that was interrupted for some reason, you can specify the special value *RESUME.

Each time you process the STRMGRBRM command using either the *REPORT or *MIGRATE special values, BRMS creates a migration candidate file for the items in the control group. This file contains information about the items in the control group at the time that you processed the STRMGRBRM command, as well as information about auxiliary storage pool sizes and utilization. The migration candidate file that you created is used for producing candidate reports and performing migration operations for the control group. If you specify *RESUME for a control group, the migration candidate file that was created for the control group when you processed the STRMGRBRM command is used. A new migration candidate file is not created when you specify *RESUME, even though items in the control group or auxiliary storage pool characteristics may have changed.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. The BRMS Advanced feature (Option 2) is required to use this command.
2. If you use the special value *EXIT in a migration control group and the resulting processing modifies the characteristics of either the control group items or auxiliary storage pool characteristics, BRMS does not record the changes in the resulting migration candidate file. You should consider not using the *EXIT special value in migration control groups if the resulting processing alters item or auxiliary storage pool characteristics.
3. The migration candidate list that is created as a result of processing a control group using either the *REPORT or *MIGRATE special values is not associated with a job or user id, only the name of the control group. If Job A processes a migration control group and Job B subsequently processes the same migration control group, the migration candidate list created for Job A will be overwritten by the migration candidate list created for Job B. If you want to resume a migration control group using the *RESUME special value, the migration candidate list created for Job B is the list that would be available for the resume operation, even if Job A was the job that was interrupted.
4. This command should not be used by control group *EXIT item processing as results will be unpredictable.

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Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	<i>Name</i> , *MGRGRP	Required, Positional 1
OPTION	Run option	* REPORT , *MIGRATE, *RESUME	Optional
SCDTIME	Schedule time	<i>Element list</i>	Optional
	Element 1: Beginning time	<i>Character value</i> , * IMMED	
	Element 2: Ending time	<i>Character value</i> , * NONE	
SBMJOB	Submit to batch	* YES , *CONSOLE, *NO	Optional
JOB	Job description	Single values: * USRPRF Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job description	<i>Name</i>	
	Qualifier 2: Library	<i>Name</i> , * LIBL , *CURLIB	
JOBQ	Job queue	Single values: * JOB Other values: <i>Qualified object name</i>	Optional
	Qualifier 1: Job queue	<i>Name</i>	
	Qualifier 2: Library	<i>Name</i> , * LIBL , *CURLIB	
ENDINTJOB	End interactive jobs	* SYSPCY , *NO, *YES	Optional
DELAY	Delay	0-999, * SYSPCY	Optional

Top

Control group (CTLGRP)

Specifies the name of the control group that you want to migrate.

This is a required field.

*MGRGRP

The default migration control group is processed. The default migration control group is created by BRMS at installation.

control-group-name

Specify the name of the migration control group, that you want to process.

Top

Run option (OPTION)

Specifies whether you want to produce a report of migration candidates or process the control group.

Note: You should always run a report of migration candidates (*REPORT option) prior to processing the actual migration. The special value *EXIT is not processed when using the *REPORT option.

*REPORT

You want to produce the Migration Item Candidate report. The printer file the report is written to is QP1AHC.

*MIGRATE

You want to process a migration control group based on the migration plan.

***RESUME**

You want to resume processing a migration control group. The migration will use the last migration report generated for this control group.

Top

Schedule time (SCDTIME)

Specifies the time that you want BRMS to begin and end processing items in the migration control group. The beginning time is the time expressed in 24 hour format that you want the migration processing to begin. The ending time determines when you want migration processing to end. The migration process will not end in the middle of processing a migration item.

Note: If the time that you specify for the beginning time is earlier than the current time, processing is delayed until the next day. Likewise the ending time specified will be moved to the next day.

Note: Leading zeroes must be used when indicating hour and/or minute values less than 10. The use of a time separator is not supported.

Element 1: Beginning time

***IMMED**

You want to start migration control group processing immediately.

begin-time

Specify the time in hour and minutes that you want the migration to begin. The time is expressed in 24 hour clock format 'hhmm'.

Element 2: Ending time

***NONE**

The migration process continues until it ends, regardless of how long it takes.

ending-time

Specify the time that you want to conclude the migration process. The process will not end until it has completed processing the item that it is currently processing when the ending time is reached.

Top

Submit to batch (SBMJOB)

Specifies how you want to process the selected control group.

***YES** Submits the processing of the control group to batch. The job is dependent on the job queue and job description specified as subsequent parameters.

***CONSOLE**

Transfers the processing of the control group to the system console. This special value is used with the console monitoring function in BRMS.

***NO** Performs the processing of the control group within the current job.

Top

Job description (JOBDB)

Specifies the job description to be used with this job if SBMJOB(*YES) is specified.

Single values

*USRPRF

The job description in the user profile under which the submitted job runs is used as the job description of the submitted job.

Qualifier 1: Job description

name Specify the name of the job description used for the job.

Qualifier 2: Library

*LIBL The library list is used to locate the job description.

*CURLIB

The current library for the job is used to locate the job description. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job description is located.

Top

Job queue (JOBQ)

Specifies the job queue to use if SBMJOB(*YES) is specified.

Single values

*JOBQ

The submitted job is placed on the job queue named in the specified job description.

Qualifier 1: Job queue

name Specify the name of the job queue on which the submitted job is placed.

Qualifier 2: Library

*LIBL The library list is used to locate the job queue.

*CURLIB

The current library for the job is used to locate the job queue. If no library is specified as the current library for the job, QGPL is used.

name Specify the name of the library where the job queue is located.

Top

End interactive jobs (ENDINTJOB)

Specifies whether BRMS should automatically notify active users that a migration process is about to occur and then sign them off. When *SYSPCY is specified, BRMS references the system policy to determine whether interactive users are to be notified and signed off.

*SYSPCY

The value for sign off interactive users from the system policy is used for this migration process.

***NO** You do not want BRMS to automatically sign off interactive users.

*YES You want BRMS to automatically sign off interactive users.

Top

Delay (DELAY)

Specifies the maximum time limit in minutes that BRMS automatically notifies users prior to automatically signing off active users. The number of minutes can range from 0 to 999 minutes.

Messages are sent using the following schedule:

- Zero - send the message one time and then the user is signed off.
- 1-10 - send the message every minute and then the user is signed off.
- 11-60 - send the message every 2 minutes and then the user is signed off.
- 61+ - send the message every 10 minutes and then the user is signed off.

*SYSPCY

The sign off limit value from the system policy is used for this migration process.

number-of-minutes

Specify the number of minutes that will be the sign off limit for this migration process. The number of minutes can range from 0 to 999 minutes.

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Examples

Example 1: Producing a Report of Migration Candidates

```
STRMGRBRM CTLGRP(MGR01) SCDTIME(2000 0400)
```

This command starts migration operations, for items identified in control group MGR01, between the hours of 10:00 PM and 4:00 AM.

Top

Error messages

*ESCAPE Messages

BRM10A2

Control group &1 type &2 completed with errors.

BRM1387

Error occurred processing exit command for control group &1.

BRM1820

Control group &1 type &2 ended abnormally.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM1955

Console monitor is not active.

BRM1F27

Operation not allowed, resources not available.

BRM2160

Migration for control group &1 ended.

BRM40A2

BRMS product initialization required.

CPF3700

All CPF37xx messages could be signaled. xx is from 01 to FF.

CPF3800

All CPF38xx messages could be signaled. xx is from 01 to FF.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Start Maintenance for BRM (STRMNTBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Maintenance for BRM (STRMNTBRM) command performs various BRMS maintenance and clean-up functions. The STRMNTBRM command can be scheduled to process periodically either by manual submission or inclusion in an automatic job scheduler.

The STRMNTBRM command processes several other commands that can be run separately. These include:

- RMVMEDIBRM - Remove media information from BRM
- MOVMEDEBRM - Move media using BRM
- STREXPBRM - Expire media from BRM
- RMVLOGEBRM - Remove BRM log entries
- WRKMEDIBRM - Work with media information
- STRRCYBRM - Recovery analysis

The STRMNTBRM produces multiple reports depending on the print options you select as well as the current conditions that it detects. For instance, the Centralized Media Audit report will not print if you are not using a clustered network environment in BRMS. Listed below are the printer files and associated reports that can be produced when the STRMNTBRM command processes:

- QP1AVER - Version Control
- QP1AEP - Media Expiration
- QP1AMM - Media Report by Expiration Date
- QP1AHS - Media Information
- QP1ALE - Save Strategy Exceptions
- QP1ARCY - Recovering Your Entire System
- QP1AASP - Display ASP Information
- QP1ARW - Recovery Activities
- QP1A2SL - Location Analysis
- QP1ASYN - Centralized Media Audit
- QP1A2RCY - Recovery Volume Summary

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. This command should not be used by control group *EXIT item processing as results will be unpredictable.
2. All object authority is required to run this command.
3. This command should not be run as a remote command.
4. Depending on the size of your media inventory, this command can take a long time to process.
5. This command should be run as an independent job. No other BRMS functions should be active when the STRMNTBRM command is processing.

6. Reorganizing the BRMS database files can be a long running process requiring additional disk storage. Reorganization will occur on all BRMS data base files. Reorganization of files may be skipped if sufficient disk storage is not available, or if the file has no members or records.

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Parameters

Keyword	Description	Choices	Notes
EXPMED	Expire media	<u>*YES</u> , *NO	Optional
EXPSETMED	Expire media set volumes	*NO, <u>*YES</u>	Optional
RMVMEDI	Remove media information	<i>Element list</i>	Optional
	Element 1: Media contents	<u>*EXP</u> , *NONE, *REUSE	
	Element 2: Object level detail	1-9999, <u>*MEDCON</u>	
RMVMGRINF	Remove migration information	1-9999, <u>180</u> , *NONE	Optional
MOVMEED	Run media movement	<u>*NO</u> , *YES	Optional
RMVLOGE	Remove log entries	<i>Element list</i>	Optional
	Element 1: Type	<u>*ALL</u> , *NONE, *ARC, *BKU, *MAINT, *MED, *MGR, *RCY, *RTV, *SEC	
	Element 2: From date	<i>Character value</i> , <u>*BEGIN</u> , *CURRENT	
	Element 3: To date	<i>Character value</i> , <u>90</u> , *CURRENT, *END	
RUNCLNUP	Run cleanup operations	<u>*YES</u> , *NO	Optional
RTVVOLSTAT	Retrieve volume statistics	<u>*YES</u> , *NO	Optional
AUDSYSMED	Audit system media	Single values: <u>*NONE</u> , *NETGRP Other values (up to 50 repetitions): <i>Character value</i>	Optional
CHGJRN	Change BRM journal receivers	<u>*YES</u> , *NO	Optional
PRTEXPMED	Print expired media report	<u>*YES</u> , *NO	Optional
PRTVSNRPT	Print version report	<u>*EXPMED</u> , *NO, *YES	Optional
PRTBKUACT	Print media information	<u>*YES</u> , *NO	Optional
PRTRCYRPT	Print recovery reports	Single values: <u>*ALL</u> , *NONE Other values (up to 3 repetitions): *RCYACT, *RCYANL, *SAVEXCP	Optional
RCYLOC	Recovery locations	Single values: <u>*ALL</u> Other values (up to 10 repetitions): <i>Name</i> , *HOME	Optional
PRTSYSINF	Print system information	<u>*NO</u> , *YES	Optional
RGZBRMDB	Reorganize BRMS database	<u>*NO</u> , *YES	Optional
REFREE	Auto-retrieved objects	<i>Element list</i>	Optional
	Element 1: Refree	<u>*NO</u> , *YES	

Top

Expire media (EXPMED)

Specifies whether to expire media when the STRMNTBRM command processes. Expired save files that have been copied to tape are deleted when this command is run. The STREXPBRM command is processed by the STRMNTBRM command to expire media.

*YES Media is expired when maintenance is run.

*NO Media is not expired when maintenance is run.

Expire media set volumes (EXPSETMED)

Specifies whether to expire media set volumes when the STRMNTBRM command processes. This will cause media that are members of media sets to expire even if there is unexpired media with active file sequences at subsequent positions in the set. This allows the media to be reused prior to expiration of the set and reduces the number of active media being managed. By default, BRMS will not expire media in a set prior to unexpirable media unless the entire set can be expired.

***NO** Volumes in a media set are not expired when the STRMNTBRM command is processed unless the entire set is expired.

***YES** Volumes in a media set are expired when the STRMNTBRM command is processed.

Note: Expiring all eligible media in a set can reduce the size of the set or create two or more new sets.

Note: It is recommended that you run this function periodically and it can be a long running process.

Remove media information (RMVMEDI)

Specifies what information to remove from the BRMS media content inventory and how long to keep object detail. The RMVMEDIBRM command is used by the STRMNTBRM command to accomplish BRMS media content information removal. The **Media contents (MEDCON)** parameter indicates when media content information is removed from the media content information and the **Object level detail (OBJDTL)** parameter indicates when the object level detail is to be removed.

Element 1: Media contents

***EXP** All BRMS media content information entries that have an expiration date that is equal to or less than the current date are removed from the media content inventory.

***NONE**
No media content information is to be removed from the media content information inventory when the STRMNTBRM command is run.

***REUSE**
Media content information associated with a volume is not removed from the media content inventory file until the volume is re-used, even though the volume has already expired.

Element 2: Object level detail

***MEDCON**
Object detail is removed when media content information is removed.

number-of-days

Specify the number of days that object detail is kept in the media content inventory. If this number of days is greater than the number of days implied in the **Media contents** field, such as the volume expires in 60 days and you specify 90 days for the **Object level detail**, the value has no effect since object detail is always removed when media content information is removed. However, if you specify 45 days and the object expires in 60 days, the object level detail is removed 15 days before other media content information is removed.

Remove migration information (RMVMGRINF)

Specifies how old in number of days that migration information should be before it is removed from the migration information history.

180 Migration information is removed from the migration information history after 180 days.

***NONE**

Migration information is not removed from the migration information history.

number-of-days

Specify the number of days after which migration information is considered old and no longer useful. For instance, if you specified 200, migration information older than 200 days would be removed from the migration information history when the STRMNTBRM command was processed. You can specify from 1 to 9999 days.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

Top

Run media movement (MOVMEDE)

Specifies whether to process scheduled media movement. The MOVMEDEBRM command is processed by the STRMNTBRM command to move the selected media.

***NO** Media movements are not processed when the STRMNTBRM command is processed.

***YES** Scheduled media movements are processed when the STRMNTBRM command is processed.

Top

Remove log entries (RMVLOGE)

Specifies whether to remove log entries when the STRMNTBRM command is run. You can specify the type of log entries that you want to remove and a date range of log entries. The RMVLOGEBRM command is processed by the STRMNTBRM command to remove log entries.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: Type

***ALL** Selects all log entries to remove within the specified date range.

***ARC** Selects only archive log entries to remove within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** Selects only back up log entries to remove within the specified date range.

***MAINT**

Selects only maintenance log entries to remove within the specified date range.

***MED** Selects only media management log entries to remove within the specified date range.

***MGR** Selects only migration log entries to remove within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***NONE**

No log entries are removed when the STRMNTBRM command processes.

***RCY** Selects only recovery log entries to remove within the specified date range.

***RTV** Selects only retrieve log entries to remove within the specified date range.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***SEC** Selects only security log entries to remove within the specified date range. Only log entries whose primary area are security will be removed. An entry may be logged for any reason and have security as a secondary area.

Element 2: From date

***BEGIN**

The earliest log entry date in the BRMS log is the beginning date of the date range.

***CURRENT**

The current date is the starting point of the range of dates used to remove entries from the BRMS log.

from-date

Specify the date entered in job date format with or without date separators that you want to be the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the beginning date of the date range.

Element 3: To date

90 90 days before the current day is the ending date of the date range.

***CURRENT**

The current date is the ending date of the date range.

***END** The last date in the log is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Run cleanup operations (RUNCLNUP)

Specifies whether BRMS is to run clean up operations when the STRMNTBRM command processes. Cleanup operations includes various BRMS general routines such as creation of the location analysis report, analysis of deleted libraries, media policies with expiration dates that have past, and more.

***YES** Clean up operations are performed when the STRMNTBRM command is processed.

***NO** Clean up operations are not performed when the STRMNTBRM command is processed.

Top

Retrieve volume statistics (RTVVOLSTAT)

Specifies whether BRMS is to retrieve volume statistics when the STRMNTBRM command processes.

***YES** Volume statistics are retrieved when the STRMNTBRM command is processed.

***NO** Volume statistics are not retrieved when the STRMNTBRM command is processed.

Top

Audit system media (AUDSYSMED)

Specifies whether media information as contained by one or more systems in the network group should be audited and differences in media information resolved. You can enter one or more system/network identifiers or you can select the special value *NETGRP for all systems in the network group or *NONE for none of the systems in the network group.

Note: Running shared inventory audit processing on each and every system using STRMNTBRM results in undue system and communications work. This auditing could be performed on just one system, in order to accomplish the same result.

Note: Shared inventory audit processing is not generally required (except when users are restoring a back level QUSRBRM database) and need a way to resynchronize this local back level copy, or correct for problems due to loss of QA1ANET2 records.

Note: Shared inventory audit processing is skipped if the current system is in restricted state or the remote systems required to complete the audit are not available.

Single values

***NONE**

No media information for any system in the network group is to be audited and differences resolved.

***NETGRP**

Media information for all systems in the network group is to be audited and differences resolved.

Note: The BRMS Network feature (Option 1) is required to use this value.

Other values (up to 50 repetitions)

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to specify a remote system.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to specify a remote system.

Top

Change BRM journal receivers (CHGJRN)

Specifies whether to change the receivers for the BRMS journals when the STRMNTBRM command processes. When the BRMS journal receivers are changed, the old BRMS journal receiver is deleted.

- *YES** The journal receivers are changed when the STRMNTBRM command is processed.
- *NO** The journal receivers are not changed when the STRMNTBRM command is processed.

Top

Print expired media report (PRTEXPMED)

Specifies whether to print a report of media that was expired when the STRMNTBRM command processes.

- *YES** A report of media that was expired prints when the STRMNTBRM command is processed.
- *NO** No report is created of the media that was expired when the STRMNTBRM command is processed.

Top

Print version report (PRTVSNRPT)

Specifies whether to print a version control report when the STRMNTBRM command processes. The special value *EXPMED indicates that the version control report should be printed whenever media expiration processing is performed.

- *EXPMED**
Print a version control report whenever media expiration processing is performed.
- *NO** No version control report prints when the STRMNTBRM command is processed.
- *YES** A version control report prints when the STRMNTBRM command is processed.

Top

Print media information (PRTBKUACT)

Specifies whether to print a report of what was backed up. The report will include backups done the day of the report and the previous day. The Work with Media Information using BRM (WRKMEDIBRM) command with parameter OUTPUT(*PRINT) is run by the STRMNTBRM command to produce the report.

- *YES** A report is printed of what was backed up today and yesterday when the STRMNTBRM command is run.
- *NO** No report is created of what was backed up.

Top

Print recovery reports (PRTRCYRPT)

Specifies which recovery reports to print for recovery when the STRMNTBRM command runs. If you want to print two of the three reports, specify the special values for the reports. If you want to print all three of the reports, specify *ALL.

Single values

***ALL** Print all reports for recovery when the STRMNTBRM command is processed. Recovery information that is printed will include system information. Reports generated from the value *SYSINF will not be included with *ALL.

***NONE**

You do not want to print any of the reports when the STRMNTBRM command is processed.

Other values (up to 3 repetitions)

***RCYACT**

Print the Recovery Activities report when the STRMNTBRM command is processed.

***RCYANL**

Print the Recovery Analysis report when the STRMNTBRM command is processed.

***SAVEXCP**

Print the Save Strategy Exceptions report when the STRMNTBRM command is processed.

Top

Recovery locations (RCYLOC)

Specifies the locations for which you want to print recovery reports. Reports printed depend on the value specified in the **Print recovery reports (PRTRCYRPT)** parameter.

Single values

***ALL** Reports are printed for all locations.

Other values (up to 10 repetitions)

location-name

Specify the location names for which you want to print reports.

Top

Print system information (PRTSYSINF)

Indicates if BRMS should issue the PRTSYSINF command to produce reports of system information. These reports include user library information, system hardware and resource information, configuration information, and much more.

***NO** BRMS will not issue the PRTSYSINF command and the associated reports will not be generated.

***YES** BRMS will issue the PRTSYSINF command and the associated reports will be generated.

Top

Reorganize BRMS data base (RGZBRMDB)

Use this parameter to reorganize the BRMS database. This option removes deleted records from the BRMS database. You should reorganize the BRMS database on a periodic basis, particularly if you save many objects and save with object detail.

Note: Reorganizing the BRMS database can be a long running process requiring additional disk storage. Reorganization will occur on the BRMS media inventory, media information (history) and object detail. BRMS may skip reorganization of the database if sufficient disk storage is not available, or if the database has no members or records.

***NO** The BRMS database is not reorganized.

***YES** The BRMS database is reorganized.

Top

Refree auto-retrieved objects (REFREE)

Use this parameter to refree archive objects that have been auto-retrieved.

***NO** Do not refree auto-retrieved objects.

***YES** Refree auto-retrieved objects.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

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Examples

Example 1: Start Maintenance, Move Media, Clean the Archive Log

```
STRMNTBRM MOVMED(*YES) RMVLOGE(*ARC)
```

This command performs normal maintenance, starts media movement processing, and removes archive entries that are older than 90 days old from the BRMS log.

Example 2: Start Maintenance to Reorganize the BRMS Database Files

```
STRMNTBRM RGZBRMDB(*YES)
```

This command performs normal maintenance and runs the RGZDBF commands on all the BRMS data base files.

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Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1343

Date &2 is not correct.

BRM1856

Job information cannot be retrieved. Errors occurred.

BRM1868

File &1 not opened successfully.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

BRM6708

Command ended due to error.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

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Start Recovery using BRM (STRRCYBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Recovery using BRM (STRRCYBRM) command recovers items ranging from a single library to the entire system. Any library or group of libraries that were saved by a BRMS save command can be restored by this command. Recovery is based on entries in the BRMS media inventory contents information.

Recovery using the STRRCYBRM uses the most recent times and dates of entries in the BRMS media content information. This reflects the order in which libraries and objects were saved. For instance, a recovery request for a library will restore the most recent full backup of a library, the latest incremental backup of that library, and all object level saves that have dates after the last full save.

BRMS always uses non-duplicated media information when selecting items for recovery regardless of whether the location of the media if a value of *ALL is specified for the **Volume location (LOC)** parameter. If you want to select recovery items from duplicated media information, then specify *YES on the **Use duplicate media (USEDUPMED)** parameter.

The design of the STRRCYBRM command concerning libraries is to report all the resources needed to recover a library in its entirety. This means that during the search of media information a full backup is required as a starting point in recovering the library. If a full backup is not found meeting the search criteria, any subsequent saves of objects for that library are ignored. This could happen if control group A saves libraries full and control group B saves libraries incremental and the STRRCYBRM OPTION(*CTLGRP) CTLGRP((B) is issued. This could also happen if the time period specified does not have a full backup of the library.

Note: Prior to processing a restore, you should use the report option (*REPORT) to produce a report of the steps required to restore a portion of the system or the entire system. The report that is produced is the Recovery Analysis report. The report, if printed, is written to printer file QP1ARCY.

Note: When you are restoring multiple items, such as a *SYSTEM , *SYSBAS or *SAVSYS, it is advisable to first run a Recovery Analysis Report to assist you in evaluating the steps required to restore the requested items. For instance, BRMS cannot install the Licensed Internal Code and restore the operating system for you automatically. The report assists you in locating the required volumes and identifies the manual steps needed to restore the Licensed Internal Code, the operating system, the BRMS product and required system libraries.

After you have performed the manual steps, BRMS is able to provide automated assistance in restoring the remainder of the system. The steps required to restore the system are provided in the Recovery Analysis report.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restrictions:

1. You must have authority to the following restore commands:

- Restore Object (RST)
- Restore Document Library Object (RSTDLO)
- Restore Library (RSTLIB)

Restore Object (RSTOBJ)
 Restore Configuration (RSTCFG)
 Restore User Profiles (RSTUSRPRF)
 Restore System Information (RSTSYSINF)

and must have the object authorities required by those commands as outlined in Appendix D of the i5/OS Security Reference.

2. To restore libraries and objects:
 - You must have *ADD and *READ authority to the QSYS library to restore libraries which do not exist.
 - You must have *OBJEXIST authority to restore over objects contained in a library.
3. To restore documents and folders:
 - You must be enrolled in the system distribution directory.
 - You must have *CHANGE authority to the parent folder and *ALL authority to the document if it already exists on the system.
 - You must have *EXECUTE authority to the document library.
4. To restore directories and files:
 - You must have *W and *OBJEXIST authority to file if it already exists on the system.
 - You must have *WX authority to the parent directory.
 - You must have *ADD authority to the owning user profile of the directory into which the parent directories are created.
 - You must have *ALLOBJ special authority to create parent directories with a user profile other than your own.
5. You must have *USE authority to any auxiliary storage pool device when recovering objects to auxiliary storage pool devices.
6. These additional restrictions apply when *APYJRNCHG is specified for the **Option (OPTION)** parameter:
 - You must have authority to the APYJRNCHG command.
 - You must have *EXECUTE authority to the libraries containing the files, journals and journal receivers.
 - You must have *OBJEXIST authority to restore any files that already exist on the system.
 - You must have *CHANGE and *OBJMGT authority to apply journal changes to journaled files.
 - You must have *USE authority to any journal or journal receiver used to apply journal changes.
7. This command should not be used by control group *EXIT item processing as results will be unpredictable.

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Parameters

Keyword	Description	Choices	Notes
OPTION	Option	*SYSTEM, *ALLDLO, *ALLUSR, *APYJRNCHG, *ASP, *ASPDEV, *CTLGRP, *IBM, *JOURNAL, *LIB, *LNKLIST, *RCYEXITPGM, *RESUME, *SAVSYS, *SYSBAS	Optional, Positional 1
ACTION	Action	*REPORT, *RESTORE	Optional

Keyword	Description	Choices	Notes
PERIOD	Time period for recovery	<i>Element list</i>	Optional
	Element 1: Start time and date	<i>Element list</i>	
	Element 1: Beginning time	<i>Time, *AVAIL</i>	
	Element 2: Beginning date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: End time and date	<i>Element list</i>	
	Element 1: Ending time	<i>Time, *AVAIL</i>	
	Element 2: Ending date	<i>Character value, *END, *CURRENT</i>	
USESAVF	Use save files	<i>*YES, *NO</i>	Optional
USEADSM	Use TSM	<i>*YES, *NO</i>	Optional
ASP	Auxiliary storage pool	1-32, *SYSTEM	Optional
LIB	Library	<i>Generic name, name</i>	Optional
LIST	List	<i>Name, *ALL</i>	Optional
JRN	Journal	Single values: *JRNLS Other values (up to 25 repetitions): <i>Qualified object name</i>	Optional
	Qualifier 1: Journal	<i>Name</i>	
	Qualifier 2: Library	<i>Name</i>	
ASPDEV	ASP device	Values (up to 25 repetitions): <i>Element list</i>	Optional
	Element 1: From system	<i>Name, *LCL</i>	
	Element 2: Auxiliary storage pool	<i>Name, *ALL</i>	
	Element 3: Objects	<i>*ALL, *LIB, *LNK</i>	
CTLGRP	Control group selection	Single values: *SELECT Other values (up to 300 repetitions): <i>Element list</i>	Optional
	Element 1: Control group	<i>Name, *NONE, *BKUGRP, *SYSGRP, *SYSTEM</i>	
	Element 2: Sequence number	1-99, 1	
OMITLIB	Libraries to omit	Single values: *DELETE, *NONE Other values (up to 25 repetitions): <i>Generic name, name</i>	Optional
ALWDUP	Allow duplicate entries	<i>*NO, *YES</i>	Optional
LOC	Volume locations to include	Single values: *ALL Other values (up to 10 repetitions): <i>Name, *HOME</i>	Optional
OMITLOC	Volume locations to omit	Single values: *NONE Other values (up to 10 repetitions): <i>Name, *HOME</i>	Optional
FROMSYS	From system	<i>Character value, *LCL</i>	Optional
PRTSYSINF	Print system information	<i>*NO, *YES</i>	Optional
USEDUPMED	Use duplicate media	<i>*NO, *YES</i>	Optional
USRRCYINF	User recovery information	<i>*NONE, *ADD</i>	Optional
RCYORDLST	Recovery order list	<i>Name, *NONE</i>	Optional

Top

Option (OPTION)

Specifies what you want to restore from the BRMS media content inventory.

*SYSTEM

You want to restore the system (1) and basic user (2-32) auxiliary storage pools and auxiliary storage pool devices based on the BRMS media content information.

*ALLDLO

You want to restore all documents, folders, and distribution objects (mail) from the media content information that meet the specified starting and ending date.

*ALLUSR

You want to restore all user libraries that were saved using the *ALLUSR special value.

Refer to the Special Values table for the Save Library (SAVLIB) Command in the Saving Libraries section of the i5/OS Backup and Recovery book for a list of libraries which can be restored using this special value.

*APYJRNCHG

You want to apply journaled changes. Specify the journals using the **Journal (JRN)** parameter. The value of the **From system (FROMSYS)** parameter will be ignored if this value is specified.

If you want to apply journaled changes to a point in time, specify the point in time on the **End time and date** prompt of the **Time period for recovery (PERIOD)** parameter.

*ASP You want to restore the system (1) or basic user (2-32) auxiliary storage pool. You must specify the auxiliary storage pool using the **Auxiliary storage pool (ASP)** parameter. If you are restoring system (1) auxiliary storage pool, only user data is restored, not the operating system.

*ASPDEV

You want to restore auxiliary storage pool devices. Specify the systems, auxiliary storage pool devices, and objects using the **ASP device (ASPDEV)** parameter. The value of the **From system (FROMSYS)** parameter will be ignored if this value is specified.

*CTLGRP

You want to restore a control group and its associated save items from the media content information. You must specify the control group name in the **Control group selection (CTLGRP)** parameter.

Note: When you select *NONE in the CTLGRP parameter you are indicating that you want to restore saved items from the media content information file not associated with a control group name.

Additionally you have the option of selecting up to 300 control groups to restore when you use the *SELECT option in the CTLGRP parameter. You can sequence the order in which the selected control groups are restored by using the **Sequence number** element of the CTLGRP parameter.

*IBM You want to restore all system (IBM) libraries that were saved using the *IBM special value.

Refer to the Special Values table for the Save Library (SAVLIB) Command in the Saving Libraries section of the i5/OS Backup and Recovery book for a list of libraries which can be restored using this special value.

*JOURNAL

You want to print journal report. Specify the journals using the **Journal (JRN)** parameter. Journal receiver chain report will be printed from the backup history for the specified journal. Journal exception report will be printed if BRMS detect required journal receiver were not fully saved or not saved during specified period. The value of the **From system (FROMSYS)** parameter will be ignored if this value is specified.

Time period for recovery (PERIOD) parameter can be specified for required period.

*LIB You want to restore a library from the media content information. You must specify the library name in the **Library (LIB)** parameter. The latest version of the library is restored from the BRMS media content information by using the latest full save plus any incremental and object saves subsequent to the latest full save.

*LNKLIST

You want to restore all integrated file system objects that were specified in a list from the media

content information that meet the specified starting and ending date. Specify the backup link list using the **List (LIST)** parameter when using this special value.

***RCYEXITPGM**

Any objects that have been recovered and are waiting for a recovery exit program to be called to reestablish relationships between related objects will be called passing the list of objects that were restored.

This step is required to successfully rebuild objects that specified recovery exit processing when the objects were saved.

During a complete system recovery, steps are provided to restore all system and user data back to the system. Some of these objects were saved requesting that a recovery exit program be called via the **Recovery exit program (RCYEXITPGM)** parameter. The objects are all restored by BRMS in the appropriate recovery step, and each object that requires a call to a recovery exit program is put into a list. After all data for the recovery is restored, the exit program is called for each package through processing of this option.

A package is a related group of media files that were grouped together during the save operation by specifying a value on the **Package identifier (PKGID)** parameter.

In a recovery of a single object or package that had requested a recovery exit program be called on recovery, this step will be done in the same way, the objects will be restored and the exit program will be called with the list of objects.

***RESUME**

You want to start the recovery from the point where the recovery stopped.

***SAVSYS**

You want to restore the operating system based on the BRMS media content information.

***SYSBAS**

You want to restore only the system (1) and basic user auxiliary storage pools (2-32) based on the BRMS media content information.

Top

Action (ACTION)

You can either specify whether you want to create a Recovery Analysis Report or perform an actual recovery.

***REPORT**

You want to create the Recovery Analysis Report. This is recommended prior to restoring the system or *IBM to assure that the required media is available and that all necessary saves have been performed.

The STRRCYBRM produces multiple reports depending on the print options you select as well as the current conditions that it detects. Listed below are the printer files and associated reports that can be produced when the STRRCYBRM command processes:

- QP1ARCY - Recovery Report
- QP1A2RCY - Recovery Volume Summary Report
- QP1AASP - Display ASP Information
- QP1AJR - Journal Receiver Chain Report
- QP1AJREXC - Journal Receiver Exception Report

***RESTORE**

You want to restore the requested items from the BRMS media content information.

Note: If you specify *RESTORE and have specified *SYSTEM for the **Option (OPTION)** parameter, you will be returned to the Perform Recovery display.

Top

Time period for recovery (PERIOD)

Specifies the period of time for which the recovery items are selected for recovery. Selected items are either included in the recovery report or recovered. This is dependent on the value specified in the **Action (ACTION)** parameter.

Element 1: Start Time and date

Element 1: Beginning time

One of the following is used to specify the beginning creation time at which or after recovery items are included. Any items created before the specified time and date are not included in the selected recovery items.

*AVAIL

Any time that is available for the beginning date is included.

begin-time

Specify the beginning time for the specified beginning date that indicates which recovery items are to be included.

The time is specified in 24-hour format and can be specified with or without a time separator:

- Without a time separator, specify a string of 4 or 6 digits (hhmm or hhmmss) where hh=hours, mm=minutes and ss=seconds. Hours, minutes, and seconds must each be exactly 2 digits (using leading zeros if necessary).
- With a time separator, specify a string of 5 or 8 digits where the time separator specified for your job is used to separate the hours, minutes, and seconds. If you enter this command from the command line, the string must be enclosed in apostrophes. If a time separator other than the separator specified for your job is used, this command will fail.

Element 2: Beginning date

One of the following is used to specify the beginning date on or after which the recovery items must have been saved. Any entries saved prior to the specified date are not included in the recovery.

*BEGIN

Recovery items from the beginning of the media content information are recovered.

*CURRENT

Recovery items with a current date creation date and between the specified beginning and ending times (if specified) are recovered.

begin-date

Specify the beginning date. The date must be specified in the job date format.

Element 2: End time and date

Element 1: Ending time

One of the following is used to specify the ending time before which recovery items are included. Any items created after the specified time and date are not included in the recovery items selected for recovery.

***AVAIL**

Any time that is available for the ending date is included.

end-time

Specify the ending time for the specified ending date that indicates which recovery items are to be included.

Element 2: Ending date

One of the following is used to specify the ending date on which or before which the recovery items must have been saved. Any recovery items created after the specified date are not included in the recovery operation.

***END** The recovery items to the end of the recovery information are recovered.

***CURRENT**

Recovery items whose save date is on or before the current date are included in the recovery.

end-date

Specify the ending date. The date must be specified in the job date format.

Top

Use save files (USESAVF)

Specifies whether you want to use save files for recovery.

***YES** You do want to use save files for recovery. If the library that you want to recover is saved both on tape and a save file, and the save time and dates are the same, then BRMS will use the save file for recovery.

***NO** You do not want to use save files for recovery.

Top

Use ADSM (USEADSM)

Specifies whether data stored on the TSM (ADSM) server is included in the recovery. When the recovery includes data saved to TSM servers, additional steps are added to the recovery report to assist in the recovery of this data. During a full system recovery, the TSM server data is recovered after the system (1) and basic user (2-32) auxiliary storage pool data is recovered and after the initial IPL. This assures the necessary operating system resources are available for establishing the connection to the TSM server. BRMS also makes recovery decisions based on where the recovery data resides. For example, when the current full backup is stored on a TSM server, but incremental backups are stored on tape, the BRMS report or plan will indicate that the full backup from the TSM server must occur first, followed by the recovery of the incremental saves from tape.

***YES** Include TSM data in the recovery report or plan.

***NO** Do not include TSM data in the recovery report or plan.

Top

Auxiliary storage pool (ASP)

Specifies the system (1) or basic user (2-32) auxiliary storage pool that you want to restore. The ASP parameter is a required field when the **Option (OPTION)** parameter is *ASP. If you are restoring the system (1) auxiliary storage pool, only user data is restored, not the operating system.

*SYSTEM

You want to restore the system (1) auxiliary storage pool.

auxiliary-storage-pool-name

Specify the name of the basic user auxiliary storage pool that you want to restore.

auxiliary-storage-pool-number

Specify the number of the system (1) or basic user (2-32) auxiliary storage pool that you want to restore.

Top

Library (LIB)

Specifies the name of the library that you want to restore. Library is a required field when the Option field contains *LIB.

library-name

Specify the name of the library that you want to restore.

generic-library-name*

Specify one or more generic names of groups of libraries that you want to restore. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete library name.

Top

List (LIST)

Specifies the name of the list for the recovery operation.

When *LNKLIST is specified for the **Option (OPTION)** parameter the **List (LIST)** parameter specifies the name of the integrated file system list that you want to restore. You can restore a single list or all lists.

***ALL** All integrated file system lists are selected for recovery.

link-list-name

Specify the name of the integrated file system list that you want to restore.

Top

Journal (JRN)

Specifies the qualified names of the journals to be included in the apply journal changes operation. Up to 25 qualified names can be specified.

Restrictions:

- This parameter is only valid when *APYJRNCHG is specified for the **Option (OPTION)** parameter.
- *LCL must be specified for the **From system (FROMSYS)** parameter.

Single values

***JRNLS**

The names of the journals to be included in the apply journal changes operation are retrieved from a list of saved journals.

Qualifier 1: Journal

name Specify the name of the journal to be included in the apply journal changes operation.

Qualifier 2: Library

name Specify the name of the library containing the journal to be included in the apply journal changes operation.

Top

ASP device (ASPDEV)

Specifies auxiliary storage pool devices which are to be included in the recovery of the current system. Up to 25 iterations can be specified.

Restrictions:

- This parameter is only valid when *SYSTEM or *ASPDEV is specified for the **Option (OPTION)** parameter.
- *LCL must be specified for the **From system (FROMSYS)** parameter.

Note: To include objects in auxiliary storage pool devices saved on other systems in the recovery, the current system must be receiving media content information from the systems which saved the auxiliary storage pool device information.

Note: To recover objects in auxiliary storage pool devices saved on other systems, the current system must have devices which support the density of the media volumes containing the saved items.

Element 1: From system

Specifies the system where the auxiliary storage pool device was saved.

***LCL** Include auxiliary storage pool devices saved on the current system in the recovery.

system-name

Include auxiliary storage pool devices saved on the specified system in the recovery.

network-id.system-name

Include auxiliary storage pool devices saved on the specified system in the recovery. Format of the system name is nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the default local location name.

Element 2: Auxiliary storage pool

Specifies the name of the auxiliary storage pool device.

***ALL** Include all auxiliary storage pool devices in the recovery.

auxiliary-storage-pool-name

Include the auxiliary storage pool device identified by this name in the recovery.

Element 3: Objects

Specifies the type of objects.

- *ALL** Include all objects in the recovery.
- *LIB** Include only library objects in the recovery.
- *LNK** Include only directory and file objects in the recovery.

Top

Control group selection (CTLGRP)

Specifies the name of the control group that you want to restore. The CTLGRP) parameter is a required field when the **Option (OPTION)** parameter contains *CTLGRP. You can specify a single control group or you can specify multiple control groups and sequence the order in which they are restored.

When you want to select a control group or groups from a list of control groups, specify *SELECT in the CTLGRP parameter and press Enter. You are taken to the Select and Sequence Control Groups display where all control groups that are in the media content information are displayed. You can select and sequence each control group that you want to restore by putting a sequence number by each control group to establish a relative restore order. Sequence numbers can range from 1 to 99. Up to 300 control groups can be selected and can share the same sequence number.

If the full and incremental saves are done in different control groups, it would be necessary to specify both control groups in order for the incremental entries to be selected. For example you could specify STRRCYBRM OPTION(*CTLGRP) CTLGRP((A) (B)).

A sequence number can be used with the control group names to ensure the sequence of the entries on the report. Do not sequence the incremental control group ahead of the full control group. If this is done, the full save will be restored over the incremental. It is a good idea to use different sequence numbers for control groups that are running at the same time. Otherwise there may be a lot of loading and unloading of different tapes. For instance, control group C runs at the same time as A, and D the same time as B. In this case STRRCYBRM OPTION(*CTLGRP) CTLGRP((A 10) (C 10) (B 20) (D 20)) may be an appropriate use of sequence numbers.

Single values

*SELECT

You want to select a control group or groups from a list of control groups to restore from the media content information. This parameter can not be used in batch operations.

Other values (up to 300 repetitions)

Element 1: Control group

*NONE

You want to restore data that is not associated with a control group.

*BKUGRP

You want to restore the backup user data control group.

*SYSGRP

You want to restore the system data control group.

*SYSTEM

You want to restore the backup entire system control group.

control-group-name

Specify the name of the control group that you want to restore.

Element 2: Sequence number

sequence-number

Specify a number from 1 to 99 to indicate the order in which you want to restore selected control groups. You can specify the same sequence number on several control groups.

Note: The sequence number is ignored if *NONE is specified in the CTLGRP parameter.

Top

Libraries to omit (OMITLIB)

Specifies the libraries you want to omit from recovery. You can choose to include all libraries, or exclude deleted libraries and/or specify libraries, and/or generic libraries. Up to 25 iterations can be specified.

Single values

*DELETE

Exclude deleted libraries from the recovery.

*NONE

Include all libraries in the recovery.

Other values (up to 25 repetitions)

library-name

Exclude the named library from recovery.

**generic-library-name*

Exclude libraries beginning with this generic name from recovery.

Top

Allow duplicate entries (ALWDUP)

Specifies whether to allow duplicate entries in the list of control groups that you can select to restore.

*NO Duplicate control group entries are not allowed in the Select and Sequence Control Groups display.

*YES Duplicates are allowed in the Select and Sequence Control Groups display.

Top

Volume locations to include (LOC)

Specifies the locations that you want to include in the recovery.

Single values

*ALL Include all locations that have been set up in BRMS.

Other values (up to 10 repetitions)

*HOME

Include the home location in the recovery.

location-name

Specify the name of the location that you want to include in the recovery. You can specify up to 10 locations.

Volume locations to omit (OMITLOC)

Specifies the locations that you want to omit from the recovery.

Single values

*NONE

No locations are omitted from the recovery.

Other values (up to 10 repetitions)

*HOME

Omit the home location in the recovery.

location-name

Specify the name of the location that you want to omit from the recovery. You can specify up to 10 locations.

From system (FROMSYS)

Specifies the location and network identification of the system from which you want to restore media information to the local system.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

*LCL Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Print system information (PRTSYSINF)

Specifies whether you want to include system information in recovery reports that you print when processing this command. If you specify *YES, the Print System Information (PRTSYSINF) command is processed.

*NO Do not included system information when recovery reports are printed.

***YES** Include system information when recovery reports are printed.

Top

Use duplicate media (USEDUPMED)

Specifies whether you want to use the original save media or duplicate save media when selecting history items for recovery. You may want to use this option if you move your original media offsite and keep duplicates of the original media onsite. The default value is *NO.

***NO** Specifies you want to use the original save media when selecting history items for recovery.

***YES** Specifies you want to use duplicate media when selecting history items for recovery.

Top

User recovery (USRRCYINF)

Specifies whether you want user recovery information added to the BRMS Recovery Report (QP1ARCY) created by this command.

Usage notes:

1. User recovery information can be included in the recovery report by adding records containing the information to the appropriate members of file QO1AUSRRCY in library QUSRBRM. Add records to member PROLOG to include user recovery information to the prolog information in the report. Add records to members STEPnnn to include user recovery information to specific steps in the report, where nnn is the step number as it appears on the report. Up to 92 bytes of user recovery information can be added to each record. There is no limit to the number of records.
2. User recovery information is added to the report following the BRMS information and before any saved items in the step. This information will be clearly highlighted on the report as user recovery information.
3. Each record is read sequentially from the file member, starting from the first record and ending with the last record, and will be added to the report in the same order as read. Each record will be placed on the report following the last printed line starting in column 8.
4. The user is responsible for all spacing, positioning and translation of the recovery information in each record.
5. The user is responsible for assuring the accuracy of the user recovery information.
6. The step numbers in the report differ depending on the value of the **Option (OPTION)** parameter and the content of the recovery. If the OPTION or content is changed, the names of the members in file QO1AUSRRCY may need to be renamed accordingly. The step numbers should be consistent if the report type and saved item content are consistent.
7. No exception is signaled if user recovery information is requested but no records are found in the members.

***NONE**

Specifies no user recovery information is available for the report.

***ADD** Specifies user recovery information is available and is to be added to the report.

Note: This value can only be specified if *REPORT is specified for the **Action (ACTION)** parameter.

Top

Recovery order list (RCYORDLST)

Specifies an object list that you want to use to determine the order of recovery.

*NONE

Indicates that you are not using an object list to determine the order of recovery.

name Specify the name of the object list that contains libraries that will determine the recovery order. These libraries will be listed prior to any other user libraries that will be recovered.

Top

Examples

Example 1: Print the Recovering Your Entire System Report

```
STRRCYBRM OPTION(*SYSTEM)
```

This command produces a recovery report to assist you in restoring the entire system which includes the system (1) and basic user (2-32) auxiliary storage pools and any auxiliary storage pool devices.

Example 2: Omit Libraries from the Recovering Your Entire System Report

```
STRRCYBRM OPTION(*SYSTEM) OMITLIB(*DELETE QSC*)
```

This command produces a report to assist you in recovering the entire system which includes the system (1) and basic user (2-32) auxiliary storage pools and any auxiliary storage pool devices. However, deleted libraries and libraries beginning with the generic name QSC* are omitted from the report.

Example 3: Customize STEP 002 of the Recovering Your Entire System Report

Enter the following command to work with the user recovery information file.

```
WRKMBRPDM FILE(QUSRBRM/Q01AUSRRCY) MBR(STEP002)
```

Edit the member using option 2=Edit on member STEP002. Enter the detailed user recovery information you want added to the report. When finished, exit the Edit display and indicate on the Exit display to save the edit session changes.

Run the following command to print the report and validate the user recovery information in STEP 002. Use the same command to generate all future reports using the user recovery information.

```
STRRCYBRM OPTION(*SYSTEM) USRRCYINF(*ADD)
```

The above steps show how to customized STEP 002 in the Recovering Your Entire System Report by adding your own user recovery information. You might do this to provide your system operators with special detailed guidance unique to your recovery. You can do this with any or all steps in the report.

Example 4: Print the Recovering Your Entire System Report for the Base System

```
STRRCYBRM OPTION(*SYSBAS)
```

This command produces a report to assist you in restoring the base system which includes the system (1) and basic user (2-32) auxiliary storage pools, excluding any auxiliary storage pool devices.

Example 5: Print the Recovering Your Entire System Report for Auxiliary Storage Pool 2

```
STRRCYBRM OPTION(*ASP) ASP(2)
```

This command produces a report to assist you in restoring saved items to basic user auxiliary storage pool 2.

Example 6: Restore Auxiliary Storage Pool Device MYASP

```
STRRCYBRM OPTION(*ASP) ACTION(*RESTORE) ASP(MYASP)
```

This command present the **Select Recovery Items** display containing a list of storing objects saved items from auxiliary storage pool device MYASP.

Example 7: Entire System Recovery Report with a Switched Auxiliary Storage Pool Device

```
STRRCYBRM ACTION(*REPORT) OPTION(*SYSTEM)  
          ASPDEV(SYSTEM_B PAYROLL)
```

This command produces a report to assist you in restoring the current system including auxiliary storage pool device PAYROLL saved on SYSTEM_B. SYSTEM_B is a system in the BRMS network and is networking media information about its saves to the current system.

Example 8: Applying Journal Changes

```
STRRCYBRM OPTION(*APYJRNCHG) JRN(*JRNLS)
```

This command prompts the **BRMS Work with Journals using BRMS** display. The display will be populated with the names of journals which have been saved using BRMS. Use **Option 1=Apply changes** to show the associated journals receivers on the **Apply Journal Changes using BRMS** display, then use **F16=Apply changes** to apply journal changes.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

BRM61FF

Recovery completed with errors.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Start Subsystems using BRM (STRSBSBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Start Subsystems using BRM (STRSBSBRM) command restarts subsystems that have been ended as a result of control group processing and have been specified with a value of *YES for the Restart field for the control group Subsystems to process entries.

You can specify the control group name and the type of control group that you are restarting subsystems for

Note: If you specify this command for a *EXIT backup item entry in a control group and specify the current control group name for the CTLGRP parameter, this has the effect of restarting the subsystems, defined in the Subsystems to Process for the current control group, earlier than these would normally occur. Subsystems would normally be restarted during post processing after all saves have been completed.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
CTLGRP	Control group	Name, *BKUGRP, *ARCGRP, *MGRGRP, *SYSGRP, *SYSTEM	Optional
TYPE	Type	*BKU, *ARC, *MGR	Optional

Top

Control group (CTLGRP)

Specifies the control group that you want to restart subsystems for

*BKUGRP

You want to restart the subsystems for the default backup user data control group.

*ARCGRP

You want to restart the subsystems for the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*MGRGRP

You want to restart the subsystems for the default migration control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*SYSGRP

You want to restart the subsystems for the default backup system data control group.

*SYSTEM

You want to restart the subsystems for the default backup entire system control group.

control-group-name

Specify the name of the control group for which you want to restart subsystems.

Top

Type (TYPE)

Specifies the type of control group that you have identified. Type is ignored if *SYSTEM, *BKUGRP, *ARCGRP, *SYSGRP or *MGRGRP are specified for the CTLGRP parameter.

***BKU** The control group is a backup control group.

***ARC** The control group is an archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***MGR** The control group is a migration control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

Top

Examples

```
STRSBSBRM CTLGRP(ARCHIVE01) TYPE(*ARC)
```

This command restarts subsystems after the archive control group ARCHIVE01 completes archive processing.

Top

Error messages

*ESCAPE Messages

BRM1381

Control group &1 type &2 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

Top

Verify Moves using BRM (VFYMOVBRM)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Verify Moves using BRM (VFYMOVBRM) command shows you the Verify Media Moves display. The Verify Media Moves display allows you to verify individual media volume movement, verify all volumes scheduled to move or cancel movement for individual or selected volumes. You can specify all systems or a selected system to verify.

The Volume Movement Report is produced when you run the VFYMOVBRM command. The report is written to printer file QP1AVMS.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
SYSNAME	System name	Character value, <u>*ALL</u> , *LCL	Optional

Top

System name (SYSNAME)

Specifies the system identifier for which you want to verify media movement.

***ALL** Include all media on all systems in the media selected for media movement.

***LCL** Specifies that the system is the local system. BRMS uses the default local location name, LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

Examples

Example 1: Verifying Media Movement

VFYMOVBRM

This command takes you to the Verify Media Moves display. Media chosen for media movement for all systems in the network is displayed.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Work with ASP Descriptions (WRKASPBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with ASP Descriptions (WRKASPBRM) command takes you to the Work with ASP Descriptions display or produces the ASP Descriptions report. The resulting display or report depends on the values that you specify in the Work with ASP Descriptions command. You can specify an individual auxiliary storage pool, all auxiliary storage pools or a generic auxiliary storage pool. You can further define your request by ASP class and the sequence in which you want to sort the resulting output.

Output can be a display or printed report. The report that is produced is the ASP Descriptions report. The report, if printed, is written to printer file QP1AXS.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- The BRMS Advanced feature (Option 2) is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
ASP	Auxiliary storage pool	Generic name, name, <u>*ALL</u> , *NONE, *SYSTEM, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32	Optional
ASPCLS	ASP class	Generic name, name, <u>*ALL</u> , *NONE	Optional
SORT	Sort sequence	<u>*NAME</u> , *CLASS	Optional
OUTPUT	Output	<u>*</u> , *PRINT	Optional

Top

Auxiliary storage pool (ASP)

Specifies the name of the auxiliary storage pool or special value that you want to display or report.

***ALL** All auxiliary storage pools are to be included in the display or report.

***NONE**

Do not include any auxiliary storage pools in the display or report.

***SYSTEM**

Only the system (1) auxiliary storage pool is to be included in the display or report.

generic*-ASP-name

Specify a generic auxiliary storage pool name. For example, specifying ASP0* would cause all auxiliary storage pools whose names begin with ASP0 to be included in the report or on the display.

ASP-name

Specify the name of an auxiliary storage pool to be included in the report or display.

ASP-number

Specify the number of the system (1) or basic user auxiliary storage pool (2-32) to be included in the report or display.

Top

ASP class (ASPCLS)

Specifies the name of the ASP class or special value that you want to display or report.

***ALL** All ASP classes are to be included in the display or report.

***NONE**

Only auxiliary storage pools that have not been assigned to an ASP class are to be included in the display or report.

generic-ASP-class-name*

Specify a generic ASP class name. For example, specifying MEDIUM* would cause all ASP classes whose names begin with MEDIUM to be included in the report or on the display.

ASP-class-name

Specify the name of a specific ASP class to be included in the report or display.

Top

Sort sequence (SORT)

Specifies the order in which you want to display or report the resulting information.

***NAME**

The resulting display or report is sequenced in auxiliary storage pool name order. Auxiliary storage pools that have no name are listed first.

***CLASS**

The resulting display or report is sequenced in ASP class hierarchy order. ASPs which have not been assigned to a class are shown last.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

Example 1: Working with the System ASP

WRKASPBRM ASP(1)

This command will show the Work with ASP Descriptions panel for ASP 1, which is the system ASP. From this panel you can review or change the description for the system ASP.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

CPF9800

All CPF98xx messages could be signaled. xx is from 01 to FF.

[Top](#)

Work with Calendars using BRM (WRKCALBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Calendars (WRKCALBRM) command works with all calendar entries by taking you to the Work with Calendars display. From there you can add, remove, change, copy or display calendar information. Output can be a display or printed report. The report that is produced is the Calendars report. The report, if printed, is written to printer file QP1ACA.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- Calendar names can be up to ten characters in length and adhere to i5/OS naming conventions.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT _	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
_

*PRINT

The output is printed with the job's spooled output.

Top

Examples

WRKCALBRM

This command displays the Work with Calendars panel.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Classes using BRM (WRKCLSBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Classes using BRM (WRKCLSBRM) command works with all or selected container, auxiliary storage pool (ASP) or media classes. You can select a single class or all classes. Output can be a display or printed report.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	* <u>MED</u> , *ASP, *CNR	Optional, Positional 1
OUTPUT	Output	*, *_PRINT	Optional

Top

Type (TYPE)

You can specify whether you want to display or report on media classes, ASP classes or container classes.

***MED** You want to display or report on media classes. The report that is produced is the Media Class report. The report, if printed, is written to printer file QP1AMT.

***ASP** You want to display or report on ASP classes. The report that is produced is the ASP Class report. The report, if printed, is written to printer file QP1AXC.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***CNR** You want to display or report on container classes. The report that is produced is the Container Class report. The report, if printed, is written to printer file QP1ACT.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

WRKCLSBRM TYPE(*CNR)

This command displays the Work with Container Classes panel.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Containers using BRM (WRKCNRBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Containers using BRM (WRKCNRBRM) command works with all or selected containers. You can select all containers or those that are open or closed. Your selection can be further refined by location. Output can be a display or printed report. The report that is produced is the Container report. The report, if printed, is written to printer file QP1ACN.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
CNR	Container ID	Name, <u>*ALL</u>	Optional, Positional 1
STATUS	Status	<u>*ALL</u> , *CLOSED, *OPEN	Optional, Positional 2
LOC	Location	Name, <u>*ALL</u> , *HOME	Optional, Positional 3
CNRCLS	Container class	Name, <u>*ALL</u>	Optional, Positional 4
OUTPUT	Output	*, <u>_</u> , *PRINT	Optional, Positional 5

Top

Container ID (CNR)

Specifies whether you want to work with a specific container or all containers.

*ALL You want to work with all containers in the BRMS container inventory.

container-ID

Specify the container ID in the BRMS container inventory that you want to work with.

Top

Status (STATUS)

Specifies whether you want to work with all containers, open containers or closed containers. Open containers can accept additional media volumes and closed containers cannot.

*ALL You want to work with all containers in the BRMS container inventory.

***CLOSED**

You want to work with closed containers.

***OPEN**

You want to work with open containers.

Top

Location (LOC)

Specifies a location that you want to work with. You can specify a single location, containers that are in the home storage location, containers that are in other storage locations or all locations.

***ALL** You want to work with all containers in all locations.

***HOME**

You want to work with containers in the location *HOME.

location-name

Specify the location that contains the containers that you want to work with.

Top

Container class (CNRCLS)

Specifies the container class for the containers that you want to work with. Container classes define the types of physical containers that are used to store and transport physical media classes. Container classes are distinguished by attributes such as capacity and media class. For instance, there could be several container classes for eight millimeter cartridges. One container class could be CONT8MM10 indicating that this container class is used for eight millimeter cartridges and has a capacity of 10 cartridges. If you used another container for eight millimeter cartridges that had a 25 cartridge capacity, you could set up CONT8MM25 as a container class.

***ALL** You want to work with all container classes that are assigned to the containers you are working with.

container-class-name

Specify the user-defined name of the container class for the containers that you want to work with.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

```
WRKCNBRM STATUS(*OPEN) LOC(*HOME)
```

This command displays the Work with Containers panel where all open containers that are at the *home* location are displayed.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Control Groups (WRKCTLGBRM)

Where allowed to run: Interactive environments (*INTERACT
*IPGM *IREXX *EXEC)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Control Groups using BRM (WRKCTLGBRM) command allows you to produce a display or report of backup, archive and migration control groups. If you display control group information you are taken to the selected Work with Control Groups display where you can create, delete, change or display control groups. If you report control group information, the selected control group report is produced.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type	* <u>BKU</u> , *ARC, *MGR	Optional, Positional 1
OUTPUT	Output	*, *_PRINT	Optional

Top

Type (TYPE)

Specifies the type of control group that you want to work with.

*BKU You want to work with backup control groups.

*ARC You want to work with archive control groups.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*MGR You want to work with migration control groups.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

*PRINT

The output is printed with the job's spooled output.

Note: OUTPUT(*PRINT) is only supported for TYPE(*MGR).

Examples

WRKCTLGBRM

This command displays the Work with Backup Control Groups panel.

Top

Error messages

*ESCAPE Messages

BRM1039

&1 currently in use.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

Top

Work with Devices using BRM (WRKDEVBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Devices using BRM (WRKDEVBRM) command works with all device entries by taking you to the Work with Devices display. From there you can add, remove, change or display device information. Output can be a display or printed report. The report that is produced is the Device report. The report, if printed, is written to printer file QP1ADV.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT _	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

WRKDEVBRM

This command displays the Work with Devices panel.

Top

Error messages

*ESCAPE Messages

BRM1240
Device &1 is not allowed.

BRM1291

Device entry &1 in use.

BRM1706

Media library &1 in use.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Saved Folders (WRKFLRBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Saved Folders using BRM (WRKFLRBRM) command displays or prints a report of saved folders, including all subfolders. Folders are selected by date ranges and the resulting display/print can be sequenced in several ways.

If the display option is selected, you can display the documents in each folder and restore them from the media inventory. The report that is produced is the Saved Folders report. The report, if printed, is written to printer file QP1AFD.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
FLR	Folder	Character value, <u>*ALL</u>	Optional, Positional 1
SLTDATE	Select dates	Element list	Optional
	Element 1: From date	Character value, <u>*BEGIN</u> , *CURRENT	
	Element 2: To date	Character value, <u>*END</u> , *CURRENT	
SAVSTS	Save status	<u>*ALL</u> , *ERROR, *NOERROR	Optional
SORT	Sequence option	<u>*DATE</u> , *FLR	Optional
FROMSYS	From system	Character value, <u>*LCL</u>	Optional
OUTPUT	Output	<u>*</u> , *PRINT	Optional

Top

Folder (FLR)

Specifies the name of the folder or group of folders that you want to display or print.

*ALL Include all folders in the display or print.

folder-name

Specify the name of the folder that you want to display or print.

generic-folder-name*

Specify the generic folder name. For example, specifying ACCFLR* would cause all folder whose names that begin with ACCFLR to be included in the display or print.

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when displaying or printing saved folders. The **From date** is the beginning of a date range of saved folders and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

*BEGIN

Uses the earliest activity date for the beginning date of the date range.

*CURRENT

Use the current date for the beginning date of the date range.

from-date

Specify the date entered in job date format with or without date separators for the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

*END The last date that a folder was saved is the ending date of the date range that you want to use for the search.

*CURRENT

Uses the current date for the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Save status (SAVSTS)

Specifies whether you want to display or report all successful saves, unsuccessful saves or both.

*ALL Include both successful and unsuccessful saves in the display or report.

*ERROR

Include only unsuccessful saves in the display or report.

*NOERROR

Include only successful saves in the display or report.

Top

Sequence Option (SORT)

The Work with Saved Folders display or report can be sequenced several ways.

*DATE

Orders the display or report in date sequence.

***FLR** Orders the display or report in folder sequence.

Top

From system (FROMSYS)

Specifies the location and network identification of the system whose folder information that you want to work with.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
- The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

```
WRKFLRBRM SLTDATE(*BEGIN *END)
```

This command displays the Work with Saved Folders panel, where all folders from the beginning of the file to the end of the file are displayed.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

Top

Work with Lists using BRM (WRKLB RM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Lists using BRM (WRKLB RM) command displays or prints a report of lists that you select. You can select to display or print all lists, backup lists or archive lists. If the display option is selected, you are taken to the Work with Lists display where you can create, remove, change or display lists.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Type of usage	<u>*ALL</u> , *ARC, *BKU	Optional, Positional 1
OUTPUT	Output	<u>_</u> , *PRINT	Optional

Top

Type of usage (TYPE)

Specifies the type of list that you want to work with.

*ALL You want to work with all types of lists.

*ARC You want to work with archive lists.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

*BKU You want to work with backup lists.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

*PRINT

The output is printed with the job's spooled output.

If you want to print the archive lists, the following reports are written to the associated printer files:

- Archive Folder List report - QP1AAF
- Archive Object List report - QP1AAO

- Archive Spooled File report - QP1AAQ

If you want to print the backup lists, the following reports are written to the associated printer files:

- Backup Folder List report - QP1AFL
- Backup Object List report - QP1AOB
- Backup Spooled File report - QP1ALQ
- Backup Object List report - QP1AFS

Top

Examples

```
WRKLBRM TYPE(*BKU)
```

This command displays the Work with Backup Lists panel.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

Top

Work with Link Information (WRKLNKBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Link Information (WRKLNKBRM) command allows you to work with all or selected directories that contain integrated file systems object link information. You are taken to the Work with Link Information display where you can work with integrated file system object link information or remove integrated file system object link information. Output can be a display or printed report.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
DIR	Directory	<i>Path name, *</i>	Optional
SAVTYPE	Save type	Single values: *ALL Other values (up to 3 repetitions): *ARC, *CUML, *FILE, *FULL, *INCR, *NONE, *QBRM	Optional
SLTDATE	Select dates	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *END, *CURRENT</i>	
FROMSYS	From system	<i>Character value, *LCL</i>	Optional
OUTPUT	Output	<i>*, *PRINT</i>	Optional

Top

Directory (DIR)

Specifies the path for the directories that you want to work with in a display or report.

* Include all directories in the display or report.

object-name-pattern

Specify the name of the object or a pattern to match the name(s) of the object(s) to be shown. The object path name can be either a simple name or a name that is qualified with the name of the directory in which the object is located. A pattern can be specified in the last part of the path name. An asterisk (*) matches any number of characters and a question mark (?) matches a single character. If the path name is qualified or contains a pattern, it must be enclosed in apostrophes.

Top

Save type (SAVTYPE)

Specifies the type of save items that you want to work with. You can specify all types of items, a specific type or a mix of types.

Single values

***ALL** Work with all types of save items.

Other values (up to 3 repetitions)

***ARC** Only work with save items that were a result of an archive process.

Note: The BRMS Advanced feature (Option 2) is required for this value.

***CUML**

Only work with save items that were a result of an incremental (save changed objects) save.

*CUML indicates that the incremental save includes all objects that have been changed since the last full save.

***FILE** Only work with save items that were a result of native i5/OS save commands.

***FULL** Only work with save items that were a result of a full save.

***INCR**

Only work with save items that were a result of an incremental (save changed objects) save.

*INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

***NONE**

Only work with save items that have never been saved.

***QBRM**

Work with BRMS media information items that have been saved.

Top

Select date (SLTDATE)

Specifies a range of dates that you want to use when selecting entries to include in the display or report. The **From date** is the beginning point in the date range and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

The date of the earliest entry is the beginning date of the date range.

***CURRENT**

The current date is the starting point of the range of dates to select for the display or report.

from-date

Specify the date entered in job date format with or without date separators that you want to be the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is the beginning date of the date range.

Element 2: To date

***END** The last date is the ending date of the date range.

***CURRENT**

The current date is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of the date range.

number-of-days

Specify the number of days before the current day that is the ending date of the date range.

Top

From system (FROMSYS)

Specifies the location and network identification of the system whose integrated file system information that you want to display or print.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
_

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

WRKLNKBRM SLTDATE(*CURRENT *CURRENT)

This command displays the Work with Link Information panel where all integrated file system information for the current date is displayed.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1867

Error writing file &1.

BRM1868

File &1 not opened successfully.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

BRM4117

Recovery of first media file required.

Top

Work with Locations using BRM (WRKLOCBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Locations using BRM (WRKLOCBRM) command allows you to work with all storage locations. You can select a single location or all locations. Output can be a display or printed report. The report that is produced is the Storage Location report. The report is written to the printer file QP1ASL.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
_

***PRINT**
 The output is printed with the job's spooled output.

Top

Examples

WRKLOCBRM

This command displays the Work with Locations panel.

Top

Error messages

*ESCAPE Messages

BRM1917
 Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Media using BRM (WRKMEDBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Work with Media using BRM (WRKMEDBRM) command works with active, expired, requiring initialization, in error, or all media volumes in the media inventory by creation and expiration date for any or all locations. The following parameters can be used to tailor this display or printed report. The report that is produced is the Media report. The report, if printed, is written to printer file QP1AMM.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Select volumes	<u>*ALL</u> , *ACT, *EXP, *ERR, *INZ, *BOTH	Optional, Positional 1
SLTCRTDATE	Select creation dates	Element list	Optional
	Element 1: Beginning creation date	Character value, <u>*BEGIN</u> , *CURRENT	
	Element 2: Ending creation date	Character value, <u>*END</u> , *CURRENT	
SLTEXPDATE	Select expiration dates	Element list	Optional
	Element 1: Beginning expiration date	Character value, <u>*BEGIN</u> , *CURRENT, *PERM	
	Element 2: Ending expiration date	Character value, <u>*END</u> , *CURRENT	
VOL	Volume identifier	Single values: <u>*ALL</u> Other values (up to 50 repetitions): Character value	Optional
LOC	From location	Name, <u>*ALL</u> , *HOME	Optional
CNR	Container	Name, <u>*ALL</u>	Optional
MEDCLS	Media class	Name, <u>*ALL</u>	Optional
SYSNAME	System name	Character value, <u>*ALL</u> , *LCL	Optional
FILEGRP	File group	Name, <u>*ALL</u> , *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
GRPTYPE	File group type	Name, <u>*ALL</u> , *ARC, *BKU, *NONE	Optional
TEXT	Text	Character value, <u>*ALL</u> , *NONE, '*generic'	Optional
SORT	Sequence	<u>*VOL</u> , *CRT, *EXP, *LOC	Optional
OUTPUT	Output	<u>*</u> , *PRINT	Optional

Top

Select volumes (TYPE)

Use this parameter to specify the type of media volume that you want to display or print.

- *ALL** Displays or prints all media volumes.
- *ACT** Displays or prints only active media volumes.
- *EXP** Displays or prints only expired media volumes.
- *ERR** Displays or prints only media flagged in error.
- *INZ** Displays or prints only media requiring initialization.
- *BOTH**
Displays or prints all media volumes. This value is deprecated and is replaced by *ALL.

Top

Select creation dates (SLTCRTDATE)

Specifies a range of creation dates that you want to use when working with media. The **Beginning creation date** is the beginning of a date range of media selected and the **Ending creation date** is the end of the date range of creation dates.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: Beginning creation date

***BEGIN**

Uses the earliest media volume creation date that is on the file for the beginning of the creation date range.

***CURRENT**

Uses the current date as the beginning of the creation date range.

beginning-creation-date

Specify a date that is the beginning of the creation date range. The date must be less than or equal to the current date.

number-of-days

Specify the number of days before the current day that is used to determine the beginning date of the date range.

Element 2: Ending creation date

***END** The last creation date in the media inventory is used as the end of the creation date range.

***CURRENT**

Uses the current date as the ending of the creation date range.

ending-creation-date

Specify a date that is the ending of the creation date range. The date must be equal to or greater than the beginning creation date and less than or equal to the current date.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Select expiration dates (SLTEXPDATE)

Specifies a range of expiration dates that you want to use when working with media. The **Beginning expiration date** is the beginning of a date range of media selected and the **Ending expiration date** is the end of the date range of expiration dates.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: Beginning expiration date

*BEGIN

Uses the earliest media volume expiration date that is on the file for the beginning of the expiration date range.

*CURRENT

Uses the current date as the beginning of the expiration date range.

beginning-expiration-date

Specify a date that is the beginning of the expiration date range. The date must be less than or equal to the current date.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: Ending expiration date

*END The last expiration date in the media inventory is used as the end of the expiration date range.

*CURRENT

Uses the current date as the ending of the expiration date range.

ending-expiration-date

Specify a date that is greater than or equal to the beginning expiration date.

number-of-days

Specify the number of days after the current day that is used to determine the ending date of the date range.

*PERM

Selects all media volumes that are marked with a permanent retention.

Top

Volume identifier (VOL)

Specifies the volume or volumes that you want to display in the Work with Media display or print.

Single values

*ALL You want to display or print all volumes in the media inventory that meet all specified parameters.

Other values (up to 50 repetitions)

generic-volume-name*

Specify the generic volume name. For example, specifying VOL* would cause all volumes whose names that begin with VOL to be included in the display or print.

volume-name

Specify that you want to display or print the volume or volumes that meet all specified parameters.

Top

From location (LOC)

Specifies the location of the media that you want to display or print.

***ALL** Use the media volumes that reside in any storage location.

***HOME**

Use the media volumes that reside in the local storage location, *HOME.

from-location-name

Specify the name of the media storage location.

Top

Container (CNR)

Specifies the container that you want to display or print. You can select a specific container or all containers within a location.

***ALL** Work with all containers that reside in a storage locations.

container-ID

Specify the name of the container you want to display or print.

Top

Media class (MEDCLS)

Specifies the media class that you want to display or print. You can select a specific media class or all media classes.

***ALL** Work with all media classes.

media-class-name

Specify the name of the media class that you want to display or print.

Top

System name (SYSNAME)

Specifies the system name whose media inventory that you want to display or print.

***ALL** You want to display or print the media inventory for all system names.

***LCL** Specifies that the system is the local system. BRMS uses the default local location name,

LCLLOCNAME and not the system name SYSNAME. In most cases, the systems have the same value specified in the LCLLOCNAME and in the SYSNAME. You can use the DSPNETA command to view the system network attributes.

location-name

Specify the name of the remote location associated with the system. The local system's network identifier, as seen by using the DSPNETA command, is used as the system's network identifier.

Note: The BRMS Network feature (Option 1) is required to use this value.

network-id.location-name

Specify the network identifier and the name of the remote location associated with the system. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the network identifier and cccccc is the remote location name.

Note: The BRMS Network feature (Option 1) is required to use this value.

Top

File group (FILEGRP)

Specifies the file group that you want to include on the volumes that you want to display or print.

***ALL** Include all file groups that meet the other specifications for the media that you want to display or print.

***NONE**

Do not include file groups.

***ARCGRP**

Include volumes that contain the default archive control group in the group of files.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

Include volumes that contain the default backup user data control group in the group of files.

***SYSGRP**

Include volumes that contain the default system data control group in the group of files.

***SYSTEM**

Include volumes that contain the default backup entire system control group in the group of files.

file-group

Specify the name of the file group whose volumes you want to display or print.

Top

File group type (GRPTYPE)

Specifies the type of file group that you want to display or print.

***ALL** Include all types of file groups that meet the other specifications in the search.

***ARC** Include file groups that are archive type file groups in the media that you want to display or print.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** Include file groups that are backup type file groups in the media that you want to display or print.

***NONE**

Do not include any file group types in the media that you want to display or print.

file-group-type

Specify the file group type that you want to include in the file groups that you want to display or print.

Top

Text (TEXT)

Specifies the text related to the media with which you want to work. You can search for any string of characters, and only those media inventory entries that contain the string of characters in the text are included in the display or print.

***ALL** You want to display or print all media inventory entries, regardless of the text.

***NONE**

You want to display or print all media inventory entries that have blanks for text.

***generic*-text**

Specify that you want to display or print all media inventory entries that have the text string specified.

Top

Sequence (SORT)

Specifies the sort sequence that you want to use for this display or report.

***VOL** Sorts the display or report in volume sequence.

***CRT** Sorts the display or report in creation date sequence.

***EXP** Sorts the display or report in expiration date sequence.

***LOC** Sorts the display or report in location sequence.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
_

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

Example 1: Working with Expired Media

```
WRKMEDBRM TYPE(*EXP)
```

This command displays the Work with Media panel, where expired media are shown.

Example 2: Working with Active Media Sorted by Location

```
WRKMEDBRM TYPE(*ACT) SYSNAME(MYSYS) SEQ(*LOC)
```

This command displays the Work with Media panel, where active media that is in the media inventory for a system named MYSYS are shown in location order.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Media Information (WRKMEDIBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Media Information using BRM (WRKMEDIBRM) command displays or reports media information based on specified libraries, date ranges and sequences. The Work with Media Information command shows the date and time each library was saved, the type of save, the volume serial and its associated expiration date and the number of objects that were saved and the number that were not saved. The command gives you the option to display or print the report. The report that is produced is the Media Information report. The report, if printed, is written to printer file QP1AHS.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
LIB	Library	Generic name, name, *ALL, *ALLDLO, *LINK, *LNKOMTLTS, *LNKOMTONL, *LTSOMTONL, *QHST, *SAVCFG, *SAVSECDTA, *SAVSPLF, *SAVSYS	Optional, Positional 1
VOL	Volume	Character value, *ALL	Optional
ASP	Auxiliary storage pool	Character value, *ALL, *SYSTEM	Optional
CTLGRP	Control group	Name, *ALL, *NONE, *ARCGRP, *BKUGRP, *SYSGRP, *SYSTEM	Optional
SAVTYPE	Save type	Single values: *ALL Other values (up to 3 repetitions): *ARC, *CUML, *FILE, *FULL, *INCR, *NONE, *QBRM	Optional
SLTDATE	Select dates	Element list	Optional
	Element 1: From date	Character value, *BEGIN, *CURRENT	
	Element 2: To date	Character value, *END, *CURRENT	
SAVSTS	Save status	*ALL, *ERROR, *NOERROR	Optional
SORT	Sequence option	*DATE, *LIB, *VOL	Optional
START	Entries to be displayed first	*LAST, *FIRST	Optional
FROMSYS	From system	Character value, *LCL	Optional
OUTPUT	Output	*, *PRINT	Optional

Top

Library (LIB)

Specifies the name of the library or special value that you want to display or report.

*ALL All libraries are to be included in the media information report.

***ALLDLO**

You want to display or print media information for all folders that you have saved using the *ALLDLO special value.

***LINK**

You want to display or print media information for all saves using the special value *LINK which saves all IFS directories except files in /QSYS.LIB and /QDLS directories.

***LNKOMTLTS**

You want to display or print media information for all saves using the special value *LNKOMTLTS. This value saves all IFS directories and files except all Lotus server files and files in /QSYS.LIB and /QDLS directories.

***LNKOMTONL**

You want to display or print media information for all saves using the special value *LNKOMTONL. This value saves all IFS directories and files except online Lotus server backup files and files in /QSYS.LIB and /QDLS directories.

***LTSOMTONL**

You want to display or print media information for all saves using the special value *LTSOMTONL. This value saves all Lotus server files except online Lotus server files.

***QHST**

You want to display or print media information for all entries you have saved using the *QHST special value.

***SAVCFG**

You want to display or print media information for all configurations that you have saved using the *SAVCFG special value.

***SAVSECDTA**

You want to display or print media information for all security data that you have saved using the *SAVSECDTA special value.

***SAVSPLF**

You want to display or print media information for all spooled files that you have saved in a list.

***SAVSYS**

You want to display or print media information that was the result of using the *SAVSYS special value.

library-name

Specify the name of a specific library on which you want to report media information.

generic*-library-name

Specify that the library name is generic. For example, specifying ACCTP* would cause all libraries whose names begin with ACCTP to be included in the report or on the display.

Top

Volume (VOL)

Specifies the name of the media volume which you want to include in the Work with Media Information display or *ALL if you want to include all volumes.

Note: If you specify *SAVE, the resulting display or report will include all BRMS saves to save files.

This is a required parameter.

***ALL** You want to include all volumes in the media information display or report.

volume-identifier

Specify the name of a media volume on which you want to display or report media information.

Top

Auxiliary storage pool (ASP)

Specifies an auxiliary storage pool for the retrieved media information. Only those objects which reside on the specified auxiliary storage pool when the save operation occurred will be displayed or reported.

***ALL** You want to display or report all saved items from all auxiliary storage pools.

***SYSTEM**

You want to display or report all saved items from the system (1) auxiliary storage pool.

auxiliary-storage-pool-number

You want to display or report all saved items from the auxiliary storage pool identified by this number.

auxiliary-storage-pool-name

You want to display or report all saved items from the auxiliary storage pool identified by this name.

Top

Control group

Specifies the name of the control group that you want to work with when displaying saved items.

***ALL** Work with all control groups.

***NONE**

Work with items that were not saved using a control group.

***ARCGRP**

The name of the default archive control group because you want to work with items saved using the default archive control group.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKUGRP**

The name of the default backup control group because you want to work with items saved using the default user data backup control group.

***SYSGRP**

The default system backup control group because you want to work with items saved using the default system data backup control group.

***SYSTEM**

The default system backup control group because you want to work with items saved using the default entire system backup control group.

control-group-name

Specify the name of the control group for the items that you want to work with.

Top

Save type (SAVTYPE)

Specifies the type of save items that you want to work with. You can specify all types of items, a specific type or a mix of types.

Single values

***ALL** Work with all types of save items.

Other values (up to 3 repetitions)

***ARC** Only work with save items that were a result of an archive process.

Note: The BRMS Advanced feature (Option 2) is required for this value.

***CUML**

Only work with save items that were a result of an incremental (save changed objects) save.

*CUML indicates that the incremental save includes all objects that have been changed since the last full save.

***FILE** Only work with save items that were a result of native i5/OS save commands.

***FULL** Only work with save items that were a result of a full save.

***INCR**

Only work with save items that were a result of an incremental (save changed objects) save.

*INCR indicates that the incremental save includes all objects that have been changed since the last incremental save.

***NONE**

Only work with save items that have never been saved.

***QBRM**

Work with BRMS media information items that have been saved.

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when reporting on media information. The **From date** is the beginning of a date range of media information and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

The earliest media information date on the file is the beginning date of a date range.

***CURRENT**

The current date is the beginning date of a date range.

from-date

Specify the date in job date format with or without date separators that you want to be the beginning date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

***END** The last date found in the file is the end of the date range for the search.

***CURRENT**

The current date is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Save status (SAVSTS)

Specifies whether you want to display or report all successful saves, unsuccessful saves or both.

***ALL** You want to include both successful and unsuccessful saves in the display or report.

***ERROR**

You want to include only unsuccessful saves in the display or report.

Note: Errors that are included are those that would have resulted in an abnormal completion condition if you had used a native save command for the save operation.

***NOERROR**

You want to include only successful saves in the display or report.

Note: Objects that are not saved are not necessarily considered an error condition. For instance, if one object within a library is in a locked condition during a save operation, and the remainder of the objects in the library are not, a save operation of the library can complete successfully, even though the locked object will be omitted. The omitted object will be indicated in the **Not saved** column of the resulting Work with Media Information display or report.

Top

Sequence (SORT)

Specifies that the media information report is to be sequenced in several ways.

***DATE**

Sequences the media information report by date.

***LIB** Sequences the media information report by library.

***VOL** Sequences the media information report by volume.

Top

Entries to be displayed first (START)

Specifies the starting position of the media information entries. The display station user can roll the display up or down to see other media information entries if the media information entry is on another display screen.

*LAST

Media information is shown starting with the last entry at the bottom of the display.

*FIRST

Media information is shown starting with the first entry at the top of the display.

Top

From system (FROMSYS)

Specifies the location and network identification of the system whose media that you want to work with.

Note: The values specified in the FROMSYS parameter are ignored if a volume identifier is specified in the **Volume (VOL)** parameter. In this case the location and network identifier associated with the specified volume is used.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

*LCL Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
- The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

*PRINT

The output is printed with the job's spooled output.

Top

Examples

```
WRKMEDIBRM LIB(MY*) SAVTYPE(*FULL) SORT(*LIB)
```

This command displays the Work with Media Information panel, where all libraries that begin with the letters 'MY' and were saved during a full save, are shown in library sequence.

Top

Error messages

*ESCAPE Messages

BRM1177

Cannot establish connection with remote system.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2154

ASP value of *ALL must be specified.

BRM215A

ASP value of *ALL or 1-32 must be specified.

BRM4040

Access denied for user &1.

BRM4041

Access denied for user &1.

BRM40A2

BRMS product initialization required.

Top

Work with Migration Info (WRKMGRIBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Migration Information using BRM (WRKMGRIBRM) command displays or reports migration information based on specified items, item type, date range, migration status, migration policy, source auxiliary storage pool and/or target auxiliary storage pool. Default values are provided to produce the most inclusive display or report. A **Sequence (SORT)** parameter allows the user to specify the sequence of the resulting output. The **Entries to be displayed first (START)** parameter determines whether the resulting output is positioned at the beginning or end of the information. The report, if printed, is written to printer file QP1AHH.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Restriction:

- The BRMS Advanced feature (Option 2) is required to use this command.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Item type	*FLR, <u>*LIB</u>	Optional, Positional 1
LIB	Library	Generic name, name, <u>*ALL</u>	Optional
FLR	Folder	Generic name, name, <u>*ALL</u>	Optional
FROMASP	From ASP	Character value, <u>*ALL</u> , *SYSTEM	Optional
TOASP	To ASP	Character value, <u>*ALL</u> , *SYSTEM	Optional
FROMASPCLS	From ASP class	Name, <u>*ALL</u>	Optional
TOASPCLS	To ASP class	Name, <u>*ALL</u>	Optional
SLTDATE	Select dates	Element list	Optional
	Element 1: From date	Character value, <u>*BEGIN</u> , *CURRENT	
	Element 2: To date	Character value, <u>*END</u> , *CURRENT	
MGRSTS	Migration status	<u>*ALL</u> , *ERROR, *NOERROR	Optional
SORT	Sequence	<u>*DATE</u> , *FROMASP, *NAME, *TOASP	Optional
START	Entries to be displayed first	<u>*LAST</u> , *FIRST	Optional
OUTPUT	Output	<u>*</u> , *PRINT	Optional

Top

Item type (TYPE)

Specifies the type of item whose migration information you want to display or report.

*LIB Migration information for libraries is to be included.

***FLR** Migration information for first level folders is to be included.

Top

Library (LIB)

Specifies whether all libraries, a generic group of libraries or a single library is to be included in the resulting display or report. This parameter is required when *LIB is specified in the **Item type (TYPE)** parameter.

***ALL** You want to include all libraries in the migration information display or report.

generic-library-name*

Specify a generic name of a library that you want to include. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete library name.

library-name

Specify the name of the library about which you want to display or report migration information.

Top

Folder (FLR)

Specifies whether all libraries, a generic group of libraries or a single folder is to be included in the resulting display or report. This parameter is required when *FLR is specified in the **Item type (TYPE)** parameter.

***ALL** You want to include all libraries in the migration information display or report.

generic-folder-name*

Specify a generic name of a folder that you want to include. A generic name is a character string that contains one or more characters followed by an asterisk (*). If an * is not specified with the name, the system assumes that the name is a complete folder name.

folder-name

Specify the name of the folder about which you want to display or report migration information.

Top

From ASP (FROMASP)

Specifies all auxiliary storage pools or a single auxiliary storage pool from which items have been migrated that you want to include in the display or report.

***ALL** Include all auxiliary storage pools from which items have been migrated in the display or report.

***SYSTEM**

Include only items that have been migrated from the system (1) auxiliary storage pool.

from-ASP-name

Specify the name of the auxiliary storage pool that you want to include in the display or report.

from-ASP-number

Specify the number of the auxiliary storage pool that you want to include in the display or report.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

To ASP (TOASP)

Specifies all auxiliary storage pools or a single auxiliary storage pool to which items have been migrated that you want to include in the display or report.

***ALL** Include all auxiliary storage pools to which items have been migrated in the display or report.

***SYSTEM**

Include only items that have been migrated to the system (1) auxiliary storage pool.

to-ASP-name

Specify the auxiliary storage pool name that you want to include in the display or report.

to-ASP-number

Specify the auxiliary storage pool number that you want to include in the display or report.

Note: UDFS, primary and secondary auxiliary storage pools are not supported for this parameter.

Top

From class (FROMASPCLS)

Specifies that auxiliary storage pools in all ASP classes or a single ASP class from which data has been migrated are to be included in the display or report.

***ALL** All ASP classes are included in the display or report.

from-ASP-class-name

Specify the ASP class that is to be included in the display or report.

Top

To ASP class (TOASPCLS)

Specifies that auxiliary storage pools in all ASP classes or a single ASP class to which data has been migrated are to be included in the display or report.

***ALL** All ASP classes are included in the display or report.

to-ASP-class-name

Specify the ASP class that is to be included in the display or report.

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when reporting on migration information. The **From date** is the beginning of a date range of migration information and the **To date** is the end of the date range.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

*BEGIN

The earliest migration information date on the file is the beginning date of a date range.

*CURRENT

The current date is the beginning date of a date range.

from-date

Specify the date in job date format with or without date separators that you want to be the beginning date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

*END The last date found in the file is the end of the date range for the search.

*CURRENT

The current date is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Migration status (MGRSTS)

Specifies whether you want to display or report all successful migration information, unsuccessful migration information or both.

*ALL You want to include both successful and unsuccessful migration information in the display or report.

*ERROR

You want to include only unsuccessful migration information in the display or report.

*NOERROR

You want to include only successful migration information in the display or report.

Top

Sequence option (SORT)

Specifies the way in which migration information is to be sequenced.

*DATE

Sequences the migration information by date and time.

*FROMASP

Sequences the migration information by source auxiliary storage pool, target auxiliary storage pool, date and time sequence.

*NAME

Sequences the migration information by item name and type.

***TOASP**

Sequences the migration information by target auxiliary storage pool, source auxiliary storage pool, date and time sequence.

Top

Entries to be displayed first (START)

Specifies the starting position of the migration information entries. The display station user can roll the display up or down to see other migration information entries if the migration information entry is on another display screen.

***LAST**

Migration information is shown starting with the last entry at the bottom of the display.

***FIRST**

Migration information is shown starting with the first entry at the top of the display.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
-

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

```
WRKMGRIBRM ITEM(ABC*) TOASP(03)
```

This command displays the Work with Migration Information panel, where all libraries that begin with the letters 'ABC', and were migrated from any auxiliary storage pool (ASP) to ASP number 3, are displayed in date sequence.

Top

Error messages

***ESCAPE Messages**

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Media Libraries (WRKMLBBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Media Libraries (WRKMLBBRM) command works with media libraries (MLB). Output can be a display or printed report. The report that is produced is the Media Library report. The report, if printed, is written to printer file QP1AMD.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

[Top](#)

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT _	Optional, Positional 1

[Top](#)

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

[Top](#)

Examples

WRKMLBBRM

This command displays the Work with Media Libraries panel.

[Top](#)

Error messages

*ESCAPE Messages

BRM1917
Feature not installed.

BRM1921

Feature not licensed.

BRM4040

Access denied for user &1.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Media Library Media (WRKMLMBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Media Library Media using BRM (WRKMLMBRM) command works with all media or specific media in a media library device that you specify. Various parameters can be used to tailor this display or report. The report that is produced is the Media Library Media report. The report, if printed, is written to the printer file QP1A1MD.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
MLB	Media library	<i>Name</i>	Required, Positional 1
VOL	Volume	<i>Character value, *ALL</i>	Optional
CGY	Category	<i>Name, *ALL, *EJECT, *INSERT, *IPL, *NL, *NOSHARE, *SHARE400</i>	Optional
BRMVOL	BRM volume	<i>*ANY, *NO, *YES</i>	Optional
MEDCLS	Media class	<i>Name, *ALL</i>	Optional
OUTPUT	Output	<i>_, *PRINT</i>	Optional

Top

Media library (MLB)

Use this parameter to specify the media library (MLB) that you want to display or print.

This is a required field.

Top

Volume (VOL)

Specifies all media, a generic media volume or the specific media volume that you want to display or print.

***ALL** Include all media for the selected media library in the display or report.

generic-media-volume*

Specify the generic name of a volume. A generic name is a character string of one or more characters followed by an asterisk (*); for example ABC*. The asterisk (*) substitutes for any valid characters. A generic name specifies all volumes with names that begin with the generic prefix, for which the user has authority. If an asterisk is not included with the generic (prefix) name, the system assumes it to be the complete volume name.

media-volume

Specify the media volume for the selected media library device that you want to include in the display or report.

Top

Category (CGY)

Specifies which media by category from the selected media library (MLB) to include in the display or print.

Note: This parameter is ignored if the **Media library (MLB)** parameter specified is an optical device.

***ALL** All media in the MLB is to be included in the display or report.

Note: If you have defined your own media categories, they will not be included when you specify CGY(*ALL).

***CNV** Only convenience station media in the selected MLB is included in the display or report.

***EJECT**

Only media in the eject mode in the selected MLB is included in the display or report.

***INSERT**

Only media already in the MLB which does not have a category such as *SHARE400 or *NOSHARE and which are otherwise not assigned to a system is to be included in the display or report.

***IPL** Only alternate IPL media in the selected MLB is included in the display or report.

***NL** Only non-labeled media in the selected MLB is included in the display or report.

***NOSHARE**

Only private media already added to the MLB are to be included in the display or report. Private media are those which are only able to be used by this system.

***SHARE400**

Only share media already added to the MLB are to be included in the display or report.

category-name

Specify the user defined media category name.

Top

BRM volume (BRMVOL)

Specifies whether you want to include only BRMS media, non-BRMS media or any media in the display or report.

***ANY** Any media, whether registered in BRMS or not, is included in the display or report.

***NO** Only non-BRMS media is included in the display or report.

***YES** Only media registered in BRMS is included in the display or report.

Top

Media class (MEDCLS)

Specifies the media class that you want to select for the specified media library. You can select a specific media class or all media classes.

***ALL** Select all media regardless of the media class.

media-class-name

Specify the name of the media class that you want to use with the specified media library.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

***** The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

```
WRKMLMBRM MLB(MLB01) BRMVOL(*YES)
```

This command displays the Work with Media Library Media panel, where BRMS media that is used by MLB01 is shown.

Top

Error messages

***ESCAPE Messages**

BRM1232

Media class &1 not found.

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

Top

Work with Saved Objects (WRKOBJBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Saved Objects using BRM (WRKOBJBRM) command prints/displays a report of saved objects. Groups of objects are selected by date ranges and the resulting display or report can be sequenced in several ways. If the display option is selected, you can restore objects from the media inventory. The report that is produced is the Saved Objects report. The report, if printed, is written to printer file QP1AOD.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OBJ	Object	<i>Qualified object name</i>	Optional, Positional 1
	Qualifier 1: Object	<i>Name, *ALL</i>	
	Qualifier 2: Library	<i>Name, *ALL</i>	
OBJTYPE	Type	<i>Character value, *ALL</i>	Optional, Positional 2
ASP	Auxiliary storage pool	<i>Character value, *ALL, *SYSTEM</i>	Optional
SLTDATE	Select dates	<i>Element list</i>	Optional, Positional 3
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *END, *CURRENT</i>	
SAVSTS	Save status	<i>*ALL, *ERROR, *NOERROR</i>	Optional
INFTYPE	Object information	<i>*ALL, *DLO, *MBR, *OBJ</i>	Optional
SORT	Sequence option	<i>*SAVDAT, *LIB, *OBJ</i>	Optional
FROMSYS	From system	<i>Character value, *LCL</i>	Optional
OUTPUT	Output	<i>_, *PRINT</i>	Optional

Top

Object (OBJ)

Specifies the name and library of the object or group of objects that you want to display or print.

Qualifier 1: Object

***ALL** Include all objects that are the object types specified in the **Type (TYPE)** parameter in the Work with Saved Objects display or report.

object-name

Specify the name of a specific object for which you want to produce the Work with Saved Objects display or print.

Qualifier 2: Library

***ALL** Search all libraries for objects to include in the Work with Saved Objects display or report.

library-name

Specify the name of a specific library to search for objects to included in the display or print.

Top

Type (OBJTYPE)

Specifies the type of object that you want to display or print.

***ALL** Include all object types in the display or print.

object-type

Specify the object type that you want to display or print.

Top

Auxiliary storage pool (ASP)

Specifies the auxiliary storage pool that contained the saved objects you want to display or report.

***ALL** You want to include saved objects in all auxiliary storage pools.

***SYSTEM**

You want to include saved objects that were in the system (1) auxiliary storage pool.

auxiliary-storage-pool-number

Specify the number of an auxiliary storage pool that contained the saved objects you want to include.

auxiliary-storage-pool-name

Specify the name of an auxiliary storage pool that contained the saved objects that you want to include.

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when reporting on saved objects. The **From date** is the beginning of a date range and the **To date** is the end of a date range of saved objects.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

Uses the earliest date in the file for the beginning date of the date range.

***CURRENT**

Uses the current date for the beginning date of the date range.

from-date

Specify the date in job date format with or without date separators that you want to use as the beginning date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

***END** Use the last date that an object was saved as the ending date in the date range that you want to use for the search.

***CURRENT**

Uses the current date as the ending date of the date range.

to-date

Specify the date in job date format with or without date separators to use as the ending date of the date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Save status (SAVSTS)

Specifies whether you want to display or report all successful saves, unsuccessful saves or both.

***ALL** Include both successful and unsuccessful saves in the display or report.

***ERROR**

Include only unsuccessful saves in the display or report.

***NOERROR**

Include only successful saves in the display or report.

Top

Object information (INFTYPE)

Specifies whether you want to display or report all objects or selected objects.

***ALL** Include all objects in the display or report.

***DLO** Include only DLO objects in the display or report.

***MBR** Include only members in the display or report.

***OBJ** Include only non-DLO objects in the display or report.

Top

Sequence Option (SORT)

The saved object display or report can be sequenced several ways.

***SAVDAT**

Orders the list in save date sequence.

*LIB Orders the list in library sequence.

*OBJ Orders the list in object sequence.

Top

From system (FROMSYS)

Specifies the location and network identification of the system whose object information that you want to work with.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name (LCLLOCNAME)** network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

Example 1: Working with Objects Not Successfully Saved

```
WRKOBJBRM SAVSTS(*ERROR) INFTYPE(*OBJ) SORT(*OBJ)
```

This command displays the Work with Saved Objects panel, where all objects that were not successfully saved are displayed in object name sequence.

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

Work with Policies using BRM (WRKPCYBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Policies using BRM (WRKPCYBRM) command specifies the BRMS policy with which you want to work.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
TYPE	Policy type	*MOV, *ARC, *BKU, *MED, *MGR, *RCY, *RTV, *SYS	Optional, Positional 1
OUTPUT	Output	*, *PRINT	Optional

Top

Type of policy (TYPE)

Specifies the type of policy that you want to work with or print.

*MOV

You want to work with or print move policies. The report that is produced is the Move Policy report. The report, if printed, is written to printer file QP1AMP.

***ARC** You want to work with or print the archive policy. The report that is produced is the Archive Policy report. The report, if printed, is written to printer file QP1AAX.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***BKU** You want to work with or print the backup policy. The report that is produced is the Backup Policy report. The report, if printed, is written to printer file QP1ABX.

***MED** You want to work with or print media policies. The report that is produced is the Media Policy report. The report, if printed, is written to printer file QP1AME.

***MGR** You want to work with or print migration policies. The report that is produced is the Migration Policy report. The report, if printed, is written to printer file QP1AHX.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***RCY** You want to work with or print the recovery policy. The report that is produced is the Recovery Policy report. The report, if printed, is written to printer file QP1ARX.

***RTV** You want to work with or print the retrieve policy. The report that is produced is the Retrieve Policy report. The report, if printed, is written to printer file QP1ARP.

Note: The BRMS Advanced feature (Option 2) is required to use this value.

***SYS** You want to work with or print the system policy. The report that is produced is the System Policy report. The report, if printed, is written to printer file QP1ASP.

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
- The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

```
WRKPCYBRM TYPE(*MED)
```

This command displays the Work with Media Policies panel.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

Top

Work with Recovery Activities (WRKRCYBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Recovery Activities using BRM (WRKRCYBRM) command creates a display or report of recovery activities that you have defined to BRMS. If you request a display, you are taken to the Work with Recovery Activities display where you can add, change or remove recovery activities. The report that is produced is the Recovery Activities report. The report, if printed, is written to printer file QP1ARW.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *_PRINT	Optional

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
_ The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**
The output is printed with the job's spooled output.

Top

Examples

WRKRCYBRM

This command displays the Work with Recovery Activities panel.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Save Files (WRKSAVFBRM)

Where allowed to run: All environments (*ALL)
Threadsafe: No

Parameters
Examples
Error messages

The Work with Save Files using BRM (WRKSAVFBRM) command displays or prints a report of all save files that are on the BRMS media content information. Information in the display or report includes save information such as date and time of save, auxiliary storage pool number and so on.

If the display option is selected, The Work with Save Files display allows you to display, remove and expire save files. Additionally, you can select object detail to review or restore objects from a save file. The report that is produced is the BRM Saved Files report. The report, if printed, is written to printer file QP1ASF.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTPUT	Output	*, *PRINT _	Optional, Positional 1

Top

Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

* The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).
_

***PRINT**

The output is printed with the job's spooled output.

Top

Examples

WRKSAVFBRM

This command displays the Work with Save Files panel.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM40A2

BRMS product initialization required.

[Top](#)

Work with Saved Spooled Files (WRKSPLFBRM)

Where allowed to run: All environments (*ALL)
 Threadsafte: No

Parameters
 Examples
 Error messages

The Work with Saved Spooled Files using BRM (WRKSPLFBRM) command creates a display or report of saved spooled files based on specified libraries, output queues, auxiliary storage pools, files, job names, users, date ranges and sequences. Processing the Work with Saved Spooled Files command takes you to the Work with Saved Spooled Files display where you can remove, display or retrieve selected spooled file entries as well as work with media that contains saved spooled files. If you want to produce a report, the report that is produced is the Saved Spooled File report. The report, if printed, is written to printer file QP1AOQ.

To use this command, you must have the Backup Recovery and Media Services for i5/OS, 5761-BR1, licensed program installed.

Top

Parameters

Keyword	Description	Choices	Notes
OUTQ	Output queue	<i>Qualified object name</i>	Optional, Positional 1
	Qualifier 1: Output queue	<i>Name, *ALL</i>	
	Qualifier 2: Library	<i>Name, *ALL</i>	
ASP	Auxiliary storage pool	<i>Character value, *ALL, *SYSTEM</i>	Optional, Positional 2
FILE	File	<i>Name, *ALL</i>	Optional, Positional 3
JOB	Job name	<i>Name, *ALL</i>	Optional, Positional 4
USER	User	<i>Name, *ALL</i>	Optional, Positional 5
USRDTA	User data	<i>Character value, *ALL</i>	Optional, Positional 6
SLTDATE	Select dates	<i>Element list</i>	Optional
	Element 1: From date	<i>Character value, *BEGIN, *CURRENT</i>	
	Element 2: To date	<i>Character value, *END, *CURRENT</i>	
SAVSTS	Save status	<i>*ALL, *ERROR, *NOERROR</i>	Optional
SORT	Sequence option	<i>*DATE, *FILE, *JOB</i>	Optional
FROMSYS	From system	<i>Character value, *LCL</i>	Optional
OUTPUT	Output	<i>*, *PRINT</i>	Optional

Top

Output queue (OUTQ)

Specifies the name of the library and output queue that you want to include in the display or report.

Qualifier 1: Output queue

***ALL** Include all output queues in the display or report.

output-queue-name

Specify the name of an output queue that you want to include in the display or report.

Qualifier 2: Library

***ALL** All libraries or special values containing the spooled files are to be included in the list of spooled files.

library-name

Specify the name of a library that contained the spooled file.

Top

Auxiliary storage pool (ASP)

Specifies the auxiliary storage pool that contained the spooled files when the spooled files were saved.

***ALL** Include all auxiliary storage pools that contained saved spooled files in the report or display.

***SYSTEM**

You want to include saved spooled files that were in the system (1) auxiliary storage pool in the report or display.

auxiliary-storage-pool-number

Specify the number of an auxiliary storage pool that contained the saved spooled file you want to include in the report or display.

auxiliary-storage-pool-name

Specify the name of an auxiliary storage pool that contained the saved spooled file that you want to include in the report or display.

Top

File (FILE)

Specifies the name of the printer file that contained the spooled file when it was saved that you want to include in the display or report.

***ALL** Include all files in the display or report.

file-name

Specify the name of a file that you want to include in the display or report.

Top

Job name (JOB)

Specifies the name of the job that which created the spooled file that you want to include in the display or report.

***ALL** Include all spooled files for jobs in the display or report.

job-name

Specify the name of a job whose files are to be included in the display or report.

Top

User (USER)

Specifies the name of the user that created the spooled file that you want to include in the display or report.

***ALL** Include files for all users in the display or report.

user-name

Specify the name of a user whose files are to be included in the display or report.

Top

User data (USRDTA)

Specifies the data associated with the spooled file that was saved and that you want to include in the display or report.

***ALL** Include all user data in the display or report.

user-data

Specify the user data that you want to include in the display or report.

Top

Select dates (SLTDATE)

Specifies a range of dates that you want to use when reporting on saved spooled files. The **From date** is the beginning of a date range and the **To date** is the end of the date range.

Note: The **From date** is based on the date the spooled file was created.

Note: Using this parameter, it is possible to enter a date with no separator, or a number of days which can be up to 5 digits in length. For instance, if you are using month/day/year format, the number 12904 would be formatted as January 29, 2004. If on the other hand, you entered a number 13904, BRMS assume that this is not a date, but rather is a number. BRMS always tries to calculate a calendar date first when a number is entered and then if the date it calculates is not valid, assumes that it is a number of days. If the number that is entered is over 5 digits and the date that it calculates is not valid, you receive an error message.

Element 1: From date

***BEGIN**

The earliest save date on the file is the beginning date of a date range.

***CURRENT**

The current date is the beginning date of a date range.

from-date

Specify the date in job date format with or without date separators that you want to be the beginning date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the starting date of the date range.

Element 2: To date

***END** The last date found in the file is the end of the date range for the search.

***CURRENT**

The current date is the ending date of the date range.

to-date

Specify the date in job date format with or without date separators that you want to be the ending date of a date range.

number-of-days

Specify the number of days before the current day that is used to determine the ending date of the date range.

Top

Save status (SAVSTS)

Specifies whether you want to display or report all successful saves, unsuccessful saves or both.

***ALL** You want to include media information that was saved successfully and unsuccessfully in the display or report.

***ERROR**

You want to include only unsuccessful saves in the display or report.

***NOERROR**

You want to include only successful saves in the display or report.

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Sequence option (SORT)

The saved spooled file report can be sequenced several ways.

***DATE**

Sequences the saved spooled file report by date.

***FILE** Sequences the saved spooled file report by file.

***JOB** Sequences the saved spooled file report by job.

Top

From system (FROMSYS)

Specifies the location and network identification of the system whose spooled file information that you want to work with.

Note: Use the Display Network Attributes (DSPNETA) command to view the system network attributes.

Note: The BRMS Network feature (Option 1) is required to use this value if a value other than *LCL is specified.

***LCL** Specifies that the from-system is the local system. BRMS uses the **Default local location name**

(LCLLOCNAME) network attribute and not the **System name (SYSNAME)** network attribute to determine the current system name. In most cases, the systems have the same value specified for LCLLOCNAME as for SYSNAME.

location-name

Specifies the **Default local location name (LCLLOCNAME)** network attribute of the remote system for the network operation. The current system **Local network ID (LCLNETID)** network attribute is used to connect with the remote system.

network-id.location-name

Specifies the **Local network ID (LCLNETID)** and the **Default local location name (LCLLOCNAME)** network attributes of the remote system for the network operation. Specify these values using the format nnnnnnnn.cccccc where nnnnnnnn is the LCLNETID and cccccc is the LCLLOCNAME.

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Output (OUTPUT)

Specifies whether the output from the command is displayed at the requesting work station or printed with the job's spooled output.

*
- The output is displayed (if requested by an interactive job) or printed (if requested by a batch job).

***PRINT**

The output is printed with the job's spooled output.

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Examples

Example 1: Work with Saved Spooled Files by Date

```
WRKSPLFBRM SLTDATE('1/1/03' '4/2/03') SORT(*JOB)
```

This command displays the Work with Saved Spooled Files panel, showing a list of all spooled files that were saved from January 1 to April 2, 2003. The spooled files are displayed in job sequence.

Example 2: Work with Saved Spooled Files by ASP

```
WRKSPLFBRM ASP(PRIMETIME)
```

This command displays the Work with Saved Spooled Files panel, showing a list of all spooled files that were saved from auxiliary storage pool device PRIMETIME. The spooled files are displayed in date sequence.

Top

Error messages

*ESCAPE Messages

BRM1917

Feature not installed.

BRM1921

Feature not licensed.

BRM2154

ASP value of *ALL must be specified.

BRM215A

ASP value of *ALL or 1-32 must be specified.

BRM40A2

BRMS product initialization required.

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