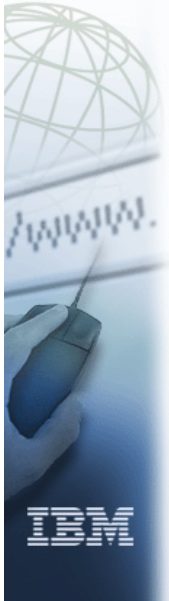


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z/OS Version 1 Release 5 JES2 Enhancements



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eNetwork	DFSMS/MVS	IMS	RACF
geoManager	DFSMSdfp	IMS/ESA	RMF
AD/Cycle	DFSMSdss	IP PrintWay	RS/6000
ADSTAR	DFSMSshm	IPDS	S/390
AFP	DFSMSrmm	Language Environment	S/390 Parallel Enterprise Server
APL2	DFSORT	Multiprise	SecureWay
APPN	Enterprise System 3090	MQSeries	StorWatch
BookManger	Enterprise System 4381	MVS/ESA	Sysplex Timer
BookMaster	Enterprise System 9000	Network Station	System/390
C/370	ES/3090	NetSpool	SystemView
CallPath	ES/4381	OfficeVision/MVS	SOM
CICS	ES/9000	Open Class	SOMobjects
CICS/ESA	ESA/390	OpenEdition	SP
CICS/MVS	ESCON	OS/2	VisualAge
CICSPlex	First Failure Support Technology	OS/390	VisualGen
COBOL/370	FLowMark	Parallel Sysplex	VisualLift
DataPropagator	FFST	Print Services Facility	VTAM
DisplayWrite	GDDM	PrintWay	WebSphere
DB2	ImagePlus	ProductPac	3090
DB2 Universal Database	Intelligent Miner	PR/SM	3890/XP
DFSMS/MVS	IBM	QMFr	z/OS
			z/OS.e

Domino (Lotus Development Corporation)
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Java (Sun Microsystems, Inc.)
Lotus (Lotus Development Corporation)

Tivoli (Tivoli Systems Inc.)
Tivoli Management Framework
(Tivoli Systems Inc.)
Tivoli Manger (Tivoli Systems Inc.)

UNIX (X/Open Company Limited)
Windows (Microsoft Corporation)
Windows NT (Microsoft Corporation)

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JES2 Enhancements



- ❑ Multilevel security and how it affects JES2
 - Job selection based on SECLABEL by system
 - Can be a subset of MAS members
 - New affinity based on (SECLABEL and
 - SECLABEL extracting
 - SECLABEL for JES2 address space
- ❑ ENF58 changes
 - Notify about printing progress
- ❑ Other smaller enhancements

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MLS Security Enhancements



- ❑ SECLABEL not active on all systems in a sysplex
- ❑ Additional security rules require SDSF to have SECLABELs for rows
- ❑ JES2 support for MLS
 - SECLABELs can be used in job selection process
 - SECLABEL for JES2 address space must be SYSMULTI
- ❑ New RACF SETR option
 - Active based on SECLABEL member list
 - SYSTEM SMF ids where seclabel is active
 - RACF checks fail if SECLABEL is not active
 - As if SECLABEL did not exist

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SECLABEL by System



- ❑ New JES2 affinity mask
 - Built based on member list (SMF ids)
 - Applies to conversion and execution phase
- ❑ JES2 listens to RACF ENF 62 which occurs:
 - RACLIST - SECLABEL class active
 - NORACLIST - Disable SECLABEL class
 - RACLIST REFRESH - SECLABEL class updated

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SECLABEL by System



- ❑ Function that limits where a SECLABEL is active is call SECLABEL by system
- ❑ Security administrator can define a SECLABEL to be active only on certain members of a sysplex
 - Allows installation to separate work based on security classification while still sharing the RACF database
 - Activates the use of system-specific SECLABELs:
 - SETROPTS SECLBYSYSTEM
 - SETROPTS RACLIST(SECLABEL) REFRESH
- ❑ When SECLBYSYSTEM is active
 - JES2 insures that no job is run on a member that does not have an appropriate SECLABEL active
 - If no system is available on which a job's security label is active, the job remains in the conversion phase

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Defining System-specific SECLABELs

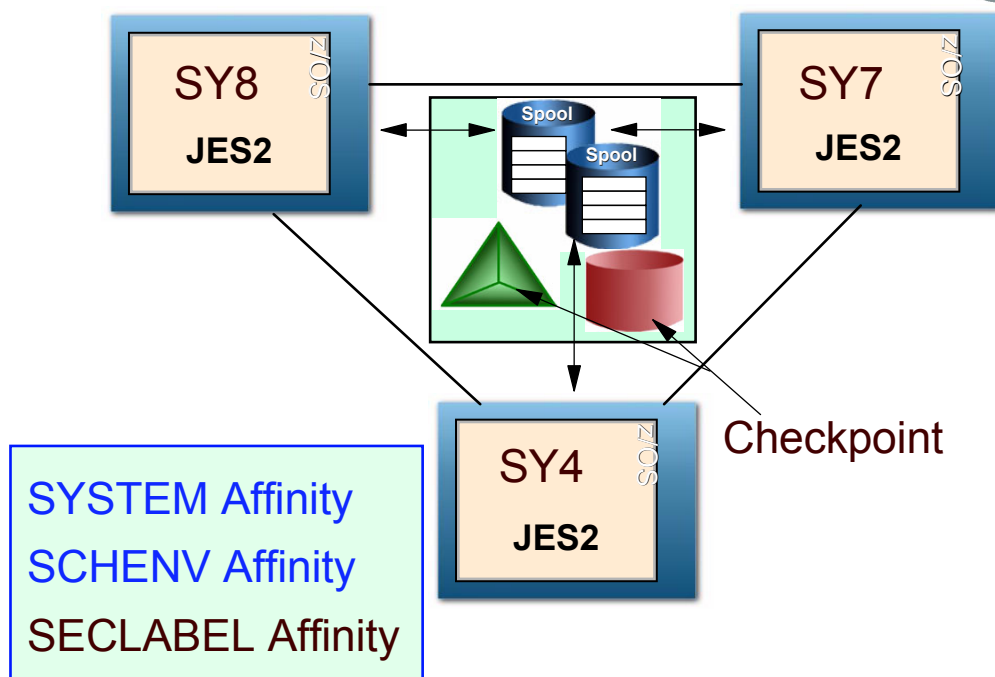


- ❑ To define system-specific SECLABELs
- ❑ Adding a member list to the SECLABEL class profile
 - Member names are system SMF IDs
 - (for example SY4, SY7) containing 1-4 characters
 - SECLABEL named BATCHIMP as being active only on the systems with SMF system IDs SY4 and SY7

```
RDEFINE SECLABEL BATCHIMP....ADDMEM(SY4,SY7)
```

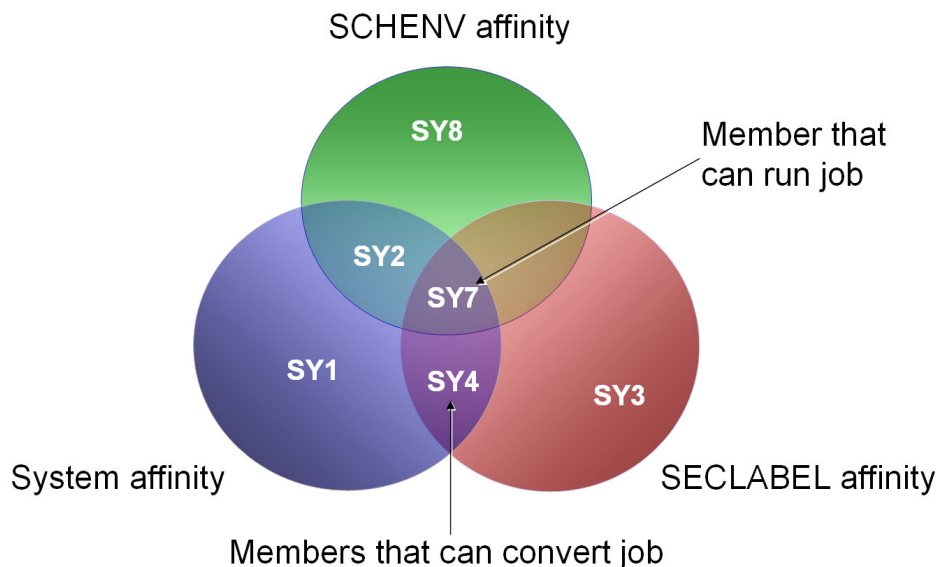
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SECLABEL Affinity with JES2 MAS



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Determining Available Systems



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Changed Commands for SECLABELs



- ❑ **\$DJ command, SECLABEL_AFF=member**
 - Displays the JES2 MAS members on which the SECLABEL for this job is available
 - Only shown if the RACF SECLBYSYSTEM option active
 - \$DJ100, LONG or \$DJ100, SECLABEL_AFF=member
- ❑ **\$DJ, with the option DELAY is updated with SECLABEL delay as follows:**
 - Displays the option delay reason why a pre-execution job will not enter execution and the new reason is:
 - **SECLABEL** - The security label (SECLABEL) assigned to the job is not defined as active on any member that is active
- ❑ **\$DMEMBER command updated with the MVS SMF ID,**
 - **SMFID[=smfid]** - Specifies that the SMF ID of the MVS image of the member is to be displayed

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ENF 58 Processing



- ❑ New Infoprint display function:
 - Web based SDSF like display
 - Only Infoprint managed jobs
 - Driven off ENF 58 and SSI calls
- ❑ Implications for JES2:
 - Needed to know how much has printed
 - Wanted to show print progress like SDSF
 - Only for SYSOUT with client tokens
 - Issued when JES2 takes a checkpoint
 - Contains current counts for
 - Pages - Records - Copies completed

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Miscellaneous Enhancements



- ❑ 1 byte console id elimination
 - JES2 has completed all its 1 byte console id elimination
- ❑ JES2 command character in whoami SSI (54)
 - SSI updated with JES2 command character
- ❑ New \$DSERV macro
 - Customers requested easy way to access checkpoint data from non-main task exits
- ❑ \$PJES2/HASP607 message enhancements
 - Message now retained and updated as conditions clear
- ❑ VER/REP enhancements
 - Access to JES2 data space (by data space name)
 - Deferred patch to CKPT data until CKPT is read

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Miscellaneous Enhancements



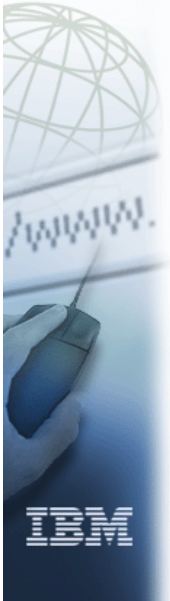
- ❑ Monitor/\$TRACE IPCS support
 - Monitor data areas are now formatted
 - Formatting as tables not just CB formatting
 - Gives same information as monitor commands
 - Instorage \$TRACE tables can be formatted
 - Some detailed formatting
 - Most just dump data in trace entries
 - Makes running instorage JES2 traces much more useable
- ❑ Multisystem JES2 dump enhancements
 - Some errors require dumps of other members - System with error not always the cause - performance problem
 - Added support to dump a subset of members
 - Added multi system dump to more error scenarios

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z/OS Version 1 Release 5 SDSF Enhancements



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SDSF for V1R5 and MLS



- ❑ **SDSF's support for multilevel security**
 - Requires the SDSF SAF support to be used
 - Not available with SDSF's ISFPARMS
 - SDSF does not explicitly prevent the use of ISFPARMS with multilevel security; if SAF is not active, authorization falls back to ISFPARMS
- ❑ **SDSF's sysplex support - Device panels and browse which requires WebSphere MQ**
 - Cannot be used in the multilevel security
- ❑ **If already using the sysplex support**
 - Disable it by removing the server group definitions from ISFPARMS

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Whats New in SDSF Panel



- ❑ From the SDSF primary option menu
 - Type in “HELP” or PF1
 - Select option “1” from the “HELP” menu.

```
                                HELP: What's New in SDSF
COMMAND INPUT ==> _

    Type a number or press Enter to view them in sequence.

    1 - Support for Multilevel Security
    2 - Control of saving system commands
    3 - Saving INPUT and ACTION commands
    4 - SELECT on DSID
    5 - Column and action character changes

    99 - Enhancements in previous releases
```

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Multilevel Security Support



- ❑ BCP and JES2 at z/OS V1R5
- ❑ MLACTIVE option is active
- ❑ SAF is being used for SDSF security
- ❑ Not available when ISFPARMS is used for security
- ❑ The appropriate SAF classes are active
 - SECLABEL

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SDSF and SECLABEL Dominance



With MLS support

- SDSF restricts rows displayed on panels using SECLABEL dominance
 - RACROUTE REQUEST=DIRAUTH service
 - SDSF caches the results of the DIRAUTH calls so that dominance checks are reused
- SDSF compares the SECLABEL of the object to the SECLABEL of the user - For example, to control a printer, the user would need:
 - Access to the printer panel (PR command)
 - SECLABEL dominance over the specific printer
 - Authority to type an action character or modify a field

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DA Panel Displays SECLABEL



```

Display Filter View Print Options Help
-----
SDSF DA SC63 SC63 PAG 0 SIO 0 CPU 3/ 3 LINE 1-22 (96)
COMMAND INPUT ==> _ SCROLL ==> PAGE
ACTION=//-Block,--Repeat,+-Extend,?-JDS,A-Release,C-Cancel,D-Display,E-Restart,
ACTION=H-Hold,K-SysCancel,L-List,P-Purge,Q-Outdesc,R-Reset,S-Browse,W-Spin,
ACTION=X-Print,Y-SysStop,Z-SysForce
NP  JOBNAME  it StorCrit RptClass MemLimit  Tran-Act  Tran-Res  Spin  SecLabel
    *MASTER* NO                16383PB    5:36:21   5:36:21
    PCAUTH   NO                5:36:25   5:36:25
    RASP     NO                5:36:25   5:36:25
    TRACE    NO                5:36:25   5:36:25
    DUMPSRV  NO                16383PB    5:33:40   5:33:40
    XCFAS    NO                16383PB    5:33:40   5:33:40
    GRS      NO                5:36:25   5:36:25
    SMSPDSE  NO                5:36:25   5:36:25
    
```

Security label of the address space (column)

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Select by DSID



- ❑ On the JDS panel, the SELECT command now accepts DSID as a parameter
 - SELECT is a fast-path filter that temporarily overrides any existing filters

```
Display Filter View Print Options Help
-----
SDSF JOB DATA SET DISPLAY - JOB ROGERS (TSU15052) LINE 1-3 (3)
COMMAND INPUT ==> select 4_ SCROLL ==> HALF
PREFIX=* DEST=(ALL) OWNER=* SYSNAME=*
ACTION=//-Block,--Repeat,+-Extend,C-Cancel,O-Release,P-Purge,Q-Outdesc,
ACTION=S-Browse,V-View,X-Print
NP DDNAME StepName ProcStep DSID Owner CC C Dest Rec-Cnt P
JESMSG LG JES2 2 ROGERS 1 S LOCAL 22
JESJCL JES2 3 ROGERS 1 S LOCAL 21
JESYSMSG JES2 4 ROGERS 1 S LOCAL 287
```

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Input Queue (I) from Primary Panel



Panel displays SECLABEL (column)

```
Display Filter View Print Options Help
-----
SDSF INPUT QUEUE DISPLAY ALL CLASSES LINE 1-21 (21)
COMMAND INPUT ==> _ SCROLL ==> PAGE
ACTION=//-Block,--Repeat,+-Extend,?-JDS,A-Release,C-Cancel,D-Display,E-Restart,
ACTION=H-Hold,I-Info,J-Start,L-List,P-Purge,Q-Outdesc,S-Browse,W-Spin,X-Print
NP JOBNAME Rd-Date ESys St-Time St-Date Cards MC Tot-Lines Spin SubGroup
BARTR1DB 2003.073 SC63 12:17:19 2003.073 156 T 884 SYS1
BARTR1DB 2003.073 SC63 12:24:16 2003.073 156 T 881 SYS1
BARTR1DB 2003.073 SC63 16:21:01 2003.073 156 T 881 SYS1
BARTR1DB 2003.073 SC63 16:40:46 2003.073 156 T 1,612 SYS1
BARTR1DB 2003.073 SC63 16:57:46 2003.073 156 T 876 SYS1
BARTR1DB 2003.073 SC63 18:36:53 2003.073 156 T 881 SYS1
BARTTEP1 2003.087 SC63 14:21:53 2003.087 21 T 21 SYS1
TEST1 2004.177 0:00:00 0000.000 9 X 11 TWS810
```

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DA Panel



Y action character issues a STOP (P) command

```
Display Filter View Print Options Help
-----
SDSF DA SC63 SC63 PAG 0 SIO 701 CPU 8/ 7 LINE 67-88 (96)
COMMAND INPUT ===> SCROLL ===> PAGE
ACTION=//Block,=-Repeat,=-Restart,
ACTION=H-Hold,K-SysCancel,W-Spin,
ACTION=X-Print,Y-SysStop
NP JOBNAME StepName
   IMS710G IMS710G
   DB2HMSTR DB2HMSTR
Y   CICSPAPB CICSPAPB
   CACDS CACDS
   DB2GIRLM DB2GIRLM
   DB7YIRLM DB7YIRLM
   DB2HIRLM DB2HIRLM
   D7F1IRLM D7F1IRLM
   MQSACHIN MQSACHIN

Confirm Action
1 1. Process action character
  2. Discard action character
  3. Process action character and
    set confirmation off
Line number: 69 CICSPAPB
F1=Help F2=Split F3=Cancel
F9=Swap F12=Cancel

ing SIO
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
.00 0.00
```

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