The following publication will be updated:

SA38-0674
z/OS MVS System Messages, Volume 7

https://www.ibm.com/docs/en/zos/3.1.0?topic=zm-zos-mvs-system-messages-vol-7-ieb-iee

IEE459I (form 3 of 5)   hh.mm.ss DEVSERV QDASD [id]

..

fff

    Result of a status validation, where a ? after *fff* indicates the device failed the extended function consistency
checking. *fff* represents:

    *OK

      Host view is consistent with subsystem view of control unit and device function status.

    ...

    UCB

      UCB to device relationship inconsistent.

    WRN

      Compression threshold.

    EXH

SC23-6846
z/OS DFSMS Access Method Services Commands

https://www.ibm.com/docs/en/zos/3.1.0?topic=dfsms-zos-access-method-services-commands

..

Optional Parameters
..

  VOLSPACE(*)

    specifies a report ~~of the physical storage usage of Track Space Efficient volumes, Extent Space Efficient volumes, and Standard (Fully Provisioned) volumes specified by DEVICE, SUBSYSTEM, and ALL.~~ that summarizes the logical capacity, physical capacity, and total volume size of configured Extent Space Efficient and Standard (Fully Provisioned) volumes. The report is scoped by DEVICE, SUBSYSTEM, or ALL, and includes additional volume-level metrics to support comprehensive analysis of storage utilization.

    A scope of DEVICE reports the volume status...

..

Examples of LISTDATA Report Output

The LISTDATA command produces output upon the completion of a job or TSO command, as demonstrated in the following examples.

Note: ~~If LEGEND option is specified for command, details for each field in the output are provided.~~ Specifying the LEGEND option includes field-level descriptions in the report output.

The initial set of examples illustrates the various output formats produced by the VOLSPACE and EXTENT POOL CONFIG commands.

VOLSPACE Output: Example 1

In this example, the VOLSPACE output ~~is~~ provides a report of volume-level metrics for a Non-Compressed device with Safeguarded Backup volume.

```
LISTDATA VOLSPACE VOLUME(IND82C) UNIT(3390) DEVICE

                    2107 STORAGE CONTROL
                    VOLUME SPACE REPORT
        STORAGE FACILITY IMAGE ID 002107.A01.IBM.78.0000000MWD81
                    SUBSYSTEM ID X'6800'
                    ..........STATUS..........
  DEV  VOLSER  USEDLOGCAP  TOTALOGCAP EPID SAM  VOLUMESIZE
  D82C IND82C        357        1113 0002 ESE    10791039
       *SGCB*          0       11130 0002 ESE    10791039
  TOTAL NUMBER OF FULLY PROVISIONED (STD) VOLUMES:         0
  TOTAL NUMBER OF NON COMPRESSION (ESE) VOLUMES:           1
  TOTAL NUMBER OF COMPRESSION (ESE) VOLUMES:               0
  TOTAL NUMBER OF SAFEGUARDED COPY BACKUP VOLUMES:         1
```

VOLSPACE Output: Example 2

In this example, the VOLSPACE output ~~is~~ provides a report of volume-level metrics for a Compressed device with Safeguarded Backup volume.

```
LISTDATA VOLSPACE VOLUME(INDBAB) UNIT(3390) DEVICE

                    2107 STORAGE CONTROL
                    VOLUME SPACE REPORT
        STORAGE FACILITY IMAGE ID 002107.A01.IBM.78.0000000MWD81
                    SUBSYSTEM ID X'6103'
                    ..........STATUS..........
  DEV  VOLSER  USEDLOGCAP  TOTALOGCAP EPID SAM  VOLUMESIZE  USEDPHYCAP     CPRATIO CAPLIMWW GCAPWW
  DBAB INDBAB        357        1113 0001 ESE   118545798          14        2550       15    100
       *SGCB*         42       11130 0001 ESE   118545798           0           0        0      0
  TOTAL NUMBER OF FULLY PROVISIONED (STD) VOLUMES:         0
  TOTAL NUMBER OF NON COMPRESSION (ESE) VOLUMES:           0
  TOTAL NUMBER OF COMPRESSION (ESE) VOLUMES:               1
  TOTAL NUMBER OF SAFEGUARDED COPY BACKUP VOLUMES:         1
```

EXTENT POOL CONFIG SUMMARY Output: Example 3

In this example, the EXTENT POOL CONFIG SUMMARY output provides a summary report for a specified Extent Pool.

```
LISTDATA EPC SUMMARY VOLUME(IND82C) UNIT(3390)

                       2107 STORAGE CONTROL
                 EXTENT POOL CONFIGURATION REPORT
        STORAGE FACILITY IMAGE ID 002107.A01.IBM.78.0000000MWD81
                ......EXTENT POOL ID 0000 SUMMARY............
 REPOSITORY FULL WARNING PERCENTAGE:                       0
 REAL EXTENT THRESHOLD PERCENTAGE:                        15
 COMPRESSION EXTENT THRESHOLD PERCENTAGE:                 15
 EXTENT POOL ATTRIBUTES
  FIXED BLOCK EXTENT POOL:                                NO
  REPOSITORY CONFIGURED:                                  NO
  EXTENT SPACE EFFICIENT VOLUMES CONFIGURED:             YES
  STANDARD (FULLY PROVISIONED) VOLUMES CONFIGURED:       YES
  REAL CAPACITY AT OR BELOW WARNING PERCENTAGE:           NO
  REAL CAPACITY FULL:                                     NO
  SAFEGUARDED COPY BACKUP VOLUMES CONFIGURED:            YES
  COMPRESSION ENABLED:                                   YES
  COMPRESSION CAPACITY AT OR BELOW WARNING PERCENTAGE: YES
  COMPRESSION CAPACITY FULL:                              NO
..

                    ......EXTENT POOL ID 0005 SUMMARY............
 REPOSITORY FULL WARNING PERCENTAGE:                       0
 REAL EXTENT THRESHOLD PERCENTAGE:                        15
 COMPRESSION EXTENT THRESHOLD PERCENTAGE:                 20
 EXTENT POOL ATTRIBUTES
  FIXED BLOCK EXTENT POOL:                                NO
  REPOSITORY CONFIGURED:                                  NO
  EXTENT SPACE EFFICIENT VOLUMES CONFIGURED:             YES
  STANDARD (FULLY PROVISIONED) VOLUMES CONFIGURED:       YES
  REAL CAPACITY AT OR BELOW WARNING PERCENTAGE:           NO
  REAL CAPACITY FULL:                                     NO
  SAFEGUARDED COPY BACKUP VOLUMES CONFIGURED:             NO
  COMPRESSION ENABLED:                                   YES
  COMPRESSION CAPACITY AT OR BELOW WARNING PERCENTAGE: YES
  COMPRESSION CAPACITY FULL:                              NO
```

EXTENT POOL CONFIG V3 DETAILED DATA Output: Example 4

In this example, the EXTENT POOL CONFIG V3 DETAILED DATA output provides Version 3 of the detailed information for a Non-Compressed extent pool.

```
LISTDATA EPC EPID(X'0002') VOLUME(IND82C) UNIT(3390) VER3 LEGEND

                        2107 STORAGE CONTROL
                   EXTENT POOL CONFIGURATION REPORT
          STORAGE FACILITY IMAGE ID 002107.A01.IBM.78.0000000MWD81
                  ......EXTENT POOL ID 0002 SUMMARY...........
 REPOSITORY FULL WARNING PERCENTAGE:                        0
 REAL EXTENT THRESHOLD PERCENTAGE:                          15
 COMPRESSION EXTENT THRESHOLD PERCENTAGE:                   0
 EXTENT POOL ATTRIBUTES
  FIXED BLOCK EXTENT POOL:                          NO
  REPOSITORY CONFIGURED:                            NO
  EXTENT SPACE EFFICIENT VOLUMES CONFIGURED:        YES
  STANDARD (FULLY PROVISIONED) VOLUMES CONFIGURED:  YES
  REAL CAPACITY AT OR BELOW WARNING PERCENTAGE:     NO
  REAL CAPACITY FULL:                               NO
  SAFEGUARDED COPY BACKUP VOLUMES CONFIGURED:       YES
  COMPRESSION ENABLED:                              NO
  COMPRESSION CAPACITY AT OR BELOW WARNING PERCENTAGE:  NO
  COMPRESSION CAPACITY FULL:                        NO
                  ...EXTENT POOL 0002 DETAILED REPORT VERSION 3...
 TOTAL CONFIGURED CAPACITY:                         6072318
 SGC BACKUP VOLUMES ALLOCATED REAL CAPACITY:        0
```

EXTENT POOL CONFIG V3 DETAILED DATA Output: Example 5

In this example, the EXTENT POOL CONFIG V3 DETAILED DATA output provides Version 3 of the detailed information for a Compressed extent pool.

```
LISTDATA EPC EPID(X'0001') VOLUME(INDBAB) UNIT(3390) VER3 LEGEND

                              2107 STORAGE CONTROL
                       EXTENT POOL CONFIGURATION REPORT
          STORAGE FACILITY IMAGE ID 002107.A01.IBM.78.0000000MWD81
                   ......EXTENT POOL ID 0001 SUMMARY............
    REPOSITORY FULL WARNING PERCENTAGE:                       0
    REAL EXTENT THRESHOLD PERCENTAGE:                        15
    COMPRESSION EXTENT THRESHOLD PERCENTAGE:                 15
    EXTENT POOL ATTRIBUTES
     FIXED BLOCK EXTENT POOL:                               NO
     REPOSITORY CONFIGURED:                                 NO
     EXTENT SPACE EFFICIENT VOLUMES CONFIGURED:            YES
     STANDARD (FULLY PROVISIONED) VOLUMES CONFIGURED:      YES
     REAL CAPACITY AT OR BELOW WARNING PERCENTAGE:          NO
     REAL CAPACITY FULL:                                    NO
     SAFEGUARDED COPY BACKUP VOLUMES CONFIGURED:           YES
     COMPRESSION ENABLED:                                  YES
     COMPRESSION CAPACITY AT OR BELOW WARNING PERCENTAGE: YES
     COMPRESSION CAPACITY FULL:                             NO
                    ...EXTENT POOL 0001 DETAILED REPORT VERSION 3...
    TOTAL CONFIGURED CAPACITY:                        31374840
    SGC BACKUP VOLUMES ALLOCATED REAL CAPACITY:            168
    COMPRESSION INFORMATION
     COMPRESSION TOTAL PHYSICAL CAPACITY:             23285073
     COMPRESSION USED PHYSICAL CAPACITY:               1265481
     COMPRESSION TOTAL LOGICAL CAPACITY:             115931193
     COMPRESSION USED LOGICAL CAPACITY:                6926199
     COMPRESSION RATIO FOR THE EXTENT POOL:                547
     COMPRESSION EXTENT LIMIT PERCENTAGE:                  100
     COMPRESSION EXTENT THRESHOLD PERCENTAGE:              15
     COMPRESSION EXTENT STATUS:                             0
```

SC23-6861
z/OS DFSMSdfp Advanced Services

Update text in *Chapter 12. User Access to Subsystem Statisitcs, Status, and Counts Information*.

..

Passed Argument List -- SSGARGL
..

```
        MAPPING FOR THE SPACE EFFICIENT VOLUME STATUS
        OUTPUT BUFFER
..

  ===============================================================================
   OFFSET OFFSET
  DECIMAL   HEX   TYPE         LENGTH NAME (DIM)   DESCRIPTION
  ======== ====== =======      ======== ============ ================================
        0     (0) STRUCTURE       168  SSGSEBUF
        0     (0) CHARACTER        72  SSGSEHDR     Queue element header
..
```

```
          Compression
       The following field is expressed in number of cylinders for CKD
       device. The following fields are expressed in TENTH of binary
       Gigabytes for Fixed Block device.
    ==================================================================================
       136  (88) UNSIGNED        4 SSGSEUPCP      Used Physical Capacity
                                                  The total amount of capacity
                                                  stored on media. This is the raw
                                                  physical capacity that has been
                                                  consumed after compression
                                                  techniques.
       140  (8C) UNSIGNED        4 SSGSECPRV      Compression Ratio for the
                                                  Volume.
                                                  This value is 100 times the Used
                                                  Logical Capacity (SSGSESCA)
                                                  divided by the Used Physical
                                                  Capacity (SSGSEUPCP). This will
                                                  be set to 0 if the Used Physical
                                                  Capacity is 0.
       144  (90) UNSIGNED        4 SSGSEUPCPB     Safeguarded Copy Backup Volume
                                                  Used Physical Capacity
                                                  If PRSD Byte 8 bit 1 (Report
                                                  Safeguarded Copy Backup Volume
                                                  Information) is set to one, and
                                                  and the Safeguarded Copy Backup
                                                  Volume is in a Compression pool,
                                                  then this field is valid.
                                                  Otherwise, the field is Not Used
                                                  and set to zero.
                                                  The total amount of capacity
                                                  stored on media. This is the raw
                                                  physical capacity that has been
                                                  consumed after compression
                                                  techniques.
       148  (94) UNSIGNED        4 SSGSECPRVB     Safeguarded Copy Backup Volume
                                                  Compression Ratio for the Volume
                                                  If PRSD Byte 8 bit 1 (Report
                                                  Safeguarded Copy Backup Volume
                                                  Information) is set to one, and
                                                  the Safeguarded Copy Backup
                                                  Volume is in a Compression pool,
                                                  then this field is valid.
                                                  Otherwise, the field is Not Used
                                                  and set to zero.
                                                  This value is 100 times the
                                                  Safeguarded Copy Backup Volume
                                                  Used Logical Capacity (SSGSESCAB)
                                                  divided by the Safeguarded Copy
                                                  Backup Volume Used Physical
                                                  Capacity (SSGSEUPCPB). This will
                                                  be set to 0 if the Safeguarded
                                                  Copy Backup Volume Used Physical
                                                  Capacity is 0.

       152  (98) CHARACTER      16 *             Not Used. Set to 0.
..

       MAPPING FOR THE EXTENT POOL CONFIGURATION STATUS
       OUTPUT BUFFER
..


    ==================================================================================
```

```
     OFFSET OFFSET
   DECIMAL   HEX  TYPE        LENGTH NAME (DIM)    DESCRIPTION
   ======== ====== =======    ======== ============  ==================================
        0    (0)  STRUCTURE      *    SSGEPBUF
        0    (0)  CHARACTER     44    SSGEHDR       Queue element header
..

      256  (100) UNSIGNED       8    SSGSDERC3     Source Dynamic Extent Relocation
                                                   Capacity
      264  (108) UNSIGNED       8    SSGTDERC3     Target Dynamic Extent Relocation
                                                   Capacity
      272  (110) UNSIGNED       8    SSGTCCAP3     Total Configured Capacity
                                                   This is the total configured
                                                   volume virtual capacity for the
                                                   extent pool.  It includes Extent
                                                   Space Efficient and Standard
                                                   volumes.
      280  (118) UNSIGNED       8    SSGMVCPP3     Metadata Virtual Capacity in
                                                   Preparation Phase
      288  (120) UNSIGNED       8    SSGAVMVC3     Available Metadata Virtual
                                                   Capacity
..
```