



# VSAM Aktuell

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## SHOWCB Enhancements 5.1

### ACB, AMBL, AMDSB API extended

#### SHOWCB: 9 NEW FIELDS

SHOWCB FIELD	Actual Control Block Field	Control Block	Length	FIELD Description
IDACB	ACBID	ACB	4	ACB identifier
IDDOS	ACBDOSID	ACB	4	DOS DTF identifier
CDBUF	AMBDBUF	AMBL	4	count of Data Buffers
CIBUF	AMBIBUF	AMBL	4	count of Index Buffers
CNAME	AMBCNAME	AMBL	44	Cluster ID
CIPCA	AMDCIPCA	AMDSB	4	number of CIs per CA
LNEST	AMDLNEST	AMDSB	4	local number of index levels
BFREE	AMDBFREE	AMDSB	4	number of unassigned buffers
OPENOBJ	AMDAMS	AMDSB	4	AMS Flag byte

## SHOWCB Enhancements 5.1

### SHOWCB Example:

```
SHOWCB   ACB=ACB1,AREA=AREA1,LENGTH=100,FIELDS=(IDACB,IDDOS,      X
          CDBUF,CIBUF,CIPCA,LNEST,BFREE,OPENOBJ,CNAME)
LTR       R15,R15
BNZ       SHOWERR
. . .
AREA1     DS 0F
IDACB     DS F
IDDOS     DS F
CDBUF     DS F
CIBUF     DS F
CIPCA     DS F
LNEST     DS F
BFREE     DS F
OPENOBJ   DS F
CNAME     DS 44CL
```

## SHOWCB Enhancements 5.1

### LSR Matrix

Local Shared Resource (LSR) information - VSAM SHR pools

#### **Share-pool:**

- Share Pool Number,
- Total Number of Strings,
- Number of active Strings,
- Number of free Strings,
- High-water-mark of active Strings

#### **Sub-pool:**

- Size of Buffers,
- Type of Buffer,
- Number of Buffers,
- Number of modified Buffers and Number of free Buffers,
- Number of Buffer-reads,
- Number of Retrieval-Requests without I/O,
- Number of User-Initiated writes from Buffer Pool,
- Number of Non-User-Initiated writes from Buffer Pool

#### **Cluster in Sub-pool:**

- Number of Active Strings for this Cluster,
- Size of Data Buffers,
- Number of Data Buffers used,
- Size of Index Buffers,
- Number of Index Buffers used

## SHOWCB Enhancements 5.1

### LSR Matrix output (header):

- Length of user area,
- Total length used or required by VSAM,
- Length of fixed area (Share Pool Statistics Area),
- Number of rows in LSR Pool Buffer Matrix
- Length of rows in LSR Pool Buffer Matrix
- Number of rows in Cluster Matrix
- Length of rows in Cluster Matrix

Length of area supplied by User	Total length used (or required) by VSAM	Length of fixed area	Number of rows in LSR Pool Buffer Matrix
4 bytes	4 bytes	4 bytes	4 bytes

... continued

Len of rows in Buffer Matrix	Number of rows in Cluster Matrix	Length of rows in Cluster Matrix	(reserved)	(reserved)
2 bytes	4 bytes	2 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### LSR Matrix output (Share Pool Statistics Area, fixed area):

#### Share pool:

- Share pool Number,
- Total Number of Strings,
- Number of active Strings,
- Number of free Strings,
- High-water-mark of active Strings

share pool #	total # of strings	# of active strings	# of free strings
2 bytes	2 bytes	2 bytes	2 bytes
... continued			
High water mark of active strings	reserved	reserved	reserved
2 bytes	2 bytes	2 bytes	2 bytes



## SHOWCB Enhancements 5.1

### LSR Matrix output (LSR Pool Buffer Matrix):

#### Sub-pool:

- Size of Buffers,
- Type of Buffer,
- Number of Buffers,
- Number of modified Buffers and Number of free Buffers,
- Number of Buffer-reads,
- Number of Retrieval-Requests without I/O,
- Number of User-Initiated writes from Buffer Pool,
- Number of Non-User-Initiated writes from Buffer Pool

Size of buffers	Type of Buffer ("D" or "I")	Flags	Number of buffers	Number of modified buffers	Number of free buffers
2 bytes	1 byte	1 byte	4 bytes	4 bytes	4 bytes

... continued

NUMBER OF BUFFER-READS	NUMBER OF RETR-REQ WITHOUT I/O	NUMBER OF USER-INITIATED WRITES FROM BP	NUMBER OF NON USER-INITIATED WRITES FROM BP
4 bytes	4 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### LSR Matrix output (Cluster Matrix):

#### Cluster:

- DDNAME of the cluster
- Cluster type ('B' if base cluster)
- Number of Active Strings for this Cluster,
- Size of Data Buffers,
- Number of Data Buffers used,
- Size of Index Buffers,
- Number of Index Buffers used

DDNAME	Type of Cluster ('B' if Base Cluster)	Flags	# of Active Strings for this Cluster	Size of Data Buffers	Number of Data Buffers used	Size of Index Buffers
8 bytes	1 byte	1 byte	2 bytes	4 bytes	4 bytes	4 bytes

... continued

Number of Index Buffers used	(reserved)	(reserved)
4 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### SHOWCB macro syntax for LSR matrix:

```
name SHOWCB AREA=address,           X  
          LENGTH=number,             X  
          SHAREPL=number,           X  
          FIELDS=(keywords)
```

### Example of LSR Matrix call:

```
SHOWCB AREA=USER_AREA, LENGTH=100, SHAREPL=6, FIELDS=(LSRINF)
```

## SHOWCB Enhancements 5.1

### Extent Matrix

#### Physical device characteristics per Cluster.

##### Data/Index volume information :

- Physical Block Size
- Number of Bytes per Track
- Number of Bytes per Control Area
- Number of Physical Blocks per Control Interval
- Number of Physical Blocks per Track
- Number of Tracks per Control Area
- Number of Tracks per Cylinder
- Number of Physical Blocks per Control Area

##### Extent (data and index) information:

- Volume Serial Number
- Type of Extent ('D' if Data. "I" if Index)
- Flags
- Low Extent
- High Extent
- Low RBA
- High RBA

## SHOWCB Enhancements 5.1

### Extent Matrix output (header):

- Length of User area,
- Total length used (required) by VSAM,
- Length of fixed area (Physical Device Characteristics Area),
- Number of data extents
- Length of data extents row
- Number of index extents
- Length of index extents row

Length of area supplied by User	Total length used (or required) by VSAM	Length of fixed area	Number of data extents (AMDNEXT)
4 bytes	4 bytes	4 bytes	4 bytes

... continued

Len of data extents row	Number of index extents (AMDNEXT)	Len of ind extents row	(reserved)	(reserved)
2 bytes	4 bytes	2 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### Extent Matrix output (Physical Device Characteristics Area, fixed area):

#### Physical device characteristics per Cluster.

#### Data/index volume information:

- Physical Block Size
- Number of Bytes per Track
- Number of Bytes per Control Area
- Number of Physical Blocks per Control Interval
- Number of Physical Blocks per Track
- Number of Tracks per Control Area
- Number of Tracks per Cylinder
- Number of Physical Blocks per Control Area (for FBA only, ignore for ECKD)

Volume id	Type of extent ('D' if Data, 'I' if Index)	Flags	Physical Block Size	Number of Bytes per Track	Number of Bytes per Control Area	Number of Physical Blocks per Control Interval
6 bytes	1 byte	1 byte	4 bytes	4 bytes	4 bytes	4 bytes

... continued

Number of Physical Blocks per Track	Number of Tracks per Control Area	Number of Tracks per Cylinder	Number of Physical Blocks per Control Area	Reserved	Reserved
4 bytes	4 bytes	4 bytes	4 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### Extent Matrix output (Extent information):

#### Extent (data/index) information:

- Volume Serial Number
- Type of Extent ('D' if Data. "I" if Index)
- Flags
- Low Extent
- High Extent
- Low RBA
- High RBA

Volser	Type of extent ('D' if Data. "I" if Index)	Flags	Low Extent (CCCCHH)	(reserved)	High Extent (CCCCHH)	(reserved)
6 bytes	1 byte	1 byte	4 bytes	4 bytes	4 bytes	4 bytes

... continued

Low RBA	High RBA	(reserved)	(reserved)
8 bytes	8 bytes	4 bytes	4 bytes

## SHOWCB Enhancements 5.1

### SHOWCB macro syntax extent Information:

<i>name</i> SHOWCB	ACB= <i>address</i> ,	x
	AREA= <i>address</i> ,	x
	LENGTH= <i>number</i> ,	x
	FIELDS=( <i>keywords</i> )	

### Example of Extent Matrix call:

```
SHOWCB AREA=USER_AREA, LENGTH=300, ACB=ACB1, FIELDS=(EXTINF)
```



# SHOWCB Enhancements 5.1

## Example of Extent Matrix output:

```

00403CE0                                0000012C  10                                ....
                                         ^=====USER'S AREA=X'12C'=300                                ....
00403D00 000000E0 00000060 00000001 00300000 00010030 00000000 00000000 E5E2C5D9 .....-.....VSER
                                         ^=====VOLID=VSER02
                                         ^=====RESERVED2
                                         ^=====RESERVED1
                                         ^=====LEN OF INDEX EXT ROW
                                         ^=====IND EXTENTS=1
                                         ^=====LEN OF DATA EXT ROW
                                         ^=====DATA EXTENTS=1
                                         ^=====FIXED AREA LEN=96
                                         ^=====VSAM NEEDS=E0=224
00403D20 F0F2C426 00000800 0000A800 0009D800 00000001 00000015 0000000F 0000000F 02D.....y...Q.....
                                         ^=====TRACKS PER CYL=X'F'
                                         ^=====TRACKS PER CA=X'F'
                                         ^=====PHYS BLOCKS PER TRACK=X'15'
                                         ^=====PHYS BLOCKS PER CI=X'1'
                                         ^=====NUM BYTES PER CA=X'9D800'
                                         ^=====NUM BYTES PER TRACK=X'A800'
                                         ^=====PHYS BLOCK SIZE=X'800'
                                         ^=====FLAGS=X'26'
                                         ^=====TYPE OF EXT='D'
00403D40 0000A800 00000000 00000000 E5E2C5D9 F0F2C926 00000E00 0000B600 0000B600 ..y.....VSER02I.....
                                         ^=====NUM BYTES PER CA=X'0000B600'
                                         ^=====NUM BYTES PER TRACK=X'0000B600'
                                         ^=====PHYS BLOCK SIZE=X'E00'
                                         ^=====FLAGS=X'26'
                                         ^=====TYPE OF EXT='I'
                                         ^=====VOLID=VSER02
                                         ^=====RESERVED2
                                         ^=====RESERVED1
                                         ^=====NUM PHYS BLOCKS PER CA(FBA only)
00403D60 00000001 0000000D 00000001 0000000F 0000B600 00000000 00000000 E5E2C5D9 .....VSER
                                         ^=====VOLSER=VSER02
                                         ^=====RESERVED2
                                         ^=====RESERVED1
                                         ^=====NUM PHYS BLOCKS PER CA(FBA only)
                                         ^=====TRACKS PER CYL=X'F'
                                         ^=====TRACKS PER CA=X'1'
                                         ^=====PHYS BLOCKS PER TRACK=D
                                         ^=====PHYS BLOCKS PER CI=X'1'

```



## UI improvements on the VSAM panels FILFL1 and FILFL2

- VSAM Addressing Mode in UI - Standard / XXL

The screenshot shows a terminal window titled "D - VSE-IUI-SPB - [24 x 80]". The main content is a VSAM panel titled "IESFILFL1 DISPLAY OR PROCESS A FILE". The panel displays the following information:

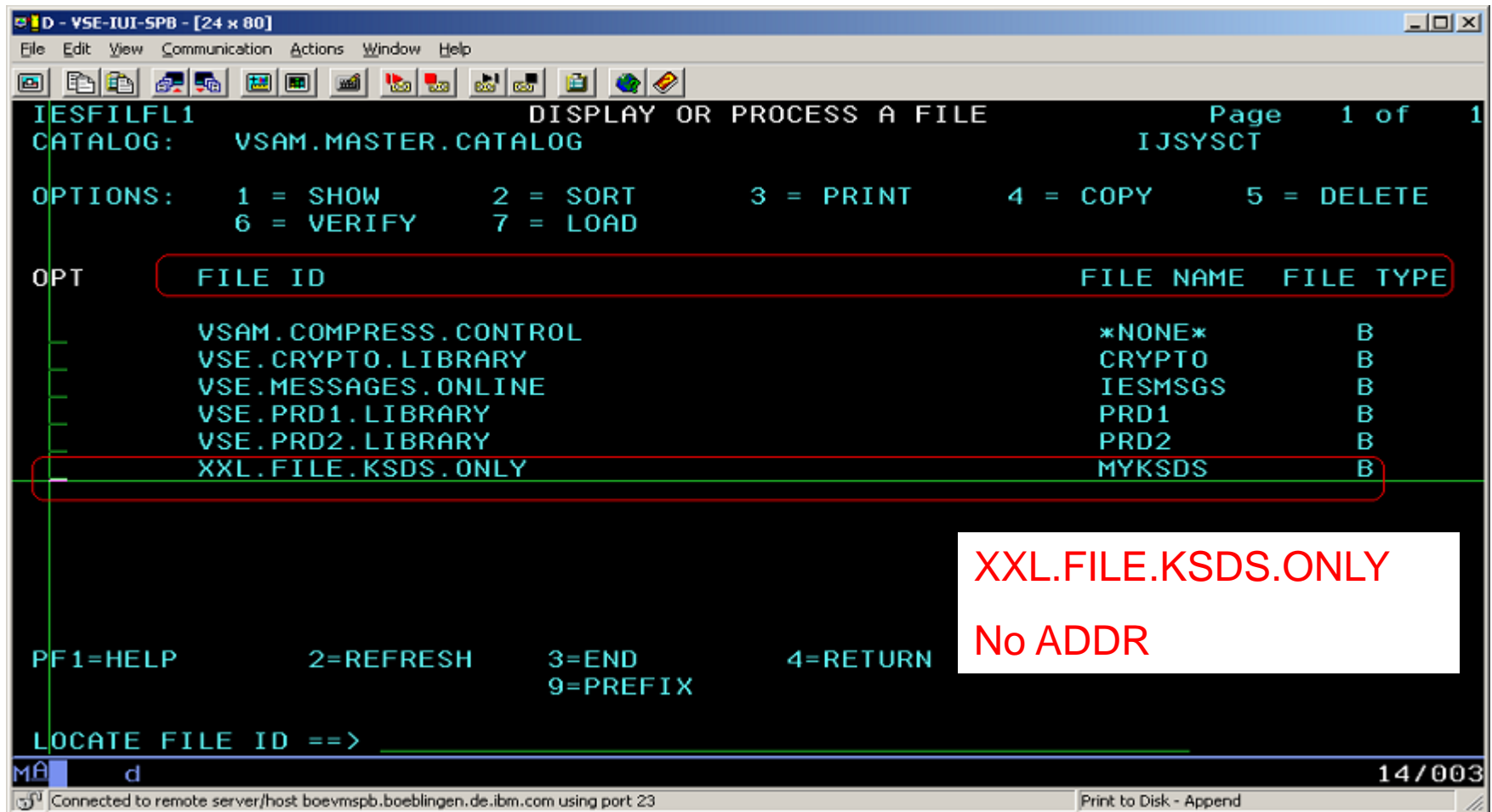
- CATALOG:** VSAM.MASTER.CATALOG
- Page:** 1 of 1
- IJSYSCT**
- OPTIONS:**
  - 1 = SHOW
  - 2 = SORT
  - 3 = PRINT
  - 4 = COPY
  - 5 = DELETE
  - 6 = VERIFY
  - 7 = LOAD
- Table:**

OPT	FILE ID	FILE NAME	FILE TYPE
	VSAM.COMPRESS.CONTROL	*NONE*	B
	VSE.CRYPTO.LIBRARY	CRYPTO	B
	VSE.MESSAGES.ONLINE	IESMSG	B
	VSE.PRD1.LIBRARY	PRD1	B
	VSE.PRD2.LIBRARY	PRD2	B
	XXL.FILE.KSDS.ONLY	MYKSDS	B
- PF1=HELP**      **2=REFRESH**      **3=END**      **4=RETURN**  
**9=PREFIX**
- LOCATE FILE ID ==>** \_\_\_\_\_
- M& d**      **14/003**

At the bottom, there is a status bar indicating "Connected to remote server/host boevmspb.boeblingen.de.ibm.com using port 23" and a "Print to Disk - Append" button.

# Old View Of The Panel FILFL1

- **FILFL1 (z/VSE 4.3):**



```

D - VSE-IUI-SPB - [24 x 80]
File Edit View Communication Actions Window Help
IESFILFL1          DISPLAY OR PROCESS A FILE          Page 1 of 1
CATALOG:          VSAM.MASTER.CATALOG              IJSYSCT
OPTIONS:          1 = SHOW          2 = SORT          3 = PRINT          4 = COPY          5 = DELETE
                  6 = VERIFY        7 = LOAD
OPT  FILE ID          FILE NAME          FILE TYPE
-----
VSAM.COMPRESS.CONTROL          *NONE*          B
VSE.CRYPTO.LIBRARY            CRYPTO          B
VSE.MESSAGES.ONLINE           IESMSG          B
VSE.PRD1.LIBRARY              PRD1            B
VSE.PRD2.LIBRARY              PRD2            B
XXL.FILE.KSDS.ONLY            MYKSDS          B
-----
PF1=HELP          2=REFRESH        3=END          4=RETURN
                  9=PREFIX
LOCATE FILE ID ==>
Mâ d
14/003
Connected to remote server/host boevmspb.boeblingen.de.ibm.com using port 23
Print to Disk - Append
    
```

## New Field 'FILE ADDR' (FILE)

- FILFL1 (z/VSE 5.1):

```

D - VSE-IUI-SPB - [24 x 80]
File Edit View Communication Actions Window Help
IESFILFL1          DISPLAY OR PROCESS A FILE          Page 1 of 1
CATALOG:          VSAM.MASTER.CATALOG                IJSYSCT
OPTIONS:          1 = SHOW          2 = SORT          3 = PRINT          4 = COPY          5 = DELETE
                  6 = VERIFY        7 = LOAD

OPT      FILE ID          FILE NAME          FILE TYPE          FILE ADDR
-----
VSAM.COMPRESS.CONTROL  *NONE*           B           1
VSE.CRYPTO.LIBRARY    CRYPTO           B           1
VSE.DUMP.LIBRARY      SYSDUMP          B           1
VSE.MESSAGES.ONLINE   IESMSG           B           1
VSE.PRD1.LIBRARY      PRD1              B           1
VSE.PRD2.LIBRARY      PRD2              B           1
XXL.FILE.KSDS.ONLY    MYKSDS           B           2

PF1=HELP          2=REFRESH        3=END            4=RETURN
                  9=PREFIX

LOCATE FILE ID ==>
Mâ d
15/003
Connected to remote server/host boevmspb.boeblingen.de.ibm.com using port 23
Print to Disk - Append
  
```

XXL.FILE.KSDS.ONLY  
2=XXL

## New Field 'FILE ADDR' (AIX)

- FILFL2 (AIX):

```

D - VSE-IUI-SPB - [24 x 80]
File Edit View Communication Actions Window Help
IESFILFL2          DEFINE AN ALTERNATE INDEX OR NAME          Page 1 of 1
CATALOG:          VSAM.MASTER.CATALOG                        IJSYSCT

OPTIONS:          1 = DEFINE ALTERNATE INDEX                Move cursor to the base file
                  2 = DEFINE ALTERNATE NAME

OPT      FILE ID
-----
VSAM.COMPRESS.CONTROL      *NONE*      B      1
VSE.CRYPTO.LIBRARY        CRYPTO      B      1
VSE.DUMP.LIBRARY          SYSDUMP      B      1
VSE.MESSAGES.ONLINE      IESMSGs      B      1
VSE.PRD1.LIBRARY          PRD1      B      1
VSE.PRD2.LIBRARY          PRD2      B      1
XXL.FILE.KSDS.ONLY        MYKSDS      B      2
XXL.FILE.KSDS.ONLY.AIX    MYAIX      A      1

PF1=HELP      2=REFRESH      3=END      4=RETURN
               9=PREFIX

LOCATE FILE ID ==>
Mâ d
16/003
Connected to remote server/host boevmspb.boeblingen.de.ibm.com using port 23
Print to Disk - Append
    
```

AIX only 1=Default only!

### 3. New Field 'FILE ADDR' Part 4

- **To accept the new column 'FILE ADDR', the panel FILFL2 was re-organized like the panel FILFL1: the layout of the panel was re-formatted to show more content.**
- **Look at the dataset `XXL.FILE.KSDS.ONLY` for the sample of an XXL dataset on the panel FILFL2.**
- **NOTE that the addressing for AIXes themselves must have the type 1=Default only for z/VSE 5.1! See for the sample of an AIX addressing at `XXL.FILE.KSDS.ONLY.AIX` on the panel FILFL2.**

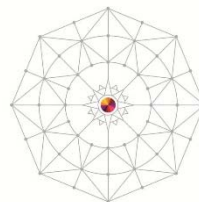
# VSE/VSAM 9.2





## z/VSE V5.2: IDCAMS Command Security

- **IDCAMS provides a number of cluster management and catalog maintenance commands which can be destructive to data**
  - System administrators can restrict the usage of IDCAMS commands with z/VSE V5.2
- **The administrator can control access to IDCAMS commands by using the 'IDCAMS.GENERAL' BSM resource profile of the resource class FACILITY**
  - IDCAMS commands access control is designed for batch processing only
  - If batch security is not active (SYS SEC=NO) or IDCAMS function is executed in ICCF pseudo partition, then no security checks are performed



## z/VSE V5.2: IDCAMS Command Security

- The JCL sample below shows how to use BSTADMIN utility for defining the IDCAMS.GENERAL resource profile in BSM

```
// EXEC BSTADMIN
ADD FACILITY IDCAMS.GENERAL UAC(READ)
PERMIT FACILITY IDCAMS.GENERAL ID(USR1) ACCESS(UPD)
PERMIT FACILITY IDCAMS.GENERAL ID(USR2) ACCESS(ALT)
PERFORM DATASPACE REFRESH
LIST FACILITY IDCAMS.GENERAL
/*
```

```
IESADMBSLE          MAINTAIN SECURITY PROFILES
BSM RESOURCE CLASS: FACILITY      (START is Case Sensitive)      STATUS: ACTIVE
START... DFHRCF.RSL24
OPTIONS:  1 = ADD          2 = CHANGE          5 = DELETE          6 = ACCESS LIST
```

OPT	PROFILE NAME	DESCRIPTION	UNIVERSAL ACCESS	AUDIT VALUE
—	DFHRCF.RSL24	>		12
—	IBMVSE.JCL.ASSGN.PERM			12
—	IBMVSE.JCL.LIBDEF.PERM			12
—	IBMVSE.JCL.LIBDROP.PERM			12
—	IBMVSE.JCL.OPTION.PARSTD			12
—	IBMVSE.JCL.OPTION.STDLABEL			12
<u>6</u>	*IDCAMS.GENERAL		2	12

## z/VSE V5.2: IDCAMS Command Security

### What is needed to turn on VSAM IDCAMS Security ?

- a) Batch security is active
- b) IDCAMS.GENERAL profile is defined,
- c) ID statement supplied within the job

### Decisions and Messages



If user's authorization level for the IDCAMS.GENERAL profile is high enough then the command is executed without any extra messages.



If user's authorization level for the IDCAMS.GENERAL profile is not high enough the IDCAMS command will be interrupted and the following messages displayed

```
IDC32240I RACROUTE (AUTH) FAILED WITH RETURN CODE 8 REASON 0
IDC32241I SAF RETURN CODE 8 FOR RACROUTE (AUTH)
```

```
BG 0000 BST120I USER(OPER )
          BST120I IDCAMS.GENERAL CL(FACILITY)
          BST120I INSUFFICIENT ACCESS AUTHORITY
          BST120I FROM IDCAMS.GENERAL
          BST120I ACCESS INTENT(UPDATE ) ACCESS ALLOWED(READ )
```

Note: The Job is NOT cancelled, IDCAMS processing continues with the next command specified.

## z/VSE V5.2: IDCAMS Command security

### ▪ **Update** authorization level - IDCAMS commands:

- DEFINE CLUSTER|AIX|PATH|NONVSAM - defines cluster, alternate index or path
- DELETE CLUSTER|AIX|PATH|NONVSAM - deletes cluster, alternate index or path
- EXPORT/IMPORT - exports/imports cluster or alternate index
- REPRO - copies data from one dataset to another
- RESTORE - defines cluster (if required) and fills it with the data from the backup medium
- BLDINDEX - builds one or more alternate indexes
- VERIFY - verifies and corrects (if required) end-of-file information

### Note:

1. DEFINE / DELETE commands for cluster, alternate index, path and non-VSAM object only
2. EXPORT DISCONNECT / IMPORT CONNECT not allowed with **Update** .

## z/VSE V5.2: IDCAMS Command security

### ▪ **Read** authorization level - IDCAMS commands:

- LISTCAT - lists entries contained in a catalog
- PRINT - lists a part or the whole VSAM file
- BACKUP - produces a backup copy of one or more VSAM objects

### ▪ **Alter** authorization level - IDCAMS commands:

- DEFINE MASTERCATALOG|USERCATALOG|SPACE - defines master catalog, user catalog, or space
- DELETE MASTERCATALOG|USERCATALOG|SPACE - deletes master catalog, user catalog, or space
- IMPORT CONNECT - disconnects user catalog from master catalog
- EXPORT DISCONNECT - connects user catalog to master catalog
- ALTER - changes attributes of catalog entries

**Alter** = **Read** + **Update** + **Alter** commands

**Update** = **Read** + **Update** commands

**Read** = **Read** commands (only)

## IDCAMS Security - IDCAMS.GENERAL Profile Setup in UI

- Add new IDCAMS.GENERAL resource profile of the class FACILITY (fastpath 2819)

```

IESADMBSLE                MAINTAIN SECURITY PROFILES
BSM RESOURCE CLASS: FACILITY      (START is Case Sensitive)      STATUS: ACTIVE
START....
OPTIONS:  1 = ADD              2 = CHANGE              5 = DELETE              6 = ACCESS LIST

  OPT  PROFILE NAME                DESCRIPTION                UNIVERSAL AUDIT
      >                                ACCESS VALUE
  --   DFHRCF.BRSLPU                >                                12
  --   DFHRCF.BRSL00                >                                12
  --   DFHRCF.BRSL01                >                                12
  --   DFHRCF.BRSL02                >                                12
    
```

```

IESADMBSAE                MAINTAIN SECURITY PROFILES
BSM RESOURCE CLASS: FACILITY

Add Profile:

PREFIX..... _____ CICS region

RESOURCE NAME..... Maximum length is 39 characters.
..... IDCAMS.GENERAL

GENERIC..... 1 (1=yes, 2=no)

UNIVERSAL ACCESS... 2 (=_None, 2=Read, 3=Update, 4=Alter)

AUDIT-LEVEL 1 ..... (=_None, 1=Failure, 2=Success, 3=All)
ACCESS-LEVEL 1 ..... (2=Read, 3=Update, 4=Alter, _=default)

AUDIT-LEVEL 2 ..... (=_None, 1=Failure, 2=Success, 3=All)
ACCESS-LEVEL 2 ..... (2=Read, 3=Update, 4=Alter, _=default)
DESCRIPTION..... Optional remark
PF1=HELP 3=END 5=UPDATE

RESOURCE NAME FIELD IS CASE SENSITIVE. ENTER DATA AS REQUIRED.
    
```

## IDCAMS Security - IDCAMS.GENERAL Profile Setup in UI

- Configure IDCAMS.GENERAL resource profile access list (fastpath 2819)

```

IESADMBSLE                                MAINTAIN SECURITY PROFILES
BSM RESOURCE CLASS: FACILITY              (START is Case Sensitive)      STATUS: ACTIVE
START... DFHRCF.RSL24
OPTIONS:  1 = ADD                        2 = CHANGE                    5 = DELETE                    6 = ACCESS LIST

  OPT  PROFILE NAME                                DESCRIPTION                                UNIVERSAL AUDIT
                                           >                                ACCESS VALUE
  --   DFHRCF.RSL24                                >                                12
  --   IBMVSE.JCL.ASSGN.PERM                        >                                12
  --   IBMVSE.JCL.LIBDEF.PERM                       >                                12
  --   IBMVSE.JCL.LIBDROP.PERM                     >                                12
  --   IBMVSE.JCL.OPTION.PARSTD                    >                                12
  --   IBMVSE.JCL.OPTION.STDLABEL                  >                                12
  6   *IDCAMS.GENERAL                                >                                2                                12
    
```

```

IESADMBSLA                                MAINTAIN ACCESS LIST
BSM CLASS: FACILITY
PROFILE: *IDCAMS.GENERAL
START...
OPTIONS:  1 = ADD                        2 = CHANGE                    5 = DELETE
NUMBER OF ENTRIES ON LIST: 00000

  OPT  NAME  ACC
  1
    
```

```

IESADMBSAA                                MAINTAIN ACCESS LIST
BSM CLASS: FACILITY
PROFILE: *IDCAMS.GENERAL

Add Userid or Groupid:

NAME..... USR1                                Userid or Groupid
ACCESS..... 3                                (_=None,
                                           2=Read, 3=Update, 4=Alter)
    
```

## IDCAMS Security - IDCAMS.GENERAL Profile Setup in UI

### ▪ Rebuild BSM Security Information (fastpath 283)

```
IESADMSL.IESEBSEC          SECURITY MAINTENANCE          APPLID: DBDCCICS
Enter the number of your selection and press the ENTER key:

  1  BSM Resource Profile Maintenance
  2  BSM Group Maintenance
  3  BSM Security Rebuild
  4  Maintain Certificate - User ID List
  5  Define Transaction Security (DTSECTXN)
  6  BSM Cross Reference Report
  7  Unified BSM Resource Profile Maintenance

PF1=HELP          3=END          4=RETURN          6=ESCAPE (U)
                  9=Escape (m)

SECURITY INFORMATION WAS SUCCESSFULLY REBUILT.
==> 3_          Path: 28
```



## IDCAMS Security - IDCAMS.GENERAL Profile Setup-Batch

- The JCL sample shows how to use BSTADMIN utility for defining the IDCAMS.GENERAL resource profile in BSM.
- **everyone** - 'read-only' commands (UAC)
- user **USR1** - *update* authorization level
- user **USR2** - *alter* authorization level

```
// EXEC BSTADMIN
  ADD FACILITY IDCAMS.GENERAL UAC(READ)
  PERMIT FACILITY IDCAMS.GENERAL ID(USR1) ACCESS(UPD)
  PERMIT FACILITY IDCAMS.GENERAL ID(USR2) ACCESS(ALT)
  PERFORM DATASPACE REFRESH
  LIST FACILITY IDCAMS.GENERAL
/*
```

### BSTADMIN LIST command output in SYSLST:

```
FACILITY   IDCAMS.GENERAL
UNIVERSAL ACCESS
-----
          READ

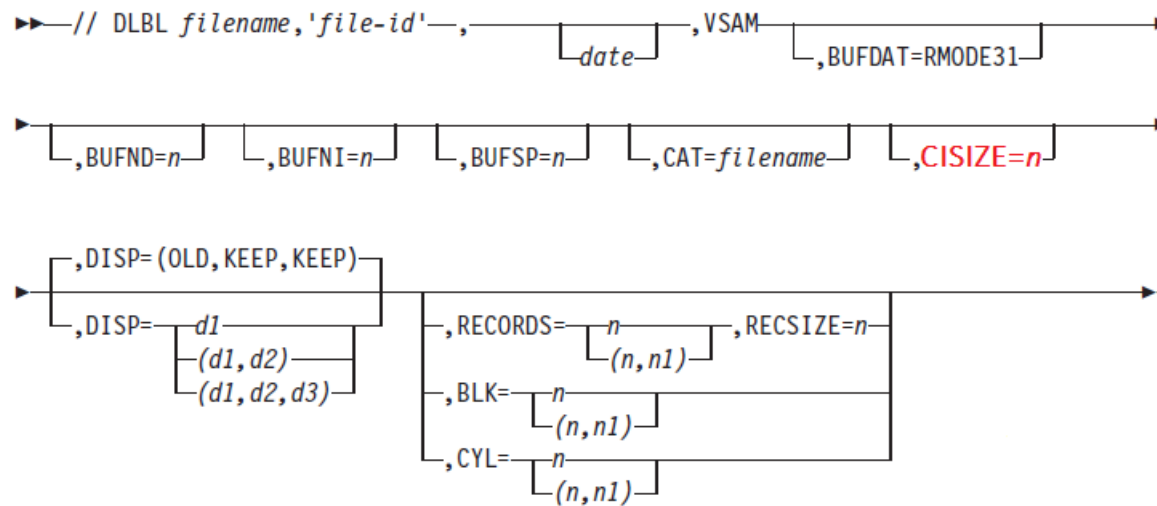
INSTALLATION DATA
-----
          NONE

AUDITING
-----
FAILURES(READ)

USER       ACCESS
-----
USR1      UPDATE
USR2      ALTER
```

## DLBL CISIZE parameter for SAM-ESDS Implicit Definition

- Existing DLBL CISIZE parameter now allowed not only for SD files but also for VSAM files.



### CISIZE=n

For VSE/VSAM this parameter specifies a control interval size for SAM-ESDS dataset. The size overrides that specified (or defaulted) in the respective DTF macro.

## Catalog Management Trace

- **Catalog Management Trace enhanced to support investigation of Catalog Management questions**

```
IDC3009I ** VSAM CATALOG RETURN CODE IS 8 - REASON CODE IS IGG0CLBN-6
4228I FILE DFHTEMP      OPEN  ERROR X'B4'(180) CAT=VSESPUC ( 4,AH, 10)
```

- **Existing Catalog Management SNAP TRACE 001 in IKQVEDA tool has been enhanced.**

### New DUMP parameter

- **IKQVEDA SNAP 001 trace command format is shown below:**

```
ENABLE SNAP=001,PART=partition,DUMP=(return_code,module_id,reason_code)
```

**PART=*partition*** specifies partition in which the specified SNAP001 trace is enabled.

**DUMP=(*return\_code,module\_id,reason\_code*)** specifies the *return\_code*, *module\_id*, and *reason code* combination which is to cause SDUMP.

- **Sample of the IKQVEDA SNAP command:**

```
// EXEC IKQVEDA,PARM='SYSIPT'
      ENABLE SNAP=001,PART=F8,DUMP=(4,AH,10)
```

## Additional Enhancement for VSAM within z/VSE V5.2

- **Deletion of the KSDS cluster with ERASE attribute after unsuccessful RESTORE**  
**Error processing enhanced in case KSDS cluster cannot be extended during IDCAMS RESTORE**

```
IDC01304I SUCCESSFUL DEFINITION OF TEST.CLUSTER
IDC31338I CANNOT EXTEND TEST.CLUSTER
IDC31334I CANNOT DELETE OLD VERSION OR ASSOCIATION OF TEST.CLUSTER
IDC31316I ** VSAM CATALOG RETURN CODE IS 250 - REASON CODE IS IGG0CLGB-52
```

- **DEFINE SPACE CANDIDATE on FBA/SCSI or FAT disks.**  
**An attempt to define data space with CANDIDATE option on FBA/SCSI or FAT device corrected:**

```
IDC0511I SPACE ALLOCATION STATUS FOR VOLUME SCSI00 IS 68
IDC3020I INSUFFICIENT SPACE ON USER VOLUME
```

- **Remove duplicate VOLSERS during DEFINE CLUSTER**  
**In previous releases IDCAMS permitted the definition of a cluster with duplicate Volser's:**

```
VOLUMES(SYSWK2, SYSWK2, SYSWK3, SYSWK3, SYSWK3)
```

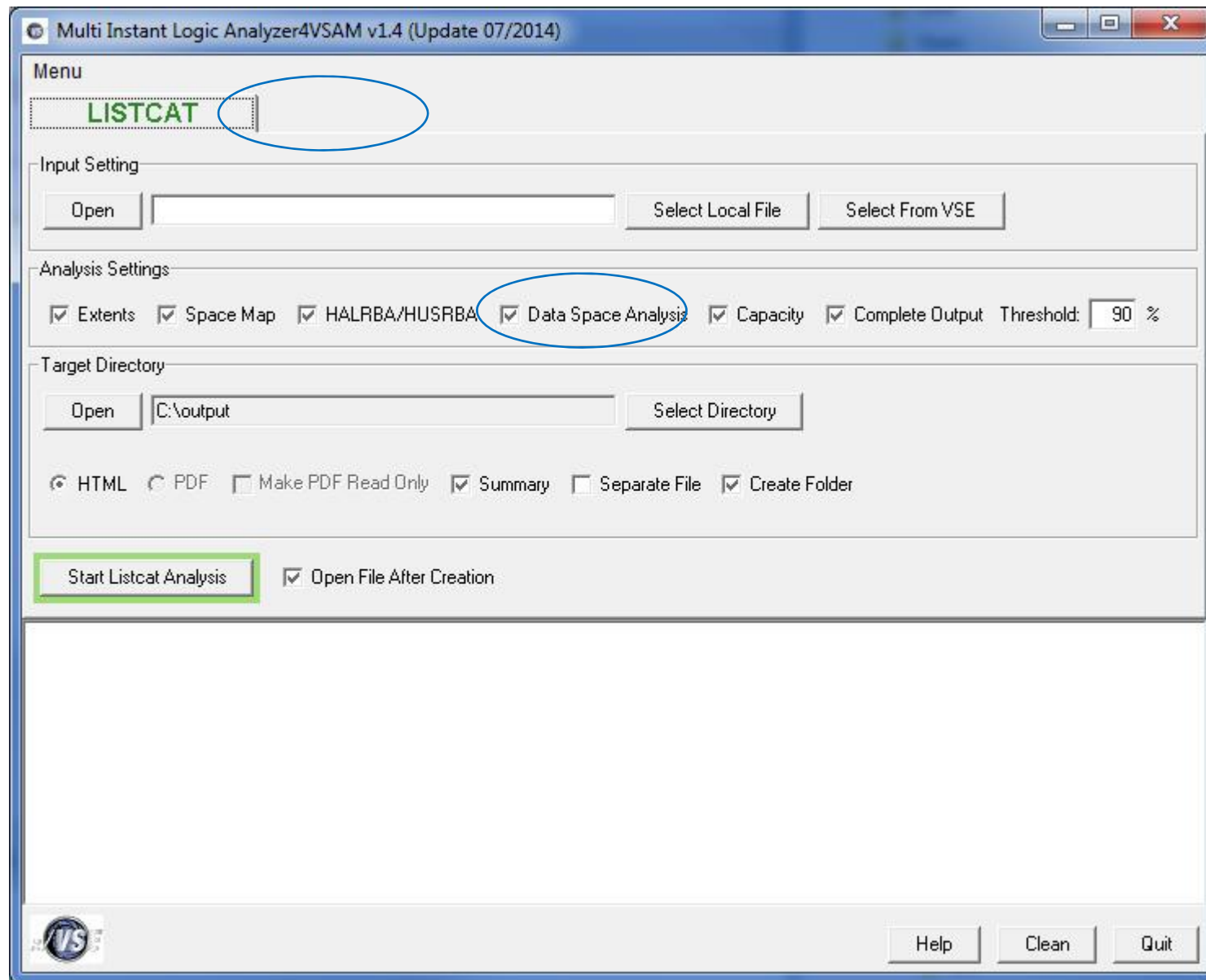
**However that could lead to the following error if this volume ever needs to be removed (via ALTER REMOVEVOLUME) :**

```
IDC3012I ENTRY TEST.KSDS1.DATA NOT FOUND
IDC3009I ** VSAM CATALOG RETURN CODE IS 8 - REASON CODE IS IGG0CLBN-6
IDC3003I FUNCTION TERMINATED. CONDITION CODE IS 1
```

### **NOW VSAM automatically eliminates duplicate Volser's for**

**DEFINE CLUSTER and DEFINE ALTERNATEINDEX,**

# MILA4VSAM v1.4 (updated July-2014)



## MILA4VSAM v1.4 (updated July-2014)

### New features in release 1.4

- **Data Space Analysis added**

- Data space analysis performs cross check between cluster Volume Groups and Volume's Data Set Directory.

Error Type	Volume Name	Cluster / AIX Name
The number of extents is not equal (Volume: Data Set Directory / Cluster: Volume Group).	VOL001	CLUSTER.ONE

Summary  
1 defective data space(s) found.

- **Overall statistic added**

- End of analysis shows information about #Catalogs, #Clusters, #Data, etc. processed

```

Statistics
The number of entries processed was:

# Total ----- 36
    AIXs ----- 0
  Catalogs ----- 1
   Clusters ----- 6
     Data ----- 6
  Datasets ----- 13
Dataspaces ----- 5
   Index ----- 3
  Volumes ----- 2
    
```

# MILA4VSAM v1.4 (updated July-2014)

## New features in release 1.4

- **Space Map - overview**
  - fragmentation level of your data.

Result of Space Map Analysis

Volume	Space Map	SpcMap Err for # of Track (s)	Additional Info	Total Space	Space Used
BOC007	FD05DC 	0		1500 Track(s)	100,0%
	02 	0		2 Track(s)	100,0%
	FD08C4 	0		3012 Track(s)	100,0%
	FD02F9 FD2984FD02D0 FD268EFD03A2 14FD0B91 56FD01D1 0F54 FD21214E 2A27 0CFD10F2 FD0144FD01E0 01FD0959 08FD00FF FD0178FD0601 0106 04FD0121 0E0F 	0		45566 Track(s)	34,1%
BOC107	00 0001 FD1199 	0		4514 Track(s)	0,0%
	00 08FD0546 FD16F9FD0020 8FD0384 FD08C401 02FD05E8 FD0454FD13EC FD0266FD020E 8FD01E5 FD0D2403 0997 0030 0306 037C 08FD1518 FD022EFD03FC 0EFD02E8 1E0C 02FD0177 4E04 0203 FD0708FD0384 FD04130C 02FD0178 05E7 1287 12A2 0001 0802 08FD0FF1 0302 245A 0205 0E96 0E 	0		45566 Track(s)	59,9%
BOC207	00 0001 FD0284FD02D0 FD0828FD0845 0201 1E 	0		4514 Track(s)	63,4%
	00 0001 FD0C58FD0A7D FD05D41E 0001 FD122DFD01C2 FD072869 02FD012C FD18E201 FD02F86F 001E 010C 0469 	0		45566 Track(s)	8,4%
BOC307	00 FD119C 	0		4514 Track(s)	0,3%
	09 FD1187FD01B3 FD029478 FD011A03 0406 FD0198FD0983 0402 0198 3C0F 1A08 FD03C03C 780E 0103 0E0F 5699 0101 043C FD07E00E FD032AFD05EA 01FD0A92 0401 FD04FED2 FD8F2102 0404 FD0832FD08E0 0103 5896 08FD012C 08FD0FD2 4B3C 0E 	0		45566 Track(s)	32,4%

For more information, see the z/VSE web site:

<http://www.ibm.com/zvse/>

**IBM z/VSE V5.2 is available**

z/VSE V5.2 is the newest release of z/VSE and is intended to be the base for future z/VSE enhancements. This ongoing evolution of z/VSE, together with z/VSE's support of the newest IBM zEnterprise servers and IBM System Storage technology, is designed to help clients protect their investments in z/VSE, grow their workloads, or consolidate their systems. It demonstrates again IBM's commitment to z/VSE clients.

For more information, please see the [announcement letter](#).

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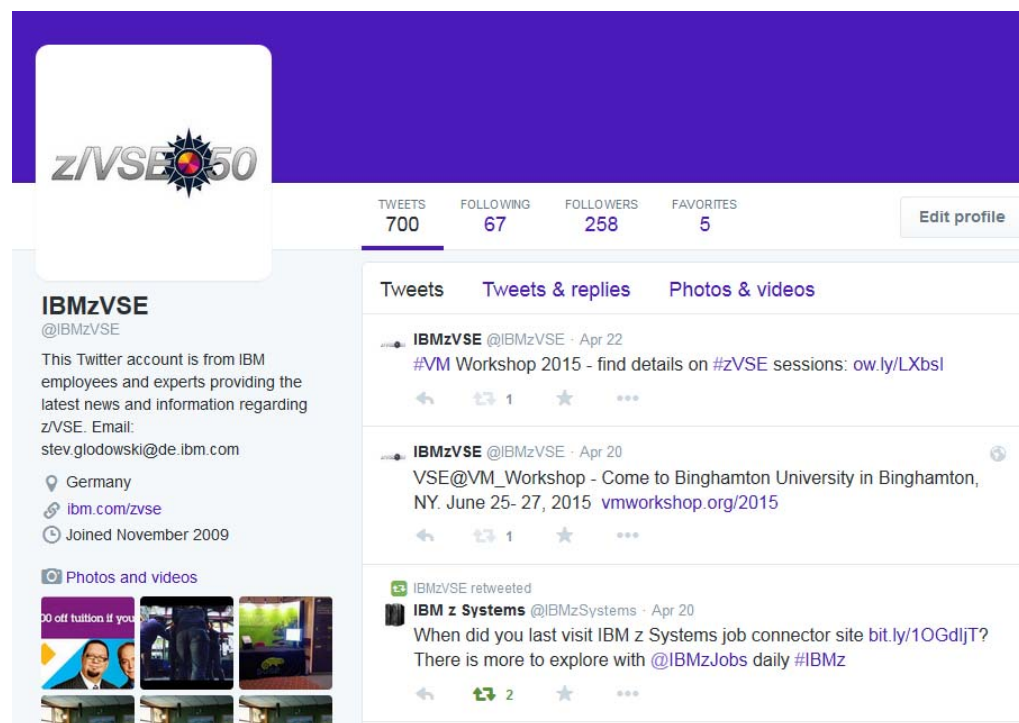
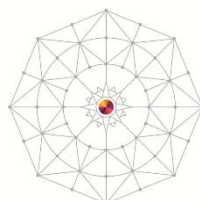
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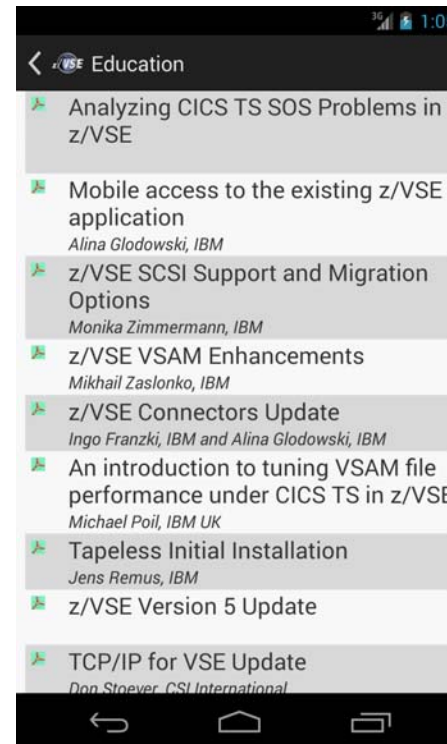
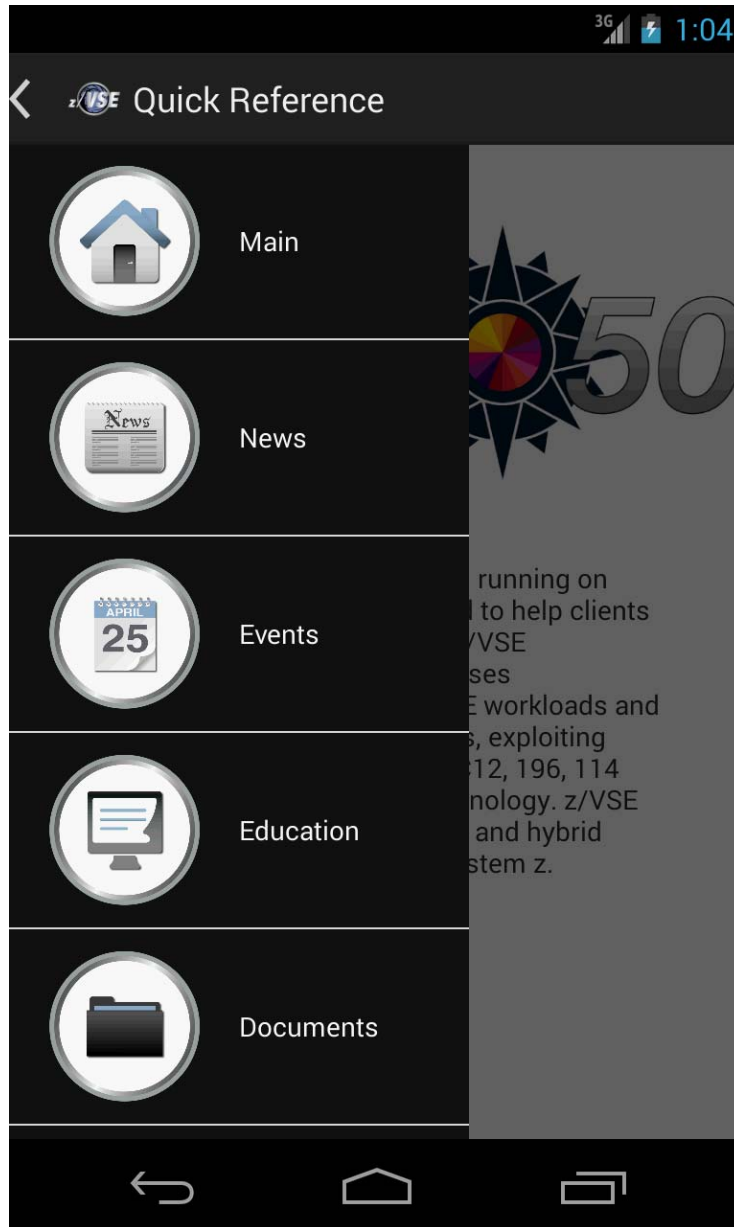



## z/VSE Live Virtual Classes (Webcasts)

- **March 2015**
  - Analyzing CICS TS SOS in z/VSE
- **February 2015**
  - Mobile access to existing z/VSE applications
- **December 2014**
  - z/VSE SCSI Support and Migration Options
- **October 2014**
  - zVSE VSAM Enhancements
- **September 2014**
  - z/VSE Connectors Update
- **July 2014**
  - Introduction to tuning VSAM file performance under CICS TS in z/VSE
- **June 2014**
  - Tapeless Initial Installation
- **May 2014**
  - z/VSE Version 5 Update
- **March 2014**
  - TCP/IP for VSE Update
- **January 2014**
  - Update on Encryption and SSL



**Replays available! @**  
**<http://www.ibm.com/zvse/education/>**



## z/VSE Android Reference App

<http://www-03.ibm.com/systems/z/os/zvse/#inaction>



# z/VSE

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