



# Hints & Tips for VSE<sup>n</sup>







# Ordering



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## 21CS VSE<sup>n</sup> Installation and FSU

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## VSEn 6.3.0 installation disk under z/VM



The VSE<sup>®</sup> 6.3.0 Install Kit contains the utility files to install VSE<sup>®</sup> under z/VM or in a native LPAR.

The install kit files are used togheter with the supplied VSEN630.AWS install tape file. They are used to create the install disk for both: VSE<sup>n</sup> install under z/VM and install under Native Z LPAR.

The following files are contained in a ZIP file supplied as the Install Kit:





#### Creating VSEn 6.3.0 installation disk under z/VM



To create a VSE<sup>n</sup> Install Disk under z/VM it is recommended to provide two minidisks.

1) It is recommended **400** cylinders of a 3390 CMS formatted disk to accommodate the upload of the **VSEIDISK** utility programs and the VSEN630.AWS install tape file.

2) The recommended size for the install minidisk is one of the following:

- 3390 disk device with at least 500 cylinders.
- FBA disk device with at least **6,00,000** blocks. This can be an IBM z/VM virtual FBA, an IBM z/VM emulated FBA device, or an FBA minidisk.
- FCP-attached SCSI disk device with at least 6,00,000 blocks.

The second minidisk will contain all the required install files and is the disk to be IPL'd to start the install procedure of VSE<sup>n</sup>.

The creation of the second minidisk, or the VSE<sup>n</sup> install disk, is done by running the utility programs and the AWS install tape uploaded to the first minidisk.

See more infromation about this topic in VSE<sup>®</sup> Version 6 Release 3 Installation manual.



# Creating VSEn 6.3.0 installation disk under z/VM



- The following files: VSEIDISK.EXEC, VSEIDISK.HELPCMS and VSEIDISK.MODULE extracted from the VSE Install Kit ZIP file and the VSEN630.AWS install tape file, should be binary uploaded to the first disk that is CMS formatted.
- There are two ways to upload the files to the CMS minidisk:
- Via IND\$FILE by using the the 3270 emulator UPLOAD function as a BINARY file.
- Via FTP binary transfer by using the **BINARY** mode and by specifying **QUOTE SITE VARrecfm** at the FTP prompt after FTP logging to the target CMS machine.
- The binary and record format options should be carefully observed to avoid the loss of required characteristics of the files.



## Creating VSE<sup>n</sup> 6.3.0 installation disk under z/VM



•	After uploading	y the files, it is necessar	y to <b>de-block</b> the VSEIDISK files in CMS:

- PIPE < VSEIDISK MODULE A | DEBLOCK CMS | > VSEIDISK MODULE A
- PIPE < VSEIDISK EXEC A | DEBLOCK CMS | > VSEIDISK EXEC A
- PIPE < VSEIDISK HELPCMS A | DEBLOCK CMS | > VSEIDISK HELPCMS A
- Replace the filemode **A**, in the commands above, to the proper filemode letter where the VSEIDISK programs are uploaded.
- After deblocking the files, they should have the following characteristics:

Filename	Filetype	Fm	Format	Lrecl	Records	Blocks
VSEIDISK	MODULE	<b>A1</b>	v	65535	4	26
VSEIDISK	EXEC	<b>A1</b>	v	80	700	5
VSEIDISK	HELPCMS	<b>A1</b>	v	79	155	2

To create the the VSE<sup>n</sup> INSTALL DISK in the second 3390 disk allocated with 600 cylinders (assuming **202** as the target disk number), the following command should be done:



VSEIDISK utility has some optional parameters. To see all them, just type VSEIDISK without any other parameter.



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#### VSEIDISK Execution Example



| vseldisk vsen630 aws a 202                                               |
|--------------------------------------------------------------------------|
| IDSK151D REPLY 'CONTINUE' TO ALTER DASD 200, ELSE 'CANCEL'               |
| continue                                                                 |
| IDSK1411 FORMATTING VSEN INSTALLATION DISK                               |
| ICKDSF - CMS/XA/ESA DEVICE SUPPORT FACILITIES 17.0                       |
| 10/22/22 PAGE 1                                                          |
|                                                                          |
| ENTER INPUT COMMAND:                                                     |
| INIT UNIT(202) -                                                         |
| ENTER INPUT COMMAND:                                                     |
| NOVERIFY -                                                               |
| ENTER INPUT COMMAND:                                                     |
| VSEVTOC(0,14,1) -                                                        |
| ENTER INPUT COMMAND:                                                     |
| VOLID (VSENID)                                                           |
| ICK007001 DEVICE INFORMATION FOR 0202 IS CURRENTLY AS FOLLOWS:           |
| PHYSICAL DEVICE = 3390                                                   |
| STORAGE CONTROLLER = 3990                                                |
| STORAGE CONTROL DESCRIPTOR = E9                                          |
| DEVICE DESCRIPTOR = 0C                                                   |
| ADDITIONAL DEVICE INFORMATION = 48001F3C                                 |
| TRKS/CYL = 15, # PRIMARY CYLS = 500                                      |
| ICK04000I DEVICE IS IN SIMPLEX STATE                                     |
| ICK00703I DEVICE IS OPERATED AS A MINIDISK                               |
| ICK00091I 0200 NED=002107.900.EMC.09.0000000AWMBF                        |
| ICK091I 0200 NED=002107.900.EMC.09.0000000AWMBF                          |
| ICK030911 EXISTING VOLUME SERIAL READ = VSENID                           |
| ICK03096I EXISTING VTOC IS LOCATED AT CCHH=X'0000 000E' AND IS 1 TRACKS. |
| ICK003D REPLY U TO ALTER VOLUME 0200 CONTENTS, ELSE T                    |
| ि <b>ग</b>                                                               |
| ICK01314I VTOC IS LOCATED AT CCHH=X'0000 000E' AND IS 1 TRACKS.          |
| ICK000011 FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 0               |
| 08:17:37 10/22/22                                                        |
|                                                                          |

| ENTER INPUT COMMAND:<br>END<br>INPUT COMMAND:<br>END<br>ICK00002I ICKDSF PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0<br>IDSK143I CREATING VSEN INSTALLATION DISK<br>IDSK000I VSEN INSTALLATION DISK TOOL 6.3.0<br>IDSK009I INITIALIZING<br>IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE<br>IDSK009I VALIDATING BOOT RECORDS AND WRITING THEM TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I VSEN INSTALLATION DISK CREATED SUCCESSFULLY |                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INPUT COMMAND:<br>END<br>ICK00002I ICKDSF PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0<br>IDSK143I CREATING VSEN INSTALLATION DISK<br>IDSK000I VSEN INSTALLATION DISK TOOL 6.3.0<br>IDSK009I INITIALIZING<br>IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE<br>IDSK009I GENERATING BOOT RECORDS AND WRITING THEM TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I VSEN INSTALLATION DISK CREATED SUCCESSFULLY                                | ENTER INPUT COMMAND:<br>END                                                                                                                                                                                                                                                                                                                                                                             |
| ICK00002I ICKDSF PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0<br>IDSK143I CREATING VSEN INSTALLATION DISK<br>IDSK000I VSEN INSTALLATION DISK TOOL 6.3.0<br>IDSK009I INITIALIZING<br>IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE<br>IDSK009I GENERATING BOOT RECORDS AND WRITING THEM TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I VSEN INSTALLATION DISK CREATED SUCCESSFULLY                                                         | INPUT COMMAND:<br>END                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | ICK00002I ICKDSF PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0<br>IDSK143I CREATING VSEN INSTALLATION DISK<br>IDSK000I VSEN INSTALLATION DISK TOOL 6.3.0<br>IDSK009I INITIALIZING<br>IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE<br>IDSK009I GENERATING BOOT RECORDS AND WRITING THEM TO DISK<br>IDSK009I WRITING TAPE IMAGE TO DISK<br>IDSK009I VSEN INSTALLATION DISK CREATED SUCCESSFULLY |



#### More Information on VSEIDISK Utility



#### Executing VSEIDISK without any parameters will display the HELP of VSEIDISK utility

| COMMANDS VSEIDISKAll Help Informationline 1 of 143(c) Copyright IBM Corporation 2013, 2016(C) 21st Century Software, Inc. 2022            |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|--|--|--|--|--|
| VSEIDISK - VSEn Installation Disk Tool                                                                                                    |  |  |  |  |  |  |  |  |  |  |
| (1)<br>(                                                                                                                                  |  |  |  |  |  |  |  |  |  |  |
| Options:                                                                                                                                  |  |  |  |  |  |  |  |  |  |  |
| VOLID=VSENID<br>                                                                                                                          |  |  |  |  |  |  |  |  |  |  |
| >                                                                                                                                         |  |  |  |  |  |  |  |  |  |  |
| NOSCSI                                                                                                                                    |  |  |  |  |  |  |  |  |  |  |
| >                                                                                                                                         |  |  |  |  |  |  |  |  |  |  |
| PF1=    2= Top    3= Quit    4= Return    5= Clocate    6= ?      PF7=    Backward    8= Forward    9= PFkeys    10=    11=    12= Cursor |  |  |  |  |  |  |  |  |  |  |
| ====> Macro-read 1 File                                                                                                                   |  |  |  |  |  |  |  |  |  |  |



## New Installation (not FSU)



• Installing under VM, prior to IPLing from the install medium, remember to do:

#CP SET EC ON

#CP SET RUN ON

#CP SP RDR CONT EOF CLASS A

#CP DEF STOR <n>G

- #CP TERM CONM 3270 BREAKIN MINIMAL
- #CP DEF GRAF <cuu1>
- #CP DEF GRAF <cuu2>
- #CP DEF GRAF <cuu3>
- After fresh installation **re-IPL** is needed
- After install do not forget to do POST/BASE
- After hardware definition **re-IPL** is needed
- The IBM TCP/IP for z/VSE and IPv6/VSE keys, won't work with 21CS derivative products, so you will need to request new key from 21CS for the respective product.
- If Sub-Capacity License is agreed start CMT recording with // EXEC PROC=CMTSTART in USERBG.PROC or other jobs running after IPL.



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- Make sure that FSUPREP (FSU preparation step) is executed successfully before starting with FSU
- Backup your whole system
- For ENV C and when using VSAM for VTAPE you need a new disk to define a new user catalog that you will use to define enough space for the AWS file (250M)
  - To transfer the AWS file to a VSAM file you can use IND\$FILE or FTP







 VTAM no longer requires a license key. If you are upgrading using FSU change the EXEC card in your VTAM/VCDD start JCL from:// // EXEC ISTINCVT, SIZE=ISTINCVT, PARM='CUSTNO=XXXX-XXX-XXX, VTAMPW=nnnn-n\*

nnn-nnnn-nnnn',DSPACE=2M

• To

// EXEC ISTINCVT, SIZE=ISTINCVT, DSPACE=2M

- The IBM TCP/IP for z/VSE and IPv6/VSE keys, won't work with 21CS derivative products, so you will need to request new key from 21CS for the respective product.
- If Sub-Capacity License is agreed start CMT recording with // EXEC PROC=CMTSTART in USERBG.PROC or other jobs running after IPL.







## 21CS VSE<sup>n</sup> Misc.

21CS VSE<sup>n</sup> Team



#### Miscellaneous



- HMC login page doesn't show user messages in forced dark mode of chrome/Microsoft edge. Recommendation is not to use dark mode ☺
- HMC operation (for keyboard fans): The default in HMC dialog prompts are usually "No", so if you just hit enter with the keyboard the "No" option will be chosen, so make sure in HMC that you use your mouse
- IBM PCom (3270 client) session settings are very sensitive to space e.g.: 192.168.0.6 will work fine but 192.168.0.6\_ where \_=space will create problem
- Define more than one console units, as one unit will be in use throughout the installation.



#### Miscellaneous



- Always check for the presence of a Job in the Reader queue to avoid duplicate named jobs and releasing a wrong one in the process.
  - Ex: TCPIP00 if you are plan on submiting a customized one, delete the old one from the reader
- Linux fast path (routing TCP/IP to collocated Linux): Make sure you are using the right LFP socket id in the jobs that require LFP
- The default TAPESRVR job in the reader using socket ID 00. Catalog and load a new TAPESRVR with correct socket ID if your TCP/IP daemon is not using socket ID 00.
- When applying PTF via VTAPE, sometimes PTF is not read or console is waiting, then press enter on VTAPE server command prompt
- TAPESRVR should automatically terminate if no tape is mounted. Sometimes this might take a little longer to complete after the VTAPE STOP is issued. Refrain from issuing a VTAPE START on same unit till TAPESRVR is terminated.



# New commands if you were not already on IBM z/VSE 6.2 before

System setparm parameter with LPAR name

query setparm,system AR 0015 IJBVMID = VSE005 AR 0015 IJBLPNM = LP03

Timeout parameter for vtape VTAPE START, UNIT= ... TIMEOUT=10

 Specifies the maximum number of seconds that VTAPE command processing waits for the Tape Data Handler partition to become operational. n must be a decimal number in the range 1 - 900. If the TIMEOUT parameter is omitted, a default of 10 seconds is in effect.



#### POWER list sorted by size



#### PDISPLAY BIGGEST,LIMIT=nn

#### d biggest,limit=5

| AR | 0015 | 1C39I | COM | MAND PASS | ED TO V | VSE | En/ | POWER     |         |       |     |       |     |
|----|------|-------|-----|-----------|---------|-----|-----|-----------|---------|-------|-----|-------|-----|
| F1 | 0001 | 1R4BI | 005 | BIGGEST   | SORTED  | С   | Ι   | CARD/LINE | DBGP    | QNUM  | SUF | PAGES | QUE |
| F1 | 0001 | 1R4BI | 001 | VSAMINIT  | 00015   | A   | L   | 24808     | 0000015 | 00056 |     | 452   | LST |
| F1 | 0001 | 1R4BI | 002 | DFHDCTC2  | 00956   | Q   | L   | 2513      | 0000005 | 01820 |     | 62    | LST |
| F1 | 0001 | 1R4BI | 003 | DTSECTRC  | 01083   | Q   | L   | 2127      | 0000004 | 00007 |     | 53    | LST |
| F1 | 0001 | 1R4BI | 004 | ICCFREST  | 00013   | A   | L   | 2256      | 0000004 | 00048 |     | 71    | LST |
| F1 | 0001 | 1R4BI | 005 | CICSICCF  | 00021   | А   | L   | 2241      | 0000004 | 00069 |     | 39    | LST |

#### • Also available in IUI - FAST PATH 327



## **BIGGEST ENTRIES**



| TRABAUT                     |                                          | IESBQUB      | BIGG          | EST ENTRIES FOR | ALL QUEUES |             | Page 1 of |
|-----------------------------|------------------------------------------|--------------|---------------|-----------------|------------|-------------|-----------|
| IESEÕOI                     | MANAGE BATCH QUEUES                      |              |               |                 |            |             |           |
|                             |                                          | OPTIONS: 1   | I = DISPLAY   | 5 = DELETE 8    | = SEGMENT  | 9 = SEGMENT | IMMEDIATE |
| SELECT one of the following | :                                        |              |               |                 |            |             |           |
| QUEUE 7                     | 1 = List Queue                           | OPT JOBNAME  | NUMBER CL I C | ARD/LINE DBG    | P QNUM SFX | PAGES QUEU  | Е         |
|                             | 2 = Reader Queue                         |              |               |                 |            |             |           |
|                             | 3 = Punch Queue                          | _ MQ06DCT    | 15376 Q L     | 2775 000000     | 6 01834    | 63 LS       | Т         |
|                             | 4 = Transmit Queue                       | _ MQ06DCT    | 15384 Q L     | 2759 000000     | 6 01844    | 63 LS       | T         |
|                             | 5 = Wait for Run Subgueue                | _ MQ06DCT    | 15387 Q L     | 2985 000000     | 6 01848    | 69 LS       | T<br>_    |
|                             | 6 = In-Creation Oueue                    | _ CICSICCE   | 7 15411 A L   | 2400 000000     | 5 01881    | 40 CR       | E         |
|                             | 7 = Piggest Queue                        | _ CICSICCE   | 715406 A L    | 2178 000000     | 4 01832    | 39 LS       | T<br>     |
| apparpy action 11           | 7 - Biggest Queue                        | _ CICSICCE   | 7 15185 A L   | 2227 000000     | 4 01845    | 40 LS       | T         |
| SPECIFY optionally:         | (Only for selections 1 to 5)             | _ MQ07CSD    | 15429 Q L     | 2921 000000     | 2 01823    | 52 LS       | Т         |
| PREFIX                      | To list only jobs whose names begin      | _ MQ07CSD    | 15426 Q L     | 2920 000000     | 2 01835    | 52 LS       | Т         |
|                             | with certain characters                  | _ MQJCSD24   | 4 15416 Q L   | 2929 000000     | 2 01842    | 52 LS       | Т         |
|                             | (Only valid for selections 1 to 4 above) | _ MQJCSD24   | 4 15432 Q L   | 2344 000000     | 2 01850    | 43 LS       | Т         |
| CLASS                       | To list only jobs in a certain class     | _ STARTVCS   | S 00003 R R   | 10 000000       | 1 00002    | RD          | R         |
| USER                        | To list only this user's jobs            | _ TAPESRVE   | R 15512 R R   | 26 000000       | 1 00003    | RD          | R         |
| Or energify:                | (Only for selections 1 to 4)             | _ TCPIP00    | 00123 7 R     | 17 000000       | 1 00004    | RD          | R         |
| sopmen                      | (only for selections i to 4)             |              |               |                 |            |             |           |
| SORIED                      | i = oldest entry on top                  | PF1=HELP     | 2=REFRESH     | 3=END           | 4=RETURN   |             |           |
|                             | 2 = Newest entry on top                  |              | 8=FORWARD     |                 |            |             |           |
|                             | 3 = Earliest entry to expire on top      |              |               |                 |            |             |           |
| LIMIT                       | Number of sorted entries to be shown     | LOCATE JOBNA | AME ==>       |                 |            |             |           |
| DE4-UELD 0                  |                                          |              |               |                 |            |             |           |



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#### More Misc.



New OPTIONs to set return code if a job cancels

OPTION ABENDRC=n|NO OPTION CANCELRC=n|NO OPTION JCANCLRC=n|NO

With n=0,...,4095 and default NO With n=0,...,4095 and default NO With n=0,...,4095 and default NO

The operands are also valid for the STDOPT command



## Enhancements to VOLUME command



- Allow the word DISK to limit the output to disk units.
- Allow the display of a disk or tape unit by volume serial number.

VOLUME using option SERIAL=<volume identifier>

- Allow filtering INACTIVE / ACTIVE for device status
- Allow filtering USED/UNUSED for actual device usage



## Enhancements to VOLUME command (cont.)



| vo | lume | active |       |          |        |        |        |        |          |     |
|----|------|--------|-------|----------|--------|--------|--------|--------|----------|-----|
| AR | 0015 | CUU    | CODE  | DEVTYP   | VOLID  | USAGE  | SHARED | STATUS | CAPACITY |     |
| AR | 0015 | 181    | 5400  | VTAP-00  | *NONE* | UNUSED |        |        | N/A      |     |
| AR | 0015 | 182    | 5400  | VTAP-00  | *NONE* | UNUSED |        |        | N/A      |     |
| AR | 0015 | 183    | 5400  | VTAP-00  | V00016 | UNUSED |        |        | N/A      |     |
| AR | 0015 | 240    | 6E**H | 2107-900 | DOSRES | USED   |        |        | 3339     | CYL |
| AR | 0015 | 241    | 6E**H | 2107-900 | SYSWK1 | USED   |        |        | 3339     | CYL |
| AR | 0015 | 242    | 6E*BH | 2107-900 | VSE5W1 | USED   |        |        | 3339     | CYL |
| AR | 0015 | 243    | 6E*BH | 2107-900 | VSE5W2 | UNUSED |        |        | 3339     | CYL |
| AR | 0015 | 244    | 6E*BH | 2107-900 | PAVE03 | UNUSED |        |        | 10016    | CYL |
| AR | 0015 | 900    | 90    | 9336-10  | SYSWK4 | UNUSED |        |        | 6216     | BLK |
| AR | 0015 | FDF    | 90    | FBA0-00  | VDIDLA | USED   |        |        | 2880     | BLK |
| AR | 0015 | 11401  | REAI  | YC       |        |        |        |        |          |     |



## Enhancements to VOLUME command (cont.)



| vo | lume d | disk |        |          |        |        |        |        |          |     |
|----|--------|------|--------|----------|--------|--------|--------|--------|----------|-----|
| AR | 0015   | CUU  | CODE   | DEVTYP   | VOLID  | USAGE  | SHARED | STATUS | CAPACITY |     |
| AR | 0015   | 240  | 6E**H  | 2107-900 | DOSRES | USED   |        |        | 3339     | CYL |
| AR | 0015   | 241  | 6E**H  | 2107-900 | SYSWK1 | USED   |        |        | 3339     | CYL |
| AR | 0015   | 242  | 6E*BH  | 2107-900 | VSE5W1 | USED   |        |        | 3339     | CYL |
| AR | 0015   | 243  | 6E*BH  | 2107-900 | VSE5W2 | UNUSED |        |        | 3339     | CYL |
| AR | 0015   | 244  | 6E*BH  | 2107-900 | PAVE03 | UNUSED |        |        | 10016    | CYL |
| AR | 0015   | 900  | 90     | 9336-10  | SYSWK4 | UNUSED |        |        | 6216     | BLK |
| AR | 0015   | FDF  | 90     | FBA0-00  | VDIDLA | USED   |        |        | 2880     | BLK |
| AR | 0015   | 1I40 | I READ | ЭY       |        |        |        |        |          |     |



## Enhancements to VOLUME command (cont.)



| vol | .ume \ | /tape |        |          |        |        |         |        |          |     |
|-----|--------|-------|--------|----------|--------|--------|---------|--------|----------|-----|
| AR  | 0015   | CUU   | CODE   | DEVTYP   | VOLID  | USAGE  | MED-TYP | STATUS | POSITION |     |
| AR  | 0015   | 181   | 5400   | VTAP-00  | *NONE* | UNUSED |         |        | N/A      |     |
| AR  | 0015   | 182   | 5400   | VTAP-00  | *NONE* | UNUSED |         |        | N/A      |     |
| AR  | 0015   | 183   | 5400   | VTAP-00  | V00016 | UNUSED |         |        | N/A      |     |
| AR  | 0015   | 1I40] | C READ | ΟY       |        |        |         |        |          |     |
|     |        |       |        |          |        |        |         |        |          |     |
| vol | .ume ı | ised  |        |          |        |        |         |        |          |     |
| AR  | 0015   | CUU   | CODE   | DEVTYP   | VOLID  | USAGE  | SHARED  | STATUS | CAPACITY |     |
| AR  | 0015   | 240   | 6E**H  | 2107-900 | DOSRES | USED   |         |        | 3339     | CYL |
| AR  | 0015   | 241   | 6E**H  | 2107-900 | SYSWK1 | USED   |         |        | 3339     | CYL |
| AR  | 0015   | 242   | 6E*BH  | 2107-900 | VSE5W1 | USED   |         |        | 3339     | CYL |
| AR  | 0015   | FDF   | 90     | FBA0-00  | VDIDLA | USED   |         |        | 2880     | BLK |
| AR  | 0015   | 1I40] | C READ | ΟY       |        |        |         |        |          |     |



AR 0015 1I40I READY

#### Enhancements to VOLUME command (cont.)



|                      | volume serial=dosres |                |        |        |        |        |          |  |  |  |  |  |  |
|----------------------|----------------------|----------------|--------|--------|--------|--------|----------|--|--|--|--|--|--|
|                      | AR 0015 CUU          | CODE DEVTYP    | VOLID  | USAGE  | SHARED | STATUS | CAPACITY |  |  |  |  |  |  |
|                      | AR 0015 240          | 6E**H 2107-900 | DOSRES | USED   |        |        | 3339 CYL |  |  |  |  |  |  |
|                      | AR 0015 1I40         | I READY        |        |        |        |        |          |  |  |  |  |  |  |
|                      |                      |                |        |        |        |        |          |  |  |  |  |  |  |
| volume serial=V00016 |                      |                |        |        |        |        |          |  |  |  |  |  |  |
|                      | AR 0015 CUU          | CODE DEVTYP    | VOLID  | USAGE  | SHARED | STATUS | CAPACITY |  |  |  |  |  |  |
|                      | AR 0015 183          | 5400 VTAP-00   | V00016 | UNUSED |        |        | N/A      |  |  |  |  |  |  |







# IBM DL/I to 21CS HDB Upgrade



## IBM DL/I to 21CS HDB upgrade



- Assumptions for the starting environment:
  - IBM CICS TS / 21CS OLTP is currently configured to work with IBM DL/I
  - IBM DL/I deleted using the provided IBM DL/I DLZDLETE (delete) job
  - 21CS HDB installation will be done via 21CS VSE<sup>n</sup> IUI



## IBM DL/I to 21CS HDB upgrade (cont.)



- Recommended steps:
  - IBM CICS TS / 21CS OLTP is running
  - Remove IBM DL/I with the provided IBM DL/I DLZDLETE (delete) job
  - Install 21CS HDB via 21CS VSE<sup>n</sup> IUI (no IBM CICS TS / 21CS OLTP restart when DL/I is already removed but HDB is still not installed)
  - After the successful 21CS HDB installation, IBM CICS TS / 21CS OLTP can be restarted (if necessary)
- These steps are recommended because under some IBM DL/I-related IBM CICS TS / 21CS OLTP configurations, if IBM CICS TS / 21CS OLTP restarts right after removing IBM DL/I can lead to erroneous situations (including not working ICCF or even impossibility to (re)start the CICS).



## FSU using VTAPE over LFP



- Not a documented or recommended method.
- · If you don't have a tape library or enough space to put tape file into VSAM.
- Requirements
  - LFP
  - Append LIBDEF search chain for PHASE from LIBDEF.PROC to the following
    - Tape server job
    - LFP Startup job
- Use these jobs at Stage-2 of FSU Installation (After IPL from SYSWK1)







# Introduction of SDB Server for VSE<sup>n</sup> 7.6 and Upgrade

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- Introduction of SDB
- Difference Between DB2 and SDB
- Upgrade an Existing Database (SQL/DS or DB2) To SDB
- Contact Us



#### Introduction of SDB



- SDB Stands for SQL (Structured Query Language) Database.
- SDB is a RDBMS (Relational Database Management System)
- It is used to store, manage, query and retrieve the data stored in a relational database.
- It provides an interface between the user applications and the database.



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## Differences Between DB2 and SDB



- The functionality of DB2 Sever 7.5 for z/VSE and SDB Server for VSEn 7.6 are same except that the key enablement process is not needed in SDB server for VSEn 7.6
- The product name and version number are changed as below
  - SDB server for VSEn 7.6.0
  - SDB Client Edition for VSEn 7.6.0
- PRD2.SDB760 is the default installation library of SDB Server for VSEn 7.6.0
- PRD2.SDB760C is the default installation library of SDB Client for VSEn 7.6.0
- Product key validation is removed from SDB Server for VSEn 7.6.0



## Upgrading an Existing Database



| The f | ollowing versions of SQL/DS ( | or DB2 can | n be upgraded | to SDB |
|-------|-------------------------------|------------|---------------|--------|
| Serve | r for VSEn Version 7 Release  | 6.         |               |        |
| • Ver | sion 7 Release 5              |            |               |        |
| • Ver | sion 7 Release 4              |            |               |        |
| • Ver | sion 7 Release 3              |            |               |        |
| • Ver | sion 7 Release 2              |            |               |        |
| • Ver | sion 7 Release 1              |            |               |        |
| • Ver | sion 6 Release 1              |            |               |        |
| • Ver | sion 5 Release 1              |            |               |        |
| • Ve  | rsion 3 Release 5             |            |               |        |
| • Ve  | rsion 3 Release 4             |            |               |        |
| • Ve  | rsion 3 Release 2             |            |               |        |
| • Ve  | rsion 3 Release 1             |            |               |        |
| L     |                               |            |               |        |







- Before you upgrade the database, you should have at least 4 dbspace blocks available in the DB2 Server for VSE directory
   To verify the number of 'DBSPACE SPACE BLOCK LEFT', start the application server and enter the following operator command.

  SHOW DBCONFIG
  Each storage pool in the existing database should be used less than 90%
   To find the state of your storage pools, start the application server in multiple user mode and enter the following operator command.

  SHOW POOL SUMMARY
   Check the veloce service with DATE and TIME in CYCLEM CYCOPTIONS by includes
  - Check the values associated with DATE and TIME in SYSTEM.SYSOPTIONS by issuing the following command from ISQL:

SELECT \* FROM SYSTEM.SYSOPTIONS

Values should be set to ISO during Upgrade.



## Upgrade Step 2: Archiving a Database



Upgrade Step 2: Archiving a Database Archive your database by issuing the following operator command: SQLEND ARCHIVE

- Before doing Upgrade Step 3, you need to re-catalog the following procedures into the installation library PRD2.SDB760
  - ARISrnDB Procedure with existing database identification labels
  - ARIS**rn**SL Procedure which includes library search path for an existing database
  - where **rn** indicates the release number of the earlier release
  - Example : ARIS75DB and ARIS75SL if your existing database is DB2 server for VSE 7.5.0



### Upgrade Step 3, 4 & 5



#### Upgrade Step 3: Prepare the Database for Upgrade

- Job name is ARIS76ND
- This job does the following
  - Reset the logmode to Y
  - Reset the password for SQLDBA to SQLDBAPW which is the default password

#### Upgrade Step 4: Upgrade the DBNAME Directory

- · Job name ARISBDID
- ARISBDID job upgrades previous versions of the Dbname Directory source file (originally 'ARISDIRD.A') to the restructured Directory source format

#### Upgrade Step 5: Format the SDB Server for VSEn Logs

- · Job name is ARIS760D
- · If you did not run ARIS76OD job, you may have problems later when you restore database archives



### Upgrade Step 6, 7 & 8



#### Upgrade Step 6: Update the SDB Server for VSEn Catalog to the 7.6 Level

- · Job name is ARIS76PD
- This step is mandatory if you are upgrading a database from Version 5.1 or prior to Version 5.1
- Do not execute this step if you are upgrading a database from Version 6.1 or later
- ARIS76PD updates the system catalog

#### Upgrade Step 7: Reload the DBS Utility Package

- · Job name is ARIS76QD
- This job creates the DBS utility package (SQLDBA.ARIDSQL) in the database for SDB Server for VSEn Version 7 Release 6

#### Upgrade Step 8: Update the SDB Server for VSEn Database

- · Job name is ARIS76RD
- The ARIS76RD job does the following:
  - Grants SELECT authority for the system catalog to PUBLIC.
  - Grants CONNECT authority to ALLUSERS.
  - Updates SYSTEM.SYSOPTIONS.



## Upgrade Step 8 (Continued)



- Loads tables for CCSID support
- Builds the following sample tables:
  - DEPARTMENT
  - EMPLOYEE
  - PROJECT
  - ACTIVITY
  - EMP\_ACT
  - PROJ\_ACT
  - INVENTORY
  - SUPPLIERS
  - QUOTATIONS
  - PROJECTS
  - OPERATION



#### Upgrade Step 9, 10 & 11



#### Upgrade Step 9: Upgrade the HELP Text Tables

- Job name is ARIS76SD
- ARIS76SD upgrades existing HELP Text tables from a previous DB2 version to SDB Server for VSEn Version 7 Release 6

#### Upgrade Step 10: Reload English HELP Text into a Database

- · Job name is ARIS76TD
- This step is optional
- This job reloads the default version (American English) of the version 7 release 6 HELP Text into the database
- To Install Language , run ARIS76JZ job

#### Upgrade Step 11: Reload ISQL into a Database

- · Job name is ARIS76LZ
- If the database does not contain the ISQL facility, skip this step
- This job reloads the ISQL package in the database by running the application server in single user mode



## Upgrade Step 12, 13 & 14



#### Upgrade Step 12: Reload CCSID-Related Phases Package

- Job name is ARIS76WD
- This job reloads the CCSID-related phases package in the database by running the application server in single user mode

#### Upgrade Step 13: Load FIPS Flagger into a Database

- · Job name is ARIS76KZ
- This step is optional
- This job loads the FIPS flagger package in the database by running the application server in single user mode

#### Upgrade Step 14: Determine the Primary Keys to be Recreated

- · Job name is ARIS761D
- This step is optional
- If you are upgrading a database from SQL/DS Version 3 Release 1 or Version 3 Release 2, you should run this step
- This Job will list all the primary keys created in SQL/DS Version 3 Release 1 and Version 3 Release 2 which should be dropped and recreated after upgrading to SDB Server for VSEn Version 7 Release 6



## Upgrade Step 15, 16, 17 & 18



#### Upgrade Step 15: Revoke CONNECT Authority from ALLUSERS

- Job name is ARIS76MZ
- This step is optional
- In "Upgrade Step 8: Update the SDB Server for VSEn Database", member ARISCTM granted CONNECT authority to ALLUSERS, which can be revoked using ARIS76MZ job

#### Upgrade Step 16: Reset the Password for User SQLDBA

- · Job name is ARIS76NZ
- To set up a new password for the user SQLDBA

#### Upgrade Step 17: Start the Application Server in multiple user mode

• Job name is ARIS76GZ

#### Upgrade Step 18: Create CCSID-Related Phases

- · Job name is ARISCNVD
- This step must be executed while the database server is active



#### Upgrade Step 19: System Customization Activities



- Rebind your application program packages using the REBIND PACKAGE DBS utility command
- Drop and recreate any EXPLAIN tables that were created in a previous release. You can use the A-type source member ARISEXP to help you do this.



## STACK/STACKP



- Enables you to prepare a sequence of commands and/or replies, give it a name and have this
- sequence executed whenever that name is being entered or submitted as a command.
- Enables you to suppress or change any VSEn command.
- Enables you to abbreviate long VSEn commands to just a few characters.
  - STACK SHUT | MSG F2, D=CEMT P SHUT I | Z NET, QUICK | PEND
  - STACK LIBR R RDR, PAUSEBG 0 EXEC LIBR
  - STACK DELLIB|LIBR|0 DEL S=&0|0 END|0



#### STACK/STACKP



- STACK Commands are stored into storage, thus are volatile.
- STACKP Commands are written onto CKD device used on last IPL.
- STACKP will not work on FBA devices
- The name of the command should not be a shorter substring of any command names already in stack
  - STACK LIBR
  - STACK LD
  - − STACK LI → STACK LI will replace LIBR command

Right way:-

- STACK LI
- STACK LD
- STACK LIBR



## DTRIATTN



Allows you to execute AR commands and commands defined using STACK from a JCL.

- // EXEC DTRIATTN,PARM='MSG F2,DATA=CEMT SET PROG(IESRESTO) NEWCOPY'
- // EXEC DTRIATTN, PARM='STACK SHUT|MSG F2, D=CEMT P SHUT I|Z NET, QUICK|PEND'



#### Contact Us



# To learn more about VSEn Products, Please contact us under email <u>vse@21csw.com</u>





# Q & A



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# Thank you!