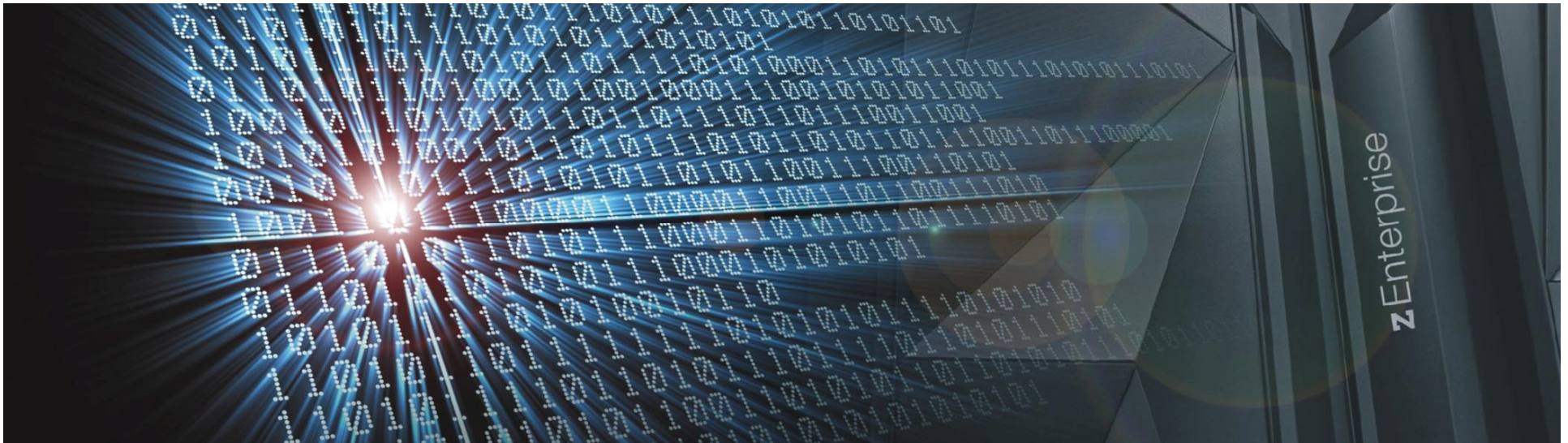


Tape-less z/VSE installation

Marco Kroll



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

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Tape-less z/VSE installation

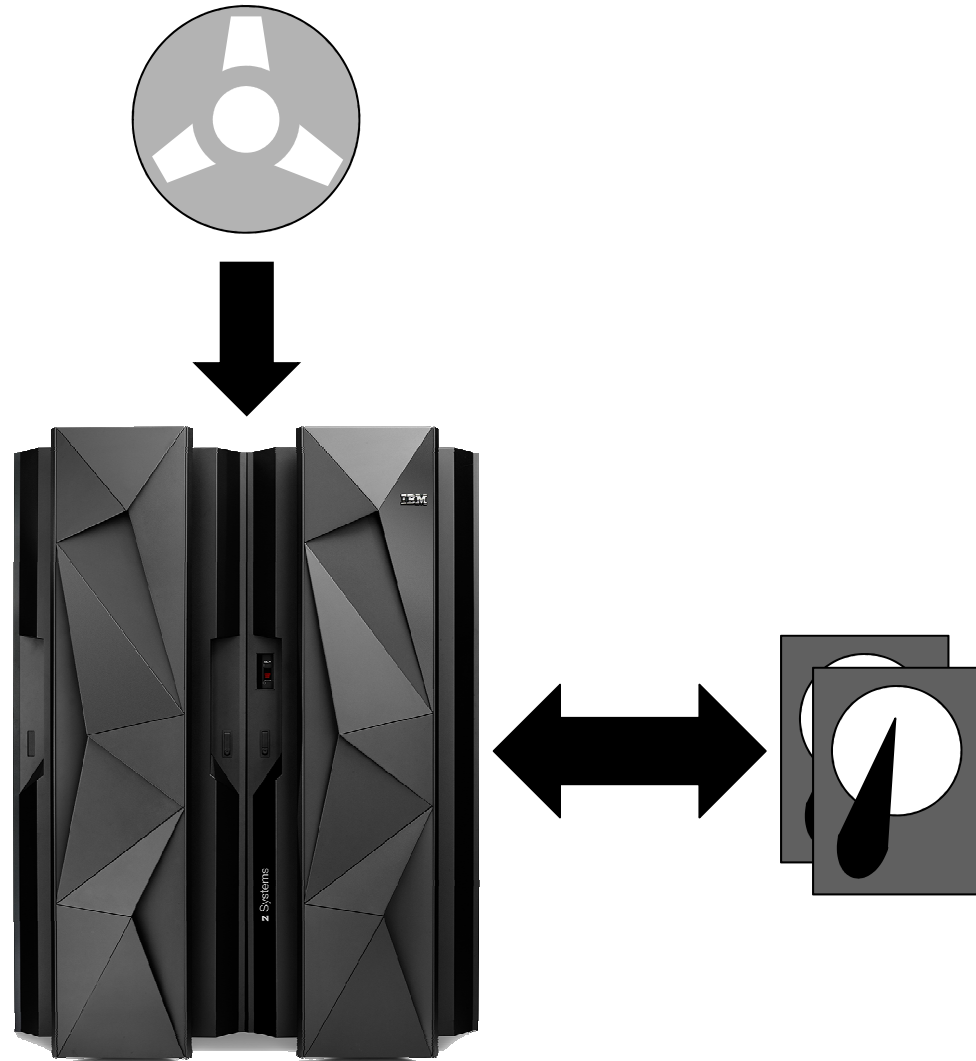
- Introduction to Tape-less z/VSE installation
- LPAR & z/VM setup
- Demo
- Pitfalls

Introduction

Tape-less z/VSE installation

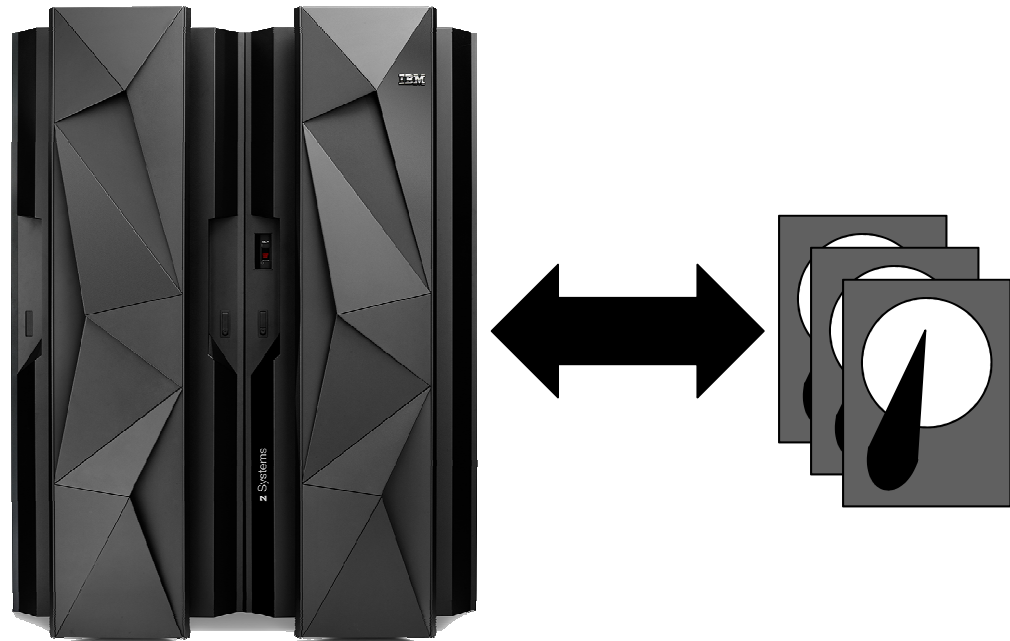
Installation with AWS and tape

- Send someone to the tape drive...
- Insert tape
- Copy AWS image to tape
- (Mount tape in different drive)
- IPL from tape



Installation with AWS and disk

- ~~Send someone to the tape drive...~~
- ~~Insert tape~~
- Copy AWS image *and VSEIDISK tool* to VM / FTP
- ~~(Mount tape in different drive)~~
- *Execute VSEIDISK tool (VM only)*
- IPL from disk



VSEIDISK in detail

What happens when VSEIDISK executes:

1. Run ICKDSF
 - Update VTOC, Owner & VOLID
 - Erase disk (optional)
2. Execute VSEIDISK (module)
 - Verify various input parameters
 - Write IPL records to disk
 - Write AWS tape to disk

LPAR setup

How to setup your LPAR to use VSEIDISK

VSEIDISK in LPAR

Upload the necessary files to an FTP (or DVD) (replace xxx with correct version):

- VSExxxEN.AWS
- VSExxxEND.INS
- VSExxxEND.LP
- VSExxxENID.INS
- VSExxxENID.LP
- VSExxxENI.INS
- VSExxxENI.LP
- VSExxxEN.INS
- VSExxxEN.IPL
- VSExxxEN.PSW

VSEIDISK in LPAR

- Locate your LPAR
- Select *Load from Removable Media or Server*

The screenshot shows the IBM System Management console interface. The breadcrumb navigation is "System Management > GRY2 > Partitions > GRY2LP51". The "Partition Resources" tab is selected, showing a table with the following data:

Select	Name / ID	Associated Channels	Status	State	Type	Description
<input type="checkbox"/>	CHPIDs		Exceptions			All Channel Path Identifiers of the Logical Partition
<input type="checkbox"/>	Cryptos		Exceptions			All Crypto Channels of the Logical Partition

Below the table, the status is "Max Page Size: 500 Total: 2 Filtered: 2 Selected: 0".

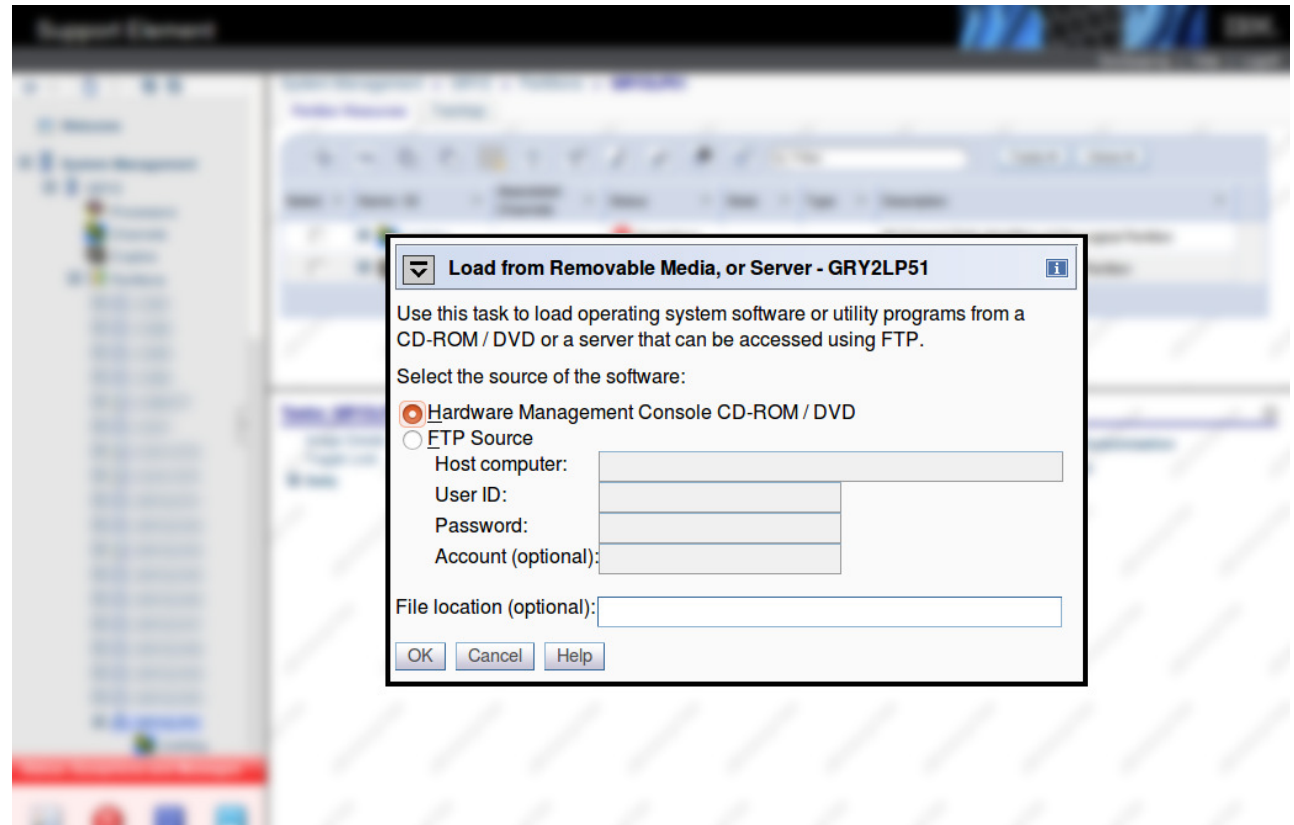
The "Tasks: GRY2LP51" section is expanded, showing the following options:

- Image Details
- Toggle Lock
- Daily
 - CPC Recovery
 - Load from Removable Media or Server
 - Reset Clear
 - Start All
 - Stop All
 - Service
- CPC Operational Customization
- CPC Configuration

A red status bar at the bottom indicates "Status: Exceptions and Messages".

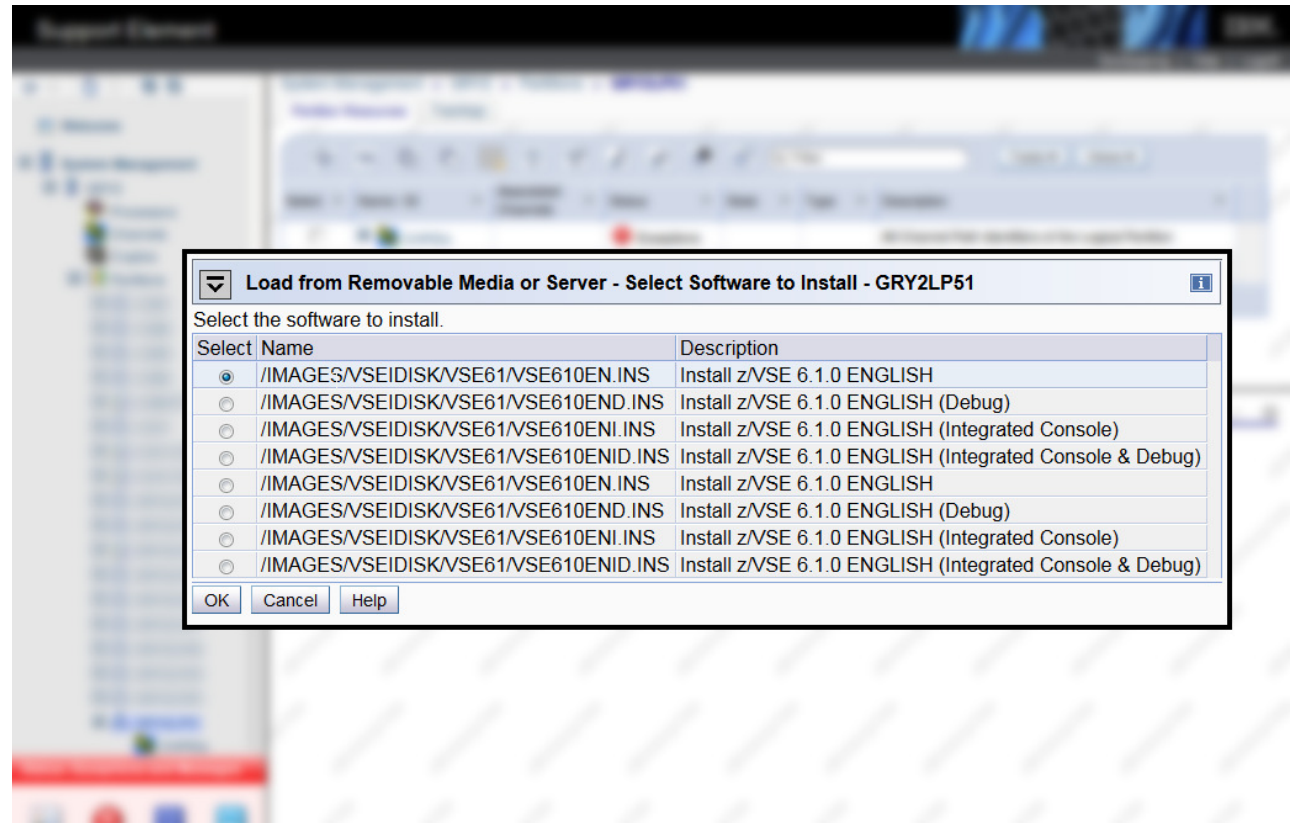
VSEIDISK in LPAR

- Locate your LPAR
- Select *Load from Removable Media or Server*
- Enter your source



VSEIDISK in LPAR

- Locate your LPAR
- Select *Load from Removable Media or Server*
- Enter your source
- Select the INS file



VSEIDISK in LPAR

- Locate your LPAR
- Select *Load from Removable Media or Server*
- Enter your source
- Select the INS file
- Dial into LPAR
- Answer Questions

```

SYSTEM:  z/VSE                z/VSE 6.1                TURBO (01)                USER:  SYS
                                           TIME:  18:16:37

BG-0000 SI40D ENTER VOLID OF THE INSTALLATION DISK. DEFAULT IS 'ZVSEID'
0
BG-0000 SI41D ENTER PCUU OF ZVSEID
0 9B2D
BG-0000 SI45D DO YOU WANT TO CONTINUE WITH CREATION OF INSTALLATION DISK
PCUU=9B2D, CURRENT VOLID=ZVSEID (YES/NO) ?
0 yes
BG 0000 SI20I FORMATTING OF ZVSEID IN PROGRESS
BG 0000 IDSK000I Z/VSE INSTALLATION DISK TOOL 6.1.0
BG 0000 IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE ...
BG 0000 IDSK009I EXTRACTING BOOT PHASE AND WRITING IT TO DISK ...
BG 0000 IDSK009I GENERATING BOOT RECORDS AND WRITING THEM TO DISK ...
BG 0000 IDSK009I WRITING TAPE IMAGE TO DISK ...
BG 0000 IDSK009I Z/VSE INSTALLATION DISK CREATED SUCCESSFULLY
BG 0000 SA17W ***** END OF STAND ALONE PROCESSING *****

=>

1=HLP 2=CPY 3=END 4=RTN 5=DEL 6=DELS 7=RED 8=CONT 9=EXPL 10=HLD 11=PCUU 12=RTRV

ACT_MSG: HOLDRUN                PAUSE: 01  SCROLL: 1                MODE:  CONSOLE
4B                                GRY25109                020/006

```

z/VM setup

How to setup your z/VM to use VSEIDISK

VSEIDISK in z/VM

Upload and reblock the necessary files (replace xxx with correct version):

- VSEIDISK EXEC
- VSEIDISK MODULE
- VSEIDISK HELPCMS
- VSExxxEN AWS

```

VSEH10  FILELIST A0  V 169  Trunc=169  Size=72  Line=1  Col=1  Alt=0
Cmd  Filename  Filetype  Fm  Format  Lrecl  Records  Blocks  Date  Time
VSETAPE  AWS  B1  V  8192  33054  66123  7/04/16  22:08:07
VSEIDISK MODULE  B1  V  65535  4  27  7/04/16  22:08:07
VSEIDISK HELPCMS  B1  F  80  154  4  7/04/16  22:08:07
VSEIDISK EXEC  B1  F  80  703  14  7/04/16  22:08:07

1= Help      2= Refresh  3= Quit    4= Sort(type)  5= Sort(date)  6= Sort(size)
7= Backward  8= Forward  9= FL /n  10=           11= XEDIT/LIST 12= Cursor

====>
4A XEDIT 1 File
023/007

```


VSEIDISK in z/VM

VSEIDISK in action, preparing the target device

```
VSEIDISK VSETAPE AWS B 0600
IDSK151D REPLY 'CONTINUE' TO ALTER DASD 0600, ELSE 'CANCEL'
continue
IDSK141I FORMATTING Z/VSE INSTALLATION DISK ...
ICKDSF - CMS/XA/ESA DEVICE SUPPORT FACILITIES 17.0          TIME: 22:09:16
          07/04/16      PAGE    1

ENTER INPUT COMMAND:
  INIT UNIT(0600) -
ENTER INPUT COMMAND:
  NOVERIFY -
ENTER INPUT COMMAND:
  VSEVTOC(0,14,1) -
ENTER INPUT COMMAND:
  VOLID(ZVSEID)
ICK00700I DEVICE INFORMATION FOR 0600 IS CURRENTLY AS FOLLOWS:
          PHYSICAL DEVICE = 3390
          STORAGE CONTROLLER = 3990
          STORAGE CONTROL DESCRIPTOR = E9
          DEVICE DESCRIPTOR = 0A
          ADDITIONAL DEVICE INFORMATION = 4A001F3C
          TRKS/CYL = 15, # PRIMARY CYLS = 3339

4A MORE... BOEHEVSE
      023/001
```

VSEIDISK in z/VM

Volume information updated, tape image gets written to disk

```
ICK04000I DEVICE IS IN SIMPLEX STATE
ICK00703I DEVICE IS OPERATED AS A MINIDISK
ICK00091I 0600 NED=002107.900.IBM.75.00000000BDN81
ICK091I   0600 NED=002107.900.IBM.75.00000000BDN81
ICK03091I EXISTING VOLUME SERIAL READ = ZVSEID
ICK003D REPLY U TO ALTER VOLUME 0600 CONTENTS, ELSE T
U
ICK01314I VTOC IS LOCATED AT CCHH=X'0000 000E' AND IS      1 TRACKS.
ICK00001I FUNCTION COMPLETED, HIGHEST CONDITION CODE WAS 0
          22:10:02      07/04/16

ENTER INPUT COMMAND:
END

ICK00002I ICKDSF PROCESSING COMPLETE. MAXIMUM CONDITION CODE WAS 0
IDSK143I CREATING Z/VSE INSTALLATION DISK ...
VSEIDISK VSETAPE.AWS.B 0600 CKD
IDSK000I Z/VSE INSTALLATION DISK TOOL 6.1.0
IDSK009I INITIALIZING ...
IDSK009I VALIDATING TAPE IMAGE VERSION AND RELEASE ...
IDSK009I GENERATING BOOT RECORDS AND WRITING THEM TO DISK ...
IDSK009I WRITING TAPE IMAGE TO DISK ...

RUNNING BOEHEVSE
4A 023/001
```

VSEIDISK in z/VM

Finished

```
IDSK009I Z/VSE INSTALLATION DISK CREATED SUCCESSFULLY  
Ready; T=0.07/0.17 22:10:14
```

4A

RUNNING BOEHEVSE
023/001

Demo

VSEIDISK in action, live

Pitfalls

Anything that can go wrong, will go wrong.
Murphy's law

Pitfalls

- Wrong upload
- Wrong version
- Full disk
- Wrong disk

```

VSEH10  FILELIST A0  V 169  Trunc=169  Size=72  Line=1  Col=1  Alt=0
Cmd  Filename  Filetyp  File  Format  Lrecl  Records  Blocks  Date  Time
VSETAPE  AWS      B1 F      80      3400276  64020  7/04/16  22:08:07
VSEIDISK HELPCMS B1 F      80      154      4  7/04/16  22:08:07
VSEIDISK EXEC    B1 F      80      703     14  7/04/16  22:08:07
VSEIDISK MODULE  B1 V     65535    4       27  7/04/16  22:08:07

1= Help      2= Refresh  3= Quit    4= Sort(type)  5= Sort(date)  6= Sort(size)
7= Backward  8= Forward  9= FL /n  10=          11= XEDIT/LIST 12= Cursor

====>
4A XEDIT 1 File
023/007

```

Resources

Recommend literature:

- z/VSE V6R1 Installation:
<http://publibfp.dhe.ibm.com/epubs/pdf/iesist90.pdf>
- z/VSE Documentation website:
<https://www-03.ibm.com/systems/z/os/zvse/documentation/>

Thank You

Questions



Please forward your questions or remarks to
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