

Hints & Tips for 21CS VSEⁿ

21CS VSEⁿ Team
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Agenda

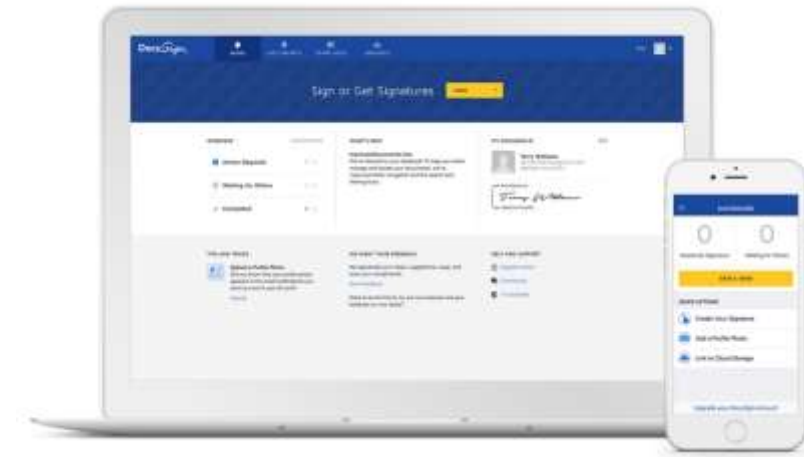


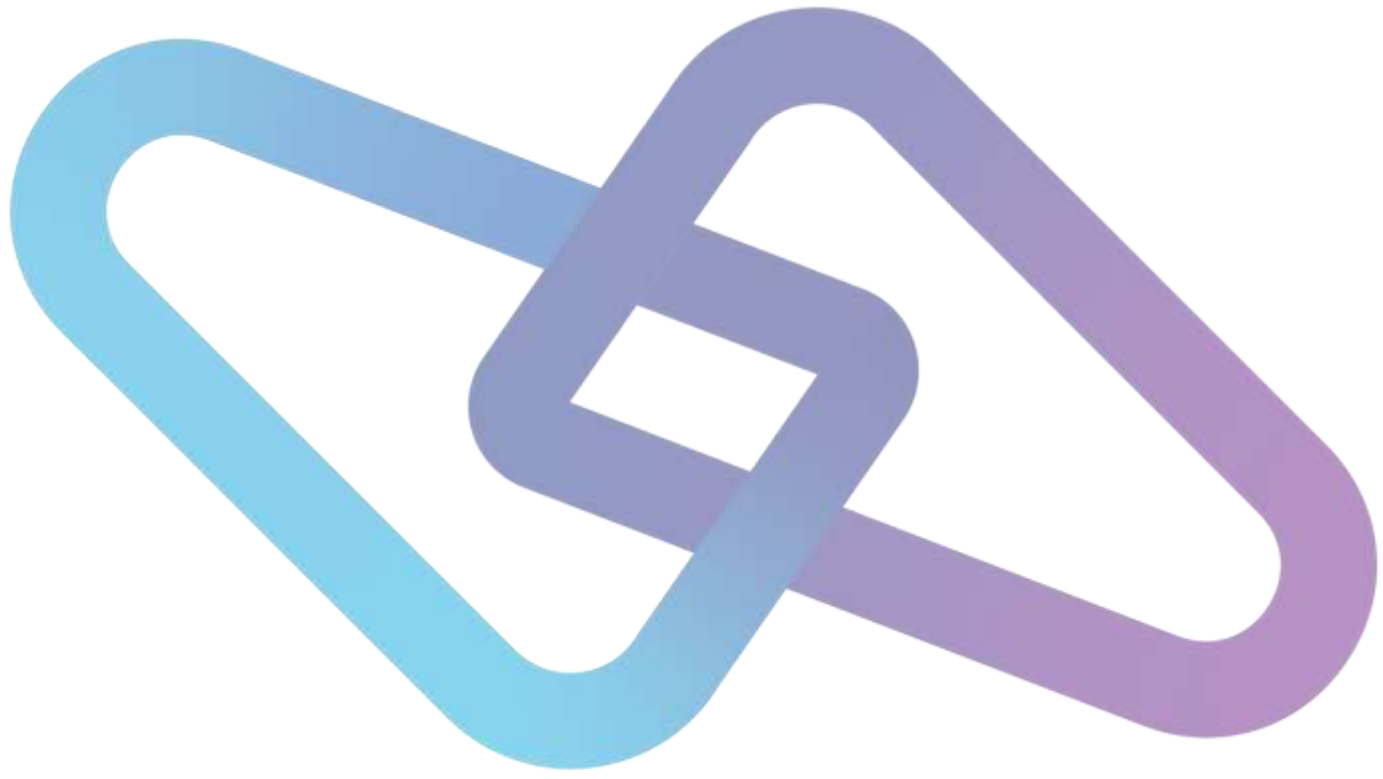
- Ordering
- Documentation: PDF Catalogs
- FSU to VSEn
- VSEn Service: RSLs and PTFs
- VSEn POWER: files extension
- Miscellaneous topics

Ordering requirements: contracts signed via DocuSign



- There are 2 documents to be reviewed and signed:
 - 21CS Customer Relationship Agreement
 - 21CS Product Order License Information Attachment
- For customers in the USA, it will be triggered by Al Hanna and you will get an email from:
 - „Al Hanna via DocuSign“
 - DocuSign NA3 System dse_NA3@docusign.net
- For customers outside of the USA, it will be triggered by Tiffani Corbin and you will get an email from:
 - „Tiffani Corbin via DocuSign“
 - DocuSign EU System dse@eumail.docusign.net
- If after being notified that it has been triggered, you do not find the above email in your Inbox, please check your spam/junk mail folder





21CS VSEⁿ PDF Catalogs

The fastest way to find
what you are looking for

Agenda



- What is a PDF Catalog?
- Benefits of Searching an Index
- Where to find the 21CS PDF Catalog
- Searching the PDF Index
- Search Results



What is a PDF Catalog?

A PDF catalog is a group of PDF files, that contains a common index. 21CS provides its collected technical documentation this way.

A PDF catalog contains:

- A **PDX** file which contains the index of PDF documents and folders that contain documents.
- A folder with **IDX** files which contain the actual index entries.

Benefits of Searching an Index



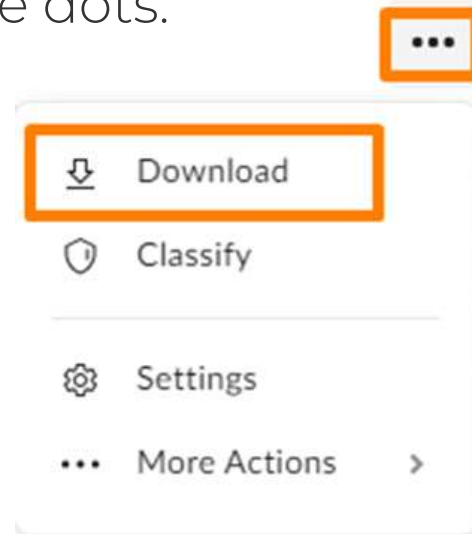
- Significantly **faster** than a full text search of every single PDF document.
- A list of results with **direct links** to the references in all the indexed documents.

Where to find the 21CS PDF Catalog

Find the Adobe Acrobat Indexed folder in your Box under 01 - Documentation.



To download click on the three dots:



Searching the PDF Index

1. Download and extract (zip file) the folder provided in Box.
To search a PDF index, Acrobat needs to be opened as a standalone application, not within a web browser.
2. Open the PDX file.

Programs that allow opening Adobe Acrobat index files with the extension pdx:

Freeware: Adobe Reader

Commercial: Adobe Acrobat

A screenshot of the Adobe Acrobat search dialog box. The window title is 'Search' and it shows 'Saved to this PC'. The dialog has a section for 'Arrange Windows' and a question 'Where would you like to search?'. There are three radio button options: 'In the current document', 'All PDF Documents in', and 'In the index named Adobe Acrobat Indexed_18_10_2023.pdx'. The third option is selected. Below this is a dropdown menu showing 'Eigene Dokumente'. Underneath is a text input field for 'What word or phrase would you like to search for?'. There are four checkboxes: 'Whole words only' (checked), 'Case-Sensitive', 'Include Bookmarks', and 'Include Comments'. A 'Search' button is at the bottom right. At the very bottom, there are two links: 'Show More Options' and 'Find a word in the current document'.

Search Results



- Result within seconds.
- List of directly linked references in the indexed manuals.
- Refine the search within the result.

The screenshot shows a search window in Adobe Acrobat with the following details:

- Looking For: **SYSWK1** in the index named **Adobe Acrobat Indexed_10_10_2023.pdf**
- Results: **26 document(s) with 370 instances(s)**
- Sort by: Relevance Rank
- Collapse file paths

The search results list includes:

- e-business Connectors User's Guide
- Guide to System Functions
- VSE/ICCF Administration and Operation
- Messages and Codes Volume 1
- Operation
 - SYSWK1 VSE System Utilities VSE Libraries Librarian BACKUP** (highlighted)
- Program Directory
- Using the Sub-Capacity Reporting Tool
- System Control Statements
- System Utilities
- TCP/IP Support
- VSE/POWER Administration and Operation Version 9 Release 5

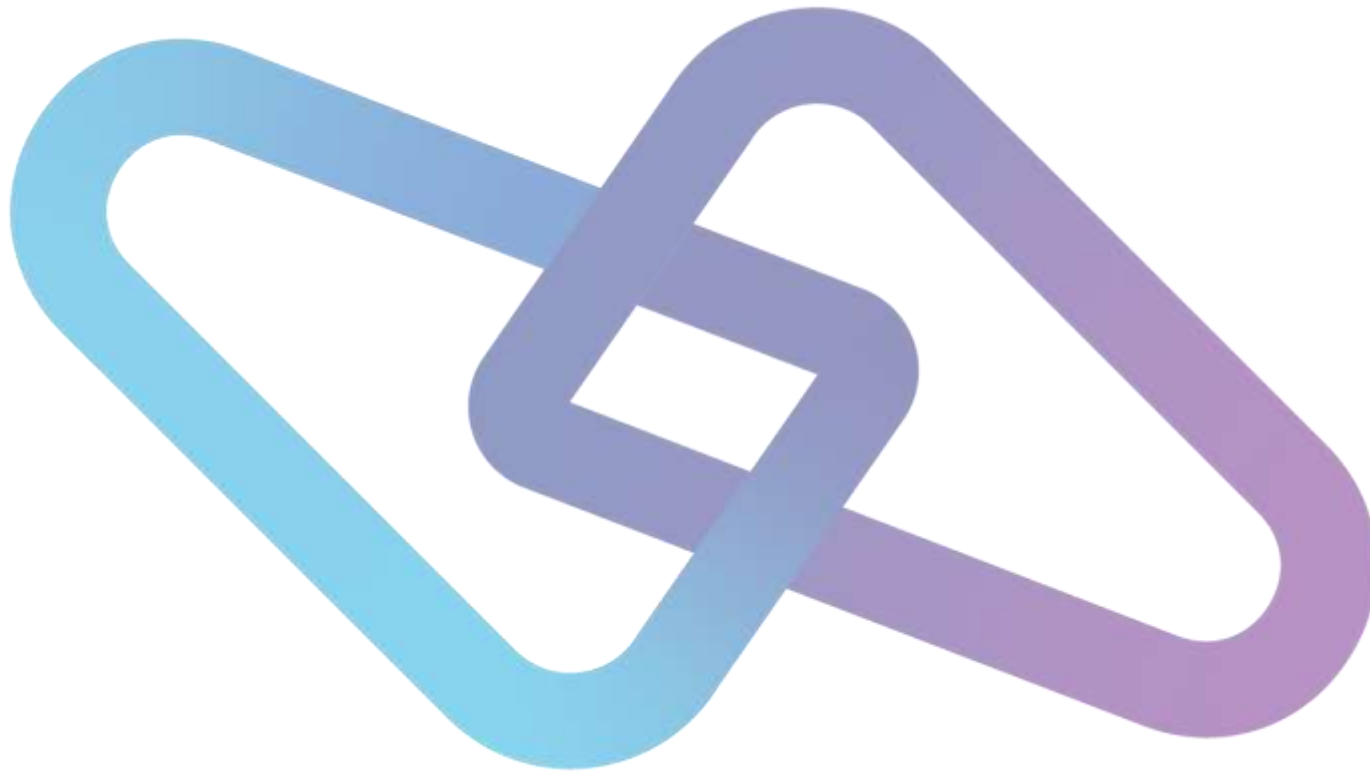
Below the search results is a table titled "Table 10: Overview on Programs for Saving/Restoring Data".

Kind of data	Backup	Restore	Reorganize	Recommended	Where described
Total volumes (for example, DOSRES, SYSWK1)	VSE [®] Fast Copy	VSE [®] Fast Copy	(see Note)	VSE [®] Fast Copy or dialog	VSE [®] System Utilities
VSE [®] libraries	Librarian BACKUP [®]	Librarian RESTORE	Librarian BACKUP/RESTORE	Librarian or Interactive User Interface dialogs	VSE [®] Guide to System Functions VSE [®] System Control Statements
Non-VSE [®] /VSAM data	VSE [®] Fast Copy	VSE [®] Fast Copy	-	VSE [®] Fast Copy	VSE [®] System Utilities
VSE [®] /VSAM data	VSE [®] /VSAM, Backup	VSE [®] /VSAM, Restore	VSE [®] /VSAM, Export and Import	VSE [®] /VSAM, Backup/Restore or Interactive User Interface dialogs	VSE [®] /VSAM Commands VSE [®] Administration
VSE/ICCF libraries	DTSUTIL, Backup	DTSUTIL, Restore	DTSUTIL, Backup Format and restore	DTSUTIL or dialog	VSE/ICCF Administration and Operation
VSE/POWER queue	POFFLOAD, SAVE	POFFLOAD, LOAD	-	POFFLOAD	VSE/POWER Administration and Operation
SQUIDS	ARCHIVE	ARCHIVE	-	ARCHIVE	VSE [®] Administration
HDB for VSE [®]	IMAGE COPY	IMAGE COPY	Reorganization UNLOAD and RELOAD	HDB for VSE [®]	HDB for VSE [®] Resource Definition and Utilities
System History File	MSHP or Fast Copy	MSHP or Fast Copy	-	MSHP or dialog	VSE [®] System Control Statements

Note: Reorganizing data means a change of the physical arrangement of data to obtain a better correspondence of physical and logical structures in order to speed up access and to utilize storage more efficiently. The Fast Copy parameter REORGANIZE only relocates a file and does not rearrange data in general.



FSU to VSEn



- If you plan to install VSEⁿ on a system that is capable of reading tape images in virtual tape format, you do not need to copy the image to a real tape or VSEⁿ/VSAM. Otherwise, you can:
 - Use a “real” tape: Create a TAPE from the *VSEnvrn.AWS* file.
 - Mount an AWS image via VSEⁿ Virtual Tape Support
 - tape-to-tape utility (SMDMU)
 - Install/upgrade from DASD using VSAM: Transfer the RSL into VSAM dataset.
 - Allocate VSAM with skeleton SKVTAPE (ICCF library 59)
 - Transfer the AWS file to VSAM via SMDMU, IN\$FILE, LFP or FTP (V, LRECL=32758).
- For more information about this topic, please refer to the **VSEⁿ Version 6 Release 3 System Upgrade and Service** manual.



FSU (cont.)

- Make sure that FSUPREP (FSU preparation step) has run successfully before starting with FSU
- Do a backup :)
- VTAM no longer requires a license key: remove it from the the EXEC card in your VTAM/VCDD start JCL

```
// EXEC ISTINCVT, SIZE=ISTINCVT, PARM='CUSTNO=xxxx-xxx-xxxx, VTAMPW=nnnn-n*  
nnn-nnnn-nnnn-nnnn', 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, if you had it before, it will still be there after FSU, so no change needed.

ESM and FSU

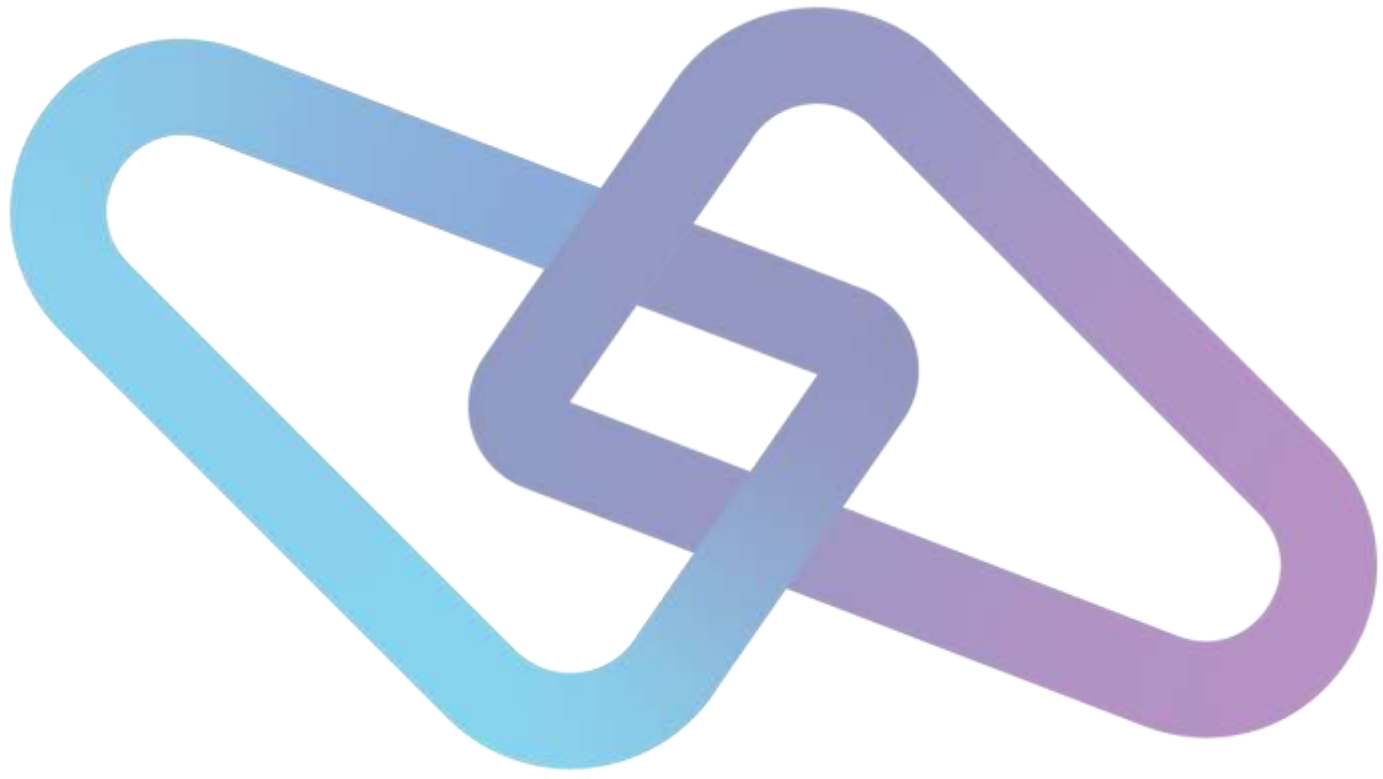


- Please remove “*SYS ESM = xxx*” from the stage 2 FSU IPL procedure before the reipl from SYSWK1.
 - If you don’t use IUI, please make sure that you removed it from IPL proc in both IJSYSRS.SYSLIB and PRD2.SAVE.
- Top secret APAR’s for VSEn:
 - **LU06593** ESIVSE --> for TSS Common Component
 - **LU06484** ENF/CIS --> for TSS Common Component

VSEn 6.3.0 vs VSEn 6.3.1



- With VSEn 6.3.1, SMDMU is now included in base (PRD1.BASE)
 - If you're updating from VSEn 6.3.0 and SMDMU installed as an optional product, SMDMU files (from PRD2.PROD) should be removed before or after FSU using the DITDELV.A job (files only, FSU will take care of MSHP entry)
- First RSL is included in 6.3.1 (so less PTFs to apply).



21CS VSEⁿ APARs, PTFs and RSLs

Getting APARs, PTFs and RSLs



- The person(s) nominated by the customer will get a Box invitation to the folder “21CS VSEn Stack APARs PTFs RSLs for <customer name>” with the existing 21CS VSEⁿ Stack APARs/PTFs, RSLs and excel spreadsheet with summary information.
- There are also RSLs folders for “BASE” (base products except for HLASM and TCPIP stacks), “HLASM”, “OPTIONAL” (optional products) and “TCPIP” (TCPIP stacks)

> 21CS VSEn Stack APARs PTFs RSLs for <customer name>

NAME ↑	UPDATED	SIZE
RSLs	Apr 9, 2024 by Vinicius Gi...	23 Files
VA00001	Dec 13, 2023 by Vinicius ...	1 File
VA00002	Dec 13, 2023 by Vinicius ...	1 File
VA00003	Dec 13, 2023 by Vinicius ...	1 File

> 21CS VSEn Stack APARs PTFs RSLs for <customer name> > RSLs




NAME	UPDATED ↓	SIZE
APRIL 02 2024	Apr 9, 2024 by Vinicius Gi...	9 Files
APRIL 12 2023	Sep 26, 2023 by Vasilisa S...	6 Files
SEPT 20 2023	Sep 26, 2023 by Vasilisa S...	8 Files

Inside APAR subfolder



Each APAR subfolder contains:

- APAR text (problem description)
- PTF(s) (program temporary fix)
- MD5 hash for integrity purpose.

NAME ↑	UPDATED	SIZE
 VA00144.txt	Yesterday by Vinicius Gira...	6.2 KB
 VP00140.md5	Yesterday by Vinicius Gira...	149 B
 VP00140.PTF	Yesterday by Vinicius Gira...	3.3 MB

APAR – PTF spreadsheet



21CSW APAR(s)	PTF number	IBM APAR(s)	Affected system	Hiper	Short description	Available date	Prerequisite	Supersedes	Superseded	Method for installation	Status	Available in RSL	Integrated with VSEn Version	Environment
VA00128	VP00121	PH58530	High Level Assembler for VSEn 1.6	no	Incorrect dates were shown when the clock wraps past 2042.	14.02.2024	-	-	-	Direct	Available	RSLH0002	-	VSEn
VA00131	VP00124	-	TCP/IP for VSEn 2.3.2	no	Fix from CSI ZP232097, ZP232098: 'Rename function fails during FTP transfer if a long file name is used'	25.01.2024	VP00124 has prerequisite VP00116	-	VP00124 Superseded by VP00126	Direct	Available	Not yet in RSL	-	VSEn
VA00133	VP00126	-	TCP/IP for VSEn 2.3.3	no	21CS TCP/IP for VSEn Service Pack 2.3.3 provides the following fixes: ZP232105*Critical messages like IPN594C scroll ZP232104*Add and modify messages ZP232103*Long wait after failed AutoFTP and invalid SETVAR ZP232102*Add new message ZP232101*SeeVSE fails to start on VSEn ZP232100*SeeVSE fails to start on VSEn ZP232099*FTP900 node name was inconsistent ZP232098*Rename with long file name fails ZP232097*Rename with long file name variables fails ZP232096*Allow PRYSHARE for CMD and MSG and enhance ACCESS PREVENT ZP232095*Allow priority sharing weights for command and message subtasks ZP232094*Add and modify messages ZP232093*Add PRYSHARE weighting for command and msg subtasks ZP232092*PRYSHARE ON and SYSIPT input ZP232091*Q TNPORTSTAT and Q TELNET active counts are incorrect	21.02.2024	-	VP00126 supersedes PTFs: VP00068, VP00090, VP00106, *VP00114, VP00116, *VP00117, *VP00122, *VP00123, VP00124, *VP00125, *VP00129	Direct	Available	RSLT0003	-	VSEn	
VA00134	VP00133	-	LE Base ENU + JPN	no	A call to an LE Service to retrieve the default currency returns the pre-Euro currency for several countries in the Eurozone.	09.04.2024	-	-	-	Indirect	Available	Not yet in RSL	-	VSEn
VA00135	VP00130	-	SMDMU for VSEn	no	Documented resource profiles used for securing SMDMU functions and resources are not effective when defined in BSM's FACILITY class.	09.04.2024	-	-	-	Direct	Available	Not yet in RSL	-	VSEn
VA00136	VP00128	-	VSEn/SP UNIQUE CODE	no	HDB stacked with other optional products are not installed correctly in PRD2.HDB1DOG.	06.02.2024	-	VP00128 supersedes VP00009, VP00088, VP00100	-	Direct	Available	RSLB0003	-	VSEn
VA00138	VP00127	-	VSEn/AS SVP 8	no	The SMDM instruction trace prints question marks for instructions	20.04.2024	-	-	-	Indirect	Available	Not yet in RSL	-	VSEn

APARs-PTFs

RSLB0001 | RSL00001 | RSLT0001 | RSLB0002 | RSL00002 | RSLT0002 | RSLH0001 | RSLB0003 | R ... +

RSLs



- RSL stands for “Recommended Service Level”
- RSLs are cumulative: an RSL consists of a list of **ALL** APAR/PTF numbers, which are available at specific cutoff dates, this will keep your system on a current and reliable service level.
- RSLs are released approx. every 6 months
- The latest RSLs available in Box as of April 2024 are from April 2nd, 2024:
 - RSLB0003.PTF Base Products
 - RSLO0002.PTF Optional Products (no changes since the last RSL from Sep. 2023)
 - RSLT0003.PTF TCPIP
 - RSLH0002.PTF HLASM



RSLs (PTFs) application

- Different options to apply RSLs (PTFs):
 - Using a “real” tape: Create a TAPE from the RSL PTF file.
 - Using remote SW virtual tape server: Use VSEn Virtual Tape server to mount the RSL as a virtual TAPE.
 - Using a local SW virtual tape server with VSAM: Load the RSL file mounted in the Virtual Tape to VSAM file prior to apply processing.
 - Installation from DASD using VSAM: Transfer the RSL into PTF.FILE VSAM dataset using FTP (FB, LRECL=80).
- For more information about this topic, please refer to the **VSEⁿ Version 6 Release 3 System Upgrade and Service** manual.

RSLs (PTFs) application (cont.)



- **Do not apply RSLs or PTFs submitting it to a reader from VM user**
 - iBOOK members can be erroneously cataloged to system libraries IJSYSRS/IJSYSR1.
 - As a result, you will get an error on DTRPTF05 stage.
 - To recover – remove iBOOKs



HLASM PTFs and why not to merge them with others

- A problem can occur when installing HLASM PTFs **indirectly**: the customer had combined HLASM PTFs with VSE/AF PTFs that forced an indirect application.

```
0S03I PROGRAM CHECK INTERRUPTION - HEX LOCATION 10111213 INTERRUPTION  
CODE 06 - SPECIFICATION EXCEPTION
```

```
0S00I JOB DTRPTF05 CANCELLED
```

- The circumvention is to install HLASM PTFs separately from INDIRECT PTFs, but we now have a PTF for this problem: **VP00094** (for APAR VA00102). For this reason, the latest RSL comprises separate files for the HLASM and BASE PTFs, and we would advise you do not merge them. The VP00094 is included in the 2 latest base RSLs, so you would be able to merge future RSLs into one file if you wished.



Recovering from an interrupted indirect PTF application

- When an **indirect** application of PTFs cannot be completed, the steps we recommend for recovery are as follows:
 - Release DTRPTFAB, this job will restore the current status of the PTF installation and allow you to attempt a recovery.
 - reply RESET. This allows you to continue at the selected job step.
 - Enter the name of the job that should follow the one that failed (DTRPTF06). We are skipping DTRPTF05, which we know willabend
 - Let the process complete. This prevent us from being confronted later with an active job manager stream
 - Shutdown and re-ipl from SYSWK1
 - enter // EXEC PROC=DTRNOMRG - to discard the failed PTF installation
 - IPL from DOSRES (you may get messages indicating a failed indirect PTF installation, just reply EOB)

Recovering from an interrupted indirect PTF application (cont.)

- Restart the PTF installation,
 - In the IUI select the service path 1423 „Apply PTF“
 - Set the TYPE to 2 (INCLUDE)
 - On the next panel enter the PTF ids for the HLASM PTFs.
 - On the next panel supply a new service unit name
 - Follow the steps to submit APPLYALL

- After the HLASM PTFs have been successfully installed, install the rest of the PTFs
 - In the IUI select the service path 1423 „Apply PTF“
 - Set the TYPE to 3 (EXCLUDE)
 - On the next panel enter the PTF ids for the HLASM PTFs.
 - On the next panel supply a new service unit name
 - Follow the steps to submit APPLYALL

```

SVSPH08          APPLY PTF
Enter the required data and press ENTER.
SERVICE MEDIUM..... 1          Is the service file on tape?
                                   (Enter 1 if on disk)
VIRTUAL TAPE..... 1             Enter 1 if service tape is a
                                   remote virtual tape.
TAPES UNIT ADDRESS..... 181      For list of valid addresses see HELP.
TAPES QUANTITY..... 1           Enter the number of service tapes.
TYPE..... 2                     Enter the type of main-application
                                   1=ALL 2=INCLUDE 3=EXCLUDE
Enter 2 for NO and 1 for YES
BACKUP..... 1                   Do you want to backup all affected
                                   libraries?
FORCE INDIRECT..... 2           Do you want to apply all PTFs indi-
                                   rectly?
ADD INFO TO THE LIST..... 1      Do you want to add this info to the
                                   list of your processed service units?
                                   For tapes only one tape is possible.

PF1=HELP  PF2=REDISPLAY  PF3=END

SVSPH02          APPLY PTF
Enter the required data and press ENTER.

Enter the numbers of PTFs which you want to INCLUDE . This panel will be redi-
played until the last field on the panel is left blank.
PTF NUMBER..... V00076          Example: U012345.
PTF NUMBER..... V00078
PTF NUMBER..... V00079
PTF NUMBER..... V00084
PTF NUMBER..... V00088
PTF NUMBER.....
PF2=REDISPLAY  PF3=END

DATA SET NAME AND HOST NAME WILL BE TRANSLATED TO UPPER CASE.

SVSPH08          APPLY PTF
Enter the required data and press ENTER.
SERVICE MEDIUM..... 1          Is the service file on tape?
                                   (Enter 1 if on disk)
VIRTUAL TAPE..... 1             Enter 1 if service tape is a
                                   remote virtual tape.
TAPES UNIT ADDRESS..... 181      For list of valid addresses see HELP.
TAPES QUANTITY..... 1           Enter the number of service tapes.
TYPE..... 3                     Enter the type of main-application
                                   1=ALL 2=INCLUDE 3=EXCLUDE
Enter 2 for NO and 1 for YES
BACKUP..... 2                   Do you want to backup all affected
                                   libraries?
FORCE INDIRECT..... 2           Do you want to apply all PTFs indi-
                                   rectly?
ADD INFO TO THE LIST..... 2      Do you want to add this info to the
                                   list of your processed service units?
                                   For tapes only one tape is possible.

PF1=HELP  PF2=REDISPLAY  PF3=END

SVSPH02          APPLY PTF
Enter the required data and press ENTER.

Enter the numbers of PTFs which you want to EXCLUDE . This panel will be redi-
played until the last field on the panel is left blank.
PTF NUMBER..... V00076          Example: U012345.
PTF NUMBER..... V00078
PTF NUMBER..... V00079
PTF NUMBER..... V00084
PTF NUMBER..... V00088
PTF NUMBER.....
PF2=REDISPLAY  PF3=END

DATA SET NAME AND HOST NAME WILL BE TRANSLATED TO UPPER CASE.

```



Still too many PTFs to apply after the RSL?

- You may choose to combine various PTFs into one or various PTF Collection File(s):
 - Make sure all prerequisite and corequisite PTFs are included.
 - If you don't have PTF VP00094 applied, all HLASM PTFs should be installed **directly**.

- How to create a PTF Collection File?
 - Simply append them into one file:
 - On z/VM with COPYFILE (APPEND
 - On Windows with TYPE >> PTFCOLFI.PTF



Creating a PTF Collection File on z/VM

1. Download PTFs from the BOX.
 2. Transfer it to z/VM as Binary FIXED 80 format.
 3. Once you have all the PTFs that you need, use COPYFILE command with APPEND parameter.
- Use COPYFILE as follows:
 - COPYFILE fn ft fm pcf_name pcf_type pcf_mode (APPEND
 - *Where:*
 - fn = file name
 - ft = file type
 - fm = file mode
 - pcf_name = filename of the new (should not exist before) PTF collection file you will create
 - pcf_type = file type of your PTF collection file
 - pcf_mode = file mode of your PTF collection file
 - For example: Consider creating a PTF collection file called PTFCOLFI.AWS.T with PTFs VP00001.PTF.T, VP00002.PTF.T and VP00003.PTF.T
 - COPYFILE VP00001 PTF T PTFCOLFI AWS T (APPEND
 - COPYFILE VP00002 PTF T PTFCOLFI AWS T (APPEND
 - COPYFILE VP00003 PTF T PTFCOLFI AWS T (APPEND

Creating a PTF Collection File on z/VM (cont.)

- Below are example of the same command issued under FILELIST utility.
Consider creating a PTF collection file called PTFCOLFI.AWS with PTFs VP00001.PTF, VP00002.PTF and VP00003.PTF

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=3 Line=1
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records
-----
VP00001 PTF W1 F 80 3383
VP00002 PTF W1 F 80 703
VP00003 PTF W1 F 80 56
```

- Use COPYFILE as follows: COPYFILE / FN FT FM (APP

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=3 Line=1
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records
-----
COPYFILE / PTFCOLFI AWS = (APP 80 3383
VP00002 PTF W1 F 80 703
VP00003 PTF W1 F 80 56
```

Enter then you can use = (equal sign) to the rest of the PTFs that you want to include

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=3 Line=1
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records
+
= VP00001 PTF W1 F 80 3383
= VP00002 PTF W1 F 80 703
= VP00003 PTF W1 F 80 56
```

Result

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=4 Line=1
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records
-----
PTFCOLFI AWS W1 F 80 4142
VP00001 PTF W1 F 80 3383
VP00002 PTF W1 F 80 703
VP00003 PTF W1 F 80 56
```

Creating a PTF Collection File on z/VM (cont.)



- If all PTFs that you need for your PTF Collection file are in the same directory, you can issue the command in the command line: COPYFILE * ft fm pcf_name pcf_type pcf_mode (APPEND)
- Example: COPYFILE * PTF W1 PTFCOLFI AWS W1 (APPEND)

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=3 Line=1 Col=1 Alt=14
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records   Blocks   Date    Time
VP00001  PTF      W1 F      80    3383     67 10/23/23 15:37:04
VP00002  PTF      W1 F      80     703     14 10/23/23 15:36:53
VP00003  PTF      W1 F      80     56      2 10/23/23 15:35:38

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

====> COPYFILE * PTF W1 PTFCOLFI AWS W1 (APPEND)
```

```
DARLINR FILELIST A0 V 169 Trunc=169 Size=4 Line=1 Col=1 Alt=20
Directory = VSESFS:DARLINR.RSL.MYRSL
Cmd  Filename Filetype Fm Format Lrecl  Records   Blocks   Date    Time
PTFCOLFI AWS      W1 F      80    4142     81 10/23/23 17:26:22
VP00001  PTF      W1 F      80    3383     67 10/23/23 15:37:04
VP00002  PTF      W1 F      80     703     14 10/23/23 15:36:53
VP00003  PTF      W1 F      80     56      2 10/23/23 15:35:38
```



Creating a PTF Collection File on Windows

1. Download PTFs from the BOX to your local drive.
2. Once you have all the PTFs that you need, use the TYPE command in CMD Prompt.
 - Use Type Command as follows:
 - TYPE ptf_filename1 ptf_filename2 ptf_filename3 and so on >> ptfcolfi_name
 - Where:
 - ptf_filename = filename of your PTF that you want to include
 - ptfcolfi_name = filename of PTF collection file you will create
 - For example: TYPE VP00001.PTF VP00002.PTF VP00003.PTF >> PTFCOLFI.AWS

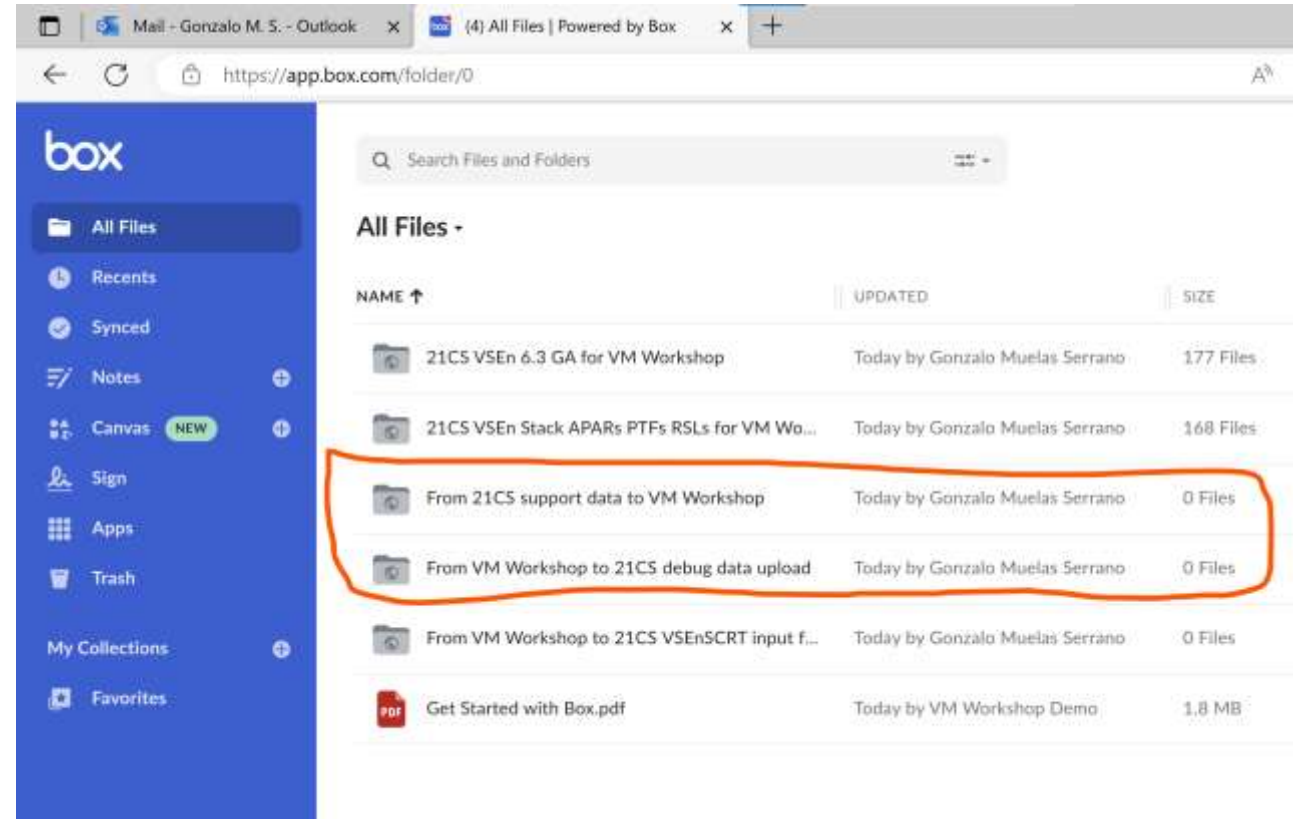
```
Microsoft Windows [Version 10.0.19045.3448]
(c) Microsoft Corporation. All rights reserved.

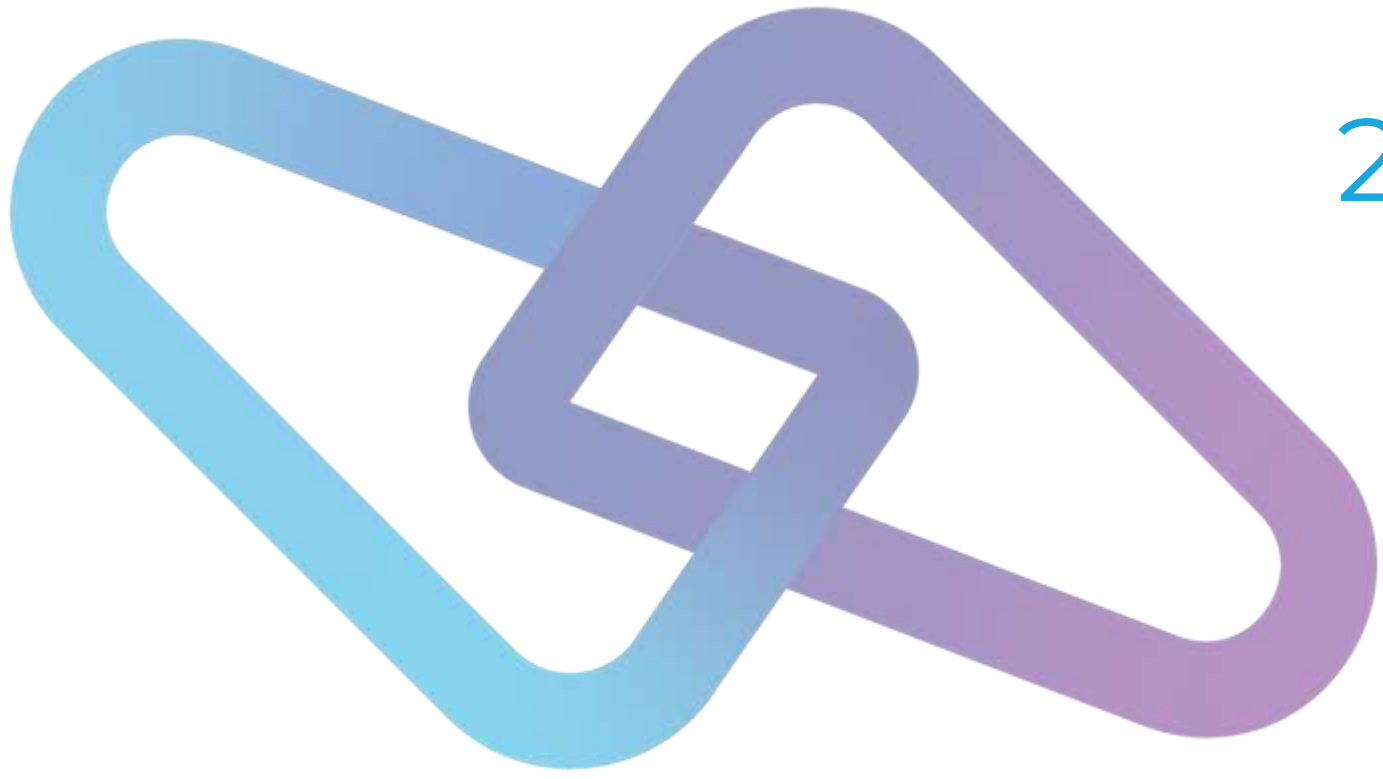
C:\Users\DarlingRichter>TYPE VP00001.PTF VP00002.PTF VP00003.PTF >> PTFCOLFI.AWS
```

Box folder to provide information for support



- In case you would like to provide information for 21CS support, you may upload console output, dumps, configurations... to the folder “From <customer name> to 21CS VSEn debug data upload” into a subfolder representative of the issue.
- Likewise, if 21CS VSEn support team would like to provide data for support purposes, you may download it from the respective subfolder in the folder “From 21CS VSEn support data to <customer name>”





21CS VSEⁿ POWER Files extension

When Data File Is Full



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17                                TIME: 11:40:17
F1 0001 1R49I  ACCOUNT FILE 10 % FULL
F1 0001 1R49I  ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90
F1 0001 1Q34I  RDR WAITING FOR WORK ON 00C
BG 0001 1Q47I  BG BIGDATA 00194 FROM LOCAL , TIME=11:39:50 , TKN=00000045
BG 0000 // JOB BIGDATA
          DATE 08/30/2023, CLOCK 11/39/50
BG 0000 EOJ BIGDATA  MAX.RETURN CODE=0000
          DATE 08/30/2023, CLOCK 11/40/01, DURATION 00/00/10
BG 0001 1Q34I  BG WAITING FOR WORK
F1 0001 1Q34I  RDR WAITING FOR WORK ON 00C
BG 0001 1Q47I  BG BIGDATA 00198 FROM LOCAL , TIME=11:40:12 , TKN=00000046
BG 0000 // JOB BIGDATA
          DATE 08/30/2023, CLOCK 11/40/12
BG 0001 1QF0I  DATA FILE 090% FULL - QUEUE FILE 003% FULL
F1 0001 1Q38A  NO DASD SPACE AVAILABLE FOR BG,FEE

==>

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

MA  A          20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

When Data File Is Full (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER:  SYS
VM USER ID: PTHVSE17          TIME:  11:41:49
F1 0001 1Q38A  NO DASD SPACE AVAILABLE FOR BG,FEE
d q
AR 0015 1C39I  COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I  QUEUE FILE 003% FULL - 1822 FREE QUEUE RECORDS
F1 0001 1R49I  USED QUEUE RECORDS: 64, CRE-Q: 4, DEL-Q: 0
F1 0001 1R49I  RDR-Q: 27, LST-Q: 30, PUN-Q: 0, XMT-Q: 3
F1 0001 1R49I  QUEUE FILE EXTENT ON CKD-240, SYS001, 945, 15
F1 0001 1R49I  DATA FILE 099% FULL - 20 FREE DBLK GROUPS
F1 0001 1R49I  CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I  DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I  ACCOUNT FILE 10 % FULL
F1 0001 1R49I  ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90

=>

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
MA  A          20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF88902F
```

PDISPLAY Q : Display of the Spool File Characteristics

Data file extension



IJSYSRS.SYSLIB(STDLABEL.PROC):

```
// DLBL IJDFILE, 'VSE.POWER.DATA.FILE', 99/366, DA  
// EXTENT SYS002, SYSWK1, 1, 0, 6330, 1920
```

Find a free extent on your disk and add it to the procedure (up to 32), then REIPL:

```
// DLBL IJDFILE, 'VSE.POWER.DATA.FILE', 99/366, DA  
// EXTENT SYS002, SYSWK1, 1, 0, 6330, 1920  
// EXTENT SYS002, SYSWK1, 1, 1, 36180, 2000
```

And/or delete the largest entries from POWER queues via PDLETE.
The **PDISPLAY BIGGEST** command may help to identify a good candidates.

Data file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17                                TIME: 12:24:43
F1 0001 1QD7A  1 ADDITIONAL EXTENT(S) FOUND FOR EXTENSION OF EXISTING DATA
FILE WITH 1 EXTENT(S)
      (// EXTENT SYS002,SYSWK1,1,000, 6330, 1920)
F1-0001 1QD2D  DATA FILE EXTENT NO. 2 - FOR FORMATTING REPLY 'YES' ELSE 'NO'
      (// EXTENT SYS002,SYSWK1,1,001, 33180, 2000)

==>

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

MA  A  20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

Data file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17          TIME: 12:25:48
F1 0001 1QD6I  FORMATTING OF NEW DATA FILE EXTENT NO. 2 COMPLETED, 1750 FREE
          DBLKGPS ADDED
BG 0000 1N90I  EOP WAS FORCED BY EOJ
BG 0000 EOJ BGINIT  MAX.RETURN CODE=0000
          DATE 08/30/2023, CLOCK 12/25/45, DURATION 00/01/11
BG 0001 1Q34I  BG WAITING FOR WORK
Y1 0001 1Q47I  Y1 CEEWARC 00211 FROM (SYSA) , TIME=12:25:45 , TKN=0000002E
Y1 0045 // JOB CEEWARC - ATTENTION ROUTINE CONTROL
          DATE 08/30/2023, CLOCK 12/25/45
Y1 0045 CEL4028I Attention Routine Interface Enabled.
Y1 0045 EOJ CEEWARC
          DATE 08/30/2023, CLOCK 12/25/45, DURATION 00/00/00
Y1 0001 1Q3EI  DYNAMIC CLASS 'Y' WAITING FOR WORK
F2 0002 1T20I  SYS009 HAS BEEN ASSIGNED TO X'009' (TEMP)
F2 0002 LOG
F2 0002 ID (PARAMETERS SUPPRESSED)
F2 0002 NOLOG
==>

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  MESSAGE MODE:  CONSOLE  ..MORE
MA  A X ? 20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

Data file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17                                TIME: 12:26:58
d q
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I QUEUE FILE 002% FULL - 1850 FREE QUEUE RECORDS
F1 0001 1R49I USED QUEUE RECORDS: 36, CRE-Q: 2, DEL-Q: 0
F1 0001 1R49I RDR-Q: 26, LST-Q: 8, PUN-Q: 0, XMT-Q: 0
F1 0001 1R49I QUEUE FILE EXTENT ON CKD-240, SYS001, 945, 15
F1 0001 1R49I DATA FILE 001% FULL - 3385 FREE DBLK GROUPS
F1 0001 1R49I CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I DATA FILE EXTENT 2 ON CKD-241, SYS002, 33180, 2000
F1 0001 1R49I ACCOUNT FILE 10 % FULL
F1 0001 1R49I ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90

==>

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

MA  A  20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

When Queue File Is Full



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17          TIME: 13:00:20
F1 0001 1QF4A  NO FREE QUEUE RECORD AVAILABLE FOR BG,FEE
d q
AR 0015 1C39I  COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I  QUEUE FILE 099% FULL - 10 FREE QUEUE RECORDS
F1 0001 1R49I  USED QUEUE RECORDS: 1876, CRE-Q: 2, DEL-Q: 0
F1 0001 1R49I  RDR-Q: 27, LST-Q: 1847, PUN-Q: 0, XMT-Q: 0
F1 0001 1R49I  QUEUE FILE EXTENT ON CKD-240, SYS001, 945, 15
F1 0001 1R49I  DATA FILE 055% FULL - 1545 FREE DBLK GROUPS
F1 0001 1R49I  CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I  DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I  DATA FILE EXTENT 2 ON CKD-241, SYS002, 33180, 2000
F1 0001 1R49I  ACCOUNT FILE 10 % FULL
F1 0001 1R49I  ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90

==>

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

MA  A          20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

Queue file extension

Queue consists of only one extent.

```
// DLBL IJQFILE, 'VSE.POWER.QUEUE.FILE', 99/366, DA
// EXTENT SYS001, DOSRES, 1, 0, 945, 15
```

If you use the same volume, you need to define a new bigger file with a new name (it will be discovered by POWER during IPL):

```
// DLBL IJQFILE, 'VSE.POWER.QUEUE.FILE1', 99/366, DA
// EXTENT SYS001, DOSRES, 1, 0, 16905, 30
// DLBL IJQFOLD, 'VSE.POWER.QUEUE.FILE', 99/366, DA
// EXTENT SYS034, DOSRES, 1, 0, 945, 15
```

DTRPOWER.PROC:

```
// ASSGN SYS001, DISK, VOL=DOSRES, SHR          POWER QUEUE FILE NEW
// ASSGN SYS034, DISK, VOL=DOSRES, SHR          POWER QUEUE FILE OLD
```


Queue file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17                                TIME: 14:54:06
BG 0000 ALLOC FB=1M
BG 0000 SIZE FB=512K
FB 0011 // JOB SECSERV
          DATE 08/30/2023, CLOCK 14/54/05
FB 0115 1J022I CPU CRYPTOGRAPHIC ASSIST FEATURE AVAILABLE.
FB 0115 1J009E CANNOT DETERMINE AP QUEUE.
FB 0115 1J004E FAILED TO INITIALIZE HARDWARE CRYPTO DEVICE DRIVER.
BG 0000 BST001I BASIC SECURITY MANAGER INITIALIZED
BG 0000 STOP
F1 0001 // JOB POWSTART
          DATE 08/30/2023, CLOCK 14/54/05
F1 0001 4601I NO FORMAT 1 LABEL FOUND  IJQFILE  SYS001=240  DOSRES
F1 0001 1QE1I  RE-ALLOCATION PROCESS STARTED FOR VSEN/POWER QUEUE FILE
F1 0001 1QE3I  IJQFOLD: // EXTENT SYS034,DOSRES,1,000, 945, 15
F1 0001 1QE3I  IJQFILE: // EXTENT SYS001,DOSRES,1,000, 16905, 30
F1-0001 1QE3D  CONFIRM QUEUE FILE RE-ALLOCATION FROM IJQFOLD TO IJQFILE BY
          'YES' ELSE 'NO'
==>

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
MA  A                                                              20/006
Connected to remote server/host 192.168.21.3 using port 23          Brother MFC-L2710DW series on BRWF889D2F
```

Queue file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17          TIME: 14:55:00
F1 0001 1QE6A  RE-ALLOCATION FOR IJQFILE COMPLETED, 1920 FREE QUEUE RECORDS
      ADDED
F2 0001 1Q34I  F2 WAITING FOR WORK
FA 0010 // JOB STARTFA
      DATE 08/30/2023, CLOCK 14/54/55
F4 0004 1N90I  EOP WAS FORCED BY EOJ
F4 0004 EOJ STARTF4
      DATE 08/30/2023, CLOCK 14/54/55, DURATION 00/00/00
F4 0001 1Q34I  F4 WAITING FOR WORK
F5 0005 1N90I  EOP WAS FORCED BY EOJ
F5 0005 EOJ STARTF5
      DATE 08/30/2023, CLOCK 14/54/55, DURATION 00/00/00
F5 0001 1Q34I  F5 WAITING FOR WORK
BG 0000 * START MODE FOR BG-PARTITION IS NORMAL
BG 0000 * *****
BG 0000 *
BG 0000 *
      YOUR SYSTEM IS
==>

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:
MA A
20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

Queue file extension (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17                                TIME: 14:56:14
d q
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I QUEUE FILE 002% FULL - 3748 FREE QUEUE RECORDS
F1 0001 1R49I USED QUEUE RECORDS: 58, CRE-Q: 2, DEL-Q: 0
F1 0001 1R49I RDR-Q: 25, LST-Q: 31, PUN-Q: 0, XMT-Q: 0
F1 0001 1R49I QUEUE FILE EXTENT ON CKD-240, SYS001, 16905, 30
F1 0001 1R49I DATA FILE 005% FULL - 1595 FREE DBLK GROUPS
F1 0001 1R49I CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I ACCOUNT FILE 7 % FULL
F1 0001 1R49I ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90

==>

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
MA  A  20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```

When Account File is full



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17          TIME: 15:03:09
d q
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I  QUEUE FILE 002% FULL - 3748 FREE QUEUE RECORDS
F1 0001 1R49I  USED QUEUE RECORDS: 58, CRE-Q: 2, DEL-Q: 0
F1 0001 1R49I  RDR-Q: 25, LST-Q: 31, PUN-Q: 0, XMT-Q: 0
F1 0001 1R49I  QUEUE FILE EXTENT ON CKD-240, SYS001, 16905, 30
F1 0001 1R49I  DATA FILE 005% FULL - 1595 FREE DBLK GROUPS
F1 0001 1R49I  CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I  DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I  ACCOUNT FILE 7 % FULL
F1 0001 1R49I  ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90
PACCOUNT DEL
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1Q80I  ACCOUNT FILE ERASED

=>

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
MA  A  20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF089D2F
```

The PACCOUNT command may also save the data to tape, disk or punch queue

When Account File is full (cont.)



```
Session A - [24 x 80]
File Edit Settings View Communication Actions Window Help
SYSTEM: VSEn          VSEn 6.3          TURBO (01)          USER: SYS
VM USER ID: PTHVSE17          TIME: 15:03:43
d q
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1R49I QUEUE FILE 002% FULL - 3748 FREE QUEUE RECORDS
F1 0001 1R49I USED QUEUE RECORDS: 58, CRE-Q: 2, DEL-Q: 0
F1 0001 1R49I RDR-Q: 25, LST-Q: 31, PUN-Q: 0, XMT-Q: 0
F1 0001 1R49I QUEUE FILE EXTENT ON CKD-240, SYS001, 16905, 30
F1 0001 1R49I DATA FILE 005% FULL - 1595 FREE DBLK GROUPS
F1 0001 1R49I CURRENT DBLK SIZE=07548, DBLK GROUP SIZE=00008
F1 0001 1R49I DATA FILE EXTENT 1 ON CKD-241, SYS002, 6330, 1920
F1 0001 1R49I ACCOUNT FILE 0 % FULL
F1 0001 1R49I ACCOUNT FILE EXTENT ON CKD-241, SYS000, 8250, 90

==>

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

MA  A          20/006
Connected to remote server/host 192.168.21.3 using port 23  Brother MFC-L2710DW series on BRWF889D2F
```



Miscellaneous topics

“THE SELECTED MEMBER IS BEING EDITED BY ANOTHER USER”



Problem:

- When attempting to update or edit a member, you receive the error message:
"THE SELECTED MEMBER IS BEING EDITED BY ANOTHER USER - PLEASE TRY LATER."
- This error occurs when the member is currently being updated or edited by another user, or when a system failure leaves the "update in progress" indicator active.
- This issue can occur when there is an immediate shutdown of OLTP
- VSE[®]/ICCF administrator can use the `/PROTECT` command to clear the "update in progress" attribute. This command is specifically designed to turn off the attribute, allowing you to resume editing the affected member.
- `/PROTECT <member> UPIP`. Replace `<member>` with the name of the affected member.

```
IESLIBP PRIMARY LIBRARY PAGE 1 of 3
PRIMARY (READ/WRITE): 10 PREFIX:
OPTIONS: 1 = EDIT 2 = CHANGE 3 = PRINT 4 = COPY 5 = DELETE
         6 = RENAME 7 = SUBMIT 8 = COMPILE 9 = DISPLAY

OPT MEMBER NAME NEW NAME NEW LIB LAST ACCESSED OWNER PASSW PRIVATE
-----
DTR$$SYSA _____ 10/20/2023 SYSA
DTRL$SYSA _____ 10/20/2023 SYSA
ICFSAV _____ 10/20/2023 SYSA
1 SKVCSCAT _____ 10/20/2023 SYSA
-----
SU$$SYSA _____ 10/20/2023 SYSA
SUB$$SYSA _____ 10/20/2023 SYSA
ADDTAPE _____ 10/19/2023 SYSA
APPLYSRV _____ 10/19/2023 SYSA
RETRPTF _____ 10/19/2023 SYSA
SKVCSCFG _____ 10/19/2023 SYSA

PF1=HELP 2=REFRESH 3=END 4=RETURN 6=ADD MEMBER
8=FORWARD 9=SORT.DATE 10=SORT.NAME 11=SORT.SIZE 12=LIST QUEUE
THE SELECTED MEMBER IS BEING EDITED BY ANOTHER USER - PLEASE TRY LATER.
LOCATE MEMBER/LIST QUEUE PREFIX ==> MEMBER PREFIX (PF2) ==>
MA B 13/004
```

Permanent assignments



- A partner reported the following error when trying to use ZEKE in OLTP.

```
'F2 0169 DFHAP0001 DBDCCICS An abend (code 2C5/AKEB) has occurred at offset  
X'FFFFFFFF' in module ZEKE12A.'
```

```
**AKEB:** *An operating system abend has been detected by the kernel (KE) domain.*
```

- A review of the console log showed:

```
5598 F2 0169 Z0103E INVALID OR INCORRECTLY ASSIGNED CATALOG LOGICAL UNIT - SYS026
```

- Although this problem happened when using ZEKE, similar problems could occur for other vendor products. The reason is that certain vendor products require permanent assignments to disks that contain their product files, and these assignments, if not copied or restored correctly, may be lost or overwritten by the FSU process.
- It is therefore recommended that you check the JCL and procedures that run during an IPL for permanent assignments added to support vendor products.

Permanent assignments – where to check



- Static Partitions
Check your ASI procedures for each partition.

```
CATALOG $8JCL002.PROC      EOD=YY DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.F8,PERM
// JOB STARTF8
// SETPARM XNCPU=' '
// EXEC PROC=$COMVAR,XNCPU
// SETPARM XSPINIT='FINISHED'
// EXEC PROC=CPUVAR&XNCPU,XSPINIT
// ON $RC=99 GOTO SECPART
// EXEC BSSINIT
/*
SET MRCZERO
// EXEC PROC=LIBDEF5          SET LIBDEF SEARCH CHAINS
ASSGN SYSIN,FEC,PERM
ASSGN SYSPCH,FED
ASSGN SYSLST,FEE
ASSGN SYSLNK,DISK,VOL=DOSRES,SHR      SYSTEM LINK FILE
ASSGN SYS001,DISK,VOL=SYSWK1,SHR      SYSTEM WORK FILE 1
ASSGN SYS002,DISK,VOL=SYSWK1,SHR      SYSTEM WORK FILE 2
ASSGN SYS003,DISK,VOL=SYSWK1,SHR      SYSTEM WORK FILE 3
ASSGN SYS004,DISK,VOL=SYSWK1,SHR      SYSTEM WORK FILE 4
// GOTO FINISH
/. SECPART
// ID USER=FORSEC           !! NO PWD REQUIRED !!
// EXEC BSTPSTS,DSPACE=3M,OS390
/*
/. FINISH
/&
YY
```

- For POWER the partition assignments are in DTRPOWER.PROC

```
// ASSGN SYS000,DISK,VOL=SYSWK1,SHR      POWER ACCOUNT FILE
// ASSGN SYS001,DISK,VOL=DOSRES,SHR      POWER QUEUE FILE
// ASSGN SYS002,DISK,VOL=SYSWK1,SHR      POWER DATA FILE 1
```

Make sure a vendor permanent assignment hasn't been slipped in here.

- Also check DTRCICST.PROC for vendor assignments.

```
// DLBL IJSYS01, '%DOS.WORKFILE.SYS001.RECOVER',0,VSAM,          X
      CAT=VSESPUC,RECSIZE=4096,                                  X
      DISP=(NEW,KEEP),RECORDS=(30,50)
// DLBL IJSYS02, '%DOS.WORKFILE.SYS002.RECOVER',0,VSAM,          X
      CAT=VSESPUC,RECSIZE=4096,                                  X
      DISP=(NEW,KEEP),RECORDS=(30,50)
// ASSGN SYS001,DISK,VOL=DOSRES,SHR      DTSFILE RECOVERY EXTENT 1
// ASSGN SYS002,DISK,VOL=SYSWK1,SHR      DTSFILE RECOVERY EXTENT 2
```

- And finally check your OLTP JCL or the JCL for any other long running tasks.

Permanent assignments – where to check (cont.)



- Dynamic Partitions

In dynamic partitions assignments can be found in the standard profile procedures that are run when a dynamic partition is started. These profiles are listed when you enter the **D DYNC** command on the VSE console.

```
d dync
AR 0015 1C39I COMMAND PASSED TO VSEn/POWER
F1 0001 1Q6AI ***** ACTIVE DYNAMIC CLASS TABLE DTR$DYNV.Z *****
F1 0001 1Q6AI CLS STATE ACT/MAX ALLOC SIZE SP-GETV PROFILE LUBS
F1 0001 1Q6AI C ENAB 0 9 1M 500K 128K STDPROF5 50
F1 0001 1Q6AI P ENAB 0 32 1M 512K 128K PWSPROF 50
F1 0001 1Q6AI R ENAB 1 3 8M 1024K 128K STDPROF5 100
F1 0001 1Q6AI S ENAB 0 2 32M 1024K 512K STDPROF5 100
F1 0001 1Q6AI T ENAB 1 2 32M 1024K 128K STDPROF5 100
F1 0001 1Q6AI Y ENAB 0 8 5M 1024K 128K STDPROF5 50
F1 0001 1Q6AI Z ENAB 0 3 5M 1024K 128K STDPROF5 50
```

- Check the STDPROF

```
CATALOG STDPROF.PROC EOD=YY DATA=YES REPLACE=YES
// LIBDEF DUMP,CATALOG=SYSDUMP.DYN,PERM
// OPTION NODUMP
// EXEC PROC=LIBDEF
ASSGN SYSIN,FEC
ASSGN SYSPCH,FED
ASSGN SYSLST,FEE
ASSGN SYSLNK,DISK,VOL=DOSRES,SHR SYSTEM LINK FILE
ASSGN SYS001,DISK,VOL=SYSWK1,SHR SYSTEM WORK FILE 1
ASSGN SYS002,DISK,VOL=SYSWK1,SHR SYSTEM WORK FILE 2
ASSGN SYS003,DISK,VOL=SYSWK1,SHR SYSTEM WORK FILE 3
ASSGN SYS004,DISK,VOL=SYSWK1,SHR SYSTEM WORK FILE 4
YY
/*
```

- and any user defined profiles for your dynamic partitions:

```
CATALOG DTR$DYNV.Z EOD=XY REPLACE=YES
CLASS ALLOC SIZE SP-GETV LUBS PROFILE MAX-P ENABLED
-----
CLASS= C 1 500 128 50 MYPROF 09 Y
POWER SPOOLED DEVICES
READER= FEC
PRINTERS= FEE
PUNCHES= FED
-----
CLASS= P 1 512 128 50 PWSPROF 32 Y
POWER SPOOLED DEVICES
READER= FEC
PRINTERS= FEE
PUNCHES= FED
-----
CLASS= R 8 1024 128 100 STDPROF 03 Y
POWER SPOOLED DEVICES
READER= FEC
PRINTERS= FEE
PUNCHES= FED
-----
... etc ...
XY
/*
```

Beware the VSEn TASKS Limit



- The following problem was reported:
 - FTP Batch jobs may fail at random when 3 or more FTPBATCH client jobs run in parallel.

```
FTP307D FTPBATCH diagnostic: MAINATCF
RC=80000A1C RS=00000A2E
FTP316I FTPDAEMN terminated.
FTP316I IPNAFTPC-2 terminated.
FTP306I Commands from SYSIPT FLUSHED
FTP328E FTPBATCH failed rc=0000000C ,check
syslst for errors
```
 - After consultation with CSI it was determined that the return code indicated in the FTP307D message indicated that an **ATTACH** had failed because the system had run out of subtasks.

- There are **two** maximum numbers to consider.
 - a maximum of **31 subtasks can run in a single partition**. This value was not exceeded by FTPBATCH
 - the maximum number of subtasks that can be **active concurrently in the whole system** is determined by the value specified in the **SYSDEF SYSTEM NTASKS** command, that you will find in your ASI procedure for BG.
- The value for NTASKS can be 255, a number between 256 and 512 or MAX, which sets the value at 512. If this value is reached, an ATTACH subtask request will fail.
- Except in special cases, you will probably want to set this value to MAX.

```
SYSDEF SYSTEM,NTASKS=MAX,TASKS=ANY
```



Beware the VSE TASKS Limit (Cont.)

- But even if you have defined MAX, the number of subtasks available is reduced by the number of reserved subtasks, which are:
 - the 32 system tasks
 - the maximum number of partitions defined in the IPL proc by SYS NPARTS (max 200, default 20). Each of these will require 1 maintask.
- So the maximum number of subtasks that can be attached = "SYSDEF SYSTEM NTASKS" value - "IPL SYS NPARTS" value - 32 system tasks
- The **default for NTASKS is 255** and this is specified in the supplied \$OJCL.PROC.
- The supplied \$IPLISA specifies **SYS NPARTS = 120**
- So after a standard installation you have:
 $255 - 120 - 32 = 103$ possible subtasks.
- You should monitor your system, to make sure you are not wasting subtasks by reserving too many partitions.
 - Use the SIR command and review the following output

```
AR 0015 TASKS ATT.= 00015    HIGH-MARK = 00015    MAX = 00103
AR 0015 DYN.PARTS = 00002    HIGH-MARK = 00003    MAX = 00108
```
 - The first line shows you whether the highest number of concurrent tasks is approaching the maximum
 - The second line will indicate whether you have reserved too many partitions with the NPARTS parameter. Here for example, I have defined the standard 120 (108 dynamic + 12 static) partitions and only used 3, so I guess there's room to tune this.
 - Just increasing NTASKS to MAX will make this look much healthier



Q & A



Thank you!