

Modernizing Spool Management for z/VM

**VM Workshop
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Agenda

- **z/VM Spool – what is it, how to see it**
- **What could *possibly* go wrong?**
- **Reaction or Prevention?**
 - Write/Maintain your own
 - Solid, Flexible and Supported Solutions
- **Velocity Software has you covered!**

What is SPOOL?



Spool of wire?



Spool of yarn?



Pipe Spool?

See, you learned something!

What is SPOOL in z/VM?

- **Virtualizes real hardware**
 - Unit Record devices such as Printers, Punches and Readers
- **More simply: space on disk for CP to store files/data for later use**
- **Store data such as:**
 - Printer, punch and reader files for users/guests
 - Most common is READER files that are sent to them or console logs from the virtual console device
 - DCSS, NSS, Dumps and other system files
 - Overflow for CP paging space (if PAGE allocation fills)
- **Every guest can use spool space (by default)**
- **SPOOL space is required for z/VM to function properly**

Basic View of SPOOL in CP

CP QUERY ALLOC SPOOL

VOLID	RDEV	EXTENT START	EXTENT END	TOTAL PAGES	PAGES IN USE	HIGH PAGE	% USED	
VM4S11	2180	1	10016	1761K	341577	1718K	18%	
VM5S11	2280	-	-	0	0	0	0	SHARED
VM4S12	2380	1	10016	1761K	749335	1557K	41%	
VM5S12	2081	-	-	0	0	0	0	SHARED
SUMMARY				3521K	1065K		30%	
USABLE				3521K	1065K		30%	

Basic View of SPOOL in CP

- **CP QUERY RDR|PRT|PUN *|userid|SYSTEM ALL**
 - List all spool files in that device for you|another|everyone on the system
- **CP QUERY FILES SYSTEM|userid**
 - Show number of files in each spool device for all or specific userid
- **“But Rich! I want to *view* that open console file on my Linux guest”**
 - Nothing in z/VM will do that for you easily
 - You could CP SEND a command to close the console and transfer the file to you (yuck!)
 - TRACK for VM (a free tool) will let you look at the last buffer in the open spool file
 - (better than nothing!)

What Could *Possibly* Go Wrong?

- **The usual excuses are normally the beginning**
 - z/VM has spool space??
 - I have too many other things to do
 - The system is running fine
 - No one is complaining so why should I care?

What Could *Possibly* Go Wrong?

- **The dreaded “Spool Space Full” nightmare!**
 - HCP427E – system spool space full
 - HCP439E – user spool file limit exceeded
 - HCP847E - maximum system spool file limit exceeded
 - HCP6653A – SSI member IPL prompt when user has too many spool files
 - ... dozens of other “this is a bad day” issues!
- **What happens after that?!**
 - Data (console logs) loss – all new messages lost
 - Spooled console devices are stopped (if space clears up, still no console logging)
 - Process failures (anything using spool files for functionality; DIRMAINT)
 - Probably a few meetings to attend to explain what happened!



WHY IS THE SPOOL GONE?!

Maybe THAT'S why?

CP QUERY RDR RHOSCP1 ALL

ORIGINID	FILE	CLASS	RECORDS	CPY	HOLD	DATE	TIME	NAME	TYPE
RHOSCP1	0309	T CON	32902393	001	NONE	OPEN-	0009		
RHOSCP1	0061	T CON	03432194	001	NONE	2023-01-26	12:01:22		
RHOSCP1	0065	T CON	05898221	001	NONE	2022-03-27	00:16:24		
RHOSCP1	0069	T CON	19352755	001	NONE	2021-05-28	21:20:23		
RHOSCP1	0073	T CON	05011967	001	NONE	2021-03-29	16:05:01		
RHOSCP1	0077	T CON	00938317	001	NONE	2021-01-30	09:30:19		
...									

CP QUERY FILES

FILES: 0375719 RDR, 0000295 PRT, 0000001 PUN



How to fix it (Reaction)

- Purge them ALL – it's only production!

```
CP QUERY FILES
```

```
FILES: 0375719 RDR, 0000295 PRT, 0000001 PUN
```

```
CP PURGE SYSTEM RDR ALL
```

```
0375719 FILES PURGED
```

```
Cool! Problem solved
```

...(why is my phone ringing?!)

```
CP QUERY FILES BOSS
```

```
FILES: 0009818 RDR, 0000201 PRT, 0000000 PUN
```

(If only you had known)

How to fix it (Reaction)

- Add more disk space to the SPOOL allocation!



- It will be just a matter of time until you have to do it again

Prevention - Manually

- **You could do it all manually, by reviewing with**
 - CP QUERY ALLOC SPOOL know how full spool volumes are
 - CP QUERY FILES [userid] get a sense of counts
 - CP QUERY RDR|PRT|PUN SYSTEM ALL
then digging in to find some of the larger files
- **Good enough?**
 - Maybe for a small test system
 - Only going to work on larger systems if you are logged on and checking *often enough*
 - Yeaah, sooo...
no sleep, weekends or vacation for you. Okay?



Prevention – semi-automated

- **SFPURGER available on MAINT 193**
 - Part of CMS Utilities Feature included with z/VM
 - Rules to select files to ignore/purge
 - It at least gives you a template to clean files out of spool when you need it
 - Does it do everything you need? (Hint: what about open console files?)
 - Run it manually / on demand
 - Now you need a scheduler...
 - Build one yourself? You could, but is that the best idea?

Be Modern!

Use zPRO from Velocity Software

- **Includes the zSPOOL Feature**

- Part of the suite of z/VM Administration features in zPRO
- Provides a **modernized spool management** experience

- **Includes**

- Full Enterprise support – across SSI members, CECs, Data Centers, even countries
- Ability to find, list, and VIEW spool files quickly and easily
- Take actions on spool files as needed (transfer, change hold, purge, close consoles)
- **Purge Spool File Management**
- **Open Console Management**

The LIVE Part (Demo)

- **zSPOOL**
 - Control panel
 - DCSS/NSS map
 - Search for spool files
 - List by Userid
 - All OPEN files
 - What is “All Unowned Files” is good for?
 - Summary Report – Can schedule the report to be emailed daily/weekly
 - **Spool Management**
 - Spool file purging
 - Open Console admin
- **Heck of a lot more modern, yes?!**

More in zPRO

- Full cloning, provisioning and management of Linux guests on Z
- Kubernetes Cluster management ←NEW
- Event Scheduler Feature
- **z/VM Administration (besides zSPOOL)**
 - Backup and Restore
 - Directory Management
 - EDEV Management
 - **RSCS Management ←NEW!**
 - Security Management
 - Shared File Systems Management
 - Storage Server Management (DS8K)
 - Virtual Network Administration

Questions / Comments?



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zPRO Demo Site: <https://demo.velocitysoftware.com/zpro/>
Metal to Cloud in Two Days: <https://velocitysoftware.com/MetaltoCloud>



zSPOOL Control Panel

Click	Function	Description
Open	DCSS/NSS Mapping	List all discontinuous saved segment (DCSS) and named saved systems (NSSs)
Open	Spool File Search	Search for any spool files by owner, characteristics or location on this or other members in an SSI cluster
Open	Spool Files by Userid	List a summary of all spool files by userid on this system/cluster. Clicking userid lists all of the spool file details for viewing and managing.
Open	All Dump Files	List any dump spool files on the system/cluster
Open	All Open Files	List any spool files (console/print) that are currently OPEN
Open	All Unowned Files	List any spool files that are orphaned and unowned by an existing userid. Purge or Transfer ownership to another userid
Open	Spool Usage Summary	Spool usage report breaking down largest files, highest users, files by class and types of spool files on the system or cluster
Open	Spool Management	Set up and control closing open spool files (consoles) and purge schedules

DCSS/NSS Mapping

DCSS/NSS Mapping													
													X Search Criteria ...
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Sel	System	File	FileName	FileType	BegPage	EndPage	StartMB	EndMB	Type	Class	Users	Date Stamp	Overlaps With
<input type="checkbox"/>	VSIVC1	0002	GCS	NSS	00000	0000C	0K	52K	EW	R - Avail, restricted	00002	2022-07-01 09:18:04	CMS ZCMS
<input type="checkbox"/>	VSIVC1	0010	CMS	NSS	00000	0000D	0K	56K	EW	P - Pending purge	00011	2023-03-22 14:43:33	GCS ZCMS
<input type="checkbox"/>	VSIVC1	0021	CMS	NSS	00000	0000D	0K	56K	EW	A - Avail, nonrestricted	00066	2023-03-22 14:43:33	GCS ZCMS
<input type="checkbox"/>	VSIVC1	0025	ZCMS	NSS	00000	0000D	0K	56K	EW	A - Avail, nonrestricted	00001	2023-03-22 14:43:34	CMS GCS
<input type="checkbox"/>	VSIVC1	0010	CMS	NSS	00020	00023	128K	144K	EW			2023-03-22 14:43:33	ZCMS
<input type="checkbox"/>	VSIVC1	0021	CMS	NSS	00020	00023	128K	144K	EW			2023-03-22 14:43:33	ZCMS
<input type="checkbox"/>	VSIVC1	0025	ZCMS	NSS	00020	00023	128K	144K	EW			2023-03-22 14:43:34	CMS
<input type="checkbox"/>	VSIVC1	0002	GCS	NSS	00400	0044E	4	4.3	SR			2022-07-01 09:18:04	
<input type="checkbox"/>	VSIVC1	0002	GCS	NSS	0044F	0044F	4.3	4.3	SW			2022-07-01 09:18:04	
<input type="checkbox"/>	VSIVC1	0002	GCS	NSS	00450	005FF	4.3	5.9	SN			2022-07-01 09:18:04	
<input type="checkbox"/>	VSIVC1	0014	DOSINST	DCSS	00900	0090F	9	9	SR	A - Avail, nonrestricted	00000	2022-01-12 09:07:25	SCEE
<input type="checkbox"/>	VSIVC1	0031	SCEE	DCSS	00900	009FF	9	9.9	SR	A - Avail, nonrestricted	00013	2022-01-12 09:09:16	DOSINST
<input type="checkbox"/>	VSIVC1	0019	CMSDOS	DCSS-M	00B00	00B0C	11	11	SR	A - Avail, nonrestricted	00000	2022-01-12 09:08:15	DOSBAM

Display Users **Purge**

Search for Files

Pool File Search

Enter one or more criteria in the fields below to search and list spool files:

Userid

Cluster Member

Class

File Name

File Type

Include All
 Include READER
 Include PRINT
 Include PUNCH
 Only OPEN Spool Files

OK

Search Spool Files: CONSOLE on CloudDemo

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Search Criteria ...

Sel	OwnerUID	System	Num	CL	Typ	Records	Hold	Date Stamp	FileName	FileType	Origin/DIST	Device
<input type="checkbox"/>	AUTOLOG2	VSIVC1	0007	A	CON	00000035	NONE	2023-05-17.21:57:30	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC2	0005	A	CON	00000035	NONE	2023-05-17.21:55:34	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC4	0010	A	CON	00000035	NONE	2023-05-17.18:05:33	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC4	0009	A	CON	00000035	NONE	2023-05-17.15:45:27	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC4	0008	A	CON	00000035	NONE	2023-05-17.15:42:46	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC4	0007	A	CON	00000034	NONE	2023-05-17.15:39:15	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC3	0010	A	CON	00000035	NONE	2023-05-17.15:34:29	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC3	0009	A	CON	00000035	NONE	2023-05-17.13:48:55	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOLOG2	VSIVC3	0008	A	CON	00000035	NONE	2023-05-17.12:52:56	AUTOLOG2	CONSOLE	SYSTEM	Reader
<input type="checkbox"/>	AUTOUID	VSIVC4	0134	C	CON	00000003	NONE	2023-06-11.02:00:05	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC2	0135	C	CON	00000003	NONE	2023-06-11.02:00:00	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC1	0136	C	CON	00000003	NONE	2023-06-11.02:00:00	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC4	0133	C	CON	00000003	NONE	2023-06-04.02:00:04	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC2	0134	C	CON	00000003	NONE	2023-06-04.02:00:00	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC1	0135	C	CON	00000003	NONE	2023-06-04.02:00:00	SETZONE	CONSOLE	AUTOUID	Reader
<input type="checkbox"/>	AUTOUID	VSIVC4	0132	C	CON	00000003	NONE	2023-05-28.02:00:05	SETZONE	CONSOLE	AUTOUID	Reader

View Transfer Toggle Hold Purge Close Console



Files by Userid

Pool Files by Userid

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Search Criteria ...

Userid	Site	Reader	Print	Punch	Total Files
JSVSVR12	VSIVC1	61	1	0	62
JSVSVR13	VSIVC1	61	1	0	62
JSVSVR15	VSIVC1	61	1		
JSVSVR18	VSIVC1	8	0		
JSVSVR20	VSIVC1	61	1		
JSVS15	VSIVC1	61	1		
JSVWRK01	VSIVC1	61	1		
KUBECNTL	VSIVC1	61	1		
KUBEWRK1	VSIVC1	62	1		
KUBEWRK2	VSIVC1	32	1		
MAINT	VSIVC1	4	0		
MAINT720	VSIVC1	34	0		
MONG505A	VSIVC1	61	1		
NETWATCH	VSIVC1	68	4		
OPERATNS	VSIVC1	13	0		
OPERATOR	VSIVC1	24	4		
PVM	VSIVC1	212	4		
RACFSMF	VSIVC1	135	0		
RACFVM	VSIVC1	0	4		

KUBECNTL Spool Files on CloudDemo

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Search Criteria ...

Sel	OwnerUID	System	Num	CL	Typ	Records	Hold	Date Stamp	FileName	FileType	Origin/DIST	Device
<input type="checkbox"/>	KUBECNTL	VSIVC1	0625	T	CON	00000006	NONE	2023-06-12.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0621	T	CON	00000006	NONE	2023-06-11.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0617	T	CON	00000006	NONE	2023-06-10.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0613	T	CON	00000006	NONE	2023-06-09.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0609	T	CON	00000006	NONE	2023-06-08.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0605	T	CON	00000006	NONE	2023-06-07.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0601	T	CON	00000006	NONE	2023-06-06.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0597	T	CON	00000006	NONE	2023-06-05.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0593	T	CON	00000006	NONE	2023-06-04.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0589	T	CON	00000006	NONE	2023-06-03.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0585	T	CON	00000006	NONE	2023-06-02.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0581	T	CON	00000006	NONE	2023-06-01.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader
<input type="checkbox"/>	KUBECNTL	VSIVC1	0577	T	CON	00000006	NONE	2023-05-31.00:05:02	KUBECNTL	CONSOLE	KUBECNTL	Reader

View Transfer Toggle Hold Purge Close Console

All OPEN Files

Open Spool Files ↻ ? 📄 🖨️ ✖

✓ Line 39 of 265 X Search Criteria ...

Sel	OwnerUID	System	Num	CL	Typ	Records	Hold	Date Stamp	FileName	FileType	Origin/DIST	Device
<input type="checkbox"/>	JSVSVR13	VSIVC1	0457	T	CON	00000005	NONE	OPEN- 0009	JSVSVR13	CONSOLE	JSVSVR13	Print
<input type="checkbox"/>	JSVSVR15	VSIVC1	0445	T	CON	00000001	NONE	OPEN- 0009			JSVSVR15	Print
<input type="checkbox"/>	JSVSVR20	VSIVC1	0441	T	CON	00000001	NONE	OPEN- 0009	JSVSVR20	CONSOLE	JSVSVR20	Print
<input type="checkbox"/>	JSVS15	VSIVC1	0449	T	CON	00000001	NONE	OPEN- 0009	JSVS15	CONSOLE	JSVS15	Print
<input type="checkbox"/>	JSVWRK01	VSIVC1	0453	T	CON	00000001	NONE	OPEN- 0009	JSVWRK01	CONSOLE	JSVWRK01	Print
<input type="checkbox"/>	KUBECNTL	VSIVC1	0629	T	CON	00000001	NONE	OPEN- 0009	KUBECNTL	CONSOLE	KUBECNTL	Print
<input type="checkbox"/>	KUBEWRK1	VSIVC1	0465	T	CON	00000001	NONE	OPEN- 0009	KUBEWRK1	CONSOLE	KUBEWRK1	Print
<input type="checkbox"/>	KUBEWRK2	VSIVC1	0485	T	CON	00000001	NONE	OPEN- 0009	KUBEWRK2	CONSOLE	KUBEWRK2	Print
<input type="checkbox"/>	MONG505A	VSIVC1	0469	T	CON	00000001	NONE	OPEN- 0009			MONG505A	Print
<input type="checkbox"/>	NETWATCH	VSIVC3	1202	T	CON	00003134	NONE	OPEN- 0009	NETWATCH	20230613	NETWATCH	Print
<input type="checkbox"/>	NETWATCH	VSIVC2	1258	T	CON	00003212	NONE	OPEN- 0009	NETWATCH	20230613	NETWATCH	Print
<input type="checkbox"/>	NETWATCH	VSIVC4	1259	T	CON	00003325	NONE	OPEN- 0009	NETWATCH	20230613	NETWATCH	Print
<input type="checkbox"/>	NETWATCH	VSIVC1	1260	T	CON	00003047	NONE	OPEN- 0009	NETWATCH	20230613	NETWATCH	Print

View **Close Console**

Viewing a File

```
Spool Output for JSVSVR12 PRINT 0481 on VSIVC1 Size: 426
00000 ** Top of File **
00001 HCPZPM002E Invalid operand - LINUXERID
00002 DASD 0202 DEFINED
00003 DASD 0203 DEFINED
00004 Command complete
00005 NIC 0600 is created; devices 0600-0602 defined
00006 NIC 0600 is connected to VSWITCH SYSTEM VSIINT
00007 HCPCPU1453E CPU 00 is not defined because it already exists.
00008 00: CPU 01 defined
00009 00: STORAGE = 1G MAX = 7G INC = 2M STANDBY = 1G RESERVED = 0
00010 00: Storage cleared - system reset.
00011 z/VM V7.2.0 2023-03-22 14:42
00012 DMSACP723I A (191) R/O
00013 DIAG swap disk defined at virtual address 202 (31730 4K pages of swap space)
00014 DIAG swap disk defined at virtual address 203 (63465 4K pages of swap space)
00015 Enter a non-blank character and press ENTER within 10 seconds
00016 to interrupt Linux bootup...
00017 DMSCYW2246I 07:56:53 WAKEUP in (10 sec).
00018 00: zIPL v1.23.0-30.e17 interactive boot menu
00019 00: .
00020 00: 0. default (linux).
00021 00: .
00022 00: 1. linux.
00023 00: 2. linux-0-rescue-f8de28259be44957a2af6ecd38952940.
00024 00: Note: VM users please use '#cp vi vmmsg <input>'.
00025 00: Please choose (default will boot in 5 seconds):
00026 00: Booting default (linux).
00027 00: Uncompressing Linux...
00028 00: Ok, booting the kernel.
00029 00:
00030 00:
>>
```


Unowned Files

Pool Files Unowned

Line 1 of 4 X Search Criteria ...

Sel	OwnerUID	System	Num	CL	Typ	Records	Hold	Date Stamp	FileName	FileType	Origin/DIST	Device
<input type="checkbox"/>	IAMGONE	VSIVC1	0009	A	PUN	00000015	NONE	2023-06-13.08:02:09	LDAPTEST	EXEC	JAMES	Reader
<input type="checkbox"/>	IAMGONE	VSIVC1	0017	A	PUN	00000010	NONE	2023-06-13.08:02:09	HEAD	FILE	JAMES	Reader
<input type="checkbox"/>	IAMGONE	VSIVC1	0005	A	PUN	00000015	NONE	2023-06-13.08:02:09	FILELIST	PFKEYS	JAMES	Reader
<input type="checkbox"/>	IAMGONE	VSIVC1	0013	A	PUN	00000008	NONE	2023-06-13.08:02:09	BODY	FILE	JAMES	Reader

View **Transfer** **Toggle Hold** **Purge** **Close Console**

Spool Usage Report

- Snapshot view of 'high' use and counts of resources
- A scheduled event can be set up to email the report

```

Pool Usage Summary - VSIVC1
=== Summary for Member VSIVC1 =====
TOP USERS - TOTAL FILES      TOP USERS - TOTAL RECORDS      TOP OPEN FILES
TCPMAINT    342  15.39%      ZVWS        01326554  49.65%      ZVWS        00021529  CON
DSVSVR01    63   2.84%      KUBEWRK2    00717698  26.86%      NETWATCH    00003112  CON
JSVSVR12    63   2.84%      DSVSVR01    00324566  12.15%      ZWSSL18     00003025  CON
KUBEWRK1    63   2.84%      TCPMAINT    00107178   4.01%      ZADMIN      00002333  CON
ZVPS        63   2.84%      NETWATCH    00087825   3.29%      SSL00001    00001431  CON
CBSVR010    62   2.79%      SNMPD       00025868   0.97%      ZWSSL17     00000904  CON
CBSVR011    62   2.79%      RACFSMF     00025487   0.95%      ZSERVE      00000770  CON
JSVEXTRN    62   2.79%      ZWRITE      00006475   0.24%      ZWEB18      00000674  CON
JSVSVR10    62   2.79%      ZVRM        00003910   0.15%      ZWSSL16     00000655  CON
JSVSVR13    62   2.79%      KUBEWRK1    00003633   0.14%      ZWRITE      00000643  CON

TOP 10 SPOOL FILES BY SIZE
KUBEWRK2 0369 A PUN 00616836 001 NONE 05/15 12:46:42 INITRD      R85      KUBEWR
DSVSVR01 0473 T CON 00323641 001 NONE 06/08 00:05:02          DSVSVR
ZVWS     0723 T CON 00147572 001 NONE 06/06 00:05:02 ZVWS      20230223 ZVWS
ZVWS     0714 T CON 00128344 001 NONE 05/28 00:05:02 ZVWS      20230223 ZVWS
ZVWS     0724 T CON 00111649 001 NONE 06/07 00:05:02 ZVWS      20230223 ZVWS
ZVWS     0716 T CON 00103247 001 NONE 05/30 00:05:02 ZVWS      20230223 ZVWS
ZVWS     0725 T CON 00101259 001 NONE 06/08 00:05:02 ZVWS      20230223 ZVWS
ZVWS     0715 T CON 00094582 001 NONE 05/29 00:05:02 ZVWS      20230223 ZVWS
KUBEWRK2 0361 A PUN 00091757 001 NONE 05/15 12:46:42 KERNEL     R85      KUBEWR
ZVWS     0722 T CON 00079982 001 NONE 06/05 00:05:02 ZVWS      20230223 ZVWS

A:    60   2.70%  J:    0   0.00%  S:    0   0.00%  1:    0   0.00%
B:    0   0.00%  K:    0   0.00%  T:   2061  92.75%  2:    0   0.00%
C:    83   3.74%  L:    0   0.00%  U:    0   0.00%  3:    0   0.00%
D:    2   0.09%  M:    0   0.00%  V:    0   0.00%  4:    0   0.00%
E:    0   0.00%  N:    1   0.05%  W:    0   0.00%  5:    0   0.00%
F:    0   0.00%  O:    0   0.00%  X:    0   0.00%  6:    0   0.00%
G:    0   0.00%  P:    0   0.00%  Y:    0   0.00%  7:    0   0.00%
H:    0   0.00%  Q:    0   0.00%  Z:    0   0.00%  8:    0   0.00%
I:    0   0.00%  R:   15   0.68%  0:    0   0.00%  9:    0   0.00%

USER HOLD.....: 18  0.81%
SYS  HOLD.....:  0  0.00%
NO  HOLD.....: 2204 99.19%
DUMPS.....: 1  0.05%
*UNOWNED.....: 4  0.18%
SPOOL SPACE IN USE...: 10.58%
USABLE SPOOL ALLOC...: 10.58%

TOTAL FILES.....: 2222
TOTAL RECS.....: 2671727
TOTAL BYTES.....: 203.8 MB

<== Excluding DRAIN and DUMP volumes

Top by Size  Unowned  Open Only  Dumps Only  Search
  
```



zSPOOL Management

zSPOOL Management and Controls

Line 1 of 2

X Search Criteria ...

Click	Function	Description
Open	Open Console Files Administration	Set up and control when open console spool files are automatically closed
Open	Spool File Purge Schedule and Configuration	Allows you to define when to run spool file cleanup and the rules of what is purged by userid, spool type, retention, etc

Open Console Files Administration

The image shows two overlapping windows from a software application. The left window is titled "Open Console Files Administration on VSIVC1" and contains instructions for setting a time to close console files. It features a "Time to Close" section with two dropdown menus set to "00" and "05". Below this are radio buttons for "Close All Open Consoles" (selected) and "Select Specific Userids". A list of userids is shown in a scrollable box: \$ALLOCS, \$DASDS, \$DIRECT\$, \$PAGES, \$SPOOLS, and \$SYSCKP\$. At the bottom are buttons for "Set Schedule", "Remove Schedule", and "Close-All Exclusions".

The right window is titled "Open Console File EXCLUSION on VSIVC1" and contains instructions for selecting userids to exclude from being closed. It features a scrollable list of userids: \$ALLOCS, \$DASDS, \$DIRECT\$, \$PAGES, \$SPOOLS, \$SYSCKP\$, \$SYSWRMS, and \$TDISK\$. A button labeled "Set Exclusions" is at the bottom.

Spool File Purge Management

Spool File Purge Configuration on VSIVC1

Line 1 of 24 X Search Criteria ...

Sel	#	OwnerUID	Device	Days	Type	Class	Records	Hold	FileName	FileType	OriginUID	Action
<input type="checkbox"/>	1			<90	SYS						SYSTEM	KEEP
<input type="checkbox"/>	2	ZVPS								PROD*		KEEP
<input type="checkbox"/>	3	BARTON										KEEP
<input type="checkbox"/>	4	DSADDEV										KEEP
<input type="checkbox"/>	5	JAMES										KEEP
<input type="checkbox"/>	6	MAINT*		<90								KEEP
<input type="checkbox"/>	7			<90	DMP							KEEP
<input type="checkbox"/>	8	BDR*										KEEP
<input type="checkbox"/>	9							USYS				KEEP
<input type="checkbox"/>	10	#UNOWNED										KEEP
<input type="checkbox"/>	11	SNMPDCON		>10								KEEP
<input type="checkbox"/>	12	TCPMAINT		>15								KEEP
<input type="checkbox"/>	13	NETWATCH		>7								KEEP
<input type="checkbox"/>	14	ZADMIN		>15								KEEP
<input type="checkbox"/>	15	ZVWS		>15								KEEP

Spool File Purge Rule 1 Edit on VSIVC1

Owner Userid (can mask)

Device Class

Spool File Type

Class

Hold (Prefix - is NOT)

Days - prefix with > < =

Number of Records - prefix with > < =

File Name (can mask)

File Type (can mask)

Origin Userid (can mask)

Action to take
 PURGE KEEP