



Hands-On Lab

z/OS Operator Consoles

Abstract:

The z/OS Management Facility (z/OSMF) provides a web-based graphical interface for system programmers on z/OS. This hand on lab will give an opportunity to learn about the functions and features in z/OSMF first-hand. Attendees can navigate through the z/OS Operator Consoles task to see system messages and to issue system commands.

This session will be useful to systems programmers and their managers who will be using (or are considering using) the z/OS Management Facility.

Introduction to z/OS Operator Consoles:

The z/OS Operator Consoles task lets you work with z/OS consoles. You can view system messages and issue system commands. The systems that you can work with are defined within the z/OSMF Systems task.

Key features of the z/OS Operator Consoles Task

With the z/OS Operator Consoles task, you can:

- **Use the Overview tab to see the local sysplex and systems that are available for the z/OS Operator Consoles function.**
- **View system messages for a system or local sysplex.** The Console Summary Viewer provides a graphical view of activity. Each bar in the graph represents a unit of time, so higher bars represent more activity. The colors in the bars reflect the colors of the messages that are displayed in the console. Hover the mouse pointer over the summary view to display additional information for that unit of time.
- **Issue system commands** Type a system command or select a command from your command history. The command is issued to the local system, which is indicated in the text for the command line. To issue a command to another system, use a ROUTE command. Click Submit or press Enter, then get command response from web browser.
- **Retrieve historic messages from OPERLOG or SYSLOG.**

z/OS Operator Consoles Lab

This lab consists of 12 tasks.

1. Log on to z/OSMF
2. Complete setup
3. Start Console, and open console panel
4. View system messages for a system or local sysplex
5. Association between message bar and messages
6. Hide/Show summary view
7. Show/Hide WTOR and HOLD messages
8. Enter system commands
9. Lock/Resume console
10. Search with keywords
11. Filter messages
12. Retrieve historic messages from SYSLOG

It is recommended that you execute these tasks in the order listed above. As you get familiar with the z/OS Operator Consoles, you will be able to work directly with the task you need to accomplish.

As with all the labs in this session, all the teams will be working with the same z/OSMF System. Each team will be given a unique id to work with, please make sure you work with the user id assigned to your team to avoid confusing the other teams.

Notes:

Do NOT use the Browser BACK button to go to the prior screen.

1 . Logon to z/OSMF

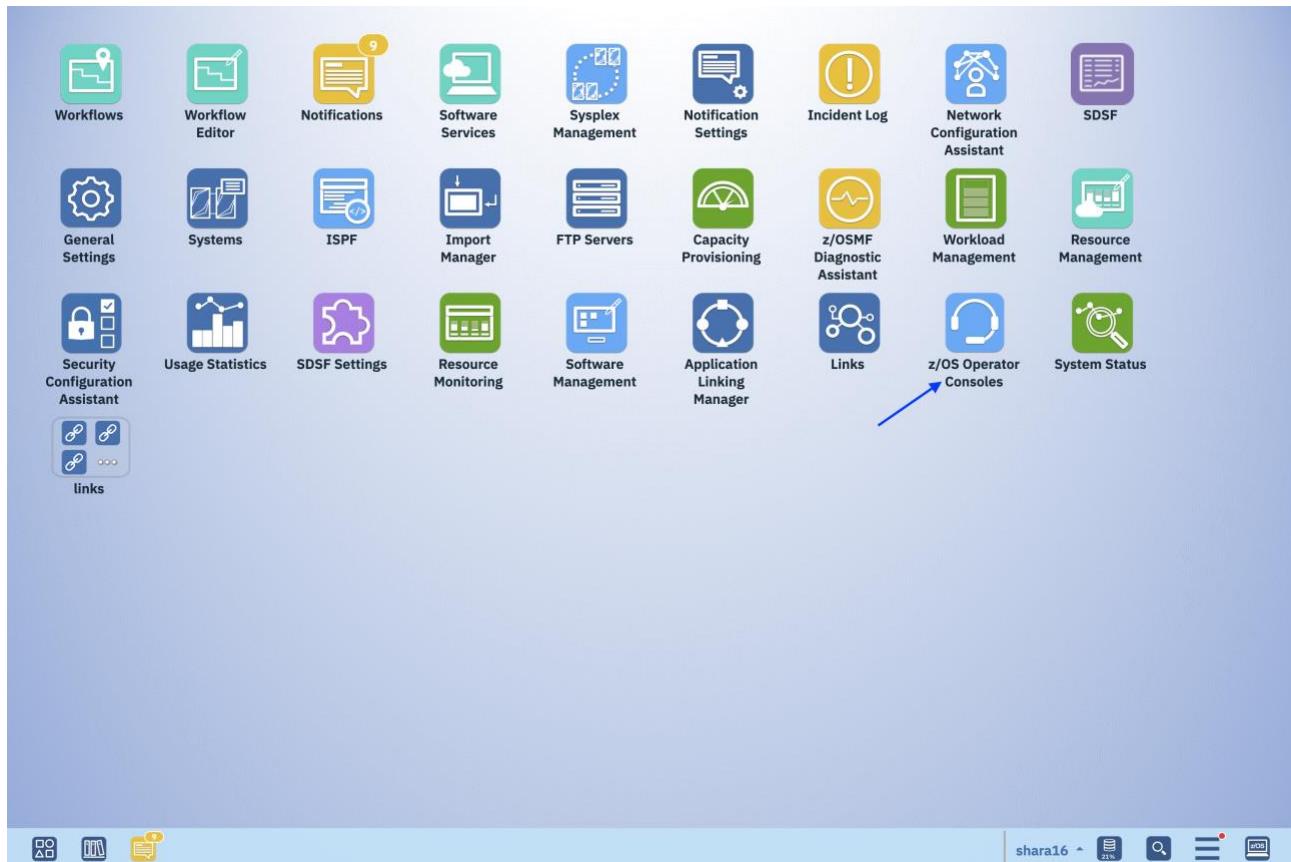
- Launch browser from your workstation
- Point browser to z/OSMF – enter the following url
<https://share.centers.ihost.com/zosmf>
- Login with SHARE userid/pw as provided by the lab instructor
 - Each workstation has been assigned a unique z/OS user id

Note: All screen captures in the handout show the ID SHARA04, your browser will be slightly different to reflect the User ID that you were given.

The screenshot shows the IBM z/OS Management Facility login interface. At the top, there is a navigation bar with the IBM logo, the text "IBM z/OS Management Facility", and links for "LEARN MORE" and "NEED HELP?". Below the navigation bar, a welcome message is displayed in multiple languages: "Welcome! Aloha! Bienvenue! Willkommen! Welkom! Bienvenido! Bem Vindo! Benvenuto!". The main section is titled "Welcome to z/OS" and describes it as "The highly secure, scalable and resilient enterprise operating system for the IBM z Systems mainframe.". Below the title are two input fields: "z/OS USER ID" and "z/OS PASSWORD", each with a corresponding text input box. A large blue "LOG IN" button is centered below these fields. At the bottom of the page, there is a footer with links to "Shopz", "IBM Support", "z Systems Redbooks", "z/OSMF Home Page", "WSC Flashes and Techdocs", "z/OS Home Page", and "IBM z/OS documentation". On the right side of the footer, there is a small copyright notice: "© Copyright IBM Corp. 2009.2021, Version 2.5" next to a small globe icon.

2. Complete setup

Step 2a: Double click z/OS Operator Consoles on Desktop



Step 2b: Select z/OS Operator Consoles window

The screenshot shows the z/OS Operator Consoles interface. At the top, there's a blue header bar with the title "z/OS Operator Consoles". Below it is a toolbar with icons for "Overview", "Actions", and "Help". The main area is titled "z/OS Operator Consoles" and contains a table with four columns: "Sysplex or System Filter", "Console Name Filter", "Status Filter", and "Console summary view". There are two rows in the table:

Sysplex or System Filter	Console Name Filter	Status Filter	Console summary view
<input type="checkbox"/> SHARPLEX (Local Plex)	sa16PLEX	Setup Required	
<input type="checkbox"/> S2	sa16S2	Setup Required	

At the bottom of the table, there's a progress bar. Below the table, the text "Total: 2 Selected: 0" is displayed. At the very bottom, there are "Refresh" and "Last refresh" buttons.

Step 2c: Select system S2

This screenshot is similar to the previous one, showing the z/OS Operator Consoles Overview page. The "Actions" dropdown is open, and the "Selected" option is chosen. The table now has a row for "S2" highlighted with a blue background and a blue border around the checkbox. A blue arrow points to the checkbox next to "S2".

Sysplex or System Filter	Console Name Filter	Status Filter	Console summary view
<input type="checkbox"/> SHARPLEX (Local Plex)	sa16PLEX	Setup Required	
<input checked="" type="checkbox"/> S2	sa16S2	Setup Required	

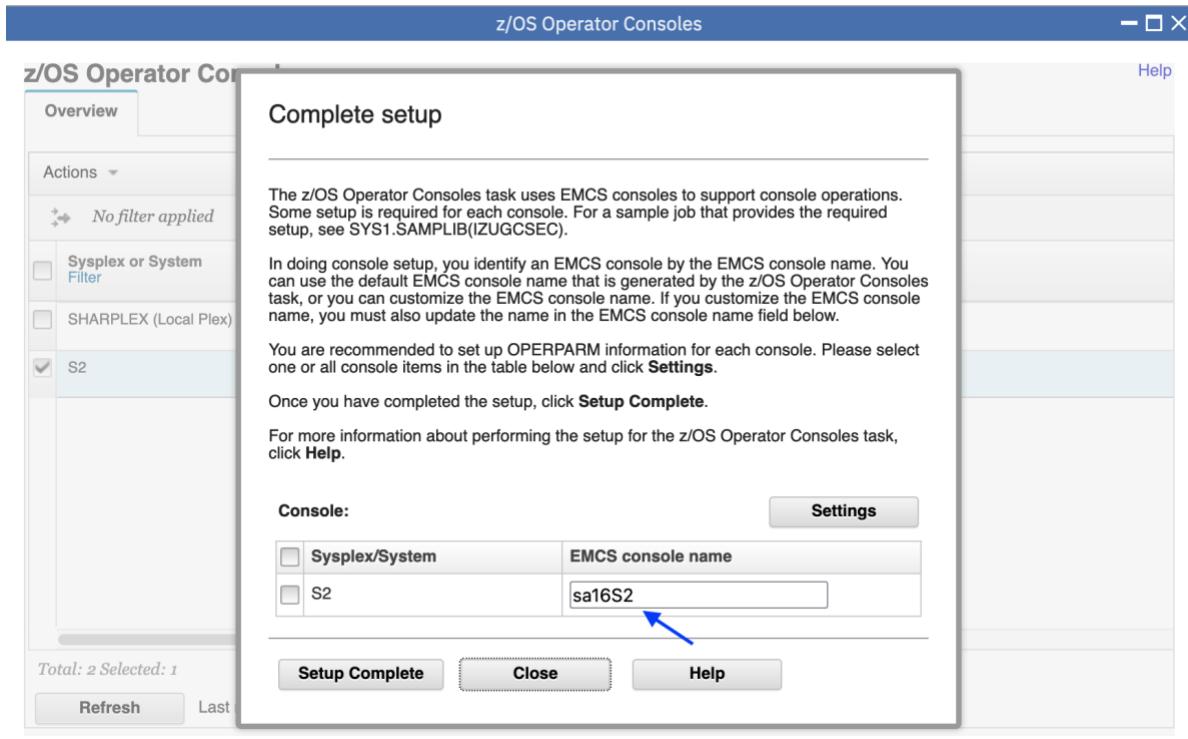
At the bottom, the text "Total: 2 Selected: 1" is shown. The "Refresh" and "Last refresh" buttons are also present.

If you find the “Status” column in your table has already been “Setup Complete”, please skip the rest child steps of Step 2 and directly go to Step 3.

Step 2d: click Actions → Complete setup

The screenshot shows the z/OS Operator Consoles interface. At the top, there's a blue header bar with the title "z/OS Operator Consoles". Below it, the main title "z/OS Operator Consoles" is displayed in bold black font. On the left, there's a sidebar with a "Overview" tab selected. A dropdown menu titled "Actions" is open, listing various options: Open console, Start console, Complete setup, Stop console, Resume console, Delete, Change setup, Lock console, Configure message help, Select All, Deselect All, Hide Filter Row, and Clear Sorts. The "Complete setup" option is highlighted with a blue arrow pointing to it. The main area shows a table with two rows. The first row has a status of "Setup Required" and the second row also has "Setup Required". The table has columns for "Console Name Filter" and "Status Filter". At the bottom of the screen, there's a footer bar with the text "Total: 2 Selected: 1", a "Refresh" button, and the last refresh timestamp: "Last refresh: Mar 9, 2022, 1:15:43 PM local time (Mar 9, 2022, 5:15:43 AM GMT)".

Step 2e: Keep the default value of EMCS console name (for SHARAnn userids it is SAnnS2, for SHARBnn userids it is SBnnS2, for SHARCnn userids it is SCnnS2).



Notes: We have setup the permission for accessing the EMCS console “SxnnS2” for the user SHARxnn, if you need to modify the EMCS console name, it requires the administrator to proper setup.

Step 2f: After validating that the EMCS console name is correct for your assigned userid, Check the checkbox before S2, then click Settings button to open console settings page.



Step 2g: Click the drop list to set the OPERPARM values one by one, or check the “Use recommended values” to auto fill all the OPERPARM values. Then click OK button.

Settings for console "sa16S2"

You are required to have at least READ access for resource profile CONOPER in the TSOAUTH class to specify the following OPERPARM fields.

OPERPARM field	Value
auth:	use SAF setup
routcode:	use SAF setup
mscope:	use SAF setup
storage:	use SAF setup
auto:	use SAF setup

Use recommended values. (i)

OK **Cancel** **Help**

Settings for console "sa16S2"

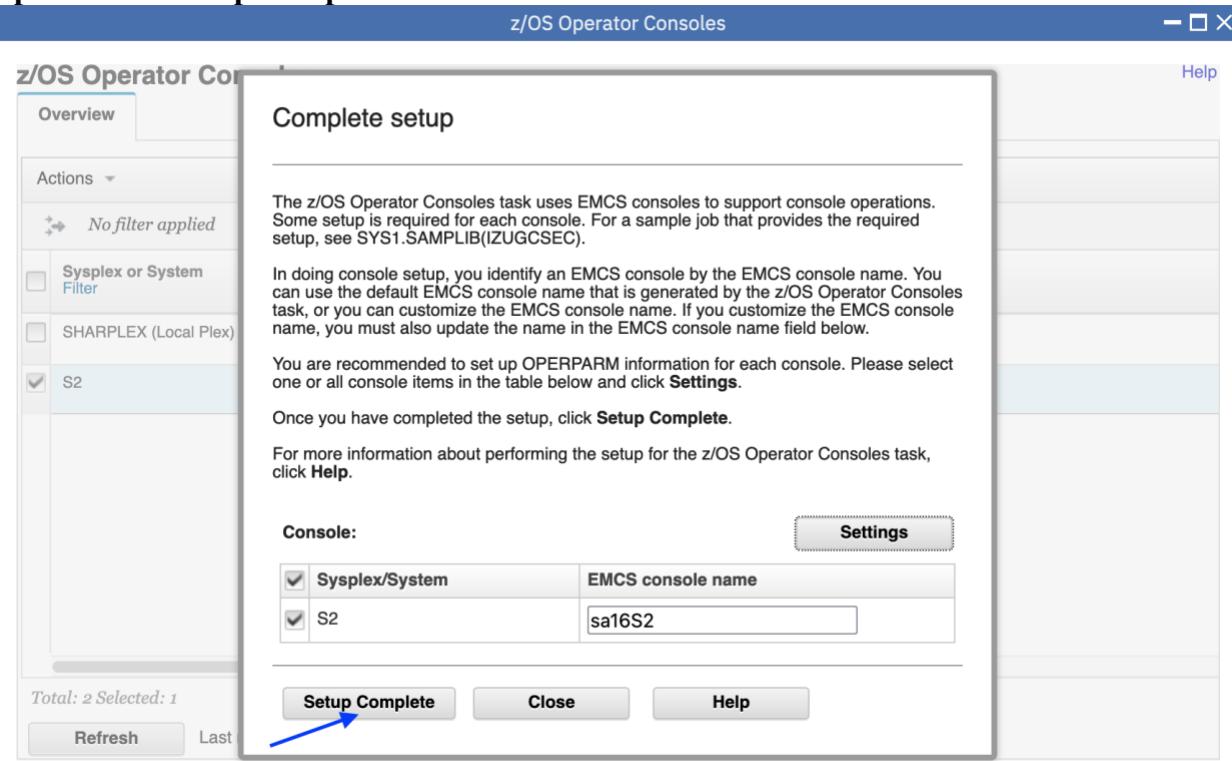
You are required to have at least READ access for resource profile CONOPER in the TSOAUTH class to specify the following OPERPARM fields.

OPERPARM field	Value
auth:	MASTER
routcode:	ALL
mscope:	ALL
storage:	1
auto:	NO

Use recommended values. (i)

OK **Cancel** **Help**

Step 2h: Click Setup Complete button



Step 2i: The status of S2 is Setup Complete

The screenshot shows the 'z/OS Operator Consoles' interface with a table view. The table has columns for 'Console Name Filter', 'Status Filter', and 'Console summary view'. The row for 'S2' shows 'sa16S2' in the first column and 'Setup Complete' with a green checkmark icon in the second column. The third column is empty.

Console Name Filter	Status Filter	Console summary view
sa16PLEX	Setup Required	
sa16S2	Setup Complete	

Total: 2 Selected: 1

Refresh Last refresh: Mar 9, 2022, 1:15:43 PM local time (Mar 9, 2022, 5:15:43 AM GMT)

3 . Start Console and open console panel

Step 3a: Select S2, click Actions-> Start Console

The screenshot shows the z/OS Operator Consoles interface. In the center, there is a table with two rows: 'sa16PLEX' and 'sa16S2'. The 'sa16S2' row has a status icon indicating 'Setup Complete'. On the left, a vertical 'Actions' dropdown menu is open, listing options like 'Open console', 'Start console', 'Complete setup', etc. The 'Start console' option is highlighted with a blue arrow pointing to it. At the bottom of the interface, there are buttons for 'Refresh' and 'Help', along with a message about the last refresh.

Console Name Filter	Status Filter	Console summary view
sa16PLEX	Setup Required	
sa16S2	Setup Complete	

Total: 2 Selected: 1

Refresh Last refresh: Mar 9, 2022, 1:15:43 PM local time (Mar 9, 2022, 5:15:43 AM GMT)

Step 3b: The status of S2 is Connected and S2 is clickable, Console Name SxnnS2 is also clickable to display settings of the console.

The screenshot shows the z/OS Operator Consoles interface with the 'Actions' dropdown closed. The table now shows three rows: 'sa16PLEX' (status 'Setup Required'), 'S2' (status 'Connected'), and another unnamed row. The 'S2' row is selected, indicated by a checked checkbox in the first column. The bottom of the interface shows the total number of consoles, the selected count, and the last refresh time.

Sysplex or System Filter	Console Name Filter	Status Filter	Console summary view
<input type="checkbox"/>	sa16PLEX	Setup Required	
<input checked="" type="checkbox"/>	S2	Connected	

Total: 2 Selected: 1

Refresh Last refresh: Mar 9, 2022, 1:15:43 PM local time (Mar 9, 2022, 5:15:43 AM GMT)

z/OS Operator Consoles

Overview

Actions ▾

No filter applied

Sysplex or System Filter	Console Name Filter
SHARPLEX (Local Plex)	sa16PLEX
S2	sa16S2

Total: 2 Selected: 0

Refresh Last refresh: Mar 9, 2022, 1:15:43 PM local time (Mar 9, 2022, 5:15:43 AM GMT)

View settings for console "sa16S2"

OPERPARM field	Value
auth:	MASTER
routocode:	ALL
mscope:	ALL
storage:	1
auto:	NO

Close

Step 3c: Click on the system name “S2”, the console for S2 will be opened in a new tab

z/OS Operator Consoles

Overview **ra16S2 for S2**

Console "ra16S2" for System "S2" is started now.

```

Mar 09 01:14:37          D C,HARDCOPY
Mar 09 01:14:38  S2      CNZ4100I 01.14.38 CONSOLE DISPLAY 630
                        CONSOLES MATCHING COMMAND: D C,HARDCOPY
                        MSG:CURR=0    LIM=9000 RPLY:CURR=0    LIM=200   SYS=S
                        HARDCOPY LOG=(SYSLOG)           CMDLEVEL=CMDS
                        ROUT=(ALL)
                        LOG BUFFERS IN USE: 0        LOG BUFFER LIMIT: 1000
d t
IEE136I LOCAL: TIME=01.14.40 DATE=2022.068 UTC: TIME=
DATE=2022.068
d a,l
CNZ4105I 01.14.45 DISPLAY ACTIVITY 634
          JOBS     M/S     TS USERS     SYSAS    INITS   ACTIVE/
          00030    00042    00003    00038    00052   00000/
          HZR      HZR      IEFPROC   NSW     S       VTAM     NET

```

Command:

Select or type

Submit

4 . View system messages for a system or local sysplex

Step 4a: The console messages will be displayed in the Console panel over time. If you don't see a lot of messages, that is fine. This system may not currently have many messages due to low workload.

z/OS Operator Consoles

z/OS Operator Consoles

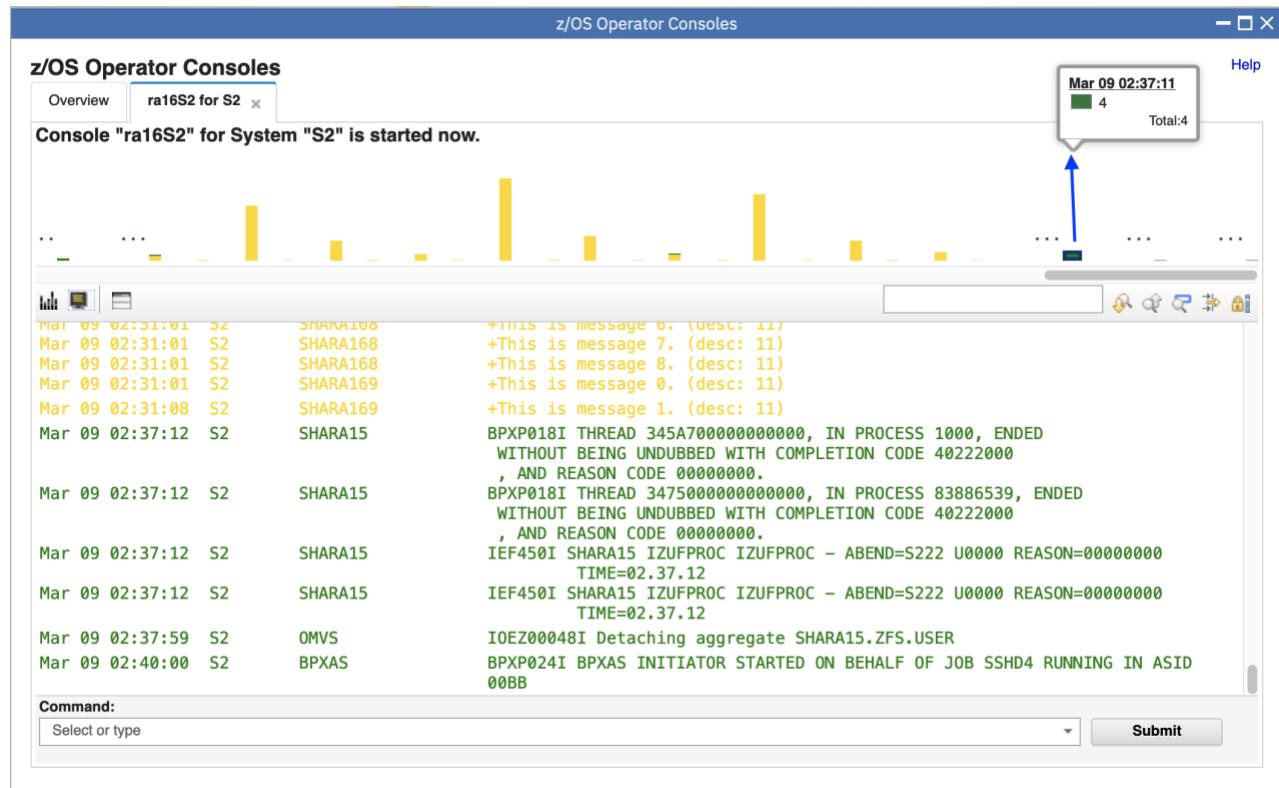
Overview ra16S2 for S2

Console "ra16S2" for System "S2" is started now.

Mar 09 02:31:01 S2 SHARA168 +This is message 3. (desc: 11)
 Mar 09 02:31:01 S2 SHARA168 +This is message 4. (desc: 11)
 Mar 09 02:31:01 S2 SHARA168 +This is message 5. (desc: 11)
 Mar 09 02:31:01 S2 SHARA168 +This is message 6. (desc: 11)
 Mar 09 02:31:01 S2 SHARA168 +This is message 7. (desc: 11)
 Mar 09 02:31:01 S2 SHARA168 +This is message 8. (desc: 11)
 Mar 09 02:31:01 S2 SHARA169 +This is message 0. (desc: 11)
 Mar 09 02:31:01 S2 SHARA169 +This is message 1. (desc: 11)
 Mar 09 02:31:08 S2 SHARA169 BPXP018I THREAD 345A700000000000, IN PROCESS 1000, ENDED
 WITHOUT BEING UNDUBBED WITH COMPLETION CODE 40222000
 , AND REASON CODE 00000000.
 Mar 09 02:37:12 S2 SHARA15 BPXP018I THREAD 3475000000000000, IN PROCESS 83886539, ENDED
 WITHOUT BEING UNDUBBED WITH COMPLETION CODE 40222000
 , AND REASON CODE 00000000.
 Mar 09 02:37:12 S2 SHARA15 IEF450I SHARA15 IZUFPROC IZUFPROC - ABEND=S222 U0000 REASON=00000000
 TIME=02.37.12
 Mar 09 02:37:12 S2 SHARA15 IEF450I SHARA15 IZUFPROC IZUFPROC - ABEND=S222 U0000 REASON=00000000
 TIME=02.37.12

Command:
 Select or type Submit

Step 4b: The message bars will be displayed in console summary view over time.



5 . Association between message bar and messages

Step 5a: Click a specific message bar and the console window below will automatically scroll to the first message associated with the message bar.

The screenshot shows the z/OS Operator Consoles interface. At the top, there is a message bar with the text "Console 'ra16S2' for System 'S2' is started now." Below the message bar, a blue arrow points from the message "Mar 09 02:30:17 S2 BPXAS" in the message list to the message bar. The message bar also displays a summary: "Mar 09 02:30:17" (green bar: 2, orange bar: 7, Total: 9). The message list below shows several log entries, with the first few being:

Date	Time	User	Message
Mar 09	02:30:17	S2	BPXAS
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	SHARA162
Mar 09	02:30:18	S2	BPXAS
Mar 09	02:30:18	S2	SHARA163
Mar 09	02:30:25	S2	SHARA163
Mar 09	02:30:32	S2	SHARA164
Mar 09	02:30:32	S2	SHARA164
Mar 09	02:30:32	S2	SHARA164
Mar 09	02:30:32	S2	SHARA164
Mar 09	02:30:32	S2	SHARA164
Mar 09	02:30:32	S2	SHARA164

Each log entry is followed by a detailed message description, such as "+This is message 0. (desc: 11)".

Step 5b: Click date time column of message in the Console Window, the message bar which the selected message belongs to will be highlighted in the console summary view

The screenshot shows the z/OS Operator Consoles interface. At the top, a message bar displays "Mar 09 02:30:31" and "Total:81". Below it, a summary table shows message counts for various categories. A blue arrow points from the "00C7" entry in the summary table to the corresponding timestamp in the detailed log below. The log lists 15 messages from Mar 09 02:30:18 to Mar 09 02:30:32, all originating from S2 and sent by SHARA164, with descriptions ranging from "This is message 0." to "This is message 14.".

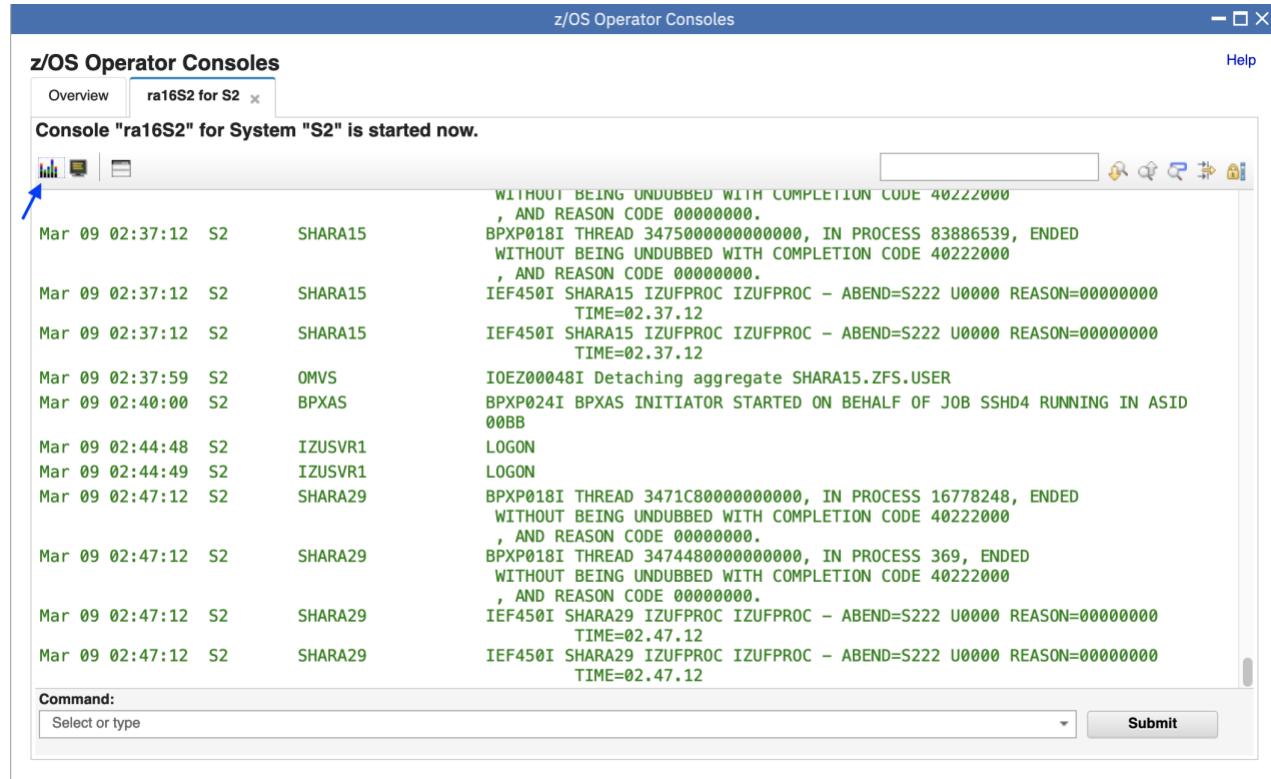
Category	Count
00C7	81

Date	Time	Source	Description
Mar 09	02:30:18	S2	SHARA163 +This is message 0. (desc: 11)
Mar 09	02:30:25	S2	SHARA163 +This is message 1. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 0. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 1. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 2. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 3. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 4. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 5. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 6. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 7. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 8. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 9. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 10. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 11. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 12. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 13. (desc: 11)
Mar 09	02:30:32	S2	SHARA164 +This is message 14. (desc: 11)

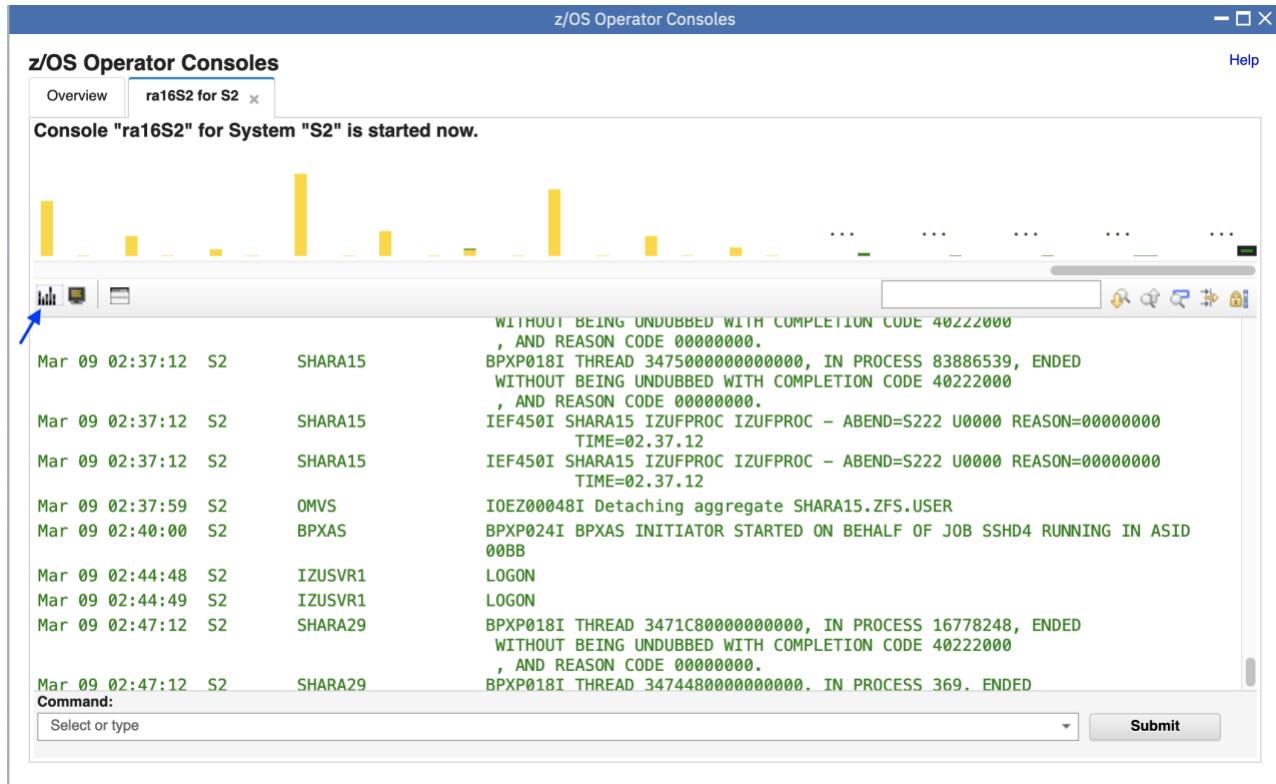
Command:

6 . Hide/Show summary view

Step 6a: Click Hide summary view (tiny little bar box on the tool bar), the console summary view will be hidden.



Step 6b: Click Show summary view (same little bar box on the tool bar), the console summary view will then be displayed



7. Show/Hide WTOR and HOLD messages

Step 7a: Click the icon of “Show WTOR and HOLD messages” to display the WTOR/HOLD view. All WTOR messages and HOLD messages that are issued since the console started will be displayed in the separate view.

The screenshot shows the z/OS Operator Consoles interface. At the top, there's a navigation bar with tabs for 'Overview' and 'ra16S2 for S2'. Below the navigation bar, a message box says 'Console "ra16S2" for System "S2" is started now.' On the left, there are three icons: a bar chart, a monitor, and a grid. The main area displays a list of messages. A blue box highlights a group of error messages from March 9, 2009, at 02:07:38, all originating from HZSPROC. These messages are in red and indicate connectivity issues. Below this group, there are more messages in green, including logon and thread completion messages. At the bottom, there's a 'Command:' input field and a 'Submit' button.

```

Mar 09 02:07:29 S2      HZSPROC      mode.
HZS0002E CHECK(IBMXCF,XCF_CF_CONNECTIVITY):
IXCH0446E System S2 has only one online operational channel
path to coupling facility CF2.

Mar 09 02:07:37 S2      HZSPROC      HZS0002E CHECK(IBMXCF,XCF_CF_SYSPLEX_CONNECTIVITY):
IXCH0220E The number of coupling facilities available to all active
systems in the sysplex does not meet the required minimum.

Mar 09 02:07:38 S2      HZSPROC      *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
IXCH0242E One or more couple data sets have a single point of failure.

Mar 09 02:37:12 S2      SHARA15      , AND REASON CODE 00000000.
IEF450I SHARA15 IZUFPROC IZUFPROC - ABEND=S222 U0000 REASON=00000000
TIME=02.37.12
Mar 09 02:37:12 S2      SHARA15      IEF450I SHARA15 IZUFPROC IZUFPROC - ABEND=S222 U0000 REASON=00000000
TIME=02.37.12
Mar 09 02:37:59 S2      OMVS        IOEZ00048I Detaching aggregate SHARA15.ZFS.USER
Mar 09 02:40:00 S2      BPXAS       BPXP024I BPXAS INITIATOR STARTED ON BEHALF OF JOB SSHD4 RUNNING IN ASID
00BB
Mar 09 02:44:48 S2      IZUSVR1    LOGON
Mar 09 02:44:49 S2      IZUSVR1    LOGON
Mar 09 02:47:12 S2      SHARA29      BPXP018I THREAD 3471C80000000000, IN PROCESS 16778248, ENDED
WITHOUT BEING UNDUBBED WITH COMPLETION CODE 40222000
, AND REASON CODE 00000000.

```

Step 7b: Change layout of WTOR/HOLD message view.

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Overview ra16S2 for S2

Console "ra16S2" for System "S2" is started now.

```

Mar 09 07 HZSPROC HZS0002E CHECK(IBMCNZ,CNZ_SYSCONS_PD_MODE):
CNZHFO010E System console S2 is running in Problem Determination
mode.

Mar 09 02:07:29 S2 HZSPROC HZS0002E CHECK(IBMXCF,XCF_CF_CONNECTIVITY):
IXCH0446E System S2 has only one online operational channel
path to coupling facility CF2.

Mar 09 02:07:37 S2 HZSPROC HZS0002E CHECK(IBMXCF,XCF_CF_CONNECTIVITY):
IXCH0220E The number of coupling facilities available to all active
systems in the sysplex does not meet the required minimum.

Mar 09 02:37:12 S2 SHARA15 IEF450I SHARA15 IZUFPROC - ABEND=S222 U0000 REASON=00000000
TIME=02.37.12
Mar 09 02:37:12 S2 SHARA15 IEF450I SHARA15 IZUFPROC - ABEND=S222 U0000 REASON=00000000
TIME=02.37.12
Mar 09 02:37:59 S2 OMVS IOEZ00048I Detaching aggregate SHARA15.ZFS.USER
Mar 09 02:40:00 S2 BPXAS BPXP024I BPXAS INITIATOR STARTED ON BEHALF OF JOB SSHD4 RUNNING IN ASID
00BB
Mar 09 02:44:48 S2 IZUSVR1 LOGON
Mar 09 02:44:49 S2 IZUSVR1 LOGON
Mar 09 02:47:12 S2 SHARA29 BPXP018I THREAD 3471C80000000000, IN PROCESS 16778248, ENDED
WITHOUT BEING UNDUBBED WITH COMPLETION CODE 40222000
, AND REASON CODE 00000000.

Command: Select or type Submit

```

The WTOR/HOLD message view is changed to vertical layout.

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Overview ra16S2 for S2

Console "ra16S2" for System "S2" is started now.

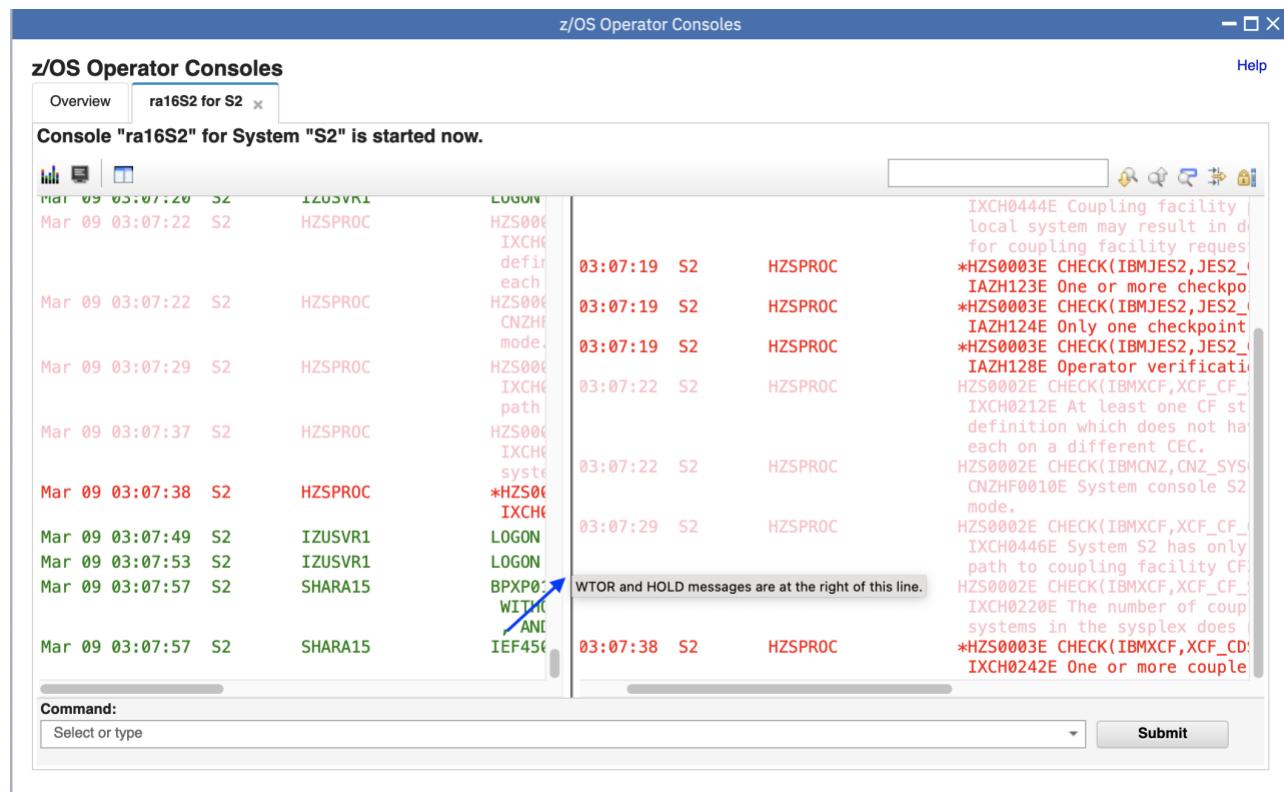
```

Mar 09 01 Change to horizontal layout;SHARA15 , AND REASON CODE 00000000.
IEF450I SHARA15 IZUFPROC IZU
TIME=02.37.12
Mar 09 02:37:12 S2 SHARA15 IEF450I SHARA15 IZUFPROC IZU
TIME=02.37.12
Mar 09 02:37:59 S2 OMVS IOEZ00048I Detaching aggregate
Mar 09 02:40:00 S2 BPXAS BPXP024I BPXAS INITIATOR STA
00BB
Mar 09 02:44:48 S2 IZUSVR1 LOGON
Mar 09 02:44:49 S2 IZUSVR1 LOGON
Mar 09 02:47:12 S2 SHARA29 BPXP018I THREAD 3471C8000000
WITHOUT BEING UNDUBBED WITH
, AND REASON CODE 00000000.
Mar 09 02:47:12 S2 SHARA29 BPXP018I THREAD 347448000000
WITHOUT BEING UNDUBBED WITH
, AND REASON CODE 00000000.
Mar 09 02:47:12 S2 SHARA29 IEF450I SHARA29 IZUFPROC IZU
TIME=02.47.12
Mar 09 02:47:12 S2 SHARA29 IEF450I SHARA29 IZUFPROC IZU
TIME=02.47.12
Mar 09 02:55:25 S2 HZSPROC HZS0001I CHECK(IBMCICS,CICS_
DFHH0002E The spool is acce
Mar 09 02:55:25 S2 HZSPROC HZS0001I CHECK(IBMCICS,CICS_

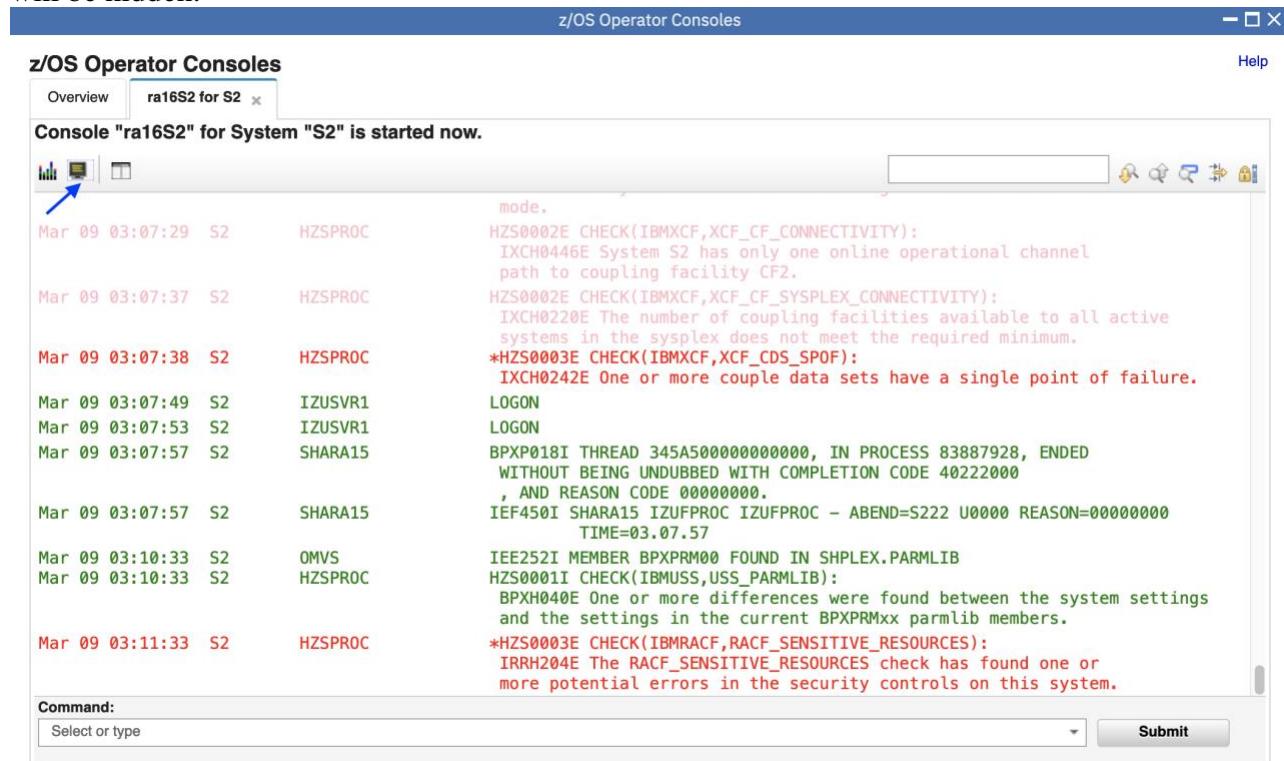
Command: Select or type Submit

```

Step 7c: Drag this line to resize windows as you need.

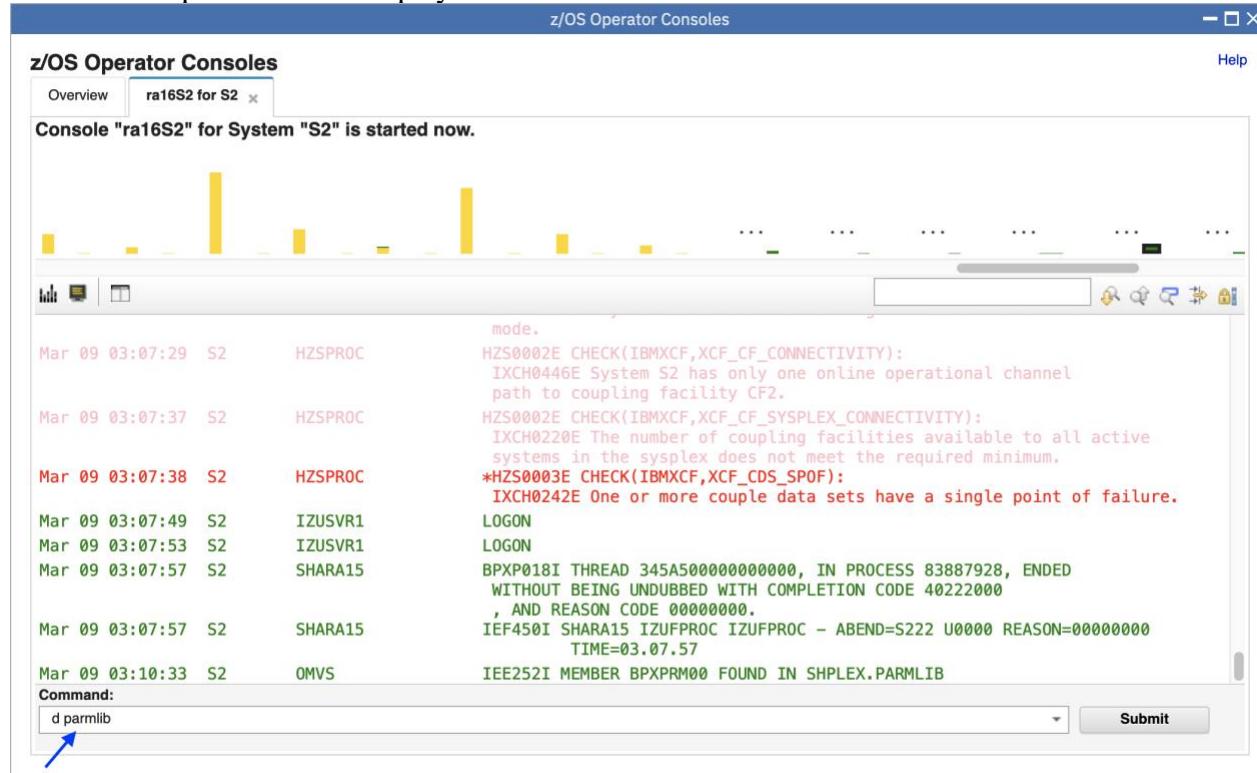


Step 7d: Click the icon of Hide WTOR and HOLD messages, the WTOR/HOLD message view will be hidden.

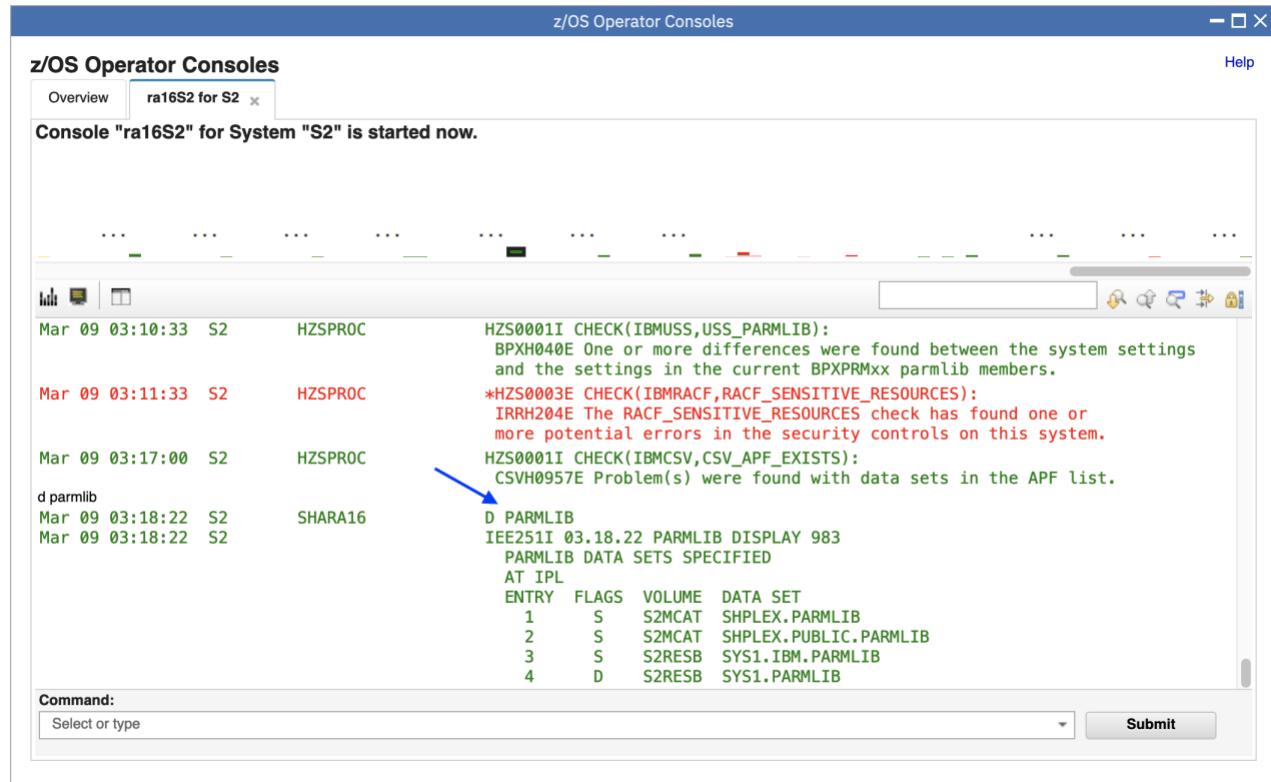


8 . Enter system commands

Step 8a: Input “D PARMLIB” into the textbox on the bottom, hit enter or click 'Submit' button, the command response will be displayed in the console window.



Step 8b: Please be aware that the command and command response may be refreshed after unsolicited messages are received.



Step 8c: Input "d a,l" into the textbox, click 'Submit' button or press Enter, the command response will be displayed in console window.

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Overview ra16S2 for S2

Console "ra16S2" for System "S2" is started now.

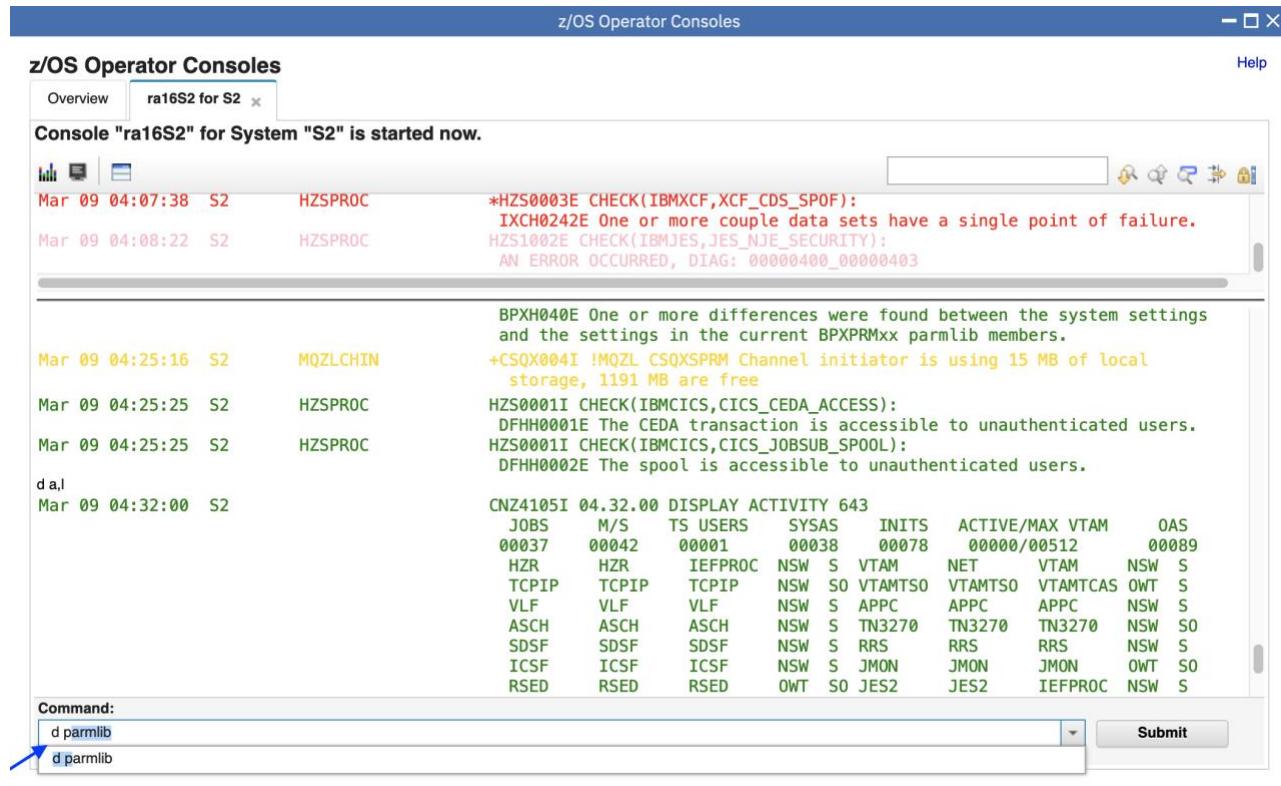
Mar 09 04:07:38 S2 HZSPROC *HZS003E CHECK(IBMXCF,XCF_CDS_SPOF):
IXCH0242E One or more couple data sets have a single point of failure.
Mar 09 04:08:22 S2 HZSPROC HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):
AN ERROR OCCURRED, DIAG: 00000400_00000403

BPXH040E One or more differences were found between the system settings
and the settings in the current BPXPRMxx parmlib members.
Mar 09 04:25:16 S2 MQZLCHIN +CSQX004I !MQZL CSQXSPRM Channel initiator is using 15 MB of local
storage, 1191 MB are free
Mar 09 04:25:25 S2 HZSPROC HZS0001I CHECK(IBM CICS,CICS_CEDA_ACCESS):
DFHH0001E The CEDA transaction is accessible to unauthenticated users.
Mar 09 04:25:25 S2 HZSPROC HZS0001I CHECK(IBM CICS,CICS_JOBSSUB_SPOOL):
DFHH0002E The spool is accessible to unauthenticated users.
d a,l
Mar 09 04:32:00 S2 CNZ4105I 04.32.00 DISPLAY ACTIVITY 643

JOB	M/S	TS	USERS	SYSAS	INITS	ACTIVE/MAX	VTAM	OAS
00037	00042	00001	00038	00078	00000/00512	00089		
HZR	HZR	IEFPROC	NSW	S	VTAM	NET	VTAM	NSW
TCP/IP	TCP/IP	TCP/IP	NSW	S0	VTAMTSO	VTAMTSO	VTAMTCAS	OWT
VLF	VLF	VLF	NSW	S	APPC	APPC	APPC	NSW
ASCH	ASCH	ASCH	NSW	S	TN3270	TN3270	TN3270	NSW
SDSF	SDSF	SDSF	NSW	S	RRS	RRS	RRS	NSW
ICSF	ICSF	ICSF	NSW	S	JMON	JMON	JMON	OWT
RSED	RSED	RSED	OWT	S0	JES2	JES2	IEFPROC	NSW

Command:
Select or type

Step 8d: Enter system command "d p" again to trigger the command history "d parmlib"



The screenshot shows the z/OS Operator Consoles interface. The title bar says "z/OS Operator Consoles". The main window title is "z/OS Operator Consoles" and the tab selected is "ra16S2 for S2". A message at the top says "Console 'ra16S2' for System 'S2' is started now." Below this, there is a scrollable log area displaying several system messages. One message from Mar 09 04:07:38 S2 HZSPROC indicates errors related to XCF and JES security. Another message from Mar 09 04:25:16 S2 MQZLCHIN shows a warning about local storage usage. Subsequent messages from Mar 09 04:25:25 S2 HZSPROC show CEDA transaction accessibility. A "d a,l" command is entered, followed by a detailed "CNZ4105I" report on activity. At the bottom, a command input field contains "d parmlib" with an arrow pointing to it, and a "Submit" button.

```

*HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
 IXCH0242E One or more couple data sets have a single point of failure.

*HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):
 AN ERROR OCCURRED, DIAG: 00000400_00000403

BPXH040E One or more differences were found between the system settings
and the settings in the current BPXPRMxx parmlib members.

+CSQX004I !MQZL CSQXSPRM Channel initiator is using 15 MB of local
storage, 1191 MB are free

HZS0001I CHECK(IBMCICS,CICS_CEDA_ACCESS):
 DFHH0001E The CEDA transaction is accessible to unauthenticated users.

HZS0001I CHECK(IBMCICS,CICS_JOBSUB_SPOOL):
 DFHH0002E The spool is accessible to unauthenticated users.

d a,l
CNZ4105I 04.32.00 DISPLAY ACTIVITY 643
JOBS M/S TS USERS SYSAS INITIS ACTIVE/MAX VTAM OAS
00037 00042 00001 00038 00078 00000/00512 00089
HZR HZR IEFPROC NSW S VTAM NET VTAM NSW S
TCPIP TCPIP TCPIP NSW SO VTAMTSO VTAMTSO VTAMTCAS OWT S
VLF VLF VLF NSW S APPC APPC APPC NSW S
ASCH ASCH ASCH NSW S TN3270 TN3270 TN3270 NSW S
SDSF SDSF SDSF NSW S RRS RRS RRS NSW S
ICSF ICSF ICSF NSW S JMON JMON JMON OWT S
RSED RSED RSED OWT SO JES2 JES2 IEFPROC NSW S

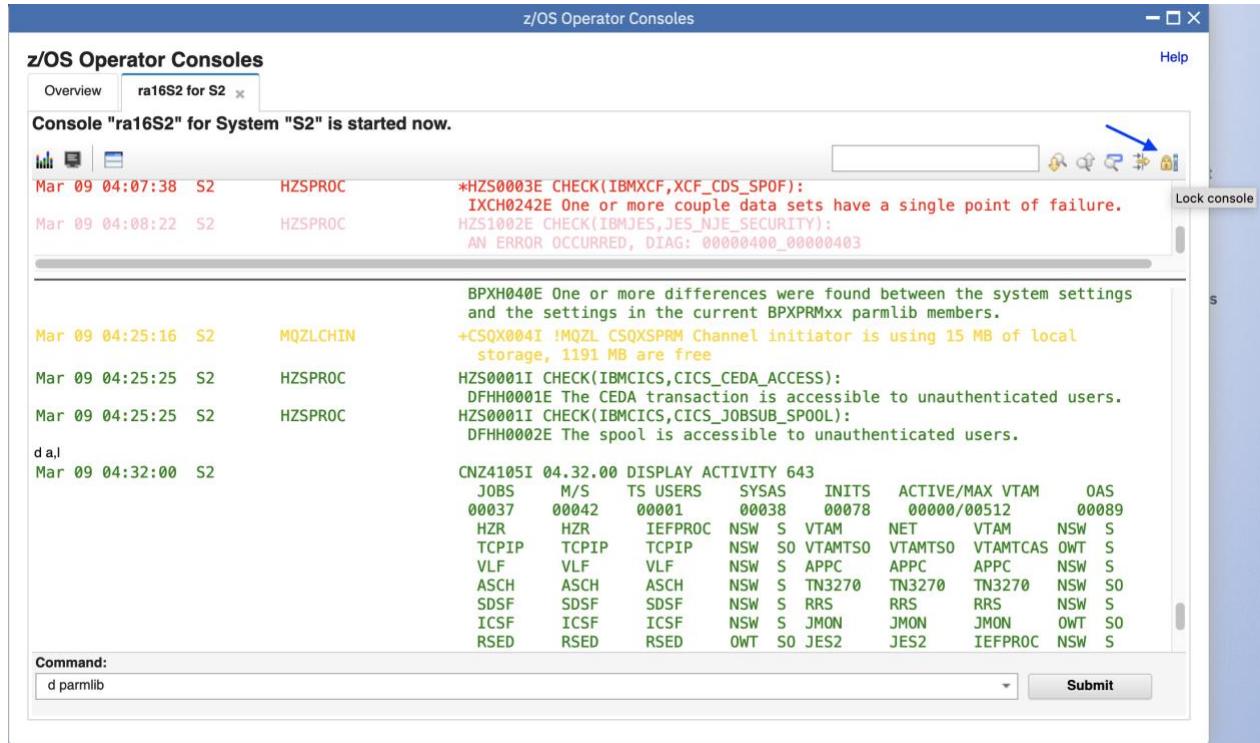
```

Command:

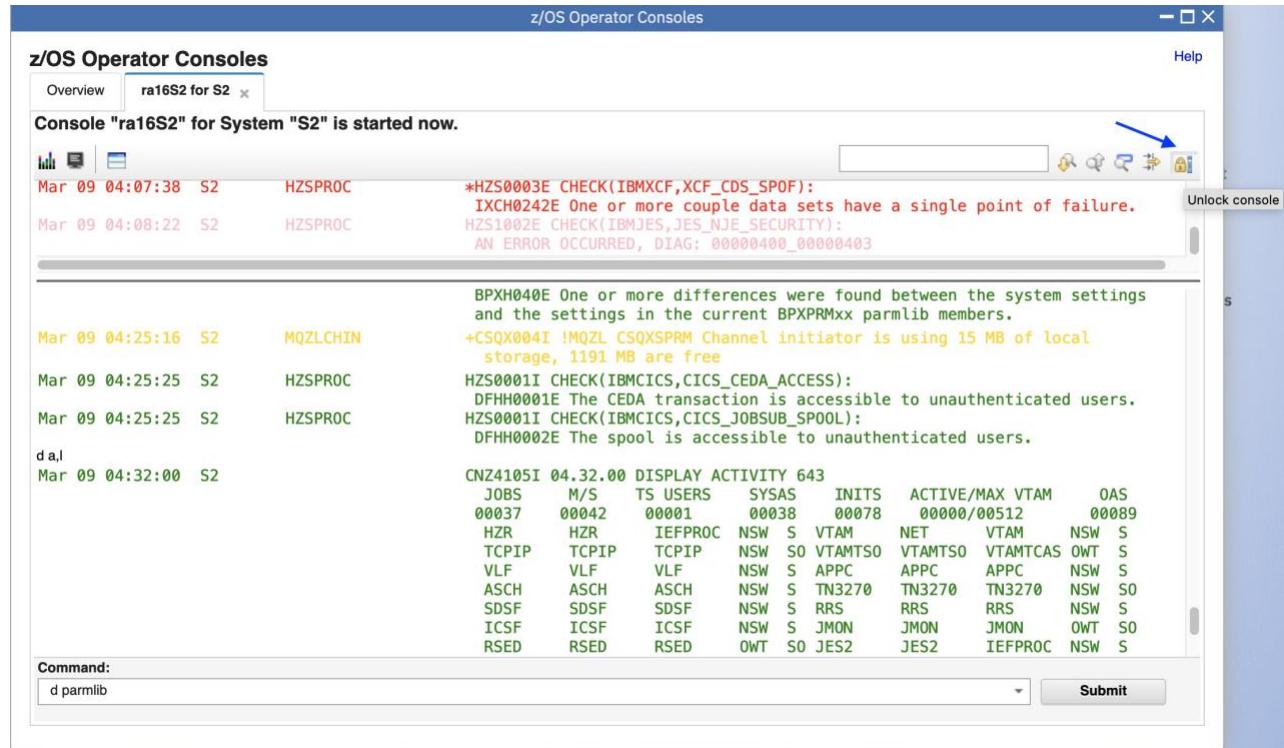
d parmlib
d parmlib

9 . Lock/Resume console

Step 9a: Click Lock console icon, the console for S2 will be locked, no new messages will be retrieved which could help user to focus on previous messages.



Step 9b: Click Unlock console icon, the console for S2 will be resumed and continue to retrieve new messages.



10 . Search keywords

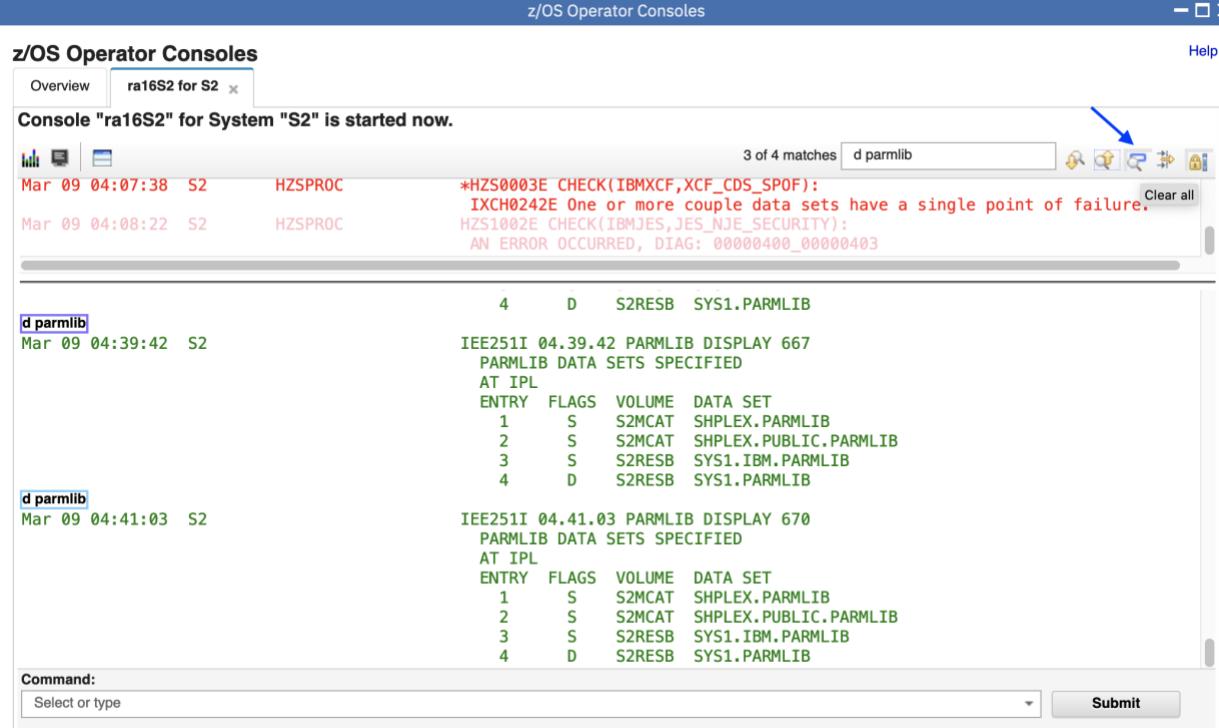
Step 10a: Input "D PARMLIB" into the Search input box, click Search down icon next to the input box, the "D PARMLIB" will be highlighted in the console window, and the console for S2 will be locked.

The screenshot shows the z/OS Operator Consoles interface. The title bar says "z/OS Operator Consoles". The main area displays a log from "Console 'ra16S2' for System 'S2'". A blue arrow points to the search input field at the top right, which contains "d parmlib". Below the input field, there are several log entries. One entry is highlighted in blue, indicating it matches the search term:

```
Mar 09 04:07:38 S2 HZSPROC *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):  
IXCH0242E One or more couple data sets have a single point of failure.  
Mar 09 04:08:22 S2 HZSPROC HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):  
AN ERROR OCCURRED, DIAG: 00000400_00000403  
  
Mar 09 04:07:37 S2 HZSPROC d parmlib HZS0002E CHECK(XCF_CF_SYSPLEX_CONNECTIVITY):  
IXCH0220E The number of coupling facilities available to all active  
systems in the sysplex does not meet the required minimum.  
Mar 09 04:07:38 S2 HZSPROC *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):  
IXCH0242E One or more couple data sets have a single point of failure.  
IEE251I 04.07.38 PARMLIB DISPLAY 608  
PARMLIB DATA SETS SPECIFIED  
AT IPL  
ENTRY FLAGS VOLUME DATA SET  
1 S S2MCAT SHPLEX.PARMLIB  
2 S S2MCAT SHPLEX.PUBLIC.PARMLIB  
3 S S2RESB SYS1.IBM.PARMLIB  
4 D S2RESB SYS1.PARMLIB  
Mar 09 04:08:22 S2 HZSPROC HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):  
AN ERROR OCCURRED, DIAG: 00000400_00000403  
Mar 09 04:10:33 S2 HZSPROC HZS0001I CHECK(IBMUSS,USS_PARMLIB):  
BPXH040E One or more differences were found between the system settings  
and the settings in the current BPXPRMxx.parmlib members.
```

At the bottom left, there is a "Command:" label and a "Select or type" input field. At the bottom right, there is a "Submit" button.

Step 10b: Click Search down icon again, next occurrence will be highlighted. Click Highlight all icon on the tool bar, all of "D PARMLIB" will be highlighted.



z/OS Operator Consoles

Console "ra16S2" for System "S2" is started now.

3 of 4 matches d parmlib

Mar 09 04:07:38 S2 HZSPROC *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
IXCH0242E One or more couple data sets have a single point of failure.
Mar 09 04:08:22 S2 HZSPROC HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):
AN ERROR OCCURRED, DIAG: 00000400_00000403

```

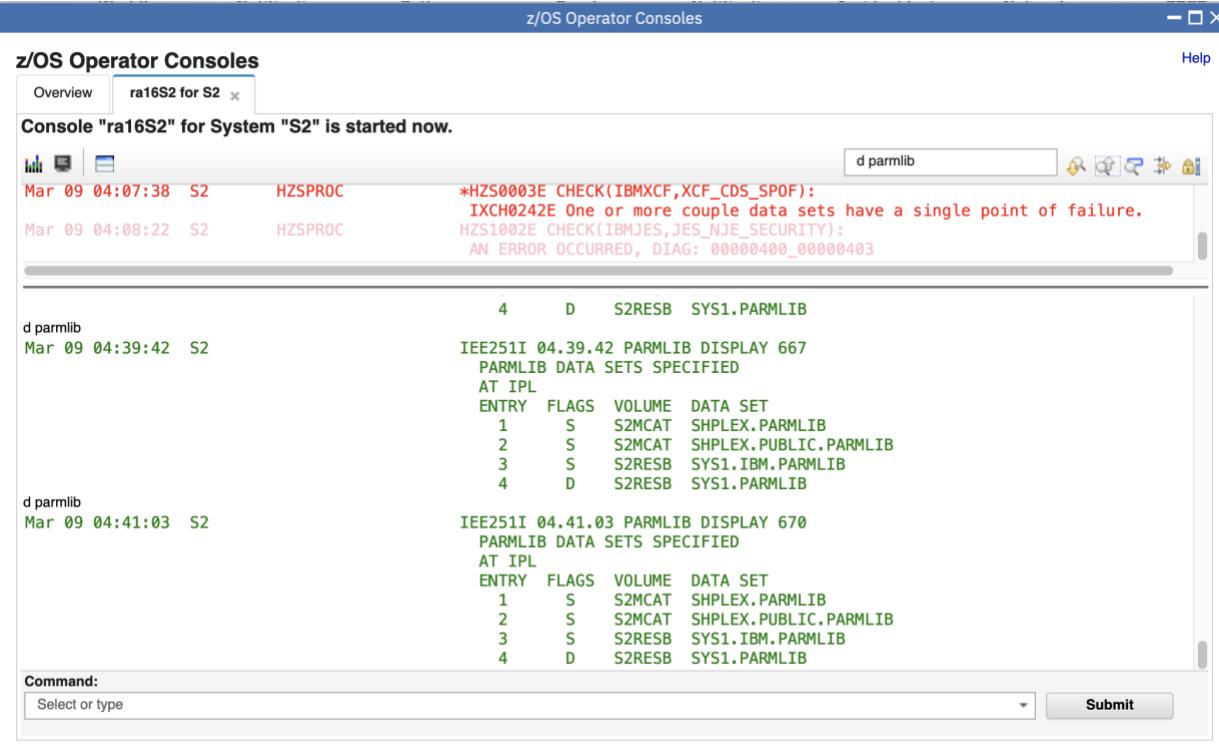
4 D S2RESB SYS1.PARMLIB
d parmlib
Mar 09 04:39:42 S2
IEE251I 04.39.42 PARMLIB DISPLAY 667
PARMLIB DATA SETS SPECIFIED
AT IPL
ENTRY FLAGS VOLUME DATA SET
1 S S2MCAT SHPLEX.PARMLIB
2 S S2MCAT SHPLEX.PUBLIC.PARMLIB
3 S S2RESB SYS1.IBM.PARMLIB
4 D S2RESB SYS1.PARMLIB

d parmlib
Mar 09 04:41:03 S2
IEE251I 04.41.03 PARMLIB DISPLAY 670
PARMLIB DATA SETS SPECIFIED
AT IPL
ENTRY FLAGS VOLUME DATA SET
1 S S2MCAT SHPLEX.PARMLIB
2 S S2MCAT SHPLEX.PUBLIC.PARMLIB
3 S S2RESB SYS1.IBM.PARMLIB
4 D S2RESB SYS1.PARMLIB

```

Command:
Select or type

Step 10c: Click Clear all icon (the same icon of Highlight all), all highlighted text will be restored, and Console for S2 will be resumed



z/OS Operator Consoles

Console "ra16S2" for System "S2" is started now.

d parmlib

Mar 09 04:07:38 S2 HZSPROC *HZS0003E CHECK(IBMXCF,XCF_CDS_SPOF):
IXCH0242E One or more couple data sets have a single point of failure.
Mar 09 04:08:22 S2 HZSPROC HZS1002E CHECK(IBMJES,JES_NJE_SECURITY):
AN ERROR OCCURRED, DIAG: 00000400_00000403

```

4 D S2RESB SYS1.PARMLIB
d parmlib
Mar 09 04:39:42 S2
IEE251I 04.39.42 PARMLIB DISPLAY 667
PARMLIB DATA SETS SPECIFIED
AT IPL
ENTRY FLAGS VOLUME DATA SET
1 S S2MCAT SHPLEX.PARMLIB
2 S S2MCAT SHPLEX.PUBLIC.PARMLIB
3 S S2RESB SYS1.IBM.PARMLIB
4 D S2RESB SYS1.PARMLIB

d parmlib
Mar 09 04:41:03 S2
IEE251I 04.41.03 PARMLIB DISPLAY 670
PARMLIB DATA SETS SPECIFIED
AT IPL
ENTRY FLAGS VOLUME DATA SET
1 S S2MCAT SHPLEX.PARMLIB
2 S S2MCAT SHPLEX.PUBLIC.PARMLIB
3 S S2RESB SYS1.IBM.PARMLIB
4 D S2RESB SYS1.PARMLIB

```

Command:
Select or type

11 . Filter messages

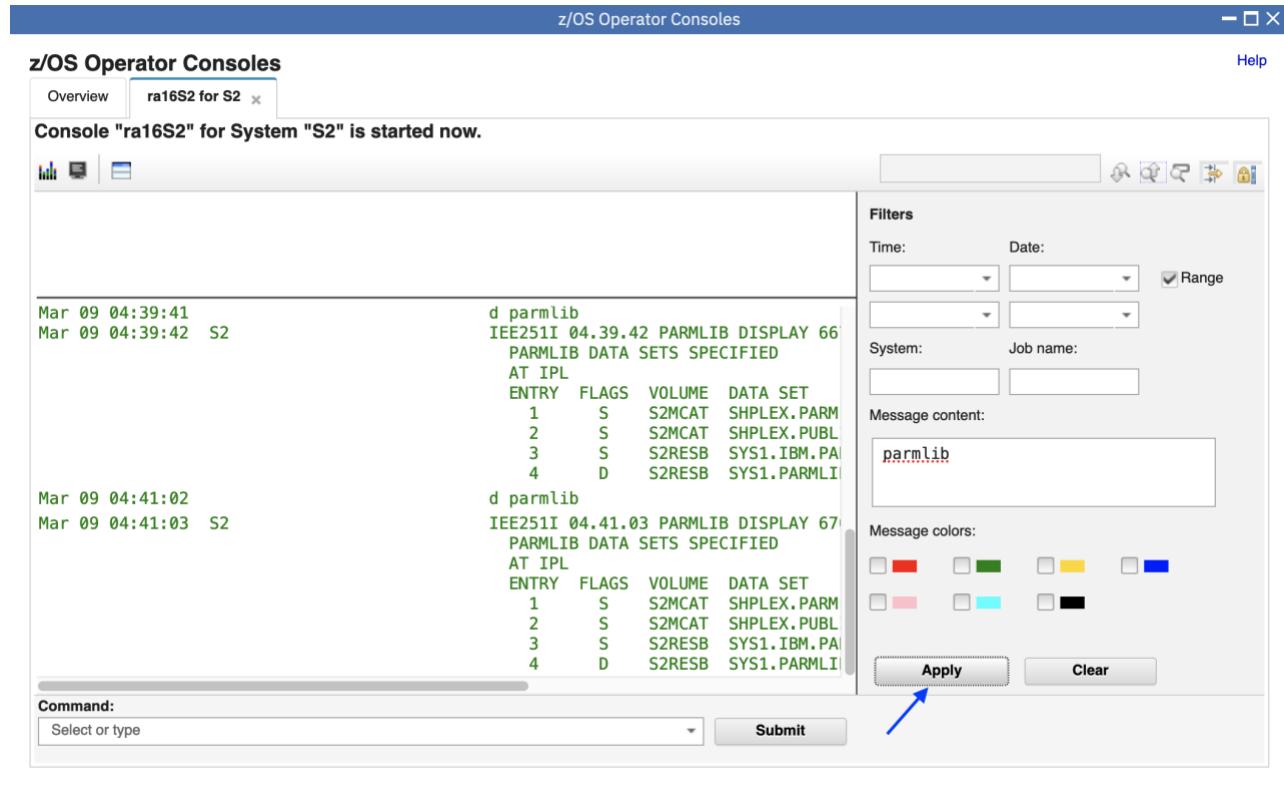
Step 11a: Click Filter icon, the console for S2 will be locked

The screenshot shows the z/OS Operator Consoles window titled "z/OS Operator Consoles". The tab "ra16S2 for S2" is selected. The main pane displays a log of messages for system S2. A red filter icon is visible in the top right corner of the message list area. The log entries include:

- Mar 09 04:07:38 S2 HZSPROC *HZS003E CHECK(IBMXCF,XCF_CDS_SPOF IXCH0242E One or more couplet data HZS1002E CHECK(IBMJES,JES_NJE_SECU AN ERROR OCCURRED, DIAG: 00000400
- Mar 09 04:08:22 S2 HZSPROC
- Mar 09 04:41:02 d parmlib IEE251I 04.41.03 PARMLIB DISPLAY 67 PARMLIB DATA SETS SPECIFIED AT IPL
- Mar 09 04:41:03 S2 HZSPROC ENTRY FLAGS VOLUME DATA SET 1 S S2MCAT SHPLEX.PARM 2 S S2MCAT SHPLEX.PUBL 3 S S2RESB SYS1.IBM.PA 4 D S2RESB SYS1.PARMLI
- Mar 09 04:55:25 S2 HZSPROC HZS0001I CHECK(IBMCICS,CICS_JOBSUB DFHH0002E The spool is accessible HZS0001I CHECK(IBMCICS,CICS_CEDA_AC
- Mar 09 04:55:25 S2 HZSPROC

The right side of the window contains a "Filters" panel with fields for Time, Date, System, Job name, and Message content. It also includes a "Message colors:" section with color swatches and "Apply" and "Clear" buttons.

Step 11b: Input “PARMLIB” into the textbox of message content, click Apply button, only messages which contain “PARMLIB” will be displayed in the console window.



Step 11c: Click Clear button, filters will be cleaned up and all messages will be displayed.

The screenshot shows the z/OS Operator Consoles interface. The main window displays a log of messages from console "ra16S2" for System "S2". The messages include system checks and parmlib displays. A 'Filters' panel on the right side allows users to refine the message list based on time, date, system, job name, message content, and message colors. A blue arrow points to the 'Clear' button in the 'Filters' panel, indicating that clicking it will clear the current filters and show all messages again.

z/OS Operator Consoles

Overview ra16S2 for S2

Console "ra16S2" for System "S2" is started now.

Mar 09 04:07:22 S2 HZSPROC HZS0002E CHECK(IBMNCN,CNZ_SYSCONS_P) CNZHFO010E System console S2 is running in mode.

Mar 09 04:07:29 S2 HZSPROC HZS0002E CHECK(IBMXCF,XCF_CF_CONNEC

ENTRY	FLAGS	VOLUME	DATA SET
1	S	S2MCAT	SHPLEX.PARM
2	S	S2MCAT	SHPLEX.PUBL
3	S	S2RESB	SYS1.IBM.PA
4	D	S2RESB	SYS1.PARMLI

Mar 09 04:41:02 d parmlib
Mar 09 04:41:03 S2 IEE251I 04.41.03 PARMLIB DISPLAY 67 PARMLIB DATA SETS SPECIFIED AT IPL

ENTRY	FLAGS	VOLUME	DATA SET
1	S	S2MCAT	SHPLEX.PARM
2	S	S2MCAT	SHPLEX.PUBL
3	S	S2RESB	SYS1.IBM.PA
4	D	S2RESB	SYS1.PARMLI

Mar 09 04:55:25 S2 HZSPROC HZS0001I CHECK(IBM CICS,CICS_J0BSUB)
DFHH0002E The spool is accessible

Mar 09 04:55:25 S2 HZSPROC HZS0001I CHECK(IBM CICS,CICS_CEDA_AC)
DFHH0001E The CEDA transaction is .

Command: Select or type

Submit

Filters

Time: Date: Range

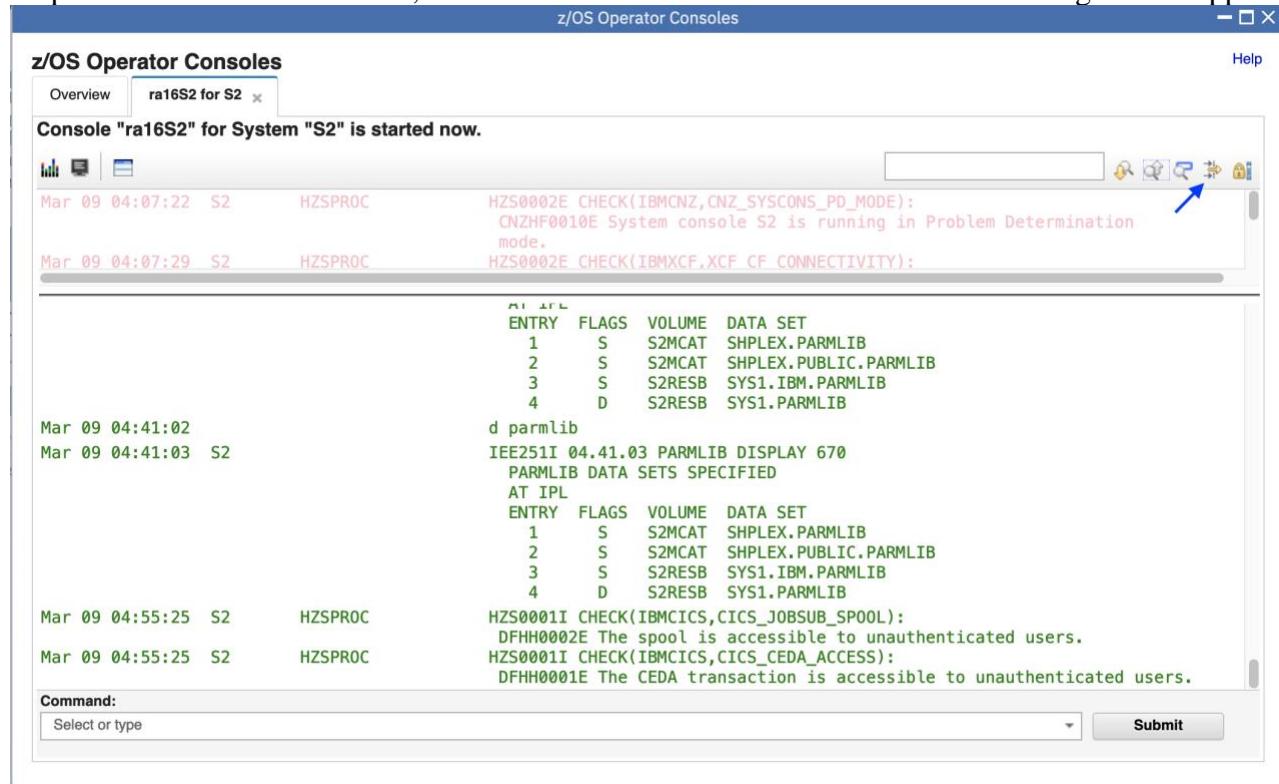
System: Job name:

Message content:

Message colors:

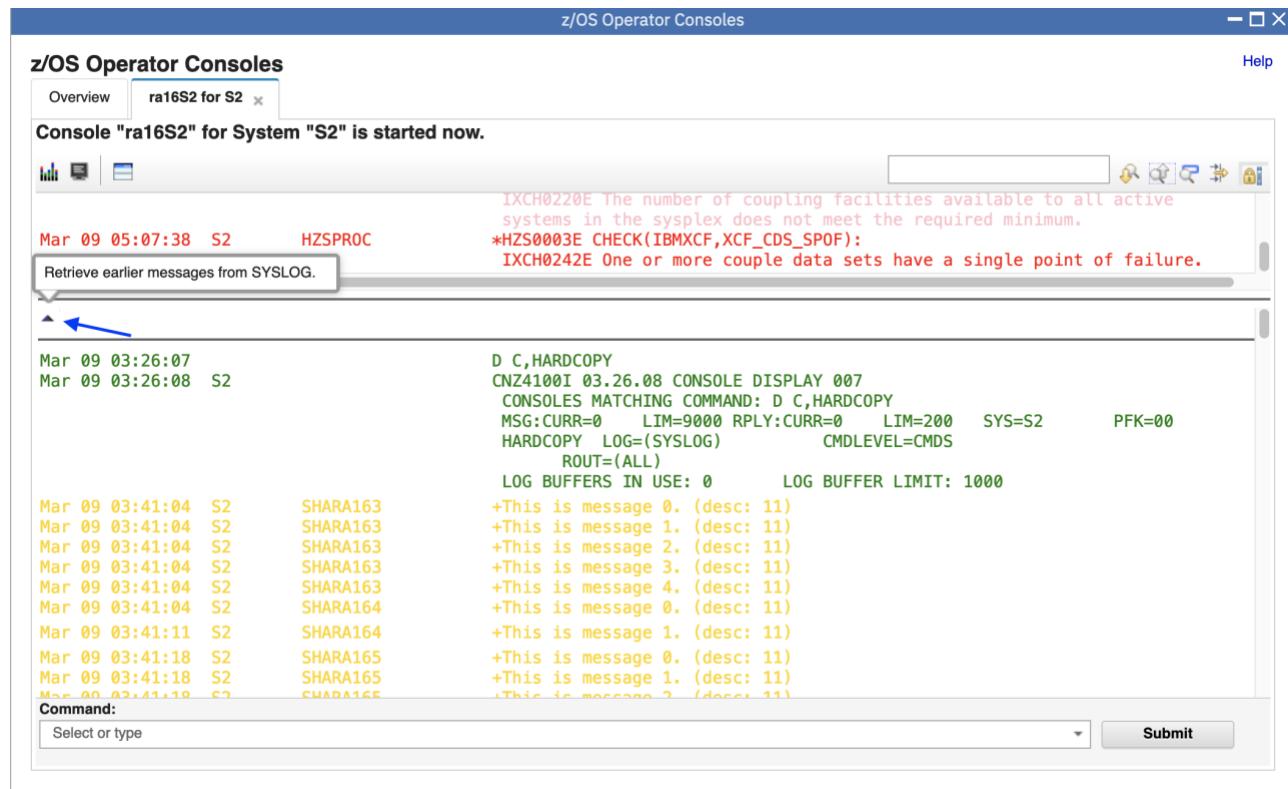
Apply Clear

Step 11d: Click Hide filter icon, the console for S2 will be resumed and Filter dialog will disappear.



12 . Retrieve historic messages from SYSLOG

Step 12a: Historic messages are the messages happened before user starts the console in z/OSMF. You can use the UP icon on top of console window to retrieve historic messages from SYSLOG or OPERLOG. Up to 200 messages can be retrieved at a time. (To avoid automatic refresh when new messages come in, suggest to lock the console before you click on the UP icon).



z/OS Operator Consoles

Overview **ra16S2 for S2** Help

Console "ra16S2" for System "S2" is started now.

IXCH0220E The number of coupling facilities available to all active systems in the sysplex does not meet the required minimum.
 *HZS003E CHECK(IBMXCF,XCF_CDS_SPOF):
 IXCH0242E One or more couple data sets have a single point of failure.

Time	Date	User	Job ID	Message
Mar 09 03:07:14	S2	STC00249		\$HASP686 SPECIFY 'PROTECTED' \$HASP686 OUTPUT(BPXAS) 857 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAC62.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00249		\$HASP686 OUTPUT(BPXAS) 858 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAC33.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00253		\$HASP686 OUTPUT(BPXAS) 859 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAB12.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00253		\$HASP686 OUTPUT(BPXAS) 860 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAC27.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00259		\$HASP686 OUTPUT(BPXAS) 861 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAC25.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00263		\$HASP686 OUTPUT(BPXAS) 862 \$HASP686 OUTPUT(BPXAS) OUTGRP=IZODAC21.1.1 NOT CANCELLED, \$HASP686 SPECIFY 'PROTECTED'
Mar 09 03:07:14	S2	STC00276		\$HASP686 OUTPUT(BPXAS) 863

Command:

End of exercise

Exercise Review and Wrap-Up

You now know how to use the z/OS Operator Consoles:

- Log on to z/OSMF
- Complete Setup for one system or local sysplex
- Start console and open console panel
- View system messages for a system or local sysplex
- Association between message bar and messages
- Hide/Show summary view
- Show/Hide WTOR and HOLD messages
- Enter system commands
- Lock/Resume console
- Search keywords
- Filter messages
- Retrieve historic messages from SYSLOG



Thank You