

# Using z/OSMF Workflows to Configure ...

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# Agenda

- **Overview of z/OSMF Workflows**
- **Using Workflows to configure z/OSMF Incident Log**
  - Overview
  - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
  - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
  - Overview
  - Configuring z/OS Requirements for zEDC (manual process )
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

# Agenda

## Overview of z/OSMF Workflows

- Using Workflows to configure z/OSMF Incident Log
  - Overview
  - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
  - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
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# Workflow Definition

- **Wikipedia**

- A **workflow** consists of an orchestrated and repeatable pattern business activity enabled by the systematic organization of resources into [processes](#) that transform materials, provide services, or process information.
- It can be depicted as [a sequence of operations](#), declared as work of [a person or group](#), an organization of staff, or one or more simple or complex mechanisms.

- **BusinessDictionary.com**

- A **workflow** is a [progression of steps](#) (tasks, events, interactions) that comprise a [work process](#), involve [two or more persons](#), and create or add value to the organization's activities.
- In a [sequential](#) workflow, each step is dependent on occurrence of the previous step; in a [parallel](#) workflow, two or more steps can occur concurrently.

# z/OSMF Workflow Application

- The z/OSMF Workflow application is a framework supports user (Workflow provider) to define a guided flow (workflow) through steps to accomplish a task.
- **Step is the basic unit of workflow:**
  - Steps may instruct the user to perform a task via documentation or invoke wizards that guide the user through performing the task
    - Wizards can update and submit jobs, execute shell scripts and run REXX EXECs
  - Steps may define dependencies on other steps
  - Steps may also depend on pre-defined conditions which could contain the expression consists of other steps' return code or variable values.
  - Steps may be assigned to an individual or a specific role, such as
    - “systems programmer”
    - “security administrator”
  - Steps may be performed manually or automatically

# User Scenario (Product Configuration)

- **The system programmer installs a product's code that provides a z/OSMF Workflow for its configuration.**
- **The person that will configure the product logs on to z/OSMF and creates a new workflow from file provided by the product.**
  - z/OSMF prompts the user to provide the fully qualified location
  - z/OSMF reads in the metadata file(s).
    - Once loaded, the original metadata file(s) is no longer used.
  - This will create a workflow instance

**That person becomes the workflow owner**
- **The owner can then start by opening the workflow instance**
  - The owner can now view and assign tasks to either individual SAF users or a role (group of users)
- **Assignees will then get notified that tasks are assigned to them**
- **Each assignee then accepts the tasks and can perform the steps when they are ready.**
- **Everyone can track the progress of the workflow and view what steps have been completed, what steps are ready, and what steps are waiting**

# z/OSMF Workflow Application

- **The z/OSMF Workflow application is useful to:**
  - Assist people unfamiliar with how to perform a given task, or a task that they perform rarely
  - Ensure that all tasks are performed in the right order and only when their dependencies have been met
  - Ensure that all steps are completed
    - Even if many of the tasks have been delegated to a number of different colleagues
  - Monitor and track progress toward the completion of the task
  - Provide a history (audit trail) of the steps performed for a task
  - Perform the same tasks on multiple systems
    - Enabling a function (e.g. zEDC)
    - Migrating a new release of software (e.g., z/OS)
- **The z/OSMF Workflow application also provides RESTful APIs allow user drive workflows such as create a workflow and start the workflow remotely or locally without the need of opening z/OSMF UI\*\*.**

\*\* available for z/OSMF V2R1 with APAR PI32148

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# Demo of a simple workflow

- **Purpose of this workflow:**
  - z/OSMF Administrator plans user name to be created and the group to connect
  - Security Administrator does the actual security changes
- **Process:**
  - Create the workflow instance
  - Be familiar with the workflow instance
  - Workflow owner assigns steps to the right person
  - Assignee accepts steps
  - Assignee checks if steps are ready for performing
  - Assignee “z/OSMF Administrator” plans user name & group name
  - Assignee “Security Administrator” creates user and connects it to group
  - Review History

# Create the workflow instance

IBM z/OS Management Facility Log out IBM

Welcome x Workflows x **Workflow main panel**

**Workflows**  
Simplifies tasks through guided step-based workflows, and provides administrative functions for assigning workflow responsibilities and tracking progress.

Actions  Search

Workflow Name Filter	Description Filter	Version Filter	Vendor Filter	Owner Filter	System Filter
<input type="checkbox"/> This workflow for z/OS setu plug-in that i				zosmfad	PLEX1.SY1 (SY1_003)
<input type="checkbox"/> Susans test				zosmfad	PLEX1.SY1 (SY1_003)
<input type="checkbox"/> z/OS setup f plug-in - W					
<input type="checkbox"/> testing -serv					
<input type="checkbox"/> rpd10 workfl					
<input type="checkbox"/> april 24, 201 z/OSMF plug					

**Create Workflow** **Path of workflow**

Type or select a workflow definition file to use for creating a new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

\* Workflow definition file:  
/tmp/workflow\_demo.xml

Type or select a variable input file to populate the new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

Workflow variable input file:  
*Select or type*

< Back Next > Finish Cancel Help

Total: 6, Selected: 0  
Refresh Last refresh: Jul 26, 2014, 8:39:47 PM local time

**Input property file**

**Create Workflow**

Workflow definition file:  
/tmp/workflow\_demo.xml

Description:  
Sample workflow for demo

Vendor:  
XYZ Inc.

Version:  
1.0

\* Workflow name:  
Simple workflow for demo

\* Owner user ID:  
zosmfad

\* System:  
PLEX1.SY1

Comments:  
Create this simple workflow for demo

**Vendor, Version**

**Workflow name**

**System name**

Open workflow on finish  Assign all steps to owner user ID

< Back Next > Finish Cancel Help

# Be familiar with the workflow instance

Workflows > Simple workflow for demo Help

## Simple workflow for demo

Description: Sample workflow for demo  
 Percent complete:  0%

Owner: zosmfad  
 Steps complete: 0 of 3

System: PLEX1.SY1  
 Status: ■ In Progress

Notes | History

Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/> Unassigned	1	<input type="checkbox"/> Plan User ID and Group Name	Yes		zOSMF Administrator	
<input type="checkbox"/> Unassigned	2	<input type="checkbox"/> Make security changes				
<input type="checkbox"/> Unassigned	2.1	<input type="checkbox"/> Creat user	Yes		Security Administrator	
<input type="checkbox"/> Unassigned	2.2	<input type="checkbox"/> Connect user to a group	Yes		Security Administrator	

Total: 4, Selected: 0

**Progress bar  
(Support weight value)**

**Notes, History**

**Step progress**

**Current assignee**

**Automatic Indication**

**All steps initially unassigned**

**Several steps can be expanded to show individual tasks**

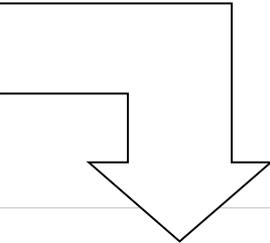
**Required skill category:**

- System Programmer
- Security Administrator

# Workflow owner assign steps to the right person (Collaboration support I)

State Filter	No. Filter	Title Filter
<input type="checkbox"/> Assigned	1	Plan User ID and Group Name
<input checked="" type="checkbox"/> Unassigned	2	Make security changes
<input checked="" type="checkbox"/>		Creat user
<input checked="" type="checkbox"/>		Connect user to a group

Assign security related steps to Security Administrator



Welcome | Workflows

Workflows > Simple workflow for demo > Add Assignees Help

### Add Assignees

Select one or more SAF user IDs, SAF groups or z/OSMF roles to be assigned to the selected steps.

▶ Selected Steps

Available assignees	
Name Filter	Type Filter
<input checked="" type="checkbox"/> z/OS Security Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF User	z/OSMF role

Total: 3, Selected: 1

Add >
Add All >>
< Remove
<< Remove All

\* Assignees to be added:

z/OS Security Administrator

Comments:

Workflow owner assigns these security related steps to Security Administrator

Send z/OSMF notifications to assignees (comments are not included on notifications)

Comple

# Workflow owner assign steps to the right person (Collaboration support II)



IBM z/OS Management Facility | Welcome ibmuser | Log out | IBM

Notification received

Notifications (1)

Description Filter	Task Filter	Recipients Filter	Time Filter
One or more steps in workflow "Simple workflow for demo" have been assigned to you.	Workflows	z/OS Security Administrator	Jul 23, 2014, 10:54:...

Click notification brings you to assigned step in workflow

IBM z/OS Management Facility | Welcome ibmuser | Log out | IBM

Workflows > Simple workflow for demo

### Simple workflow for demo

Description: Sample workflow for demo  
 Percent complete: 0%  
 Owner: zosmfad  
 Steps complete: 0 of 3  
 System: PLEX1.SY1  
 Status: In Progress

Workflow Steps

State Filter	Automated Filter	Owner Filter	Skill Categories Filter	Assignees Filter
Assigned	Plan User ID and Group Name	Yes	zOSMF Administrator	z/OSMF Administrator
In Progress	Make security changes			
Assigned	Create user	Yes	Security Administrator	ibmuser
Assigned	Connect user to a group	Yes	Security Administrator	ibmuser

State: Assigned

Current assignee

# Assignee accepts steps (Collaboration support III)

Actions

State Filter	No. Filter	Title Filter
Assigned	1	Plan User ID and Group Name
In Progress	2	Make security changes
Assigned	2.1	Creat user
Assigned		Connect user to a group

Properties

- Accept
- Perform
- Skip
- Status
- Override Complete
- Resolve Conflicts
- Assignment And Ownership
- Expand
- Collapse

Total: 4, Selected: 3

Accept step

Accept Step

Selected Steps

No.	Title	State	Owner
2	Make security changes	In Progress	
2.1	Creat user	Assigned	
2.2	Connect user to a group	Assigned	

Total: 3

Comments:

Security Administrator accepts these steps.

OK Cancel Help

Input comments if needed

Welcome Workflows

Workflows Simple workflow for demo

### Simple workflow for demo

Description: Sample workflow for demo  
 Owner: zosmfad  
 System: PLEX1.SY1  
 Steps complete: 0 of 3  
 Status: In Progress

Notes | History

Workflow Step

State: Ready, Not Ready

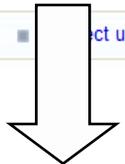
State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
Ready	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
In Progress	2	Make security changes				
Not Ready	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
Not Ready	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

# Assignee check if steps are ready for perform (Dependency checking)



State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
Ready	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
In Progress	2	Make security changes				
Not Ready	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
Not Ready	2.2	act user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

Click the step



Welcome x Workflows x

Workflows > Simple workflow for demo > 2.1. Creat user Help

## Properties for Workflow Step 2.1. Creat user

General **Details** Notes Perform Status Input Variables

State: Not Ready Skill category: Security Administrator

Owner: ibmuser Assignees: z/OS Security Administrator

Step Dependencies

Prerequisite steps need to be completed

State Filter	No. Filter	Title Filter	Owner Filter	Assignees Filter
Ready	1	Plan User ID and Group Name	zosmfad	z/OSMF Administrator

Total: 1

# Assignee plans user name & group name (Instruct user via documentation)

State Filter	No. Filter	Title Filter
Ready	1	Plan User ID and Group Name
In Progress		Make security changes
Not Started		Create user
Not Started		Connect user to a group

- Properties
- Accept
- Perform
- Skip
- Status
- Override Complete
- Resolve Conflicts
- Assignment And Ownership
- Expand
- Collapse

Welcome x Workflows x

Workflows > Simple workflow for demo > 1. Plan User ID and Group Name

### Properties for Workflow Step 1. Plan User ID and Group Name

General Details Notes Perform Status Input Variables

Input Variables

- User information
- Group information
- Review Instructions

#### Input Variables - User information

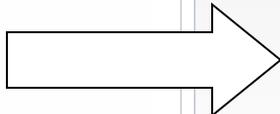
Enter the variable values for this input variable.

\*User name - The user name to be created: ⓘ  
CJOEY

\*UID - z/OS UNIX System Services UID: ⓘ  
5008

< Back Next > Save Finish Cancel

User's input



Welcome x Workflows x

Workflows > Simple workflow for demo > 1. Plan User ID and Group Name

### Properties for Workflow Step 1. Plan User ID and Group Name

General Details Notes Perform Status Input Variables

Input Variables

- User information
- Group information
- Review Instructions

#### Review Instructions

Review and confirm the instructions provided below have been performed on PLEX1.SY1, then click **Finish** to mark the step complete.

Instructions:

The following user will be added by later step:  
user name: CJOEY  
user id: 5008  
And CJOEY will be connected to existing group IZUUSER.

< Back Next > Save Finish Cancel

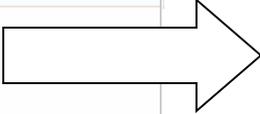
Documentation is changed accordingly

# Assignee creates user and connects it to a group (JCL/REXX/SHELL support)



State Filter	No. Filter	Title Filter	Automated Filter
<input type="checkbox"/> Complete	1	Plan User ID and Group Name	
<input checked="" type="checkbox"/> In Progress	2	Make security changes	
<input checked="" type="checkbox"/> Ready	2	<ul style="list-style-type: none"> <li>Creat user</li> <li>Connect user to a group</li> </ul>	<ul style="list-style-type: none"> <li>Yes</li> <li>Yes</li> </ul>

Perform options



**Perform Automated Step**

The selected step can be performed automatically. How would you like to proceed?

- Automatically perform the selected step, and all subsequent automated steps, according to their declared step dependencies, until one of the following occurs:
  - all workflows steps have been completed.
  - a non-automated, non-Complete step, is reached, or
  - an error occurs.
- Automatically perform the selected step only.
- Manually perform the selected step.

When input file variable conflicts occur:

- Always use input file values. Existing values will be overwritten and automation will continue.
- Always keep existing values. Input file values will be ignored and automation will continue.
- Allow step or workflow owner to choose whether the input file value or existing value should be used for each conflicting variable. Automation will be stopped.

OK Cancel Help

General Details Notes **Perform** Status Input Variables

**Input Variables - User information**

Enter the variable values for this input category.

**Customize embedded JCL via Input**

\*User name- The user name to be created: CJOEY

\*UID- z/OS UNIX System Services UID: 5008

Submit and Save JCL



Customize embedded JCL directly

General Details Notes **Perform** Status Input Variables

- Input Variables
  - User information
  - Review Instructions
  - Create JOB statement
  - Review JCL
- Submit and Save JCL

**Review JCL**

Review the generated JCL, then click **Next** to proceed. Optionally, you can edit the JCL.

```
// IZUWFJB JOB (ACCTINFO), CLASS=A, MSGCLASS=0,
//          MSGLEVEL=(1,1), REGION=0M, NOTIFY=IBMUSER
/*JOBPARM  SYSAFF=SY1
//STEP1    EXEC  PGM=IKJEFT01, DYNAMNBR=20
//SYSTSPT  DD   SYSOUT=A
//SYSTSIN  DD   *
ADDUSER    CJOEY NOPASSWORD OMVS (UID(5008))
/*
```

Maximum record length: 1,024

< Back Next > Save Finish Cancel

# Assignee creates user and connects it to a group (Automation Support)

## Simple workflow for demo

Description:  
Sample workflow for demo  
Percent complete:

50%

Owner:  
zosmfad  
Steps complete:  
2 of 3

System:  
PLEX1.SY1  
Status:  
Automation in Progress [ibmuser]

Notes | History

Automation indication

### Workflow Steps

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	Complete	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
<input checked="" type="checkbox"/>	In Progress	2	Make security changes				
<input checked="" type="checkbox"/>	Complete	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
<input type="checkbox"/>	Ready	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

Step 2.2 will be automatically started

## Simple workflow for demo

Description:  
Sample workflow for demo  
Percent complete:

100%

Owner:  
zosmfad  
Steps complete:  
3 of 3

System:  
PLEX1.SY1  
Status:  
Complete

Notes | History

Automation Done

### Workflow Steps

	State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	Complete	1	Plan User ID and Group Name	Yes	zosmfad	zOSMF Administrator	z/OSMF Administrator
<input type="checkbox"/>	Complete	2	Make security changes				
<input type="checkbox"/>	Complete	2.1	Creat user	Yes	ibmuser	Security Administrator	z/OS Security Administrator
<input type="checkbox"/>	Complete	2.2	Connect user to a group	Yes	ibmuser	Security Administrator	z/OS Security Administrator

# Review History

Welcome x Workflows x

Workflows > Simple workflow for demo > History

## History for Simple workflow for demo

Actions ▾					
	Date and Time (GMT) Filter	Action Filter	Messages [More   Less] Filter	User ID Filter	Comments [More   Less] Filter
<input type="radio"/>	Jul 23, 2014, 2:37:19 PM	Workflow Created	<p><a href="#">ZUWVF0020</a>:The workflow name is set to "Simple workflow for demo" .</p> <p><a href="#">ZUWVF0021</a>:The workflow owner is set to "zosmfad" .</p> <p><a href="#">ZUWVF0022</a>:The workflow system is set to "SY1" .</p> <p style="text-align: right;"><a href="#">[More]</a></p>	zosmfad	
<input type="radio"/>	Jul 23, 2014, 2:44:21 PM	Step Assigned	<p><a href="#">ZUWVF0025</a>:The following users have been assigned to step "Plan User ID and Group Name" : Users: "z/OSMF Administrator"</p> <p><a href="#">ZUWVF0026</a>:Step "Plan User ID and Group Name" has changed to state "Assigned" .</p>	zosmfad	
<input type="radio"/>	Jul 23, 2014, 2:54:57 PM	Step Assigned	<p><a href="#">ZUWVF0025</a>:The following users have been assigned to step "Creat user" : Users: "z/OS Security Administrator"</p> <p><a href="#">ZUWVF0026</a>:Step "Creat user" has changed to state "Assigned" .</p> <p style="text-align: right;"><a href="#">[More]</a></p>	zosmfad	Workflow owner assigns these security related steps to Security Administrator.
<input type="radio"/>	Jul 23, 2014, 3:07:12 PM	Step Accepted	<p><a href="#">ZUWVF0045</a>:User "ibmuser" has accepted step "Creat user" . This user is now the step owner.</p> <p><a href="#">ZUWVF0026</a>:Step "Creat user" has changed to state "Not Ready" .</p> <p><a href="#">ZUWVF0045</a>:User "ibmuser" has accepted step "Connect user to a group" . This user is now the step</p> <p style="text-align: right;"><a href="#">[More]</a></p>	ibmuser	Security Administrator accepts these steps.
<input type="radio"/>	Jul 23, 2014, 3:10:42 PM	Step Accepted	<p><a href="#">ZUWVF0045</a>:User "zosmfad" has accepted step "Plan User ID and Group Name" . This user is now the step owner.</p> <p><a href="#">ZUWVF0026</a>:Step "Plan User ID and Group Name" has changed to state "Ready" .</p>	zosmfad	z/OSMF admin accepts this step to plan the user name to be created.
<input type="radio"/>	Jul 23, 2014, 3:30:55 PM	Step Completed	<p><a href="#">ZUWVF0026</a>:Step "Plan User ID and Group Name" has changed to state "Complete" .</p> <p><a href="#">ZUWVF0026</a>:Step "Creat user" has changed to state "Ready" .</p>	zosmfad	
<input type="radio"/>	Jul 23, 2014, 3:38:56 PM	Automation Started	<p><a href="#">ZUWVF0160</a>:The automation processing for workflow "Simple workflow for demo" has been started by user "ibmuser" from step "Creat user" .</p>	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:56 PM	Submitted	<p><a href="#">ZUWVF0026</a>:Step "Creat user" has changed to state "Submitted" .</p>	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:57 PM	Step Completed	<p><a href="#">ZUWVF0026</a>:Step "Creat user" has changed to state "Complete" .</p> <p><a href="#">ZUWVF0026</a>:Step "Connect user to a group" has changed to state "Ready" .</p>	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:59 PM	Automate Step Complete	<p><a href="#">ZUWVF0164</a>:Automation processing for step "Creat user" is complete.</p>	ibmuser	
<input type="radio"/>	Jul 23, 2014, 3:38:59 PM	Submitted	<p><a href="#">ZUWVF0026</a>:Step "Connect user to a group" has changed to state "Submitted"</p>	ibmuser	

Total: 15, Selected: 0

# Agenda

- Overview of z/OSMF Workflows
- **Using Workflows to configure z/OSMF Incident Log**
- ➔ **– Overview**
  - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
  - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- Using Workflows to configure zEDC
  - Overview
  - Configuring z/OS Requirements for zEDC (manual process )
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

# z/OSMF Problem Determination – Incident Log

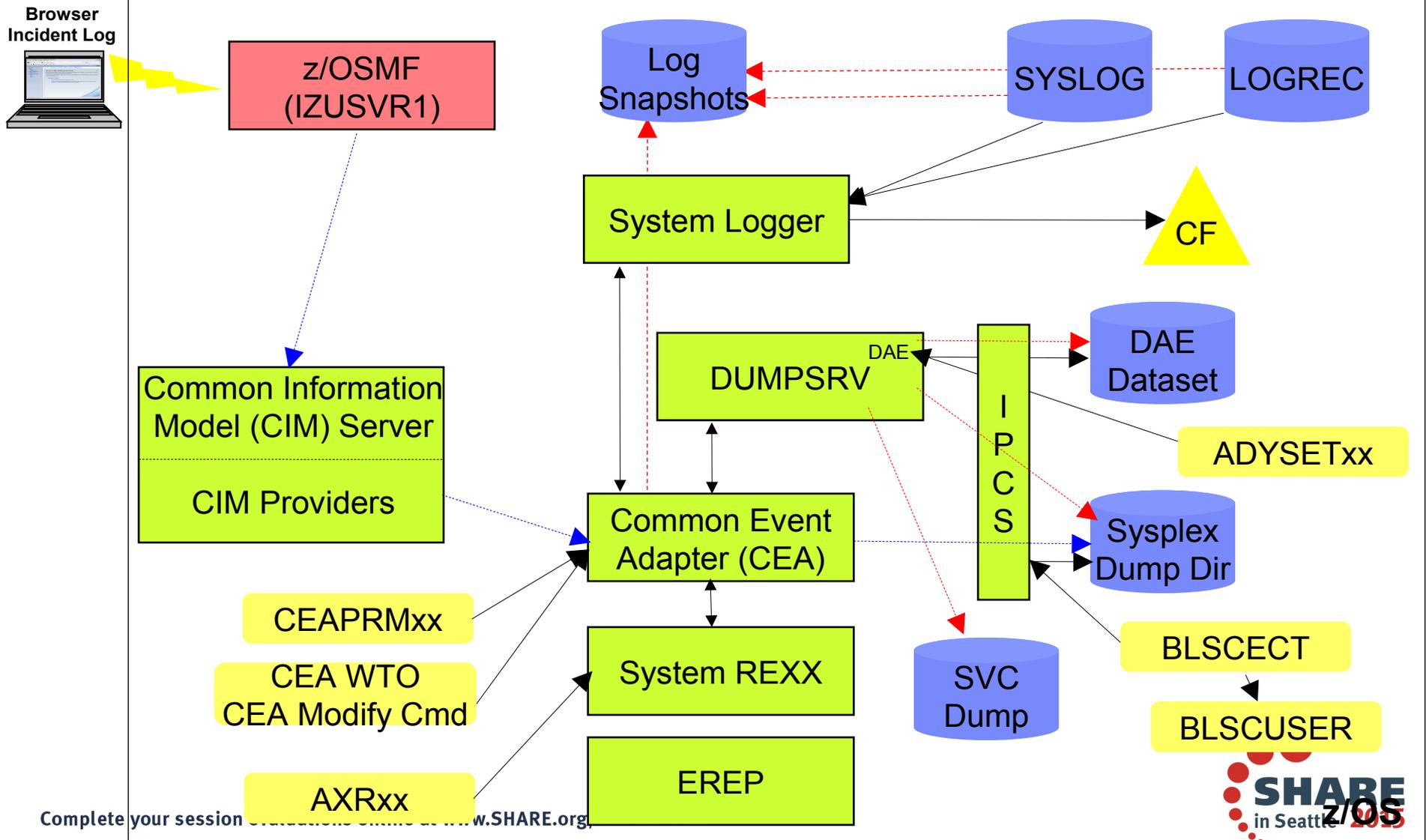


- **Auto-capture basic diagnostic materials, triggered when the dump is written to a data set**
  - Diagnostic data “snapshots” for transient data: Snapshots of 30 min OPERLOG or SYSLOG, 1 hr LOGREC detail, and 4-hour LOGREC summary
    - Incident Log will also support the creation of diagnostic log snapshots based on the SYSLOG and LOGREC data sets, as well as the OPERLOG and LOGREC sysplex log streams
  - View, sort, and act on abend related incidents (identified by subsystem)
  - Package dump and log data for transmission in minutes

# Agenda

- Overview of z/OSMF Workflows
- **Using Workflows to configure z/OSMF Incident Log**
  - Overview
  - ➔ **– Configuring z/OS Requirements for z/OSMF Incident Log (manual process)**
  - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- Using Workflows to configure zEDC
  - Overview
  - Configuring z/OS Requirements for zEDC (manual process )
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

# z/OS Infrastructure for Full Incident Log Functionality



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# Configure z/OS for Full Incident Log Functionality

- **Below configuration is needed for full Incident Log functionality:**
  1. Ensure that the Common Information Model (CIM) server is configured on your system, including security authorizations and file system customization.
  2. Optional: Use of System Logger for SYSLOG (OPERLOG) and LOGREC
  3. Enable error and message log snapshots on the host system, or optionally on a sysplex-wide basis.
  4. Automatic Dump Data Set Allocation
  5. Dump analysis and elimination (DAE) is active and its symptom data set is available
  6. Sysplex Dump Directory (required)
  7. Ensure that the common event adapter (CEA) component is configured on your system, including security authorizations.
  8. Ensure that System REXX (SYSREXX) is set up and active on your system.
  9. If your installation has chosen to rename a dump data set, ensure that the data set name in the sysplex dump directory is correct.

**Shameless question:**

**Can we exploit z/OSMF workflows to make it easier?**

# Configure z/OS for Full Incident Log Functionality

- (1) **CIM server setup**

- Incident Log task requires that the Common Information Model (CIM) server be setup and running
- CIM includes jobs to help you perform these tasks (CFZSEC and CFZRCUST). See the chapter on CIM server quick setup and verification in *z/OS Common Information Model User's Guide*, SC33-7998.
- When configuring Incident Log plug-in or the Workload Management plug-in, the z/OSMF administrator user must have the proper level of access to the CIM server resources
- Ensure that the CIM server is active on the system before continuing to the – finish step of configuring z/OSMF.
  - You can verify that the CIM server is started by entering a command like the following: `D A,CFZCIM`

# Configure z/OS for Full Incident Log Functionality



- **(2) Use of System Logger for SYSLOG (OPERLOG) and LOGREC**
  - OPERLOG and LOGREC are important z/OS diagnostic logs that provide a recording of system activity.
  - The OPERLOG and LOGREC log streams capture message and error log information from all systems in the sysplex, and writes that information to log streams managed by the system logger component of z/OS.
  - The log streams should be written to coupling facility structures (in non-monplex environments) and are ultimately backed up to system managed storage (SMS)-DASD data sets.
  - The OPERLOG and LOGREC log streams have been the strategic method for capturing sysplex-scope log data for many years.
  - In the z/OSMF's Incident Log, the log streams are used to automate the gathering of diagnostic data (log snapshots) associated with an SVC dump.
  - Sample jobs are documented in the z/OSMF Configuration Guide.
  - Additional information documented in the August 2009 Hot Topics Newsletter

## Notes:

1. Recommended for multi-system Parallel Sysplex environments
2. As of V1.12, SYSLOG and LOGREC datasets can be used instead to capture snapshots on DASD shared between the systems.

# Configure z/OS for Full Incident Log Functionality ...



## • (4) Automatic Dump Data Set Allocation

- SVC dump processing supports automatic allocation of dump data sets at the time the system writes the dump to DASD. Automatically allocated dumps will be written using the system-determined block size. The dump data sets can be allocated as SMS-managed or non-SMS-managed, depending on the VOLSER or SMS classes defined on the DUMPDS ADD command. When the system captures a dump, it allocates a data set of the correct size from the resources you specify.
  - Using Extended Format Sequential data sets, the maximum size of the dump can exceed the size allowed for non-SMS managed data sets.
  - If automatic allocation fails, pre-allocated dump data sets are used. If no pre-allocated SYS1.DUMPnn data sets are available, message IEA793A is issued, and the dump remains in virtual storage. SVC Dump periodically retries both automatic allocation and writing to a pre-allocated dump dataset until successful or until the captured dump is deleted either by operator intervention or by the expiration of the CHNGDUMP MSGTIME parameter governing message IEA793A.
    - If you set the MSGTIME value to 0, the system will not issue the message, and it deletes the captured dump immediately.
- If you rename the dump data set, or copy it to another data set, you must include a batch job to update the dump data set name in the sysplex dump directory.
  - Doing so will allow Incident prepare and send to locate the dump.
  - See the z/OSMF Configuration Guide for more info.
- Instructions on setting up automatic dump data set allocation is documented in the z/OSMF Configuration Guide.

# Configure z/OS for Full Incident Log Functionality ...



- **(5) Dump analysis and elimination (DAE)**

- Dump analysis and elimination (DAE) allows an installation to suppress SVC dumps and SYSMDUMP ABEND dumps that are not needed because they duplicate previously written dumps. To identify the cause of previous and requested dumps, DAE uses symptom strings, which contain data that describes a problem. DAE stores these symptom strings in a DAE data set that you provide.
- You can use the DAE data set in a single-system environment, or the systems in a sysplex can share a single DAE data set.
  - IBM suggests that you provide a name other than SYS1.DAE for the DAE data set to be shared in the sysplex.
- z/OSMF uses a shared DAE data set to allow the user to enable future dumps that occur on any system in the sysplex to be captured (not suppressed)
- Instructions on setting up the a shared DAE environment is documented in the z/OSMF Configuration Guide.

# Configure z/OS for Full Incident Log Functionality ...



## • (6) Sysplex Dump Directory

- The sysplex dump directory describes the SVC dumps generated by a sysplex in a central, compact, and manageable place. If you have write access, you can add source descriptions for other unformatted dumps that IPCS can format and for trace data sets.
- When setting up the sysplex dump directory, arrange for all systems in the sysplex to share it:
  - Use the default name of SYS1.DDIR for the sysplex dump directory or specify the same name for it in the SYSDDIR statement in the BLSCUSER PARMLIB member.
  - Place the data set for the sysplex dump directory on a DASD shared by all systems in the sysplex.
  - When a system that has access to a sysplex dump directory generates an SVC dump, the system automatically records the source description for it in the sysplex dump directory. IPCS adds the source description without initializing the dump, which takes time.
- Authorized users can access the sysplex dump directory and edit it.
- Do not access the sysplex dump directory via a ISPF IPCS session
  - Doing so will lockout DUMPSRV and CEA, resulting in dumps not being recorded in the directory, and not appearing in the Incident Log summary
- z/OSMF Incident Log uses the sysplex dump directory to get the dump data set name and display Summary and Detail information of incidents
- Instructions on setting up the sysplex dump directory is documented in the z/OSMF Configuration Guide.

# Configure z/OS for Full Incident Log Functionality ...



## (7) Customizing CEA

- Common event adapter (CEA) is a component of the BCP that provides the ability to deliver z/OS events to C-language clients, such as the z/OS CIM server. A CEA address space is started automatically during initialization of every z/OS system.
- CEA has two modes of operation:
  - **Full function mode.** In this mode, both internal z/OS components and clients such as CIM providers can use CEA indication functions.
  - **Minimum mode.** In this mode, only internal z/OS components can use CEA indication functions.
- Incident Log requires CEA in full function mode.
- To start CEA in full function mode, perform the following customization:
  - Define user ID CEA to the security product
    - The CEA sample job CEASEC can be used as a model
  - Give user ID CEA read access to the profile protecting SYS1.PARMLIB:
  - The user ID CEA needs write and execute access to the z/OS UNIX directory, /SYSTEM/var
- If CEA is running in minimum mode, you can change to full function mode by:
  - Making the security definitions above,
  - Stopping CEA (P CEA), and restarting it (S CEA).
- Other customization that you might have to perform for CEA is the following:
  - If your system will run with multilevel security, allow CEA to perform multilevel security file accesses you'll need additional security definitions
  - If your MAXCAD setting in PARMLIB member IEASYSxx is inadequate to accommodate the data space created by CEA, raise the setting.

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# z/OS Functionality for Incident Log - Summary



z/OS Function	z/OSMF Incident Log capability if enabled	z/OSMF Incident Log capability if NOT enabled
Sysplex Dump Directory	<b>z/OSMF can display summary and details of incidents</b>	None – function required
OPERLOG and LOGREC use of System Logger	<b>Log snapshots are gathered for the entire sysplex</b>	Log snapshots gathered for the specific system
Shared dump analysis and elimination (DAE)	<b>z/OSMF can make DAE let future dumps be captured on any system in the sysplex</b>	z/OSMF can NOT make DAE let future dumps be captured on other systems in the sysplex
Automatic Dump Data Set Allocation	<b>Dump included in diagnostic data gathered and sent</b>	Dump NOT included in diagnostic data gathered and sent <sup>1</sup>
AMATERSE program is enabled	<b>Dump included in diagnostic data gathered and sent</b>	Can NOT prepare or send any diagnostic data
CIM, CEA, and SYSREXX enabled and active	<b>z/OSMF can display incidents</b>	None – function required
Problem Documentation Upload Utility	<b>Supports parallel encrypted FTP to IBM<sup>2</sup></b>	Dump not encrypted nor broken into multiple data sets
Keep IBM default name in IEAVTSEL - Post Dump Exit	<b>z/OSMF can display summary and details of incidents</b>	None – function required

1 – Depending on how you archive and reuse your dumps, some capabilities may exist to send dumps as part of diagnostic data

2 – z/OS V1.12 requires the Problem Documentation Upload Utility to be downloaded and installed. In z/OS V1.13 and z/OSMF V2.1 the Problem Documentation Upload Utility is included

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# Agenda

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  - Overview
  - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
  -  – **Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow \*\***
- Using Workflows to configure zEDC
  - Overview
  - Configuring z/OS Requirements for zEDC (manual process )
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

\*\* Latest updates are available for z/OSMF V2.1 with APAR PI32148

# Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
  - Create workflow instance 
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution
  - Check if steps are ready to be performed
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

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# Create workflow instance I

- Welcome
  - Notifications
  - Workflows
  - + Configuration
  - + Links
  - + Performance
  - + Problem Determination
  - + Software
  - + z/OS Classic Interfaces
  - + z/OSMF Administration
  - + z/OSMF Settings
- Refresh

Welcome x Workflows x

Workflow main panel

Help

## Workflows

Simplifies tasks through guided step-based workflows, and provides administrative functions for assigning workflow responsibilities and tracking progress.

Actions ▾ Search

Workflow Name	Description	Version	Vendor	Owner	System Filter
Filter					Filter

**Create Workflow**

Type or select a workflow definition file to use for creating a new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

\* Workflow definition file:

/usr/lpp/zosmf/V2R1/workflow/izu.config.setup.xml

Type or select a variable input file to populate the new workflow. For a z/OS data set, specify a fully qualified name, with no quotes.

Workflow variable input file:

/u/current\_config/workflow/izu.config.workflow.cfg

< Back
Next >
Finish
Cancel
Help

Total: 0, Selected: 0

Refresh Last refresh: Jul 17, 2014, 1:43:43 PM local time (Jul 17, 2014, 5:43:43 AM GMT)

Path of workflow

Input property file

# Create workflow instance II

IBM z/OS Management Facility Welcome zosmfad [Log out](#) 

Welcome x Workflows x

### Workflows

Simplifies tasks through guided step-based workflows, and

Workflow Name Filter	Description Filter
<input type="checkbox"/> This workflow provides the steps for z/OS setup necessary for each plug-in that is to b - Workflow_0	This workflow provides th setup necessary for each configured.
<input type="checkbox"/> Susans test- Workflow_0	z/OS setup for each z/O
<input type="checkbox"/> z/OS setup for each z/OSMF plug-in. - Workflow_0	z/OS setup for each z/O
<input type="checkbox"/> testing_assist	z/OS setup for each z/O
<input type="checkbox"/> rpd10	
<input type="checkbox"/> april 24, 2012 z/OS setup for each z/OSMF plug-in. - Workflow_1	z/OS setup for each z/O

Total: 6, Selected: 0

[Refresh](#) Last refresh: Jul 17, 2014, 4:11:07 PM local time (Jul 17, 2014, 8:11:07 AM GMT)

Create Workflow

**Workflow definition file:**  
/usr/lpp/zosmf/V2R1/workflow/izu.config.setup.xml

**Variable input file:**  
/u/current\_config/workflow/izu.config.workflow.cfg

**Description:**  
z/OS customization for each z/OSMF plug-in.

**Vendor:** IBM      **Version:** 1.0 1.65 (4/29/14)

**\* Workflow name:**  
Workflow to configure z/OSMF plugins

**\* Owner user ID:** zosmfad      **\* System:** PLEX1.SY1

**Comments:**  
z/OSMF Admin create this workflow to add Incident Log.

Open workflow on finish     Assign all steps to owner user ID

Status	Perce
In Progress	

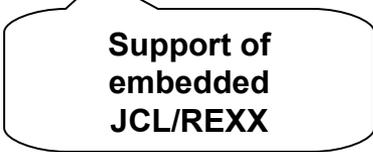
Vendor, Version

System Name

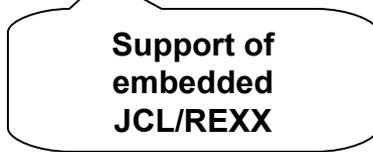
Workflow owner

# Configure z/OS for z/OSMF Incident Log using workflow

- **Process is implemented to several steps in one workflow (a.k.a. Configure workflow):**
  - Create workflow instance (Ignored)
  - Be familiar with the workflow 
  - Assign steps to corresponding people for execution
  - Check if steps are ready to be performed
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin



Support of  
embedded  
JCL/REXX



Support of  
embedded  
JCL/REXX

# Be familiar with the workflow (Streamline tasks)

Workflows > Configure workflow

## Configure workflow

Notes | History

Description: Customization for the zOSMF plug-ins  
 Owner: ibmuser  
 System: PLEX1.SY1  
 Is Callable: Cannot be called by another workflow  
 Percent complete: 0%  
 Steps complete: 0 of 97  
 Status: In Progress

### Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	1	About the Configuration Workflow	No		System Programmer	
<input type="checkbox"/>	2	Discovery before configuration				
<input type="checkbox"/>	2.1	Discover the general z/OS setup	Yes		System Programmer	
<input type="checkbox"/>	2.2	Discover the z/OSMF run-time properties	Yes		System Programmer	
<input type="checkbox"/>	2.3	Review the related z/OS and z/OSMF configuration settings	No		System Programmer	
<input type="checkbox"/>	3	Choose the optional plug-ins to be added	Yes		System Programmer	
<input type="checkbox"/>	4	Ensure that CEA common event adapter (CEA) is active				
<input type="checkbox"/>	5	Common Information Model (CIM) server				
<input type="checkbox"/>	6	Configuration Assistant plug-in				
<input type="checkbox"/>	7	ISPF plug-in				
<input type="checkbox"/>	8	Workload Management plug-in				
<input type="checkbox"/>	9	Resource Monitoring plug-in				
<input type="checkbox"/>	10	Capacity Provisioning plug-in				
<input type="checkbox"/>	11	Software Deployment plug-in	No			
<input type="checkbox"/>	12	Incident Log plug-in				
<input type="checkbox"/>	13	Add Plug-ins to the z/OSMF Server				

Discover current configuration

Choose which plugin(s) to be enabled

Choose related steps to customize z/OS for target plugin(s)

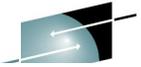
Enable target plugin(s)

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# Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
  - Create workflow instance
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution ←
  - Check if steps are ready to be performed
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

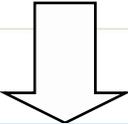


# Assign steps (Collaboration support)

## Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input checked="" type="checkbox"/>		and pre-reqs of Config	No		System Programmer	
<input checked="" type="checkbox"/>		before configuration				
<input checked="" type="checkbox"/>		general z/OS setups	Yes		System Programmer	
<input checked="" type="checkbox"/>		z/OSMF run-time properties	Yes		System Programmer	
<input checked="" type="checkbox"/>		ed z/OS and z/OSMF	No		System Programmer	
<input type="checkbox"/>		Assistant plug-in				
<input type="checkbox"/>		Add Assignees...				
<input type="checkbox"/>		Remove Assignees...				
<input type="checkbox"/>		Take Ownership				
<input type="checkbox"/>		Return				

Select steps and assign them to different role/user



### Add Assignees

Select one or more SAF user IDs, SAF groups or z/OSMF roles to be assigned to the selected steps.

Selected Steps

#### Available assignees

Name Filter	Type Filter
<input checked="" type="checkbox"/> ibmuser	SAF user ID
<input type="checkbox"/> z/OS Security Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF Administrator	z/OSMF role
<input type="checkbox"/> z/OSMF User	z/OSMF role

Total: 4, Selected: 1

Select user/role here

- Add >
- Add All >>
- < Remove
- << Remove All

#### \* Assignees to be added:

ibmuser

Target assignee

Comments:  
Assign steps to z/OSMF installer user ID "ibmuser"

Send z/OSMF notifications to assignees (comments are not included on notifications)



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Log out IBM

# Assignee receives the notification (Collaboration support)

IBM z/OS Mana

Welcome ibmuser

Notification received

- Welcome
- Notifications (1)
- Workflows
- Configuration
- Links
- Performance
- Problem Determination
- Software
- z/OS Classic Interfaces
- z/OSMF Administration
- z/OSMF Settings
- Refresh

Welcome x Notification... x

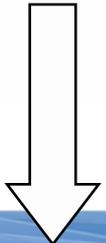
Help

### Notifications (1)

Actions

Description Filter	Task Filter	Recipients Filter	Time Filter
<input type="checkbox"/> One or more steps in workflow "Workflow to configure z/OSMF plugins" have been assigned to you.	Workflows	ibmuser	Jul 17, 2014, 4:27:52 PM

Click notification brings you to assigned step in workflow



IBM z/OS Management Facility

Welcome ibmuser

Log out IBM

- Welcome
- Notifications
- Workflows
- Configuration
- Links
- Performance
- Problem Determination
- Software
- z/OS Classic Interfaces
- z/OSMF Administration
- z/OSMF Settings
- Refresh

Welcome x Notifications x Workflows x

Help

Workflows > Workflow to configure z/OSMF plugins

### Workflow to configure z/OSMF plugins

Description: z/OS customization for each z/OSMF plug-in.  
Percent complete: 0%

Owner: zosmfad  
Steps complete: 0 of 70

System: PLEX1.SY1  
Status: In Progress

Notes | History

Workflow Steps

State Filter	No. Filter	Title Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input checked="" type="checkbox"/> Assigned	1	Highlights and pre-reqs of Config Workflow		System Programmer	ibmuser
<input checked="" type="checkbox"/> In Progress	2	Discovery before configuration			
<input checked="" type="checkbox"/> Assigned	2.1	Discover general z/OS setups		System Programmer	ibmuser
<input checked="" type="checkbox"/> Assigned	2.2	Discover z/OSMF run-time properties		System Programmer	ibmuser
<input checked="" type="checkbox"/> Assigned	3	Review related z/OS and z/OSMF configuration		System Programmer	ibmuser
<input type="checkbox"/> Unassigned	4	Configuration Assistant plug-in			
<input type="checkbox"/> Unassigned	5	ISPF plug-in			
<input type="checkbox"/> Unassigned	6	Common Information Model (CIM) server			
<input type="checkbox"/> Unassigned	7	Workload Management plug-in			

Total: 92, Selected: 5

Return to Workflows Refresh Last refresh: Jul 17, 2014, 4:32:08 PM local time (Jul 17, 2014, 8:32:08 AM GMT)

Current assignee

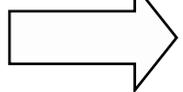
State: Assigned

# Assignee accept the assigned steps (Collaboration support)

Workflow Steps

State Filter	No. Filter	Title Filter
Assigned		Highlights and pre-reqs of Config Workflow
In Progress		Discovery before configuration
Assigned		Discover general z/OS setups
Assigned		Discover z/OSMF run-time properties
Assigned		Review related z/OS and z/OSMF configuration
Unassigned		Configuration Assistant plug-in
Unassigned		(Optional) Transfer existing backing store into z/OSMF
Unassigned		ISPF plug-in
Unassigned	6	Common Information Model (CIM) server

**Accept step**



Accept Step

Selected Steps

No.	Title	State	Owner
1	Highlights and pre-reqs of Config Workflow	Assigned	
2	Discovery before configuration	In Progress	
3	Review related z/OS and z/OSMF configuration	Assigned	

Total: 5

Comments:  
Accept the steps Workflow owner assigned to me

**Input comments if needed**

OK Cancel Help



Workflow Steps

**State:**

- Ready
- Not Ready

State Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
Ready	No	ibmuser	System Programmer	ibmuser
In Progress				
Ready	Yes	ibmuser	System Programmer	ibmuser
Ready	Yes	ibmuser	System Programmer	ibmuser
Not Ready	No	ibmuser	System Programmer	ibmuser
Unassigned				
Unassigned				

# Configure z/OS for z/OSMF Incident Log using workflow

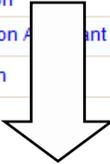
- **Process is implemented to several steps in one workflow:**
  - Create workflow instance
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution
  - Check if steps are ready to be performed 
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

# Check if steps are ready to be performed (Dependency checking)

Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
➔ Ready	1	■ Highlights and pre-reqs of Config Workflow	No	ibmuser	System Programmer	ibmuser
🟢 In Progress	2	☐ Discovery before configuration				
➔ Ready	2.1	■ Discover general zOS setups		ibmuser	System Programmer	ibmuser
➔ Ready	2.2	■ Discover zOSMF run-time properties		ibmuser	System Programmer	ibmuser
🚧 Not Ready	3	■ Review related z/OS and z/OSMF configuration	No	ibmuser	System Programmer	ibmuser
Unassigned	4	☐ Configuration Assistant plug-in				
Unassigned	5	☐ ISPF plug-in				

**Click the step**



Workflows > Workflow to configure z/OSMF plugins > 3. Review related z/OS and z/OSMF configuration

## Properties for Workflow Step 3. Review related z/OS and z/OSMF configuration

General | **Details** | Notes | Perform | Status | Input Variables

State: 🚧 Not Ready  
Skill category: System Programmer  
Owner: ibmuser  
Assignees: ibmuser

**Step Dependencies**

**Prerequisite steps need to be completed**

Step Dependencies

State Filter	No. Filter	Title Filter	Step Filter	Assignees Filter
🟢 In Progress	2	☐ Discovery before configuration		
➔ Ready	2.1	■ Discover general zOS setups		ibmuser
➔ Ready	2.2	■ Discover zOSMF run-time properties		ibmuser

Total: 3

# Check the activities we have done (Support History)

## History for Workflow to configure z/OSMF plugins

Actions ▼ <input type="text"/> Search					
	Date and Time (GMT) Filter	Action Filter	Messages [More   Less] Filter	User ID Filter	Comments [More   Less] Filter
<input type="radio"/>	Jul 17, 2014, 8:14:26 AM	Workflow Created	IZUWF0020:The workflow name is set to "Workflow to configure z/OSMF plugins" . IZUWF0021:The workflow owner is set to "zosmfad" [More]	zosmfad	z/OSMF Admin create this workflow to add Incident Log.
<input type="radio"/>	Jul 17, 2014, 8:27:52 AM	Step Assigned	IZUWF0025:The following users have been assigned to step "Highlights and pre-reqs of Config Workflow" : Users: "ibmuser" [More]	zosmfad	Assign steps to z/OSMF installer user ID "ibmuser"
<input type="radio"/>	Jul 17, 2014, 8:36:34 AM	Step Accepted	IZUWF0045:User "ibmuser" has accepted step "Highlights and pre-reqs of Config Workflow" . This user is now the step owner. [More]	ibmuser	z/OSMF installer accepts these steps.

**Activities**

**Comments**

# Configure z/OS for z/OSMF Incident Log using workflow

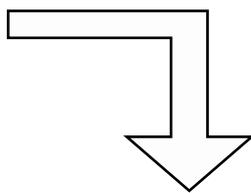
- Process is implemented to several steps in one workflow:
  - Create workflow instance (Ignored)
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution (Ignored)
  - Check if steps are ready to be performed (Ignored)
  - Check current z/OS and z/OSMF configuration for planning ←
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Check current z/OS and z/OSMF configuration

Workflow Steps

State Filter	No. Filter	Title Filter	Automated Filter
Complete	1	Highlights and pre-reqs of Config Workflow	No
In Progress	2	Discovery before configuration	
Ready	21	Discover general z/OS setups	Yes
Ready		Derive z/OSMF run-time properties	Yes
Not Ready		Validate z/OS and z/OSMF configuration	No
Unassigned		Installation Assistant plug-in	
Unassigned		Transfer existing backing stores into z/OSMF	No
Unassigned		Information Model (CIM) server Management plug-in	
Unassigned		Resource Monitoring plug-in	
Unassigned	9	Capacity Provisioning plug-in	



## Perform Automated Step

The selected step can be performed automatically. How would you like to proceed?

**Perform options**

- Automatically perform the selected step, and all subsequent automated steps, according to their declared step dependencies, until one of the following occurs:
  - all workflows steps have been completed.
  - a non-automated, non-Complete step, is reached, or
  - an error occurs.
- Automatically perform the selected step only.
- Manually perform the selected step.

When input file variable conflicts occur:

- Always use input file values. Existing values will be overwritten and automation will continue.
- Always keep existing values. Input file values will be ignored and automation will continue.
- Allow step or workflow owner to choose whether the input file value or existing value should be used for each conflicting variable. Automation will be stopped.

OK Cancel Help

# Manually perform the step I (JCL/REXX/Shell support)

Workflows ▶ Workflow to configure z/OSMF plugins ▶ 2.1. Discover general zOS setups

Help

## Properties for Workflow Step 2.1. Discover general zOS setups

General Details Notes **Perform** Status Input Variables

### Review Instructions

- Edit Output File Path
- Create JOB statement
- Review JCL
- Submit and Save JCL

### Review Instructions

To proceed with a wizard for creating and executing the shell script on PLEX1.SY1, click **Next**. Or, you can choose to bypass this step. If so, first review and confirm that the instructions below have been done. Then, click **Finish** to mark the step complete.

Review instructions provided by vendor

### Instructions:

Click the 'Next' button until finish the wizard, workflow will execute script in z/OS side to discover general or related z/OS configuration. The values we found will be displayed in future step "Review related z/OS and z/OSMF configuration" for your reference.

Workflows ▶ Workflow to configure z/OSMF plugins ▶ 2.1. Discover general zOS setups

Help

Embedded JCL assist user to do this step

## Workflow Step 2.1. Discover general zOS setups

Notes **Perform** Status Input Variables

- ✓ Review Instructions
- ✓ Edit Output File Path
- ➔ **Create JOB statement**
- ✓ Review JCL
  - ✓ Review JCL - Edit JCL
- ✓ Submit and Save JCL

### Create JOB statement

Specify the JOB statement to use for this job. You can accept the default or define a new JOB statement.

Customize job card

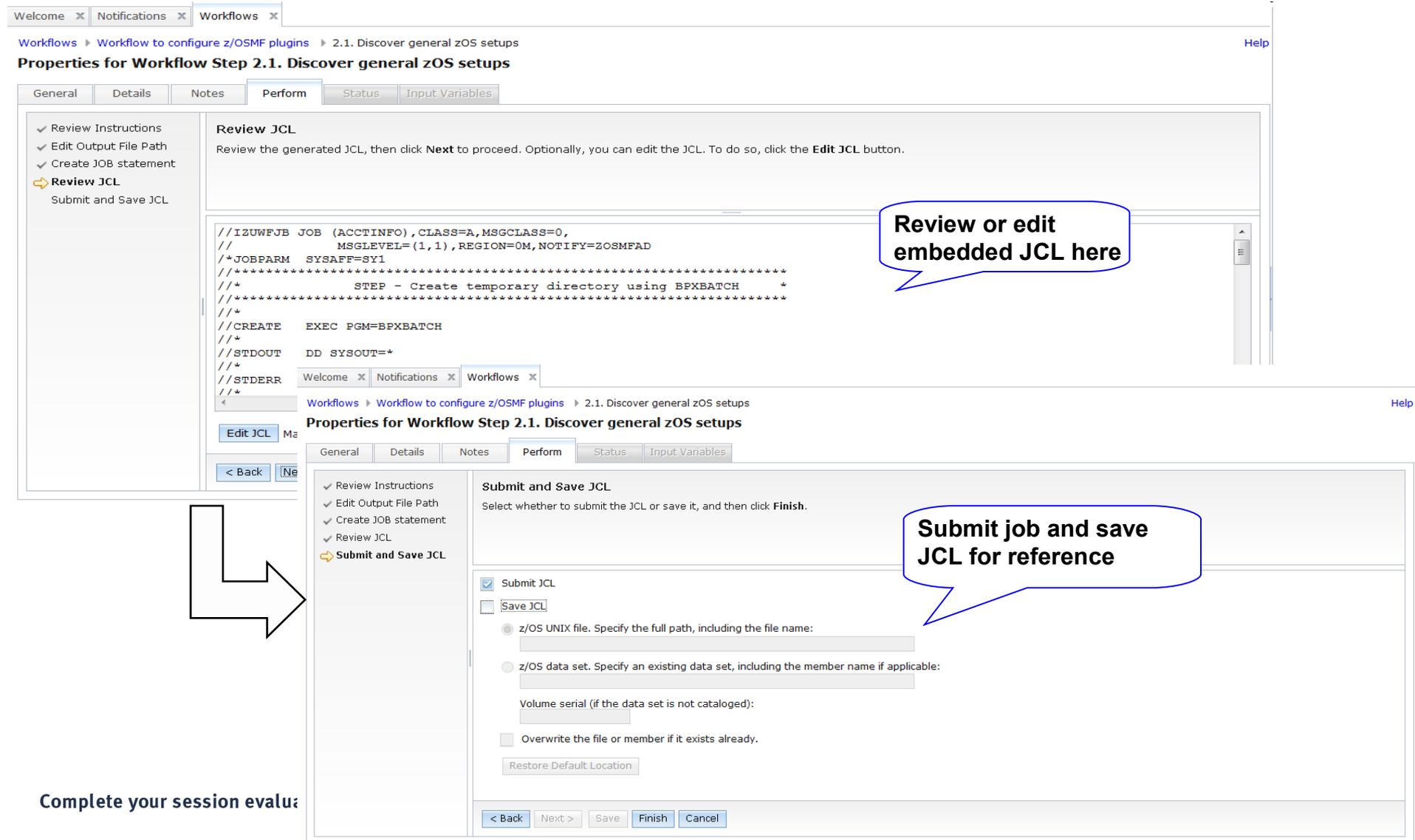
### \* JOB statement JCL:

```
//IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,  
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=ZOSMFAD
```

Complete you

< Back Next > Save Finish Cancel

# Manually perform the step II (JCL/REXX/Shell support)



The screenshot displays a web-based workflow configuration interface. The top navigation bar includes 'Welcome', 'Notifications', and 'Workflows'. The main content area is titled 'Properties for Workflow Step 2.1. Discover general zOS setups'. The interface is divided into two main sections: 'Review JCL' and 'Submit and Save JCL'.

**Review JCL Section:**

- Navigation tabs: General, Details, Notes, Perform, Status, Input Variables.
- Checklist on the left: Review Instructions, Edit Output File Path, Create JOB statement, Review JCL (highlighted), Submit and Save JCL.
- Text: 'Review the generated JCL, then click **Next** to proceed. Optionally, you can edit the JCL. To do so, click the **Edit JCL** button.'
- JCL Code:

```
//IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=ZOSMFAD
/*JOBPARM  SYSAPF=SY1
//*****
//          STEP - Create temporary directory using BPXBATCH
//*****
//          EXEC PGM=BPXBATCH
//          DD SYSOUT=*
//          STDOUR DD SYSOUT=*
//          STDDERR Welcome x Notifications x Workflows x
```
- Buttons: Edit JCL, < Back, iNe.

**Submit and Save JCL Section:**

- Checklist on the left: Review Instructions, Edit Output File Path, Create JOB statement, Review JCL, Submit and Save JCL (highlighted).
- Text: 'Select whether to submit the JCL or save it, and then click **Finish**.'
- Form fields: Submit JCL (checked), Save JCL, z/OS UNIX file path, z/OS data set, Volume serial, Overwrite checkbox, Restore Default Location button.
- Buttons: < Back, Next >, Save, Finish, Cancel.

**Annotations:**

- A blue speech bubble points to the JCL code with the text: 'Review or edit embedded JCL here'.
- A blue speech bubble points to the 'Submit and Save JCL' section with the text: 'Submit job and save JCL for reference'.
- A large white arrow with a black outline points from the 'Submit and Save JCL' section back to the 'Review JCL' section.

Complete your session evalu:

# Automatically perform steps

Workflows > Configure Workflow

## Configure Workflow

Description:  
Customization for the zOSMF plug-ins  
Percent complete:

0%

Owner:  
ibmuser  
Steps complete:  
1 of 119

System:  
PLEX1.SY1  
Status:  
 Automation in Progress [ibmuser]

**Status:**  
**Automation in progress**

Help

Notes | History

### Workflow Steps

Actions								Search
No filter applied								
State Filter	No. Filter	Title Filter	CalledWorkflow Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter	
Complete	1	About the Configuration Workflow		No	ibmuser	System Programmer	ibmuser	
In Progress	2	Discovery before configuration						
Submitted	2.1	Discover the general z/OS setup		Yes	ibmuser	System Programmer	ibmuser	
Ready	2.2	Discover the z/OSMF run-time properties		Yes	ibmuser	System Programmer	ibmuser	
Not Ready	2.3	Review the related z/OS and z/OSMF configuration settings		No	ibmuser	System Programmer	ibmuser	
Not Ready	3	Choose the optional plug-ins to be added		Yes	ibmuser	System Programmer	ibmuser	
In Progress	4	Ensure that CEA common event adapter (CEA) is active						
In Progress	5	Common Information Model (CIM) server						
In Progress	6	Configuration Assistant plug-in						
In Progress	7	ISPF plug-in						
In Progress	8	Workload Management plug-in						
In Progress	9	Resource Monitoring plug-in						
In Progress	10	Capacity Provisioning plug-in						
In Progress	11	Software Deployment plug-in						

**Automation stops here due to auto-disabled step**

Total: 154 Selected: 0

Return to Workflows

Refresh

Last refresh: Feb 13, 2015, 7:05:24 PM local time (Feb 13, 2015, 11:05:24 AM GMT)

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Review result of each step (JCL/REXX/Shell support)

Welcome x Workflows x

Workflows > Workflow to configure z/OSMF plugins > 2.1. Discover general zOS setups Help

### Properties for Workflow Step 2.1. Discover general zOS setups

General Details Notes Perform **Status** Input Variables

Name: IZUWFJB ID: JOB00075 Class: A Type: JOB Status: OUTPUT Return code: CC 0000

JESMSGGLG JESJCL JESYSMSG SYSTSPRT **STDOUT**

DD name:	Step name:	Procedure step name:	Dataset ID:	Class:	Record count:
STDOUT	XBATCH		108	0	59

Output (3.383KB of 3.383KB shown)

```

IZUG2111I: The workflow discovery function is now verifying your current system setup.
IZUG2012I: The system is currently running in SYSPLEX mode.
IZUG2116I: The following parmlib data sets are active in your system:
ENTRY  FLAGS  VOLUME  DATA SET
 1      S    PEVTS3  CIMSSRE.R14ONLY.PARMLIB
 2      S    PEVTS3  CIMSSRE.R13ONLY.PARMLIB
 3      S    PEVTS3  CIMSSRE.R12ONLY.PARMLIB
 4      S    PEVTS3  CIMSSRE.PARMLIB
 5      S    PEVTST  HDENNIS.ZOS17.PARMLIB
 6      S    CTPPAK  XESCT.PARMLIB
 7      S    CTPPAK  SYS1.PARMLIB
 8      S    SDR21   SYS1.PARMLIB.POK
 9      S    SDR21   SYS1.PARMLIB.INSTALL
IZUG2019I: Processing has extracted the IEASYSxx parmlib member suffix CE.
IZUG2001I: The workflow is searching for member IEASYSxx in the active parmlib installation
  
```

Refresh

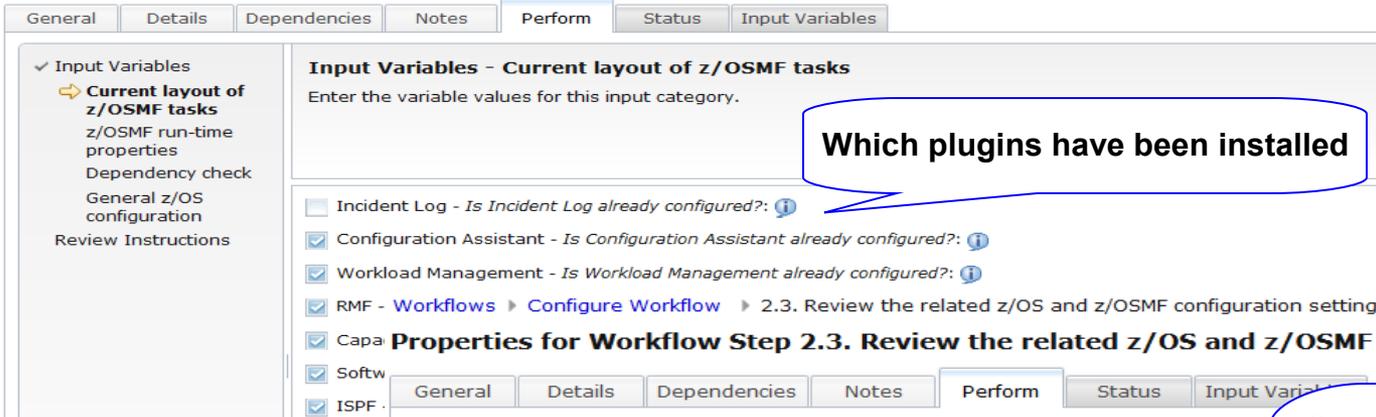
Job return code

Output

# Review current z/OS and z/OSMF configuration I (Discovered by embedded job of prior step)

Workflows > Configure Workflow > 2.3. Review the related z/OS and z/OSMF configuration settings

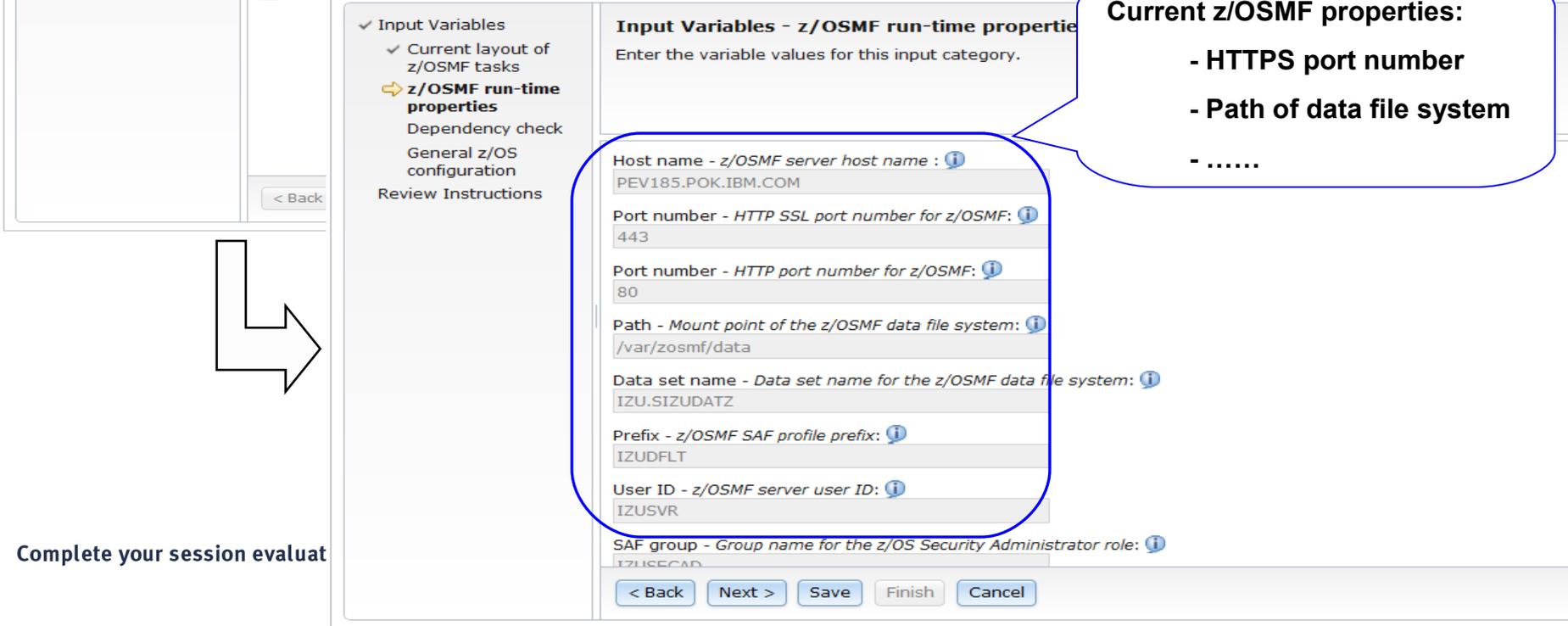
## Properties for Workflow Step 2.3. Review the related z/OS and z/OSMF configuration settings



General Details Dependencies Notes **Perform** Status Input Variables

Input Variables - Current layout of z/OSMF tasks  
Enter the variable values for this input category.

- Incident Log - Is Incident Log already configured? ⓘ
- Configuration Assistant - Is Configuration Assistant already configured? ⓘ
- Workload Management - Is Workload Management already configured? ⓘ
- RMF - Workflows > Configure Workflow > 2.3. Review the related z/OS and z/OSMF configuration settings
- Capa
- Softw
- ISPF



General Details Dependencies Notes **Perform** Status Input Variables

Input Variables - z/OSMF run-time properties  
Enter the variable values for this input category.

- Host name - z/OSMF server host name : ⓘ  
PEV185.POK.IBM.COM
- Port number - HTTP SSL port number for z/OSMF: ⓘ  
443
- Port number - HTTP port number for z/OSMF: ⓘ  
80
- Path - Mount point of the z/OSMF data file system: ⓘ  
/var/zosmf/data
- Data set name - Data set name for the z/OSMF data file system: ⓘ  
IZU.SIZUDATZ
- Prefix - z/OSMF SAF profile prefix: ⓘ  
IZUDFLT
- User ID - z/OSMF server user ID: ⓘ  
IZUSVR
- SAF group - Group name for the z/OS Security Administrator role: ⓘ  
IZUSECAD

< Back Next > Save Finish Cancel

Complete your session evaluat

# Review current z/OS and z/OSMF configuration II (Discovered by embedded job of prior step)

Welcome x Workflows x

Workflows > Configure Workflow > 2.3. Review the related z/OS and z/OSMF configuration settings

## Properties for Workflow Step 2.3. Review the related z/OS and z/OSMF configuration settings

General Details Dependencies Notes Perform Status Input Variables

Input Variables - General z/OS configuration

Enter the variable values for this input category.

General z/OS configuration - Names of all z/OS systems in the same sysplex: 

SY1

General z/OS configuration - Parmlib data sets of the z/OS system: 

CIMSSRE.R14ONLY.PARMLIB,CIMSSRE.R13ONLY.PARMLIB,CIMSSRE.R12ONLY.PARMLIB,CIMSSRE.PARMLIB,HDENNIS.ZOS17.PARMLIB,XESCT.PARMLIB

General z/OS configuration - IEASYSxx member suffixes: 

00,CE

General z/OS configuration - COMMNDxx member suffixes: 

CD

General z/OS configuration - CEAPRMxx member suffixes: 

IL

General z/OS configuration - PROGxx member suffixes: 

ZD,CZ,AA

General z/OS configuration - IKJTSOxx member suffixes: 

00

< Back Next > Save Finish Cancel

Parmlib data set concatenation

Active parmlib member

Close

# Choose the optional plugin to be enabled

State Filter	No. Filter	Title Filter	CalledWorkflow Filter
<input type="checkbox"/> Complete	1	About the Configuration Workflow	
<input type="checkbox"/> Complete	2	Discovery before configuration	
<input type="checkbox"/> Complete	2.1	Discover the general z/OS setup	
<input type="checkbox"/> Complete	2.2	Discover the z/OSMF run-time properties	
<input type="checkbox"/> Complete	2.3	Review the related z/OS and z/OSMF configuration settings	
<input checked="" type="checkbox"/> Ready	3	Choose the optional plug-ins to be added	

Welcome x Workflows x

Workflows > Configure Workflow > 3. Choose the optional plug-ins to be added

### Properties for Workflow Step 3. Choose the optional plug-ins to be added

General Details Dependencies Notes Perform Status Input Variables

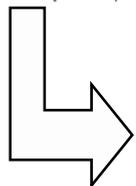
Input Variables  
 Boolean variable  
 Skip Option  
 Review Instructions  
 Edit Output File Path  
 Create JOB statement  
 Review JCL  
 Submit and Save JCL

**Input Variables - Boolean variable**  
Enter the variable values for this input category.

- CA - Add Communication Assistant plug-in: ⓘ
- ISPF - Add Web ISPF plug-in: ⓘ
- WLM - Add Workload Management plug-in: ⓘ
- RMF - Add Resource Monitoring plug-in: ⓘ
- CP - Add Capacity Provisioning plug-in: ⓘ
- IL - Add Incident Log plug-in: ⓘ
- DM - Add Software Management plug-in: ⓘ

< Back Next > Save Finish Cancel

**Only Incident Log is not added yet**



# Conditional step (1/2)

Workflow Steps

State Filter	No. Filter	Title Filter
Complete	2	Discovery before configuration
Complete	2.1	Discover the general z/OS setup
Complete	2.2	Discover the z/OSMF run-time properties
Complete	2.3	Review the related z/OS and z/OSMF configuration settings
Complete	3	Choose the optional plug-ins to be added
In Progress	4	Ensure that CEA common event adapter (CEA) is active
Complete	5	Common Information Model (CIM) server
Skipped	6	Configuration Assistant plug-in
Skipped	7	ISPF plug-in
Skipped	8	Workload Management plug-in
Skipped	9	Resource Monitoring plug-in
Skipped	10	Capacity Provisioning plug-in
Skipped	11	Software Deployment plug-in
In Progress	12	Incident Log plug-in
In Progress	13	Add Plug-ins to the z/OSMF Server

Total: 124, Selected: 0

Return to Workflows Refresh Last refresh: Feb 14, 2015, 11:36:18 PM local time

Steps for other plugins are automatically marked as "Skipped"

## Properties for Workflow Step 6.1. Transfer existing backing store files into z/OSMF

General	Details	Dependencies	Notes	Perform	Status	Input Variables
<p>Step Dependencies <input checked="" type="checkbox"/></p> <p>Resulting State</p> <p>Skip this workflow step depend on the status or discovered value of pr</p>						
<p><b>Details of conditions</b></p> <p><b>Target State</b></p> <p>Skipped</p> <p><b>Target State Condition</b></p> <p>This step is skipped if Configuration Assistant plug-in is not to be configured by any of following case:</p> <ul style="list-style-type: none"> <li>Being NOT already added in to z/OSMF server, and user do not select to add them into z/OSMF server.</li> <li>Being already added in to z/OSMF server, and "User Skipping Option" in step "Choose the optional plug-ins to be added" is true.</li> </ul>						<p><b>Satisfied</b></p> <p><input checked="" type="checkbox"/> Yes</p>

If conditions are satisfied

# Conditional step (2/2)

State Filter	No. Filter	Title Filter
Complete	3	Choose the optional plug-ins to be added
In Progress	4	Ensure that CEA common event adapter (CEA) is active
Ready	4.1	Discover common event adapter (CEA)
Not Ready	4.2	Start common event adapter (CEA)
Not Ready	4.3	Determine the general settings of common event adapter (CEA)
Not Ready	4.4	Ensure CEA runs in full function mode
Complete	5	Common Information Model (CIM) server
Skipped	6	Configuration Assistant plug-in
Skipped	7	ISPF plug-in



State Filter	No. Filter	Title Filter
Complete	3	Choose the optional plug-ins to be added
In Progress	4	Ensure that CEA common event adapter (CEA) is active
Ready	4.1	Discover common event adapter (CEA)
Not Ready	4.2	Start common event adapter (CEA)
Not Ready	4.3	Determine the general settings of common event adapter (CEA)
Not Ready	4.4	Ensure CEA runs in full function mode
Complete	5	Common Information Model (CIM) server
Skipped	6	Configuration Assistant plug-in
Skipped	7	ISPF plug-in

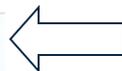
Properties

- Accept
- Perform
- Skip
- Status
- Override Complete
- Resolve Conflicts
- Change Called Workflow
- Assignment And Ownership
- Expand
- Collapse



## Workflow Steps

State Filter	No. Filter	Title Filter
Complete	3	Choose the optional plug-ins to be added
In Progress	4	Ensure that CEA common event adapter (CEA) is active
Complete	4.1	Discover common event adapter (CEA)
Skipped	4.2	Start common event adapter (CEA)
Ready	4.3	Determine the general settings of common event adapter (CEA)
Skipped	4.4	Ensure CEA runs in full function mode
Complete	5	Common Information Model (CIM) server
Skipped	6	Configuration Assistant plug-in
Skipped	7	ISPF plug-in



Workflows > Configure Workflow > 4.1. Discover common event adapter (CEA)

**Properties for Workflow Step 4.1. Discover common event adapter (CEA)**

General Details Dependencies Notes Perform Status Input Variables

Review Instructions  
 Edit Output File Path  
 Create JOB statement  
 Review JCL  
 Submit and Save JCL

**Review JCL**  
 Review the generated JCL, then click **Next** to proceed. Optionally, you can edit the JCL. To do so, click the

```
//IZUWFJB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,
MSGLEVEL=(1,1),REGION=0M,NOTIFY=IBMUSER
/*JOBPARM SYSAFF=SYL
***** STEP - Create temporary directory using BPXBATCH *****
/*
/*
/*CREATE EXEC PGM=BPXBATCH
/*
/*STDOUT DD SYSOUT=*
/*STDERR DD SYSOUT=*
/*
/*STDPARM DD *
SH mkdir -m 700 /tmp/IZUWORKFLOW-14239289721250.926354
/*
***** STEP - Create script in temp directory using BFXCOPY *****
/*
/*UCXCOPY EXEC PGM=BFXCOPY,
PARM='ELEMENT(MYSCRIPT) TYPE(TEXT) PATHMODE(0,7,0,0)'
/*
```

Edit JCL Maximum record length: 1,024

< Back Next > Save Finish Cancel

e-Eval

IBM Co

# Configure z/OS for z/OSMF Incident Log using workflow

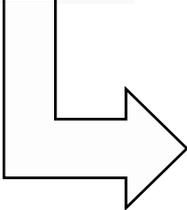
- Process is implemented to several steps in one workflow:
  - Create workflow instance (Ignored)
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution (Ignored)
  - Check if steps are ready to be performed (Ignored)
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization) ← 
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

# Review what z/OS customization need to be done for Incident Log



State Filter	No. Filter	Title Filter
✓ Skipped	9	+ Resource Monitoring plug-in
✓ Skipped	10	+ Capacity Provisioning plug-in
✓ Skipped	11	■ Software Deployment plug-in
🟢 In Progress	12	- Incident Log plug-in
✓ Complete (Override)	12.1	■ Ensure that the CIM server is configured
🟢 In Progress	12.2	+ Ensure log snapshots are configured properly
🟢 In Progress	12.3	+ (Optional) Configure dump analysis and elimination (DAE)
🟢 In Progress	12.4	+ Set up a sysplex dump directory
🟢 In Progress	12.5	+ Configuring automatic dump data set allocation
🟢 In Progress	12.6	+ (Optional) Ensure that CEA is configured for snapshot capturing
🟢 In Progress	12.7	+ Ensure that System REXX is configured
		+ Add Plug-ins to the z/OSMF Server

Several areas need to be configured



State Filter	No. Filter	Title Filter
🟢 In Progress	12	- Incident Log plug-in
✓ Complete (Override)	12.1	■ Ensure that the CIM server is configured
🟢 In Progress	12.2	+ Ensure log snapshots are configured properly
	12.3	+ (Optional) Configure dump analysis and elimination (DAE)
	12.4	- Set up a sysplex dump directory
➡ Ready	12.4.1	■ Discover sysplex dump directory
⚠ Not Ready	12.4.2	■ Determine whether the dump directory is already set up
⚠ Not Ready	12.4.3	■ Create a sysplex dump directory data set
⚠ Not Ready	12.4.4	■ Update BLSCUSER with the name of created sysplex dump directory
⚠ Not Ready	12.4.5	■ Recycle the dump services address space
⚠ Not Ready	12.4.6	■ Register the sysplex dump directory with IPCS
🟢 In Progress	12.5	+ Configuring automatic dump data set allocation

Each area follows similar structure

Discover sysplex dump directory  
 Determine whether the dump directory is already set up  
 Create a sysplex dump directory data set  
 Update BLSCUSER with the name of created sysplex dump directory  
 Recycle the dump services address space  
 Register the sysplex dump directory with IPCS

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
  - Create workflow instance
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution
  - Check if steps are ready to be performed
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory ←
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)



# Configure Sysplex Dump Directory - Using current dump directory

- ✓ Input Variables
  - ✓ Current sysplex dump directory
  - ✓ Current Sysplex Dump Directory
- ⇨ Review Instructions

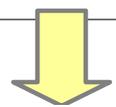
**Review Instructions**

Review and confirm the instructions provided below have been performed on **PLEX1.SY1**, then click **Finish** to mark the step complete.

Instructions:  
Please review current configuration of sysplex dump directory:

Current setting meets requirement

Discoveries	Result or Value
Is sysplex dump directory already configured?	true
Parmlib dataset in which BLSCUSER member resides:	HDENNIS.ZOS17.PARMLIB
Current sysplex dump directory dataset is:	MVSSPT.SYSPLEX.DMPDIR
Volume in where current sysplex dump directory resides:	TMPPK1
Is the current sysplex dump directory valid?	true



State Filter	No. Filter	Title Filter	CalledWorkflow Filter
		property	
<input type="checkbox"/> In Progress	12.3	<input type="checkbox"/> (Optional) Configure dump analysis and elimination (DAE)	
<input checked="" type="checkbox"/> Complete	12.4	<input type="checkbox"/> Set up a sysplex dump directory	
<input checked="" type="checkbox"/> Complete	12.4.1	<input type="checkbox"/> Discover sysplex dump directory	
<input checked="" type="checkbox"/> Complete	12.4.2	<input type="checkbox"/> Determine whether the dump directory is already set up	
<input checked="" type="checkbox"/> Skipped	12.4.3	<input type="checkbox"/> Create a sysplex dump directory data set	
<input checked="" type="checkbox"/> Skipped	12.4.4	<input type="checkbox"/> Update BLSCUSER with the name of created sysplex dump directory	
<input checked="" type="checkbox"/> Skipped	12.4.5	<input type="checkbox"/> Recycle the dump services address space	
<input checked="" type="checkbox"/> Skipped	12.4.6	<input type="checkbox"/> Register the sysplex dump directory with IPCS	
<input type="checkbox"/> In Progress	12.5	<input type="checkbox"/> Configuring automatic dump data set allocation	

Configuration is not necessary

# Configure z/OS for z/OSMF Incident Log using workflow

- Process is implemented to several steps in one workflow:
  - Create workflow instance
  - Be familiar with the workflow
  - Assign steps to corresponding people for execution
  - Check if steps are ready to be performed
  - Check current z/OS and z/OSMF configuration for planning
  - Customize z/OS for Incident Log (Discover → Review → Customization)
    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation ←
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin

# Enable automatic dump data set allocation

## - Discover and review current settings

State Filter	No. Filter	Title Filter	CalledWorkflow Filter	Automated Filter	Owner Filter	Skill Category Filter
<input type="checkbox"/>	In Progress	12.2	Ensure log snapshots are configured properly			
<input type="checkbox"/>	In Progress	12.3	(Optional) Configure dump analysis and elimination (DAE)			
<input type="checkbox"/>	Complete	12.4	Set up a sysplex dump directory			
<input checked="" type="checkbox"/>	In Progress	12.5	Configuring automatic dump data set allocation			
<input checked="" type="checkbox"/>	Ready	12.5.1	Discover automatic dump data set allocation	Yes	ibmuser	System Programmer
<input type="checkbox"/>	Ready	12.5.2	Determine whether automatic dump data set allocation is configured	No	ibmuser	System Programmer
<input type="checkbox"/>	Ready	12.5.3	Set up dump naming convention	Yes	ibmuser	System Programmer

- Properties
- Accept
- Perform
- Skip
- Status
- Override Complete
- Resolve Conflicts
- Change Called Workflow
- Assignment And Ownership
- Expand
- Collapse

Workflows > Configure Workflow > 12.5.2. Determine whether automatic dump data set allocation is configured

### Properties for Workflow Step 12.5.2. Determine whether automatic dump data set allocation is configured

- General
- Details
- Dependencies
- Notes
- Perform
- Status
- Input Variables

Input Variables - Current configuration of auto-dump

Automatic dump data set allocation is already active

Auto-dump active - *Is auto-dump allocation active:*

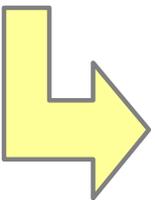
Naming convention - *Naming convention to be used for automatic dump data set allocation:*  
 &VMUSERID..DUMP.D&YYMMDD..T&HHMMSS..&SYSI

Volume - *Storage type for saving dump data sets:*

Volume serial - *Volumes to be used for saving dump data sets:*  
 PEVDMP,STGPK1,STGPK2,PEVDM3

SMS - *Storage type for saving dump data sets:*

SMS storage class - *SMS storage class:*

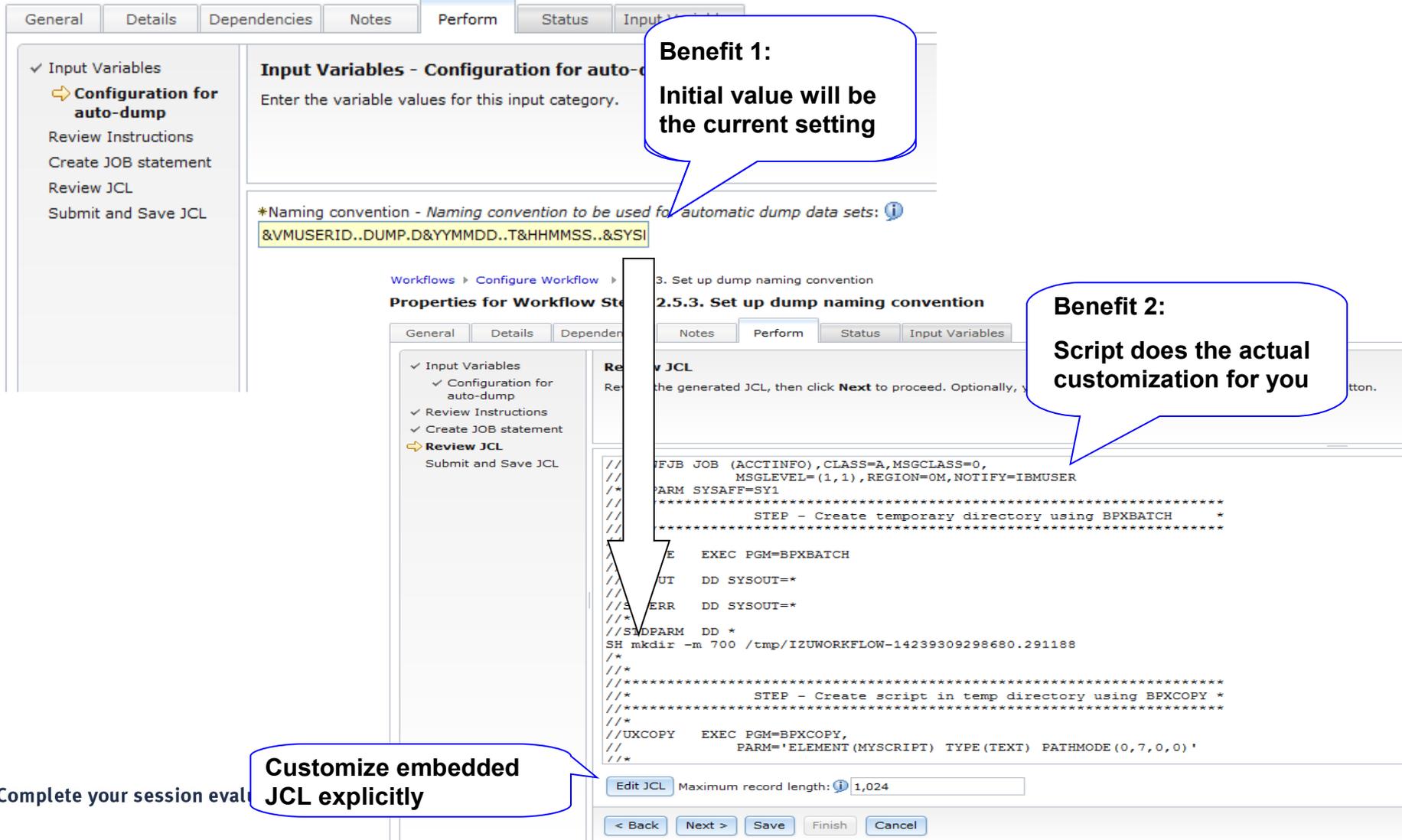


Complete your session evaluations or

# Enable automatic dump data set allocation - Change naming rule

Workflows > Configure Workflow > 12.5.3. Set up dump naming convention

## Properties for Workflow Step 12.5.3. Set up dump naming convention



**Benefit 1:**  
Initial value will be the current setting

**Benefit 2:**  
Script does the actual customization for you

Customize embedded JCL explicitly

Complete your session evaluation

```
/*NAMING CONVENTION - NAMING CONVENTION TO BE USED FOR AUTOMATIC DUMP DATA SETS:
&VMUSERID..DUMP.D&YYMMDD..T&HHMMSS..&SYSI

Workflows > Configure Workflow > 12.5.3. Set up dump naming convention
Properties for Workflow Step 12.5.3. Set up dump naming convention

General Details Dependencies Notes Perform Status Input Variables

Input Variables
  Configuration for auto-dump
  Review Instructions
  Create JOB statement
  Review JCL
  Submit and Save JCL

Review JCL
Review the generated JCL, then click Next to proceed. Optionally, you can click Back to return to the previous step.

//JOB JOB (ACCTINFO),CLASS=A,MSGCLASS=0,
//MSGLEVEL=(1,1),REGION=0M,NOTIFY=IBMUSER
//PARM SYSAFF=SY1
//*****
//STEP - Create temporary directory using BPXBATCH
//*****
//E EXEC PGM=BPXBATCH
//UT DD SYSOUT=*
//ERR DD SYSOUT=*
//SYDPARM DD *
//SH mkdir -m 700 /tmp/IZUWORKFLOW-14239309298680.291188
//*****
//STEP - Create script in temp directory using BPXCOPY
//*****
//UXCOPY EXEC PGM=BPXCOPY,
//PARM='ELEMENT(MYSCRIPT) TYPE(TEXT) PATHMODE(0,7,0,0)'
```

# Configure z/OS for z/OSMF Incident Log using workflow

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    - Configure CIM
    - Configure Log snapshot
    - Enable Sysplex Dump Directory
    - Configure DAE
    - Enable automatic dump data set allocation
    - Configure CEA
    - Ensure SYSREXX is setup and active
  - Add Incident Log plugin 

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)

# Follow the guide of workflow until finish configuration for Incident Log



Welcome x Workflows x

Workflows > Configure Workflow

### Configure Workflow

Description: **100% done** System: PLEX1.SY1 History  
 Customization for workflow  
 Percent complete: **100%** Steps complete: Status: **Complete** workflow  
 33 of 33 ✓ Complete

Workflow Steps

State Filter	No. Filter	Title Filter	CalledWorkflow Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
✓ Complete	2	Discovery before configuration					
✓ Complete	2.1	Discover the general z/OS setup		Yes	ibmuser	System Programmer	ibmuser
✓ Complete	2.2	Discover the z/OSMF run-time properties		Yes	ibmuser	System Programmer	ibmuser
✓ Complete	2.3	Review the related z/OS and z/OSMF configuration settings		No	ibmuser	System Programmer	ibmuser
✓ Complete	3	Choose the optional plug-ins to be added		Yes	ibmuser	System Programmer	ibmuser
✓ Complete	4	Ensure that CEA common event adapter (CEA) is active					
✓ Complete	5	Common Information Model (CIM) server					
✓ Skipped	6	Configuration Assistant plug-in					
✓ Skipped	7	ISPF plug-in					
✓ Skipped	8	Workload Management plug-in					
✓ Skipped	9	Resource Monitoring plug-in					
✓ Skipped	10	Capacity Provisioning plug-in					
✓ Skipped	11	Software Deployment plug-in		No	ibmuser		ibmuser
✓ Complete	12	Incident Log plug-in					
✓ Complete (Override)	13	Add Plug-ins to the z/OSMF Server					

Total: 124, Selected: 22

[Return to Workflows](#) [Refresh](#) Last refresh: Feb 15, 2015, 12:25:37 AM local time (Feb 14, 2015, 4:25:37 PM GMT)

Complete your session evaluations online at [www.SHARE.org/Seattle-Eval](http://www.SHARE.org/Seattle-Eval)



# Agenda

- Overview of z/OSMF Workflows
- Using Workflows to configure z/OSMF Incident Log
  - Overview
  - Configuring z/OS Requirements for z/OSMF Incident Log (manual process)
  - Configuring z/OS Requirements for z/OSMF Incident Log using the z/OSMF Configuration Workflow
- **Using Workflows to configure zEDC**
  - – **Overview**
  - Configuring z/OS Requirements for zEDC (manual process )
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

## zEDC Express feature

- **IBM Enterprise Data Compression (zEDC) is a new capability of z/OS V2.1**
  - IBM zEnterprise Data Compression (zEDC) offers a compression acceleration solution designed for high performance, low latency compression with little additional overhead.
- **Designed to support high performance data serving by providing:**
  - A tenfold increase in data compression rates with much lower CP consumption than using software compression, including software compression that exploits the System z Compression Call instruction (System z hardware data compression)
  - A reduction in storage capacity required (creation of storage “white space”) that in turn reduces the cost of storage acquisition, deployment, operation, and management
- **Configuration:**
  - One compression accelerator per PCIe I/O feature card
  - Supports concurrent requests from up to 15 LPARs
  - Sustained aggregate 1 GBps compression rate when given large block inputs
  - Up to 8 features supported by zBC12 or zEC12
  - **Minimum two feature configuration recommended**

# zEDC Express Feature

- **Exploitation and Compatibility**
  - **z/OS V2.1**
    - SMF logger
    - DFSMS BSAM/QSAM extended format data sets
    - DFSMSdss and DFSMSHsm plans to exploit zEDC by the end of the 3Q14
    - Notes:
      - z/OS V1.13 and V1.12 - Software support for decompression only, no hardware compression/decompression acceleration support
      - z/VM V6.3 support for z/OS V2.1 guest: June 27, 2014
  - **IBM 31-bit and 64-bit SDK71 for z/OS Java Version 7 Release 1 and higher, IBM 31-bit and 64-bit SDK7 for z/OS SR7 and higher**
  - **IBM Encryption Facility for z/OS V1.2**
  - **IBM Sterling Connect:Direct for z/OS V5.2**
  - **IBM Security zSecure V2.1**
  - **IBM WebSphere MQ for z/OS V8**
    - COMPMSG(ZLIBFAST)

# IBM zEnterprise Data Compression

## Improved Management of Data with zEDC Compression



### New! Additional compression capabilities extend the reach of zEDC Express

- IBM Encryption Facility for z/OS can help you to reduce encryption time by using hardware compression (zlib-based, industry-standard)
- Save disk and reduce CPU requirements with new zEDC capabilities for sequential data set compression and support for Java™ Technology Edition, Version 7 Release 1

**zBNA tool helps analyze SMF records to identify candidates for compression**

[www.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/PRS5132](http://www.ibm.com/support/techdocs/atsmastr.nsf/WebIndex/PRS5132)

### New! IBM Sterling Connect:Direct for z/OS Standard Edition V5.2

- Facilitates high-speed data transfer across the enterprise
- Optimized for high-volume, secure file delivery between System z and distributed systems
- Data transfer at channel speed; Supports DS8000® series, EAV large volumes
- zEDC compression can help you save more data
  - Helps meet compliance needs
  - Helps with more current data for analysis

### BSAM/QSAM\*

Compress data up to 4X, with up to 80% reduced CPU \*

### Java 7\*\*

Up to 90% reduction in CPU time with up to 74% reduction in elapsed time vs. using zlib software

### Managed File Transfer - Sterling Connect :Direct for z/OS 5.2 \*\*\*

Achieve up to 80% reduction in elapsed time for managed z/OS to z/OS file transfers

\*These results are based on projections and measurements completed in a controlled environment. Results may vary by customer based on individual workload, configuration and software levels

\*\*Exploited through standard Java APIs java.util.zip in the latest releases of Java 7.0.0, and Java V7R1

Complete Achieves up to 80% reduction in elapsed time for managed z/OS to z/OS file transfers with minimal CPU increase. Results vary by data set type and characteristics of the data.

# Agenda

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- **Using Workflows to configure zEDC**
  - Overview
  - ➔ **– Configuring z/OS Requirements for zEDC (manual process )**
  - Configuring z/OS Requirements for zEDC using the zEDC Workflow

# Configuring z/OS Requirements for zEDC (manual process)



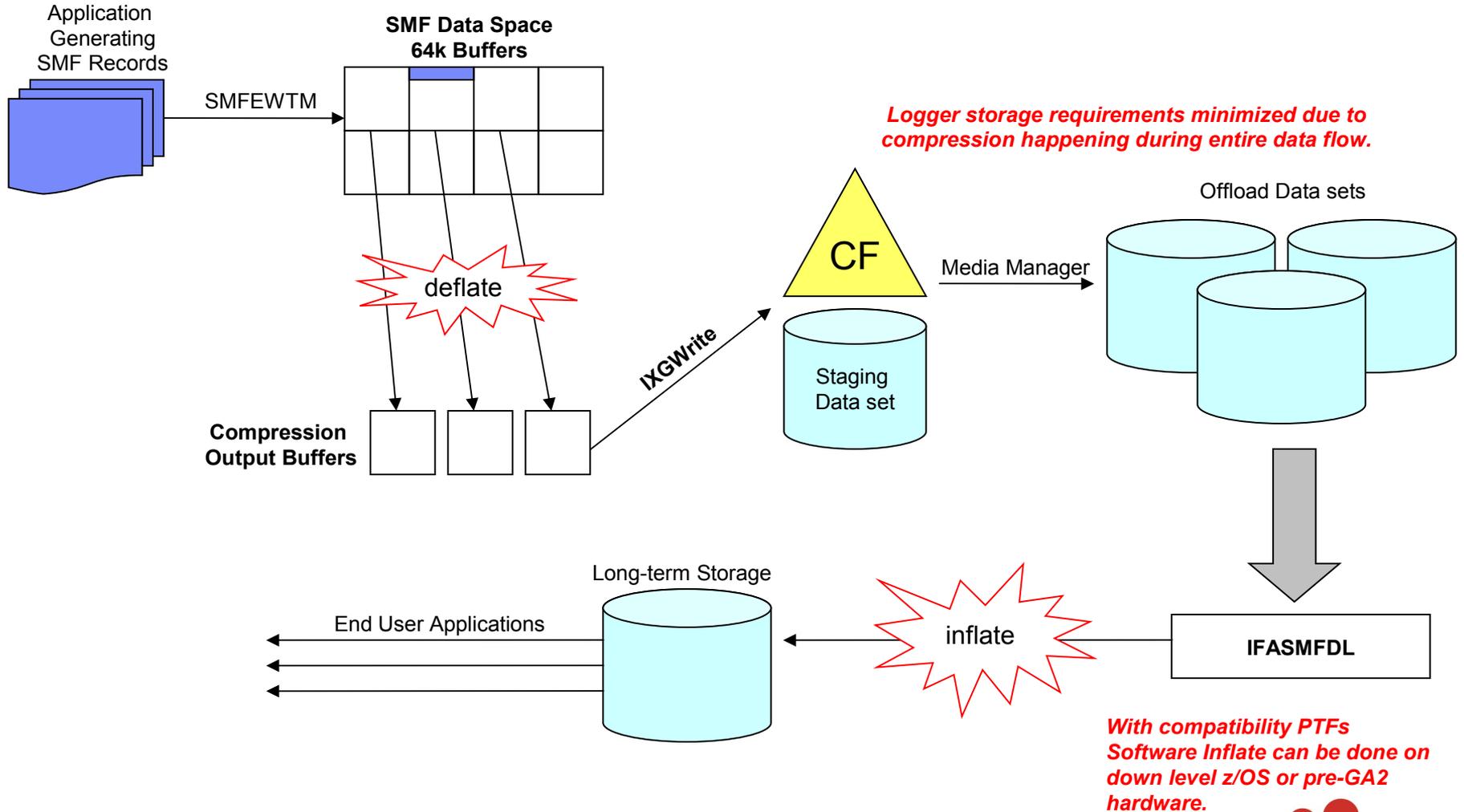
- Order hardware feature
- License software feature
- Define FUNCTION definition in IOCP (defined by HCD or HCM)
  - A PCIe function is defined by a unique identifier, the function ID (FID).
  - Each function specifies a function type (ROCE or ZEDC-EXPRESS) and a physical channel identifier PCHID.
  - Multiple functions may be specified to the same PCHID value provided that each of these functions defines a unique virtual function (VF) number.
  - Select the LPARs that should be entitled to access the function.
  - Activate the new IODF with zEDC Express devices defined.
  - Use the D PCIE and D PCIE,PFID=xxxx command to verify that the zEDC Express devices are available to z/OS.
- Enable the z/OS V2.1 zEDC software feature (this must be done prior to IPL)
  - Specified in IFAPRDxx member of PARMLIB  
PRODUCT OWNER('IBM CORP')  
NAME('z/OS')  
ID(5650-ZOS)  
FEATURENAME(ZEDC)  
VERSION(\*) RELEASE(\*) MOD(\*)  
STATE(ENABLED)

# Configuring z/OS Requirements for zEDC (manual process)



- Exploit zlib data compression in applications
  - A modified version of the zlib compression library is used by zEDC.
  - The IBM-provided zlib compatible C library provides a set of wrapper functions that use zEDC compression when appropriate and when zEDC is not appropriate, software-based compression services are used.
- 1. Link or re-link applications to use the IBM-provided zlib.
- 2. Protect and authorize the use of zlib
  - Access to zEDC is protected by the SAF FACILITY resource class FPZ.ACCELERATOR.COMPRESSION.
  - Give READ access to FPZ.ACCELERATOR.COMPRESSION to the identity of the address space(s) that the zlib task will run in.
- 3. Verify (and adjust if necessary) the input buffer size
  - Ensure that adequately sized input buffers are available.
    - If the input buffer size falls below the minimum threshold, data compression occurs using zlib software compression and not zEDC.
    - This threshold can be controlled at a system level using the PARMLIB member IQPPRMxx.

# SMF Data Flow Overview



# Configuring z/OS Requirements for zEDC (manual process)

## Enable SMF use of zEDC

- SMF records must be directed to a CF or DASD log stream
- Specify the new COMPRESS option on one or more log stream definitions (LSNAME) or DEFAULTLSNAME
  - Option to specify amount of memory to permanently fix for performance
  - Note: For testing purposes, the same SMF record can be directed to multiple log streams and compression can be enabled on one of them.
- IFASMF DL requirements
  - No changes required if zEDC devices are available; they will be used automatically
  - Specify the SOFTINFLATE option to process compressed data when there are no zEDC devices available
    - Requires z/OS PTF to provide software inflate (decompression) capability for z/OS 1.12 and 1.13 systems
  - If the SOFTINFLATE option is not specified on a system without zEDC devices an error will occur and no records will be deleted from the SMF logstream
- Enable the following SMF records to collect performance information:
  - SMF 23 – SMF buffer usage, number of records written etc.
  - SMF 88 - System logger log stream size, frequency of offload

# Agenda

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  - ➔ **– Configuring z/OS Requirements for zEDC using the zEDC Workflow**

# Structure of zEDC workflow

Welcome x Workflows x

Workflows > z/OS V2R1 zEnterprise Data Compression Setup Workflow

Help

## z/OS V2R1 zEnterprise Data Compression Setup Workflow

Notes | History

Description: z/OS V2R1 zEnterprise Data Compression Setup Workflow  
 Owner: ibmuser  
 System: PLEX1.SY1  
 Percent complete: 0%  
 Steps complete: 0 of 13  
 Status: In Progress

### Workflow Steps

State Filter	No. Filter	Title Filter	Category Filter	Assignees Filter
<input checked="" type="checkbox"/>	1	Configure a zEDC Express Adapter		
<input checked="" type="checkbox"/>	1.1	IODF Updates		
<input type="checkbox"/>	1.1.1	IODF Configuration Changes	No	ibmuser
<input type="checkbox"/>	1.1.2	Perform Dynamic Activate	No	ibmuser
<input type="checkbox"/>	1.2	(Optional) Configure zEDC Express devices online and offline	No	ibmuser
<input type="checkbox"/>	1.3	(Optional) Confirm zEDC Express is active	No	ibmuser
<input type="checkbox"/>	2	Enable the zEDC z/OS Software Feature	No	ibmuser
<input checked="" type="checkbox"/>	3	Update an Application to use zEDC enabled zlib		
<input type="checkbox"/>	3.1	Re-link applications		ibmuser
<input type="checkbox"/>	3.2	Provide System Authorization Facility (SAF) Access		ibmuser
<input type="checkbox"/>	3.3	Verify application input buffer sizes		ibmuser
<input type="checkbox"/>	3.4	Adjust Pre-allocated Buffer sizes	No	ibmuser
<input type="checkbox"/>	3.5	(Optional) Disable zEDC for an application	No	ibmuser
<input checked="" type="checkbox"/>	4	Enable SMF Compression		
<input type="checkbox"/>	4.1	Update SMFPRMxx		ibmuser
<input type="checkbox"/>	4.2	Review IFASMF DL Procedure		ibmuser
<input type="checkbox"/>	4.3	(Optional) Verify with SMF23 Records	No	ibmuser

Enable hardware and software features

Making app exploits zEDC enabled zlib

Enable SMF compression using zEDC

Total: 17, Selected: 0

[Return to Workflows](#)

[Refresh](#)

Last refresh: Jul 16, 2014, 3:07:08 PM local time (Jul 16, 2014, 7:07:08 AM GMT)

# Guided steps

IBM z/OS Management Facility Welcome ibmuser [Log out](#) 

Welcome x Workflows x

Workflows ▶ z/OS V2R1 zEnterprise Data Compression Setup Workflow ▶ 2. Enable the zEDC z/OS Software Feature [Help](#)

### Properties for Workflow Step 2. Enable the zEDC z/OS Software Feature

General Details Notes Perform Status Input Variables

Title:  
Enable the zEDC z/OS Software Feature

Description:

The software feature for z/OS zEDC must be enabled before any usage of zEDC is possible. The `IFAPRDxx` parmlib member must be updated with the following:

PRODUCT	OWNER ('IBM CORP')
	NAME ('Z/OS')
	FEATURENAME ('ZEDC')
	ID (5650-ZOS)
	VERSION (*)
	RELEASE (*)
	MOD (*)
	STATE (ENABLED)

Note that this must be setup at IPL time to take effect.

[Close](#)

# Summary (1 of 2): z/OSMF Workflow Application



- **The z/OSMF Workflow application is a framework supports user (Workflow provider) to define a guided flow (workflow) through steps to accomplish a task.**
- **The z/OSMF Workflow application is useful to:**
  - Assist people unfamiliar with how to perform a given task, or a task that they perform rarely
  - Ensure that all tasks are performed in the right order and only when their dependencies have been met
  - Ensure that all steps are completed
    - Even if many of the tasks have been delegated to a number of different colleagues
  - Monitor and track progress toward the completion of the task
  - Provide a history (audit trail) of the steps performed for a task
  - Perform the same tasks on multiple systems
- **The z/OSMF Workflow application also plans to provide RESTful APIs allow user to drive workflows remotely or locally without the need of opening z/OSMF UI\*\*.**

\*\* available for z/OSMF V2R1 with APAR PI32148

# Summary (2 of 2): z/OSMF Workflow Samples

- **Simple workflow to create user and connect it to a group**
- **z/OSMF Configuration Setup**
  - A number of steps are required to verify or setup the prerequisites for z/OSMF plug-ins (applications)
    - IBM provides a workflow to assist in the verification and setup of the z/OS prerequisites as well as adding the plug-ins to z/OSMF
    - In this session you saw how to use z/OSMF Workflow to configure the z/OS requirements for z/OSMF Incident Log
- **zEDC Configuration Setup**
  - IBM provides an as-is workflow that can be used to assist in configuring z/OS requirements for enabling zEDC

# Advertisements

- **Session 16659 z/OSMF User Experiences**  
Wednesday, March 4: 4:30 PM-5:30 PM Metropolitan B (Sheraton Seattle)
- **Session 16654 z/OSMF 2.1 Implementation and Configuration**  
Thursday, March 5: 8:30 AM-9:30 AM Virginia (Sheraton Seattle)
- **Session 16940 Lab: z/OSMF Hands-On Labs - Choose Your Own - II**  
Thursday, March 5: 11:15 AM-12:15 PM Redwood (Sheraton Seattle)
- **Session 16935 z/OSMF 2.1 Advanced Programming**  
Thursday, March 5: 1:45 PM-2:45 PM Metropolitan B (Sheraton Seattle)
- **Session 16656 Lab: z/OSMF Hands-On Labs - Choose Your Own - III**  
Friday, March 6: 8:30 AM-9:30 AM Redwood (Sheraton Seattle)

**Thank You**



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