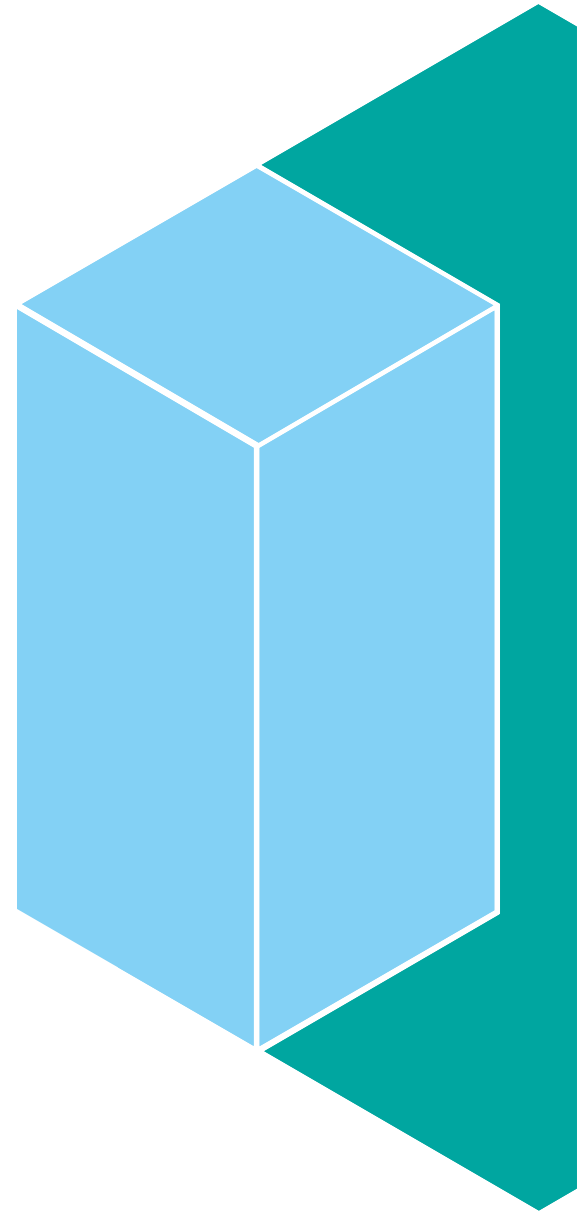


Self service Cloud Provisioning made easy with z/OSMF workflows Simplify IMS operations A04

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Sharpen your competitive edge

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www.ims-symposium.com

Agenda

- Brief overview of z/OS Management Facility
- Exploring the possibilities for IMS
 - Workflows
 - Comparison of traditional vs z/OSMF methods
- Summary & demo
- Q&A

Overview of z/OSMF

- IBM z/OS Management facility (z/OSMF) delivers on IBM's strategy for mainframe simplification and modernization
- z/OSMF provides a modern browser based interface to managing the z/OS system
- Manage solutions rather than specific IBM products
- Automated tasks help reduce the learning curve and improve productivity.
- Embedded user assistance, wizards, and tool tips help guide users through tasks
- z/OSMF has a zero price for z/OS customers

Overview of z/OSMF (continued)

■ z/OSMF helps system programmers to more easily manage and administer a mainframe system by simplifying day to day operations and administration of a z/OS system.



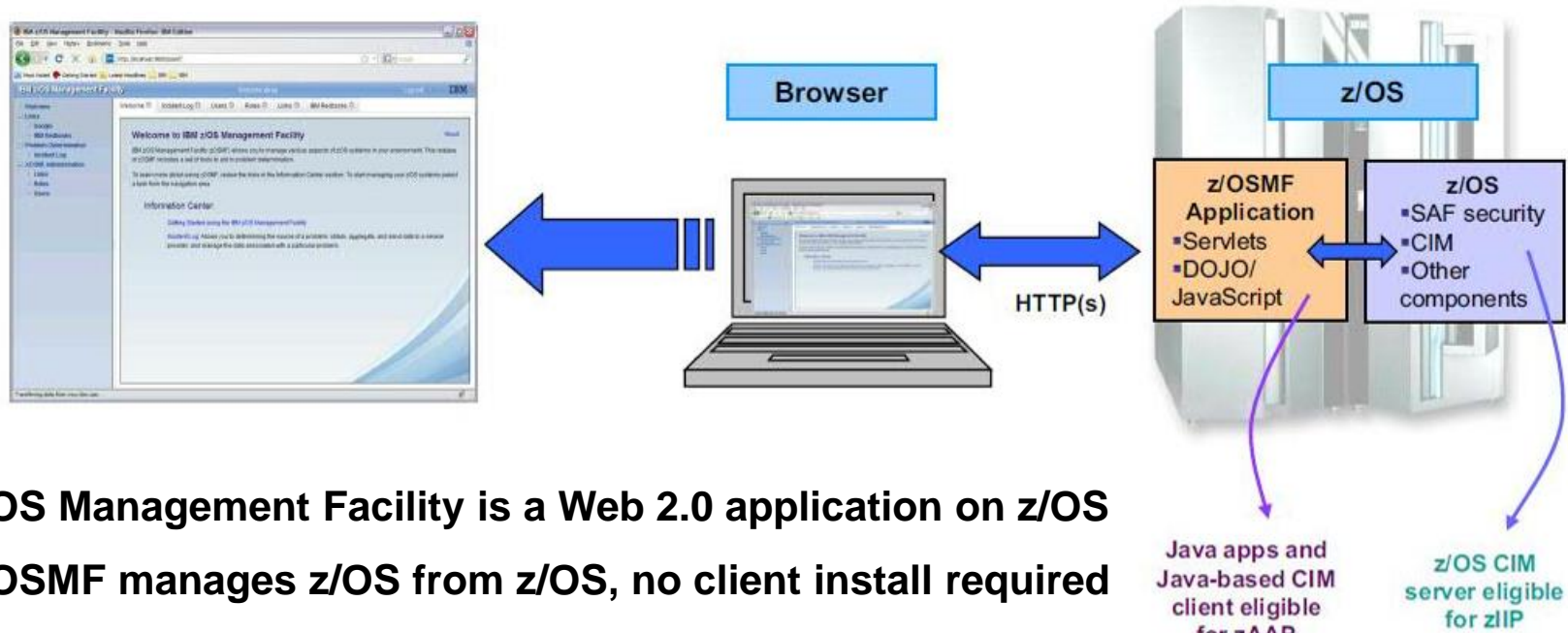
- Not just a graphical user interface,
 - the z/OS Management Facility is intelligent, addressing the needs of a diversified skilled workforce and maximizing their productivity.

Overview of z/OSMF: Plugins

System management capabilities to simplify and help standardize common tasks:

- Capacity Provisioning: Create, edit, and activate domain configurations and capacity provisioning policies, and monitor Capacity Provisioning Manager status for domains.
- Configuration Assistant for z/OS Communications Server: Configure TCP/IP policy based networking functions.
- Resource Monitoring and System Status: Obtain dynamic, real time performance/status metrics for z/OS® sysplexes, AIX® system complexes, Windows system complexes, and Linux system complexes.
- Software Management: View, inspect, and report on software instances to simplify the management of your z/OS software. Workload Management: Create, edit, and activate WLM policies to offer a convenient way of adjusting policies
- ISPF: Launch ISPF functions in the z/OSMF user interface.
- Incident Log: Capture, package, and send SVC dump diagnostic data to simplify problem reporting.
- Workflows: Perform a guided set of steps, for example, to configure components or products in your installation.

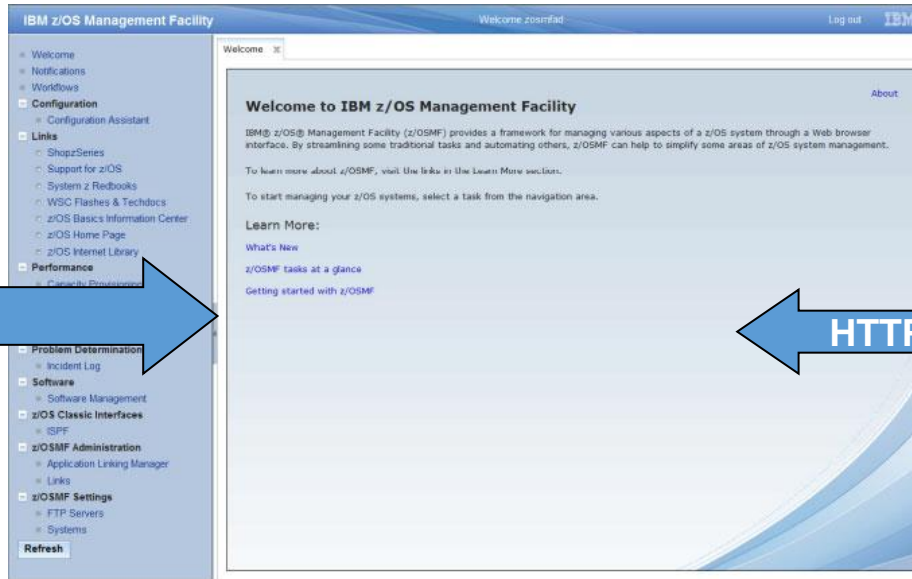
z/OSMF Architecture



- **z/OS Management Facility is a Web 2.0 application on z/OS**
- **z/OSMF manages z/OS from z/OS, no client install required**
- **Browser communicates with z/OSMF via a secure connection**
 - Connect from anywhere, anytime. No 3270 emulator required.
 - z/OSMF V2R1 is supported on z/OS V2R1 (must be ordered from IBM)
 - z/OSMF V2R2 is supported on z/OS V2R2 (included in z/OS base)
- **z/OSMF uses industry standard technology like Java, DOJO, JavaScript**
 - Java is eligible to offload to specialty engine
- **z/OSMF communicates with security server on z/OS and other components as needed**

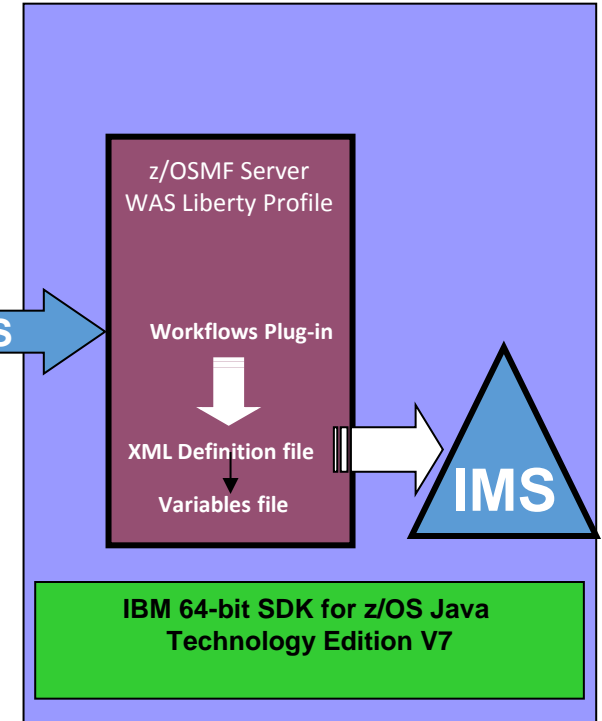
z/OSMF Architecture: IMS Workflows Perspective

■ Web Browser



HTTPS

z/OS 2.1+



- Efficient code base: WebSphere Application Server Liberty profile
- Workflow files reside on z/OS system in USS or dataset members

What are Workflows in z/OSMF

- **Workflows provide a guided flow through end-end steps required to accomplish a task**
- A z/OSMF Workflow is created by specifying a 'Workflow Definition File (XML)' and a 'Variable Input File'
- The 'Workflow Definition File' contains definitions for variables used by the workflow and the steps to be performed.
 - Steps may be manual or automated
 - Within the steps, a user can update and submit jobs, execute scripts, etc
- **The 'Variable Input File' contains values for some or all variables used by the workflow**
 - Providing values of all variables in a workflow allows it to be run automatically without user intervention
 - Variable values may also be solicited from the user from within a workflow step

Workflows in z/OSMF

IBM z/OS Management Facility Welcome zosmfad Log out IBM.

Welcome x Workflows x

Workflows ▶ This workflow provides the steps for z/OS setup necessary for each plug-in that is to b - Workflow_0

This workflow provides the steps for z/OS setup necessary for each plug-in that is to b - Workflow_0

Description:
This workflow provides the steps for z/OS setup necessary for each plug-in that is to be configured.

Percent complete: 0%

Owner: zosmfad System: SY1_003 Steps complete: 0 of 44

Notes | History

Assigned Notes, history

Workflow Steps

State Filter	No. Filter	Title Filter	Owner Filter	Skill Category Filter	Assignees Filter
Ready	1	z/OS configuration for z/OSMF plug-ins	zosmfad	varies	zosmfad
In Progress	2	z/OS configuration for ISPF Classic Interface			
In Progress	3	System prerequisite setup for z/OSMF Configuration Assistant			
Ready	3.1	Move existing backing store files to z/OSMF	zosmfad	Security Administrator	zosmfad
In Progress	4	System prerequisite setup for Common Information Model (CIM) setup			
In Progress	6	System prerequisite setup for z/OSMF Workload Management Plug-in			
Not Ready	6.1	Configure Common Information Model (CIM)	zosmfad		zosmfad
Ready	6.2	Setup Workload Management Security for CIM	zosmfad		zosmfad
In Progress	6	System prerequisite setup for z/OSMF Capacity Provisioning Plug-in			
In Progress	7	System prerequisite setup for z/OSMF Resource Monitoring Plug-in			
In Progress	8	Setup for z/OSMF Incident Log Plug-in			

Total: 50, Selected: 0

Return to Workflows Refresh

Workflows in z/OSMF (continued)

- **A workflow is only meant to be run once**
 - Want to repeat the task? Create another workflow.
- **Workflows remain in z/OSMF, including all history and job output, until manually deleted**
- **Steps in the workflow can be assigned to specific roles, such as "system programmer", "security administrator," or to an individual to complete specific tasks.**
 - Step owners are notified through email or z/OSMF interface when certain events occur (ie: requested to complete a step, automation succeeds/fails)
- **Steps may define a dependency on another step**
- **All actions taken on the system are performed under the user's ID and within the constraints of the user's security authorizations (z/OSMF provides no inherent authorization to take an action on the system).**

How will this help IMS users?

- ***Provides a Web GUI*** with wizards, helps, links, instructions, and tutorials that guide users through complex tasks spanning multiple IMS subcomponents and operations
- ***Does not require*** end-users to have in-depth knowledge of the environment, naming conventions, processes and procedures
- ***Does not require*** end-users in-depth knowledge of IMS Operations
- **Relatively simple programming (XML, JCL)**
- **Flexibility (conditional statements supported)**
- **REST API availability**
 - Home-grown or 3rd party portal may be used for self-service provisioning

How will this help IMS users? (continued)

- **Workflows can be used to simplify IMS operations**
 - DB deployment
 - Applications Deployment
 - System Provisioning
 - Restart of IMS(s) and all its subcomponents
- **A workflow can be used to manage IMS along with other subsystems (CICS, DB2, WebSphere MQ)**
- **Save time for experienced IMS System Programmers and DBAs as well as help novice users be more productive**
 - A novice IMS system program can provision a full IMS system, with minimal knowledge of IMS internals, in 5 minutes.

Workflows overview

IBM z/OS Management Facility

Welcome chad

Log out

IBM

■ Welcome

■ Notifications (4)

■ Workflows

+ Configuration

+ Links

+ Performance

+ Problem Determination

+ Software

- z/OS Classic Interfaces

- ISPF

+ z/OSMF Administration

+ z/OSMF Settings

Refresh

Welcome x Workflows x

Pending Notifications

Help

Workflows

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

☒ ☐ Actions ▼ Match: All filters Search

<input type="checkbox"/>	Workflow Name Filter	Description Filter	Version Filter	Owner ▼ Contains "chad"	System Filter	Status	Percent Complete	Vendor Filter
<input type="checkbox"/>	IMS TM-DB System Manual Provisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Provisioning	13.0	chad	PLXE0E1.STLABE0	✓ Complete	<div>100%</div>	IBM
<input type="checkbox"/>	IMS TM-DB System Manual Deprovisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Deprovisioning	13.0	chad	PLXE0E1.STLABE0	✓ Complete	<div>100%</div>	IBM
<input type="checkbox"/>	Betty's test workflow to provision an IMS TM-DB System - Workflow_1	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1.STLABE0	🟢 In Progress	<div>12%</div>	IBM
<input type="checkbox"/>	HDAM DB Provisioning - Workflow_3	HDAM DB Provisioning	1.0	chad	PLXE0E1.STLABE0	🟢 In Progress	<div>78%</div>	IBM
<input type="checkbox"/>	Procedure to provision an IMS TM-DB System - Workflow_2	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1.STLABE0	✓ Complete	<div>100%</div>	IBM
<input type="checkbox"/>	HDAM DB Provisioning - Workflow_4	HDAM DB Provisioning	1.0	chad	PLXE0E1.STLABE0	🟢 In Progress	<div>78%</div>	IBM

Total: 130, Filtered: 6, Selected: 0

Refresh Last refresh: Oct 19, 2015, 12:53:24 PM local time (Oct 19, 2015, 7:53:24 PM GMT)

Creating a workflow

The screenshot displays the z/OSMF Workflows interface. A 'Create Workflow' dialog box is open, prompting the user to define a new workflow. The dialog includes the following fields:

- Workflow definition file:** A dropdown menu showing the selected file `/ZOSMF21/workflows/IMS/Beta/workflows/ims/provision.xml`. A callout points to this field, stating: "XML containing workflow steps".
- Workflow variable input file:** A dropdown menu showing the selected file `/ZOSMF21/workflows/IMS/Beta/properties/workflow_variables.properties`. A callout points to this field, stating: "Flat file containing variable values".
- System:** A dropdown menu showing the selected system `PLXE0E1.STLABE0`.

The background interface shows a list of existing workflows on the left and a table of workflow progress on the right.

Workflow Name	Percent Complete	Vendor
IMS TM-DB System Manual Provisioning - V14-STLABE0 CHAD-2	100%	IBM
IMS TM-DB System Manual Deprovisioning - V14-STLABE0 CHAD-2	100%	IBM
Betty's test workflow to provision an IMS TM-DB System - Workflow_1	12%	IBM
HDAM DB Provisioning - Workflow_3	78%	IBM
Procedure to provision an IMS TM-DB System - Workflow_2	100%	IBM
HDAM DB Provisioning - Workflow_4	78%	IBM

Workflow steps

Welcome x Workflows x

Workflows ▶ Procedure to provision an IMS TM-DB System - Workflow_4 [Help](#)

Procedure to provision an IMS TM-DB System - Workflow_4


Description: Procedure to provision an IMS TM-DB System
Percent complete:

0%

Owner: chad
Steps complete: 0 of 39

System: PLXE0E1.STLABE0
Status: ■ In Progress

Is Callable: Cannot be called by another workflow

[Notes/History](#)  [Notes](#) | [History](#)

Workflow Steps

☒ ☐ Actions ▼ Search

<input type="checkbox"/>	State Filter	No. Filter	Title Filter	CalledWorkflow Filter	Automated Filter	Owner Filter	Skill Category Filter	Assignees Filter
<input type="checkbox"/>	➡ Ready	1	■ Specify IMS Criteria		Yes	chad	IMS administration	chad
<input type="checkbox"/>	■ In Progress	2	■ IMS Installation preparation					
<input type="checkbox"/>	➡ Ready	2.1	■ Allocate work Dataset for zCloud IMS		Yes	chad	System Admin	chad
<input type="checkbox"/>	➡ Ready	2.2	■ Mount ZFS files		Yes	chad	System Admin	chad
<input type="checkbox"/>	➡ Ready	2.3	■ Allocate IMS System Definitions data sets		Yes	chad	System Admin	chad
<input type="checkbox"/>	➡ Ready	2.4	■ IMS System Definition Preprocessor Utility		Yes	chad	System Admin	chad
<input type="checkbox"/>	⚠ Not Ready	2.5	■ Run SYSDEF Stage1		Yes	chad	System Admin	chad
<input type="checkbox"/>	⚠ Not Ready	2.6	■ Run SYSDEF Stage2		Yes	chad	System Admin	chad

Total: 45, Selected: 0

[Return to Workflows](#) [Refresh](#) Last refresh: Oct 19, 2015, 1:01:20 PM local time (Oct 19, 2015, 8:01:20 PM GMT)

Annotations:

- State of steps:** Points to the 'State Filter' column header.
- Workflow steps:** Points to the 'Title Filter' column header.
- Step Assignee:** Points to the 'Assignees Filter' column header.

Performing a step

Welcome x Workflows x

Workflows ▶ Procedure to provision

Procedure to provision

Description:
Procedure to provision an IMS TM
Percent complete:
0%

Workflow Steps

State Filter	No. Filter
<input checked="" type="checkbox"/> Ready	1
<input type="checkbox"/> In Progress	2
<input type="checkbox"/> Ready	2.1
<input type="checkbox"/> Ready	2.2
<input type="checkbox"/> Ready	2.3
<input type="checkbox"/> Ready	2.4
<input type="checkbox"/> Not Ready	2.5
<input type="checkbox"/> Not Ready	2.6

Total: 45, Selected: 1

Return to Workflows Refresh

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

Help

Notes | History

ed by another workflow

Category Filter	Assignees Filter
IS administration	chad
System Admin	chad
System Admin	chad
System Admin	chad
System Admin	chad
System Admin	chad
System Admin	chad
System Admin	chad

Variable gathering

Welcome x Workflows x Notification... x

Workflows ▶ Procedure to provision an IMS TM-DB System - Workflow_4 ▶ 1. Specify IMS Criteria [Help](#)

Properties for Workflow Step 1. Specify IMS Criteria

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

✓ Input Variables

- ✓ IMS
 - ➔ **z/OS Subsystems-IMS**
 - z/OS Environment-IMS
 - IMS DataSet
 - z/OS Environment
 - z/OS Subsystems-VTAM
 - z/OS Subsystems-IRLM
 - z/OS Environment-TCPIP
 - z/OS Environment-SMPE
 - z/OS Environment-L.E.
 - z/OS System
 - Jobs
 - Review Instructions

Input Variables - z/OS Subsystems- IMS

Enter the variable values for this input category.

*IMS Subsystem name - *Subsystem name for the zCloud IMS:* ⓘ

IMS1

*IMS Connect Port suffix - *The IMS Connect port suffix to be appended to the default ports:* ⓘ

99

IMS XCF Group Name - *The zCloud IMS Group name (XCF) needed for the IMSPLEX:* ⓘ

IMSXCFGN

*IMS Plex Name - *IMSPLEX name for this zCloud IMS :* ⓘ

PLEX1

< Back Next > Save Finish Cancel

Close

Manually performing a step

Welcome x Workflows x

Workflows ▶ Procedure to provision an IMS TM-DB System - Workflow_4 ▶ 2.1. Allocate work Dataset for zCloud IMS [Help](#)

Properties for Workflow Step 2.1. Allocate work Dataset for zCloud IMS

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

✓ 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. To do so, click the **Edit JCL** button.

```
//IZUWFJB JOB (ACCTINFO),CLASS=H,MSGCLASS=1,  
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=CHAD  
/*JOBPARM SYSAFF=SYE0  
/*  
/* ALLOCATE WORK DATA SETS  
/******@SCPVRT**  
/*  
/* LICENSED MATERIALS - PROPERTY OF IBM  
/*  
/* 5635-A04  
/*
```

[Edit JCL](#) Maximum record length: ⓘ 80

< Back Next > Save Finish Cancel

Close

Review and edit JCL

Status of a step

Welcome x Workflows x

[Workflows](#) ▶ [Procedure to provision an IMS TM-DB System - Workflow_2](#) ▶ 2.4. IMS System Definition Preprocessor Utility [Help](#)

Properties for Workflow Step 2.4. IMS System Definition Preprocessor Utility

General

Details

Dependencies

Notes

Perform

Status

Input Variables

Name: IZUWFJB

ID: JOB03614

Class: H

Type: JOB

Status: OUTPUT

Return code: CC 0000

JESMSGLG

JESJCL

JESYSMSG

SYSPRINT

DD name: JESMSGLG

Step name: JES2

Procedure step name:

Dataset ID: 2

Class: 1

Record count: 15

Output (0.736KB of 0.736KB shown)

```
1          J E S 2   J O B   L O G   --   S Y S T E M   S Y E 0   --   N O D E   S T L A B E 0
0
13.07.02 JOB03614 ----- WEDNESDAY, 07 OCT 2015 -----
13.07.02 JOB03614 IRR010I  USERID CHAD      IS ASSIGNED TO THIS JOB.
13.07.02 JOB03614 ICH70001I CHAD      LAST ACCESS AT 13:06:32 ON WEDNESDAY, OCTOBER 7, 2015
13.07.02 JOB03614 $HASP373 IZUWFJB  STARTED - INIT 3      - CLASS H      - SYS SYE0
13.07.02 JOB03614 SMF000I  IZUWFJB  PREPROC   DFSPRE00    0000
13.07.02 JOB03614 $HASP395 IZUWFJB  ENDED
0----- JES2 JOB STATISTICS -----
-   07 OCT 2015 JOB EXECUTION DATE
-           422 CARDS READ
-           434 SYSOUT PRINT RECORDS
```

Refresh

Close

XML Definition File (1 of 4)

Workflow metadata

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<!-- Declare external file containing IMS variables referenced in the following steps -->
```

```
<!DOCTYPE workflow [<!ENTITY copyright "Copyright IBM Corp., 2015">
```

```
    <!ENTITY variables SYSTEM "IMSVariables.xml">]>
```

External file for
variable definitions

```
<workflow xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
```

```
    xsi:noNamespaceSchemaLocation="../workflow_v1.xsd">
```

```
<!-- ***** -->
```

```
<!-- Workflow process information section -->
```

```
<!-- ***** -->
```

```
<workflowInfo>
```

```
    <workflowID>ProvisionIMS</workflowID>
```

```
    <workflowDescription>Procedure to provision an IMS TM-DB System</workflowDescription>
```

```
    <workflowVersion>1.1</workflowVersion>
```

```
    <vendor>IBM</vendor>
```

```
    <Configuration>
```

```
        <productID>5635-A05</productID>
```

```
        <productName>IMS</productName>
```

```
        <productVersion>Version 14</productVersion>
```

```
    </Configuration>
```

```
</workflowInfo>
```

Variable definitions

```
<variable name="Ds2" scope="instance">
```

Variable name and scope

```
<label>DSNAME</label>
```

```
<abstract>Data set name</abstract>
```

```
<description>
```

```
    Data Set name validation
```

```
</description>
```

```
<category>Data set related</category>
```

```
<string>
```

```
    <validationType>DSNAME</validationType>
```

Variable validation

```
</string>
```

```
</variable>
```

```
<variable name="environ" scope="instance">
```

```
<label>ENVIRONMENT</label>
```

```
<abstract>Environment for the IMS System</abstract>
```

```
<description>The environment for which the IMS System is to be provisioned</description>
```

```
<category>IMS</category>
```

```
<string valueMustBeChoice="true">
```

```
    <choice>DEV</choice>
```

```
    <choice>TEST</choice>
```

```
    <choice>PROD</choice>
```

```
    <default>DEV</default>
```

List of variable values

```
</string>
```

```
</variable>
```

Conditional statements

```
## Define variables for environments
#set ($dev = "DEV")
#set ($qa = "QA")
#set ($prod = "PROD")
##
## Set log properties based on environment
#if (${instance-CSQ_ENVIRONMENT} == $dev)
    #set ($dualbsds = ${instance-CSQ_DEV_DUAL_BSDS})
    #set ($dualactvlogs = ${instance-CSQ_DEV_DUAL_ACTV_LOGS})
#end
## Decrement number of pagesets by 1 so we can start with pageset 0.
#set ($noofpagesets = $noofpagesets - 1)
#if ($dualbsds)
    #set ($noofcopiesofbsds = 2)
#else
    #set ($noofcopiesofbsds = 1)
#end
//*****
//DELETE EXEC PGM=IDCAMS,REGION=4M
//SYSPRINT DD SYSOUT=*
//DD1      DD DSN=${instance-CSQ_PROC_LIB},DISP=SHR
//DD2      DD DSN=${instance-CSQ_AUTH_LIB_HLQ}.${instance-CSQ_MQ_SSID}.APF.LOAD,DISP=SHR
//DD3      DD DSN=${instance-CSQ_QMGR_INPUT_PARMS},DISP=SHR
```

Conditional statements
in JCL

Workflow step

```
<step name="Start_IMSCTLRegion">
  <title>Start the IMS Control Region address space</title>
  <description>Start the Control Region address space</description>
  <prereqStep name="subStep1_2"/>
  <variableValue name="DFS_IMS_SSID" scope="instance" required="true" noPromptIfSet="false"/>
  <instructions substitution="true">
    This step will start the IMS Control Region: ${instance-DFS_IMS_SSID}CTL
  </instructions>
  <weight>10</weight>
  <skills>System Programmer</skills>
  <autoEnable>true</autoEnable>
  <template>
    <inlineTemplate substitution="true">
      EXEC PGM=ISFAFD
      //ISFOUT DD SYSOUT=*
      //ISFIN DD *
      LOG
      /S ${instance-DFS_IMS_SSID}CTL
      /*</inlineTemplate>
      <submitAs>JCL</submitAs>
      <maxLrecl>80</maxLrecl>
      <saveAsDataset substitution="true">
        ${instance-DFS_AUTH_LIB_HLQ}.${instance-DFS_AUTH_LIB_HLQ2}.JOBS (STARTCTL)
      </saveAsDataset>
    </template>
  </step>
```

Prereq step

Inline JCL

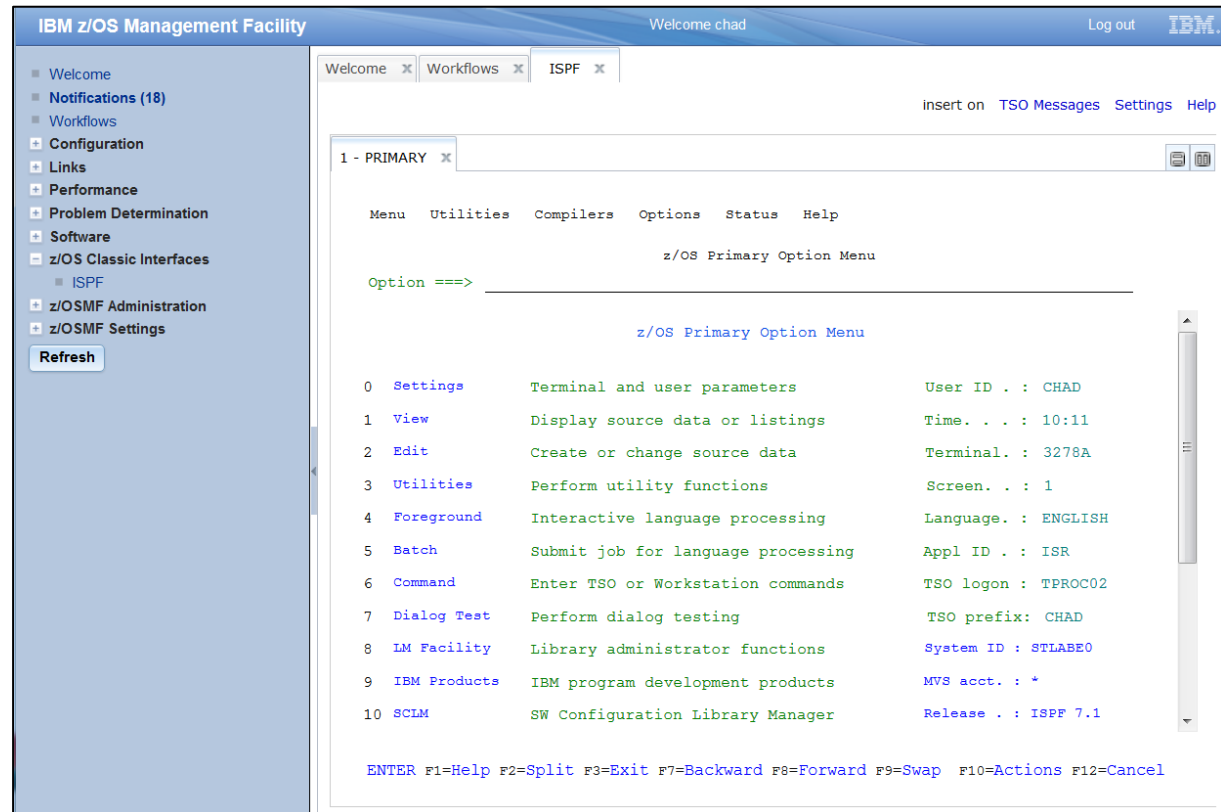
Submit JCL

Workflow Variables Input File

```
## IMS System Information
DFS_IMSPlex=PLEX1
DFS_IMSXCFGGroup=IMSXCFGN
DFS_IMS_CRC=/
DFS_IMS_LINEGRP=SPOOL
IST_VTAM_IMSAPPLID=APLIMS
##
## Workflow information for IMS Installation Libraries
DFS_AUTH_LIB_HLQ=ZCLOUD
##
## Volumes and SMS info
DFS_SMS_ENVIRONMENT = false
DFS_SMS_CLASS=MEDIUM
DFS_SMS_MCLASS=NONE
DFS_IMS_UNIT=SYSALLDA
DFS_IMS_UNIT2=3390
```


- **Classic ISPF interface is built into zosmf GUI**

- ISPF interface is available in z/OSMF, so you don't have to leave the browser



Steps in Workflows

- **Variable Gathering**

- Specify user id, dataset name for example, use variable input file

- **Execution**

- Edit the JCL to be pertinent to your own environment if necessary
- Execute the jobs manually or automatically skipping or overriding steps as necessary

- **Validation**

- ISPF interface is available to validate the IMS that was installed this way

Variable gathering

IBM z/OS Management Facility

Welcome poonam

■ Welcome

■ Notifications (6)

■ Workflows

+ Configuration

+ Links

+ Performance

+ Problem Determination

+ Software

- z/OS Classic Interfaces

- ISPF

+ z/OSMF Administration

+ z/OSMF Settings

Refresh

Welcome x Workflows x

Workflows ▶ Install IMS TM-DB System - PoonamWorkflow_2 ▶ 1. Specify IMS Criteria

Properties for Workflow Step 1. Specify IMS Criteria

General

Details

Dependencies

Notes

Perform

Status

Input Variables

✓ Input Variables

➔ IMS

- z/OS Subsystems-IMS
- z/OS Environment-IMS
- IMS DataSet
- z/OS Environment
- z/OS Subsystems-VTAM
- z/OS Subsystems-IRLM
- z/OS Environment-TCPIP
- z/OS Environment-SMPE
- z/OS Environment-L.E.
- z/OS System
- Jobs

Review Instructions

Input Variables - IMS

Enter the variable values for this input category.

*ENVIRONMENT - Environment for which the IMS system is to be pro

TEST

*IMS_USERID - TSO user ID for IMS: ⓘ

POONAM

< Back

Next >

Save

Finish

Cancel

2016 IMS Technical Symposium

Performing steps: Execution

Welcome x Workflows x

Workflows > Install IMS TM-DB System - PoonamWorkflow_2 > 3.5. Dynamic Allocation of IMS system Datasets

Properties for Workflow Step 3.5. Dynamic Allocation of IMS system Datasets

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

Review Instructions

- Create JOB statement
- Review JCL
- Submit and Save JCL

Review Instructions

To proceed with a wizard for creating and submitting the JCL on **PLXE0E1.STLABE0**, 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.

Instructions:

This JOB assembles and binds the dynamic allocation definitions into IMSV13.SDFSRESL for zCloud IMS DB Recovery Control (DBRC RECON) and sample Databases.

< Back Next > Save Finish

Workflows > Install IMS TM-DB System - PoonamWorkflow_2 > 3.5. Dynamic Allocation of IMS system Datasets

Properties for Workflow Step 3.5. Dynamic Allocation of IMS system Datasets

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

✓ 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. To do so, click the **Edit JCL** button.

```
//IZUWFJB JOB (ACCTINFO),CLASS=H,MSGCLASS=1,
//          MSGLEVEL=(1,1),REGION=0M,NOTIFY=POONAM
/*JOBPARM SYSAFF=SYE0
/* SKELETON: DFSIXSE6
//ZCLUDPRC JCLLIB ORDER=(SHARE1.IMSV13.PROCLIB)
//STEP01 EXEC PROC=IMSDALOC,SOUT='*'
//ASSEM.SYSIN DD *
*
* START
*
DFSMDA TYPE=INITIAL
```

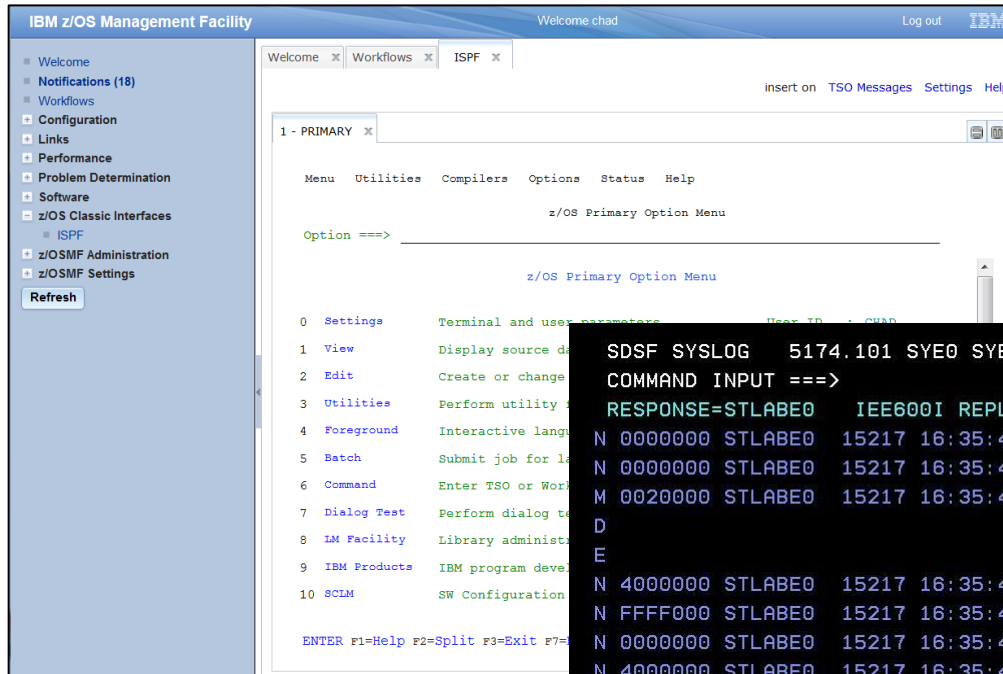
Edit JCL Maximum record length: 80

< Back Next > Save Finish Cancel

Review JCL

Edit and
Submit

Validation



```
SDSF SYSLOG 5174.101 SYE0 SYE0 08/05/2015 4W      COMMAND ISSUED
COMMAND INPUT ==>      SCROLL ==> PAGE

RESPONSE=STLABE0  IEE600I REPLY TO 18 IS; DISPLAY
N 0000000 STLABE0  15217 16:35:46.92      00000210  IEA989I SLIP TRAP ID=X13
N 0000000 STLABE0  15217 16:35:46.92      00000210  IEA989I SLIP TRAP ID=X13
M 0020000 STLABE0  15217 16:35:46.97 TSU05472 00000210  BPXP018I THREAD 22B17E00
D                                     341 00000210  WITHOUT BEING UNDUBBED W
E                                     341 00000210  , AND REASON CODE 000000
N 4000000 STLABE0  15217 16:35:46.98 TSU05472 00000010  IEF450I DEEPAK TPROC02 T
N FFFF000 STLABE0  15217 16:35:47.34 TSU05472 00000010  SMF000I DEEPAK TPR
N 0000000 STLABE0  15217 16:35:47.35 TSU05472 00000210  IEF170I 3 DEEPAK SMF00
N 4000000 STLABE0  15217 16:35:47.35 TSU05472 00000010  $HASP395 DEEPAK ENDED
N 0000000 STLABE0  15217 16:35:47.35      00000210  IEA989I SLIP TRAP ID=X13
N 0000000 STLABE0  15217 16:35:47.35      00000210  IEA989I SLIP TRAP ID=X33
NC0000000 STLABE0  15217 16:36:02.70 INSTREAM 00000210  LOGON
4200000 STLABE0  16.20.50 STC05506 *18 DFS996I *IMS READY* IMSP
8000000 STLABE0  16.02.00 JOB05511 *16 HWSC0000I *IMS CONNECT READY* IMSPHWS
8000000 STLABE1  16.28.43 JOB05418 *12 HWSC0000I *IMS CONNECT READY* I1DDHWS
4200000 STLABE1  16.27.52 STC05412 *10 DFS996I *IMS READY* IMEC
***** BOTTOM OF DATA *****
```

Comparison

▪ Traditional(IVP) vs z/OSMF installation

Parameters	Traditional	z/OSMF
Interface	ISPF	Web Browser
z/OS Skill level	Experienced skills	Entry level skills
Speed	Slower, time consuming	Minutes, if all variables are available
Flexibility	Pick & choose	Simplified
Customization	Yes	Yes
Automation	Not as easy to automate	Can be easily automated

Your journey to cloud with IMS starts with z/OS Management Facility & IMS Tools

Available
Now!

z/OS Management Facility

■ Monitor Resources

- Retrieve historical performance data; export data to a spreadsheet for further analysis

■ Manage capacity and workloads

- Support the provisioning of capacity based on overall CPC-wide utilization
- Create, change, and delete software instances with REST APIs for z/OSMF Software Management plug-in

■ z/OSMF workflows

- Migration workflows and health checks
- Customizable workflows – including the automatic execution of workflow steps
- REST APIs to create, delete, initiate, monitor cancel or link workflows.

IBM IMS Cloning Tool for z/OS

- Automates the cloning process for IMS systems and databases, helping to reduce the time required to copy IMS databases or create a complete IMS system

Innovating in IMS: A case study using z/OSMF to simplify system provisioning

Dario D'Angelo, Poonam Chitale, and Chad DeLuca, IBM IMS Development

IBM z/OS Management Facility

■ Welcome
■ Notifications (4)
■ Workflows
■ Configuration
■ Links
■ Performance
■ Problem Determination
■ Software
■ z/OS Classic Interfaces
■ ISPF
■ z/OSMF Administration
■ z/OSMF Settings
Refresh

Workflows

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

Actions Match: All filters Search

Workflow Name Filter	Description	Version Filter	Owner Contains "chad"	System Filter	Status	Percent Complete	Vendor Filter
IMS TM-DB System Manual Provisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Provisioning	13.0	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
IMS TM-DB System Manual Deprovisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Deprovisioning	13.0	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
Betty's test workflow to provision an IMS TM-DB System - Workflow_1	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1 STLABE0	🟢 In Progress	12%	IBM
HDAM DB Provisioning - Workflow_3	HDAM DB Provisioning	1.0	chad	PLXE0E1 STLABE0	🟢 In Progress	78%	IBM
Procedure to provision an IMS TM-DB System - Workflow_2	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
HDAM DB Provisioning - Workflow_4	HDAM DB Provisioning	1.0	chad	PLXE0E1 STLABE0	🟢 In Progress	78%	IBM

Total: 130, Filtered: 6, Selected: 0

Refresh Last refresh: Oct 19, 2015, 12:53:24 PM local time (Oct 19, 2015, 7:53:24 PM GMT)

<http://www-148.ibm.com/bin/newsletter/tool/landingPage.cgi?view=1&lpId=7195>

z/OS Cloud Beta

IBM United States Software Announcement
215-453, dated September 29, 2015



Statement of Direction: IBM to deliver IBM z/OS cloud enhancements

Table of contents

1 Overview

Overview

IBM® intends to deliver enhancements to the z/OS operating system that clients can use to better manage and generate service provided over the Internet. With such cloud

- Rapidly provision environments for workload deployment and release the resources to a shared pool when complete.
- Enable direct access of z/OS computing resources by end users through a self-service portal.
- Establish metered service methodologies to enable pay for use.
- Create service catalogs with customizable services that enable multi-tenancy and rapid elasticity.
- Invoke these new functions through a web browser-based user interface or through programmable REST interfaces.

Enabling the z/OS platform with these cloud capabilities will span innovations not only in certain infrastructure elements and components of the z/OS operating system, but also in selected levels of various z/OS software subsystems such as IBM CICS® Transaction Server for z/OS, IBM IMS™ for z/OS, IBM DB2® for z/OS, IBM MQ for z/OS, and IBM WebSphere® Application Server for z/OS.

http://www-01.ibm.com/common/ssi/rep_ca/3/897/ENUS215-453/ENUS215-453.PDF

<http://www-03.ibm.com/systems/z/solutions/hybrid-cloud/>

The graphic features a dark blue background with abstract geometric shapes in purple, orange, and pink. A prominent blue starburst with the word "NEW" in white is on the left. The IBM logo is at the top left. The title "IBM z/OS cloud beta" is in white. Below it, a white box contains text about new z/OS capabilities for dynamic provisioning and management of z/OS Middleware. At the bottom, a white button with a right arrow icon and the text "No thank you. Please take me to more information regarding hybrid cloud and IBM z." is displayed.

IBM

IBM z/OS cloud beta

New z/OS capabilities enabling dynamic, on-demand provisioning and management of z/OS Middleware. Take advantage of new Middleware provisioning capabilities.

➔ No thank you. Please take me to more information regarding hybrid cloud and IBM z.

Thank You

Back up

Prerequisites and Design Assumptions

- **Software requirements**

- z/OS 2.1+
- IMS

- **Hardware requirements**

- None

- **Tooling**

- Any web browser

- **Assumptions**

- z/OSMF has been configured and is running on at least one LPAR

Restrictions and Architectural Changes

■ Restrictions

- User must have RACF (or equivalent) authority to perform tasks submitted by a workflow

■ Architectural Changes

- None

■ Architectural Considerations

- None

■ Architectural Recommendations

- None

Considerations: Operational and Performance

■ Operational Characteristics

- z/OSMF communicates with RACF and IMS. Exceptions and messages will appear on the screen

■ Operational Considerations

- Exceptions can be handled by a system operator or through optional error handling steps in a workflow

■ Operational Recommendations

- None

■ Performance Characteristics

- Minimal performance implications
 - Built on WebSphere Application Server Liberty profile

■ Performance Considerations

- None

■ Performance Recommendations

- None