



## IBM z/OS Management Facility V2R1 Solution Guide

### IBM Redbooks Solution Guide

z/OSMF is a product for IBM z/OS® that simplifies, optimizes, and modernizes the z/OS system programmer experience. z/OSMF delivers solutions in a task-oriented, web-browser-based user interface with integrated user assistance. Its focus is to improve system programmer productivity, and make the z/OS functions easier to understand and use. The goal of z/OSMF is *not* to simplify IT in an organization; the goal is to simplify certain tasks for system programmers.

The intention of z/OSMF is to make system programmers productive as quickly as possible with the least amount of training. This task is accomplished by automating tasks and reducing the learning curve through a modern, simplified, and intuitive task-based and browser-based interface.

z/OSMF is aimed at a mixed skills workforce: It is suited to both professionals who are new to z/OS and those who are already skilled in z/OS. Each professional has their own needs and faces their own challenges. Novice system programmer might need to understand the "big picture" and how procedures are done. Novices must get documentation on procedures and tasks, and implement them according to the rules of the enterprise. Experienced system programmers, conversely, have knowledge of tasks and procedures, so the goal is to make their work less error-prone and easier. This allows them to be more productive and contribute more to their business.

z/OS has been delivering simplification since it was introduced, but z/OSMF brings a new dimension and focus to simplification. z/OSMF simplifies and modernizes the user experience and helps make pertinent information readily available and easily accessible.

The first release of z/OSMF was z/OSMF V1.11 and was delivered with z/OS V1.11. Since then, there has been a z/OSMF release with every release of z/OS, with some functional enhancements in between releases.

The following figure shows the Welcome window of the z/OS Management Facility.



Figure 1. z/OSMF Welcome window

## Did you know?

z/OSMF V2R1 includes the IBM® WebSphere® Application Server for z/OS V8.5 Liberty profile, which is a composable smaller run time that can be embedded in the application. WebSphere Application Server for z/OS V7.0 OEM Edition, which was packaged with z/OSMF, required separate configuration and application deployment. This new z/OSMF V2R1 package has the run time embedded, which means easier configuration, a smaller footprint, reduced resource requirements, and faster starting and stopping. You get to use the Java Runtime 7 64-bit version that is installed on your z/OS system.

## Business value

An IT organization has many domains. There is business management, business development, and service management, each of which has its own disciplines and areas in which it works. Simplification is required. There is a need for organization and tools, not only in each area, but across all these areas. For z/OS Systems Management simplification, the focus is on the system programmer.

The system programmer is a technical expert that is responsible for ensuring that the infrastructure is available. The areas that system programmers traditionally cover are installation, configuration, maintenance, disaster recovery, and enabling new functions, problem analysis, and determination. All of these areas have the following goal in common: Make sure that the system is available and running correctly.

Currently, there is no central system management portal for z/OS, and the many interfaces that are available are unfamiliar to users that are new to z/OS. In many cases, there are many manual tasks that require the review of extensive documentation and the possession of years of z/OS experience to be productive.

The following two sections list some of the challenges that are faced by both new and experienced systems programmers regarding z/OSMF.

There are many challenges for novice system programmers:

- Learning problem analysis and management
- Getting the "big picture"
- Gaining organizational knowledge
- Finding the correct product documentation
- Getting enough of the correct experience
- Dealing with unfamiliar concepts and tools
- Dealing with tasks that require detailed knowledge of command syntax and formats
- Gaining the trust of more experienced colleagues

An experienced system programmer is faced with many of the following challenges:

- Too little time and too many tasks with fewer people
- The need to be more productive
- An aging of the workforce (people are retiring)
- Time and knowledge must span across many products and platforms

z/OSMF provides assistance in overcoming some of the challenges that are faced by new and experienced professionals.

## **Solution overview**

z/OSMF V2R1 provides new and improved packaging, configuration, and functions to further enhance the z/OS management experience.

z/OSMF provides various categories with tasks and some core or basic functions. It has the following categories:

- The Configuration category, which has the Configuration Assistant task for configuring the communication server
- The Links category, which contains frequently accessed websites
- The Performance category, which has Capacity Provisioning, System Status, Resource Monitoring, and Workload Management tasks
- The Problem Determination category, which has the Incident Log task
- The Software category, which has the Software Management task
- The z/OS Classic Interfaces category, which has the ISPF task
- The z/OSMF Administration and z/OSMF Settings categories

There are also some core functions that are always available, such as the Welcome window with links to z/OSMF documentation, and the new Workflow and Notifications function.

## Solution architecture

z/OSMF runs on the z/OS system and it manages z/OS from within z/OS itself. z/OSMF is a Web 2.0-based application on z/OS with direct access to z/OS data and information, and a secure browser interface from the workstation. z/OSMF contains the GUIs and the application code. Everything is installed on the z/OS server. There are no client-side installation requirements. The applications use the Dojo framework and JavaScript for the GUIs. This application stack communicates with z/OS components as needed for that particular task. It always uses the z/OS security authorization facility for authentication and authorization. z/OSMF is a web-based solution, which allows you to connect to z/OSMF by using a browser through a secure connection. z/OSMF provides the framework to a z/OS system, which allows you to perform selected traditional functions from the GUI, along with new functions that are available only with z/OSMF. The z/OSMF application is written in Java, so it can run on an IBM System z® Application Assist Processor (zAAP). If you have an installation with System z systems, you can use the zAAP on zIIP facility.

The basic architecture of z/OSMF is shown in the following figure.

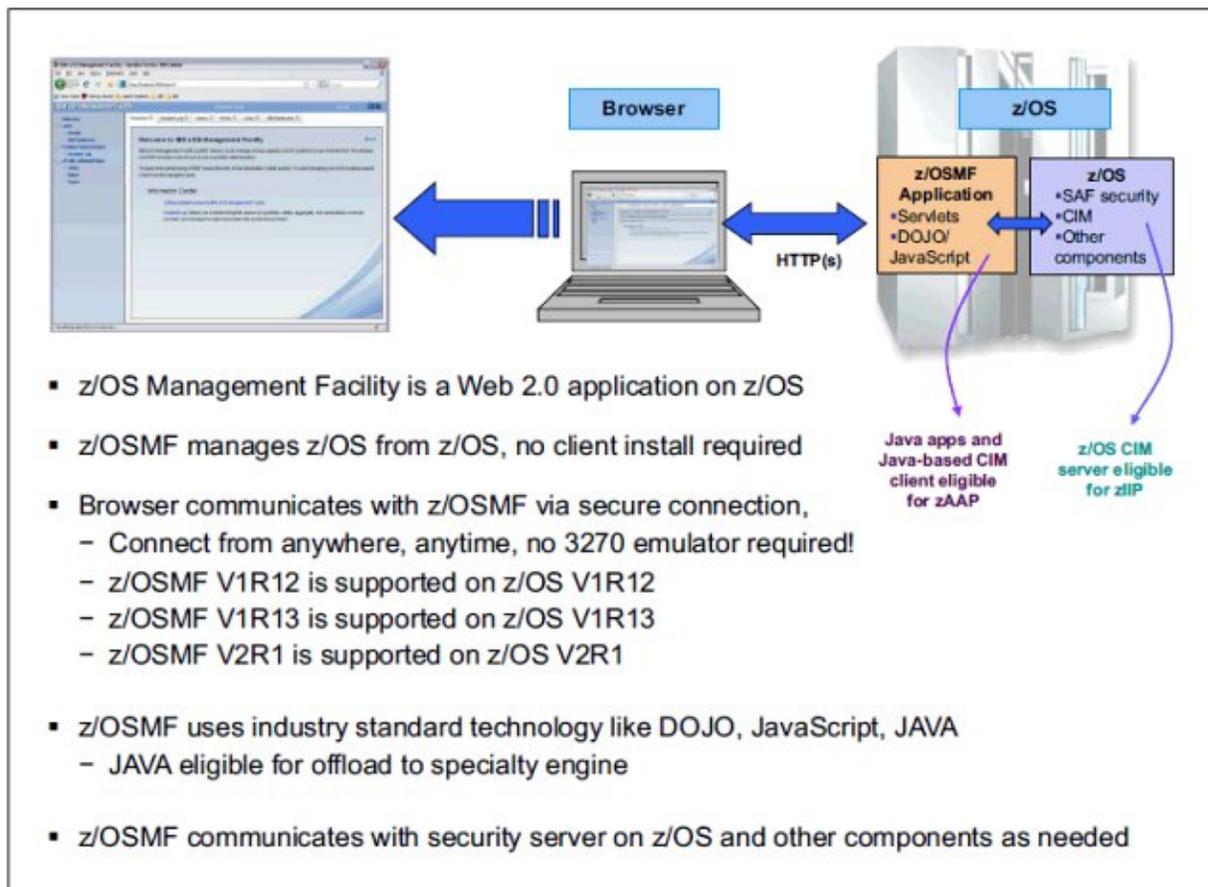


Figure 2. z/OSMF architecture

## Usage scenarios

z/OSMF provides many tasks, which are described in this section.

### Configuration Assistant

This task provides the simplified configuration and setup of TCP/IP policy-based networking functions. There are major changes to the look and feel and user experience in z/OSMF V2R1, with workflows to perform some of the tasks.

### Links

This task provides a common starting point for accessing resources beyond the IBM z/OS Management Facility, such as product links or website URLs. Some links are predefined in the product. Administrators can define more links to share commonly used resources for their installation.

### Capacity Provisioning

This task manages Capacity Provisioning Manager (CPM) connections, capacity provisioning domains, active configuration, and policies.

### Workload Manager Policy Editor

This task facilitates the creation and editing of WLM service definitions, the installation of WLM service definitions, and the activation of WLM service policies with preferred practices checks that are built in to the policies.

### System Status and Resource Monitoring dashboards

The z/OSMF Resource Monitoring application provides integrated performance monitoring of z/OS sysplexes, Linux for System z, Linux for IBM System x®, IBM AIX®, and Windows images in your environment. This task can be used if you have enabled the IBM Resource Measurement Facility™ (IBM RMF™) feature, which is available for an additional fee on one of the systems in your enterprise.

### Incident Log task

This task helps system programmers with problem data management tasks, and provides experienced teams with procedural advantages through an incident log summary and detailed views of z/OS memory dump incidents. The Incident Log provides a consolidated list of IBM SAN Volume Controller memory dump related problems, along with details and diagnostic data that is captured with each incident. It also facilitates sending the data for further diagnostic tests through usage of a wizard.

### Software Management task

This task provides IBM recommended preferred practices to make deployment of installed software simpler and safer on local or remote systems for IBM or non- IBM software. In addition, it enables management reporting of software service levels and product levels.

### z/OS Classic Interfaces with ISPF task

Introduced in z/OSMF V1.13, this task provides the ISPF application as a 3270 environment through the web interface, which enables you to work with ISPF functions from a browser interface without requiring a 3270 emulator session. In addition, it enables ISPF applications to be URL addressable, making it eligible for cross-application linking and starting through the application linking interface. It supports multiple panes and tabs, and users can have multiple sessions, in TSO and web browser simultaneously, by enabling profile sharing.

## z/OSMF Administration

This task provides the dynamic addition of links to non-z/OSMF resources for the Links category or for any other z/OSMF category. In addition, it has the application linking manager, which provides the GUI interface for defining application linking events and handlers for cross-application linking across z/OSMF and non-z/OSMF applications or between z/OSMF applications. z/OSMF also provides RESTful interfaces (APIs) to accomplish the application linking function.

## z/OSMF Settings

This task provides the tasks to define FTP servers and systems. FTP servers are used by the Incident Log and Software Management tasks. Also, the z/OSMF Settings task allows the definition of other systems that z/OSMF can communicate with through the Software Management task, with the possibility of being used by other functions in the future.

## Workflows

This task provides a structured process for accomplishing work on z/OS. With the Workflows task, you can guide the activities of system programmers, security administrators, and others at your installation who are responsible for managing the configuration of the z/OS system. Assign individual work items in the workflow (the steps) to performers and track their progress. Use wizards to assist your team with creating system objects (UNIX files and z/OS data set members) and submitting work to run on z/OS, such as batch jobs, REXX scripts, and UNIX shell scripts.

## Usage example

Here is an example of using the z/OSMF z/OS Classic Interfaces ISPF Task:

To start the ISPF task, expand **z/OS Classic Interfaces** in the Task Section pane and click **ISPF**, as shown in the following figure.

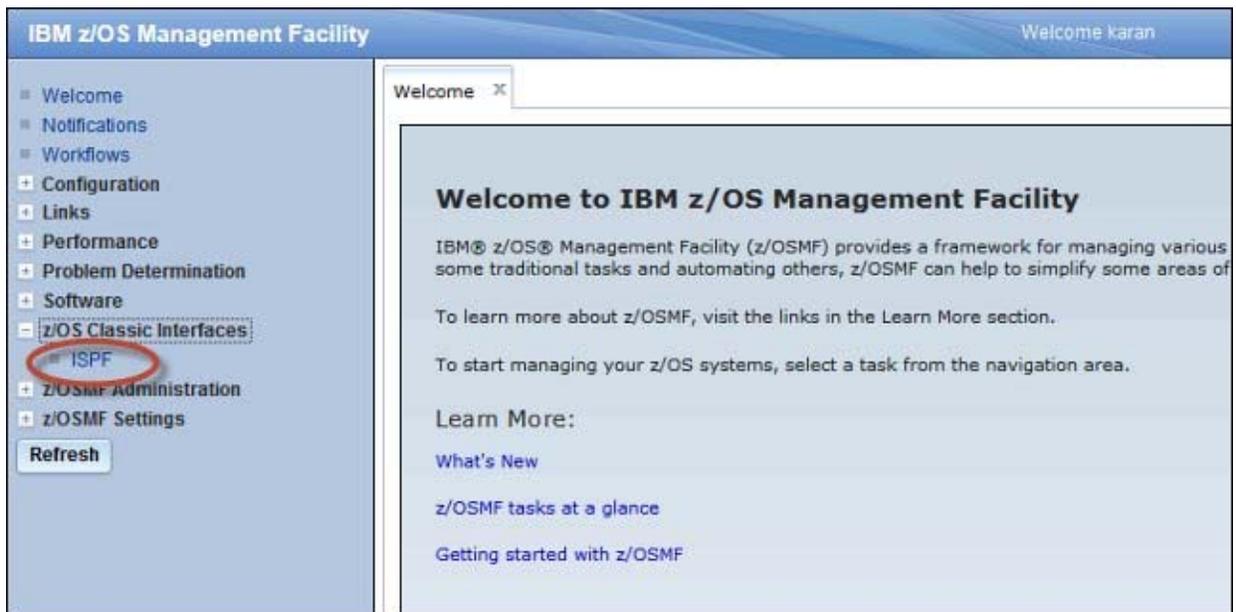
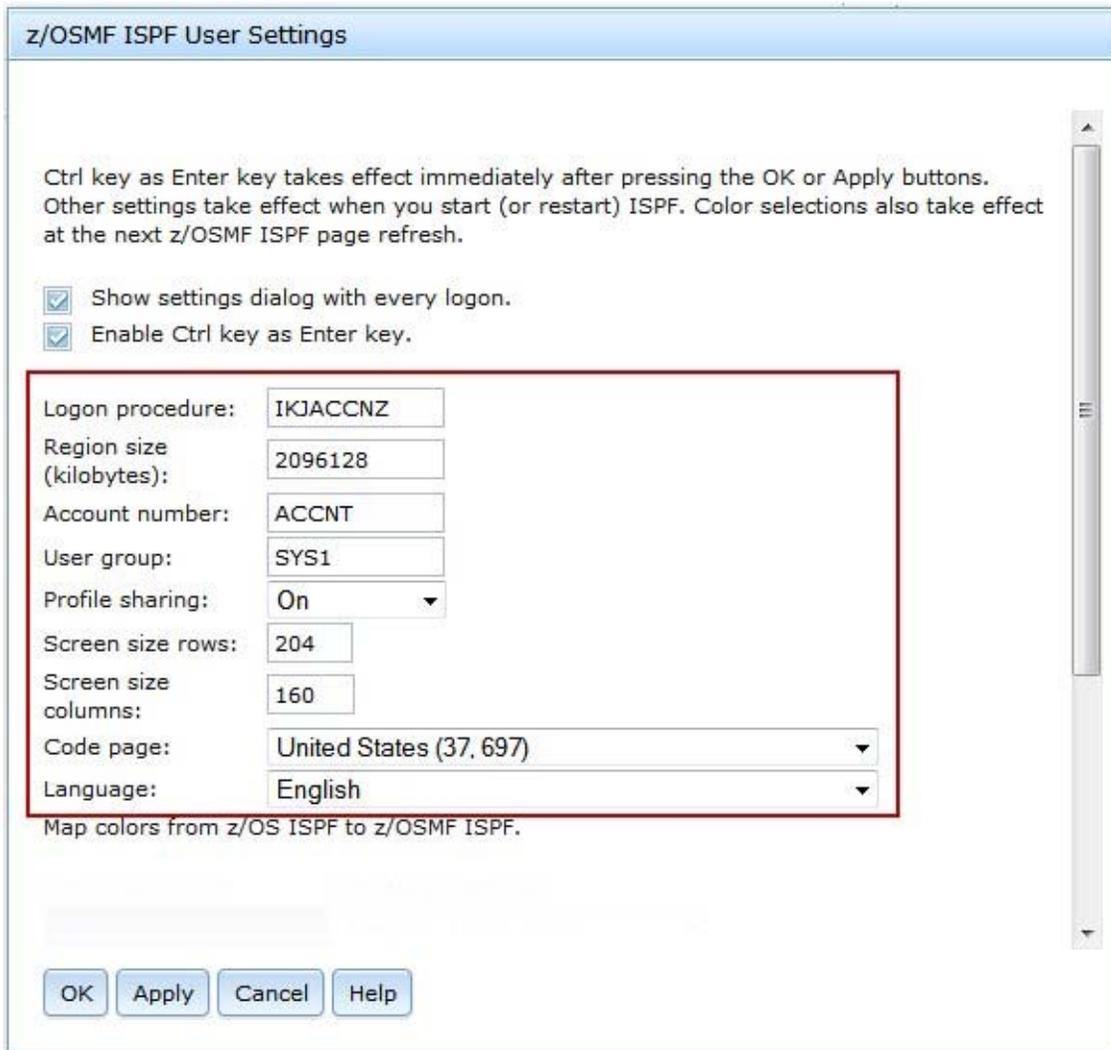


Figure 3. z/OSMF Classic Interface ISPF task selection

The z/OSMF ISPF User Settings window opens. You must change the information in the Logon procedure and Account number fields, as shown in the following figure, to conform to your installation's standards.



The image shows a dialog box titled "z/OSMF ISPF User Settings". At the top, there is a blue header bar with the title. Below the header, there is a paragraph of text: "Ctrl key as Enter key takes effect immediately after pressing the OK or Apply buttons. Other settings take effect when you start (or restart) ISPF. Color selections also take effect at the next z/OSMF ISPF page refresh." Below this text are two checked checkboxes: "Show settings dialog with every logon." and "Enable Ctrl key as Enter key." A red rectangular box highlights a section of the dialog containing the following fields: "Logon procedure:" with the value "IKJACCNZ", "Region size (kilobytes):" with the value "2096128", "Account number:" with the value "ACCNT", "User group:" with the value "SYS1", "Profile sharing:" with a dropdown menu set to "On", "Screen size rows:" with the value "204", "Screen size columns:" with the value "160", "Code page:" with a dropdown menu set to "United States (37, 697)", and "Language:" with a dropdown menu set to "English". Below these fields is a small text label: "Map colors from z/OS ISPF to z/OSMF ISPF." At the bottom of the dialog, there are four buttons: "OK", "Apply", "Cancel", and "Help".

Figure 4. Logon settings

If the logon procedure that is used starts ISPF, you see the ISPF main menu or the start window that you requested in your procedure. If your logon procedure does not start ISPF, the TSO Messages window opens, as shown in the following figure, before ISPF is started by z/OSMF.

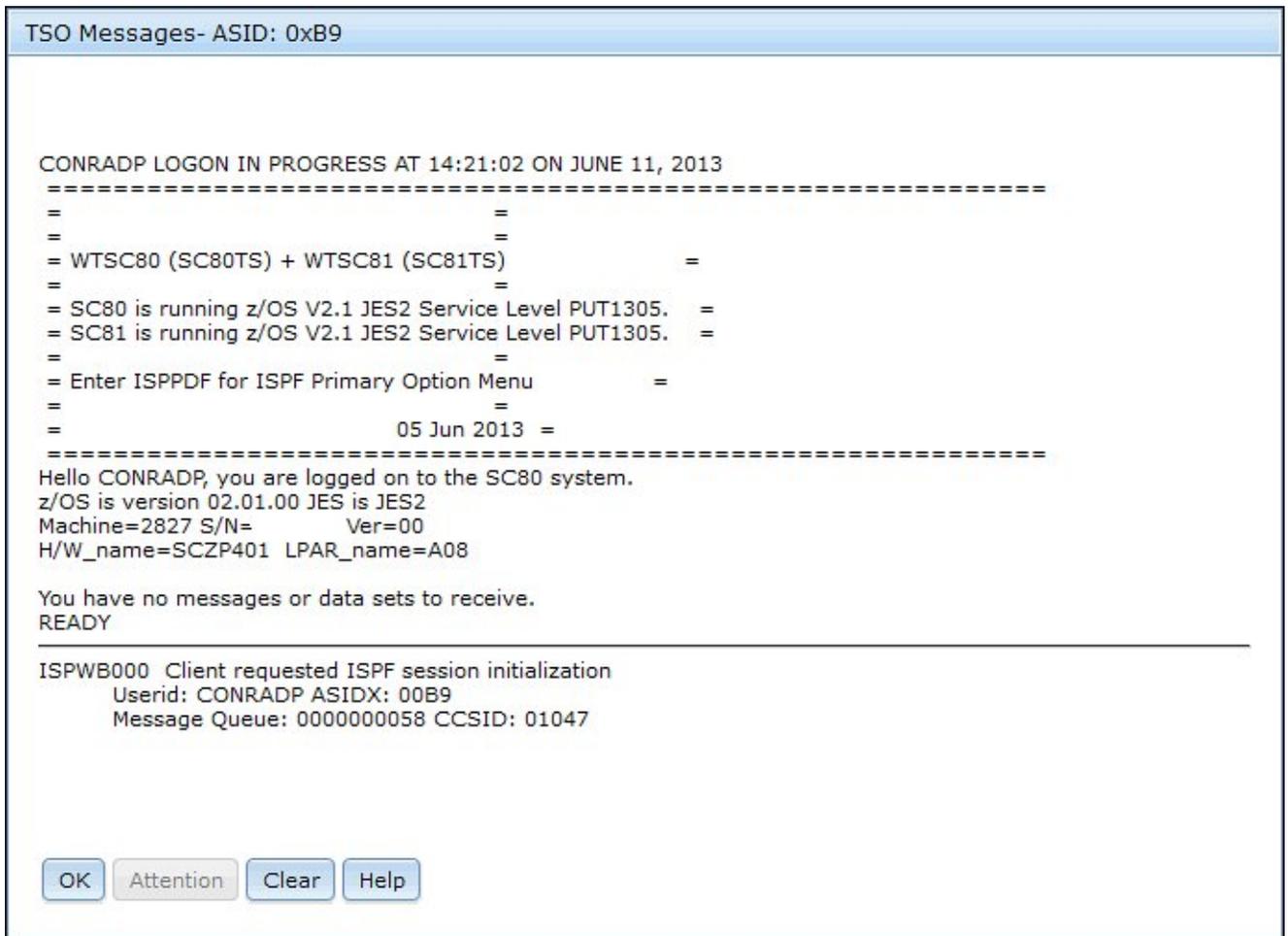


Figure 5. TSO messages

Finally, your ISPF session starts, as shown in the following figure.

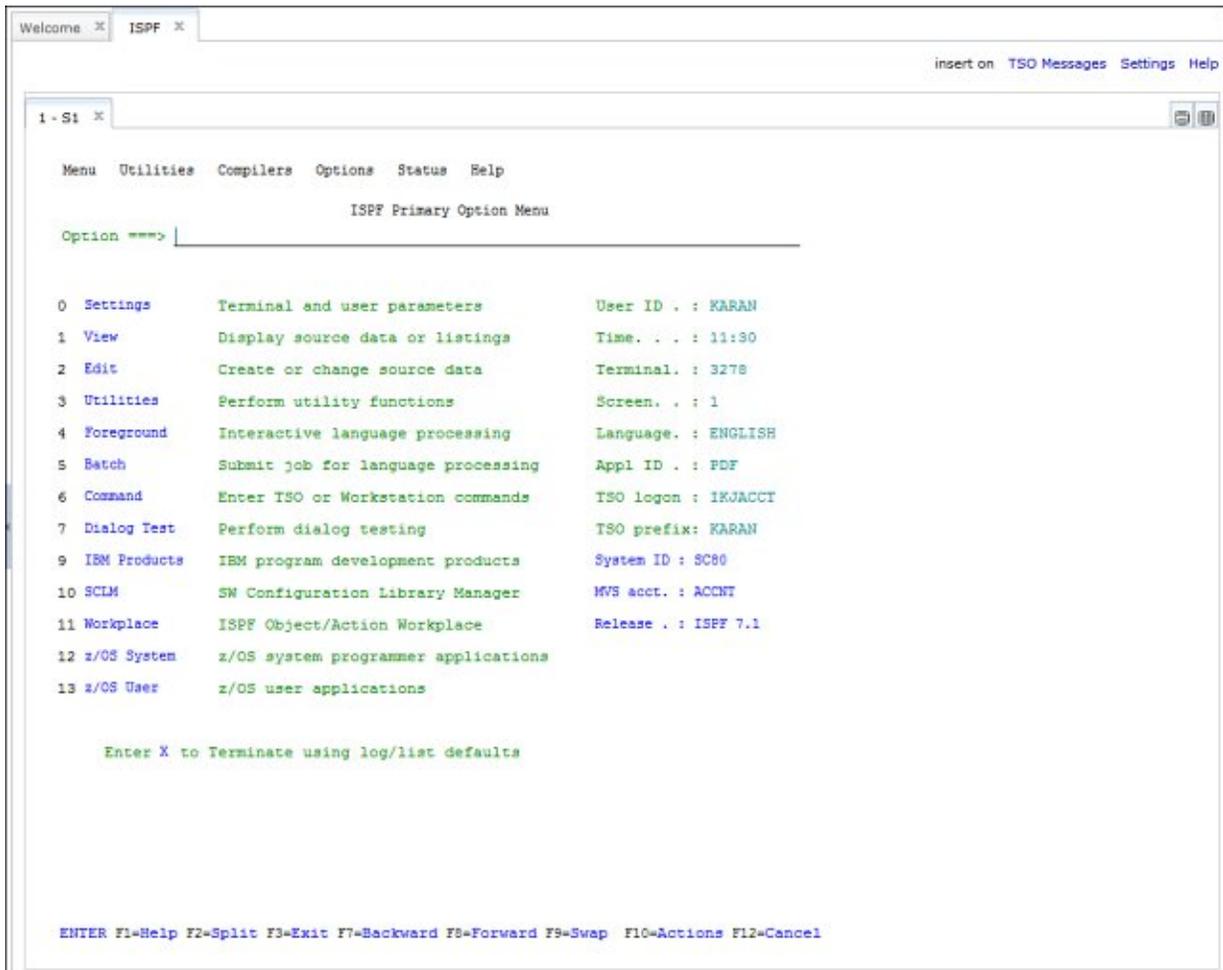


Figure 6. ISPF task

## Supported platforms

z/OSMF V2R1 is supported on z/OS Version 2 Release 1 (5650-ZOS).

## Ordering information

IBM z/OS Management Facility (5610-A01) can be acquired together with z/OS (5650-ZOS).

Ordering information is shown in the following table.

Table 1. Ordering part numbers and feature codes

Program name	PID number	Charge unit description
IBM z/OS Management Facility	5610-A01	No Charge

## Related information

For more information, see the following documents:

- *z/OS Management Facility V2R1*, SG24-7851:  
<http://www.redbooks.ibm.com/Redbooks.nsf/RedbookAbstracts/sg247851.html?Open>
- IBM z/OS Management Facility product page:  
<http://www-03.ibm.com/systems/z/os/zos/features/zosmf/>
- IBM Offering Information page (announcement letters and sales manuals):  
[http://www.ibm.com/common/ssi/index.wss?request\\_locale=en](http://www.ibm.com/common/ssi/index.wss?request_locale=en)

On this page, enter z/OSMF, select the information type, and then click **Search**. On the next page, narrow your search results by geography and language.

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