

# **Mainframe Navigation**

Version 8.3.6 for Windows

October 2015

This document applies to Mainframe Navigation Version 8.3.6 for Windows.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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## Preface

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Mainframe Navigation allows you to access and manipulate objects stored on a mainframe from a Windows application. These objects include datasets and files, members and elements, load modules, as well as system objects such as active jobs or the console under the z/OS, z/VSE and BS2000/OSD operating systems. With Mainframe Navigation, the objects are displayed in a tree structure and can be listed, browsed and edited with a Windows-like user interface. On the mainframe server, Mainframe Navigation is supported by Natural ISPF.

This documentation is organized under the following headings:

<b>Installation and Configuration</b>	How to install and configure Mainframe Navigation. Prerequisites on the mainframe server.
<b>Starting and Terminating Entire Systems Management</b>	How to start and terminate Entire Systems Management, which is the framework for managing Mainframe Navigation.
<b>Elements of the Application Window</b>	General information on the Entire Systems Management application window (for example, on the menu bar, object workspace, or content pane).
<b>Managing the Server Nodes</b>	Explains the operations that can be performed on a server node.
<b>Listing and Filtering Objects</b>	How to list objects and how to reduce the number of shown objects. Detailed information on how to list and filter a specific type of object is provided in the appropriate section later in this documentation which deals with this type of object.
<b>General Commands for Managing Different Types of Objects</b>	How to edit, browse, copy, delete, rename and send objects. The descriptions in this section apply to all types of objects. They are not repeated in later sections of this documentation which deal with the different types of objects.
<b>Managing z/OS Objects</b>	How to manage z/OS datasets, PDS members, volumes, jobs, sysout datasets and active jobs. How Natural ISPF objects are supported under z/OS.
<b>Managing z/VSE Objects</b>	How to manage z/VSE files, sublibraries, members, volumes, jobs and active jobs.
<b>Managing BS2000/OSD Objects</b>	How to manage BS2000/OSD files, elements, element versions, jobs and job variables.
<b>System Log</b>	How to browse the system log, which is available for each z/OS and z/VSE node.
<b>Console</b>	How to browse the console and issue operator commands to the console, which is available for each z/OS, z/VSE and BS2000/OSD node.





# I Installation and Configuration

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# 1 Installation and Configuration

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## Server Prerequisites

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The following Software AG products must be installed on the server:

- According to the desired type of communication between the Natural for Windows client with the remote Natural mainframe server environment, one of the following must be installed:
  - Natural Development Server (NDV)\* is required for working in a Natural Single Point of Development (SPoD) environment, or
  - EntireX Communicator (EXX)\* is required for working in a Natural Remote Procedure Call (RPC) environment.
- Natural ISPF (ISP) 8.2 or above.
- System Automation Tools (SAT)\*.
- Entire System Server (NPR)\*.
- Natural for Mainframes (NAT)\*\*, including the Entire System Server Interface (ESX). See *Installing the Entire System Server Interface* in the *Installation* documentation which is provided with Natural for Mainframes.

\* The required version of Natural Development Server or EntireX Communicator, and of System Automation Tools and Entire System Server depends on the installed Natural version. See the *Release Notes* which are provided with Natural for Mainframes.

\*\* The required Natural version depends on the Natural ISPF version running on your system.

If using Natural Roll Server, the minimum roll slot size for Roll Server must be 300KB.

## Installation on Windows

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Mainframe Navigation can optionally be installed with Natural for Windows. It needs to be installed with either the Natural development environment or the Natural runtime environment. If Mainframe Navigation has not yet been installed, proceed as described below. For more information, see the Natural for Windows installation documentation.

### To install and configure Mainframe Navigation on your local machine

- 1 Start the Software AG Installer and specify all required information on the different panels.
- 2 When the product selection tree is shown, expand the **Natural Products > Natural** node.
- 3 Select **Runtime Environment** and/or **Development Environment**.

If you want to work in a Natural Single Point of Development (SPoD) environment, make sure that **Development Environment** is selected.

Instead of working with SPoD, you can also work in a Natural Remote Procedure Call (RPC) environment using EntireX Communicator (EXX). Via the RPC communication, you can combine Mainframe Navigation with Output Management GUI Client and Entire Operations GUI Client.

- 4 Select **Entire Systems Management**. This installs Mainframe Navigation, Output Management GUI Client and Entire Operations GUI Client.
- 5 Choose the **Next** button to continue with the installation.

## Initializing Mainframe Navigation

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Only required if you want to work in an RPC environment using EntireX Communicator. Not required for a SPoD environment.

When the Software AG Installer has finished the installation, you have to initialize Mainframe Navigation. Only initialized clients will be shown in the Entire Systems Management application window.

### To initialize Mainframe Navigation

- 1 Choose **All Programs > Software AG > Administration > ESM Configuration for Natural *n.n*** from the Windows **Start** menu.  
  
where *n.n* stands for the current version number. The **Start** menu group name (by default, this is "Software AG") can be changed during the installation.
- 2 In the resulting dialog box, open the drop-down list box next to **Mainframe Navigation** and select **initialize**.
- 3 Choose the **OK** button.

## Configuring the Connection to the RPC Server Environment

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Only required if you want to work in an RPC environment using EntireX Communicator. Not required for a SPoD environment.

In order to configure the connection to your Entire Systems Management (ESM) RPC server environment, you have to change the parameter file `SYSESM2` using the Natural Configuration Utility (see the Natural for Windows documentation for detailed information on how to use this utility).

This parameter file is available when an ESM product such as Mainframe Navigation has been installed; it is only used for RPC.

In addition, you have to modify the configuration files *services* and *hosts* in your local file system.

► **To change the parameter file SYSESM2**

- 1 Start the Natural Configuration Utility.
- 2 In the tree on the left side of the Configuration Utility window, expand the node for the parameter file SYSESM2.
- 3 Expand the node **Client/Server**.
- 4 Select the node **Remote Procedure Call**.
- 5 On the right of the window, select the **RPC (Client)** page.
- 6 Enter the name of your ESM RPC default server (DFS) in the **Server name** text box (this replaces the default value "ESMSRV").
- 7 Enter the name of your communication broker node in the **Server node** text box (this replaces the default value "BKR001").
- 8 Save the parameter file and exit the Natural Configuration Utility.

► **To modify the configuration files *services* and *hosts***

The configuration files *services* and *hosts* are typically located in the subdirectory *system32\drivers\etc* of your Windows directory. It is recommended that you back up your configuration files before you commence with the following steps.

- 1 Switch to your local machine.
- 2 Open the *services* configuration file in a text editor and insert the following line:

```
server-node port-number/tcp
```

where *server-node* is the host name of your communication broker node as defined in the Configuration Utility (see above) and *port-number* is the port number to be used.



**Note:** The port number determines where the additional line must be inserted in the *services* configuration file. For example, if an entry with the port number 2500 exists and is followed by an entry with the port number 4000, you have to insert an additional line between these entries for the port 3800.

To allow resolution of a symbolic network name of your broker node, this name must be resolved by your LAN name server or in your local *hosts* configuration file.

- 3 Open the *hosts* configuration file in a text editor and insert the following line:

```
ip-address server-node
```

where *ip-address* is the IP address of your communication broker node in your LAN and *server-node* is the name of your broker node.

## Installation on Mainframe Servers

There is no special installation required. Make sure that the products listed under [Prerequisites](#) are installed on the mainframe server.

If you want to access multiple Entire System Servers with the same SYSESM2 parameter file, you can use the dynamic parameter DFS to overwrite the settings in the parameter file, for example, DFS=(ESM62SRV,BKR062,L). For further information on the DFS parameter, see the *Parameter Reference* in the *Natural for Mainframes* documentation.

## Defining the Entire System Server Nodes

When all required products are installed on the mainframe server, you must define all Entire System Server nodes you wish to access with Mainframe Navigation. This is done with Natural ISPF. For detailed information, refer to the section *System Configuration > Entire System Server Node Table* in the *Natural ISPF Administration Guide*.

Ensure that the Entire System Server node table has been edited (at least a minor modification) and saved (command END). Example:

```
----- UPDATE NODES TABLE -----
COMMAND ==>
```

Node	Description	Name
___69	E-machine(Prod) MVS_	DAEE
___148	F-machine(Dev.) MVS_	DAEF
___248	A-machine(Demo) MVS_	DAEA
50013	Test MVS_____	ESY5999 ENTI NOT ACTIVE
___194	OSD5 SI15_____	7.500-S115-2
___193	VSE X-machine_____	VSE.ESA.SUPX
55521	Test VSE_____	VSE.ESA.TEST

Ensure that the access to all nodes is active and works without any warnings (for example, ESY5...) when saving the nodes table.

## Configuring Natural ISPF on the Mainframe Server

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Make sure that Natural ISPF is configured correctly on your mainframe server:

- Ensure that the installed subsystems are defined in the configuration member `CONFIG`: your site's operating systems, Natural and System Automation Tools (SAT).

For detailed information, refer to the section *System Configuration > Editing the Configuration Member CONFIG > Defining Installed Subsystems* in the *Natural ISPF Administration Guide*.

- Ensure that the authorization table of the user who should use Mainframe Navigation has a defined status (compare the `Auth` attribute in the **Defined Characteristics** column). This can be done by defining the authorization table for the user explicitly, or it can be inherited from a prefix definition, from a (Natural Security-based) user group definition or from the default user definition (which is indicated by an asterisk (\*)).

For detailed information, refer to the section *User Definitions* in the *Natural ISPF Administration Guide*.



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## 2 Starting and Terminating Entire Systems Management

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## Starting Entire Systems Management in an RPC Environment

Output Management GUI Client, Entire Operations GUI Client and Mainframe Navigation are all managed using Entire Systems Management.

Output Management GUI Client and Entire Operations GUI Client are always started in an RPC environment.

Mainframe Navigation can be started in either an RPC environment (see below) or in a SPoD environment (see [Starting Mainframe Navigation in a SPoD Environment](#)).

### ► To start Entire Systems Management in an RPC environment

- 1 From the Windows **Start** menu, choose **All Programs > Software AG > Tools > Entire Systems Management for Natural** *n . n*.



**Note:** The **Start** menu group name (by default, this is "Software AG") can be changed during the installation.

The following dialog box appears.

The dialog box is titled "Software AG ESM Application Login Screen". It contains three main sections:

- Natural Security Login on Server:** Includes fields for "User ID:" (containing "NATURAL") and "Password:". A "Change password" button is located to the right of the password field.
- EntireX Communicator Broker Security Authorization:** Includes a checkbox labeled "Different User ID for EntireX Broker Security" (which is unchecked). Below it are fields for "User ID:" (containing "ADMINIST") and "Password:".
- Default server:** Includes fields for "Node name:" (containing "BKR034:3800:TCP") and "Server name:" (containing "NOP53SRV").

At the bottom of the dialog box are "OK" and "Cancel" buttons.



**Note:** With the user exit `ESMAPION` (which is located on the client in the `SYSSATGF` library), the administrator can change the appearance of the login dialog box. For example, the

administrator may define that it is not possible to specify a different user ID, or that a password is not required.

2 Specify the following information:

■ **Natural Security Login on Server**

Your user ID is automatically provided. You can also log on using a different user ID.

Specify user ID and password in the corresponding text boxes.

If you want to change your Natural Security password, choose the **Change password** button. In this case, the upper part of the dialog box changes, providing text boxes in which you have to enter the old password, the new password, and a confirmation of the new password.



**Note:** If your Natural Security password has expired, the dialog in which you have to change the password is immediately shown.

■ **EntireX Communicator Broker Security Authorization**

If you want to use a different user ID for EntireX Broker Security, activate the the corresponding check box.

Specify user ID and password in the corresponding text boxes.

3 Choose the **OK** button.

The Entire Systems Management window appears. See [Elements of the Application Window](#) for further information.

## Starting Mainframe Navigation in a SPoD Environment

If you want to start Mainframe Navigation in a Natural Single Point of Development (SPoD) environment, you have to do this from within Natural Studio.

► **To start Mainframe Navigation in a SPoD environment**

1 From the Windows **Start** menu, choose **All Programs > Software AG > Tools > Natural n.n.**

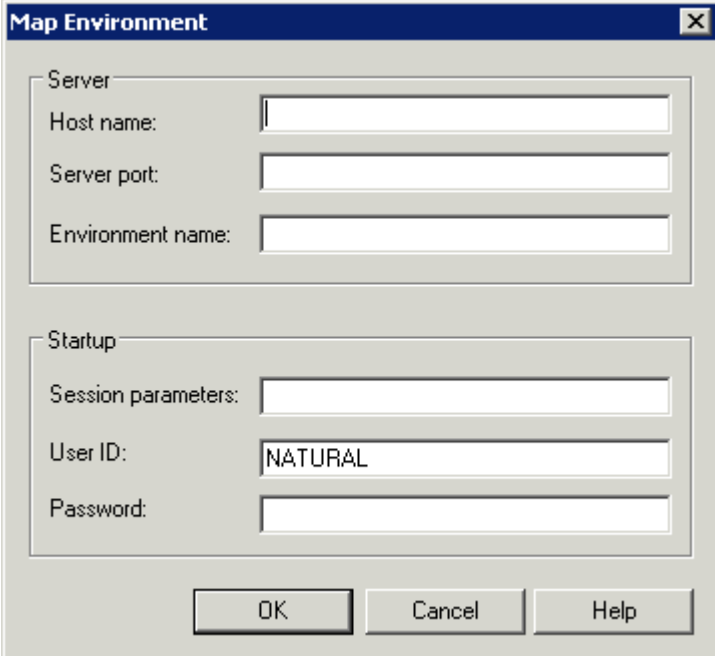


**Note:** The **Start** menu group name (by default, this is "Software AG") can be changed during the installation.

Natural Studio, the development environment for Natural, appears. Now you have to access the mainframe environment in which the Entire System Server nodes have been defined.

2 From the **Tools** menu, choose **Map > Environment**.

The **Map Environment** dialog box appears. Your user ID is automatically provided.

The image shows a Windows-style dialog box titled "Map Environment". It has a standard title bar with a close button (X). The dialog is divided into two main sections. The first section, labeled "Server", contains three text input fields: "Host name:", "Server port:", and "Environment name:". The second section, labeled "Startup", contains three text input fields: "Session parameters:", "User ID:", and "Password:". The "User ID" field is pre-filled with the text "NATURAL". At the bottom of the dialog, there are three buttons: "OK", "Cancel", and "Help".

- 3 Specify the following information:

Option	Description
Host name	The name of the development server.
Server port	The TCP/IP port number of the development server.
Environment name	Optional. The name that is to appear in Natural Studio's library workspace.
Session parameters	If dynamic parameters are required for your development server, specify them in this text box. Otherwise, leave this text box blank.
User ID	If you want to map the development server using a different user ID, specify it in this text box. This is useful, for example, when Natural Security is active on the development server and administrator rights are to be used.
Password	If Natural Security is active on the development server, specify the required password in this text box. Otherwise, leave this text box blank.

- 4 Choose the **OK** button.

Once you have mapped a development server, a node for this development server session is shown in the library workspace.

When the connection has been established, all libraries (according to the security profile) for this session are shown in the library workspace. You are automatically logged on to your default library.

- 5 From the **Tools** menu, choose **Development Tools > Mainframe Navigation**.

Or:

Enter the Natural system command SYSMN in the command line.

The Entire Systems Management window appears. See [Elements of the Application Window](#) for further information.

## Terminating Entire Systems Management

---

Output Management GUI Client, Entire Operations GUI Client and Mainframe Navigation are terminated when you close the Entire Systems Management window.

### ► To close the Entire Systems Management window

- From the **Object** menu, choose **Exit**.

Or:

Choose the following toolbar button:



Or:

Press ALT+F4.

Or:

From the Control menu, choose **Close**.

Or:

Choose the corresponding standard button at the right of the title bar.





# 3

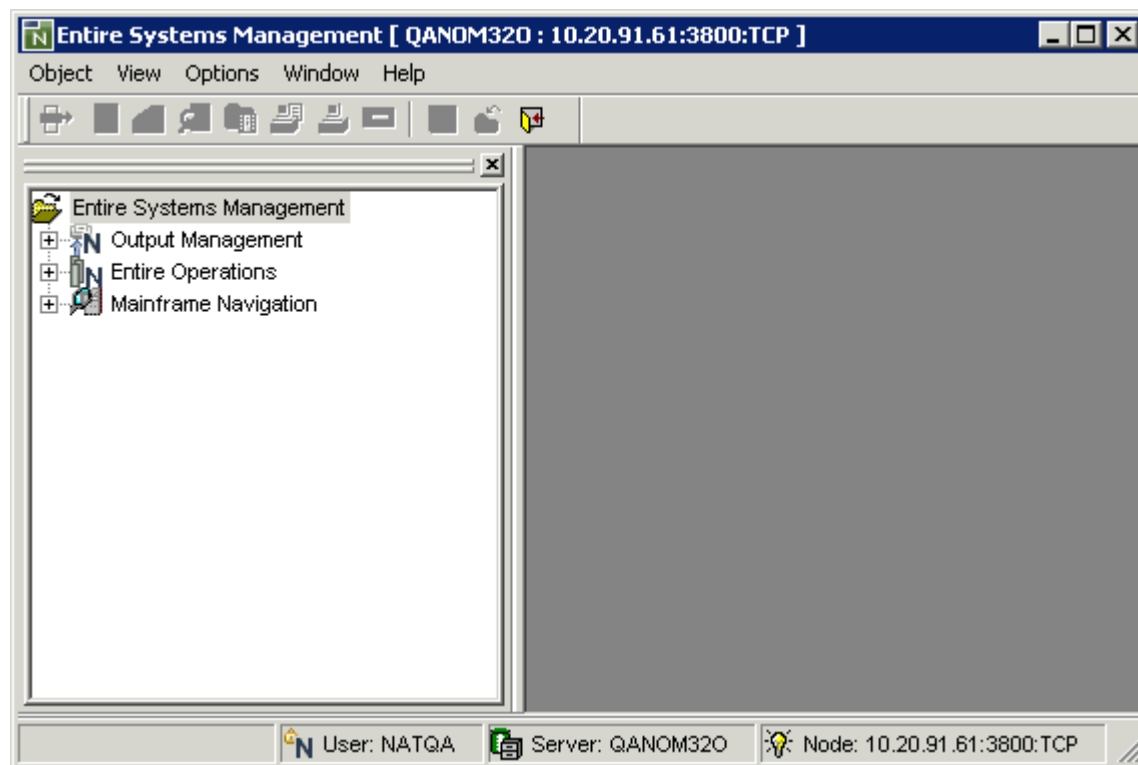
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## General Information

When you start Entire Systems Management, the following application window appears:



The Entire Systems Management application window may offer information for one or more of the following applications:

- Output Management GUI Client
- Entire Operations GUI Client
- Mainframe Navigation

When an application is installed, the corresponding folder is shown in the application window. If you are not authorized to use an application, the icon which is shown for this application contains an X (meaning, this application is crossed out).



**Note:** Output Management GUI Client and Entire Operations GUI Client can only be used in an RPC environment. Mainframe Navigation can be used either in an RPC environment or in a SPoD environment. When working in a SPoD environment, the folders for Output Management GUI Client and Entire Operations GUI Client are crossed out, which indicates that you cannot work with them.

The application window contains the **object workspace** on the left and the **content pane** on the right. To modify the size of such an area, move the mouse pointer over the border separating the two areas until the pointer changes, showing two arrows pointing in opposite directions (↔). Then drag the border using the mouse until the areas have the desired size.

More information on the elements of the application window is provided in the topics below.

## Menu Bar

The following menus are available:

Menu	Description
<b>Object</b>	<p>The commands in this menu change according to the object which is currently selected in the object workspace. Some of these commands are also available in the context menu which appears when you select an object in the object workspace.</p> <p>This menu also contains commands for saving changes in an editor window, for closing the active window in the content pane, for defining the page setup for printing, and for exiting Entire Systems Management.</p>
<b>View</b>	Using the commands in this menu, you can show or hide different elements of the application window (for example, the object workspace or status bar).
<b>Options</b>	<p>Using the commands in this menu, you can choose whether to use the English or German language. You can define the refresh mode (see <a href="#">Refreshing the Display</a>) and specify trace options (see <a href="#">Tracing</a>).</p> <p>The following restriction applies for Mainframe Navigation: when you choose the German language, only the menus and the menu commands are shown German; the Mainframe Navigation dialog boxes and messages are always shown in English, regardless of the chosen language.</p>
<b>Window</b>	<p>Using the commands in this menu, you can activate the next or previous inactive window in the content pane.</p> <p>Or you can close all windows in the content pane. When the changes in a window have not yet been saved, a dialog box appears, asking whether you want to save the changes.</p> <p>A list of open windows is shown at the bottom of the menu. The window which is currently active is indicated by a check mark. To activate another window, choose the corresponding entry in the menu.</p>
<b>Help</b>	<p>Using the commands in this menu, you can invoke the online documentation or display information about an application.</p> <p>The current selection in the object workspace is important in this case. For example, when Mainframe Navigation (or one of its nodes) is currently selected, you can invoke help for Mainframe Navigation or you can display, for example, the version number of the installed version.</p>



**Note:** The following menus can also be shown: the **Edit** menu which is shown when an editor window is active, and the **Browse** menu which is shown when a browse window is active.

## Toolbar

You can execute several functions using a toolbar button. When you move the mouse pointer over a toolbar, a brief description for the button is shown in the status bar. In addition, tooltips appear for the buttons.

The available toolbar buttons may differ depending on the current context. For example, there are toolbar buttons which are only available when an editor is active. If a toolbar button is greyed-out, the command is not available for the selected object.

## Object Workspace

The object workspace on the left side of the application window contains a tree view. All objects that can be managed with Entire Operations GUI Client, Output Management GUI Client and/or Mainframe Navigation are available in the corresponding folders of the tree.

You can expand or collapse a folder in the tree by clicking the plus or minus sign in front of a folder. A folder preceded by a minus sign has been fully expanded.

When using the keyboard, you can navigate in the tree using the following keys:

Key	Description
UP-ARROW	Move the selection up in the tree view.
DOWN-ARROW	Move the selection down in the tree view.
RIGHT-ARROW	Expand an object in the tree view.
LEFT-ARROW	Collapse an object in the tree view.
HOME	Selects the first object within the tree view. This also works in a list view window.
END	Selects the last object within the tree view. This also works in a list view window.
ENTER	Corresponds to double-clicking an object. Collapses or expands an object, depending on its current state. When an object cannot be expanded any further and when the <b>Browse</b> command is available for this object, its content is shown in a browse window.

### ► To show or hide the object workspace

- From the **View** menu, choose **Object Workspace**.

When the object workspace is shown in the application window, a check mark is shown next to this menu command.

## Content Pane

---

The content pane is shown on the right side of the application window. When you invoke a command for an object, the corresponding list view window, editor window, diagram or dialog box appears here.

## Context Menus

---

Context menus provide for selection commands that are valid in the current context (that is, for the item that is currently selected). The content of a context menu depends, for example, on the object which is currently selected in the object workspace or which is active in the content pane.

Commands that are greyed-out are not available for the selected item.

### To invoke a context menu

- 1 Select the item for which you want to invoke a context menu (either in the object workspace or in the content pane).
- 2 Click the right mouse button.

Or:

Press SHIFT+F10.

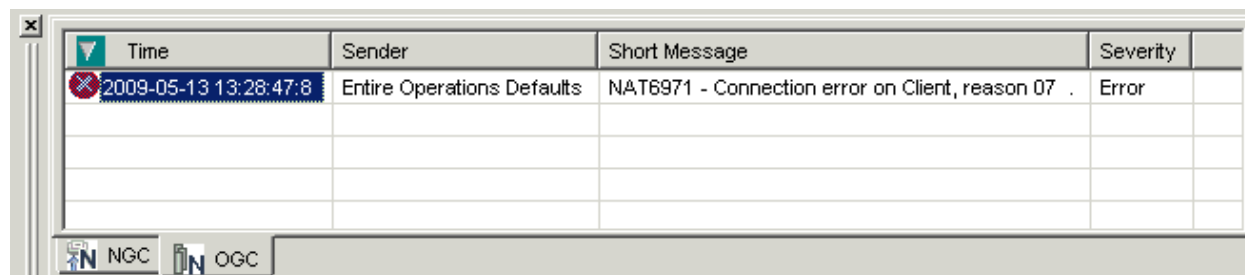
The context menu appears and you can now choose the required command.

## Result View

---

Only supported by Output Management GUI Client and Entire Operations GUI Client.

The result view is shown at the bottom of the application window. It contains hints, errors and warnings which occur during the session.



Time	Sender	Short Message	Severity
2009-05-13 13:28:47:8	Entire Operations Defaults	NAT6971 - Connection error on Client, reason 07	Error

NGC OGC

Using the context menu, you can display detailed information for a specific entry, or you can delete the selected or all messages in the result view.


#### ▶ To show or hide the result view

- From the **View** menu, choose **Results**.

When the result view is shown in the application window, a check mark is shown next to this menu command.

## Command Line

The command line is only supported by Output Management GUI Client and Entire Operations GUI Client. See also the information on direct commands in the Output Management GUI Client documentation and in the Entire Operations GUI Client documentation.



Each command that you enter in the command line is saved for the current session. The drop-down list box contains your last entries (history).

#### ▶ To show or hide the command line

- From the **View** menu, choose **Command Line**.

When the command line is shown in the application window, a check mark is shown next to this menu command.

#### ▶ To issue a command in the command line

- 1 Make sure that an item in the Entire Operations folder is currently selected.
- 2 Type the command in the text box of the **Command** drop-down list box.

Or:

When the mouse pointer is positioned on the **Command** drop-down list box, you can also use the right mouse button to invoke a context menu. Using the commands from this context menu, you can, for example, paste a text string into the command line.



**Note:** In addition to the standard Windows editing commands such as **Cut** and **Paste**, the context menu may also contain Windows commands for Unicode. See your Windows documentation for further information.

- 3 Press **ENTER** to execute the command.

#### ► To issue a command using the command line history

- 1 Open the **Command** drop-down list box and select an entry.

Or:

Enter the first character of a command that you have previously entered in the text box of the **Command** drop-down list box. The corresponding command automatically appears in the text box. When you have previously entered several commands which start with the same letter(s), the command that has been entered last appears in the text box.

- 2 Press **ENTER** to execute the command once more.

## Status Bar

---

The status bar is the horizontal information line at the bottom of the application window.

On its left side, the status bar shows short help texts for the commands in the menu bar and context menu. When data are currently received from the server, this information is also shown.

On its right side, the status bar shows the login user ID, the server name and the server node. For Mainframe Navigation, this information is only shown when working in an RPC environment.

#### ► To show or hide the status bar

- From the **View** menu, choose **Status Bar**.

When the status bar is shown in the application window, a check mark is shown next to this menu command.

## Dockable Windows

---

The following elements of the application window are dockable windows:

- toolbar
- object workspace
- result view

Using the mouse, you can drag a dockable window to another position so that it is shown

- at another position within the application window, or
- in a window of its own.

You can move the window freely on your screen. You can move it back to the application window (for example, back to its original position) so that it is no longer shown in a window. This process is called “docking”.

### ▶ To undock/dock a window

- Double-click the two lines which are shown for the docked window. For example:



Or:

Double-click the title bar of an undocked window.

When the window is currently docked, it is undocked. When the window is currently undocked, it is docked at its previous position.

### ▶ To drag a docked window to another position

- 1 Move the mouse pointer to the two lines which are shown for the docked window.
- 2 Press the mouse button and drag the window to another position.

An outline of the window is shown. The outline indicates the position at which the window can be docked.

- 3 If you want to prevent docking (that is, if you want to undock the window), press CTRL while dragging the window.
- 4 Release the mouse button.



► **To drag an undocked window back to the application window**

- 1 Move the mouse pointer to title bar of an undocked window.
- 2 Press the mouse button and drag the window to the position at which you want to dock it.

An outline of the window is shown. The outline indicates the position at which the window can be docked.

- 3 Release the mouse button.



**Note:** The commands in the **Windows** menu do not apply to dockable windows.

## Refreshing the Display

---

You can refresh the contents of a folder in the object workspace. Or you can refresh the content of a list view window. The most current information from the server is then shown. The amount of information that is refreshed depends on the refresh mode that has been defined.

► **To refresh the display**

- 1 Select a folder or one of its subfolders in the object workspace.

Or:

Activate the list view window that is to be refreshed.

- 2 Press F5 to refresh the display.

► **To define the refresh mode for the object workspace**

- From the **Options** menu, choose **Refresh Mode** > *mode*, where *mode* is one of the following commands:

- **Current Level**

Refreshes only the folder which is currently selected in the tree.

- **Recursive**

Refreshes the folder which is currently selected in the tree and all of its subfolders.



**Note:** Entire Operations GUI Client provides an **Auto Refresh** functionality for certain list view windows. This can be defined in the user settings.

## Tracing

---

In case of problems, you can enable tracing and thus write the trace information to a log file. Due to performance issues, this should only be done when requested by Software AG support.

The log file is created in the directory which is defined by the environment variable %TEMP%. The name of the log file depends on the trace option, see below.

### ▶ To activate tracing

- From the **Options** menu, choose **Trace** > *option*, where *option* is one of the following commands: **Level 1** through **Level 9**.

The higher the trace level, the more information is written to the log file.

### ▶ To deactivate tracing

- From the **Options** menu, choose **Trace** > **No Trace**.

### ▶ To specify the destination file for the log information

- From the **Options** menu, choose **Trace** > *option*, where *option* is one of the following commands:

- **Overwrite**

The content of the log file is always overwritten. The name of the log file is *estrace.log*.

- **Continous**

The content of the old log file is not overwritten. A new log file is created instead. The name of the new log file is *estrace\_<date>\_<time>.log*, where *date* has the format *yymmdd*, and *time* has the format *hhmmss*.

# III

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# 4

## Managing the Server Nodes

---

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## Displaying the Server Nodes

---

To manage the contents of a server node, you first have to expand an operating system node in the object workspace. The following operating system nodes are available: **OS390 Nodes** for z/OS, **VSE Nodes** for z/VSE and **OSD Nodes** for BS2000/OSD.

The features which can be used depend on your ISPF profile and your security system on the mainframe.

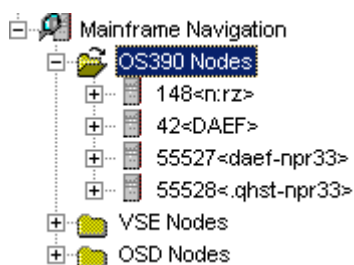
### ► To display the server nodes

- 1 In the object workspace, expand the **Mainframe Navigation** folder.

The operating system nodes are then shown in the tree.

- 2 Expand an operating system node to display all defined and active server nodes.

Example:



## Logging on to a Server Node

---

Logging on to a server node is necessary if you want to change your user ID on the mainframe, or if the automatic logon option for the node has been set to "NO" (see also [Displaying the Properties of a Node](#)).

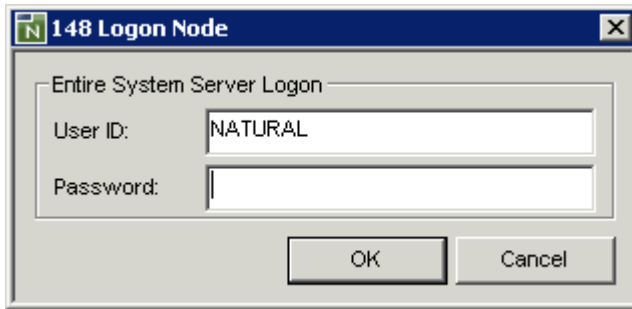
### ► To log on to a server node

- 1 In the object workspace, select the appropriate server node.
- 2 Invoke the context menu and choose **Logon**.

Or:

Press CTRL+ALT+L.

The following dialog box appears:



- 3 Enter the user ID that is required for logging on to the server node.
- 4 Enter the password.
- 5 Choose the **OK** button.

## Duplicating a Server Node

Duplication creates a new logical view on the same physical node. It does not create a new node, nor does it start a new Entire System Server node (this means, duplicating does not start or stop a node on the Entire System Server level).

### ► To duplicate a server node

- 1 In the object workspace, select the appropriate server node.
- 2 Invoke the context menu and choose **Duplicate**.

Or:

Press CTRL+C.

The server node is duplicated and appears in the list of nodes for this operating system.

## Deleting a Duplicated Server Node

---

Only node duplicates can be deleted, that is, only logical views on physical nodes can be deleted.

For further information, see [Deleting an Object](#).

## Displaying the Properties of a Server Node

---

You can display information about a server node.

### ▶ To display the properties of a server node

- 1 In the object workspace, select the appropriate server node.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A dialog box such as the following appears. The content of this dialog box depends on the node which has been selected. Example for z/OS:



**MN - 148 Properties Node**

**System**

Identifier: DAEF  
 Type: MVS/ESA  
 Release: SP7.0.8  
 CPU ID: 000FA10E  
 Model: 2096

**Date**

Local date: 2007-12-14  
 Local time: 12:49:30  
 Difference to GMT: +1  
 Date of last IPL: 2007-12-11  
 Time of last IPL: 07:30:52

**Spool**

Type: JES2  
 Release: z/OS 1.8

**Entire System Server**

Node: 148  
 Job name: XCOM148  
 Identifier:  
 Version: 3.3.2  
 Security: RACF  
 Auto logon: YES  
 APF: YES  
 SMF: 0

OK

The following information is provided in this dialog box:

Group Box	Option	Node Type	Description
System	Identifier	All	Logical identifier of the node.
	Type	All	Operating system type.
	Release	All	Release number of the operating system.
	CPU ID	z/OS and z/VSE only	CPU identification number.
	Model	z/OS and z/VSE only	Machine-type number of the CPU.
	Configuration name	OSD only	Hardware type (for example, 7500- H60-F).
	LMS version	OSD only	Version of Library Maintenance System which must be used by this Entire System Server node as specified in the startup parameters.
	RSO version	OSD only	Version of BS2000 Remote Spool Output subsystem which controls the output of remote SPOOL jobs to decentralized printers.

Group Box	Option	Node Type	Description
	Job variable	OSD only	States whether the BS2000 job variable software product is installed. Possible values: YES, NO
Spool	Type	z/OS and z/VSE only	Spooling system type.
	Release	z/OS and z/VSE only	Release number of spooling system.
Entire System Server	Node	All	Node number.
	Job name	All	Job name of the Entire System Server node.
	Identifier	All	Logical identifier of the node.
	Version	All	Version number of this Entire System Server.
	Security	All	Security system defined in Entire System Server startup parameters.
	Auto logon	All	Automatic logon option for Entire System Server. If "YES" is specified in the corresponding startup parameter, Entire System Server will perform an automatic logon to the active security system using *INIT-USER as the user ID.
	APF	z/OS only	States whether Entire System Server is running APF-authorized. Possible values: YES, NO.
	SMF	z/OS only	SMF record number written by Entire System Server.
	Mode	OSD only	Indicates the user mode of Entire System Server. Possible values: SINGLE, MULTI.
Date	Local date	All	Current date in format YYYY-MM-DD.
	Local time	All	Current time of day.
	Difference to GMT	z/OS and z/VSE only	Time difference in hours between the local time and GMT.
	Date of last IPL	z/OS and z/VSE only	Date of last system IPL in format YYYY-MM-DD.
	Time of last IPL	z/OS and z/VSE only	Time of last system IPL.

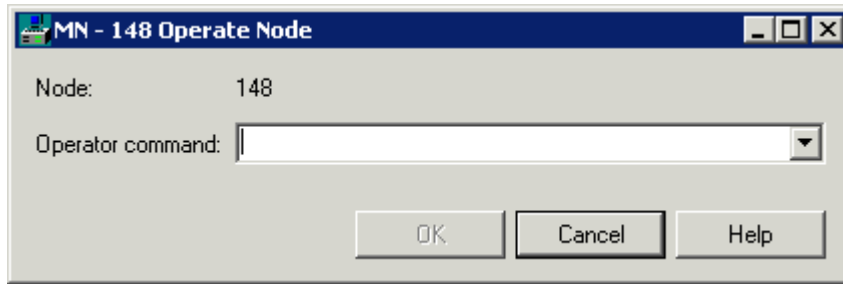
## Issuing an Operator Command

You can issue operator commands to a server node.

### ► To issue an operator command

- 1 In the object workspace, select the appropriate server node.
- 2 Invoke the context menu and choose **Operate**.

The following dialog box appears:



- 3 Enter an operator command.
- 4 Choose the **OK** button.

The dialog box is not closed so that you can enter further operator commands. All operator commands that you have issued while the dialog box is open can be selected from the drop-down list box.

- 5 To close the dialog box, choose the **Cancel** button.



# 5

## Listing and Filtering Objects

---

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## Listing an Object

---

When you display a list of objects (either in the object workspace or list view window), a default filter is often applied automatically. In many cases, this is the ID that you have used to log on. This causes that only those objects are shown where the names start with your user ID.

This section provides a brief overview on how to list objects so that they are shown in the list view window. For information on how to list a specific type of object, see the appropriate section later in this documentation.

The following topics are covered below:

- [Opening the List View Window](#)
- [Defining a Different View](#)
- [Activating the Automatic Refresh](#)
- [Sorting a Column](#)
- [Resizing a Column](#)

### Opening the List View Window

The list view window provides detailed information about an object.

In the list view window, it is possible to select several objects at the same time (which is not possible in the object workspace). This is helpful, for example, if you want to open several editor windows at the same time.

When a filter has been applied to an object (see [Filtering an Object](#)), only the entries which satisfy the filter criteria are shown in the list view window.

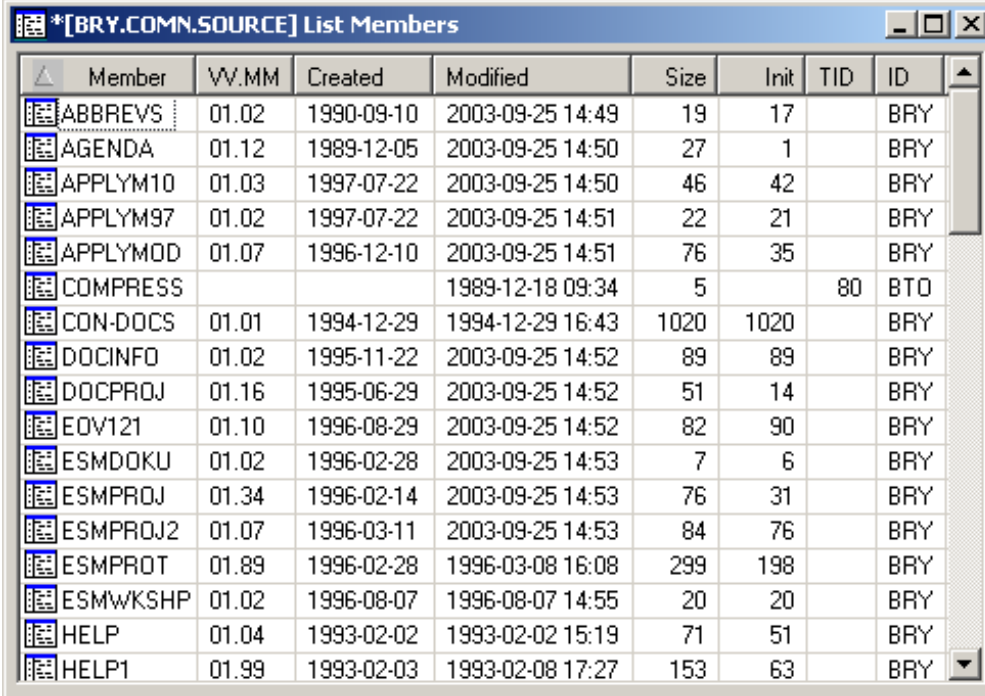
#### To open the list view window

- 1 Select an object in the object workspace.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The list view window appears in the content pane. It shows a list of the subobjects contained in the selected object. The following example shows a list of PDS members which appears when you have selected a z/OS dataset:



The screenshot shows a window titled "[BRY.COMN.SOURCE] List Members". It contains a table with the following columns: Member, VV.MM, Created, Modified, Size, Init, TID, and ID. The table lists various system members with their respective attributes.

Member	VV.MM	Created	Modified	Size	Init	TID	ID
ABBREVS	01.02	1990-09-10	2003-09-25 14:49	19	17		BRY
AGENDA	01.12	1989-12-05	2003-09-25 14:50	27	1		BRY
APPLYM10	01.03	1997-07-22	2003-09-25 14:50	46	42		BRY
APPLYM97	01.02	1997-07-22	2003-09-25 14:51	22	21		BRY
APPLYMOD	01.07	1996-12-10	2003-09-25 14:51	76	35		BRY
COMPRESS			1989-12-18 09:34	5		80	BTO
CON-DOCS	01.01	1994-12-29	1994-12-29 16:43	1020	1020		BRY
DOCINFO	01.02	1995-11-22	2003-09-25 14:52	89	89		BRY
DOCPROJ	01.16	1995-06-29	2003-09-25 14:52	51	14		BRY
EOV121	01.10	1996-08-29	2003-09-25 14:52	82	90		BRY
ESMDOKU	01.02	1996-02-28	2003-09-25 14:53	7	6		BRY
ESMPROJ	01.34	1996-02-14	2003-09-25 14:53	76	31		BRY
ESMPROJ2	01.07	1996-03-11	2003-09-25 14:53	84	76		BRY
ESMPROT	01.89	1996-02-28	1996-03-08 16:08	299	198		BRY
ESMWKSH	01.02	1996-08-07	1996-08-07 14:55	20	20		BRY
HELP	01.04	1993-02-02	1993-02-02 15:19	71	51		BRY
HELP1	01.99	1993-02-03	1993-02-08 17:27	153	63		BRY

You can select an entry in the list view window and invoke a context menu containing the commands which can be used with this entry.

### Defining a Different View

By default, the content of a list view window is shown in details view. You can also define another view (for example, large icons).

#### ► To define a different view

- 1 Activate the list view window.
- 2 Invoke the context menu and choose one of the following commands from the **View** menu: **Large Icons**, **Small Icons**, **List** or **Details**.

The type of view which is currently active is always indicated by a check mark.

## Activating the Automatic Refresh

By default, the automatic refresh is not active.

When the automatic refresh is active, the content of the active list view window is refreshed according to the specified time interval.

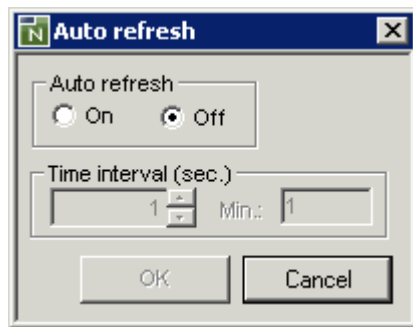


**Note:** Each list view window has its own auto refresh settings.

### ▶ To activate the automatic refresh

- 1 Activate the list view window.
- 2 Invoke the context menu and choose **Auto refresh**.

The following dialog box appears:



- 3 Select the **On** option button to activate automatic refresh.
- 4 In the **Time interval** spin box, specify the interval in seconds after which the list view window is to be refreshed.
- 5 Choose the **OK** button.

## Sorting a Column

In details view, you can use the mouse to sort the columns in ascending or descending order.

### ▶ To sort a column

- Click the header of a column.

An arrow in the header indicates the sort direction. With each click on the same header, the column is sorted in the opposite direction.



## Resizing a Column

In details view, you can use the mouse to change the width of each column. This change is only valid as long as the list view window is open.

You can also resize a column in such a way that it is not longer visible. If you want to redisplay the column, close the list view window and then open it once more. Or if you still know at which position the column is hidden, move the mouse pointer to this position in the header and resize it as described below.

### To resize or hide a column

- 1 Move the mouse pointer to the line in the header which separates two columns.  
The pointer changes, showing two arrows pointing into opposite directions.
- 2 Use the mouse to drag the column until it has the desired width or until it is no longer visible.

## Filtering an Object

---

This section provides a brief overview on how to filter objects. For information on how to filter a specific type of object, see the appropriate section later in this documentation.

Before **listing** the objects contained in a specific folder, you might want to employ a filter in order to reduce the number of shown objects. Only the objects which satisfy the filter criteria will then be listed.

The filter criteria last entered are used the next time you invoke the corresponding list view window or when you expand the corresponding folder in the tree. These filter criteria are retained even after the session has ended and will be used the next time you start Mainframe Navigation.

When specifying filter criteria, you can use the following wildcard characters:

### ■ Asterisk

An asterisk (\*) selects object names with any character string. For example, when you specify "FSM\*6", all object names are selected which start with "FSM" and end with "6" ("FSM006" or "FSM016"). If "6" is located at an unknown position within the name, you specify the name as "FSM\*6\*" in order to also select names such as "FSM600" or "FSM061".


### ■ Underscore


An underscore (\_) selects object names with one character in the place of each underscore. For example, when you specify "FSM\_6", object names such as "FSM06" or "FSM16" are selected.

Take care, when an object name contains dots as delimiters. It is not possible to use an underscore instead of a dot. For example, it is possible to specify "KO\_.\_B\*", but it is not possible to specify

"KO\_\_B\*". As a rule, underscores should only be used with for objects with names. It is not possible to use them for volumes which are offline.

When a filter has been applied to a folder or when a folder is not available, this is reflected in the folder icon that is shown in the tree view of the object workspace:

 A filter has been applied. This means that the number of items in this folder has been reduced according to specific filter criteria. Different filters can be defined for the different types of folders. For further information, see the appropriate sections later in this documentation.

 The folder is not available. This is due to the security settings in your mainframe environment.

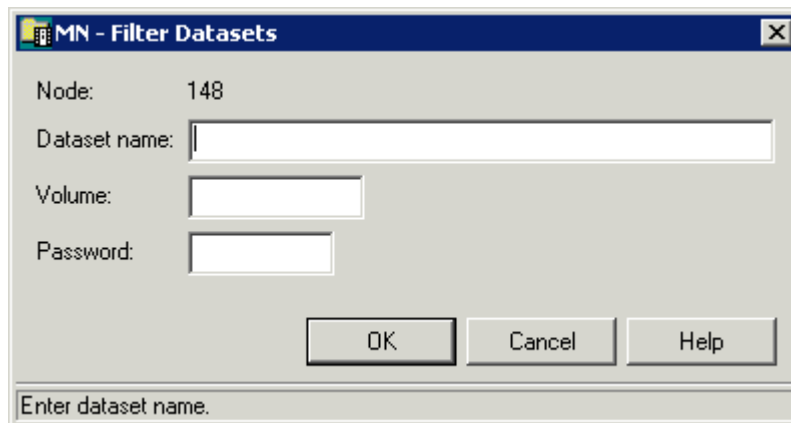
#### To define a filter

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

A dialog box appears. The filter criteria that can be defined in this dialog box depend on the object which has been selected. The following example shows the dialog box which appears when have selected the folder which contains the z/OS datasets.



When a filter has already been defined for the selected object, the filter criteria are shown in this dialog box.



**Note:** For several objects, a **Filter Subobject** command is also available. See the appropriate section later in this documentation for information on the resulting dialog box.

- 3 Enter the filter criteria. For example, in the above dialog box, enter a dataset name such as the following:

```
JWO.COMM.*
```

- 4 Choose the **OK** button.

The filter is immediately reflected in the object workspace.

When the **Filter** command has been invoked from the list view window, the change is also immediately reflected in this window.



# 6

## General Commands for Managing Different Types of Objects

---

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## General Information

---

The commands described in this chapter work similarly with all types of objects. The descriptions below are not repeated in later sections of this documentation which deal with the different types of objects.

## Editing an Object

---

You can edit datasets, files, members, LMS elements and LMS element versions.

When you edit an object, an editor window appears in which you can modify the content of the object.

### ▶ To edit an object

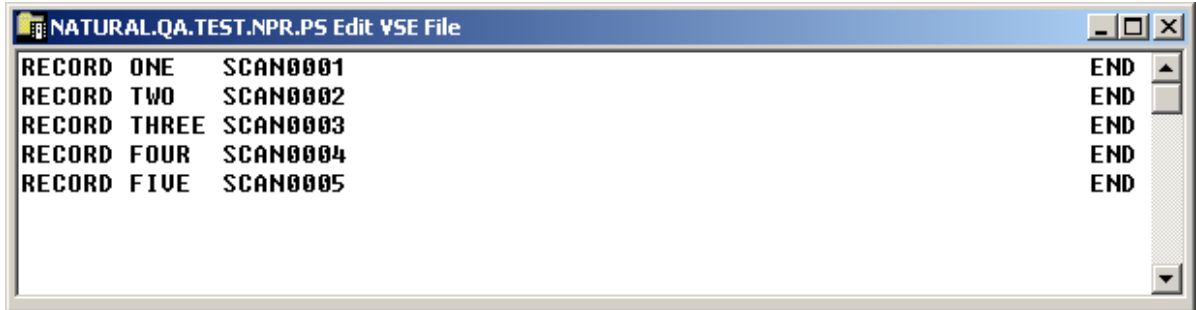
- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Edit**.

z/VSE files only: A dialog box appears in which you enter your preferences for editing the file. You then have to choose the **OK** button to display the editor window.



**Note:** This dialog box only appears for z/VSE files, not for other types of objects.

The selected object appears in an editor window in the content pane (the example below shows a z/VSE file).



In addition, the **Edit** menu is now shown in the menu bar and a special toolbar for the editor appears. See [Commands for Editing an Object](#).

- 3 Apply all required changes to the object.
- 4 From the **Object** menu, choose **Save** to save your changes in the editor window.

Or:

Choose the following toolbar button.



Or:

Press CTRL+S.

A dialog box appears informing you that the object has been saved.

- 5 From the **Object** menu, choose **Close** to close the editor window.

Or:

Choose the following toolbar button.



Or:

Press CTRL+F4.

Or:















Or choose the standard close button at the top right of the window.

When you close the editor window and recent changes have not yet been saved, a dialog box appears asking whether you want to save the changes. You have to choose one of the following command buttons:

Command Button	Description
Yes	Save the changes and close the editor window.
No	Abandon the changes and close the editor window.
Cancel	Return to the editor window.

## Commands for Editing an Object

The following table lists the editing commands that are available in an editor window. The commands can be invoked from the **Edit** menu, or from a context menu which is invoked directly in the editor window. In addition to the commands, the following table also lists the toolbar buttons and shortcut keys that can be used instead of a command.

Toolbar Button	Command	Shortcut Key	Description
	<b>Undo</b>	CTRL+Z	Undo the last editing step.
	<b>Redo</b>	CTRL+Y	Redo an “undone” editing step.
	<b>Cut</b>	CTRL+X	Cut a marked section of code or text and copy it to the clipboard for pasting to another position in the editor window or to an external editor.
	<b>Copy</b>	CTRL+C	Copy a marked section of code or text to the clipboard for pasting to another position in the editor window or to an external editor.
	<b>Paste</b>	CTRL+V	Paste a section of code or text to a selected position the editor window.
	<b>Delete</b>	DEL	Delete a marked section of text or code.
	<b>Select All</b>	CTRL+A	Select all code or text in the editor window.
	<b>Find</b>	CTRL+F	Find a string of text or code. A dialog box appears in which you can enter search criteria.
	<b>Find Next</b>	F3	Find the search string again.
	<b>Replace</b>	CTRL+H	Find and replace all instances of a string of code or text. A dialog box appears, in which you can enter selection criteria for the search, and enter code or text for the replacement.
	<b>Replace Next</b>	CTRL+F3	Find and replace the next instance of a string of code or text. A dialog box appears, in which you can enter selection criteria for the search, and enter code or text for the replacement.
	<b>Go To</b>	CTRL+G	Go to a specified line of code or text. A dialog box appears in which you can enter the line number.
	<b>Print</b>	CTRL+P	Print using the standard Windows functionality.
	<b>Submit</b>	-	Submit the object as a job.



## Browsing an Object

You can display an object in read-only mode. The content of the object is then displayed a browse window. You can copy the contents, but you cannot modify it.

You can browse all objects which can also be **edited**. In addition, it is also possible to browse sysout datasets, jobs and active jobs.

Browsing is limited to a record length of 2500 bytes. If a record is longer, it is truncated and only the first 2500 bytes are displayed.

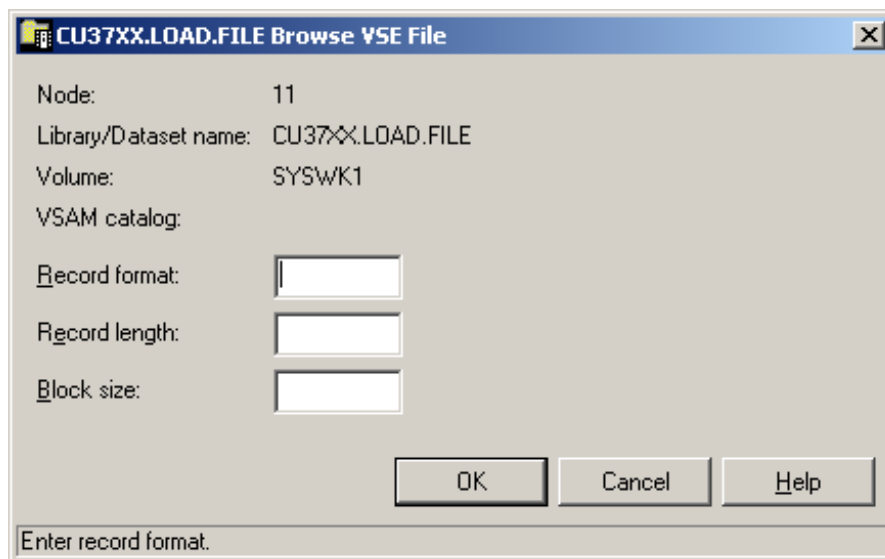
### ► To browse an object

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Browse**.

Or:

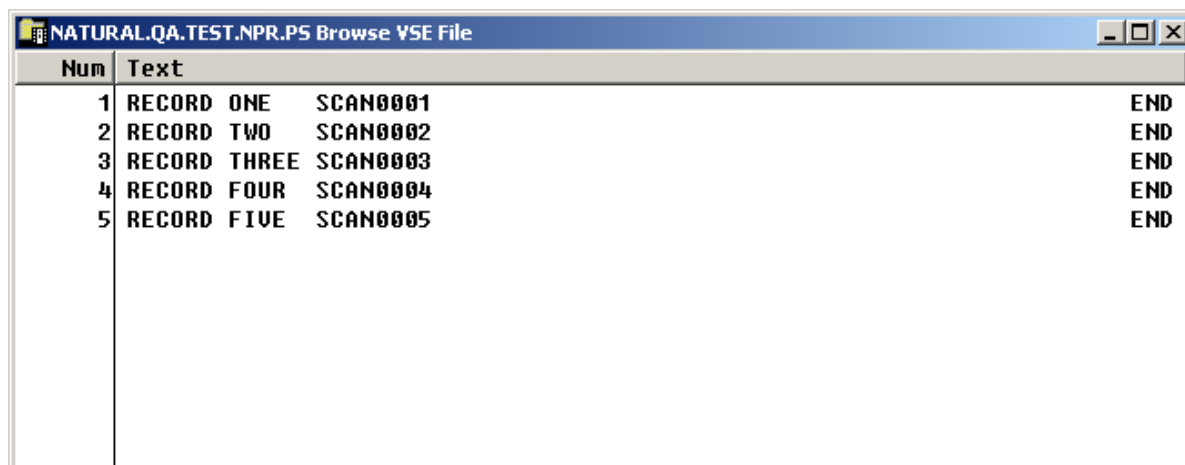
Press CTRL+B.

z/VSE files only: A dialog box appears in which you enter your preferences for browsing the file. You then have to choose the **OK** button to display the browse window.



**Note:** This dialog box only appears for z/VSE files, not for other types of objects.

The selected object appears in a browse window in the content pane (the example below shows a z/VSE file).



Num	Text
1	RECORD ONE    SCAN0001    END
2	RECORD TWO    SCAN0002    END
3	RECORD THREE    SCAN0003    END
4	RECORD FOUR    SCAN0004    END
5	RECORD FIVE    SCAN0005    END

In addition, the **Browse** menu is now shown in the menu bar and a special toolbar for browse mode appears. See [Commands for Browsing an Object](#).

- 3 From the **Object** menu, choose **Close** to close the browse window.

Or:

Choose the following toolbar button.



Or:






Press CTRL+F4.

Or:

Or choose the standard close button at the top right of the window.

## Commands for Browsing an Object

The following table lists the browsing commands that are available in a browse window. The commands can be invoked from the **Browse** menu, or from a context menu which is invoked directly in the browse window. In addition to the commands, the following table also lists the toolbar buttons and shortcut keys that can be used instead of a command.

Toolbar Button	Command	Shortcut Key	Description
	<b>Copy</b>	CTRL+C	Copy a marked section of code or text to the clipboard for pasting to an external editor.
Not available.	<b>Reverse Order</b>	CTRL+R	Reverse the line order of code or text in an object. The last line appears at the top of the browse window, the first line at the bottom.
Not available.	<b>Refresh</b>	F5	Refresh text or code in the browse window.
	<b>Find</b>	CTRL+F	Find a string of text or code. A dialog box appears in which you can enter search criteria.
	<b>Find Next</b>	F3	Find the search string again.
	<b>Go To</b>	CTRL+G	Go to a specified line of code or text. A dialog box appears in which you can enter the line number.
	<b>Print</b>	CTRL+P	Print using the standard Windows functionality.

## Copying an Object

You can copy datasets, files, members and LMS elements.

When you copy an object, a new instance of that object is created at the location that you specify. For example, you can copy a z/OS dataset to a different z/OS node or to a BS2000/OSD file.

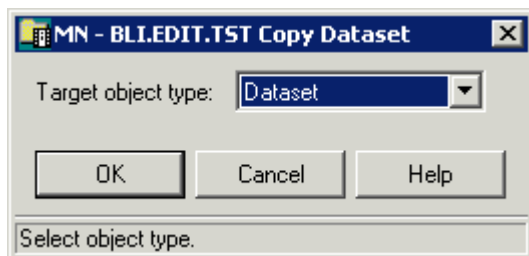


**Note:** The **Copy** command described in this section is different from the standard Windows **Copy** command. It does not copy any information to the Windows clipboard. Instead, it immediately places the copied object at the specified location (without the need for a **Paste** command).

### ► To copy an object

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Copy**.

The following dialog box appears:



- 3 From the drop-down list box, select the target object type (dataset, member, z/VSE file, librarian member, OSD file, or LMS element).
- 4 Choose the **OK** button.

The dialog box for the selected target object type appears.

- 5 Specify the information for the target object type as described below in the appropriate section.



**Note:** If this is the first time you are copying to the object type and if the source and target types are identical, the default values for the target object are taken from the source object. The next time the object type is selected, the previously entered values are used by default.

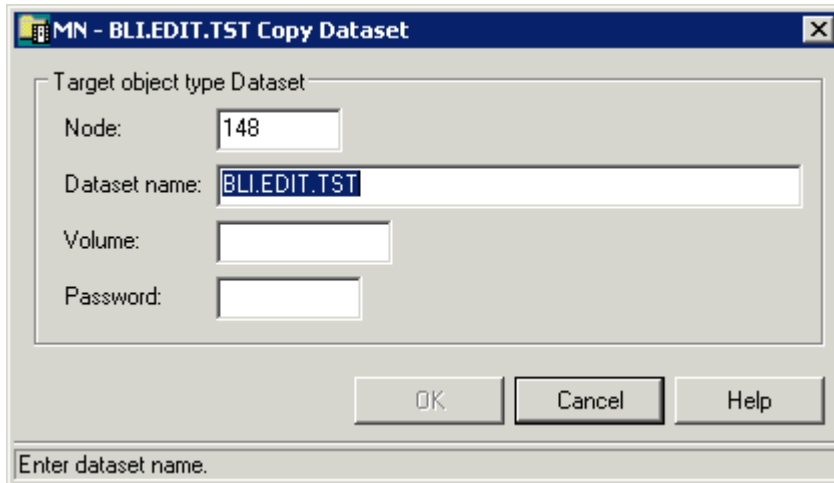
- 6 Choose the **OK** button.


The following topics are covered below:

- [Copying an Object to a Dataset](#)
- [Copying an Object to a PDS Member](#)
- [Copying an Object to a z/VSE File](#)
- [Copying an Object to a Librarian Member](#)
- [Copying an Object to an OSD File](#)

- Copying an Object to an LMS Element

## Copying an Object to a Dataset



 **Note:** If you are copying from a dataset, the **Node** and **Dataset name** text boxes contain the dataset default values.

You can specify the following information:

Option	Description
Node	The name of an Entire System Server node.
Dataset name	A target dataset name.
Volume	The serial number of the volume, if the dataset is not cataloged.
Password	A system password, if the dataset is to be protected.

The selected object will be copied to the specified dataset. If the target dataset does not exist, it will be allocated, if possible.

If you are copying from a dataset, the new dataset is automatically cataloged and appears in the **Datasets** folder.

## Copying an Object to a PDS Member



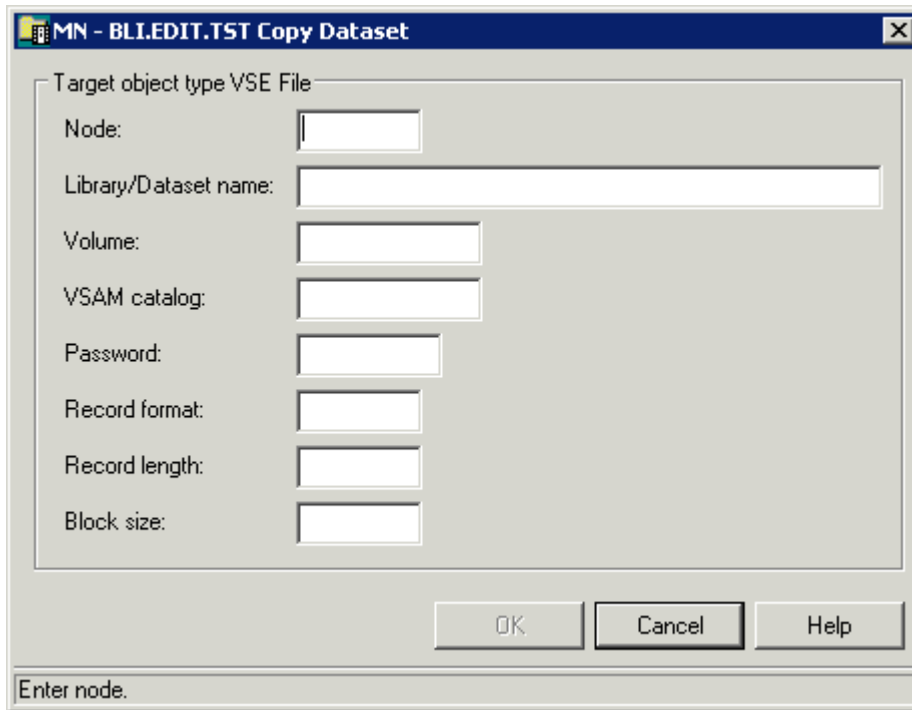
**Note:** If you are copying from a PDS member, the **Node**, **Dataset name** and **Member** text boxes contain the member default values.

You can specify the following information:

Option	Description
Node	The name of an Entire System Server node.
Dataset name	The name of the dataset which will contain the new member.
Member	A target member name.
Volume	The serial number of the volume on which the target dataset resides (required only if dataset is not cataloged).
Password	A system password, if member is to be protected.
Replace target object	Activate this check box, if you are copying to a member which already exists.

The selected object will be copied to the specified member.

## Copying an Object to a z/VSE File



**MN - BLIEDIT.TST Copy Dataset**

Target object type VSE File

Node:

Library/Dataset name:

Volume:

VSAM catalog:

Password:


Record format:

Record length:

Block size:

OK Cancel Help

Enter node.


 **Note:** If you are copying from a z/VSE file, the **Node**, **Library/Dataset name**, **Volume**, **VSAM catalog** and **Record format** text boxes contain the file default values.

You can specify the following information:

Option	Description	
Node	The name of an Entire System Server node.	
Library/Dataset name	A name for the new dataset.	
Volume	For non-VSAM installations: required only if the dataset has no label definition. The serial number of the volume on which the target dataset resides.	
VSAM catalog	For VSAM installations: required only if the dataset has no label definition. A VSAM catalog name for the target database.	
Password	A system password, if dataset is protected.	
Record format	A record format, for example:	
	FB	Fixed block.
	VB	Variable block.
	FBA	Fixed block, ANSI control characters.
Record length	The logical record length in bytes.	
Block size	The block size in bytes.	

The selected object will be copied to the specified z/VSE file. If the target file does not exist, it will be allocated, if possible.

Copying an Object to a Librarian Member

 **Note:** If you are copying from a librarian member, the **Node**, **Library/Dataset name**, **Sub-library**, **Member**, **Member type**, **Volume** and **VSAM catalog** text boxes contain the member default values.

You can specify the following information:


Option	Description
Node	The name of an Entire System Server node.
Library/Dataset name	The name of the dataset which will contain the new member.
Sublibrary	The name of the sublibrary which will contain the new member.
Member	A name for the target member.
Member type	A type for the target member. Members can be grouped and listed according to a user-defined type, which you can specify here.
Volume	For non-VSAM installations: required only if the dataset has no label definition. The serial number of the volume on which the target dataset resides.



Option	Description	
VSAM catalog	For VSAM installations: required only if the dataset has no label definition. The name of the VSAM catalog which will contain the target member.	
Password	A system password, if dataset is protected.	
Replace target object	Activate this check box, if you are copying to a member which already exists.	
MSHP protect	Activate this check box to bypass MSHP protection; otherwise, leave this check box blank (relevant only for the <b>Edit</b> command).	
Inline data	Relevant only for the <b>Edit</b> command. Choose one of the following option buttons:	
	Yes	Indicates that the member contains SYSIPT data.
	No	Indicates that the member does not contain SYSIPT data.
	Off	Switches off the SYSIPT flag for the existing member.

The selected object will be copied to the specified librarian member.

## Copying an Object to an OSD File


 **Note:** If you are copying from an OSD file, the **Node** and **File name** text boxes contain the file default values.

You can specify the following information:

Option	Description
Node	The name of an Entire System Server node.
File name	A target file name.
Password	A system password, if file is protected.
Replace target object	Activate this check box, if you are copying to a file which already exists.

The selected object will be copied to the specified OSD file.

## Copying an Object to an LMS Element

 **Note:** If you are copying from an LMS element, the **Node**, **File name**, **Element** text boxes and the **Type** drop-down list box contain the element default values.

You can specify the following information:

Option	Description
Node	The name of an Entire System Server node.
File name	The name of the file which will contain the new element.
Element	The name of the target element.
Type	A type for the target element. For example: S - source program, M - assembler macro.
Version	A version number for the target element.
Password	A system password, if element is protected.
Replace target object	Activate this check box, if you are copying to an element which already exists.

The selected object will be copied to the specified LMS element.

## Deleting an Object

---

You can delete datasets, files, members, z/OS and z/VSE jobs, sysout datasets, LMS elements and element versions, BS2000 job variables, and duplicated nodes.

### ▶ To delete an object

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Delete**.

Or:

Press DEL.

A dialog box appears, asking to confirm the delete function for the selected object.

- 3 Choose the **Yes** button to delete the object.

## Renaming an Object

---

You can rename datasets, files, members, LMS elements and element versions, and BS2000 job variables.

### ▶ To rename an object

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Rename**.

Or:

Press F2.

The name is selected so that you can immediately enter a new name. Any text you enter automatically deletes the selection.



**Note:** If you want to cancel your modifications, press ESC.

- 3 Enter a new name for the object.
- 4 Press ENTER.

Or:

Click any other position in the object workspace or list view window.

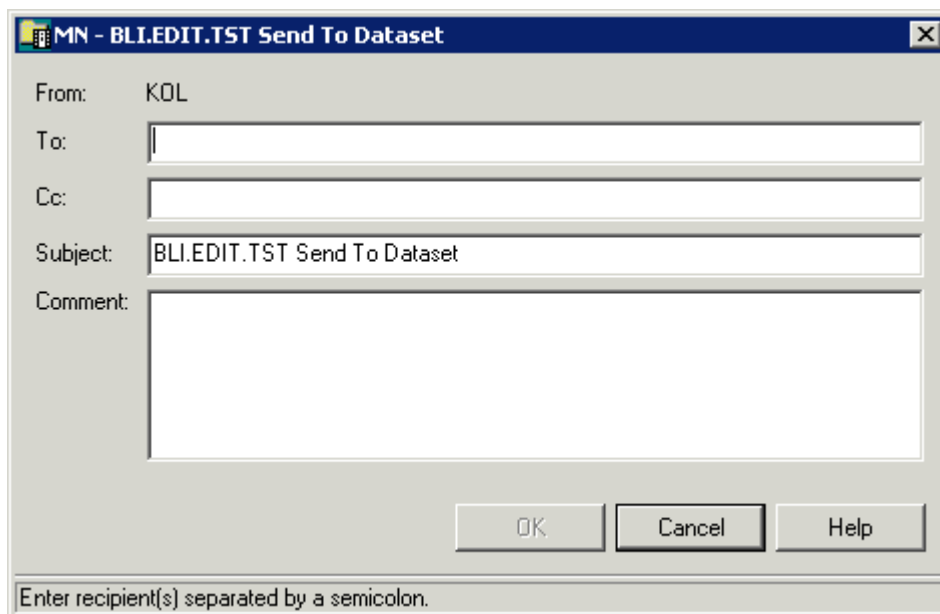
## Sending an Object to an E-mail Recipient

You can send datasets, files, members, sysout datasets, z/VSE jobs, LMS elements and element versions to one or more e-mail recipients.

### ► To send an object to an e-mail recipient

- 1 Select the appropriate object (either in the object workspace or list view window).
- 2 Invoke the context menu and choose **Send To**.

A dialog box appears. The following example shows the dialog box which appears when you have selected a dataset.



MN - BLI.EDIT.TST Send To Dataset

From: KOL

To:

Cc:

Subject: BLI.EDIT.TST Send To Dataset

Comment:

OK Cancel Help

Enter recipient(s) separated by a semicolon.

- 3 Specify the following information:

Option	Description
To	Enter the e-mail address of the recipient. If you want to send the object to more than one recipient, use a semicolon to separate the e-mail addresses.
Cc	Optional. Enter the e-mail address of one or more persons who are to receive a copy (Cc).
Subject	Optional. Change the default subject heading.
Comment	Optional. Enter a short message.

- 4 Choose the **OK** button to send the object.

# IV

## Managing z/OS Objects

---

This part covers the following topics:

**z/OS Datasets**

**PDS Members**

**z/OS Volumes**

**z/OS Jobs**

**z/OS Sysout Datasets**

**z/OS Active Jobs**

**Support of Natural ISPF Object Exits under z/OS**





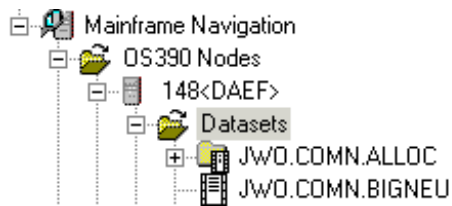
# 7

## z/OS Datasets

---

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In the object workspace, the z/OS datasets are shown when you expand the **Datasets** folder of a z/OS node. Example:



## Filtering z/OS Datasets

---

Before displaying z/OS datasets, you can define a filter so that only those datasets are shown which correspond to your filter criteria.

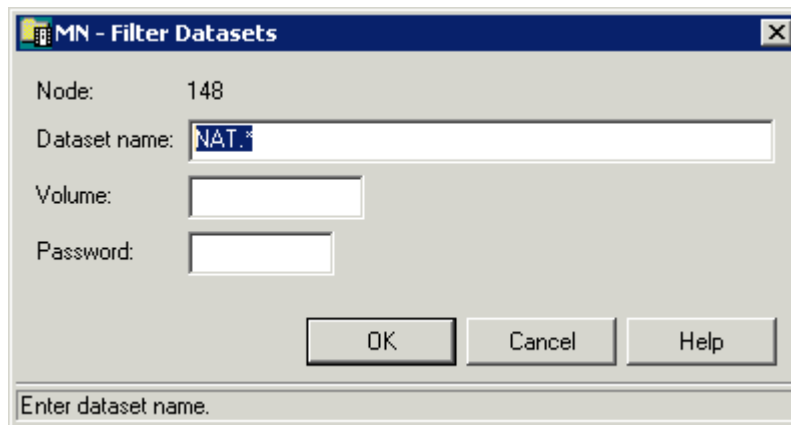
### ► To define a filter

- 1 In the object workspace, select the **Datasets** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria.

Option	Description
Dataset name	Enter the datasets that are to be shown. For example, when you specify "ABC*", only the dataset names starting with these characters will be shown.
Volume	If you do not specify a volume, the dataset list is created from the catalog. If you do specify a volume, the dataset list is created from the VTOC of that volume.
Password	Enter the system password if dataset is protected.

- 4 Choose the **OK** button.

## Listing z/OS Datasets

The number of objects shown in the list view window depends on whether or not a filter has been defined for the datasets (see [Filtering z/OS Datasets](#)).

### ► To list z/OS datasets

- 1 In the object workspace, select the **Datasets** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The list view window appears.

The type of information contained in the list view window depends on whether or not filter criteria for **Volume** have been defined (see [Filtering z/OS Datasets](#)).

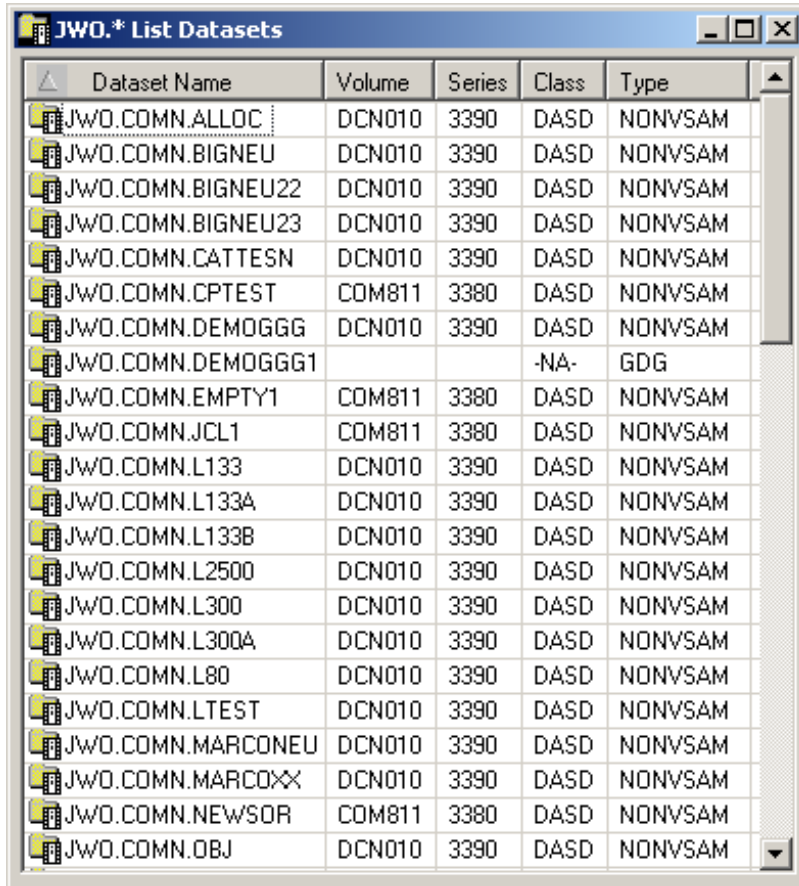
The following topics are covered below:

- [No Volume has been specified](#)

- A Volume has been specified

### No Volume has been specified

When a volume has not been specified with the **Filter** command, the dataset list is created from the catalog. Example:



Dataset Name	Volume	Series	Class	Type
JWD.COMN.ALLOC	DCN010	3390	DASD	NONVSAM
JWD.COMN.BIGNEU	DCN010	3390	DASD	NONVSAM
JWD.COMN.BIGNEU22	DCN010	3390	DASD	NONVSAM
JWD.COMN.BIGNEU23	DCN010	3390	DASD	NONVSAM
JWD.COMN.CATTESN	DCN010	3390	DASD	NONVSAM
JWD.COMN.CPTTEST	COM811	3380	DASD	NONVSAM
JWD.COMN.DEMOGGG	DCN010	3390	DASD	NONVSAM
JWD.COMN.DEMOGGG1			-NA-	GDG
JWD.COMN.EMPTY1	COM811	3380	DASD	NONVSAM
JWD.COMN.JCL1	COM811	3380	DASD	NONVSAM
JWD.COMN.L133	DCN010	3390	DASD	NONVSAM
JWD.COMN.L133A	DCN010	3390	DASD	NONVSAM
JWD.COMN.L133B	DCN010	3390	DASD	NONVSAM
JWD.COMN.L2500	DCN010	3390	DASD	NONVSAM
JWD.COMN.L300	DCN010	3390	DASD	NONVSAM
JWD.COMN.L300A	DCN010	3390	DASD	NONVSAM
JWD.COMN.L80	DCN010	3390	DASD	NONVSAM
JWD.COMN.LTEST	DCN010	3390	DASD	NONVSAM
JWD.COMN.MARCONEU	DCN010	3390	DASD	NONVSAM
JWD.COMN.MARCOXX	DCN010	3390	DASD	NONVSAM
JWD.COMN.NEWSOR	COM811	3380	DASD	NONVSAM
JWD.COMN.OBJ	DCN010	3390	DASD	NONVSAM

Since no volume was specified, the list of datasets appears as shown above with the following columns:

Column	Description	
Dataset Name	Name of the dataset.	
Volume	Volume serial number.	
Series	Device series.	
Class	Device class. Possible values:	
	COMM	Communications.
	CTCA	Channel-to-channel adapter.
	DASD	Direct access.

Column	Description	
	DISP	Display station.
	NA	Not applicable.
	TAPE	Tape.
	UREC	Unit record.
Type	Dataset type, for example: NONVSAM, CLUSTER, DATA, GDG BASE.	

### A Volume has been specified

When a volume has been specified with the **Filter** command, the datasets contained in the VTOC of the specified volume are shown. Example:

Dataset Name	Organization	Record Length	Block Size	Record Format	Cylinder	Track	% Used	Created	Last Access	SMS	Update
JWD.COMN.BIGNEU	PS	00080	00800	FB	12	0	95	2001-07-09	2003-08-27	NO	NO
JWD.COMN.BIGNEU22	PS	00080	00800	FB	12	0	1	2003-01-30	2003-08-27	NO	NO
JWD.COMN.BIGNEU23	PS	00080	00800	FB	12	0	0	2003-01-30	2003-01-30	NO	NO
JWD.COMN.CATTESN	PO	00080	03120	FB	1	0	13	2000-05-10	2003-09-09	NO	NO
JWD.COMN.DEMOGGG	PO	00080	03120	FB	1	0	6	2002-06-11	2003-09-09	NO	NO
JWD.COMN.L133	PS	00133	01330	FB	0	5	60	2001-08-13	2003-06-13	NO	NO
JWD.COMN.L133A	PS	00133	01330	FB	0	5	60	2002-12-17	2003-05-26	NO	NO
JWD.COMN.L133B	PS	00133	01330	FB	0	5	20	2002-12-17	2003-06-12	NO	NO
JWD.COMN.L2500	PS	02500	25000	FB	0	5	0	2002-12-19	2002-12-19	NO	NO
JWD.COMN.L300	PS	00300	03000	FB	0	5	20	2002-11-20	2003-06-12	NO	NO
JWD.COMN.L300A	PS	00300	03000	FB	0	5	0	2003-03-26	2003-03-26	NO	NO
JWD.COMN.L80	PS	00080	00800	FB	0	10	10	2002-07-24	2003-06-18	NO	NO
JWD.COMN.L80A	PS	00080	00800	FB	0	10	0	2003-06-12	2003-06-12	NO	NO
JWD.COMN.LTEST	PS	00080	00800	FB	0	2	50	2001-02-06	2003-09-16	NO	NO
JWD.COMN.MARCONEU	PO	00080	03120	FB	3	0	17	2002-05-31	2003-09-24	NO	NO
JWD.COMN.MARCOXX	PO	00080	03120	FB	3	0	8	2002-07-25	2003-09-17	NO	NO

Since a volume was specified, the list of datasets appears as shown above with the following columns:

Column	Description	
Dataset Name	Name of the dataset.	
Organization	Dataset organization, for example:	
	DA	Direct access.
	PO	Partitioned dataset (PDS).
	POE	Partitioned dataset (PDSE).
	PS	Sequential dataset.
Record Length	Logical record length in bytes.	
Block Size	Block size in bytes.	
Record Format	Record format, for example:	
	F	Fixed length record.
	FB	Fixed blocked record.

Column	Description	
	FBA	Fixed blocked record, ANSI control characters.
	U	Unformatted record.
	V	Variable record.
	VB	Variable blocked record.
Cylinder	Size of dataset in cylinders.	
Track	Size of dataset in tracks.	
%Used	Percentage of dataset used.	
Created	Dataset creation date.	
Last Access	Date of last access.	
SMS	Is this an SMS-controlled device/unit (YES, NO)?	
Update	Has the file been updated since the last backup (YES, NO)?	

## Managing Recent z/OS Datasets

---

Mainframe Navigation internally maintains a list of the 100 datasets most recently accessed by the user. This list is stored at the end of a session and is read when Mainframe Navigation is started.

The following topics are covered below:

- [Listing Recent z/OS Datasets](#)
- [Removing a z/OS Dataset from the List of Recent Files](#)
- [Synchronizing the List of Recent Files for z/OS Datasets](#)

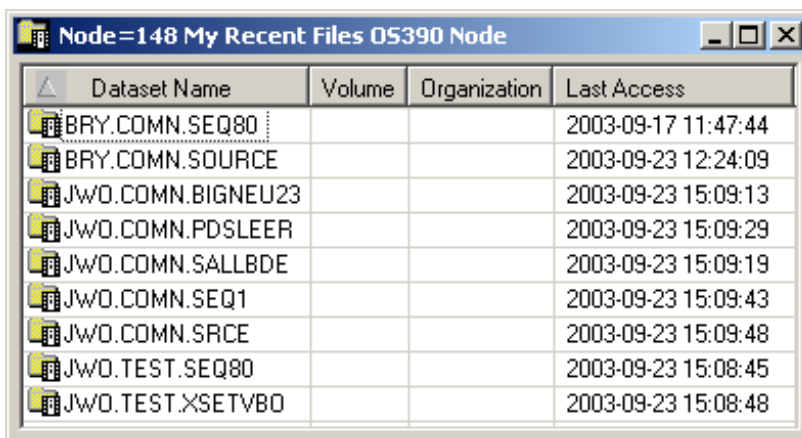
### Listing Recent z/OS Datasets

All commands that are available for datasets can also be invoked from the list of recent files.

#### To list recently-used z/OS datasets

- 1 In the object workspace, select the **Datasets** folder in the appropriate node.
- 2 Invoke the context menu and choose **My Recent Files**.

The list view window containing recently-used datasets appears in the content pane. Example:



Dataset Name	Volume	Organization	Last Access
BRY.COMN.SEQ80			2003-09-17 11:47:44
BRY.COMN.SOURCE			2003-09-23 12:24:09
JWO.COMN.BIGNEU23			2003-09-23 15:09:13
JWO.COMN.PDSLEER			2003-09-23 15:09:29
JWO.COMN.SALLBDE			2003-09-23 15:09:19
JWO.COMN.SEQ1			2003-09-23 15:09:43
JWO.COMN.SRCE			2003-09-23 15:09:48
JWO.TEST.SEQ80			2003-09-23 15:08:45
JWO.TEST.XSETVBO			2003-09-23 15:08:48

The list view window contains the following columns:

Column	Description
Dataset Name	Name of the dataset.
Volume	Volume serial number.
Organization	For example: PO (PDS), PS (sequential dataset), DA (direct access).
Last Access	Date (YYYY-MM-DD) and time the dataset was last accessed.

## Removing a z/OS Dataset from the List of Recent Files

You can remove a dataset from the list of recent files. This does not delete the dataset on the server.

### ► To remove a z/OS dataset from the list of recent files

- 1 In the list of recent files, select the dataset to be removed.
- 2 Invoke the context menu and choose **Remove from list**.

## Synchronizing the List of Recent Files for z/OS Datasets

You can synchronize the list of recent files with the data on the server. List entries which no longer exist on the server (for example, because they have been renamed or deleted) are deleted from the list of recent files.

### ► To synchronize the list of recent files for z/OS datasets

- 1 In the object workspace, select the **Datasets** folder in the appropriate node.
- 2 Invoke the context menu and choose **Synchronize**.

A dialog box appears, asking to confirm the synchronize function for the selected object.

- 3 Choose the **Yes** button to synchronize the list of recent files.

## Cataloging a z/OS Dataset

---

You can add a z/OS dataset to a catalog.

### ► To catalog a z/OS dataset

- 1 In the object workspace, select an uncataloged dataset in the **Volumes** folder of the appropriate node.
- 2 Invoke the context menu and choose **Catalog**.

The dataset is cataloged. It will appear in the **Datasets** folder (depending on your [filter criteria](#)).

## Uncataloging a z/OS Dataset

---

You can remove a z/OS dataset from a catalog.

### ► To uncatalog a z/OS dataset

- 1 In the object workspace, select a cataloged dataset either in the **Volumes** or **Datasets** folder of the appropriate node.
- 2 Invoke the context menu and choose **Uncatalog**.

A dialog box appears, asking to confirm the uncatalog function for the selected object.

- 3 Choose the **Yes** button to uncatalog the dataset.

The selected dataset is uncataloged and removed from the **Datasets** folder.



## Compressing a z/OS Dataset

---

You can compress a partitioned z/OS dataset (PDS).

▶ **To compress a z/OS dataset**

- 1 In the object workspace, select a partitioned dataset either in the **Datasets** or **Volumes** folder of the appropriate node.
- 2 Invoke the context menu and choose **Compress**.

A dialog box appears, asking to confirm the compress function for the selected object.

- 3 Choose the **Yes** button to compress the dataset.

## Allocating a z/OS Dataset

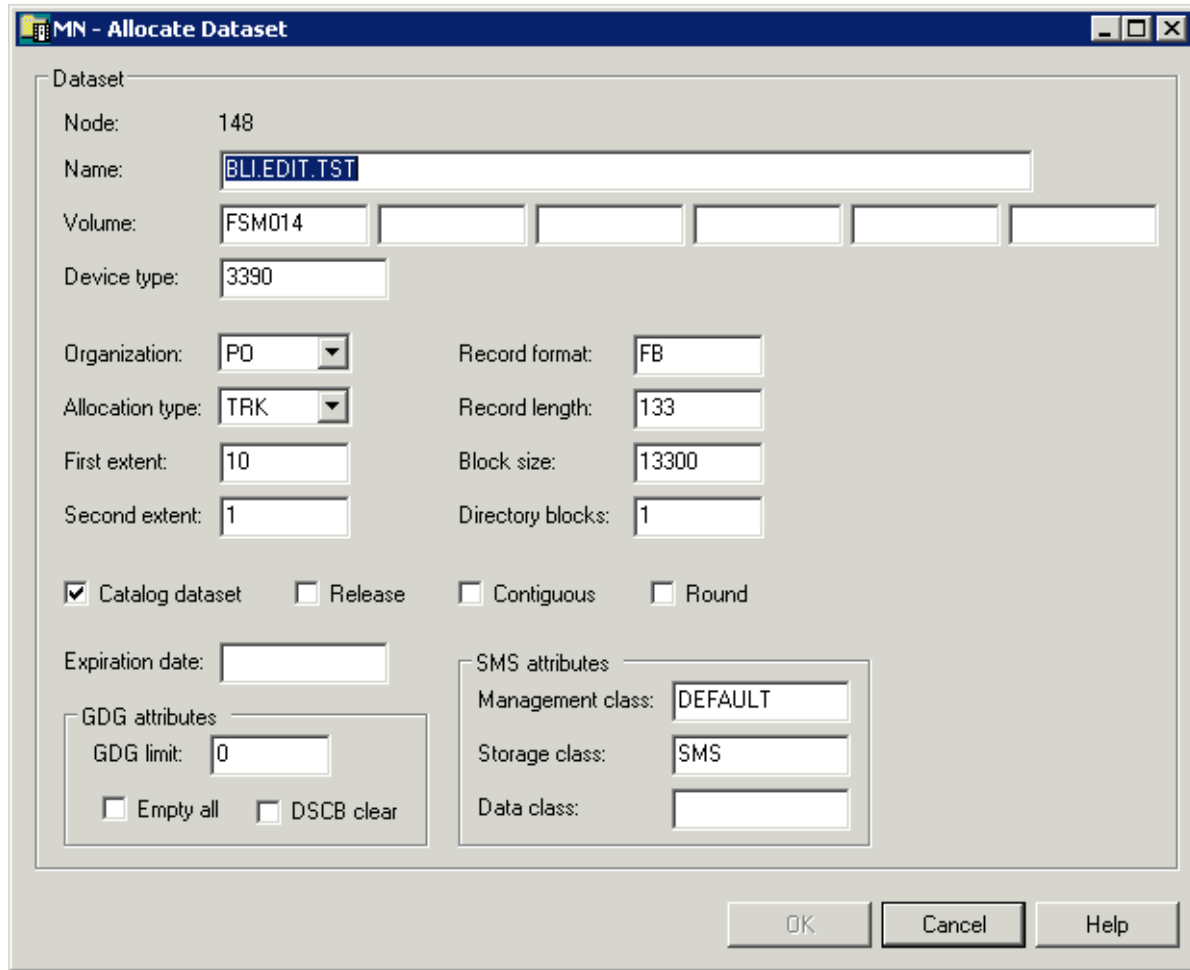
---

This command is generally issued for an existing dataset. The allocation information for the existing item is displayed and you can overwrite the name and modify the specifications for the new item.

▶ **To allocate a z/OS dataset**

- 1 In the object workspace, select a dataset either in the **Datasets** or **Volumes** folder of the appropriate node.
- 2 Invoke the context menu and choose **Allocate**.

The following window appears in the content pane:



The image shows a screenshot of the 'MN - Allocate Dataset' dialog box. The 'Dataset' section contains the following fields and values:

- Node: 148
- Name: BLI.EDIT.TST
- Volume: FSM014
- Device type: 3390
- Organization: PO (dropdown)
- Record format: FB
- Allocation type: TRK (dropdown)
- Record length: 133
- First extent: 10
- Block size: 13300
- Second extent: 1
- Directory blocks: 1

Below these fields are four checkboxes: ☒ Catalog dataset, ☐ Release, ☐ Contiguous, and ☐ Round. There is also an 'Expiration date' field.

At the bottom left, there are 'GDG attributes' with a 'GDG limit' field set to 0, and two checkboxes: ☐ Empty all and ☐ DSCB clear.

At the bottom right, there are 'SMS attributes' with three fields: 'Management class' set to DEFAULT, 'Storage class' set to SMS, and an empty 'Data class' field.

At the very bottom are three buttons: OK, Cancel, and Help.

- 3 Enter a new name for the dataset and enter or change other options as described in the table below.

Option	Description	
Node	Node containing the dataset.	
Name	Dataset name.	
Volume	Serial number of the volume on which the dataset is to be allocated. You can specify up to 5 volumes for multi-volume datasets.	
Device type	If you do not specify a volume, specify the generic identifier from which a volume is to be selected (for example, 3380).	
Organization	For example: PO (PDS), PS (sequential dataset), DA (direct access).	
Allocation type	Space type for dataset. Possible values:	
	BLK	Blocks
	CYL	Cylinders
	TRK	Tracks
First extent	Initial quantity to be allocated.	

Option	Description	
Second extent	Additional quantity to be allocated if dataset fills.	
Record format	For example:	
	FB	Fixed block
	VB	Variable block
	FBA	Fixed block, ANSI control characters
Record length	Given in bytes.	
Block size	Given in bytes.	
Directory blocks	Must be specified for PO-type datasets.	
Catalog dataset	Activate this check box to automatically catalog the dataset when it is allocated.	
Release	Activate this check box to release allocated space if it is not used by the dataset.	
Contiguous	Activate this check box if tracks or cylinders must be adjacent.	
Round	Activate this check box to automatically round up space to the nearest cylinder if tracks or blocks are specified as space units.	
Expiration date	Date when the dataset expires. Until this date is reached, each attempt to update or delete the dataset causes a console message, requiring an operator reply.	
GDG attributes	GDG limit	A value in this field identifies the file to be allocated as GDG. The value specifies the maximum number of generation datasets that can be associated with the GDG being defined.
	Empty all	Activate this check box to uncatalog all generation datasets when the GDG limit is reached. If you do not activate this check box, only the oldest generation dataset is uncataloged.
	DSCB clear	Activate this check box to delete the dataset's DSCB from the VTOC; the GDS no longer exists. If you do not activate this check box, the DSCB is not deleted from the VTOC and the dataset can be processed as any non-VSAM dataset.
SMS attributes	These attributes are available only if SMS is installed.	
	Management class	The management class to be used to obtain the management-related data for SMS (migration, backup and retention criteria) to allocate the dataset.
	Storage class	The storage class to be used to obtain the storage-related data for dataset allocation.
	Data class	The data class to be used to obtain the data-related information (SPACE, LRECL, etc.) for dataset allocation.

- 4 Choose the **OK** button.

A dialog box appears, informing you that the dataset was successfully allocated.

- 5 Choose the **Yes** button to allocate another dataset.

Or:

Choose the **No** button to finish allocation.

## Displaying the Properties of a z/OS Dataset

---

You can display information about a z/OS dataset. Different types of information are shown for sequential and partitioned datasets and for generation data groups (GDGs).

### To display the properties of a z/OS dataset

- 1 In the object workspace, select a dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.

The following topics are covered below:

- [Sequential and Partitioned Datasets](#)
- [Generation Data Groups \(GDG\)](#)

### Sequential and Partitioned Datasets

The properties dialog box for a sequential or partitioned dataset looks as follows:

**JWO.COMN.SALLOCS Properties Dataset**

Dataset

Name: JWO.COMN.SALLOCS

Volume: SMS010

Device type: 3390

Organization: PO

Record format: FB

Record length: 80

Block size: 3120

Allocation type: CYL      Allocated cylinders: 1

First extent: 1 CYL      0 TRK      Allocated extents: 1

Second extent: 0      Percentage used: 6

Security: NONE

Creation date: 2002-05-21

Last reference: 2003-10-07

Expiration date:

Partitioned data set

Number of members: 0

Directory blocks: 12

Unused blocks: 11

SMS attributes

Management class: DEFAULT

Storage class: SMS

Data class:

OK

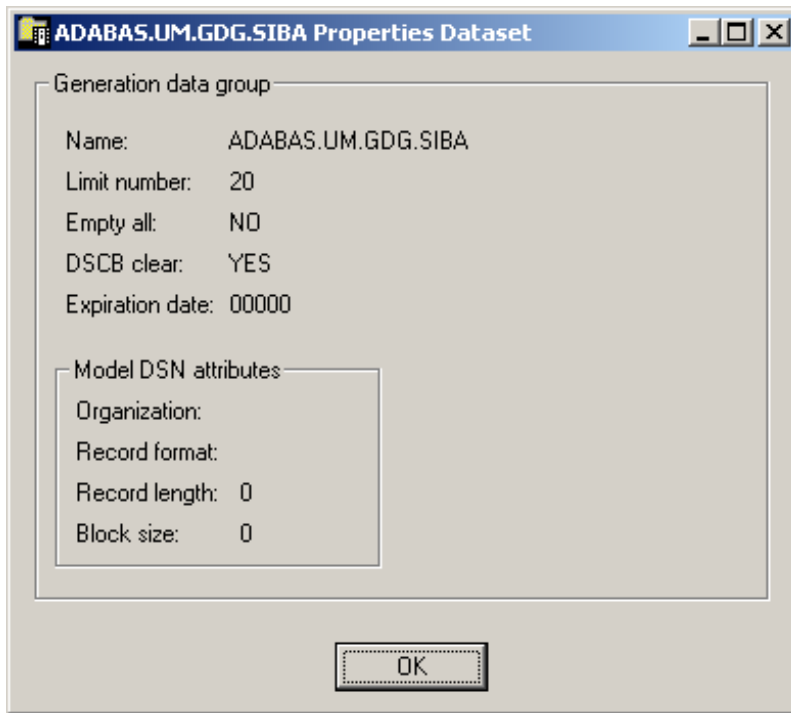
The following information is shown in this dialog box:

Option	Description
Name	Name of the dataset.
Volume	Serial number of the volume on which the dataset is allocated.
Device type	If a volume is not specified, this is the generic identifier from which a volume is to be selected (e.g. 3380).
Organization	For example:
	PO      PDS
	PS      Sequential dataset
	DA      Direct access
Record format	For example:
	FB      Fixed block

Option	Description	
	VB	Variable block
	FBA	Fixed block, ANSI control characters
Record length	Logical record length in bytes.	
Block size	Block size in bytes.	
Allocation type	Space type for dataset. Possible values:	
	BLK	Blocks
	CYL	Cylinders
	TRK	Tracks
First extent	Initial quantity allocated.	
Second extent	Additional quantity to be allocated if dataset fills.	
Security	Security status. Possible values:	
	NONE	Not password-protected.
	READ	Password-protected for read and write operations.
	WRITE	Password-protected for write operations.
Allocated cylinders/tracks	Number of cylinders or tracks allocated.	
Allocated extents	Number of extents, 1 to 16.	
Percentage used	Percentage of dataset used.	
Creation date	Dataset creation date in format YYYY-MM-DD.	
Last reference	Date of last access in format YYYY-MM-DD.	
Expiration date	Date when the dataset expires in format YYYY-MM-DD. Until this date is reached, each attempt to update or delete the dataset causes a console message, requiring an operator reply.	
Partitioned dataset	These fields appear only if the dataset is partitioned.	
	Number of members	Number of members in the dataset.
	Directory blocks	Number of directory blocks.
	Unused blocks	Number of unused directory blocks.
SMS attributes	These fields appear only if SMS attributes have been defined for the dataset during allocation.	
	Management class	The management class used to obtain the management-related data for SMS (migration, backup and retention criteria) to allocate the dataset.
	Storage class	The storage class used to obtain the storage-related data for dataset allocation.
	Data class	The data class used to obtain the data-related information (SPACE, LRECL, etc.) for dataset allocation.

## Generation Data Groups (GDG)

The properties dialog box for a generation data group looks as follows:



The following information is shown in this dialog box:

Option	Description	
Name	Name of the dataset.	
Limit number	The maximum number of generation datasets that can be associated with the GDG being defined.	
Empty all	When the maximum number of generation datasets is reached:	
	YES	All generation datasets are uncataloged.
	NO	Only the oldest generation dataset is uncataloged.
DSCB clear	When the generation dataset is uncataloged (due to the <b>Delete</b> command or <b>Empty all</b> value):	
	YES	The dataset's DSCB is deleted from the VTOC and the generation dataset is deleted.
	NO	The dataset's DSCB is not deleted from the VTOC. The DSCB is left in the VTOC and the dataset can be processed as any non-VSAM dataset.
Expiration date	Date the dataset expires. Until this date is reached, each attempt to update or delete the dataset causes a console message, requiring an operator reply.	
Model DSN attributes	Organization	For example: PO (PDS), PS (sequential dataset), DA (direct access).
	Record format	For example:

Option	Description		
		FB	Fixed block
		VB	Variable block
		FBA	Fixed block, ANSI control characters
	Record length	Logical record length in bytes.	
	Block size	Block size in bytes.	

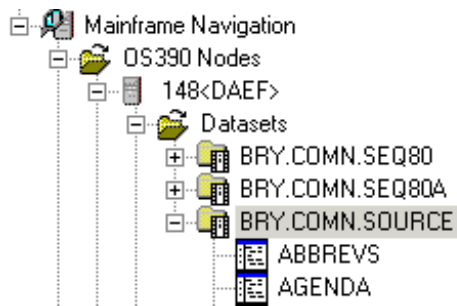


## 8 PDS Members

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In the object workspace, the PDS members are shown when you expand a partitioned dataset. Example:



## Filtering PDS Members

---

Before displaying PDS members, you can define a filter so that only those members are shown which correspond to your filter criteria.

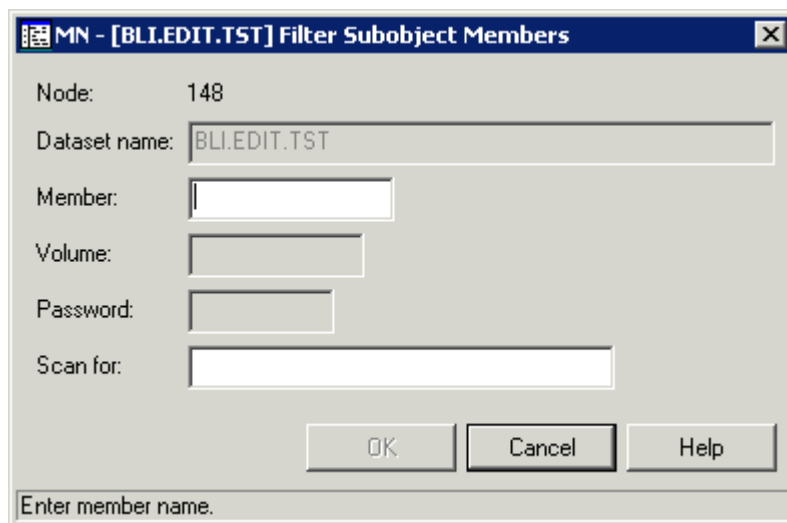
### ► To define a filter

- 1 In the object workspace, select the appropriate dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **Filter Subobject**.

Or:

Press CTRL+F3.

A dialog box appears.



- 3 Enter the filter criteria.

Option	Description
Member	The members that are to be shown. You can use a combination of strings and wildcards (* and _) to display the members matching the member name pattern.
Scan for	When you specify a character string, only the members containing this string will be shown.

- 4 Choose the **OK** button.

## Listing PDS Members

The number of objects shown in the list view window depends on whether or not a filter has been defined for the PDS members (see [Filtering PDS Members](#)).

### ► To list PDS members

- 1 In the object workspace, select the appropriate dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

Or:

Choose the following toolbar button:



The members of the selected dataset are shown in the list view window.

The type of information contained in the list view window depends on whether or not a string has been specified with the **Scan for** option of the filter criteria (see [Filtering PDS Members](#)).

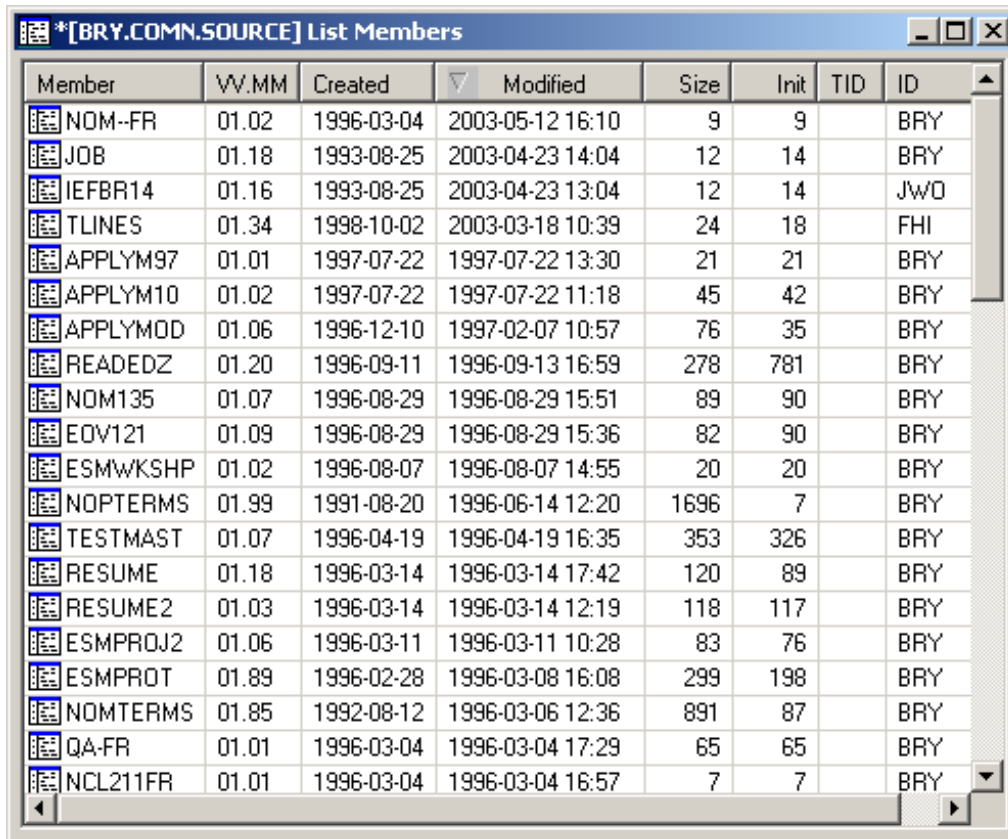
The following topics are covered below:

- [No String has been specified](#)

- A String has been specified

### No String has been specified

When a string has not been specified with the **Scan for** option, all columns of the list are shown.  
Example:



The screenshot shows a window titled "[BRY.COMN.SOURCE] List Members" with a table of member data. The table has columns: Member, VV.MM, Created, Modified, Size, Init, TID, and ID. The data is as follows:

Member	VV.MM	Created	Modified	Size	Init	TID	ID
NOM--FR	01.02	1996-03-04	2003-05-12 16:10	9	9		BRY
JOB	01.18	1993-08-25	2003-04-23 14:04	12	14		BRY
IEFBR14	01.16	1993-08-25	2003-04-23 13:04	12	14		JWO
TLINES	01.34	1998-10-02	2003-03-18 10:39	24	18		FHI
APPLYM97	01.01	1997-07-22	1997-07-22 13:30	21	21		BRY
APPLYM10	01.02	1997-07-22	1997-07-22 11:18	45	42		BRY
APPLYMOD	01.06	1996-12-10	1997-02-07 10:57	76	35		BRY
READEDZ	01.20	1996-09-11	1996-09-13 16:59	278	781		BRY
NOM135	01.07	1996-08-29	1996-08-29 15:51	89	90		BRY
EOV121	01.09	1996-08-29	1996-08-29 15:36	82	90		BRY
ESMWKSH	01.02	1996-08-07	1996-08-07 14:55	20	20		BRY
NOPTERMS	01.99	1991-08-20	1996-06-14 12:20	1696	7		BRY
TESTMAST	01.07	1996-04-19	1996-04-19 16:35	353	326		BRY
RESUME	01.18	1996-03-14	1996-03-14 17:42	120	89		BRY
RESUME2	01.03	1996-03-14	1996-03-14 12:19	118	117		BRY
ESMPROJ2	01.06	1996-03-11	1996-03-11 10:28	83	76		BRY
ESMPROT	01.89	1996-02-28	1996-03-08 16:08	299	198		BRY
NOMTERMS	01.85	1992-08-12	1996-03-06 12:36	891	87		BRY
QA-FR	01.01	1996-03-04	1996-03-04 17:29	65	65		BRY
NCL211FR	01.01	1996-03-04	1996-03-04 16:57	7	7		BRY

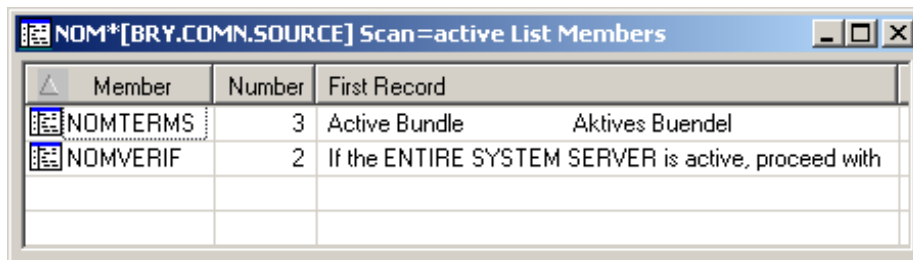
The following columns are provided:

Column	Description
Member	Name of the member.
VV	Version number of the member. When a member is created, this field shows 01.
MM	Modification level: shows the number of times the current version of the member has been modified.
Created	Date the member was created.
Modified	Date and time of last modification.
Size	Number of lines in member.
Init	Initial size of this member.
TID	Terminal ID at which the member was last modified.

Column	Description
ID	User who modified member last.

### A String has been specified

When a string has been specified with the **Scan for** option, only the members which contain this string are shown in the list. For example, when the string “active” has been defined, the list is shown as follows:



Member	Number	First Record
NOMTERMS	3	Active Bundle      Aktives Buendel
NOMVERIF	2	If the ENTIRE SYSTEM SERVER is active, proceed with

The following columns are provided:

Column	Description
Member	Name of the member.
Number	The number of times the string occurs in the member.
First Record	The first line that contains the string in the member.

## Adding a New PDS Member

You can add a new PDS member to a z/OS dataset.

### ► To add a new PDS member

- 1 In the object workspace, select the appropriate dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

An empty new member appears in an editor window in the content pane:

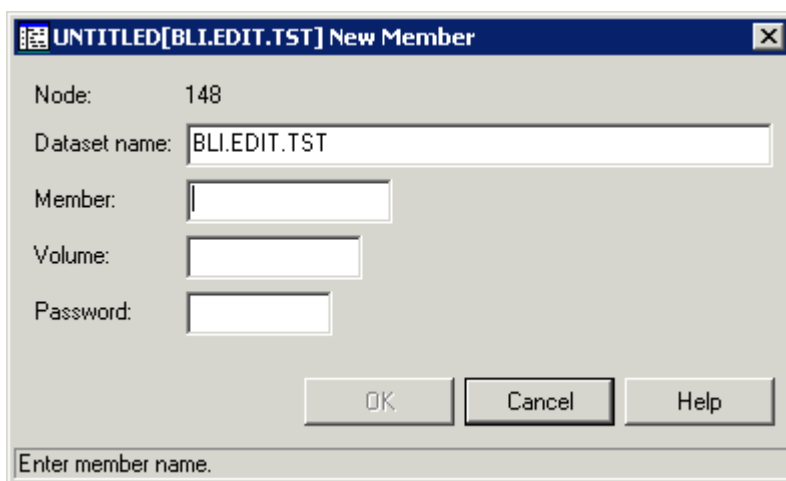


- 3 Enter the data for the new member.

See also [Commands for Editing an Object](#).

- 4 From the **Object** menu, choose **Save As** to save your data in the editor window.

The following dialog box appears.



- 5 Enter the following information:

Option	Description
Member	A name for the new member.
Password	System password if dataset is protected.



**Note:** It is recommended that you do not change any other values and keep the current location for the new member.

- 6 Choose the **OK** button.

## Submitting a PDS Member

---

You can submit a PDS member to the operating system.

### ▶ To submit a PDS member

- 1 Select a member in the object workspace or list view window.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+S.

A dialog box appears, confirming that the member has been submitted.

Follow mode is automatically activated. When the job has terminated, a corresponding message is shown.

## Displaying the Properties of a PDS Member

---

You can display information about a PDS member. Different types of information are shown for normal PDS members and for PDS members of a load library.

### ▶ To display the properties of a PDS member

- 1 Select a member in the object workspace or list view window.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

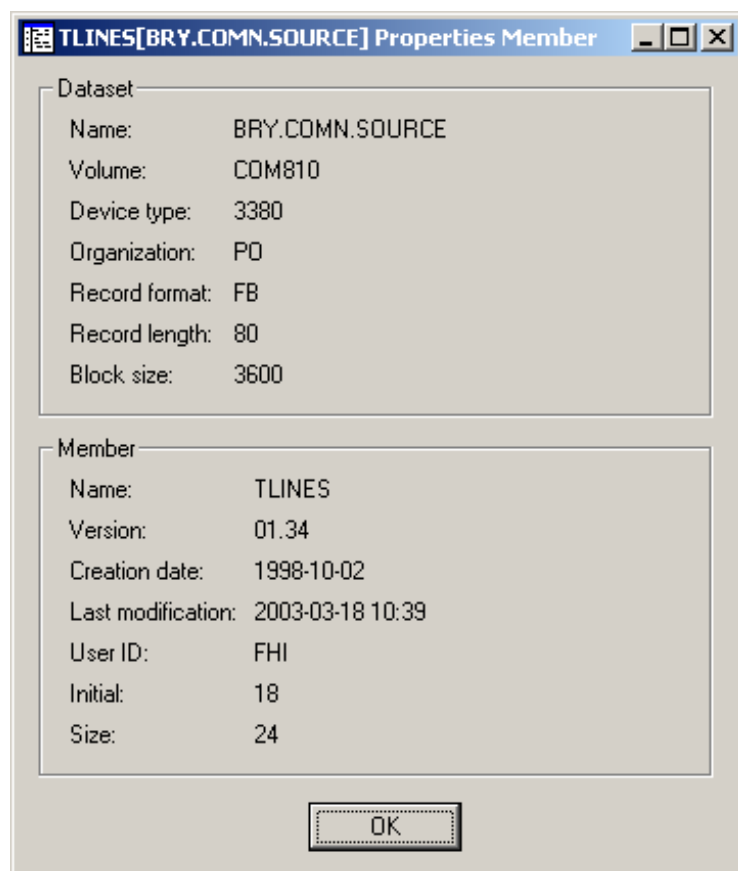
A properties dialog box appears.

The following topics are covered below:

- [Normal PDS Member](#)
- [PDS Member of a Load Library](#)

## Normal PDS Member

The properties dialog box for a normal PDS member looks as follows:



The following information is shown in this dialog box:

Group Box	Option	Description
Dataset	Name	Name of the dataset which contains the member.
	Volume	Serial number of the volume which contains the dataset.
	Device type	The specified volume or the generic identifier from which a volume is to be selected (for example, 3380).
	Organization	For example:



Group Box	Option	Description	
		PO	PDS
		PS	Sequential dataset
		DA	Direct access
	Record format	For example:	
		FB	Fixed block
		VB	Variable block
		FBA	Fixed block, ANSI control characters
	Record length	Record length in bytes.	
	Block size	Block size in bytes.	
Member	Name	Name of the member.	
	Version	Version number of the member.	
	Creation date	Date in format YYYY-MM-DD when the member was created.	
	Last modification	Date in format YYYY-MM-DD when the member was last modified.	
	User ID	User who last modified the member.	
	Initial	Initial size of this version.	
	Size	Number of lines in the member.	

### PDS Member of a Load Library

The properties dialog box for a PDS member of a load library looks as follows:

**TEMPNAME[NOM.IV221.LOAD] Properties Member**

**Dataset**

Name: NOM.IV221.LOAD  
Volume: DCN010  
Device type: 3390  
Organization: PO  
Record format: U  
Record length: 0  
Block size: 6447

**Member**

Name: TEMPNAME  
Length: 1016 Hex: 000003F8  
Attribute: RENT REUS RMODEANY AMODE31  
Entry point: NOMCOMPR  
Linkage date: 2003-07-01  
Linkage editor: 5695DF108 Version: 2.16  
ZAPS: NONE  
Unresolved: NONE

OK

The following information is shown in this dialog box:

Group Box	Option	Description
Dataset	Name	Name of the dataset which contains the member.
	Volume	Serial number of the volume which contains the dataset.
	Device type	The specified volume or the generic identifier from which a volume is to be selected (for example, 3380).
	Organization	For example:
		PO PDS
		PS Sequential dataset
		DA Direct access
	Record format	For example:
		FB Fixed block
		VB Variable block
		FBA Fixed block, ANSI control characters
	Record length	Record length in bytes.

Group Box	Option	Description
	Block size	Block size in bytes.
Member	Name	Name of the member.
	Length	Member's length in bytes.
	Hex	Member's length in bytes in hexadecimal format.
	Attribute	The member's attributes in keyword format. The relevant keywords are separated by one blank. For possible values, see the description of the MODULE-ATTRIBUTES field in the LIB-DIRECTORY view in the <i>Entire System Server User's Guide</i> .
	Entry point	Entry point of the load module.
	Linkage date	Date of linkage/zap in format YYYY-MM-DD.
	Linkage editor	Name of linkage/zap editor.
	Version	Version of linkage/zap editor.
	ZAPS	Displays the number of applied zaps.
	Unresolved	Displays the number of unresolved external references.



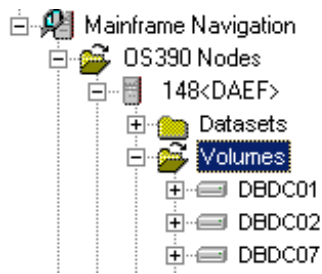
# 9

## z/OS Volumes

---

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In the object workspace, the z/OS volumes are shown when you expand the **Volumes** folder of a z/OS node. Example:



## Filtering z/OS Volumes

---

Before displaying z/OS volumes, you can define a filter so that only those volumes are shown which correspond to your filter criteria.

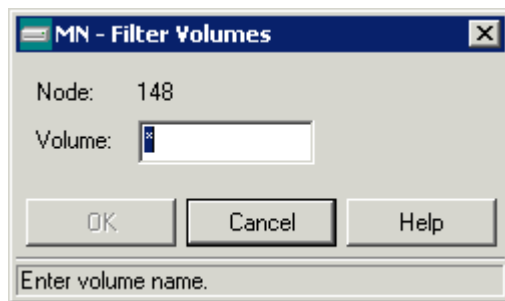
### ► To define a filter

- 1 In the object workspace, select the **Volumes** folder in the appropriate server node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria for the volumes that are to be shown. You can use a combination of strings and wildcards (\* and \_) to display the volumes matching the volume name pattern.
- 4 Choose the **OK** button.

## Listing z/OS Volumes

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/OS volumes (see [Filtering z/OS Volumes](#)).

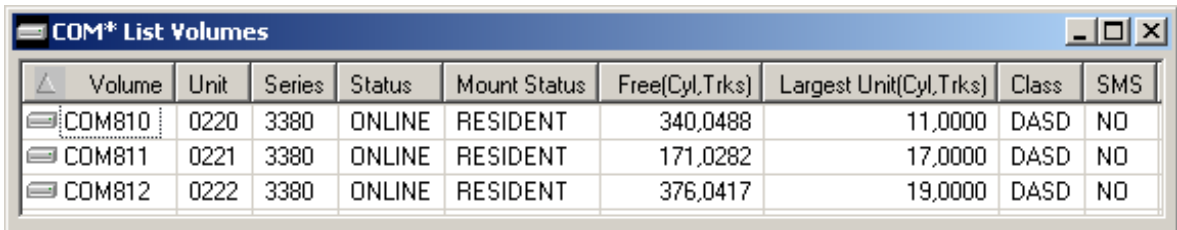
### ► To list z/OS volumes

- 1 In the object workspace, select the **Volumes** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The volumes are shown in the list view window. Example:



Volume	Unit	Series	Status	Mount Status	Free(Cyl,Trks)	Largest Unit(Cyl,Trks)	Class	SMS
COM810	0220	3380	ONLINE	RESIDENT	340,0488	11,0000	DASD	NO
COM811	0221	3380	ONLINE	RESIDENT	171,0282	17,0000	DASD	NO
COM812	0222	3380	ONLINE	RESIDENT	376,0417	19,0000	DASD	NO

The list contains the following columns:

Column	Description										
Volume	Volume serial number.										
Unit	Unit address.										
Series	Device series.										
Status	Device status. Possible values: <table> <tr> <td>CHANGE</td><td>Device status is changing.</td></tr> <tr> <td>OFFLINE</td><td>Device is offline.</td></tr> <tr> <td>ONLINE</td><td>Device is online.</td></tr> </table>	CHANGE	Device status is changing.	OFFLINE	Device is offline.	ONLINE	Device is online.				
CHANGE	Device status is changing.										
OFFLINE	Device is offline.										
ONLINE	Device is online.										
Mount Status	Device mount status. Possible values: <table> <tr> <td>MOUNT PEND</td><td>Mount is pending.</td></tr> <tr> <td>NOT READY</td><td>Device not ready.</td></tr> <tr> <td>REMOVABLE</td><td>Device is removable (for example, a tape).</td></tr> <tr> <td>RESERVED</td><td>Device is reserved.</td></tr> <tr> <td>RESIDENT</td><td>Device is resident (for example, a hard disc).</td></tr> </table>	MOUNT PEND	Mount is pending.	NOT READY	Device not ready.	REMOVABLE	Device is removable (for example, a tape).	RESERVED	Device is reserved.	RESIDENT	Device is resident (for example, a hard disc).
MOUNT PEND	Mount is pending.										
NOT READY	Device not ready.										
REMOVABLE	Device is removable (for example, a tape).										
RESERVED	Device is reserved.										
RESIDENT	Device is resident (for example, a hard disc).										

Column	Description	
Free (Cyl,Trks)	Number of free cylinders / unused tracks.	
Largest Unit (Cyl,Trks)	Contiguous cylinders/tracks in largest free extent.	
Class	Device class. Possible values:	
	COMM	Communications.
	CTCA	Channel-to-channel adapter.
	DASD	Direct access.
	DISP	Display station.
	TAPE	Tape.
	UREC	Unit record.
SMS	SMS-controlled device/unit. Possible values: YES, NO.	

## Filtering Datasets on a z/OS Volume

Before displaying datasets on a z/OS volume, you can define a filter so that only those datasets are shown which correspond to your filter criteria.

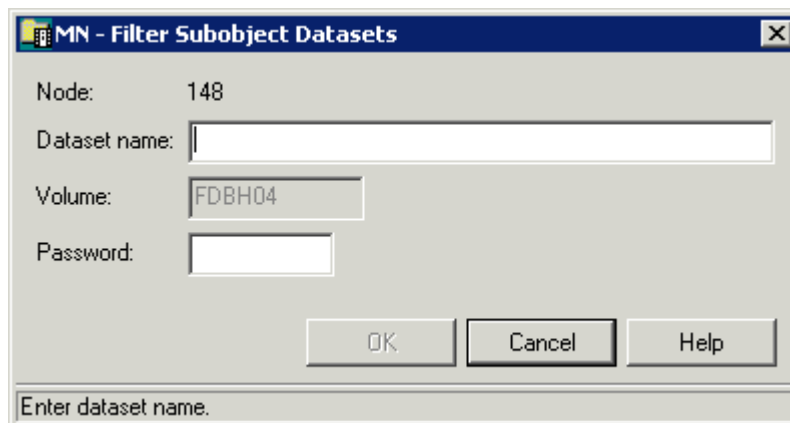
### ► To define a filter

- 1 Select a volume in the object workspace or list view window.
- 2 Invoke the context menu and choose **Filter Subobject**.

Or:

Press CTRL+F3.

The following dialog box appears:



The dialog box titled "MN - Filter Subobject Datasets" contains the following fields and buttons:

- Node:** 148
- Dataset name:** [Empty text box]
- Volume:** FDBH04
- Password:** [Empty text box]
- Buttons:** OK, Cancel, Help
- Status bar:** Enter dataset name.



- 3 Enter the filter criteria.

Option	Description
Dataset name	The datasets that are to be shown. You can use a combination of strings and wildcards (* and _) to display the datasets matching the dataset name pattern.
Password	System password if volume is protected.

- 4 Choose the **OK** button.

## Listing Datasets on a z/OS Volume

The number of objects shown in the list view window depends on whether or not a filter has been defined for the datasets on a z/OS volume (see [Filtering Datasets on a z/OS Volume](#)).

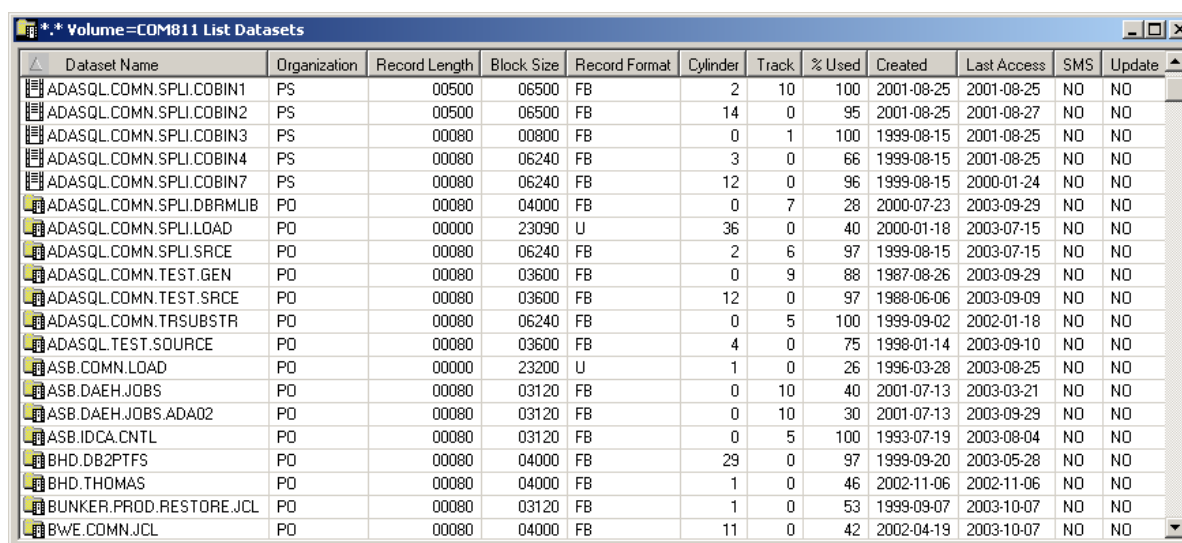
### ► To list datasets on a z/OS volume

- 1 Select a volume in the object workspace or list view window.
- 2 Invoke the context menu and choose the **List** command.

Or:

Press F8.

A list of datasets contained in the catalog is shown in the list view window. Example:



The screenshot shows a window titled "Volume=COMB11 List Datasets". It contains a table with the following columns: Dataset Name, Organization, Record Length, Block Size, Record Format, Cylinder, Track, % Used, Created, Last Access, SMS, and Update. The table lists various datasets such as ADASQL.COMN.SPLI.COBIN1, ADASQL.COMN.SPLI.COBIN2, ADASQL.COMN.SPLI.COBIN3, ADASQL.COMN.SPLI.COBIN4, ADASQL.COMN.SPLI.COBIN7, ADASQL.COMN.SPLI.DBRMLIB, ADASQL.COMN.SPLI.LOAD, ADASQL.COMN.SPLI.SRCE, ADASQL.COMN.TEST.GEN, ADASQL.COMN.TEST.SRCE, ADASQL.COMN.TRSUBSTR, ADASQL.TEST.SOURCE, ASB.COMN.LOAD, ASB.DAEH.JOBS, ASB.DAEH.JOBS.ADA02, ASB.IDCA.CNTL, BHD.DB2PTFS, BHD.THOMAS, BUNKER.PROD.RESTORE.JCL, and BWE.COMN.JCL.

Dataset Name	Organization	Record Length	Block Size	Record Format	Cylinder	Track	% Used	Created	Last Access	SMS	Update
ADASQL.COMN.SPLI.COBIN1	PS	00500	06500	FB	2	10	100	2001-08-25	2001-08-25	NO	NO
ADASQL.COMN.SPLI.COBIN2	PS	00500	06500	FB	14	0	95	2001-08-25	2001-08-27	NO	NO
ADASQL.COMN.SPLI.COBIN3	PS	00080	00800	FB	0	1	100	1999-08-15	2001-08-25	NO	NO
ADASQL.COMN.SPLI.COBIN4	PS	00080	06240	FB	3	0	66	1999-08-15	2001-08-25	NO	NO
ADASQL.COMN.SPLI.COBIN7	PS	00080	06240	FB	12	0	96	1999-08-15	2000-01-24	NO	NO
ADASQL.COMN.SPLI.DBRMLIB	PO	00080	04000	FB	0	7	28	2000-07-23	2003-09-29	NO	NO
ADASQL.COMN.SPLI.LOAD	PO	00000	23090	U	36	0	40	2000-01-18	2003-07-15	NO	NO
ADASQL.COMN.SPLI.SRCE	PO	00080	06240	FB	2	6	97	1999-08-15	2003-07-15	NO	NO
ADASQL.COMN.TEST.GEN	PO	00080	03600	FB	0	9	88	1987-08-26	2003-09-29	NO	NO
ADASQL.COMN.TEST.SRCE	PO	00080	03600	FB	12	0	97	1988-06-06	2003-09-09	NO	NO
ADASQL.COMN.TRSUBSTR	PO	00080	06240	FB	0	5	100	1999-09-02	2002-01-18	NO	NO
ADASQL.TEST.SOURCE	PO	00080	03600	FB	4	0	75	1998-01-14	2003-09-10	NO	NO
ASB.COMN.LOAD	PO	00000	23200	U	1	0	26	1996-03-28	2003-08-25	NO	NO
ASB.DAEH.JOBS	PO	00080	03120	FB	0	10	40	2001-07-13	2003-03-21	NO	NO
ASB.DAEH.JOBS.ADA02	PO	00080	03120	FB	0	10	30	2001-07-13	2003-09-29	NO	NO
ASB.IDCA.CNTL	PO	00080	03120	FB	0	5	100	1993-07-19	2003-08-04	NO	NO
BHD.DB2PTFS	PO	00080	04000	FB	29	0	97	1999-09-20	2003-05-28	NO	NO
BHD.THOMAS	PO	00080	04000	FB	1	0	46	2002-11-06	2002-11-06	NO	NO
BUNKER.PROD.RESTORE.JCL	PO	00080	03120	FB	1	0	53	1999-09-07	2003-10-07	NO	NO
BWE.COMN.JCL	PO	00080	04000	FB	11	0	42	2002-04-19	2003-10-07	NO	NO

The list contains the following columns:

Column	Description	
Dataset Name	The name of the dataset.	
Organization	Dataset organization, for example:	
	DA	Direct access.
	PO	Partitioned dataset (PDS).
	POE	Partitioned dataset (PDSE).
	PS	Sequential dataset.
Record Length	Logical record length in bytes.	
Block Size	Block size in bytes.	
Record Format	Record format, for example:	
	F	Fixed length record.
	FB	Fixed blocked record.
	FBA	Fixed blocked record, ANSI control characters.
	U	Unformatted record.
	V	Variable record.
	VB	Variable blocked record.
Cylinder	Size of dataset in cylinders.	
Track	Size of dataset in tracks.	
%Used	Percentage of dataset used.	
Created	Dataset creation date.	
Last Access	Date of last access.	
SMS	Is this an SMS-controlled device/unit (YES, NO)?	
Update	Has the file been updated since the last backup (YES, NO)?	

## Displaying the Properties of a z/OS Volume

---

You can display information about a z/OS volume.

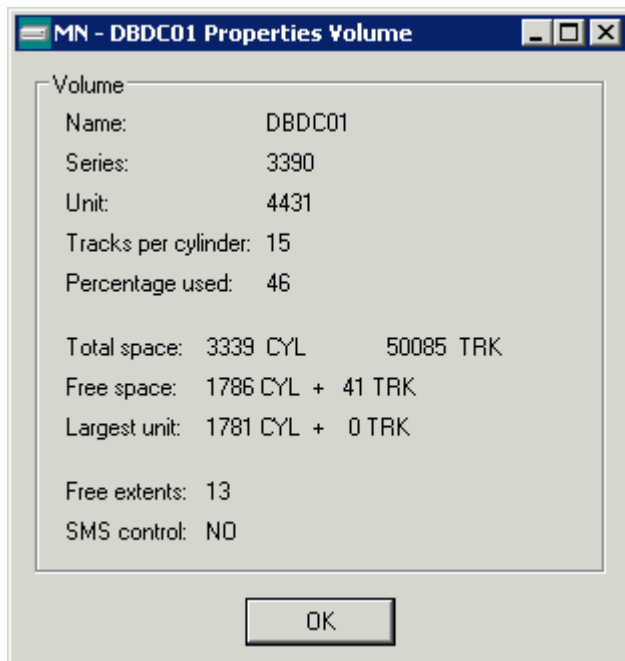
### To display the properties of a z/OS volume

- 1 Select a volume in the object workspace or list view window.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.



The following information is shown in this dialog box:

Option	Description
Name	Volume serial number.
Series	Device series.
Unit	Unit address.
Tracks per cylinder	Number of tracks per cylinder.
Percentage used	Percentage of disk used.
Total space	Total number of cylinders on disk pack.
Free space	Number of free cylinders and tracks on disk pack.
Largest unit	Number of cylinders and tracks in largest free extent.
Free extents	Number of free extents on disk pack.
SMS control	SMS-controlled device/unit (YES, NO).



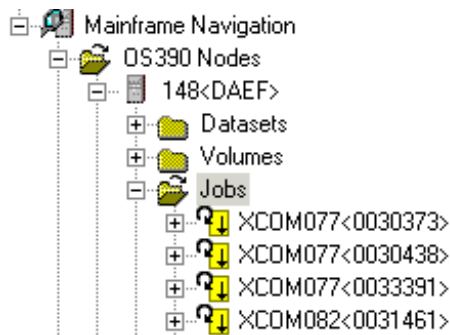
# 10

## z/OS Jobs

---

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■ Listing z/OS Jobs .....	103
■ Displaying the Condition Codes of a z/OS Job .....	105
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■ Turning on Follow Mode for a z/OS Job .....	107
■ Turning off Follow Mode for a z/OS Job .....	108

In the object workspace, the z/OS jobs are shown when you expand the **Jobs** folder of a z/OS node. Example:



## Filtering z/OS Jobs

Before displaying z/OS jobs, you can define a filter so that only those jobs are shown which correspond to your filter criteria.

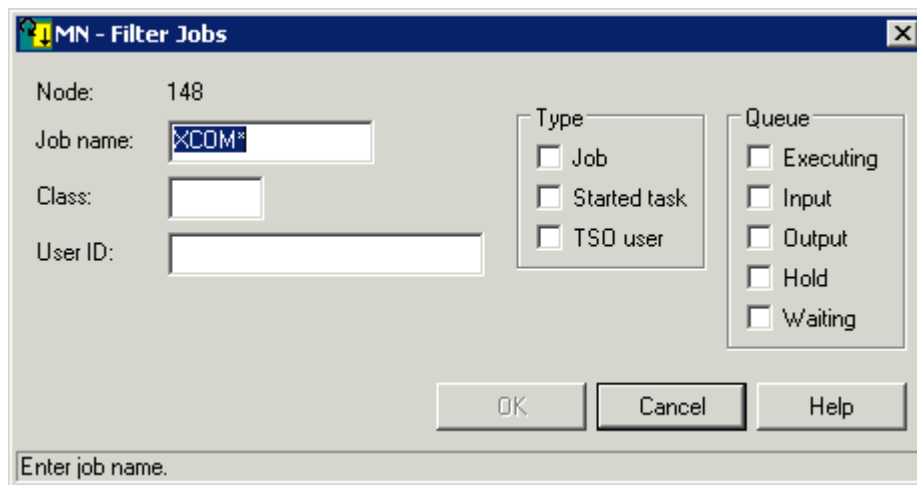
### ► To define a filter

- 1 In the object workspace, select the **Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria.

Option	Description	
Job name	Job name on the job card. You can use a combination of strings and wildcards (* and _) to display the jobs matching the job name pattern.	
Class	JES job class or output class.	
User ID	ID of the user who submitted the job.	
Type	<p>If you are only interested in a specific type of job, you can activate one or more of the following check boxes:</p> <p>Job (standard operating system job)  Started task  TSO user</p> <p>When none of these check boxes is selected, all information is always shown.</p>	
Queue	If you are only interested in specific queues, you can activate up to four check boxes for the JES queue type:	
	Executing	Executing queue.
	Input	Input queue (held and non-held jobs).
	Output	Output queue.
	Hold	Output queue jobs on hold.
	Waiting	Input queue jobs on hold.
	When none of these check boxes is selected, the information from all queues is always shown.	

- 4 Choose the **OK** button.

## Listing z/OS Jobs

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/OS jobs (see [Filtering z/OS Jobs](#)).

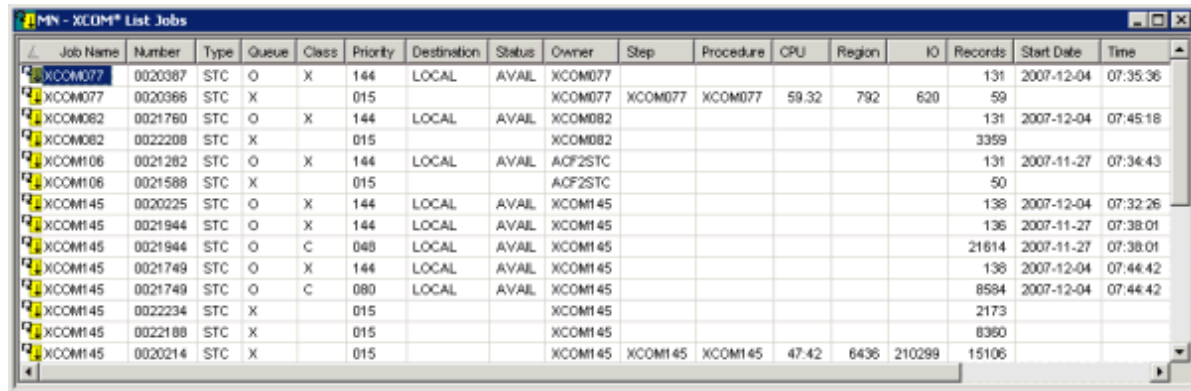
### ► To list z/OS jobs

- 1 In the object workspace, select the **Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

A list of jobs is shown in the list view window. Example:



Job Name	Number	Type	Queue	Class	Priority	Destination	Status	Owner	Step	Procedure	CPU	Region	IO	Records	Start Date	Time
XCOM077	0020387	STC	O	X	144	LOCAL	AVAIL	XCOM077						131	2007-12-04	07:35:36
XCOM077	0020386	STC	X		015			XCOM077	XCOM077	XCOM077	59.32	792	620	59		
XCOM082	0021760	STC	O	X	144	LOCAL	AVAIL	XCOM082						131	2007-12-04	07:45:18
XCOM082	0022208	STC	X		015			XCOM082						3359		
XCOM106	0021282	STC	O	X	144	LOCAL	AVAIL	ACF2STC						131	2007-11-27	07:34:43
XCOM106	0021588	STC	X		015			ACF2STC						50		
XCOM145	0020225	STC	O	X	144	LOCAL	AVAIL	XCOM145						138	2007-12-04	07:32:26
XCOM145	0021944	STC	O	X	144	LOCAL	AVAIL	XCOM145						136	2007-11-27	07:38:01
XCOM145	0021944	STC	O	C	048	LOCAL	AVAIL	XCOM145						21614	2007-11-27	07:38:01
XCOM145	0021749	STC	O	X	144	LOCAL	AVAIL	XCOM145						138	2007-12-04	07:44:42
XCOM145	0021749	STC	O	C	080	LOCAL	AVAIL	XCOM145						8584	2007-12-04	07:44:42
XCOM145	0022234	STC	X		015			XCOM145						2173		
XCOM145	0022188	STC	X		015			XCOM145						8360		
XCOM145	0020214	STC	X		015			XCOM145	XCOM145	XCOM145	47.42	6436	210299	15106		

The list contains the following columns:

Column	Description								
Job Name	Name of the job.								
Number	JES job number.								
Type	Type of job. Possible values: <table> <tr> <td>JOB</td><td>Standard operating system job.</td></tr> <tr> <td>STC</td><td>Started task.</td></tr> <tr> <td>TSO</td><td>TSO user.</td></tr> </table>	JOB	Standard operating system job.	STC	Started task.	TSO	TSO user.		
JOB	Standard operating system job.								
STC	Started task.								
TSO	TSO user.								
Queue	JES queue type. Possible values: <table> <tr> <td>H</td><td>Output queue jobs on hold.</td></tr> <tr> <td>I</td><td>Input queue (held and non-held jobs).</td></tr> <tr> <td>O</td><td>Output queue.</td></tr> <tr> <td>X</td><td>Executing queue.</td></tr> </table>	H	Output queue jobs on hold.	I	Input queue (held and non-held jobs).	O	Output queue.	X	Executing queue.
H	Output queue jobs on hold.								
I	Input queue (held and non-held jobs).								
O	Output queue.								
X	Executing queue.								
Class	JES job class (when the queue type is I or X) or output class (when the queue type is O or H).								
Priority	JES priority within the current queue.								
Destination	JES printout destination name.								
Status	Job status (can be AVAIL or HOLD).								
Owner	ID of the user who submitted the job.								
Step	Name of the step currently executed (only when the job is active).								
Procedure	Name of the procedure currently executed (only when the job is active).								
CPU	CPU time in minutes consumed by the address space (only when the job is active).								
Region	Amount of real storage used by the address space in Kbytes (only when the job is active).								
IO	Number of I/Os performed so far (only when the job is active).								
Records	Total number of records in job sysout files.								
Start Date	Date when job execution started.								
Time	Time when job execution started.								



Column	Description
End Date	Date when job execution ended.
Time	Time when job execution ended.
System ID	System in which the job executes in a Sysplex environment.

## Displaying the Condition Codes of a z/OS Job

When you display the condition codes of a job, they are shown in a browse window.

### ► To display the condition codes of a z/OS job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

A browse window similar to the following appears in the content pane.



Num	Text
1	2 //STARTING EXEC XCOM077
2	4 XXXCOM077 EXEC PGM=NPRINIT,REGION=8M,TIME=1440 00000017

See also [Commands for Browsing an Object](#).

## Displaying the Status of a z/OS Job

You can check whether a job is executing or whether it is in the input queue or output queue.

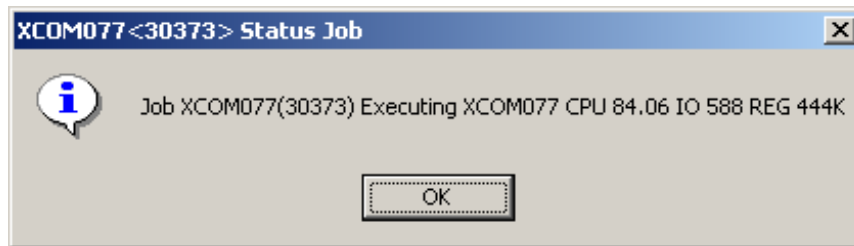
### ► To display the status of a z/OS job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Status**.

Or:

Press CTRL+F10.

The job status is displayed in a dialog box in the content pane. Example:



- 3 Choose the **OK** button to close the dialog box.

---

## Putting a z/OS Job on Hold

You can put the sysout of a job on hold.

### ▶ To put a z/OS job on hold

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Hold**.

All job sysout is put on hold.

---

## Releasing a z/OS Job from Hold

When the sysout of a job has been put on hold, you can release it from hold.

### ▶ To release a z/OS job from hold

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Release**.

All job sysout is released from hold.

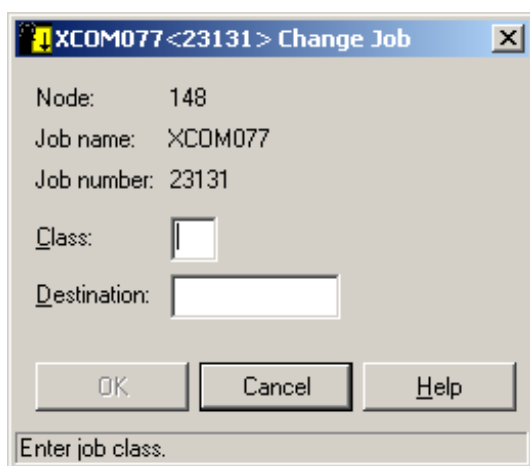
## Changing the Attributes of a z/OS Job

You can change the class and/or destination of a z/OS job.

► **To change the attributes of a z/OS job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Change**.

The following dialog box appears:



- 3 Enter the new attributes.
- 4 Choose the **OK** button.

## Turning on Follow Mode for a z/OS Job

You can instruct Mainframe Navigation to display a message when the job has terminated.

Follow mode can be active for one job only. If it is activated for a second job before the first job has terminated, only the second job will be followed.

► **To turn on follow mode for a z/OS job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow**.

## Turning off Follow Mode for a z/OS Job

---

When you turn off follow mode, a message is no longer displayed.

▶ **To turn off follow mode for a z/OS job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow Off**.

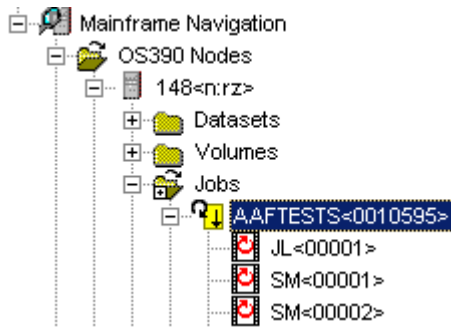
# 11

## z/OS Sysout Datasets

---

■ Listing z/OS Sysout Datasets .....	110
■ Releasing a z/OS Sysout Dataset from Hold .....	111
■ Changing the Attributes of a z/OS Sysout Dataset .....	112

In the object workspace, the sysout datasets are shown when you expand a job. Example:



## Listing z/OS Sysout Datasets

Different types of files are shown when you list the z/OS datasets for a job. The names of these files start with the following characters: JC (input JCL), SI (sysin data) SM (system messages) and SO (sysout data).

### ► To list z/OS sysout datasets

- 1 In the object workspace, select a job in the **Jobs** folder.

Or:

Select a job in the list view window which shows a [list of jobs](#).

- 2 Invoke the context menu and choose **List**.

The sysout datasets of the job are shown in the list view window. Example:

XCOM077<30456> List Sysout datasets												
File	Number	Procedure	Step	DD	Class	Records	Copies	Form	FCB	Writer	Flash	
JL	1			JESJCLIN	Z	2	1	STD	XXXX		XXXX	
SM	1		JES2	JESMSG LG	Z	2	1	STD	XXXX		XXXX	
SM	2		JES2	JESJCL	Z	42	1	STD	XXXX		XXXX	
SM	3		JES2	JESYSMSG	Z	2	1	STD	XXXX		XXXX	
SO	1		XCOM077	SYS PRINT	X	0	1	STD	XXXX		XXXX	

The list contains the following columns:

Column	Description
File	File type.
Number	File number.
Procedure	Procedure being executed.
Step	Job step referencing the file.
DD	DD name.
Class	Output class.
Records	Number of records in the file.
Copies	Number of file copies.
Form	Print form.
FCB	Form control buffer.
Writer	External writer.
Flash	Form overlay (flash).

## Releasing a z/OS Sysout Dataset from Hold

You can release a single sysout dataset of a z/OS job from hold.

### ► To release a z/OS sysout dataset from hold

- 1 In the object workspace, expand a job in the **Jobs** folder.

Or:

Invoke the list view window which shows the sysout datasets for a job.

- 2 Select a sysout dataset.
- 3 Invoke the context menu and choose **Release**.

The selected job sysout is released from hold.

## Changing the Attributes of a z/OS Sysout Dataset

---

You can change the class and/or destination of a z/OS sysout dataset.

► **To change the attributes of a z/OS sysout dataset**

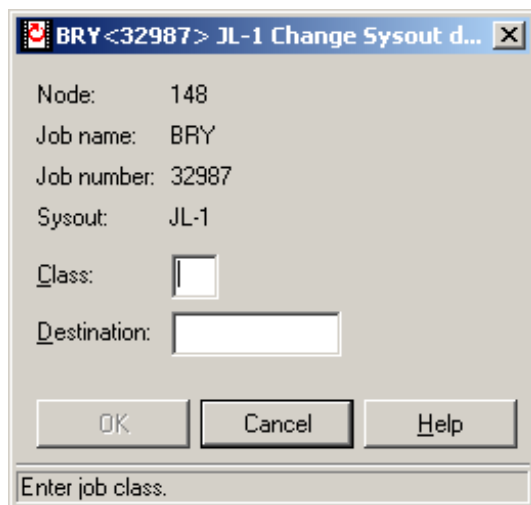
- 1 In the object workspace, expand a job in the **Jobs** folder.

Or:

Invoke the list view window which shows the sysout datasets for a job.

- 2 Select a z/OS sysout dataset.
- 3 Invoke the context menu and choose **Change**.

The following dialog box appears:



- 4 Enter the new attributes.
- 5 Choose the **OK** button.



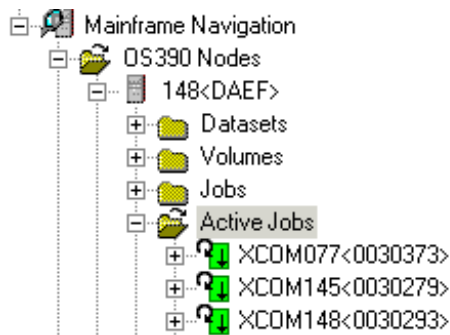
# 12

## z/OS Active Jobs

---

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■ Listing z/OS Active Jobs .....	115
■ Listing Sysout Datasets of a z/OS Active Job .....	117
■ Displaying the Condition Codes of a z/OS Active Job .....	117
■ Turning on Follow Mode for a z/OS Active Job .....	118
■ Turning off Follow Mode for a z/OS Active Job .....	118

In the object workspace, z/OS active jobs are shown when you expand the **Active Jobs** folder. Example:



## Filtering z/OS Active Jobs

---

Before displaying z/OS active jobs, you can define a filter so that only those active jobs are shown which correspond to your filter criteria.

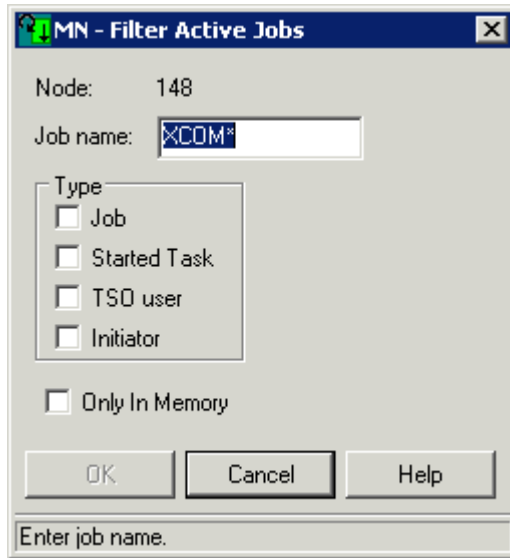
### ► To define a filter

- 1 In the object workspace, select the **Active Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria.

Option	Description
Job name	Job name. You can use a combination of strings and wildcards (*) and _ to display the jobs matching the job name pattern.
Type	<p>If you are only interested in a specific type of job, you can activate up to three check boxes:</p> <p>Job (standard operating system job)  Started task  TSO user  Initiator (job entry system initiator)</p> <p>When none of these check boxes is selected, all information is always shown.</p>
Only in memory	Activate this check box to display only in-memory active jobs.

- 4 Choose the **OK** button.

## Listing z/OS Active Jobs

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/OS active jobs (see [Filtering z/OS Active Jobs](#)).

### ► To list z/OS active jobs

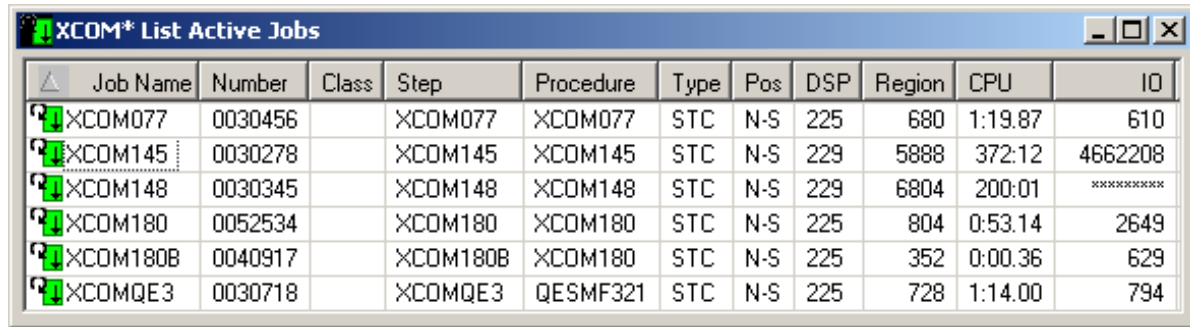
- 1 In the object workspace, select the **Active Jobs** folder in the appropriate node.

- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The active jobs are shown in the list view window. Example:



Job Name	Number	Class	Step	Procedure	Type	Pos	DSP	Region	CPU	IO
XCOM077	0030456		XCOM077	XCOM077	STC	N-S	225	680	1:19.87	610
XCOM145	0030278		XCOM145	XCOM145	STC	N-S	229	5888	372:12	4662208
XCOM148	0030345		XCOM148	XCOM148	STC	N-S	229	6804	200:01	*****
XCOM180	0052534		XCOM180	XCOM180	STC	N-S	225	804	0:53.14	2649
XCOM180B	0040917		XCOM180B	XCOM180	STC	N-S	225	352	0:00.36	629
XCOMQE3	0030718		XCOMQE3	QESMF321	STC	N-S	225	728	1:14.00	794

The list contains the following columns:

Column	Description	
Job Name	Name of the job.	
Number	JES job number.	
Class	JES2 batch initiator class(es) (JOB- or INI-type jobs only).	
Step	Name of the step currently being executed.	
Procedure	Name of the procedure currently being executed.	
Type	Type of job. Possible values:	
	INI	Job entry system initiator.
	JOB	Standard operating system job.
	STC	Started task.
	TSU	TSO user.
Pos	IN	Job is in memory.
	N-S	Not swappable.
	OUT	Job is not in memory.
DSP	Dispatching priority.	
Region	Amount of real storage used by address space in Kbytes.	
CPU	CPU time in minutes consumed by the address space.	
IO	Number of I/Os performed so far.	

## Listing Sysout Datasets of a z/OS Active Job

---

Different types of files are shown when you list the sysout datasets for an active job. The names of these files start with the following characters: JC (input JCL), SI (sysin data) SM (system messages) and SO (sysout data).

### ► To list sysout datasets of a z/OS active job

- 1 In the object workspace, select an active job in the **Active Jobs** folder.

Or:

Select an active job in the list view window which shows a list of active jobs.

- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The sysout datasets of the active job are shown in the list view window.

For a description of the columns in the list view window, see [Listing z/OS Sysout Datasets](#).

## Displaying the Condition Codes of a z/OS Active Job

---

When you display the condition codes of a job, they are shown in a browse window.

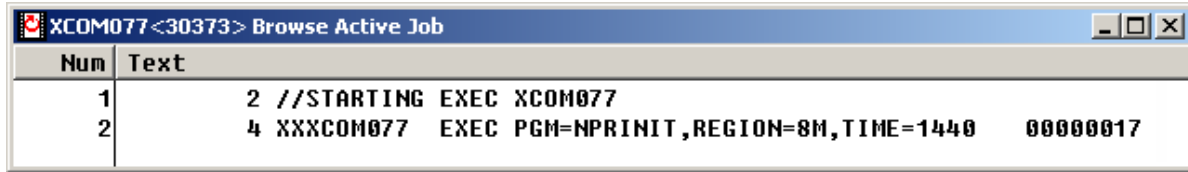
### ► To display the condition codes of a z/OS active job

- 1 Select an active job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

A browse window similar to the following appears in the content pane.



Num	Text
1	2 //STARTING EXEC XCOM077
2	4 XXXCOM077 EXEC PGM=NPRINIT,REGION=8M,TIME=1440 00000017

See also [Commands for Browsing an Object](#).

---

## Turning on Follow Mode for a z/OS Active Job

You can instruct Mainframe Navigation to display a message when the active job has terminated.

Follow mode can be active for one job only. If it is activated for a second job before the first job has terminated, only the second job will be followed.

### ► To turn on follow mode for a z/OS active job

- 1 Select an active job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow**.

---

## Turning off Follow Mode for a z/OS Active Job

When you turn off follow mode, a message is no longer displayed.

### ► To turn off follow mode for a z/OS active job

- 1 Select an active job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow Off**.

# 13

## Support of Natural ISPF Object Exits under z/OS

---

Natural ISPF provides a number of user exits written in Natural (see *Administration Guide > User Exits* in the Natural ISPF documentation).

Under z/OS, Mainframe Navigation supports the following Natural ISPF object exits:

ISPA---U	z/OS active jobs.
ISPC---U	Console.
ISPD---U	z/OS data sets.
ISPG---U	Syslog.
ISPJ---U	z/OS jobs.
ISPP---U	PDS members.
ISPS---U	z/OS sysout files.
ISPZ---U	z/OS volumes.

### ► To activate the ISPF object exits for Mainframe Navigation

- In the library `SYSLIB` on your mainframe, rename the module `ANEXIT-X` to `ANEXIT-N`.

There are the following differences in function codes for object exits of Mainframe Navigation:

- The data parameter `#FUNCTION` is enhanced by the `SEND (SE)` function.
- Mainframe Navigation uses the `DELETE (DL)` function instead of the `PURGE (PG)` function.
- The `SUBMIT (SB)` function returns the SAG Editor session number in the format `SES=n` or `SES=nn` (where *n* is a one-digit and *nn* is a two-digit session number) in the `#OPTIONS` field when the session is rebuilt on the server (see also the description of the session exit `ISP--S-U`).

### Known Restrictions

- The entries in Natural ISPF's configuration member CONFIG are not considered. To activate object exits, the module ANEXIT-N and the corresponding ISPx--U modules have to be available in the library SYSLIB on your mainframe.
- The administrator must take care that no user interaction is allowed within the object exit; that is, the modification of session parameters by object exits cannot be confirmed.
- Warnings (#ERROR-NR, #ERROR-PARM) will be displayed only if the function is forbidden (#ERROR-CODE greater than zero).
- Options (#OPTIONS) are not supported, except for the SUBMIT function (see above).



# V

## Managing z/VSE Objects

---

This part covers the following topics:

[z/VSE Files](#)

[z/VSE Sublibraries](#)

[z/VSE Members](#)

[z/VSE Volumes](#)

[z/VSE Jobs](#)

[z/VSE Active Jobs](#)



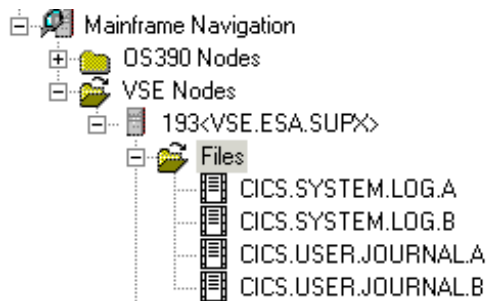
# 14

## z/VSE Files

---

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■ Allocating a z/VSE File .....	129
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In the object workspace, the z/VSE files are shown when you expand the **Files** folder of a z/VSE node. Example:



## Filtering z/VSE Files

---

Before displaying z/VSE files, you can define a filter so that only those files are shown which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select the **Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:

A screenshot of the 'Filter VSE Files' dialog box. The title bar says 'Filter VSE Files'. Inside, there are five input fields: 'Node:' with the value '193', 'Library/Dataset name:', 'Volume:', 'VSAM catalog:', and 'Password:'. At the bottom right are three buttons: 'OK', 'Cancel', and 'Help'. At the bottom left is a text prompt: 'Enter library or dataset name.'

- 3 Enter the filter criteria.

Option	Description
Library/Dataset name	The files that are to be displayed. You can use a combination of strings and wildcards (* and _) to display the files matching the dataset name pattern.
Volume	If you do not specify a volume, only the files are listed which are currently known to Entire System Server.  If you do specify a volume, the files contained in the specified volume are listed.
VSAM catalog	Name of VSAM catalog where the library is kept. Not required if dataset is defined in standard labels.
Password	System password if the files are protected. Must be specified irrespective of read or write protection.

- 4 Choose the **OK** button.

## Listing z/VSE Files

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/VSE files (see [Filtering z/VSE Files](#)).

### ► To list z/VSE files

- 1 In the object workspace, select the **Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The list view window appears.

The type of information contained in the list view window depends on whether or not filter criteria for **Volume** have been defined (see [Filtering z/VSE Files](#)).

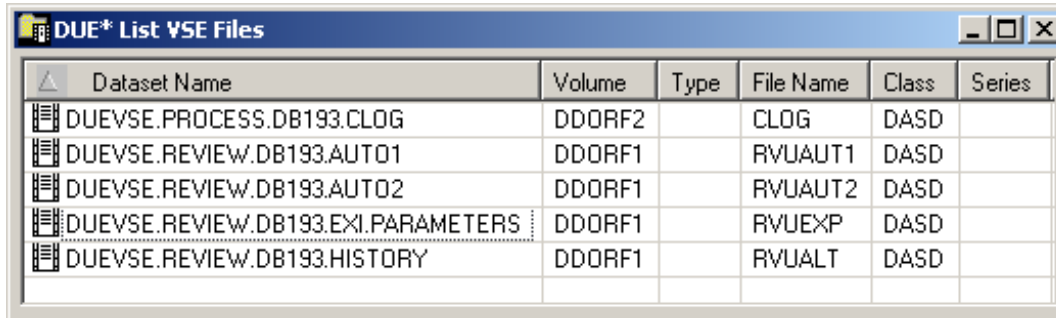
The following topics are covered below:

- [No Volume has been specified](#)

- A Volume has been specified

### No Volume has been specified

When a volume has not been specified with the **Filter** command, only the files are listed which are currently known to Entire System Server. Example:



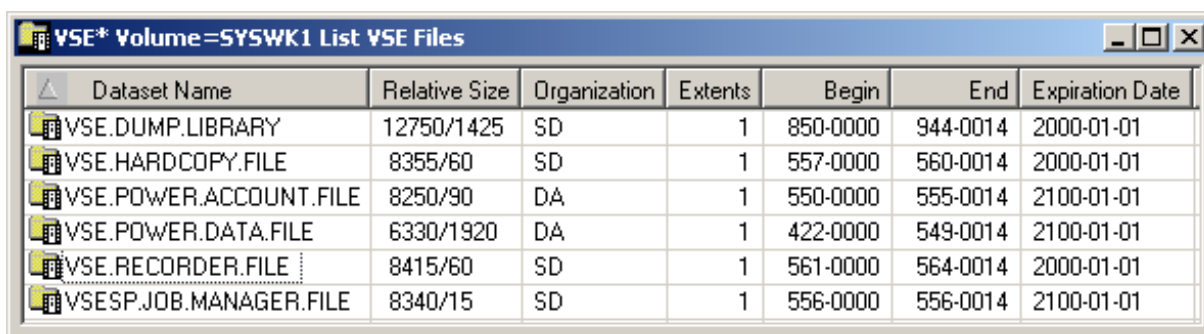
Dataset Name	Volume	Type	File Name	Class	Series
DUEVSE.PROCESS.DB193.CLOG	DDORF2		CLOG	DASD	
DUEVSE.REVIEW.DB193.AUTO1	DDORF1		RVJAUT1	DASD	
DUEVSE.REVIEW.DB193.AUTO2	DDORF1		RVJAUT2	DASD	
DUEVSE.REVIEW.DB193.EXI.PARAMETERS	DDORF1		RVUEXP	DASD	
DUEVSE.REVIEW.DB193.HISTORY	DDORF1		RVJALT	DASD	

Since no volume was specified, the list of files appears as shown above with the following columns:

Column	Description				
Dataset Name	Name of the file.				
Volume	Volume serial number.				
Type	Library type. Possible values: <table border="1"> <tr> <td>&lt;blank&gt;</td><td>No librarian file.</td></tr> <tr> <td>LIBR</td><td>z/VSE librarian file.</td></tr> </table>	<blank>	No librarian file.	LIBR	z/VSE librarian file.
<blank>	No librarian file.				
LIBR	z/VSE librarian file.				
File Name	Library name (standard label or name generated by Entire System Server (NPRL $nnn$ )).				
Class	Device class, for example: <table border="1"> <tr> <td>DASD</td><td>Direct access.</td></tr> <tr> <td>TAPE</td><td>Tape.</td></tr> </table>	DASD	Direct access.	TAPE	Tape.
DASD	Direct access.				
TAPE	Tape.				
Series	Device series.				

### A Volume has been specified

When a volume has been specified with the **Filter** command, the files contained in the specified volume are shown. Example:



Dataset Name	Relative Size	Organization	Extents	Begin	End	Expiration Date
VSE.DUMP.LIBRARY	12750/1425	SD	1	850-0000	944-0014	2000-01-01
VSE.HARDCOPY.FILE	8355/60	SD	1	557-0000	560-0014	2000-01-01
VSE.POWER.ACCOUNT.FILE	8250/90	DA	1	550-0000	555-0014	2100-01-01
VSE.POWER.DATA.FILE	6330/1920	DA	1	422-0000	549-0014	2100-01-01
VSE.RECORDER.FILE	8415/60	SD	1	561-0000	564-0014	2000-01-01
VSESP.JOB.MANAGER.FILE	8340/15	SD	1	556-0000	556-0014	2100-01-01

Since a volume was specified, the list of files appears as shown above with the following columns:

Column	Description	
Dataset Name	Name of the file.	
Relative Size	For a CKD disk:	Starting block and number of blocks on which the file resides.
	For an FBA disk:	Size of the file in blocks.
Organization	Dataset organization. Possible values:	
	DA	Direct access.
	SD	Sequential disk.
	UN	Unknown or unidentified.
	VS	VSAM.
Extents	Number of extents.	
Begin	Combination of "Starting cylinder head" and "block number" on which the file resides.	
End	Combination of "Ending cylinder head" and "block number" on which the file resides.	
Expiration Date	Date on which the file will expire. Until this date is reached, each attempt to update or delete the file will cause a console message, requiring an operator reply.	

## Managing Recent z/VSE Files

Mainframe Navigation internally maintains a list of the 100 files most recently accessed by the user. This list is stored at the end of a session and is read when Mainframe Navigation is started.

The following topics are covered below:

- [Listing Recent z/VSE Files](#)
- [Removing a z/VSE File from the List of Recent Files](#)

- Synchronizing the List of Recent Files for z/VSE Files

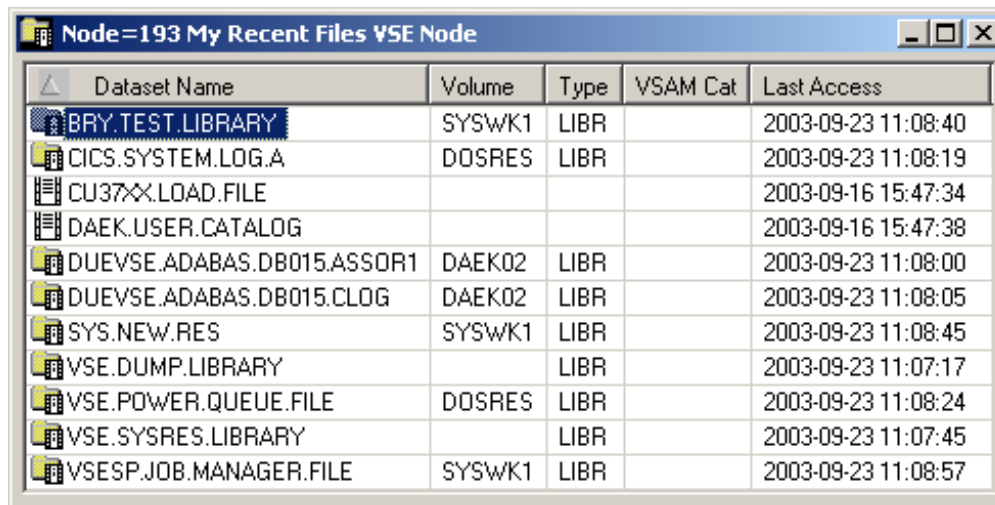
## Listing Recent z/VSE Files

All commands that are available for files can also be invoked from the list of recent files.

### ► To list recently-used z/VSE files

- 1 In the object workspace, select the **Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **My Recent Files**.

The list view window containing recently-used files appears in the content pane. Example:



Dataset Name	Volume	Type	VSAM Cat	Last Access
BRY.TEST.LIBRARY	SYSWK1	LIBR		2003-09-23 11:08:40
CICS.SYSTEM.LOG.A	DOSRES	LIBR		2003-09-23 11:08:19
CU37XX.LOAD.FILE				2003-09-16 15:47:34
DAEK.USER.CATALOG				2003-09-16 15:47:38
DUEVSE.ADABAS.DB015.ASSOR1	DAEK02	LIBR		2003-09-23 11:08:00
DUEVSE.ADABAS.DB015.CLOG	DAEK02	LIBR		2003-09-23 11:08:05
SYS.NEW.RES	SYSWK1	LIBR		2003-09-23 11:08:45
VSE.DUMP.LIBRARY		LIBR		2003-09-23 11:07:17
VSE.POWER.QUEUE.FILE	DOSRES	LIBR		2003-09-23 11:08:24
VSE.SYSRES.LIBRARY		LIBR		2003-09-23 11:07:45
VSESP.JOB.MANAGER.FILE	SYSWK1	LIBR		2003-09-23 11:08:57

The list view window contains the following columns:

Column	Description
Dataset Name	Name of the file.
Volume	Volume serial number.
Type	Library type. Possible values:
	<blank> No librarian file.
	LIBR z/VSE librarian file.
VSAM Cat	Name of the VSAM catalog where the library is kept.
Last Access	Date (YYYY-MM-DD) and time the file was last accessed.



## Removing a z/VSE File from the List of Recent Files

You can remove a file from the list of recent files. This does not delete the file on the server.

### ▶ To remove a z/VSE file from the list of recent files

- 1 In the list of recent files, select the dataset to be removed.
- 2 Invoke the context menu and choose **Remove from list**.

## Synchronizing the List of Recent Files for z/VSE Files

You can synchronize the list of recent files with the data on the server. List entries which no longer exist on the server (for example, because they have been renamed or deleted) are deleted from the list of recent files.

### ▶ To synchronize the list of recent files for z/VSE files

- 1 In the object workspace, select the **Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **Synchronize**.

A dialog box appears, asking to confirm the synchronize function for the selected object.

- 3 Choose the **Yes** button to synchronize the list of recent files.

## Allocating a z/VSE File

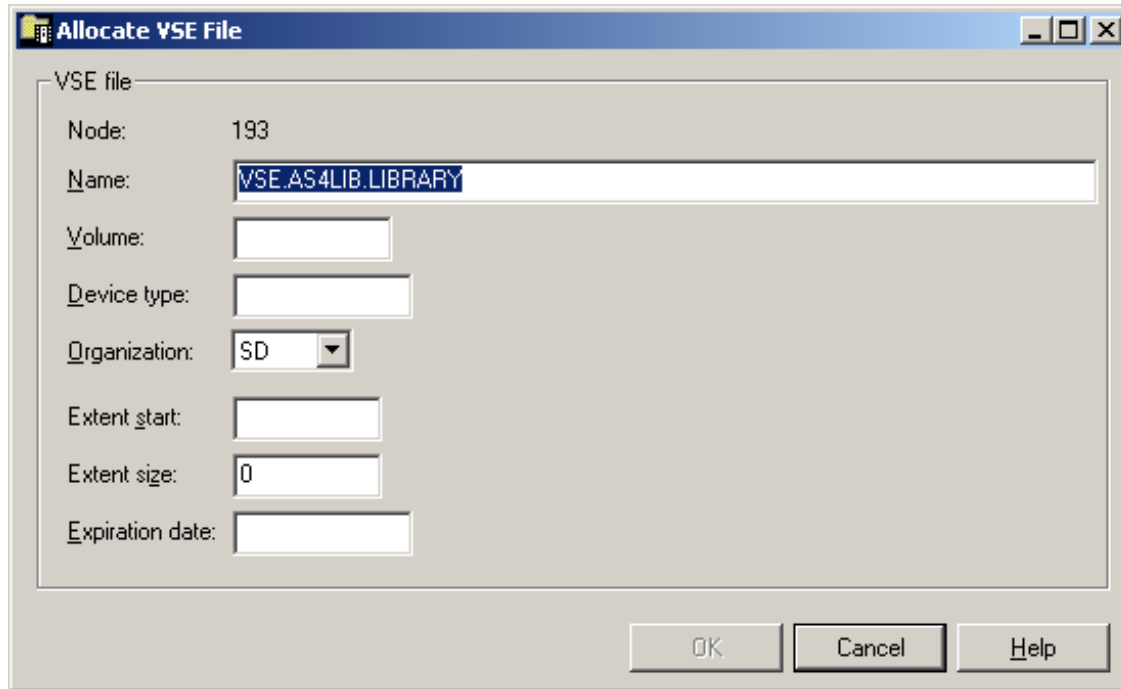
---

This command is generally issued for an existing file. The allocation information for the existing item is displayed and you can overwrite the name and modify the specifications for the new item.

### ▶ To allocate a z/VSE file

- 1 In the object workspace, select a file either in the **Files** folder or in the **z/VSE Volumes** folder.
- 2 Invoke the context menu and choose **Allocate**.

The following window appears in the content pane:



The image shows a Windows-style dialog box titled "Allocate VSE File". It contains several input fields for file allocation parameters. The "Node" field is set to "193". The "Name" field contains "VSE.AS4LIB.LIBRARY" and is highlighted. The "Volume" field is empty. The "Device type" field is empty. The "Organization" field is a dropdown menu currently showing "SD". The "Extent start" field is empty. The "Extent size" field is set to "0". The "Expiration date" field is empty. At the bottom right, there are three buttons: "OK", "Cancel", and "Help".

- 3 Enter a new name for the file and enter or change other parameters as described in the table below:

Option	Description
Node	Node containing the file.
Name	File name.
Volume	Serial number of the volume on which the file is to be allocated.
Device type	If you do not specify a volume, specify the generic identifier from which a volume is to be selected (for example, 3380).
Organization	Possible values:
	SD Sequential disk.
	SD/L Sequential disk, Librarian file.
	VS VSAM.
	VS/L VSAM, Librarian file.
	DA Direct access.
Extent start	Track number on CKD disks and block number on FBA disks on which extent is to start. If you leave this text box blank, any free space is found and allocated.
Extent size	Tracks on CKD disks and blocks on FBA disks.
Expiration date	Date when the file expires. Until this date is reached, each attempt to update or delete the file causes a console message, requiring an operator reply.

- 4 Choose the **OK** button.

A dialog box appears, informing you that the file was allocated at a specific track number.

- 5 Choose the **Yes** button to allocate another file.

Or:

Choose the **No** button to finish allocation.

## Displaying the Properties of a z/VSE File

You can display information about a z/VSE file.

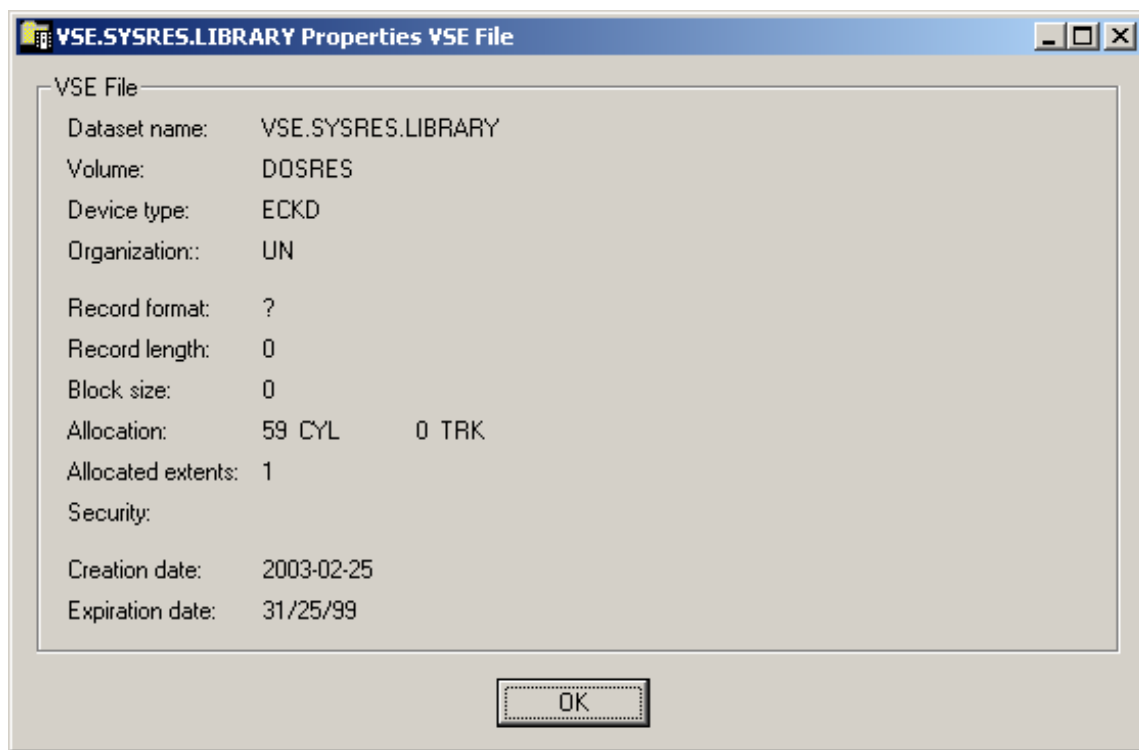
### ► To display the properties of a z/VSE file

- 1 In the object workspace, select the appropriate file in the **Files** folder.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

The following dialog box appears:



The following information is shown in this dialog box:

Option	Description	
Dataset name	Name of the file.	
Volume	Serial number of the volume on which the file is allocated.	
Device type	If a volume is not specified, this is the generic identifier from which a volume is to be selected (for example, 3380).	
Organization	Dataset organization. Possible values:	
	DA	Direct access.
	SD	Sequential disk.
	UN	Unknown or unidentified.
	VS	VSAM.
Record format	For example:	
	FB	Fixed block.
	VB	Variable block.
	FBA	Fixed block, ANSI control characters.
Record length	Logical record length in bytes.	
Block size	Block size in bytes.	
Allocation	Allocated cylinders and tracks.	
Allocated extents	Number of extents.	
Security	Security status. Possible values:	
	NONE	Not password-protected.
	READ	Password-protected for read and write operations.
	WRITE	Password-protected for write operations.
Creation date	File creation date in format YYYY-MM-DD.	
Expiration date	Date when the file expires. Until this date is reached, each attempt to update or delete the file causes a console message, requiring an operator reply.	

## Filtering the Sublibraries of a z/VSE File

---

See *Filtering the Sublibraries of a z/VSE File* in the section *z/VSE Sublibraries*.

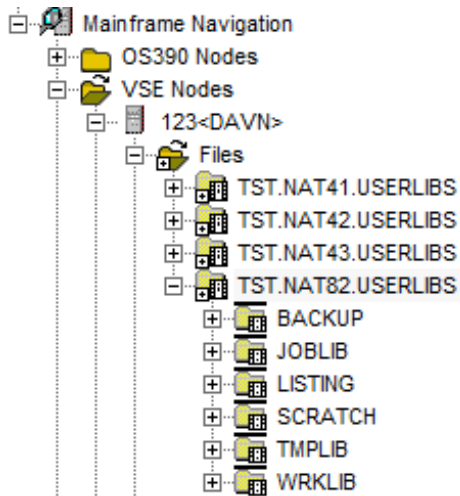
# 15

## z/VSE Sublibraries

---

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▪ Filtering Members of a z/VSE Sublibrary .....	136
▪ Adding a New Member to a z/VSE Sublibrary .....	136

In the object workspace, the z/VSE sublibraries are shown when you expand a z/VSE file. Example:



## Filtering the Sublibraries of a z/VSE File

---

Before displaying the sublibraries of a z/VSE file, you can define a filter so that only those files are listed which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select the appropriate file in the **Files** folder.

Or:

Select a file in the list view window which shows a **list of sublibraries**.

- 2 Invoke the context menu and choose either **Filter Subobject** (when a file has been selected in the **Files** folder) or **Filter** (when a file has been selected in the list view window) .

Or:

Press either CTRL+F3 (for the **Filter Subobject** command) or F3 (for the **Filter** command) .

A dialog box appears. Its name in the title bar depends on the command that has been used.

 **Note:** When you have chosen the **Filter Subobject** command, several text boxes are dimmed.

- 3 Enter the filter criteria.

Option	Description
Library/Dataset name *	The files that are to be displayed. You can use a combination of strings and wildcards (* and _) to display the files matching the dataset name pattern.
Sublibrary	The sublibraries that are to be shown. You can use a combination of strings and wildcards (* and _) to display the sublibraries matching the sublibrary name pattern.
Volume *	If you do not specify a volume, only the files are listed which are currently known to Entire System Server. If you do specify a volume, the files contained in the specified volume are listed.
VSAM catalog *	Name of the VSAM catalog where the library is kept. Not required if dataset is defined in standard labels.

\* Cannot be modified with the **Filter Subobject** command.

- 4 Choose the **OK** button.

## Listing the Sublibraries of a z/VSE File

The number of objects shown in the list view window depends on whether or not a filter has been defined for the sublibraries of a z/VSE file (see [Filtering the Sublibraries of a z/VSE File](#)).

### ► To list the sublibraries of a z/VSE file

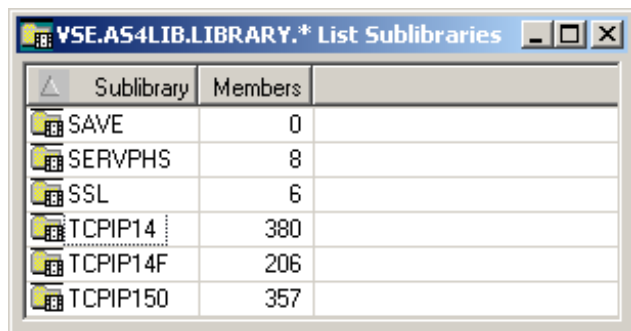
- 1 In the object workspace, select the appropriate file in the **Files** folder.

- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The sublibraries of the selected file are shown in the list view window:



Sublibrary	Members
SAVE	0
SERVPHS	8
SSL	6
TCPIP14	380
TCPIP14F	206
TCPIP150	357

The number of members contained in a sublibrary is listed in the **Members** column.

## Filtering Members of a z/VSE Sublibrary

---

See [Filtering Members of a z/VSE Sublibrary](#) in the section *z/VSE Librarian Members*.

## Adding a New Member to a z/VSE Sublibrary

---

See [Adding a New z/VSE Member](#) in the section *z/VSE Librarian Members*.



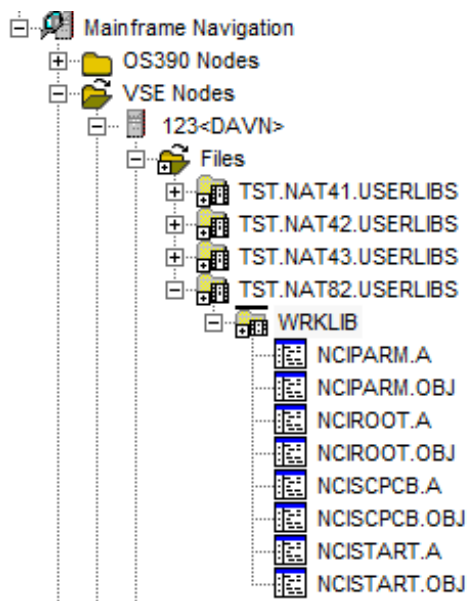
# 16

## z/VSE Librarian Members

---

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■ Adding a New z/VSE Member .....	142
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■ Displaying the Properties of a z/VSE Member .....	144

In the object workspace, the z/VSE librarian members are shown when you expand a z/VSE sub-library. Example:



## Filtering Members of a z/VSE Sublibrary

---

Before displaying the members of a z/VSE sublibrary, you can define a filter so that only those members are shown which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select a sublibrary of a z/VSE file.

Or:

Select a z/VSE member in the list view window which shows a **list of members**.

- 2 Invoke the context menu and choose either **Filter Subobject** (when a file has been selected) or **Filter** (when a member has been selected).

Or:

Press either CTRL+F3 (for the **Filter Subobject** command) or F3 (for the **Filter** command).

A dialog box appears. Its name in the title bar depends on the command that has been used.

**Filter Librarian Members**

Node: 55521

Library/Dataset name: APS.DEV.LIBRARY

Sub library: APS260

Member:

Member type:

Volume:

VSAM catalog:

Password:

Scan for:

OK Cancel Help

Enter member name.



**Note:** When you have chosen the **Filter Subobject** command, several text boxes are dimmed.

- 3 Enter the filter criteria.

Option	Description
Library/Dataset name *	z/VSE file which contains the sublibrary.
Sublibrary *	z/VSE sublibrary which contains the member.
Member	The members that are to be shown. You can use a combination of strings and wildcards (* and _) to display the members matching the member name pattern.
Member type	Enter the filter criteria for a user-defined member type which has been specified in the corresponding text box at creation time.
Volume *	Volume serial number (non-VSAM installations).
VSAM catalog *	A name appears here only if the dataset has no label definition.
Password *	System password if file is protected (VSAM only).
Scan for	Enter a search string contained in the member.

\* Cannot be modified with the **Filter Subobject** command.

- 4 Choose the **OK** button.

## Listing Members of a z/VSE Sublibrary

The number of objects shown in the list view window depends on whether or not a filter has been defined for the members of a z/VSE sublibrary (see [Filtering Members of a z/VSE Sublibrary](#)).

### ► To list the members of a z/VSE sublibrary

- 1 In the object workspace, select a sublibrary of a z/VSE file.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The members of the selected sublibrary are shown in the list view window.

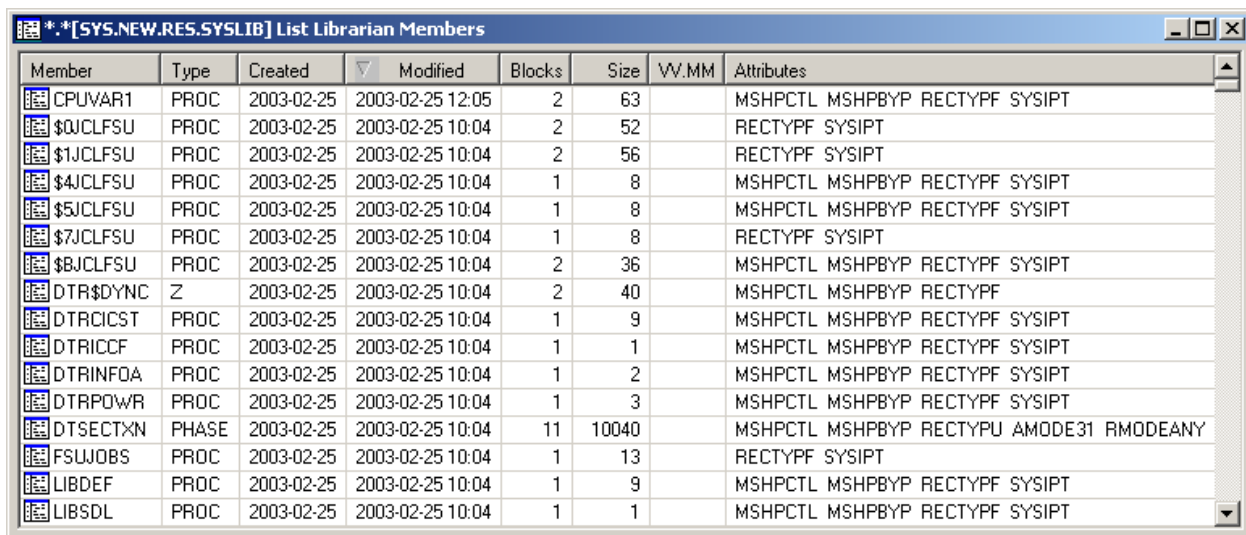
The type of information contained in the list view window depends on whether or not a string has been specified with the **Scan for** option of the filter criteria (see [Filtering Members of a z/VSE Sublibrary](#)).

The following topics are covered below:

- [No String has been specified](#)
- [A String has been specified](#)

### No String has been specified

When a string has not been specified with the **Scan for** option, all columns of the list are shown.



The screenshot shows a window titled '\*.[SYS.NEW.RES.SYSLIB] List Librarian Members'. It contains a table with the following columns: Member, Type, Created, Modified, Blocks, Size, VV.MM, and Attributes. The table lists various sublibrary members, including CPUVAR1, \$WCLFSU, \$JCLFSU, \$4JCLFSU, \$5JCLFSU, \$7JCLFSU, \$BJCLFSU, DTR\$DYNC, DTRCICST, DTRICCF, DTRINFOA, DTRPOWR, DTSECTXN, FSUJOBS, LIBDEF, and LIBSDL.

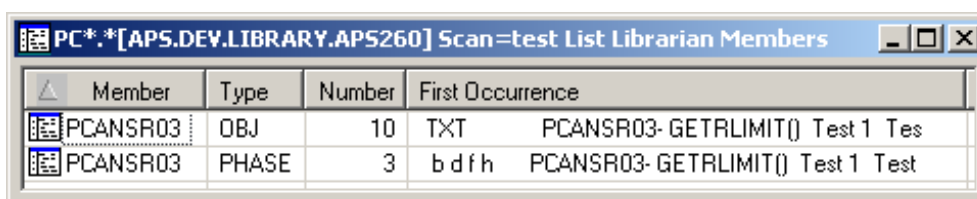
Member	Type	Created	Modified	Blocks	Size	VV.MM	Attributes
CPUVAR1	PROC	2003-02-25	2003-02-25 12:05	2	63		MSHPCTL MSHPBYP RECTYPF SYSIPT
\$WCLFSU	PROC	2003-02-25	2003-02-25 10:04	2	52		RECTYPF SYSIPT
\$JCLFSU	PROC	2003-02-25	2003-02-25 10:04	2	56		RECTYPF SYSIPT
\$4JCLFSU	PROC	2003-02-25	2003-02-25 10:04	1	8		MSHPCTL MSHPBYP RECTYPF SYSIPT
\$5JCLFSU	PROC	2003-02-25	2003-02-25 10:04	1	8		MSHPCTL MSHPBYP RECTYPF SYSIPT
\$7JCLFSU	PROC	2003-02-25	2003-02-25 10:04	1	8		RECTYPF SYSIPT
\$BJCLFSU	PROC	2003-02-25	2003-02-25 10:04	2	36		MSHPCTL MSHPBYP RECTYPF SYSIPT
DTR\$DYNC	Z	2003-02-25	2003-02-25 10:04	2	40		MSHPCTL MSHPBYP RECTYPF
DTRCICST	PROC	2003-02-25	2003-02-25 10:04	1	9		MSHPCTL MSHPBYP RECTYPF SYSIPT
DTRICCF	PROC	2003-02-25	2003-02-25 10:04	1	1		MSHPCTL MSHPBYP RECTYPF SYSIPT
DTRINFOA	PROC	2003-02-25	2003-02-25 10:04	1	2		MSHPCTL MSHPBYP RECTYPF SYSIPT
DTRPOWR	PROC	2003-02-25	2003-02-25 10:04	1	3		MSHPCTL MSHPBYP RECTYPF SYSIPT
DTSECTXN	PHASE	2003-02-25	2003-02-25 10:04	11	10040		MSHPCTL MSHPBYP RECTYPU AMODE31 RMODEANY
FSUJOBS	PROC	2003-02-25	2003-02-25 10:04	1	13		RECTYPF SYSIPT
LIBDEF	PROC	2003-02-25	2003-02-25 10:04	1	9		MSHPCTL MSHPBYP RECTYPF SYSIPT
LIBSDL	PROC	2003-02-25	2003-02-25 10:04	1	1		MSHPCTL MSHPBYP RECTYPF SYSIPT

The following columns are provided:

Column	Description
Member	Member name.
Type	Member type.
Created	Date on which the member was created.
Modified	Date and time of last modification.
Blocks	Number of blocks occupied by member.
Size	Number of records in member.
VV.MM	Version number and modification level of the current version of the member. If this field is not blank, previous versions for this member exist, and Natural ISPF versioning is active when this member is edited.
Attributes	Attributes of objects and phases.

### A String has been specified

When a string has been specified with the **Scan for** option, only the members which contain this string are shown in the list. For example, when the string "test" has been defined, the list is shown as follows:



Member	Type	Number	First Occurrence
PCANSR03	OBJ	10	TXT PCANSR03- GETRLIMIT() Test 1 Tes
PCANSR03	PHASE	3	b d f h PCANSR03- GETRLIMIT() Test 1 Test

The following columns are provided:

Column	Description
Member	Name of member.
Type	Member type.
Number	The number of times the string occurs in the member.
First Occurrence	The first line that contains the string in the member.

## Adding a New z/VSE Member

---

You can add a new member to a z/VSE sublibrary.

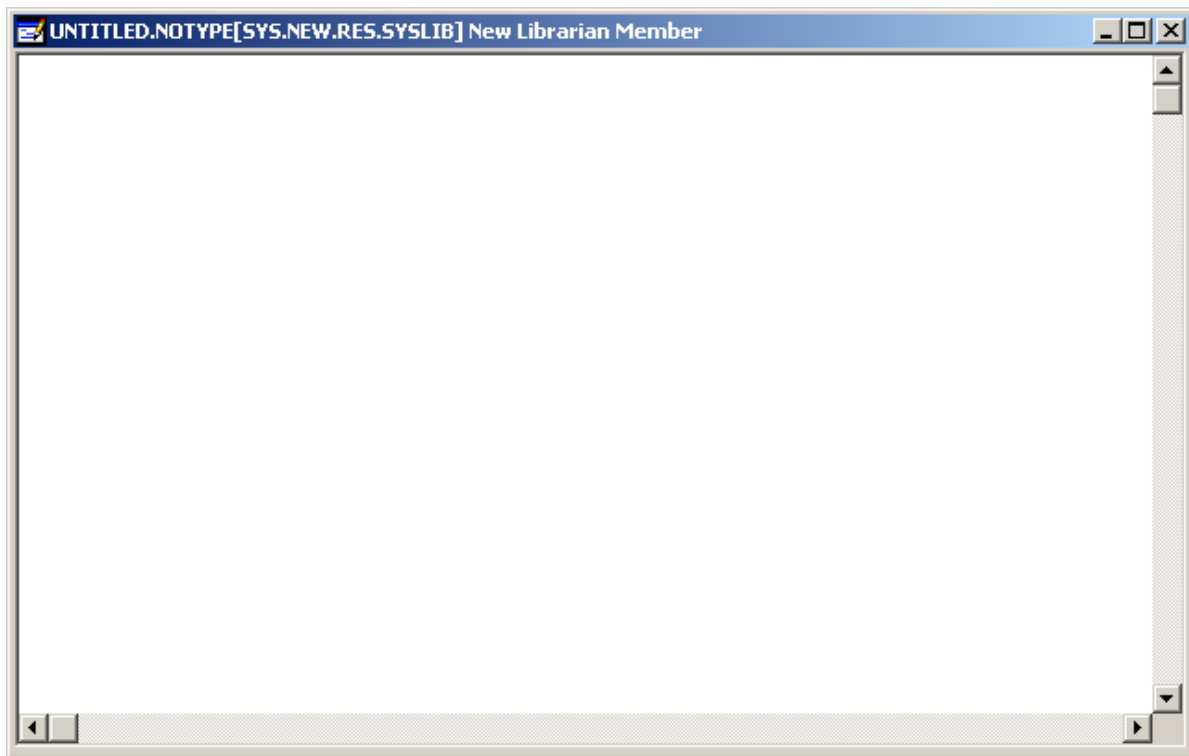
► **To add a new member**

- 1 In the object workspace, select the appropriate sublibrary of a z/VSE file.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

An empty new member appears in an editor window in the content pane:



- 3 Enter the data for the new member.

See also [Commands for Editing an Object](#).

- 4 From the **Object** menu, choose **Save As** to save your data in the editor window.

The following dialog box appears.

- 5 Enter the following information:

Option	Description	
Library/Dataset name	Displays the dataset name last used. You can select any other dataset by overwriting this name. You can also enter a library name here (standard label), which is the name you are advised to use in direct command syntax.	
Sublibrary	z/VSE sublibrary.	
Member	Member name.	
Member type	Members can be grouped and listed according to a user-defined type specified in this text box at creation time.	
Volume	Volume serial number (non-VSAM installations). Required only if the dataset has no label definition.	
VSAM catalog	Required only if the dataset has no label definition (VSAM installations).	
Password	Enter the system password if the file is protected. Must be specified irrespective of read or write protection (VSAM only).	
MSHP protect	Activate this check box to bypass MSHP protection. Otherwise, leave this check box blank (relevant only for the <b>Edit</b> command).	
Inline data	Relevant only for the <b>Edit</b> command. Choose one of the following option buttons:	
	Yes	Indicates that the member contains SYSIPT data.
	No	Indicates that the member does not contain SYSIPT data.
	Off	Switches off the SYSIPT flag for the existing member.

- 6 Choose the **OK** button.

## Submitting a z/VSE Member

---

You can submit a z/VSE member to the operating system.

### To submit a z/VSE member

- 1 Select a member in the object workspace or list view window.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+S.

A dialog box appears, confirming that the member has been submitted.

Follow mode is automatically activated. When the job has terminated, a corresponding message is shown.

- 3 Choose the **OK** button to close the dialog box.

## Displaying the Properties of a z/VSE Member

---

You can display information about a z/VSE member.

### To display the properties of a z/VSE member

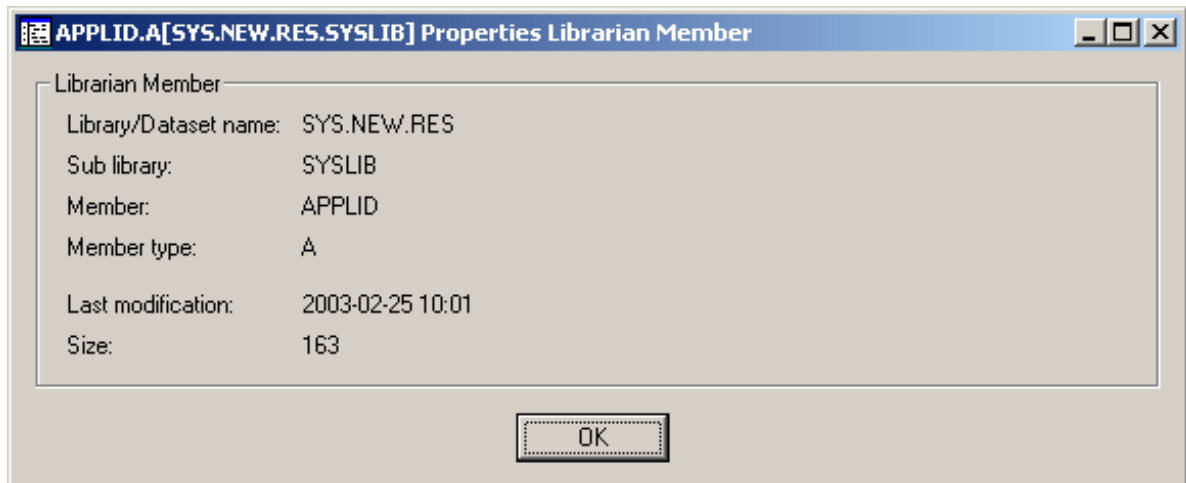
- 1 Select a member in the object workspace or list view window.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.





The following information is shown in this dialog box:

Option	Description
Library/Dataset name	Name of the library or dataset which contains the sublibrary.
Sublibrary	Name of the sublibrary which contains the member.
Member	Name of the member.
Member type	User-defined member type which has been specified in the corresponding text box at creation time.
Last modification	Date (YYYY-MM-DD) and time of last modification.
Size	Number of records in the member.



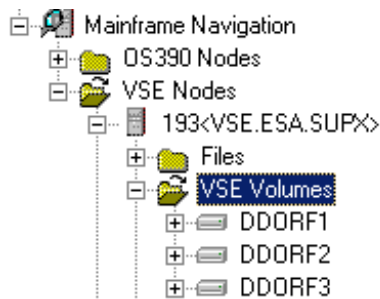
# 17

## z/VSE Volumes

---

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■ Listing z/VSE Volumes .....	149
■ Filtering Files on z/VSE Volumes .....	150
■ Listing Files on a z/VSE Volume .....	151

In the object workspace, the z/VSE volumes are shown when you expand the **VSE Volumes** folder of a z/VSE node. Example:



## Filtering z/VSE Volumes

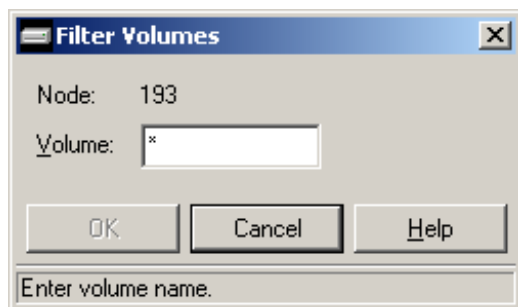
---

Before displaying z/VSE volumes, you can define a filter so that only those volumes are shown which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select the **VSE Volumes** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

The following dialog box appears:



- 3 Enter the filter criteria for the volumes that are to be shown.
- 4 Choose the **OK** button.

## Listing z/VSE Volumes

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/VSE volumes (see [Filtering z/VSE Volumes](#)).

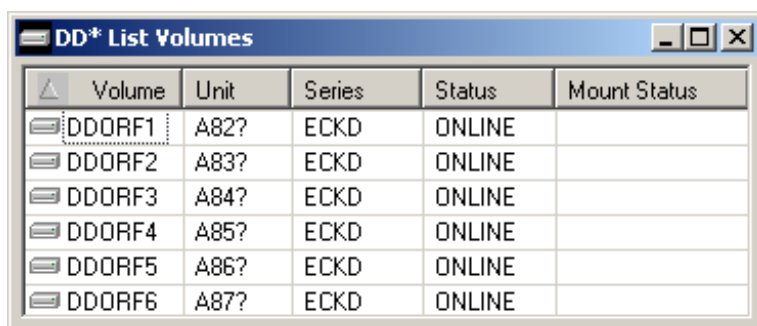
### ► To list z/VSE volumes

- 1 In the object workspace, select the **VSE Volumes** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The volumes are shown in the list view window. Example:



Volume	Unit	Series	Status	Mount Status
DDORF1	A82?	ECKD	ONLINE	
DDORF2	A83?	ECKD	ONLINE	
DDORF3	A84?	ECKD	ONLINE	
DDORF4	A85?	ECKD	ONLINE	
DDORF5	A86?	ECKD	ONLINE	
DDORF6	A87?	ECKD	ONLINE	

The list contains the following columns:

Column	Description	
Volume	Volume serial number	
Unit	Unit address.	
Series	Device series.	
Status	Device status. Possible values:	
	CHANGE	Device status is changing.
	OFFLINE	Device is offline.
	ONLINE	Device is online.
Mount Status	Device mount status. Possible values:	
	MOUNT PEND	Mount is pending.
	NOT READY	Device not ready.
	REMOVABLE	Device is removable (a tape, for example).

Column	Description	
	RESERVED	Device is reserved.
	RESIDENT	Device is resident (a hard disk, for example).

## Filtering Files on z/VSE Volumes

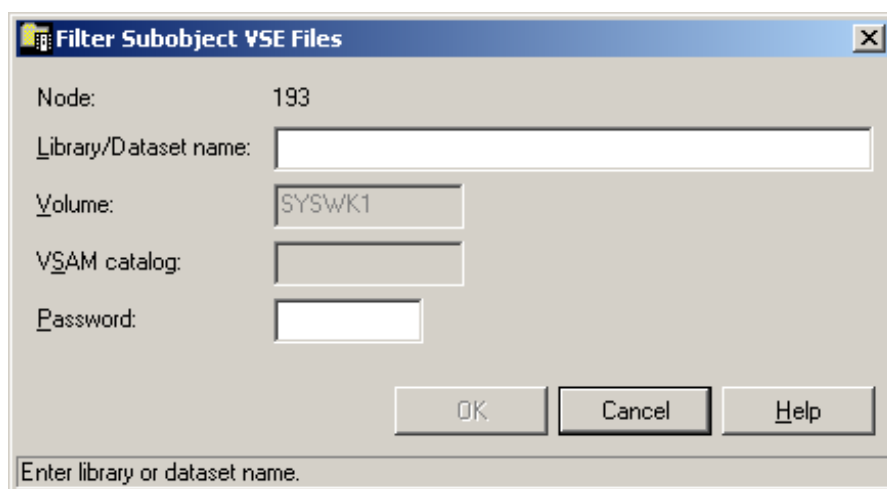
---

Before displaying the files on a z/VSE volume, you can define a filter so that only those files are shown which correspond to your filter criteria.

### ► To define a filter

- 1 Select a volume in the object workspace or list view window.
- 2 Invoke the context menu and choose **Filter Subobject**.

The following dialog box appears:



The dialog box titled "Filter Subobject VSE Files" contains the following fields and buttons:

- Node: 193
- Library/Dataset name:
- Volume:
- VSAM catalog:
- Password:
- Buttons: OK, Cancel, Help
- Footer text: Enter library or dataset name.

- 3 Enter the filter criteria.

Option	Description
Library/Dataset name	The files that are to be displayed. You can use a combination of strings and wildcards (* and _) to display the files matching the dataset name pattern.
Password	System password if volume is protected.

- 4 Choose the **OK** button.

## Listing Files on a z/VSE Volume

The number of objects shown in the list view window depends on whether or not a filter has been defined for the files on a z/VSE volume (see [Filtering Files on z/VSE Volumes](#)).

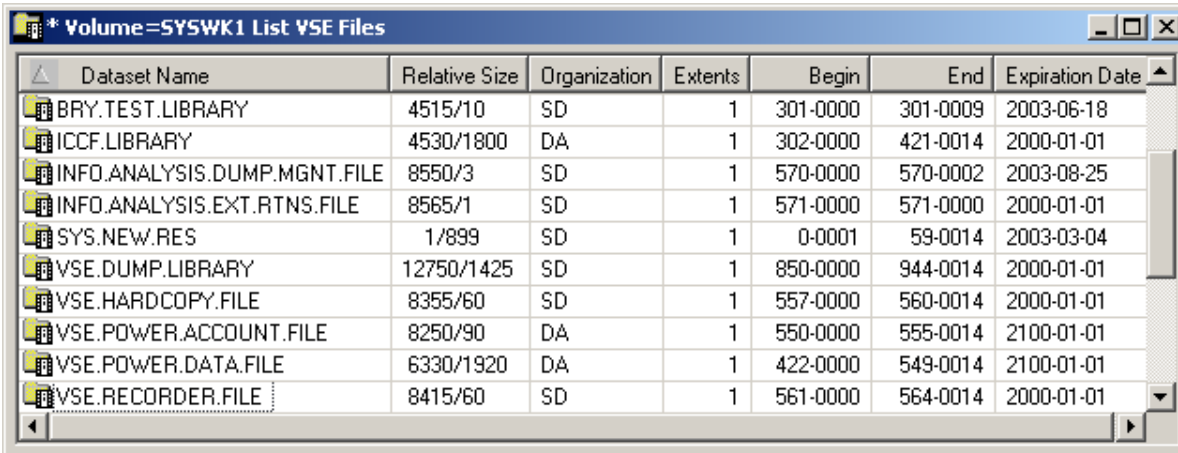
### ► To list files on a z/VSE volume

- 1 Select a volume in the object workspace or list view window.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

A list of files contained on the volume shown in the list view window. Example:



Dataset Name	Relative Size	Organization	Extents	Begin	End	Expiration Date
BRY.TEST.LIBRARY	4515/10	SD	1	301-0000	301-0009	2003-06-18
ICCF.LIBRARY	4530/1800	DA	1	302-0000	421-0014	2000-01-01
INFO.ANALYSIS.DUMP.MGNT.FILE	8550/3	SD	1	570-0000	570-0002	2003-08-25
INFO.ANALYSIS.EXT.RTNS.FILE	8565/1	SD	1	571-0000	571-0000	2000-01-01
SYS.NEW.RES	1/899	SD	1	0-0001	59-0014	2003-03-04
VSE.DUMP.LIBRARY	12750/1425	SD	1	850-0000	944-0014	2000-01-01
VSE.HARDCOPY.FILE	8355/60	SD	1	557-0000	560-0014	2000-01-01
VSE.POWER.ACCOUNT.FILE	8250/90	DA	1	550-0000	555-0014	2100-01-01
VSE.POWER.DATA.FILE	6330/1920	DA	1	422-0000	549-0014	2100-01-01
VSE.RECORDER.FILE	8415/60	SD	1	561-0000	564-0014	2000-01-01

The list contains the following columns:

Column	Description	
Dataset Name	Name of the file.	
Relative Size	For a CKD disk:	Starting block and number of blocks on which the file resides.
	For an FBA disk:	Size of the file in blocks.
Organization	Dataset organization. Possible values are:	
	DA	Direct access.
	SD	Sequential disk.
	UN	Unknown or unidentified.
	VS	VSAM.

Column	Description
Extents	Number of extents.
Begin	Combination of "Starting cylinder head" and "block number" on which the file resides.
End	Combination of "Ending cylinder head" and "block number" on which the file resides.
Expiration Date	Date when the file will expire. Until this date is reached, each attempt to update or delete the file will cause a console message, requiring an operator reply.



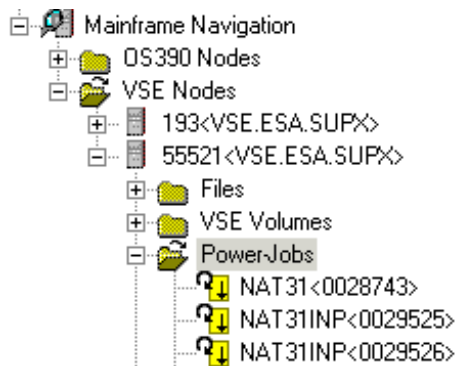
# 18

## z/VSE Jobs

---

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■ Turning off Follow Mode for a z/VSE Job .....	161

In the object workspace, the z/VSE jobs are shown when you expand the **Power-Jobs** folder of a z/VSE node. Example:



## Filtering z/VSE Jobs

---

Before displaying z/VSE jobs, you can define a filter so that only those jobs are shown which correspond to your filter criteria.

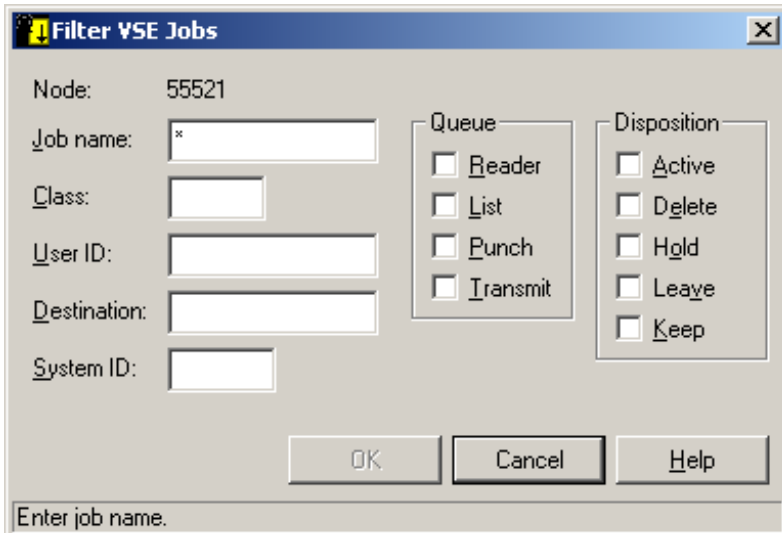
### ► To define a filter

- 1 In the object workspace, select the **Power-Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



The dialog box titled "Filter VSE Jobs" contains the following fields and options:

- Node:** 55521
- Job name:** \*
- Class:**
- User ID:**
- Destination:**
- System ID:**
- Queue:**
  - ☐ Reader
  - ☐ List
  - ☐ Punch
  - ☐ Transmit
- Disposition:**
  - ☐ Active
  - ☐ Delete
  - ☐ Hold
  - ☐ Leave
  - ☐ Keep

Buttons: OK, Cancel, Help

Footer: Enter job name.

- Enter the filter criteria.

Option	Description
Job name	Job name on the job card. You can use a combination of strings and wildcards (* and _) to display the jobs matching the job name pattern.
Class	Installation-specific job class. Combinations are possible to display a list of jobs of several classes.
User ID	You can restrict the displayed jobs by specifying a user ID. You can use the asterisk (*) as a wildcard. Only the jobs submitted by the specified user(s) are then displayed..
Destination	You can restrict the displayed jobs by specifying a destination. You can use the asterisk (*) as a wildcard. Only the jobs for the specified destination(s) are then displayed.
System ID	You can restrict the displayed jobs by specifying a system ID. You can use the asterisk (*) as a wildcard. Only the jobs under the specified system(s) are then displayed.
Queue	Job entry system queue. You can activate the check boxes for the following types of queues:  Reader List Punch Transmit
Disposition	How job is handled in a Reader queue. You can activate the check boxes for the following types of dispositions:  Active Delete (delete after processing; job starts automatically) Hold (hold job; must be started explicitly) Leave (leave in queue after processing; must be started explicitly) Keep (keep after processing; starts automatically as Delete; after run, disposition is Leave)

- Choose the **OK** button.

## Listing z/VSE Jobs

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/VSE jobs (see [Filtering z/VSE Jobs](#)).

### ► To list z/VSE jobs

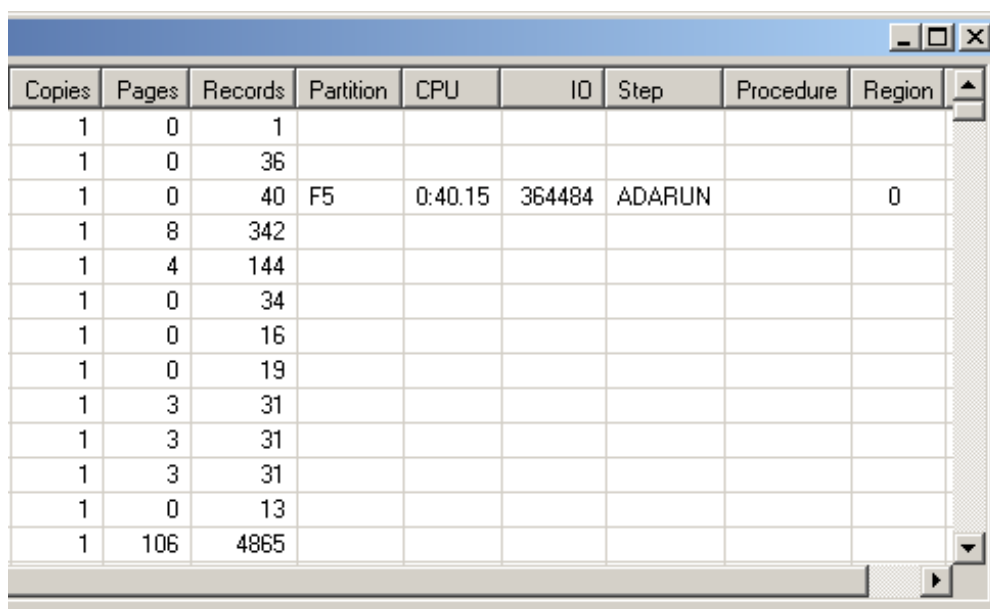
- 1 In the object workspace, select the **Power-Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

A list of the jobs is shown in the list view window. Example:

* List VSE Jobs										
Job Name	Number	Queue	Segment	Class	Disposition	Priority	Status	From	To	
\$SPL0223	0030223	L		?	D	009		ANY	ANY	
ADABAD	0018313	R		5	L	003	Hold			
ADABAS	0028826	R		5	*	003		DwI		
ADABAS	0027763	L		Q	D	003		DwI	EIS	
ADABAS	0028826	L		Q	D	003		DwI	EIS	
ADAKSP	0022696	R		5	L	003	Hold	KSP		
ADASAV	0027087	R		5	L	003	Hold			
ADASIP	0028835	R		0	L	003	Hold	EIS1		
ADASIP	0027756	L		A	H	003	Hold	EIS1	EIS1	
ADASIP	0028820	L		A	H	003	Hold	EIS1	EIS1	
ADASIP	0028835	L		A	H	003	Hold	EIS1	EIS1	
ALTER	0000100	R		A	H	003	Hold	DwI		
CATSEC	0000072	L		A	H	003	Hold	DwIB	DwIB	



Copies	Pages	Records	Partition	CPU	IO	Step	Procedure	Region
1	0	1						
1	0	36						
1	0	40	F5	0:40.15	364484	ADARUN		0
1	8	342						
1	4	144						
1	0	34						
1	0	16						
1	0	19						
1	3	31						
1	3	31						
1	3	31						
1	0	13						
1	106	4865						

The list contains the following columns:

Column	Description
Job Name	Job name on the job card.
Number	Job number assigned. Only the combination of job name and number uniquely identifies a submitted job (if more than one copy of the same job is in the queues).
Queue	Job entry system queue. Possible options:
	L List queue.
	P Punch queue.
	R Reader queue.
	X Transmit queue.
Segment	Number of output datasets, if segmented.
Class	Installation-specific job class.
Disposition	How the job is handled in the R queue. Possible options:
	* Active.
	D Delete after processing (job starts automatically).
	H Hold job (must be started explicitly).
	K Keep after processing. Starts automatically as D. After the run, the disposition is L.
	L Leave in queue after processing (must be started explicitly).
Priority	Job priority.
Status	Job status.
From	Owner of the job, that is, the user who issued Submit.

Column	Description
To	Destination of job.
Copies	Number of copies of the job.
Pages	Number of pages of the job.
Records	Number of records of the job.
Partition	Partition ID.
CPU	CPU time consumed in minutes.
IO	Number of I/O operations performed so far.
Step	Name of step currently being executed.
Procedure	Name of procedure currently being executed.
Region	Real storage used by address space in Kbytes.

---

## Displaying the Condition Codes of a z/VSE Job

---

When you display the condition codes of a job, they are shown in a browse window.

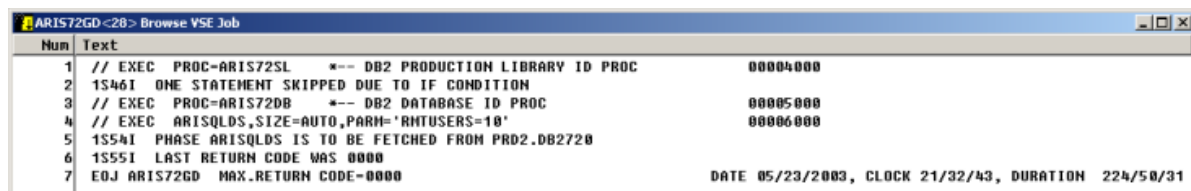
► **To display the condition codes of a z/VSE job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

A browse window similar to the following appears in the content pane:



The screenshot shows a window titled "ARIS72GD <28> Browse VSE Job". It contains a table with two columns: "Num" and "Text". The table lists several lines of job execution text, including job names, database IDs, and return codes. The last line shows a return code of 0000. The window also displays the date, clock, and duration at the bottom right.

Num	Text
1	// EXEC PROC=ARIS72SL *-- DB2 PRODUCTION LIBRARY ID PROC 00004000
2	1S46I ONE STATEMENT SKIPPED DUE TO IF CONDITION
3	// EXEC PROC=ARIS72DB *-- DB2 DATABASE ID PROC 00005000
4	// EXEC ARISQDLS,SIZE=AUTO,PARM='RMTUSERS=10' 00006000
5	1S54I PHASE ARISQDLS IS TO BE FETCHED FROM PRD2.DB2720
6	1S55I LAST RETURN CODE WAS 0000
7	EOJ ARIS72GD MAX.RETURN CODE=0000

DATE 05/23/2003, CLOCK 21/32/43, DURATION 224/50/31

See also [Commands for Browsing an Object](#).

## Displaying the Status of a z/VSE Job

---

You can check whether a job is executing or whether it is in one of the following queues: reader queue, list queue, punch queue or transmit queue.

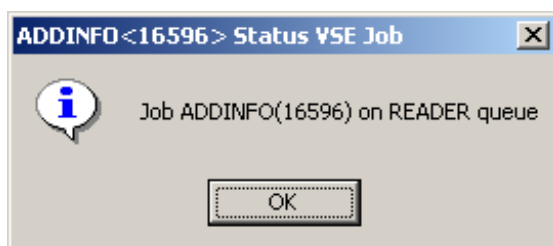
### ► To display the status of a z/VSE job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Status**.

Or:

Press CTRL+F10.

The job status is displayed in a dialog box in the content pane. Example:



- 3 Choose the **OK** button to close the dialog box.

## Putting a z/VSE Job on Hold

---

You can put a job on hold.

### ► To put a z/VSE job on hold

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Hold**.

The job is put on hold.

## Releasing a z/VSE Job from Hold

---

When a job has been put on hold, you can release it from hold.

► **To release a z/VSE job from hold**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Release**.

The job is released from hold.

## Changing the Attributes of a z/VSE Job

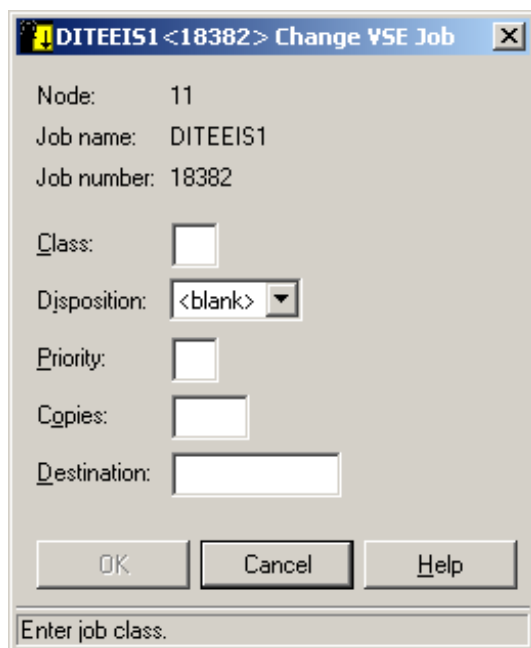
---

You can change, for example, the class and/or destination of a z/VSE job.

► **To change attributes of a z/VSE job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Change**.

The following dialog box appears:



DITEEIS1 <18382> Change VSE Job

Node: 11  
Job name: DITEEIS1  
Job number: 18382

Class:   
Disposition: <blank> ▼  
Priority:   
Copies:   
Destination:

OK Cancel Help

Enter job class.



- 3 Enter the new attributes.
- 4 Choose the **OK** button.

## Turning on Follow Mode for a z/VSE Job

---

You can instruct Mainframe Navigation to display a message when the job has terminated.

Follow mode can be active for one job only. If it is activated for a second job before the first job has terminated, only the second job will be followed.

### To turn on follow mode for a z/VSE job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow**.

## Turning off Follow Mode for a z/VSE Job

---

When you turn off follow mode, a message is no longer displayed.

### To turn off follow mode for a z/VSE job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow Off**.



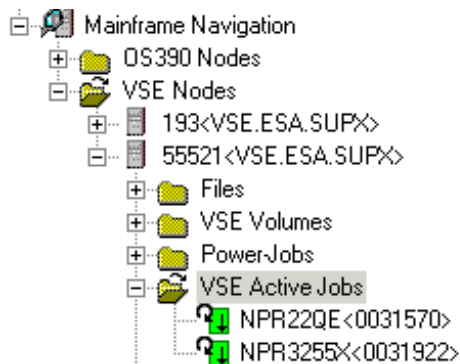
# 19

## z/VSE Active Jobs

---

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■ Turning on Follow Mode for a z/VSE Active Job .....	166
■ Turning off Follow Mode for a z/VSE Active Job .....	166

In the object workspace, the z/VSE active jobs are shown when you expand the **VSE Active Jobs** folder of a z/VSE node. Example:



## Filtering z/VSE Active Jobs

---

Before displaying z/VSE active jobs, you can define a filter so that only those active jobs are shown which correspond to your filter criteria.

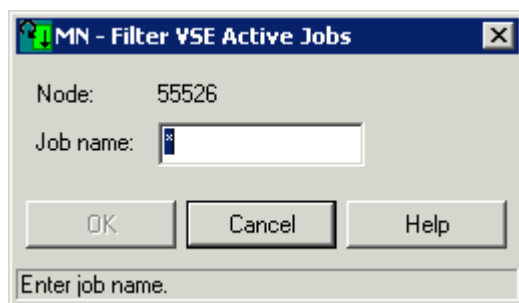
### ► To define a filter

- 1 In the object workspace, select the **VSE Active Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the active jobs that are to be shown. You can use a combination of strings and wildcards (\* and \_) to display the jobs matching the job name pattern.
- 4 Choose the **OK** button.

## Listing z/VSE Active Jobs

The number of objects shown in the list view window depends on whether or not a filter has been defined for the z/VSE active jobs (see [Filtering z/VSE Active Jobs](#)).

### ► To list z/VSE active jobs

- 1 In the object workspace, select the **VSE Active Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The active jobs are shown in the list view window. Example:

* List VSE Active Jobs												
Job Name	Number	Partition	Classes	Step	Procedure	Priority	Size	Real Storage	CPU Time	IO	Reply ID	
ADABAS	0028826	F5	H5X	ADARUN		8	40960	0	1:16.51	668402		
CICSICCF	0030321	F2	L2	DFHSIP		5	51200	0	1:23.73	143730		
COMPLETE	0030340	F6	M6X	TLINSP		9	40960	0	0:05.60	8275	097	
DB2START	0028838	FA	SX	ARISQLDS		13	40960	0	0:01.38	5982		
DELACC	0000261	C1	C	JDEL		16	4992	0	0:00.00	139		
GBP31STA	0028817	C2	C	NATGBPMG		16	4992	0	0:00.11	422		
GBP41STA	0028818	C3	C	NATGBP41		16	4992	0	0:00.18	530		
NDV11APS	0030334	R1	R	TLINSP		15	71552	0	0:03.05	2484	143	
NDV21APS	0030337	R2	R	TLINSP		15	71552	0	0:03.04	2339	152	
NETWORK	0030319	F9	R9X	ADARUN		12	40960	0	0:03.95	1054		
NO NAME		BG	A0I			14	10240	0	0:00.00	4		
NO NAME		F8	P8X			11	35840	0	0:00.00	4		
NO NAME		F4	J4X			7	51200	0	0:00.00	4		
NPR22QE	0031570	Y1	Y	NPRINIT		17	10112	0	0:00.66	6882		
NPR325X	0031922	C4	C	NPRINIT		16	4992	0	0:03.27	31259	052	
POWSTART		F1		IPwPOWER	POWSTRTF	1	6144	0	0:48.76	168924		
SECSESV		FB		BSTPSTS	\$BJCLWMZ	4	40960	0	0:00.07	534		
TCPIP	0028824	P1	P	IPNET		3	20352	0	1:02.30	656328	087	
VTAMSTR	0028823	F3	K3	ISTINCVT		2	6144	0	0:16.33	227739		
XCOM123	0030332	F7	N7X	NPRINIT		10	40960	0	0:02.91	14020		

The list contains the following columns:

Column	Description
Job Name	Job name on the job card.
Number	Job number assigned.
Partition	Partition number (ID).
Classes	Job class(es) serviced by this partition under the control of z/VSE/POWER.
Step	Name of the step currently being executed.
Procedure	Name of the procedure currently being executed.
Priority	Dispatching priority.
Size	Partition size in Kbytes.
Real Storage	Amount of real storage allocated by z/VSE to the partition in Kbytes.
CPU Time	CPU time consumed by address space in minutes.
IO	Number of I/O operations performed so far.
Reply ID	Outstanding operator reply ID associated with the job.

## Turning on Follow Mode for a z/VSE Active Job

---

You can instruct Mainframe Navigation to display a message when the job has terminated.

Follow mode can be active for one job only. If it is activated for a second job before the first job has terminated, only the second job will be followed.

### To turn on follow mode for a z/VSE active job

- 1 Select an active job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow**.

## Turning off Follow Mode for a z/VSE Active Job

---

When you turn off follow mode, a message is no longer displayed.

### To turn off follow mode for a z/VSE active job

- 1 Select an active job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow Off**.

# VI

## Managing BS2000/OSD Objects

---

This part covers the following topics:

**OSD Files**

**LMS Elements**

**LMS Element Versions**

**BS2000 Jobs**

**BS2000 Job Variables**





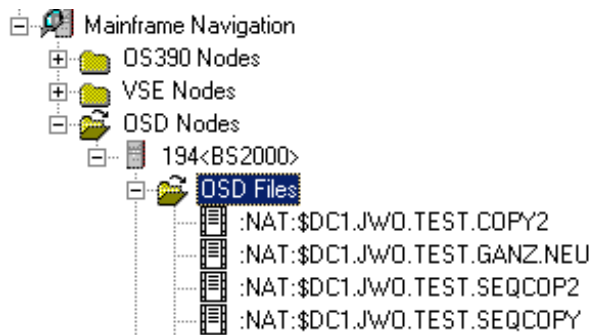
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## OSD Files

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In the object workspace, the OSD files are shown when you expand the **OSD Files** folder of an OSD node. Example:



## Filtering OSD Files

---

Before displaying OSD files, you can define a filter so that only those files are shown which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select the **OSD Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:

3 Enter the filter criteria.

Option	Description	
File name	The files that are to be displayed. You can use a combination of strings and wildcards (* and _) to display the files matching the dataset name pattern.	
Volume	Volume serial number. Usually not needed, unless you want to restrict a list of files to those on a specific volume.	
Password	System password, if the file is protected. Must be specified irrespective of read or write protection.	
Support type	Selects BS2000/OSD files that reside on a specific storage medium. Possible values:	
	<blank>	All kinds of files, including tape files.
	Public	Files on public disks.
	Private disk	Files on private disks.
	Any disk	Files residing on any kind of disk.
	Tape	Tape files.
Shared file	Possible values:	

Option	Description	
	<both>	Lists both shared and non-shared files.
	Yes	Restricts list to shared (public) files.
	No	Restricts list to non-shared files.
Access type	Selects BS2000/OSD files that are, or are not, protected against modification. Possible values:	
	<blank>	Both protected and non-protected files.
	Read	Protected files only.
	Write	Non-protected files only.
FGGs only	Selects only file generation groups and the related individual generations. Possible values: Yes, No.	
Unclosed only	Selects only files that were opened for output (write, extend or update) and that have not yet been closed. Possible values: Yes, No.	
Range keyword	Selects files according to the following characteristics. These cannot be combined:	
	<blank>	No selection is made.
	Free size	Files with a number of unused PAM pages within the specified range.
	Creation date	Files created (or updated) in the period specified in the range field.
	Last access	Files last accessed in the period specified in the range field.
	Extents	Files with an extent count value corresponding to the specified range.
	Size	Files with space allocation (number of PAM pages) corresponding to the given value or range of values.
	Expiration date	Files with an expiration date corresponding to the specified time range.
	Backup class	Backup class option: selects files with a backup frequency attribute that corresponds to the specified value or list of values. Each value must be a character A, B, C, D or E.
Range value	<p>Use this field to specify:</p> <ul style="list-style-type: none"> <li>■ a range of numbers or dates (i.e. a time period), or</li> <li>■ a single value or a list of values.</li> </ul> <p>The format of this specification depends on the option selected in the <b>Range keyword</b> drop-down list box and is identical to the notation used with a BS2000/OSD <code>FSTATUS</code> command. The only exception is that a range can be given either in the notation (start-v,end-v) or as (start-v:end-v), that is, both a comma and a colon are accepted as separators.</p>	
FCB type	Selects BS2000/OSD files that correspond to one or more file organization attributes. Attributes can be combined. Possible values: SAM, ISAM, PAM, None.	

Option	Description	
Password security	Selects only files that are, or are not, password protected. Options can be combined. Possible values:	
	Read password	Files protected against unauthorized read access.
	Write password	Files protected against unauthorized modification.
	Exec password	Files protected against unauthorized execution.
	None	Files without any kind of password protection.

- 4 Choose the **OK** button.

## Listing OSD Files

The number of objects shown in the list view window depends on whether or not a filter has been defined for the OSD files (see [Filtering OSD Files](#)).

### ► To list OSD files

- 1 In the object workspace, select the **OSD Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

A list of files contained in the folder is shown in the list view window. Example:

File Name	PAM Pages
:NAT:\$DC1.JWO.LIB	0000048
:NAT:\$DC1.JWO.LIB1	0000024
:NAT:\$DC1.JWO.LIBA	0000024
:NAT:\$DC1.JWO.LIBB	0000024
:NAT:\$DC1.JWO.LIBC	0000024
:NAT:\$DC1.JWO.LIBD	0000024
:NAT:\$DC1.JWO.LIBN44	0000048
:NAT:\$DC1.JWO.LIBNEU	0000048
:NAT:\$DC1.JWO.LIBX	0000030
:NAT:\$DC1.JWO.LIBXX	0000048
:NAT:\$DC1.JWO.LIBXXX	0000048
:NAT:\$DC1.JWO.LIBXXXI	0000048
:NAT:\$DC1.JWO.NEU.KOPIE2	0000012
:NAT:\$DC1.JWO.NEU.KOPIE3	0000012
:NAT:\$DC1.JWO.NEU.KOPIERT	0000012
:NAT:\$DC1.JWO.NEU.KOPIEX3	0000012
:NAT:\$DC1.JWO.NEU.KOPIEX4	0000012
:NAT:\$DC1.JWO.NEU.KOPIEX5	0000012
:NAT:\$DC1.JWO.NEU.KOPIEX6	0000012
:NAT:\$DC1.JWO.NEU.VONISPF	0000012
:NAT:\$DC1.JWO.NEU12YYY	0000012
:NAT:\$DC1.JWO.NEU2	0000012
:NAT:\$DC1.JWO.NEU2A	0000012
:NAT:\$DC1.JWO.NEU2B	0000003
:NAT:\$DC1.JWO.NEU2C	0000003
:NAT:\$DC1.JWO.NEU3	0000024
:NAT:\$DC1.JWO.NEU3C	0000024
:NAT:\$DC1.JWO.NEU3CC	0000024

The list contains the following columns:

Column	Description
File Name	Full path name including catalog ID and user ID specification.
PAM Pages	Number of disc pages allocated for the file.

## Managing Recent OSD Files

Mainframe Navigation internally maintains a list of the 100 files most recently accessed by the user. This list is stored at the end of a session and is read when Mainframe Navigation is started.

The following topics are covered below:

- [Listing Recent OSD Files](#)
- [Removing an OSD File from the List of Recent Files](#)
- [Synchronizing the List of Recent Files for OSD Files](#)

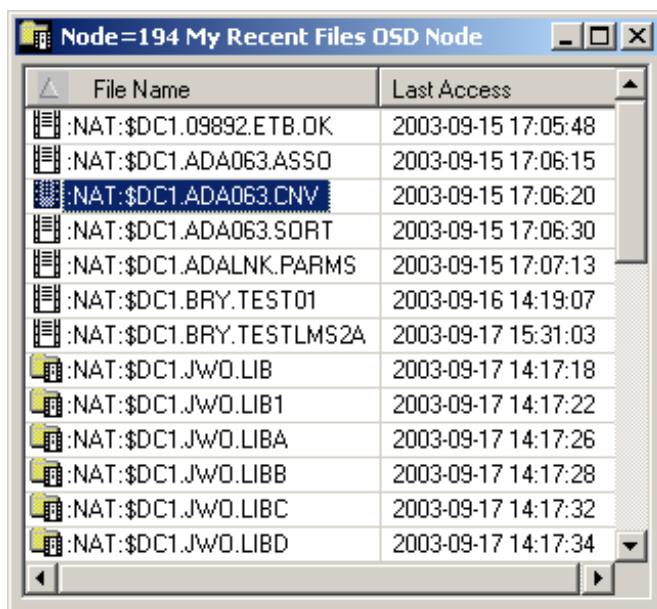
### Listing Recent OSD Files

All commands that are available for files can also be invoked from the list of recent files.

#### ► To list recently-used OSD files

- 1 In the object workspace, select the **OSD Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **My Recent Files**.

The list view window containing recently-used files appears in the content pane. Example:



File Name	Last Access
:NAT:\$DC1.09892.ETB.OK	2003-09-15 17:05:48
:NAT:\$DC1.ADA063.ASSO	2003-09-15 17:06:15
:NAT:\$DC1.ADA063.CNV	2003-09-15 17:06:20
:NAT:\$DC1.ADA063.SORT	2003-09-15 17:06:30
:NAT:\$DC1.ADALNK.PARMS	2003-09-15 17:07:13
:NAT:\$DC1.BRY.TEST01	2003-09-16 14:19:07
:NAT:\$DC1.BRY.TESTLMS2A	2003-09-17 15:31:03
:NAT:\$DC1.JWO.LIB	2003-09-17 14:17:18
:NAT:\$DC1.JWO.LIB1	2003-09-17 14:17:22
:NAT:\$DC1.JWO.LIBA	2003-09-17 14:17:26
:NAT:\$DC1.JWO.LIBB	2003-09-17 14:17:28
:NAT:\$DC1.JWO.LIBC	2003-09-17 14:17:32
:NAT:\$DC1.JWO.LIBD	2003-09-17 14:17:34

The list view window contains the following columns:

Column	Description
File Name	Full path name including catalog ID and user ID specification.
Last Access	Date (YYYY-MM-DD) and time the file was last accessed.

## Removing an OSD File from the List of Recent Files

You can remove a file from the list of recent files. This does not delete the file on the server.

### ▶ To remove an OSD file from the list of recent files

- 1 In the list of recent files, select the file to be removed.
- 2 Invoke the context menu and choose **Remove from list**.

## Synchronizing the List of Recent Files for OSD Files

You can synchronize the list of recent files with the data on the server. List entries which no longer exist on the server (for example, because they have been renamed or deleted) are deleted from the list of recent files.

### ▶ To synchronize the list of recent files for OSD files

- 1 In the object workspace, select the **OSD Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **Synchronize**.

A dialog box appears, asking to confirm the synchronize function for the selected object.

- 3 Choose the **Yes** button to synchronize the list of recent files.

## Allocating an OSD File

---

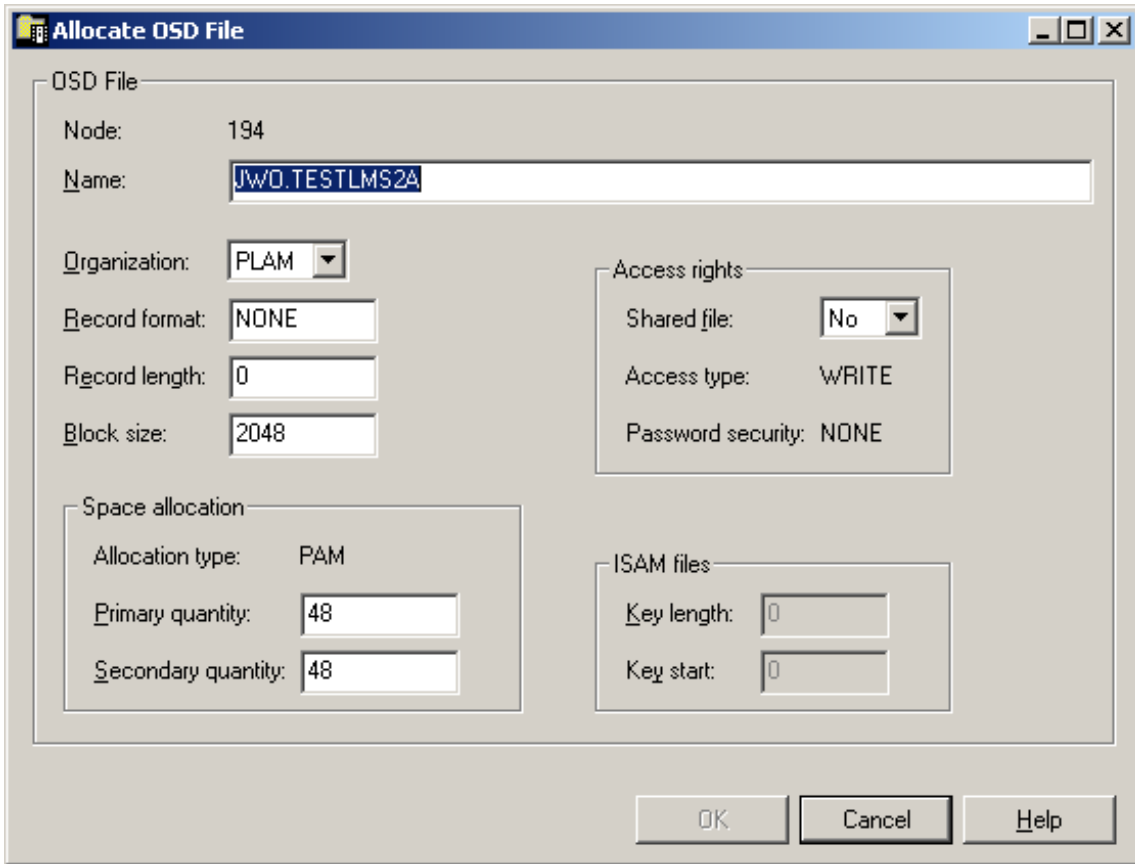
This command is generally issued for an existing file. The allocation information for the existing item is displayed and you can overwrite the name and modify the specifications for the new item.

### ▶ To allocate an OSD file

- 1 Select the appropriate file in the **OSD Files** folder of the appropriate node.
- 2 Invoke the context menu and choose **Allocate**.

The following window appears in the content pane:





The image shows a Windows-style dialog box titled "Allocate OSD File". It contains several input fields and dropdown menus for configuring an OSD file. The fields are organized into sections: "OSD File" (Node, Name), "Organization" (dropdown), "Record format" (dropdown), "Record length" (text box), "Block size" (text box), "Access rights" (Shared file, Access type, Password security), "Space allocation" (Allocation type, Primary quantity, Secondary quantity), and "ISAM files" (Key length, Key start). At the bottom are "OK", "Cancel", and "Help" buttons.

Field	Value
Node	194
Name	JWD.TESTLMS2A
Organization	PLAM
Record format	NONE
Record length	0
Block size	2048
Access rights - Shared file	No
Access rights - Access type	WRITE
Access rights - Password security	NONE
Space allocation - Allocation type	PAM
Space allocation - Primary quantity	48
Space allocation - Secondary quantity	48
ISAM files - Key length	0
ISAM files - Key start	0

- 3 Enter a new file name and enter or change other parameters as described in the table below:

Option	Description	
Name	Enter a new file name.	
Organization	Select an FCBTYPE. Possible values: SAM, ISAM, PAM, PLAM.	
Record format	For example:	
	FB	Fixed block.
	VB	Variable block.
	FBA	Fixed block, ANSI control characters.
Record length	Enter logical record length in bytes.	
Block size	Enter block size in bytes.	
Space allocation	Allocation type (output field)	Possible values: SAM, ISAM, PAM, None.
	Primary quantity	Initial space to be reserved for the file, in PAM pages.
	Secondary quantity	Additional space, in PAM pages, to be allocated, if the file fills up. Specify a value in the range of 0 - 32767. The value 0 (zero) means that the file will not be extended dynamically.

Option	Description		
Access rights	Security settings. Possible values:		
	Shared file	Yes	File is accessible to other users.
		No	Other users are prevented from accessing the file.
	Access type (output field)	READ	Protected files only.
		WRITE	Non-protected files only.
	Password security (output field)	READ	Files protected against unauthorized read access.
		WRITE	Files protected against unauthorized modification.
		EXEC	Files protected against unauthorized execution.
		NONE	Files without any kind of password protection.
		R/E	Files protected against unauthorized read and execute operations.
		R/W	Files protected against unauthorized read and write operations.
		R/W/E	Files protected against unauthorized read, write and execute operations.
		W/E	Files protected against unauthorized write and execute operations.
ISAM files	These parameters are available only when Organization=ISAM.		
	Key length (output field)	Key length for ISAM files.	
	Key start (output field)	Position of the first byte of the key within a record.	

- 4 Choose the **OK** button.

A dialog box appears, informing you that the file was successfully allocated.

- 5 Choose the **Yes** button to allocate another file.

Or:

Choose the **No** button to finish allocation.

## Adding a New OSD File

---

You can add a new OSD file to an OSD node.

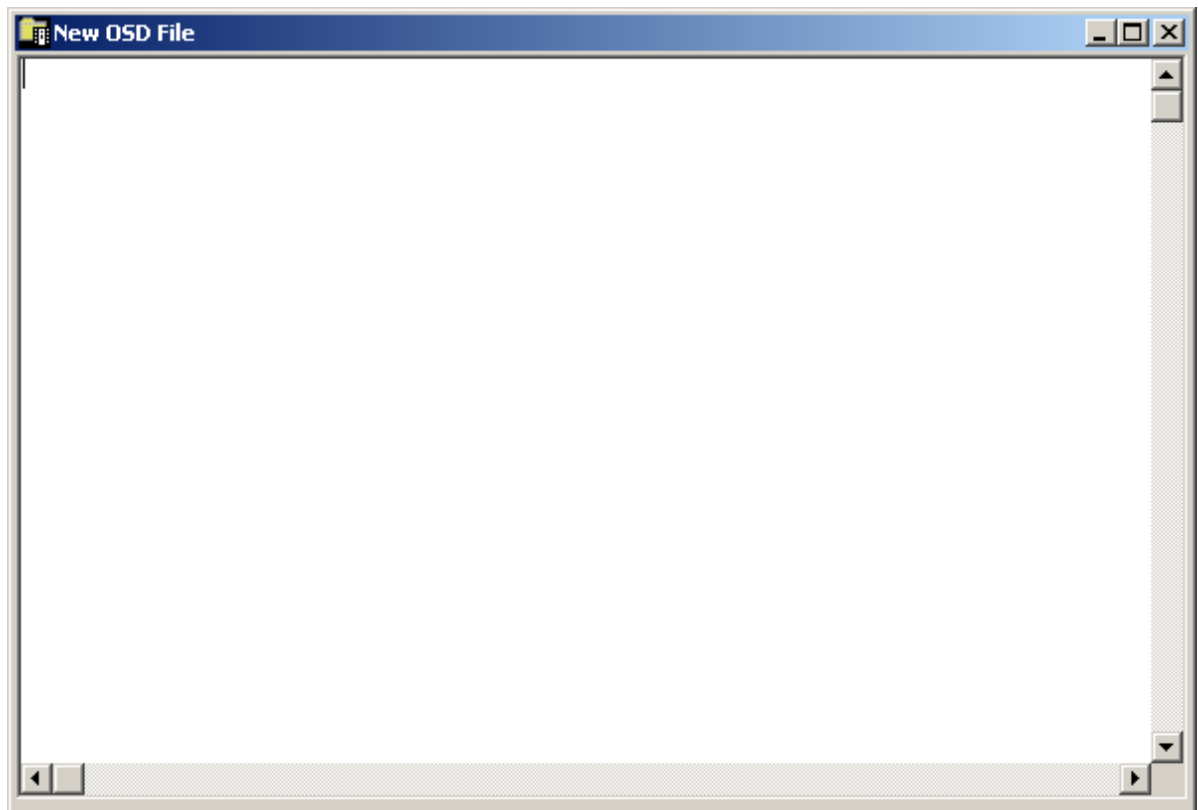
▶ **To add a new OSD file**

- 1 In the object workspace, select the **OSD Files** folder in the appropriate node.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

An empty new file appears in an editor window in the content pane:

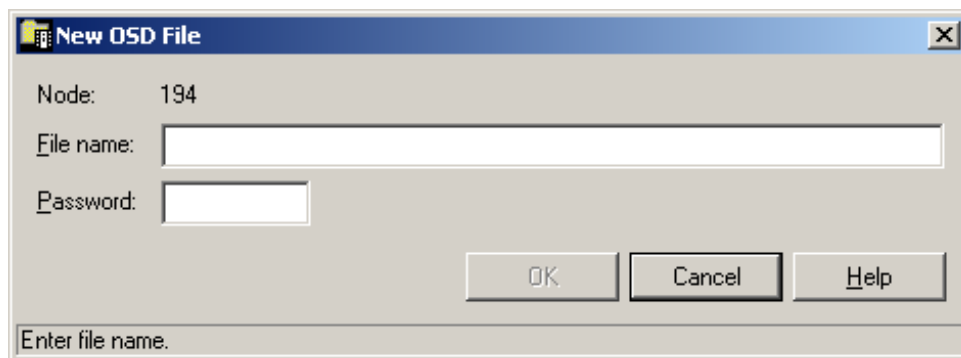


- 3 Enter the data for the new member.

See also [Commands for Editing an Object](#).

- 4 From the **Object** menu, choose **Save As** to save your data in the editor window.

The following dialog box appears.



- 5 Enter the following information:

Option	Description
File name	A name for the new file.
Password	Optional. Enter a password if the new file is to be password-protected.

- 6 Choose the **OK** button.

## Submitting an OSD File

---

You can submit an OSD file to the operating system.

### ▶ To submit an OSD file

- 1 Select a file in the object workspace or list view window.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+S.

A dialog box appears, confirming that the file has been submitted.

Follow mode is automatically activated. When the job has terminated, a corresponding message is shown.

- 3 Choose the **OK** button to close the dialog box.

## Changing the Attributes of an OSD File

You can change the attributes of an OSD file, for example, you can define a password.

► To change the attributes of an OSD file

- 1 Select a file in the object workspace or list view window.
- 2 Invoke the context menu and choose **Change**.

The following dialog box appears:

- 3 Enter the new attributes.

Option	Description	
Shared file	Yes	Restricts the list to shared (public) files.
	No	Restricts the list to non-shared files.
Access type	Selects BS2000/OSD files that are, or are not, protected against modification. Possible values:	
	Read	Protected files only.
	Write	Non-protected files only.
Retention period	The retention period in days during which the file can neither be modified nor deleted.	
Backup type	A	Saved with every ARCHIVE run (default).
	B	Saved with runs for level B, C and D.
	C	Saved with runs for level C and D.
	D	Saved with runs for level D.
	E	Not automatically saved.
(Passwords)	To change or add a password, activate the check box for the corresponding password. You can then modify the password text box. Enter the new password and confirm it in the corresponding text box. For a later reset of password protection, leave the check box empty or enter blanks in the new password field.	
	Read password	Files protected against unauthorized read access.
	Write password	Files protected against unauthorized modification.
	Exec password	Files protected against unauthorized execution.

- 4 Choose the **OK** button.

---

## Displaying the Properties of an OSD File

---

You can display information about an OSD file.

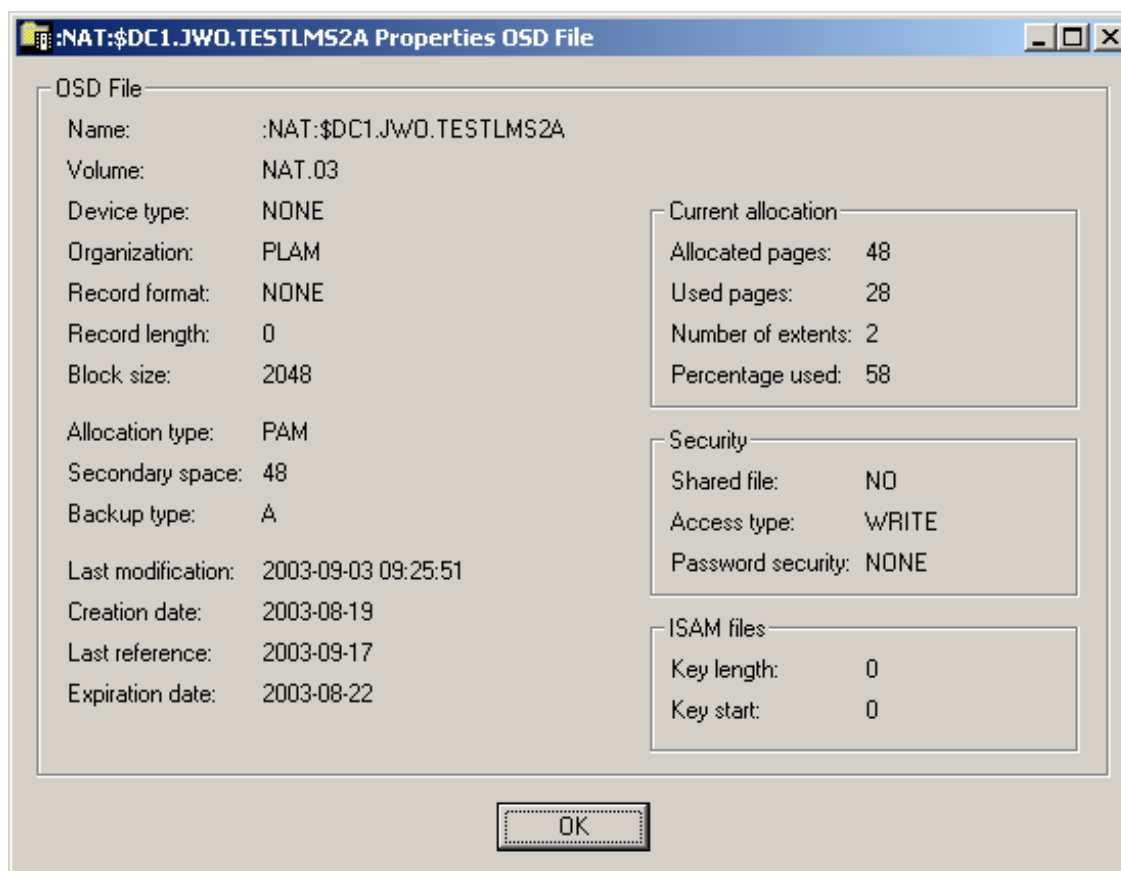
► **To display the properties of an OSD file**

- 1 In the object workspace, select a file in the **OSD Files** folder.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

The following dialog box appears:



The following information is shown in this dialog box:

Option	Description	
Name	File name.	
Volume	Serial number of the volume on which the file is allocated.	
Device type	If a volume is not specified, this is the generic identifier from which a volume is to be selected (e.g. D3480).	
Organization	FCBTYPE.	
Record format	For example:	
	FB	Fixed block.
	VB	Variable block.
	FBA	Fixed block, ANSI control characters.
Record length	Logical record length in bytes.	
Block size	Block size in bytes.	
Allocation type	Possible values: SAM, ISAM, PAM, None.	
Secondary space	Additional space, in PAM pages, to be allocated, if the file fills up: value in the range of 0 - 32767. The value 0 (zero) means that the file will not be extended dynamically.	

Option	Description			
Backup type	A	Saved with every ARCHIVE run (default).		
	B	Saved with runs for level B, C and D.		
	C	Saved with runs for level C and D.		
	D	Saved with runs for level D.		
	E	Not automatically saved.		
Last modification	Date (YYYY-MM-DD) and time the file was last modified or renamed.			
Creation date	File creation date in format YYYY-MM-DD.			
Last reference	Date of last access in format YYYY-MM-DD.			
Expiration date	Date when the file expires (YYYY-MM-DD). Until this date is reached, each attempt to update or delete the file causes a console message, requiring an operator reply.			
Current allocation	Allocated pages	Number of PAM pages allocated for this file.		
	Used pages	Number of PAM pages used by this file.		
	Number of extents	Values can be from 1 to 255.		
	Percentage used	Percentage of file used.		
Security	Security status. Possible values:			
	Shared file	YES	File is accessible to other users.	
		NO	File is not accessible to other users.	
	Access type	READ	Protected files only.	
		WRITE	Non-protected files only.	
	Password security	READ	Files protected against unauthorized read access.	
		WRITE	Files protected against unauthorized modification.	
		EXEC	Files protected against unauthorized execution.	
		NONE	Files without any kind of password protection.	
		R/E	Files protected against unauthorized read and execute operations.	
		R/W	Files protected against unauthorized read and write operations.	
		R/W/E	Files protected against unauthorized read, write and execute operations.	
		W/E	Files protected against unauthorized write and execute operations.	
ISAM files	Key length	Key length for ISAM files.		
	Key start	Position of the first byte of the key within a record.		



## Filtering LMS Elements of an OSD File

---

See *Filtering LMS Elements* in the section *LMS Elements*.



# 21

## LMS Elements

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In the object workspace, the LMS elements are shown when you expand an OSD file.

## Filtering LMS Elements

---

Before displaying LMS elements, you can define a filter so that only those elements are shown which correspond to your filter criteria.

### ► To define a filter

- 1 In the object workspace, select the appropriate file in the **OSD Files** folder.

Or:

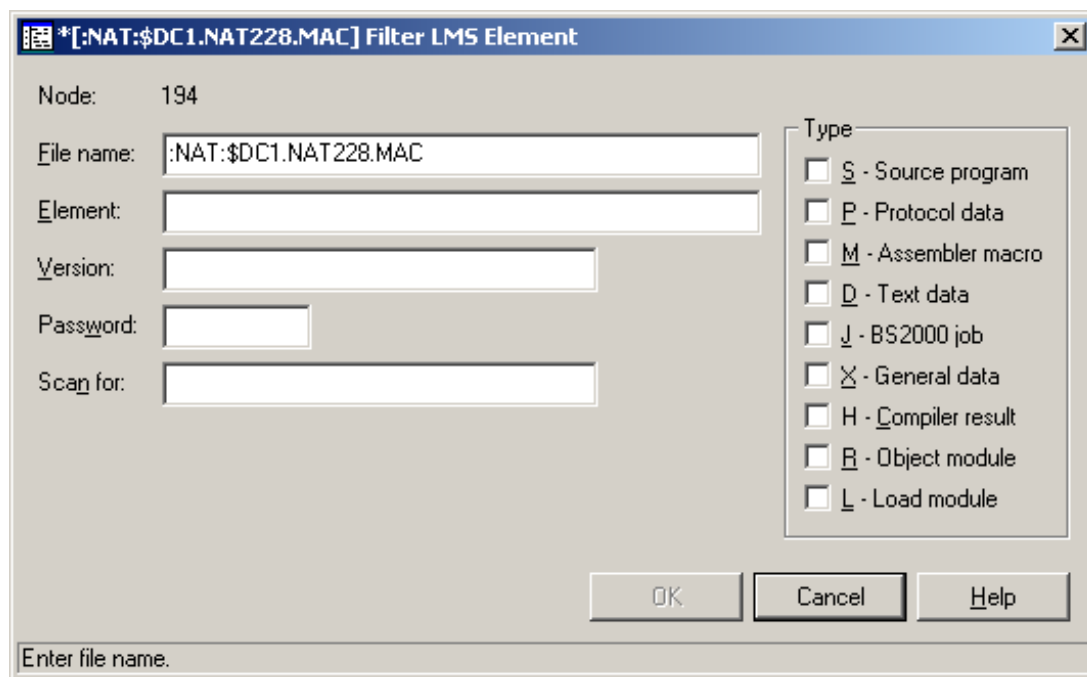
Select an LMS element in the list view window which shows a [list of LMS elements](#).

- 2 Invoke the context menu and choose either **Filter Subobject** (when a file has been selected in the **OSD Files** folder) or **Filter** (when an element has been selected in the list view window).

Or:

Press either CTRL+F3 (for the **Filter Subobject** command) or F3 (for the **Filter** command).

A dialog box appears. Its name in the title bar depends on the command that has been used.





**Note:** When you have chosen the **Filter Subobject** command, the **File name** text box is dimmed.

- 3 Enter the filter criteria.

Option	Description
File name *	The name of the current OSD file is shown. You can specify a different name to select a different file.
Element	Enter filter criteria for the element. If more than one version exists for an element, the highest version is listed.
Version	Enter filter criteria for a previous element version. Default is the highest version.
Password	Enter the system password, if the library or element is protected. Must be specified irrespective of read or write protection.
Scan for	When you specify a character string, only the elements containing this string will be shown.
Type	Select one or more types for the elements to be listed.
	S Source program.
	P Protocol area.
	M Assembler macro.
	D Text data.
	J BS2000 job.
	X General data.
	H Compiler result.
	R Object module.
	L Load module.

\* Cannot be modified with the **Filter Subobject** command.

- 4 Choose the **OK** button.

## Listing LMS Elements

The number of objects shown in the list view window depends on whether or not a filter has been defined for the LMS elements (see [Filtering LMS Elements](#)).

### ► To list LMS elements

- 1 In the object workspace, select the appropriate file in the **OSD Files** folder.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

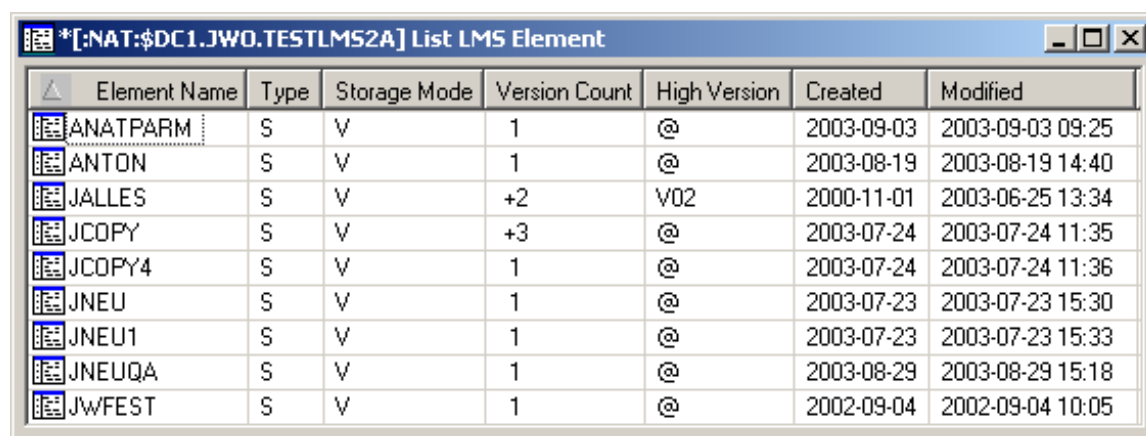
The type of information contained in the list view window depends on whether or not a string has been specified with the **Scan for** option of the filter criteria (see [Filtering LMS Elements](#)).

The following topics are covered below:

- [No String has been specified](#)
- [A String has been specified](#)

### No String has been specified

When a string has not been specified with the **Scan for** option, all columns of the list are shown.



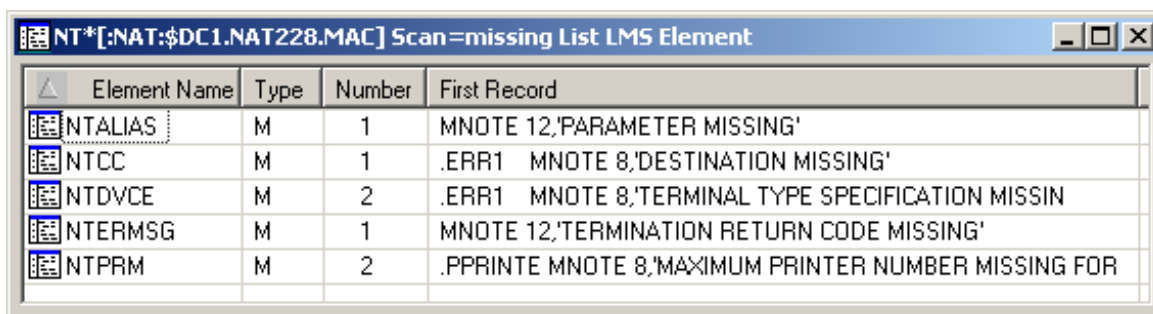
Element Name	Type	Storage Mode	Version Count	High Version	Created	Modified
ANATPARM	S	V	1	@	2003-09-03	2003-09-03 09:25
ANTON	S	V	1	@	2003-08-19	2003-08-19 14:40
JALLES	S	V	+2	V02	2000-11-01	2003-06-25 13:34
JCOPY	S	V	+3	@	2003-07-24	2003-07-24 11:35
JCOPY4	S	V	1	@	2003-07-24	2003-07-24 11:36
JNEU	S	V	1	@	2003-07-23	2003-07-23 15:30
JNEU1	S	V	1	@	2003-07-23	2003-07-23 15:33
JNEUQA	S	V	1	@	2003-08-29	2003-08-29 15:18
JWFEST	S	V	1	@	2002-09-04	2002-09-04 10:05

The following columns are provided:

Column	Description				
Element Name	If more than one version exists for an element, the highest version is listed.				
Type	Type of element.				
Storage Mode	Possible values: <table border="1"> <tr> <td>D</td><td>Delta.</td></tr> <tr> <td>V</td><td>Full version.</td></tr> </table>	D	Delta.	V	Full version.
D	Delta.				
V	Full version.				
Version Count	Number of versions for the element.				
High Version	Highest version encountered.				
Created	Creation date of highest version in format YYYY-MM-DD.				
Modified	Date (YYYY-MM-DD) and time the highest version was last modified or renamed.				

## A String has been specified

When a string has been specified with the **Scan for** option, only the elements which contain this string are shown in the list. For example, when the string "missing" has been defined, the list is shown as follows:



Element Name	Type	Number	First Record
NTALIAS	M	1	MNOTE 12,'PARAMETER MISSING'
NTCC	M	1	.ERR1 MNOTE 8,'DESTINATION MISSING'
NTDVCE	M	2	.ERR1 MNOTE 8,'TERMINAL TYPE SPECIFICATION MISSIN
NTERMSG	M	1	MNOTE 12,'TERMINATION RETURN CODE MISSING'
NTPRM	M	2	.PPRINT MNOTE 8,'MAXIMUM PRINTER NUMBER MISSING FOR

The following columns are provided:

Column	Description
Element Name	The name of the element.
Type	Type of element.
Number	The number of times the string occurs in the element.
First Record	The first line that contains the string in the element.

## Adding a New LMS Element

You can add a new LMS element to an OSD file.

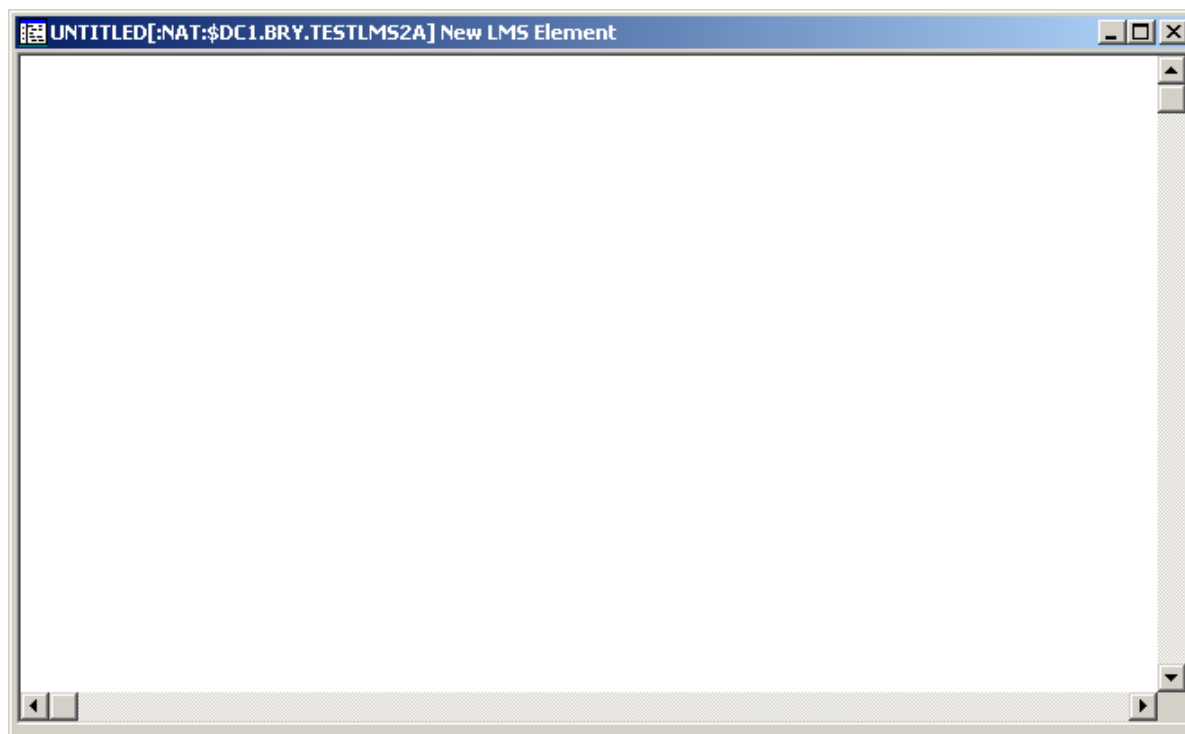
### ► To add a new LMS element

- 1 Select an LMS element in the list view window which shows a list of LMS elements, or in the object workspace.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

An empty new element appears in an editor window in the content pane:



- 3 Enter the data for the new element.

See also [Commands for Editing an Object](#).

- 4 From the **Object** menu, choose **Save As** to save your data in the editor window.

The following dialog box appears.

A screenshot of the 'UNTITLED[:NAT:\$DC1.BRY.TESTLMS2A] New LMS Element' dialog box. It contains several input fields and buttons. The 'Node' field is set to '194'. The 'File name' field contains ':NAT:\$DC1.BRY.TESTLMS2A'. The 'Element' field is empty. The 'Type' field is a dropdown menu showing 'S - Source program'. The 'Version' field is empty. The 'Password' field is empty. At the bottom right are 'OK', 'Cancel', and 'Help' buttons. At the bottom left is a label 'Enter element name.'.

- 5 Enter the following information:



Option	Description	
File name	Displays the file name last used. You can select any other file by typing over this name.	
Element	Name for the new LMS element.	
Type	Select one of the following types:	
	S	Source program.
	P	Protocol area.
	M	Assembler macro.
	D	Text data.
	J	BS2000 job.
	X	General data.
	H	Compiler result.
	R	Object module.
	L	Load module.
Version	Optional. A version name for the LMS element.	
Password	Optional. Enter a password if the new LMS element is to be password-protected.	

- 6 Choose the **OK** button.

## Submitting an LMS Element

You can submit an LMS element to the operating system.

### ► To submit an LMS element

- 1 Select an LMS element in the object workspace or list view window.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+S.

A dialog box appears, confirming that the element has been submitted.

Follow mode is automatically activated. When the job has terminated, a corresponding message is shown.

- 3 Choose the **OK** button to close the dialog box.



## 22 LMS Element Versions

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In the object workspace, the LMS element versions are shown when you expand an element which has more than one version.

## Listing Versions of an LMS Element

When an element has more than one version, you can display all of its versions in a separate window. In the [list of LMS elements](#), the number of versions is indicated in the **Version Count** column (when a string has not been specified with the **Scan for** option).

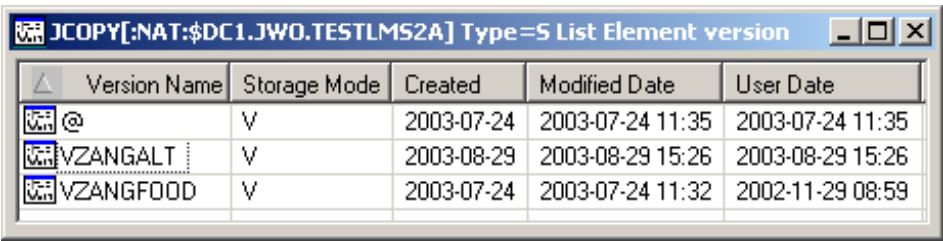
► **To list the versions of an LMS element**

- 1 In a list of LMS elements, select an element which has more than one version.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The versions of the selected element are shown in the list view window. Example:



Version Name	Storage Mode	Created	Modified Date	User Date
@	V	2003-07-24	2003-07-24 11:35	2003-07-24 11:35
VZANGALT	V	2003-08-29	2003-08-29 15:26	2003-08-29 15:26
VZANGFOOD	V	2003-07-24	2003-07-24 11:32	2002-11-29 08:59

The list contains the following columns:

Column	Description				
Version Name	Name and number of version.				
Storage Mode	Possible values: <table><tr><td>D</td><td>Delta.</td></tr><tr><td>V</td><td>Full version.</td></tr></table>	D	Delta.	V	Full version.
D	Delta.				
V	Full version.				
Created	Creation date of version in format YYYY-MM-DD.				
Modified	Date (YYYY-MM-DD) and time the version was last modified or renamed.				
User Date	Date the user specified for the element.				

## Submitting an LMS Element Version

---

You can submit an LMS element version to the operating system.

▶ **To submit an LMS element version**

- 1 Select the appropriate version in an element.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+S.

A dialog box appears, confirming that the member has been submitted.

Follow mode is automatically activated. When the job has terminated, a corresponding message is shown.

- 3 Choose the **OK** button to close the dialog box.



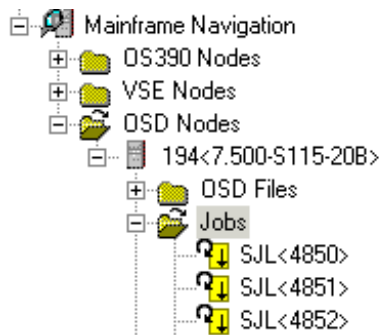
# 23

## BS2000 Jobs

---

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■ Listing BS2000 Jobs .....	202
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■ Displaying the Properties of a BS2000 Job .....	207

In the object workspace, the BS2000 jobs are shown when you expand the **Jobs** folder of an OSD node. Example:



## Filtering BS2000 Jobs

---

Before displaying BS2000 jobs, you can define a filter so that only those jobs are shown which correspond to your filter criteria.

### ▶ To define a filter

- 1 In the object workspace, select the **Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria.

Option	Description														
Job name	Job name as specified on the /LOGON or /PRINT command. You can use a combination of strings and wildcards (* and _) to display the jobs matching the job name pattern. ???														
TSN	Task sequence number assigned to a specific job. This can be numeric or alphanumeric, depending on the version of BS2000/OSD installed and the settings of its system parameters.														
Originator	For spoolout jobs, TSN of the task that started the job.														
Output device	For spoolout jobs, name of associated output device.														
Type	Information on job type and status. Possible values:														
	<table> <tr> <td>B - Batch job</td><td>Active batch jobs.</td></tr> <tr> <td>D - Dialog task</td><td>Active dialog tasks.</td></tr> <tr> <td>S - System task</td><td>Active system tasks.</td></tr> <tr> <td>T - TP task</td><td>Active TP tasks.</td></tr> <tr> <td>W - Status waiting</td><td>Tasks in waiting status.</td></tr> <tr> <td>H - Status hold</td><td>Tasks in hold status.</td></tr> <tr> <td>K - Status keep</td><td>Tasks in keep status.</td></tr> </table>	B - Batch job	Active batch jobs.	D - Dialog task	Active dialog tasks.	S - System task	Active system tasks.	T - TP task	Active TP tasks.	W - Status waiting	Tasks in waiting status.	H - Status hold	Tasks in hold status.	K - Status keep	Tasks in keep status.
B - Batch job	Active batch jobs.														
D - Dialog task	Active dialog tasks.														
S - System task	Active system tasks.														
T - TP task	Active TP tasks.														
W - Status waiting	Tasks in waiting status.														
H - Status hold	Tasks in hold status.														
K - Status keep	Tasks in keep status.														

- 4 Choose the **OK** button.

## Listing BS2000 Jobs

The number of objects shown in the list view window depends on whether or not a filter has been defined for the BS2000 jobs (see [Filtering BS2000 Jobs](#)).

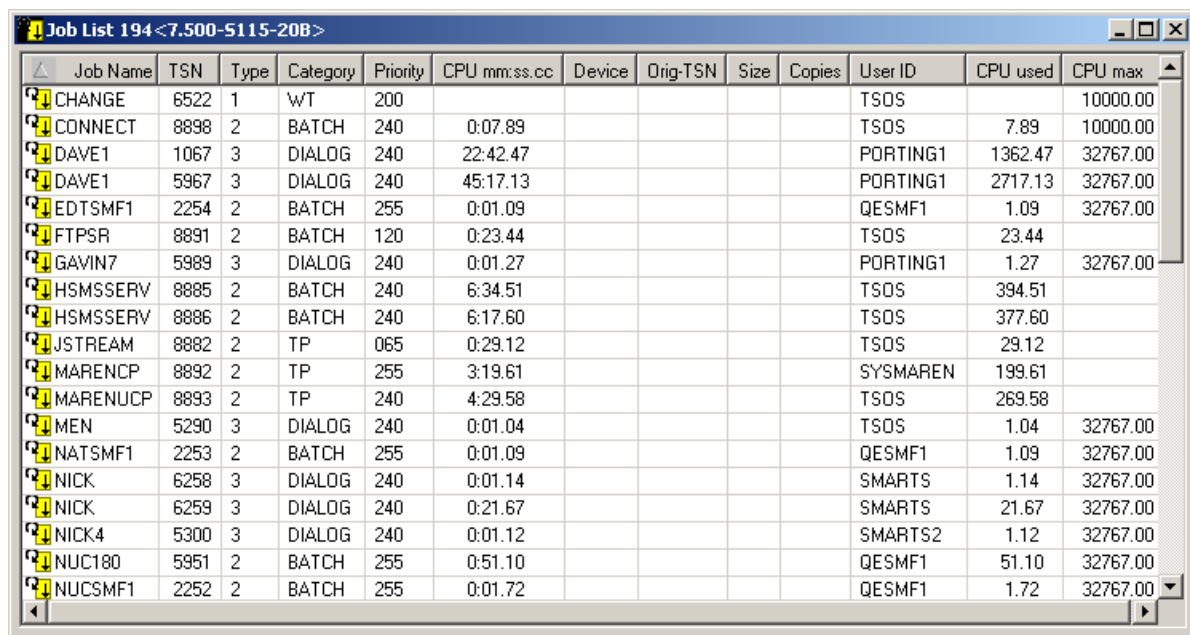
### ► To list BS2000 jobs

- 1 In the object workspace, select the **Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

A list of jobs is shown in the list view window. Example:



The screenshot shows a window titled "Job List 194<7.500-5115-208>". It contains a table with the following columns: Job Name, TSN, Type, Category, Priority, CPU mm:ss.cc, Device, Orig-TSN, Size, Copies, User ID, CPU used, and CPU max. The table lists 20 jobs with various details.

Job Name	TSN	Type	Category	Priority	CPU mm:ss.cc	Device	Orig-TSN	Size	Copies	User ID	CPU used	CPU max
CHANGE	6522	1	WT	200						TSOS		10000.00
CONNECT	8898	2	BATCH	240	0:07.89					TSOS	7.89	10000.00
DAVE1	1067	3	DIALOG	240	22:42.47					PORTING1	1362.47	32767.00
DAVE1	5967	3	DIALOG	240	45:17.13					PORTING1	2717.13	32767.00
EDTSMF1	2254	2	BATCH	255	0:01.09					QESMF1	1.09	32767.00
FTPSR	8891	2	BATCH	120	0:23.44					TSOS	23.44	
GAVIN7	5989	3	DIALOG	240	0:01.27					PORTING1	1.27	32767.00
HSMSSERV	8885	2	BATCH	240	6:34.51					TSOS	394.51	
HSMSSERV	8886	2	BATCH	240	6:17.60					TSOS	377.60	
JSTREAM	8882	2	TP	065	0:29.12					TSOS	29.12	
MARENCP	8892	2	TP	255	3:19.61					SYSMAREN	199.61	
MARENUCP	8893	2	TP	240	4:29.58					TSOS	269.58	
MEN	5290	3	DIALOG	240	0:01.04					TSOS	1.04	32767.00
NATSMF1	2253	2	BATCH	255	0:01.09					QESMF1	1.09	32767.00
NICK	6258	3	DIALOG	240	0:01.14					SMARTS	1.14	32767.00
NICK	6259	3	DIALOG	240	0:21.67					SMARTS	21.67	32767.00
NICK4	5300	3	DIALOG	240	0:01.12					SMARTS2	1.12	32767.00
NUC180	5951	2	BATCH	255	0:51.10					QESMF1	51.10	32767.00
NUCSMF1	2252	2	BATCH	255	0:01.72					QESMF1	1.72	32767.00

The list contains the following columns:

Column	Description
Job Name	Job name as specified on the /LOGON or /PRINT command.
TSN	Task sequence number assigned to a specific job. This can be numeric or alphanumeric, depending on the version of BS2000/OSD installed and the settings of its system parameters.
Type	Numeric job identifier. Possible values:

Column	Description	
	1	Tasks waiting in job pool: WT, HO or DO(dormant).
	2	Active tasks.
	3	(Active) dialog tasks.
	4	Spoolout jobs waiting to be processed.
	5	Active spoolout jobs.
	6	RBP spoolout jobs (Remote Batch Processing).
	7	RSO spoolout jobs (Remote Spool Output).
	8	Active RBP tasks (Remote Batch Processing).
Category	Information on the job type and status. Possible values:	
	BATCH	Active batch jobs.
	DIALOG	Active dialog tasks.
	HOLD	Tasks in hold status.
	KEEP	Tasks in keep status.
	SYSTEM	Active system tasks.
	TP	Active TP tasks.
	WT	Tasks in waiting status.
Priority	Run priority of job/task.	
CPU mm:ss.cc	Amount of CPU time consumed by the job, specified in minutes, seconds and hundredths of a second.	
Device	Name of assigned output device (spoolout jobs only).	
Orig-TSN	Task sequence number of the job that generated the spoolout (spoolout jobs only).	
Size	Size of spoolout file (spoolout jobs only).	
Copies	Total number of copies to be printed (spoolout jobs only).	
User ID	User ID under which the job is executing (usually your own user ID).	
CPU used	Amount of CPU time consumed by the job, in seconds.	
CPU max	Maximum amount of CPU time allowed for the job.	

## Displaying the Condition Codes of a BS2000 Job

You can display the information which is kept in job variables.

### ► To display the condition codes of a BS2000 job

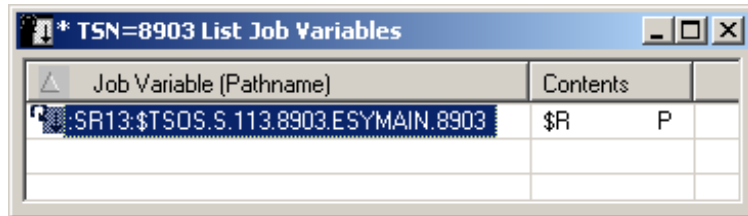
- 1 Select a job in the object workspace or list view window.

- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

The list view window appears in the content pane:



The list contains the following columns:

Column	Description
Job Variable (Pathname)	Full path name including catalog ID and user ID specification.
Contents	First 64 bytes of job variable value.

---

## Displaying the Status of a BS2000 Job

You can display the current status of job.

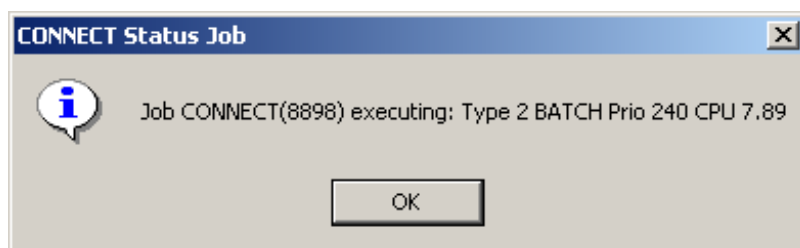
### ► To display the status of a BS2000 job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Status**.

Or:

Press CTRL+F10.

The job status is displayed in a dialog box in the content pane. Example:



- 3 Choose the **OK** button to close the dialog box.

## Turning on Follow Mode for a BS2000 Job

---

You can instruct Mainframe Navigation to display a message when the job has terminated.

Follow mode can be active for one job only. If it is activated for a second job before the first job has terminated, only the second job will be followed.

### ▶ To turn on follow mode for a BS2000 job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow**.

## Turning off Follow Mode for a BS2000 Job

---

When you turn off follow mode, a message is no longer displayed.

### ▶ To turn off follow mode for a BS2000 job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Follow Off**.

## Displaying the Output of a BS2000 Job

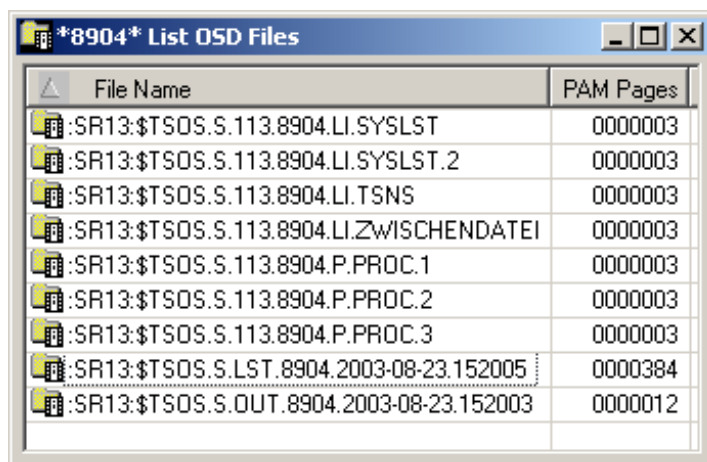
You can lists the output files which are created by the job and associated by means of a file name pattern.

Note that site-specific association rules may have been established by your system administrator. If no such rules apply, the files containing the TSN as part of their name are listed.

### ► To display the output of a BS2000 job

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Output**.

A list of the job's output files is shown in the list view window. Example:



File Name	PAM Pages
:SR13:\$TSOS.S.113.8904.LI.SYSLST	0000003
:SR13:\$TSOS.S.113.8904.LI.SYSLST.2	0000003
:SR13:\$TSOS.S.113.8904.LI.TSNS	0000003
:SR13:\$TSOS.S.113.8904.LI.ZWISCHENDATEI	0000003
:SR13:\$TSOS.S.113.8904.P.PROC.1	0000003
:SR13:\$TSOS.S.113.8904.P.PROC.2	0000003
:SR13:\$TSOS.S.113.8904.P.PROC.3	0000003
:SR13:\$TSOS.S.LST.8904.2003-08-23.152005	0000384
:SR13:\$TSOS.S.OUT.8904.2003-08-23.152003	0000012

The list contains the following columns:

Column	Description
File Name	All files which contain the job TSN as part of their name.
PAM Pages	Number of PAM pages allocated for the file.

## Displaying the Properties of a BS2000 Job

You can display information about a BS2000 job.

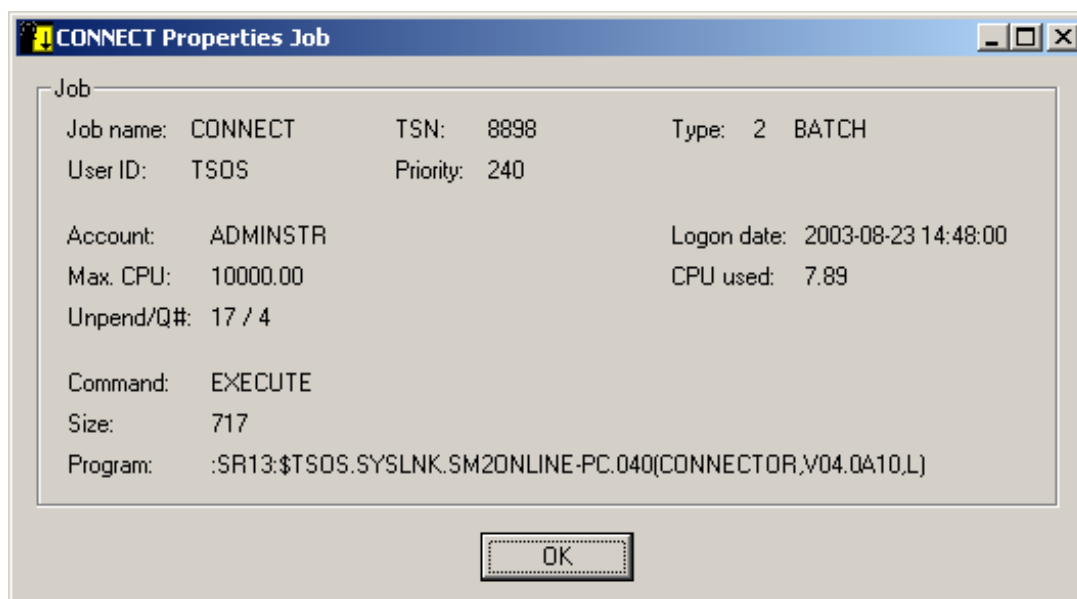
► **To display the properties of a BS2000 job**

- 1 Select a job in the object workspace or list view window.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.



The following information is shown in this dialog box:

Option	Description
Job name	Job name as specified on the /LOGON or /PRINT command.
User ID	User ID under which the job is executing.
Account	Account number of job for task types 1 - 3.
Max. CPU	Maximum amount of CPU time allowed for the job.
Unpend/Q#	Pend/unpend code for task types 2 and 3.
Command	Last command executed by the task for task types 2 and 3.

Option	Description	
Size	Size of spoolout file (spoolout jobs only).	
Program	For task types 2 and 3: name of the loaded program.	
TSN	Task sequence number assigned to the job.	
Priority	Run priority of job/task.	
Type	The first value is the numeric job identifier. Possible values:	
	1	Tasks waiting in job pool: WT, HO or DO(rmant).
	2	Active tasks.
	3	(Active) dialog tasks.
	4	Spoolout jobs waiting to be processed.
	5	Active spoolout jobs.
	6	RBP spoolout jobs (Remote Batch Processing).
	7	RSO spoolout jobs (Remote Spool Output).
	8	Active RBP tasks (Remote Batch Processing).
	The second value is the category information on job type and status. Possible values:	
	BATCH	Active batch jobs.
	DIALOG	Active dialog tasks.
	HOLD	Tasks in hold status.
	KEEP	Tasks in keep status.
	SYSTEM	Active system tasks.
	TP	Active TP tasks.
	WT	Tasks in waiting status.
Logon date	For task types 2 and 3: date (YYYY-MM-DD) and time of logon.	
CPU used	Amount of CPU time consumed by the job, in seconds.	



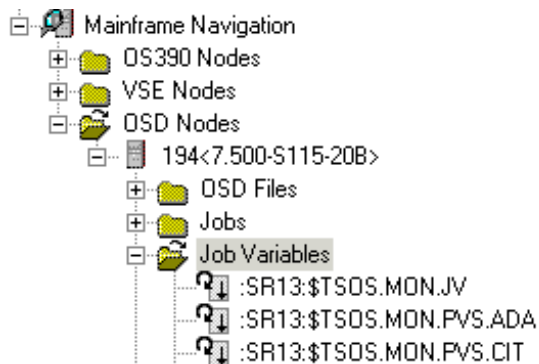
# 24

## BS2000 Job Variables

---

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■ Adding a New BS2000 Job Variable .....	212
■ Changing the Attributes of a BS2000 Job Variable .....	213
■ Displaying the Properties of a BS2000 Job Variable .....	214

In the object workspace, the BS2000 job variables are shown when you expand the **Job Variables** folder of an OSD node. Example:



---

## Filtering BS2000 Job Variables

Before displaying BS2000 job variables, you can define a filter so that only those job variables are shown which correspond to your filter criteria.

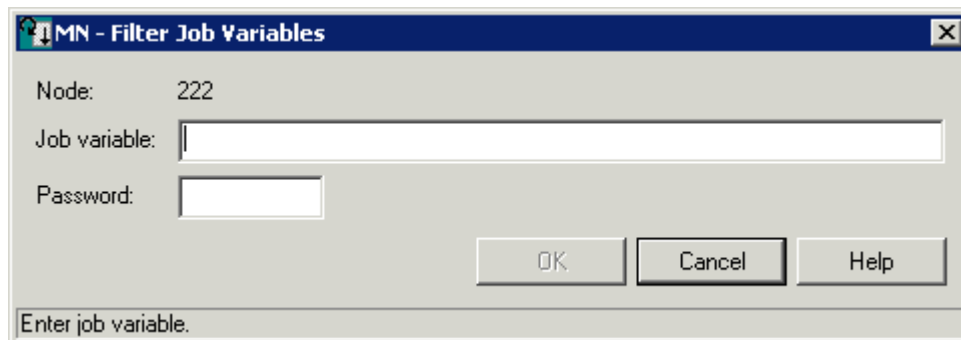
► **To define a filter**

- 1 In the object workspace, select the **Job Variables** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:



- 3 Enter the filter criteria.

Option	Description
Job variable	Enter the job variables that are to be shown.
Password	<p>You do not have to enter a password here just to list the job variables.</p> <p>However, you must enter a password, if you then want to perform read or write operations on a listed job variable, which requires a password.</p> <p>To change a job variable, 2 passwords may be required, one for read and and another one for write. Mainframe Navigation assumes that the entered password is the read password and prompts for the write password, if required.</p> <p>For more information on passwords, see <a href="#">Changing the Attributes of a BS2000 Job Variable</a>.</p>

- 4 Choose the **OK** button.

## Listing BS2000 Job Variables

The number of objects shown in the list view window depends on whether or not a filter has been defined for the BS2000 job variables (see [Filtering BS2000 Job Variables](#)).

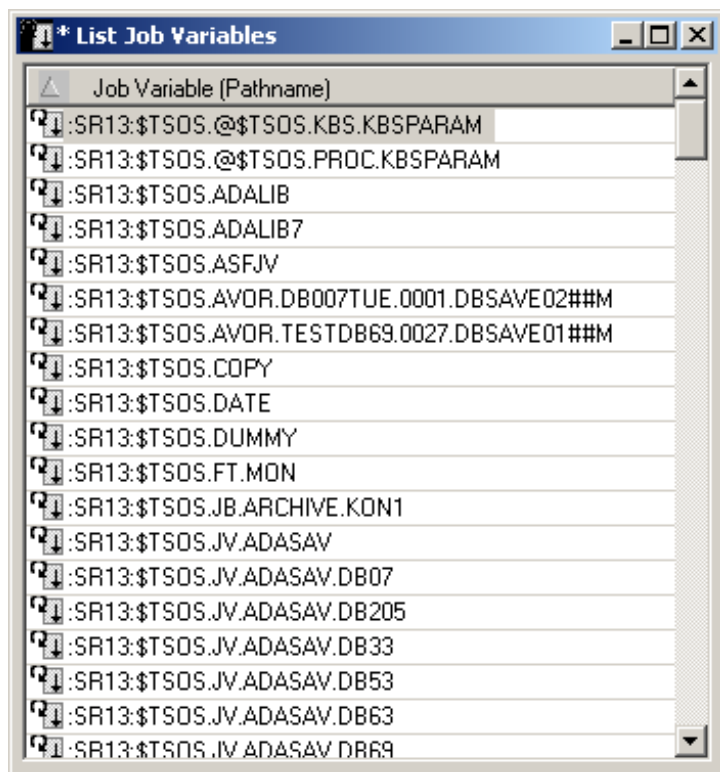
### ► To list BS2000 job variables

- 1 In the object workspace, select the **Job Variables** folder in the appropriate node.
- 2 Invoke the context menu and choose **List**.

Or:

Press F8.

The job variables are shown in the list view window. Example:



## Adding a New BS2000 Job Variable

---

You can add a new BS2000 job variable with standard attributes.

► **To add a New BS2000 job variable**

- 1 In the object workspace, select the **Job Variables** folder in the appropriate node.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

A dialog box appears.

- 3 Enter the name and the attributes as described in the section [Changing the Attributes of a BS2000 Job Variable](#).
- 4 Choose the **OK** button.

## Changing the Attributes of a BS2000 Job Variable

You can change attributes the attributes of a job variable, for example, define a password.

► To change the attributes of a BS2000 job variable

- 1 Select a job variable in the object workspace or list view window.
- 2 Invoke the context menu and choose **Change**.

The following dialog box appears:

**:SR13:\$TSOS.MON.JV Change Job Variable**

Job Variable

Name: :SR13:\$TSOS.MON.JV

Security

Shared file: Yes

Access type: Write

Retention period:

☐ Read password    New password:    Confirmation:

☐ Write password    New password:    Confirmation:

Current contents

	1	2	3	4	5	6
\$T	+		P			

OK Cancel Help

Select shared file.

- 3 Change the desired attributes.

Option	Description	
Shared file	Yes	Makes the job variable accessible to other users.
	No	Restricts access to the owner user ID.
Access type	Write	Allows write access to the specified job variable, which also implicitly includes authorization for read access.
	Read	Allows read access only.
Retention period	Enter a number representing a retention period (in days) that is to be assigned to the specified job variable: This means it can neither be modified nor deleted within the specified period of time.	
Read password	Activate this check box to enter or change a password that protects the job variable against unauthorized read accesses.	
	New password	Enter new read password in this field.
	Confirmation	Confirm the new read password in this field.
Write password	Activate this check box to enter or change a password that protects the job variable against unauthorized modification or deletion.	
	New password	Enter new write password in this field.
	Confirmation	Confirm the new write password in this field.
Current contents	Here you can edit the contents of the job variable.	

- 4 Choose the **OK** button.

---

## Displaying the Properties of a BS2000 Job Variable

---

You can display information about a BS2000 job variable.

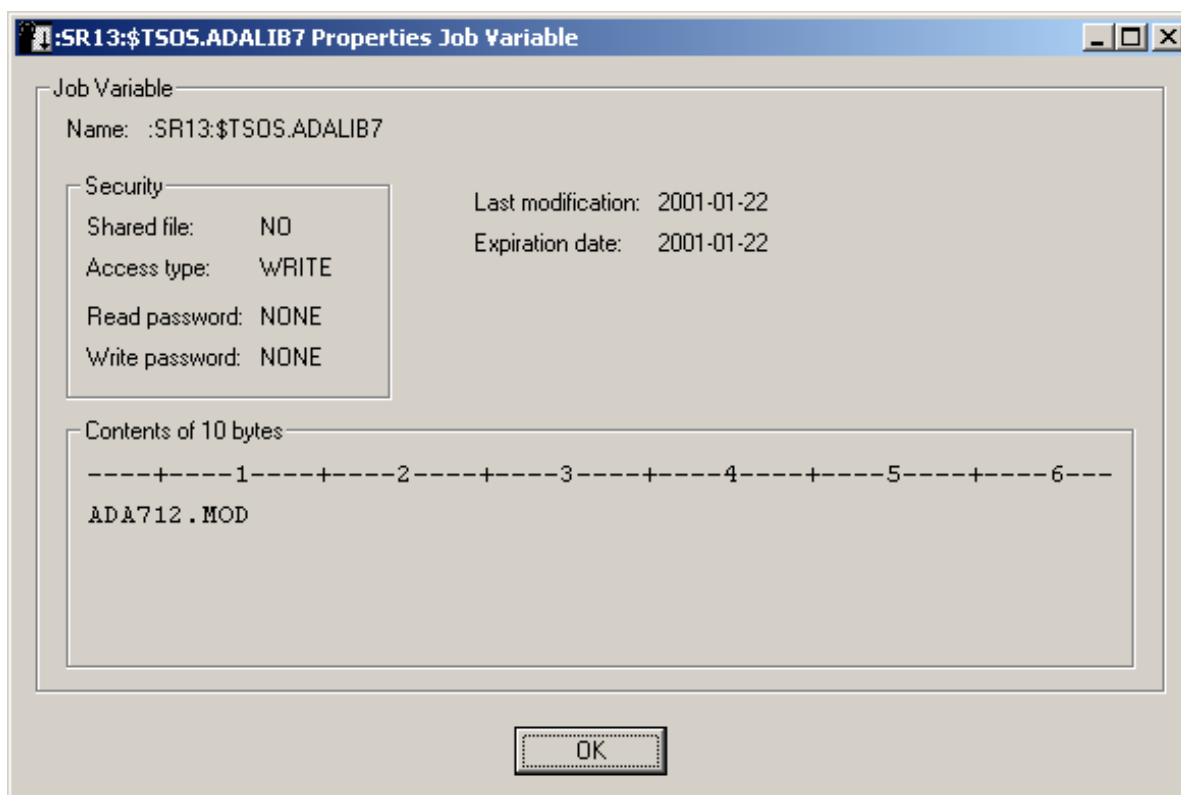
► **To display the properties of a BS2000 job variable**

- 1 In the object workspace, select the appropriate job variable in the **Job Variables** folder.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.



The following information is shown in this dialog box:

Option	Description		
Name	Name of the job variable.		
Security	Shared file	YES	The job variable is accessible to other users.
		NO	The job variable is not accessible to other users.
	Access type	READ	Only read access is allowed.
		WRITE	Read and write access are allowed.
	Read password	NONE	No password is defined.
		YES	Read password is defined for job variable. If the caller is TSOS and Entire System Server is running under TSOS, the password itself is returned.
	Write password	NONE	No password is defined.
		YES	Write password is defined for job variable. If the caller is TSOS and Entire System Server is running under TSOS, the password itself is returned.
Contents of <i>n</i> bytes	Displays the content and length of the job variable.		

Option	Description
Last modification	Date of last modification in format YYYY-MM-DD.
Expiration date	The date (YYYY-MM-DD) after which the job variable can be erased.



# VII

---

■ 25 System Log .....	219
■ 26 Console .....	221



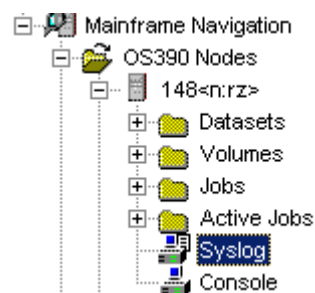
# 25

## System Log

---

■ Browsing the System Log .....	220
---------------------------------	-----

Each z/OS and z/VSE node in the object workspace contains an entry for the system log (Syslog).  
Example:



## Browsing the System Log

---

The system log is shown in a browse window (read-only). You can copy the contents, but you cannot modify it.

### ► To browse the system log

- 1 In the object workspace, select **Syslog** in the appropriate node.
- 2 Invoke the context menu and choose **Browse**.

Or:

Press CTRL+B.

Or:

Choose the following toolbar button:



The system log is shown in a browse window. You are automatically positioned to the most recent entries at the bottom of the window.

See also [Commands for Browsing an Object](#).

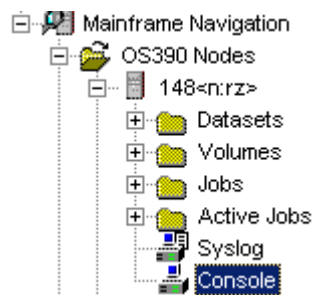
# 26

## Console

---

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Each z/OS, z/VSE and BS2000/OSD node in the object workspace contains an entry for the console. Example:



- [Browsing the Console](#)
- [Issuing an Operator Command](#)

---

## Browsing the Console

The console is shown in a browse window (read-only). You can copy the contents, but you cannot modify it.

### ► To browse the console

- 1 In the object workspace, select **Console** in the appropriate node.
- 2 Invoke the context menu and choose **Browse**.

Or:

Press CTRL+B.

The console is shown in a browse window. You are automatically positioned to the most recent console messages at the bottom of the window. The window always shows up to 100 lines.

See also [Commands for Browsing an Object](#).

## Issuing an Operator Command

You can issue operator commands to the console.

▶ **To issue an operator command**

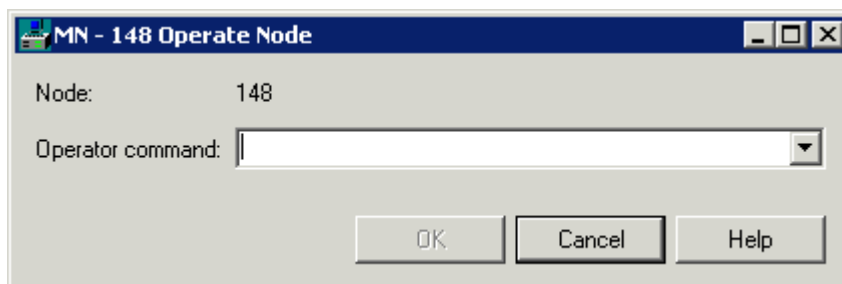
- 1 In the object workspace, select **Console** in the appropriate node.
- 2 Invoke the context menu and choose **Operate**.

Or:

Choose the following toolbar button:



The following dialog box appears:



- 3 Enter an operator command.
- 4 Choose the **OK** button.

The dialog box is not closed so that you can enter further operator commands. All operator commands that you have issued while the dialog box is open can be selected from the drop-down list box.

- 5 To close the dialog box, choose the **Cancel** button.

