

NaturalONE

Mainframe Navigation

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This document applies to NaturalONE Version 9.1.3 and all subsequent releases.

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

Mainframe Navigation allows you to access and manipulate objects stored on a mainframe from Eclipse. These objects include datasets and members, as well as system objects such as active jobs or the console under the z/OS operating system. With Mainframe Navigation, the objects are displayed in a tree structure and can be browsed and edited in Eclipse. On the mainframe server, Mainframe Navigation is supported by Natural ISPF.

This documentation is organized under the following headings:

Installation and Configuration	How to install and configure Mainframe Navigation. Prerequisites on the mainframe server.
Accessing an Entire System Server Environment	About the Mainframe Navigation view. How to map the mainframe environment in which the Entire System Server nodes have been defined.
Managing the Server Nodes	Explains the operations that can be performed on a server node.
Listing and Filtering Objects	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.
General Commands for Managing Different Types of Objects	How to edit, browse and delete objects, how to refresh the display, how to display the properties of an object, and how to display information in the Console view of Eclipse. 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.
Managing z/OS Objects	How to manage z/OS datasets, PDS members, volumes, jobs and active jobs.
System Log	How to browse the system log.
Console	How to browse the console.

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Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <i>folder.subfolder.service</i> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

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I Installation and Configuration

2 Installation and Configuration

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Server Prerequisites

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

- Natural Development Server (NDV)*.
- 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, 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.

Installing Mainframe Navigation

You install Mainframe Navigation together with NaturalONE, using the Software AG Installer. Mainframe Navigation is part of NaturalONE's optional Mainframe Tools component.

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

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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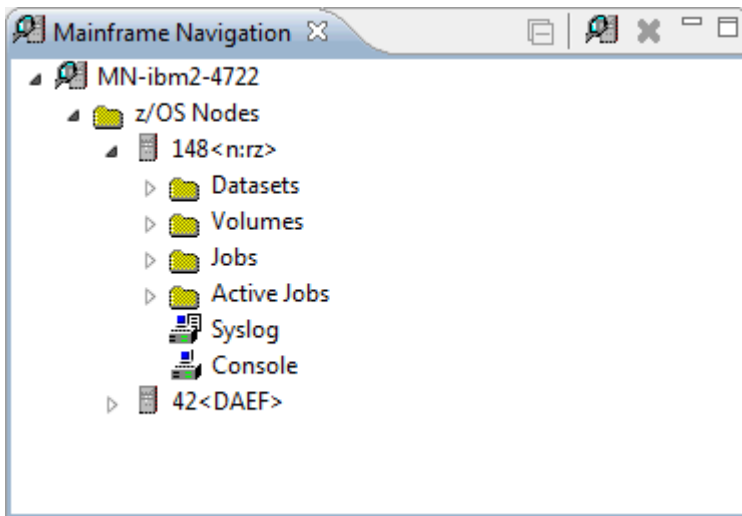
3 Accessing an Entire System Server Environment

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About the Mainframe Navigation View

To work with Mainframe Navigation, you have to map the mainframe environment in which the Entire System Server nodes have been defined (see also [Defining the Entire System Server Nodes](#)). You do this in the **Mainframe Navigation** view. In the remainder of this documentation, such an environment is referred to as a “Mainframe Navigation environment”.

The **Mainframe Navigation** view contains a tree. All objects that can be managed with Mainframe Navigation are available in the corresponding nodes of the tree.



You can expand or collapse a node in the tree by clicking the plus or minus sign in front of a node. Or you can toggle the state of the node (expanded or collapsed) by double-clicking the name of the node, or by selecting the name of the node then pressing ENTER. A node preceded by a minus sign has been fully expanded.

You can use the  button in the local toolbar to collapse all expanded nodes.

In the **Mainframe Navigation** view, you can select several objects at the same time. You do this using the standard Eclipse functionality (for example, by pressing CTRL and then clicking on each object that you want to include in the selection). This is helpful, for example, if you want to open the editor for several objects at the same time or if you want to delete several objects at the same time.

Tooltips for error messages are shown in the **Mainframe Navigation** view when you move the mouse over entries in the tree which cause an error. Such a tooltip can be shown, for example, for a server node when the server is no longer accessible. Tooltips are also shown for information messages, for example, for a jobs folder when no jobs can be found.

Showing the Mainframe Navigation View

The **Mainframe Navigation** view is not shown by default when you open the NaturalONE perspective. If it is currently not shown, you can display it as described below.

➤ **To show the Mainframe Navigation view**

- 1 From the **Window** menu, choose **Show View > Other**.
- 2 In the resulting **Show View** dialog box, expand the **Software AG NaturalONE** node and select **Mainframe Navigation**.
- 3 Choose the **OK** button.

Mapping a Mainframe Navigation Environment

If you want to connect to a Mainframe Navigation environment for the first time, you have to map it as described below. Once you have mapped an environment, a node for this environment is automatically shown in the **Mainframe Navigation** view. It is possible to map the same environment more than once, for example, if you want to have sessions with different session parameters.

➤ **To map a Mainframe Navigation environment**

- 1 Go to the **Mainframe Navigation** view.
- 2 Invoke the context menu and choose **Map**.

Or:

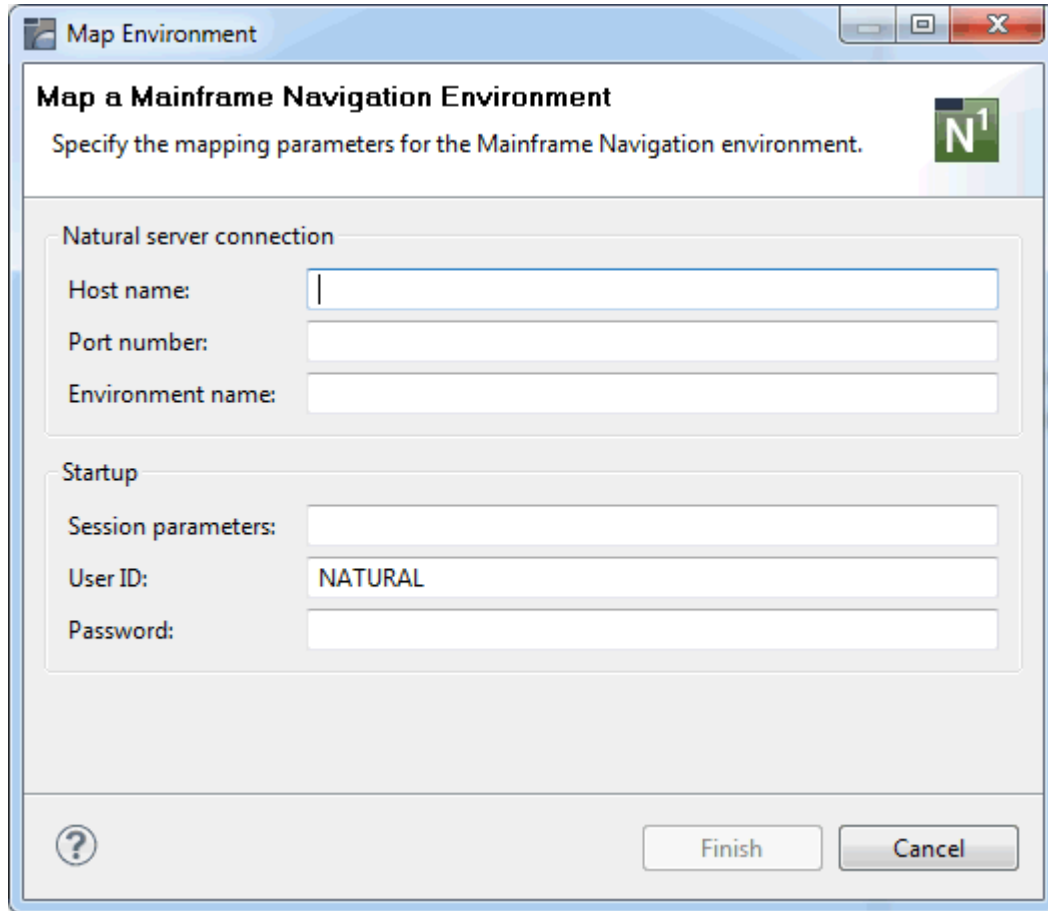
Choose the following icon in the local toolbar:



Or:


Press CTRL+ALT+M.

The following dialog box appears.



3 Specify the following information:

Option	Description
Host name	The name of the Natural server.
Port number	The TCP/IP port number of the Natural server.
Environment name	The name that is to appear in the Mainframe Navigation view. A default name will be created automatically. If you want, you can enter a more specific environment name.
Session parameters	Optional. If dynamic parameters are required for the Natural environment, specify them in this text box.
User ID	The user ID that is to be used for mapping the Natural environment. This text box is initially blank. When you have previously mapped an environment, the user name that you entered the last time is automatically provided.
Password	Optional. If Natural Security is active on the Natural server, specify the required password in this text box.

 **Note:** If you do not know the host name and port number for your Natural server, ask your administrator.

- 4 Choose the **Finish** button.

A node for the specified environment is now shown in the **Mainframe Navigation** view. For information on how to proceed, see [Managing the Server Nodes](#).

Unmapping a Mainframe Navigation Environment

When you unmap a Mainframe Navigation environment, its node is removed from the **Mainframe Navigation** view.

➤ To unmap a Mainframe Navigation environment

- 1 In the **Mainframe Navigation** view, select the node for the Mainframe Navigation environment that you want to unmap.
- 2 Invoke the context menu and choose **Unmap**.

Or:

Choose the following icon in the local toolbar:



Or:

Press CTRL+ALT+U.

You are asked whether you really want to delete the Mainframe Navigation node.


- 3 Choose the **Yes** button to confirm the deletion.

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 **Mainframe Navigation** view.

 **Note:** Currently, only the z/OS operating system is supported. Therefore, **z/OS Nodes** is the only operating system node which is currently shown.

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

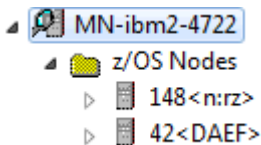
> To display the server nodes

- 1 In the **Mainframe Navigation** view, expand the top-level node for the environment that you have mapped.

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](#)).

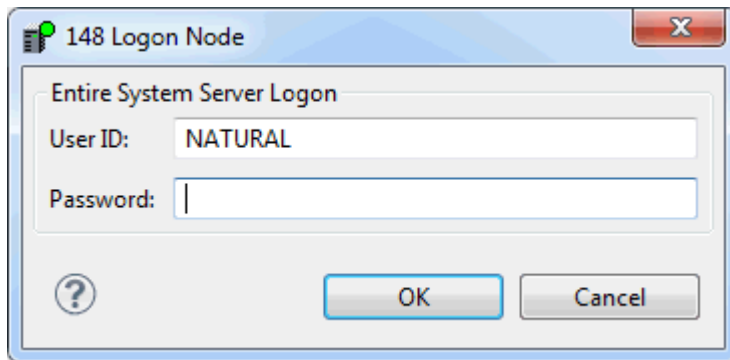
> To log on to a server node

- 1 In the **Mainframe Navigation** view, 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.

Displaying the Properties of a Server Node

You can display information about a server node.

 **Note:** See also *Displaying the Properties*.

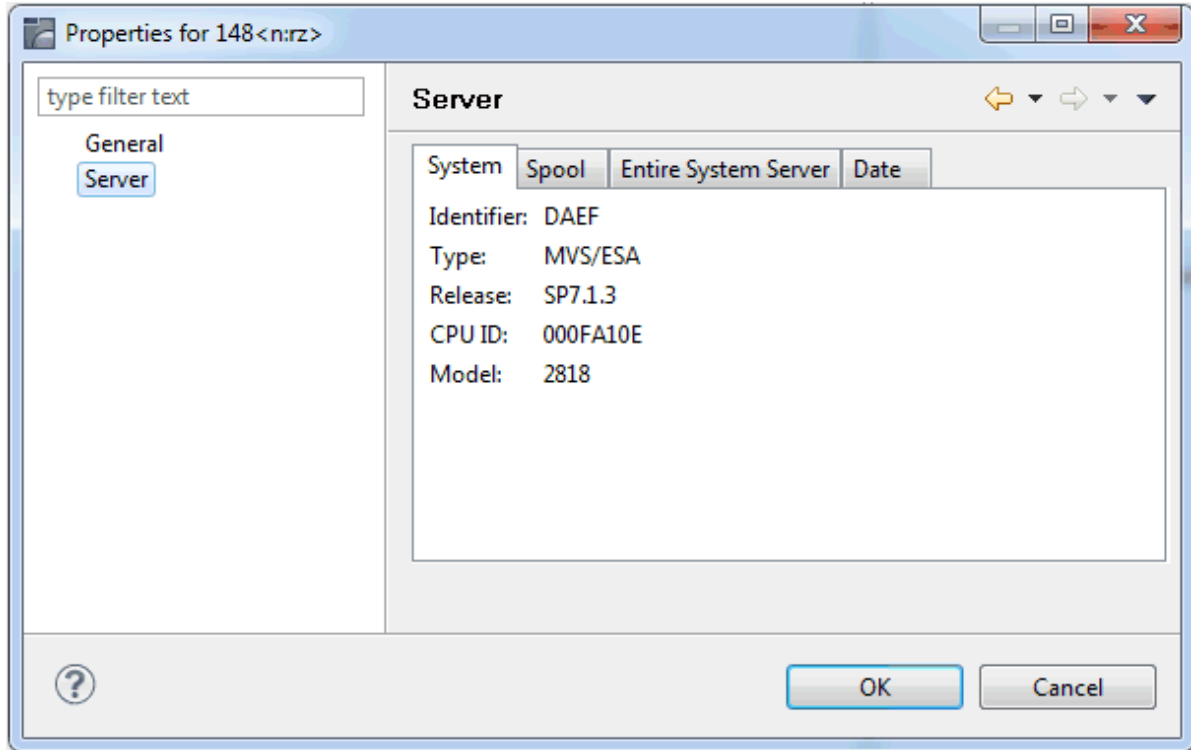
➤ To display the properties of a server node

- 1 In the **Mainframe Navigation** view, 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. Two pages are provided. Detailed information is provided on the **Server** page. The content of this dialog box depends on the node which has been selected. Example for z/OS:



The following information is provided in this dialog box:

Tab	Option	Description
System	Identifier	Logical identifier of the node.
	Type	Operating system type.
	Release	Release number of the operating system.
	CPU ID	CPU identification number.
	Model	Machine-type number of the CPU.
Spool	Type	Spooling system type.
	Release	Release number of spooling system.
Entire System Server	Node	Node number.
	Job name	Job name of the Entire System Server node.
	Identifier	Logical identifier of the node.
	Version	Version number of this Entire System Server.
	Security	Security system defined in Entire System Server startup parameters.
	Auto logon	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	States whether Entire System Server is running APF-authorized. Possible values: YES, NO.

Tab	Option	Description
	SMF	SMF record number written by Entire System Server.
Date	Local date	Current date in format YYYY-MM-DD.
	Local time	Current time of day.
	Difference to GMT	Time difference in hours between the local time and GMT.
	Date of last IPL	Date of last system IPL in format YYYY-MM-DD.
	Time of last IPL	Time of last system IPL.

5 Listing and Filtering Objects

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Listing an Object

When you display a list of objects, 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.

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 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 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.

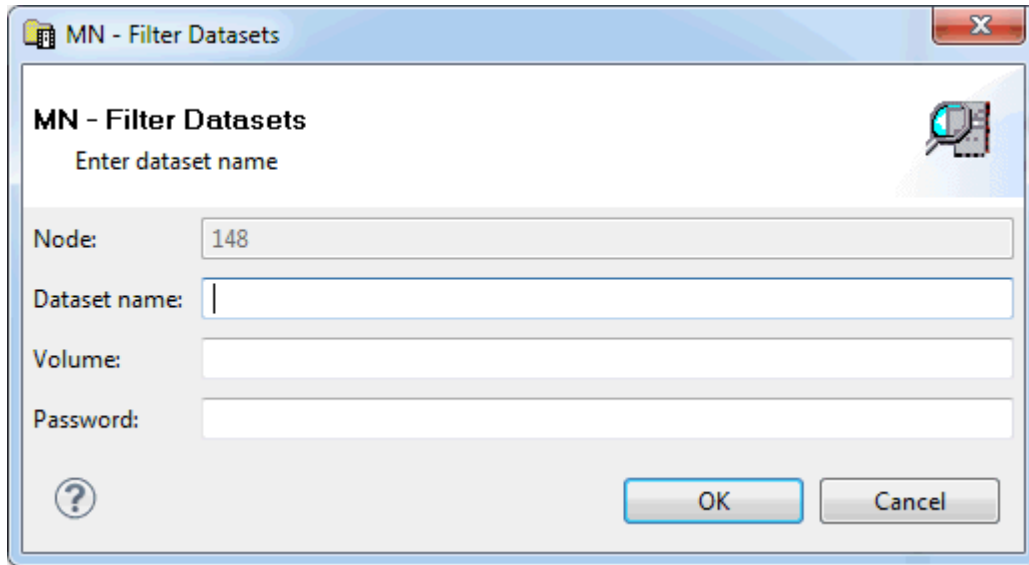
➤ **To define a filter**

- 1 In the **Mainframe Navigation** view, select the appropriate object.
- 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.

- 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 **Mainframe Navigation** view.

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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 and members.

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

➤ To edit an object

- 1 In the **Mainframe Navigation** view, select the appropriate object.
- 2 Invoke the context menu and choose **Edit**.

Or:

Press CTRL+E.

Or:

Double-click the appropriate object.



Note: When you double-click an object in the **Mainframe Navigation** view, an editor window is invoked for that object. Whether the contents of the editor window can be modified depends on the commands that are available for the object. When the **Edit** command is available for the object, the regular editor window is invoked and the content of the object can be modified. When only the **Browse** command is available for the object (and no **Edit** command), the **read-only editor window** is invoked.

The selected object appears in an editor window.

- 3 Apply all required changes to the object.
- 4 Save the object using the standard Eclipse functionality (for example, press CTRL+S).

Commands for Editing an Object

When you invoke the context menu in the editor window, you can see the available editor commands and the corresponding keyboard shortcuts. These include, for example, **Undo** (CTRL+Z), **Save** (CTRL+S), **Cut** (CTRL+X), **Copy** (CTRL+C) and **Paste** (CTRL+V).

It is also possible to save the current contents of the editor window to a new object. To do so, you use the **Save As** command from the **File** menu. A dialog will then appear in which you have to specify all required information.

You can also use standard Eclipse commands such as **Select All** or **Find/Replace** from the **Edit** menu.

Browsing an Object

You can display an object in read-only mode. The content of the object is then displayed a read-only editor 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 In the **Mainframe Navigation** view, select the appropriate object.
- 2 Invoke the context menu and choose **Browse**.

Or:

Press CTRL+B.



Note: When only the **Browse** command is available for the object (and no **Edit** command), you can also double-click the object in order to invoke the read-only editor window.

The selected object appears in a read-only editor window.

Commands for Browsing an Object

When you invoke the context menu in a read-only editor window, you can see the available commands and the corresponding keyboard shortcuts. These include, for example, **Copy** (CTRL+C) and **Refresh** (F5).

You can also use standard Eclipse commands such as **Select All** or **Find/Replace** from the **Edit** menu (keep in mind, that the “replace” functionality is disabled in the read-only editor window).

Deleting an Object

You can delete datasets, members, jobs, and sysout datasets.

➤ To delete an object

- 1 In the **Mainframe Navigation** view, select the appropriate object.
- 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 **OK** button to delete the object.

Displaying the Properties

When you select a node in the **Mainframe Navigation** view, the corresponding properties are automatically shown in the **Properties** view. The information that is shown in the **Properties** view depends on the type of node that is currently selected.

Brief information on the selected node is also shown in the status line of the Eclipse window. This includes the name of the node and the name of the environment.

You can also invoke a properties dialog box for a node using the **Properties** command from the context menu. In many cases, a properties dialog box provides more information than the **Properties** view. For detailed information on the information shown in a properties dialog box, see the appropriate section later in this documentation.

Refreshing the Display

You can refresh the contents of an expandable node in the **Mainframe Navigation** view. Or you can refresh text or code displayed in a read-only editor window (that is, in a window that has been invoked using the **Browse** command). The most current information from the server is then shown.

➤ **To refresh the display**

- 1 In the **Mainframe Navigation** view, select the node that is to be refreshed.

Or:

Activate the read-only editor window that is to be refreshed.


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

Or:

Press F5.

Using the Console View in Eclipse

When the **Console output** option has been selected on the **Natural > Builder** page of the Natural-specific preferences (see *Setting the Preferences* in *Using NaturalONE*), the **Console** view of Eclipse shows the requests that are sent to the server and the corresponding responses from the server. This is different from the information which is shown for the **console** and **system log** in the **Mainframe Navigation** view which only show the information from the server.

As soon as Mainframe Navigation starts writing output to the **Console** view, a Mainframe Navigation console is available in the list of selected consoles. See the "Display Selected Console" icon () which is shown in the local toolbar of the **Console** view.

III

Managing z/OS Objects

This part covers the following topics:

[z/OS Datasets](#)

[PDS Members](#)

[z/OS Volumes](#)

[z/OS Jobs](#)

[z/OS Active Jobs](#)

7 z/OS Datasets

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In the **Mainframe Navigation** view, the z/OS datasets are shown when you expand the **Datasets** folder of a z/OS node.

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.

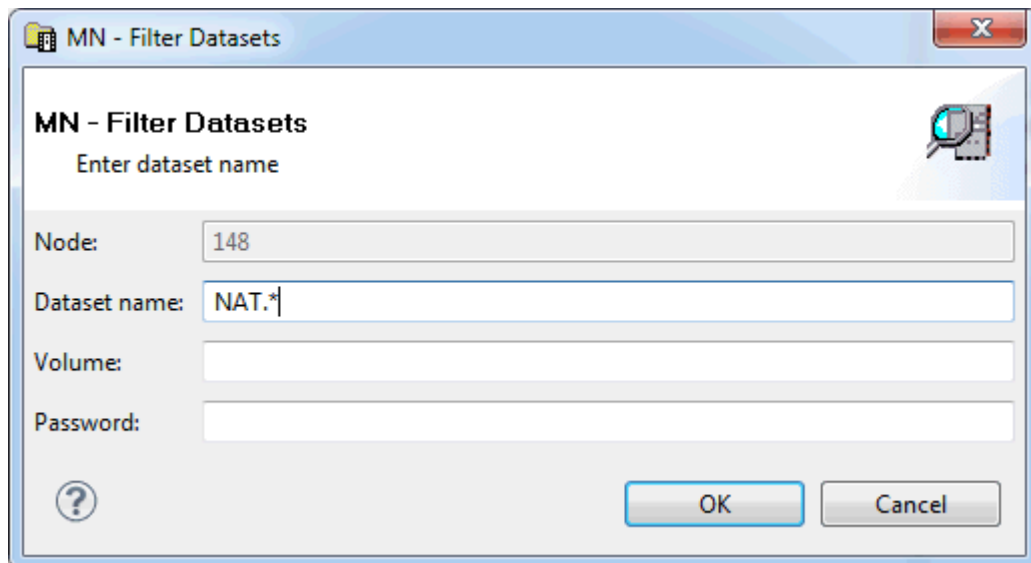
> To define a filter

- 1 In the **Mainframe Navigation** view, 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.

Compressing a z/OS Dataset

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

➤ To compress a z/OS dataset

- 1 In the **Mainframe Navigation** view, 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 **OK** button to compress the dataset.

Displaying the Properties of a z/OS Dataset

You can display information about a z/OS dataset.

➤ To display the properties of a z/OS dataset

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

Or:

Press ALT+ENTER.

A properties dialog box appears.

Sequential and Partitioned Datasets

The following information is shown on the **Server** page of the properties dialog box:

Option	Description	
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
	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.

Option	Description	
	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.

8 PDS Members

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In the **Mainframe Navigation** view, the PDS members are shown when you expand a partitioned dataset.

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.

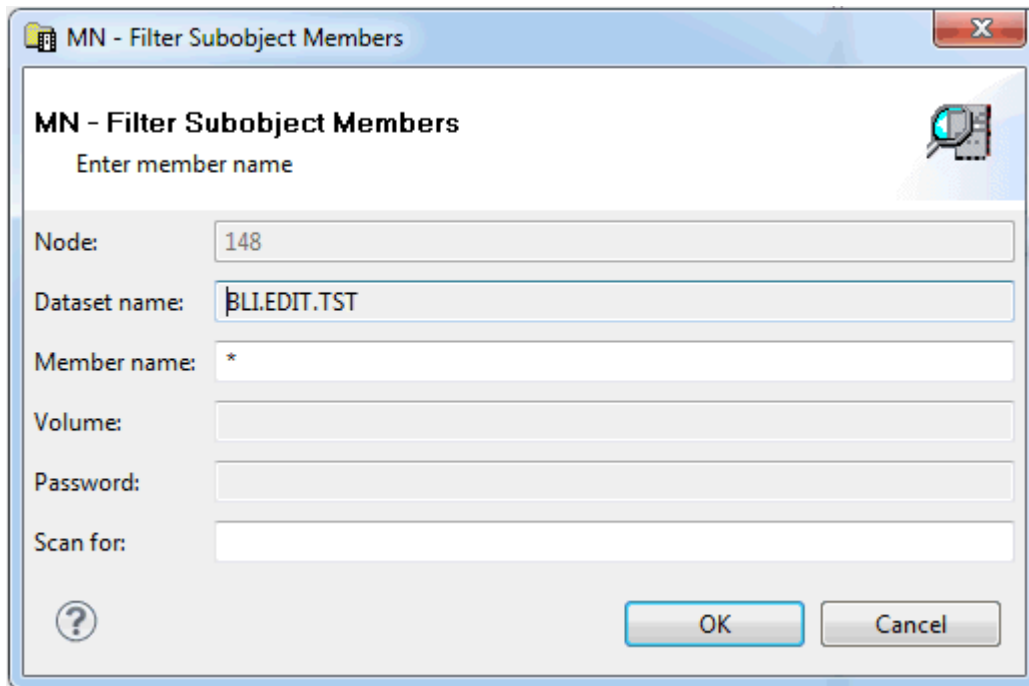
> **To define a filter**

- 1 In the **Mainframe Navigation** view, select the appropriate dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

A dialog box appears.



- 3 Enter the filter criteria.

Option	Description
Member name	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.

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 **Mainframe Navigation** view, select the appropriate dataset in the **Datasets** folder.
- 2 Invoke the context menu and choose **New**.

Or:

Press CTRL+N.

An empty editor window appears for the new member.

- 3 Enter the data for the new member.

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

- 4 Save the new member using the standard Eclipse functionality (for example, press CTRL+S).

A 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 **Mainframe Navigation** view.
- 2 Invoke the context menu and choose **Submit**.

Or:

Press CTRL+U.

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

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 **Mainframe Navigation** view.
- 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 provides the following information on the **Server** page:

Tab	Option	Description	
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.	
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.	
Block size	Block size in bytes.		

PDS Member of a Load Library

The properties dialog box for a PDS member of a load library provides the following information on the **Server** page:

Tab	Option	Description
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.

Tab	Option	Description
	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.
Dataset	Provides the same information as the properties dialog box for a normal PDS member. See the above table.	

9 z/OS Volumes

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- Filtering Datasets on a z/OS Volume 51
- Displaying the Properties of a z/OS Volume 52

In the **Mainframe Navigation** view, the z/OS volumes are shown when you expand the **Volumes** folder of a z/OS node.

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.

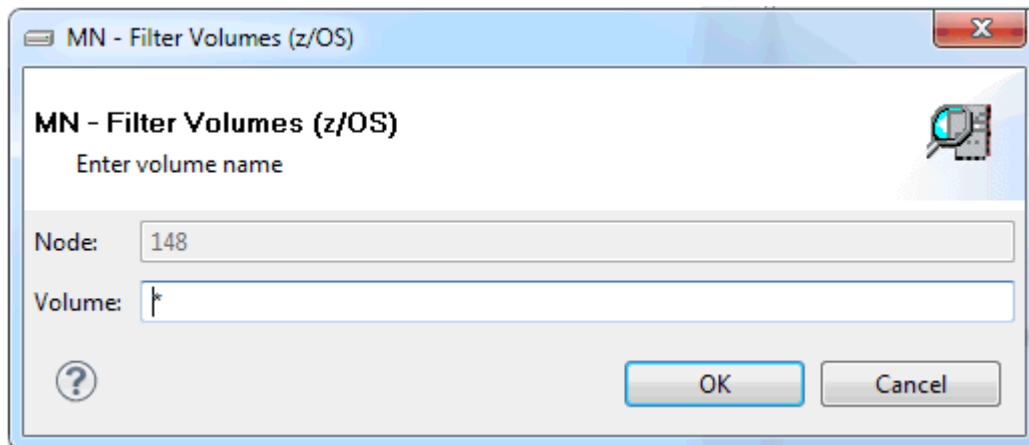
> To define a filter

- 1 In the **Mainframe Navigation** view, 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.

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 **Mainframe Navigation** view.
- 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	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.

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 **Mainframe Navigation** view.
- 2 Invoke the context menu and choose **Properties**.

Or:

Press ALT+ENTER.

A properties dialog box appears.

The following information is shown on the **Server** page of the properties dialog box:

Option	Description
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

- Filtering z/OS Jobs 54
- Displaying the Condition Codes of a z/OS Job 55

In the **Mainframe Navigation** view, the z/OS jobs are shown when you expand the **Jobs** folder of a z/OS node.

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 **Mainframe Navigation** view, select the **Jobs** folder in the appropriate node.
- 2 Invoke the context menu and choose **Filter**.

Or:

Press F3.

The following dialog box appears:

MN - Filter Jobs

Enter job name

Node: 148

Job name: KCOM*

Class:

User ID:

Type

- Job
- Started Task
- TSO user

Queue

- Executing
- Input
- Output
- Hold
- Waiting

OK Cancel

- 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.

Displaying the Condition Codes of a z/OS Job

When you display the condition codes of a job, they are shown in a read-only editor window.

» To display the condition codes of a z/OS job

- 1 Select a job in the **Mainframe Navigation** view.
- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

A read-only editor window appears.

See also *Commands for Browsing an Object*.

11 z/OS Active Jobs

- Filtering z/OS Active Jobs 58
- Displaying the Condition Codes of a z/OS Active Job 59

In the **Mainframe Navigation** view, z/OS active jobs are shown when you expand the **Active Jobs** folder.

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.

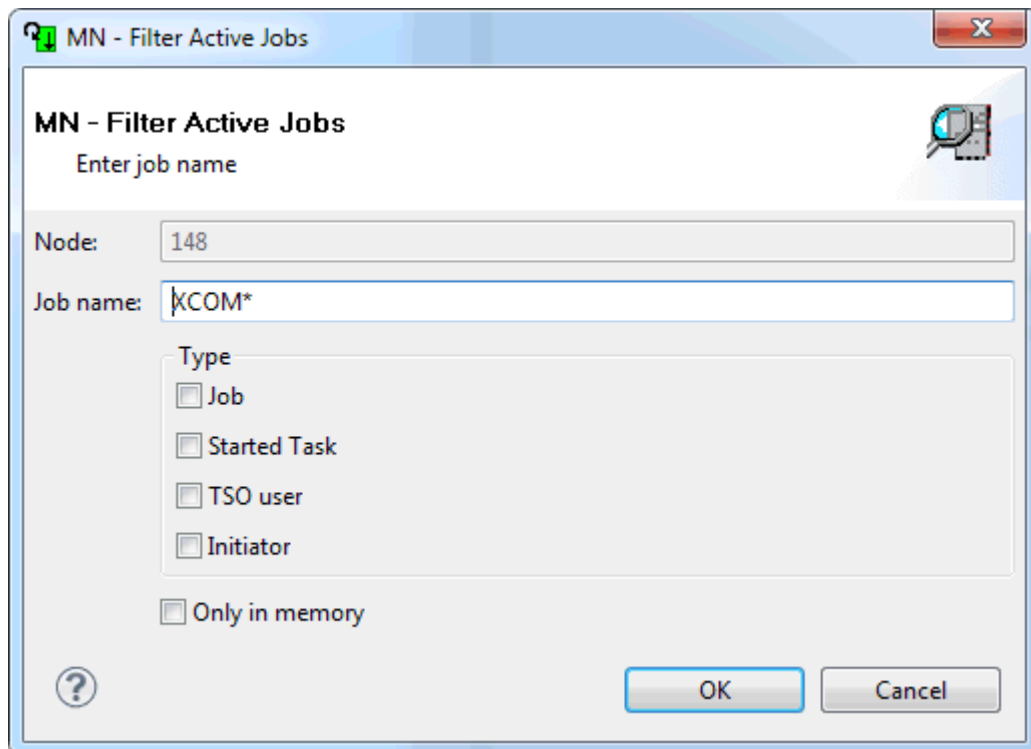
> To define a filter

- 1 In the **Mainframe Navigation** view, 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.

Displaying the Condition Codes of a z/OS Active Job

When you display the condition codes of a job, they are shown in a read-only editor window.

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

- 1 Select an active job in the **Mainframe Navigation** view.
- 2 Invoke the context menu and choose **Condition Codes**.

Or:

Press CTRL+ALT+C.

A read-only editor window appears.

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

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12 System Log

- Browsing the System Log 64

Each z/OS node in the **Mainframe Navigation** view contains an entry for the system log (Syslog).

Browsing the System Log

The system log is shown in a read-only editor window. You can copy the contents, but you cannot modify it.

➤ To browse the system log

- 1 In the **Mainframe Navigation** view, select **Syslog** in the appropriate node.
- 2 Invoke the context menu and choose **Browse**.

Or:

Press CTRL+B.

The system log is shown in a read-only editor window. You are automatically positioned to the most recent entries at the bottom of the window.

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

13 Console

- Browsing the Console 66

Each z/OS node in the **Mainframe Navigation** view contains an entry for the console.

Browsing the Console

The console is shown in a read-only editor window. You can copy the contents, but you cannot modify it.

➤ To browse the console

- 1 In the **Mainframe Navigation** view, select **Console** in the appropriate node.
- 2 Invoke the context menu and choose **Browse**.

Or:

Press CTRL+B.

The console is shown in a read-only editor 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. Using the **Refresh** command, you can refresh the contents of this window.

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