Output Management GUI Client

User's Guide

Version 3.5.1

April 2019

This document applies to Output Management GUI Client Version 3.5.1 and all subsequent releases.

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

Document ID: NGC-ONOMUSERGUIDE-351-20190328

Table of Contents

Preface

Starting the Output Management GUI Client	Describes how to start the Output Management GUI Client.
Elements of the Main Application Window	Describes general aspects of the user interface and features of the Output Management GUI Client. You should be familiar with the information in this section before you start using Entire Output Management.
Reports	Describes how to create and modify definitions for the reports you want to produce, and how to trace all the steps involved in report processing.
Active Reports	Describes the concept of active reports.
Bundles	Describes how to create and maintain a bundle.
Active Bundles	Describes the use of active bundles.
Folders	Describes the use of folders for the grouping of active reports.
Logical Printers	Describes the use of logical printers.
Distribution Lists	Describes the use of distribution lists.
Authorizing User Access to Objects	Describes how to grant users access authorization to objects.
Printouts	Describes the handling of a printouts in Entire Output Management.
Log Information	Describes the display of log information for the monitor, printouts and users (GUI Client only).

1 About this Documentation

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
`Monospace font`	Identifies service names and locations in the format *folder.subfolder.service*, APIs, Java classes, methods, properties.
Italic	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 (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at **http://documentation.softwareag.com**. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at **https://empower.softwareag.com/**.

You can find product information on the Software AG Empower Product Support website at https://empower.softwareag.com.

To submit feature/enhancement requests, get information about product availability, and download products, go to **Products**.

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the **Knowledge Center**.

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at **https://empower.softwareag.com/public_directory.asp** and give us a call.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at **http://techcommunity.softwareag.com**. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

2 Maintenance Functions

This section describes the maintenance functions for the following objects:

- **Reports**
- **Bundles**
- **Logical Printers**
- **Distribution Lists**

3 Control Functions

This section covers the following topics:

4 Starting the Output Management GUI Client

To establish an Entire Output Management session

1. On your desktop, click on the **Entire Systems Management** shortcut icon.

   (A desktop icon for Entire Systems Management is generated automatically after the installation procedure.)

   A **Software AG ESM Logon** dialog similar to the example below opens:

2 Enter your credentials:

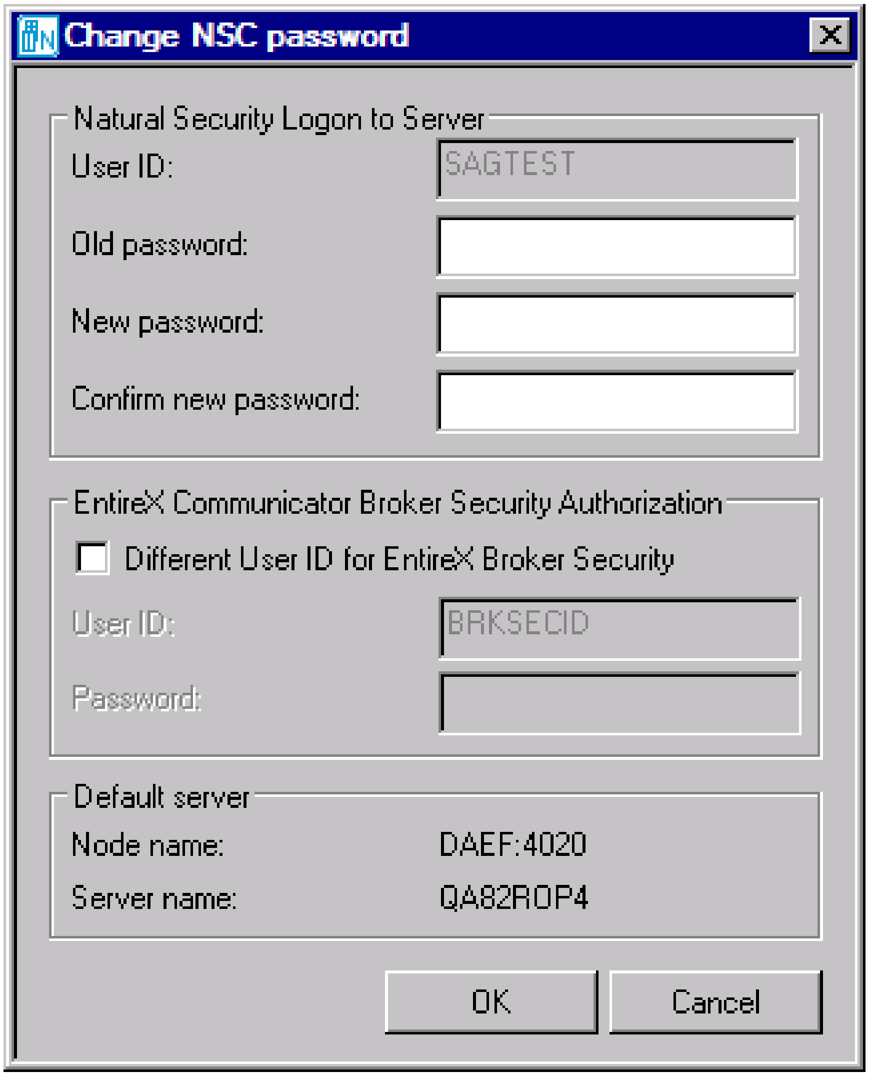
- Natural Security user ID and password. If required, choose **Change password** to change your password (see the next step).
- (optional) EntireX user ID and password.

Select the **Restore My Desktop** check box (selected by default) if you want to restore your current desktop settings.

3 Choose **OK** when you are finished.

Entire Operations Client is launched if your Natural Security and EntireX (if relevant) user IDs and passwords are accepted. Otherwise, appropriate error messages occur.

If a password has expired, a dialog similar to the example prompts you for a password change:



Choose **OK**.

The **Entire Systems Management** main application window opens.

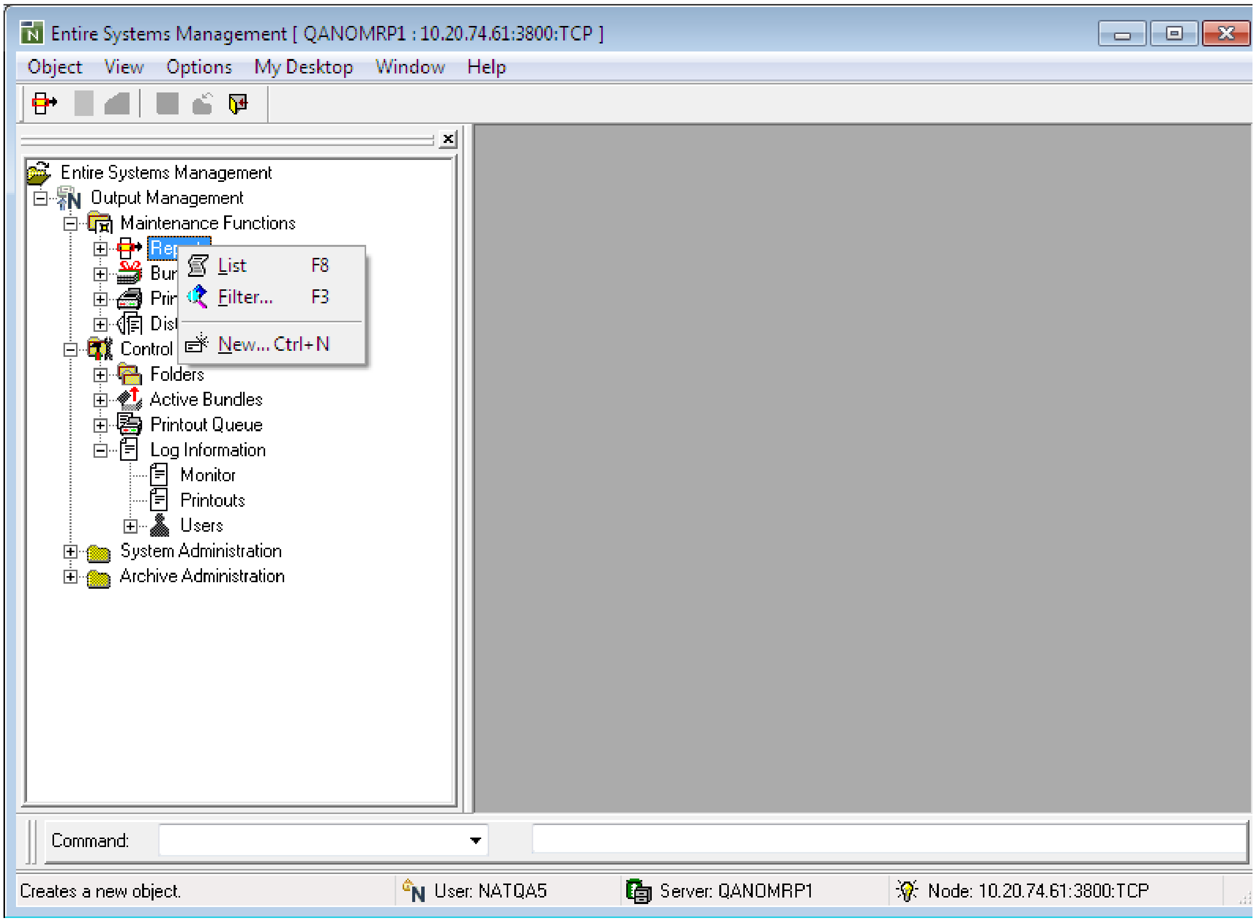
Information in the Main Application Window

By default, the current server name and node name are displayed at the top and at the bottom of the main application window.

In addition, you can display text information of your choice at the top or bottom of the object workspace. For this purpose, System Automation Tools provides the user exit `ESUEX02N` in the system library `SYSSAT`. With the user exit, you can specify the text to be displayed, its color and location, and also choose to display this text instead of the server name and node name at the top of the main application window. For details, see the corresponding user exit source object `ZSUEX02N` in the library `SYSSAT`.

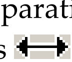
5 Elements of the Main Application Window

When you start the Output Management GUI Client, its main application window is displayed:



This window contains:

- the **object workspace** on the left, and
- the **content pane** on the right.

To modify the size of a pane, move the mouse pointer over the border separating the panes until the pointer changes, showing two arrows pointing in opposite directions . Then drag the border using the mouse until the panes have the desired size.

The main application window also contains:

- above the object workspace: the **menu bar** and the **tool bar**,
- below the object workspace: the **command line** and the **status bar**.

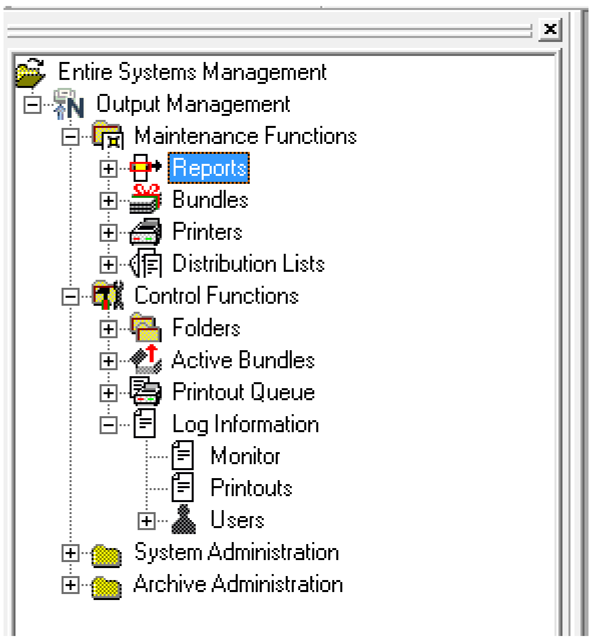
From a list of objects in the object workspace or content pane, you can invoke a **context menu**, containing a list of commands for a selected object.

The navigation with F-keys and other function keys corresponds closely to that of the Windows Explorer.

The individual components are explained below:

Object Workspace

The object workspace is on the left side of the main window:

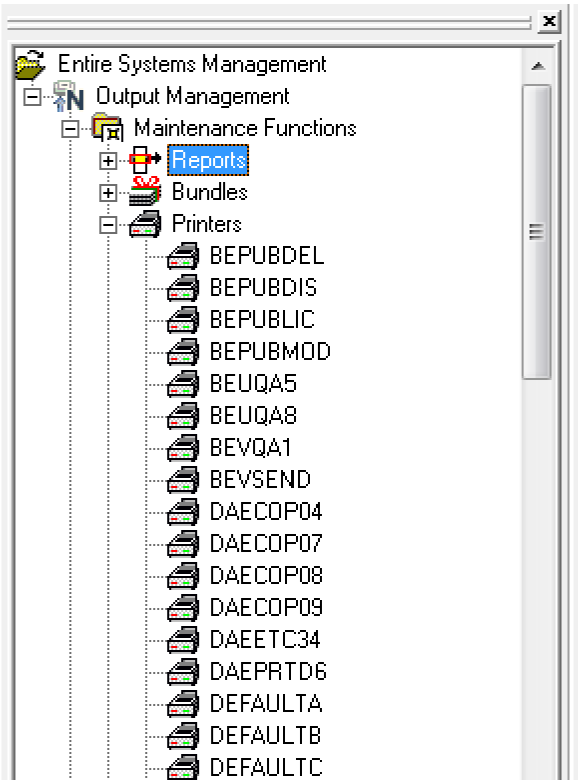


In the object workspace you can list existing objects, create new ones, and perform various operations on them by invoking a **context menu**.

To expand a branch in the object workspace and list the objects contained in it:

- With the left mouse button, click on the plus sign ⊞ preceding the object.

In the following example, all defined printers are listed:



An object preceded by a minus sign ⊟ has been fully expanded.

To switch the display of the object workspace on or off, you use the **View** options in the **menu bar**.

The display and the options to change it correspond closely to those of the Windows Explorer.

Note: With the System Automation Tools server user exit `ESEXIT1N`, it is possible to hide an inaccessible application node, depending on the reason why the application cannot be accessed. For details, see the source code of `ESEXIT1N` in the library `SYSSAT`.

Selection Criteria for Lists of Objects

Whenever you use a **List** command or expand an object type, normally all objects of that type would be listed. However, you may wish to list only certain objects. For this purpose, you can use the **Filter** command to specify selection criteria. Only objects which meet these criteria will then be listed.

The selection criteria specified via a **Filter** command apply to all subsequent **List** commands and object expansions for this object type. They are retained until you change them or remove them with another **Filter** command.

If you want to save your **Filter** selection criteria for the next Output Management GUI Client session, you use the **My Desktop** option in the **menu bar** (option **Store my desktop > during shutdown > Filter**).

The selection criteria you can use are different for each object type; they are described for each object type in the corresponding section.

Reading Many Object Records

If it takes a long time before a list of objects is displayed, this may be due to the fact that many objects of that type exist, and therefore a large number of object records has to be read. By pressing the ESC key, you can stop the reading of records. Only the objects read so far will then be listed.

To avoid the time-consuming reading of large numbers of object records, you can use the **Filter** command, as outlined above, to narrow down the number of objects to be listed.

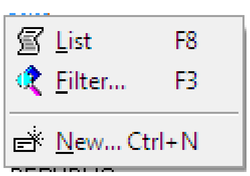
Context Menu

A context menu provides a list of operations. It enables you to perform one of the listed operations on the selected object.

To invoke a context menu and choose a command:

1. Select an object - either in the object workspace or in the content pane.
2. Click the right mouse button, or press SHIFT+F10, or press MENU.

   The context menu is displayed, showing the commands available - for example:



3. Choose the desired command.

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

Key Shortcuts

As an alternative to invoking commands by selecting them from the context menu, you can also invoke most commands by pressing a key or a combination of keys. In the context menu, the corresponding key or key combination is shown after the command.

In the example above, instead of selecting the command **List** from the context menu, you can invoke it by pressing the key F8.

Content Pane

The content pane takes up the right side of the main application window. The appropriate list, window or dialog is displayed here when you invoke a command for an object.

Changing the Columns Display of a List

Whenever a list of objects is displayed, several columns of information are displayed for each item on the list. You can change the sequence in which the columns are displayed, and you can also choose which columns to display and which not.

To change the columns display of a list:

1 Invoke the context menu and choose **Columns...**.

The **Choose List Columns** window is displayed.

2 To display or not display a column, select or clear the corresponding check box.

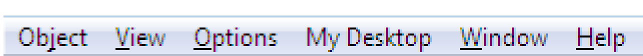
The columns are displayed in the sequence in which they are listed in the **Choose List Columns** window. To change the sequence, select a column and use the **Move Up** or **Move Down** button.

To show all columns in their system default sequence again, choose **Reset**.

When all columns to be displayed are in the desired sequence, choose **OK**.

Menu Bar

The menu bar is at the top of the main application window on the left:



To choose a command from the menu bar:

1 Select the appropriate menu.

A drop-down menu of options is displayed.

2 From the drop-down menu, choose the desired command and object options.

The following menus are available:

Menu	Functions
Object	Perform various functions on the selected objects; or exit the Output Management GUI Client.
View	Show/hide the display of the following elements: ■ object workspace, ■ command input view (command line), ■ result view, ■ status bar.

Options	Set the following options:
	■ Language - English or German.
	■ Refresh mode - current level or recursive.
	■ Trace:
	  ■ **No trace**: No trace is written, provided that the log file previously used is closed.
	  ■ **Level 1o 9**: - A trace is written with different complexity (1 = low, 9 = high), provided that the log file is open from a previous use.
	  ■ **Overwrite**: A single log file with the name `%temp%/estrace.log` is used. Each time the log is newly started, this file will be overwritten.
	  ■ **Continuous**: Multiple log files are used. Each time the log is newly started, a new log file is generated with the name `%temp%/estrace_date_time.log` (*date* and *time* being the date and time when it was generated).
	The trace is started either when a trace level 1 to 9 is set, or during startup if the last session was closed with an active trace level 1 to 9.
	■ Grid lines - show or hide.
	■ Interval expansion - options to control treeview expansion individually (if allowed by system defaults; see *Interval/Timeout* under *Components of System Defaults* for further information; the individual options also correspond to the ones described there).

My Desktop	Store the following for subsequent Output Management GUI Client sessions: ■ your opened dialogs and views, ■ your filter settings, ■ your expanded tree view of the object workspace. You can select to store them in two ways: ■ on "catch" - that is, they are stored when you select the menu item **My Desktop > Catch**; ■ during shutdown - that is, they are stored automatically when the Output Management GUI Client is shut down.

Menu	Functions
	You can reset the storage settings either by deselecting them individually, or via the menu item **My Desktop > Reset**.
Window	Select the next, previous or desired content pane; or close all panes.
Help	For a selected Output Management GUI Client node: ■ **Content** displays the corresponding online help. ■ **About ...** displays the current product version, copyright and other legal information.

Tool Bar

The tool bar is just below the menu bar at the top of the screen:

To invoke a function from the tool bar:

- Choose the appropriate icon.

If an icon is greyed-out, the function is not available for the selected object.

Command Line

The command line is at the bottom of the main application window, below the object workspace:

In the command line, you can enter a direct command to execute a function directly. From the drop-down list box next to the input field, you can select a command you executed previously during the current session.

To execute a direct command:

1. In the object workspace, select the object to which the command is to be applied.
2. In the command line, either type in the command, or select it from the drop-down list box.

For a description of all direct commands, see *Direct Commands* in the *Commands* documentation.

To show/hide the display of the command line, you use the **View** options in the **menu bar**.

Status Bar

The status bar is on the bottom left of the main application window, below the object workspace:

To show/hide the display of the status bar, you use the **View** options in the **menu bar**.

6 Reports

This section describes how to create and modify definitions for the reports you want to produce, and how to trace the steps involved in report processing. It covers the following topics:

7 General Information on Reports

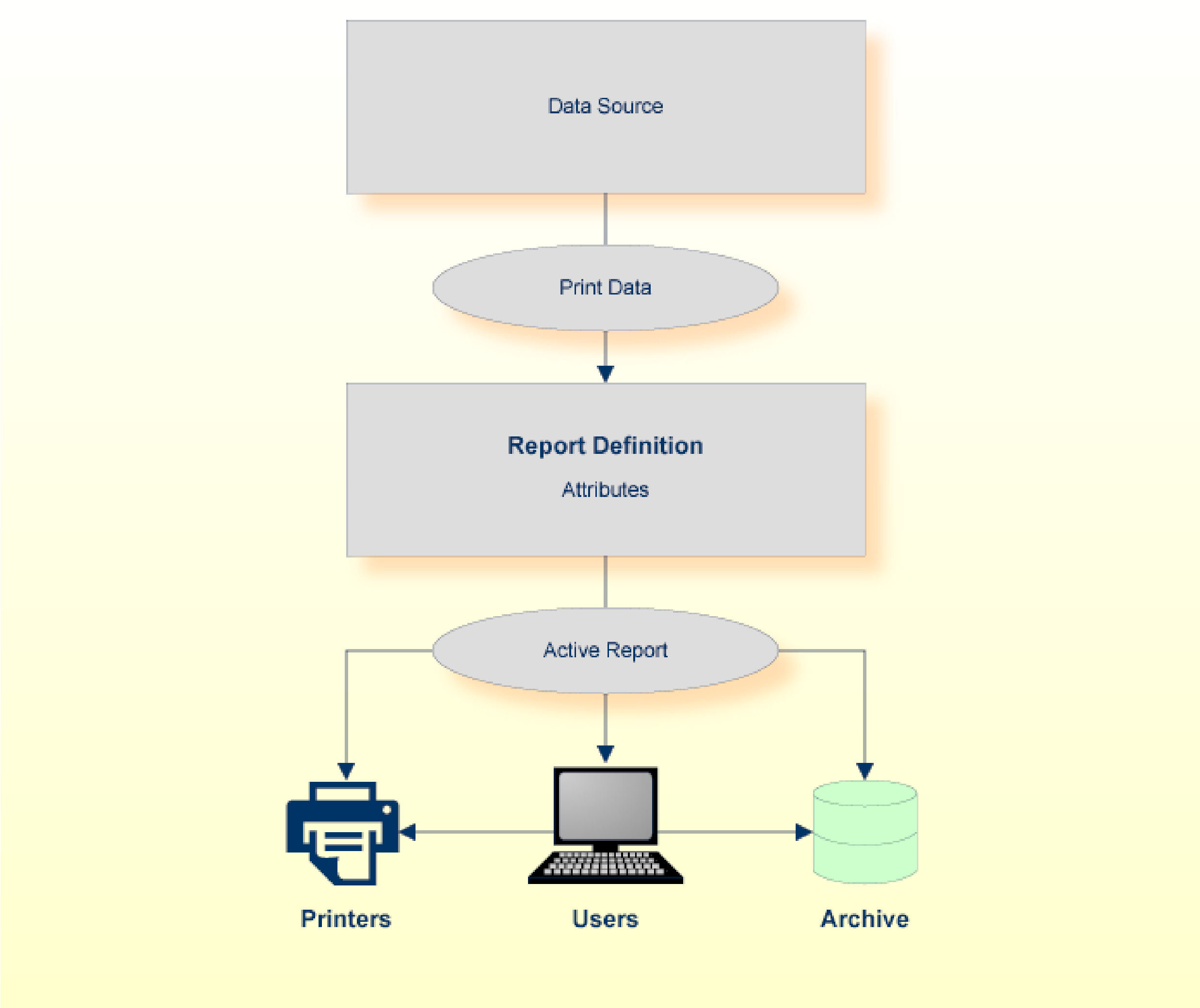
This section covers the following topics:

What is a Report?

The print data processed by Entire Output Management are called *reports*.

To define a report, you create a *report definition*, consisting of various *attributes* which determine how the print data are processed.

The actual report which Entire Output Management creates from a report definition is called an *active report*.



Report Attributes

A report can have the following attributes:

- *General attributes* determine how long the active report is available online, if and how it is archived, and miscellaneous other settings.
- *Identification attributes* determine how the data source of the print data for the report (for example, a spool file produced by a job) is identified.
- *Printing attributes* determine how and on which printer the active report is printed.
- *Distribution attributes* determine to which users the active report is distributed for further processing.
- *Separation attributes* determine which print data from the data source are used; see *Separation* below.

All report attributes are described under ***Attributes of a Report***.

Separation

You can select the desired print data from a data source and process them in a single active report; or you can separate them and put them into multiple separate active reports, which will then be created from the same report definition.

For this selection and separation of print data, you use *separation routines*. You can use either one of the standard separation routines provided by Entire Output Management or your own Natural user routines.

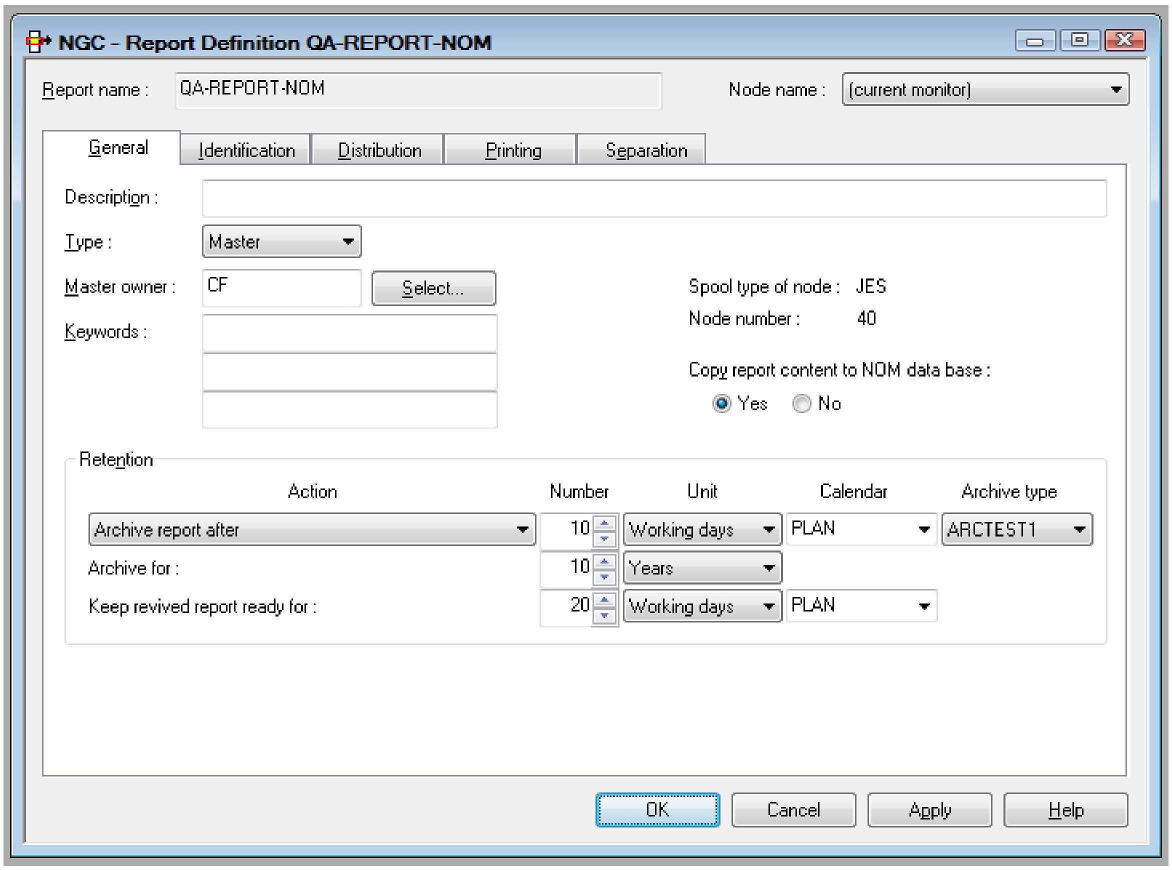
For more information on user routines, see *User Separation Routines* in the *System Administration* documentation.

8 Attributes of a Report

This section describes the attributes which are part of a report definition:

Default values for report attributes can be set by the system administrator in *Report Defaults*.

General Attributes



On this screen you define the general attributes of a report.

Fields: General Attributes

Field	Explanation	
Report name	Enter a report name before any other data when creating a new report. This field is write-protected when you modify an existing report.	
Node name	Select the node name the report definition is to be associated with. This node determines the environment in which the data source for the report is to be identified.	
Description	Enter a short description for the report.	
Type	Created	A definition created automatically by separation definitions during the processing of a master report or default definition or copied from another

Field	Explanation	
		created definition. Next to the **Type** field, the name of the originating report definition is displayed. The type "Created" cannot be set or changed manually.
	Default	A definition containing identification and processing rules used to process spool data not identified by a suitable master report definition. To have a default definition for all jobs for which no suitable master definition exists, you create a default definition with the name * (asterisk). For a default definition to apply to all jobs without master definition whose names begin with a certain character string, you can specify a name with asterisk notation.
	Master	A definition containing identification and processing rules used to process one or more spool files.
	Suspended	Use this type for a definition which is currently not to be used.
Master owner	The user ID specified here is used to initialize the **Master owner** field in the *General Attributes* of the resulting active report. It determines who may delete the active report. The monitor also takes this user ID to submit print jobs for reports to be scheduled for automatic printing. This field is initialized with the ID of the user who creates the report. If you wish, you can select a different user ID.	
Keywords	Enter up to 3 keywords which will later help you select reports.	
Copy report content to NOM database	Select **Yes** to take the report contents from the spool and store them in the Entire Output Management active-data file for later viewing or archiving. Otherwise, select **No**. If you do not specify a storage location, the report stays in the spool.	
Retention The retention period determines how long the active report is available online for viewing and printing. When this retention period expires, the active report is archived/deleted depending on the selected **Action**.		
Action	Purge report after	The report will be deleted when the retention period expires. It will not be archived.
	Archive report after	The report will be archived when the retention period expires.
	Archive report directly and keep online for	The report will be archived the next time the archive job runs, but is still available online until the retention period expires.
	Archive report directly, purge online immediately	The report will be archived the next time the archive job runs, and deleted from the spool when its processing is completed.
	When an active report is archived, it is no longer available online. After this, it exists only in the archive data set. The active report has to be revived before it can be viewed or printed again.	

Field	Explanation
Number / Unit / Calendar	Specify the length of time (a number and a unit of time) for the selected **Action**. The unit of time can be: absolute days, working days, weeks or months. If you choose "working days", you also have to choose a calendar. For more information on calendars, see *Calendars* in the *System Administration* documentation. With the unit **Generations** you can specify the number of instances of the active report to be kept. If this number is exceeded, older active reports will be archived/deleted depending on the selected **Action**.
Archive Type	If the report is to be archived in a user-defined archive, select the desired archive type. Select "none" to archive the report in a standard Entire Output Management archive file.
Archive for	Specify the length of time (a number and a unit of time: days, weeks, months or years) the active report is to be kept in the archive. When this period expires, the active report is deleted from the archive data set. An active report can be archived no matter where it is stored.
Keep revived report ready for	Specify the length of time (a number and a unit of time) a revived active report is be available online for viewing and printing. When this period expires, this "copy" of the archived report is deleted automatically. The unit of time can be: absolute days, working days, weeks or months. If you choose "working days", you also have to choose a calendar. For more information on calendars, see *Calendars* in the *System Administration* documentation.

Identification Attributes

A report can be identified by one of the following:

- Report Identification for POWER
- Report Identification for BS2000
- Report Identification for JES
- Report Identification for 3GL Interface
- Report Identification for CA Spool
- Report Identification for Natural

- Report Identification for UNIX/Windows Nodes

Report Identification for POWER

POWER Identification Attributes

The following attributes determine how a job in the POWER spool is identified by the report definition.

Field	Explanation	
Identifying attributes	You have to enter a value for at least one of these three attributes. A job is considered identified if it matches at least one of the specified attributes.	
	Job name	If you want to identify the job by its name, enter the job name here. You can use an asterisk notation (*) for the job name. For example, to identify all jobs whose names begin with "IEE", you enter `IEE*`.
	Destination	If you want to identify the job by its `DEST` parameter, enter the destination here.
	Form	If you want to identify the job by its `FORM` parameter, enter the form here.
Filter for spool files and sequential files	Use these fields to select the files whose contents are to be used as print data for the active report. For an active report to be created, at least one file of the job has to match these filter criteria. You specify the spool files in the identified jobs which are to be assigned to the report. You specify them as follows: ■ `LS` = POWER List Queue. ■ `DSN=`*`data-set-name`*, if the spool data reside in a sequential file. The following special characters can be used to create a file-name pattern: ■ **?** (question mark) or **_** (underscore) to indicate a single position not to be checked. ■ ***** (asterisk) to indicate any number of positions not to be checked. Example: `DSN=NATURAL.*EMPL_YEE*`	
Code page	By default, Entire Output Management uses the code page defined for the respective node and applies it to all report definitions associated with that node. If you want to use a different code page for a particular report, select the desired code page here. If you do not want to use a report-specific page, select "none".	

Field	Explanation
	For the definition of code pages, see *Default Code Pages*.

Note: The processing of sequential files is also triggered by spool queue entries. The corresponding spool file does not contain print data, but an entry with a link pointing to the sequential file. This entry can be created with any utility (for example, a Natural program) and must have the following attributes:

```
NOM DSN=data-set-name VOL=volser
NOM RECFM=recform RECSIZE=record-length
NOM BLKSIZE=block-size CC=carriage-control
```

- `data-set-name` may have a maximum length of 22 characters.
- `carriage-control` may be `ASA`, `MACHINE` or `NONE`.

Before processing, the file name is extended with a time stamp to make it unique.

Report Identification for BS2000

BS2000 Identification Attributes

The following attributes determine how a job in the BS2000 spool is identified by the report definition.

<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td rowspan="4">Identifying attributes</td><td colspan="2">You have to enter a value for at least one of these three attributes. A job is considered identified if it matches at least one of the specified attributes.</td></tr>
<tr><td>Pname</td><td>If you want to identify the job by the <code>PNAME</code> option of the BS2000 print command (<code>/Print</code> . . . , <code>PNAME=ADAREP</code>), enter the PNAME here.

You can use asterisk notation (*) to for the job name. For example, to identify all jobs whose names begin with "ADA", you enter <code>ADA*</code>.</td></tr>
<tr><td>User ID</td><td>If you want to identify the job by the BS2000 user ID under which the print command was entered, enter this user ID here (for example: <code>PROD01</code>).</td></tr>
<tr><td>Form</td><td>If you want to identify the job by its <code>FORM</code> parameter, enter the form here.</td></tr>
<tr><td>Filter for spool files and</td><td colspan="2">Use these fields to select the files whose contents are to be used as print data for the active report. For an active report to be created, at least one file of the job has to match these filter criteria.</td></tr>
</table>

Field	Explanation
sequential files	You specify a completely or partially qualified file name which identifies the report. A report definition is considered identified if, in addition to one of the identifying attributes, one of the files from the file list matches. The following special characters can be used to create a file name pattern: ■ **?** (question mark) or **_** (underscore) to indicate a single position not to be checked. ■ ***** (asterisk) to indicate any number of positions not to be checked. For example, if you enter `ADA*` in the **Pname** field and `*L.ADAREP.*` in this field, all files are identified whose `PNAME` begins with `ADA` and whose file name contains the string `L.ADAREP.`.
Code page	By default, Entire Output Management uses the code page defined for the respective node and applies it to all report definitions associated with that node. If you want to use a different code page for a particular report, select the desired code page here. If you do not want to use a report-specific page, select "none". For the definition of code pages, see *Default Code Pages*.

Carriage Control Characters

The `RECFORM` parameter of the file allows you to determine whether the print file contains carriage control characters and which ones. It is specified as follows:

```
RECFORM=(x,y)
```

where:

- *x* = `F` for fixed record length, or `V` for variable record length.
- *y* determines the type of carriage control characters:
  - `A` = ASA carriage control characters,
  - `M` = machine-code carriage control characters,
  - `N` = no carriage control characters.

It is recommended that files with a fixed record length be used, because positioning within them is easier than within files with a variable record length.

Note: Files with fixed record length that were expanded with OPEN-EXTENT are not supported.

Report Identification for JES

JES Identification Attributes

The following attributes determine how a job in the JES spool is identified by the report definition.

<table>
<tr><th colspan="2">Field</th><th>Explanation</th></tr>
<tr><td rowspan="5">Identifying attributes</td><td colspan="2">You have to enter a value for at least one of these four attributes. A job is considered identified if it matches at least one of the specified attributes.</td></tr>
<tr><td>Job name</td><td>To identify the job by its name, enter a job name here.

You can use asterisk notation (*) for the job name. For example, to identify all jobs whose names begin with "IEE", you enter <code>IEE*</code>.</td></tr>
<tr><td>Destination</td><td>To identify the job by the <code>Destination</code> parameter, enter the destination here.</td></tr>
<tr><td>Writer</td><td>To identify the job by the <code>External Writer</code> parameter, enter the writer name. This links the report to the spool file assigned to this writer name. If you use an external writer similar to the report name, it makes identification easier.</td></tr>
<tr><td>Form</td><td>To identify the job by the <code>FORMS</code> parameter, enter the form here.</td></tr>
<tr><td>Filter for spool files and sequential files</td><td colspan="2">Use these fields to select the files whose contents are to be used as print data for the active report. For an active report to be created, at least one file of the job has to match these filter criteria.

You can specify which spool files (data sets) in the identified jobs are to be assigned to the report.

See Spool Files and Sequential Files below.</td></tr>
<tr><td>Code page</td><td colspan="2">By default, Entire Output Management uses the code page defined for the respective node and applies it to all report definitions associated with that node.

If you want to use a different code page for a particular report, select the desired code page here.

If you do not want to use a report-specific page, select "none".

For the definition of code pages, see Default Code Pages.</td></tr>
</table>

Spool Files

To specify the spool files in the selected jobs, you use one of the following three possibilities:

1. Specify: `file-type file-sequence-number`

   where `file-type` can be: `JL` = JCL statements, `SI` = system input, `SM` = system messages, `SO` = system output.

   Examples:

   - Specify `SO 1` for the first SYSOUT file.
   - Specify `SO 1:4` for the first to fourth SYSOUT files.

2. Specify a list of full DDNAME qualifiers in the format:

   `proc-name.step-name.ddname`

   `proc-name` and `step-name` are not mandatory, and if omitted are assumed to be * (any). You can use an asterisk (*) to enter selection criteria for the file names.

   Examples:

   - `PROC1.STEP1.DDN1` is a full qualifier.
   - `*.STEP1.DDN1` refers to a spool file with `STEPNAME=STEP1`, `DDNAME=DDN1` and any procedure name.
   - `*.*.DDN1` or `*.DDN1` or `DDN1` are equivalent and refer to a spool file with `DDNAME=DDN1` in any step name or procedure name in the job.

3. Specify `TYPE=AL` to create an active report containing all System Message and SYSOUT files for a job matching the specified JES attributes. The job must have at least one spool file in one of Entire Output Management's managed classes. `TYPE=AL` must be the only file criterion.

Note: If more than one JES2 spool file of a job is to be processed by Entire Output Management, the job's spool files which are to be processed must all have the same group ID and all be together in a class reserved for Entire Output Management. If this is not achieved by the DD statements, but, for example, by a program via Entire System Server functions, the view `SPOOL-UPDATE` should be used as follows:

```
PROCESS SPOOL-UPDATE
        USING  FUNCTION   = 'CHANGE'
        USING  JOB-NAME   = #JOB-NAME
        USING  JOB-NUMBER = #JOB-NUMBER
        USING  GROUP-ID   = #GROUP-ID
        USING  CLASS      = #NOM-CLASS
        USING  NODE       = #NODE
        GIVING ERROR-CODE
               ERROR-TEXT
```

Sequential Files

If the report data reside in a sequential file, enter the file name in the form `DSN=`*`file-name`*.

The following special characters can be used to create a file-name pattern:

- **?** (question mark) or _ (underscore) to indicate a single position not to be checked.
- ***** (asterisk) to indicate any number of positions not to be checked.

Example: `DSN=NATURAL.*EMPL_YEE*`

Note: The processing of sequential files is also triggered by spool queue entries. The corresponding spool file does not contain print data, but points to the sequential file. The pointer can be created with any utility and must have the following attributes:

```
NOM DSN=data-set-name
```

`data-set-name` may have a maximum length of 22 characters.

The `STEPNAME` to create the spool file must be `NOMDSN`.

Example:

```
//JOB 1         JOB...
......
//NOMDSN       EXEC       PGM=IEBGENER
//SYSPRINT      DD          SYSOUT=*
//SYSUT2         DD          SYSOUT=3
//SYSIN            DD          DUMMY
//SYSUT1         DD *
NOM  DSN=OUTPUT.LISTING
/*
```

Report Identification for 3GL Interface

For the definition of reports that rely on a general, user-defined 3GL interface, all identifying attributes can be freely chosen.

Report Identification for CA Spool

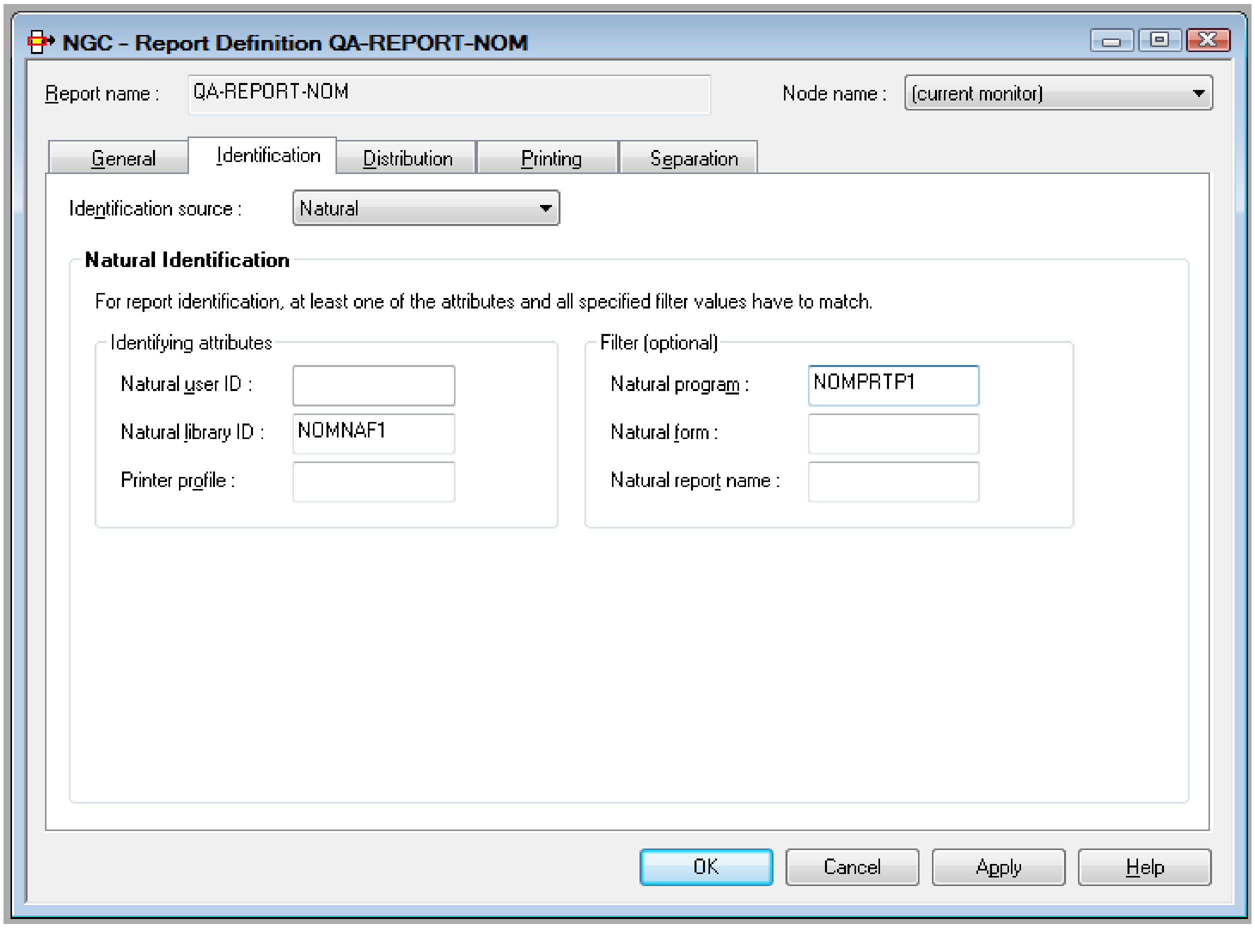
CA Spool Identification Attributes

These attributes determine how a job in the CA spool is identified by the report definition. A job can be identified by one of the following four attributes. You have to specify a value for at least one of these fields. A job is considered identified if it matches at least one of the specified attributes.

Field	Explanation
File name	To identify the job by the file name, enter the file name here as it appears on the CA screen. The file name can contain the user ID of the file creator, the job name or a parameter entered in the `OWN` field in an `OPEN` request. See the *CA Spool* documentation for details.
User ID	To identify the job by the ID of the user who created the list, enter the user ID here (`UID` field in `OPEN` request).
Writer	To identify the job by the `Writer` parameter, enter the writer name here (`WTR` field in `OPEN` request).
Form	To identify the job by the `FORM` parameter, enter the form here (`FOR` field in `OPEN` request).

You can use asterisk notation (*) for the file name. For example, to identify all files whose names begin with "ADA", enter `ADA*`. Or, to identify all files which were either created by the user "XYZ" or whose names begin with "ADA", enter `ADA*` for **File name** and`XYZ` for **User ID**.

Report Identification for Natural



On this screen, you define how a report is identified which is created by Natural or its related products like Natural Advanced Facilities or Open Print Option.

Output from Natural is produced during the processing of a specific Natural program, which is stored in a Natural library and executed by a Natural user. The output can have various attributes defined in the program's `DEFINE PRINTER` statement.

The **Identifying attributes** are used as selection criteria for output under Natural. A report is considered identified if it meets at least one of these criteria. You have to specify at least one identifying attribute.

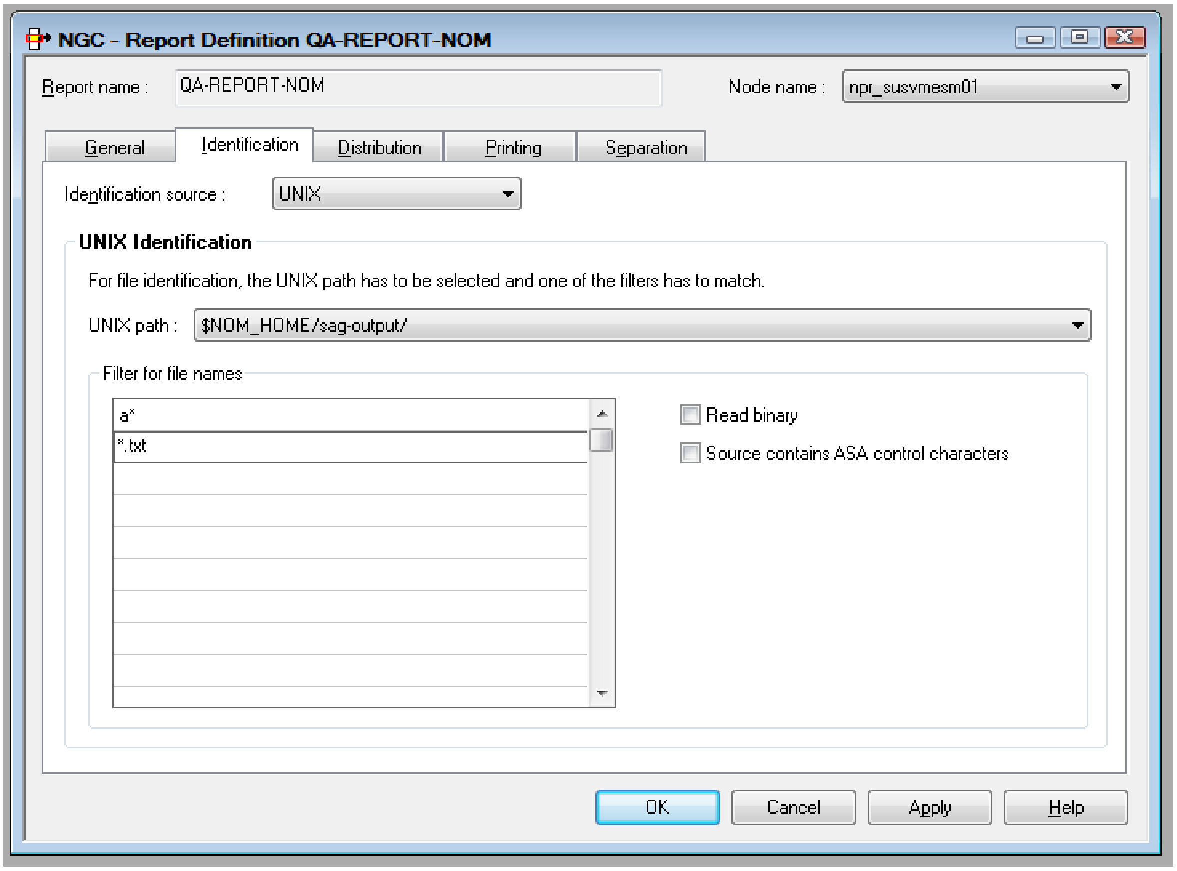
In addition, you can specify one or more **Filter** criteria to further narrow down the selection. All specified filter criteria must be met for a successful identification.

The output data of the program will be used as print data when an active report is created.

Field	Explanation
Identifying attributes	
Natural user ID	Enter a Natural user ID or a Natural library ID (but not both).
Natural library ID	
Printer profile	Enter the name as defined in the `OUTPUT` option of the `DEFINE PRINTER` statement.
Filter (optional)	
Natural program	Enter the name of a Natural program.
Natural form	Enter the form as defined in the `FORMS` option of the `DEFINE PRINTER` statement.
Natural report name	Enter the name as defined in the `NAME` option of the `DEFINE PRINTER` statement.

You can use asterisk notation (*) for all attributes, except **Printer Profile**. For example, to select all programs executed by users whose IDs begin with "MRS", you specify `MRS*` as the user ID. Or, if you enter the user ID value `ABC` and the printer profile value `NOMPRT`, all print files are identified which were created either by the user "ABC" or with the printer profile "NOMPRT".

Report Identification for UNIX/Windows Nodes



On this screen, you define how a report is identified on UNIX or Windows nodes.

UNIX/Windows Identification Attributes

The identification is done using the node name and path, and a file-name pattern. Entire Output Management will process any file found in this path, if it matches one of the specified file names or file-name patterns. Directories are not processed (no recursion).

For every matching file, an active report will be created. For this purpose, the file contents will be copied to the Entire Output Management container file. Then the file will be deleted from the path.

For any file not matching one of the criteria, Entire Output Management checks if an appropriate default report exists. If none exists, the file cannot be processed and will be moved to a temporary directory defined for this node in the **Node Definitions** instead.

ASCII files can contain line feeds, form feeds and tabulators; any other kind of control character will be ignored and set to blank.

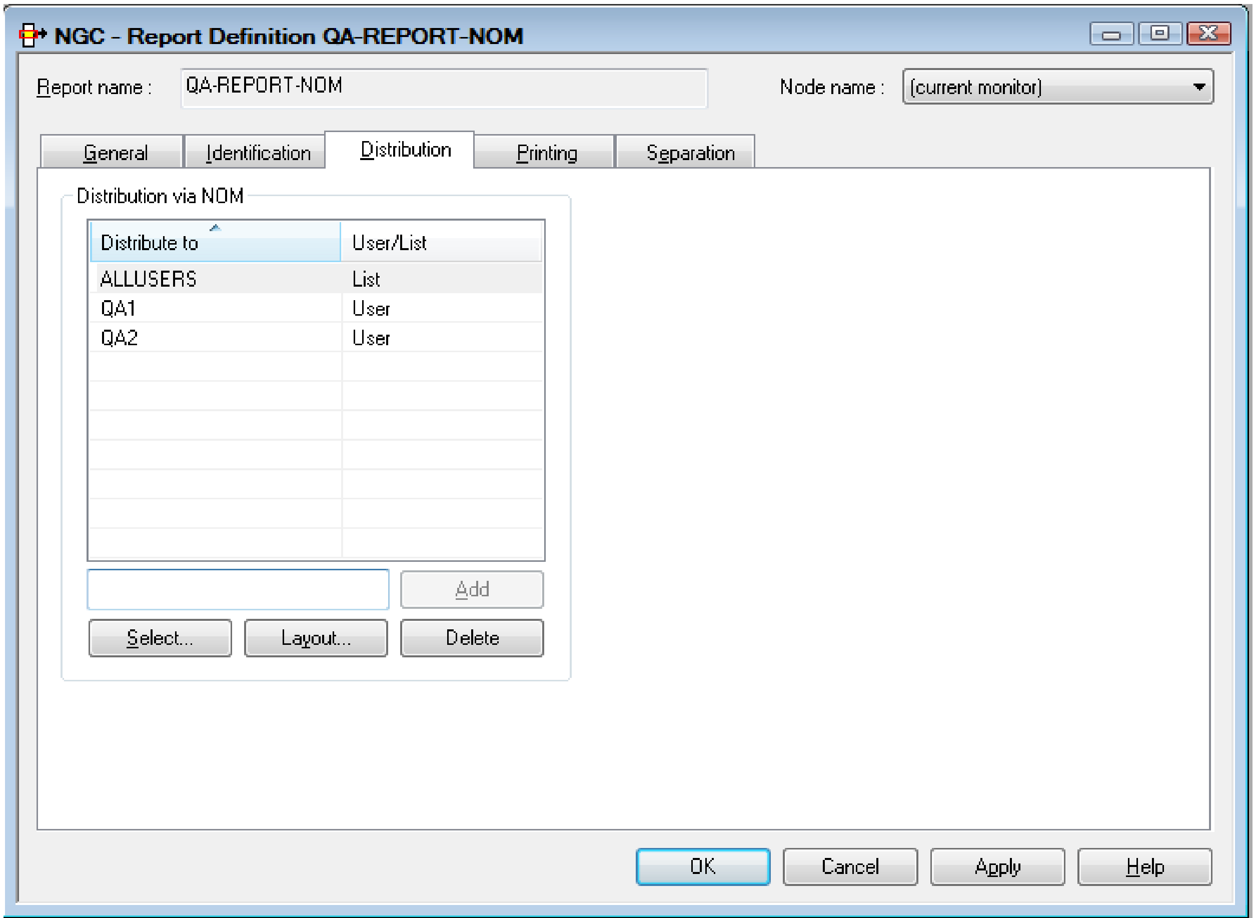
Binary files can be of any format. They are stored in the container file in Base64 format. At the time of printing, they are re-converted to binary format.

In addition to the identified files, associated meta-data files can be processed. If a pair of files such as *file-name.extension* and *file-name.extension*.nomxml is found, the nomxml file is treated as a meta-data file in XML format.

Node names, path names and file names are case-sensitive. Node names and paths have to be defined in the **Node Definitions** first.

Field	Explanation
Node name	Select a node name.
Path	Select a path. Path definitions must not contain any wildcard characters.
Filter for file names	Enter up to 10 files, or file-name patterns, without path entries. File extensions are treated as part of the file name. In a file-name pattern, you use an asterisk (*) as placeholder for several characters and a question mark (?) for a single character in the file name.
Read binary	▪ If this field is not selected, the report will be created from a UNIX file as a text file. ▪ If this field is selected, the report will be created from a UNIX file as a binary document.
Source contains ASA control characters	Mark this field if the report is to be created as a text file and the print data from the data source already contain ASA control characters. These will then be used, and additional ASA control characters will not be generated.

Distribution Attributes



On this screen you can define the recipients of a report and the facilities used for distribution.

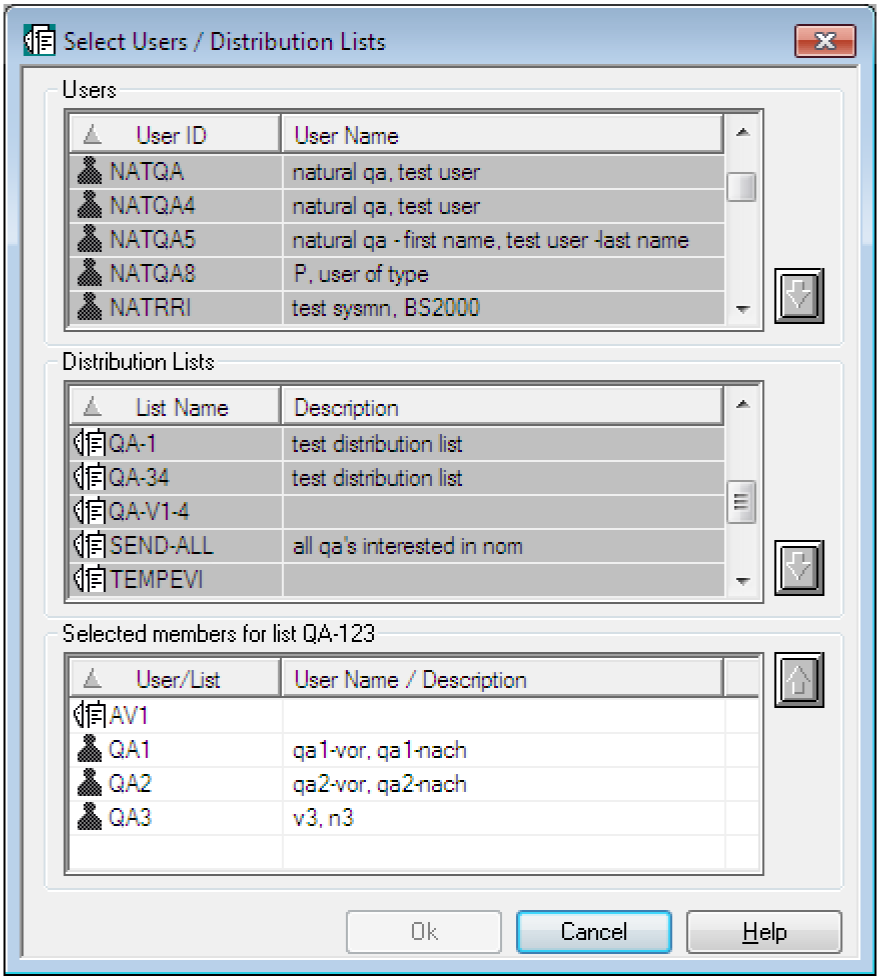
Distribution via NOM

You can select up to 10 users or distribution lists. When the report is created, it is distributed to the Inbasket of the selected users. All users connected to IDs or lists entered here can browse and print the report.

To select a user or distribution list for receiving a report:

1. Choose the **Select** button under **Distribution via NOM**.

   The **Select Users / Distribution Lists** window is displayed in the content pane:



2 Select a user/list from the list of **Users** or list of **Distribution Lists**.

3 Choose the down arrow on the right.

The selected user/list appears in the **Selected Members** section at the bottom of the dialog:

4 Choose **OK**.

The selected user ID or list name now appears in the **Distribution via NOM** section of the **Distribution Attributes**.

To remove a user or distribution list from the Distribute To list:

1 Select an entry on the list.

2 Choose the **Delete** button below the list.

The selected user/distribution list is removed from the list.

Defining a Layout for a User or Distribution List

Note: You cannot combine a report layout definition with **separation attributes**. You can only use either one or the other.

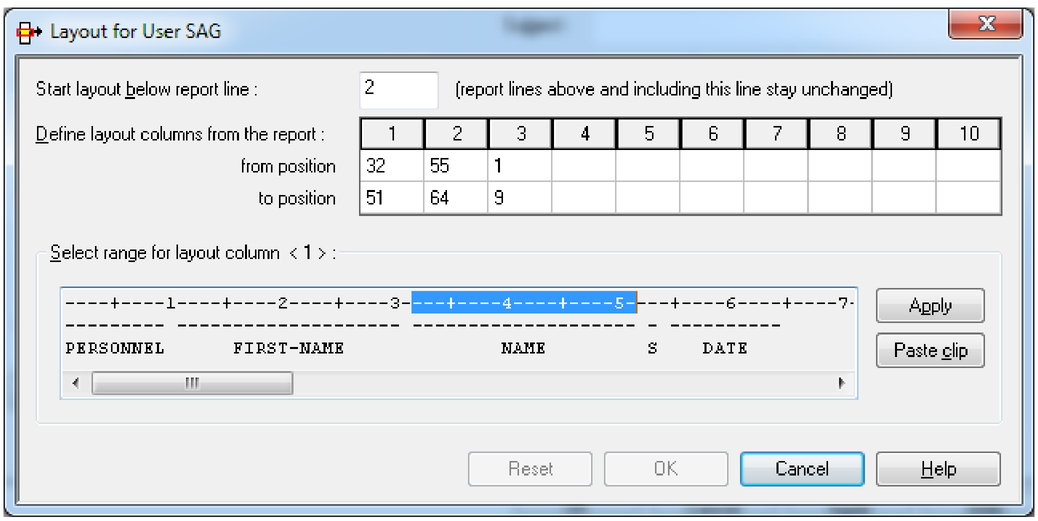
You can restrict a user's view of the report by defining a user-specific report layout. In this layout, you specify the parts of the layout which are to be visible to the user.

You can define a different layout for each addressee of the report. If the addressee is a distribution list, the specified layout is visible to all members of the list.

To define a layout for a user or distribution list:

1. Select the desired user/list.
2. Choose the **Layout** button.

   The **Layout for User** window is displayed:



3. You can define up to 10 columns of the report which are to be displayed to the selected user/list. The fields available to do this are described below. The user(s) will see only the specified columns.
4. In the field **Start layout below report line**, enter the line number (counting from the top of the page) below which the layout definition is to take effect.

   Lines above and including this line remain in their original format.
5. For each column to be displayed, you specify the first and the last position to be displayed in the **from position** and **to position** fields.

   The positions are counted from the beginning of a report line (not including ASA/machine codes).

The specified positions will be shown in the **Select range for layout column** field.

Or:

Click on a column number (1 to 10). Then mark the desired range of positions in the field **Select range for layout column** with the cursor, and select **Apply**.

The positions thus selected will be shown in the **from/to position** fields for the column.

For easier orientation, you can copy text lines from the original report to the clipboard, and then select **Paste clip** to paste them into the display area. You can copy several lines, but only line by line.

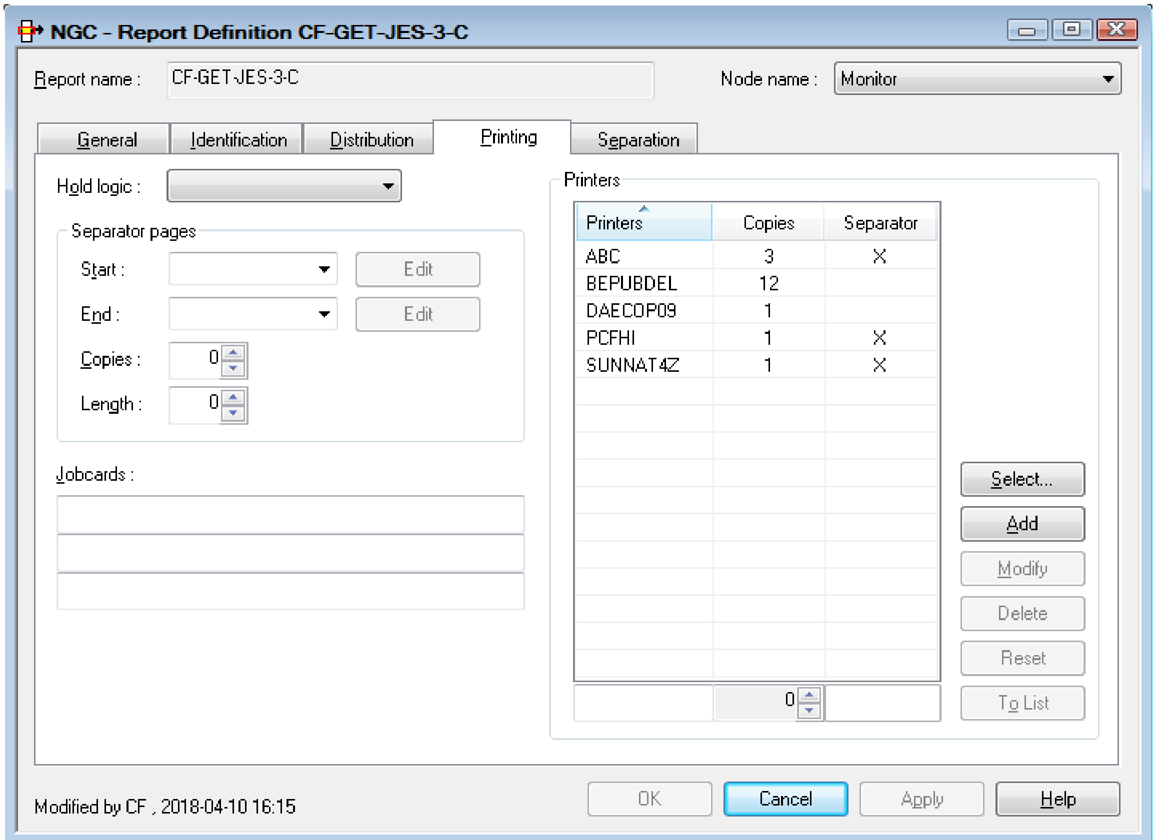
6 When you have specified all columns to be displayed, choose **OK**.

Automatic Printing with Special Layout

If a report is to be automatically printed with a special layout, define `AUTOPRNT` as an addressee and attach the special layout to that addressee (the report will not be distributed to `AUTOPRNT`). To use this facility, you must also define a user `AUTOPRNT`.

Printing Attributes

- Fields: Printing Attributes
- Selecting Printers for a Report



On this screen you can define how reports are printed automatically.

Fields: Printing Attributes

Field	Explanation	
Hold Logic	This field controls how the report is queued for printing. Choose one of the following values from the drop-down list box:	
	(none)	
	Release manually	The report is held in the printout queue until released manually.
	All users confirm	The report is held in the printout queue until manually confirmed by all recipients. A message requesting printing confirmation is displayed to each user in the distribution list. When all users have confirmed, the report is automatically released for printing.
	Release immediately	The report is printed immediately.
Separator Pages	Start	Enter the name of the separator page to be printed at the beginning of the report. To edit the corresponding text member, you use the **Edit** button next to the field.

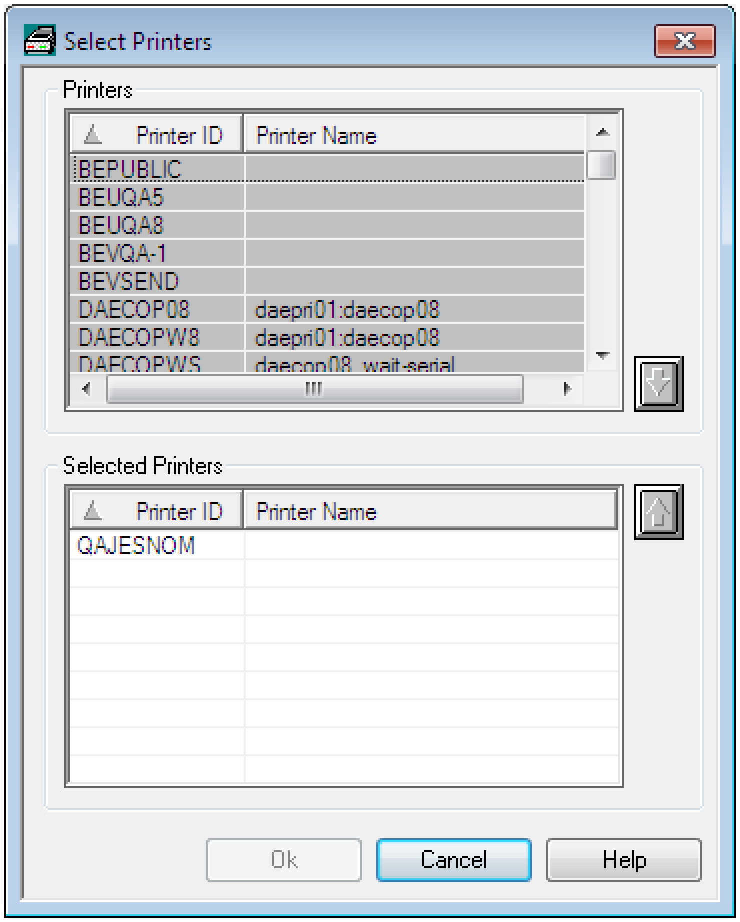
Field	Explanation	
	End	Enter the name of the separator page to be printed at the end of the report. To edit the corresponding text member, you use the **Edit** button next to the field.
	Copies	Specify how many times each separator page is to be printed.
	Length	Enter a separator line length, if your separator line length is greater than your report length. The default length is the report length.
	See *Separator Pages* for further information.	
Jobcards	Enter the job cards for printing with batch jobs. The following substitution variables can be used: `§USER`, `§REPORT` and `§JOBNAME`. If you leave this field blank, the `Jobcards` specifications from the logical printer definition are used.	
Printers	Printers	The IDs of the printers on which the report will be printed. To add a printer to the list, see *Selecting Printers for a Report* below.
	Copies	The number of copies of the report to be printed on this printer.
	Separator	Determines whether or not the **Separator Pages** (see above) are printed on this printer. By default, they are printed on all printers listed (as indicated by an "X"). If this is not desired, you can change this specification for individual printers.
	To change the **Copies** and **Separator** specifications, select a printer ID and choose the **Modify** button. In the fields below the **Printers** list, you can then change them for the selected printer.	

Selecting Printers for a Report

To select one or more printers for a report:

1. In the **Printers** section of the **Printing Attributes** screen, choose the **Select** button.

   The **Select Printers** window is displayed:



2 In the **Printers** section at the top, select a printer ID.

3 Choose the down arrow on the right.

The printer ID is written to the list of **Selected Printers** in the bottom section of the window.

4 Choose **OK**.

The selected printer now appears in the **Printers** section of the **Printing Attributes** screen.

Separation Attributes

Note: You cannot combine separation attributes with a **report layout definition**. You can only use either one or the other.

For separation you can use one of the following:

- User Separation
- Standard Separation 1

- Standard Separation 2
- Standard Separation 3

The routines for standard separation are supplied by Software AG.

If no user routine or standard routine is specified, the whole identified spool file is contained in the report.

Field	Explanation
Separation Routine	Select the routine to be used.
Create report definitions for active reports by separation.	By default, when active reports are created dynamically during a separation process, the corresponding report definitions are created automatically. To suppress this automatic creation, select **No**. This may be useful if you create unique active reports.

User Separation

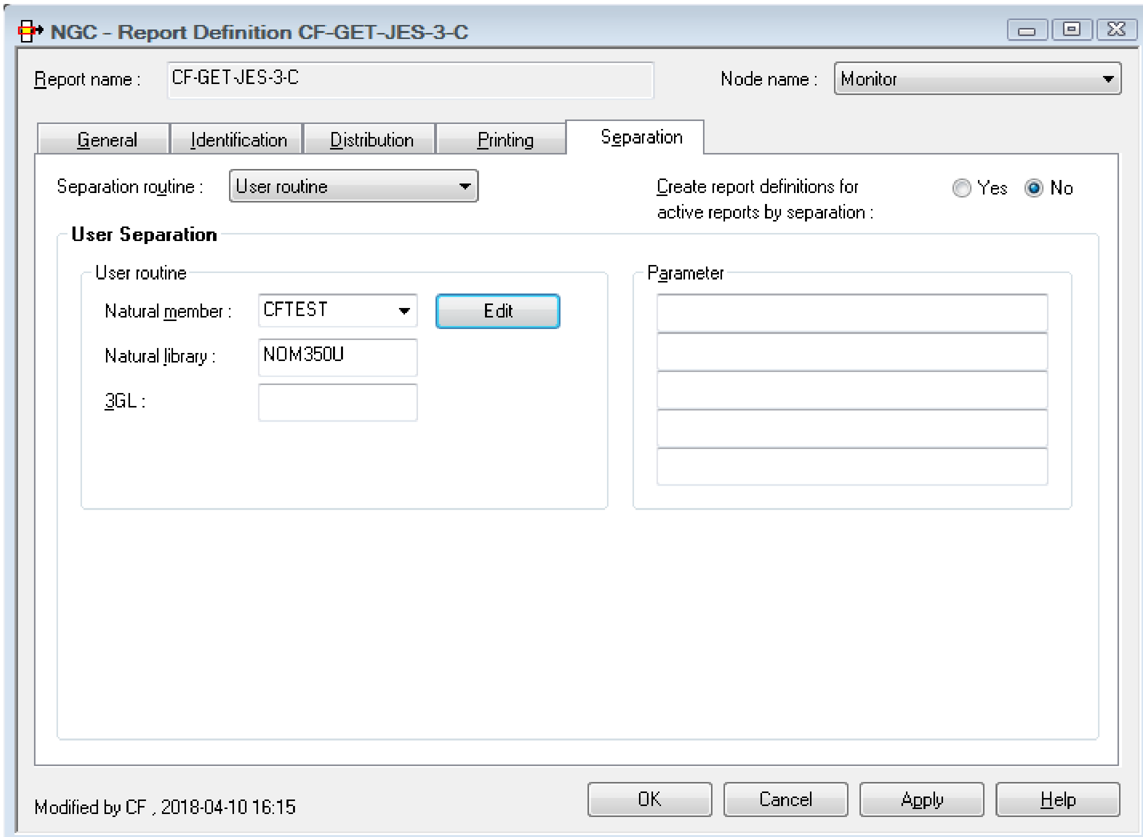
- How User Separation Works
- Attributes of User Separation

How User Separation Works

The spool file records can be filtered on a record-to-record basis by a supplied user routine. With various action codes, the user routine can control the separation process and positioning within the output and can determine the contents of the created reports.

For more information, see *User Separation Routines* in the *System Administration* documentation.

Attributes of User Separation



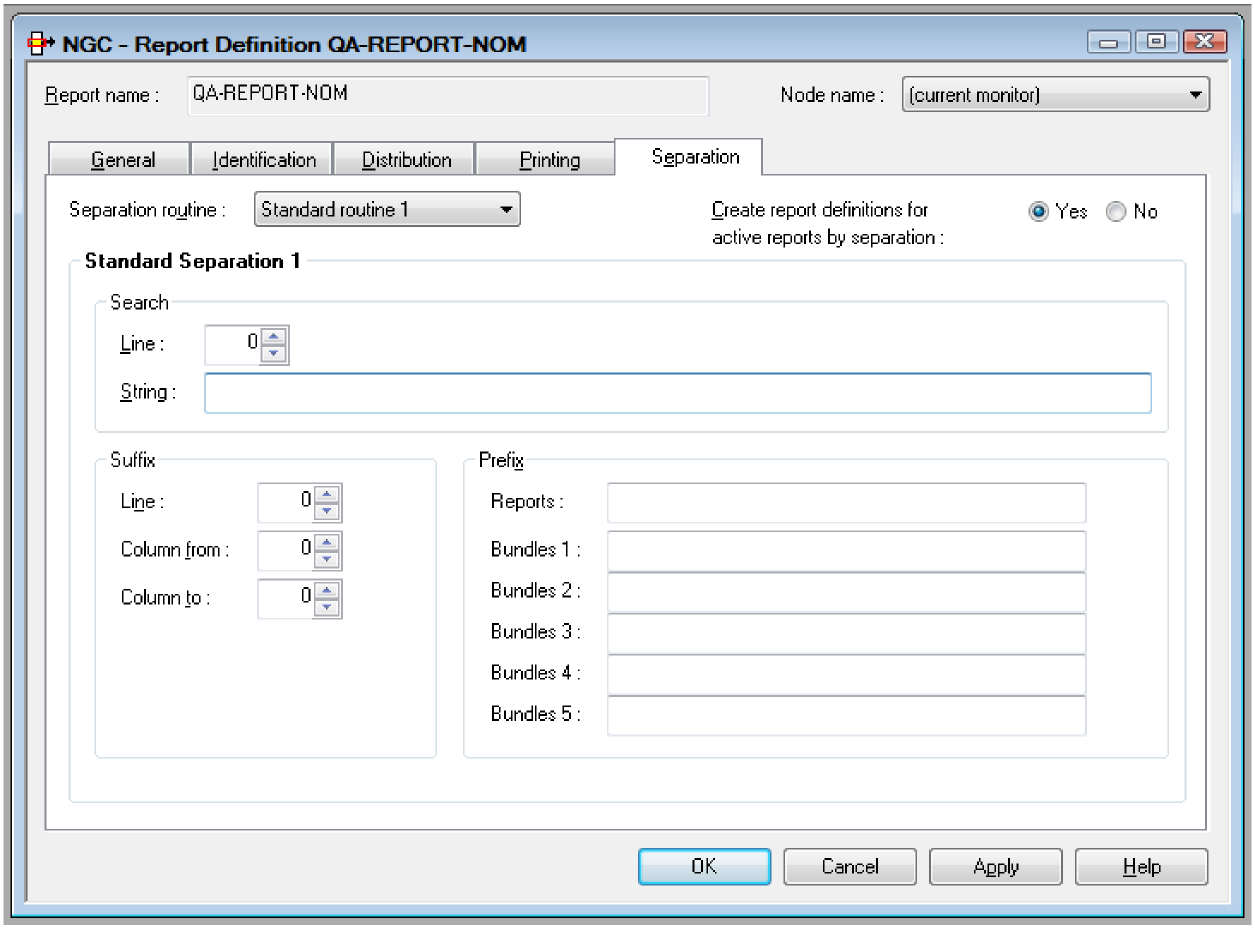
Field	Explanation	
User routine	Natural member	Enter the name of the Natural subprogram containing the user routine. To edit the subprogram, you use the **Edit** button next to the field.
	Natural library	Enter the name of the Natural library which contains the subprogram. A library name beginning with `SYS` must not be specified, except `SYSNOMU`.
	3GL	If the user routine is written in a language other than Natural, enter its name here. This user routine is invoked by a `CALL` statement.
Parameter	You can enter up to 5 parameters which are passed to the user routine at the start of report processing.	

Standard Separation 1

How Standard Separation 1 Works

Standard Separation 1 separates spool data into several reports depending on the break of the specified suffix. The suffix need not appear in sorted order. This separation searches for a defined string in a defined line or anywhere on a page. If the string appears on a page, a suffix is evaluated (at break of the suffix value, a new report is opened). If the string is not found, the page is added to the currently open report. If no report is open, the page is rejected.

Attributes of Standard Separation 1



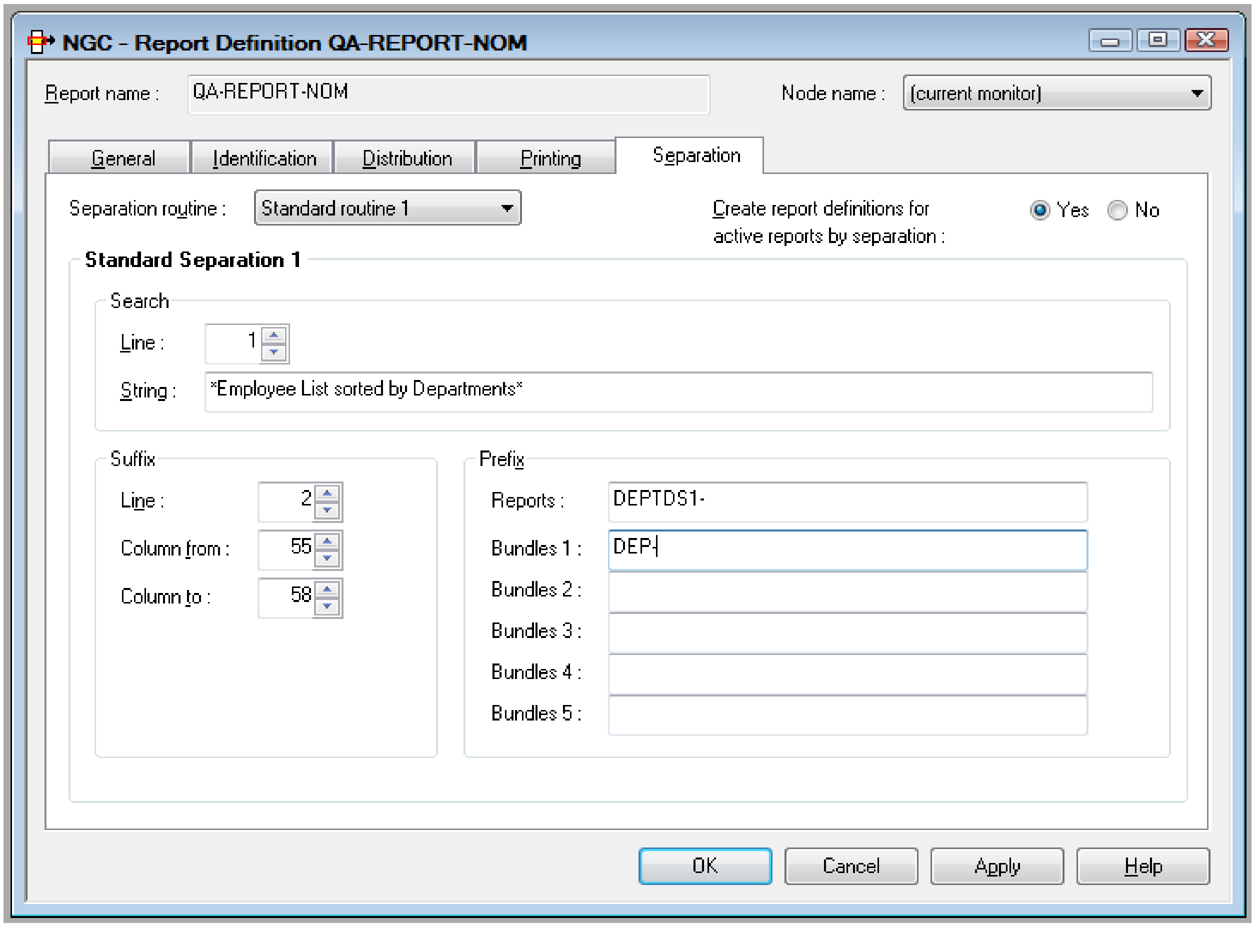
Item	Explanation	
Search	Line	Enter the line number, starting from the top of the page, where the string must appear. To determine this line number, you must also count lines containing only carriage control characters. If you do not specify a line number, the search string can appear anywhere on the page.

	String	Enter the string to be searched for. If this string appears on a page, the suffix is evaluated (at break of the suffix value, a new report is opened). If the string is not found, the page is added to the currently open report. If no report is open, the page is rejected.
		
		You can specify a search pattern like:
		`*STRING1*STRING2*`
		
		or:
		`*STRING1%STRING2*`
		
		where * stands for any string and % stands for any character.

Item	Explanation	
		Note: You must bracket the string with * (for example: *string*) if it can occur anywhere within a line.
Suffix	Line	Enter the line number, starting from the top of the page, where the report suffix appears. To determine this line number, you must also count lines containing only carriage control characters. If you leave this field empty, Entire Output Management assumes that the suffix is located in the **Search Line**.
	Column from	Enter the position in the line where the report suffix starts (value from 1 to 251). To determine the position, you must also count carriage control codes and/or table reference characters.
	Column to	Enter the position in the line where the report suffix ends (value from 1 to 251). To determine the position, you must also count carriage control codes and/or table reference characters.
Prefix	Reports	Enter the report prefix which is concatenated to the suffix to determine the report name. The suffix is concatenated suppressing leading and trailing blanks.
	Bundles 1 to 5	(Optional) Enter the bundle prefix which is concatenated to the suffix to determine the bundle name. The suffix is concatenated suppressing leading and trailing blanks. Up to 5 bundles can be specified. To generate bundles with fixed names, fill in this field *completely*. No suffix is then appended.

Example of Standard Separation 1

We have a salary report sorted by department number and want to separate it into the various departments. A standard routine could be defined as follows to perform an automatic separation:



This standard routine separates the spool file on a page basis and creates reports whose names begin with `DEPTS1-`. The report name is created by adding the prefix `DEPTS1-` to the suffix found in the spool file in the positions defined in the example above, for example: `DEPTS1-FINA`.

Optionally, the report can be directed to a bundle with the prefix `DEP-`. The bundle name is created by adding the prefix `DEP-` to the suffix found in the spool file, for example: `DEP-FINA`.

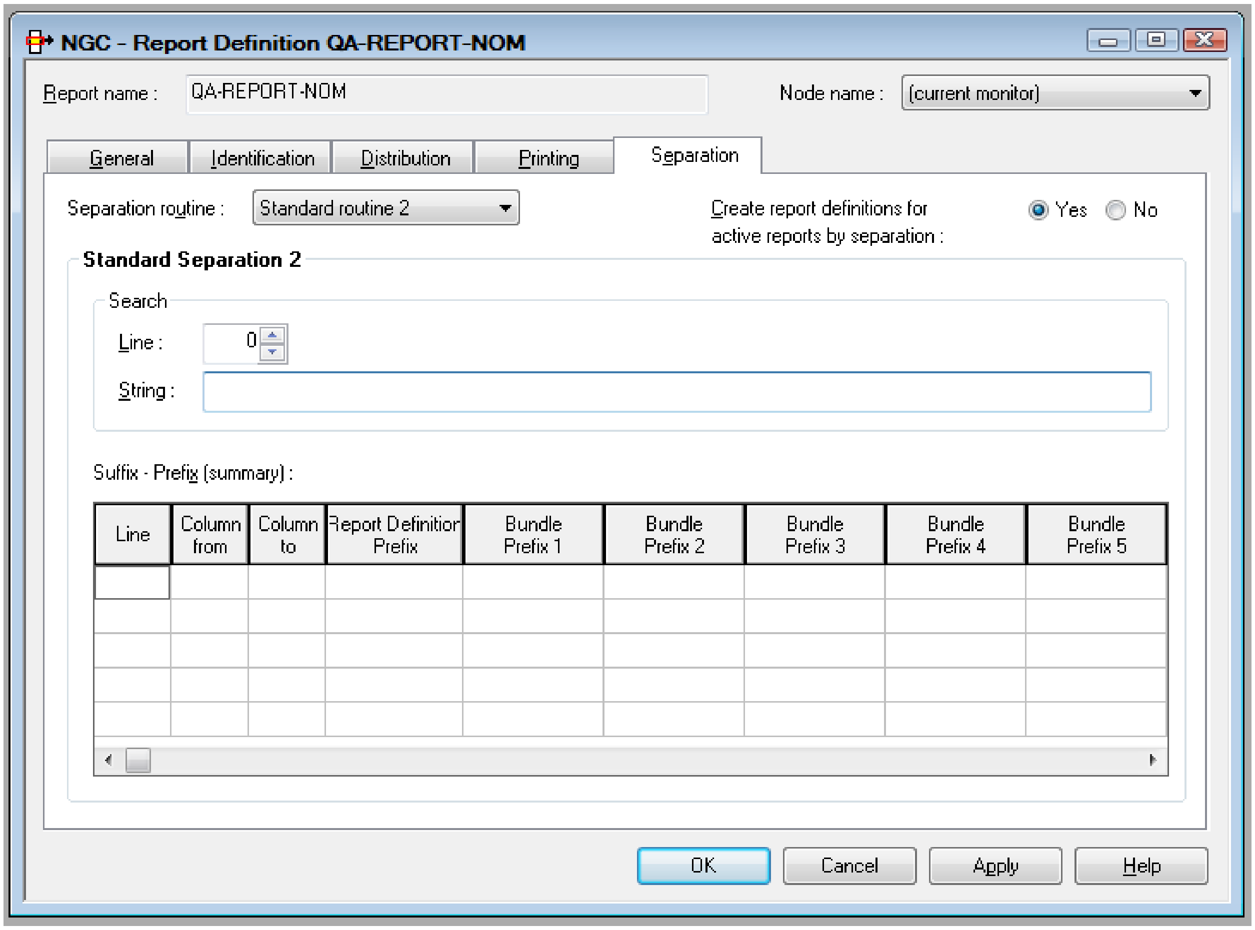
Note: When the suffix and the identifier string are not on the same line, the line parameters must be used. Enter the line numbers where the identifier string and suffix are found. This must be the *absolute* line number as counted from the top of the page.

Standard Separation 2

How Standard Separation 2 Works

Standard Separation 2 separates spool data into several reports depending on up to 5 break conditions. It searches for a defined string in a defined line or anywhere on a page. If the string appears on a page, up to 5 suffixes are evaluated (at the break of a suffix value, a new report is opened for that suffix). If no string is found, the page is added to the currently opened reports. If no report is opened, the page is rejected.

Attributes of Standard Separation 2

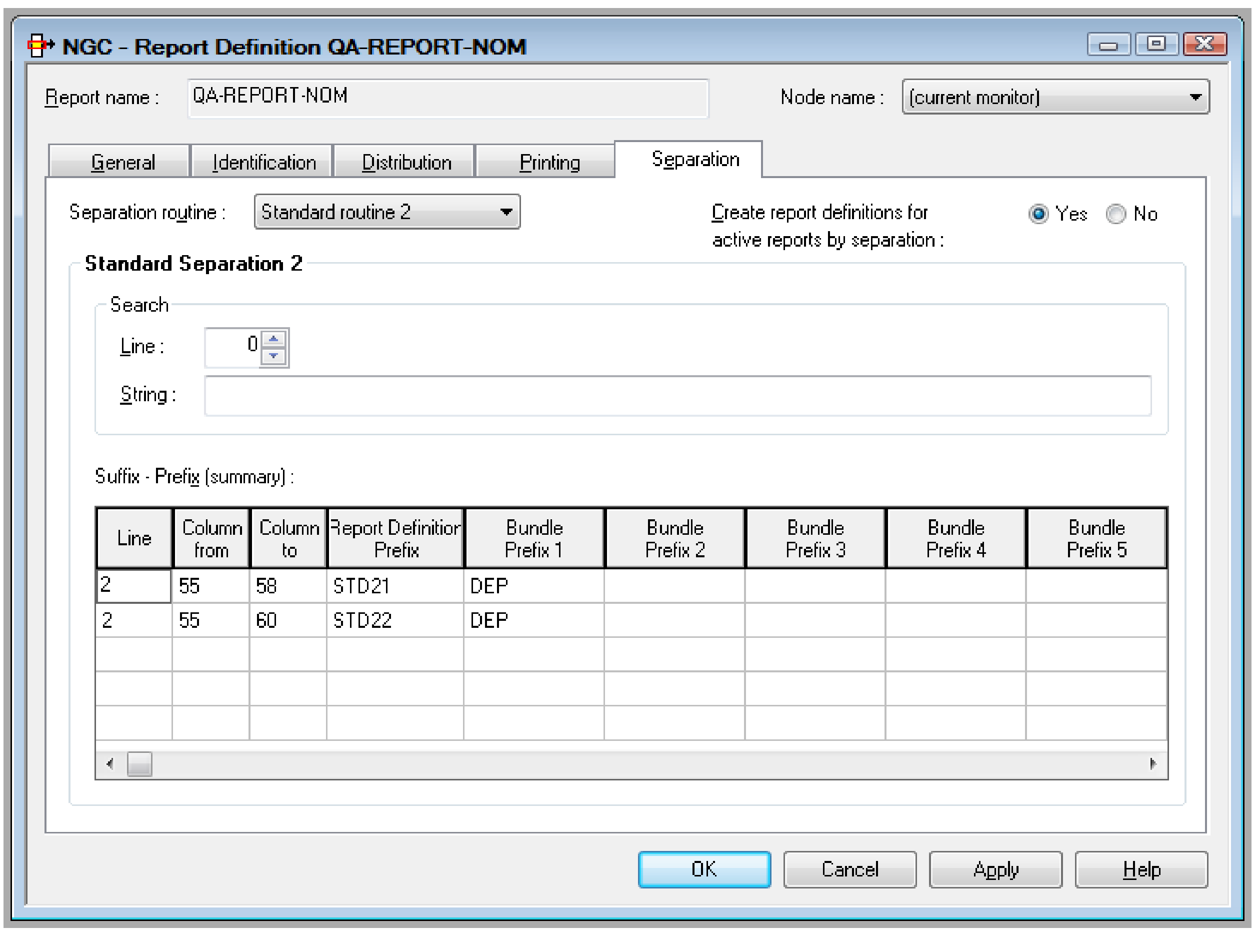


Field	Explanation
Search	
Line	Same as described for *Standard Separation 1*.
String	
Suffix - Prefix (summary) - You can define parameters for up to 5 suffixes in these fields	
Line	Enter the line number, starting from the top of the page, where the report suffix appears. To determine this line number, you must also count lines containing only carriage control characters. If you leave this field empty, Entire Output Management assumes that the suffix is located in the `Search Line`.
Column from	Enter the position in the line where the report suffix starts (value from 1 to 251). To determine position, you must also count carriage control codes and/or table reference characters.

Field	Explanation
Column to	Enter the position in the line where the report suffix ends (value from 1 to 251). To determine position, you must also count carriage control codes and/or table reference characters.
Report Prefix	Enter the report prefix which is concatenated to the suffix to determine the report name. The suffix is concatenated suppressing leading and trailing blanks.
Bundle Prefix 1 to 5	(Optional) Enter the bundle prefix which is concatenated to the suffix to determine the bundle name. The suffix is concatenated suppressing leading and trailing blanks. Up to 5 bundle prefixes can be specified for each suffix. To generate bundles with fixed names, fill in this field *completely*. No suffix is then appended. The number of the currently displayed prefix appears after the title `Bundle Prefix`.

Example of Standard Separation 2

We have a salary report sorted by department number and want to separate it into the various main departments and sub-departments. A standard routine could be defined as follows to perform an automatic separation:



This standard routine separates the spool file on a page basis and creates reports whose names begin with `STD21-` for the main departments and `STD22-` for the sub-departments. The report name is created by adding the prefix `STD21-` to the department name (columns 55-58 in line 2) or by adding the prefix `STD22-` to the sub-department name (columns 55-60 in line 2) found in the spool data.

Optionally, the report can be directed to a bundle with the prefix `DEP-`. The bundle name is created by adding the prefix `DEP-` to the department or sub-department name.

Note: When the suffix and the identifier string are not on the same line, the line parameters must be used. Enter the line numbers where the identifier string and suffix are found. This must be the *absolute* line number as counted from the top of the page.

Standard Separation 3

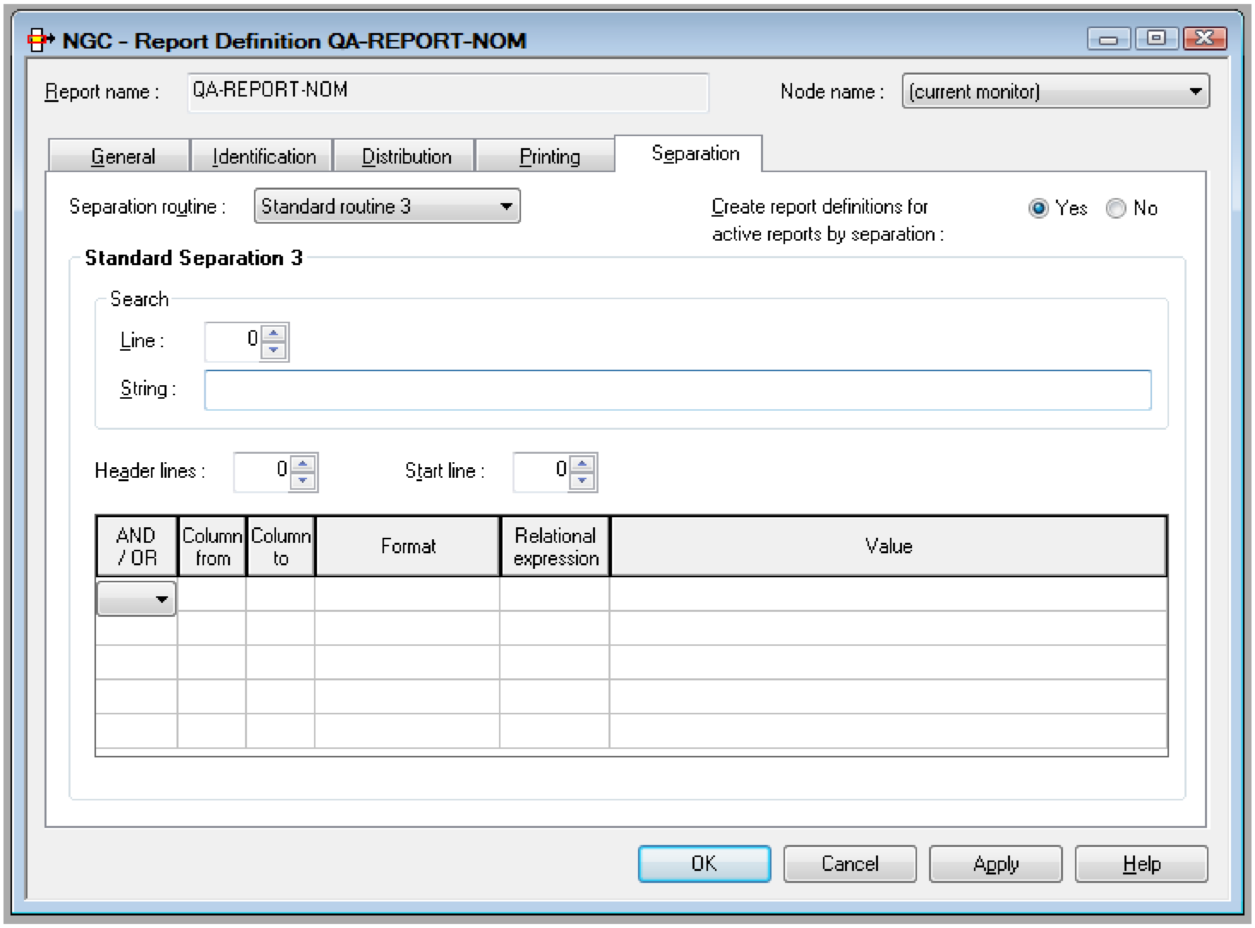
- How Standard Separation 3 Works
- Attributes of Standard Separation 3
- Examples of Standard Separation 3

How Standard Separation 3 Works

Standard Separation 3 searches for a defined string in a defined line. If the string appears on a page, the lines of the page are analyzed regarding the defined logical expression. If not, the whole page is rejected.

From the **Start line** until end of page, the lines are added to the report, if they match the defined logical expression. Lines before the **Start line** are also rejected unless they are defined as **Header lines**.

Attributes of Standard Separation 3



<table>
<tr><th colspan="2">Field</th><th colspan="2">Explanation</th></tr>
<tr><td rowspan="2">Search</td><td>Line</td><td colspan="2" rowspan="2">Same as described for Standard Separation 1.</td></tr>
<tr><td>String</td></tr>
<tr><td colspan="2">Header lines</td><td colspan="2">Enter the number of lines (0-20), starting from the top of the page, which are used as header lines. To determine this line number, you must also count lines containing only carriage control.

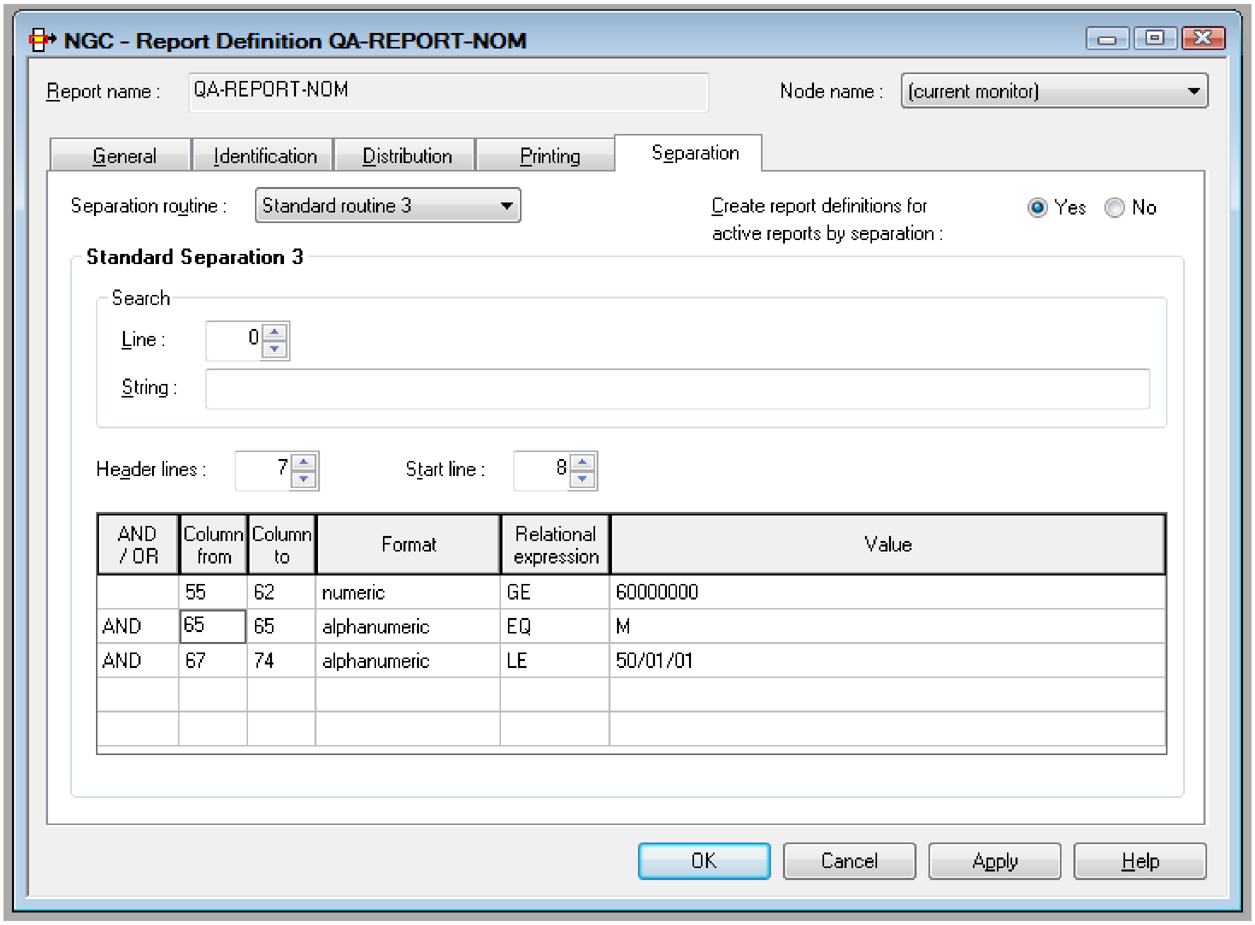
If Header lines = 0, no header lines are added. Otherwise, if there is at least one line on a page which matches the separation's logical expression, the header lines are added.</td></tr>
<tr><td colspan="2">Start line</td><td colspan="2">Enter the line, starting from the top of the page, from which filter processing starts. The lines preceding the <code>Start line</code> are automatically excluded from the report, unless they are defined as <code>Header lines</code>. To determine this line number, you must also count lines containing only carriage control characters.</td></tr>
<tr><td colspan="2" rowspan="3">AND/OR</td><td colspan="2">Concatenates two conditions. Possible values:</td></tr>
<tr><th>Operator</th><th>Meaning</th></tr>
<tr><td><code>AND</code></td><td>Concatenates with logical AND.</td></tr>
</table>

Field	Explanation	
	OR	Concatenates with logical OR.
	(blank)	Concatenates the same variable with OR=.
Column from Column to	Indicate the position of the operand. Enter positions in column from which to start and at which to end filter processing (value from 1 to 251).	
Format	Variable type: ■ A = Alphanumeric. ■ M = Mask (as described in the *Natural Reference* documentation). ■ N = Numeric.	
Relational Expression	Possible values:	
	Operator	**Meaning**
	EQ or =	Equal to.
	GE or >=	Greater than or equal to.
	GT or >	Greater than.
	LE or <=	Less than or equal to.
	LT or <	Less than.
	NE or !	Not equal to.
Value	Enter a numeric or alphanumeric value or a mask definition. **Note:** If most of these lines are rejected, set **Copy report content to NOM database** to "Yes" (in the **General Attributes**). The selected lines are copied to the Entire Output Management database and the spool file can be deleted.	

Examples of Standard Separation 3

Example 1 - Salary Report

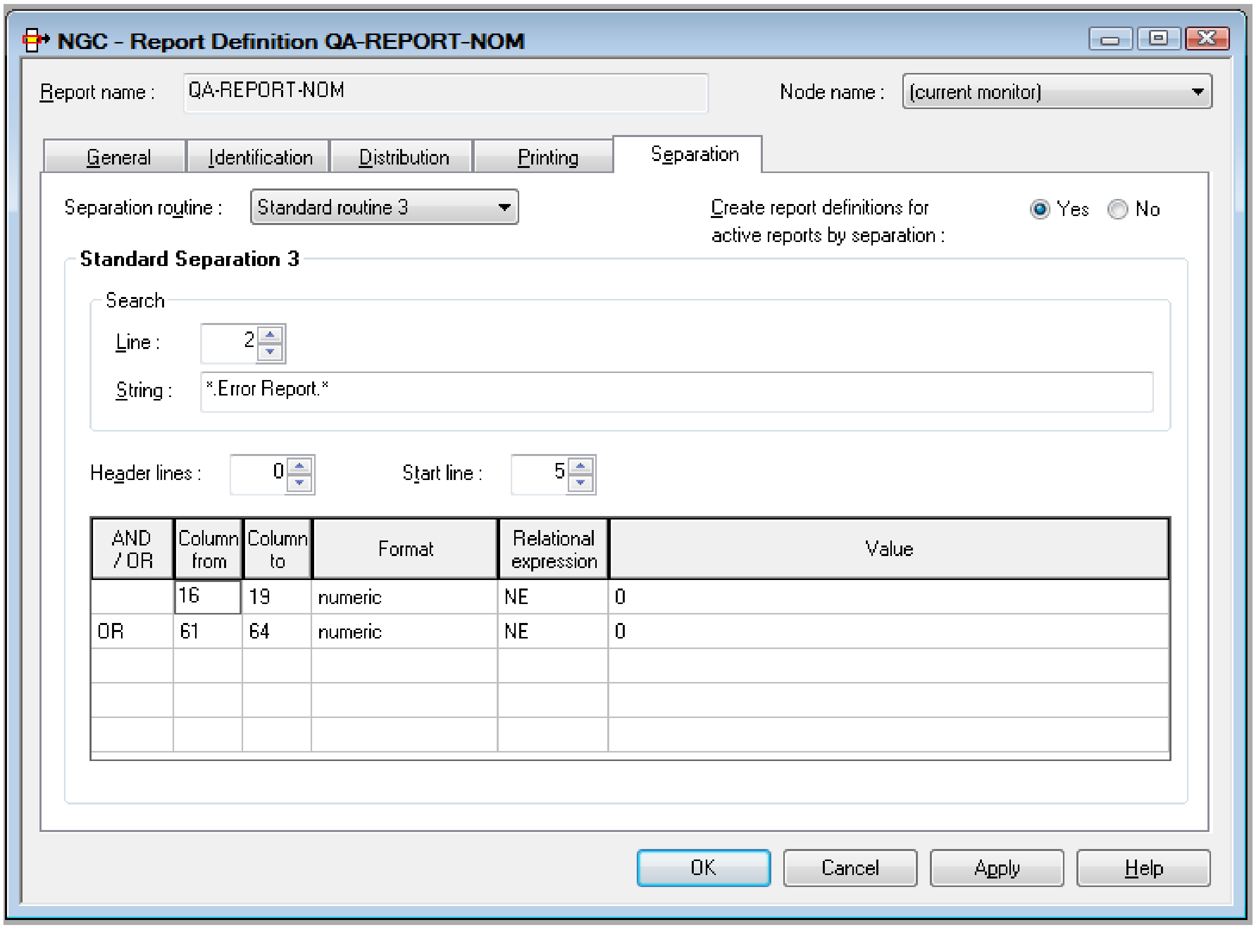
We have a salary report sorted by department number and want to extract all employees with sex = M, personnel ID number >= 6000000 and birthday <= 50/01/01 (sub-department COMP12):



Lines 1 to 7 are taken as header lines. The filter starts in line 8.

Example 2 - Natural CATALL Report

We have a CATALL list and want to extract all lines with error number unequal to 0:



No header lines are added. The filter starts in line 5 on pages with the string `.Error Report.` in line 2.

9 Maintenance Functions for Reports

This section describes the functions for the maintenance of reports:

Available Commands for Reports

To list all available commands for reports:

1. In the object workspace, expand the **Reports** folder.
2. Select a report and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Authorization	F9	Authorize other users to process the report. Only users with owner authorization for the report can perform this function.
Copy	Ctrl+C	Copy report (including report processing).
Delete	Del	Delete report.
Display	Ctrl+D	Display report.
Display Log	F10	Display log information about maintenance activity on a report, such as who last modified it and who created it.
Filter	F3	Select reports with selection criteria.
List	F8	List reports.
List Active	Ctrl+F8	List active reports for a report definition.
New	Ctrl+N	Add report.
Open	Ctrl+O	Modify report.
Rename	F2	Rename report.
Filter Subobject	Ctrl+F3	Select active reports of a report definition with selection criteria.

Listing All Reports

To list all reports:

1. In the object workspace, select the **Reports** folder.
2. Invoke the context menu and choose **List**.

   All existing reports are listed in the content pane.

For each report, the following information is displayed:

Field	Explanation
Report	Report name.
Node	The name of the node the report is associated with.
Type	Possible values: Created, Default, Master, Suspended.
Description	A short description of the report.
Authorization	Authorization used to access the report. Possible values: ■ **ADMIN** - You are defined as administrator with Owner authorization for the listed reports. ■ **PUBLIC** - All users are authorized for the report. ■ *user ID* or *name of distribution list* - This user or the members of this distribution list are authorized for the report.

Listing Selected Reports

To list reports according to selection criteria:

1 In the object workspace or in the report list, select the **Reports** folder.

2 Invoke the context menu and choose **Filter**.

The **Filter Reports** window is displayed.

3 Enter your selection criteria. The fields are described below.

4 Choose **OK**.

Now only reports which satisfy the selection criteria appear in the expanded **Reports** folder in the object workspace.

Selection Criteria

Field / List Box	Explanation
Report	Selection criterion for the name of the report.
Master Report	Selection criterion for the master-report name of the report.
Keywords	You can enter up to 6 keywords.
Node	Selection criterion for the node name a report is associated with.
Node number	Selection criterion for the node number a report is associated with.

Field / List Box	Explanation
Authorization	This field is only available to administrators. You can enter the access authorization for the report: ■ ADMIN = Access authorization for you as defined administrator. ■ PUBLIC = Access authorization for all users. ■ *user ID* or *name of distribution list* = Access authorization for this user or the members of this distribution list.
Type	Possible values: Created, Default, Master, Suspended.
Distribute to	You can enter a user or distribution list, or select one.
Printer	You can select the name of a printer defined in the report.
Identification	Depending on the spool system of the server, you can enter the following identification attributes: ■ JES: Jobname, Writer, Destination, Form. ■ POWER: Jobname, Destination, Form. ■ BS2000: Jobname, Form, User-ID.

Creating a New Report

To create a new report:

1. Select the **Reports** folder in the object workspace and invoke the context menu.
2. Choose **New**.

   The **New Report** window is displayed in the content pane.
3. Enter your data. The fields are described under ***Attributes of a Report***.
4. Choose **OK** to save your data.

Copying a Report

To copy a report:

1. In the object workspace or in the report list, select the desired report.
2. Invoke the context menu.

   A window is displayed.

3 Enter the name of the target report in the **To Report** field, and choose **OK**.

The new report appears in the **Report List**.

Modifying a Report

To modify a report:

1. In the object workspace or in the report list, select the desired report.
2. Invoke the context menu and choose **Open**.
3. The report definition is displayed, and you can make changes to it. The fields are described under *Attributes of a Report*.
4. Choose **OK** to save your changes.

Renaming a Report

To rename a report:

1. In the object workspace or in the report list, select the desired report.
2. Invoke the context menu and choose **Rename**.
3. Change the name of the report, and press ENTER.

Displaying a Report

To display a report:

1. In the object workspace or in the report list, select the desired report.
2. Invoke the context menu and choose **Display**.

The report definition is displayed. The fields are described under *Attributes of a Report*.

Deleting a Report

To delete a report:

1 In the object workspace or in the report list, select the desired report.

2 Invoke the context menu and choose **Delete**.

A window is displayed, prompting you to confirm the deletion.

3 Choose **Yes** to delete the report, or **No** to cancel the operation.

Displaying Log Information for a Report

To display log information for a report:

1 In the object workspace or in the report list, select the desired report.

2 Invoke the context menu and choose **Display Log**.

The **Log Information** for the report is displayed.

3 To display more detailed log information, select an entry from the log information list.

4 Invoke the context menu and choose **Info**.

Detailed information on the selected entry is displayed.

Authorizing User Access to a Report

To authorize user access to a report:

1 In the object workspace or in the report list, select the desired report.

2 Invoke the context menu and choose **Authorization**.

The **Authorization List** for the report is displayed. It lists all users and user groups on distribution lists who are authorized for the report, and their authorization levels.

3 Invoke the context menu for the dialog and select **New**.

The **Authorization Definition** is displayed.

4 Enter data for the authorization. The fields are described under ***Authorization Options***.

5 Choose **OK** to save your data.

Listing Active Reports for a Report

To list active reports for a report:

1. In the **Reports** folder in the object workspace, select a report that can be expanded (preceded by a plus sign +) .
2. Invoke the context menu and choose **List Active**.

   The active reports are listed in the content pane. The fields of the active report list are explained below.

To invoke a list of available commands:

- Select an active report and invoke the context menu.

  For further information on these commands and the operations which can be performed on active reports, see *Available Commands for Active Reports*.

Listing Active Reports for a Report

Field	Explanation	
Creation	Date and time when the active report was created.	
Run number	Internal sequence number of the active report.	
Lines	Number of lines in the active report.	
Kbytes	The size of the active report in KB (for binary reports only).	
Archive	Archive status of the active report:	
	Archived	Active report has been archived.
	Marked	Active report is marked to be archived.
Revive	Revive status of the active report:	
	Revived	Active report has been revived.
	Revive in NOM DB	Active report is marked to be revived to the Entire Output Management database.
	Revive in JES-Spool	Active report is marked to be revived to the JES Spool.
Location	Storage location of the active report: NOM database, JES-Spool, or Archive.	
Rep.Expiration	Report expiration date. The active report is available online until this date.	
Arch.Expiration	Archive expiration date. The active report is kept in the archive until this date.	

Field	Explanation	
Rev.Expiration	Revive expiration date. If the active report has been revived from the archive, the copy created is available online until this date.	
Message	Indicates the following:	
	Confirm	Printing of the active report must still be confirmed.
	Confirmed	Printing of the active report has been confirmed.
Description	Short description of the active report.	
Source/sender	The source and sender of OPO online reports. Source is the PC name of the OPO user; or, if the user is logged on to a domain, the domain name. Sender is the user ID of the OPO user.	

Listing Selected Active Reports

To list active reports according to selection criteria:

1. In the **Reports** folder in the object workspace, select a report that can be expanded (preceded by a plus sign +) .
2. Invoke the context menu and choose **Filter Subobject**.

   The **Filter Active Reports** window is displayed.
3. Enter your selection criteria. The fields are described below.
4. Choose **OK**.

   Now only active reports which satisfy the selection criteria appear in the active report list.

Selection Criteria

Field	Explanation	
Keyword	Reports can be identified by up to 3 keywords. See *General Attributes* under ***Attributes of a Report***.	
Archive	Select the archive status of the active report:	
	Archived	Active report has been archived.
	Marked	Active report is marked to be archived.
Revive	Select the revive status of the active report:	
	Revived	Active report has been revived.
	Revive in NOM DB	Active report is marked to be revived to the Entire Output Management database.

Field	Explanation	
	Revive in JES-Spool	Active report is marked to be revived to the JES Spool.
Location	Select the storage location of the active report: NOM database, JES-Spool, or Archive.	
Creation date	You can select active reports which were created: ■ today, yesterday, or the day before yesterday; ■ on/before/after a specific date/time, or within a specific date/time range.	
Expiration date	The expiration date of the active report.	
For OPO only	Enter selection criteria if you want to select reports created by OPO:	
	Source	Select the OPO source of the active report.
	Sender	Select the OPO sender of the active report.

10 Active Reports

This section covers the following topics:

What is an Active Report?

Entire Output Management creates *active reports* according to the corresponding *report definition*.

An active report is generated from the print data of the data source which satisfy the criteria specified in the **Identification Attributes** of the report definition.

An active report is the output that users receive. When an active report is created, it is sent automatically to the users specified in the **Distribution Attributes** of the report definition. It can also be sent to users manually at any time by any authorized user. Users receive an active report in their `#Inbasket` folder.

An active report can be printed on the logical printers which are specified in the **Printing Attributes** of the report definition.

See also *General Information on Reports*.

Status of an Active Report

The status of an active report may be one of the following:

Status	Explanation
Browsable	The active report has not yet reached its expiration date. It can be viewed online, but has not yet been archived.
To be archived	The active report has passed its expiration date, but it has not yet been processed by the next run of the archive job. It can still be viewed online until the archive job has processed it. Remember that an active report whose expiration date has passed will not be archived, as long as it is still in the printout queue waiting to be printed or in an open active bundle which is still open.

Status	Explanation
Browsable/Archived	The report has not yet reached its expiration date, it can be viewed online, and it has already been copied to an archive (so that it is not lost when the spool queue is deleted).
Archived	The active report has passed its expiration date. It cannot be viewed online. The only copy of it is in the archive.
Revived	The active report has passed its expiration date, was archived and has subsequently been revived from the archive so that it is again available for online viewing until its revive expiration date passes.

Availability of an Active Report

The availability of an active report is controlled by the following general attributes of the underlying report definition:

Attribute	Explanation
Retention	The retention period determines how long the active report is available online for viewing and printing. When this retention period expires, the active report is either archived or deleted, depending on the selected **Action**. Possible options are: ▪ The active report will be deleted, but not archived, when the retention period expires. ▪ The active report will be archived when the retention period expires. ▪ The active report will be archived the next time the archive job runs, but it is still available online until the retention period expires. ▪ The active report will be archived the next time the archive job runs, and deleted when its processing is completed. When an active report is archived, it is no longer available online. After this, it exists only in the archive. It has to be revived before it can be viewed or printed again. If the report is to be archived in a user-defined archive, you have to select the desired **Archive Type**.
Archive for	This attribute determines how long the active report is kept in the archive. When this period expires, the active report is deleted from the archive.
Keep revived report ready for	This attributes determines how long the active report - after is has been revived - is available online again for viewing and printing. When this period expires, the revived copy is deleted again, and only the archived copy remains (until the archive retention period expires).

The attributes are described in detail under *Attributes of a Report*.

Example of report retention:

Let us assume that a report is defined with a report retention period of 5 absolute days.

If an active report is created on 18th January, its expiration date will be 23rd January.

This means that Entire Output Management will mark the active report as "to be archived" on 24th January. The next time the archive job runs, the active report will be copied to an archive file.

If anyone needs to view the report after that, it has to be revived.

Attributes of an Active Report

An active report can have the following attributes:

- General Attributes
- Retention Attributes
- Spool Attributes

General Attributes

<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td>Report</td><td colspan="2">The report name.</td></tr>
<tr><td>Run number</td><td colspan="2">Unique internal identifier for active report.</td></tr>
<tr><td>Description</td><td colspan="2">A short description for the report.</td></tr>
<tr><td>Location</td><td colspan="2">The current storage location for the active report.</td></tr>
<tr><td>Keywords</td><td colspan="2">Enter up to 3 keywords which will later help you select reports.</td></tr>
<tr><td>Master owner</td><td colspan="2">The user specified here is the only one who can delete the active report; see Deleting an Active Report.

The monitor also takes this user ID to submit print jobs for reports to be scheduled for automatic printing.

This field is initialized with the Master owner ID of the underlying report definition.

Use the Select button to the right of this field to select a different user ID.</td></tr>
<tr><td rowspan="3">Status</td><td>Current status</td><td>The current status of the active report. This can be one of the main states listed under Status of an Active Report, or an intermediate status when the active report was marked to be archived or revived.</td></tr>
<tr><td>Expiration date</td><td>The expiration date which applies to the current status.</td></tr>
<tr><td>Action</td><td>The action which will be perfomed when the expiration date is reached.</td></tr>
</table>

Field	Explanation	
Contents	Number of lines / Size	The number of lines contained in the active report. For a binary report, its size in KB .
	CC Type	Either `ASA` or `MACHINE`.
	Record length	The maximum number of bytes in the record.

Retention Attributes

Field	Explanation	
Browsable	Creation date	The date and time when the active report was created.
	Expiration date	The contents of the active report are available online for browsing/printing until this date. When this date is reached, the **Action** selected below will be performed. As long as the status of the active report is "Browsable", you can change its expiration date: You either enter or select a new date, or you choose **Calculate** to calculate a new date, based on the number of absolute days, working days (in conjunction with a calendar which determines which days are to be considered working days), weeks or months you specify in a window displayed for this purpose.
	Action	Possible values: ■ Archive = The active report will be archived when the expiration date is reached. When an active report is archived, its contents are no longer available online. ■ Purge = The active report will be deleted when the expiration date is reached.
Revive	Enter the length of time the contents of a revived active report are to be available online for browsing and printing. When this period expires, this "copy" of the archived report is deleted automatically.	
	Retention	Enter the number of working days, absolute days, weeks or months the active report is to be available online, and select a unit for the number: ■ Working days ■ Absolute days ■ Weeks ■ Months
	Calendar	If you select "Working days" in the field above, you also have to select the name of a calendar, which determines which days are to be considered working days. For more information on calendars, see *Calendars* in the *System Administration* documentation.
	Revived at	The date and time when the active report was revived.
	Expiration date	The revived active report is available until this date.

Field	Explanation	
		If the status of the active report is "Revived", you can change its expiration date: You either enter or select a new date, or you choose **Calculate** to calculate a new date, based on the number of absolute days, working days (in conjunction with a calendar which determines which days are to be considered working days), weeks or months you specify in a window displayed for this purpose.
Archive	Enter the length of time the active report is to be kept in the archive. When this period expires, the active report is deleted from the archive data set. An active report can be archived no matter where it is stored.	
	Retention	Enter the number of days/weeks/months/years the active report is to be kept in the archive, and select a unit for the number: ■ Days ■ Weeks ■ Months ■ Years
	Archived at	The date and time when the active report was archived.
	Expiration date	The active report is kept in the archive until this date.
	Expiration orig.	The original expiration date. If the expiration date has been modified, the original date is displayed here.
	Type	If the report is to be archived in a user-defined archive, the number of the required archive type is displayed here. If this field is empty or contains "0", the report is archived in a standard Entire Output Management archive file.
	Data set	The name of the data set where the active report was archived.
	Volser(s)	The VOLSER of the archive containing the active report.

Spool Attributes

The fields are the same as the spool attributes in the report definition; see *Attributes of a Report*.

11 Maintenance Functions for Active Reports

This section covers the following topics:

Available Commands for Active Reports

To list all available commands for active reports:

1. Select an active report in the **active report list for a report definition** or in the **active reports in folder list**.
2. Invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Archive	---	Mark an active report for archiving or reset archive flag. The next time the archiving task is active, it copies the active report contents to a magnetic media, which can be restored later.
Browse	Ctrl+B	Browse the contents of the active report. This function invokes the Software AG Editor.
Confirm print	---	Confirm printing of the active report. It is printed only when all target users confirm printing.
Delete	Del	Delete an active report.
Display	Ctrl+D	Display the general attributes of an active report.
Displays definition	Ctrl+Alt+D	Display the full report definition for the active report.
Display users	---	List users connected to active report (users on distribution list and additional users).
Distribute	---	Distribute an active report to an additional user. The user ID receives the active report in its `#Inbasket` folder. A window is displayed, requesting the user ID.
File	---	File an active report in another folder.
Filter	F3	Use selection criteria to list active reports.
List Active	Ctrl+F8	List active reports for the selected report definition or folder.
Open	Ctrl+O	Modify an active report.
Print	Ctrl+P	Print an active report.
Put in bundle	---	Add the active report to an active bundle that is in "Opened" status.
Revive	---	Mark an archived active report for reviving or reset the revive flag. The active report is restored from the magnetic media to its original location the next time the reviver is active.
Spool	---	Display the spool attributes for the active report.

Command	Shortcut	Explanation
XREF	Ctrl+Alt+X	Cross-reference. Displays all bundles that contain the report.

Listing Active Reports in a Folder

To list the active reports in a folder:

1 In the object workspace, select **Folders** and expand it.

A list of folders is displayed.

2 Select a folder and expand it.

The node **Active Reports** is displayed.

3 Expand it.

Up to four nodes are displayed for the folder, containing the following:

Node	Contents
Summary	Active reports sent to the user, grouped under their report names.
All	Active reports sent to the user.
Archived	Active reports which are already archived.
Browsable	Active reports located in the Spool or the Entire Output Management database.

4 Select the desired node.

- If you select **Summary**, a list of the active reports in the folder is displayed. The available commands are described under *Summary* below.
- If you select one of the other nodes, a list of the active reports - corresponding to the selection criterion of the selected node - is displayed.

  To display detailed information on the reports, select a node and select **List Active** from the context menu. The fields of the list are explained below.

  To invoke a function, select an active report from the list, invoke the context menu, and select the desired command. The available commands are described under *Available Commands for Active Reports*; the **Filter** command is described under *Listing Selected Active Reports in Folder* below.

Fields of Active Reports List

Field	Explanation	
Report	Report name.	
Run Number	Internal sequence number of the active report.	
Mail Date/Time	Date and time the active report was mailed to the user's folder.	
Creation	Date and time active report was created.	
Lines	Number of lines in active report.	
Kbytes	Size of a binary report in KB.	
Archive	Archive status of active report:	
	Archived	Active report has been archived.
	Marked	Active report is marked to be archived.
Revive	Revive status of active report:	
	Revived	Active report has been revived.
	Revive in NOM DB	Active report is marked to be revived to the Entire Output Management database.
	Revive in JES-Spool	Active report is marked to be revived to the JES Spool.
Location	Storage location of active report: NOM database, JES-Spool, or Archive.	
Rep.Expiration	Report expiration date. The active report is available online until this date.	
Arch.Expiration	Archive expiration date. The active report is kept in the archive until this date.	
Rev.Expiration	Revive expiration date. If the active report has been revived from the archive, the copy created is available online until this date.	
Message	Confirm	Printing of the active report must still be confirmed.
	Confirmed	Printing of the active report has been confirmed.
Description	Short description of the active report.	
Owner	The source and sender of OPO online reports (displayed as `source/sender`). Source is the PC name of the OPO user; or, if the user is logged on to a domain, the domain name. Sender is the user ID of the OPO user.	

Summary

To list available commands for active reports in Summary:

- Select an active report and invoke the context menu.

  A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Displays Definition	Ctrl+Alt+D	Displays the report definition. The attributes are described under ***Attributes of a Report***.
Filter	F3	Lists active reports according to selection criteria.
List Active	---	Lists active reports for the selected report.

Listing Selected Active Reports in Folder

To list active reports according to selection criteria:

1. Select an active report in the active report in folder list.
2. Invoke the context menu and choose **Filter**.

   The **Filter Active Reports** window is displayed in the content pane.
3. Enter your selection criteria. The fields are described below.
4. Choose **OK**.

   Now only active reports which satisfy the selection criteria appear in the active report list.

Selection Criteria

Field	Explanation
Report	Enter a report name or part of a report name.
Prefix / Substring	If you select **Prefix**, all reports whose names begin with the character string specified in the **Report** field will be selected. If you select **Substring**, all reports whose names contain the character string specified in the **Report** field will be selected.
Keyword	Reports can be identified by up to 3 keywords. See the field descriptions for ***General Attributes*** under *Attributes of a Report*.
Expiration date	Enter the expiration date of the active report.

Field	Explanation	
Creation date	Select active reports which were created: ■ today, yesterday, or the day before yesterday; ■ on/before/after a specific date/time, or within a specific date/time range.	
Archive	Select the archive status of the active report:	
	Archived	Active report has been archived.
	Marked	Active report is marked to be archived.
Revive	Select the revive status of the active report:	
	Revived	Active report has been revived.
	Revive in NOM DB	Active report is marked to be revived to the NOM database.
	Revive in JES-Spool	Active report is marked to be revived to the JES Spool.
Location	Select the storage location of the active report: NOM database, JES-Spool, or Archive.	
For OPO only	Enter selection criteria if you want to select reports created by OPO:	
	Source	Select the OPO source of the active report.
	Sender	Select the OPO sender of the active report.

Searching for Active Reports

To search for active reports in a folder:

1 In the object workspace, select **Folders** and expand it.

A list of folders is displayed.

2 Select a folder and expand it.

The node **Active Reports** is displayed.

3 Expand it.

Up to four nodes are displayed for the folder, containing the following:

Node	Contents
Summary	Active reports sent to the user, grouped under their report names.
All	Active reports sent to the user.
Archived	Active reports which are already archived.
Browsable	Active reports located in the Spool or the Entire Output Management database.

4 Select the desired node, and select **Search** from the context menu.

The search criteria are the same as for the **Filter** command; see ***Listing Selected Active Reports in Folder***.

In addition, you have the following options:

Option	Function
Save	Saves the current set of search criteria to be available for a subsequent search.
Reset	Removes all specified search criteria.
Search	Starts the search, using the current search criteria.
Number of active reports per page	Allows you to limit the number of reports displayed.
Restart from top	Starts the search again, using the same search criteria.
Show entire filtered list	Displays a list of *all* active reports which meet the search criteria; this may be very time-consuming.

5 The active reports which meet the search criteria are displayed in the lower half of the screen. To enlarge this section, you collapse the **Filter** section.

When you open the **Search** dialog, the result list may initally be either empty or already filled with the search results based on the current search criteria. This depends on the setting of the system default **Perform search in advance when opening the search dialog**; see *Interval/Timeout* under *Components of System Defaults*.

If the amount of data to be searched is very large (over approximately 50,000 active reports), the **Search** function may be very time-consuming. If the search takes too long, you can abort it by pressing ESC.

The search can also be aborted via the timeout setting of the system-default option **Abort if processing takes longer than**; see *Interval/Timeout* under *Components of System Defaults*.

Browsing an Active Report

To browse an active report:

1. Select an active report in the active report list.
2. Invoke the context menu and choose **Browse**.

   The browse window is displayed for the selected active report.
3. Invoke the context menu to display a list of available commands.

Modifying an Active Report

The attributes of an active report are initialized during report creation according to the rules defined in the respective report definition.

To modify an active report:

1. Select an active report in the active report list.
2. Invoke the context menu and choose **Open**.

   The active report is displayed. It consists of: **General Attributes**, **Retention Attributes** and **Spool Attributes**.
3. To change the desired attributes, choose the appropriate tab.
4. The corresponding window is displayed, and you can change the data. The individual attributes are described under *Attributes of an Active Report*.
5. Choose **OK** to save your changes.

Displaying an Active Report

To display an active report:

1. Select the desired active report in the active report list.
2. Invoke the context menu and choose **Display**.

   The actice report is displayed. The individual attributes are described under *Attributes of an Active Report*.

Displaying Spool Attributes of an Active Report

To display the spool attributes of an active report:

1 Select an active report in the active report list.

2 Invoke the context menu and choose the **Spool** command.

The spool attributes of the active report are displayed. They are described under ***Attributes of a Report***.

Adding an Active Report to a Bundle

This function adds an active report to an opened bundle for one distribution only.

To put an active report in an open active bundle:

1 Select an active report in the active report list.

2 Invoke the context menu and choose the **Put in Bundle** command.

The **Put Report in Bundle** dialog is displayed.

3 Use the list box to the right of the bundle **Name** field to select an active bundle.

4 Choose **OK**.

The selected active report is added to the selected active bundle.

For more information on user profile settings, see the section *Users* in the *System Administration* documentation.

Printing an Active Report

To print a single active report:

1 Select a non-archived active report in the list of active reports.

2 Invoke the context menu and choose the **Print** command.

The **Print Active Report** dialog is displayed.

3 Choose the **Select** button to the right of the **Printer** field to display a list of printers.

4 Select a printer from the list, and choose **OK**.

The name of the selected printer is written to the **Printer** field of the **Print Active Report** dialog.

5 Options:

- If desired, change the number of **Copies** to be printed.
- If you want to put the printout on hold, select the option **Hold Printout**.

6 Choose the **Print** button to print the active report on the selected printer.

A message confirms that the report has been queued for printing.

To print multiple active reports:

1 Select multiple non-archived active reports in the list of active reports.

2 Invoke the context menu and choose the **Print** command.

The **Print Active Report** dialog is displayed with a list of the selected active reports.

3 Choose the **Select** button to the right of the **Printer** field to display a list of printers.

4 Select a printer from the list, and choose **OK**.

The name of the selected printer is written to the **Printer** field of the **Print Active Report** dialog.

5 By default, all active reports are printed on the same printer. If this is not desired, deselect the option **Print all reports on the same printer**.

In the list of active reports, you can then mark those which are to be printed on the selected printer.

6 Further options:

- If desired, change the number of **Copies** to be printed.
- If you want to put the printouts on hold, select the option **Hold Printout**.

7 Choose the **Print** button to print the active reports on the selected printer.

A message confirms that the report has been queued for printing.

Distributing an Active Report to Extra Users

This function distributes an active report to a user or group of users on a distribution list who are not defined in the *Distribution Attributes* for the report (see ***Attributes of a Report***).

To distribute an active report to a user or distribution list:

1. Select an active report in the active report list.
2. Invoke the context menu and choose the **Distribute** command.

   The **Distribute Report to User** dialog is displayed.
3. Use the **Select** button to the right of the field **User / Distribution list** to select from a list of users and distribution lists.

   When you have made your selection, the user ID or name of the distribution list is written to the **User / Distribution list** field.
4. Choose **OK** to distribute the active report to the selected user or distribution list.

Listing Users Connected to an Active Report

To lists all users to whom an active report is distributed:

1. Select an active report in the active report list.
2. Invoke the context menu and choose the **Display Users** command.

   A list of all users who receive the active report is displayed.

Deleting an Active Report

To delete an active report:

1. Select an active report in the active report list
2. Invoke the context menu and choose **Delete**.

   A dialog is displayed, prompting you to confirm the deletion.
3. Choose **Yes** to delete the active report, or **No** to cancel the operation.

If you are **Master owner** of the active report, the active report itself and all references to it are deleted. Otherwise, only the reference from the active report to your user ID is deleted.

If the active report is in the archive, it will not be deleted immediately, but only marked for deletion. It will be deleted from the archive on the following day.

Archiving an Active Report

This function marks an active report for archiving or cancels the archiving flag. An active report marked for archiving is archived the next time the archiving task is active.

To mark an active report for archiving:

1. Select an active report in the active report list that has not been archived.
2. Invoke the context menu and choose the **Archive** command.

   In the active report list, the active report is now shown as "Marked" in the **Archive** column, indicating that it is marked for archiving.

To remove the archive mark from an active report:

1. Select an active report in the active report list that has been marked for archiving.
2. Invoke the context menu and choose the **Archive** command.

   "Marked" no longer appears in the **Archive** column of the active report list for the selected active report.

Reviving an Archived Report

This function marks an active report for reviving or cancels the reviving flag. An active report marked for reviving is revived the next time the reviving task is active. The report is restored to the **Active Report List**.

To mark an active report for reviving:

1. Select an archived active report in the active report list.
2. Invoke the context menu and choose the **Revive** command.

   The **Revive Active Report From Archive** dialog is displayed.

3 Use the list box to the right of the **Revive to** field to select a location for the revived report: NOM database or JES Spool.

4 Use the list box to the right of the **Bundle** field to select an active bundle to contain the report.

5 Choose **OK** to mark the active report for reviving.

The revive location is now shown in the **Revive** column of the active report list for the selected active report.

To remove the revive mark from an active report:

1 Select an active report marked for reviving in the active report list.

2 Invoke the context menu and choose the **Revive** command.

The revive location is no longer shown in the **Revive** column of the active report list for the selected active report.

Confirming Printing of an Active Report

This function releases an active report for printing. The report is printed only when all target users have confirmed by issuing this command. The report must be defined with the "All users confirm" option in the **Hold Logic** field of the report's *Printing Attributes*, described under ***Attributes of a Report***.

To confirm printing for an active report:

1 In the active report list, select the appropriate active report.

2 Invoke the context menu and choose the **Confirm Print** command.

When all users have confirmed, the report will be printed.

Filing an Active Report in Another Folder

This function is used to move an active report filed in your current folder to another of your own folders (but not to a linked folder).

To file an active report in another folder:

1 Select the active report from the active report list.

2 Invoke the context menu and choose the **File** command.

The **File Active Report** dialog is displayed.

3 Use the list box to select the desired folder.

4 Choose **OK**.

The active report is now filed in the selected folder.

Displaying the Report Definition

To display the report definition which generated an active report:

1 Select an active report in the active report list.

2 Invoke the context menu and choose the **Displays Definition** command.

The general attributes of the report are displayed.

They are described under *Attributes of a Report*.

Cross-Referencing an Active Report

To list all active bundles in which an active report is contained:

1 Select an active report in the active report list.

2 Invoke the context menu and choose the **XREF** command.

A list of bundles is displayed. For each bundle, the following information is displayed:

Field	Explanation
Bundle	Name of the active bundle in which the active report is contained.
Run Number	Internal report identification.
Group	Group identifier assigned to the report in the bundle.
Seq(uence Number)	Sequence number assigned to the report in the bundle.
Status	Bundle status.
Printer	Logical printer assigned to the report in the bundle.

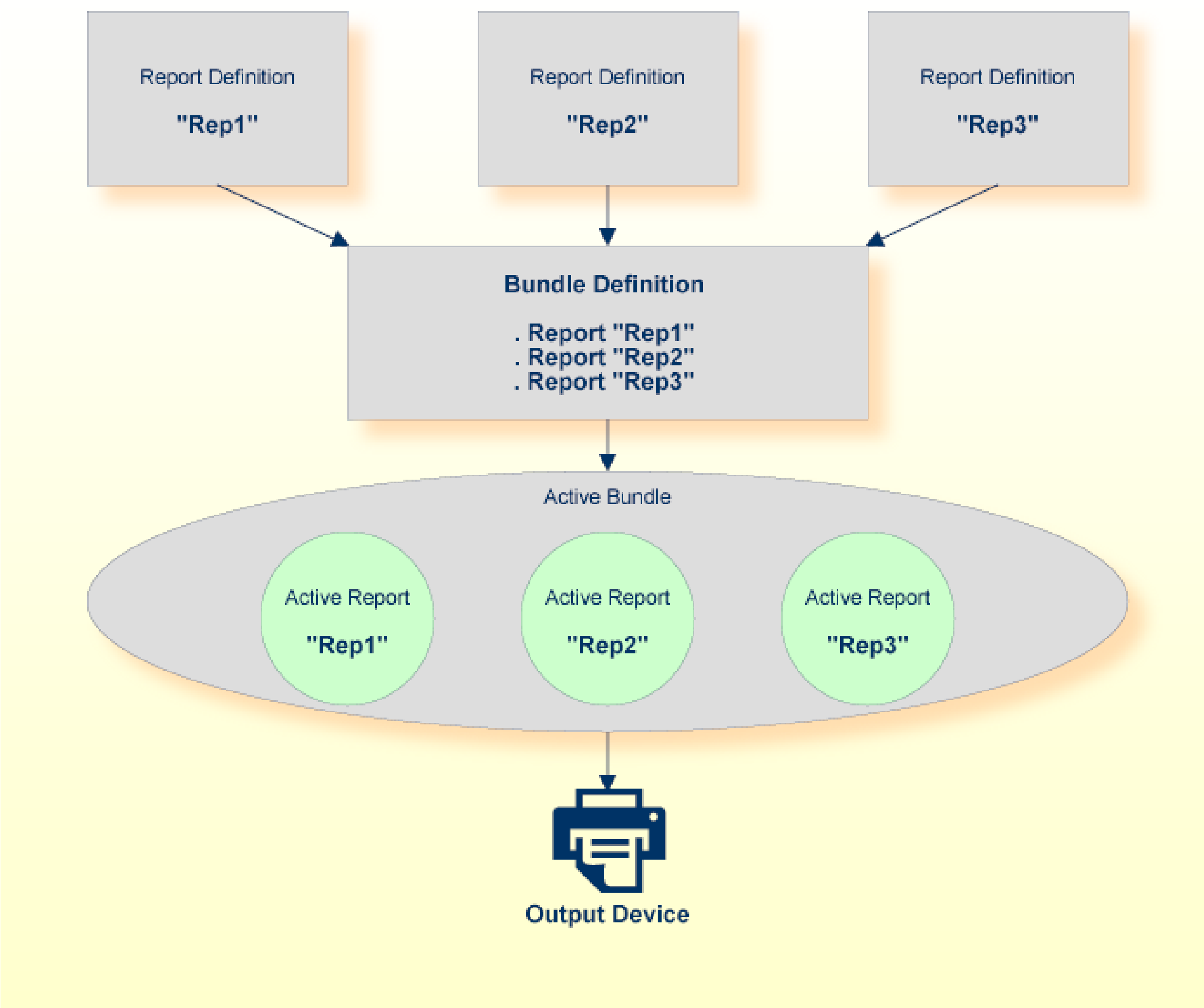
12 Bundles

This section describes the use of bundles and how to create and maintain them. It covers the following topics:

13 What is a Bundle?

Reports can be combined to form larger packets, which are called *bundles*. This bundling is possible even if the reports come from different data sources. The reports grouped in a bundle are processed together as a unit.

In a *bundle definition*, you specify which reports are to be part of the bundle. When an active report assigned to a bundle is processed, Entire Output Management creates an *active bundle* based on the bundle definition.



To define a bundle, you create a *bundle definition*, consisting of various attributes which control the processing of the bundle:

- *General attributes* determine the retention period of the bundle, the reports which trigger the printing of the bundle, and a few other settings.
- *Schedule attributes* determine when the bundle is printed.
- *Printing attributes* determine on which output device the bundle is printed, and which separator pages are printed at the beginning and the end of the bundle, and between the reports in the bundle.

The printing of a bundle can be triggered:

- manually by an authorized user;
- automatically at a predefined time, as specified in the *schedule attributes*;
- by the creation of one or more active reports which are part of the bundle;

- by an Entire Operations trigger;
- by an API trigger from an external application.

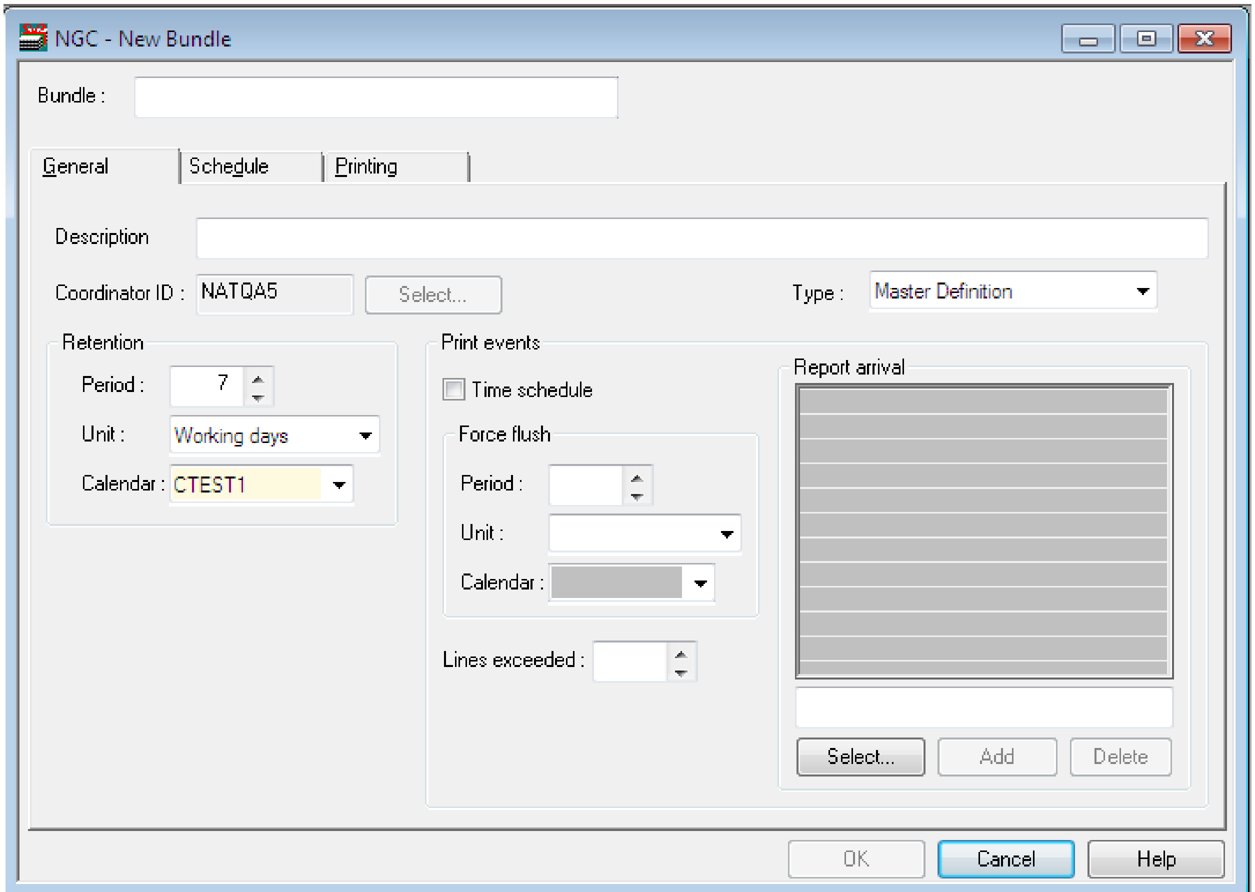
A table of contents is always printed at the beginning of the bundle, listing the reports it contains.

14 Attributes of a Bundle

This section describes the components of a bundle definition:

Default values for bundle attributes can be set by the system administrator in *Bundle Defaults*.

General Attributes



Field	Explanation
Bundle	You have to enter a unique name for the bundle when you are creating a new bundle. This field is protected when you modify an existing bundle.
Description	Enter a short description for the bundle.
Coordinator ID	You can enter the user ID of the person who is responsible for this bundle. See *Selecting a Bundle Coordinator* below. If you make no entry here, your user ID is automatically written into this field. The coordinator's name, address and telephone number can be printed at the top of the front page of the bundle separator, if desired.

<table>
<tr><th>Field</th><th colspan="3">Explanation</th></tr>
<tr><td></td><td colspan="3">The coordinator's name, address and telephone number can be used as substitution variables for separator pages.

To select a coordinator from a list of users, you can use the Select button next to this field.</td></tr>
<tr><td>Type</td><td colspan="3">The type of bundle:
■ Master definition.
■ Suspended definition; that is, a definition that is currently not being used.</td></tr>
<tr><td rowspan="5">Retention</td><td colspan="3">A closed bundle is kept in the Entire Output Management database until its retention period has expired. A closed bundle can accept no more reports and a new version of the bundle is opened for additional reports.

See also Retention Period in Components of Bundle Defaults in the System Administration documentation.</td></tr>
<tr><td>Period</td><td colspan="2">Enter the number of working days, absolute days, weeks or months the bundle should be kept in the Entire Output Management database, after it has been closed.</td></tr>
<tr><td>Unit</td><td colspan="2">Possible values:
■ Working days
■ Absolute days
■ Weeks
■ Months

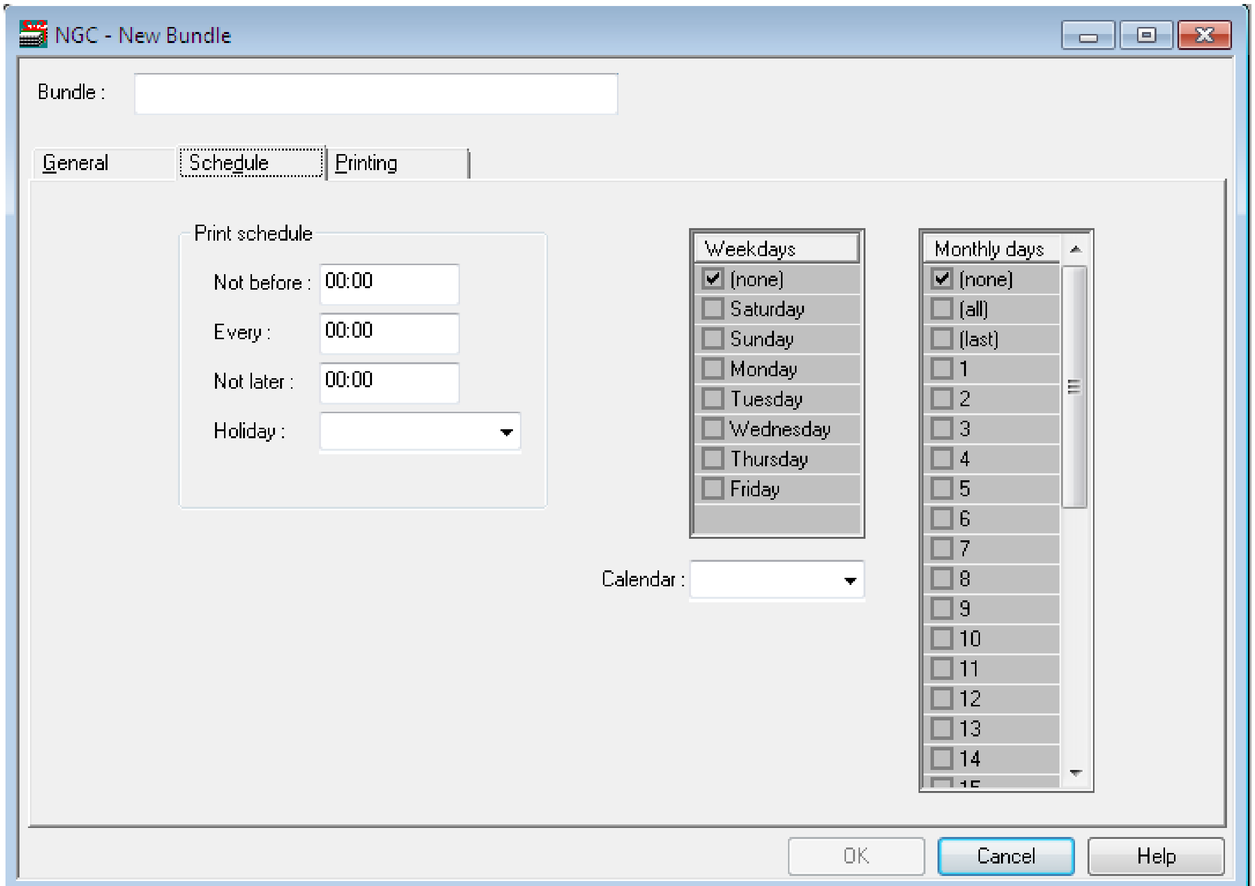
If you select "working days", you have to select a calendar which distinguishes between working and non-working days.</td></tr>
<tr><td>Calendar</td><td colspan="2">Select a calendar, if "working days" is the unit for the retention period.

For more information on calendars, see Calendars in the System Administration documentation.</td></tr>
<tr><td colspan="3">Example: You have defined a calendar in which Saturday and Sunday are marked as holidays. If have specified "2" as the Period, and "working days" as the Unit and the bundle is created on Friday evening, it will be retained until Tuesday evening.</td></tr>
<tr><td rowspan="4">Print events</td><td>Time schedule</td><td colspan="2">The bundle can be printed at specified times on specified days.

Check this box to activate the time schedule, which you can define in the Schedule Attributes.</td></tr>
<tr><td rowspan="3">Force flush</td><td colspan="2">If none of the other print events occurs before the period entered here has expired, bundle closing and printing is forced.</td></tr>
<tr><td>Period</td><td>Enter the number of working days, absolute days, weeks or months the bundle should remain open.</td></tr>
<tr><td>Unit</td><td>Same as for Unit under Retention, above.</td></tr>
</table>

Field	Explanation		
		Calendar	Same as for Calendar under Retention, above.
	Lines exceeded	When the report that causes this line number to be exceeded has been written to the bundle, the bundle is closed and scheduled for printing.	
	Report arrival	Enter the names of up to 10 reports which trigger the printing of the bundle. The bundle is printed when all these reports arrive.	

Schedule Attributes



Field	Explanation	
Print schedule	Not before	The bundle will not be printed before the time you enter here.
	Every	Enter a time interval here.
	Not later	The bundle will not be printed after the time you enter here.
	Holiday	Should a printing date fall on a calendar holiday, you can select "After holiday" from the list box to print on the first working day after the holiday, or "Before holiday" to print on the last working day before the holiday.
Weekdays	Select the appropriate checkboxes to print the bundle on the same days every week. **Note:** You cannot specify both weekdays and monthly days in parallel.	

Field	Explanation
Monthly days	Select the appropriate checkboxes to print the bundle on the same days every month. Select "all" to print every day, or "last" for the last day of the month.
Calendar	You can select a calendar from the list box. The bundle is then only printed on days defined as *working days* in the calendar, but not on days defined as *holidays.* For more information on calendars, see *Calendars* in the *System Administration* documentation.

See also ***Print Schedule Examples*** below.

Print Schedule Examples

Example 1 - Print at a fixed time on fixed weekdays - also on holidays

To print a bundle at 2 p.m. on all Mondays, Wednesdays and Fridays whether or not they are holidays, you define these fields as follows:

Not before	14:00
Every	00:00
Not later	14:00
Weekdays	Monday, Wednesday, Friday

Example 2 - Print at a fixed time on fixed monthly dates - on day before holiday

To print a bundle at 7 p.m. on the 15th and on the last day of the month or, if these days are holidays, on the last workday before the holiday, you define these fields as follows:

Not before	19:00
Every	00:00
Not later	19:00
Monthly	15, last
Calendar	MRS
Holiday	Before holiday

Example 3 - Print daily between fixed times - on day after holiday

To print a bundle daily when it arrives between 8 a.m. and 7 p.m. or, if the day is a holiday, on the first workday after the holiday, you define these fields as follows:

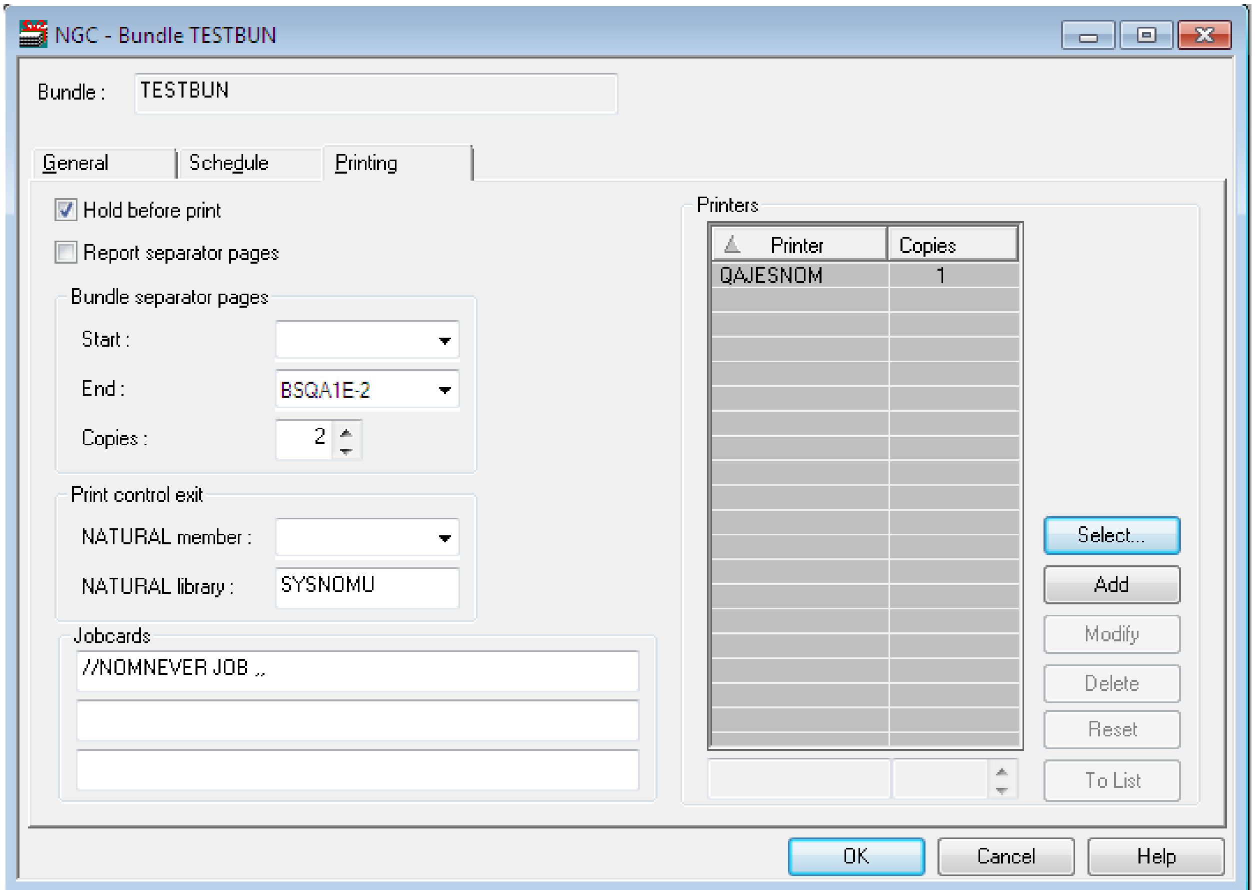
Not before	08:00
Every	00:00
Not later	19:00
Monthly	all
Calendar	MRS
Holiday	After holiday

Example 4 - Print on workdays at fixed times - on day after holiday

To print a bundle at 7 a.m., 1 p.m. and 7 p.m. from Monday to Friday or, if the day is a holiday, on the first workday after the holiday, define these fields as follows:

Not before	07:00
Every	06:00
Not later	19:00
Weekdays	Monday; Tuesday; Wednesday, Thursday; Friday
Calendar	MRS
Holiday	After holiday

Printing Attributes



<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td>Hold before print</td><td colspan="2">Mark the checkbox to hold bundle printing until released manually. Otherwise the bundle is printed immediately.</td></tr>
<tr><td>Report separator pages</td><td colspan="2">Mark the checkbox to print the report separator pages.

The number of separator pages can be defined for each report in the bundle; see Adding a Report to a Bundle.</td></tr>
<tr><td rowspan="4">Bundle separator pages</td><td>Start</td><td>Enter the name of the separator page to be printed at the beginning of the bundle.</td></tr>
<tr><td>End</td><td>Enter the name of the separator page to be printed at the end of the bundle.</td></tr>
<tr><td>Copies</td><td>Specify how many times each separator page is to be printed for the bundle.</td></tr>
<tr><td colspan="2">See Separator Pages for further information.</td></tr>
</table>

Field	Explanation	
Print control exit	A printer control exit can be used to decide whether or not a bundle is actually printed after it has been sent to the printout queue. For example, you may not want to print bundles which only contain one report. A sample exit is supplied in `UEXBUNPR` in the library `SYSNOMS`.	
	Natural member	The name of the user exit.
	Natural library	The name of the library containing the user exit.
Jobcards	Enter the job cards used when bundle printing is performed with batch jobs. The following substitution variables can be used: `§USER`, `§BUNDLE`. If you leave this field blank, the jobcards specified for the logical printer are used instead. See the **Jobcards** field in the *General Attributes* of the logical printer.	
Printers	Printer	Use the **Select** button on the right to select a logical printer. See *Selecting Printers for a Bundle* below.
	Copies	Specify the number of copies of the bundle to be printed on the respective printer. See *Setting the Number of Copies for a Printer* below.

Selecting Printers for a Bundle

To select a logical printer from a list of defined printers:

1. Choose the **Select** button to the right of the **Printers/Copies** list.

   The **Select Printers** window is displayed.
2. Select a printer from the **Printers** list in the upper part of the window and choose the down arrow on the right.

   The selected printer is written to the **Selected Printers** list in the lower part of the dialog. (To remove a printer from the **Selected Printers** list, select the printer and choose the up arrow on the right.)
3. When you have finished selecting printers, choose **OK**.

   The selected printers now appear in the **Printers/Copies** list.

Setting the Number of Copies for a Printer

To set the number of copies for a printer:

1. In the **Printers/Copies** list, select the desired printer, and choose **Modify**.
2. The selected printer appears in the box at the bottom of the **Printers/Copies** list.
3. In the box next to the printer name, enter the desired number of copies.

4 Choose **To List**.

The changed number of copies is displayed in the **Printers/Copies** list.

15 Maintenance Functions for Bundles

This section describes the functions for the creation and maintenance fo bundles:

Available Commands for Bundles

To list all available commands for bundles:

1. In the object workspace, expand the **Bundles** folder.
2. Select a bundle and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Add report	---	Add a report to the bundle.
Authorization	F9	Authorize other users to process the bundle.
Copy	Ctrl+C	Copy bundle (including reports contained in the bundle).
Delete	Del	Delete bundle.
Display	Ctrl+D	Display bundle.
Display Log	F10	Display log information about maintenance activities on this bundle.
Filter	F3	Use selection criteria to list bundles.
List	F8	List bundles.
New	Ctrl+N	Create a new bundle.
Open	Ctrl+O	Modify bundle.
Rename	F2	Rename bundle.
Reports in bundle	---	List the reports contained in the bundle.
Filter Subobject	Ctrl+F3	Use selection criteria to list the reports contained in the bundle.

Listing All Bundles

To list all bundles:

1. In the object workspace, select the **Bundles** folder.
2. Invoke the context menu and choose **List**.

   All existing bundles are listed in the content pane.

For each bundle, the following information is displayed:

Field	Explanation
Bundle	Bundle name.
Authorization	Authorization used to access the bundle. Possible values: ■ ADMIN - Indicates that you are defined as administrator with owner authorization for the listed objects. ■ PUBLIC - All users are authorized for the bundle. ■ `user ID` or `name of distribution list` - This user or the members of the distribution list are authorized for the bundle.
Type	Type of bundle: ■ Master = Master definition. ■ Suspended = Suspended definition; that is, a definition that is currently not being used.
Description	Short description of the bundle.
Number of Reports	The number of reports in the bundle.

For a list of available commands, select a bundle and invoke the context menu.

Listing Selected Bundles

To list only bundles which meet certain selection criteria:

1. In the object workspace, select the **Bundles** folder.
2. Invoke the context menu and choose **Filter**.

   The **Filter Bundles** window is displayed.
3. Enter your selection criteria. The fields are described below.
4. Choose **OK**.

   Only the bundles which satisfy the selection criteria will be listed in the expanded **Bundles** folder in the object workspace.

Selection Criteria

Field	Explanation
Bundle	Enter selection criteria for the bundle.
Authorization	This field is only available to administrators. You can enter the access authorization for the bundle: ■ ADMIN = Access authorization for you as defined administrator. ■ PUBLIC = Access authorization for all users. ■ *user ID* or *name of distribution list* = Access authorization for this user or the members of this distribution list.
Containing reports	Enter selection criteria for the prefix of the report(s) contained in the bundles.
Created by master	Enter selection criteria for the prefix of the master report definition(s) that automatically created the bundle(s).
For coordinator	Enter the coordinator ID of the bundles to be listed.
Type	Select the type of bundles to be listed: All, Master definitions, or Suspended definitions.

Creating a New Bundle

To create a new bundle:

1. Select the **Bundles** folder in the object workspace and invoke the context menu.
2. Choose **New**.

   The **New Bundle** window is displayed in the content pane.
3. A bundle definition consists of **General Attributes**, **Schedule Attributes** and **Printing Attributes**. To define the desired attributes, select the appropriate tab.
4. The corresponding window is displayed, and you can specify the attributes. The fields are described under *Attributes of a Bundle*.
5. Choose **OK** to save your data.

Copying a Bundle

To copy a bundle:

1 In the object workspace or in the bundle list, select the desired bundle.

2 Invoke the context menu.

The **Copy Bundle Definition** window is displayed.

3 Enter the name of the target bundle in the **To Bundle** field provided and choose **OK**.

The new bundle appears in the bundle list.

Modifying a Bundle

To modify a bundle:

1 Select the desired bundle in the object workspace or in the bundle list.

2 Invoke the context menu and choose **Open**.

3 The selected bundle is displayed, and you change its attributes. The fields are described under *Attributes of a Bundle*.

4 Choose **OK** to save your changes.

Renaming a Bundle

To rename a bundle:

1 In the object workspace or in the bundle list, select the desired bundle.

2 Invoke the context menu and choose **Rename**.

3 Change the name of the bundle.

Deleting a Bundle

To delete a bundle:

1 In the object workspace or in the bundle list, select the desired bundle.

2 Invoke the context menu and choose **Delete**.

A dialog is displayed, prompting you to confirm the deletion.

3 Choose **Yes** to delete the bundle, or **No** to cancel the operation.

Displaying a Bundle

To display a bundle:

1 Select the desired bundle in the object workspace or in the bundle list.

2 Invoke the context menu and choose **Display**.

The bundle definition is displayed. The fields are described under ***Attributes of a Bundle***.

Displaying Log Information for a Bundle

To display log information for a bundle:

1 In the object workspace or in the bundle list, select the desired bundle.

2 Invoke the context menu and choose **Display Log**.

The **Log Information** for the bundle is displayed.

3 To display more detailed log information, select an entry from the log information dialog.

4 Invoke the context menu and choose **Info**.

A detailed log message for the selected entry is displayed.

Authorizing User Access to a Bundle

Only users with owner authorization for the bundle can perform this function.

To authorize user access to a bundle:

1 In the object workspace or in the bundle list, select the desired bundle.

2 Invoke the context menu and choose **Authorization**.

The **Authorization List** for the bundle is displayed. It lists all users and user groups on distribution lists who are authorized for the bundle definition, and displays their authorization levels.

3 Invoke the context menu for the dialog and select **New**.

The **Authorization Definition** is displayed.

4 Enter the data for the authorization. The fields are described under ***Authorization Options***.

5 Choose **OK** to save your data.

Functions for Reports in a Bundle

Listing All Reports in a Bundle

To list all reports in a bundle:

1 In the **Bundle List**, select the desired bundle.

2 Invoke the context menu and choose the **Reports in Bundle** command.

A list of all reports in the bundle is displayed.

3 For a list of available commands, select a report and invoke the context menu.

Listing Selected Reports in a Bundle

To list the reports in a bundle according to selection criteria:

1 In the **Reports in Bundle** list, select the desired bundle.

2 Invoke the context menu and choose the **Filter** command.

The **Filter Reports in Bundle** window is displayed. It provides the following input fields:

Field	Explanation
Grouping name	Enter the grouping name of a report, or the initial characters of a grouping name.
Report	Enter a report name, or the initial characters of a report name.

3 Enter your selection criteria, and choose **OK**.

Only those reports in the bundle which satisfy the selection criteria will be listed.

4 For a list of available commands, select a report and invoke the context menu.

Adding a Report to a Bundle

To add a report to a bundle:

1 In the **Bundle List**, select a bundle.

2 Invoke the context menu and choose the **Add Report** command.

The **New Report in Bundle** window is displayed.

3 Enter data. The fields are described below.

4 Choose **OK** to save your data.

The new report will now appear in the bundle.

To add reports to a bundle that will trigger the printing of the bundle, see the general attribute **Report Arrival** under *Attributes of a Bundle*.

New Report in Bundle - Fields

Field	Explanation
Report Name	Use the list box to select a report name. If you are modifying printing parameters, the name of the report cannot be changed here.
Grouping Name	If you want to subdivide the bundle, enter a group name for this report. All reports in the bundle with the same group name are printed together in their group according to their sequence numbers.
Sequence Number	Enter the sequential number of the report in the bundle. Reports are printed in this sequence within their group in the bundle. Reports with the same sequence number within a group are printed in the sequence in which they are listed on the list of reports in a bundle (see *Listing All Reports in a Bundle*).
Number of Copies	Enter the number of copies of the report to be printed.
Number of Separators	Enter the number of times the report separator page is to be printed in the bundle. The default is 1.
Pagedef	If you want to print the report on an IPDS printer, enter the JCL parameter PAGEDEF to be used.
Formdef	If you want to print the report on an IPDS printer, enter the JCL parameter FORMDEF to be used.
Logical Printer	Use the list box to select the name of a logical printer to be used for the report.

Modifying a Report in a Bundle

To modify a report in a bundle:

1 In the **Reports in Bundle** list, select a report.

2 Invoke the context menu and choose **Open**.

3 The report is displayed, and you can make changes to it.

   The fields are described under *Adding a Report to a Bundle*.

4 Choose **OK** to save your changes.

Deleting a Report from a Bundle

To delete a report from a bundle:

1 Select the report to be deleted in the **Reports in Bundle** list.

2 Invoke the context menu and choose the **Delete** command.

You are prompted to confirm the deletion.

3 Choose **Yes** to delete the report, or **No** to cancel the operation.

Displaying a Report in a Bundle

To display a report in a bundle:

1 In the **Reports in Bundle** list, select a report.

2 Invoke the context menu and choose **Display**.

The report is displayed. The fields are described under ***Adding a Report to a Bundle***.

16 Active Bundles

This section covers the following topics:

See also ***Active Reports in an Active Bundle***.

What is an Active Bundle?

An *active bundle* is a group of *active reports*. It is created by Entire Output Management based on a *bundle definition*. The active reports in an active bundle are processed together as a unit.

See also ***What is a Bundle?***

Available Commands for Active Bundles

To list all available commands for active bundles:

1. In the object workspace, expand the **Active Bundles** folder.
2. Select an active bundle and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Active in Bundle	---	List the reports contained in an active bundle. A list of reports is displayed to allow browsing of active reports or deletion of the active report from this bundle.
Archive	---	Mark all reports in an active bundle for archiving.
Close	---	Close an active bundle.
Delete	Del	Delete an active bundle. Only control information is deleted. The active reports contained in the bundle are not deleted.
Display	Ctrl+D	Display active bundle parameters.
Display Log	F10	Display log information for an active bundle.
Filter	F3	Use selection criteria to list active bundles.
List Active	Ctrl+F8	List all active bundles.
Info	---	Display additional information on an active bundle.
Open	Ctrl+O	Modify active bundle. Note that modifications hold only for this current copy of the bundle and do not affect the bundle definition. Modifications can be performed only if bundle status = Opened.
Print	---	Print an active bundle. The bundle is forced to print no matter what was defined to control printing. This command can be entered only if bundle status = Opened.

Command	Shortcut	Explanation
Revive	---	Mark all reports in an active bundle for reviving.
Filter Subobject	Ctrl+F3	Use selection criteria to list active reports.

Listing All Active Bundles

To list all active bundles:

1. In the object workspace, select the **Active Bundles** folder.
2. Invoke the context menu and choose **List Active**.

   All active bundles are listed in the content pane.

For each active bundle, the following information is displayed:

<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td>Bundle</td><td colspan="2">Bundle name.</td></tr>
<tr><td>Run Number</td><td colspan="2">Unique number identifying the active report.</td></tr>
<tr><td rowspan="9">Status</td><td colspan="2">Bundle status:</td></tr>
<tr><td>Closed</td><td>Bundle can accept no additional reports.</td></tr>
<tr><td>Empty</td><td>Bundle is empty.</td></tr>
<tr><td>Flushing</td><td>Bundle is being closed.</td></tr>
<tr><td>Forced</td><td>Bundle forced to print when retention period expires.</td></tr>
<tr><td>Opened</td><td>Bundle is open and contains reports.</td></tr>
<tr><td>Print</td><td>Bundle is being printed.</td></tr>
<tr><td>Printed</td><td>Bundle has been printed.</td></tr>
<tr><td>Processing</td><td>Bundle is being processed.</td></tr>
<tr><td>Number of Reports</td><td colspan="2">Number of reports in the bundle.</td></tr>
<tr><td>Coordinator ID</td><td colspan="2">User ID of the bundle coordinator.</td></tr>
<tr><td>Open Date/Time</td><td colspan="2">Date and time bundle was opened.</td></tr>
<tr><td>Close Date/Time</td><td colspan="2">Date and time bundle was closed.</td></tr>
<tr><td>Message</td><td colspan="2">Indicates why the bundle cannot be printed. For example, if no printer has been assigned, the message "No Printer" is displayed here.</td></tr>
<tr><td>Description</td><td colspan="2">Short description of bundle</td></tr>
</table>

Listing Selected Active Bundles

To list active bundles according to selection criteria:

1 In the object workspace, select the **Active Bundles** folder.

2 Invoke the context menu and choose **Filter**.

The **Filter Active Bundles** window is displayed.

3 Enter your selection criteria, and choose **OK**.

Now only active bundles which satisfy the selection criteria are displayed in the expanded **Active Bundles** folder in the object workspace.

Modifying an Active Bundle

- General Attributes
- Printing Attributes

To modify the attributes of an active bundle:

1 Select the desired active bundle in the object workspace or in the report list.

2 Invoke the context menu and choose **Open**.

The active bundle is displayed. It consists of: **General Attributes** and **Printing Attributes**.

3 To change the desired attributes, choose the appropriate tab.

4 The corresponding window is displayed, and you can change the data. The individual attributes are described below.

5 Choose **OK** to save your changes.

General Attributes

Field	Explanation	
Run Number	Internal sequence number (cannot be modified).	
Created	Date and time when first active report arrived for this bundle (cannot be modified).	
Coordinator ID	ID of the bundle coordinator.	
Print events	Time schedule	The print time is computed at an open time based on the defined time schedule. If `00-01-02 00:00` appears here, it means that no time trigger is in effect.

Field	Explanation	
	Lines exceeded	When the report that causes this line number to be exceeded has been written to the active bundle, the bundle is closed and scheduled for printing.
	Report arrival	The bundle is printed when all these reports arrive.

Printing Attributes

The printing attributes of active bundles correspond to those of bundles. See ***Printing Attributes*** in the section *Bundles*.

Displaying an Active Bundle

To display the attributes of an active bundle:

1 In the object workspace or in the active bundle list, select the desired active bundle.

2 Invoke the context menu and choose **Display**.

The attributes of the active bundle are displayed. For an explanation of the attributes and their fields, see ***Modifying an Active Bundle***.

Closing an Active Bundle

This function closes an active bundle so that it can accept no additional reports. If additional reports arrive for the bundle, a new version of the bundle is opened to accept them.

To close an active bundle:

1 In the object workspace or in the active bundle list, select the desired active bundle.

2 Invoke the context menu and choose **Close**.

A dialog is displayed, asking you for confirmation.

3 Choose **Yes** to close the active bundle.

Printing an Active Bundle

To print a single active bundle:

1. In the object workspace or in the active bundle list, select the desired active bundle.
2. Invoke the context menu and choose **Print**.

   The **Print Active Bundle** dialog is displayed.
3. Choose the **Select** button to the right of the **Printer** field to display a list of printers.
4. Select a printer from the list, and choose **OK**.

   The name of the selected printer is displayed in the **Printer** field of the **Print Active Bundle** dialog.
5. Options:
   - If desired, change the number of **Copies** to be printed.
   - If you want to put the printout on hold, select the option **Hold printout**.
   - If desired, select the option **Close active bundle before printing**.
6. Choose **Print** to print the active bundle.

   A message confirms that the active bundle has been queued for printing.

To print multiple active bundles:

1. In the active bundle list, select the desired active bundles.
2. Invoke the context menu and choose **Print**.

   The **Print Active Bundle** dialog is displayed with a list of the selected active bundles.
3. Choose the **Select** button to the right of the **Printer** field to display a list of printers.
4. Select a printer from the list, and choose **OK**.

   The name of the selected printer is displayed in the **Printer** field of the **Print Active Bundle** dialog.
5. By default, all active bundles are printed on the same printer. If this is not desired, deselect the option **Print all bundles on the same printer**.

   In the list of active bundles, you can then mark those which are to be printed on the selected printer.
6. Further options:

- If desired, change the number of **Copies** to be printed.
- If you want to put the printout on hold, select the option **Hold printout**.
- If desired, select the option **Close active bundles before printing**.

7 Choose **Print** to print the active bundles.

A message confirms that the active bundles have been queued for printing.

Archiving an Active Bundle

This function marks an active bundle for archiving. The bundle is archived the next time the archiving task is active.

To mark an active bundle for archiving:

1 In the object workspace or in the active bundle list, select an active bundle that has not been archived.

2 Invoke the context menu and choose **Archive**.

A message confirms the number of reports marked for archiving.

Reviving an Active Bundle

This function marks all archived reports in an active bundle to be revived. The reports will be revived the next time the revive job runs.

To mark an active bundle for reviving:

1 In the object workspace or in the active bundle list, select an active bundle that has been archived.

2 Invoke the context menu and choose **Revive**.

The **Revive Active Bundles From Archive** dialog is displayed.

3 Use the list box to the right of the **Revive to** field to select a destination for the revived active bundle: NOM database or JES Spool.

4 Choose **OK** to confirm your selection.

A message confirms the number of reports marked for reviving.

Deleting an Active Bundle

To delete an active bundle:

1 In the object workspace or in the active bundle list, select the desired bundle.

2 Invoke the context menu and choose **Delete**.

A dialog is displayed, asking you to confirm the deletion.

3 Choose **Yes** to delete the active bundle, or **No** to cancel the operation.

Displaying Information on an Active Bundle

To display additional information on an active bundle:

1 In the object workspace or in the active bundle list, select the desired active bundle.

2 Invoke the context menu and choose **Info**.

The following information is displayed:

Fields

Field	Explanation	
Bundle	Run number	Unique internal identifier of active bundle.
	Description	Short description of active bundle.
Number of	Reports	Number of active reports contained in active bundle.
	Lines	Number of lines contained in active bundle.
Coordinator	ID	User ID of the bundle coordinator.
	Name	Name of bundle coordinator.
	Phone	Phone number of bundle coordinator.
Date/Time of	Open	Date and time bundle was opened.
	Close	Date and time bundle was closed.
	Planned flush	When the bundle is opened, the print time is computed based on the defined time schedule. If `00-01-02 00:00` or nothing at all appears here, it means that no time trigger is in effect.

Field	Explanation	
Expiration date	Force	The day on which the closing and printing of the active bundle is to be forced. This date is computed when the active bundle is opened. It is computed using the general attribute **Force Flush** in the corresponding bundle definition; see *Attributes of a Bundle*.
	Purge	The day on which the active bundle is to be deleted. This date is computed when the active bundle is closed. It is computed using the general attribute **Retention Period** in the corresponding bundle definition; see *Attributes of a Bundle*.

Displaying Log Information for an Active Bundle

To display log information for an active bundle:

1. In the object workspace or in the active bundle list, select the desired bundle.
2. Invoke the context menu and choose **Display Log**.

   A list of all events concerning the active bundle is displayed. For each event, the list contains the following information: the date and time when it occurred, the ID of the user or monitor causing it, and a message explaining the event.
3. To display more detailed log information for an entry in the active bundle log, select an entry, invoke the context menu and choose **Info**.

   A dialog with detailed information on the selected entry is displayed.

17 Active Reports in an Active Bundle

Listing All Active Reports in an Active Bundle

To list active reports in an active bundle:

1. Select an active bundle in the object workspace or in the active bundle list.
2. Invoke the context menu and choose the **Active in Bundle** command.

   The **Active Report List in Bundle** is displayed.

For each active report, the following information is displayed:

Field	Explanation
Report	Active report name.
Run Number	Unique number identifying the active report.
Group	The name of the group in which the report is to be printed. Groups of reports in a bundle are printed in alphabetical order.
Sequence Number	The sequential number of the active report in the bundle. The reports are printed in this sequence within the same group.
Lines	Number of lines in the active report.
Kbytes	The size of the report in KB (for binary reports only).
Form	Corresponds to the JCL parameter `FORM`.
Fcb	Corresponds to the JCL parameter `FCB`.
Chars	Corresponds to the JCL parameter `CHARS`.
Flash	Corresponds to the JCL parameter `FLASH`.

For information on operations which can be performed on active reports, see *Active Reports*.

Listing Selected Active Reports in an Active Bundle

To list the active reports in an active bundle according to selection criteria:

1. Select an active bundle in the object workspace or in the active bundle list.
2. Invoke the context menu and choose **Filter Subobject**.

   The **Filter Active Reports in Bundle** window is displayed, containing the fields **Grouping Name** and **Report**.
3. Enter your selection criteria for the active reports, and choose **OK** to display the list.

Available Commands for Active Report List in Bundle

To list all available commands for active reports in a bundle:

- Select an active report in the **Active Report List in Bundle** and invoke the context menu.

  A list of available command is displayed.

These are:

Command	Shortcut	Explanation
Browse	Ctrl+B	Browse the contents of the active report.
Delete	Del	Delete an active report. If you are the owner of this active report, the contents of the active report are deleted. Otherwise, only the pointer from the active report to your user ID is deleted.
Display	Ctrl+D	Display characteristics of active report.
Filter	F3	Use selection criteria to list active reports.
Open	Ctrl+O	Modify characteristics of active report.
Print	Ctrl+P	Print an active report.

Modifying Active Report Characteristics

To modify the characteristics of an active report in an active bundle:

1. Select an active report in the **Active Report List in Bundle** and invoke the context menu.
2. Choose the **Open** command.

   A window is displayed in which you can change the characteristics of the active report.
3. Enter or change data. The fields are explained below.
4. Choose **OK** to save your changes.

Active Report Characteristics

<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td>Form</td><td colspan="2">Enter name of form on which to print. This corresponds to the JCL parameter `FORM` (system printers only).</td></tr>
<tr><td>Fcb</td><td colspan="2">Enter the forms control buffer. This corresponds to the JCL parameter `FCB` (system printers only).</td></tr>
<tr><td>Chars</td><td colspan="2">Enter one or more 4-byte character-set names. This corresponds to the JCL parameter `CHARS` (system printers only).</td></tr>
<tr><td>Flash</td><td colspan="2">This corresponds to the JCL parameter `FLASH`.</td></tr>
<tr><td>Copies</td><td colspan="2">Enter the number of copies to be printed.</td></tr>
<tr><td>Pagedef</td><td colspan="2">If printing on an IPDS system printer, enter the JCL parameter `PAGEDEF`.</td></tr>
<tr><td>Formdef</td><td colspan="2">If printing on an IPDS system printer, enter the JCL parameter `FORMDEF`.</td></tr>
<tr><td rowspan="3">Separator info</td><td>Start</td><td>Use the list box to select a separator to be printed at the beginning of the report.</td></tr>
<tr><td>End</td><td>Use the list box to select a separator to be printed at the end of the report.</td></tr>
<tr><td>Copies</td><td>Enter the number of separator copies to be printed.</td></tr>
<tr><td>Logical printer</td><td colspan="2">Use the list box to select the name of a logical printer.</td></tr>
</table>

Displaying Active Report Characteristics

To display characteristics for an active report:

1. Select the desired active report in the **Active Report List in Bundle**.
2. Invoke the context menu and choose **Display**.

   The characteristics of the active report are displayed. The fields are explained under *Modifying Active Report Characteristics*.

Deleting an Active Report from a Bundle

To delete an active report from a bundle:

1. Select the desired active report in the **Active Report List in Bundle**.
2. Invoke the context menu and choose **Delete**.

   A dialog is displayed, asking you to confirm the deletion.

3 Choose **Yes** to delete the active report, or **No** to cancel the operation.

Printing an Active Report in a Bundle

To print an active report:

1 Select a non-archived active report in the list of active reports.

2 Invoke the context menu and choose the **Print** command.

The **Print Active Report** dialog is displayed.

3 Choose the **Select** button to the right of the **Printer** field to display a list of printers.

4 Select a printer from the list, and choose **OK**.

The name of the selected printer is written into the **Printer** field of the **Print Active Report** dialog.

5 Choose the **Print** button to print the active report to the selected printer.

A message confirms that the report has been queued for printing.

Browsing an Active Report in a Bundle

To browse an active report contained in a bundle:

1 Select an active report in the active report list.

2 Invoke the context menu and choose **Browse**.

The selected active report is displayed for browsing.

3 Invoke the context menu to display a list of available commands.

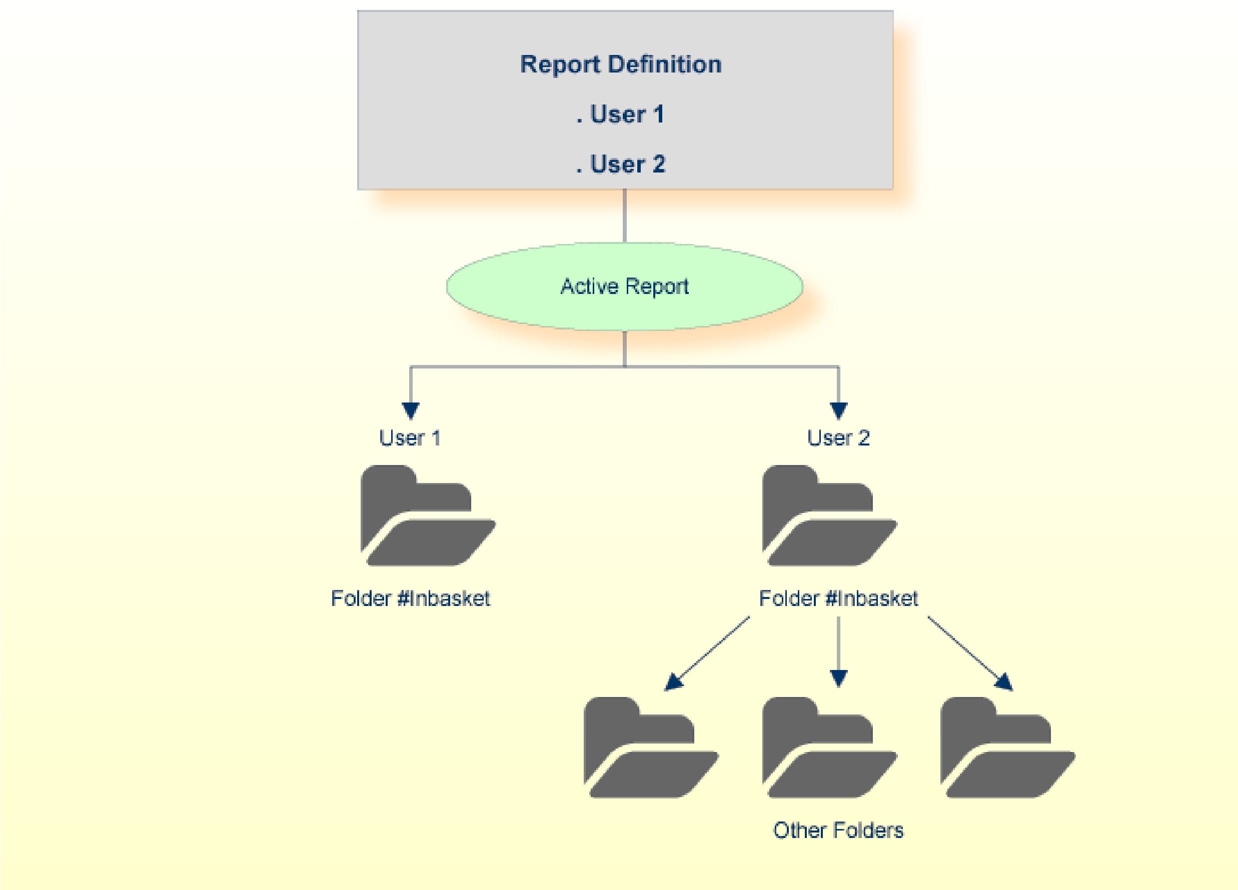
18 Folders

The section describes folders and covers the following topics:

What is a Folder?

A *folder* is a container for active reports.

You can assign users to a report. These users can display and review the active report on his/her screen, export it (for example, to a PC) for further processing, and print it. Every Entire Output Management user has a folder named `#Inbasket`. By default, an active report assigned to a user appears in his/her `#Inbasket` folder. In addition, you can define *public folders* to which all Entire Output Management users have access, and distribute active reports to these. Users can also define their individual *private folders* and file active reports in them.



Attributes of a Folder

<table>
<tr><th>Field</th><th colspan="2">Explanation</th></tr>
<tr><td>Name</td><td colspan="2">You have to first enter the folder name when you create a new folder. This field is protected when you modify an existing folder.</td></tr>
<tr><td>Description</td><td colspan="2">Enter a short description for the folder.</td></tr>
<tr><td rowspan="3">Linked Folder</td><td colspan="2">If another user authorizes you to use one or more of his/her folders (see Authorizing User Access to a Folder), you can link one of your folders to the authorized folder. Then you can browse and print all active reports filed in the authorized folder.

This is not applicable to your <code>#Inbasket</code> folder.</td></tr>
<tr><td>User ID</td><td>Use the Select button on the right to select a user ID and authorized folder.</td></tr>
<tr><td>Folder Name</td><td>If another folder is linked to this folder, its name is shown here.</td></tr>
</table>

Available Commands for Folders

To list all available commands for folders:

1. In the object workspace, expand the **Folders** folder.
2. Select a folder and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Authorization	F9	Authorize all users (PUBLIC), a user group (Distribution List) or a specified user ID to access active reports filed in the folder.
Copy	Ctrl+C	Copy a folder.
Delete	Del	Delete a folder.
Display	Ctrl+D	Display a folder.
Filter	F3	List folders according to selection criteria.
Filter subobject	ALT+F3	List active reports in a folder according to selection criteria.
List	F8	List all folders.
New	Ctrl+N	Create a new folder.
Open	Ctrl+O	Modify a folder.

Command	Shortcut	Explanation
Rename	F2	Rename a folder.

Listing All Folders

To list all folders:

1 In the object workspace, select **Folders**.

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

All existing folders are listed in the content pane.

To invoke a list of available commands:

- Select an active report and invoke the context menu.

Listing Selected Folders

To list folders according to selection criteria:

1 In the object workspace, select **Folders**.

2 Invoke the context menu and choose **Filter**.

The **Filter Folders** window is displayed in the content pane.

3 Enter your selection criterion (folder name), and choose **OK**.

Now only folders which satisfy the selection criterion appear in the expanded **Folders** directory in the object workspace.

Creating a New Folder

To create a new folder:

1 Select the **Folders** in the object workspace or in the folder list.

2 Invoke the context menu and choose **New**.

The **New Folder** window is displayed in the content pane.

3 Enter your data. The fields are described under *Attributes of a Folder*.

4 Choose **OK** to save your data.

Copying a Folder

To copy a folder:

1 In the object workspace or in the folder list, select the desired folder.

2 Invoke the context menu.

A window is displayed.

3 Enter the name of the target folder in the **To Folder** field, and choose **OK**.

The new folder appears in the folder list.

Modifying a Folder

To modify a folder definition:

1 Select the desired folder in the object workspace or in the folder list.

2 Invoke the context menu and choose **Open**.

The folder definition is displayed, and you can change it. The fields are described under *Attributes of a Folder*

Renaming a Folder

To rename a folder:

1 In the object workspace or in the folder list, select the desired folder.

2 Invoke the context menu and choose **Rename**.

3 Change the name of the selected folder, and press ENTER.

Displaying a Folder

To display a folder:

1 In the object workspace or in the folder list, select the desired folder.

2 Invoke the context menu and choose **Display**.

The folder definition is displayed.

The fields are described under *Attributes of a Folder*.

Deleting a Folder

To delete a folder:

1 In the object workspace or in the folder list, select the desired folder.

2 Invoke the context menu and choose **Delete**.

A dialog is displayed, asking you to confirm the deletion.

3 Choose **Yes** to delete the folder, or **No** to cancel the operation.

A folder which contains active reports cannot be deleted.

Authorizing User Access to a Folder

You may only use this function if you have administrator status, or are owner of the folder, or have the appropriate authorization (for object type User) in your user profile.

To authorize user access to a folder:

1 In the object workspace or in the folder list, select the desired folder.

2 Invoke the context menu and choose **Authorization**.

The **Authorization List** for the folder is displayed. It lists all users and user groups on distribution lists who are authorized for the folder, showing their authorization levels.

3 Invoke the context menu for the dialog and choose **New**.

The **Authorization Definition** is displayed.

4 Enter the data for the authorization. The fields are described under ***Authorization Options***.

5 Choose **OK** to save your data.

A user who has been granted authorization for another user's folder then has to specify that folder as **Linked Folder** in one of his/own folder definitions; see ***Attributes of a Folder***.

19 Logical Printers

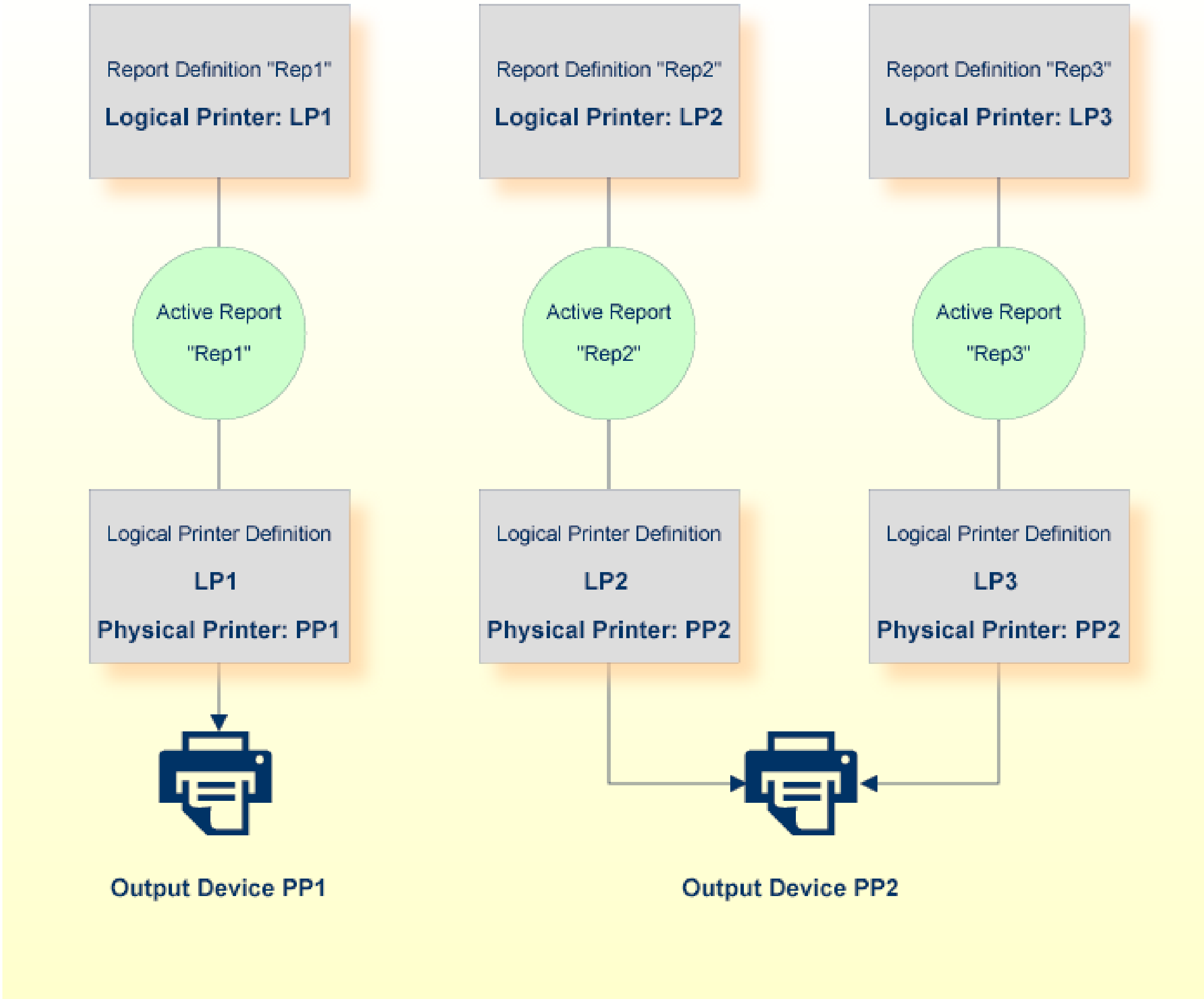
This section explains the use of logical printers and how to define them. It covers the following topics:

What is a Logical Printer?

In the report definition, you specify on which printer the active report is to be printed. A printer assigned to a report is called a *logical printer*. In the definition of the logical printer you specify a set of attributes linked to an actual *physical printer*, which determine the printing characteristics and printing format of the report on the physical printer.

A physical printer can be: an actual printer, a file, or a follow-up process for further processing.

If all output to be printed on a physical printer is to be printed in the same way, you only need to define one logical printer referring to the physical printer. If you wish to print different reports differently on the same physical printer, you define multiple logical printers which refer to the same physical printer, but with different printing characteristics.



A physical printer has to be defined first (as described under *Physical Printers* in the *System Administration* documentation), before you can assign it to a logical printer.

A logical printer can be assigned to individual reports as well as bundles.

Attributes of a Logical Printer

- General Attributes

- Special Attributes

General Attributes

Field	Explanation	
Logical Printer	Name	If you are adding a logical printer, you must enter its ID before proceeding. This ID must be unique. If you are modifying an existing printer, this field is write-protected.
	Description	Enter a short description for the logical printer.
Physical Printer	Name	Use the list box to select the ID for the physical printer where reports are to be printed.
	Location	The location of the selected physical printer is displayed here when a printer has been selected.
Restrict usage to administrators and authorized users	By default, a general user may select any logical printer for which the user or PUBLIC is authorized (even if all authorization options are set to "No"). Also, when printing an active report, the user may select any printer defined in the master report definition. If you select this option, only administrators and users with at least one authorization option set to "Yes" may select this printer.	
Copies	Enter the number of copies to be printed.	
Priority	Enter the print priority. This is passed to the spooling system when using system printers, or used internally when referring to VTAM printers.	
Printer Exit	Member	Use the list box to select the name of the exit to be executed for each line before it is printed.
	Library	This field displays the name of the library where the printer exit is located.
Jobcards	Enter the jobcards to be used when printing in batch mode. SERIAL - If a jobcard contains the keyword SERIAL, Entire Output Management checks if the desired printer is already in use by another printer task. If so, the printout processing is delayed until the printer completes. This is useful if, instead of a printer spooler, a printer is addressed directly which cannot spool itself. SERIAL only applies to NATUNIX and UNIXLP printers. SKIP - The keyword "SKIP *nnnnnn*" is interpreted as SKIP *nnnnnn* pages and will suppress the output for *nnnnnn* pages. However, if a printout is resumed that begins with the line after an error occurred, SKIP will also suppress *nnnnnn* pages - which might not be intended. In this case the SKIP parameter has to be omitted. The SKIP function is not exact, it will start the printing shortly before the desired page, because the print data are passed to the print program with internal blocking (for performance reasons). Other parameters of the jobcard fields are not affected. SKIP can be used for any printer type where jobcards are allowed. WAIT-PRINTER - If this keyword is contained in a jobcard of the printout queue or of the logical printer, it will be checked whether the physical printer name of the special printer	

Field	Explanation

	attributes contains a pipe to the UNIX command `lp` or `lpr`. If so, the printer addressed with the "-P" parameter will be checked calling a user-defined script `nomchkpr.bsh`. A sample script is supplied in the Entire Output Management UNIX directory `INSTALL`; please refer to it for details. WAIT-PRINTER will be ignored on mainframes and on printer types other than NATUNIX.
	
	EXTERNAL-OK – If this keyword is contained in one of the jobcard fields, a printer task will print the output completely, but instead of status "D" (printed successfully) status "X" (wait for external confirmation) will be set. To change this status to "D", you execute a batch job which calls the Natural program `NOMEXOK`. You invoke `NOMEXOK` as follows (using the desired input delimiter):
	
	`NOMEXOK`
	`printout-id1 message-number1 message1`
	`printout-id2 message-number2 message2`
	`printout-id3 message-number3 message3`
	`...`
	`printout-id-n  message-number-n message-n`
	`END or FIN`
	
	`printout-id` is the printout ID of the output; *`message-number`* is any user error number; *`message`* is any text to be written to the monitor log and to the status field of the printout.
	
	If the *`message-number`* is 0, the printout status will be set to "D". If it is greater than 0, the printout status will remain set to "X", and the *`message-number`* and *`message`* will be returned. If it is a negative value, the printout status will be set to "E" (error) with *`message-number`* and *`message`* being returned. If processing is not successful, `NOMEXOK` will issue return code "1".
	
	If you specify no jobcards here, the specifications made for the Monitor Standard Definitions will be used.

Special Attributes

Depending on the type of the physical printer, as determined by the **Physical Printer** specifications under *General Attributes* (see above), you can set special attributes for a logical printer. They are the same as the special attributes of the corresponding physical printer type, which are described under *Attributes of Physical Printers* in the *System Administration* documentation.

Available Commands for Logical Printers

To list all available commands for logical printers:

1 In the object workspace, expand the **Printers** folder.

2 Select a printer and invoke the context menu.

A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Authorization	F9	Authorize other users to process the logical printer.
Copy	Ctrl+C	Copy a logical printer. (*)
Delete	Del	Delete a logical printer. (*)
Display	Ctrl+D	Display a logical printer.
Display Log	F10	Display log information about maintenance activity on this printer.
Filter	F3	List selected logical printers.
List	F8	List all logical printers.
New	Ctrl+N	Add a new logical printer.
Open	Ctrl+O	Modify a logical printer.
Rename	F2	Rename a logical printer. (*)

(*) These commands cannot be used for DEFAULT printers.

Listing All Logical Printers

To list all defined logical printers:

1 In the object workspace, select the **Printers** folder.

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

All defined logical printers are listed in the content pane.

For each printer, the following information is displayed:

Field	Explanation
Printer	Name of the logical printer.
Authorization	Authorization used to access the logical printer. Possible values: ■ ADMIN = You are defined as administrator with owner authorization for the listed printers. ■ PUBLIC = All users are authorized for the printer. ■ `user ID` or `name of distribution list` = This user or the members of the distribution list are authorized for the printer.
Description	Short description of the logical printer.
Physical	The name of the physical printer.
Status	The status of the physical printer: stopped; or *blank* = printer started and active for printing.
Location	The location of the physical printer.

Listing Selected Logical Printers

To list defined logical printers according to selection criteria:

1 In the object workspace or in the printer list, select the **Printers** folder.

2 Invoke the context menu and choose **Filter**.

The **Filter Printers** window is displayed.

3 Enter your selection criteria, and choose **OK**.

Now only defined logical printers which satisfy the selection criteria appear in the expanded **Printers** folder in the object workspace.

Adding a New Logical Printer

To define a new logical printer:

1 Select the **Printers** folder in the object workspace and invoke the context menu.

2 Choose **New**.

The **New Logical Printer** window is displayed in the content pane.

3 You can define **General Attributes** and **Special Attributes**. To do so, select the appropriate tab.

4 The corresponding window is displayed, and you enter your data. The fields are described under *Attributes of a Logical Printer*.

5 Choose **OK** to save your data.

Copying a Logical Printer

To copy a logical printer:

1 In the object workspace or in the printer list, select the desired printer.

2 Invoke the context menu and choose **Copy**.

The **Copy** window is displayed.

3 Enter the name of the target logical printer in the **To Printer** field provided and choose **OK**.

The new logical printer appears in the printers list.

Note: DEFAULT printers cannot be copied.

Modifying a Logical Printer

To modify a logical printer:

1 In the object workspace or in the printer list, select the desired printer.

2 Invoke the context menu and choose **Open**.

3 The logical printer definition is displayed, and you can change it. The fields are described under *Attributes of a Logical Printer*.

4 Choose **OK** to save your changes.

Renaming a Logical Printer

To rename a logical printer:

1 In the object workspace or in the printer list, select the desired printer.

2 Invoke the context menu and choose **Rename**.

3 Change the name of the selected printer, and press ENTER.

Note: DEFAULT printers cannot be renamed.

Deleting a Logical Printer

To delete a logical printer:

1. In the object workspace or in the printer list, select the desired printer.
2. Invoke the context menu and choose **Delete**.

   A window is displayed, asking you to confirm the deletion.
3. Choose **Yes** to delete the printer, or **No** to cancel the operation.

Note: DEFAULT printers cannot be deleted.

Displaying a Logical Printer

To display a logical printer:

1. In the object workspace or in the printer list, select the desired printer.
2. Invoke the context menu and choose **Display**.

   The definition of the logical printer is displayed. The fields are described under *Attributes of a Logical Printer*.

Displaying Log Information for a Logical Printer

To display log information for a logical printer:

1. In the object workspace or in the printer list, select the desired printer.
2. Invoke the context menu and choose **Display Log**.

   The **Log Information** window for the printer is displayed.
3. To display more detailed log information, select an entry from the **Log Information** window.
4. Invoke the context menu and choose **Info**.

   A detailed log message for the selected entry is displayed.

Authorizing User Access to a Logical Printer

To authorize user access to a logical printer:

1. In the object workspace or in the printer list, select the desired printer.
2. Invoke the context menu and choose **Authorization**.

   The **Authorization List** for the printer is displayed. It lists all users and user groups on distribution lists who are authorized for the printer, and their authorization levels.
3. Invoke the context menu for the dialog and select **New**.

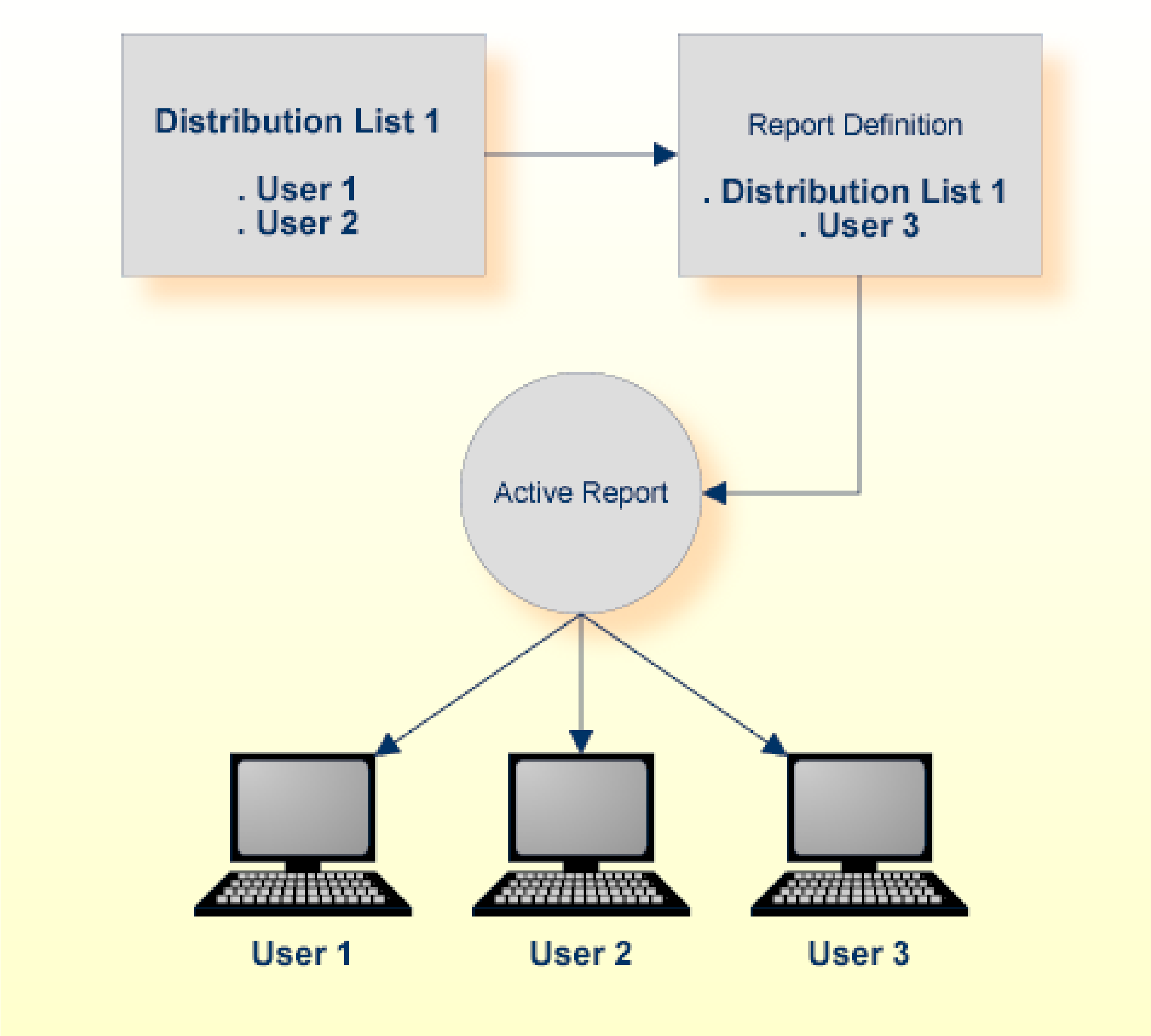
   The **Authorization Definition** is displayed.
4. Enter the data for the authorization. The fields are described under ***Authorization Options***.
5. Choose **OK** to save your data.

20 Distribution Lists

This section describes distribution lists and how to create and maintain them. It covers the following topics:

What is a Distribution List?

To make the distribution of reports to various users easier, you can create *distribution lists*. A distribution list can contain individual users, but you can also have distribution lists within distribution lists. Instead of assigning a report to multiple users, you assign it to a distribution list. It will then be distributed to all members of the distribution list.



The assignment of a distribution list to a report is done in the **Distribution Attributes** of the report definition.

Access authorization to objects can be granted to individual users or to a group of users contained in a distribution list; see the section *Authorizing User Access to Objects*.

Available Commands for Distribution Lists

To list all available commands for distribution lists:

1. In the object workspace, expand the **Distribution Lists** folder.
2. Select a list and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Add member	---	Add a new member to a distribution list.
Authorization	F9	Authorize a user to access a distribution list.
Delete	Del	Delete a distribution list.
Display	Ctrl+D	Display a distribution list.
Display Log	F10	Display log information for a distribution list.
Filter	F3	List selected distribution lists.
List	F8	List all distribution lists.
List members	---	List members of a distribution list.
New	Ctrl+N	Add a new distribution list.
Open	Ctrl+O	Modify a distribution list.
Rename	F2	Rename a distribution list.
XREF	Ctrl+Alt+X	Display cross-reference information for a distribution list.

Listing All Distribution Lists

To list all distribution lists:

1. In the object workspace, select the **Distribution Lists** folder.
2. Invoke the context menu and choose **List**.

   All existing distribution lists are listed in the content pane.

For each distribution list, the following information is displayed:

Field	Explanation	
List	Name of the distribution list.	
Authorization	Authorization used to access the distribution list. Possible values:	
	ADMIN	Indicates that you are defined as administrator with owner authorization.
	PUBLIC	All users are authorized for the distribution list.
	(User ID or name of distribution list)	This user or the members of the distribution list are authorized for the list.
Members	Number of members in the distribution list.	
Part of	Indicates whether the destribution list is part of another distribution list.	
Description	A short description of the distribution list.	

Listing Selected Distribution Lists

To list distribution lists according to selection criteria:

1 In the object workspace, select the **Distribution Lists** folder.

2 Invoke the context menu and choose **Filter**.

The **Filter Distribution Lists** window is displayed in the content pane.

3 Enter your selection criteria, and choose **OK**.

Now only distribution lists which satisfy the selection criteria appear in the expanded **Distribution Lists** folder in the object workspace.

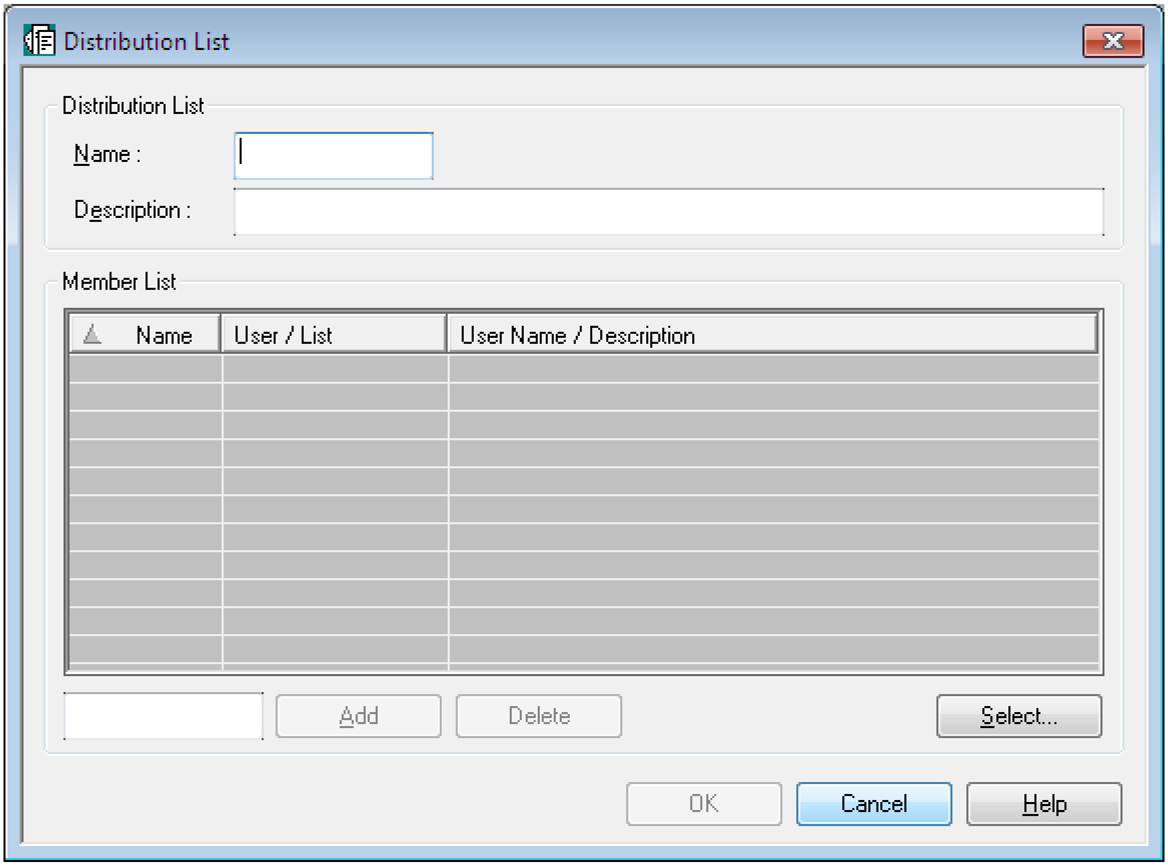
Creating a Distribution List

To create a new distribution list:

1 Select the **Distribution List** folder in the object workspace and invoke the context menu.

2 Choose **New**.

The **Distribution List** window is displayed in the content pane:



3 Enter a name and short description for the distribution list.

4 Then choose **OK**.

5 To add/remove members to/from the distribution list, proceed as described under *Maintaining the Members of a Distribution List*.

Maintaining the Members of a Distribution List

A member in a distribution list can be either an individual user or another distribution list.

The following function are available:

- Listing the Members of a Distribution List
- Adding a Member to a Distribution List

- Deleting a Member from a Distribution List

Listing the Members of a Distribution List

To list members of a distribution list:

1. In the object workspace or in the list of distribution lists, select the desired list.
2. Invoke the context menu and choose **List Members**.

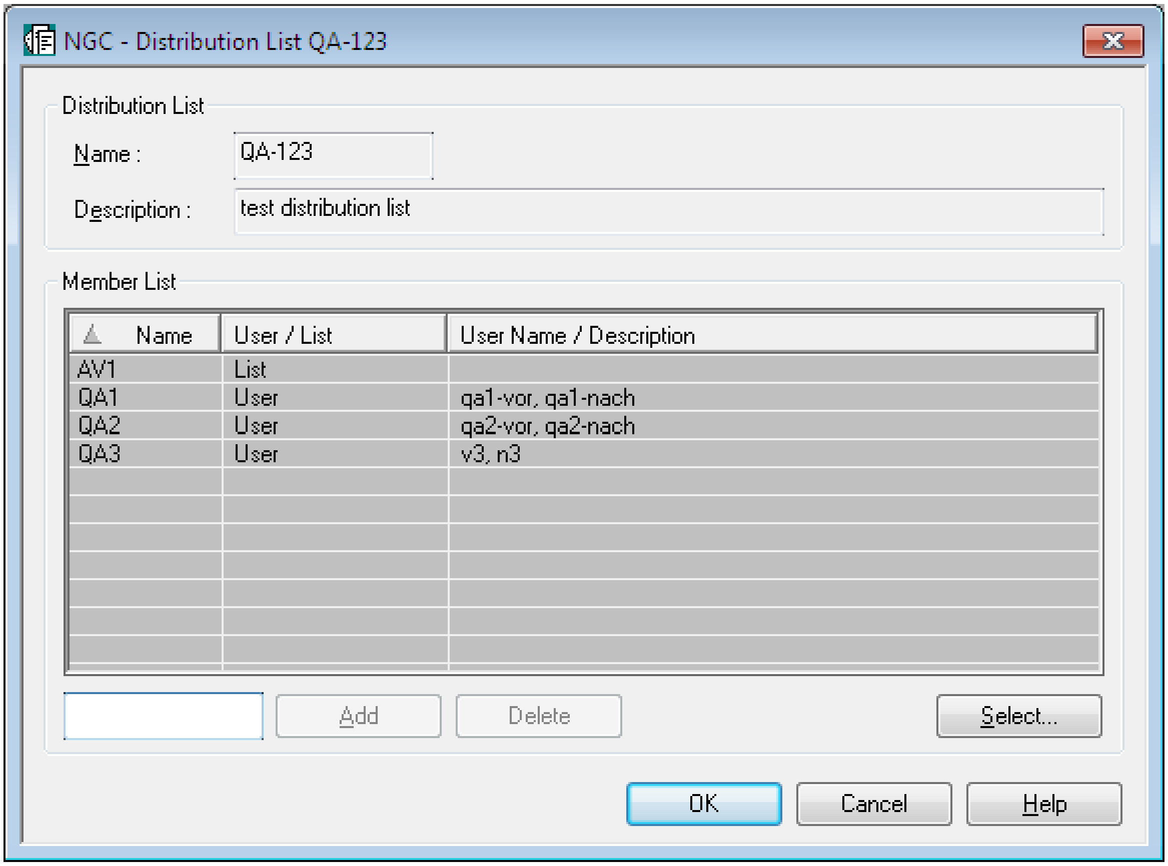
   A list of the members of the distribution list is displayed.
3. For a list of available command, select a member and invoke the context menu.

Adding a Member to a Distribution List

To add a member to a distribution list:

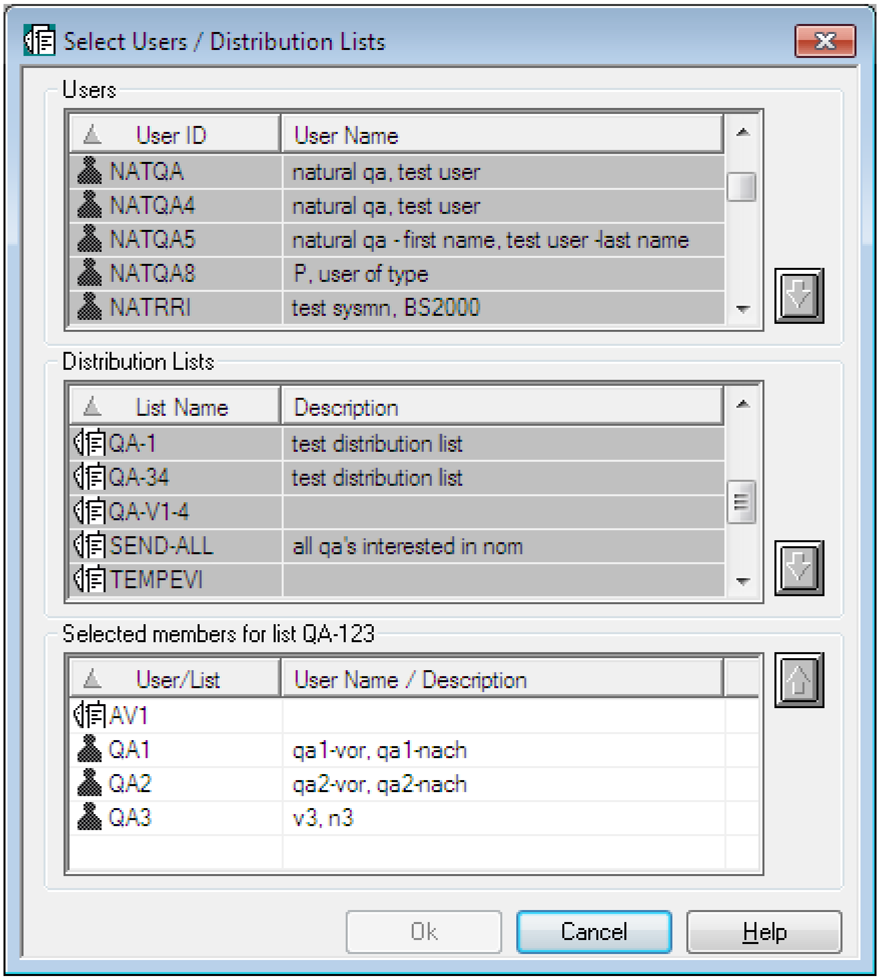
1. Select the appropriate distribution list in the object workspace or in the list of distribution lists.
2. Invoke the context menu and choose **Add Member**.

   The **Distribution List** window is displayed:



3 Choose the **Select** button below the **Member List**.

The **Select Users / Distribution Lists** window is displayed in the content pane.



4 Select a user from the list of **Users** or a list from the list of **Distibution Lists**.

5 Choose the down arrow on the right.

The selected user/list appears in the **Selected Users / Lists** section at the bottom of the window.

6 Choose **OK**.

The selected user/list now appears in the **Member List** of the distribution list.

Deleting a Member from a Distribution List

To remove a member list from a distribution list:

1 In the **Selected Users / Lists** section at the bottom of the **Select Users / Distribution Lists** window, select the user/list to be removed.

2 Choose the up arrow on the right.

The selected user or list is removed from the **Selected Users / Lists** section and the **Member List**.

Displaying Cross-Reference Information for a Distribution List

To display cross-reference information for a distribution list:

1 In the object workspace or in the list of distribution lists, select the desired list.

2 Invoke the context menu and choose **XREF**.

The **XREF of Distribution List** window is displayed, showing which and how many object types the distribution list is related to.

3 To display more information on one of these relation types, check the box preceding it.

More information on objects of this type is displayed in the bottom half of the window.

Modifying a Distribution List

To modify a distribution list:

1 Select the desired list in the object workspace or in the list of distribution lists.

2 Invoke the context menu and choose **Open**.

3 The distribution list is displayed, and you can modify it. The fields are described under ***Creating a Distribution List***.

4 Choose **OK** to save your modifications.

Renaming a Distribution List

To rename a distribution list:

1 In the object workspace or in the list of distribution lists, select the desired list.

2 Invoke the context menu and choose **Rename**.

3 Change the name of the selected list, and press ENTER.

Deleting a Distribution List

To delete a distribution list:

1 Select the desired list in the object workspace or in the list of distribution lists.

2 Invoke the context menu and choose **Delete**.

A window is displayed, asking you to confirm the deletion.

3 Choose **Yes** to delete the list, or **No** to cancel the operation.

Displaying a Distribution List

To display a distribution list:

1 Select the desired list in the object workspace or in the list of distribution lists.

2 Invoke the context menu and choose **Display**.

The distribution list is displayed. For an explanation of the fields, see ***Creating a Distribution List***.

Displaying Log Information for a Distribution List

To display log information for a distribution list:

1 In the object workspace or in the list of distribution lists, select the desired list.

2 Invoke the context menu and choose **Display Log**.

A dialog is displayed.

3 To display more detailed log information, select an entry from the log information dialog.

4 Invoke the context menu and choose **Info**.

Detailed log information on the selected entry is displayed.

Authorizing User Access to a Distribution List

To authorize user access to a distribution list:

1 In the object workspace or in the list of distribution lists, select the desired list.

2 Invoke the context menu and choose **Authorization**.

The **Authorization List** is displayed. It lists all users and user groups on distribution lists who are authorized for the distribution list, and shows their authorization levels.

3 Invoke the context menu for the dialog and select **New**.

The **Authorization Definition** is displayed.

4 Enter the data for the authorization. The fields are described under ***Authorization Options***.

5 Choose **OK** to save your data.

Using Virtual Users Instead of Distribution Lists

If in your organization large numbers of reports are sent to a large number of users, this may cause performance problems. In this case, "virtual" users can be used instead of distribution lists, as outlined in this section.

- General Information
- Original Scenario - Distribution List

- Alternative Scenario - Virtual User

General Information

When Entire Output Management creates an active report, it sends it to the `#Inbasket` folders of all users specified in the report's distribution attributes. With a large number of users, this may cause a considerable CPU workload for the Entire Output Management monitor and also require considerable space in the Adabas database containing the Entire Output Management system file, because a so-called "mail record" is created for every user. The same is true if an active report is not sent to a large number of individual users, but to a distribution list containing a large number of users.

If this causes performance problems in your environment, you may consider using a "virtual" user instead of a distribution list.

Original Scenario - Distribution List

Imagine the following scenario:

- A distribution list `FINANCE` is defined, which contains as users all staff members of the Finance department (defined users `USER01` to `USER50`).
- A report is defined with the distribution list `FINANCE` specified as the recipient of the report (in the **Distribution Attributes**).

As a result, the active report will be sent to every `#Inbasket` folder of every single user (`USER01` to `USER50`).

Another aspect is that a new employee joining the Finance department and added to the distribution list `FINANCE` can only see the active reports sent to the distribution list *after* he/she was added to the distribution list. However, it may be desirable that all employees in the department see all active reports, including older ones.

Alternative Scenario - Virtual User

The alternative scenario with a "virtual" user instead of a distribution list would be this:

- You define a user `UFINANCE`.

  In the **Authorization Definition** of this user, you specify `PUBLIC` as **Granted User ID**.
- In the **Distribution Attributes** of the report, you specify `UFINANCE` as the recipient of the report.
- You link all users to the `#Inbasket` folder of `UFINANCE`:

  For the user `USER01`, you create a folder, and in its **Folder Definition** you specify as **Linked Folder User ID** `UFINANCE` and **Folder Name** `#Inbasket`.

Repeat this for the users USER02 to USER50.

As a result, the active report will be sent only to the #Inbasket folder of UFINANCE (with only one "mail record" being created), and all users USER01 to USER50 can see it.

If a new employee joining the Finance department is later defined as USER51 in the same manner, he/she can see also all active reports contained in#Inbasket folder of UFINANCE

21 Authorizing User Access to Objects

This section describes how to grant users access authorization to an object. It covers the following topics:

Authorization List

Every defined object in Entire Output Management is associated with an *authorization list* for that object. Authorization can be granted to an individual user or to a group of users in a distribution list.

The authorization list for an object contains user IDs and/or the names of distribution lists. Each user or distribution list can have a different access level to that object.

The authorization list can be modified by:

- the Owner of the object,
- a user who was granted the Owner option,
- a user in a distribution list that was granted the Owner option.

For more information on how to define users in Entire Output Management, see the section *Users* in the *System Administration* documentation.

Authorization Options

In an **Authorization Definition**, you can specify the following:

Field	Explanation
Object type	The object type for which authorization is to be granted: report, bundle, printer or distribution list.
Object name	The name of the object for which you are granting authorization.
Granted user ID	The user ID or name of distribution list to which authorization is granted. Use the **Select** button to display a selection list.
Grant options	Select/deselect the following items to grant/withdraw user authorization. ■ Owner - The user can perform all functions and authorize other users for this object. ■ Modify - The user can display and modify this object. ■ Purge - The user can display, modify and delete this object, but cannot authorize other users. ■ Display - The user can only display this object. ■ Archive - The user can archive this object.

Field	Explanation
	■ Revive - The user can revive this object from the archive.

22 Printouts

This section covers the following topics:

What is a Printout?

A printout in Entire Output Management is a report or a bundle queued for printing either upon user request or automatically by the Monitor.

Available Commands for Printouts

To list all available commands for printouts:

1. In the object workspace, expand the Reports folder.
2. Select a report and invoke the context menu.

   A list of available commands is displayed.

These are:

Command	Shortcut	Explanation
Active in Bundle	---	Lists the active reports in the printout.
Browse	Ctrl+B	Displays the content of a printout (only possible for reports).
Delete	Del	Deletes a printout.
Display	Ctrl+D	Displays the attributes of a printout.
Filter	F3	Lists printouts according to selection criteria.
Hold	---	Puts a printout in hold status.
List	F8	Lists printouts.
Open	Ctrl+O	Modifies a printout definition.
Release	---	Releases a printout from hold status so that it can be printed.
Resume	---	Resumes the failed printing of a printout.

Listing All Printouts

To list all printouts:

1 In the object workspace, select the **Printout Queue** folder.

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

All printouts are listed in the content pane.

For each printout, the following information is displayed:

Field	Explanation
Object	Name of report or bundle to be printed.
Printout ID	Internal unique identifier for the printout.
Type	Report or bundle.
Printer	Logical printer to be used.
Lines	Number of lines already printed.
Kbytes	Size of the printout in KB (for binary printouts only).
Status	Status of the printout.
User ID	ID of user printing or of report owner or bundle coordinator.
Job Name	Job name of the printout in the job queue, if printing with a batch job.
Job Number	Job number of the printout in the job queue, if printing with a batch job.
Scheduled Date/Time	Date and time printout is scheduled.
Printed Date/Time	Date and time printout was printed.

Listing Selected Printouts

To list printouts according to selection criteria:

1 In the object workspace, select the **Printout Queue** folder.

2 Invoke the context menu and choose **Filter**.

The **Filter Printouts** window is displayed.

3 Enter your selection criteria, or select them via the list boxes next to the input fields. The fields are described below.

4 Choose **OK**.

Now only printouts which satisfy the selection criteria appear in the expanded **Printout Queue** folder in the object workspace.

Selection Criteria

Field	Explanation
Printout	The name of the printout (based on a report or bundle) to be printed.
Prefix / Substring	If you select **Prefix**, all printouts whose names *begin with* the character string specified in the **Printout** field will be selected. If you select **Substring**, all printouts whose names *contain* the character string specified in the **Printout** field will be selected (this is the default).
User ID	The ID of the user who has requested the printout; or of all users whose IDs begin with the specified character string.
Printer	The name of the logical printer to be used; or of all logical printers whose names begin with the specified character string.
Status	The status of the printout.
Creation date	You can select printouts which were created: ■ today, yesterday, or the day before yesterday; ■ on/before/after a specific date/time, or within a specific date/time range.

Printout Attributes

Printout attributes consist of:

- General Printout Attributes
- Printer Printout Attributes
- Special Printout Attributes

General Printout Attributes

Field	Explanation
Printout ID	The internal unique identifier of the printout.
Report name / Bundle name	The name of the report or bundle to be printed.
Run number	The internal run number of the report/bundle to be printed.
Status	The status of the printout.
Copies	Enter the number of copies to be printed.
Priority	Enter the print priority. This is passed to JES when system printers are used.

Field	Explanation
User	User ID of user printing, or of report owner, or of bundle coordinator.
Date/Time (Created, Scheduled, Printed)	The date and time the printout was created/scheduled/printed.
Contents	
Total (lines/size)	The total number of lines in the printout. For binary documents, its size in KB (as indicated by a "K" after the number).
Lines printed / Printed size	The number of lines currently printed. For binary documents, the portion already printed in KB.
Language	The language to be used in the report/bundle separators.

Printer Printout Attributes

Field	Explanation
Printout ID	The internal unique identifier of the printout.
Logical Printer	The name and description of the logical printer.
Physical Printer	The name and location of the physical printer.
Printer Exit	The member name of the exit to be executed for each line before it is printed, and the library containing the member.
Job Parameters	
JCL skeleton	The name of the Natural member containing the JCL skeleton to be used when submitting a print job.
Escape character	The special character used as a prefix to identify substitution variables.
Jobcards	The jobcards to be used when printing in batch mode. If you leave these lines blank, the specifications from the logical printer definition are used; see ***Adding a New Logical Printer***.

Special Printout Attributes

The special printout attributes are printer-dependent. See *Attributes of Physical Printers* in the *System Administration* documentation for more information.

Modifying Printout Attributes

You can only modify printout attributes when the printout is in HOLD status.

To modify the attributes of a printout:

1 Select the desired printout in the object workspace or in the printout list.

2 Invoke the context menu and choose **Open**.

The printout definition is displayed. It consists of: **General Attributes**, **Printer Attributes** and **Special Attributes**.

3 To change the desired attributes, choose the appropriate tab.

4 The corresponding window is displayed, and you can change the attributes. They are described under *Printout Attributes*.

5 Choose **OK** to save your changes.

Displaying Printout Attributes

To displaythe attributes of a printout:

1 In the object workspace or in the printout list, select the desired printout.

2 Invoke the context menu and choose **Display**.

The printout attributes are displayed. They are explained under *Printout Attributes*.

Deleting a Printout

To delete a printout:

1 In the object workspace or in the printout list, select the desired printout.

2 Invoke the context menu and choose **Delete**.

A dialog is displayed, asking you to confirm the deletion.

3 Choose **Yes** to delete the printout, or **No** to cancel the operation.

Putting a Printout in HOLD Status

This function places a printout in HOLD to prevent printing. Printout characteristics can be modified only when the printout is in HOLD status.

To put a printout in HOLD status:

1. Select a printout in the printout list.
2. Invoke the context menu and choose the **Hold** command.

   "hold" is displayed in the **Status** column for the selected printout.

Releasing a Printout from HOLD Status

To release a printout from HOLD and queue it for printing:

1. Select a printout in the printout list.
2. Invoke the context menu and choose the **Release** command.

   "ready for printing" is displayed in the **Status** column.

Resuming a Failed Printout

Print tasks and batch jobs periodically record the number of lines printed so far. If a printout fails, it can be restarted from the last recorded printed line number.

To resume printing of a failed a printout:

1. Select a printout in the printout list.
2. Invoke the context menu and choose the **Resume** command.

   "ready for printing" is displayed in the **Status** column.

Browsing a Printout

This function is only available for printouts of type "report".

The display the content of a printout:

1. Select a printout in the printout list.
2. Invoke the context menu and choose the **Browse** command.

   The content of the printout is displayed in the editor screen.

Listing Active Reports in a Printout

To list the active reports contained in a printout:

1. Select a printout in the object workspace or in the printout list.
2. Invoke the context menu and choose the **Active in Bundle** command.

   The **Active Report List in Bundle (Printout)** is displayed. The fields are the same as described under *Listing All Active Reports in an Active Bundle*.

23 Log Information

This function allows you to display log information about the monitor, printouts and users.

Displaying the Monitor Log

To display the monitor log:

1 In the object workspace, select the **Monitor** subdirectory under **Log Information**.

2 To list all events, proceed directly with the next step.

To list only selected events, first invoke the context menu and choose **Filter Log**. A window is displayed in which you specify your selection criteria, and choose **OK**.

3 Invoke the context menu and choose **Display Log**.

The **Log Information Monitor** is displayed in the content pane. For each event, it shows the date and time when it occurred, the monitor causing it, and a message explaining the event.

4 To display more detailed information on an entry, select the desired entry and choose **Info** from the context menu.

The **Log Message** for the selected entry is displayed in the content pane.

Displaying the Printout Log

To display the printout log:

1 In the object workspace, select the **Printouts** subdirectory under **Log Information**.

2 To list all events, proceed directly with the next step.

To list only selected events, first invoke the context menu and choose **Filter Log**. A window is displayed in which you specify your selection criteria, and choose **OK**.

3 Invoke the context menu and choose **Display Log**.

The **Log Information Printout** is displayed in the content pane. For each event, it shows the date and time when it occurred, the object where it occurred (if available), and a message explaining the event.

4 To display more detailed information on an entry, select the desired entry and choose **Info** from the context menu.

The **Log Message** for the selected entry is displayed in the content pane.

Displaying the User Log

To display the user log:

1 In the object workspace, select the **Users** subdirectory under **Log Information**.

2 To list all events, proceed directly with the next step.

To list only selected events, first invoke the context menu and choose **Filter Log**. A window is displayed in which you specify your selection criteria, and choose **OK**.

3 Invoke the context menu and choose **Display User Log**.

The **User List** is displayed in the content pane, listing all defined users.

4 Select a user, invoke the context menu and choose **Display User Log**.

5 The **Log Information User** for the selected user is displayed in the content pane. For each event, it shows the date and time when it occurred, the object where it occurred (if available), and a message explaining the event.

6 To display more detailed information on an entry, select the desired entry and choose **Info** from the context menu.

The **Log Message** for the selected entry is displayed.