

Planning and Customization Guide for IBM Output Manager for z/OS and OS/390

Planning and Customization Guide

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IBM Output Manager for z/OS and OS/390 Version 1Release 0xxxx

International Business Machines Corporation

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First Edition (July 2002)

This edition applies to Version 1, Release 1 of IBM Output Manager for z/OS (product number 5655-F55) and to all subsequent releases and modifications until otherwise indicated in new editions.



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Version 1 Release 0





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About this book

This book contains usage information and reference information for IBM Output Manager for OS/390 and z/OS. It provides detailed information on what your site needs to consider when planning for the use of IBM Output Manager for OS/390 and z/OS. This book also provides the installation overview and verification information to facilitate OM implementation at your site. For step-by-step installation instructions refer to the *IBM Output Manager for OS/390 and z/OS Program Directory* you received from IBM as part of the product package.

Who should read this book

The *IBM Output Manager for OS/390 and z/OS User's Guide* is intended for those personnel at your site who are involved in the management of archive report data and depends on the structure of your site. The personnel involved in archive report management often includes report administrators, system administrators, system security administrators, database administrators, print room managers and operators, and JES administrators.

The authors of this book assume that most readers are data processing professionals familiar with OS/390, RACF, DB2, and system administration.

Conventions and terminology used in this book

In this book, IBM Output Manager for OS/390 and z/OS is referred to as Output Manager where the context makes the meaning clear.

Other conventions include:

- **Monospaced font**- Identifies example code.
- **Bold font** - Identifies fields, commands, and values on product panels as well as labels that distinguish various types of information (such as Note).

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To find service updates and support information, including software FixPaks, PTFs, Frequently Asked Question (FAQs), technical notes, troubleshooting information, and downloads, refer to the following Web address:

The Systems Tools Web pages provide current product documentation that you can view, print, and download. To locate publications with the most up-to-date information, refer to the following Web address:

Where to find more information

IBM provides a complete set of information to help you plan for, install, administer, and use Output Manager. Some of the information is included in your product package. A complete set of publications is also available on the Web.

Title	Order Number
<i>IBM Output Manager for OS/390 and z/OS Program Directory</i>	GI10-8502-00
<i>IBM Output Manager for OS/390 and z/OS Planning and Customization Guide</i>	
<i>IBM Output Manager for OS/390 and z/OS User's Guide</i>	SC18-7251-00

Chapter 1. About Output Manager

IBM Output Manager for OS/390 and z/OS automates online report distribution and enables you to capture and manage historical report data and attributes. By enabling you to effectively capture, manage, view, and deliver reports and documents throughout your organization, Output Manager helps you to transform your organization's data into customized, accessible formats, thus enhancing your ability to respond to current business trends and to make effective strategic decisions.

With Output Manager, you can specify report attributes, collect report data, split system output into individual reports, perform both online and batch print jobs, and deliver report data to end users. Output Manager:

- Streamlines the online report distribution process.
- Helps users track report attributes and distribution information.
- Enables business users to view data pertinent to their individual needs.
- Leverages standard OS/390 data management facilities for capturing report data.
- Maintains historical information about production reports.
- Reduces costs associated with report distribution.

Output Manager features and components

The following diagrams summarize Output Manager's components and the business workflow into which Output Manager integrates.

Figure 1: How Output Manager fits into business flow

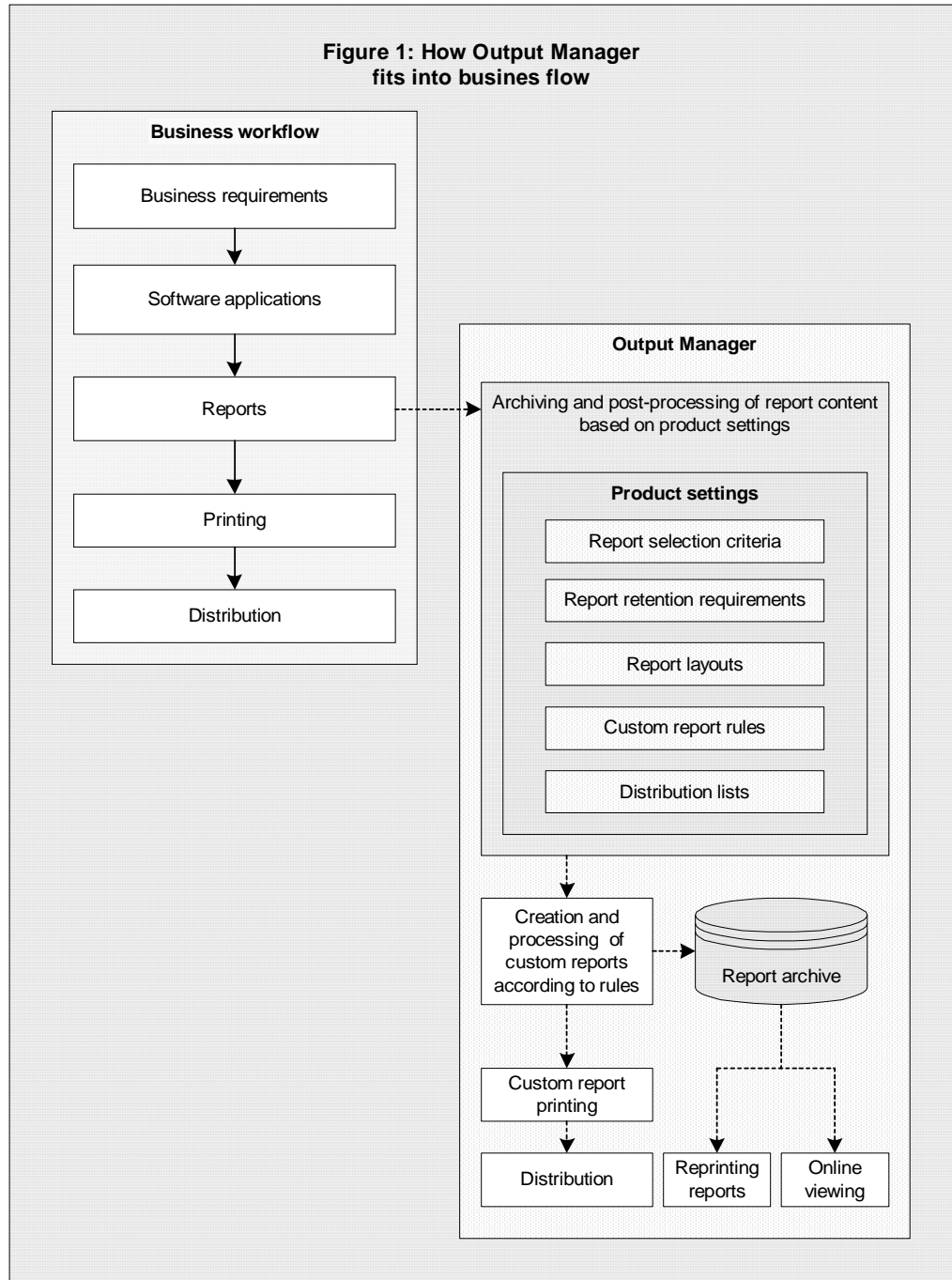
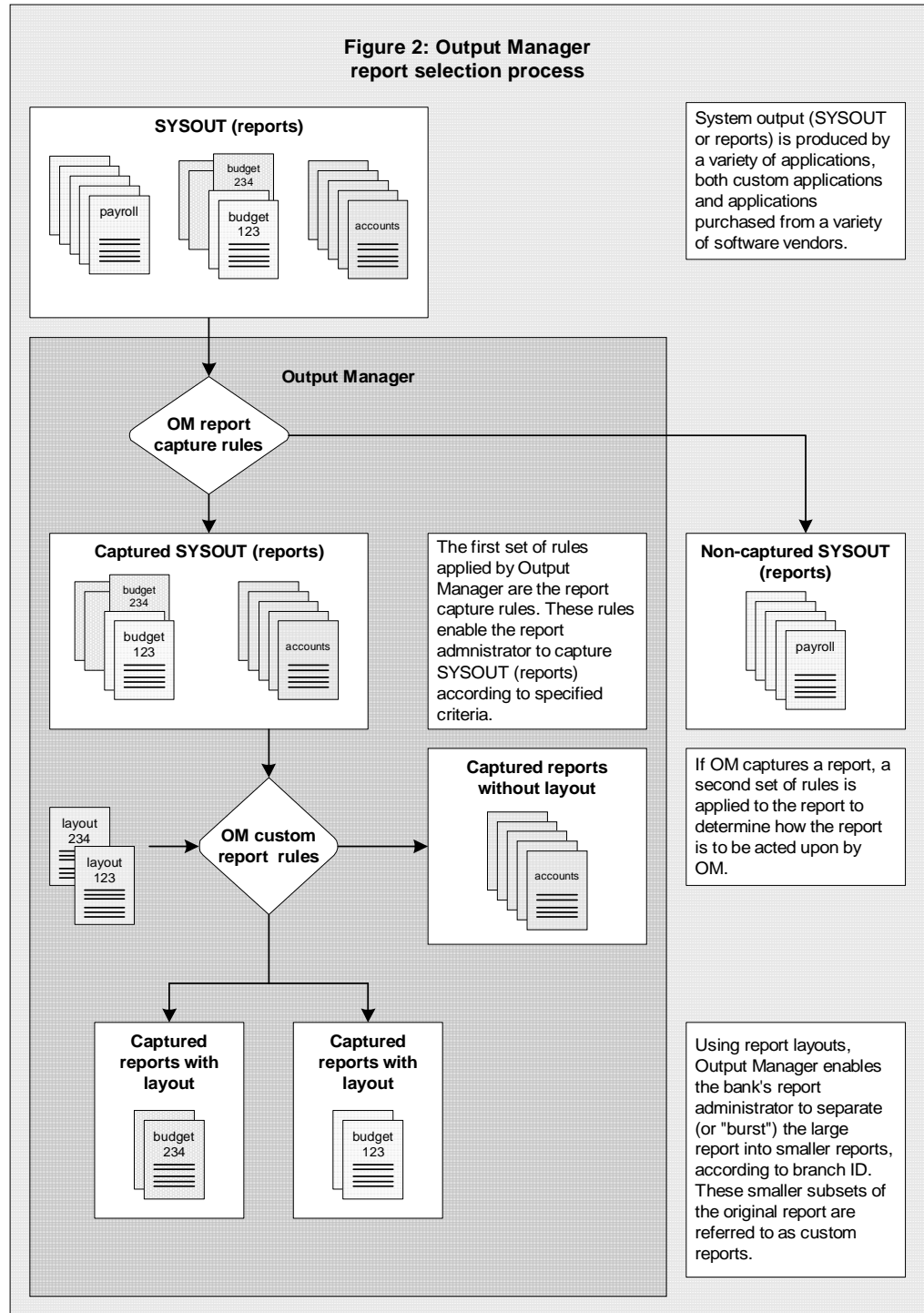
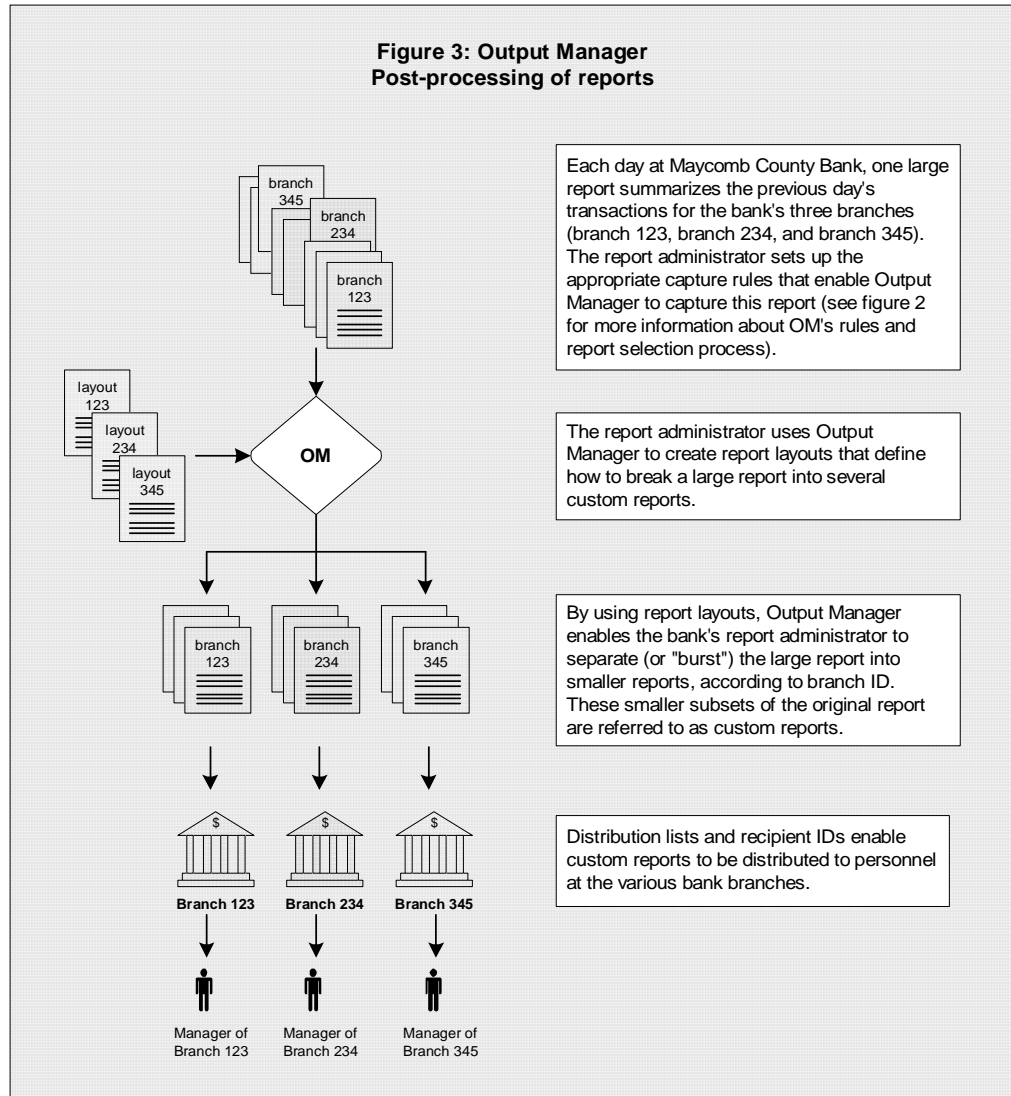


Figure 2: Output Manager report selection process



**Figure 3: Output Manager
Post-processing of reports**



Online viewing

Output Manager's ISPF dialog interface enables you to view captured reports and to quickly and directly access the system output that is pertinent to your individual needs.

Capturing system output data

By collecting historic SYSOUT data, your enterprise can efficiently trace business trends and chart future strategic direction. Output Manager enables you to capture and manage report data and attributes. Output Manager captures report data in sequential files and uses DB2 to create indexes of the reports that have been captured.

Report distribution

Efficient, accurate distribution of reports ensures the smooth operation of your print facilities and reduces production costs. Output Manager's report distribution capabilities enable you efficiently deliver reliable information to end users, thus enabling them to leverage information and make timely business decisions. Output

Manager allows you to split your SYSOUT data into individual reports and deliver them to the intended report recipients.

Chapter 2. Hardware, software, and security considerations

This section contains detailed information about the hardware, software, and security requirements necessary to implement Output Manager at your site. This information will help you assess how the Output Manager system might impact your current storage capacity and system performance and will help you optimize performance and identify potential system improvements that might be necessary to best use Output Manager in your environment.

Hardware requirements

The hardware you will need to run the Output Manager system depends on the volume of data that you plan to maintain using Output Manager, your site's backup and recovery practices, and the performance levels your system is expected to maintain.

Software requirements

The following software applications are required to implement Output Manager:

- Any supported release of z/OS or OS/390.
- DB2 for OS/390 version 6 or higher.
- TSO/ISPF

Security considerations

Output Manager deals with system security at two levels:

- At the archive data set level—By leveraging the RACF security definitions already in place in your environment, you can establish the level of access to Output Manager's archive data sets appropriate for each user.
- At the product functionality level—The report administrator can define the level of access each user has to product functions, and in turn, the tasks they are able to perform using Output Manager.

Archive data set security considerations

Since Output Manager does not allow you to bypass your system security tool, it is important to understand that any Output Manager archive data set naming conventions should be designed to fit within your environment's existing RACF security definitions. In this way, each user's access to Output Manager's archive data sets for online viewing, printing, and distribution purposes is regulated by their RACF settings.

Product access security considerations

The Output Manager report administrator is responsible for granting users access to the various functions within Output Manager. For more information, see the *IBM Output Manager for OS/390 and z/OS User's Guide*.

Note: A user's access to product functionality is independent of their access to Output Manager archive data sets. Access to Output Manager's archive data sets is determined by the user's RACF security definitions.

Chapter 3. Preparing for Output Manager

This chapter contains recommendations that you should consider as you prepare your organization for the Output Manager environment and perform a pilot roll-out of the system. Planning for Output Manager implementation requires that you have a clear understanding of your site's data set naming and storage conventions, how the Output Manager system will be deployed and used, who will use the Output Manager system, and how Output Manager report data and attributes will be archived and managed.

As you begin the planning process, you must identify the appropriate people at your site who will help you plan and setup the Output Manager system. These people often include your site's system administrator, security administrator, database administrator, and print room manager/operator.

Administrative roles and responsibilities

Output Manager report administrators are responsible for the implementation and management of the Output Manager system. The Output Manager system includes hardware, application and system software, reports, administration personnel, and users. The table below describes the various personnel with whom the Output Manager report administrator will most likely have to collaborate in order to ensure the successful implementation of the Output Manager system.

Role	Description
Output Manager report administrator	In the Output Manager planning process, the Output Manager report administrator plays the central role in the report generation, archival, and management process. The Output Manager report administrator interacts with all other roles to ensure that the appropriate considerations and actions are taken during the various implementation phases.
System administrator	The system administrator is responsible for the allocation and use of OS/390 system resources. In the Output Manager planning process, the system administrator is a key player in managing archive reports. The system administrator provides recommendations regarding well-formed data set name construction, adherence to data set retention policies, and data set attribute specification.
Security administrator	The security administrator is responsible for OS/390 system security. In the Output Manager planning process, the security administrator is responsible for working with the report administrator to assess how site security conventions impact the Output Manager-generated data sets.
Database administrator	The database administrator is responsible for the administration of DB2 objects, processes, and applications. In the Output Manager planning process, the database administrator manages the various DB2 tables required by Output Manager.

Role	Description
Print room manager/operator	The print room manager/operator is responsible for managing the printed output from Output Manager. The print room manager/operator must be aware of how the Output Manager system is to be implemented.

Collecting DASD space requirements

Below is a list of questions to consider when evaluating the amount of DASD that your Output Manager implementation will require.

- What volume of input will Output Manager be expected to process?
- How large are the reports that Output Manager will be expected to produce and manage (in pages and bytes)?
- How many reports? How many versions of reports?

Data set naming and storage considerations

Data set naming and storage considerations include planning for:

- Data set names
- Data set attributes
- Data set retention periods

Data set name construction

The Output Manager administrator should contact the security administrator and storage administrator to discuss and ensure the construction of well-formed data set names for the archive report data sets that will be produced by Output Manager. All archive report data sets must adhere to your site's requirements and conventions governing data set naming.

Data set attributes specification

The Output Manager administrator should contact the system administrator to discuss data set attribute assignment and what is most appropriate given the site's conventions, capacity, and resources. Sometimes, depending on the site's data set naming conventions, the data set name will give the storage administrator enough information to determine the attribute assignment for the data sets.

Data set retention period specification and enforcement

The Output Manager administrator must contact the system administrator and others responsible for data set retention and enforcement of data set retention. Retention period for data sets are definable in the JCL but further discussion and policy must be in place to ensure that the data sets that should be kept are, in fact, kept. When data sets are no longer being used but must be retained, there must be appropriate mechanisms in place to ensure that they are rolled-off to tape for long-term storage.

Deployment considerations

Deployment considerations include planning for and evaluating the storage and space that will be required by Output Manager as well as how Output Manager deployment will be managed in the DB2 environment. Additionally, your site's performance and capacity will influence the deployment of Output Manager. These factors are unique to each site and must be carefully considered before Output Manager is implemented.

Storage and space considerations

Because the data sets generated by Output Manager consume storage space over time, the site must assess how much storage will be necessary to accommodate their expected volume of archived data and the retention periods for which archived data is kept. Assess whether or not additional DASD must be purchased, for example.

DB2 considerations

There are two basic considerations to be made concerning the DB2 environment:

- DB2 objects
- DB2 backup and recovery

DB2 objects

OM requires the following DB2 objects:

- A database
- A table space
- Several tables

The Output Manager administrator must contact the site database administrator to obtain the Output Manager names and SQL IDs for these objects. Five DB2 tables are required by Output Manager. The Output Manager administrator must work with the database administrator to ensure that appropriate space is available for each of these tables.

DB2 backup and recovery considerations

Contact your database administrator to ensure that database backup files are defined and backup procedures are established for your installation.

Chapter 4. Customizing IBM Output Manager

Before customizing IBM Output Manager, complete the installation instructions found in the *Program Directory for IBM Output Manager for OS/390*.

Customization overview

After installing IBM Output Manager, you must complete the customization steps summarized below. For more information about each step, refer to the corresponding sections as indicated.

Table 1. Overview of steps for configuring IBM Output Manager

Step	Description	Reference
1	Modify and run the DDL to create the DB2 tables for Output Manager.	For more information, refer to "Step 1: Create the DB2 tables" on page 14.
2	Bind the plan.	For more information, refer to "Step 2: Bind the BJT plan" on page 14.
3	Grant execute authority on the plan for the started task.	For more information, refer to "Step 3: Grant plan EXECUTE authority" on page 14.
4	APF-authorize the LOADLIB.	For more information, refer to "Step 4: APF-authorize the libraries" on page 15.
5	Edit the configuration member with the DB2 subsystem and plan.	For more information, refer to "Step 5: Specify DB2 subsystem and plan" on page 15.
6	Configure and run the started task JCL.	For more information, refer to "Step 6: Modify the started task JCL" on page 15.
7	Modify the user and administrator exec to access the interface.	For more information, refer to "Step 7: Create access to interface" on page 15.
8	Start IBM Output Manager.	For more information, refer to "Step 8: Installation verification" on page 15.

The DDL or library members described in these steps contain parameters that you need to specify. The table below lists these parameters, so you can determine the names that are appropriate for your site prior to performing the customization steps:

Table 2. Summary of IBM Output Manager customization parameters

Parameter	Description
DB2 subsystem ID	A one- to four-character name for the DB2 subsystem being used for the instance of IBM Output Manager that you intend to configure.
DB2 plan name	A one- to eight-character name for the DB2 plan that will be used with the instance of IBM Output Manager you intend to configure.

Table 2. Summary of IBM Output Manager customization parameters

Parameter	Description
Product instance name	A one- to eight- character name assigned by the user to represent the instance of IBM Output Manager you intend to configure. Note: Each instance of IBM Output Manager can use the same DB2 subsystem or different ones.
HLQ	The high-level qualifier you used at your site to hold IBM Output Manager's product libraries.
Owner ID	A one- to eight-character name for the ID of the person who is the owner of the DB2 objects.

Customizing steps

After you have installed IBM Output Manager, you must complete the following steps to customize the product for your environment. The steps outlined in this section must be completed before executing IBM Output Manager for the first time.

Step 1: Create the DB2 tables

IBM Output Manager requires several DB2 tables. To create these objects:

1. Edit SBJTSAMP member BJT#IN01, changing all occurrences of ?BJTDBASE? to a valid database name.
Notes:
 - a. The recommended name is BJTDBASE.
 - b. The name you specify for this variable will be used in subsequent installation steps.
2. Execute BJT#IN01 on each target DB2 subsystem on which you plan to use IBM Output Manager. This member creates the required IBM Output Manager objects.

Step 2: Bind the BJT plan

Tailor and run SBJTSAMP member BJT#IN02 against each DB2 subsystem on which you plan to run IBM Output Manager.

To bind the IBM Output Manager plan:

1. Edit SBJTSAMP member BJT#IN02 according to the instructions in the member.
2. Execute BJT#IN02 against each DB2 subsystem on which you plan to run IBM Output Manager.

Step 3: Grant plan EXECUTE authority

Grant EXECUTE authority for the user ID or library that initiates the IBM Output Manager started task. Contact your system administrator for assistance.

Step 4: APF-authorize the libraries

IBM Output Manager requires that the target load library (*highlevel.SBJTLOAD*) be APF-authorized. Include the *highlevel.SBJTLOAD* library as part of your system APF-authorized list. Contact your system administrator if you need assistance.

Note: Changes you make to SYS.PARMLIB require an IPL command for the PARMLIB updates to take effect.

Step 5: Specify DB2 subsystem and plan

Specify the DB2 subsystem and DB2 plan name in SBJTSAMP member BJT#IN03.

Note: Because the the started task references member BJT#IN03, you must be complete this step prior to modifying the started task.

1. Edit SBJTSAMP member BJT#IN03.
2. Replace ?DB2SSID? the DB2 subsystem ID on which IBM Output Manager resides.
3. Replace BJTPLAN with the DB2 set plan name appropriate for your installation of IBM Output Manager.
4. Save SBJTSAMP member BJT#IN03.

Step 6: Modify the started task JCL

You must modify the started task JCL contained in SBJTSAMP member BJT#IN04 according to your site's standards. After modifying the started task, you must place the JCL in your system PROCLIB.

Note: The started task for Output Manager can be any name you assign.

1. Edit SBJTSAMP member BJT#IN04.
2. Replace ?BJTHLQ? with the high level qualifier of your installed IBM Output Manager libraries.
3. Replace ?SDSNLOAD? with the DB2 LOADLIB for IBM Output Manager.
4. Place the modified member BJT#IN04 in your system PROCLIB.

Step 7: Create access to interface

To create access to the IBM Output Manager interface, you must create the invocation executable to call the user interface for IBM Output Manager. To do this:

1. Edit SBJTEXEC member BJT to point to the product libraries. Change the following:
2. Change BJTHLQ to the high-level qualifier you assigned to the IBM Output Manager libraries.
3. Change BJT in the NAME= parameter to the appropriate IBM Output Manager product instance name.
4. Save your changes to SBJTEXEC member BJT and make it available to your TSO users. Contact your system administrator for assistance.

Step 8: Installation verification

Issue the MVS START command to start the IBM Output Manager started task. For example, in SDSF you can do so by typing /S BJT (where BJT is the IBM Output

Manager product instance name). After issuing the start command, verify that installation was successful. To do so:

1. Check for messages that indicate the status of the started task.
 - If you receive the following message, the started task is up and running and you can continue to the next step to check the interface.

```
BJT02036I IBM Output Manager is ready for commands
```

- If you do not receive message BJT02036I, "IBM Output Manager is ready for commands", the started task is not running. In this case, look at other informational messages to determine potential problems. Review the product customization steps or contact your system administrator for further assistance.
2. Start the interface. To access the interface for Output Manager, execute the BJT EXEC that you modified in "Step 7: Create access to interface" on page 15. The IBM Output Manager main menu appears. Press Enter to remove the copyright statement. The main menu appears as shown below:

```
View Administration Preferences Help
-----
                                IBM Output Manager
Command ==>

                                Product name: OMID
P  Preferences                    Terminal and user parameters
V  View Reports                   Create and change reports
A  Administrative Functions       Administer rules and reports
I  Installation Verification      Verify installation

X  Exit
```

```
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```

3. Perform installation verification steps. To proceed with installation verification, type I at the command line and press Enter. The following message appears if installation was successful:

```
IBM Output Management Tool is available
Last verified at 11/04/2002 - 17:44:26 on system RS22
Started task was OMID, product name was OMID
This verification occurred at 11/05/2002 - 04:11:20 on system RS22
Started task is OMID, product name is OMID
```

If installation was not successful, you will see one of the following error messages:

- "Product instance name" is not active. Start the product instance to make it active.
- "DB2 is not available." If you receive this message, check the following items:
 - The DB2 subsystem ID is valid.

- EXECUTE authority is assigned to the USERID of the Output Manager started task.
- The plan name is valid.
- The DB2 tables were created successfully.

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Planning and Customization Guide for IBM Output Manager for z/OS and OS/390
Version 1 Release 0

Publication No. xxxx

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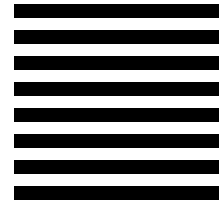
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