Output Manager Installation Guide
Version 4.0 SP2

Output Manager Installation Guide

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Preface

Purpose of this Document

This document explains how to install and configure Output Manager. The document is intended for Output Manager and AutoStore administrators.

Output Manager consists of the following software components:

- A SQL database to store configuration information and document metadata
- A service to manage all database access
- Support services
- Output Manger console for administration and configuration
- Optional web interface, desktop client, and device embedded interfaces
- Optional AutoStore Workflow 6 for Output Manager

Version Compatibility

- Output Manager 4.0 SP1

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Related Documentation

For more information about Output Manager, AutoStore, and other Nuance Communications software products, refer to the online help and other documentation provided with the products.

Revision History

Version	Date
1.0	October 2, 2012
2.01	November 15, 2013
2.02	January 4, 2014

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2.03	August 5, 2014
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4.0	November 20, 2015
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Product Overview

Output Manager provides a comprehensive solution for the management of your organization's document output.

Output Manager consolidates input from multiple platforms and applications and centrally manages resources and documents, providing end-to-end tracking and reporting. Although documents traditionally travel directly from origin to destination, there are considerable benefits to routing them through a centralized system. Output Manager is therefore built around these main concepts:

- Maximize the number of sources from which you can receive documents.
- Provide greater control over documents than can be found in other products.
- Manage and expand the number of document destinations.
- Insure the security and integrity of documents throughout the send/receive cycle.
- Produce a completely integrated audit trail and accounting functionality in order to monitor and control your costs.
- Supply the tools necessary to convert document formats based upon the final destination.
- Provide an observable process to a variety of audiences including administrators, print operators, end users, and management.

Receiving Documents

Due to Output Manager's many input options, you will find that no matter where your documents originate, receiving them into Output Manager occurs seamlessly.

If the source is a mainframe, you can use NJE over TCP/IP. From IP sources, Output Manager can receive documents via LPD, Socket, or FTP connections. Other input options include network folders, email, web uploads, and Windows applications. Regardless of your source, Output Manager receives all available document properties, which can then be used to determine the respective document's path through the system.

Managing Documents

When documents arrive into Output Manager, they are first logged into the application database, and then routed either manually or using rules.

Once documents arrive into Output Manager, their properties are logged into the application database. What happens next depends on the business rules configured by administrators. If no routing rules are configured, then the documents are collected for manual routing, which can be done through our intuitive user interface. Most of our customers, however, prefer to take advantage of the Output Manager advanced dynamic routing functionality. Using a plain English interface, product administrators can use all of the document's properties (and even the document's contents) to dictate where it should be sent. These rules also control whether a document needs to undergo any transformations before it is routed to the final destination.

Transforming Documents

Output Manager can transform incoming documents to be compatible to their destination. There are often cases where the document origin is not compatible with the document destination. Most common scenarios include AFP, PDF, or Metacode files that need to be printed on PCL printers, print documents to be posted as PDF files on the web, large reports to be burst into smaller pieces before being sent to various recipients, and so on. Output Manager includes comprehensive support for converting and repurposing documents.

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Managing Destinations

Output Manager supports a variety of destinations including network folders, FTP, email, and printers. After Output Manager performs any necessary transformations, documents are ready to be routed to the final destination. In the case of printers, these can be added either manually or through the Output Manager auto-discovery capabilities. When Output Manager recognizes a printer it logs capabilities (color, duplex, PCL, and so on.) and monitors it continuously. This monitoring extends beyond the basic, checking values such as the level of toner or whether there is paper in the trays. Proactive monitoring prevents documents from being sent to unavailable printers and instantly alerts help desk staff of problems even before a document is sent to the device.

User Communication

Administrators can use the Output Manager Console to centrally monitor all sources, documents, transformation processes, and destinations. The intuitive user interface provides a complete, real-time picture of everything that is happening in a company's output processes.

In addition to real-time monitoring, Output Manager supports a wide array of notification options. Administrators can choose to be notified should any errors occur while documents are being received, converted, or routed. Additionally, they can choose to be notified if problems arise with monitored printers. End users can also be alerted about the status of the documents they submit or are responsible for. Finally, Output Manager gives management access to reports that encompass all activity, including cost allocation to projects or departments.

Output Manager Product Features

Output Manager includes a rich collection of features and benefits.

Inbound connectivity

Output Manager input counts mainframes, network folders, email, Web uploads, and all Windows applications among its source options. Output Manager provides one point of control for your entire document workflow. With such control, you can use powerful features related to routing, scheduling, security, business rules, and automation; Output Manager then uses these features for all of your document distribution processes. No matter where your documents originate, receiving them into Output Manager occurs seamlessly. Regardless of source, Output Manager receives all available document properties (page count, document or file name and type, file size, user name and other statistics and attributes), and uses them to determine that document's path through the system.

Document and data handling

As documents arrive into Output Manager, all of their properties are logged. Depending on the business rules that you configure you can decide, through our intuitive user interface, to which output device or destination a file should be sent. The print spool interface gives you complete control over the printing and routing of documents. You can then direct files from any of the many input sources to a variety of destinations, to predefined destinations for your output based on the same business rules, or both a variety of and predefined destinations.

Output Manager assures the security of your documents while giving you the freedom to hold, redirect, duplicate, split, merge, enhance, or edit them as necessary. The way documents are handled can be predefined so that each time that Output Manager is notified that a particular document is coming into the system, it will automatically perform the tasks you define.

The entire process is easily set up with the graphical rules builder. The interface used to create rules is second to none in terms of ease of use, flexibility, available options, logic flow, and functionality.

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Document bursting, merging, enhancing, reformatting

Often, the format in which the document originated is not compatible with the format required by the destination device. Changes to the document might be necessary, yet the application where it originated cannot be easily modified. Output Manager includes comprehensive support for converting and repurposing such documents. For example, Output Manager can:

- Separate, split, merge, or filter individual documents or batches of documents.
- Classify and index information inside documents.
- Rotate misaligned pages and change page sizes.
- Burst large documents based on fields inside the documents (for example, zip codes).
- Merge several documents into one.
- Filter documents or individual pages according to predefined criteria.
- Add or delete text, barcodes, overlays, and images.
- Change page sizes and reposition page content.
- Provide conversions for AFP, IPDS (not available for new sales), Xerox Metacode and LCDS, PCL, Postscript, PDF, TIFF, and more.

Destination management

Once document handling activities are complete, documents are ready to be routed to any number of destination types. For each defined printer, Output Manager logs all possible capabilities — everything from color to toner to paper levels. Even the number of documents waiting to be printed can be selected as a routing criterion to send a document to a printer that is not as busy.

User interfaces

Output Manager is server-based and accessible from numerous clients. It includes .Net, Web, and embedded user interfaces that can monitor all sources, documents, document management activities, and destinations. Users can safely customize their own views while administrators can insure that user security is enforced regardless of the user interface selected. Output Manager requires no add-on products, no new configurations to implement and manage, and no programming changes to your existing applications. Just install Output Manager to use the built-in features.

Device management

Output Manager offers an unparalleled view of your print infrastructure including desktop, network, and production print devices. It all starts with the automatic discovery process, which finds and creates a complete profile of all of the printers on your network. With the tree view and the advanced grouping, filtering, and searching capabilities, you can find any device in just seconds, even if there are thousands of them.

Using the drag-and-drop feature, you can instantly move any of the documents to another device, while the security model gives you complete control over what can be printed on each printer and by whom.

Failover printing

Output Manager features several types of failover printing with devices or groups of printers that back each other up. By checking the status of the primary output device, Output Manager can automatically reroute output to an alternate device and, if desired, notify the user of the change in destination.

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Load balancing

You can use Output Manager to configure groups of printers that support load balancing by determining the best device to print to in each printer group. Output Manager then notifies the user where the report will print out. The result is a more even workload among devices. It can also help eliminate underutilized printers on your network.

Release anywhere

Rather than sending a document directly to a destination device, Output Manager can secure the document and allow it to be picked up at any printer. Output Manager can receive a document, notify the user that it has arrived, and wait for the user to log in at any printer to retrieve it.

Print security

Administrators can set rules for security at many different levels using the Output Manager integrated security layer. Access can be limited for any device or user interface depending on the rules defined. Rules for workflow management can also be tailored so that users can manipulate only queues and jobs for which they are authorized.

Based upon the logon credentials for each user, restrictions and permissions can be granted and revoked for configuration changes to objects, data conversions, viewing, and printing, monitoring jobs, deleting, and reprinting documents. Security can also be set-up to monitor certain user activities. Any action denied due to insufficient policies may be logged and reviewed by the administrator.

Accounting and auditing

Output Manager provides an extensive audit trail of every activity. Every file that passes through Output Manager, every device event, and every click by a user is logged and traceable. You can report on who printed what; when and where documents were printed (or reprinted); and even see what all of that printing cost you for billing or charge-back purposes. You can even use Output Manager to find out how many times a printer jammed, or which process was started at a particular time.

Implementation of the Output Manager audit and accounting functions does not require any alteration of your networks or the addition of a dedicated print server. Output Manager can recognize whether a job contains color and apply the appropriate charge for such usage.

Proactive device support

With Output Manager, your help desk can be alerted to output device issues before users even know they exist. Our proactive device-management platform monitors all output devices for errors and sends immediate notifications when they occur. In addition, your support staff can use Output Manager to manage any output device, printers, and the documents waiting in their queues, all within the same user interface.

Reporting

One of the key features of Output Manager is the ability to provide insight into your company's document output infrastructure through its various reports. There are two main ways in which Output Manager provides reporting:

- You can build your own reports using the data available in the Output Manager database.
- If you prefer a complete reporting solution, Output Manager has a reporting module, which provides reports via the web and the Output Manager Reports application. The Reports application includes a Report Designer that can be used by Output Manager administrators to edit the out-of-the-box reports or create new ones from templates.

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Output Manager Components

Output Manager is a complex software system, consisting of many components. Some of these components are required for base operations, while others are only required if the respective functionality is desired.

Component	Description
Database	The Output Manager Database is a central component of the Output Manager software package that stores all data for the application.
Services	The Output Manager services provide functionality, interfaces, and data access for an Output Manager server.
User interfaces	Output Manager user interface components enable users to administer and interact with an Output Manager server.

Output Manager Database

The Output Manager Database is a central component of the Output Manager software package that stores all data for the application.

The Output Manager Database can be installed on any edition of the versions of Microsoft SQL Server listed in the *System Requirements* section of the Output Manager product release notes:

- Microsoft SQL Server 2005 with the latest cumulative updates installed (This version may require installation of Microsoft .NET Framework version 3.5 SP1.)
- Microsoft SQL Server 2008 with the latest cumulative updates (This version may require installation of Microsoft .NET Framework version 3.5 SP1.)
- Microsoft SQL Server 2012
- Microsoft SQL Server 2014

The database performs the following functions:

- Stores all configuration data for Output Manager.
- Includes information about and provides pointers to all active, retained, and archived documents in the system.
- Logs all activity in Output Manager.
- Supports the Output Manager Services in the regular operation of the system.

Only one Output Manager Database can be used for an Output Manager installation. Depending on the scale of the system, we recommend hosting the database on a powerful hardware platform. Technologies such as clustering, replication, and mirroring can be used to ensure continuous operation of the database. Please see Microsoft's documentation for SQL Server for details on how to build a fault tolerant setup.

Output Manager Services

The Output Manager services provide functionality, interfaces, and data access for an Output Manager server.

Output Manager is a Microsoft Windows based software system, designed in C# using modern .Net technology. Windows services therefore constitute the backbone of the system. They can be hosted on physical or virtual machines running Windows XP, Windows 2003 Server, Windows Vista, or Windows 2008 Server. For large installs of Output Manager, we recommended these services be installed on machines running server operating systems.

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Throughout this guide, any machine that has at least one Output Manager Backup Database Service installed is called an Output Manager Server.

The following services are available in Output Manager:

- Output Manager DBM Service
- Output Manager Input Service
- Output Manager Output Service
- Output Manager SNMP Service
- Output Manager Rules Agent Service

Only one instance of each of these services can be installed on a single server. For example, all five services can be installed on a server, but only one instance of each service can be installed on that server.

Table 1: Output Manager services

Service	Description
Output Manager DBM Service	The DBM (database manager) Service is the central point through which all other services and user interfaces communicate. Every action or request from another Output Manager Service or an Output Manager user interface goes through the DBM Service. The DBM Service is also the only service that communicates with the database. For large installations of Output Manager, we recommended using multiple DBM Services, in order to distribute the load. In such cases, all DBM Services would connect to the same Output Manager Database.
Output Manager Input Service	The Input Service is responsible for receiving documents into Output Manager. It includes support for all of the source types available in Output Manager: • AutoStore • Email • FTP • IPP • LPD • Mobile Server • NetWeaver • Network folders • Output Manager server • Socket • TCP/IP NJE • WCF API • Web Upload • WebSphere MQ • Windows queues

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Service	Description
	Multiple Input Services can be used as part of an Output Manager installation. Each machine where the Input Service is installed can receive documents.
Output Manager Output Service	The Output Service is responsible for sending documents from Output Manager to destinations. It includes support for all of the destination types available in Output Manager: Creating a new database replaces any previously created database. The Configuration Manager will warn you that it will erase all existing data before it replaces an existing database. • AutoStore • Email • Fiery Device • FTP • IPDS (not available for new sales) • IPP • JDF/JMF • LPR • Network folders • Output Manager server • PRISMAProduction • SharePoint • Socket • WebSphere MQ • Windows queues Multiple Output Services can be used as part of an Output Manager installation. Any machine that is running the Output Service can send documents.
Output Manager SNMP Service	The SNMP Service performs the following two main functions: • Detection of printers on the network. • Continuous monitoring of printer status using SNMP. Multiple SNMP Services can be used as part of an Output Manager installation. Each machine where the SNMP Service is installed can monitor specified printers.
Output Manager Rules Agent Service	The Rules Agent Service acts as an agent for the rules engine that is integrated in the DBM Service. Certain Actions in Output Manager can be configured to be executed on other machines. The Rules Agent Service has to be installed on the respective machine in order

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Service	Description
	for the Action to be properly executed. Multiple Rules Agent Services can be used as part of an Output Manager installation.

Output Manager User Interfaces

Output Manager user interface components enable users to administer and interact with an Output Manager server.

There are several user interfaces that administrators, operators, and end users can use to interact with Output Manager. These user interfaces vary in terms of platforms they can be run on, richness of features, and footprint.

Table 2: Output Manager user interfaces

Interface	Description
Output Manager Console	The Output Manager Console is the main user interface for Output Manager. Designed in C#, it can be installed on any machine running Windows XP, Windows Server 2003, Windows Vista or Windows 7 Professional, Windows Server 2008, or Windows Server 2012. Multiple Output Manager Consoles can connect to the same DBM Service simultaneously. The Output Manager Console is the most feature rich Output Manager user interface. It can be used by administrators to configure the product, operators to manage destinations and documents, and end users to access active, retained, and archived documents. Granular security controls allow for varied access to features, depending on the identity of the logged in user.
Output Manager Web Interface	The Output Manager Web Interface can be accessed from any web browser, regardless of the operating system of the machine. This user interface is targeted towards operators and end users, so it lacks the administrative features of the Output Manager Console. The functionality available in the Output Manager Web Interface includes: • Displaying the list of active and retained documents. • Downloading and viewing the contents of documents. • Routing documents to destinations. • Changing the state of documents. • Reprinting documents.
Output Manager Desktop Client	The Output Manager Desktop Client is designed for Windows workstations in typical office print environments. It is a small footprint software package

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Interface	Description
	that can be deployed using any desktop deployment application. Running as a tray application, the Output Manager Desktop Client allows end users to see the status of documents they submit, and perform tasks such as changing the state, reprinting, or rerouting documents. It also allows the downloading and viewing of documents. The Output Manager Desktop Client includes functionality related to accounting and cost control. It can be configured to generate pop-ups that ask users to associate the proper billing accounts with the documents they are printing. The Output Manager Desktop Client can also monitor users' local printing, such as documents going to USB and parallel port printers, as well as direct IP printing.
Output Manager Embedded Interfaces	In addition to the user interfaces running on PC platforms, Output Manager also supports user interfaces embedded in certain printer models. These embedded user interfaces allow users who walk up to the printers to see the list of their documents in Output Manager. Documents can then be released for printing or reprinted from the printer.

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System Requirements

This section describes minimum requirements for Output Manager components. Specific requirements depend on the operating system, expected production volume, and other applications in the environment.

Output Manager Core Server Requirements

The following table describes core server requirements:

Component	Requirements
Operating systems	Supported client operating systems • Microsoft Windows 10 (32-bit und 64-bit) • Microsoft Windows 8.1 (32-bit and 64-bit) • Microsoft Windows 8 (32-bit and 64-bit) • Microsoft Windows 7 SP1 (32-bit and 64-bit) • Microsoft Windows Vista SP2 (32-bit and 64-bit) Supported server operating systems • Microsoft Windows Server 2012 R2 • Microsoft Windows Server 2008 R2
Network	Domain membership is required for host computer and Output Manager administrator accounts. • The host computer must be a member of a domain. Installation of Output Manager in a workgroup is not supported. • The user account performing the installation and any users added as Output Manager administrators must also be in the same domain as the host computer for the Output Manager server.
Framework	• Microsoft .NET Framework version 4.0
Software	Output Manager supports the following versions of Microsoft SQL Server running either locally or on a remote server. • Microsoft SQL Server 2005 with the latest cumulative updates installed (This version may require installation of Microsoft .NET Framework version 3.5 SP1.) • Microsoft SQL Server 2008 with the latest cumulative updates (This version may require

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Component	Requirements
	installation of Microsoft .NET Framework version 3.5 SP1.) • Microsoft SQL Server 2012 • Microsoft SQL Server 2014 **Note:** There is a known issue in Microsoft SQL Server 2005 SP3, 2005 SP4, 2008 SP1, and 2008 R2 that causes the database size to grow unnecessarily. Installing the latest cumulative updates fixes the problem.
Processor	• 3.0 GHz single core processor • 2+ GHz multi-core processor
Memory	• 6+ GB of RAM with Microsoft SQL Server • 4 GB of RAM without Microsoft SQL Server
Hard disk	• 200 GB
Virtualization	• Virtual servers running VMware are supported. • VMware VMotion is supported but with licensing restrictions. VMware VMotion licenses may expire out if vMotion moves virtual servers to new hardware.
Nuance Device Control Server (DCS)	The DCS is automatically installed with the SNMP Service and is required for the Ethernet Card Reader. The DCS is only supported on 64-bit machines and requires Microsoft .NET Framework version 4.5.

Output Manager Distributed Server Requirements

The following table describes distributed server requirements:

Component	Requirements
Operating system	• Microsoft Windows 10 (32- and 64-bit) • Microsoft Windows 8 and 8.1 (32- and 64-bit) • Microsoft Windows 7 (32- and 64-bit) • Microsoft Windows Vista (32- and 64-bit) • Microsoft Windows Server 2008 R2 • Microsoft Windows Server 2012 R2
Framework	• Microsoft .NET Framework version 4.0

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Component	Requirements
Network	• Connectivity to the central Output Manager Core Server
Processor	• 3.0 GHz single core processor • 2+ GHz multi-core processor
Memory	• 4 GB of RAM (6+ GB of RAM recommended)
Hard disk	• 200 GB

Output Manager Web Server Requirements

The following table describes web server requirements:

Component	Requirements
Operating system	• Microsoft Windows 10 (32- and 64-bit) • Microsoft Windows 8 and 8.1 (32- and 64-bit) • Microsoft Windows 7 (32- and 64-bit) • Microsoft Windows Vista (32- and 64-bit) • Microsoft Windows Server 2008 R2 • Microsoft Windows Server 2012 R2
Framework	• Microsoft .NET Framework version 4.0
Software	• Internet Information Server (IIS) version 6.x or 7.x
Processor	• 3.0 GHz single core processor • 2+ GHz multi-core processor
Memory	• 4 GB of RAM • 6+ GB of RAM with Output Manager Core services or Microsoft SQL Server
Hard disk	• 200 GB

Output Manager Console Requirements

The following table describes console requirements:

Component	Requirements
Operating system	• Microsoft Windows 10 (32- and 64-bit) • Microsoft Windows 8 and 8.1 (32- and 64-bit)

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Component	Requirements
	• Microsoft Windows 7 (32- and 64-bit) • Microsoft Windows Vista (32- or 64-bit) • Microsoft Windows Server 2008 R2 • Microsoft Windows Server 2012 R2
Framework	• Microsoft .NET Framework version 4.0
Processor	• 1.6 GHz
Memory	• 2 GB of RAM
Network	• Connectivity to a central Output Manager Core server

Output Manager File Store Requirements

The Output Manager software stores all documents in one or more file store locations. File stores are frequently located on Output Manager core servers or on Output Manager distributed servers, but they can also be defined elsewhere on the network.

The file store size can vary depending on system utilization. A minimum recommended file store location has 500 GB of available space, with the capacity to expand as necessary.

Output Manager Web Client Requirements

The Output Manager Web client requires one of the following browsers:

- Internet Explorer version 9.x and later
- Google Chrome version 10.x and later
- Firefox version 4.x and later

Note: The Output Manager Web Console does not support mobile browsers. The Output Manager Web Kiosk supports mobile browsers.

Output Manager High Availability Requirements

The Output Manager components in a high availability environment must meet the requirements described in:

- *Output Manager Core Server Requirements* on page 15
- *Output Manager Distributed Server Requirements* on page 16
- *Output Manager Web Server Requirements* on page 17
- *Output Manager Console Requirements* on page 17
- *Output Manager File Store Requirements* on page 18
- *Output Manager Web Client Requirements* on page 18

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A high availability environment requires a load balancer to receive client requests and distribute them to the physical back-end Output Manager servers in the environment. Refer to the documentation for your load balancer for load balancer requirements and for more information on how to add the load balancer to your network.

Installing Output Manager in a High Availability Environment on page 31 provides more information on installing and configuring components in a high availability environment.

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Installing Output Manager on a Single Machine

This section describes how to install Output Manager on a single machine.

This section describes the following tasks:

Task	Description
How to prepare the network on page 20	Before you install the software, complete the steps in this procedure to prepare the network.
How to install the software on a single machine on page 21	Follow the instructions in this section to install the Output Manager software.
How to configure Output Manager on page 25	Follow the steps in this procedure to configure Output Manager for use on a single machine.
How to configure the Output Manager database to use SQL authentication on page 27	Complete the steps in this procedure to configure the Output Manager database to use SQL authentication on a single machine.
How to configure the file store on page 28	Complete the steps in this procedure to configure the default file store.
How to install the Output Manager license on page 28	Complete this procedure to install an Output Manager license.
How to activate the license on page 29	Use one of the procedures in this section to activate a license file.

How to prepare the network

Before you install the software, complete the steps in this procedure to prepare the network.

1. Set up local administrators.
   a) In Windows Explorer, right-click **My Computer** and click **Manage**.
   b) In the **Computer Management** window, expand **Local Users and Groups** and click **Groups**.
   c) In the **Name** column, double-click **Administrators**.
   This opens the **Administrators Properties** window.
   d) Click **Add** and add the following users:
      - The user account designated as the Output Manager Services logon account.
      - All users that will be administrators for the Output Manager Console.

      These users will have unrestricted access to the Output Manager Console.

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> **Important:** Output Manager administrators and the user account used to install Output Manager must be domain user accounts in the same domain as the Output Manager server.

2. Set up Microsoft SQL Server Administrators.

   This must be done by an existing SQL Server Administrator. Give the administrator a list of the users that will need to have full rights to the Output Manager installation.

3. Configure the network firewall setup to allow the following:

   - 515 TCP for LPR/LPD traffic
   - All the ports the Output Manager sockets will use
   - File and printer sharing

4. If you are not using Windows firewall, add the following Output Manager services to the exception list for all TCP and UDP ports.

   - Output Manager DBM Service
   - Output Manager Input Service
   - Output Manager Output Service
   - Output Manager Rules Agent Service
   - Output Manager SNMP Service

   If you are using Windows firewall, the Output Manager Server Configuration Utility will automatically add these exceptions. For additional information, refer to the **Windows Help and Support** for information on modifying the firewall configuration.

5. Create a file store folder on this server and configure its Sharing and Security for Output Manager use.

   a) From Windows Explorer, create a file store folder on this server.
   b) Right click the new folder and click **Sharing and Security** on the shortcut menu.
   c) On the **Sharing** tab, make sure the folder is configured to share and click **Permissions**.
   d) On the **Share Permissions** tab, click **Add** and add the Output Manager Services logon account user name.
   e) Grant the user name **Full Control** permissions, then click **OK**.
   f) On the **Security** tab, verify that the Administrators group has **Full Control permission**.
   g) Click **OK**.

   These settings will be used for Windows folders that are the Network Folder source and destination type.

How to install the software on a single machine

Follow the instructions in this section to install the Output Manager software.

Close all Microsoft Windows applications before installing the software.

1. Download the Output Manager software from the *NSi Web License (weblicense.nsiautostore.com)* page.
2. Unzip the installation package to a temporary location.
3. Run the `autorun.exe` file in the unzipped installation package as an Administrator.
4. Click **Check and Install Prerequisites** to verify that the server satisfies the Output Manager software requirements.

   Missing software appears in red text. Click **Install Now** to install missing software.

5. Perform the following procedures to install the Output Manager components:

   a) *Install the database*

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Follow the steps in this procedure to set up the Output Manager database for running Output Manager on a single machine.

b) *Install the services*

Perform the steps in this procedure to install the Output Manager services for use on a single machine.

c) *Install the Output Manager Console*

Perform the steps in this task to install the Output Manager Console for use on a single machine.

d) *Install the Output Manager Web Console*

Follow the steps in this task to install the Output Manager Web Console application for use on a single machine. The installation procedure adds virtual and physical directories for the Output Manager Web Console to a web server.

e) *Install the Output Manager Web Kiosk*

Follow the steps in this task to install the Output Manager Web Kiosk application. The procedure adds virtual and physical directories for the Output Manager Web Kiosk on a web server.

How to install the database

Follow the steps in this procedure to set up the Output Manager database for running Output Manager on a single machine.

If you are using Microsoft SQL Server 2005 SP3, SQL Server 2005 SP4, SQL Server 2008 SP1, or SQL Server 2008 R2, verify that you have the latest cumulative updates installed. There is a known issue in these versions of Microsoft SQL Server that causes the database size to grow unnecessarily. The latest cumulative updates for these versions automatically fixes the problem.

1. On the main Output Manager installation menu, click the button next to **Setup Output Manager Database**.
2. If you do not have an instance of Microsoft SQL Server that you plan to use, click **Install SQL Express** and follow the wizard steps to install SQL Express.
3. In the **Set up OM Database** box, click **Typical**, and then click the button.
   This displays the **Output Manager Database Installer** dialog box.
4. In the **Server name** box, click the instance of SQL Server that you want to use with Output Manager.

   Note: The default instance of SQL Server or SQL Express on the local machine appears in this list as **(local)** or **(local)\SQLEXPRESS**.
5. Chose the authentication method.

Authentication method	Comments
Windows authentication	In most cases, choose this option to use a Windows user logon credentials to access the database.
SQL Server authentication	Choose this option if Windows authentication is not implemented for the database, and enter a SQL Server **User name** and **Password**.

6. In the **New database name** box, enter the database name.
7. Click **Advanced** to verify the database configuration settings are appropriate.
   As a best practice, use the default settings unless your SQL administrator provides different settings.
8. Click **OK**.
9. Click **Run**.
10. When prompted whether to create the database, click **Yes**, and when the process completes, click **OK**.

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11. Click **Back**.

After completing this procedure, you can proceed to *How to install the services* on page 23.

How to install the services

Perform the steps in this procedure to install the Output Manager services for use on a single machine.

1. On the main Output Manager installation menu, click the button next to **Install Output Manager**.
2. In the **OM Services** box, choose **Custom Install**, and then click the button.
   This opens the **Output Manager Services** wizard.
3. On the **Welcome** page, click **Next**.
4. Review the license agreement and then click **I accept the terms in the license agreement**, and click **Next**.
   To install the software, you must accept the terms of the license agreement.
5. On the **Destination Folder** page, click **Next**.
6. On the **Setup Type** page, click **Complete**, and click **Next**.
7. On the **Ready to Install the Program** page, click **Install**.
8. When the installation completes, click **Finish**.

After completing this procedure, you can proceed to *How to install the Output Manager Console* on page 23.

How to install the Output Manager Console

Perform the steps in this task to install the Output Manager Console for use on a single machine.

1. On the main Output Manager installation menu, click the button next to **Install Output Manager**.
2. In the **Install** box, click **OM Console Custom**, and then click the button.
   This opens the **Output Manager Console** wizard.
3. On the **Welcome** page, click **Next**.
4. Review the license agreement and then select **I accept the terms in the license agreement** Click **Next**.
   To install the software, you must accept the terms of the license agreement.
5. On the **Destination Folder** page, click **Next**.
6. Click **Install**, and when the installation is complete, click **Finish**.

After completing this procedure, you can proceed to *How to install the Output Manager Web Console* on page 23.

How to install the Output Manager Web Console

Follow the steps in this task to install the Output Manager Web Console application for use on a single machine. The installation procedure adds virtual and physical directories for the Output Manager Web Console to a web server.

The OM Web Interface allows operator-level control over documents and destinations within the enterprise. It also allows end-user access to the Document Library, Reporting, and Web Upload features. Access to specific features and functions within the OM Web Interface can be controlled on a granular basis for each user or group.

1. On the main Output Manager installation menu, click the button next to **Install Output Manager**.
2. Click **Install OM Web Application** to open the Output Manager Web Console Application Setup Wizard.
3. On the **Welcome** page, click **Next**.
4. On the **License Agreement** page, review the license agreement and click **I Agree**, and then click **Next**.

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5. On the **Configuration** page, enter Output Manager database server information for Output Manager, and then click **Next**.

Option	Description
OM DBM Server Name or IP Address	Enter the name or IP address for the database server. You can enter `localhost` when the database is on the same server as IIS.
OM DBM Server IP Port	Enter the IP port for the database server. The default port is 8070.

6. On the **Users Types** page, select check boxes next to the types of users to be permitted to use the Output Manager Console.
7. On the **Select Installation Address** page, specify the web location for the application, and then click **Next**.

Option	Description
Site	Choose the site in which to create the console web page. The default site is **Default Web Site**, which creates a directory within the root directory of IIS.
Virtual directory	This will create directory name and a corresponding physical directory within in the specified site. The default folder is `NSiOMWeb`.
Application Pool	Specifies an IIS application pool in which to add the URL for the Output Manager Console. • **DefaultAppPool** • **ASP.NET v4.0** • **ASP.NET v4.0 Classic** The default setting is the **DefaultAppPool** on the server.

8. On the **Confirm Installation** page, click **Next** to start the installation, and when the installation is complete, click **Close**.

After completing this procedure, you can proceed to *How to install the Output Manager Web Kiosk* on page 24.

How to install the Output Manager Web Kiosk

Follow the steps in this task to install the Output Manager Web Kiosk application. The procedure adds virtual and physical directories for the Output Manager Web Kiosk on a web server.

The Output Manager Web Kiosk is a personal web release station accessible from web browsers on most workstations, tablets, and mobile devices. The Output Manager Web Kiosk allows users to view a list of their own documents, set print preferences, release or reroute documents, and reprint retained documents. The Output Manager Web Kiosk can be run from a shared workstation or tablet near one or more printers, allowing users to log in and release documents to the shared bank of printers.

1. On the main Output Manager installation menu, click the button next to **Install Output Manager**.
2. Click the button next to **Install OM Web Kiosk** to open the Output Manager Web Kiosk Application wizard.
3. On the **Welcome** page, click **Next**.
4. On the **License Agreement** page, review the license agreement and click **I agree**, and then click **Next**.

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5. On the **Configuration** page, enter information for the Output database server and number of documents allowed for a user, and then click **Next**.

Option	Description
OM DBM Server Name or IP Address	Enter the name or IP address for the database server. You can enter `localhost` when the database is on the same server as IIS.
OM DBM Server IP Port	Enter the IP port for the database server. The default port is 8070.
Maximum documents to cache per user	The maximum number of allowed documents allowed to be cached for a user on the server.

6. Specify the web location for the application, and then click **Next**.

Option	Description
Site	Choose the site in which to create the Kiosk directory. The default site is **Default Web Site**, which creates a directory within the root directory of IIS.
Virtual directory	This will create directory name and a corresponding physical directory within in the specified site. The default folder is `NSiOMKiosk`.
Application Pool	Specifies an IIS application pool in which to add the URL for the Output Manager Console. • **DefaultAppPool** • **ASP.NET v4.0** • **ASP.NET v4.0 Classic** The default setting is the **DefaultAppPool** on the server.

7. On the **Confirm Installation** page, click **Next**, and when the installation is complete, click **Close**.

How to configure Output Manager

Follow the steps in this procedure to configure Output Manager for use on a single machine.

1. On the main Output Manager installation menu, click the button next to **Configure Output Manager**. This opens the **Output Manager Server Configuration Utility**.

The **SQL Server Instance**, the **Database Name**, and the **OM DBM Host Name** are automatically configured when the database is created. To complete the automatic configuration, you need only configure the **Service Logon Credentials**, described in steps *2k* through *2m*. To configure the Output Manager DBM Service manually, proceed with step 2.

2. Complete the following steps from the **OM services configuration** tab to manually set up the Output Manager DBM configuration.
   a) In the **OM DBM Configuration** grid, select the **Output Manager DBM service** check box in the **Selected** column.
   b) Click in the **SQL Server Instance** column and click the browse (**…**) button.
   c) In the **Select SQL Server Instance** dialog box, select the **SQL Server\Instance** and click **OK**.

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d) In the **SQL Authentication Type** column, select the authentication type, either **SQL** or **Windows**.

Selecting **SQL** opens the **Specify SQL User** dialog box in which you can enter the user name and password of the SQL user for connecting to the SQL Server instance. The user must be a member of the sysadmin server role for the SQL Server instance.

e) Click in the **Database Name** column and click the **Browse** button.

f) In the **Select SQL Database** dialog box, select the database you created previously in the installation process and click **OK**.

g) Click **Apply**.

h) In the **OM Service Configuration** grid, select all of the check boxes in the **Selected** column.
This will select all four of the Output Manager services.

i) Click in any of the cells in the **OM DBM Host Name** column and click the **Browse** button.

j) In the **Select the DBM Server** dialog box, select the computer that your Output Manager DBM service is running on. You will need to select the **Domain** and **Computer**. When complete, click **OK**.
Notice all of the cells in the column are populated.

k) Click in any of the cells in the **Service Logon Credentials** column and click the **Browse** button.

l) In the **Select User** dialog box, choose how the service will log on.

You can choose to log on as a local system account or as a specific account.

- Choose **Local System Account** if the DBM will communicate with the local SQL database, local Output Manager services, and local file resources.
- Choose **This Account** to use a Windows Service account for the logon.

In most cases, you will choose **This Account** and select the service logon account that was created during the *Prepare the Network* installation steps. You will need to specify the associated password for the account.

m) When complete, click **OK** to close the **Select User** dialog box.
Notice that all of the cells in the **Service Logon Credentials** column are populated.

n) Click **Apply**.

o) Verify that all of the items are selected and then click **Start selected services**.
Notice that the **Status** column changes to **Running** for all services.

3. Click the **Output Manager security administration** tab.

Notice all fields are populated with the previous selections.

4. Click **Connect**.
The adjacent box now displays `Successful Connection`.

5. In the **Users and Groups** box, add users who will have full administrative rights to Output Manager Console.

You can click **Add** to select users, or click **Add Current User** to add the current user logon.

These users must be members of the Administrative group on the server and have administrative permissions to the database. It is important to remember that the users added here will have unrestricted rights to Output Manager.

6. Click **Apply**.

7. Click **OK**.

8. Click the **Exit** button to close the Output Manager installation menu.

This completes the software installation.

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How to configure the Output Manager database to use SQL authentication

Complete the steps in this procedure to configure the Output Manager database to use SQL authentication on a single machine.

Important: If you selected to use SQL for the SQL authentication type on the OM services configuration tab, you must complete this procedure. If you chose to use Windows for the SQL authentication type, you can skip these steps and proceed to *Configure the file store*.

1. Open Microsoft SQL Server Management Studio Express.

   You can access this utility by clicking **Start** > **All Programs** > **Microsoft SQL Server** > **Microsoft SQL Server Management Studio Express**.
2. Configure the authentication mode.
   a) Right-click the SQL Server instance and click **Server Properties**.
   This opens the **Server Properties** dialog box.
   b) In the left pane, click **Security**.
   c) Under **Server authentication**, choose **SQL Server and Windows Authentication mode**.
   d) Click **OK**.
   e) If the server authentication was changed from **Windows Authentication Mode** to **SQL Server and Windows Authentication mode**, you must restart SQL Server.

   To do this, right-click the SQL Server instance in the tree and choose to restart when all databases are available to be restarted.
3. Configure the password.
   a) In the tree, expand the Security folder and then the logon folder, and select users that you want to configure.
   b) Right-click the selected users, and click **Properties**.
   This opens the **Login Properties** dialog box.
   c) In the left pane, select **General**.
   d) Enter the appropriate user password in the **Password** and **Confirm password** boxes.
   e) Click **OK**.
4. Add the user to the sysadmin role.
   a) In the tree, expand the Security folder and then the Server Roles folder. Right-click the sysadmin role and click **Properties**.
   This opens the **Server Role Properties** dialog box.
   b) Click **Add**.
   This opens the **Select Logins** dialog box.
   c) Click **Browse** and select the users you need to add to the sysadmin role, and then click **OK**.
   d) If necessary, click **Check Names** to verify the names and then click **OK**.
   e) In the **Server Role Properties** dialog box, click **OK**
5. Close **Microsoft SQL Server Management Studio Express** and log back in using the new sysadmin user.

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How to configure the file store

Complete the steps in this procedure to configure the default file store.

Output Manager only stores the properties of a document. The actual files are stored in network folders, called file stores. Initially administrators must configure a default file store in the Administration application. Administrators can then define additional file stores for individual sources.

1. Double-click the **OM Console** icon on your desktop.
2. On the warning message that displays, click **Yes** to select the file store now.
   Completing this step opens the **Set General Preferences** utility.
3. To add a file store, under **Document file store path**, click **Add**.
   This opens the **File Store** dialog box.
4. Enter the network folder path where the Output Manager files are stored or click the **Browse** button to select a folder.

   The Output Manager DBM Service will need to have permissions assigned to access the selected network folder. Verify the file store folder does not contain any empty folders. Empty folders in the file store folder will be deleted when the Output Manager cleanup process runs.
5. Click **OK**.
6. To select a default file store, in the grid click the **Default** check box cell for the appropriate file store. The default file store will be used when a file store has not been specified.
   - To modify a file store, select a file store in the grid and click **Edit** to open the **File Store** dialog box.
   - To view usage details of the drive where the file store is located, select a file store in the grid and click **Details**.
   - To remove a file store, select file store with a status of **New** and click **Remove**. You can only remove file stores with a **New** status.

   Tip: You can define additional file stores that will be available for selection from individual sources on the **More settings** tab. The default file store is selected by default. If you select one of the other file stores for a source, all of the documents arriving via that source will be stored in the selected file store.
7. Click **Apply** to save the changes.

How to install the Output Manager license

Complete this procedure to install an Output Manager license.

The Output Manager license is typically installed at the same time that the software is installed.

1. In the Output Manager Console navigation pane, select the **Administration** application.
2. In the navigation pane, click **Manage License**.
   This displays the **Manage License Utility** in the right panel.
3. Click **License Wizard**.
   This opens the **License Wizard**.
4. In the **License Operation** dialog box, select **Install and activate a new license**, and click **Next**.
5. In the **License File Installation** dialog box, determine if you want to install the license automatically using an Internet connection or manually by selecting the license file.
   - To install the license automatically, choose **Install License Automatically**. An internet connection is required to install automatically. Enter the **License key** for this Output Manager system.

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> **Tip:** During Output Manager order processing an Output Manager license was created that matches the options ordered. The license key was sent in an email to the ordering customer. If you cannot locate your license key, contact Nuance Communications, Inc. Technical Support or Sales for assistance.

- To install the license manually, choose **Install License Manually**. In the **License file** box, type the path and file name of your license file or click the browse button to locate the file and select it.

6. Click **Next**.
7. In the **License Confirmation** dialog box, confirm the license information is correct and click **Next**.

> **Note:** The **Next** button will not activate if the **License key** is not recognized.

8. In the **Activate OM License** dialog box, you can choose to activate the software at this time.
   - To activate the software, refer to Activating the license to complete the activation.
   - To complete the installation without activating the license, select **Skip activation at this time**, then click **Next**, and **Finish**.

> **Note:** You can activate the license at a later time using the **License Wizard**.

How to activate the license

Use one of the procedures in this section to activate a license file.

- *Activate all DBM components via the Internet*
- *Perform custom DBM activation via the Internet*
- *Perform custom DBM activation manually*

How to activate all DBM components via the Internet

This method automatically activates all DBM components using an Internet connection.

An internet connection is required to use this method.

1. In the **Activate License** dialog box, click **Activate all DBM components via the Internet**, and click **Next**.
   This displays a confirmation dialog box showing that the activation is complete.
2. Click **Next**, and then click **Finish**.

How to perform custom DBM activation via the Internet

This method allows you to activate selected Output Manager components via the Internet.

An internet connection is required to use this method.

1. In the **Activate License** dialog box, select **Custom DBM activation** and click **Next**.
2. In the **Custom DBM Activation** dialog box, select the Output Manager DBM components you want to activate.
3. Select the **Use Internet connection** check box.
4. Click **Next**.
   This displays the activation confirmation.
5. Click **Next**, and then click **Finish**.
6. In the **Manage License Utility**, verify that the **License Status** shows the license is activated with the proper version number.

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If some Output Manager DBM components are activated and some are not, the license status will show **Partial Activation**.

How to perform custom DBM activation manually

This method allows you to choose the Output Manager components you want to activate and activate the license manually.

Use this method if you do not have an Internet connection.

1. In the **Activate License** dialog box, select **Custom DBM activation** and click **Next**.
2. In the **Custom DBM Activation** dialog box, select the components you want to activate.

   Important: Do not select the **Use Internet connection** check box.

3. On a computer that is connected to the Internet, open Internet Explorer and browse to the *NSi Web License (weblicense.nsiautostore.com)* web page.
4. Click **Activation** in the left column.
5. In the **Product type** list, select **Output Manager Server**.
6. In the **Serial** box, enter the license serial number.
7. In the **Version** box, enter the Output Manager software version number.
8. In the **HW Code** box, enter the value from the **Hardware Code** column on the **Custom DBM Activation** dialog box.
9. Click **Get Code**.
10. Copy the activation code and paste into the **Activation Code** column in the **Custom DBM Activation** dialog box.

    This will need to be pasted into the row that corresponds to the **Hardware Code** used in step *8* on page 30.
11. Click **Next**.
    This displays a confirmation showing which Output Manager DBM components were selected and the activation method.
12. Click **Next**.
    This displays an activation confirmation.
13. Click **Next**, and then click **Finish**.
14. In the **Manage License Utility**, verify that **License Status** shows the license is activated with the proper version number.

    If some Output Manager DBM components are activated and some are not the license status will show **Partial Activation**.

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Installing Output Manager in a High Availability Environment

This section describes how to install Output Manager in a high availability environment.

This section contains the topics described in the following table. Complete installation and configuration procedures in the order listed.

Topic	Description
Overview on page 31	Topics in this section describe how to create a high-availability environment for Output Manager.
How to install the software for high availability on page 33	Follow the instructions in this section to install the Output Manager software components on the host servers.
How to Configure Output Manager for high availability on page 37	Configure the physical back-end Output Manager servers to function as a single logical Output Manager server and then configure the physical front-end servers.
How to install the Output Manager license for high availability on page 39	Complete this procedure to install an Output Manager license.
How to configure the file store for high availability on page 40	Complete the steps in this procedure to configure the default file store.

Overview

Topics in this section describe how to create a high-availability environment for Output Manager.

A high availability environment is scalable and reliable. You can add as many physical back-end servers as necessary to meet the performance demands of a growing network. When you configure an environment for high availability, you configure all the physical back-end Output Manager servers to function as a single logical Output Manager server. A load balancer receives requests from the client devices and distributes the requests to the physical servers. The load balancer ensures uninterrupted service if a physical server fails.

The following figure shows a typical high availability environment and describes the roles of components in the environment:

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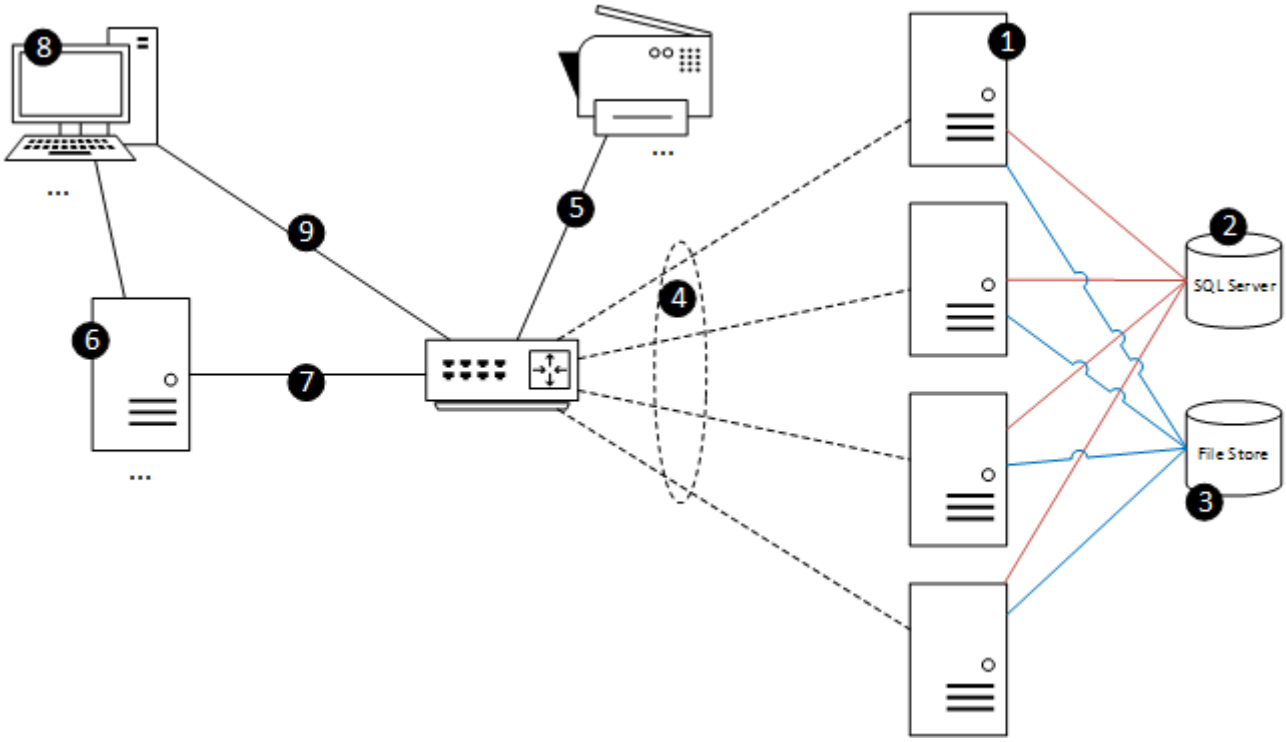

1. Output Manager back-end servers each host DBM, Rules Agent, and Output services.
2. Single Output Manager database.
3. File store that stores the physical files.
4. Load balancer chooses the DBM for each incoming request.
5. Device connections to DBM are load-balanced.
6. Output Manager front-end servers provide Microsoft Windows Print and Document services role, and the Output Manager Input and SNMP services.
7. The connection from the front-end server to the DBM service is load-balanced.
8. Workstation prints to shared Microsoft Windows print queues.
9. Desktop Client connects to a single load-balanced DBM.

The following figure shows the relationship between the load balancer and the physical back-end servers that form the single logical server:

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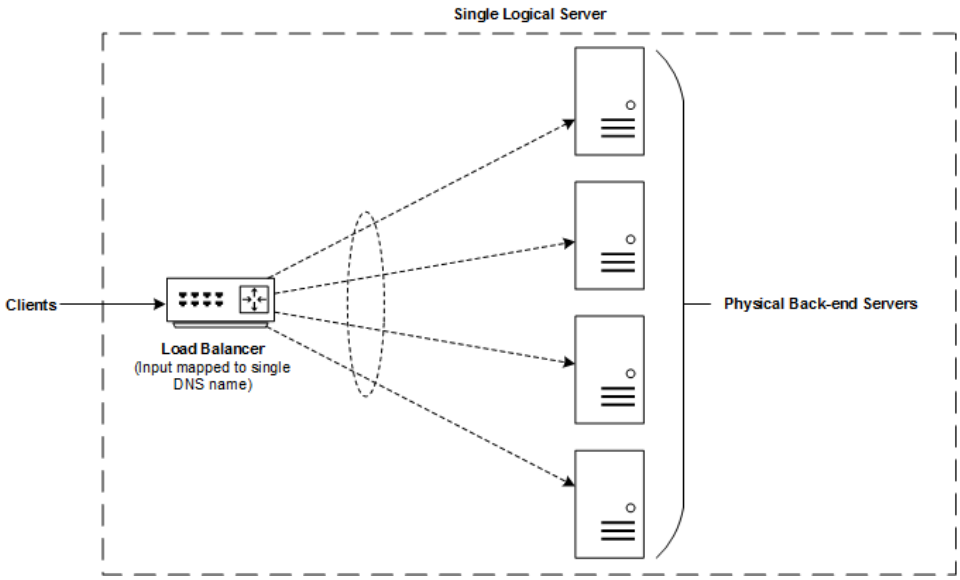

How to install the software for high availability

Follow the instructions in this section to install the Output Manager software components on the host servers.

Close all Microsoft Windows applications before installing the software.

1. Download the Output Manager software installation package from the *NSi Web License (weblicense.nsiautostore.com)* page to a share that is accessible all servers.
2. Unzip the installation package to a temporary location on the share.
3. From the first physical server, run the `autorun.exe` file in the unzipped installation package as an Administrator.
4. Click **Check and Install Prerequisites** to verify that the physical server satisfies the Output Manager software requirements.

   Missing software appears in red text. Click **Install Now** to install missing software.
5. Repeat steps *1* through *4* for each of the other physical servers.
6. Install Output Manager software components as follows:
   a) *How to install the services for high availability* on page 33
   b) *How to install the database for high availability* on page 34
   c) *How to install the Output Manager Web Console for high availability* on page 35
   d) *How to install the Output Manager Web Kiosk* on page 36

How to install the services for high availability

Perform the steps in this procedure to install the Output Manager services in a high availability environment.

1. Install the Input service and SNMP service on each physical front-end server as follows:
   a) On the main Output Manager installation menu, click the button next to **Install Output Manager**.
   b) In the **OM Services** box, choose **Custom Install**, and then click the button.
   This opens the **Output Manager Services** wizard.
   c) On the **Welcome** page, click **Next**.

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d) Review the license agreement and then click **I accept the terms in the license agreement**, and click **Next**.
To install the software, you must accept the terms of the license agreement.
e) On the **Destination Folder** page, click **Next**.
f) On the **Setup Type** page, click **Custom**, and click **Next**.
g) On the **Custom Setup** page, select the following features:
- **OM Input Service**
- **OM SNMP Service**

h) Advance through the remaining installation wizard pages to complete the installation.

2. Install the DBM, Output, and Rules Agent services on each physical back-end server as follows:
a) On the main Output Manager installation menu, click the button next to **Install Output Manager**.
b) In the **OM Services** box, choose **Custom Install**, and then click the button.
This opens the **Output Manager Services** wizard.
c) Advance through the wizard, making sure to review and accept the license agreement.
d) On the **Setup Type** page, click **Custom**, and click **Next**.
e) On the **Custom Setup** page, select the following features:
- **OM DBM Service**
- **OM Output Service**
- **OM Rules Agent**

f) Advance through the remaining installation wizard pages to complete the installation.

How to install the database for high availability

Follow the steps in this procedure to install the Output Manager database for high availability.

For high availability environments, use Microsoft SQL Server Standard Edition or better. Microsoft SQL Server Express does not support mirroring or replication, which are typically required for high availability. Microsoft SQL Server 2008 provides mirroring for disaster recovery. Microsoft SQL Server 2012 and 2014 provide mirroring and availability groups for disaster recovery.

If you are using Microsoft SQL Server 2005 SP3, SQL Server 2005 SP4, SQL Server 2008 SP1, or SQL Server 2008 R2, verify that you have the latest cumulative updates installed. There is a known issue in these versions of Microsoft SQL Server that causes the database size to grow unnecessarily. The latest cumulative updates for these versions automatically fixes the problem.

1. On the main Output Manager installation menu, click the button next to **Setup Output Manager Database**.
2. In the **Set up OM Database** box, choose **Custom**, and then click the button.
This displays the **Output Manager Database Installer** dialog box.
3. In the **Server name** box, click the instance of SQL Server that you want to use with Output Manager.
4. Chose the authentication method.

Authentication method	Comments
Windows authentication	In most cases, choose this option to use a Windows user logon credentials to access the database.
SQL Server authentication	Choose this option if Windows authentication is not implemented for the database, and enter a SQL Server **User name** and **Password**.

5. In the **New database name** box, enter the database name.

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6. Click **Advanced** to verify the database configuration settings are appropriate.

   As a best practice, use the default settings unless your SQL administrator provides different settings.
7. Click **OK**.
8. Click **Run**.
9. When prompted whether to create the database, click **Yes**, and when the process completes, click **OK**.
10. Click **Back**.

How to install the Output Manager Web Console for high availability

Follow the steps in this task to install the Output Manager Web Console in a high availability environment. The procedure adds virtual and physical directories for the Output Manager Web Console on a web server.

The OM Web Interface allows operator-level control over documents and destinations within the enterprise. It also allows end-user access to the Document Library, Reporting, and Web Upload features. Access to specific features and functions within the OM Web Interface can be controlled on a granular basis for each user or group.

1. On the main Output Manager installation menu, click **Install Output Manager**.
2. Click **Install OM Web Application** to open the Output Manager Web Console Application Setup Wizard.
3. On the **Welcome** page, click **Next**.
4. On the **License Agreement** page, review the license agreement and click **I agree**, and then click **Next**.
5. On the **Configuration** page, enter Output Manager database server information for Output Manager, and then click **Next**.

Option	Description
OM DBM Server Name or IP Address	Enter the name or IP address for the database server. You can enter `localhost` when the database is on the same server as IIS.
OM DBM Server IP Port	Enter the IP port for the database server. The default port is 8070.

6. On the **Users Types** page, select check boxes next to the types of users to be permitted to use the Output Manager Console.
7. On the **Select Installation Address** page, specify the web location for the application, and then click **Next**.

Option	Description
Site	Choose the site in which to create the console web page. The default site is **Default Web Site**, which creates a directory within the root directory of IIS.
Virtual directory	This will create directory name and a corresponding physical directory within in the specified site. The default folder is `NSiOMWeb`.
Application Pool	Specifies an IIS application pool in which to add the URL for the Output Manager Console. • **DefaultAppPool** • **ASP.NET v4.0** • **ASP.NET v4.0 Classic**

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Option	Description
	The default setting is the **DefaultAppPool** on the server.

8. On the **Confirm Installation** page, click **Next**, and when the installation is complete, click **Close**.

When you connect to the single logical Output Manager server through the console, you connect through HTTP or HTTPS using the load balancer DNS name instead of a physical server name.

How to install the Output Manager Web Kiosk

Follow the steps in this task to install the Output Manager Web Kiosk application. The procedure adds virtual and physical directories for the Output Manager Web Kiosk on a web server.

The Output Manager Web Kiosk is a personal web release station accessible from web browsers on most workstations, tablets, and mobile devices. The Output Manager Web Kiosk allows users to view a list of their own documents, set print preferences, release or reroute documents, and reprint retained documents. The Output Manager Web Kiosk can be run from a shared workstation or tablet near one or more printers, allowing users to log in and release documents to the shared bank of printers.

1. On the main Output Manager installation menu, click **Install Output Manager**.
2. Click **Install OM Web Kiosk** to open the Output Manager Web Kiosk Application wizard.
3. On the **Welcome** page, click **Next**.
4. On the **License Agreement** page, review the license agreement and click **I agree**, and then click **Next**.
5. On the **Configuration** page, enter information for the Output database server and number of documents allowed for a user, and then click **Next**.

Option	Description
OM DBM Server Name or IP Address	Enter the name or IP address for the database server. You can enter `localhost` when the database is on the same server as IIS.
OM DBM Server IP Port	Enter the IP port for the database server. The default port is 8070.
Maximum documents to cache per user	The maximum number of allowed documents allowed to be cached for a user on the server.

6. Specify the web location for the application, and then click **Next**.

Option	Description
Site	Choose the site in which to create the Kiosk directory. The default site is **Default Web Site**, which creates a directory within the root directory of IIS.
Virtual directory	This will create directory name and a corresponding physical directory within in the specified site. The default folder is `NSiOMKiosk`.
Application Pool	Specifies an IIS application pool in which to add the URL for the Output Manager Console. • **DefaultAppPool** • **ASP.NET v4.0**

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Option	Description
	• **ASP.NET v4.0 Classic** The default setting is the **DefaultAppPool** on the server.

7. On the **Confirm Installation** page, click **Next**, and when the installation is complete, click **Close**.

How to Configure Output Manager for high availability

Configure the physical back-end Output Manager servers to function as a single logical Output Manager server and then configure the physical front-end servers.

How to configure back-end servers

1. Click **Start** > **All Programs** > **Output Manager** > **Output Manager Server** > **OM Server Configuration**. This opens the **Output Manager Server Configuration Utility** dialog box.
2. On the **Output Manager services configuration** tab, click **Select all services**.
3. If services are running, click **Stop selected service**.
4. Select the **Use HA** check box.
5. In the **HA name** box, type a logical server name for the high availability configuration.

   Verify that the name does not match the name of a physical server on the network. As a best practice, use the high availability logical server name as the DNS alias for the load balancer.
6. Configure database settings in the **OM DBM Configuration** table.
   a) Select the **SQL Server Instance** for the Output Manager database.
   b) Select the **SQL Authentication Type**. As a best practice, use Microsoft Windows authentication.

      If you use Microsoft Windows authentication, do not complete the procedure in *How to configure the Output Manager database to use SQL authentication for high availability* on page 38.

      If you use SQL authentication, complete the procedure in *How to configure the Output Manager database to use SQL authentication for high availability* on page 38 before configuring services as described in the following steps.
   c) Type the **Database Name** or click the browse button (**...**) to select it in the **Select SQL Database** dialog box.
7. Configure the DBM, Output, and Rules Agent services in the **OM Service Configuration** table:
   a) Click **Select all services**.

      When all of the services are selected, specifying values for the following substeps for one service populates the same settings for the other services with the same values.
   b) For **OM DBM Host Name**, enter the DNS name for the load balancer.
   c) For **Service Logon Credentials**, click to specify service logon credentials in the **Select User** dialog box.

      Verify that the domain account is a local administrator on the machine on which the service is running and that the account has access to network folders and services. If the account is not a local administrator, errors occur when the application tries to open HTTP listening ports.
8. Start the DBM service and then the Output and Rules Agent services on the back-end servers.

   Important: Start a single DBM service on a single server and allow it to completely start before starting any other services on any other server. In general, start the services on the back-end servers first.

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How to configure front-end servers

1. Click **Start** > **All Programs** > **Output Manager** > **Output Manager Server** > **OM Server Configuration**.
   This opens the **Output Manager Server Configuration Utility** dialog box.
2. On the **Output Manager services configuration** tab, click **Select all services**.
3. If services are running, click **Stop selected service**.
4. Select the **Use HA** check box.
5. In the **HA name** box, type a logical server name for the high availability configuration.

   Verify that the name does not match the name of a physical server on the network. As a best practice, use the high availability logical server name as the DNS alias for the load balancer.
6. Configure the Input and SNMP services:
   a) Click **Select all services**.

      When all of the services are selected, specifying values for the following substeps for one service populates the same settings for the other services with the same values.
   b) For **OM DBM Host Name**, enter the DNS name for the load balancer.
   c) For **Service Logon Credentials**, click to specify service logon credentials in the **Select User** dialog box.

      Verify that the domain account is a local administrator on the machine on which the service is running and that the account has access to network folders and services. If the account is not a local administrator, errors occur when the application tries to open HTTP listening ports.

      Since all of the services are selected, the Input and SNMP services populate with the credentials that you enter.
7. Start the Output Manager Input and SNMP services.

How to configure the Output Manager database to use SQL authentication for high availability

Complete the steps in this procedure to configure the Output Manager database to use SQL authentication.

Important: If you selected to use SQL for the SQL authentication type on the OM services configuration tab, you must complete this procedure. If you are using Microsoft Windows authentication for the SQL authentication type, you can skip these steps and proceed to *How to configure the file store for high availability* on page 40.

1. Open Microsoft SQL Server Management Studio Express.

   You can access this utility by clicking **Start** > **All Programs** > **Microsoft SQL Server** > **Microsoft SQL Server Management Studio**.
2. Configure the authentication mode.
   a) Right-click the SQL Server instance and click **Server Properties**.
      This opens the **Server Properties** dialog box.
   b) In the left pane, click **Security**.
   c) Under **Server authentication**, choose **SQL Server and Windows Authentication mode**.
   d) Click **OK**.
   e) If the server authentication was changed from **Windows Authentication Mode** to **SQL Server and Windows Authentication mode**, you must restart SQL Server.

      To do this, right-click the SQL Server instance in the tree and choose to restart when all databases are available to be restarted.

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3. Configure the password.
   a) In the tree, expand the Security folder and then the logon folder, and select users that you want to configure.
   b) Right-click the selected users, and click **Properties**.
      This opens the **Login Properties** dialog box.
   c) In the left pane, select **General**.
   d) Enter the appropriate user password in the **Password** and **Confirm password** boxes.
   e) Click **OK**.
4. Add the user to the sysadmin role.
   a) In the tree, expand the **Security** folder and then the **Server Roles** folder. Right-click the sysadmin role and click **Properties**.
      This opens the **Server Role Properties** dialog box.
   b) Click **Add**.
      This opens the **Select Logins** dialog box.
   c) Click **Browse** and select the users you need to add to the sysadmin role, and then click **OK**.
   d) If necessary, click **Check Names** to verify the names and then click **OK**.
   e) In the **Server Role Properties** dialog box, click **OK**
5. Close **Microsoft SQL Server Management Studio Express** and log back in using the new sysadmin user.

How to install the Output Manager license for high availability

Complete this procedure to install an Output Manager license.

The Output Manager license is typically installed at the same time that the software is installed.

1. Double-click the **OM Console** icon on your desktop.
2. Connect to the single logical Output Manager server through HTTP or HTTPS using the load balancer DNS name instead of a physical server name.

   If you started the Output Manager Console on a new system, a license prompt appears. Click **Yes** to go to the **Manage License** screen.

   If you started the Output Manager Console on an existing system, select the **Administration** application and click **Manage License**.
3. Click **License Wizard**.
   This opens the **License Wizard**.
4. In the **License Operation** dialog box, select **Install and activate a new license**, and click **Next**.
5. In the **License File Installation** dialog box, determine if you want to install the license automatically using an Internet connection or manually by selecting the license file.
   - To install the license automatically, choose **Install License Automatically**. An internet connection is required to install automatically. Enter the **License key** for this Output Manager system.

     Tip: During Output Manager order processing an Output Manager license was created that matches the options ordered. The license key was sent in an email to the ordering customer. If you cannot locate your license key, contact Nuance Support.
   - To install the license manually, choose **Install License Manually**. In the **License file** box, type the path and file name of your license file or click the browse button to locate the file and select it.
6. Click **Next**.
7. In the **License Confirmation** dialog box, confirm the license information is correct and click **Next**.

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Note: The **Next** button will not activate if the **License key** is not recognized.

8. In the **Activate OM License** dialog box, you can choose to activate the software at this time.
   - To activate the software, refer to Activating the license to complete the activation.
   - To complete the installation without activating the license, select **Skip activation at this time**, then click **Next**, and **Finish**.

How to manually activate the license

1. In the **Activate License** dialog box, select **Custom DBM activation** and click **Next**.
2. In the **Custom DBM Activation** dialog box, select the components you want to activate.

   Important: Do not select the **Use Internet connection** check box.

3. On a computer that is connected to the Internet, open Internet Explorer and browse to the *Notable Solutions Web License (/weblicense.nsiautostore.com)* web page.
4. Click **Activation** in the left column.
5. In the **Product type** list, select **Output Manager Server**.
6. In the **Serial** box, enter the license serial number.
7. In the **Version** box, enter the Output Manager software version number.
8. In the **HW Code** box, enter the value from the **Hardware Code** column on the **Custom DBM Activation** dialog box.
9. Click **Get Code**.
10. Copy the activation code and paste into the **Activation Code** column in the **Custom DBM Activation** dialog box.

    This will need to be pasted into the row that corresponds to the **Hardware Code** used in step *8*.
11. Click **Next**.
    This displays a selection confirmation that Output Manager DBM components were selected and the activation method.
12. Click **Next**.
    This displays an activation confirmation.
13. Click **Next**, and then click **Finish**.
14. In the **Manage License Utility**, verify the **License Status** shows the license is activated with the proper version number.

    If some Output Manager DBM components are activated and some are not the license status will show **Partial Activation**.

How to configure the file store for high availability

Complete the steps in this procedure to configure the default file store.

Output Manager only stores the properties of a document in the database. The actual files are stored in network folders called file stores. Initially, administrators configure a default file store in the Administration application. Administrators can then define additional file stores for individual sources. As a best practice in a high availability environment, set up the file store in an external storage location so all servers have the same access to the document files. File stores are difficult to change later, so determine the best organization for your files early in the implementation process.

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1. Double-click the **OM Console** icon on your desktop.
2. Connect to the single logical Output Manager server through HTTP or HTTPS using the load balancer DNS name instead of a physical server name.

   When the Output Manager Console starts on a new system, a warning message informs the administrator that there is no file store. Click **Yes** to navigate to the **Set General Preferences** administrative task to add a file store.
3. To add a file store, under **Document file store path**, click **Add**.
4. Enter the network folder path where the Output Manager files are stored or click the **Browse** button to select a folder.

   The Output Manager DBM service account needs permissions to access the selected network folder. Verify the file store folder does not contain any empty folders. Empty folders in the file store folder will be deleted when the Output Manager cleanup process runs.
5. Click **OK**.
6. To select a default file store, in the grid click the **Default** check box cell for the appropriate file store. The default file store will be used when a file store has not been specified.
   - To modify a file store, select a file store in the grid and click **Edit** to open the **File Store** dialog box.
   - To view usage details of the drive where the file store is located, select a file store in the grid and click **Details**.
   - To remove a file store, select file store with a status of **New** and click **Remove**. You can only remove file stores with a **New** status.

   Tip: You can define additional file stores that will be available for selection from individual sources on the **More settings** tab. The default file store is selected by default. If you select one of the other file stores for a source, all of the documents arriving via that source will be stored in the selected file store.
7. Click **Apply** to save the changes.

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Installing Output Manager Service Packs

Follow the procedures in this topic to download and apply Output Manager service packs.

Installing the Output Manager Console

1. On the Output Manager server, select **Start** > **All Programs** > **Output Manager** > **Output Manager Console** > **Check for Output Manager Console updates**.
2. Download the update package and unzip it to a temporary location on the server.
3. Double-click the `autorun.exe` file.
4. Follow the installation wizard prompts to install the console.

Installing the services and the database

1. On the Output Manager server, select **Start** > **All Programs** > **Output Manager** > **Output Manager Server** > **Check for Output Manager Services updates**.
2. Download the update package and unzip it to a temporary location on the server.
3. Double-click the `autorun.exe` file.
4. Follow the installation wizard prompts to install the services and the database.

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How to Upgrade Output Manager

Perform the procedures in this section to upgrade your current Output Manager installation to a newer version.

Attention: Before you begin:

- Verify that the users performing the upgrade have both Output Manager and operating system Administrator rights on the systems that contain Output Manager components: SQL Server, computers that have Output Manager services, IIS folder, and the license file folder.
- Notify anyone involved with document flow that Output Manager will be down for an upgrade. Include people that manage any of the Output Manager resources (printers, applications, and customers) and anyone that sends and receives documents using Output Manager.

1. *Remove Output Manager components*

   Complete the steps in this procedure to remove the Output Manager components before upgrading.
2. *Install the new version*

   Complete the steps in this procedure to install the Output Manager software.
3. *Verify the upgrade*

   Complete the steps in this procedure to verify the upgrade completed successfully.

Prerequisites

Before you upgrade Output Manager:

- Verify that the users performing the upgrade have both Output Manager and operating system Administrator rights on the systems that contain Output Manager components: SQL Server, computers that have Output Manager services, IIS folder, and the license file folder.
- Notify users involved with document flow that Output Manager will be down for an upgrade. Include users who manage Output Manager resources such as printers, applications, and customers and notify users who send and receive documents using Output Manager.

How to back up MFF profiles

Before upgrading Output Manager, back up the MFF profiles to preserve your custom settings.

1. On the Output Manager server, go to the `Profiles` directory in the Output Manager installation directory. For example:

   `C:\Program Files\NSi\Output Manager\Services\Transforms\Profiles\`
2. Copy the `Profiles` directory to a temporary location.

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How to remove Output Manager components

Complete the steps in this procedure to remove the Output Manager components before upgrading.

Before you begin this procedure, make sure all Output Manager processes have completed, including scheduled processes.

1. Disable all sources to ensure no further input will occur.
2. Verify the location and status of the Output Manager components in the Manage Product Components Utility:
   a) Review the **Status** column to verify all Output Manager Console windows are closed.

      The **Status** column will display a red x ( ) for closed Output Manager Console and a green check ( ) for active Output Manager Console windows. Once an Output Manager Console has connected to the Output Manager installation it will always be listed in the **Manage Product Components** grid.
   b) Make a note of the following for each of the Output Manager services:
      - Server name
      - Domain
      - Credentials (the service log in account)
3. Close any active Output Manager Console windows.
4. At each server with a Output Manager service listed in the Manage Product Components Utility, complete the following steps.

   Important: If multiple machines are running Output Manager services, you must complete these steps on each machine. Make sure you complete these steps last for the server that is running the Output Manager DBM Service.

   a) Open the **Output Manager Server Configuration Utility**.

      On the task bar, click **Start** > **All Programs** > **Output Manager** > **Output Manager Server** > **OM Server Configuration**.
   b) On the **Output Manager services configuration** tab, make note of the **SQL Server Instance** and the **Database Name** that appear in the **OM DBM Configuration** grid.

      This information will be used later in the upgrade procedure.
   c) Stop all of the Output Manager services except for the Output Manager DBM Service (unless this is the only server with Output Manager services or it is the last server to have its services stopped).

      To stop the services, select the services in the grid and click **Stop Selected Service**. Wait for the **Status** column to display **Stopped** for all of the services. This indicates all of the Output Manager service components are stopped for the selected server.
   d) Click **OK** to close the **Output Manager Server Configuration Utility**.
   e) Repeat this procedure for each server with a Output Manager service, stopping the Output Manager DBM service last.

   Note: The upgrade process will save a backup of the database before upgrading. The backup is located on the server with Microsoft SQL Server in the `\\Program Files\Microsoft SQL Server\MSSQL.1\MSSQL\Backup` folder. You can open SQL Server Management Studio to view the backup database.
5. Remove the Output Manager components using the following steps.

   Important: If you uninstall Output Manager while another user is running it, the program might not uninstall completely. Verify all sessions connected to the server have stopped the Output Manager components. You can use the Terminal Service manager on the server operating systems to review the processes running per session.

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a) In Windows Control Panel, open **Add or Remove Programs** (or **Programs and Features** in Windows 7 or Windows Vista).
b) In the program list, select **Output Manager Console**, and click **Remove**.
The Uninstall program will close any open programs. Any unsaved data is discarded.
c) From the confirmation dialog box, click **Yes** to continue.
d) Wait for the uninstall to complete.
e) Repeat steps these steps for Output Manager Database Scripts and Output Manager Services.

How to install the new version of Output Manager

Complete the steps in this procedure to install the Output Manager software.

Before you run the Setup program, exit all Windows applications.

1. Insert the Output Manager CD into the CD-ROM drive.

   The Output Manager Setup program runs automatically. If autorun is disabled on your system or if the setup program does not start by itself, right-click **Start** on the task bar and click **Explore**. Navigate to the CD-ROM drive and double-click `Autorun.exe`.

   When the **Output Manager** installation window appears, notice that you can move the pointer over the links to display text describing the purpose of each link.
2. Verify that all software prerequisites are installed.
   - If the prerequisites are not met, red text will display below the link stating Software prerequisites are not met. Click **Check and Install Prerequisites** to open a list of the software prerequisites along with their installation status. Next to each item that is not installed, click the **Install Now** button and follow the steps to install the appropriate software. Once everything is installed, click **Back**.
   - If this text does not appear, continue with step 3.
3. Perform the following procedures to install the Output Manager Components:
   a) *Install the database*

   Complete the steps in this procedure to upgrade or clone the database to the new version.
   b) *Install the services*

   Follow steps in this procedure to install services during an upgrade of the Output Manager application.
   c) *Install the Output Manager Console*

   Perform the step in this task to install the Output Manager Console during upgrade to a new version of the Output Manager application.
   d) *Install the Output Manager Web Server*

   Follow the steps in this task to configure Output Manager when performing an upgrade to a new version of the application.

How to install the database when upgrading Output Manager

Complete the steps in this procedure to upgrade or clone the database to the new version.

1. Click **Setup Output Manager Database**.
2. Click **Setup OM Database Typical**.
   This automatically installs the Output Manager Database Scripts and opens the **Output Manager Database Installer** dialog box.
3. In the **Database to upgrade** list, select the database that was used in production.

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4. To upgrade the database, leave the **New database name** box empty.

   If you want to clone the database (create a copy of the database and only upgrade the copy), enter the name of the new database in the **New database name box**.

   The database that you select to upgrade will remain at the old Output Manager version.
5. Click **Run**.
6. Review the confirmation messages that display and click **Yes** to continue.
7. When you see that the database was installed successfully, click **OK**.
8. Click **Back**.

How to install the services when upgrading Output Manager

Follow steps in this procedure to install services during an upgrade of the Output Manager application.

1. Click **Install Output Manager**.
2. Click **OM Services Upgrade**.

Output Manager completes a silent installation of the Output Manager services for the upgrade.

How to install the Console when upgrading Output Manager

Perform the step in this task to install the Output Manager Console during upgrade to a new version of the Output Manager application.

- Click **Install OM Console Typical**.

How to install the Output Manager Web Server when upgrading Output Manager

Follow the steps in this task to install the Output Manager Web Server during installation of a new version of the Output Manager application.

1. Click **Install OM Web Application** to open the **Output Manager Web Application** wizard.
2. On the **Welcome** page, click **Next**.
3. Select the folder where the Output Manager Web Server will be installed, and then click **Next**.

   The default folder is `C:\inetpub\wwwroot\omweb`. To choose a different folder, click **Change** and select the appropriate folder.
4. Click **Install**, and when the installation is complete, click **Finish**.
5. In Windows Explorer, open the folder where the Web Server was installed.

   If you used the default location, open the `C:\inetpub\wwwroot\omweb` folder.
6. Open the `web.config` file, and at the bottom of the file, replace the PRIMARY_DBMHOST entry with the name of the machine you are using.
7. Save and close the file.

How to configure Output Manager when upgrading Output Manager

Follow the steps in this task to configure Output Manager when performing an upgrade to a new version of the application.

1. On the first installation window, click **Configure Output Manager**.
   This opens the **Output Manager Server Configuration Utility**.
2. On the **Output Manager services configuration** tab, select all of the boxes in the **OM DBM Configuration** and the **OM Service Configuration** grids.

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The **OM DBM Configuration** grid only appears the Output Manager DBM Service is already installed. Only installed Output Manager services will display in the **OM Service Configuration** grid.

3. Verify that the **SQL Server Instance** and **Database Name** cells have the same information as selected in the **OM Database Installer** dialog box.
4. Verify the **OM DBM Host Name** cell value is correct. To change the value, do the following:
   a) Click in any of the cells in the **OM DBM Host Name** column and click the **Browse** button.

      The **OM DBM Host Name** is the computer where the Output Manager DBM Service is installed.
   b) In the **Select the DBM Server** dialog box, select the computer that is running the Output Manager DBM service.

      You will need to select the **Domain** and **Computer**.
   c) When complete, click **OK**.
      After you complete these step, notice all of the cells in the column are populated.
5. Verify the **Service Logon Credentials** cell value is correct. To change the value, do the following:
   a) Click in any of the cells in the **Service Logon Credentials** column, and click the **Browse** button.
   b) In the **Select User** dialog box, choose whether the service will log on using the local system account or a specified service logon account.

      Choosing an account requires you to complete the password boxes.

      Use **Local System Account** if the DBM will communicate with the local SQL database, local Output Manager services, and local file resources. Otherwise, use a Windows service logon account to log onto the service. In most cases, you will choose **This account** and select the service logon account that was specified during the initial installation of the Output Manager application.
   c) When complete, click **OK**.
      After you complete these steps, notice that all of the cells in the column are populated.
6. Click **Apply**.
7. Verify all of the items are selected and click **Start Selected Service**.

   Notice the status column changes to **Running** for all services.
8. Click the **Output Manager security administration** tab.

   Notice all fields are populated with the previous selections.
9. Verify the **SQL Server\Instance** and the **Database** fields are set to the same as configured on the **Output Manager services configuration** tab.
10. In the **Authentication** list, choose the authentication type: **Windows** or **SQL**.

    If you choose **Windows Authentication**, click **Connect**. The **Users and Groups** grid will display the Windows users and groups configured sing this tab in the previous version of Output Manager. These users will have full administrative rights to the Output Manager Console.
11. Click **OK**.
12. Click the **Exit** button to close the installation wizard.
    This completes the software update.

Once the first update is complete, continue installing updates on other servers. After the first Output Manager DBM Service is configured and started, any other services that will communicate through that DBM can be configured and started. If additional DBM services were installed, you can repeat this procedure for each service. The database only needs to be upgraded/cloned once. All DBM installations will point to a single database.

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How to restore MFF profiles

After you upgrade Output Manager, restore the MFF profiles that contain your custom reprint settings.

1. On the Output Manager server, go to the temporary location where you backed up the `Profiles` directory before upgrading.
2. Copy the contents of the `Profiles` directory from the temporary location to the `Profiles` directory in the Output Manager installation directory (for example, `C:\Program Files\NSi\Output Manager\Services\Transforms\Profiles\`).

How to verify the upgrade

Complete the steps in this procedure to verify the upgrade completed successfully.

1. Open an Output Manager Console connecting to the Output Manager DBM system using a Output Manager System Administrator user account.
2. On the menu bar, verify the service status lights are all green.
3. Verify the information in the status bar is correct and the **Connection Status** is **Connected**.
4. On the menu bar, select **Help** > **About**, and verify the version and serial numbers are correct.
5. Verify the destinations, sources, documents, and library trees are the same as before the upgrade.
6. In the navigation pane click **Administration** and verify the utilities show the correct information.
7. On the menu bar, select **Tools** > **Message Console**, and in the **Message Console**, review the messages and address any errors that may have appeared since the `Started OM SNMP Service` message.
8. Activate the installed Output Manager license to operate with the new version on Output Manager.
9. Verify the **Valid OM license, serial number** message is listed without error. Close the **Message Console**.
10. Test high priority or high volume document flows with representative users before announcing that the Output Manager system is ready for use.

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How to Remove the Output Manager Software

Complete the steps in this procedure to remove the Output Manager components that were installed by the setup program.

1. If you do not intend to reinstall the software, make note of the Output Manager file store for cleanup later in the uninstall process.

   To do this, open a source configuration and select the **More settings** tab. For the **Set file store** option, click the down arrow and note the file store paths.
2. Make sure all Output Manager processes have completed, including scheduled processes. Disable all sources to ensure no further input will occur.
3. Close all Output Manager programs and utilities.
4. Stop all Output Manager services from the **Output Manager Server Configuration Utility**.
   a) On the Windows task bar, click **Start** > **All Programs** > **Output Manager** > **Output Manager Server** > **OM Server Configuration**.
   This opens the **Output Manager Server Configuration Utility**.
   b) On the **Output Manager services configuration** tab, select all of the services and click **Stop Selected Service**.

   Wait for the **Status** column to display **Stopped** for all of the services. This indicates all of the Output Manager service components are stopped for the selected server.
   c) If other machines are running Output Manager services, complete these steps on each machine.

   Make sure you complete these steps last for the server that is running the DBM service.
5. Open **Control Panel** > **Add or Remove Programs** (or **Programs and Features** in Windows Vista or Windows 7).
6. In the program list, select **Output Manager Console** and click **Remove**.
   The uninstall program will close any open programs. Any unsaved data is discarded.
7. In the confirmation dialog box, click **Yes** to continue. Wait for the uninstall to complete.
8. Repeat steps *6* through *7* for each of the remaining Output Manager programs listed in **Add or Remove Programs**.

   The Uninstall program does not remove information created during Output Manager configuration and operation. If you intend to reinstall the software quit now to keep these items. Complete the remaining steps to permanently remove all program data.
9. Delete the `C:\Program Files\NSi\Output Manager` folder.
10. Delete each of the Output Manager file store folders noted above.
11. Delete the `C:\Users\`*`username`*`\AppData\Roaming\NSi` folder.

    This folder needs to be deleted for each user logon that has accessed the Output Manager Console and the **All Users** folder. Make sure you repeat this step from each computer that has accessed Output Manager Console (for each logon).
12. Delete the Output Manager database.
    a) Delete the Output Manager database from the Microsoft SQL Server Management Studio.

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b) In the `\\Program Files (x86)\Microsoft SQL Server\MSSQL.1\MSSQL\DATA` folder, delete the following files:

- `database name_datetimestamp.mdf`
- `database name_datetimestamp_Log.ldf`

13. Delete any associated ports.

a) In the Windows Control Panel, open **Printers and Faxes**.

b) On the menu bar, click **File** > **Server Properties**.

c) On the **Ports** tab, select the ports that are no longer needed and click **Delete Port**.

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Integrations

SAP NetWeaver

You can integrate Output Manager with SAP NetWeaver through Remote Function Call (RFC) mode or command line mode. In RFC mode, Output Manager and the SAP system communicate over TCP/IP through the RFC interface. In command line mode, Output Manager and the SAP system use an intermediate application to communicate through operating system commands.

Before integrating Output Manager with SAP NetWeaver, verify that the SAP NetWeaver environment is installed and operational. For more information on SAP NetWeaver, visit *http://scn.sap.com/community/netweaver*.

Remote Function Call mode

Complete the following procedures for a Remote Function Call (RFC) integration:

1. *How to Create the Remote Function Call connection in Remote Function Call Mode* on page 51
2. *How to Create the Real Output Management System in Remote Function Call Mode* on page 52
3. *How to Create the Logical Output Management System in Remote Function Call Mode* on page 53

How to Create the Remote Function Call connection in Remote Function Call Mode

1. In the SAP NetWeaver GUI for Microsoft Windows, type `SM59` in the transaction field and press Enter.
2. Select **TCP/IP connections** and click **create** (☐).
3. Configure RFC connection settings as shown in the following example:

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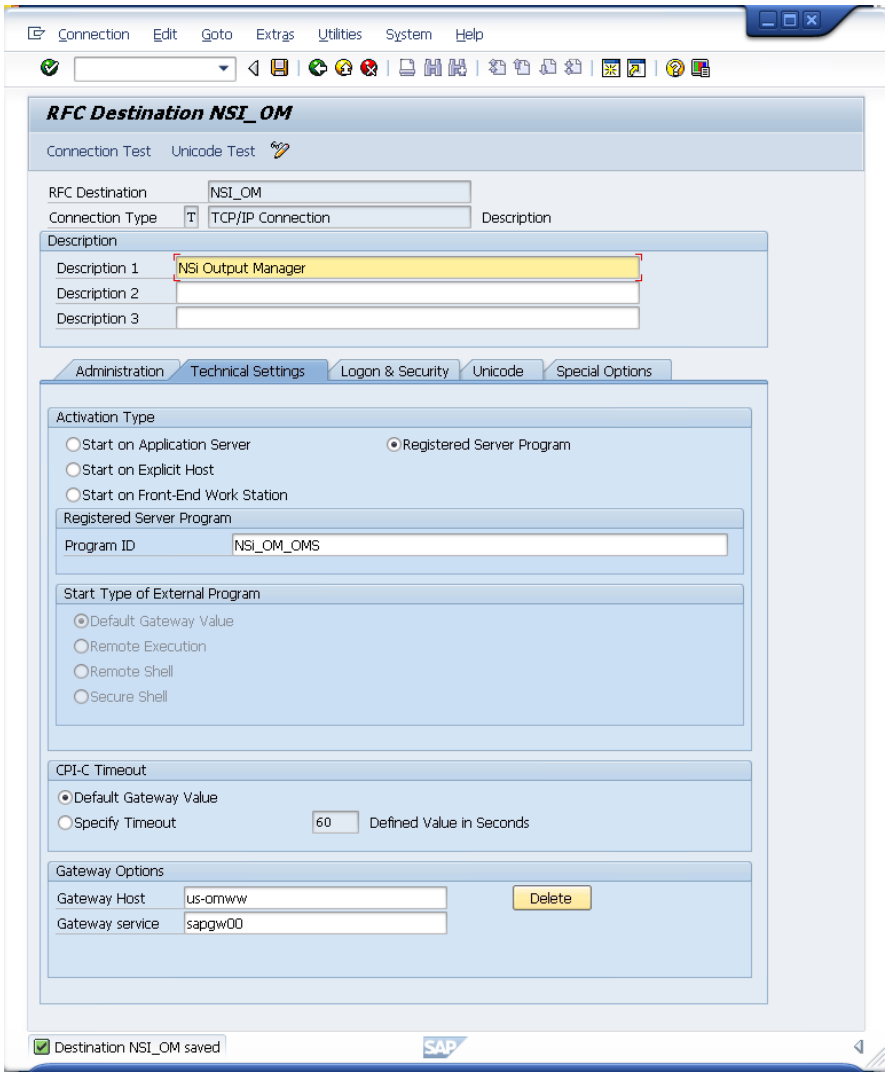

Note: The **Gateway Host** value is the name of the machine that hosts SAP NetWeaver.

4. Save the settings.

How to Create the Real Output Management System in Remote Function Call Mode

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** next to **Real Output Management Systems**.
6. Click **Change** ( ) and then press Shift+F1.
7. Configure Real Output Management System settings as shown in the following example:

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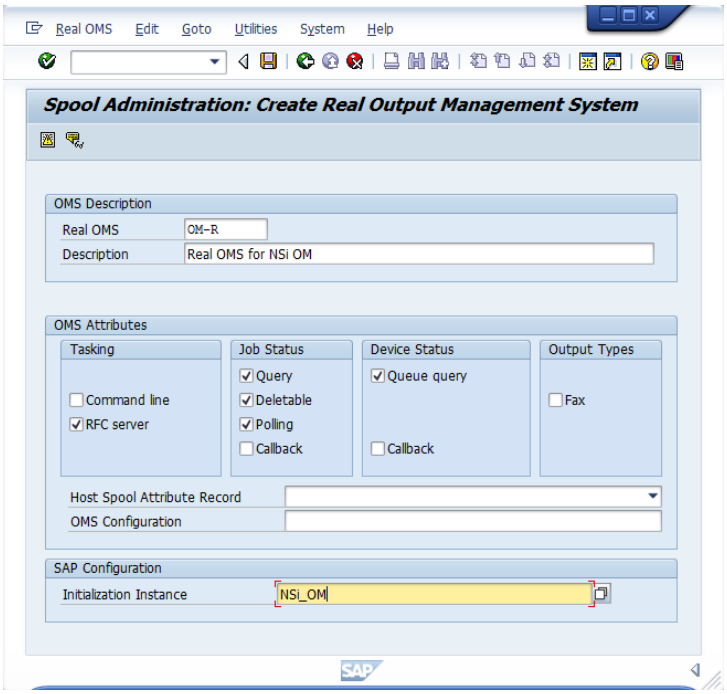

Important: For **Initialization Instance**, use the **RFC Destination** value that you specified in *How to Create the Remote Function Call connection in Remote Function Call Mode* on page 51.

If you select **Polling** for **Job Status**, SAP NetWeaver polls Output Manager for document and device status. If you select **Callback** for **Job Status**, Output Manager notifies SAP NetWeaver when document and device events occur. **Callback** provides more detailed status updates.

8. Save the settings.

How to Create the Logical Output Management System in Remote Function Call Mode

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** next to **Logical Output Management Systems**.
6. Click **Change** ( ) and then press F1.
7. Configure Logical Output Management System settings as shown in the following example:

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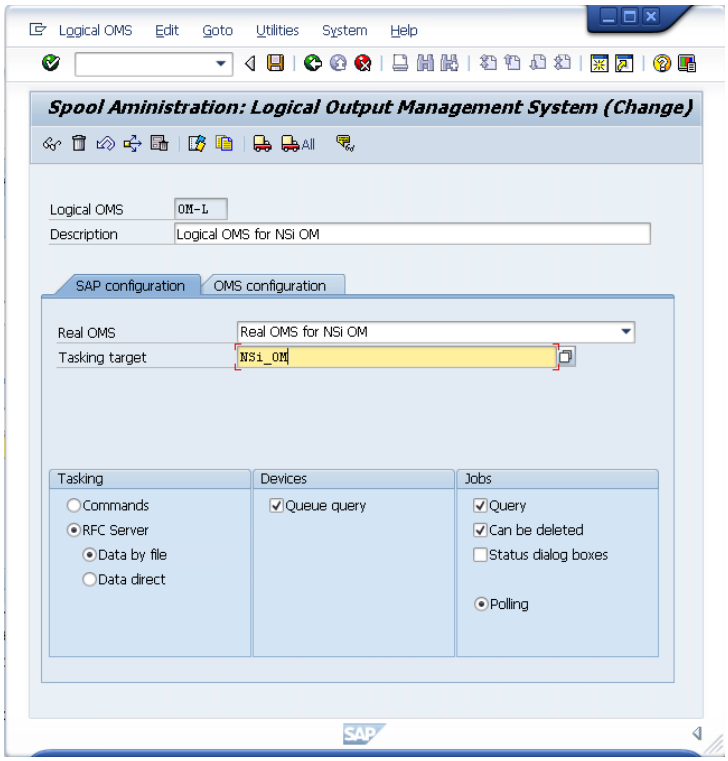

Important: For **Tasking target**, type the **RFC Destination** value that you specified in *How to Create the Remote Function Call connection in Remote Function Call Mode* on page 51 . Do not select **Data direct**.

8. Save the settings.

Command line mode

Complete the following procedures for a command line integration:

1. *How to create the Real Output Management System in command line mode* on page 54
2. *How to create the Logical Output Management System in command line mode* on page 55
3. *How to configure operating system commands in command line mode* on page 56

How to create the Real Output Management System in command line mode

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** next to **Real Output Management Systems**.
6. Click **Change** ( ) and then press Shift+F1.
7. Configure Real Output Management System settings as shown in the following example:

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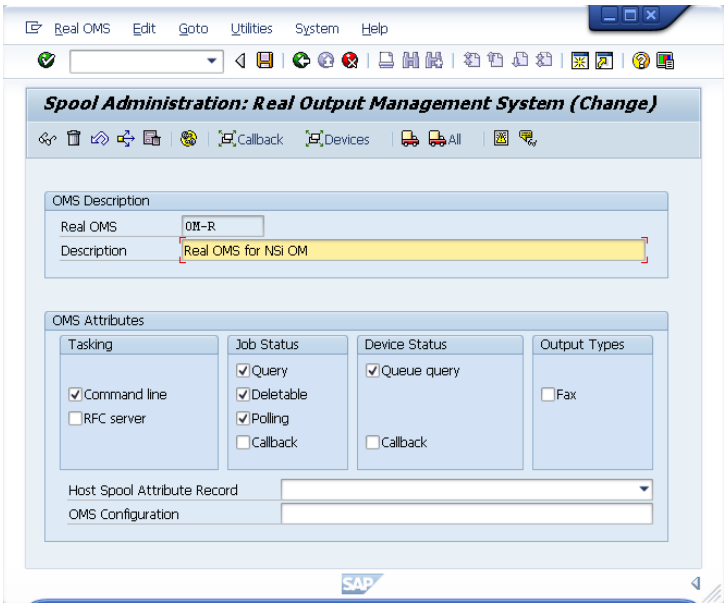

If you select **Polling** for **Job Status**, SAP NetWeaver polls Output Manager for document and device status. If you select **Callback** for **Job Status**, Output Manager notifies SAP NetWeaver when document and device events occur. **Callback** provides more detailed status updates.

8. Save the settings.

How to create the Logical Output Management System in command line mode

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** for **Logical Output Management Systems**.
6. Click **Change** ( ) and then press F1.
7. Configure Logical Output Management System settings as shown in the following example:

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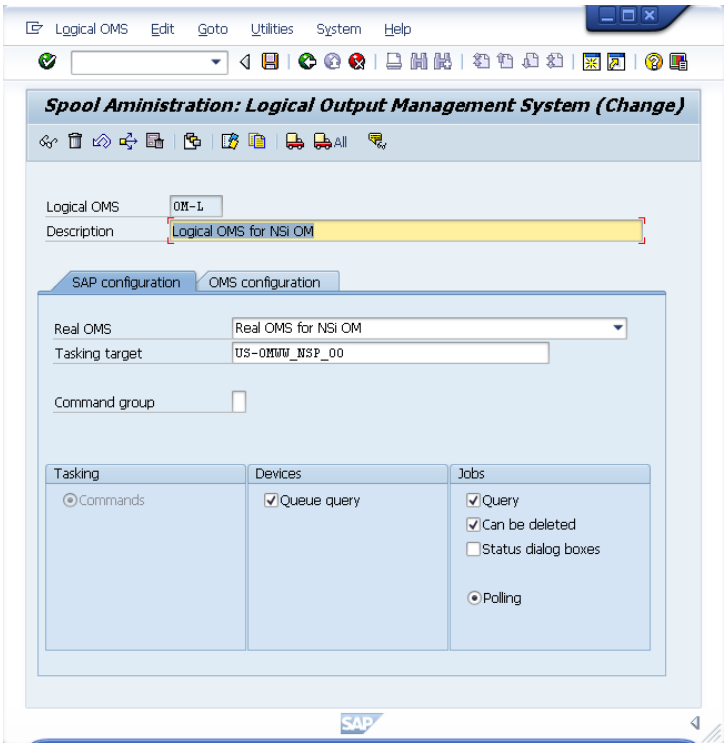

Note: For **Tasking target**, use the selector tool to select the value.

8. Save the settings.

How to configure operating system commands in command line mode

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** next to **Logical Output Management Systems**.
6. Select the row for the Logical Output Management System that you created in *How to create the Logical Output Management System in command line mode* on page 55 and then press Shift+F1.
7. Configure Output Management System commands as shown in the following example:

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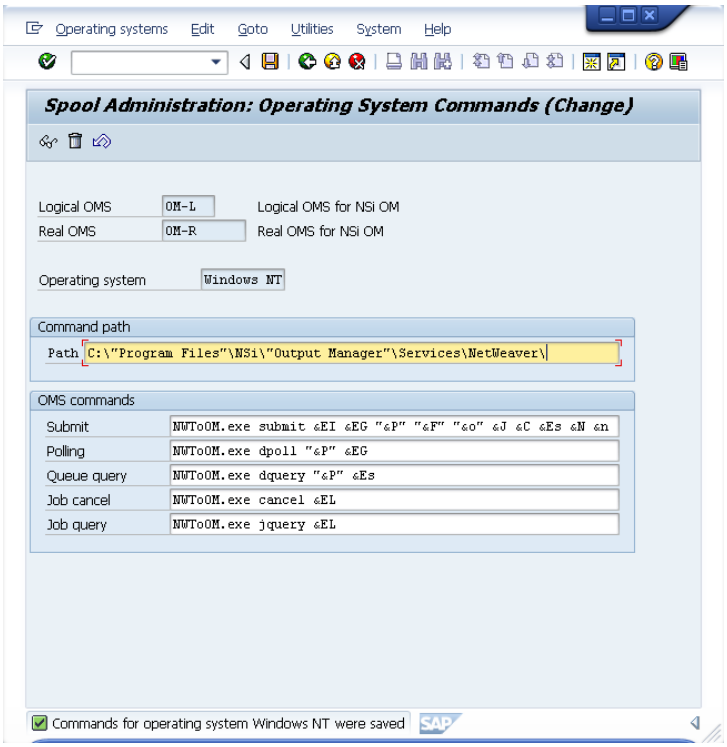

Important: The **Path** value in the example shows the path to the default Output Manager installation directory. If you installed Output Manager in a different location, update the path for your environment. Use double quotation marks to enclose folder names with spaces.

8. Save the settings.

Switch tasking modes

Complete this procedure only when you switch tasking modes for an existing integration.

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Output management systems** tab.
5. Click **Display** next to **Real Output Management Systems**.
6. On the **Spool Administration: Real Output Management System** screen, select **Command line** and **RFC server** in the **Tasking** section.
7. Go to the **Spool Administration: Logical Output Management System** screen and select the new mode in the **Tasking** section.
8. Go back to the **Spool Administration: Real Output Management System** screen and select only the new mode in the **Tasking** section.

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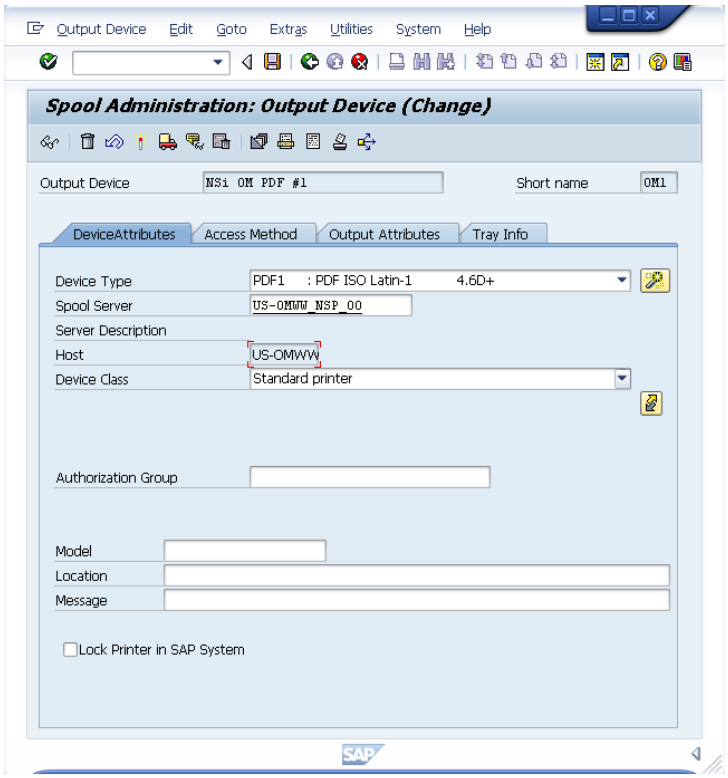
How to create output devices

Complete this procedure to create and configure SAP NetWeaver output device settings for Remote Function Call (RFC) and command line integrations with Output Manager.

1. Log in to the SAP NetWeaver GUI for Microsoft Windows.
2. Type `SPAD` in the transaction field and press Enter.
3. On the **Spool Administration** screen, click **Full administration**.
4. Click the **Devices / servers** tab.
5. Click **Display** next to **Output Devices**.
6. Click **Change** (🖉) and then press Shift+F1.
7. On the **DeviceAttributes** tab, configure device settings as shown in the following example:



8. On the **Access Method** tab, specify host printer information as shown in the following example:

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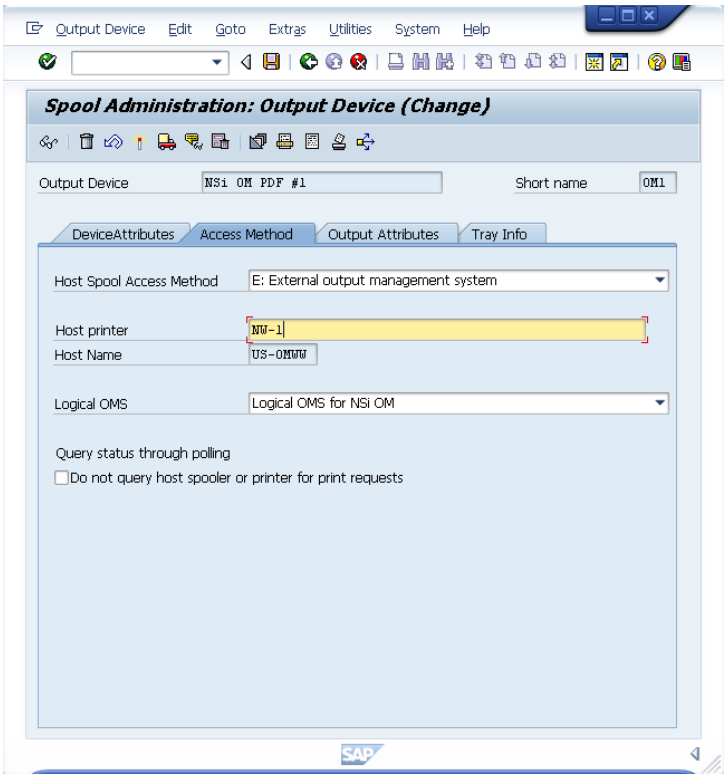

Important: When you create the SAP NetWeaver source in Output Manager, use the **Host printer** value from the **Access Method** tab as the name of the source.

9. Save the settings.

Update the integration configuration file

The integration configuration file defines Output Manager DBM and Input service settings and specifies the folder where SAP NetWeaver stores documents for Output Manager.

1. If different machines host SAP NetWeaver and the Output Manager DBM and Input services, update the endpoint values for the DBM and Input services:
   a) Browse to the **NetWeaver** subfolder in the Output Manager installation folder.

      The following example shows the path to the subfolder for a default Output Manager installation:

      `C:\Program Files\NSi\Output Manager\Services\NetWeaver`
   b) Open the `NWToOM.exe.config` file in a text editor.
   c) Update the host name part of the Input and DBM address attributes for your environment as shown in the following example:

```
<client>
    <endpoint
        address="http://server-omsap01:8066/OM/InputServiceInterface"
        name="IOMInputExternalSubmit"
        binding="basicHttpBinding"
        bindingConfiguration="inputServiceHttpBinding"
        contract="IOMInputExternalSubmit"/>
```


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```
    <endpoint
        address="http://server-omsap01:8068/OM/DbmInterface"
        name="IDbmNetWeaver"
        binding="basicHttpBinding"
        bindingConfiguration="dbmHttpBinding"
        contract="IDbmNetWeaver"/>
</client>
```

2. Define the staging folder that SAP NetWeaver uses to send documents to Output Manager as shown in the following example:

```
<appSettings>
    <add key="SubmissionFileStaging" value="\\server-omsap01\Staging">
    </add>
</appSettings>
```

3. Save the changes.

Register Output Manager

Nuance Communications provides an application for registering Output Manager in the SAP NetWeaver System Landscape Directory (SLD). The application is pre-configured with settings for supplying Output Manager data to the SAP platform. After registration, SAP Solution Manager recognizes Output Manager as a third-party system in the SAP system landscape.

1. Browse to the **NetWeaver** subfolder in the Output Manager installation folder and open a command prompt.

   The following example shows the path to the subfolder for a default Output Manager installation:

   `C:\Program Files\NSi\Output Manager\Services\NetWeaver`

2. Run the following command:

   `NWToOM SLDREG` *sldhost port userpassword xmlregfile*

   Where:

   - *sldhost* is the host on which the SLD server runs
   - *port* is the HTTP or HTTPS port on which the SLD server runs
   - *user* is the user name for connecting to the SLD server
   - *password* is the password for connecting to the SLD server
   - *xmlregfile* is the SLD registration XML file

   Nuance Communications provides `OM.xml` as the SLD registration XML file.

Configure Output Manager

To configure Output Manager for a Remote Function Call (RFC) integration with SAP NetWeaver, use the **Configure NetWeaver Integration** utility accessible through the **Administration** application in the Output Manager Console. The Output Manager Console Help provides more information on configuring settings.

To configure Output Manager for a command line integration with SAP NetWeaver, use the Output Manager Console to create and configure a NetWeaver source. When you name the source, use the **Host printer** value that you specified on the **Access Method** tab when completing the procedure in *How to create output devices* on page 58. The Output Manager Console Help provides more information on creating NetWeaver sources.

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Output Manager Port Usage

The following table describes port usage in an Output Manager environment:

Listener	Port	Protocol	Client
DBM Service	8070	Net.Tcp *	• All other Output Manager services • Output Manager Console • Output Manager Web Application • Output Manager Web Kiosk

	8068	HTTP	• Ricoh Unified Client
			• Xerox EIP Unified Client
			• Konica Minolta iOption Unified Client
			• Output Manager Web Application
			• Output Manager Web Kiosk
			• High Availability configurations:
			  • Input Service
			  • SNMP Service
			  • Output Manager Console

	8069	HTTPS	• Ricoh Unified Client
			• Output Manager Web Application
			• Output Manager Web Kiosk
			• High Availability configurations:
			  • Input Service
			  • SNMP Service
			  • Output Manager Console

Input Service	8072	Net.Tcp	• DBM • AutoStore • Mobile
	8066	HTTP	• Driver • Client Pop-up • AutoStore • Mobile • High Availability DBM
	8067	HTTPS	• AutoStore • Mobile • High Availability DBM

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Listener	Port	Protocol	Client
	8075	Net.Tcp	Output Manager to Output Manager
	8074	HTTPS	Output Manager to Output Manager
Output Service	8078	Net.Tcp	DBM
Rules Agent Service	8073	Net.Tcp	DBM
SNMP Service	8076	Net.Tcp	DBM
	8077	HTTP	High Availability DBM
	8065	HTTPS	High Availability DBM
Desktop Client	8100-8125 **	HTTP	High Availability DBM

* The Net.Tcp protocol uses Transport Layer Security (TLS) and requires both communication points to run with domain account credentials. An exception is inter-service communication using the LocalSystem account and communicating on the same machine.

** Typically, only port 8100 is used. Others are needed when a single machine, such as a remote desktop server, is running multiple instances of the client. These ports must be open on the client machines.

Additional notes:

- AutoStore and Mobile typically use 8072, 8066, or 8067 to communicate with the Input service but not all three ports.
- The Output Manager Web Application and the Output Manager Web Kiosk use 8070 by default to communicate with the DBM. If necessary, you can use 8068 or 8069 by specifying the value in the `web.config` file.
- In a High Availability installation, the Input service, SNMP service, and the Output Manager Console communicate with the DBM using HTTP or HTTPS, depending on the load balancer configuration.
- The Ricoh Unified Client uses 8068 or 8069 to communicate with the DBM but not both ports.
- Output Manager to Output Manager communication does not use 8074 as of this release but might use the port in a subsequent release.

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Getting Help

With Nuance Communications products, we strive to deliver reliability, performance, and ease of use. Use the product Help as your first step to help you resolve problems installing, configuring, tuning, testing, and operating Nuance Communications resources we use when you call our Support Department.

ONLINE HELP

Search the product help to find information on installing, configuring, and operating the Output Manager software. The Help incorporates a complete table of contents, comprehensive index, a favorites tab, glossary terms, and full text search with advanced search capabilities. Help can be accessed at any time by pressing F1 on the keyboard, by clicking a **Help** button, or using the **Help** menu on the menu bar.

WEB HELP

The web help for the product provides current help content.

- *Output Manager 4.0 Web Help*

Technical Support

You can refer to the Nuance Communications web site for support information.

- *Contact Nuance Support*
- *Nuance Knowledge Base*

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