HP OpenView Configuration Management

Administrator

for the Windows operating system

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Publisher Guide

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hp invent

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Documentation Updates

This guide's title page contains the following identifying information:

- Software Version number, which indicates the software version
- Document release date, which changes each time the document is updated
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To check for recent updates or to verify that you are using the most recent edition, visit the following URL:

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Table 1 lists new features added for the Configuration Management v 5.0 release.

Table 1   New features added for Configuration Management 5.0

Chapter	Version	Changes
2	5.00	Page 16, System Requirements. Updated for 5.00.
3	5.00	Page 58, Publishing Hardware Configuration . Added new section which references *HP OpenView Hardware Configuration Management Administrator's Guide* for details.

Table 2 indicates changes made to this document for earlier releases.

Table 2   Document changes

Chapter	Version	Changes
3	4.1	Page 34, in Note, changed CM Distributed Configuration Server to CM Proxy Server.
3	4.1	Page 38, Upgrade: Updated screenshot and description to reflect new Upgrade step within Advanced Mode publishing. Updated the description for Basic Mode publishing as well.
3	4.0	Page 30, Overview. Added note about creating the windows installer AIP.
3	4.0	Page 32, Advanced Publishing Mode. Expanded each existing topic to include relevant images and additional information.

Chapter	Version	Changes
3	4.0	Page 38, *Additional Files*. New topic added to Advanced Publishing Mode section.
3	4.0	Page 39, Radia Behaviors. New topic added to Advanced Publishing Mode section.

Support

You can visit the HP OpenView support web site at:

www.hp.com/managementsoftware/support

This Web site provides contact information and details about the products, services, and support that HP OpenView offers.

HP OpenView online software support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support site to:

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Contents

# 1 Introduction

At the end of this chapter, you will:

- Be familiar with the HP OpenView Configuration Management Administrator Publisher (CM Admin Publisher).

- Understand the process of publishing to the HP OpenView Configuration Management Configuration Server Database (CM-CSDB).

- Understand the different types of applications and files that can be published using the CM Admin Publisher.

The CM Admin Publisher uses a streamlined process for publishing applications and files to your CM-CSDB. Currently, the CM Admin Publisher supports the publishing of Windows Installer applications and operating system images.

Figure 1   CM Admin Publisher logon window
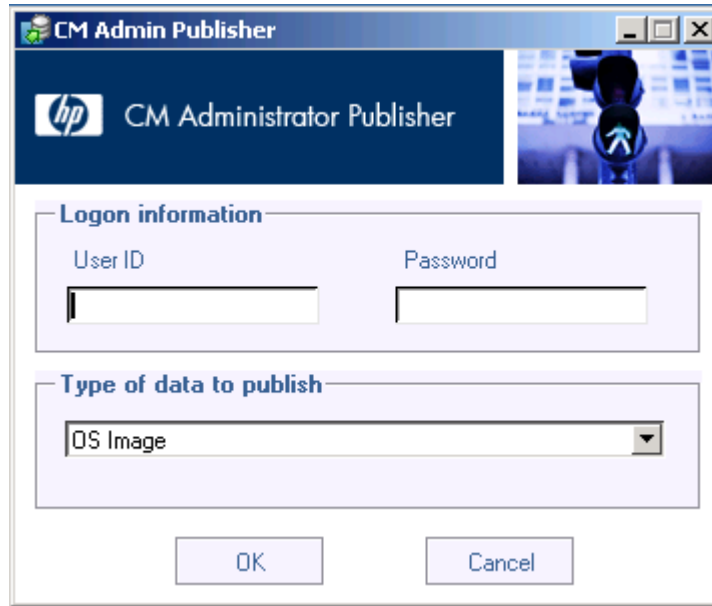
About Packaging and Publishing with CM

Packaging is the process of identifying resources, editing those resources' installation attributes, defining how they are to be installed, and saving the resources and installation instructions in a machine-readable file format. A package typically contains one or more files and configuration settings.

Publishing is the process of importing a package and its imbedded information to the CM-CSDB. A package must be published before its content can be distributed and deployed to your environment.

Configuration Management (CM) offers many different packaging and publishing options through multiple tools. Make note of the different types of resource packages you will create and publish, then choose your CM packaging and publishing tools as required.

If you are packaging Windows Installer files, use the CM Packager for Windows Installer (CM Packager for WI). (Refer to the *HP OpenView Configuration Management Extensions for Windows Installer User Guide* (*CM Extensions for WI Guide*).

If you are publishing Windows Installer files, use the CM Admin Publisher. (Refer to the *CM Admin Publisher Guide*).

To package and publish all other types of files and applications, use the CM Admin Packager. (Refer to the *HP OpenView Configuration Management Application Manager Installation and Configuration Guide (CM Application Manager Guide)* or the *HP OpenView Configuration Management Application Self-service Manager Installation and Configuration Guide (CM Application Self-service Manager Guide)*.

Figure 2   Packaging and publishing options
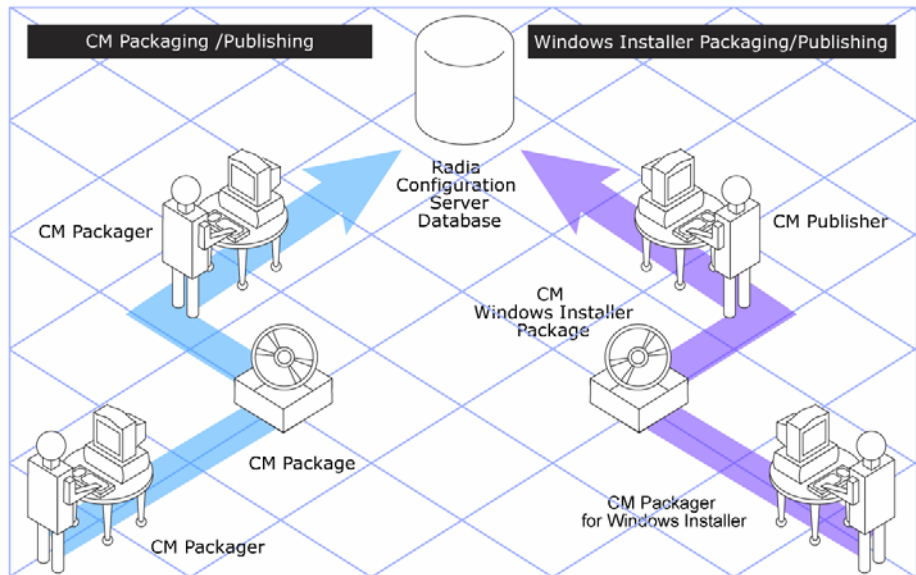
About the CM Admin Publisher

The CM Admin Publisher is an administrative tool that facilitates publishing Windows Installer applications and operating system images to your CM-CSDB. In only four steps, you can have your files ready for deployment to your environment.

Install the CM Admin Publisher to the computer where your administrator will have access to the necessary files for publishing.

**Figure 3   Publishing to the CM Configuration Server DB**
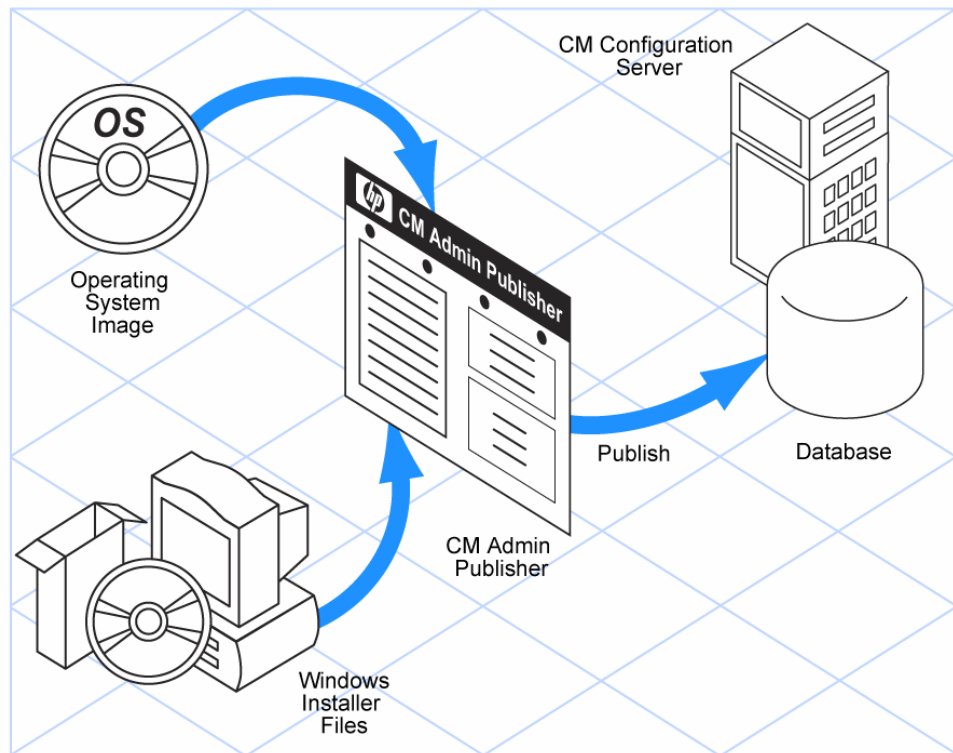
Publishing with the CM Admin Publisher

The CM Admin Publisher consists of four main steps for publishing files to the CM-CSDB. These are:

1 **Select** – Select the file or image to be published to the CM-CSDB.

2 **Edit** – Create the Administrative Installation Point, simulate the application's user interface, edit MSI features and properties, select any transforms, and enable Machine/User parameters (Windows Installer files only).

3 **Configure** – Provide the information for creating a CM package or service that will be published to the database.

4 **Publish** – Publish to the CM-CSDB.

Figure 4   Publishing steps
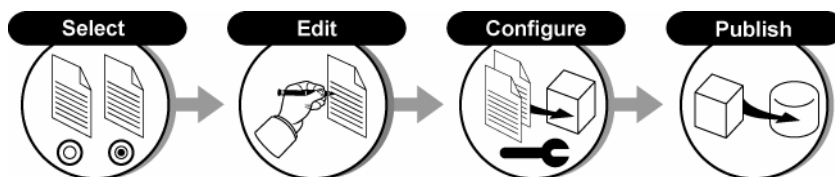
You select, edit, and configure the package to be published by providing the information requested at each window.

At any point in the publishing process, you can see where you are by viewing the numbered steps at the top of the user interface. The current step is highlighted.

Summary

- Use the CM Admin Publisher to publish Windows Installer files and operating system images to the CM-CSDB.

- Use the icon on your desktop to start the CM Admin Publisher.

- The CM Admin Publisher consists of four main steps: Select, Edit, Configure, and Publish.

2 Installing the CM Administrator

At the end of this chapter, you will:

- Understand the system requirements for installing the HP OpenView Configuration Management Administrator (CM Administrator).

- Be familiar with the installation files.

- Know how to install the CM Administrator using the Installation Wizard and command lines.

- Understand the feature settings of the CM Administrator.

- Know how to remove and repair the CM Administrator using the Installation Wizard and command lines.

The CM Administrator installation program uses Microsoft Windows Installer. The program consists of one MSI package with five feature sets:

- CM Admin Packager
- CM Admin CSDB Editor
- CM Admin Agent Explorer
- CM Admin Screen Painter
- CM Admin Publisher
- CM AMP Editor

System Requirements

- Clean computer. (A **clean computer** is a computer with only the target subscriber's operating system installed.)
- TCP/IP connection to the CM Configuration Server.
- Minimum resolution of 800 x 600.
- MS Windows Installer Version 2.0 or higher.
  The MSI 2.0 installation program is available in the `managementinfrastructure\administratorworkstation\win32\msi` folder on the CM Infrastructure media. If Windows Installer does not exist, or if an earlier version is detected on the computer, the MSI 2.0 installation program runs automatically.
- For Windows 2000, Server 2003, or XP or Vista, you must have administrator rights to the computer to install the CM Administrator.

Platform Support

For detailed information about supported platforms, see the release note document that accompanies this release.

About the Installation Files

setup.exe

setup.exe is stored in the managementinfrastructure\administrator _workstation\win32\ folder. It accepts any command line parameters and passes them to Windows Installer.

You can also create a Windows Installer Administrative Installation Point (AIP) for network installations.

> A Windows Installer Administrative Installation Point (AIP) is also known as an Administrative Control Point (ACP).

The AIP starts Windows Installer and passes any command line parameters to it. To create the Windows AIP in a specified target directory, type:

```
SETUP.EXE /a TARGETDIR=drive:\targetdirectory /qb
```

The target directory contains CM-Admin50.msi, the installation folders, and setup.exe.

CM-Admin50.msi

CM-Admin50.msi is the MSI database file, which contains the default configuration information for the installation. This file is stored in the management_infrastructure\administrator_workstation\win32\ folder.

Installing the CM Administrator

This section describes how to install the CM Administrator using the Installation Wizard and using a command line.

Using the Installation Wizard to Install the CM Administrator

This section describes how to install the CM Administrator for Windows using the Installation Wizard.

To install the CM Administrator using the Installation Wizard

1   From the folder containing the CM Administrator installation files, run
    `setup.exe`.

    The CM Administrator Installation Wizard opens.

2   Click **Next**.

    The License Agreement window opens.

3   After reading and accepting the license agreement, click **Next**.

    If the CM agent is not installed on the computer, the Destination Folder
   window opens.

    > If the CM agent is already installed on the computer, this
    > window will not open and the CM Administrator is installed in
    > the same location as the CM agent.

    If you want to select a different destination for the CM Administrator,
    click **Browse**, and then navigate to the appropriate destination folder.

    Click **OK** to continue.

4   Click **Next**.

5   In the IP Address text box, type the IP address for the CM Configuration
    Server.

6   In the Port text box, type the port number (default is 3464).

7   Click **Next**.

    The Select Features window opens.
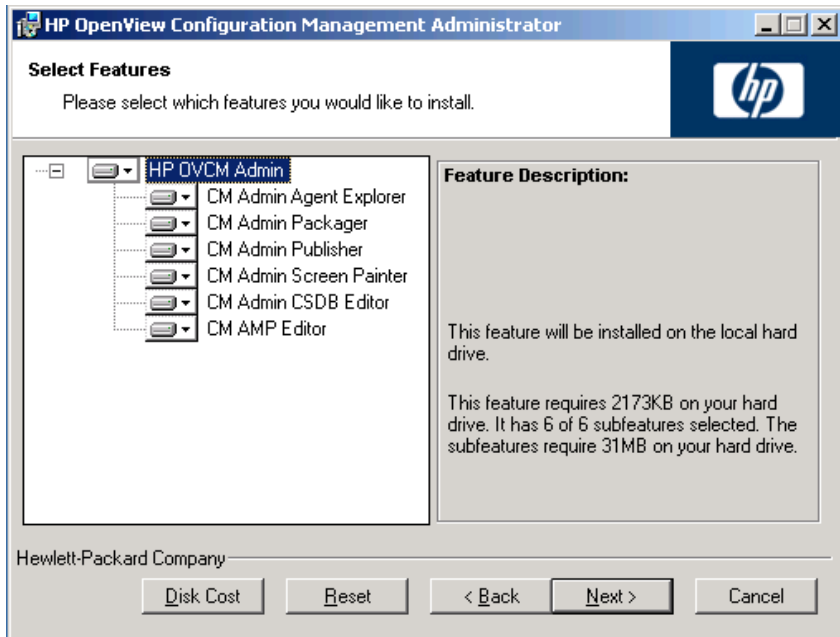
8 Click 🖳▾ to select the features that you would like to install.

> ► If you want to set the same options for all of the features, you can click 🖳▾ next to CM Administrator and select the appropriate option to apply the setting to all features.
>
> Click **Disk Cost** to see an overview of the disk space needed for the installation.

Each time you click 🖳▾ a shortcut menu for that feature opens.

9 From the shortcut menu, select an installation option. These options are described in Table 3 below.

Table 3   Feature settings for the CM Administrator

Option	Description
Will be installed on local hard drive	Installs the top-level feature on the local hard drive, but not any sub-features listed below.

Option	Description
Entire feature will be installed on local hard drive	Installs the entire feature, including any sub-features listed below. Note: In this installation program, selecting this option or the "Will be installed on local hard drive" option for any of the features results in the same installation because these features do not contain sub-features.
Entire feature will be unavailable	The feature will not be installed. If previously installed, this feature will be removed.

10 Click **Next**.

The Ready to Install the Application window opens.

11 Click **Install** to begin the installation.

When the installation is done, the CM Administrator has been successfully installed window opens.

12 Click **Finish** to exit the installation.

Using a Command Line to Install the CM Administrator

You can also use the command line to run the CM Administrator installation program. For example, if you want to install only the CM Admin Packager on a computer, the command line that you run from the directory containing the CM Administrator installation files might be:

```
SETUP.EXE ADDLOCAL=NVDINSTALLPACKAGER
```

Specifying the Features to Install

To specify the features that you want to install, use the appropriate feature state argument, such as ADDLOCAL, and specify the features that you want to install.

Table 4   CM Administrator feature state arguments

Specify the following arguments	To set the feature state
ADDLOCAL	Type a comma-delimited list of features that you want set to "Will be installed on local hard drive."
ADDSOURCE	Type a comma-delimited list of features that you want set to "Will be installed to run from network."
ADVERTISE	Type a comma-delimited list of features that you want set to "Feature will be installed when required."
REMOVE	Type a comma-delimited list of features that you want set to "Entire feature will be unavailable."
	This only removes the features—not the entire product. Therefore, if you use the REMOVE property and type each of the feature names, the core product will still be stored on your computer.
	If you want to remove the entire product, type REMOVE=ALL.

When specifying features on the command line, reference the CM Administrator features as follows:

- NVDINSTALLPACKAGER   CM Admin Packager
- NVDINSTALLPUBLISHER   CM Admin Publisher
- NVDINSTALLSYSTEMEXPLORER   CM Admin CSDB Editor
- NVDINSTALLCLIENTEXPLORER   CM Admin Agent Explorer
- NVDINSTALLSCREENPAINTER   CM Admin Screen Painter
- NVDINSTALLAMPEDITOR   CM AMP Editor

For example, if you want to install the CM Admin CSDB Editor and the CM Admin Agent Explorer to the computer, the command line might be:

```
SETUP.EXE ADDLOCAL=NVDINSTALLSYSTEMEXPLORER,
NVDINSTALLCLIENTEXPLORER
```

⚠️ If you run the installation from a command line, be sure to pass the IP address for the CM Configuration Server to the installation. For example:

```
SETUP.EXE NVDOBJZMASTER_ZIPADDR=10.10.10.1
```

Additional Command Line Arguments

Some additional arguments that you can pass to the installation program on the command line are described in Table 5 below.

Table 5   Command line arguments

Argument	Description
/qn	Performs a silent installation.
/qb	Displays the progress bar only during the installation.
/l*v *drive*:\install.log	Creates a detailed Windows Installer log. Note: Using this option may impact the performance of the installation.
/a TARGETDIR= *drive*: \targetdirectory	Creates a Windows Installer AIP in the specified target directory. Note: A Windows Installer Administrative Installation Point (AIP) is also known as an Administrative Control Point (ACP). The target directory contains CM-Admin50.msi, the installation folders, and setup.exe. Once you have created the AIP, you can run setup.exe and pass the appropriate command line parameters. This starts the Windows Installer and passes the specified parameters to it.

Removing the CM Administrator

The Windows Installer installation program offers the ability to remove the CM Administrator. This section describes how to remove the CM Administrator using the Installation Wizard and using a command line.

Using the Installation Wizard to Remove the CM Administrator

This section describes how to remove (uninstall) the CM Administrator using the Installation Wizard.

▶ To remove specific features of the CM Administrator, use the Modify option on the Application Maintenance window. This is discussed in Modifying the CM Administrator Installation on page 25.

To remove the CM Administrator using the Installation Wizard

1 From the folder containing the CM Administrator installation files, double-click **setup.exe**.

2 Select the **Remove** option.

3 Click **Next**.

   The CM Administrator Uninstall window opens.

4 Click **Next**.

   The files for the CM Administrator are removed from the computer.

   The CM Administrator has been successfully uninstalled window opens.

5 Click **Finish**.

Using a Command Line to Remove the CM Administrator

This section describes how to remove (uninstall) the CM Administrator using a command line.

To remove the CM Administrator using a command line

• From the folder containing the CM Administrator installation files, type the following command line:

       SETUP.EXE REMOVE=ALL

   or

   If you would like to remove a single CM Administrator feature, type a comma-delimited list of the features that you want to remove on the command line.

If you want to silently remove the CM Admin CSDB Editor and CM Admin Agent Explorer, type:

```
SETUP.EXE REMOVE=NVDINSTALLSYSTEMEXPLORER,
NVDINSTALLCLIENTEXPLORER /qn
```

Reference the features for the CM Administrators as follows:

- CM Admin Packager
  NVDINSTALLPACKAGER
- CM Admin Publisher
  NVDINSTALLPUBLISHER
- CM Admin CDSB Editor
  NVDINSTALLSYSTEMEXPLORER
- CM Admin Agent Explorer
  NVDINSTALLCLIENTEXPLORER
- CM Admin Screen Painter
  NVDINSTALLSCREENPAINTER
- CM AMP Editor
  NVDINSTALLAMPEDITOR

This only removes the features—not the entire product. Therefore, if you use the REMOVE property and type each of the feature names, the core product will still be stored on your computer.

Repairing the CM Administrator

The Windows Installer installation program offers the ability to repair the CM Administrator. For example, if you have a missing CM Administrator module, you can use this tool to repair the installation. This tool will not overwrite modules that exist on the computer if they are newer than the ones provided with the installation.

This section describes how to repair the CM Administrator using the Installation Wizard and using a command line.

Using the Installation Wizard to Repair the CM Administrator

This section describes how to repair the CM Administrator using the Installation Wizard.

To repair the CM Administrator using the Installation Wizard

1 From the folder containing the CM Administrator installation files, double-click **setup.exe**.

    The Application Maintenance window opens.

2 Select the **Repair** option.

3 Click **Next**.

    The Ready to Repair the Application window opens.

4 Click **Next**.

    When the repair is done, the CM Administrator has been successfully installed window opens.

5 Click **Finish**.

Using a Command Line to Repair the CM Administrator

This section describes how to repair the CM Administrator using a command line.

To repair the CM Administrator using a command line

• From the folder containing the CM Administrator installation files, type the following command line:

```
msiexec /f CM-Admin50.msi
```

> Additional parameters can be used with this command line. For more information, see your Windows Installer documentation.

Modifying the CM Administrator Installation

The Windows Installer installation program offers the ability to modify the CM Administrator installation by adding or removing individual features.

This section describes how to modify the installation of the CM Administrator using the Installation Wizard and using a command line.

Using the Installation Wizard to Modify the CM Administrator

This section describes how to modify the installation of the CM Administrator using the Installation Wizard.

To modify the CM Administrator installation using the Installation Wizard

1 From the folder containing the CM Administrator installation files, double-click **setup.exe**.

   The Application Maintenance window opens.

2 Select the **Modify** option.

3 Click **Next**.

   The Select Features window opens. See Installing the CM Administrator on page 17 for information about how to use this window.

4 Click **Next**.

   The Ready to Modify the Application window opens.

5 Click **Next**.

   The CM Administrator has been successfully installed window opens.

6 Click **Finish** to close the installation program.

Using a Command Line to Modify the CM Administrator Installation

To modify the CM Administrator installation using a command line

- From the folder containing the CM Administrator installation files, type the following command line:

  ```
  SETUP.EXE FeatureStateArgument=feature1,feature2
  ```

See Table 4 on page 21 for more information.

If you want to install the CM Admin Packager to the local hard drive, and to make the CM Admin CSDB Editor and CM Admin Agent Explorer unavailable, use the following command line:

```
SETUP.EXE ADDLOCAL=NVDINSTALLPACKAGER
REMOVE=NVDINSTALLSYSTEMEXPLORER,NVDINSTALLCLIENTEXPLORER
```

See Additional Command Line Arguments on page 22 for additional arguments.

Summary

- The CM Administrator consists of one package with multiple feature sets.

- Install the CM Administrator on a clean computer.

- You can install the CM Administrator using a command line or using the Installation Wizard.

3 Publishing Files with the CM Admin Publisher

At the end of this chapter, you will:

- Be familiar with the different types of files you can publish with the CM Administrator Publisher (CM Admin Publisher).

- Understand the processes involved for publishing the different file types.

Overview

The CM Admin Publisher supports the publication of Windows Installer files and operating system images to your CM Configuration Server Database (CM-CSDB). The following sections explain the steps required for publishing each file type.

The CM Admin Publisher also allows for the publication of files in "batch mode." This lets you use a configuration file to publish multiple .msi files to the CM-CSDB during one publishing session. Refer to the section Publishing Multiple .msi Files (Batch Mode), on page 53 for more information.

> **Creating the Windows Installer AIP**
>
> Previously, the CM Windows Installer publishing process required the manual creation of an AIP outside of the publishing process. Starting with the CM Admin Publisher 4.0, this is no longer required. Now, you can supply the .msi file in its original state without any modifications and the CM Admin Publisher then creates the AIP in the short file name format automatically.

To start the Publisher

1 On the device where you installed the CM Admin Publisher, use the **Start** menu and go to:

   Start→All Programs→HP OVCM Administrator→CM Admin Publisher

2 Log on to the CM Admin Publisher using the CM Administrator password. By default, the user name is **rad_mast** and the password is **secret**.

Publishing Windows Installer Files

Windows Installer uses MSI files to distribute software packages to your operating system. The CM Admin Publisher uses the files to create a CM package and service that are then published to the CM-CSDB. Once contained in the CM-CSDB, the software packages are ready for distribution to your environment.

1 Start the CM Admin Publisher.

2 From the Type of data to publish drop-down list, select **Windows Installer**.

3 Click **OK**.
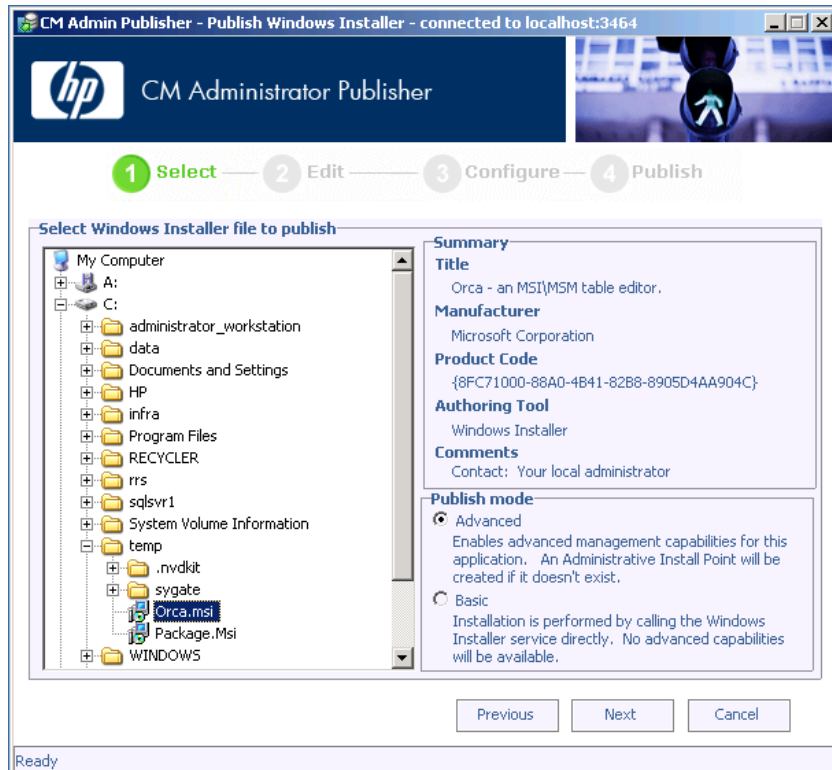
4 Use the Explorer window to find the Windows Installer file. The right pane will display any information that is available for the MSI file you select.

5 In the Publish mode section, select either **Basic** or **Advanced**.

If you select the **Advanced** publishing mode, you will be required to create an Administrative Installation Point (AIP) in the next step as well as enable advanced management capabilities, including file feature and property management.

6 Click **Next**.

After you select a file, and depending on whether you selected the Advanced or Basic publishing mode, you will have different options available when you click **Next** in the Select window.

Publishing Modes: Advanced and Basic

Advanced Publishing Mode
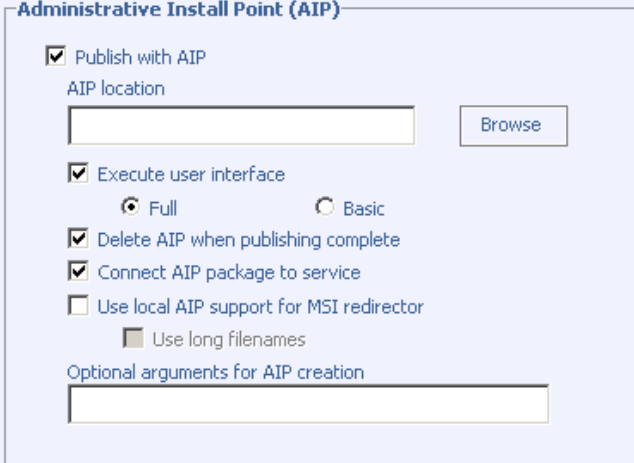
The advanced publishing mode offers nine options (listed on the left side of the window). Click any link to configure that aspect of the advanced publishing mode. If you are using the Basic Publishing Mode, skip to the next section, Basic Publishing Mode on page 40.

Figure 5   Advanced Publishing Mode options
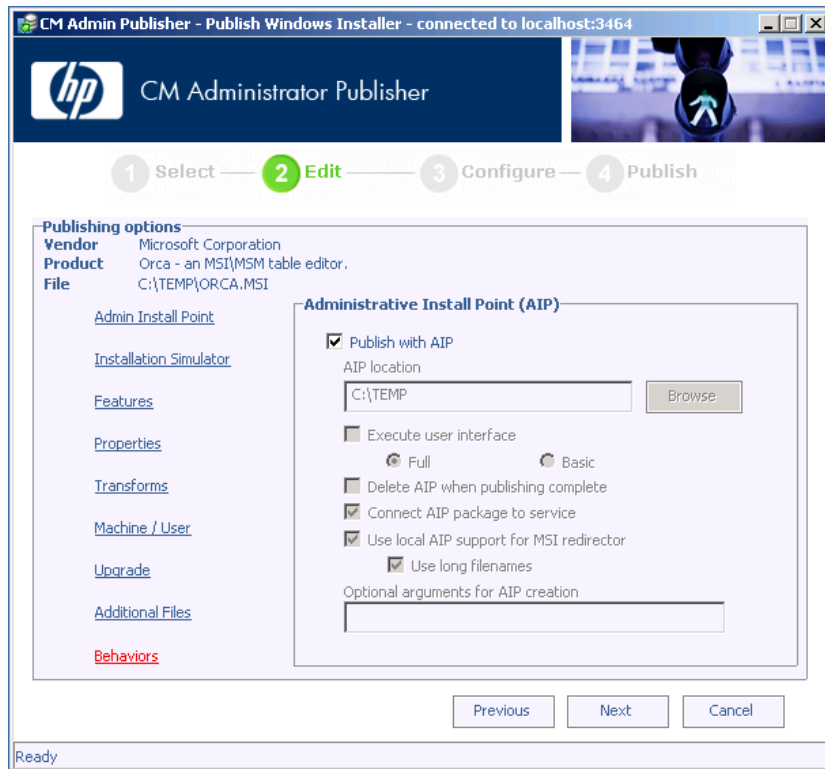
- **Admin Install Point**
  Create an AIP by filling in the required fields.

Figure 6   Administrative Install Point options

— **Publish with AIP** - Select this check box to publish using an AIP.

  – **AIP location** – Type in or use **Browse** to designate the AIP location.

  – **Execute user interface** – Select to execute either a full or basic user interface upon package installation.

  – **Delete AIP when publishing complete** – Select this check box to delete the AIP once the package is published to the CM-CSDB.

  – **Connect AIP package to service** – Select to connect the AIP package to the associated service.

  – **Use local AIP support for MSI redirector** – Select to create a temporary local AIP to support CM advanced data management and caching during the install. Enable this feature for installs that do not inherently support HTTP-based MSI installs. Once selected, you have the option to use long filenames by selecting the **Use long filenames** check box.

  – **Optional arguments for AIP creation** – Type any additional arguments to include during the AIP creation.

> In order to connect the AIP package to the service, select the **Connect AIP package to service** check box. When this check box is selected, the AIP package will be connected to the service and will have its ZSTOP000 set to 1. This prevents the AIP package from being delivered to the desktop, but its connection to the service will guarantee its travel during CM Proxy Server operations.

- **Installation Simulator**
  Run the application installation program.

Figure 7   **Installation Simulator options**
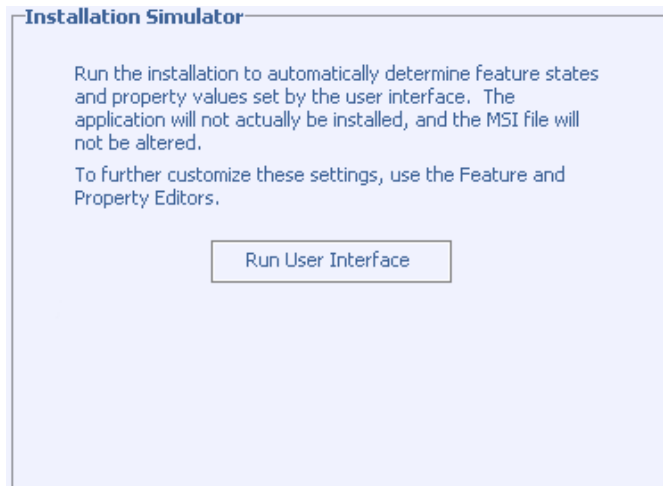
- **Features**
  Configure the available MSI features.

Figure 8   Features options
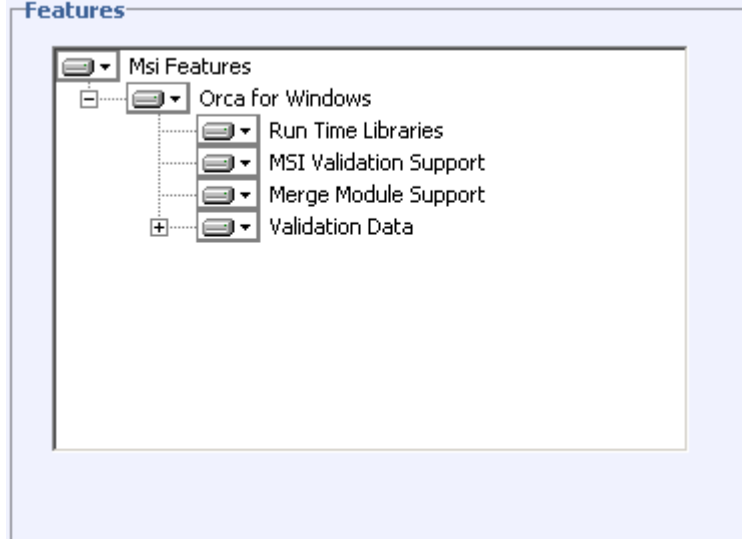
- **Properties**
  View and modify the msi file properties. Some Windows Installer files
  may require additional command line parameters to deploy correctly. For
  example, an application may require a custom property to pass a serial
  number during installation. Use the Properties dialog box to include any
  additional parameters.

Figure 9   Properties options

— Click **Add** to add a new property.

— Click **Remove** to delete an existing property.

— To modify a property **Name** or **Value**, click the item you want to change and enter the new value

- **Transforms**
  Reorder the application of any transform files associated with the Windows Installer file.

Figure 10   Transforms options
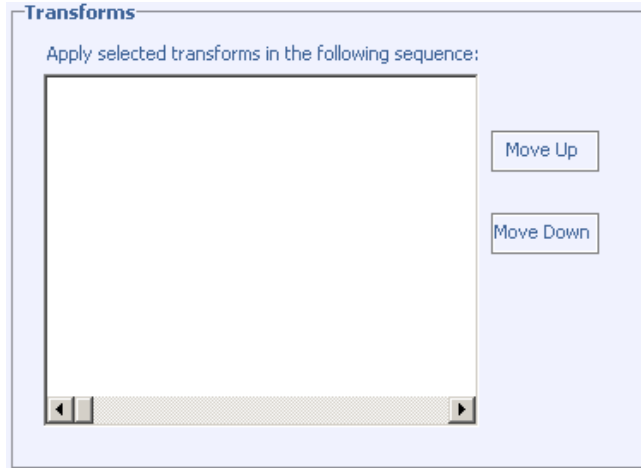
- **Machine / User**
  Define CM Machine/User parameters.

Figure 11   Machine/User options
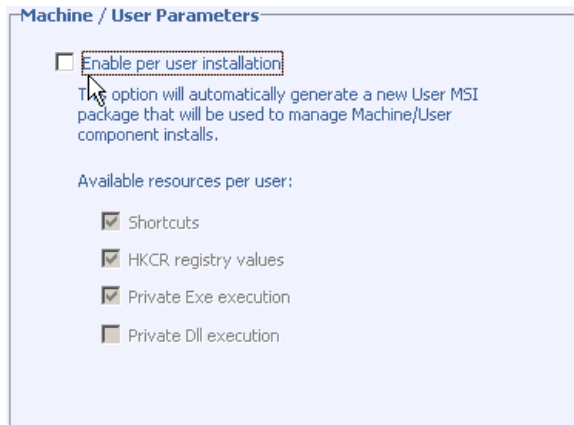
- — **Enable per user installation** – Select this check box to automatically generate a new user MSI package to be used to manage Machine/User component installations.

- — **Available resources per user** – Select which resources should be made available per user.

- **Upgrade**
  Displays existing MSI packages within the CM-CSDB that are available for upgrade using the current Windows Installer patch (.MSP). Select to use existing features properties or transforms by clicking the appropriate check boxes.

Figure 12   Upgrade options
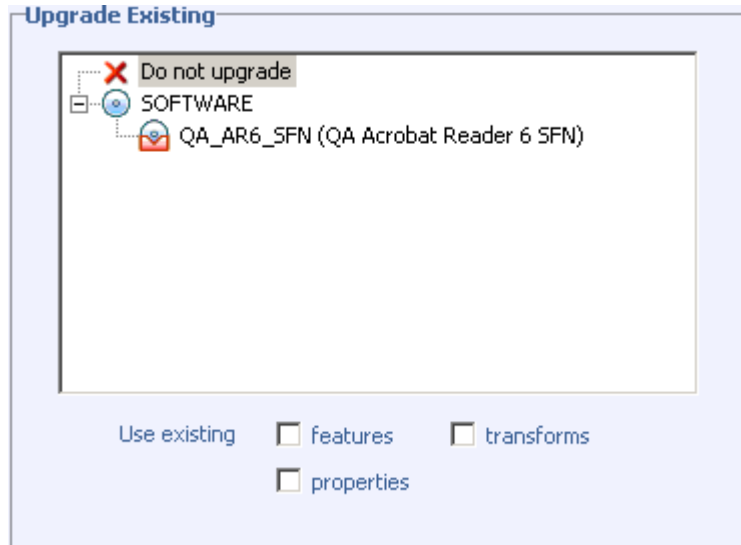
- **Additional Files**
  Include additional files as part of the AIP.

Figure 13   Additional Files options
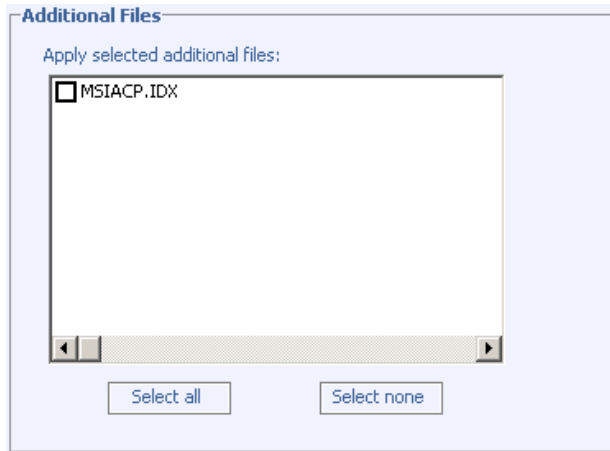
— Click **Select all** to select all available files listed.

— Click **Select none** to deselect all files.

- **Behaviors**
  Options for using a local MSI file cache, enabling local repair, saving
  Internet cache, controlling MSI features, and determining salvage status.

Figure 14   Behaviors options
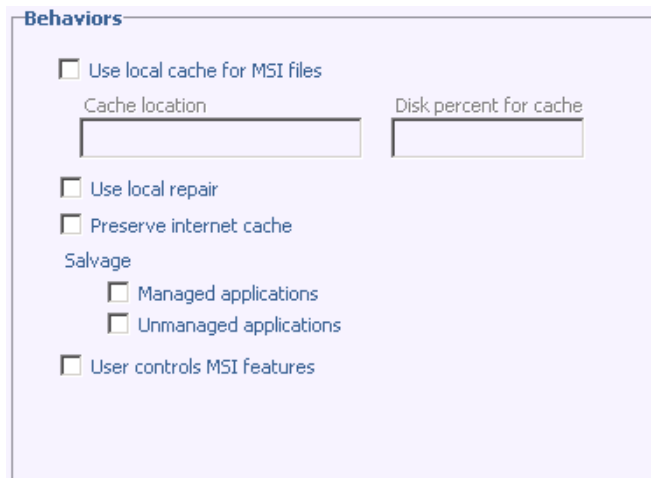
— **Use local cache for MSI files** – Select to determine the location and
  size of your cache. Enter the cache location in the Cache location text

box and the upper limit percentage of disk space to be used in the Disk percent for cache text box.

When Use local cache for MSI files is checked, during the application installation the cache directory is created in the specified location. If the used disk space on the target machine becomes greater than the cache percentage limit, caching is automatically turned off.

— **Use Local Repair** – Select to enable local repair. Choosing this option retains the MSI cache on the local agent computer, allowing for any repairs to be made locally, instead of going back to the CM-CSDB for the missing or required data.

— **Preserve internet cache** – Select to avoid having the Internet cache purged after an HTTP installation.

— **Salvage** - Allows you to take advantage of existing files on the target computer. When a package is installed, if any portion of that package is discovered, the installation will use the existing files instead of going back to the CM-CSDB for the redundant data. You have the option for enabling the Salvage feature for CM-managed and unmanaged applications, select the appropriate check boxes (Managed applications, Unmanaged applications) to determine which type of application should have this feature enabled. Both types of applications can be selected.

— **User controls MSI features** - Select to allow the end-user to control which MSI features are installed during the installation. Selecting this option displays the feature editor during the application installation.

Basic Publishing Mode

The basic publishing mode offers four options. Click any link to configure that aspect of the basic publishing mode.

Figure 15   Basic Publishing Mode options
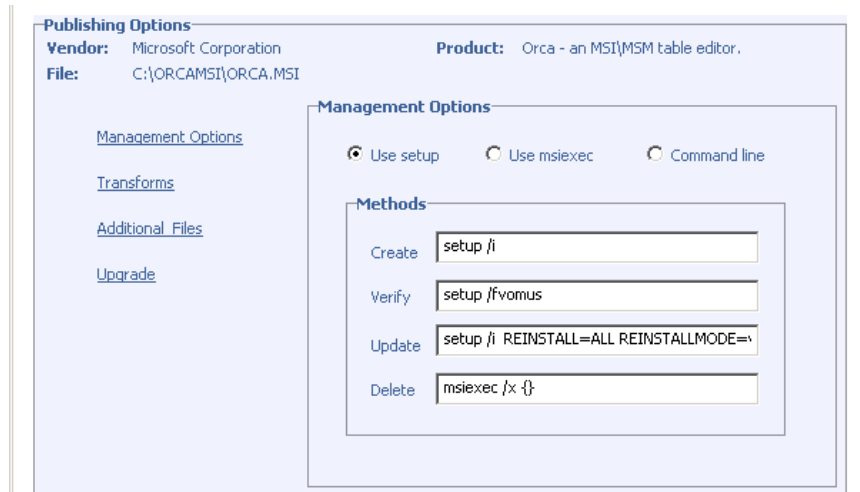
- **Management Options**
  Select which management option you would like to apply. The
  management option you select defines how the application will run once
  it is deployed.

  — Use setup

  — Use msiexec

  — Command line

- **Transforms**
  Reorder the application of any transform files associated with the
  Windows Installer file.

- **Additional Files**
  Apply any available additional files.

- **Upgrade**
  Displays existing MSI packages within the CM-CSDB that are available
  for upgrade using the current Windows Installer package. Select to use
  existing features properties or transforms by clicking the appropriate
  check boxes.

When finished editing your publishing options, click **Next**.

Figure 16   Package information window

1 Use the Package Information section to enter the CM package information.

2 Use the Limit package to systems with section to limit the package to any specific operating system or hardware. Click on any link to display the configurable options.

3 Click **Next**.

Figure 17   Service Information window

4   Select whether you want to create a new service (Create new), use an existing service (Use existing), or skip creating a service (No service) at this time.

> If you want to create only a package, select **No service**. This is useful if, for example, you have a single service, but want to create multiple packages and later connect them to the existing service using the CM CSDB Editor.

5   Enter the appropriate information in the service description text boxes. If you are using an existing service, make sure you enter the service name correctly.

6   In the Assignment type section, select whether the service is mandatory or optional. By default, Mandatory is selected, Mandatory distributes this service to all available subscribers. Optional services are only available if you are using the CM Application Self-service Manager agent. Refer to the *CM Application Manager Guide* and the *CM Application Self-service Manager Guide* for more information about mandatory versus optional services.

7   In the Management type section, indicate how the application will be managed after it is deployed.

Management Type and Assignment Type correspond to the ZSVCMO service attribute value (Refer to the *CM Application Manager Guide* and the *CM Application Self-service Manager Guide* for more information

about ZSVCMO). This field can contain two values, depending on what you select for each type. The table below displays the possible attribute values.

Table 6   ZSVCMO Variables

Assignment Type	Management Type	Resulting ZSVCMO Value	Explanation
Mandatory	Automatic	M	Service is deployed to all subscribers and managed by CM.
Mandatory	Manual	MO	Service is deployed to all subscribers. It is not managed by CM after deployment.
Optional	Automatic	OM	Service is deployed to only those subscribers that accept it. Service is managed by CM.
Optional	Manual	O	Service is deployed to only those subscribers that accept it. It is not managed by CM after deployment.

8   In the Report on the following events section, select each check box next to the events you would like to record. If you would like to use the default application reporting events available in the Base Instance, select **Use Base**. Refer to the *CM Application Manager Guide* and the *CM Application Self-service Manager Guide* for more information.

9   Click **Next**.

10 Review the Summary section to verify the package and service information you provided during the previous steps. When you are satisfied, click **Publish**.

11 Click **Finish** when the publishing process is finished to exit the CM Admin Publisher. Use the CM Admin CSDB Editor to view your operating system package or service.

The service is now ready for distribution to your enterprise.

Upgrading an Existing Package using an .MSP File

If you selected a Microsoft patch file (.msp) for publishing in step 6 on page 31 you will be presented with only the Upgrade option at the Publishing Options window. The CM Admin Publisher displays all available packages from the CM-CSDB that can be upgraded with the selected file. Select the corresponding package to be upgraded from the list on the right-hand side of the window.

Figure 18   Publishing Options for patch files

Click any of the check boxes in the Use existing section at the bottom of the window in order to use the existing package's features, properties, or transforms. Select all three check boxes to use all available features, properties and transforms from the existing package.

You can also upgrade an existing package using another Windows Installer file. When publishing this type of file (.msi), the Advanced Publishing Mode presents you with the Upgrade option.

> The CM Admin Publisher will create a new package for the upgrade. Once the new upgrade package is published to the CM-CSDB, manually connect it to the existing package using the CM Admin CSDB Editor.

Publishing Operating System Images

The following operating system image files are supported by the CM Admin Publisher:

- Operating System image files (.IMG)

- Power Quest image files (.PQI)

When an image file is published, a CM package is added to the OS domain in the CM-CSDB. If you decide to create a service during the publishing steps, a CM service is added to the ZSERVICE class of the OS domain.

In addition to image files, you can also publish Sysprep.inf files. When Sysprep.inf files are published to your database, they are prefixed with SPRP_ and stored in the SYSPREP Class of the OS Domain.

> Sysprep.inf files should be published in an uncompressed state.

To publish operating system images

1 Start the CM Admin Publisher.

2 Whether you are publishing an OS image or a Sysprep.inf file, select **OS Image** from the Type of Data to Publish drop-down list.

3 Click **OK**.

   The Select window opens.
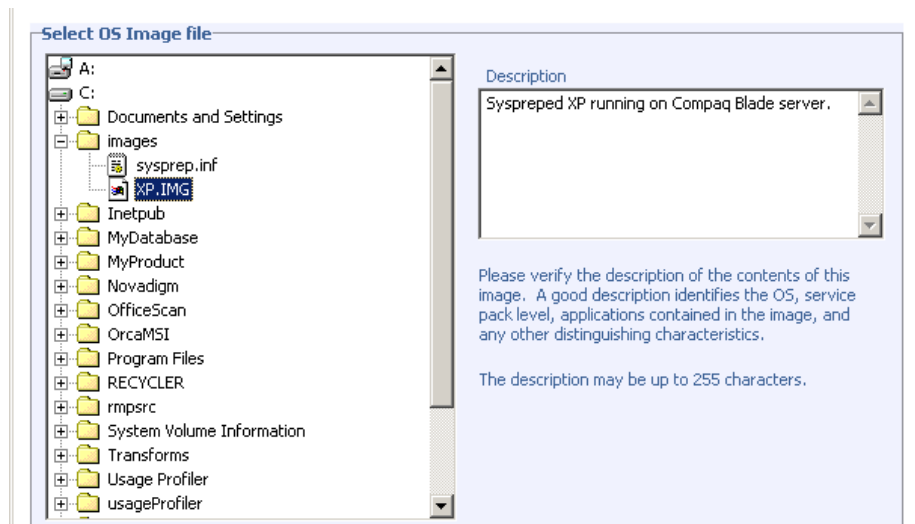
4   Use the Select window to find and select the file you want to publish.

> If you select a `Sysprep.inf` file, you will be prompted to enter a SYSPREP instance name. When you click **Next**, you will skip directly to the final step.
>
> SYSPREP files are published to the SYSPREP Class in the OS Domain of the CM-CSDB. Use the CM Admin CSDB Editor to view your published instances.

5   Use the Description area to verify the file before you continue. You can also add information to the description if you choose.

6   Click **Next**.

Otherwise, the Package information window opens.

7   Use the Package information section to enter the CM package information. Note that the Limit package to systems with section is not available when publishing operating system images.

8   Click **Next**.

The Service Information window opens.

Service Information

C Create new   C Use existing   C No service

Name   Display name

Vendor   Web URL

Description   Author

Assignment type
   C Mandatory   C Optional

Management type
   C Automatic   C Manual

Report on the following events
☐ Use Base

Install	☑ Success	☑ Failure
Remove	☑ Success	☑ Failure
Update	☑ Success	☑ Failure
Verify	☐ Success	☑ Failure
Repair	☐ Success	☑ Failure

9 Select whether you want to create a new service (Create new), use an
   existing service (Use existing), or skip creating a service (No service) at
   this time.

> If you want to create only a package, select **No service**. This is
> useful if, for example, you have a single service, but want to
> create multiple packages and later connect them to the existing
> service using the CM Admin CSDB Editor.

10 Enter the appropriate information in the service description text boxes. If
   you are using an existing service, make sure you enter the service name
   correctly.

11 In the Assignment type section, select whether the service is mandatory
   or optional. By default, Mandatory is selected, which will distribute this
   service to all available subscribers. Optional services are only available if
   you are using the CM Application Self-service Manager agent. Refer to
   the *CM Application Manager Guide* and the *CM Application Self-service
   Manager Guide* for more information about mandatory and optional
   services.

12 In the Management type section, indicate how the application will be
   managed after it is deployed.

   Management type and Assignment type correspond to the ZSVCMO
   service attribute value (Refer to the *CM Application Manager Guide* and
   CM Application Self-service Manager Guide for more information about
   ZSVCMO). This field can contain two values, dependant upon what you

select for each type. The table below displays the possible attribute values.

Table 7   ZSVCMO Variables

Assignment Type	Management Type	Resulting ZSVCMO Value	Explanation
Mandatory	Automatic	M	Service is deployed to all subscribers and managed by CM.
Mandatory	Manual	MO	Service is deployed to all subscribers. It is not managed by CM after deployment.
Optional	Automatic	OM	Service is deployed to only those subscribers that accept it. Service is managed by CM.
Optional	Manual	O	Service is deployed to only those subscribers that accept it. It is not managed by CM after deployment.

13 In the Report on the following events section, select each check box next to the events you would like to record. If you would like to use the default application reporting events available in the Base Instance, select **Use Base**. Refer to the *CM Application Manager Guide* and the *CM Application Self-service Manager Guide* for more information

14 Click **Next**.

The Publish window opens.

15 Review the Summary section to verify the package and service information you provided during the previous steps. When you are satisfied, click **Publish**.

16 Click **Finish** when the publishing process is complete to exit the CM Admin Publisher.

Use the CM Admin CSDB Editor to view your operating system package or service in the OS Domain.

> Remember, SYSPREP files are published to the SYSPREP Class in the OS Domain of the CM-CSDB. Use the CM Admin CSDB Editor to view your published instances.

The service is now ready for distribution into your enterprise.

Command Line Publishing

The CM Admin Publisher supports a non-graphical publishing mode, substituting any values entered during the GUI publisher with values predefined in a configuration file. The configuration file allows you to predefine any package and service values and store them in a text file. The CM Admin Publisher can then be run from the command line with the parameter -cfg designating which configuration file to use during the publishing session.

An example command line to run the CM Admin Publisher with a configuration file called test.cfg, would look like the following:

```
hide nvdkit nvdtk.exe/main.tcl pubport.tkd -cfg
"c:\program files\test.cfg"
```

> Make sure to use a fully qualified file name when designating the configuration file.

The parameters of the configuration file are defined in the table below.

Table 8   Configuration File Parameters

Parameter	Description
package	Defines the PACKAGE Class instance name.
pkgname	Specifies the friendly name of the PACKAGE Class instance (NAME attribute).
pkgdesc	Specifies a description of the PACKAGE Class instance (DESCRIPT attribute).
service	Defines the name of the ZSERVICE Class instance that will be optionally created.
svcname	Specifies the friendly name of the ZSERVICE instance (NAME attribute). The ZSVCNAME attribute is also set from this value.

Parameter	Description
svcdesc	Specifies a description of the ZSERVICE Class instance (DESCRIPT attribute).
addtosvc	Controls whether or not a service instance is created for this session. 1 = create service 0 = don't create
path	Defines the CM-CSDB path to the file and domain to which the package will be published, for example, PRIMARY.SOFTWARE.

attr CLASS {body}	Additional instance attribute values to be added during promote. Note that the CM Admin Publisher only supports PACKAGE and ZSERVICE as values for CLASS. Any attribute to these classes can be passed in, even those not supported by the user interface. Examples:
	<pre> attr ZSERVICE {
	        AUTHOR {John J. User}
	        URL {http://www.nowhere.com}
	        OWNER {Microsoft Corp}
	                                        }
	
	        attr PACKAGE {
	        RELEASE {1.0}
	   }</pre>Values should be enclosed in braces.

msi {body}	This section specifies MSI user interface settings. Allowable settings are: aiplocation This specifies where the AIP is to be created (if necessary). publishmode Advanced or Basic. execui How to execute the MSI's user interface during AIP creation. Allowable values are Full, Basic, or None. deleteaip Whether or not to delete the AIP after publishing. aiparguments optional arguments for AIP creation. enableperuser Whether to disable per user installation of this package (N)

Parameter	Description
	or any combination of the following: S=shortcuts, R=registry, E=private exe, D=private dll. Specifying "SD", for example, will turn on per user installation for shortcuts and private dlls.
	An example msi section would resemble the following:

	``
	msi {
	
	                aiplocation {c:\testaip}
	                publishmode advanced
	                execui none
	                deleteaip n
	                aiparguments ""
	                enableperuser sre
	}
	``
	Note: Values are case-sensitive.

A sample configuration file is displayed below.

```
pkgname    MYTESTPKG
package    CJMTEST
pkgdesc    {This is a test package}
path       PRIMARY.SOFTWARE
addtosvc   1
service    CJMTESTS
svcname    MYTESTSVC
svcdesc    {This is a test service}
attr PACKAGE {
       RELEASE 1.0
       BEHAVIOR
}
attr ZSERVICE {
       AUTHOR     me
       URL        {HTTP://WWW.NOWHERE.COM}
       OWNER      {Microsoft Corp.}
       PRICE      {5}
}
msi {
       aiplocation     {g:\aip}
       publishmode     advanced
       deleteaip       n
       aiparguments    {}
       enableperuser   n
```

Defining which File to Publish on the Command Line

In addition to defining a configuration file, you can define the file to be published on the command line. Use the `-file` parameter to define which file to use in the publishing session.

```
hide nvdkit nvdtk.exe/main.tcl pubport.tkd -cfg "c: \program
files\test.cfg"  -file "c:\program files\testfile"
```

Publishing Multiple .msi Files (Batch Mode)

The CM Admin Publisher allows for the publishing of multiple `.msi` files to the CM-CSDB during one publishing session. This is achieved by calling the CM Admin Publisher from the command line and designating a location using the `-batchmsi` parameter. The CM Admin Publisher then scans this location and all subdirectories for `.msi` files as well as any configuration files or transform (`.mst`) files.

> Unlike publishing single `.msi` files using the command line, when publishing batches of `.msi` files with the CM Admin Publisher, the command line parameter `-cfg` cannot be used to designate a configuration file. Instead, at least one configuration file must be included within the `.msi` file directory location.

Each directory should contain the components of a CM package that will be published to the CM-CSDB, including at least one `.msi` file as well as one configuration file and any applicable transform files.

The files contained in the designated location must follow a few simple rules:

- If more than one `.msi` file exists in a directory, an error will be recorded and the publishing session scan will continue.

- If more than one configuration file exists in a directory, an error will be recorded and the publishing session scan will continue.

- If desired, only one configuration file can be used for all `.msi` files found. When only one configuration file is discovered in the root directory location, the CM Admin Publisher will apply that configuration to all `.msi` files it finds thereafter. To define a unique name to each package then, use symbolic substitution, as described later in this chapter.

- In order for the scan to be successful, at least one configuration file must be present at the root directory location.

A sample command line to run the CM Admin Publisher and designate the location to scan would look like the following:

```
hide nvdkit nvdtk.exe/main.tcl pubport.tkd –batchmsi
"c:\msifileslocation"
```

This example will cause the CM Admin Publisher to scan the directory `c:\msifileslocation` and all subdirectories looking for `.msi` files as well as any configuration files or transforms.

When the publishing section is finished, verify the session by referring to the `publisher.log` file located in your log directory.

Using Multiple Configuration Files

Only one configuration file is required for all `.msi` files you are publishing as long as you are using symbolic substitution to assign unique package names, as discussed later in this chapter. However, if you would like to apply a separate configuration file to each `.msi`, then a separate configuration file must reside within the directory of the `.msi` to which it will be applied.

Any configuration file found within a directory will be applied to the `.msi` file found within that directory and any subsequent `.msi` files found in each subdirectory, unless another configuration file is found.

For instance, the `Acrobat Reader 6.msi` file, as displayed in , will use the configuration file `global.cfg`, located in the root location directory, `/Adobe MSI Apps to Publish` (as seen in the figure below) since no configuration file is included in the `/Acrobat Reader 6.0` directory.

Figure 19   Root location directory containing a configuration file
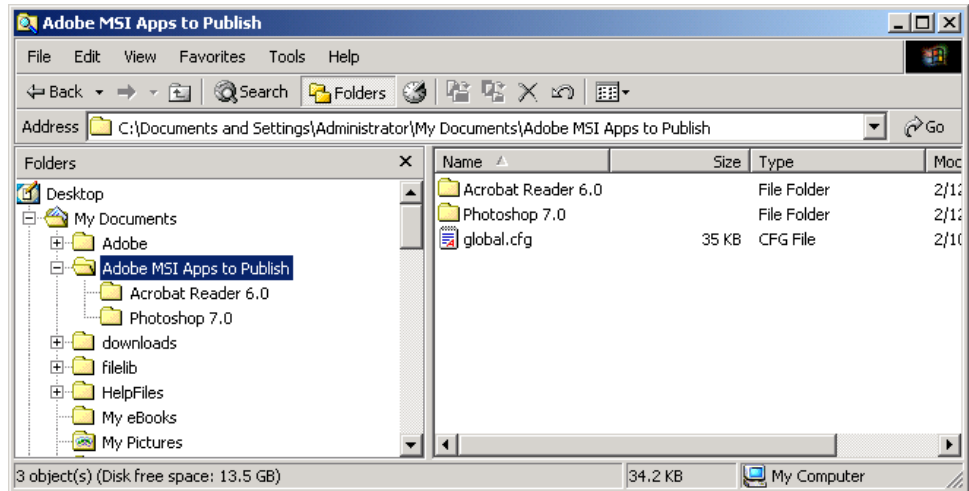
Figure 20   Configuration files within the directory structure
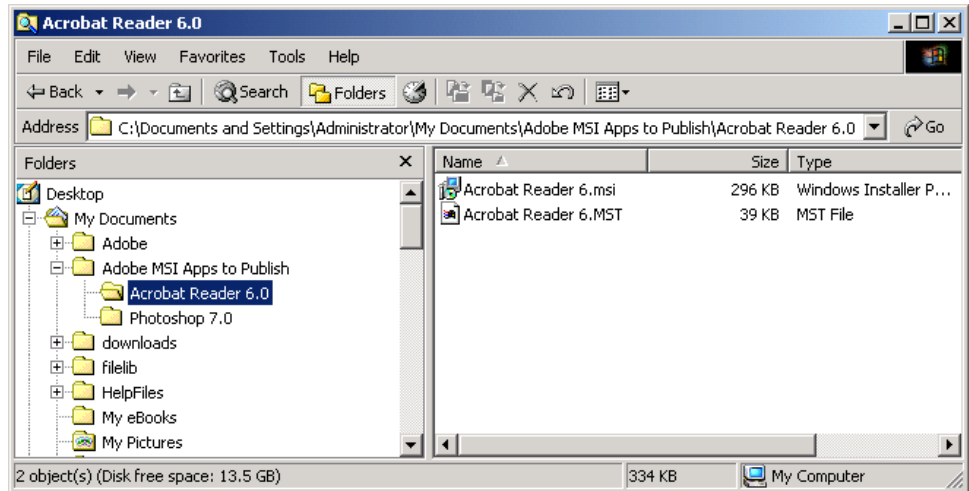
Including Transform (.mst) Files

You can apply any number of transform files with your .msi files by
including those transforms in the same directory with the .msi file to which

they will be applied. Transform files are only applied to the `.msi` file with which they share a directory.

Figure 21 below displays two transform files, both of which will be included with the `Photoshop 7.msi` package upon publication.

Figure 21   Transform files included in the directory structure
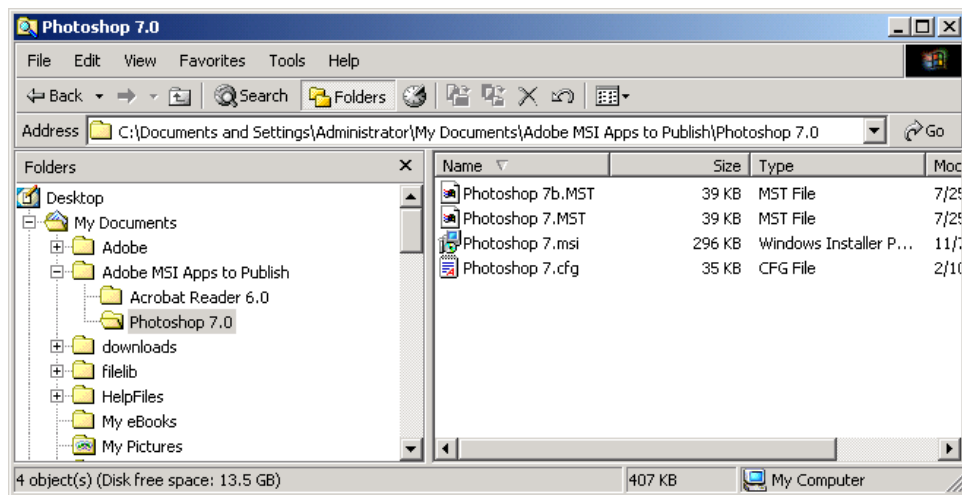
Customizing Configuration File Values with Symbolic Substitution

If you are publishing similar `.msi` files and would like to use only one configuration file, you can direct the CM Admin Publisher to assign unique values using symbolic substitution. For instance, create unique package names by setting the `pkgname` variable within the configuration file to `%MSIPROP.VARNAME%` or another symbolic variable as found within your `.msi` file. When used, the CM Admin Publisher will search the current individual `.msi` file it is publishing and substitute the `pkgname` value with the corresponding value found within the `.msi` file, based on the symbolic value you supplied.

A sample configuration file displaying the use of symbolic substitution is displayed below.

```
# ----------------------------------------------------------------------------------------------
#       Publisher - Sample imbedded MSI Properties Configuration File
# ----------------------------------------------------------------------------------------------
#----------------------------------------------------------------------------------------------
#       Package related variables
```

```
#--------------------------------------------------------------------------------------------
pkgname              {"%MSIPROP.RADIA_PKG_DISPLAY_NAME%"}
package              {"%MSIPROP.RADIA_PKG_INSTANCE_NAME%"}
pkgdesc              {"%MSIPROP.RADIA_PKG_DESCRIPTION%"}
path                 {"%MSIPROP.RADIA_PKG_PUBLISHPATH%"}    # PRIMARY.SOFTWARE
#--------------------------------------------------------------------------------------------
#      Service related variables
#--------------------------------------------------------------------------------------------
addtosvc             {%MSIPROP.RADIA_ADDTOSVC%}             # 0 = no, 1 = yes
service              {"%MSIPROP.RADIA_SVC_INSTANCE_NAME%"}
svcname              {"%MSIPROP.RADIA_SVC_DISPLAY_NAME%"}
svcdesc              {"%MSIPROP.RADIA_SVC_DESCRIPTION%"}

attr PACKAGE {
        RELEASE      {"%MSIPROP.RADIA_SVC_AUTHOR%"}         # 1.3.5.7
}

attr ZSERVICE {
        AUTHOR       {"%MSIPROP.RADIA_SVC_AUTHOR%"}
        URL          {"%MSIPROP.RADIA_SVC_URL%"}
        OWNER        {"%MSIPROP.RADIA_SVC_OWNER%"}
        PRICE        {"%MSIPROP.RADIA_SVC_PRICE%"}
        ZSVCMO       {"%MSIPROP.RADIA_SVC_ZSVCMO%"}         # (i.e., M,O,MO,OM)
        ZCREATE      {"%MSIPROP.RADIA_SVC_ZCREATE%"}        # (i.e., radiamsi /I /qu)

msi {
        aiplocation  {"%MSIPROP.RADIA_AIPLOCATION"%}        # c:\temp\RadiaAIP\
        publishmode  {"%MSIPROP.RADIA_PUBLISHMODE"%}        # advanced, basic
        execui       {"%MSIPROP.RADIA_EXECUI"%}             # full, basic, none
        deleteaip    {"%MSIPROP.RADIA_DELETEAIP"%}          # yes, no
        aiparguments {"%MSIPROP.RADIA_AIPARGS"%}            #
        enableperuser {"%MSIPROP.RADIA_ENABLEPERUSER"%}     # s,r,e, and d (i.e., sre)
        addfiles     {"%MSIPROP.RADIA_ADDFILES"%}           # comma separated list
        features     {"%MSIPROP.RADIA_FEATURES"%}           # comma separated list
        transform    {"%MSIPROP.RADIA_TRANSFORM"%}          # comma separated list
        mgttype      {"%MSIPROP.RADIA_MGTTYPE"%}            # manual, automatic
```

Notice in the example above every value for each package and service created will be generated from the associated .msi file property table.

There are two primary MSI substitution value sources.

- *%MSISUMM_summary_variable_name%* - extracted from the Summary information associated with the MSI file.

- *%MSIPROP_property_name%* - extracted from the Property table associated with the MSI file.

Embedded MSI Properties and CM Extensions for Windows Installer User-Defined Properties

Extensions for Windows Installer's Package Wizard, Advanced option, User Defined Properties, allows you to automatically add a set of properties and their default values to every `.msi` package created using the CM Advanced Publisher. These properties can be manually added to any package whether created by Wise, InstallShield, or another vendor.

A default set of condition testing can also be included in each package to ensure that these values have been updated by the administrator during the packaging process. This prevents package condition test failure.

Refer to the *HP OpenView Configuration Management Extensions for Windows Installer User Guide* (*CM Extensions for WI Guide*) for more information.

Publishing Hardware Configuration Elements

Use the CM Admin Publisher to publish hardware configuration elements for distribution to devices in your environment. Refer to the *HP OpenView Configuration Management OS Manager Hardware Configuration Guide* for detailed information. Steps for publishing hardware configuration elements are explained in detail in that guide.

Summary

- Use the CM Admin Publisher to publish operating system images or Windows Installer files to your CM-CSDB.

- CM Packages and Services are visible in the CM domain by using the CM Admin CSDB Editor.

- Operating system services and packages are stored in the OS Domain of the CM-CSDB.

- The CM Admin Publisher can publish batches of `.msi` files.

- Use symbolic substitution within your configuration file to avoid using multiple configuration files when publishing multiple `.msi` files.

- Transform files to be included while publishing a batch of `.msi` files should reside within the same directory as the `.msi` file to which they apply.

A Product Name Changes

If you have used Radia in the past, and are not yet familiar with the newly rebranded HP terms and product names, Table 9 below will help you identify naming changes that have been applied to the Radia brand.

Table 9   Product Name and Term Changes

New Name/Term	Old Name/Term
HP OpenView Configuration Management Administrator	Radia Administrator Workstation
HP OpenView Configuration Management	Radia
HP OpenView Configuration Management Admin CSDB Editor	Radia System Explorer
HP OpenView Configuration Management Admin Publisher	Radia Publisher
HP OpenView Configuration Management OS Manager	Radia OS Manager
HP OpenView Configuration Management Patch Manager	Radia Patch Manager
HP OpenView Configuration Management Solutions for Servers	Server Management

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