

HP Imaging Plug-in 1.0 User Guide

Guidance for customers to use HP Imaging Plug-in to deploy images.

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Description

HP Imaging Plug-in is a device imaging component based on Microsoft® System Center Configuration Manager 2007 and Microsoft Windows® Embedded Device Manager 2011. It is a solution to deploy HP Windows Embedded Standard 7 (WES7) images to HP thin clients.

Hardware and Software Requirements

Hardware Requirements

HP Imaging Plug-in Server:

Because it is based on Configuration Manager 2007 and Device Manager 2011, hardware requirements are the same as Configuration Manager 2007 and Device Manager 2011. The installation requirements for Device Manager 2011 can be found at the following Microsoft website: <http://technet.microsoft.com/en-us/library/gg749295.aspx>.

HP Imaging Plug-in Client:

- HP t5740e
- HP t5570e

Software Requirements

HP Imaging Plug-in Server:

- Microsoft System Center Configuration Manager 2007 Server
- Microsoft Windows Embedded Device Manager 2011 Server
- Microsoft .Net Framework 4 Client Profile

Note: If you want to know more details about software requirements for Configuration Manager 2007 and Device Manager 2011, please visit the Microsoft website.

HP Imaging Plug-in Client:

- Microsoft Windows Embedded Standard 7
- Microsoft System Center Configuration Manager 2007 Client
- Microsoft Windows Embedded Device Manager 2011 Client

Image File:

HP Windows Embedded Standard 7 Image File

- **.ibr** files gotten from HP official website (recommended)
- **.ibr** files captured by HP ThinState Capture

Installation

HP Imaging Plug-in Server

To install HP Imaging Plug-in Server, execute HP_Imaging_Plugin_Server.exe on the server running Configuration Manager 2007 and Device Manager 2011. Restart Configuration Manager 2007 Console after you install HP Imaging Plug-in Server.

HP Imaging Plug-in Client

To install HP Imaging Plug-in Client, execute HP_Imaging_Plugin_Client.exe on the HP Thin Clients. There is no special configuration to be set in installation. For deployed Thin Clients, we recommend using Configuration Manager 2007/Device Manager 2011 to remotely install HP Imaging Plug-in Clients. Please refer to **Distribute HP Imaging Plug-in Client via Device Manager 2011** for details.

Silent Installation

Both HP_Imaging_Plugin_Server.exe and HP_Imaging_Plugin_Client.exe are created by Install Shield - Install Script MSI project. To install them silently, run them with parameter '-r' to record silent response files. The /f1filename switch allows you to specify a fully-qualified alternate name for the silent response file. After recording response files, please run the setup applications with "-s /f1filename" to install them silently. Below are the samples:

- 1) Record silent response files:
 - a. HP_Imaging_Plugin_Client.exe -r /f1.\InstallClient.iss
 - b. HP_Imaging_Plugin_Server.exe -r /f1.\InstallServer.iss
- 2) Silent installation
 - a. HP_Imaging_Plugin_Client.exe -s /f1.\InstallClient.iss
 - b. HP_Imaging_Plugin_Server.exe -s /f1.\InstallServer.iss

Note: There should be no space between the /f1 switch and the file name.

You also can record response files for upgrading or un-installation.

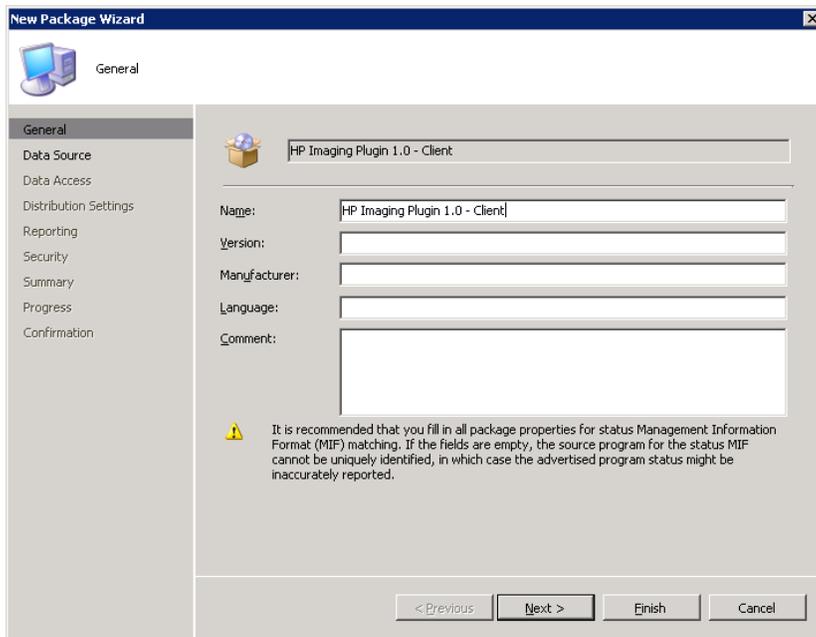
For more details, see

<http://kb.flexerasoftware.com/doc/Helpnet/installshield12helplib/InstallShieldSilent.htm>.

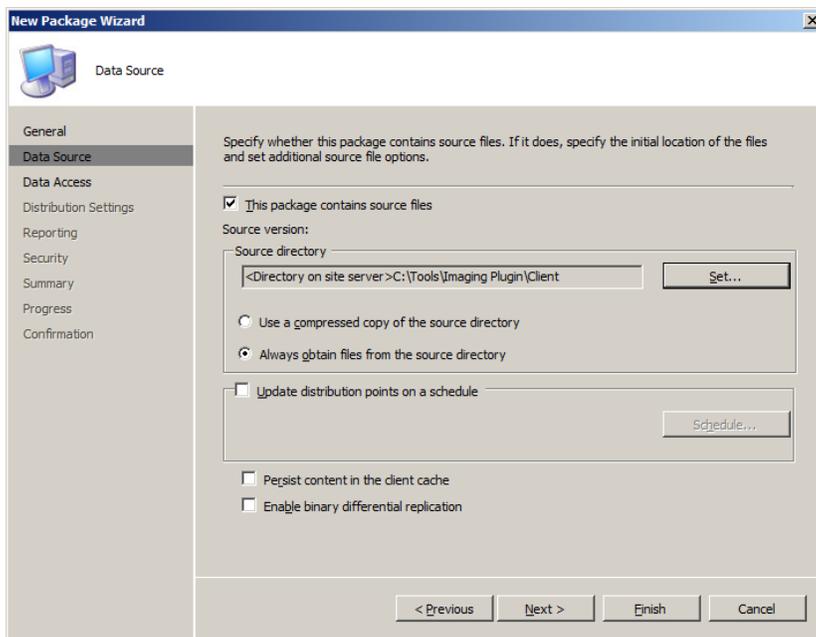
Distribute HP Imaging Plug-in Client via Device Manager 2011

Create a Package in Software Distribution of Configuration Manager 2007 Console

- 1) Put the HP_Imaging_Plugin_Client.exe and the InstallClient.iss files together in a separate folder.
- 2) Right-click System Center Configuration Manager > Site Database > Computer Management > Software Distribution > Packages to select New > Package.
- 3) In the “General” step, enter the desired package properties values, and then click Next.



- 4) In the “Data Source” step, select the folder containing HP Imaging Client files as the Source Directory. Click Next.

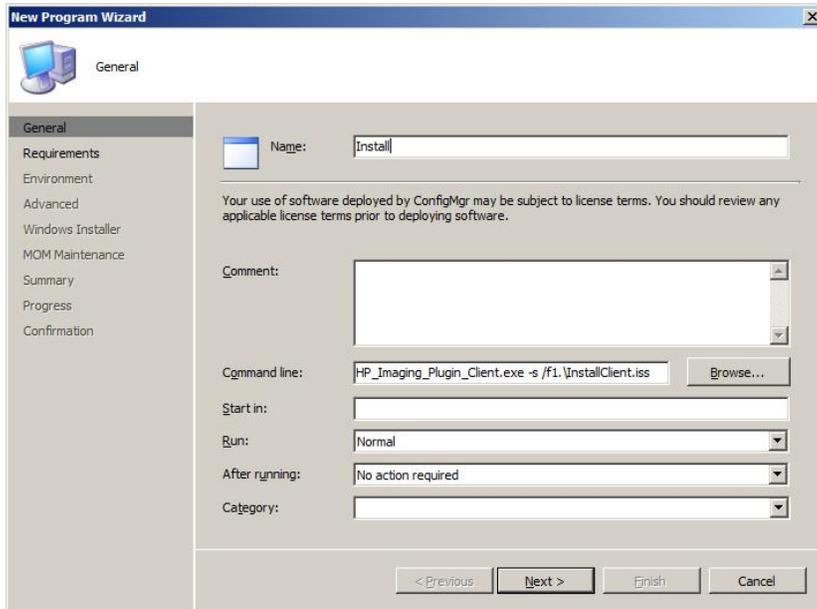


- 5) Accept the default settings for the remaining steps of New Package Wizard. Click Finish.

Create a program for the package

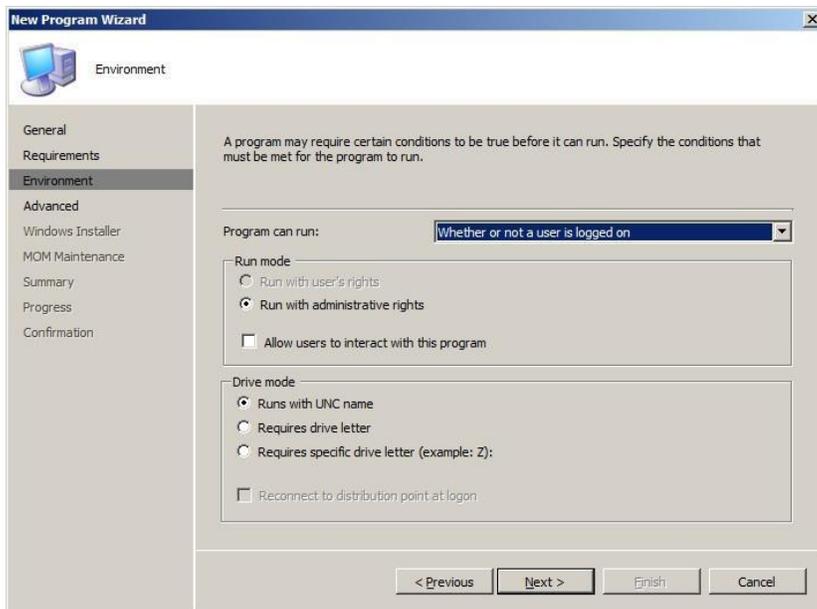
- 1) Right-click System Center Configuration Manager > Site Database > Computer Management > Software Distribution > Packages > Imaging Plugin Client > Programs, and then select New > Program.
 - a. Type the correct command line in the field: HP_Imaging_Plugin_Client.exe -s /f1.\InstallClient.iss

Click Next.



The screenshot shows the 'New Program Wizard' dialog box with the 'General' tab selected. The 'Name' field contains 'Install'. The 'Command line' field contains 'HP_Imaging_Plugin_Client.exe -s /f1.\InstallClient.iss'. The 'Start in' field is empty. The 'Run' dropdown is set to 'Normal'. The 'After running' dropdown is set to 'No action required'. The 'Category' dropdown is empty. The 'Comment' field is empty. The 'Finish' button is highlighted.

- 2) Accept the default settings in the "Requirements" step and click Next.
- 3) In the "Environment" step, select the "Whether or not a user is logged on" option in the "Program can run" droplist. Click Next.



The screenshot shows the 'New Program Wizard' dialog box with the 'Environment' tab selected. The 'Program can run' dropdown is set to 'Whether or not a user is logged on'. The 'Run mode' section has 'Run with administrative rights' selected. The 'Drive mode' section has 'Runs with UNC name' selected. The 'Finish' button is highlighted.

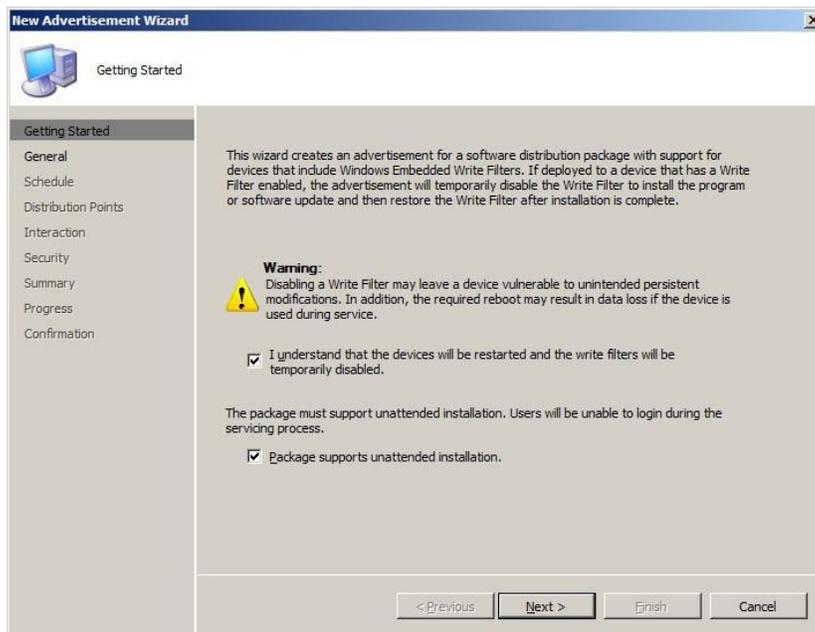
- 4) Accept the default settings of the remaining steps of New Program Wizard. Click Finish.

Copy the package to Distribution Points

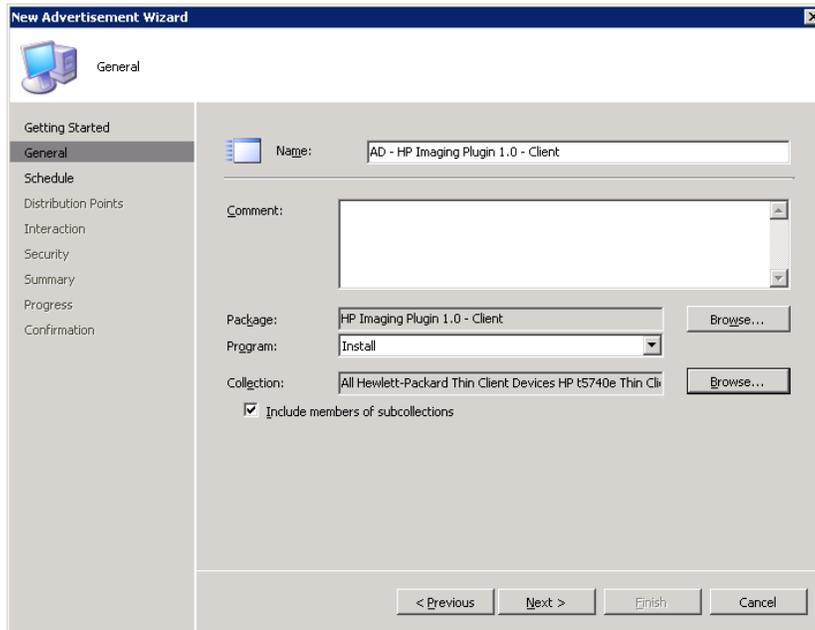
- 1) Right-click System Center Configuration Manager > Site Database > Computer Management > Software Distribution > Packages > Imaging Plugin Client, and then select "Manage Distribution Points".
- 2) In each of the "Welcome" and "Select Destination Distribution Point" steps, accept the default settings and click Next.
- 3) In the "Package" step, select the Distribution points to which you want to copy the package. Click Next.
- 4) Accept default settings for the remaining steps of the wizard. Click Finish.

Create a new advertisement with Write Filter Servicing

- 1) Right-click System Center Configuration Manager > Site Database > Computer Management > Embedded Device Management > Write Filter Servicing > Advertisements with Write Filter Handing, and then select New.
- 2) Ensure that both options in the "Getting Started" step are checked and click Next.



- 3) In the “General” step, select the correct Package and the correct Program. Then select the collection to install HP Imaging Plug-in Client. Click Next.

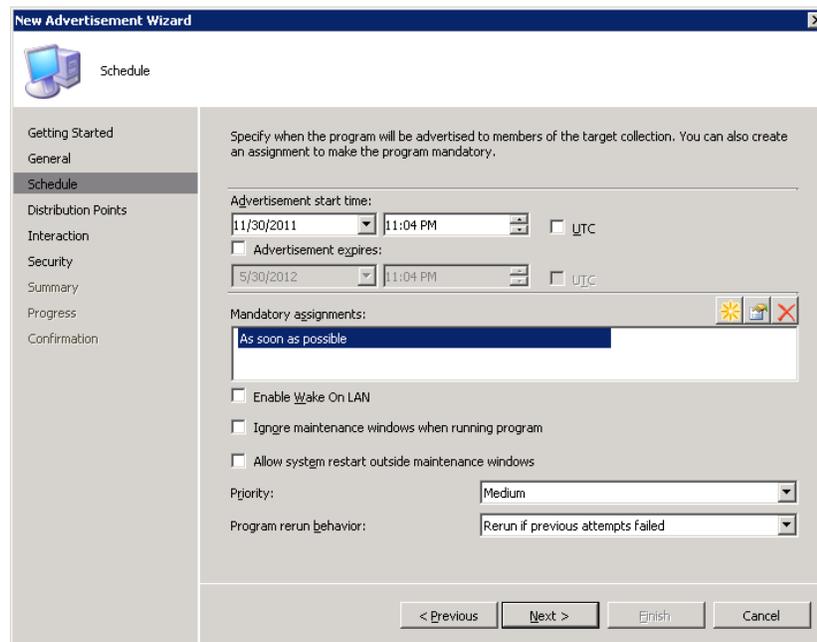


The screenshot shows the 'New Advertisement Wizard' dialog box in the 'General' step. The left sidebar contains a list of steps: Getting Started, General (selected), Schedule, Distribution Points, Interaction, Security, Summary, Progress, and Confirmation. The main area contains the following fields and controls:

- Name:** AD - HP Imaging Plugin 1.0 - Client
- Comment:** (Empty text box)
- Package:** HP Imaging Plugin 1.0 - Client (with a 'Browse...' button)
- Program:** Install (dropdown menu)
- Collection:** All Hewlett-Packard Thin Client Devices HP t5740e Thin Cli (with a 'Browse...' button)
- Include members of subcollections

At the bottom, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

- 4) Set the mandatory assignments in Schedule to make the advertisement run automatically, e.g., schedule “As soon as possible”.
- If you do not want to run this advertisement automatically, keep the default settings and click Next.



The screenshot shows the 'New Advertisement Wizard' dialog box in the 'Schedule' step. The left sidebar shows the 'Schedule' step selected. The main area contains the following fields and controls:

- Advertisement start time:** 11/30/2011 11:04 PM (with a 'UTC' checkbox)
- Advertisement expires: 5/30/2012 11:04 PM (with a 'UTC' checkbox)
- Mandatory assignments:** As soon as possible (with icons for sun, clock, and X)
- Enable Wake On LAN
- Ignore maintenance windows when running program
- Allow system restart outside maintenance windows
- Priority:** Medium (dropdown menu)
- Program rerun behavior:** Rerun if previous attempts failed (dropdown menu)

At the bottom, there are four buttons: '< Previous', 'Next >', 'Finish', and 'Cancel'.

- 5) Accept the default settings of the remaining steps of New Advertisement Wizard. Click Finish.

Update Authentication Keys

HP Imaging Plug-in uses SSL to encrypt the connection. To prevent a non-authorized server from deploying images to clients, HP Imaging Plug-in uses RSA key pairs to authenticate tasks. The server has an RSA private key and the clients have corresponding RSA public keys. After updating the key pair, the clients can accept Imaging tasks only from a server that has the new private key.

Create New Key Pair

Open Windows Explorer and go to the **<Imaging Plugin Folder>\Config** folder. In this folder, you should find a file named **newkeys.cmd**. Double-click newkeys.cmd to create priv.pem and pub.pem.

Update Private Key

Copy the **priv.pem** file to the **<Imaging Plugin Folder>\Service** folder to replace the original file.

Update Public Key

You can copy the **pub.pem** to "**C:\Program Files\Hewlett-Packard\Imaging Plugin\Client\key**" folder of the thin clients via USB key or FTP server or other means.

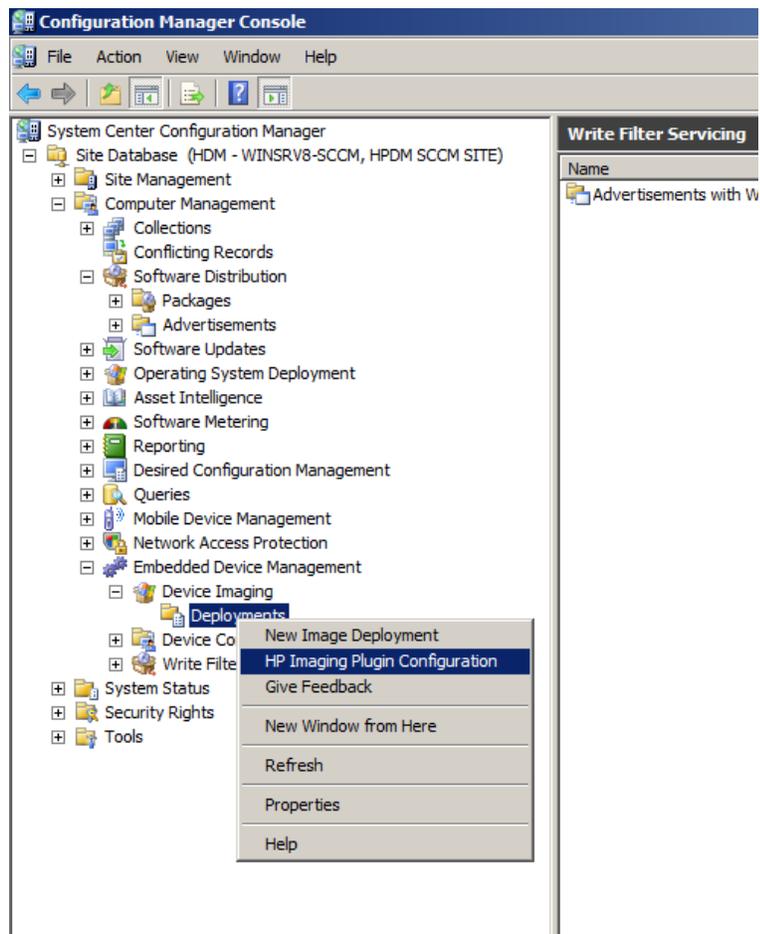
The next steps will show how to update public keys with Device Manager 2011.

Note: Please refer to **Distribute HP Imaging Plug-in Client via Device Manager 2011** about how to distribute software to thin clients.

- 1) Put pub.pem in a folder, for example: c:\pubkey.
- 2) Create a package in System Center Configuration Manager > Site Database > Computer Management > Software Distribution, and set the Source Directory to c:\pubkey.
- 3) Create a program for the package created in the previous step.
 - a. Set the command line: **cmd.exe /c "copy /Y pub.pem "C:\Program Files\Hewlett-Packard\Imaging Plugin\Client\key""**
 - b. Environment -> Program can run: **Whether or not a user is logged on**
- 4) Copy the package to distribution points.
- 5) Add a new advertisement in Write Filter Servicing.
 - a. Set the mandatory assignments in Schedule to make the advertisement run automatically, e.g., schedule "**As soon as possible**".
 - b. Distribution Points: **Download content from distribution point and run locally.**

HP Imaging Plug-in Configuration

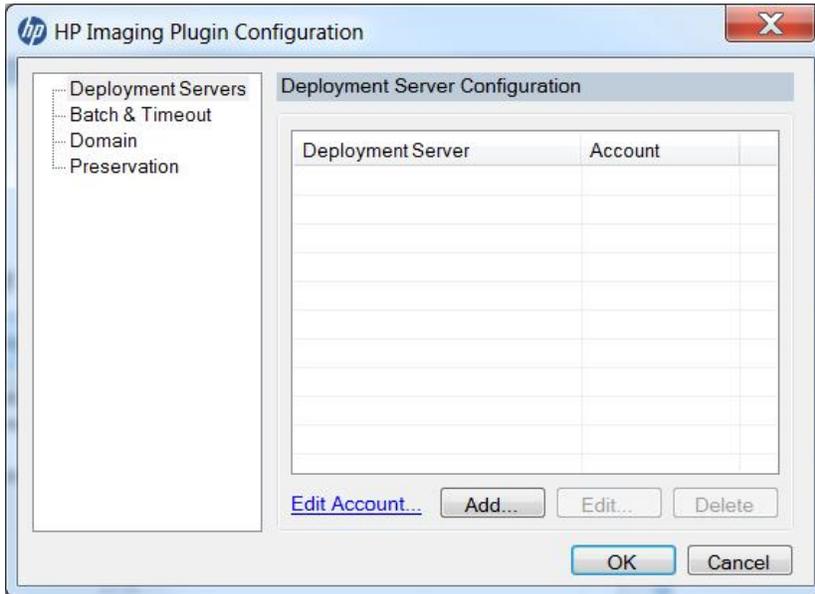
After installing the HP Imaging Plug-in Server, restart the Configuration Manager 2007 Console. After restarting, you can find “HP Image Deployment Configuration” in the menu when you right-click in System Center Configuration Manager > Site Database > Computer Management > Embedded Device Management > Device Imaging > Deployments. Please input essential settings before you use HP Imaging Plug-in to deploy images.



Click “HP Image Deployment Configuration”, a dialog pops up for editing settings.

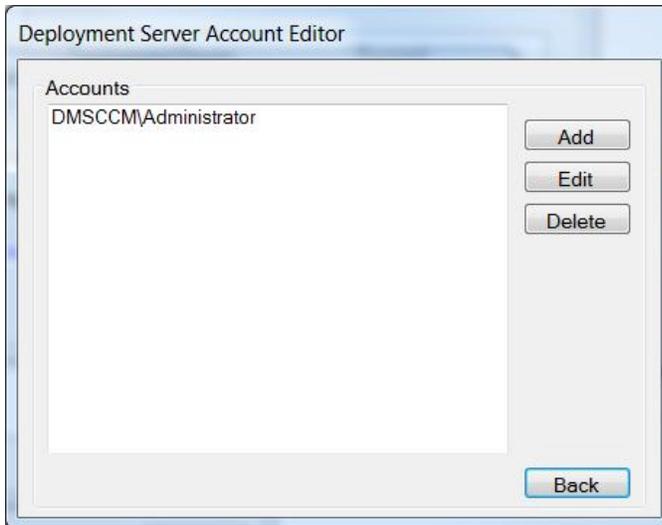
Note: If you want to save the changed settings, click “OK”. The settings will take effect after you click “OK”. If you want to cancel changes, click “Cancel”.

Deployment Server Configuration (Essential)



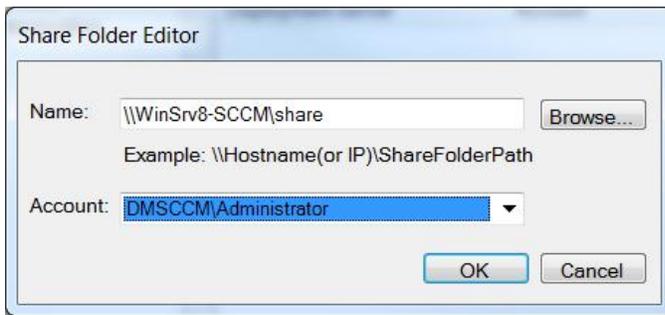
This panel allows users to designate Deployment Servers. HP Imaging Plug-in uses share folder as deployment servers.

To enable a share folder, you need to set a valid account for it. Click the “Edit Account ...” hyperlink to use Account Editor to add a new account.

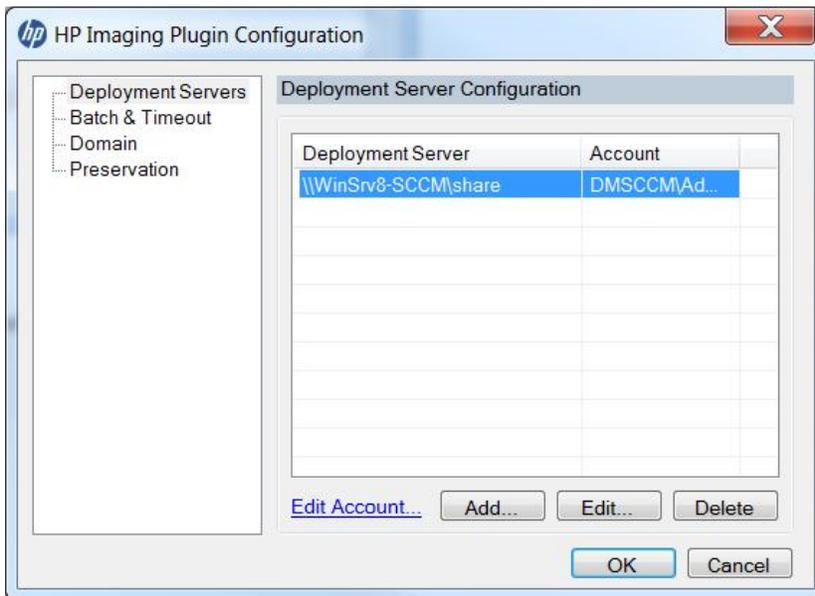


Click “Back” to return to the Configuration dialog. Then click the “Add...” button to add a share folder.

When a share folder editor appears, type the share folder path in the field and select the account created.

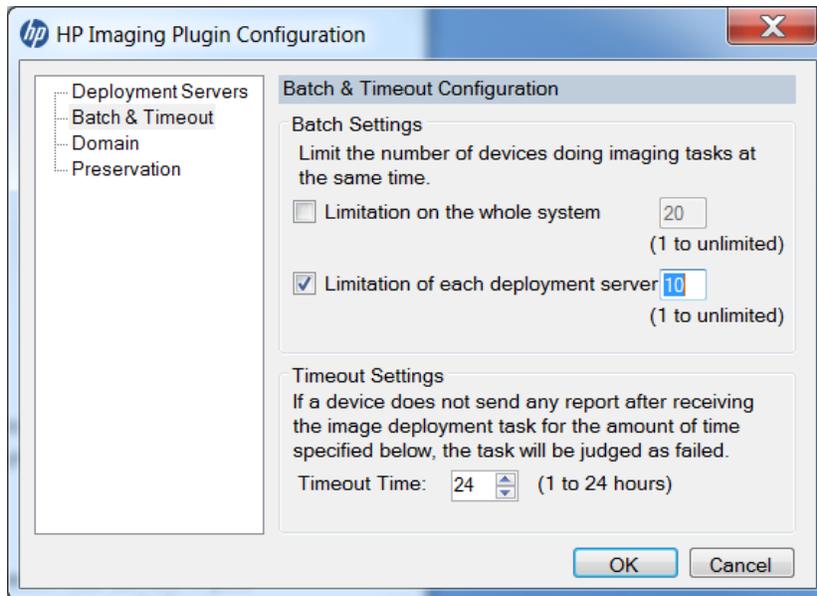


Click OK to finish share folder editing. You will see a new deployment server is in the list.



Batch & Timeout

This panel is for setting batch and timeout.



Batch Settings

Batch settings limit the number of devices doing imaging tasks at the same time to control network traffic. There are 2 options for batch settings: one to limit the whole system and the other to limit each deployment server. Please set them to appropriate values.

Notes:

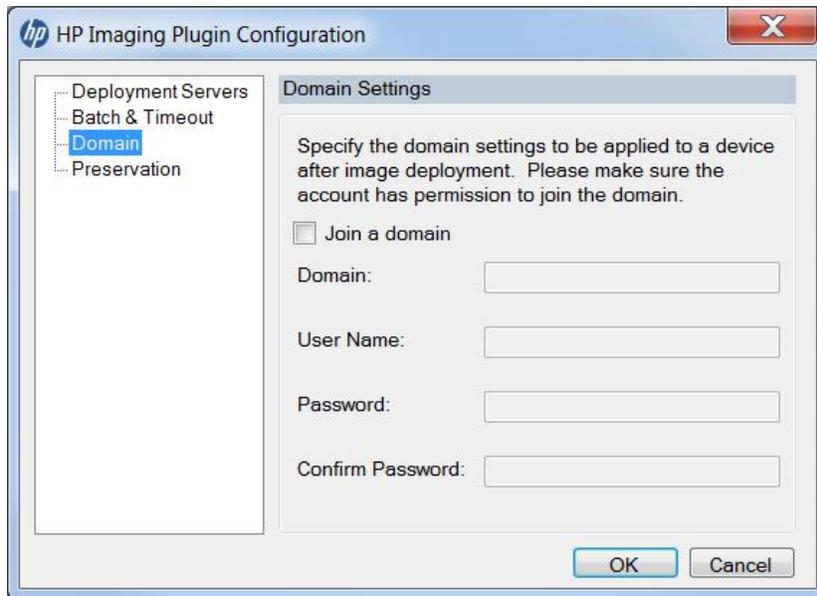
- 1) "Limitation of each deployment server" actually limits the imaging tasks for **each host device**. For example, you have 2 deployment servers: \\Server1\share1 and \\Server1\share2. Because they are using the same device – Server1, the executing tasks for share1 plus the executing tasks for share2 cannot exceed the limitation number.
- 2) You can set both limitations at the same time and have both of them take effect. The system can control the deployment server tasks if the total number of the second limitation exceeds the first limitation.

Timeout Settings

If a device does not send any report after receiving the image deployment task for the specified period of time (Timeout Time), the task will be judged as failed.

Domain

Specify the domain settings to be applied to a device after image deployment.



Preservation

Select the settings on the device to migrate as part of image deployment. These settings will be restored to original values after the image deployment.

Note: The region settings option does have limitations. The HP Imaging Plug-in only gets the system region setting and it does not collect the individual user region settings. The system region settings will therefore be applied to all users after image deployment.

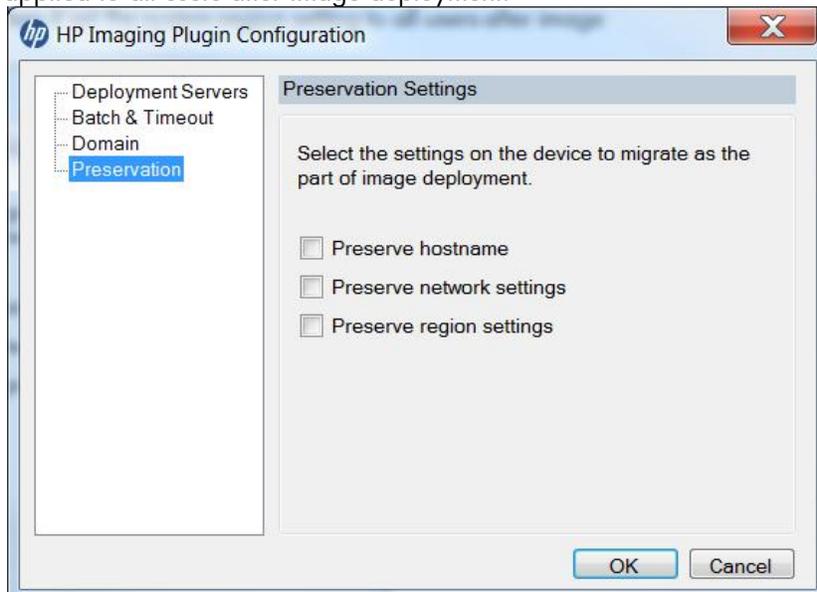
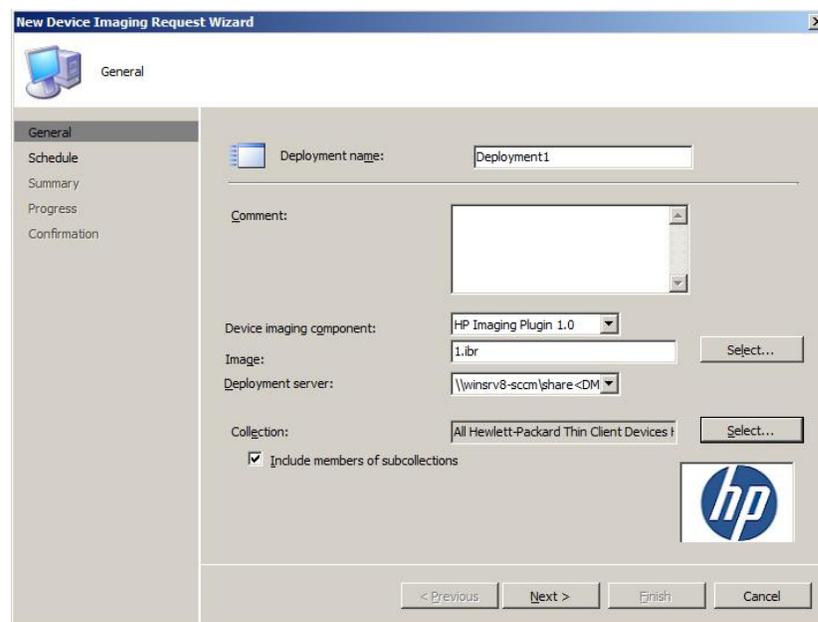


Image Deployment

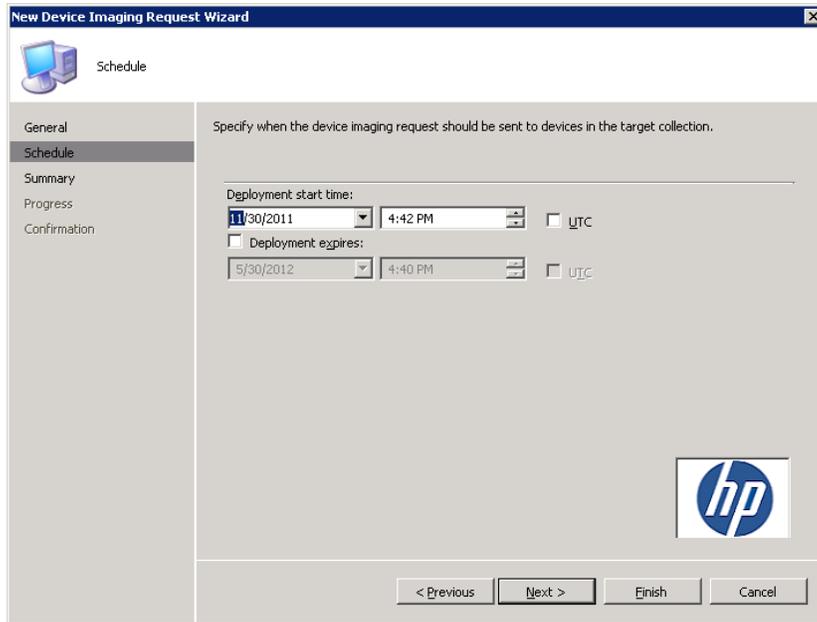
This chapter describes how to use HP Imaging Plug-in to deploy images. Confirm that you have installed HP Imaging Plug-in Server on the server side and HP Imaging Plug-in Client on the HP Thin Clients.

Create an image deployment

- 1) Right-click System Center Configuration Manager > Site Database > Computer Management > Embedded Device Management > Device Imaging > Deployments, and then select New Image Deployment.
- 2) The “New Device Imaging Request Wizard” dialog appears.
 - a. **Deployment name:** You can enter the deployment task name you want.
 - b. **Device imaging component:** Select “HP Imaging 1.0”. If you cannot find “HP Imaging 1.0” in the combo box, install the HP Imaging Plug-in Server.
 - c. **Deployment server:** Select a valid share folder.
 - d. **Image:** Type an image file name which the share folder has. It supports relative path, e.g., “HP\t5740e\WES7.ibr”.
 - e. **Collection:** Select the collection to which you want to deploy images.
 - i. Check “Include members of subcollections” if you want to deploy images to the subcollections of the collection.



- 3) In the schedule panel, make sure that the time you specified is the time of clients. If the time settings of clients are not the same as the one of the server, the task may not start as quick as you expect.

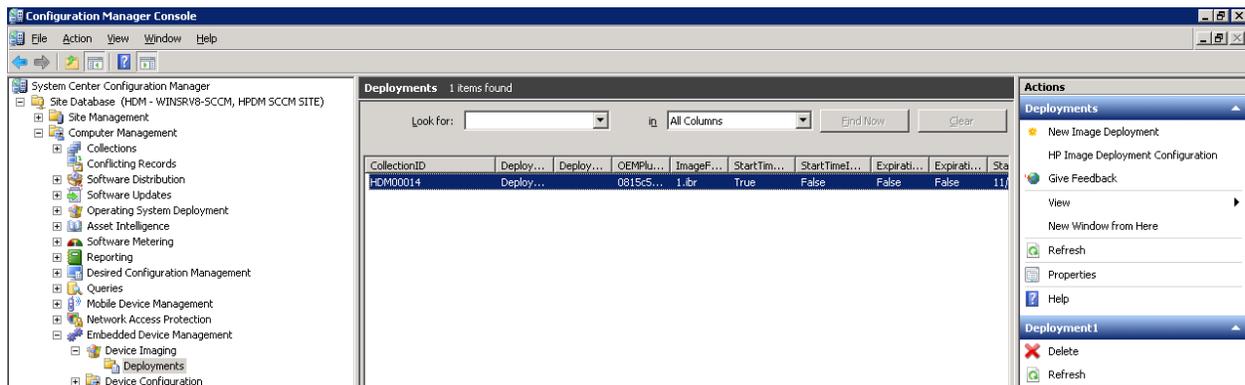


- 4) Accept the default settings of the remaining steps.

Observe/Control Deployments

After you create an image deployment, you can observe the status of this deployment. You can delete this deployment in this view, too. After the deployment starts, you can suspend or terminate this deployment. Paused deployments can be resumed, but terminated deployments can only be removed.

Note: Please refresh the view manually after you pause, terminate, or resume deployments. Otherwise, the menu may not be up to date if you want to do further actions.



In the "Device Imaging" view, you can observe the progress of deployments.

The screenshot shows the Configuration Manager Console interface. On the left, the navigation tree includes 'System Center Configuration Manager', 'Site Database (HDM - WINSRV8-SCCM, HPDM SCCM SITE)', 'Site Management', 'Computer Management', 'Collections', 'Conflicting Records', 'Software Distribution', 'Software Updates', 'Operating System Deployment', 'Asset Intelligence', 'Software Metering', 'Reporting', 'Desired Configuration Management', 'Queries', 'Mobile Device Management', 'Network Access Protection', 'Embedded Device Management', 'Device Imaging', 'Deployments', 'Device Configuration', 'Write Filter Servicing', 'System Status', 'Security Rights', and 'Tools'. The 'Device Imaging' view is active, showing a summary of deployment status for 'Deployment1'.

Deployment N...	Started	Pending	Suspe...	Termi.
Deployment1	0	2	0	0

The chart titled "Status for Selected Image Deployment" shows a 3D bar chart with a yellow bar representing the 'Pending' status. The x-axis is labeled 'Deployment1' and has values 0, 1, 2, 3. A legend at the bottom indicates: Started (purple), Pending (yellow), Suspended (blue), Terminated (pink), Expired (light blue), Failed (red), and Succes... (green).

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686164-001 Created January 2012

