

HP Driver Packs

Building HP Driver Packs for Image Deployment



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Executive summary

HP driver packs contain HP platform-specific drivers for the Windows® operating system in an INF-based installation format. This INF installation method can be used either alone or with baremetal operating system deployment tools that require INF-based drivers. HP provides both 32-bit and 64-bit driver packs for select managed notebooks, tablets, workstations, and desktops running Windows 7, Windows 8, and Windows 8.1 operating systems.

HP also provides a subset of drivers for deploying the Windows Preinstall Environment (WinPE). These driver packs contain network interface card drivers as well as storage drivers for deploying the system faster and providing multi-configured RAID systems (select platforms only). Each version of the WinPE driver pack is geared toward one specific operating system, such as WinPE 3.0, 4.0, or 5.0.

Using HP driver packs, IT organizations can easily integrate all necessary hardware-enabling driver support into their corporate images. These driver packs are known as new product introduction, or NPI, driver packs. This allows for quicker evaluation of new HP products as they are introduced to the market. In addition, HP also supports the capability to create custom driver packs via HP SoftPaq Download Manager (SDM). These driver packs are specific to the hardware in the organization and can be refreshed as the drivers are updated.

To ease deployment, HP offers the HP Client Integration Kit (CIK). HP CIK allows for WinPE and platform-specific driver packs to be configured directly into Microsoft® Configuration Manager (ConfigMgr). This allows for quick, nearly hands free importation of the drivers for image deployment. All HP driver packs, including WinPE and custom-built via HP SDM, are designed for HP CIK use.

The following topics are covered in this document:

- NPI driver packs
- Custom driver packs with HP SDM
- Solutions using HP driver packs
 - HP CIK
 - ConfigMgr & Microsoft Deployment Toolkit (MDT)

NPI driver packs—Platform and WinPE

HP build/test strategy for NPI driver packs

NPI driver packs are created and tested through the course of the product development phase. During a product's multiphase test cycle, several driver packs are built and tested based on the platform's planned factory images. This ensures that both the product drivers and the driver pack are fully functional prior to the product's shipping date. When a product reaches the official public launch, it has a fully tested and functional driver pack ready for deployment.

Packaging strategy

To ease multi-platform purchases, HP combines product series into one driver package (for example, G1, G2, and G3). This has a two-fold effect. One, it allows for one driver pack per operating system to be downloaded and covers multiple platforms. Two, it allows newer drivers to be deployed as the drivers are updated for newer NPI platforms.

Platform support strategy

With each new platform cycle, HP determines which platforms are managed. Currently, the following platforms are supported for NPI driver packs:

- EliteBook/ElitePad/ProBook/ProTablet/ZBook (14/15/17/600/700/800/900/1000)
- EliteDesk/EliteOne/ProDesk/ProOne (800/600)
- Z workstations

HP creates NPI driver packs based on the planned operating system strategy for the platforms. Each platform typically supports multiple operating system/architecture combinations (or factory images) and multiple web-only supported factory images. For all factory image combinations, an NPI driver pack is created from the factory image prior to the platform's introduction to the public. For web-based factory images, the NPI driver packs are created and released within 60 days of the platform's introduction to the public.

For the 400 series notebooks and desktops, all driver packs are available for creation via SDM after the products are introduced to the public. Testing is done to ensure that the quality of the drivers for a custom driver package via SDM is equivalent to the quality of the NPI driver packs.

Accessing NPI driver packs

There are several ways to access NPI driver packs. Primary access is available through the HP Client Management Solutions website: <http://www.hp.com/go/clientmanagement>. This site covers all aspects of HP Client Management as well as providing a single focal point for all HP Client Management downloadable material. Secondary access is available through each platform's HP.com driver support page. Each platform has a link under the **Manageability – Driver Pack** category.

Note

Each driver pack typically contains support for multiple platforms in that series (for example, G1, G2, and G3), so it might be possible to download the same driver package more than once if pulled from multiple platform web pages.

Use case for NPI driver packs

All products that have driver packs are designed to make large-scale multiplatform deployment easier. With each platform, there is a per-operating system driver pack. Using Microsoft's deployment tools (MDT/ConfigMgr) as well as HP CIK allows for large-scale bare metal image deployment. See the [HP Client Integration Kit User Guide](#) on the HP Client Management Solutions website for more information using driver packs with CIK and ConfigMgr.

In addition, driver packs provide an easy, quick, and stable way to install a clean, fully functional operating system without any extra tools. This can be done by redirecting the operating system via the registry to search the driver pack for system drivers. NPI- and HP SDM-created driver packs are the fastest way to bring a system to a ready state for customer software deployment and use.

Building custom driver packs via HP SDM

HP SDM now provides the ability to generate custom hardware-enabling driver packs to support bare metal image deployment on select HP systems. To build custom driver packs, use the following procedures to install, configure, and select the platforms using SDM.

Downloading and installing SDM

The latest version of SDM is available from HP at <http://www.hp.com/go/sdm>. After SDM is installed, it appears in the Start Menu, under **All Programs > HP > HP SoftPaq Download Manager**.

General requirements and setup for SDM

- .Net Framework 3.5 or later
- Broadband Internet Connection (Authenticated proxies supported: Basic, Digest, KLM and Kerberos)
- 512 MB RAM minimum, 1 GB recommended
- Windows XP, Vista, Windows 7, Windows 8, Windows 8.1, Server 2008, Server 2008 R2, Server 2012, Server 2012 R2

Building driver packs via SDM

1. Launch HP SoftPack Download Manager.
2. When prompted, select **Show software for all supported models**. If already in SDM, select the **Show All Products** tab.



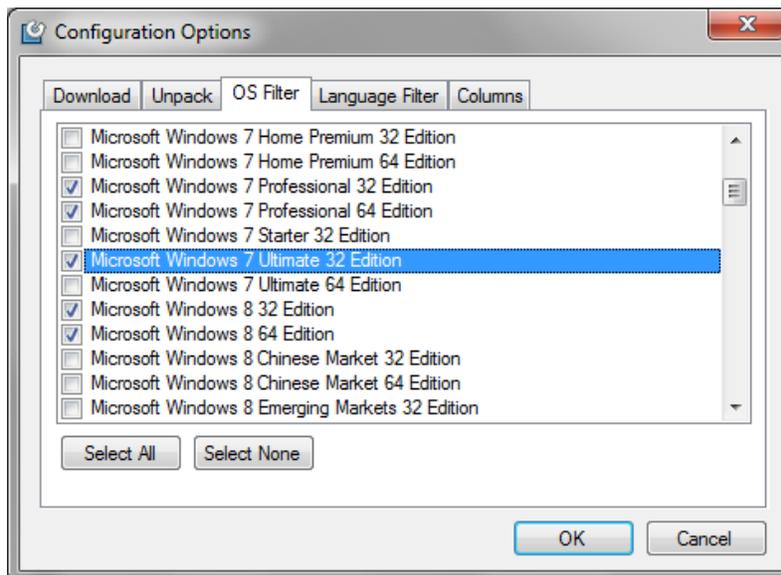
3. Select **Tools > Configuration Options**, and then set your preferences.

Tip

After all selections have been made, you can save the configuration file for future usage and backup purposes. This preserves the download directory, download structure, operating system and language settings, and the products you selected. To save the configuration file, select **File > Save Product Configuration**.

For each respective tab, select your desired configuration:

- **OS Filter**—Select the desired operating systems for the custom driver packs. Note that not all operating systems listed are supported for driver packs. Currently, only Windows 7 32- and 64-bit, Windows 8 32- and 64-bit, and Windows 8.1 64-bit are supported.



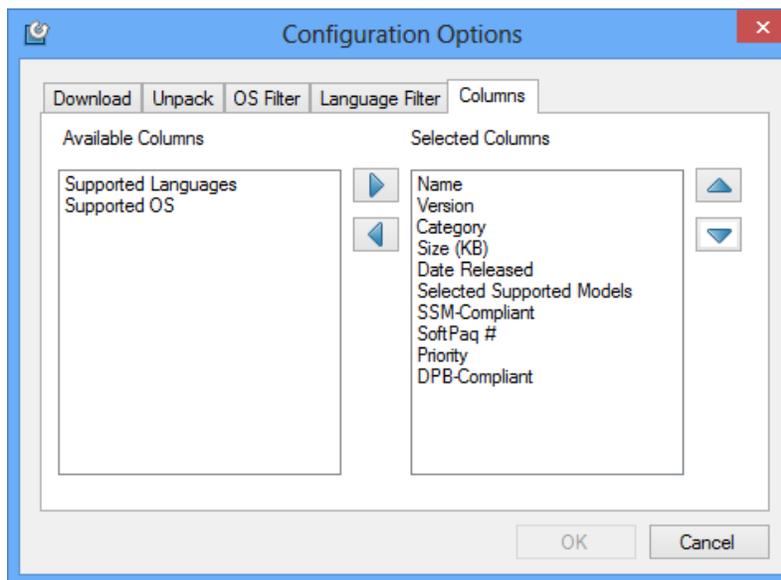
- **Language Filter**—Select the desired languages for the operating systems used in your environment.

Note

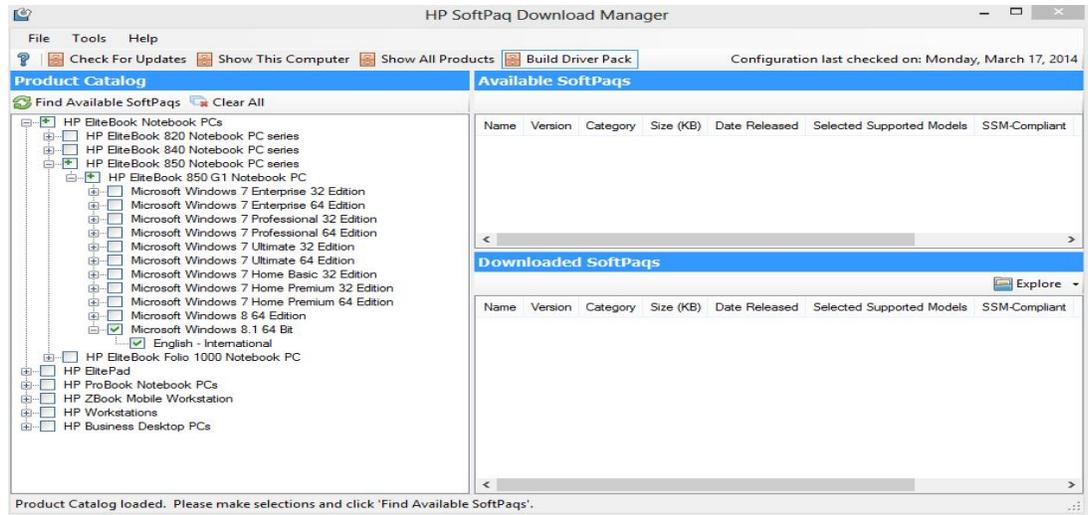
English – International is recommended.



- **Columns**—Controls which fields are displayed in the Available SoftPaqs window. (optional)



- Select **OK** to close the Configuration Options wizard.
- Select the **Build Driver Pack** tab.



- Select the plus sign (+) next to the desired product category in the **Product Catalog** to expand the category. Continue expanding until you find the desired product. Then, select the desired product by selecting the check box next to the product.

Note

You can make a selection at any level of the tree; however, if your selection is broad (for example, if you select the entire product family), then the search might take longer.

Multiple operating systems and architectures can be selected; however, only one combination can be used to create a driver pack. For example, you can select Windows 7 32-bit and Windows 8 64-bit, but only one of those operating system and architecture combinations can be used to create a driver pack.

The Product Catalog is updated weekly; however, HP reserves the right to update the Product Catalog as necessary.

- Select **Find Available SoftPaqs**. This shows all available SoftPaqs for the selected platform and operating system.

Name	Version	Priority	Category	Size (KB)	Date Rel...	S...	Soft...
Alcor Micro Smart Card Reader Driver	1.7.35.0	Routine	Driver - Storage	4,400	2013-07-26	850	Yes 62783
Alcor Micro Smart Card Reader Driver	1.7.37.0	Recommended	Driver - Storage	4,431	2013-09-25	850	Yes 63565
Alcor Micro Smart Card Reader Driver	1.7.38.0	Recommended	Driver - Storage	4,424	2013-12-09	850	Yes 64787
AMD Video Driver and Control Panel	13.152.1.9302	Routine	Driver - Graphics	293,611	2014-02-17	850	Yes 65357
ATI Video Driver and Control Panel	13152.11130910A162566C	Routine	Driver - Graphics	290,206	2013-10-18	850	Yes 63591
Broadcom Wireless LAN Driver	6.30.223.170	Routine	Driver - Network	25,438	2013-10-12	850	Yes 63814
Broadcom Wireless LAN Driver	6.30.223.170	Routine	Driver - Network	25,438	2013-10-16	850	Yes 63888
Broadcom Wireless LAN Driver	6.30.223.170	Routine	Driver - Network	25,353	2013-12-06	850	Yes 64725
HP 3D DriveGuard 6	6.0.15.1	Routine	Driver - Storage	18,682	2013-09-03	850	Yes 63231
HP 3D DriveGuard 6	6.0.15.1	Routine	Driver - Storage	18,682	2013-09-25	850	Yes 63563
HP 3D DriveGuard Software	6.0.16.1	Routine	Driver - Storage	18,682	2013-12-18	850	Yes 64934
HP Hotkey Support	5.0.20.1	Recommended	Driver - Keyboard, Mouse and Input Devices	26,724	2013-10-22	850	Yes 64042
HP Hotkey Support	5.0.21.1	Recommended	Driver - Keyboard, Mouse and Input Devices	26,721	2013-12-03	850	Yes 64639
HP Universal Camera Driver	1.0.0	Critical	Driver - Keyboard, Mouse and Input Devices	58,840	2013-10-22	850	Yes 64029
HP Universal Camera Driver	1.0.0	Routine	Driver - Keyboard, Mouse and Input Devices	48,216	2013-12-20	850	Yes 64824
HP Wireless Button Driver	1.1.2.1	Recommended	Driver - Keyboard, Mouse and Input Devices	2,881	2013-10-22	850	Yes 64043
IDT High Definition (HD) Audio Driver	1.0.0	Routine	Driver - Audio	43,732	2013-10-18	850	Yes 63556
IDT High Definition (HD) Audio Driver	1.0.0	Routine	Driver - Audio	36,046	2013-11-11	850	Yes 63940
IDT High Definition (HD) Audio Driver	1.0.0	Recommended	Driver - Audio	30,615	2013-12-27	850	Yes 64665

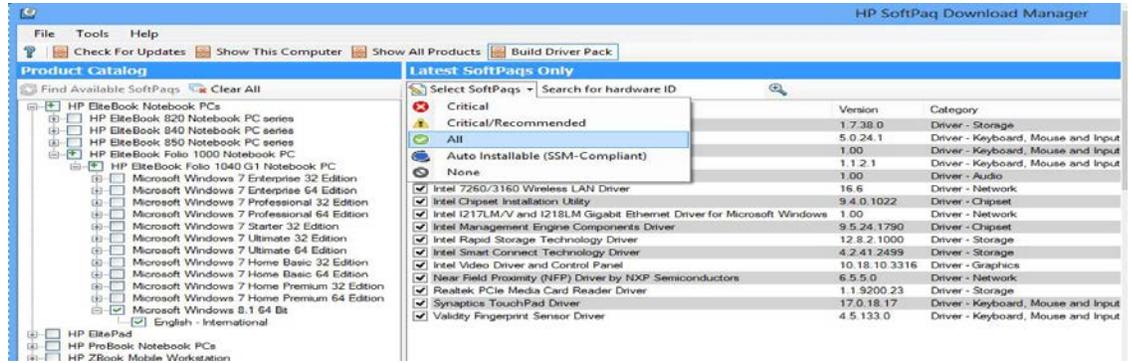
- Right-click any SoftPaq to view release notes and CVA details.
- Select **Show Latest SoftPaqs** to show the latest available SoftPaqs only.

Note

If more than one computer platform or operating system is selected, then **Show Latest SoftPaqs** is grayed out.

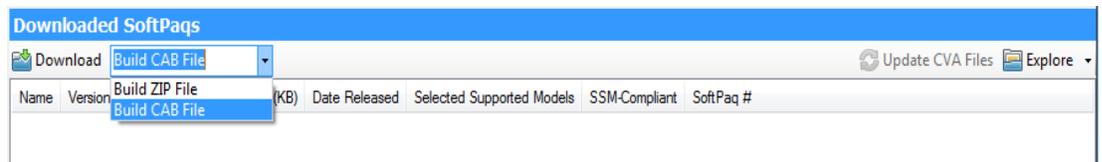
- Select the desired SoftPaqs by selecting the check box next to each one.

You can select individual SoftPaqs or use the **Select SoftPaqs** menu to select SoftPaqs according to priority.

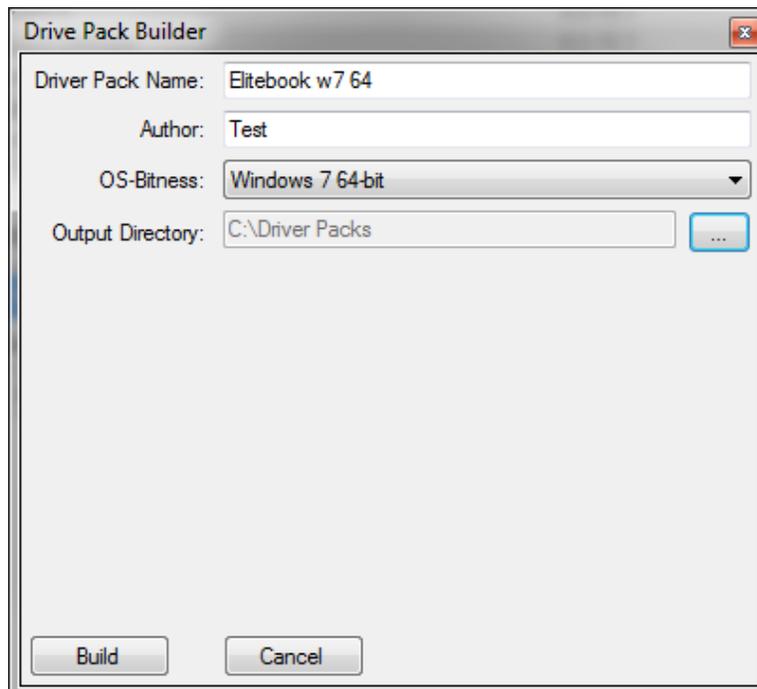


- Select the desired action from the menu next to the **Download** button.

- **Build CAB File**—Select this option if you are using MDT or HP CIK in conjunction with ConfigMgr.
- **Build ZIP File**—Select this option if you are using HP CIK with ConfigMgr, or if you want to manually unpack and deploy the driver pack through another application.



- The **End User License Agreement** screen is displayed when the first download per session starts. If the EULA appears, accept the license and continue.
- The **Driver Pack Builder** screen appears. Enter the **Driver Pack Name**, **Author**, **OS-Bitness**, and **Output Directory** as desired, and then select **Build**. See the following example.

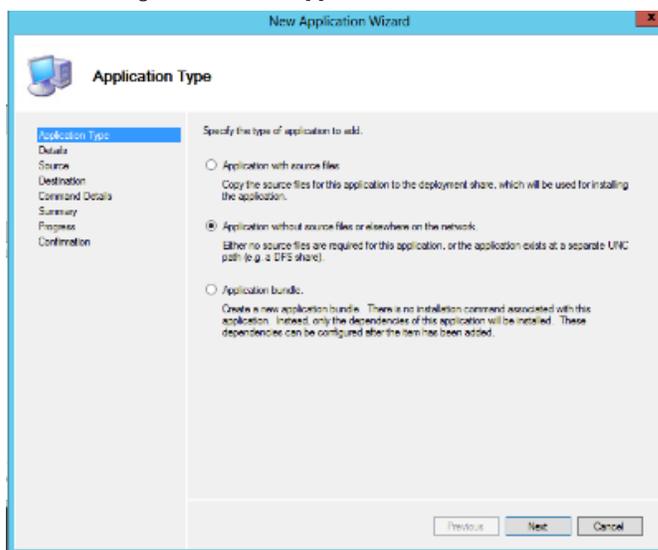


- The SDM status bar shows the status of the downloading SoftPaqs, the unpacking SoftPaqs, and the building/compressing of the driver pack. A message appears when the build is complete. Select **OK**.
SDM automatically launches the README.TXT (summary of the build) and the output directory selected earlier that contains the actual driver pack.
- Navigate to the output directory to obtain the driver pack and associated logs.

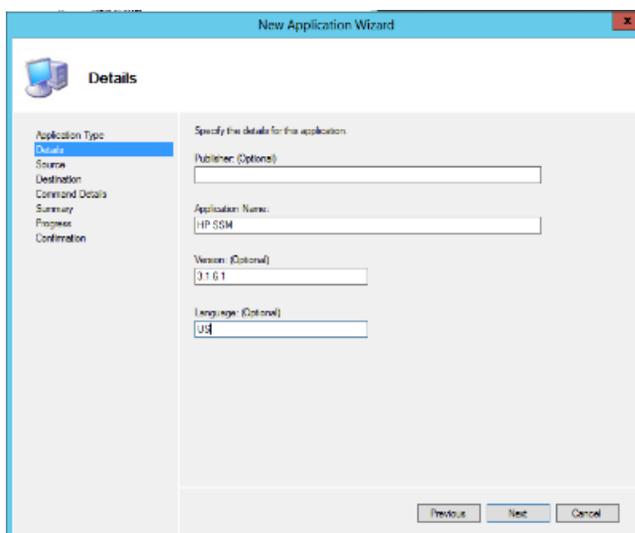
Microsoft MDT and SSM

Installing HP drivers and software using MDT with SSM

1. Create a new application in MDT using the following steps.
 - A. Open the **DeploymentWork** bench and navigate to **Deploymentbench > Deployment Shares > MDT Deployment Share (C:\DeploymentShare)**.
 - B. Right-click **Applications** and select **New application**.
 - C. In the resulting wizard, select **Application without sources files or elsewhere on the network**.

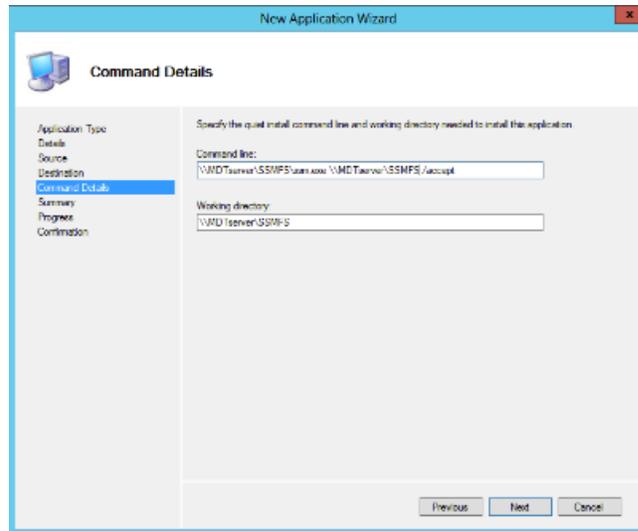


- D. Select **Next**.
- E. Enter the **Application Name**, **Version (optional)**, and **Language (optional)** as desired. For example, enter HP SSM, version 3.1.6.1, and English.

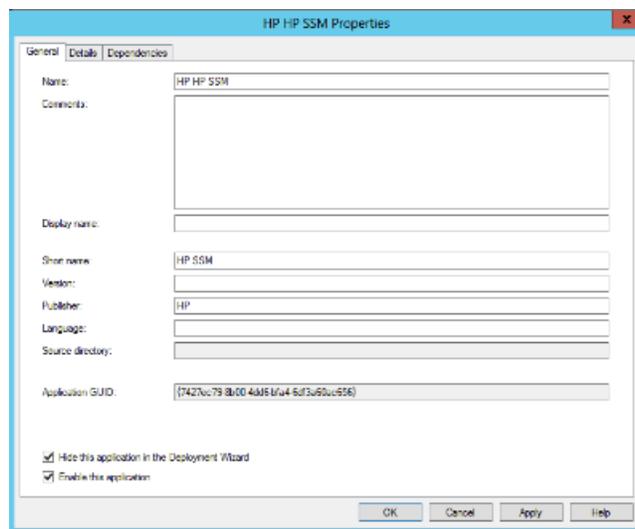


- F. Select **Next**.

- G. Enter `\\MDTserver name\SSMFS\ssm.exe` `\\MDTserver\SSMFS /accept` in the **Command line** box. Enter the File Store address in the **Working directory** box; for example, `\\MDTserver\SSMFS`.



- H. Select **Next** until you reach the final page of the wizard, and then select **Finish** to complete the wizard.
2. Select your application, and then select **Properties**.
If you do not want this application to show in the applications list, select **Hide this application in the Deployment Wizard** in the application properties. Select **Apply** after any changes.



3. In the State Restore phase, add an **Install Application** step to add the application HP System Software Manager (SSM) to the desired task sequence.
- Open the task sequence.
 - Navigate to **State Restore > Install Applications**.
 - Select **Install a single application**.
 - Click **Browse** and select the application name and version you added to MDT; for example, HP SSM 3.1.6.1.

Note

When HP SSM is executed, it searches in the driver folder for missing drivers and applications to update the target client.

For more information

To learn more about HP business notebooks and desktops, contact your local HP sales representative or visit <http://www.hp.com/go/notebooks> and <http://www.hp.com/go/businesspc>.

HP Client Management Solutions website

- <http://www.hp.com/go/clientmanagement>

HP SoftPaq Download Manager

- <http://www.hp.com/go/sdm>

HP System Software Manager

- <http://www.hp.com/go/ssm>

Windows Automated Installation Kit (AIK) Download

- <http://www.microsoft.com/en-us/download/details.aspx?id=10333>

Windows Automated Installation Kit Information

- [http://technet.microsoft.com/en-us/library/cc748933\(W5.10\).aspx](http://technet.microsoft.com/en-us/library/cc748933(W5.10).aspx)

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