Technical white paper

Operating System Deployment on HP Platforms



FAQ

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Executive summary

HP provides HP Driver Packs that contain HP platform-specific drivers for Windows[®] operating systems in an INF-based installation format. This INF installation method can be used either alone or with bare-metal operating system deployment tools that require INF-based drives.

HP also provides drivers for deploying the Windows Preinstall Environment (WinPE). These driver packs contain network interface card drivers, USB drivers, and storages drivers to deploy the system faster and provide multi-configured RAID systems.

Terms and definitions

Term	Definition
HP Driver Pack	A SoftPaq or package containing drivers for Windows operating system deployment via driver injection. Each driver pack supports one or more products.
SoftPaq	An HP update, generally using the naming convention spxxxxx.exe (where xxxxx are digits).
HP SDM	HP SoftPaq Download Manager is a software tool designed to streamline the download, extraction, and installation process of SoftPaqs.
INF	An INF file or setup information file is a plain-text file used by Windows for the installation of software and drivers. INF files are most commonly used for installing device drivers for hardware components.

Frequently asked questions

Q: Where can I download HP Driver Pack?

A: Go to <u>http://www.hp.com/qo/clientmanagement</u>. Click **HP CMS Download Library**. Under HP Driver Pack Matrix, click **HP Driver Pack 32-bit OS** for platforms running a 32-bit operating system or click **HP Driver Pack 64-bit OS** for platforms running a 64-bit operating system.

Q: How often does HP release HP Driver Packs?

A: HP releases one new production environment (NPI) HP Driver Pack per platform or, for platforms that share the same drivers and chipset, for each operating system available on that platform.

Q: If a new updated driver SoftPaq is available, does HP update the NPI HP Driver Pack?

A: No. HP does not update the NPI HP Driver Packs. If new updated driver SoftPaqs are available, you can create a new driver pack using HP SDM.

To build a custom driver pack using HP SDM version 3.5.2.0 or higher:

- 1. Go to http://www.hp.com/go/clientmanagement.
- 2. Download and install HP SoftPaq Download Manager.
- 3. Select Start > All Programs > HP > HP SoftPaq Download Manager.
- 4. Select Tools > Configuration Options.
 - A. On the **OS Filter** tab, select the operating system: **Win7**, **Win 8**, or **Win 8.1**.
 - B. On the Language Filter tab, select English International as the target language.
 - C. Click **OK**.
- 5. Select the **Build Driver Pack** tab.
- 6. In the Product Catalog window, click the plus sign (+) next to a product category to expand the category. Continue expanding until you find the product you are creating a driver pack for. Then, select the product by selecting the check box next to the product.
- 7. Select the platforms and operating systems that you use with the product, and then click Find Available SoftPaqs.

- 8. Select the SoftPaqs by selecting the check box next to each one.
- 9. In the **Download SoftPaqs** window, select an action from the drop-down menu next to the Download button:
 - A. **Build CAB File**—Select this option if you are using Microsoft Deployment Toolkit or CIK in conjunction with Microsoft System Center Configuration Manager.
 - B. **Build ZIP File**—Select this option if you are using CIK with Microsoft System Center Configuration Manager, or if you want to manually unpack and deploy the driver pack through another application.
 - C. **Build ISO File** Select this option if you want to manually unpack and deploy the driver pack through another application.
 - D. **Build WIM File** Select this option if you want to manually unpack and deploy the driver pack through another application.
- 10. Click Download.
- 11. The End User License Agreement screen is displayed for the first attempted download per session. If the EULA appears, click to accept the license and continue.
- 12. The Driver Pack Builder screen displays boxes for the Driver Pack Name, OS-Bitness, and Output directory. Provide the necessary information and then click **Build**.
- 13. A message is displayed indicating the Driver Pack build is complete. Click **OK**.

Navigate to the output directory to obtain the Driver Pack and associated logs.

Q: I have tried to deploy the HP Driver Pack to my G1 system. In the device manager, all drivers appear to be installed correctly; however, the mobile broadband device is not working properly.

A: Mobile broadband devices require additional components that can only be installed through a specific installer. After HP Driver Pack is deployed or an INF installation is completed, the mobile-broadband-device driver installer must be executed. Go to <u>http://www.hp.com</u> to get a SoftPaq containing the mobile-broadband-device driver installer softpaqs. Silent installation commands for the installer can be found in the CVA file.

For communication technology device drivers such as Broadcom, UART, Bluetooth, and NXP that are not included in the driver pack, another driver installer should be used to install the drivers. Go to <u>http://www.hp.com</u> to download these driver installer SoftPaqs. Silent install commands for the installers can be found in the CVA files. There are several ways to find the silent install commands.

To view the CVA file in HP SDM:

- 1. Select Start > All Programs > HP > HP SoftPaq Download Manager.
- 2. Select the target product and operating system.
- 3. Select Find Available SoftPaqs.
- 4. Find the SoftPaq number.
- 5. Right-click the SoftPaq name or number and select View SoftPaq CVA.

<u>e</u>	SoftPag Download Manager		
File Tools Help	Show All Products 😸 Build Driver Pack		
Product Catalog	Latest SoftPags Only		
🗇 Find Available SoftPags 🕞 Clear All	Select SoftPags + Search for hardware ID	Q _	
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HP Mobie Thin Clerks HP ProBook Notebook PCs Compaq Notebook PCs Urabooks	Collecture PowerDVD Software Description System for Microsoft Windows 8.1 HP 3001pr USB3 Post Replacator Driver HP 3005pr USB 3.0 Post Replacator Driver	View SoftPag Release Notes View SoftPag CVA	Routine Routine
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English - International HP ZBook 15u G2 Mobile Workstation HP ZBook 17 Mobile Workstation series	Downloaded SoftPags		

To view the CVA file on the ftp share:

1. Go to ftp://ftp.hp.com/pub/softpag/spxxxxx-xxxxx to access the CVA file. (Replace the x's with the SoftPag number.)

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	06/	24/2	015	05	:54AM		2,212	2 sp70001	l.html			
	06/	21/2	015	02	:01AM	72,	248,410	5 sp70002	2.exe			
	06/	19/2	015	11	:29PM		3,940	sp70003	3.cva			
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If the driver installation fails or does not work properly, verify that you are not missing any necessary hardware or software. Some CVA files list the software requirements under **[Software Dependencies]**.

[Install Execution] Install="setup.exe" SilentInstall="setup.exe" -s

[Silent installation instructions] "setup.exe" -s

[ReturnCode] 0:SUCCESS:NOREBOOT=The Intel Smart Connect Technology Driver installed successfully. 14:SUCCESS:NOREBOOT=The Intel Smart Connect Technology Driver installed successfully. Reboot Required 3:SUCCESS:REBOOT=The Intel Smart Connect Technology Driver installed successfully. Reboot Required

3:SUCCESS:REBOOT=The Intel Smart Connect Technology Driver installed successfully. Reboot Required -3:SUCCESS:REBOOT=The Intel Smart Connect Technology Driver installed successfully. Reboot Required

[Software Dependencies] - ISCT must be enabled in the BIOS.

- Microsoft .NET 4.0 or later must be installed before the installation of ISCT.

[Private]

For example, on a workstation system in Hybrid Mode, an Intel[®] graphics driver must be installed before the NVIDIA[®] graphics driver can be installed. See the following error message.



To install the NVIDIA graphics driver in Hybrid Mode:

- 1. Install the Intel graphics driver.
- 2. Restart the system.
- 3. Install the NVIDIA graphics driver.
- 4. Restart the system.

Note

In Discrete Mode, you can install the NVIDIA graphics driver without installing the Intel graphics driver first. However, you must then follow the above procedure if you switch to Hybrid Mode. Either way, you must install the NVIDIA graphics driver in both modes.

On a workstation system in Hybrid Mode, you must also install an Intel graphics driver before installing an AMD[®] graphics driver. See the following error in Device Manager.

🚔 Device Manager		×
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Biometric Devices		
Bluetooth Radios		
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🛯 🔩 Display adapters		
- MD Firepro W5170M		
Standard VGA Graphics Adapter		
🖻 🖙 IDE ATA/ATAPI controllers		
Imaging devices		
🖻 👄 Keyboards		
Mice and other pointing devices		
🖻 🖳 Monitors		
🖻 👻 Network adapters		
Other devices		
Ports (COM & LPT)		
Processors		
P Security Devices		
Sound, video and game controllers		
Image: System devices		
Universal Serial Bus controllers		

To install the AMD graphics driver in Hybrid Mode:

- 1. Install the Intel graphics driver.
- 2. Restart the system.
- 3. Install the AMD graphics driver.
- 4. Restart the system.

Note

In Discrete Mode, you can install the AMD graphics driver without installing the Intel graphics driver first. However, you must then follow the above procedure if you switch to Hybrid Mode.

If you switch to Discrete Mode after installing the drivers in Hybrid Mode, an error message appears. Restart the system to resolve the issue.

No AMD graphics driver is installed, or the AMD driver i functioning properly. Please install the AMD driver appropriate for your AMD hardware.
ОК

Another example is that on a system running Intel Smart Connect Technology (such as the hP sp67270), you must enable ISCT in the BIOS and NET framework (4.0 or higher) before installing ISCT.

For more information

For more information on HP driver packs or Windows operating system deployment, go to the HP Client Management Solutions website: <u>http://www.hp.com/qo/clientmanagement</u>.

Sign up for updates hp.com/go/getupdated

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