# Technical white paper

# Installing Microsoft Windows 8 on HP ElitePad 900 G1 Tablet



**Commercial Managed IT** 

# **Table of contents**

Executive summary	
System requirements and prerequisites	
Installing the OS, drivers, and enhancements	2
Drivers and enhancements	4
Appendix A: Using HP SoftPaq Download Manager	
Appendix B: Installing preboot applications and tools	7
Applications accessible during startup	7
Applications accessible during startup	7
HP_TOOLS partition errors	7
Appendix C: Q & A	8
Appendix D: Installing .NET Framework 3.5 on Windows 8	9
Installing .NET Framework 3.5 on demand	9
Using the Control Panel to enable .NET Framework 3.5	10
For more information	11

# **Executive summary**

This white paper provides instructions for installing 32-bit versions of the Microsoft® Windows® 8 operating system along with applicable HP drivers and applications on the HP ElitePad 900 G1 Tablet.

Windows 8 delivers a modern user interface while maintaining all of the compatibility, manageability, and security features for which Windows is known.<sup>1</sup>

Target audience: This white paper is intended for IT staff.

# System requirements and prerequisites

### Warning

Before proceeding with the installation of Windows, you should back up all personal data, such as files, photos, and videos. If not backed up, your personal data will be lost.

Unless Windows is installed using recovery media from HP, you will not have access to the HP Store or applications that are only distributed via the HP Store such as HP PageLift.

The following additional items are recommended when installing Windows 8 on your HP ElitePad 900 G1 Tablet:

- · HP ElitePad Docking Station
- USB keyboard and pointing device
- Windows 8 OS media on DVD or USB flash storage (see Warning above)
   Note that using media from an alternate source requires a product ID (PID)<sup>2</sup>
- High-speed Internet access to drivers and OS enhancements provided by HP, via either the "Dowload drivers & software page" on <a href="https://px.com/np.com/

### **Important**

Make sure you have the latest compatible versions of drivers and enhancements (Table 1). In addition, you must have a Microsoft operating system license for each system on which you are installing Windows 8.

# Installing the OS, drivers, and enhancements

This section provides guidelines for users performing a clean installation of Windows 8.

### **Important**

Follow the installation instructions in the order provided. Failure to complete these steps in the proper order can result in an unsuccessful or unstable installation.

These instructions are independent of the operating system currently installed on the HP EliteBook 900 G1 Tablet.

- 1. Download the driver(s) for the network interface card and/or wireless LAN adapter driver from the <u>Download drivers & software page for the HP ElitePad 900 G1 Tablet. Save to a USB storage device.</u>
- 2. Connect the HP ElitePad 900 G1 Tablet to an HP ElitePad Docking Station with USB flash storage, keyboard, and pointing device attached.
- 3. Power on the tablet and press the F9 key repeatedly during power on self test (POST).

<sup>&</sup>lt;sup>1</sup> For more information on Windows 8 features, refer to the appropriate Windows 8 product guide. Search on "Windows 8 product guide" at the <u>Microsoft</u> website.

<sup>&</sup>lt;sup>2</sup> Typically provided on the product's Certificate of Authenticity

**4.** When prompted, select USB Hard Drive as the boot device.

### Note

For USB disk on key (DOK) installation, a bootable DOK with WinPE 4.0 32-bit is required. If network connectivity is needed for OS deployment, add the HP WinPE 4.0 Driver Pack to the WinPE boot image.

- Follow on-screen instructions to install Windows 8.
- 6. Install communications driver(s) from the USB storage device used in Step 1.

### Note

A reboot may be required to complete installation of the communication drivers.

- 7. Install the following Microsoft patches from the Windows update site:
  - KB 931125 Root Certificate Update
  - KB 2756872 Windows 8 Client General Availability Update Rollup

Reboot the system after these patches have been installed.

- 8. Install HP updates, which may be downloaded from the <u>Download drivers and software</u> page for the HP ElitePad 900 G1 Tablet.
  - A. Download the **HP ElitePad 900 Driver & Firmware Update** package (see Table 1 for the particular version) to update the BIOS, firmware, and drivers.

### Note

The HP ElitePad 900 Driver & Firmware Update package (FDSetup) contains bundled drivers, firmware, and BIOS updates that should be installed together in order to optimize the performance of the HP ElitePad 900 G1 Tablet.

i. Extract the contents of the package by running the executable (SPxxxxx.EXE) as follows:

### SPxxxxx.EXE /e /f <desired output location>

- ii. Execute the installation from **desired output location>**. Parameters are as follows:
  - FDSetup-s Standard silent install
  - FDSetup-s-f Must be used with –s; forces FDSetup to run, regardless of previous version installed.
  - -p<PasswordFileName>

The password file is generated by the HPQPSWD utility and is encrypted to ensure the security of the password.

There are no spaces between  $-\mathbf{p}$  and the file name. If you need to use spaces in the file name, put quotes around them.

A network location should not be used for the password file. To enhance security, this file is deleted after FDSetup has run.

- Restart the computer after the installation of the HP ElitePad Driver & Firmware Update package has completed.
- B. Download and install the remaining drivers and enhancements listed in Table 1 using either of the following methods;
  - i. Automatic via HP SoftPaq Download Manager (<u>hp.com/go/sdm</u>)
  - ii. Manual via hp.com (<u>Download drivers and software</u> page for the HP ElitePad 900 G1 Tablet).

For more information on using HP SoftPaq Download Manager, refer to Appendix A.

# **Drivers and enhancements**

Table 1 lists the minimum version for each HP driver and enhancement required for Windows 8 when running on the HP ElitePad 900 G1 Tablet PC. In general, it is a best practice to download and install the latest versions that are available on the HP website.

Table 1. Minimum required software versions for the HP ElitePad 900 G1 Tablet PC

Name	Version
HP ElitePad 900 Driver and Firmware Update	1.0.0.6 A
Broadcom GPS Driver for Microsoft Windows 8	19.14 E
Near Field Proximity (NFP) Driver by NXP Semiconductors	1.4.4.3 A
Essential System Updates for Microsoft Windows 8	1.0 Rev 4
HP USB-to-Serial Connector Driver	1.7.0.0 A
Qualcomm Atheros Bluetooth 4.0+HS Driver	1.9 A
Qualcomm Atheros AR6000 Series Wireless LAN Driver	3.7 B
Realtek Media Card Reader Driver	6.1.7601.39025 A
HP USB-to-Ethernet Connector Driver	2.6.0.8 A
HP BIOS Settings	1.0.11.1 A

### Note

Microsoft .NET Framework 4.5 is native in Windows 8; some software may require an earlier version of .NET Framework. Refer to Appendix D: Installing .NET Framework 3.5 on Windows 8 for more information on installing an earlier version.

# **Appendix A: Using HP SoftPaq Download Manager**

Perform the following procedure to use HP SoftPaq Download Manager to update your current platform:

- 1. Boot the Windows OS.
- 2. Open Microsoft Internet Explorer.

### Note

.NET Framework 3.5 must be installed prior to installing HP SoftPaq Download Manager.
Instructions for installing .NET Framework 3.5 are provided in Appendix D: Installing .NET Framework 3.5 on Windows 8.

- 3. Download and install HP SoftPaq Download Manager from <a href="https://hp.com/qo/sdm">hp.com/qo/sdm</a>
- 4. Launch HP SoftPaq Download Manager.
- 5. When prompted, select **Show software for this model only**, as shown in Figure A-1.

### Note

You can use the **Check software updates for this model** option to automatically install updates on the current system or to download SoftPaqs to install on systems similar to the current platform.

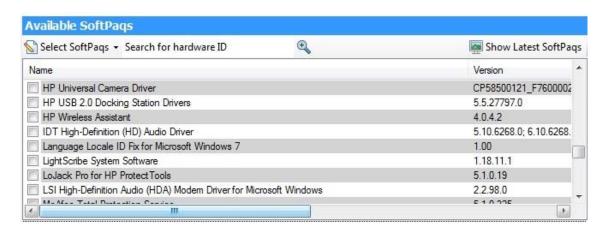
Figure A-1. HP SoftPaq Download Manager menu



The current platform is automatically selected and displayed in the **Product Catalog** window.

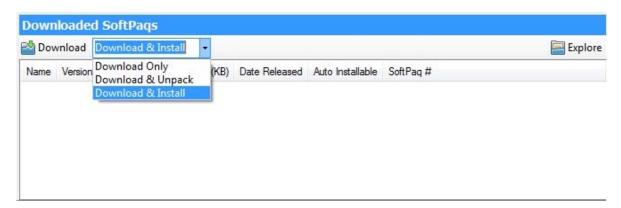
6. Select the desired SoftPags from the **Available SoftPags** list, shown in Figure A-2.

Figure A-2. Available SoftPaqs list



- 7. Select the desired option from the **Download** menu in the **Downloaded SoftPags** window (as shown in Figure A-3):
  - Download Only Download selected SoftPags to C:\ProgramData\HP\HP SoftPag Download Manger\SWDownload
  - Download & Unpack Download selected SoftPaqs to C:\ProgramData\HP\HP SoftPaq Download
     Manger\SWDownload and unpack each SoftPaq in a unique folder based on the particular SoftPaq number
     (\SPxxxxx)
  - Download and Install Download selected SoftPaqs to C:\ProgramData\HP\HP SoftPaq Download Manger\SWDownload and then install each on the current system

Figure A-3. Downloaded SoftPaqs window



For more information on using HP SoftPaq Download Manager, refer to the Help documentation associated with the tool. Additional information is available via the SDM Support Forum (SDM→Help→Support Forum).

# Appendix B: Installing preboot applications and tools

The HP\_TOOLS partition and the preboot applications on this partition are not required for the basic operation of HP notebook computers. However, if the HP\_TOOLS partition or applications are missing, the features described in this appendix will not be available.

# **Applications accessible during startup**

The HP\_TOOLS partition includes the following applications and utilities that are accessible during startup:

- HP System Diagnostics Allows you to perform diagnostic tests on select system components
- BIOS Recovery Performs automatic BIOS corruption detection and recovery

# Creating or restoring a preboot partition on the hard drive

Use the following steps to create the HP preboot partition and install preboot SoftPags onto the partition:

Download the SoftPaqs for HP Unified Extensible Firmware Interface (UEFI) Support Environment and HP ElitePad 900
 Driver & Firmware Update to the operating system partition. These SoftPaqs are available from the <u>Download drivers</u> and software page for the HP ElitePad 900 G1 Tablet.

### Note

Install the HP UEFI Support Environment Setup SoftPag first.

- 2. Verify that the SoftPags run and unbundle into the C:\swsetup directory.
- 3. Verify that the preboot application is installed in the correct location in the FAT32 partition.
- 4. Verify that all preboot applications have signature (.sig) files.
- 5. Verify that each application works as expected after installation.

# **HP\_TOOLS** partition errors

If the preboot application launch keys fail to operate (see the list below for examples), the partition may have become corrupt. Reinstall the application using the HP UEFI Support Environment Setup SoftPaq. If the reinstalled application still does not work, contact technical support.

The following errors may be displayed if a problem occurs when launching EFI and preboot applications:

- Preboot partition not found: can't find FAT32 partition starting with HP TOOLS.
- Application not found: can't find preboot application in directory.
- Invalid signature: BIOS fails to verify the signature of the preboot application.

If there is a backup version of the application in BIOS flash, the BIOS launches the backup; otherwise, the BIOS displays an error message.

### Warning

Do not encrypt HP\_TOOLS partition using software encryption programs such as Windows BitLocker or Full Volume Encryption for HP ProtectTools. When the partition is encrypted, HP preboot applications cannot function.

# Appendix C: Q & A

### Q: Are my accessories compatible with Windows 8?

A: Software and hardware compatibility can be checked at the Compatibility Center for Windows 8 on Microsoft's website.

### Q: Will I have access to HP Store following the installation of Windows 8?

A: That depends on the particular Windows 8 installation scenario:

- Using volume license (VL) or key management service (KMS) server No access to HP Store, thus no HP Windows Store apps are preloaded
- Using retail key No access to HP Store, thus no HP Windows Store apps are preloaded
- Using clean OS with HP Digital Product Key (DPK) and HP Recovery Image Access to HP Store

## Q: Can Windows Store apps be deployed outside the Windows Store?

A: Yes. Refer to the appropriate Microsoft blog for more information.

# Appendix D: Installing .NET Framework 3.5 on Windows 8

.NET Framework 4.5 is included with Windows 8 and installed on your computer with the operating system; however, .NET Framework 3.5 is not automatically installed with Windows 8. Thus, to run applications that require .NET Framework 3.5 on a Windows 8 system, you must first enable this version using one of the following methods:

- Installing .NET Framework 3.5 on demand (that is, whenever an application that requires .NET Framework 3.5 finds that this version is not available)
- Using the Control Panel to enable .NET Framework 3.5

These two options are outlined below; for more information, refer to the appropriate MSDN article.

### **Important**

Use .NET Framework 3.5 for applications built for .NET Framework 3.5, 3.0, or 2.5. Installing a Windows language pack on Windows 8 before installing .NET Framework 3.5 causes the .NET Framework 3.5 installation to fail. Thus, you should install .NET Framework 3.5 before installing any Windows language pack. Windows CardSpace is not available with .NET Framework 3.5 on Windows 8.

# Installing .NET Framework 3.5 on demand

If an application requires .NET Framework 3.5 but does not find this version enabled on your system, the message shown in Figure D-1 is displayed, either when you install the application or when you run it for the first time.

Figure D-1. Message that allows you to install .Network Framework 3.5



If you have an Internet connection, select **Install this feature** to enable .NET Framework 3.5.

# Using the Control Panel to enable .NET Framework 3.5

To enable .NET Framework 3.5 via the Control Panel, select **Control Panel→Programs and Features→Turn Windows features on or off**, as shown in Figure D-2.

Figure D-2. Windows feature list that allows you to install .Network Framework 3.5.1



If you have an Internet connection, select the Microsoft .NET Framework 3.5.1 check box.

# For more information

Microsoft .NET Framework: microsoft.com/net/

Microsoft Windows 8 Compatibility Center: <u>microsoft.com/en-us/windows/compatibility/en-us/CompatCenter/Home</u>

HP Support, Drivers & Downloads <a href="https://hp.com/qo/support">hp.com/qo/support</a>

HP & Windows 8 page hp.com/go/windows8

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