HP BUSINESS NOTEBOOK PC F10 SETUP OVERVIEW

2011 Business Notebook Models

Technical white paper

Table of contents

Executive summary

For decades, HP has provided unique customer value through our internally developed BIOS. This has allowed HP to provide a high degree of integration between the firmware and HP Professional Innovations such as HP ProtectTools, HP Wireless Assistant and HP QuickLook. Options for many of these features are configured through F10 Setup, the BIOS configuration user interface provided with HP PCs.

System requirements

The new F10 Setup is available on select models introduced in 2011.

Supported models

- HP EliteBook 8460p Notebook PC

- HP EliteBook 8560p Notebook PC

- HP ProBook 6360b Notebook PC

- HP ProBook 6460b Notebook PC

- HP ProBook 6560b Notebook PC

Enhancements

Several options have been added to the new version of F10 Setup.

- System Management Command support
- Custom Help and URL Message
- Fast Boot
- Express Card Link Speed
- USB Charging Port
- Speakers and Headphone
- Virtualization Technology for Directed I/O
- Update System BIOS directly from F10 Setup

Features and enhancements

HP F10 Setup provides access to the impressive set of features support by HPs ROM BIOS (Read Only Memory Basic Input/Output System). The BIOS is the set of routines that enable a computer to load the operating system and communicate with the various devices, such as storage drives, keyboard, display, slots, and ports.

HP F10 Setup features are separated in several groups or categories:

File – Provides access to general options such as view system information, set date and time, exit F10 Setup with and without saving changes to settings and System Diagnostics.

Security – Provides access to security related options such as power on and DriveLock passwords, integrated security device configuration, Disk Sanitizer, Intel Anti Theft and asset tag configuration.

System Configuration – Provides access to boot options, integrated device configuration, port options, AMT options (on select models), and F10 Setup feature access options.

HP F10 Setup for business notebooks had extensive language support. The graphical user interface can be displayed in English, French, German, Spanish, Italian, Dutch, Danish, Japanese, Norwegian, Portuguese, Swedish or Finnish. Switching languages is simple using the Language selection options available from the System Configuration page. For a detailed list of F10 Setup options, please refer to Table 1.

Table 1. Key features for F10 Setup on select 2011 HP business notebook PCs

Feature	Function	Default Setting, if applicable
FILE MENU		
System Information	Provides key system information, such as serial number, model number, CPU type, and memory configuration	N/A
Set System Date and Time	Configure the date and time	N/A
System Diagnostics	Provides access to diagnostic features, such as start-up test, run-in test and a hard disk test	N/A
• System Information	Provides system information, such as serial number, model number, CPU type, and memory configuration	N/A
• Start-Up Test	Performs diagnostics check on memory and hard disk	N/A
• Run-In Test	Performs a continuous diagnostics check on memory and hard disk	N/A
• Hard Disk Test	Performs hard drive diagnostics check	N/A
Update System BIOS	Updates system firmware from a FAT 32 partition on the hard drive or a removable disk on key	N/A
Restore Defaults	Restores F10 settings to factory defaults	N/A
Reset BIOS security to factory default	Resets BIOS and Protect Tool Users, clears fingerprint tokens and reset the TPM	N/A
Ignore Changes and Exit	Exit F10 Setup without saving any changes made during the current session	N/A
Save Changes and Exit	Exit F10 Setup and save all changes made during the current session	N/A
SECURITY MENU		
Administrator Tools		
Setup BIOS Administrator Password	Establish a power on password with Administrator privileges	N/A

Feature	Function	Default Setting, if applicable
SECURITY MENU		
User Management	Manage (create/delete/reset password) BIOS and Protect Tool Users[1]	N/A
• Create New BIOS User Account	Creates additional BIOS user accounts - Administrator enters User ID Privilege level - Password is set to User ID by default, but can be changed by user [1]	N/A
Password Policy	Allows to select various rules for a BIOS password to qualify[1]	N/A
• Password Minimum Length	Allows administrator to specify the minimum number of characters required for an F10 power on password	N/A
• At least one symbol required	Allows administrator to require at least one symbol, such as $,%,^,& or # for an F10 power on password	Disabled
• At least one number required	Allows administrator to require at least one number, such as 1,2, or 3 for an F10 power on password	Disabled
• At least one upper case character required	Allows administrator to require at least one upper case character, such as A,B,C or D for an F10 power on password	Disabled
• At least one lower case character required	Allows administrator to require at least one upper case character, such as a,b,c or d for an F10 power on password	Disabled
• Are spaces allowed in Password?	Allows administrator to allow spaces in an F10 power on password, such as "New York"	Disabled
System Management Command	Allows authorized personnel to reset security settings in the case of a service event	Enabled
HP SpareKey	Allows users to establish a set of failsafe questions in the event that the power on password is lost	Enabled
Fingerprint Reset on Reboot (If Present)		**Disabled**

1 –BIOS Administrator password is required

Feature	Function	Default Setting, if applicable
	SECURITY MENU	
User Tools		
Change Password	Change BIOS user password	N/A
HP SpareKey Enrollment	Allows for user configuration of HP SpareKey - answer any three of ten questions for enrollment	N/A
Anti Theft	Allows for configuration of Intel Anti Theft feature	**Enabled**
DriveLock Password	Allows for configuration of DriveLock Master and User passwords	**Disabled**
Automatic DriveLock[2]	Requires BIOS Admin password	**Disabled**
TPM Embedded Security	Manage the TPM module settings[2]	
• Embedded Security Device Availability	Exposes the integrated TPM module	**Available**
• Embedded Security Device State	Enables the integrated TPM module	**Disabled**
• Factory Defaults	Set TPM Embedded Security settings to factory default	N/A
• Power-On Authentication Support	Enables multi-factor authentication at power on	**Disabled**
• Reset Authentication Credential	Resets credentials	**No**
• OS Management of TPM	Allow the operating system to manage TPM module	**Enabled**
• Reset of TPM from OS	Allows reset of TPM module from within the operating system	**Disabled**
Disk Sanitizer[3]	Performs erasure of all data on selected hard drive; typically used prior to repurposing or donation (Not supported under RAID mode)	N/A

2 –BIOS Administrator password is required
3 - For the use cases outlined in the DOD 5220.22-M Supplement

Feature	Function	Default Setting, if applicable
SECURITY MENU		
System IDs		
• Notebook Asset Tag	Allows for custom configuration of an asset tag	**Serial Number**
• Notebook Ownership Tag	Allows for custom configuration of an ownership tag (Up to 40 characters)	**Blank**
• Notebook Ownership Tag[4]	Allows for custom configuration of an ownership tag (Up to 40 characters)	**Blank**
SYSTEM CONFIGURATION MENU		
Boot Options		
• Startup Menu Delay (Sec.)	Amount of time the Startup Menu will be displayed during POST	0
• Multiboot Express Boot Popup Delay (Sec)	Amount of time the Express Boot option will be displayed	0
• Audio alerts during boot	Enables audible error beeps during POST	**Disabled**
• Custom Logo	Enables the use of a custom logo screen during POST[3]	**Disabled**
• Display Diagnostics URL	Display web address for diagnostics	**Enabled**
• Custom Help and URL message	Allows display of customized message and URL during POST	**Disabled**
• Fast Boot	Reduces POST time by bypassing boot to USB, optical drive, PXE and DOS	**Enabled**
• CD-ROM boot	Allows for boot from optical media	**Enabled**
• SD Card boot	Allows for boot from SD Card	**Enabled**
• Floppy boot	Allows for boot from USB floppy	**Enabled**
• PXE Internal NIC boot	Allows for boot from LAN	**Enabled**
• USB device boot	Allows for boot from USB storage device	**Disabled**
• Upgrade Bay Hard Drive boot	Allows for boot from hard disk drive mounted in upgrade bay	**Enabled**
• eSATA boot	Allows for boot from eSATA storage device	**Enabled**

4 – For more information, refer to the *HP Business Notebook EFI Guidelines* white paper.

Feature	Function	Default Setting, if applicable
SYSTEM CONFIGURATION MENU		
• UEFI Boot Mode	Enables UEFI boot mode	**Disabled**
• UEFI Boot Order	Specify the UEFI boot order	NB Upgrade Bay (UEFI), OS Boot Manager, NB Ethernet (UEFI)
• Legacy Boot Order	Specify the legacy boot order	NB Upgrade Bay, NB Hard Drive, NB Hard Drive 2, USB Floppy, USB CD-ROM, USB Hard Drive, NB Ethernet, SD Card, Dock Upgrade Bay, eSATA
Device Configurations		
• USB Legacy Support	Enables mouse/keyboard support	**Enabled**
• Parallel port mode	Specifies parallel port mode	**ECP**
• Express Card Link Speed	Sets speed for Express Card Link	**Generation 1**
• Fan Always on while on AC	Leave fan on while on AC	**Enabled**
• Data Execution Prevention	Enables DEP on Intel based systems	**Enabled**
• SATA Device Mode	Enable SATA for internal drives	**AHCI**
• Ctrl I Prompt	Display prompt to access RAID Configuration utility	**Disabled**
• USB Charging Port	Enables charging of USB devices while system is off or asleep (Select USB devices only)	**Enabled**
• Disable charging port in all sleep/off states below %	Specifies battery charge level at which the USB charging port is disabled	**10%**
• Wake on USB	Allows system to be resumed from sleep when USB input device is triggered	**Enabled**
• HP DayStarter[5]	Displays your calendar and battery charge while your system boots Windows	**Enabled**

5 - Requires Microsoft Outlook. User must Opt-In to activate feature.

Feature	Function	Default Setting, if applicable
SYSTEM CONFIGURATION MENU		
Device Configurations (contd.)		
• Secondary Battery Fast Charge	Switches charging to secondary battery when primary battery is 90% charged to optimize charge cycle	**Enabled**
• HP QuickWeb[6]	Enables quick access to web when QuickWeb button is pressed	**Enabled**
• HP QuickWeb: Write Protect	Prevents data from being written while in QuickWeb	**Enabled**
• Virtualization Technology	Enables VT on Intel based systems	**Disabled**
• Virtualization Technology for Directed I/O	Grants virtual machines direct access to peripheral devices	**Disabled**
• TXT	Enables Trusted Execution Technology	**Disabled**
• Multi Core CPU	Enables dual/quad processor cores	**Enabled**
• Intel ® HT Technology[7]	Enables HT on Intel based systems	**Enabled**
• NumLock on at boot	Enables numlock at boot	**Disabled**
Built-In Device Options		
• Wireless Button State	Enables wireless button	**Enabled**
• Embedded WLAN Device[8]	Enables integrated 802.11 device	**Enabled**
• Embedded WWAN Device[9]	Enables integrated WWAN device	**Enabled**
• Embedded Bluetooth	Enables integrated Bluetooth device	**Enabled**
• Network Interface Controller (LAN)	Enables integrated NIC device	**Enabled**
• LAN/WLAN Switching	Enables automatic switching	**Disabled**

6 - HP QuickWeb is accessible when the notebook is off in Windows XP, Windows Vista or Windows 7-based systems. Internet access is required. Timing may vary depending on the system configuration. To enable the feature following the removal of the battery, reboot the notebook prior to subsequent use.

7 - Intel HT Technology (HT) is designed to improve performance of multi-threaded software products and requires a computer system with a processor supporting HT and an HT-enabled chipset, BIOS and OS. Please contact your software provider to determine compatibility. Not all customers or software applications will benefit from the use of HT. See http://www.intel.com/info/hyperthreading for more information.

8 - Wireless access point and Internet service required and sold separately. Availability of public wireless access points limited.

9 - Broadband requires separately purchased service contract. Check with provider for availability and coverage in your area.

Feature	Function	Default Setting, if applicable
SYSTEM CONFIGURATION MENU		
Built-In Device Options (contd.)		
• Wake on LAN	Enabled the system to wake when a magic packet is received via LAN	**Disabled**
• Ambient Light Sensor	Enables Ambient Light Sensor	**Enabled**
• NB Upgrade Bay	Enables integrated Upgrade bay	**Enabled**
• Fingerprint Device	Enables fingerprint reader	**Enabled**
• Integrated Camera	Enables integrated camera	**Enabled**
• Power Monitor Circuit	Enables power monitor circuit	**Enabled**
• Audio Device	Enables integrated audio device	**Enabled**
• Modem Device	Enables integrated modem	**Enabled**
• Microphone	Enables integrated microphone	**Enabled**
• Speakers and Headphones	Enables internal speakers and headphone jack	**Enabled**
Port Options		
• Serial Port	Enables integrated serial port	**Enabled**
• Parallel Port	Enables integrated parallel port	**Enabled**
• Flash media reader	Enables integrated media card reader.	**Enabled**
• USB Port	Enables integrated USB port	**Enabled**
• 1394 Port	Enables integrated 1394 port	**Enabled**
• Express Card Slot	Enables integrated express card slot	**Enabled**
• Smart Card	Enables integrated smart card slot	**Enabled**
• eSATA	Enables integrated eSATA port	**Enabled**
AMT Options		
• Firmware Verbosity	Display AMT text during POST	**Disabled**
• AMT Setup Prompt (Ctrl-P)	Prompts for AMT setup during POST	**Disabled**
• USB Key Provisioning	Allow AMT provisioning using USB disk on key	**Disabled**

Feature	Function	Default Setting, if applicable
SYSTEM CONFIGURATION MENU		
AMT Options (contd.)		
• Unconfigure AMT on next boot	Reset AMT configuration options on next boot	**Disabled**
• Terminal Emulation Mode	Specify terminal emulation mode	**ANSI**
• Firmware Progress Event Support		**Disabled**
• Initiate Intel CIRA	Enabled Intel's CIRA feature	**Disabled**
Set Security Level	Allows administrator to restrict visibility or configurability of F10 Setup options for standard users	N/A
Restore Security Defaults	Restores the security level of F10 Setup options to default	N/A
BIOS Power-On	Automatically powers system on based on preset schedule	**Disabled**

For more information

To learn more about HP business notebooks, contact your local HP sales representative or visit www.hp.com/go/notebooks.