

BIOS Updates for a Microsoft Surface Unit

November 10, 2008

Copyright

This document is provided for informational purposes only, and Microsoft makes no warranties, either express or implied, in this document. Information in this document, including URL and other Internet Web site references, is subject to change without notice. The entire risk of the use or the results from the use of this document remains with the user. Unless otherwise noted, the example companies, organizations, products, domain names, e-mail addresses, logos, people, places, financial and other data, and events depicted herein, are fictitious. No association with any real company, organization, product, domain name, e-mail address, logo, person, places, financial or other data, or events is intended or should be inferred. Complying with all applicable copyright laws is the responsibility of the user. Without limiting the rights under copyright, no part of this document may be reproduced, stored in or introduced into a retrieval system, or transmitted in any form or by any means (electronic, mechanical, photocopying, recording, or otherwise), or for any purpose, without the express written permission of Microsoft.

Microsoft may have patents, patent applications, trademarks, copyrights, or other intellectual property rights covering subject matter in this document. Except as expressly provided in any written license agreement from Microsoft, the furnishing of this document does not give you any license to these patents, trademarks, copyrights, or other intellectual property.

© 2008 Microsoft Corporation. All rights reserved.

Microsoft, Microsoft Surface, the Microsoft Surface logo, MS-DOS, and Windows Vista are trademarks of the Microsoft group of companies.

Bluetooth is a registered trademark of Bluetooth SIG, Inc., and is used under license from Bluetooth.

All other trademarks are property of their respective owners.

Contents

Introduction	. 4
Required Equipment	_ 4
Updating the BIOS in a Microsoft Surface Unit	. 4

Introduction

This document describes how to update or flash the motherboard BIOS of a Microsoft Surface™ unit.

Important: The procedure in this document has *not* been tested with *back-flashing* (that is, loading an older BIOS version). Back-flashing might require a bootable USB flash drive and a MS-DOS® command-line utility.

At a high level, you can update the BIOS by installing an ASUS update utility on the Microsoft Surface unit, selecting the new BIOS in the update utility, restarting the Microsoft Surface unit, and then entering the BIOS setup to load the BIOS defaults.

Required Equipment

To update the BIOS on a Microsoft Surface unit, you need the following items:

- ASUS BIOS Update Utility (available from http://tinyurl.com/2nfwnw)
- New BIOS image file (which is the .rom file that is included in this download package from the <u>Surface Community Web site</u>)
- Keyboard and mouse (wired or wireless)

Updating the BIOS in a Microsoft Surface Unit

To update the BIOS in a Microsoft Surface unit

- Make sure that the I/O connections on the Microsoft Surface unit are accessible. (To learn how to remove the end panel to expose the I/O connections, see the "<u>Removing the End Panel to Expose</u> <u>the I/O Connections</u>" article on the Surface Community Web site.
- 2. Connect a keyboard and mouse.
 - If you are using a *wired* keyboard and mouse, connect them to USB ports in the I/O connections.
 - If you are using a *wireless* keyboard and mouse, connect the associated USB dongle (that is, the Bluetooth® transceiver) to a USB port and make sure it is installed.
- 3. Turn on the Microsoft Surface unit and let the Windows Vista® operation system load.
- 4. If the unit logs on user mode (and displays the attract application), log off user mode, and then log on administrator mode by using an administrator account.
- 5. Download the ASUS BIOS Update Utility package from http://tinyurl.com/2nfwnw, and extract the files.
- 6. Double-click **AsusSetup.exe**, and then following the on-screen directions to install the update utility to the hard disk drive of the Microsoft Surface unit.
- 7. Click Start, click All Programs, click ASUS, click ASUSUpdate, and then click ASUSUpdate.

8. In the ASUS update program, in the list at the bottom of the screen, click **Update the BIOS from file**, and then click **Next**.



Note: By selecting the appropriate option in this screen, you can also view the current BIOS version.

- 9. Select the new BIOS image file (the .rom file).
- 10. Click **Flash** to flash the loaded BIOS image.

The ASUS utility erases the existing BIOS image, flashes it with the contents of the new image file, and then verifies the new BIOS image.

Important

On this screen, the ASUS utility includes an option to clear the CMOS checksum and load defaults. However, this option is unreliable. Continue to the next step to reload defaults.

11. After the flash is successful, click **Yes** in the pop-up window to restart the Microsoft Surface unit.

	BIOS ROM Information ROM Type PMC 49FL0 Model P5LD2-VM- Version 0201 Date 08/29/2007		BIOS ROM Information ROM Type PMC 49FL004T FWH Model P5LD2-VM-CR-MS Version 0201 Date 08/29/2007-20:40:36		4T FWH R-MS 20:40:36
	BIOS Image File Name Model Version Date	Information 0202.ROM P5LD2-VM-C 0202 02/14/2008-1	R-MS 14:37:14		
	Clear CMOS load default I	checksum to BIOS settings.	Reserve DMI data in Flash RDM		
Frase ROM	ase ROM 100% ash ROM 100% erify ROM 100%		Flash successfully! Please reboot the system after exiting the		
Verify ROM			program.		
	_	Flash	Exit		

- 12. While the Microsoft Surface unit is restarting, press the DELETE key repeatedly (approximately one time every second) to enter the BIOS menu.
- 13. If a dialog box prompts you for a password, enter the supervisor password (if you have changed the BIOS password on the unit) or contact Microsoft Surface Support at (866) 425-8880 to obtain the supervisor password.
- 14. In the BIOS menu, press F5 to load the setup defaults.
- 15. Press F10 to save all settings and restart the Microsoft Surface unit.

Important

If you do not reload the BIOS defaults, you might experience erratic system behavior, including a "CMOS Checksum" error during the P.O.S.T. step.

- 16. After the Microsoft Surface unit restarts, log on administrator mode.
- 17. Click **Start**, click **All Programs**, click **ASUS**, click **ASUSUpdate**, and then click **Uninstall** to remove the ASUS update utility from the Microsoft Surface unit.