User's Guide

Phoenix WinPhlash

Version 1.5

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Table of Contents

Introduction

The Phoenix WinPhlash utility is a 32-bit application which runs in a Windows environment to update, backup, and restore the system BIOS on a flash device. This utility can use an optional settings file called PHLASH.INI. The following table describes the features of the WinPhlash program.

Table 1-1 WinPhlash features

File Name	Operating System	Description	Uses PHLASH.INI	Crisis Recovery	Command Line Mode
WINPHLASH. EXE	32-bit application for Windows	Windows98/ME/ NT/2000/XP/Vis ta	Yes	No	Yes

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Chapter 2

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Running WinPhlash

You can run WinPhlash as:

- A Windows-based utility

  OR

- A command prompt utility

WinPhlash as a Windows-based Utility

To run WinPhlash as a Windows-based utility, perform the following:

1. Close all other programs.

2. Click the WINPHLASH.EXE icon to execute the program. The main window is displayed.
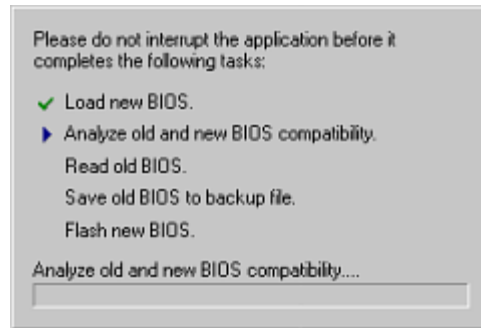
Figure 2-1 WinPhlash Main Window

Note: The main window of WinPhlash is not displayed if WinPhlash is run on the command line with the /P option. Refer to the Command prompt operation section in this chapter.

3. Select the procedure you want:

    Backup BIOS and flash BIOS with new settings

    OR

    Backup BIOS Only

4. Specify the name of the backup file for the existing BIOS in the first edit field or use the Browse button to find the file.

5. If you are flashing a new BIOS, specify the name of the new BIOS file (usually supplied by your system manufacturer) in the second edit field or use the Browse button.

6. Click the Flash BIOS or the Backup BIOS button to display a dialog box asking for confirmation to continue. You can continue or cancel.

7. Click OK in the confirmation dialog box to display a message box with a progress meter. See the following figure.

Figure 2-2 Progress Meter

Note: Do not interrupt the program before it completes the tasks listed.

If you are only backing up your BIOS, the system displays a message box that confirms the backup.

If you are backing up and upgrading (flashing) your BIOS, the program then displays the following dialog box announcing the impending reboot of the system:

Figure 2-3 System Reboot Dialog Box

8. Press Cancel to terminate the Restart and return to the main window. After you cancel the Restart and return to the main window, your system may not execute the features of the newly programmed BIOS until you reboot.

9. Press Restart, or simply wait, to allow the program to reboot your computer. If your system does not shut down automatically, reboot your system by pressing the Reset button or by turning the power switch off and on.

WinPhlash as a Command Prompt Utility

To run WinPhlash from the command prompt, perform the following:

1. Close all other programs.

2. From the Start menu, select Run.

3. Enter the path for the WinPhlash program when the Run message box displays, e.g., …\winphlash <options>

4. Press the OK button.

Note: You can also run WinPhlash from the MS-DOS prompt under Windows.

Command Prompt Operation

You can run WinPhlash from the command prompt, with options for doing such things as:

- Flash a new BIOS to your system

- Backup existing BIOS before flashing

- Verify the new BIOS checksum

- Flash only if new image is newer than existing BIOS

- Minimize messages and delays

- Verify BIOS number before flashing

- Do not flash, but read existing flash part and save to a file

- Disable Axx auto detection

WinPhlash will not use a response file, but it will use the settings and options specified in PHLASH.INI.

The options can be set in several different places:

- The WinPhlash command line

- The PHLASH.INI

- The BIOS file (the .WPH file with the new BIOS image).

To flash a new BIOS, you need a BIOS file with the new BIOS image (e.g., BIOS.WPH). The BIOS file, usually named BIOS.WPH, contains not only the new BIOS binary to flash, but also the data required to write the BIOS to the particular flash device on your system.

The following describes the syntax for using WinPhlash from the command prompt.

Syntax:

WINPHLASH [options] [romfile]

Refer to Table 2-1 for descriptions of the command prompt options available for WinPhlash.

Table 2-1 WinPhlash options

WinPhlash Options	Description
romfile	Override the default BIOS image name BIOS.WPH with it"
/BBL	Program boot block
/BU[=*name*]	Backup flash memory into BIOS.BAK before programming.\n; If \"name\" specified, override the default filename BIOS.BAK
/C	Clear CMOS checksum after programming
/CS	Verify BIOS.WPH image checksum
/DMC:*string*	Specify chassis manufacturer DMI string
/DMM:*string*	Specify motherboard manufacturer DMI string
/DMS:*string*	Specify system manufacturer DMI string
/DOxx:*string*	Specify OEM DMI string number xx
/DPC:*string*	Specify chassis product ID DMI string
/DPM:*string*	Specify motherboard product ID DMI string
/DPS:*string*	Specify system product ID DMI string
/DSC:*string*	Specify chassis serial number DMI string
/DSM:*string*	Specify motherboard serial number DMI string
/DSS:*string*	Specify system serial number DMI string
/DUS:*string*	Specify UUID DMI string
/DVC:*string*	Specify chassis version DMI string
/DVM:*string*	Specify motherboard version DMI string
/DVS:*string*	Specify system version DMI string
/I	Verify image size matches flash part size
/L:LogoFile	Merge specified new logo into BIOS image and update system ROM
/MFG	Manufacturing mode - Automatically reboot without key press
/MODE=n	Specifies how the DMI strings should be updated. Mode n (0, 1, 2, 3)
/N	Program only if BIOS.WPH is different than system

WinPhlash Options	Description
	BIOS
/NIC	Update network controller driver with *.LOM files
/NOB	Do not allow an older BIOS to be flashed to the platform
/P	Production mode (minimize messages and delays)
/PF=*string*	String to pass on to command line
/PN	Program only if same BIOS part number
/REMOTE2	Other application or other computer call for WinPhlash
/RO[=*name*]	Read contents of flash part and save to a file without flashing
/R=n	Retry flashing a block n times if flash fails
/SWAP=NO	Disable Axx autodetection
/V	Verify each block after programming it
/Z	Zero before erasing a block

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Appendix
A

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WinPhlash Error Messages

The following table contains descriptions of the WinPhlash error messages.

Table A-1 Error messages

Error Code	Error Message
-100	BCPSYS block signature was not found.
-101	BCPDMI block signature was not found.
-103	Platform Signature was not found in the interface.
-104	BIOS image checksum verification failed.
-105	Flash device size doesn't match BIOS image size.
-106	New BIOS image size doesn't match current system BIOS size.
-107	New DMI string size doesn't match current system DMI string size.
-108	Flash device part number(s) doesn't match part number(s) specified in the interface descriptor.
-109	The current system BIOS is the same version as (or newer than) the version you are trying to flash, so the BIOS will not be changed.
-110	The new BIOS image is the same as the current system BIOS, so the BIOS will not be changed.
-111	Part ID of System BIOS and new Image File of the System Platform may be different from the image file.
-120	New BIOS part number doesn't match system BIOS part number.
-121	Driver initialization failed.
-122	Driver failed to provide access to the BIOS memory.
-130	Driver failed to allocate memory.
-131	Different format of block descriptor was found or block descriptor was damaged.
-132	Invalid block attributes.
-133	Improper save/restore order detected in the block descriptor table.
-134	Different format of block descriptor was found or block size is invalid.
-135	Different format of block descriptor was found or block offset is invalid.
-136	Invalid/Different format of block descriptor was found.
-140	Invalid block number was specified.
-141	Failed to locate resource in the executable or DLL.
-142	Required device or platform function is not present.

Error Code	Error Message
-143	Driver failed to allocate descriptor.
-144	BIOS is not flashable.
-145	Block programming function failed.
-146	Block erase function failed.
-147	VPP is not at expected level.
-148	Erase sequence failed.
-149	BIOS image verification failed.
-150	BIOS interface function failed.
-151	The current device is not supported in the interface.
-160	Device Descriptor signature not found in the interface.
-161	Part Table Signature not found in the interface.
-162	Invalid Part Count found in the interface.
-163	Invalid Part Descriptor size found in the interface.
-164	Invalid Text Descriptor size found in the interface.
-165	Duplicate device support found in the interface.
-166	Failed to unlock the flash.
-167	Cannot find file BIS MOD.
-168	The specified MOD file is larger than the size of MOD in the ROM.
-169	Unable to open MOD file.
-170	Failure in reading the MOD file.
-171	There is no CPU match.
-172	Cannot find file RomExec Module.
-173	Error in merging CPU hash data.
-174	Error opening HSH file.
-175	Error reading HSH file.
-176	Cannot open CPU file.
-177	Size of the CPU file is not 2049 bytes.
-178	Cannot find MOD from image file.
-179	Cannot find file ROM MOD.
-180	Cannot find system MOD.
-181	The input file cannot be found. Valid file name must be specified to continue.
-182	Error! Backup file is not specified. Please specify backup file name to save current system BIOS.
-183	The backup BIOS file has the same name as the BIOS file. The two file names must be different.

Error Code	Error Message
-184	Disk write protected error.
-185	There is not enough disk space to save the backup BIOS file.
-186	There is no NIC on board!
-187	Cannot find NIC driver MOD in image file.
-188	There is no *.LOM file on disk!
-189	There is no driver MOD to match the NIC on board!
-190	Cannot open NIC driver file.