

User's Guide



Awdflash.exe Flash Upgrade Utility

Copyright

© Copyright 2007 by Phoenix Technologies Ltd. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual, or otherwise, without the prior written permission of Phoenix Technologies Ltd.

Disclaimers

Phoenix Technologies Ltd. makes no representations or warranties with respect to the design and documentation herein described and especially disclaims any implied warranties of merchantability or fitness for a particular purpose. Further, Phoenix Technologies Ltd. reserves the right to revise this design and associated documentation and to make changes from time to time in the content without obligation of Phoenix Technologies Ltd. to notify any person of such revisions or changes.

Trademarks

The following list contains trademarks and registered trademarks of Phoenix Technologies, Ltd. Exclusion from this list does not imply willing loss of trademark or registered trademark by Phoenix Technologies LTD. FirstWare; IMAGECAST; cME; Phoenix; TrustedCore; FirstBIOS; TrustConnector; PhoenixBIOS; StrongROM; CoreArchitect; Phoenix Technologies; WinPhlash; Phoenix Technologies Logo; Multikey; Phoenix Award; Trust Tracker; PrintWorks; Trust Shield; Ready 64; Phoenix Always; AwardBIOS; Phoenix Always Logo; Award Software International; Trusted Security Suite; Award Software International Logo; TCSubscribe; Trusted Device Suite.

Any use of other companies or legal entities' copyrights, trademarks, or registered trademarks is unintentional and in no way implies any legal claim to those copyrights, trademarks, or registered trademarks.

Contacting Us

Corporate Address:

Phoenix Technologies Ltd.
915 Murphy Ranch Road
Milpitas, California 95035
USA

Web site: www.phoenix.com

Support: support.phoenix.com

Manual revision: February 2nd, 2007

Contents

Copyright	ii
Disclaimers	ii
Trademarks	ii
Contacting Us	ii
Introduction	1
Upgrade Preparation	1
Running the Program	2
Using Command Line Parameters	4
Save and Update	4
Example 1	5
Example 2	5
Example 3	5
Clear Data	5
Bootblock	5
Example 1	5
Example 2	6
Checksum	6
Example 1	6
Example 2	6
Other	6
Summary of Switches	7

Introduction

This manual briefly discusses the AwardBIOS Flash Upgrade utility, Awardflash.exe, and the necessary instructions to guide the user through the AwardBIOS update process. In the examples given here, the file name newbios.bin is used to represent the new BIOS and the file name oldbios.bin represents the old BIOS. These file names are only examples to help you to understand the updating process.

Awdflash.exe commands are not case-sensitive. Upper- or lowercasing of command letters in this manual are for clarity only.

Upgrade Preparation

The upgrade process requires two files from Award Software:

- The new BIOS file (e.g., newbios.bin)
- The upgrade utility (awdflash.exe)

Although it may be possible to use different media for the files, this manual assumes that you are using a floppy disk. Prepare for the upgrade process as follows:

- 1 Create a bootable floppy disk.
- 2 Transfer the two Award files listed above onto the diskette.
- 3 Check whether your system protects the BIOS EPROM chip by a jumper setting. If necessary, change the jumper setting to allow a flash to the EPROM.

You are now ready to start the upgrade process.

Caution: Do not interrupt the upgrade program while it is running. Interrupting the program leaves the system without a BIOS and renders the system unusable. If the power goes off during the few seconds that the program is running, the system has no working BIOS and you must install a recovery program and a correctly programmed flash EPROM.

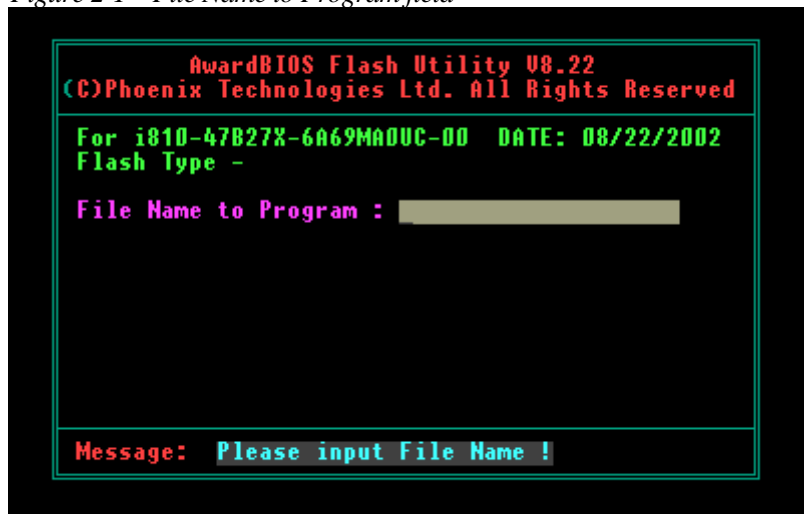
If you are running the BIOS in an Intel 28F001BX-T flash memory chip, the 8K bootblock area may retain its original code during the update process, depending on the hardware settings (e.g., bootblock jumper setting).

Running the Program

This section provides information to enable you to use the AwdFlash.exe utility. To run the AwdFlash.exe program, perform the following steps:

- 1) Boot the system from the bootable floppy diskette you created. Booting from the diskette bypasses the loading drivers from the CONFIG.SYS and AUTOEXEC.BAT files on the hard drive. This eliminates the possibility of loading a program (for example, a memory manager) that conflicts with the Award flash utility. The Award flash utility cannot run when EMM386 or QWMM are loaded. If you try to run the utility, an error message appears.
- 2) Type `awdflash` at the DOS command line, and press **Enter**. A screen similar to the following appears: The cursor appears in the File Name to Program field.

Figure 2-1 File Name to Program field



- 3) Type the name of the new BIOS file (e.g., `newbios.bin`), and press **Enter**.
- 4) At the bottom of the menu, a message prompt appears to confirm whether or not you want to save the BIOS. Refer to the following figure.

Figure 2-2 Do You Want to Save the BIOS? message prompt



- 5) Respond to the preceding prompt with either of the following choices:
- If you do not want to save the old BIOS, type N and press Enter then move to step 8.
- If you do want to save the old BIOS, type Y, and press Enter.
- 6) Type a file name for the old BIOS in the **File Name to Save** field, (for example, *oldbios.bin*), and press **Enter**.

This saves your old BIOS in a file as you named it in the default drive and directory (in this example, on the A:\ drive). The program then prompts you to Press 'Y' to Program or 'N' to Exit? (Y/N). Refer to the following figure.

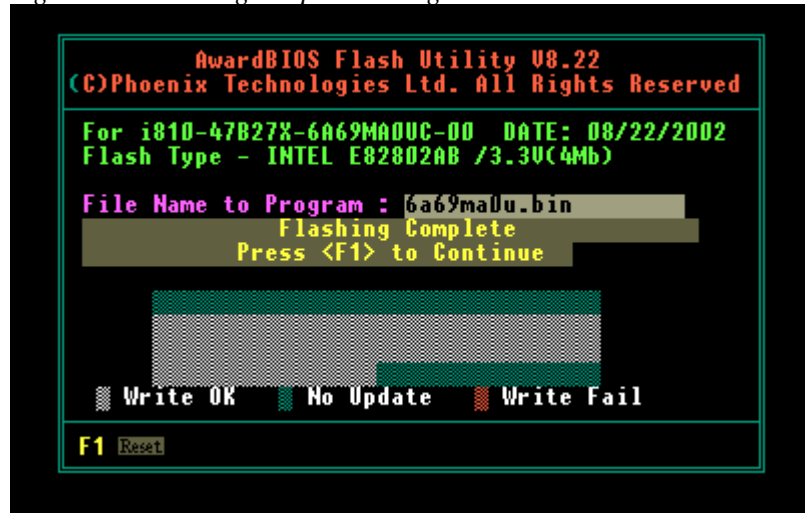
Figure 2-3 Press Y to Program or N to Exit message prompt



- 7) Respond to the prompt with either of the following:
- If you do *not* want to update the BIOS, type N and press **Enter**, the program exits to the command line. Skip the following steps to the next section.
- If you do want to update the BIOS, type Y and press **Enter**.

8) When the updating process finishes, the following message appears:

Figure 2-4 Flashing complete message



9) Restart your system to update your BIOS.

Using Command Line Parameters

You can also run the BIOS flash update utility at the DOS command line. This section describes the command line parameters and switches, with examples of their usage.

This document describes parameters implemented in Award Flash update utility version 5.31. For a full list of parameters in the version you are running, enter `awdflash /?` on the command line.

Figure 3-1:Figure caption

```
AWDFLASH v8.22 (08/15) (C)Phoenix Technologies Ltd. 2002 All Rights Reserved

Usage:  AWDFLASH [FileName1] [FileName2] [/<sw>[/<sw>...]]
        FileName1 : New BIOS Name For Flash Programming
        FileName2 : BIOS File For Backing-up the Original BIOS
<Switches>  ?: Show Help Messages
py: Program Flash Memory                pn: No Flash Programming
sy: Backup Original BIOS To Disk File    sn: No Original BIOS Backup
sb: Skip BootBlock programming           wb: Always Programming BootBlock
cd: Clear DMI Data After Programming      sd: Save DMI data to file
cp: Clear PnP(ESCD) Data After Programming
cc: Clear CMOS Data After Programming
ld: Destroy CMOS Checksum And No System Halt For First Reboot
    After Programming                  tiny: Occupy lesser memory
qi: Qualify flash part number with source file
e: Return to DOS When Programming is done
r: RESET System After Programming
f: Use Flash Routines in Original BIOS For Flash Programming
cks: Show update Binfile checksum  cksXXXX: Compare Binfile CheckSum with XXXX

Example: AWDFLASH 6A69R000.bin /py/sn/cd/cp/cks1A26
```

Save and Update

/p Program (update) BIOS; switch y or n.

/s Save old BIOS; switch y or n.

Example 1

To program a new BIOS and save the old BIOS, enter the following at the command line:

```
awdflash newbios.bin /py oldbios.bin /sy
```

(or)

```
awdflash newbios.bin oldbios.bin /py/sy
```

This program saves the old BIOS to the specified file and updates it with the new BIOS.

Example 2

To program a new BIOS without saving the old BIOS, enter the following at the command line:

```
awdflash newbios.bin /sn
```

After executing this command, the program prompts you:

```
Press 'Y' to Program or 'N' to Exit? (Y/N)
```

Type **Y** in response.

Example 3

To save the old BIOS to a file without updating it, enter the following at the command line:

```
awdflash /pn oldbios.bin
```

After executing this command, the program prompts you:

```
Do You Want to Save BIOS (Y/N)?
```

Type **Y** in response.

Clear Data

/cc: Clear CMOS Data After Programming

/cp: Clear PnP(ESCD) Data After Programming

/cd: Clear DMI Data After Programming

Bootblock

/sb: Skip BootBlock No programming

/wb: Update BootBlock Always Programming

Example 1

To update BootBlock: When programming a new BIOS, enter the following at the command line:

```
awdflash newbios.bin /py/sn/wb
```

Example 2

To Skip BootBlock: When programming a new BIOS, enter the following command at the prompt:

```
awdflash newbios.bin /py/sn/Sb
```

Checksum

/cks: Show update Binfile checksum

/cksXXXX: Compare Binfile CheckSum with XXXX

Example 1

To show the updated Binfile checksum, enter the following at the command line:

```
awdflash newbios.bin /pn/sn/cks
```

Example 2

To compare Binfile checksum with XXXX when you program a new BIOS, enter the following at the command line:

```
awdflash newbios.bin /py/sn/cks1A26
```

Other

/QI: Qualify flash part number with source file if part number defferens
allow program

/LD: Load CMOS default, Destroy CMOS Checksum and No System Halt For
First Reboot After Programming

/E: Return to DOS When Programming is done

/R: RESET System after Programming

/F: Use Flash Routines in Original BIOS for Flash Programming

/Tiny: Occupy lesser memory

Summary of Switches

Table 3-1 Awdflash.exe switch summary

Switch	Description
[FileName1]	New BIOS Name For Flash Programming
[FileName2]	BIOS File For Backing-up the Original BIOS
?	Show Help Messages
/py	Program Flash Memory
/pn	No Flash Programming
/sy	Backup Original BIOS To Disk File
/sn	No Original BIOS Backup
/Sb	Skip BootBlock programming
/Wb	Always Programming BootBlock
/cd	Clear DMI Data After Programming
/cp	Clear PnP(ESCD) Data After Programming
/cc	Clear CMOS Data After Programming
/LD	Destroy CMOS Checksum And No System Halt For First Reboot After Programming
/Tiny	Occupy lesser memory
/QI	Qualify flash part number with source file
/E	Return to DOS When Programming is done
/R	RESET System After Programming
/F	Use Flash Routines in Original BIOS For Flash Programming
/cks	Show update Binfile checksum
/cksXXXX	Compare Binfile CheckSum with XXXX
/ch	Update the whole Hole area at same time with BIOS updating.
/Hx	Only update one hole area. X is the hole index, it's related with BIOS implementation.
/vgaxx	Change VGA display mode.
/custid :xxxxxxx	For security BIOS, if updating the protected block, must specify the customer ID with this switch.