Tandberg Data

FLASHIT

USER's GUIDE

MICROCODE UPDATE TOOL FOR
TANDBERG TAPE DRIVES
AND
TANDBERG AUTOMATION PRODUCTS

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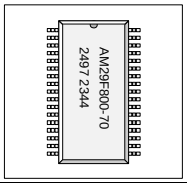
A Tape Drive Microcode Upgrade Tool



Introduction

FlashIt is a simple program that can be used to upgrade the microcode in the Tandberg Data range of tape drives and in Tandberg Data Autoloaders and Libraries. FlashIt communicates with the devices through their SCSI interface.

FlashIt will automatically find all supported SCSI devices in your system. FlashIt will also guide you in locating microcode files and will give you an indication of which microcode files can be used to upgrade the selected device.

Please check our web site at http://www.tandberg.com for the latest FlashIt revision.

System Requirements

- FlashIt comes in separate versions for DOS, Windows 95/98/ME and Windows NT/2000/XP.
- FlashIt is able to recognize up to 8 SCSI host adapters and up to 30 SCSI devices in a single system.

DOS Specific System Requirements

- The DOS version requires MS-DOS or a compatible operating system to run.
- To be able to communicate with the tape drives, the FlashIt requires an ASPI compatible device driver for the SCSI host adapter(s) attached to the tape drive(s).

Windows 95/98/ME System Requirements

- The Windows 95 version runs on Win32 compatible operating systems, including Windows 95, Windows 98 and Windows ME.
- FlashIt will communicate with the tape drives through the 32-bit ASPI compatible device driver for the SCSI host adapter(s). This driver is normally embedded in Windows 95 and 98.

Windows NT/W2K/XP Specific System Requirements

- The Windows NT version runs on Win32 compatible operating systems, inclusive Win2000 and XP.
- FlashIt will communicate with the tape drives through the embedded SCSI drivers for the SCSI host adapter(s).

Tape Devices Supported

- NS8 Pro *(only in DOS version)*
- NS20 Pro *(only in DOS version)*
- SLR2
- SLR3
- SLR4
- SLR5
- SLR7
- SLR24
- SLR32
- SLR50
- SLR40 / SLR60 / SLR100
- Tandberg DLT 4000/7000/8000/SDLT220
- Tandberg SLR Autoloader
- Tandberg DLT Autoloaders
- TDS Library

Using FlashIt

FlashIt is a console application, designed to be simple to use. You are only required to answer simple yes/no questions and to indicate which tape drive and which microcode file are to be used in the upgrade process. FlashIt makes it virtually impossible to access other SCSI devices than the above mentioned devices (FlashIt will not interfere with other SCSI devices like hard drives or CD-ROM's).

- FlashIt is started by typing its name on the command prompt:

```
c:\> FI_xxx
```

where xxx is either DOS, W95 or WNT depending on your operating system.

Since FlashIt starts looking for microcode files in the current directory, you may save some effort by running FlashIt from the directory holding the microcode file(s) to be used.

- When started, FlashIt will first show some initial information (its version number and a short description of what FlashIt is about to do next).
- Next, FlashIt locates and presents on the screen the host adapters found in the system.

■ FlashIt then scans all buses on all host adapters to locate devices that are candidates for a microcode update.

■ Finally, FlashIt presents the upgrade candidates found on the screen. The Vendor Identification, Product Identification, Product Revision Level, Serial Number, Host Adapter Number and SCSI Bus Id are shown for each device. Note that for the Tandberg Data tape drives the Product Revision Level is the same as the revision level of the microcode currently in the device. If more than a single device has been found, FlashIt prompts the user to select the device to upgrade.

```
-----------------------------------------------------------------------
FlashIt will now look for SCSI devices on all adapters:

Upgrade #:  Vendor    Product          Rev.    Serial #     HA #  BusId
**********  --------  ---------------  ------  -----------  ----  -----
        0:  TANDBERG  MLR1             0306                    0      0
        1:  TANDBERG  MLR1             0302    SN061011763     0      3

-----------------------------------------------------------------------
FlashIt found 2 devices that are candidates for microcode upgrade.
In the 'Upgade #' column you will find numbers in the range 0 to 1
Chose a device to upgrade (-1=exit or 0..1):
```

■ FlashIt looks for microcode files in the current directory. If one or more files are found, FlashIt shows the file name, which product the file is meant for and the microcode revision level.

FlashIt tries to make sure that you are only able to select microcode files that are usable with the device selected earlier. For some microcode files, FlashIt is however not able to extract enough information from the file to be able to identify the exact target drive type. In this case you will be able to select a microcode file that may be inappropriate for the tape drive device selected. If an upgrade is attempted in this case, the microcode will however be rejected by the device and FlashIt will display an error message indicating this fact.

■ If a suitable microcode file cannot be found, FlashIt lets you specify another directory formicrocode files.

■ When both a device and a microcode file have been selected, FlashIt is ready to start the upgrade process. FlashIt indicates the amount of time the operation is expected to take. This includes a delay introduced between completion of the actual upgrade and the next step (see below).

■ When the upgrade process has been completed FlashIt shows the Vendor Identification, Product Identification, Product Revision Level and Serial Number once more (the Product Revision Level should now indicate the new microcode).

Command Line Parameters

The current version has two optional command line parameters:

■ During normal operation (without any parameters) FlashIt will only show SCSI devices that are candidates for a microcode upgrade. Other SCSI devices (like disks, CD-ROM's etc.) are not shown. By specifying the "-d" parameter FlashIt will show all SCSI devices.

```
c:\> fi_xxxx -d
```

This can be useful to get a full inventory of attached devices in a system.

■ FlashIt normally reflects the situation on the SCSI buses corresponding to the last scan, typically during the boot process. Devices that were attached later will not be shown unless FlashIt is invoked with the parameter "-r". Note, however, that this option only works under Windows NT, see below.

A Note on Travan Microcode Files

When processing microcode files for the NS8 Pro and NS20 Pro devices, FlashIt relies on the microcode file name syntax to both differentiate between the two device types and to determine the microcode revision. See the notes on microcode file names.

Support for NS8 Pro and NS20 Pro is provided only in the DOS version of FlashIt.

The cartridge must be removed from the drive before the new code can be uploaded.

Notes on the SLR Autoloader

When flashing the Loader robotics FW make sure that the Loader is in Flash mode before the code upload is started. (See the Loader user manual for instructions).

When flashing the Loader Robotics FW on a SLR Autoloader, FlashIt will hang if the Loader current FW is revision 2.08 or earlier even if the microcode upgrade is successful. Once the loader reboots and displays the new FW revision, reset the SCSI bus or reboot your PC manually.

Tape drives with FW revision 03.88 or older will reconnect with the default (jumper set) SCSI Id after microcode flash even if the microcode upgrade is successful. If the drive SCSI Id, set by the Autoloader, is different from the default drive Id, FlashIt will hang or report an error after drive FW flash. If so happens, wait a minimum of 3 minutes after the FW upload has started and reboot your PC.

A Note on the DLT Autoloaders

Remember to set the DLT Autoloader in FW Upload mode before the code upload is started.

The cartridge must be removed from the drive before the new code can be uploaded.

Notes on Microcode File Names

For all SLR drives and for the TDS Libraries, FlashIt will read the microcode header from the file and based on this information, determine if the file contains a valid microcode for the selected product.

Microcode files for the Travan and DLT drives and for the Autoloader products do not have this information available in the file. FlashIt uses the filename to determine if the file is a valid microcode file and to read the FW revision level.

Microcode filenames for all products except the Travan drives and the Tandberg Libraries must have the extention .BIN and the filename is maximum 8 characters long. For the Travan Microcode files the extention is .FLS while the code files for the Libraries can have any extention.

FlashIt and Windows 95/98/ME

When running under Windows 95/98/ME FlashIt is not allowed to do its own bus scanning.

To rescan for devices attached after the boot process right click My computer icon, select Properties/Device manager and then click on Refresh. If you still have problems, you should reboot the machine.

A Note for Windows NT Users

If a tape drive is in use, or reserved by a running service, FlashIt may not detect it as a candidate for update.

If a tape drive is present in your system, but reserved, you will be notified and given the opportunity to quit FlashIt.

To avoid this situation, any service or application using the tape drives should be stopped or turned off before FlashIt is started. (Please refer to your Windows NT documentation for further explanation).

An example is the "Backup Exec Device & Media Service".

WARNING:
Do not rename microcode FW files downloaded from the Tandberg Web site.

This would confuse FlashIt and prevent a successful microcode upload.