User Guide: USB Firmware Upgrade

Intended Audience

This manual is intended for users who are trying to upgrade the firmware for SCRx3xx or SPRx32 USB Smart Card reader under Windows Operating Systems.

Upgrade Package and Files

Unzip the upgrade package that you downloaded from the web. The package shall comprise of files listed in the table below.
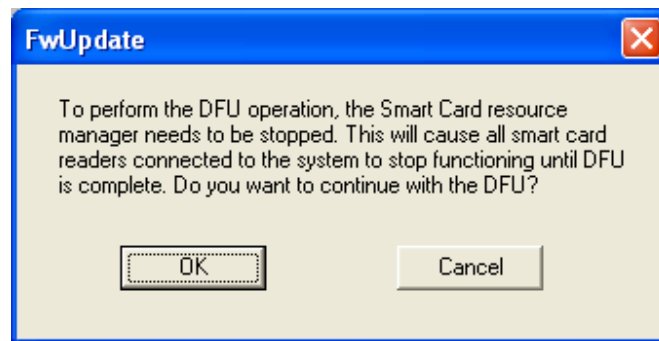
File name	Description
FwUpdate.exe	Main executable of firmware upgrade program
FIOSx33x.dll	DLL required by the executable above
FwResorc.dll	DLL required by the executable above
Sx33XRES.dll	DLL required by the executable above
FwUpdate.ini	Optional INI file for automated upgrade
STCFUx32.sys	Firmware upgrade driver 32 bit
STCFUx64.sys	Firmware upgrade driver 64 bit
STCDFU.inf	INF file to install firmware upgrade driver
User Guide - USB Firmware Upgrade.pdf	This user guide
*.BIN	Firmware binary file

Pre-requisites for upgrade

1. Ensure that proper drivers are installed for your Smart Card Reader.

2. The upgrade procedure files should reside on a disk on which you have write permissions. The procedure creates temporary files and needs write access to create them.

3. Close all other programs so that the upgrade procedure is not interrupted. Specifically any program that accesses the Smart Card Reader has to be closed.

4. Do not attempt to unplug the device or shutdown the host system when the upgrade procedure is in progress.
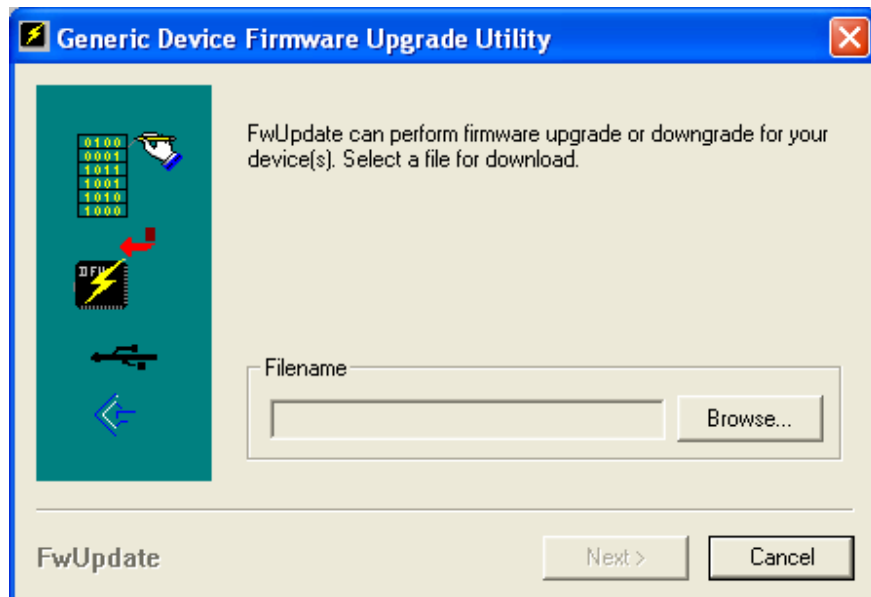
Upgrade Procedure

Execute FWUPDATE.EXE. The opening screen comes up with the following message.
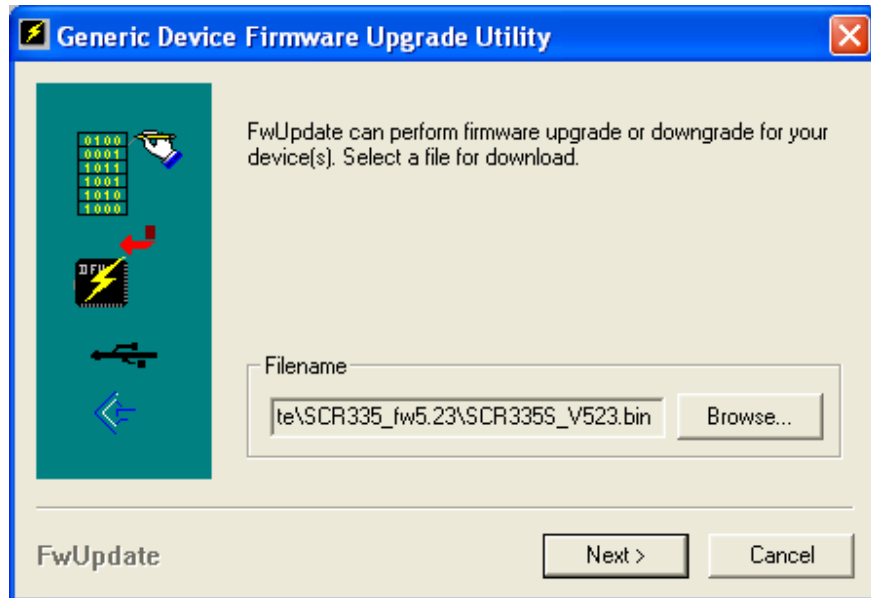

Select OK to continue. A dialog shows the progress of the shutdown process. At this time, the Smart Card Resource Manager shall be shutdown. If you have more than one Smart Card Reader, none of them shall be accessible until the upgrade procedure is complete.
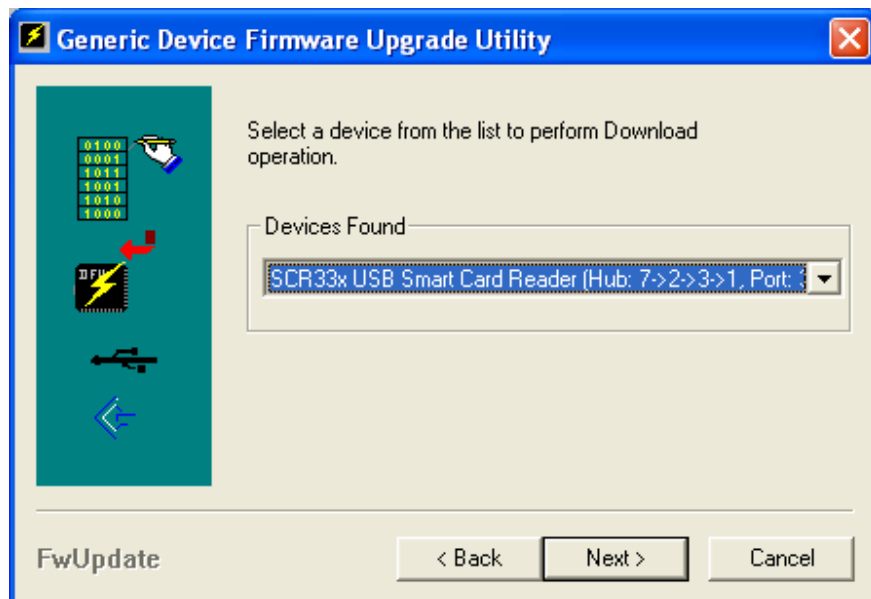
The next dialog allows you to select the firmware file that has to be downloaded to the reader.

Use the browse option to navigate through directories and select the firmware binary (.BIN) file that has the new firmware. The Next> option shall be enabled once the file has been selected.
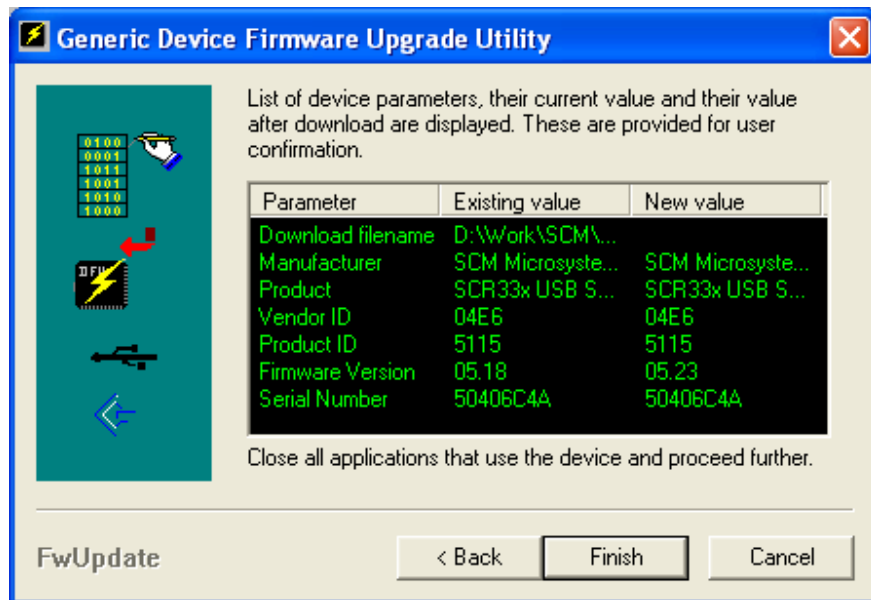

Select Next> to continue with the upgrade procedure.
In case more than one compatible reader is detected, select the one you want to transfer the firmware to.
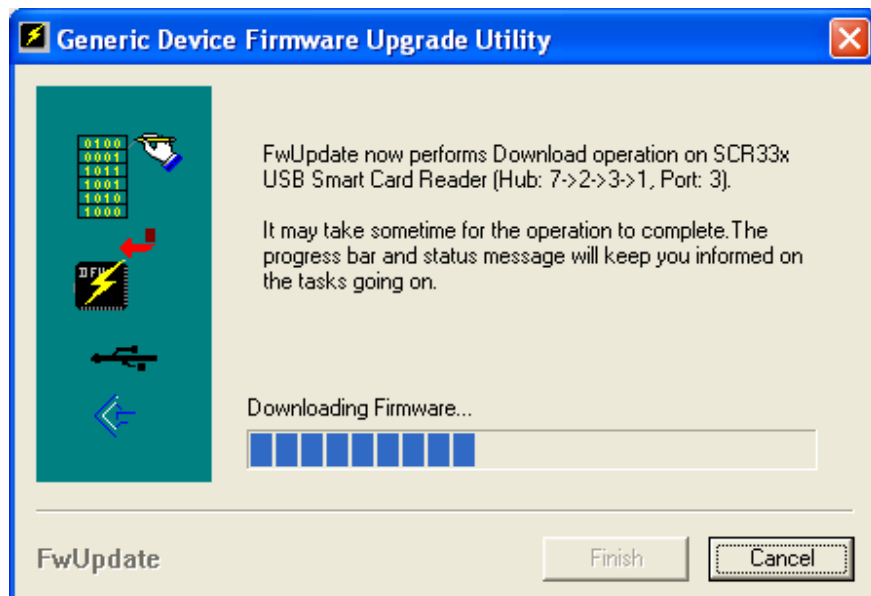

Again, select Next> to continue with the upgrade procedure.

The details of the existing firmware from the device and the new firmware from the file are now displayed in a dialog alongside each other.

In the example screen shown above, the (existing) firmware on the device is 5.18 and the (new) firmware on file is 5.23. Select <Back if you need to select a different firmware file. Select Finish to start the actual download to device. The following dialog appears and shows the progress of the download operation.

Once firmware download is complete, the following dialog appears. Select Close to terminate the Firmware Upgrade Utility.

On completion of the firmware download, the device is automatically reset and re-enumerated. The drivers for the device shall be loaded once again and the Smart Card Reader is available for programs to access. If you did the upgrade under Windows 98, 98 SE or Windows Millennium, the host system has to be restarted with the reader plugged in.