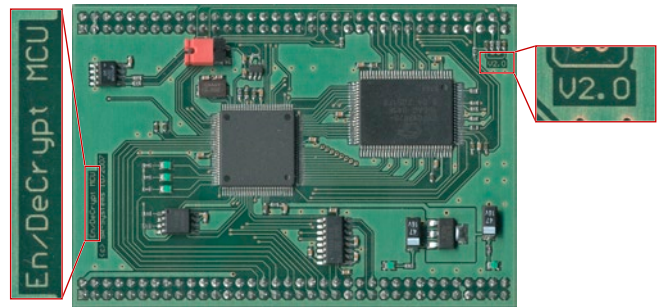


# Firmware Update StreamProcessor MCU

This manual explains how to update the firmware of a **StreamProcessor MCU board**. The procedure is the same for all products based on this hardware. At the moment those products are *SimpleCrypt*, *KaonCrypt*, *RS232-Bridge* and the *TeleTextInserter*.

Please update the firmware of your hardware only if we explicitly ask you to do so. Do not try to update without a good reason. Make sure to update your boards only with the right firmware – you can't change the function of your hardware by updating it with firmware for another product.

Before proceeding with the update, please check that your hardware is labeled with **En/Decrypt MCU** and **V2.0** as shown in the picture. Please take some time to read and understand the whole manual before updating your hardware.



## Before updating your hardware:

If in doubt, check back with us and update only if we advise you to do so. Updating your hardware with the wrong firmware will render it unusable.

## 1. Required Hardware

- Windows-PC (Windows 2000, Windows XP, Windows Vista)
- Power supply 8–24V=/500mA (you may also supply the board with power from another board connected to one of the TS ports, see Chapter 3)
- serial port on your PC
- RS232-Adapter 10 pin to SUB-D adaptor cable
- StreamProcessor MCU module to be updated

## 2. Installing the Update Software

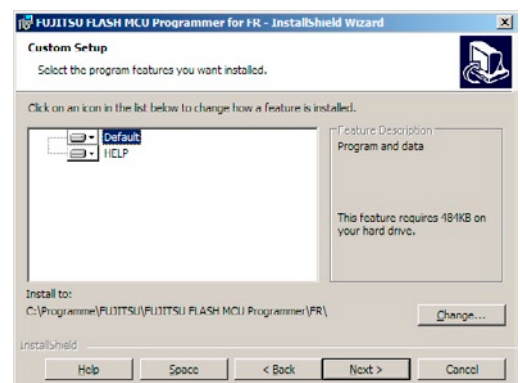
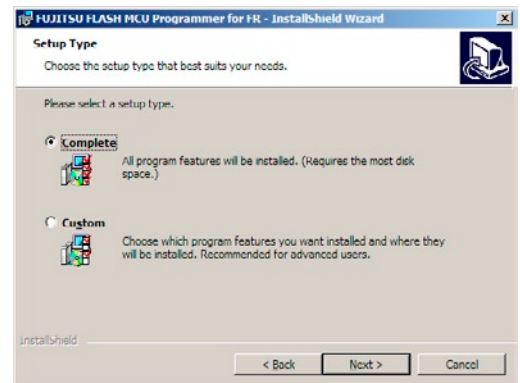
Start the installation by executing *PCWFRsetup.exe* and then follow the instructions on the screen.

The software will, by default, be installed to *C:\Program Files\FUJITSU\FUJITSU FLASH MCU Programmer\FR\*. If you want to change this target path, change the installation method from *Complete* to *Custom* before clicking the **Next** button.

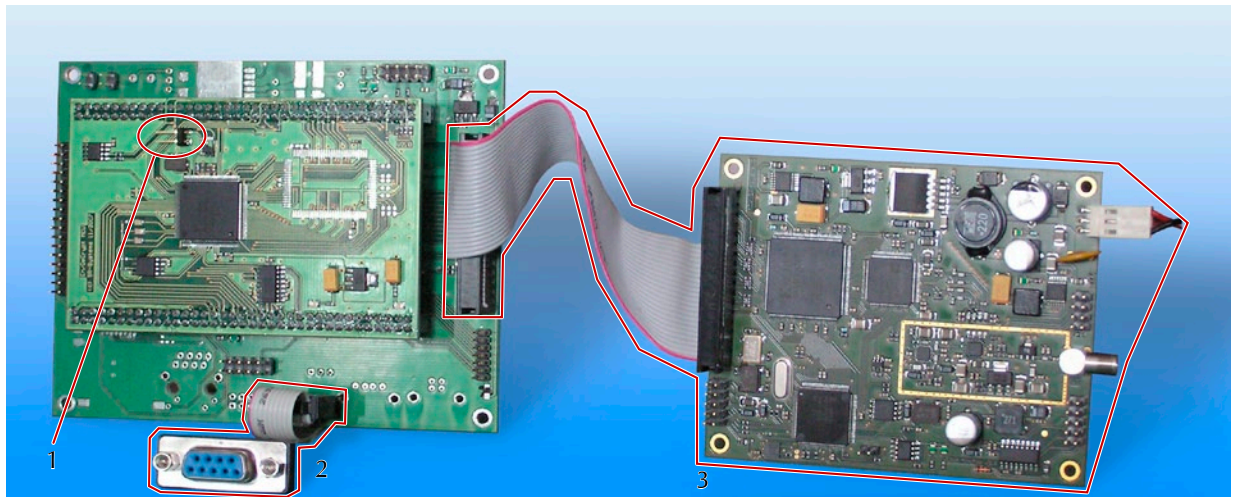
You may then enter your desired installation path in the next dialog window by using the **Change** button. Confirm the next steps by clicking the **Next** button.

After clicking **Finish** in the last dialog the Flash Programmer is ready to use.

You will find the software in your Start Menu in *Programs/FUJITSU FLASH MCU Programmer/FR*.



## 3. Hardware Setup



1. Jumper for selecting Programming Mode (see Chap. 4, Step 7)

2. RS232 10 pin to SUB-D adaptor cable

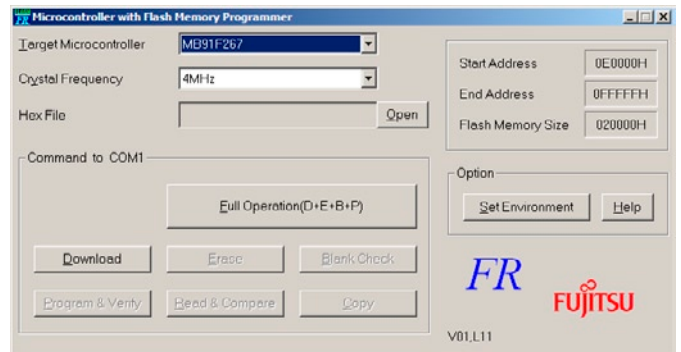
3. If the power supply unit of your StreamProcessor MCU is not populated (as shown in the picture above), you have to connect another board for power supply (a MiniMod in this example).



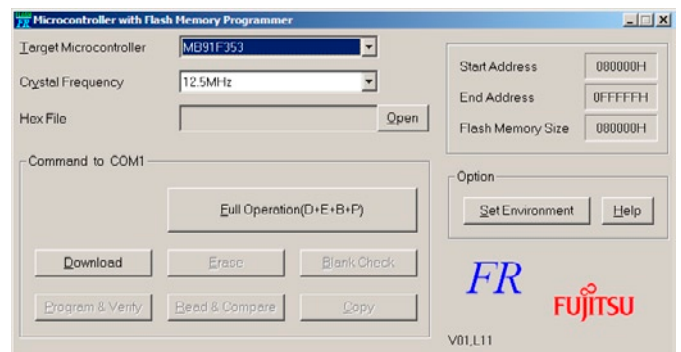
Possible boards for power supply: MiniMod, MiniMux, Modulator V7, 4Ch Multiplexer, DVB-S/C-Basebandboard 2TS and 4TS.

## 4. Performing the Firmware Update

1. Start the Programmer Software in your Start Menu in *Programs/FUJITSU FLASH MCU Programmer/FR*. You should see the programmer's main window as shown in the picture.

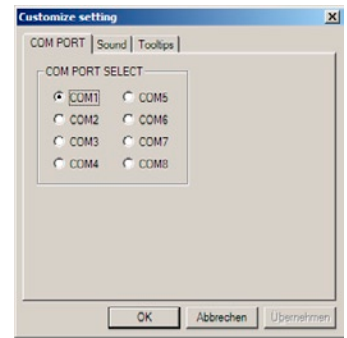


2. Select *MB91F353* as Target Microcontroller.

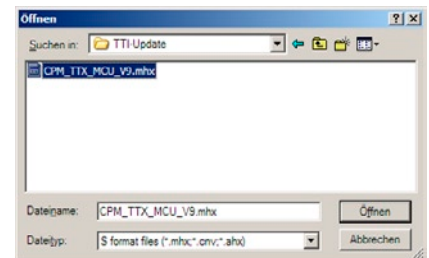


# Firmware Update StreamProcessor MCU

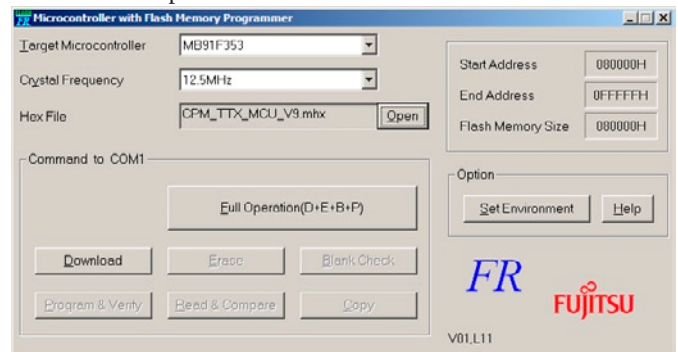
- Click the **Set Environment** Button and select the COM-Port that you want to connect to your StreamProcessor MCU Board. Apply your setting by clicking the **OK** button.



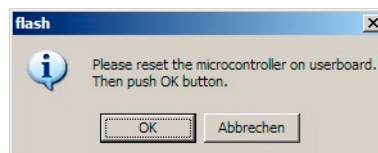
- Click the **Open** button to choose the firmware file for the update. Please select the firmware file we sent you. In this example, the file is named *CPM\_TTX\_MCU\_V9.mhx*, but your file name may differ.



- Check if the programmer window on your screen looks like the picture to the right and click **Full Operation (D+E+B+P)**.



- You should see this dialog box:

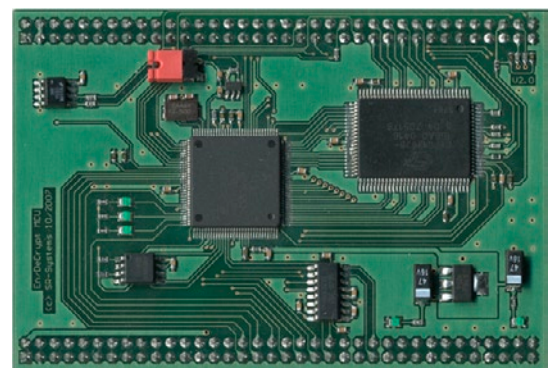


**Important:**  
Do not click **OK** yet.  
You still need to prepare the board.

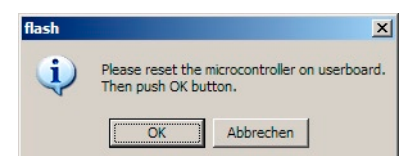
- Please close the Programming Mode Jumper (the red jumper in the picture).

- Connect the StreamProcessor MCU board to the COM port you selected in step 3 (see pictures in Chapter 3).

- Connect your StreamProcessor MCU board to your power supply. If you are using another board for power supply, connect that board to your power supply.

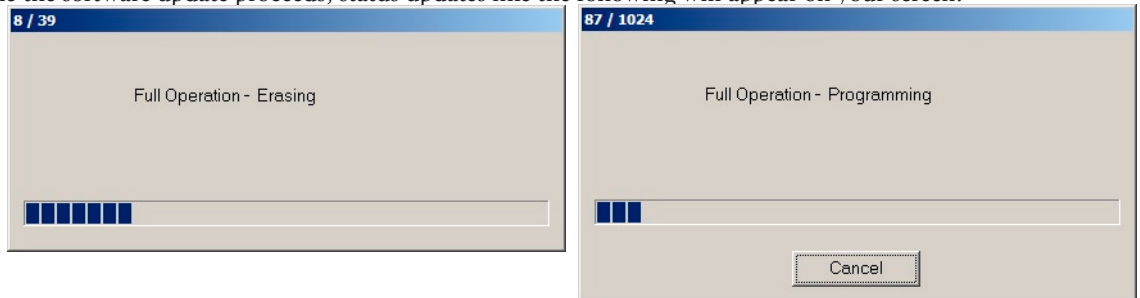


- Remember the dialog box from step 6? Now start the update process by clicking **OK** there.



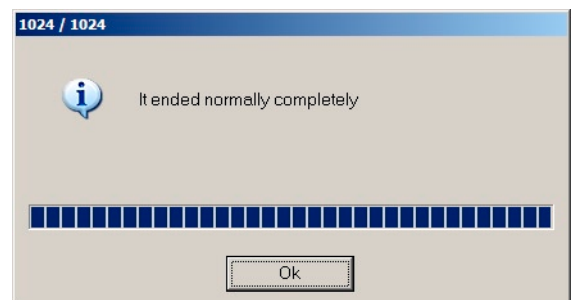
# Firmware Update StreamProcessor MCU

11. While the software update proceeds, status updates like the following will appear on your screen:



If you should see error messages instead of those status updates, please disconnect your hardware and continue with step 5 to try again.

12. When you see the finish message *It ended normally completely*, the firmware update was successful. If you should see error messages instead, please disconnect your hardware and continue with step 5 to try again.



13. Disconnect the StreamProcessor MCU board from power.

14. Remove the Programming Mode jumper you plugged in step 7.

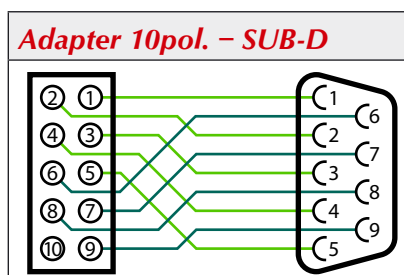
15. Done!



If you want to verify the firmware update, open the COM-Port connected to the StreamProcessor MCU-Board with a terminal (like Hyperterm). Use the following settings: 115.2 kBps/8 Bit/no parity/1 stop bit (115200 8N1). After connecting the StreamProcessor MCU-Board to power, you should see a welcome message including product name and version of the new firmware.

## Appendix

<b>serial Interface (Board)</b>		
1	con. with 4+6	2 TxD
3	RxD	4 con. with 1+6
5	GND	6 con. with 1+4
7	RTS	8 CTS
9	not connected	10 GND



# Firmware Update StreamProcessor MCU

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## **Errata/corrections:**

24.04.2008 Release v1.0 en

18.03.2009 Removed some minor spelling mistakes

The information in this manual was compiled with great care and to our best knowledge; nevertheless there might be some errors left in this document. We do not take legal or any other responsibility for the correctness of any information.

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