



SOFTWARE UPDATE PROCEDURE

K531 AND CSB4 PRODUCTS

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SOFTWARE UPDATE PROCEDURE - K531 AND CSB4 PRODUCTS



PRO ACTIVE
PARC GUTENBERG
13 VOIE LA CARDON
F-91120 PALAISEAU
France

ph. : +33 164 532 010
Fax : +33 164 532 018
mail : info@pro-active.fr
web : www.pro-active.fr

S.A.S. with capital of 227 000€
R.C.S. EVRY B 429 665 482
A.P.E. 722Z
VAT. # FR27 429 665 482 00015

INTRODUCTION.....	3
SOFTWARE INSTALLATION	4
INSTALLATING USB VIRTUAL COM PORT DRIVER.....	4
INSTALLING FDT 2.2	4
INSTALLING FDT 2.2 PROT_A UPGRADE	5
SELECT APPROPRIATE FIRMWARE	6
DOWNLOAD AVAILABLE FIRMWARES	6
SELECT YOUR DEVICE FIRMWARE.....	6
CREATE A WORKSPACE	7
STEP BY STEP OPERATION.....	7
ADD THE FIRMWARE FILE TO YOUR WORKSPACE.....	10
PERFORM UPGRADE.....	12
PUT THE DEVICE IN “FLASH UPGRADE” MODE	12
CSB-4x.....	12
MOD-K531 on a SRK board.....	12
MOD-K531 on any other board.....	12
CONNECT THE DEVICE TO THE COMPUTER.....	12
EXECUTE UPGRADE PROCEDURE	13
PUT THE DEVICE BACK IN NORMAL MODE	14
CSB-4x.....	14
MOD-K531 on a SRK board.....	15
MOD-K531 on any other board.....	15

Introduction

This manual explain how to update a 3664 based devices, such as :

- Pro-Active CSB-4x (CSB-4S, CSB-4U)
- Pro-Active K531 OEM Module
- ...

This procedure has been written and tested under Windows 2000 SP4 Professionnal. It shoul'd run fine with Windows XP initial release. Operation with Windows XP SP2 and later has not been tested.

Software installation

Installing USB Virtual COM port driver

The USB Virtual COM port driver is required to download an updated firmware into a Pro-Active CSB-4U device, or into a K531 OEM module through the K531 USB Interface.

If you're using a CSB-4S device, or a K531 plugged on a K531 SRK board, or any other non-USB device, you may skip this step.

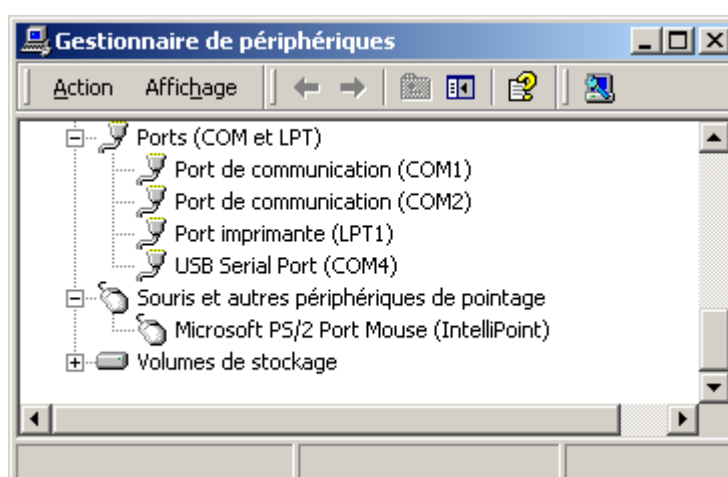
N.B. : Virtual Com Port (VCP) driver is a Future Technology Device International (FTDI) copyrighted software. Original package can be downloaded at <http://www.ftdichip.com/Drivers/FT232-FT245/VCP/Win/R9052154.zip>

Important : if you have already installed the CSB-4U (or the K531 USB interface) driver, you must either

- Use another USB connector for firmware upgrade installation,
- Uninstall the CSB-4U driver prior performing this procedure.

This is because CSB-4U software uses a "native" USB driver, where firmware upgrade procedure can be done through the Virtual Com Port driver only.

1. Download the file at URL:
<http://pro-active.dnsalias.net/downloads/pro-active/FDT/R9052154.zip>
2. Unzip the file onto your computer's hard-drive (for example, into directory c:\temp\fdti_d10620).
3. Execute the application file : "Ftdiunin.exe"
4. Plug your CSB-4U or your K531 USB interface onto one of your computer's USB connector.
5. When prompted for driver installation, choose "have disk", and browse to find the unzipped driver (for example, in c:\temp\fdti_d10620).
6. Once driver installed, go to "Control Panel", "System", "Device Manager".
7. Open the "Ports (COM and LPT)" node of the tree, and locate the "USB Serial Port" sub-node.
8. Remember the virtual COM name ("COM4" in the example below). This is the Virtual COM port device name, to be used later in the procedure.



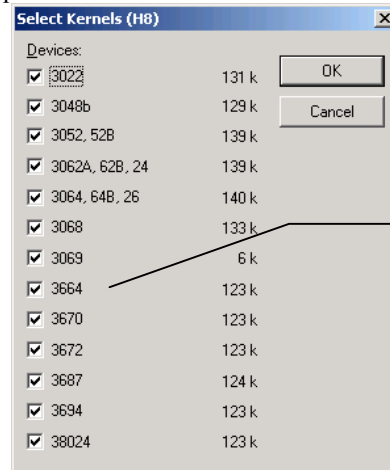
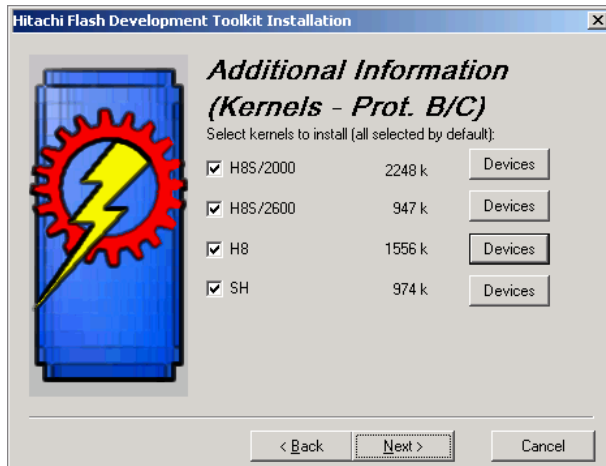
9. You may now close device manager.

Installing FDT 2.2

FDT is the software required to download an updated firmware into any Pro-Active products based on the K531 hardware (CSB4, K531 OEM, desktop Mifare readers...).

N.B. : FDT 2.2 is a Renesas (formerly Hitachi) copyrighted software. Original package can be downloaded at www.renesas.com .

1. Download the installer at URL below :
<http://pro-active.dnsalias.net/downloads/pro-active/FDT/fdt22.exe>
2. Execute this installer.
3. Please ensure that all devices are selected during installation process



This
checkbox
must be set

4. Finish the installation procedure.

Installing FDT 2.2 Prot_A upgrade

This package is a required upgrade of FDT 2.2.

1. Download the installer at URL below :
http://pro-active.dnsalias.net/downloads/pro-active/FDT/fdt22_prot_a.exe
2. Execute this installer.
3. There are no change to make during the installation procedure, click on the “Next” button then “Finish” button.

Select appropriate firmware

Download available firmwares

Firmwares for Pro-Active CSB-4 can be downloaded at URL below:

<http://pro-active.dnsalias.net/downloads/pro-active/firmwares/csb4>

Firmwares for Pro-Active K531 can be downloaded at URL below:

<http://pro-active.dnsalias.net/downloads/pro-active/firmwares/k531>

All available firmwares are .a20 files, located in a sub-directory named *version_major-version_minor* under the product directory.

For example, firmwares 1.30 can be downloaded at URL below :

http://pro-active.dnsalias.net/downloads/pro-active/firmwares/csb4/1-30/modk531_csb4.a20

Select your device firmware

Firmwares are named as follow :

<i>Product reference</i>	<i>Product name</i>	<i>Directory</i>	<i>File name</i>
CSB-4.3-U	CSB-4 USB mk3 (current release)	csb4	modk531_csb4.a20
CSB-4.3-S	CSB-4 Serial mk3 (current release)	csb4	modk531_csb4.a20
MOD/K531	K531 OEM module, RS-232 or TTL serial link	k531	modk531_oem.a20
MOD/K531-485	K531 OEM module, RS-485 serial link	k531	modk531_oem_485.a20

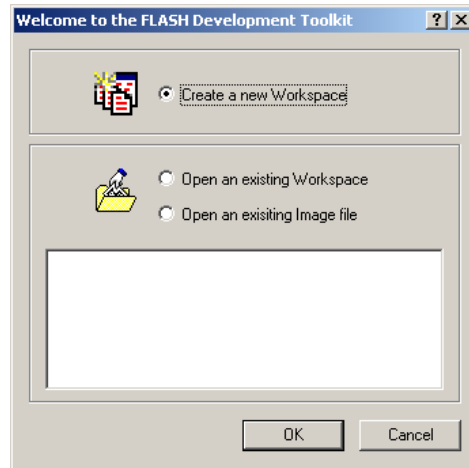
Other firmwares are unsupported and shall not be used.

Download the selected file(s) onto your computer's hard-drive.

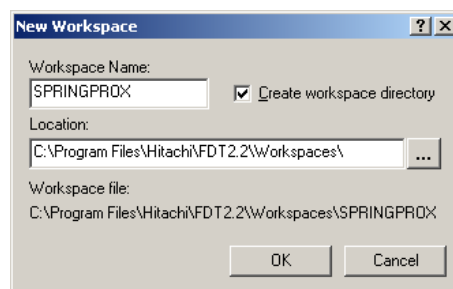
Create a workspace

Step by step operation

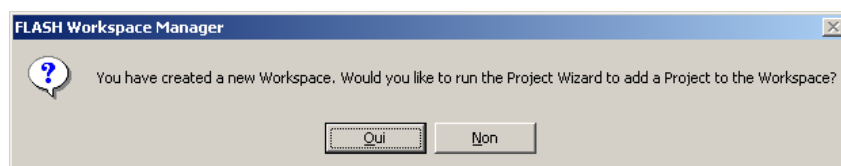
Launch FDT 2.2. Select “Create a new Workspace”.



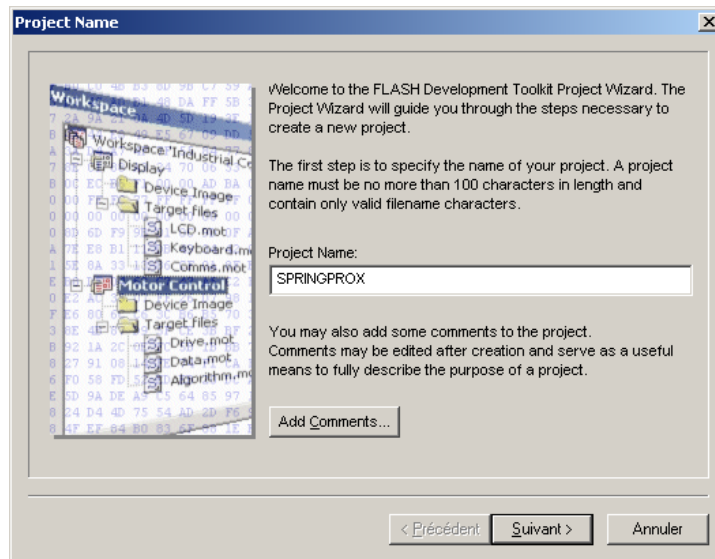
Set the workspace name : “SPRINGPROX” or “CSB4”, etc.



Answer “yes” to next question.

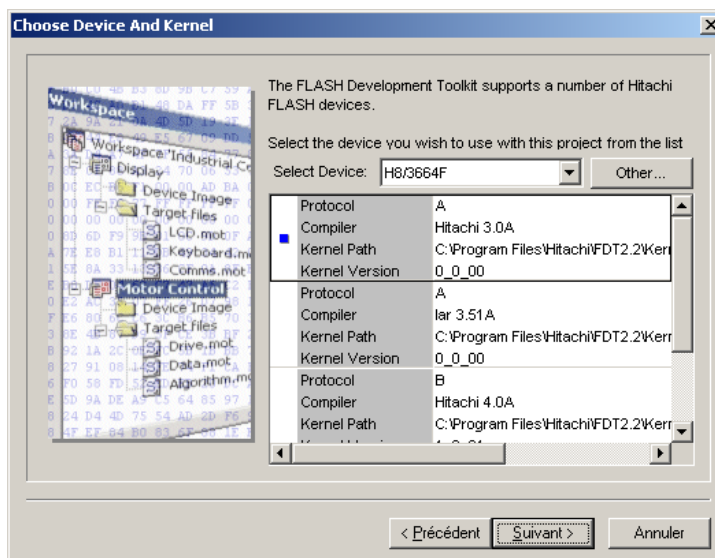


Set the project name : “SPRINGPROX”.



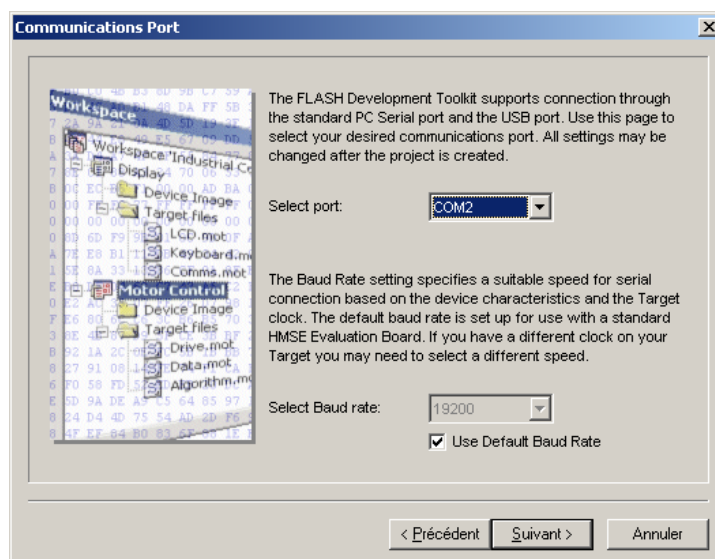
Choose the target device : “H8/3664F”.

Click on the first frame to display a blue rectangle in it. This select Protocol A, Compiler Hitachi 3.0A, etc.

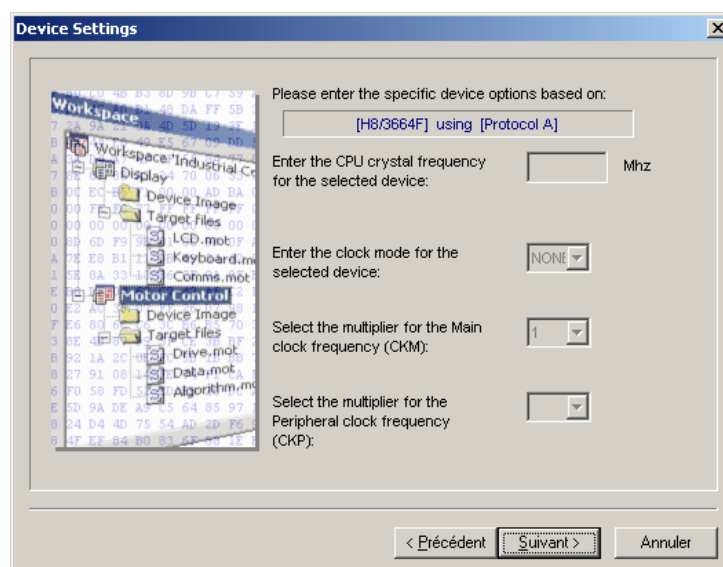


Select the serial port onto which you will connect the device to upgrade.

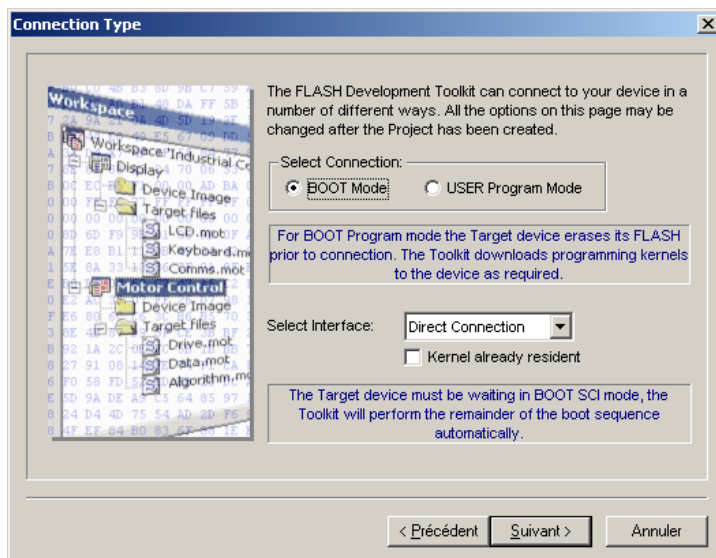
USB device : enter the Virtual COM port device name.



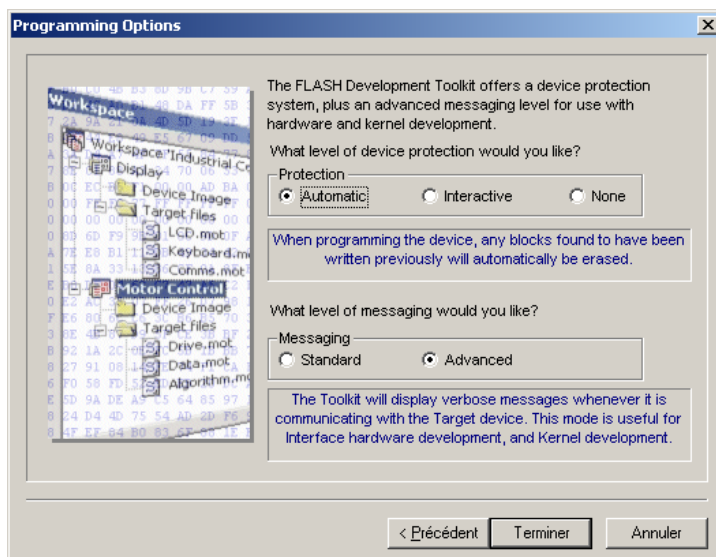
Click “Next” button.



Keep default values on next screen.

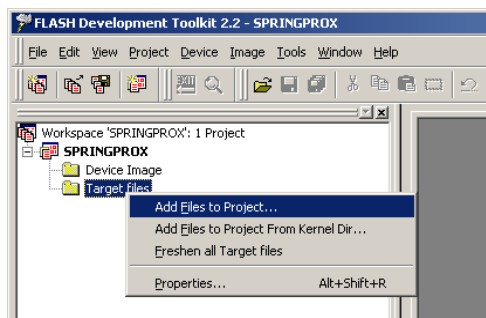


Keep default values on next screen.

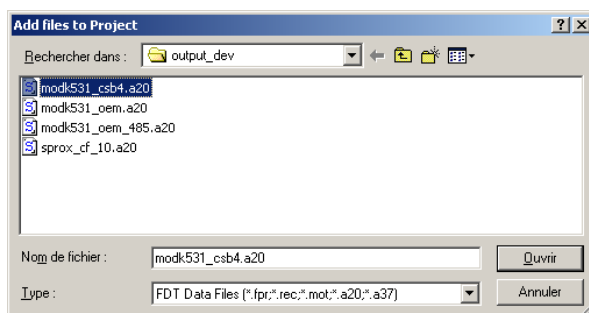


Add the firmware file to your workspace

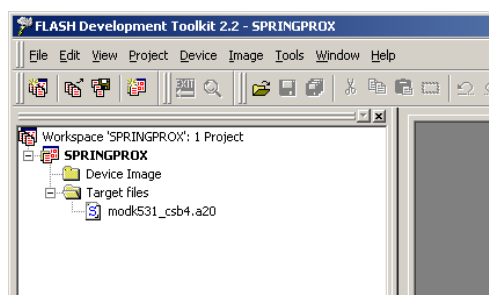
Right-click the item “Target files”. Click “Add Files to Project” in the popup menu.



Locate the .a20 file you want to use. Click “Open”.



N.B. : in the next steps of this document, we'll use the modk531_csb4.a20 firmware file to upgrade a CSB-4S device. Working with another firmware file to upgrade another device will be almost the same.



In the “File” menu, click “Save workspace”.

Perform upgrade

Put the device in “flash upgrade” mode

Disconnect device power supply.

Put the product in “flash upgrade” mode according to procedure below:

CSB-4x

Open reader’s case and locate the blue switch. Toggle this switch to the “ON” position.

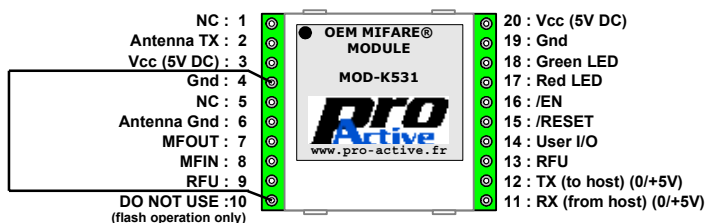


MOD-K531 on a SRK board

Same procedure as CSB-4x .

MOD-K531 on any other board

- Power off the module.
- Shortcut pins 4 & 10.
- Power on the module.



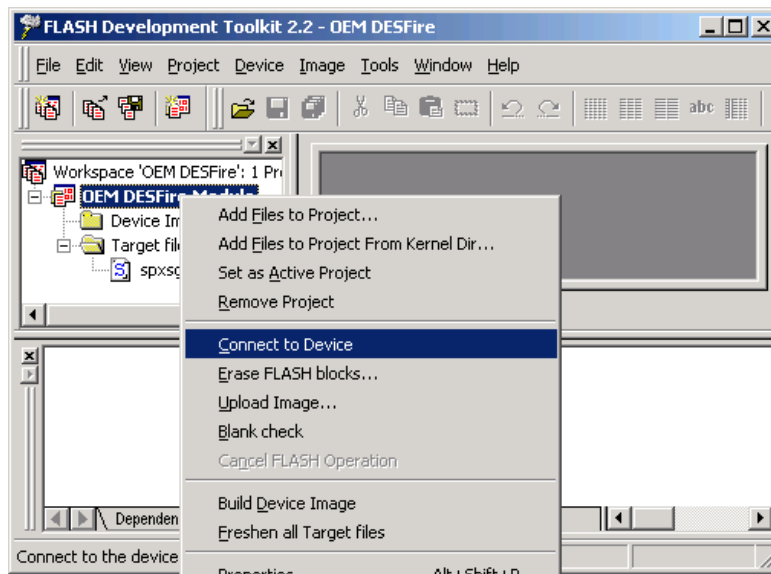
Connect the device to the computer

Connect product on the selected serial port.

Connect device power supply.

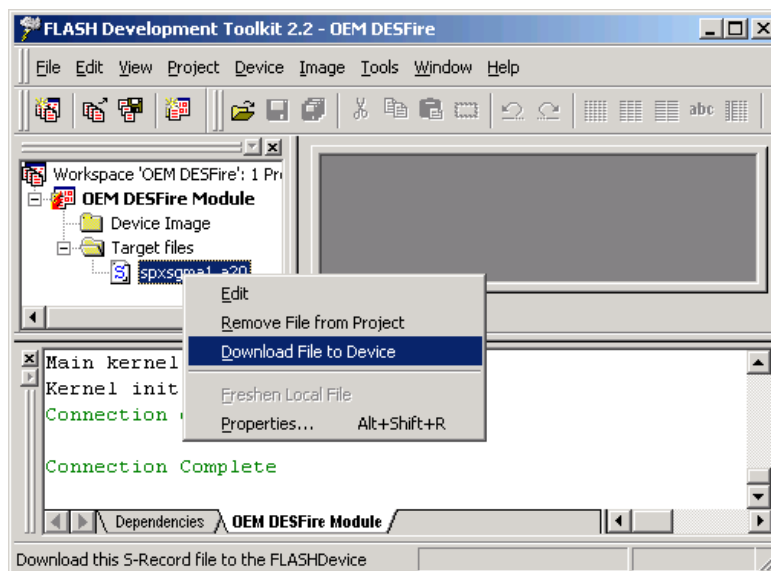
Execute upgrade procedure

In the FDT workspace window, right-click project root, and click “Connect to Device” in the popup menu.

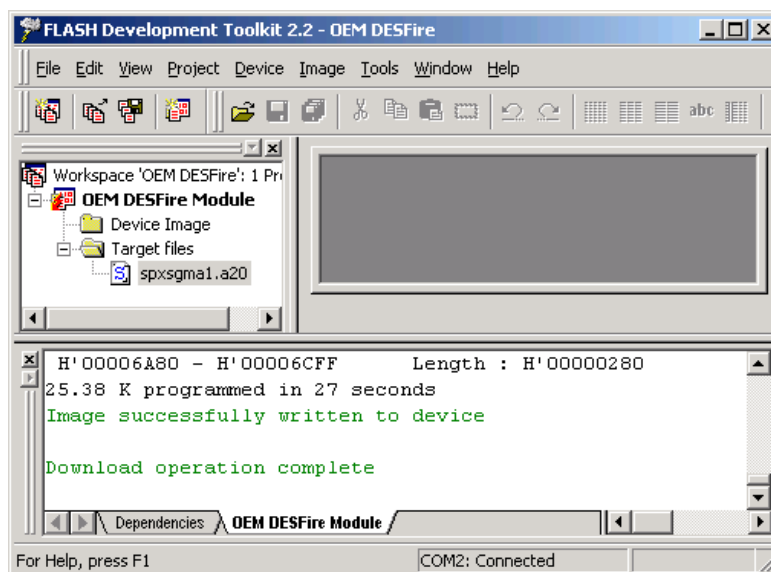


Wait until the line “Connection Complete” is displayed in the bottom area.

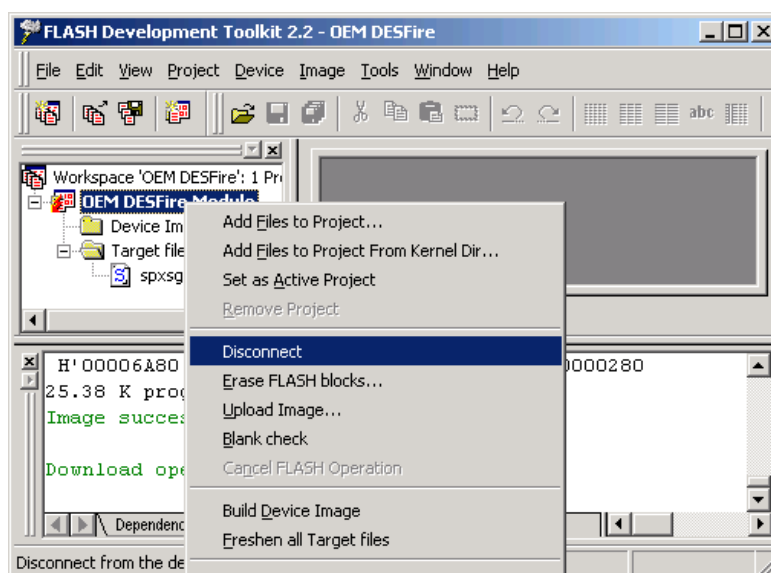
Right-click the .a20 file, and click “Download File to device” in the popup menu.



Wait until the line “Download operation complete” is displayed in the bottom area.



Right-click project root, and click “Disconnect” in the popup menu.



Put the device back in normal mode

Disconnect device power supply.

Put the product in normal mode according to procedure below:

CSB-4x

Open reader’s case and locate the blue switch. Toggle this switch to the “1” position.

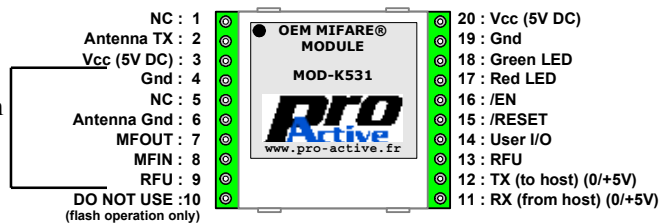


MOD-K531 on a SRK board

Same procedure as CSB-4x .

MOD-K531 on any other board

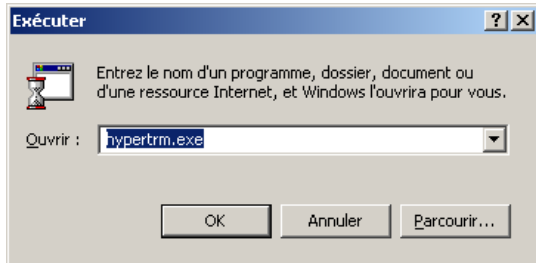
- Power off the module.
- Release shortcut between pins 4 & 10.
- Power on the module.



Checking firmware version

Configuring an HyperTerminal connexion

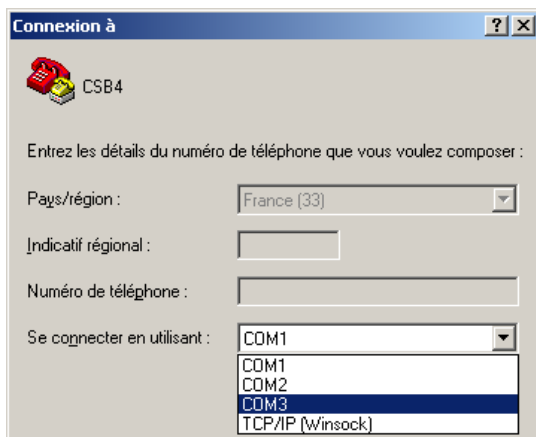
- “Start” button | “Run...”



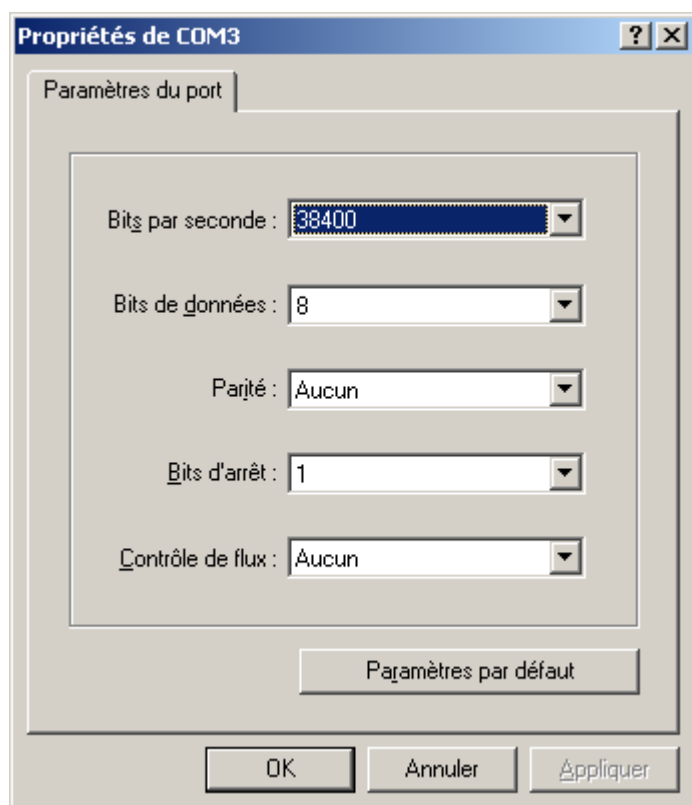
- Type : « hypertrm.exe »



- Enter a new name for this connection, for example : « CSB4 »
- Click button « OK »



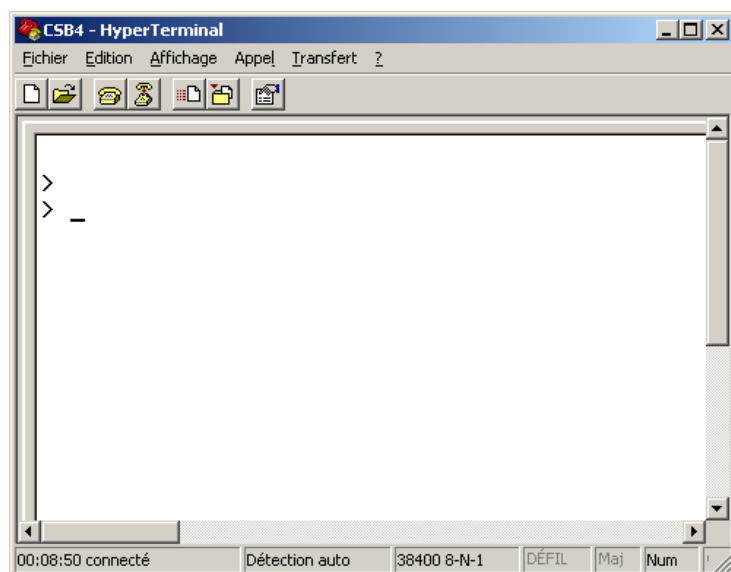
- Select the COM where your product is connected.
- Click button « OK »



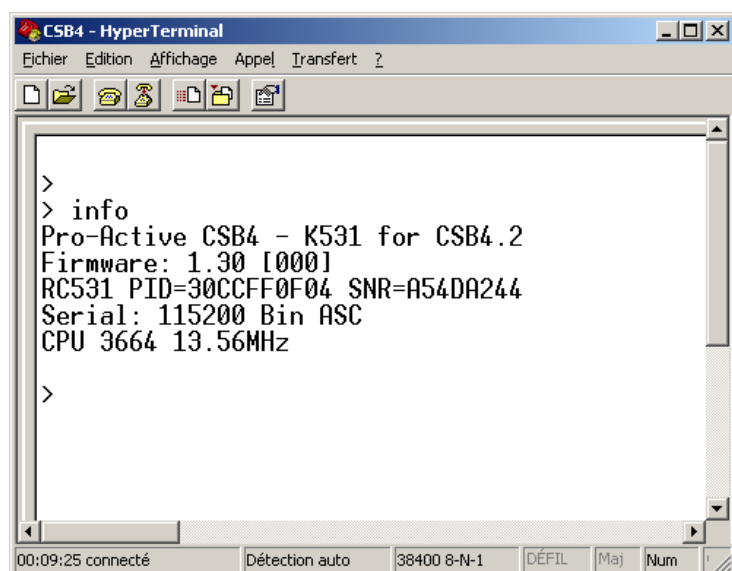
- Enter correct values which are :
 - Baud : 38400
 - Data : 8
 - Parity : none
 - Bit stop : 1
 - Flow control : none
- Click button « OK »

Displays informations

- Hit « Enter » key one or two times.



- Type : « info » then hit « Enter » key.



```
>  
> info  
Pro-Active CSB4 - K531 for CSB4.2  
Firmware: 1.30 [000]  
RC531 PID=30CCFF0F04 SNR=A54DA244  
Serial: 115200 Bin ASC  
CPU 3664 13.56MHz  
>
```

- The product displays informations about itself. The firmware is clearly indicated.

**PRO ACTIVE
PARC GUTENBERG
13 VOIE LA CARDON
91120 PALAISEAU
FRANCE**

Phone. +33 1 64 53 20 10 – Fax. +33 1 64 53 20 18

Mail : info@pro-active.fr

PRO ACTIVE ON THE INTERNET
<http://www.pro-active.fr>

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