FMXXXX Update Manual
Version 1.1
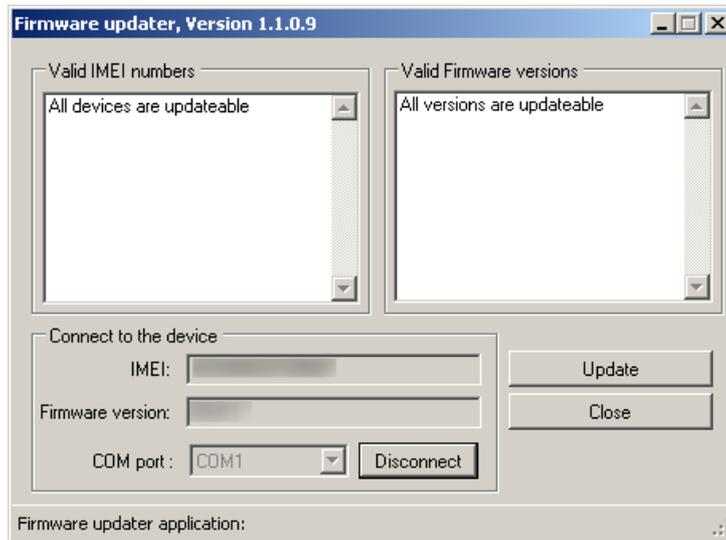
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1. Updating firmware using cable

FMXXXX is powered with smart firmware. FMXXXX functionality is always improving, new firmware versions appear. Current module version can be retrieved from Firmware Updater.

Connect FMXXXX to PC with Port ½ cable. Launch "FM Updater", select COM port, click "Connect" and "Update". Update process may take several minutes. **NOTE:** FM1100, FM2200, FM3200 are connected to the PC in USB port, using USB->PC – mini USB FM11/FM22/FM32.

Pic.1 FMXXXX firmware update in process

When the update will be finished, you will see the text*: Data transmission ended OK…*as shown in picture nr.2.

Pic.2 Firmware update finished

When updating FMXXXX**M** via Firmware updater 1.1.0.9 do not disconnect device from power source and PC after **„Data transmission ended OK"** message. FMXXXX**M** will stay in boot mode for some time after firmware update finished screen. To see if FMXXXX**M** is in normal mode you need to check status LED behaviour. If status LED is blinking fast constantly, device is still in boot mode, wait till status LED blinks once every second. This will mean that FMXXXX**M** is in normal mode and it is safe to disconect it from power source and PC.

Before updating FM4100 through cable, please check your bootloader version. If version of bootloader is too old FM device will break during starting. You can check bootloader version by connecting to module with terminal. As soon as module get power supply, in terminal you can see such lines:
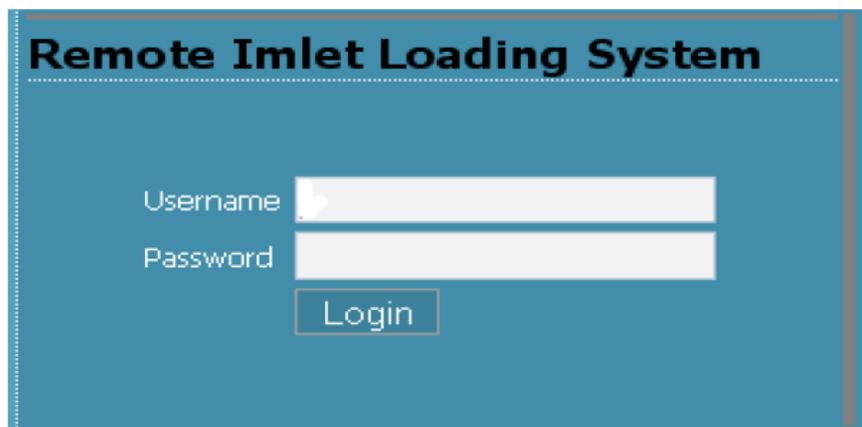
Start loader 4.05MS-CC PG-Present!
Start App!

Here 4.05 - is bootloader version.If bootloader version is 4.04 and higher, you can do firmware update via cabel, if bootloader version is lower than 4.04, firmware update must be done via RILS.

2. Updating firmware via RILS

Firmware can be updated by RILS system over GPRS.

RILS stands for Remote Imlet Loading System, which is used to update FMXXXX ARM processor firmware. In order to update firmware, server sends a SMS to the FMXXXX and directs it to connect to the server and download new firmware. The special web interface is used for this operation. Address of the web application is: http://avl2.teltonika.lt:5002/RILS-web/.

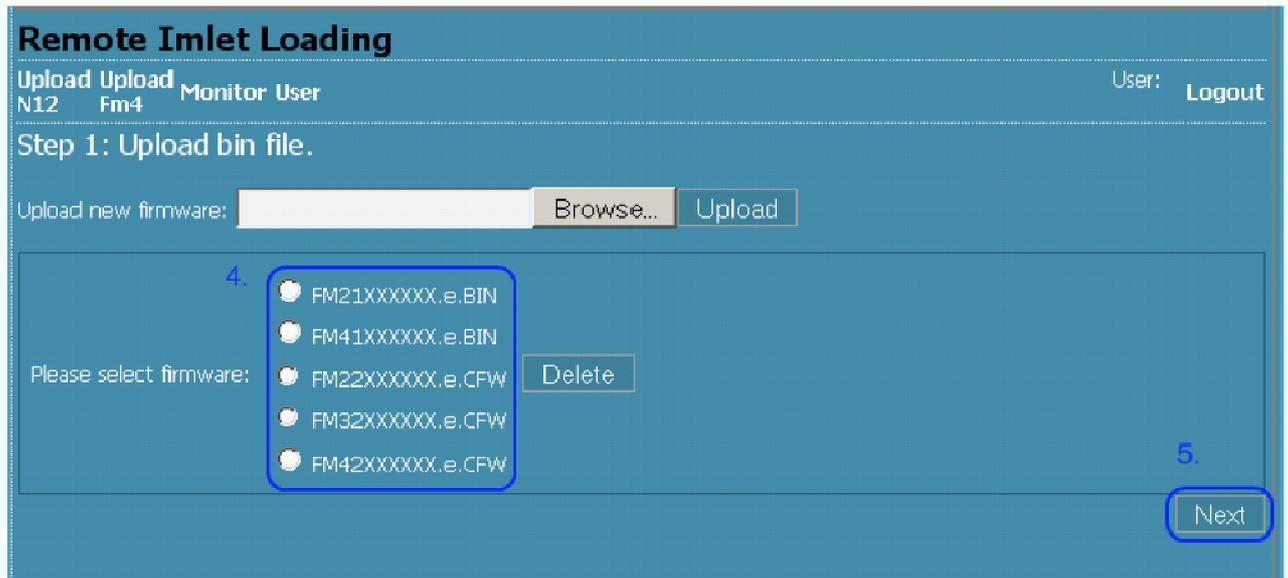For RILS login and password please contact your sales manager.

Pic.3 Login window

After logging in click on 'Upload FM4' (1), click 'Browse' (2) near 'Upload new firmware:', select FMXXXX firmware fle from hard disk, click OK and then 'Upload' (3). Select uploaded firmware from the list (4) and click next (5).

Pic.4 Uploading firmware window

Pic.5 Firmware selection window

Note, that FM2100, FM4100 updating frimware must be with extention .BIN and must be encrypted (FMXXXXXXXX.e.BIN)
FM2200, FM3200, FM4200 updating firmware must be with extention .CFW and also encrypted (FMXXXXXXXX.e.CFW)

Enter necessary parameters in the fields (1):

· IMEI: device IMEI
· Server port: 5009
· Server IP address: 212.47.99.62
· Module number: is GSM number of FM SIM in wordwide standard, for example:
  +3700000000000
· APN:
· chap login: APN login
· chap password: APN password.

After entering all parameters click 'Add Module' (2). To operate multiple devices, enter new IMEI, GSM, APN, APN login, APN password and click 'Add Module again. Otherwise click 'Next' (3) and if all parameters are correct click 'Upload' (4) in the next window.

Remote Imlet Loading

Step 2: Configure modules.

Upload modules from file: [   ] [Browse...] [Upload]

Please configure module (s)   1.

IMEI:	352801234567890	Server IP address:	212.47.99.62
Server port:	5009	Module number:	+370123456789
APN:	APN	chap login	APN login
chap password	•••••••		[Add module] 2.

Module number:	IMEI:	Other options
+370123456789	352801234567890	Delete

3.

[Back] [Next]

Remote Imlet Loading

Step 3: Review and submit batch job.

Imlet suite selected: FM42XXXXXX.e.CFW May 7, 2010

Configured devices:

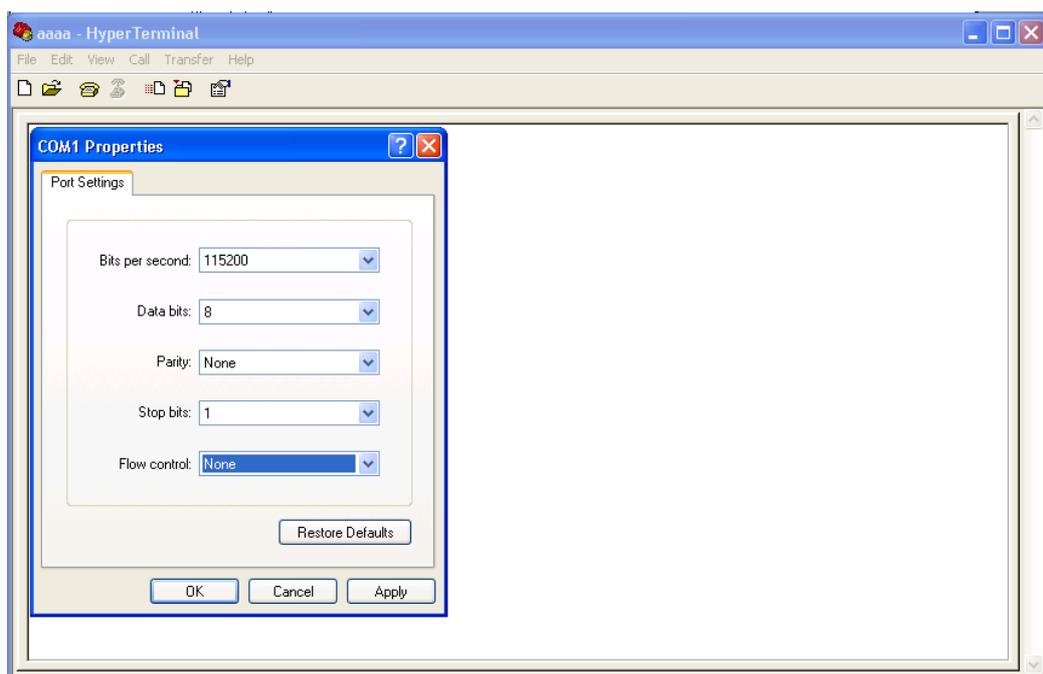| Method:	Module number:	IMEI:
pull	+370123456789	352801234567890

4.

[Back] [Cancel Batch] [Upload]

3. Firmware recovery

If an error occurred while updating the FM4XXX because firmware with the wrong extension was choosen, you can try to recover it. Firmware recovery can be done in such way:

1. Click Windows „**Start**" button;

2. Browse and Run: Program -> Accessories -> Communications -> **HyperTerminal;**

3. Create New Connection: Any Name -> Click OK;

4. Select Proper COM port -> Click OK;

5. Configure:

    - Bits per second: 115200

    - Data bits: 8

    - Parity: None

    - Stop bits: 1

    - Flow control: None

6. "CCCCCcccccc" letters should appear on screen;

7. Click Transfer -> Send File... (is attached);

8. In **"Send File"** window Browse firmware *.CFW file;

9. Select Protocol: **Ymodem** (**Not Ymodem-G**);

10. Click OK - Flashing Process will start in few seconds;

11. Wait until it reaches 100%, after this device will boot up and operate with new firmware;

12. Update your FM device with RILS to a newest base firmware, or your special FW.

4. Changelog

Version	Date	Changes
1.0	2011 July 15	Initial release
1.1	2013 March 12	Notes regarding firmware updater 1.1.0.9 and FMXXXXM update added