

Update a M238 firmware

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1. Introduction

A migration process has been decided as preventive actions to manage the compatibility breakthrough generated with V1.1.

This document is one of the technical procedures provided to involved people in order to help them for the application migration.

It describes all the steps, trips and tips in order to update a M238 controller according to its product version (V1.0 or V1.1).

1. How to identify your M238 controller?

- **M238 in solution launch V1.0**
 - o Product version **PV06**
 - o Firmware version SV1.0.1.7

With this hardware version, the firmware can be downloaded **only** through serial link 1.

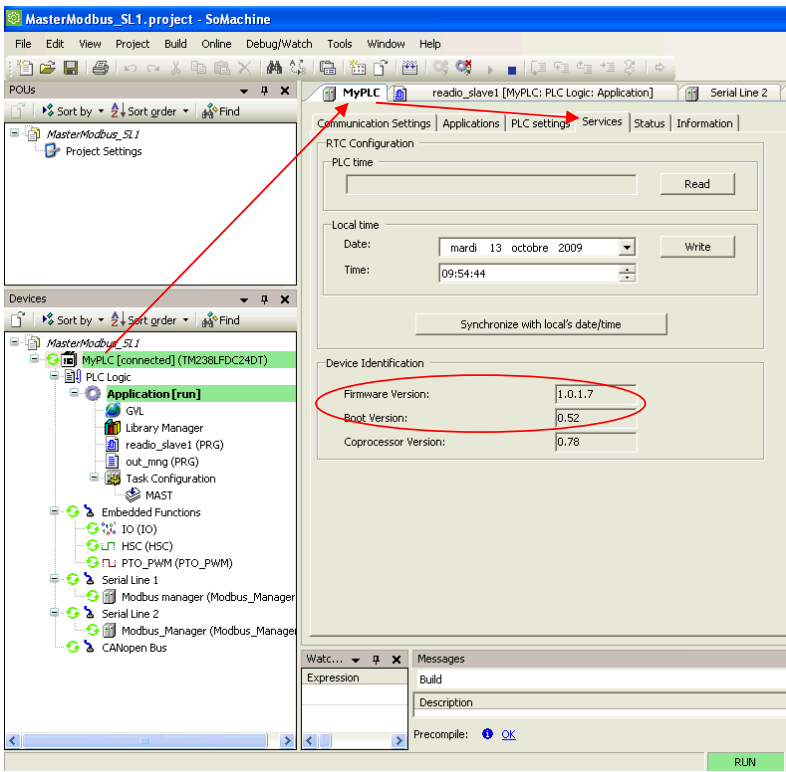
- **M238 in solution launch V1.1**
 - o Product version **PV09**
 - o Firmware version SV2.0.10.xx

With this hardware version, the firmware can be downloaded **only** through USB port.

- **M238 in solution launch V2.0**
 - o Product version **PVxx**
 - o Firmware version SV2.0.20.xx

With this hardware version, the firmware can be downloaded **only** through USB port.

It is also possible to identify the Firmware version through SoMachine, see snap shoot here after,
→ especially if a FW update has already been done, then SV ≠ Firmware Version.



Boot Version 0.xx : the firmware can be downloaded **only** through serial link 1.
 Boot Version 1.xx : the firmware can be downloaded **only** through USB port.

2. How to download firmware through Serial Link 1?

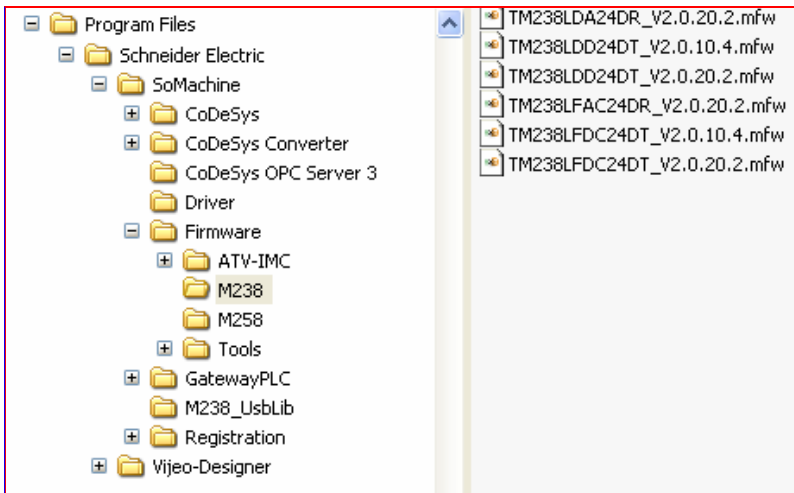
This method is needed for M238 "V1.0", that means for M238 with PV06 version.

- Software tool to use

A separate tool: "Exec Loader Wizard Serial" included in SoMachine DVD V1.0 or V1.1 allows to download firmware without launching SoMachine.

The steps to update the firmware are described as follows:

- Stop the Codesys Gateway.
- Close all open applications.
- Follow instructions given by the Exec Loader Wizard
- Take care to browse the correct file and fill in into "File" settings. The firmware files are located in SoMachine installation folder "...\\Exec Loader\\Firmware\\".



This download operation requires about 15 minutes

- **Options for Cable to use**

1. TSXCUSB485 + VW3A8306R10

The TSXCUSB485 converter is a device that allows a PC to be connected, via a USB port, to remote devices using an RS 485 interface.

VW3A8306R10 is a RJ45/RJ45 cable connected between the converter and M238 Serial port 1.



TSXCUSB485

2. TCSMCNAM3M002P

It's a new universal Cable available by end of July 2009.

http://the-village.schneider-electric.com/Business_Offer/system_consistency/en/sitemgr.nsf/HomePage?ReadForm

The universal cable – ref TCSMCNAM3M002P - is a programming cable that provides a link between a PC equipped with a type A USB port and RS485 devices equipped with an RJ45 plug. In addition to the pure communication functionality it detects if the connected Schneider RS485 device requires power supply and provides the proper voltage (0V, 5V or 10V) automatically.

The universal cable has been so developed that it works with many different devices, as mentioned in the following picture.



The universal cable has been developed within System Consistency in a strong relationship with STIE, which have the product responsibility. The Universal cable will be available by end of July 2009 from the Evreux (FR) IDC.

3. How to download firmware through USB port?

Update M238 PLC firmware process needs 3 minutes per PLC

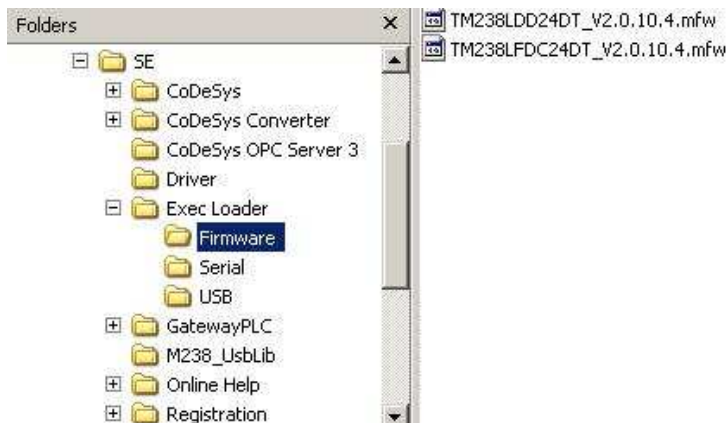
This method is needed for M238 "V1.1" and for M238 "V2.0", that means for M238 with PV09 version or above.

- Software tool to use

A separate tool: "Exec Loader Wizard USB" included in SoMachine DVD V1.1 (part number MSDCHNSFU11) allows to download firmware without launching SoMachine.

The steps to update the firmware are described as follows:

- Stop the Codesys Gateway.
- Close all open applications.
- Follow instructions given by the Exec Loader Wizard
- Take care to browse the correct file and fill in into "File" settings. The firmware files are located in SoMachine installation folder "...Exec Loader\Firmware".



This download operation requires about 3 minutes.

- **Cable to use**

The standard USB cable already used for programming with USB connector on one side and mini USB connector on the other side (prg. Port. of M238) can be used for firmware download.

The part number for this cable is TCS XCNA MUM3P (3m, 9.8ft).

Keep the same connection between your PC and M238 both for application download and firmware download.