

TFTP FIRMWARE UPDATE

AXL F BK

Updating the firmware of an Axioline F bus coupler

Application note
105923_en_00

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1 Description

This document describes how you can update the firmware of an AXL F BK ... Axioline F bus coupler via the TFTP protocol using Factory Manager.



In the following, the term "PC" will be used as a general term for a PC, notebook, or similar.

2 System requirements

- Factory Manager 2.3 or earlier version, if the "FL IL 24 BK-PAC" device type is supported.

The example screenshots given have been created using the Factory Manager 2.3 software under Windows XP.

3 Update requirements

The device **must** have **valid** IP parameters so that the firmware can be updated.



It is not possible to update the firmware using the default settings upon delivery. Start up the device and set valid IP parameters.



To make sure that no settings are lost during updating, take suitable measures to back up the device settings.



In order to establish a connection to the Axioline F bus coupler, it may be necessary to deactivate the firewall of your PC.



This description does **not** replace the module-specific documentation. Please also observe the module-specific documents.



Make sure you always use the latest documentation. It can be downloaded at phoenixcontact.net/products.



Windows XP is a trademark of the Microsoft Corporation.

4 Installing Factory Manager (if required)

Install Factory Manager if it is not yet installed on your PC. To do this, proceed as follows:

- Search Factory Manager called “FL SWT” in the download center.
- Download the setup23_xx.exe file. This is the latest version of Factory Manager as an update or demo version. You can use earlier versions, if the “FL IL 24 BK-PAC” device type is supported.
- To install Factory Manager, execute the setup23_xx.exe file and follow the installation instructions.
- If an error message indicates a missing SNMP service, this service must be activated on your PC. To do this, proceed as follows:



In order to enable the SNMP service, you might need administrator rights or even an operating system CD.

- Select “Start, Control Panel, Software”.
- Click on “Add/Remove Windows Components”.
- In the “Windows Component Wizard” window that opens double-click on “Administrative Tools and Audit Programs”.
- Activate the “SNMP” checkbox.
- Close all open windows.

5 Providing the new firmware version



The current firmware update file is available from the download area of the bus coupler at phoenixcontact.net/products.

Save the new firmware version in the directory “C:\Program files\Phoenix Contact\Factory Manager\Version x.y\download” (for standard installations of Factory Manager).

The update can only be executed if the firmware file is saved in the “download” directory. It is not possible to start the update from another directory.

6 Updating the firmware via Factory Manager

- Connect the Axioline F bus coupler to the LAN card of your PC via an Ethernet cable.
- Switch on the power supply to the bus coupler.
- Make sure that the IP address of your PC using Factory Manager is in the same IP address area as the bus coupler, which you wish to update. To do this, proceed as follows:
 - Set the IP address of the bus coupler using any of the following methods:
 - BootP
 - DHCP
 - DCP
 - Rotary coding switch (if present)



Rotary coding switches are not available on all types of Axioline F bus couplers. For more detailed information on rotary coding switches, please refer to the data sheet for the bus coupler used.

Example of an IP address:

AXL F BK ...: 172.16.16.94

PC: 172.16.16.95

(with the same subnet mask as the Axioline F station)

- Start Factory Manager. If an error is displayed in the message window, it needs to be eliminated. Continue if no errors are indicated.

- Select “Device, Add...” from the menu bar.

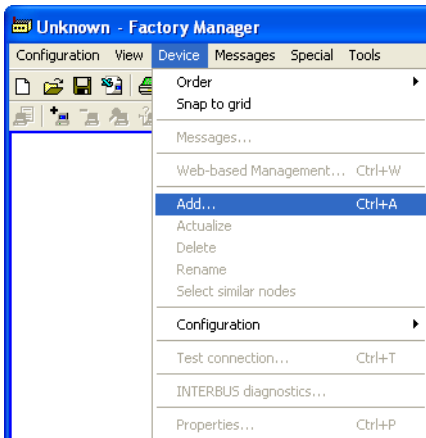


Figure 1 “Device, Add...” in Factory Manager

- Enter the required device data in the window that opens.
- Under “Description” enter any device name of your choice.
- Under “Type” select the “FL IL 24 BK-PAC” device which is compatible with AXL F BK ... bus couplers.

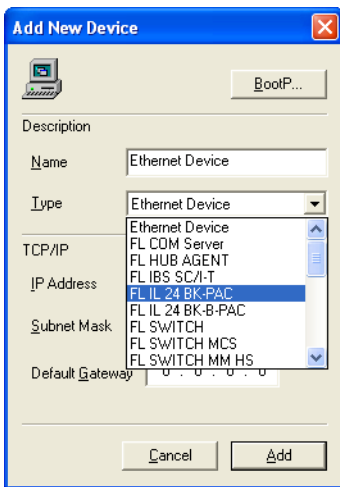


Figure 2 Selecting the device type

- Enter the required data in the corresponding fields under “TCP/IP”.

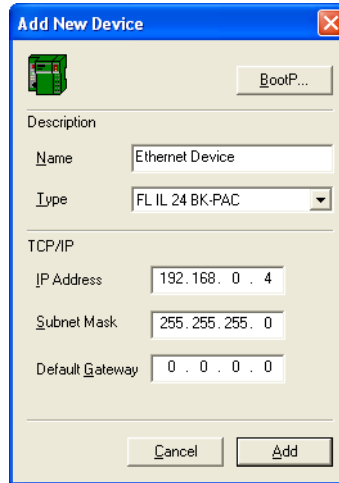


Figure 3 “Add New Device” window

- Confirm your selection with “Add”.

Your device has now been added to the Factory Manager device window.

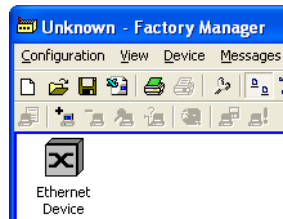


Figure 4 Device added

The device cannot yet be accessed if it is displayed as shown in Figure 4.

- In the context menu, select the “Properties...” item.

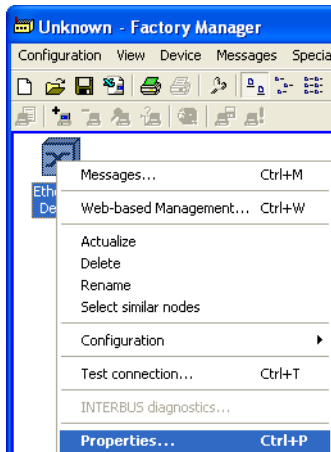


Figure 5 Device properties

- Select the device type again.

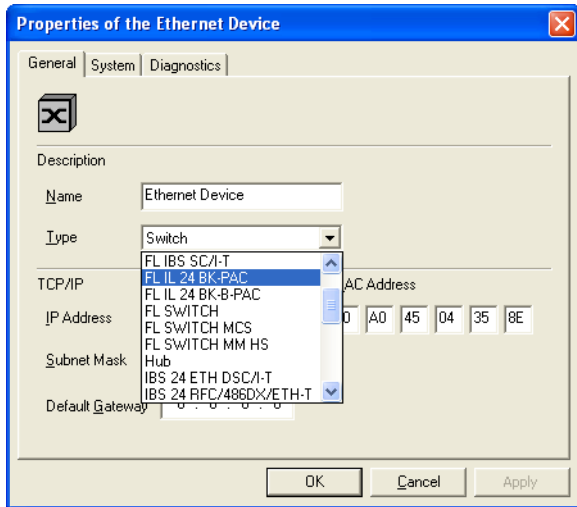


Figure 6 Selecting the device type again

- Confirm your selection with “Apply” and “OK”.

Now your device is marked as available in the Factory Manager device window.

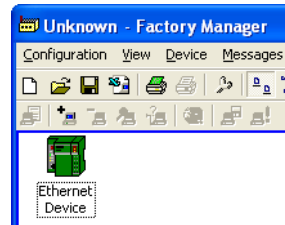


Figure 7 Device is accessible

i Do not refresh the Factory Manager view. Otherwise the “Firmware Update” option will not be available anymore.
However, if you have already refreshed the Factory Manager view, set the type under “Properties” again (context menu for the device).

- Select “Configuration, Firmware Update...” from the context menu. The firmware update window will then open.

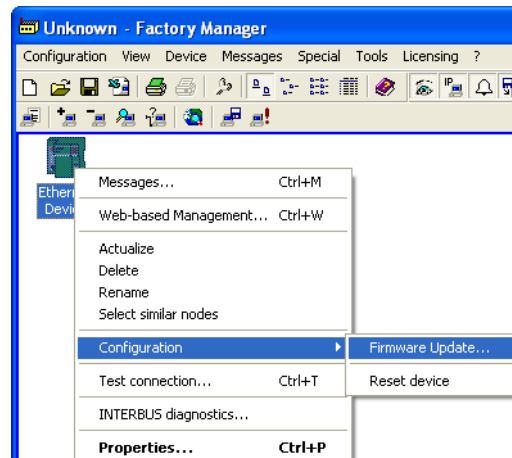


Figure 8 Firmware update context menu

- Select the new firmware with the “Select...” button.
- The “Boot files (*.bin)” file type is preset in the window for the file selection that opens up.
- Change the setting to “All files (*.*)”.
 - Select the update file (xxxxxx.fw).

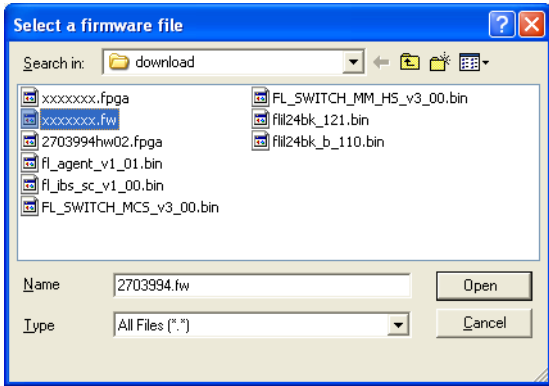


Figure 9 Selecting the file for the firmware update

- Select the TFTP server address under “Change...”. The IP address of the PC on which Factory Manager is installed is also listed.

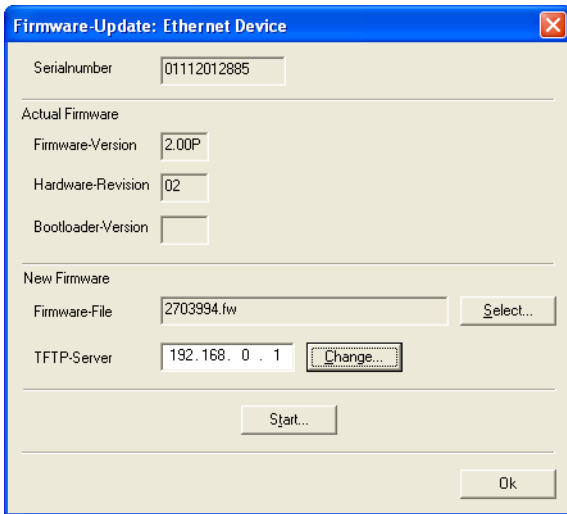


Figure 10 Selecting the TFTP server address

- Click on “Start”.
- Enter the password. Please note that it is case-sensitive. By default upon delivery, the password is “private”.

You can follow the status of the firmware file transfer in the Factory Manager message window. In addition, the LEDs located on the bus coupler indicate the current status of the firmware update.

LED RDY	Meaning
Flashing yellow/red	Wrong update file has been downloaded to the bus coupler.
Flashing yellow	Firmware update is being performed.
Green on	Device is ready for operation.



The firmware update can take several minutes. Never disconnect the supply voltage during the firmware update process.

After successful completion of the update, the bus coupler is restarted automatically.

- Check the device settings (e.g., IP address, with PROFINET: PROFINET name, ...).



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