Multi Axis Drive Controller for FESTO

nutai

Nuevas técnicas de automatización industrial

7 May 2021

Festo CMMP-AS Configuration Manual

www.nutai.com

Overview

Overview

Introduction

This manual explains the configuration of Festo CMMP-AS motor controller so that it can be operated from a UR robot using the NUTAI URCap Multi Axis Drive (MAD) Controller.

Note that this manual explains the minimum required configuration, so it is left pending for the user to complete other secondary configuration options.

Overview

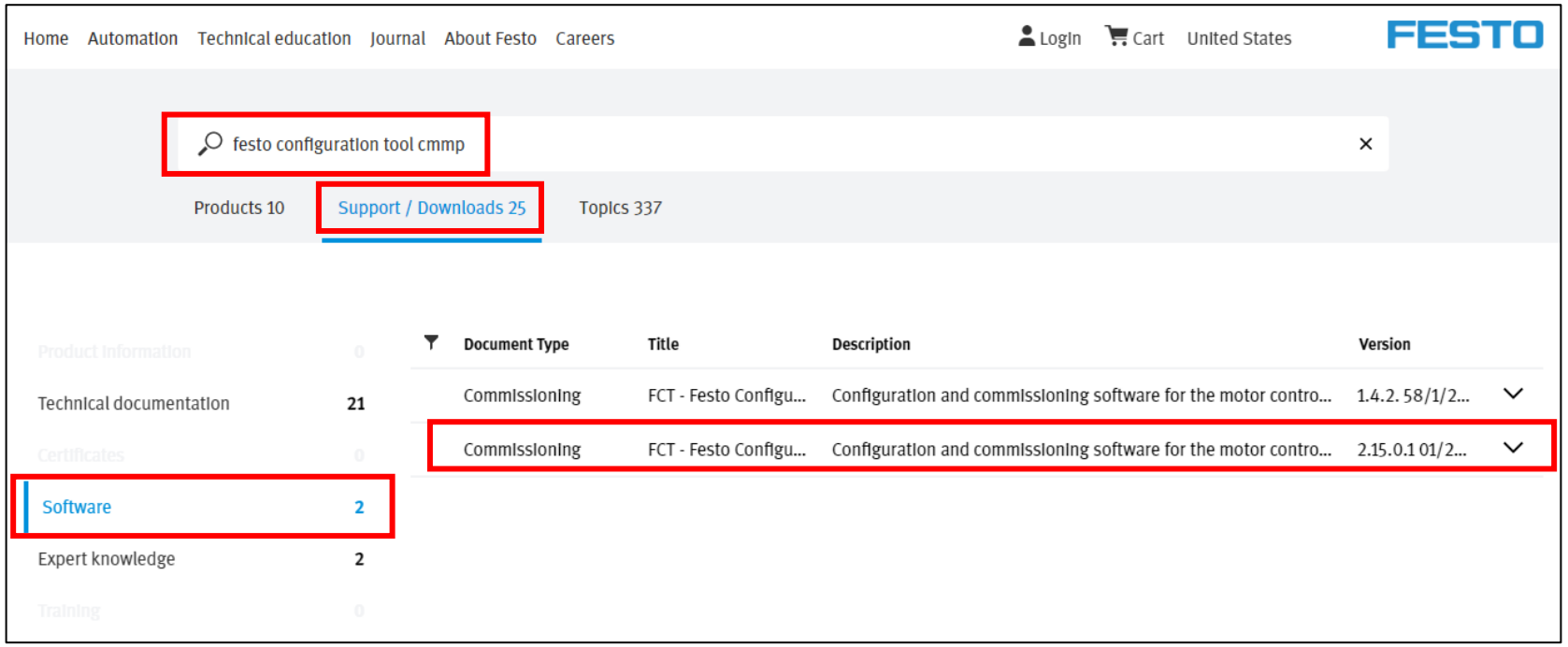
Necessary software

To configure the Festo CMMP-AS motor controller, the Festo Configuration Tool (FCT) software —available for Windows— must be downloaded and installed on your computer.

To do this, go to the Festo[1] website and download the latest version available, making sure that it is compatible with your CMMP-AS controller, as indicated in the following slides.

[1] Festo oficial website:
https://www.festo.com

Necessary software



Necessary software

Title:
FCT - Festo Configuration Tool - Plugin

Description:
Configuration and commissioning software for the motor controller CMMP-AS FCT Plugin CMMP-AS V2.11.0.262 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.10.0.150 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.9.0.255 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.8.0.554 for Firmware V4.0.1501.2.3 FCT Plugin CMMP-AS V2.7.0.154 for Firmware V4.0.1501.2.3 FCT Plugin CMMP-AS V2.6.0.131 for Firmware V4.0.1501.2.3 FCT Plugin CMMP-AS V2.5.0.479 for Firmware V4.0.1501.2.2 FCT Plugin CMMP-AS V2.4.1.4 for Firmware V4.0.1501.2.1 Festo Configuration Tool V1.3.1.1Version changes:Configuration and commissioning software for the motor controller CMMP-AS FCT Plugin CMMP-AS V2.15.0.10 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.14.2.3 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.13.1.1 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.12.0.174 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.10.0.150 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.9.0.255 for Firmware V4.0.1501.2.4 FCT Plugin CMMP-AS V2.8.0.554 for Firmware V4.0.1501.2.3 Festo Configuration Tool V1.4.3.2 Supported systems:Motor controller CMMP-AS-C10-11A-P3-M3 (1501328) Motor controller CMMP-AS-C10-11A-P3-M3-C1 (2106335) Motor controller CMMP-AS-C15-11A-P3-M3 (3215473) Motor controller CMMP-AS-C2-3A-M3 (1501325) Motor controller CMMP-AS-C2-3A-M3-C1 (2106332) Motor controller CMMP-AS-C5-11A-P3-M3 (1501327) Motor controller CMMP-AS-C5-11A-P3-M3-C1 (2106334) Motor controller CMMP-AS-C5-3A-M3 (1501326) Motor controller CMMP-AS-C5-3A-M3-C1 (2106333)

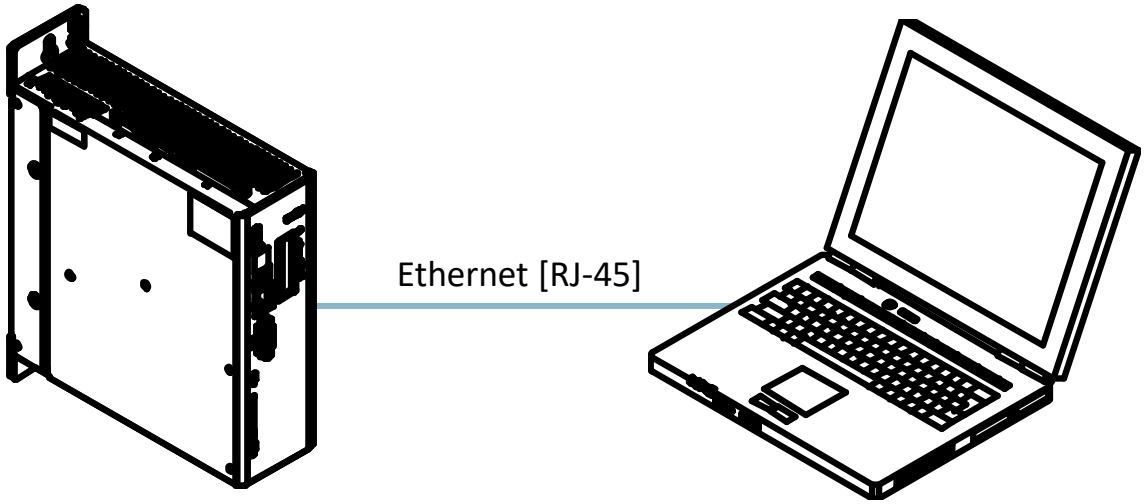
Document type:
Commissioning

Title	Language	Version	File size	Download
Version 2.15.0.10 (26.01.2021) Version hl...	Deutsch [de], English [en], 中文 [zh-CN]	2.15.0.10 (1/26/...	1513 MB	

Overview

Connection with controller

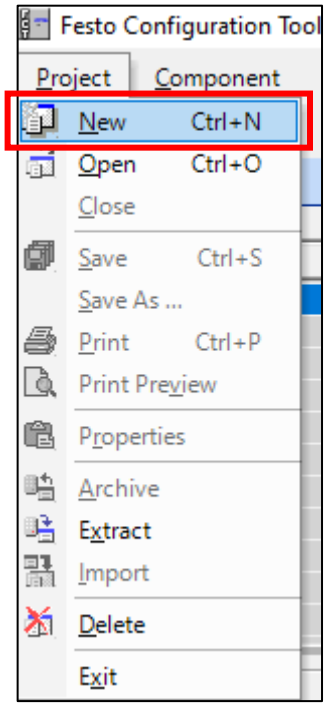
Connect your Festo CMMP-AS controller to your computer —directly or through a switch—via Ethernet.

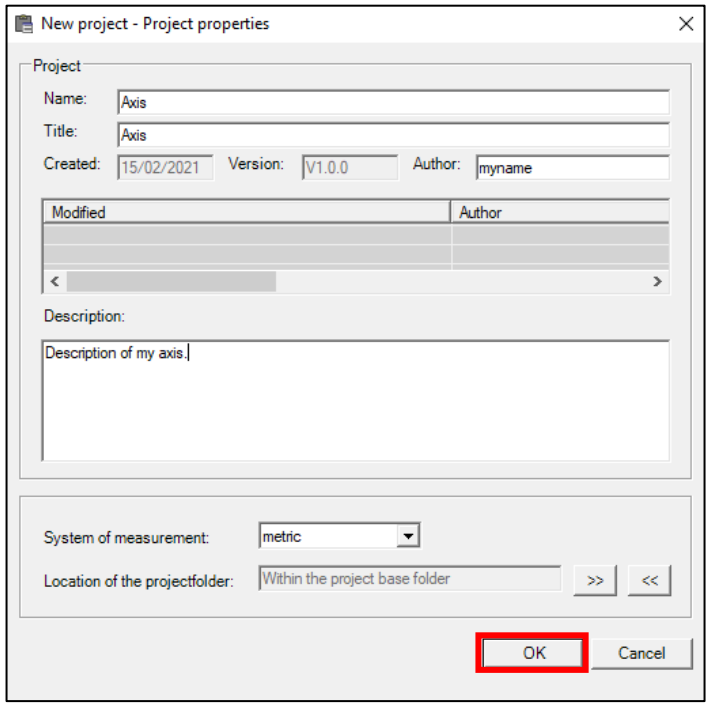


Overview

Project creation

Start the *Festo Configuration Tool* application, click *Project* -> *New* and enter the data for the new project.

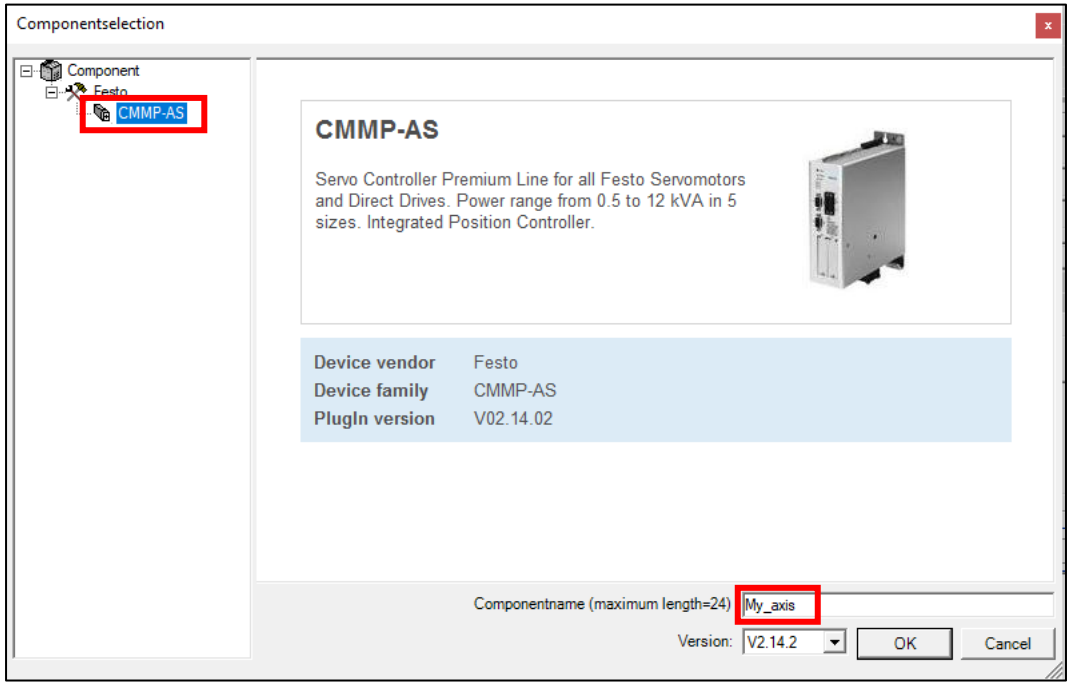




Overview

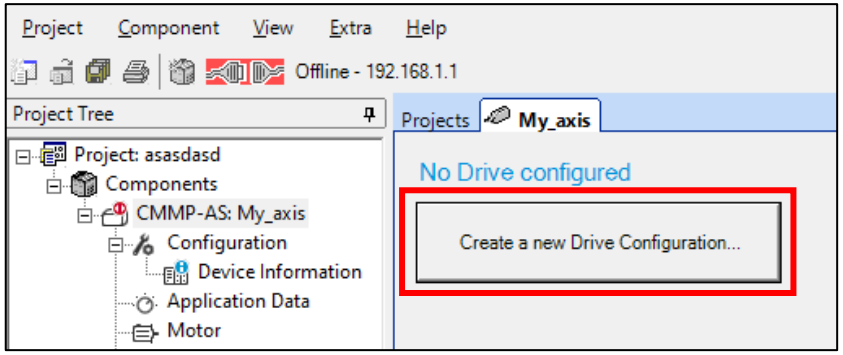
Component selection

Once the project is created, go to it, select the CMMP-AS component and enter a name for this component.



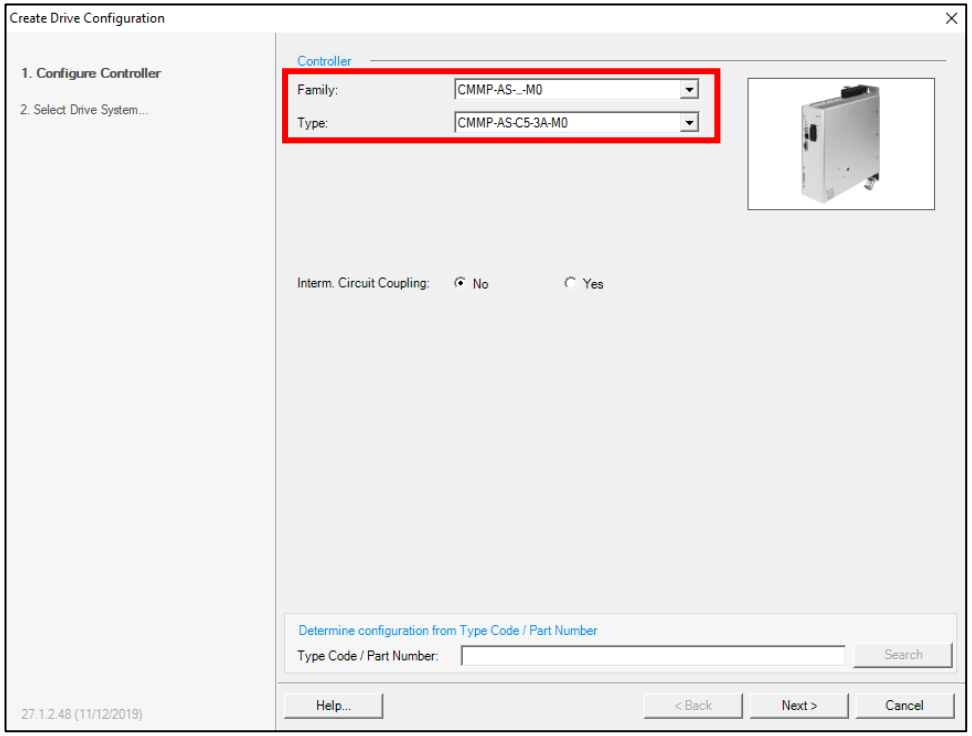
Component selection

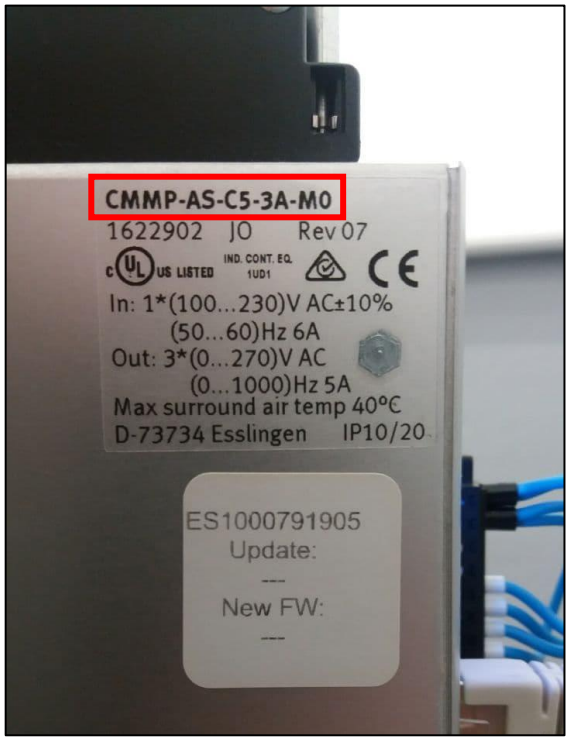
The next step will be to create a new controller configuration. Click the *Create new Drive Configuration* button.



Component selection

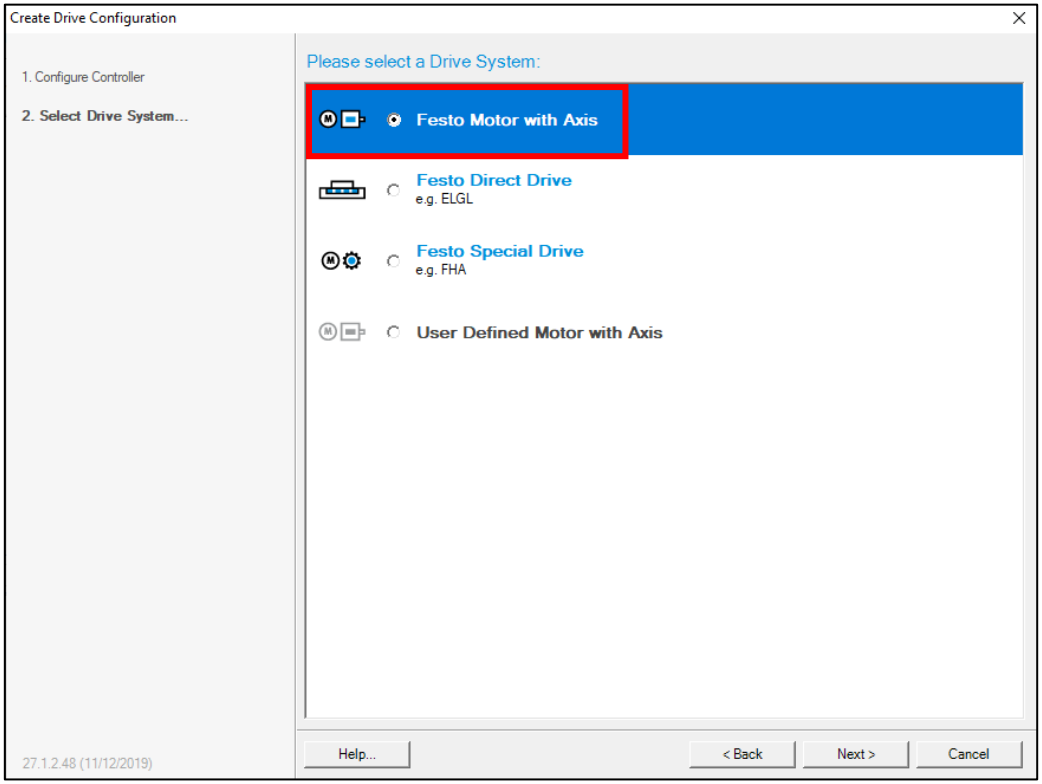
First, select the family and type of controller you have. If using DC power, enable the intermediate circuit option.





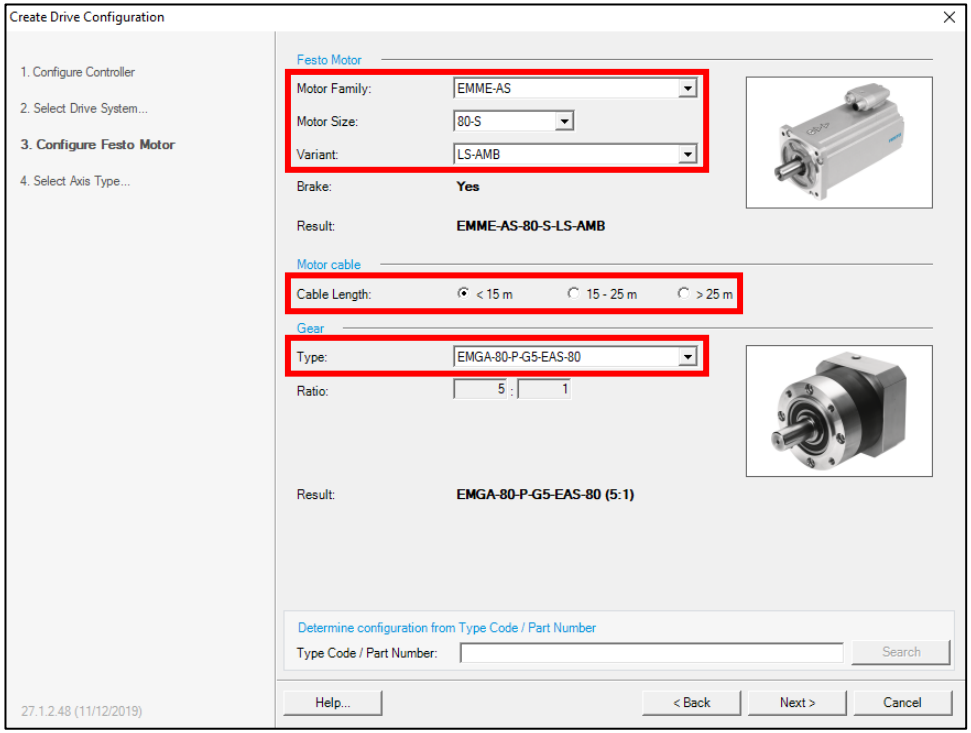
Component selection

Then select the drive system: *Festo Motor with Axis*.



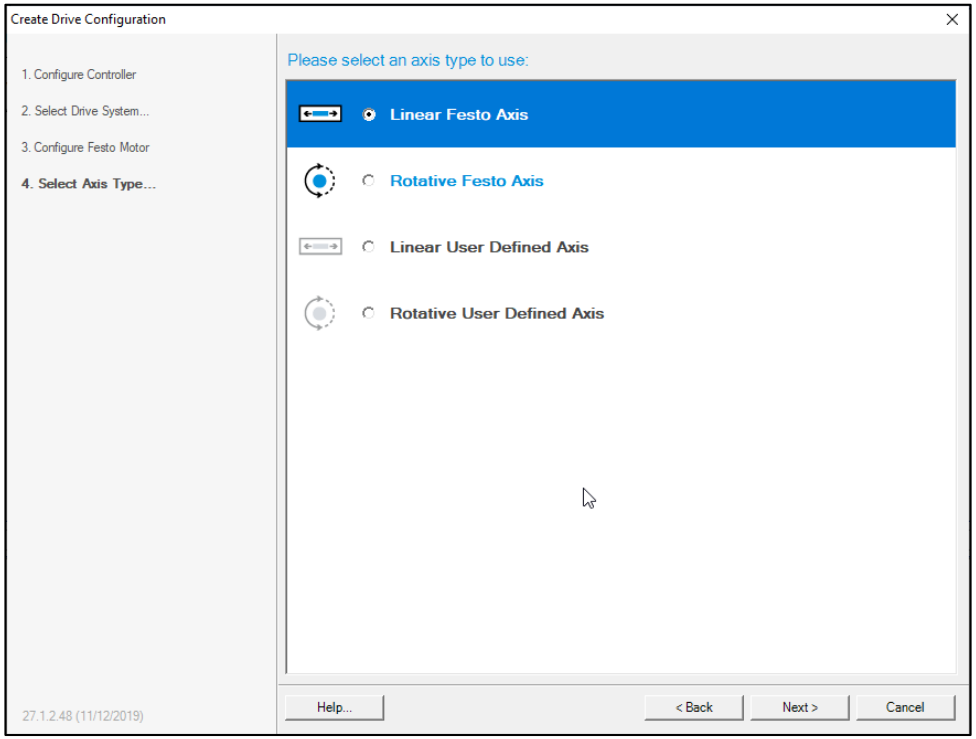
Component selection

The next step is to indicate the motor, the length of the cable and the reducer you have.



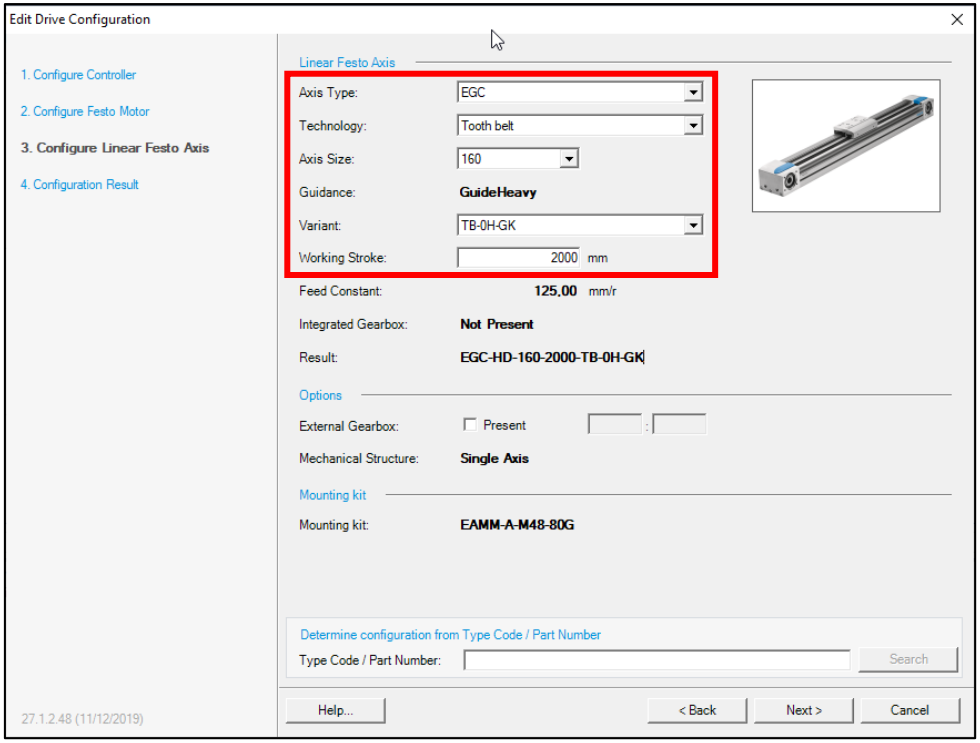
Component selection

Now we select the type of axis we are going to use.



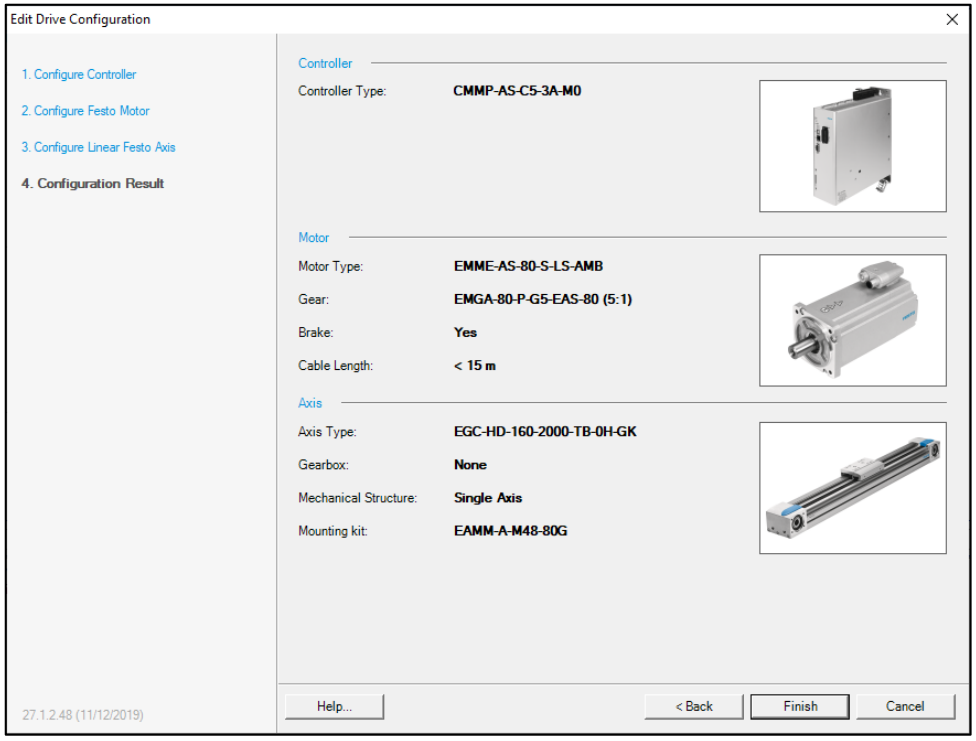
Component selection

Subsequently, we select the axis model that we will use.



Component selection

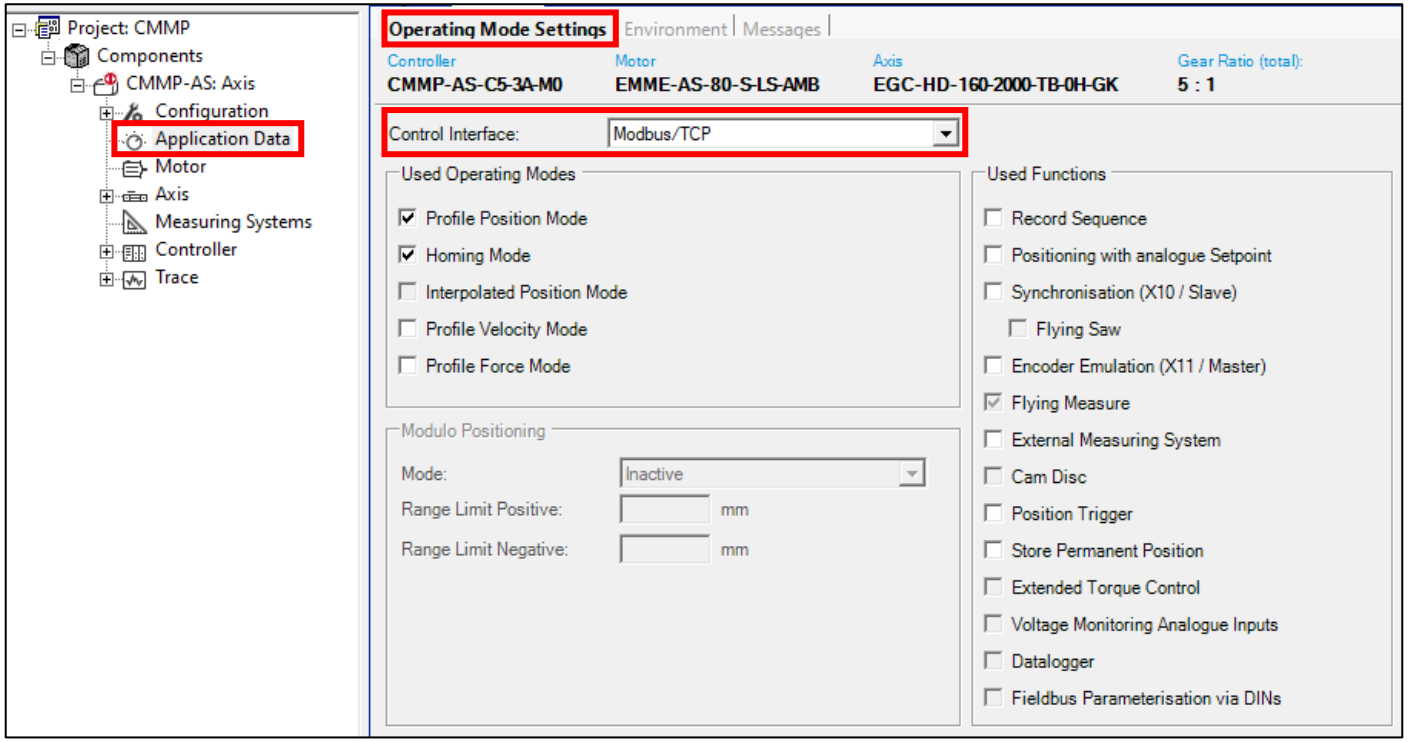
Finally, the result of the selected configuration is displayed.



Overview

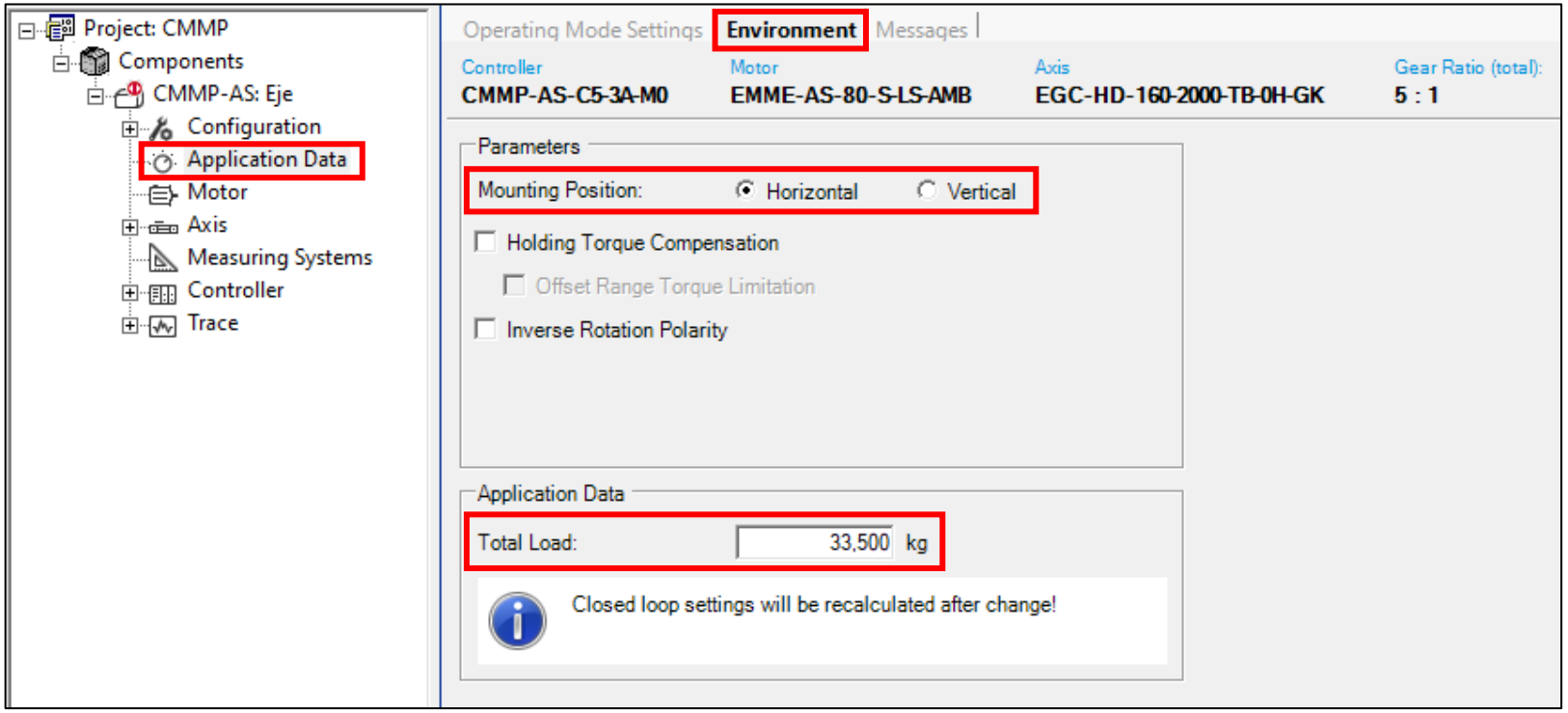
Configuration

First, go to the *Application Data* category, click the *Operating Mode Settings* tab and select the control interface: *Modbus/TCP*.



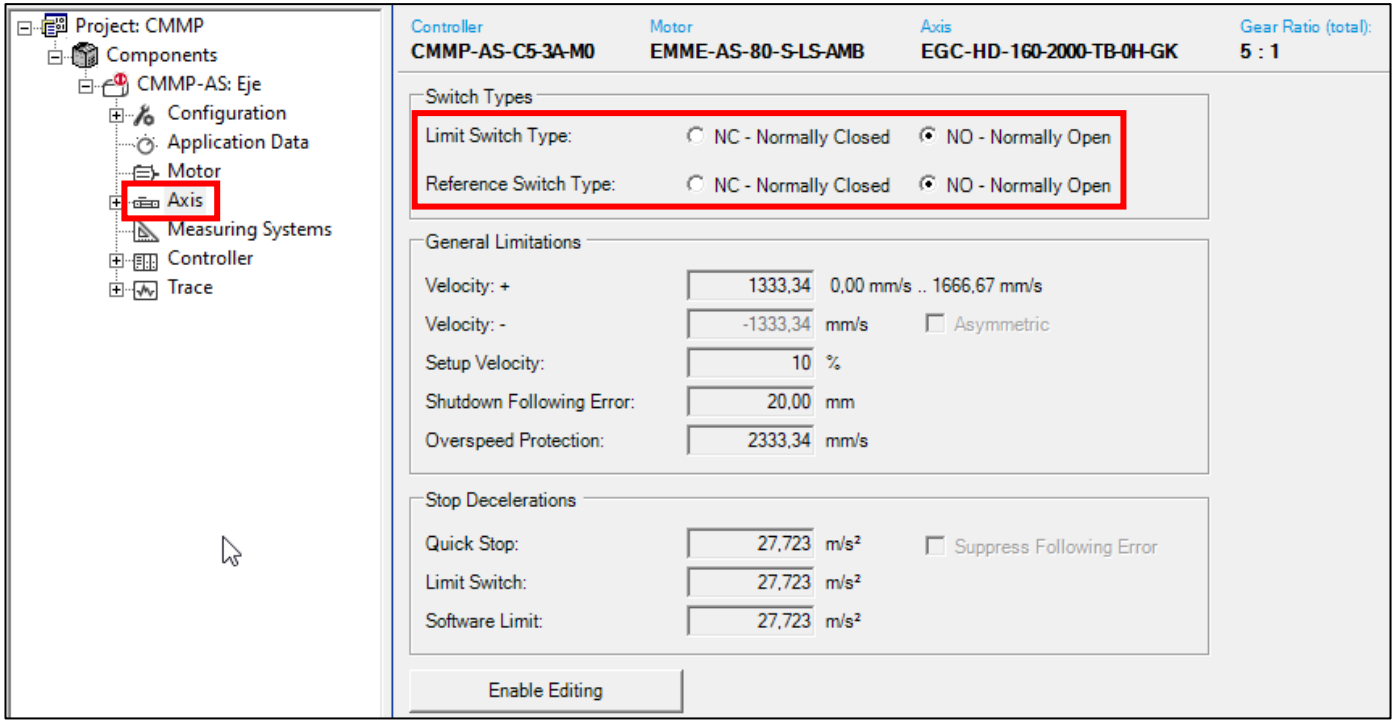
Configuration

Now click on the *Environment* tab and select the axis mounting position and the approximate total load.



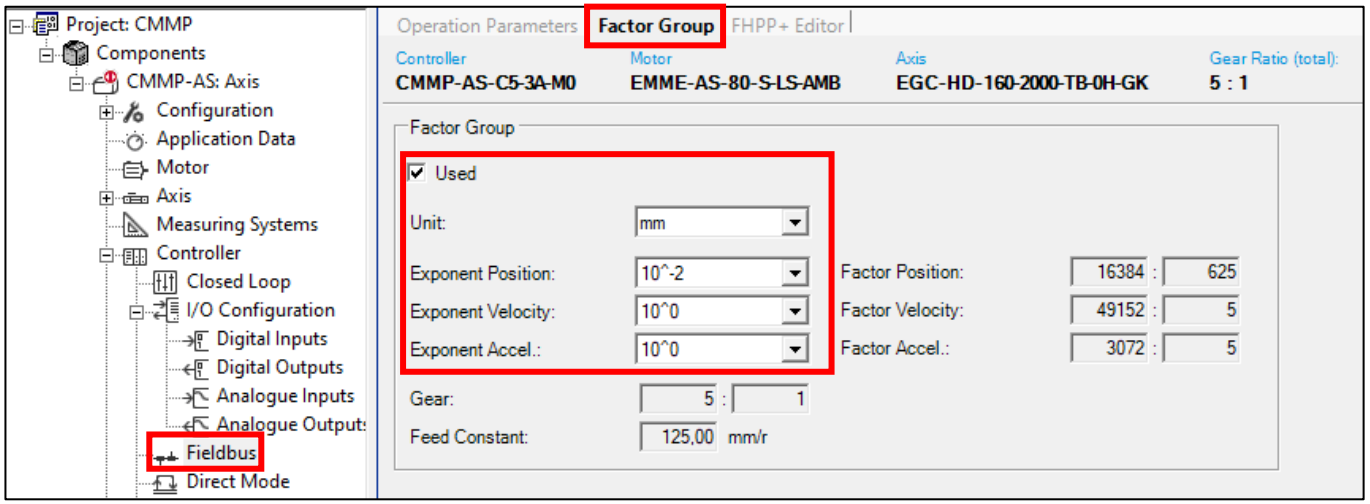
Configuration

We now access the *Axis* category and configure the limit and reference switches according to whether they are NC (*Normally Closed*) or NO (*Normally Open*). In case of not using them, we configure them as NO.



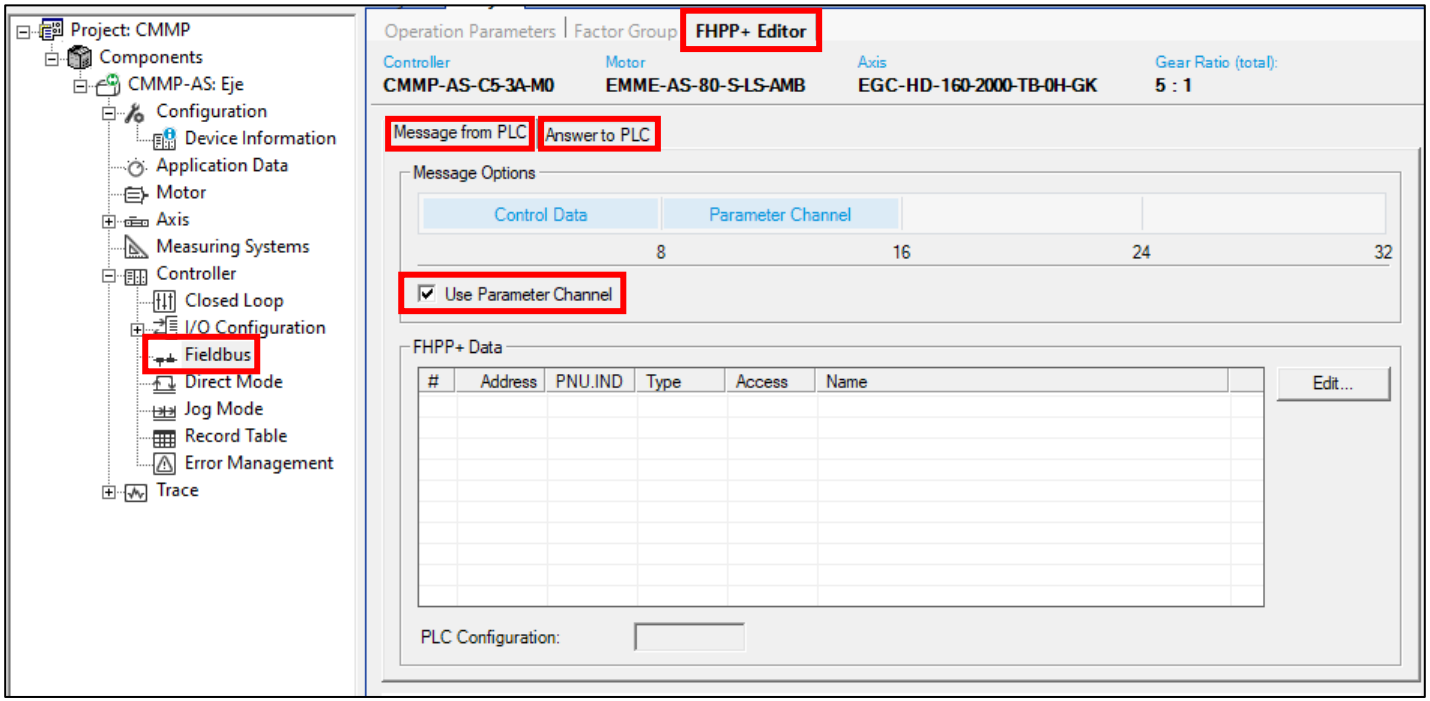
Configuration

We access the *Fieldbus* subcategory and select the *Factor Group* tab. We configure the following fields as indicated in the screenshot:



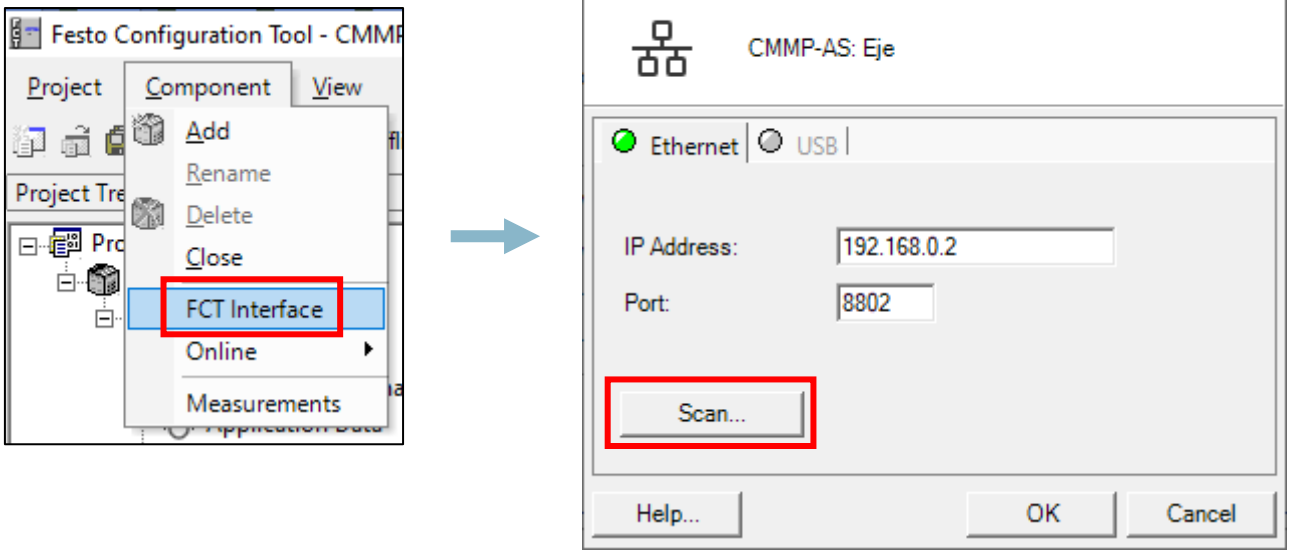
Configuration

Finally, we access the *FHPP+ Editor* tab and enable the *Use Parameter Channel* option in both sub-tabs: *Message from PLC* and *Answer to PLC*.



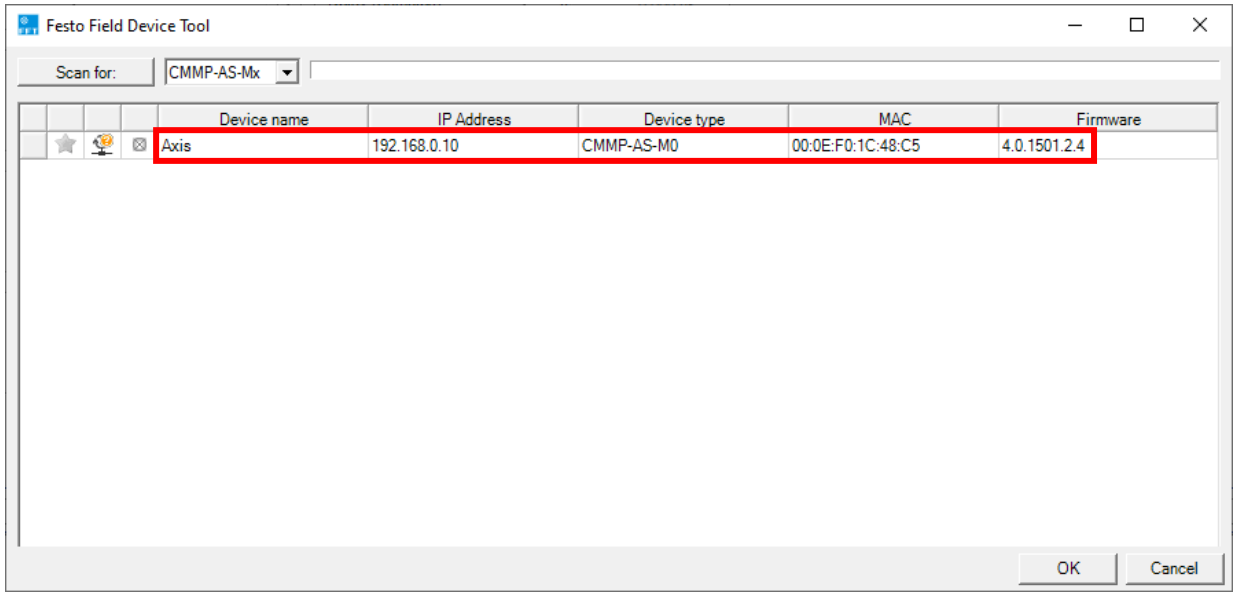
Configuration

Once the configuration is complete, we proceed to connect to the controller. To do this we access *Component -> FCT Interface -> Scan*.



Configuration

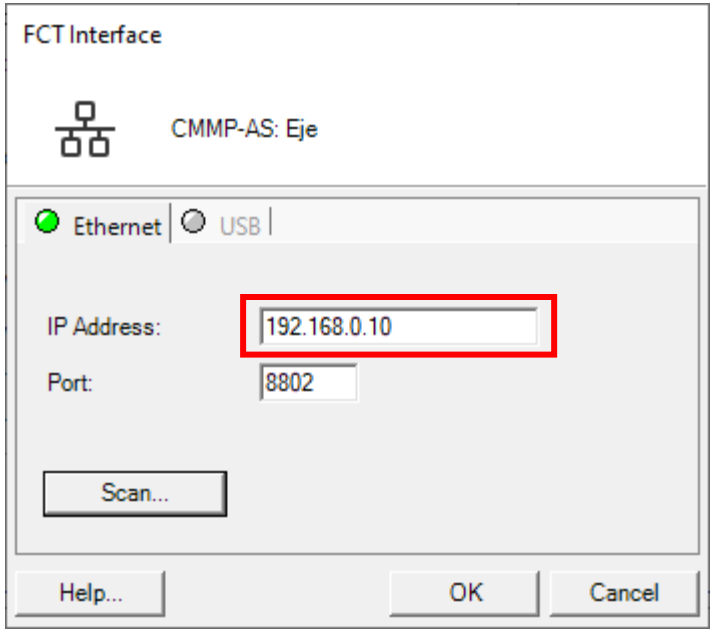
From this window we can see the devices found and their main data. It is also possible to modify[1] its name and network configuration by right clicking on it and accessing the *Network* option.



[1] You need to restart the controller to apply the changes.

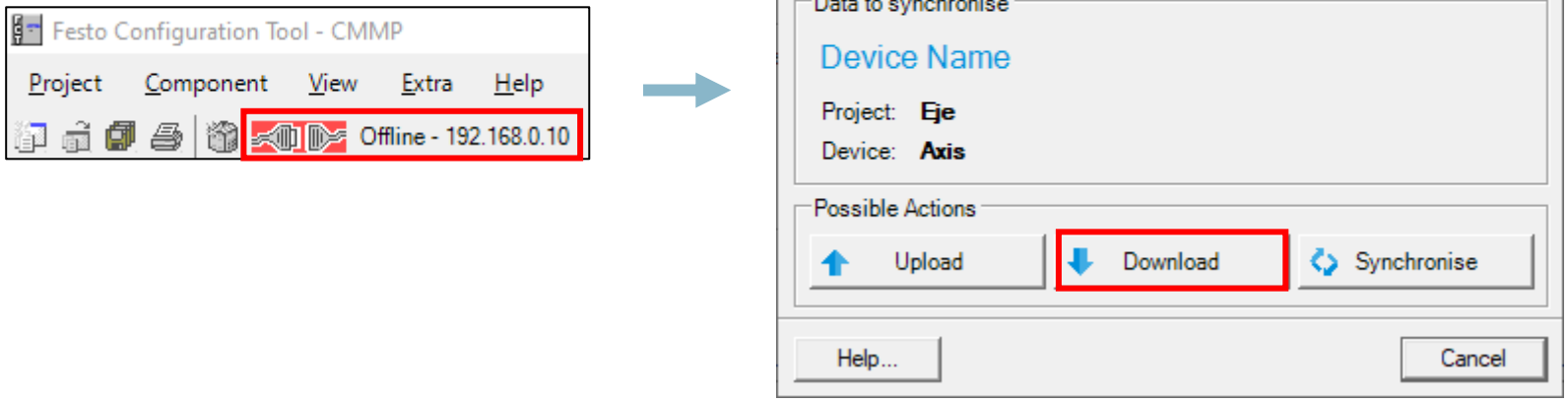
Configuration

Once the controller's IP address is known, we configure it in *Component -> FCT Interface*.



Configuration

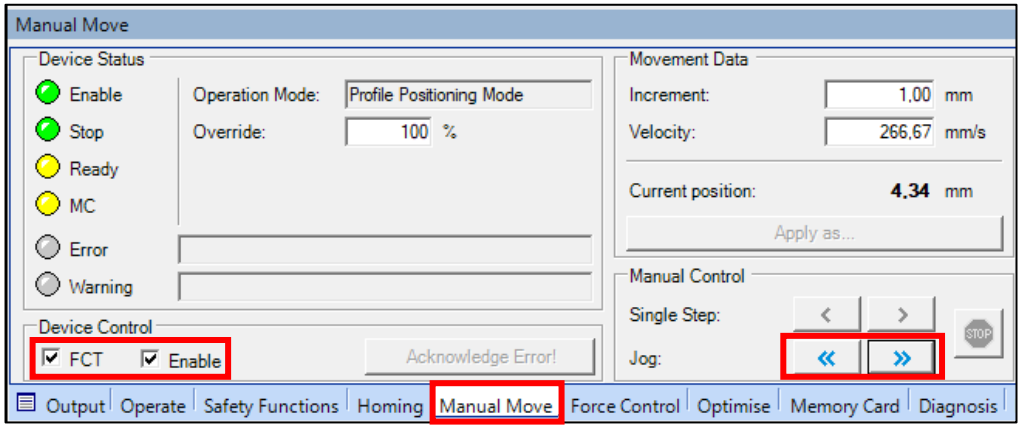
Now we proceed to connect to the controller by clicking on the connection icon. A warning message will be displayed, and we will click the *Download* button to download the project data to the controller.



Configuration

Finally, it is a good idea to check that the downloaded configuration works correctly.

To do this, we access the *Manual Move* tab and enable the *FCT* and *Enable* options to enable the controller. Subsequently, we jog the axis to one side —for example, 60 mm— and physically measure the displacement to confirm that it is correct.



Overview

Support

For further information, please contact:

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