

Programming IFM CR0401

Serial/Can Programming Cable

- Connect IFM EC2112 CanFox programming cable with connector adapter.
- Make sure cable is linked to VM (if using VM).
- Install drivers for cable if not installed.
 - Download from IFM EC2112 site.
<https://www.ifm.com/ca/en/product/EC2112>
- Once Installed, reboot computer.
- In system tray, there should be a yellow icon that you can open and check on programming cable. Select the cable in the list and flash the lights to confirm it is working.

Maintenance Software

- Install IFM Maintenance Tool Software.
 - Download from IFM Site.
https://www.ifm.com/ca/en/download/eco100_MaintenanceTool
- Open IFM Maintenance software
- Select Basic System
- Select CAN cable
- It will tell you if you don't have a cable connected.
- Use Wizard if needed.
- Read Channel Parameter on the Settings page, or get Identity in the System Information > Identity.
- Default Node is 127 on a new unit. Baud is 250kbaud (bits/sec)
- Controller information should populate.
- Controller green light should be blinking at 5hz (meaning OK but no OS, just bootloader).
- Click Software > Load.
- Open the OS file. Should match Codesys version selection (for CR0401 this is version 3).
 - Download OS file from IFM Website.
<https://www.ifm.com/ca/en/product/CR0401>
 - It is located at the top of the download under "software for CR0401".
 - Select the file and load it... this will take a minute.

- Once completed the unit should now have a solid green light
 - Solid green means the controller has an OS but no application is running.

Codesys V2.3 Application

- Codesys needs to be downloaded and installed from the IFM website as it has the IFM libraries and license to use the software.
 - Download from the IFM CR0401 page.
 - <https://www.ifm.com/ca/en/product/CR0401>
- Create new application with the correct IFM controller or Open Codesys application.
- Keep in mind that the PLC Configuration on the Resources tab can be changed for the CAN communication interface... so changes to node and baud will take effect after the first download and reboot of the controller.
- Go to “Online” in the top menu and change “Communication Parameters”
 - The Local dropdown shows the last configuration used. All other interfaces will show below it and need to be updated when changed or used.
 - Confirm Node ID is 127 for the first download.
 - The NodeID will change to whatever the program has after (in my case 125).
 - Node Send Offset should be default at 1536
 - Node Recv Offset should be default at 1408
 - Can bus Baudrate should be 250 kbaud.
 - Yes to Motorola Byte Order
 - Block Transfer should be false and note used (60 is default setting).
 - Can Card Driver should match the systray item which is Sie_USB.
 - If the system populated the other one, just update and relay the communication parameters. The software will usually bring up the available cable and driver.
- Go to “Online” and Login to download.
 - Press Yes to Download Application.