Plug & Drive Studio changelog

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1 Release 1.0.3

Fixed bug related to local language settings, added warning in case the firmware is newer than FIR-v1650.

2 Release 1.0.2

Fixed bug when importing od table (was broken when a comment line was included).

3 Release 1.0.1

Changed recommended firmware version in quick start guide to FIR-v1650-B527540

4 Release 1.0

4.1 Fieldbus related changes

- Full support of all N5 with REST
- Support of Modbus/TCP
- Support of EtherCAT
- Support of Peak adapter for CANopen

4.2 Other Changes

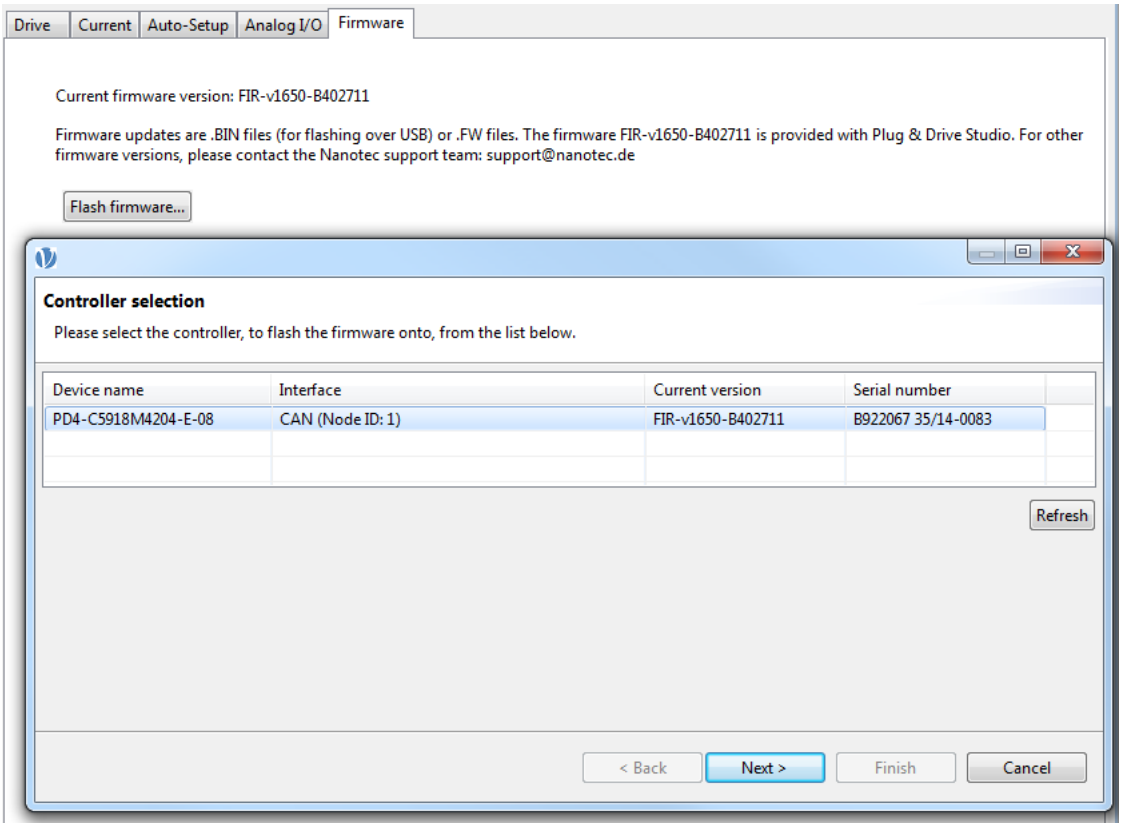
- Multiple number of CANopen IXXAT Adapters are now supported
- The OD table filters are now stored

5 Release 0.10

5.1 Flash firmware

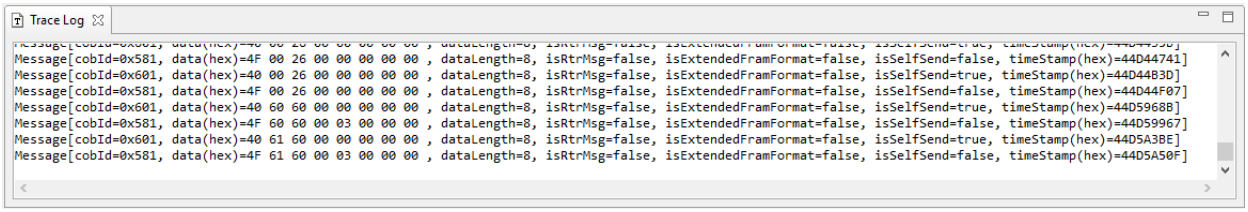
Plug & Drive Studio can now flash the firmware onto the controllers, using the following interfaces:

- CANopen
- USB
- Ethernet



5.2 Trace Log

It is now possible to activate a trace log to view the messages on the field bus as raw data and with a small explanation.



5.3 NanoJ controls

The controls for NanoJ have been rearranged and expanded. New buttons are:

Build

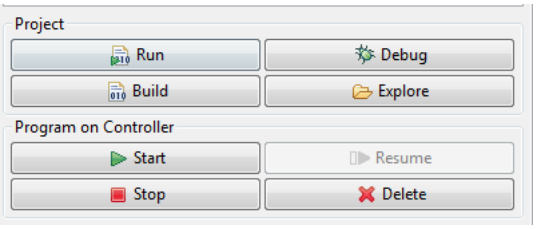
Builds the whole project.

Explore

Opening the file explorer at the project location.

Delete

Removes current NanoJ program on controller.



5.4 Console

The value given on the OD console are now interpreted values by default.

Note

As a consequence hex input doesn't work anymore, e.g.

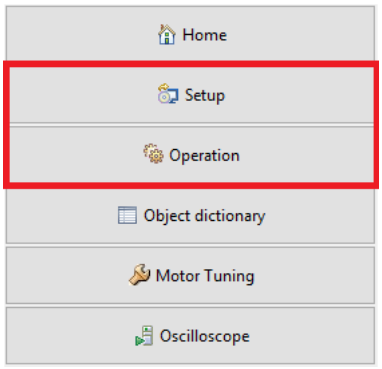
```
60C2:02=0xFF
```

has now to be written as

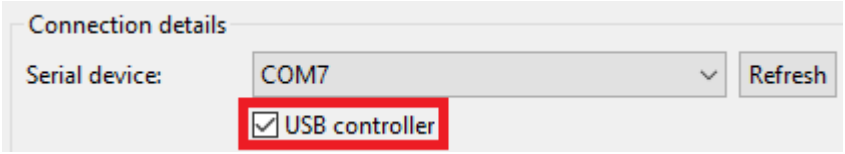
```
60C2:02=-1
```

6 Release 0.9 beta

Two new major features have been added in this release of Plug & Drive Studio: **Setup** for configuring base settings of the controller, as well as running the auto setup, and **Operation** for selecting and configuring the mode of operation of the controller.



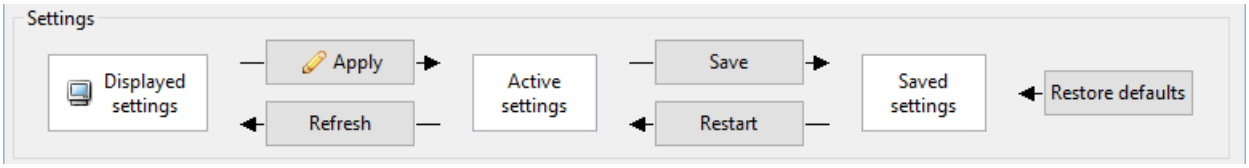
In addition, USB virtual COM port is now supported. To use it, add a new controller, and select the option **RS232, RS485 or USB serial** in the wizard. Then select **USB controller**.



6.1 Setup

All settings that can be modified in the setup are categorized. Each category is represented by a tab. When you make changes in the graphical interface, the new value is not immediately applied on the controller. Instead, an icon will appear, indicating where changes have been made. The same icon will also appear on

the **Apply** button, which is usually what you would press next, unless you want to apply several changes at once. Text fields can also be applied directly, by pressing the return key while they are selected.



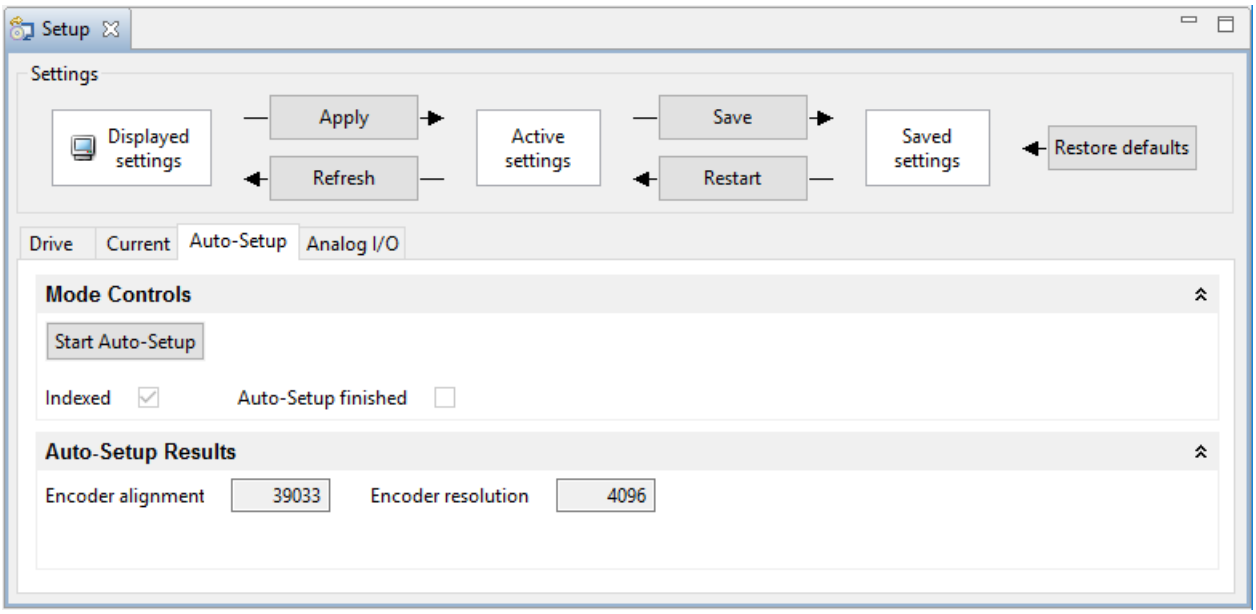
Applying changes means sending the new settings to the controller, making them the active settings. If you are satisfied with the active settings, you can make them permanent by pressing the **Save** button.

6.1.1 Auto-Setup

CAUTION

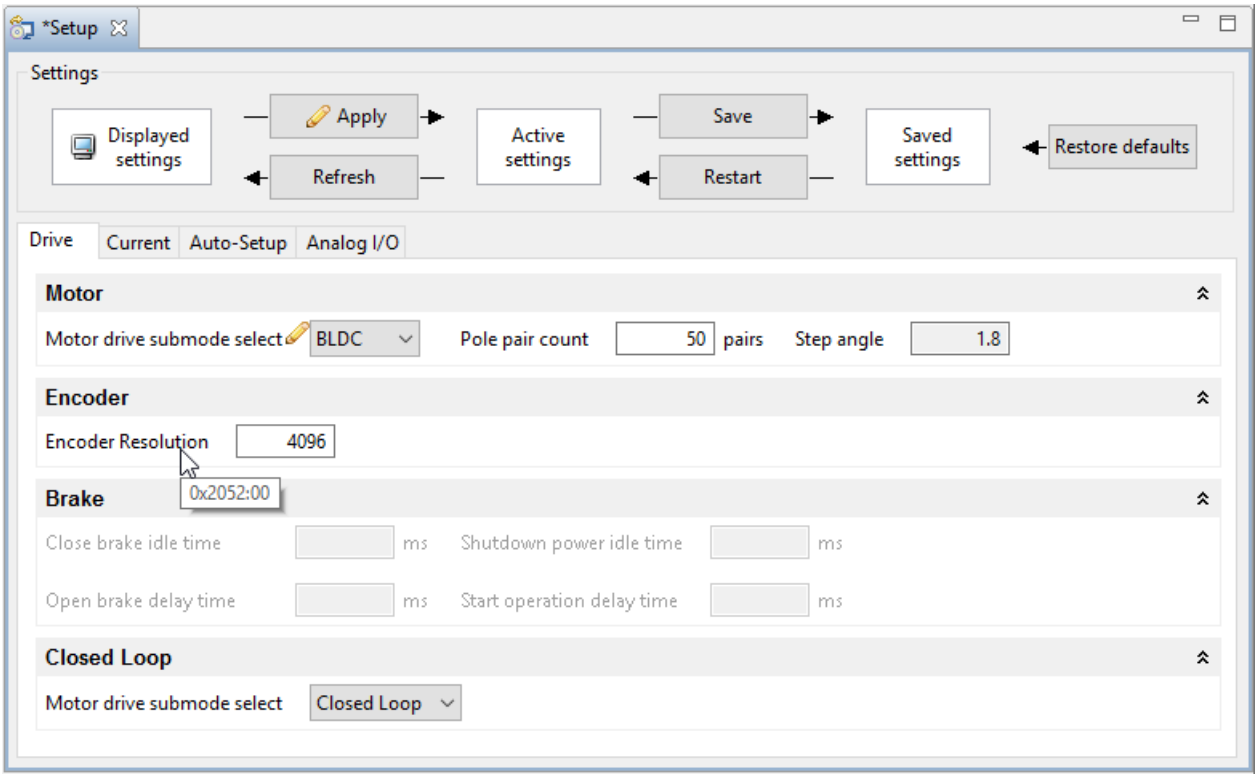
Before running the auto setup, make sure all prerequisites for your controller are met. You don't need to perform the auto setup for PD (Plug & Drive) motors, it has been already performed in the factory.

To run the auto setup, open **Setup**, switch to the **Auto-Setup** tab, and press the **Start Auto-Setup** button.



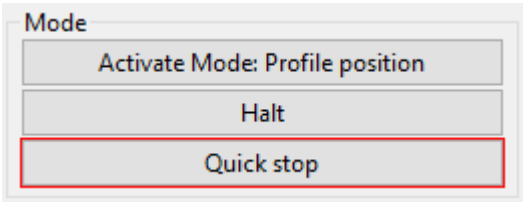
6.1.2 Setup Controls

Each field in the Setup tabs represents an object, or part of an object in the object dictionary. Some of the fields cannot be modified because they are read-only, their value is derived from other actual objects, or because they are currently not relevant. Hovering over the label of a field with the cursor will show you which index and subindex of the object it represents. Additional information about each object can be found in the product manual.



6.2 Operation

Configuring the mode of operation of a controller is similar to changing its setup (see chapter **Setup**). However, there are additional controls.



The first button activates the mode that is represented by the currently selected tab, and switches to the operation enabled state in the power state machine.

⚠ CAUTION

Depending on your settings, this can result in immediate motor movement.

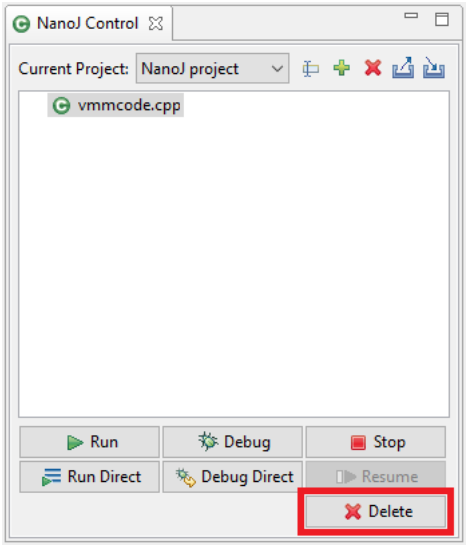
The **Halt** button *toggles* bit 8 in the control word. The **Quick stop** button activates quick stop. Please refer to the product manual for more details.

6.3 Other Changes

6.3.1 NanoJ

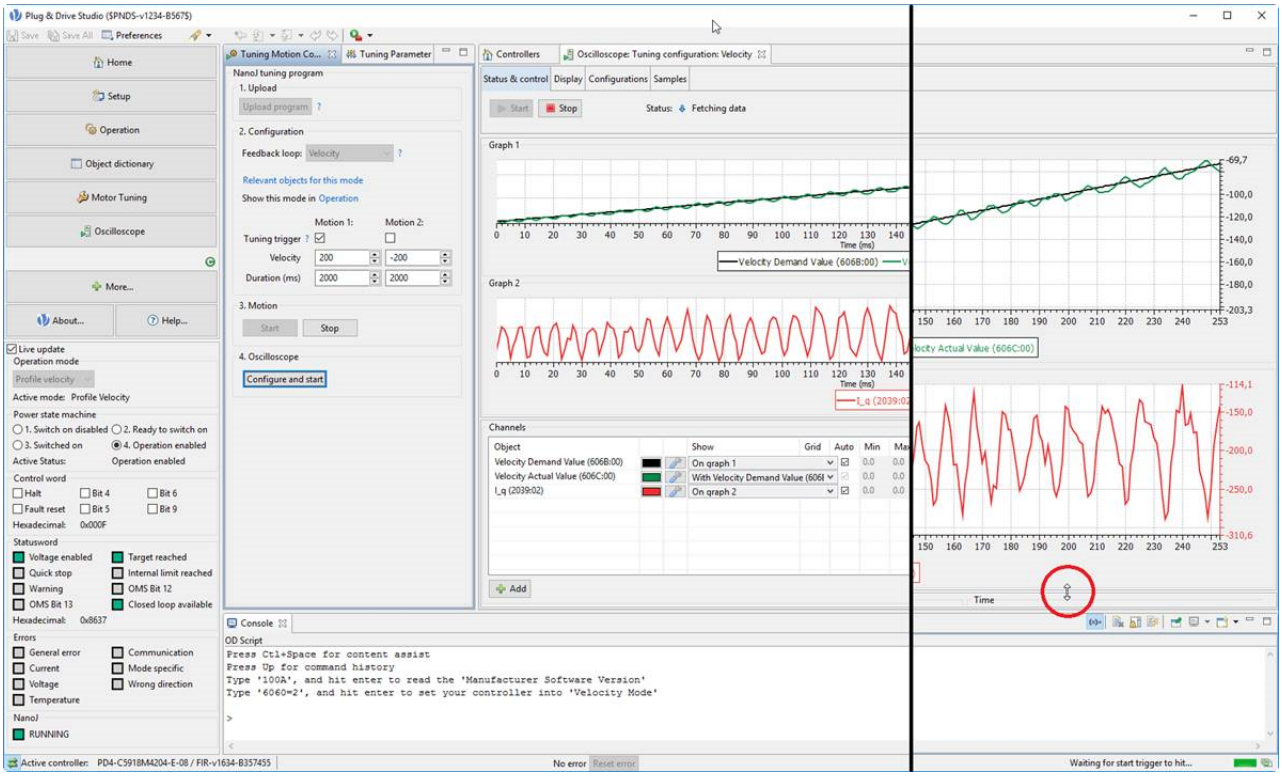
Up to three breakpoints can be used now.

It is now possible to delete the current NanoJ program from the controller with the following button.



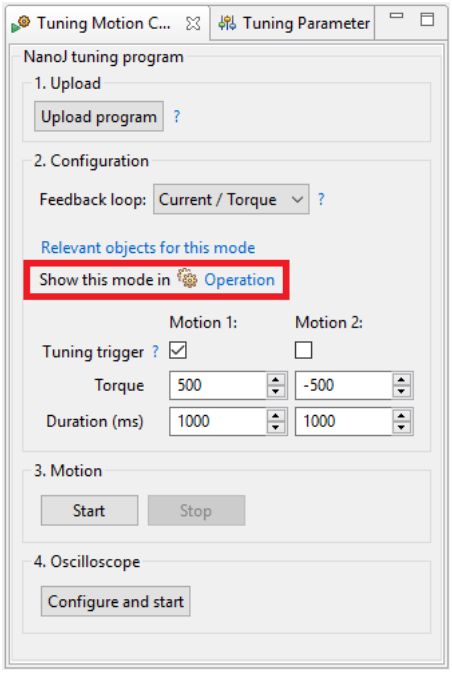
6.3.2 Oscilloscope

More space for the oscilloscope can be made available by reducing the size of the lower configuration area.



6.3.3 Tuning

A link was added to directly access the objects that might have to be adjusted to tune the currently selected feedback loop.


Tuning Motion C...
Tuning Parameter
NanoJ tuning program
1. Upload
Upload program
?
2. Configuration
Feedback loop:
Current / Torque
?
Relevant objects for this mode
Show this mode in
Operation
Motion 1:
Motion 2:
Tuning trigger
?
Torque
500
-500
Duration (ms)
1000
1000
3. Motion
Start
Stop
4. Oscilloscope
Configure and start