

AxiaManager GUI



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1 Introduction

1.1 Performance specifications

AxiaManager GUI is the engineering software for planning, commissioning, operating and monitoring Axia inverters. AxiaManager GUI provides a wide range of practical tools to manage the resources of your Axia inverter completely and efficiently.

AxiaManager is available as a Windows PC GUI (graphical user interface), where the computer is connected to the inverter via an optional cable (USB or Ethernet) or Bluetooth connection. AxiaManager is also available as a mobile app for instant access to the drive status and configuration via Bluetooth with a simplified user interface. This user information is for the PC version. For the mobile app see separate user information.

Software modules

Special software modules are included in AxiaManager and offer further functionality for monitoring and setting-up functional safety.

AxiaManager Scope



- Software oscilloscope
- Device diagnostics

AxiaManager Safety



- Parameterize the Functional Safety with help of the AxiaManager Safety application

AxiaManager Scope and Safety can be started as a separate software or be opened from within AxiaManager via integrated tool buttons.

AxiaManager PLC



- PLC development environment
- IEC 61131-3 standard

The AxiaManager PLC is an independent software and can be started separately.

1.2 General System Requirements

Operating System

Microsoft Windows on 64-bit x86 architectures.

The following Windows version are supported by AxiaManager:

- Windows 11
- Windows 10
- Windows 8.1
- Windows Server 2022
- Windows Server 2019
- Windows Server 2016
- Windows Server 2012 R2
- Windows Server 2012

Software Libraries

Microsoft .NET Framework 4.7.2

Hardware Requirements

Component	Minimum	Recommended
Storage	1 GB free disc space	2 GB free disc space
CPU (type: x86)	HDD	SDD
CPU (design)	2 cores	4 cores
RAM	2 GB	4 GB
Graphics	512 MB	1 GB

Connectivity

The GUI needs at least the following hardware present on the computer:

- RJ45 Ethernet
- 1 x USB 3.1 Type A
- WiFi Adapter for Data Link Protocol: 802.11b, 802.11a, 802.11g, 802.11n, 802.11ac, Bluetooth 4.2

Peripherals

The GUI functionalities can be exploited using the following peripherals connected to the computer:

- Keyboard
- Mouse
- Monitor
- Network
- Printer
- Serial-to-USB adapter
- Bluetooth enabled device

1.3 Installing the Software

The AxiaManager installation kit contains all components required for running including a setup installer in the .exe file.

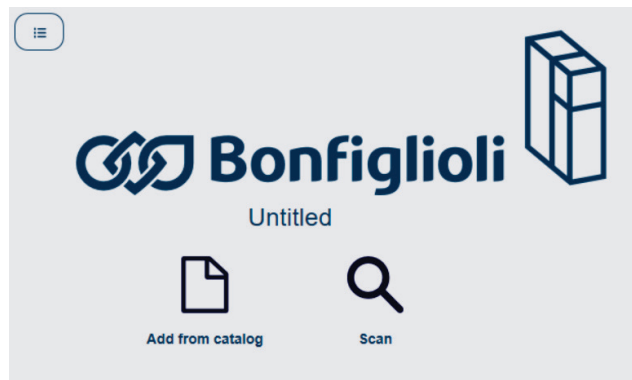
- Download the package here:
https://www.bonfiglioli.com/international/en/product/axia-vert-series_inverters-servo-drives_premium-inverters and click on "Download AxiaManager".
- Follow the instructions on the screen.

2 Overview

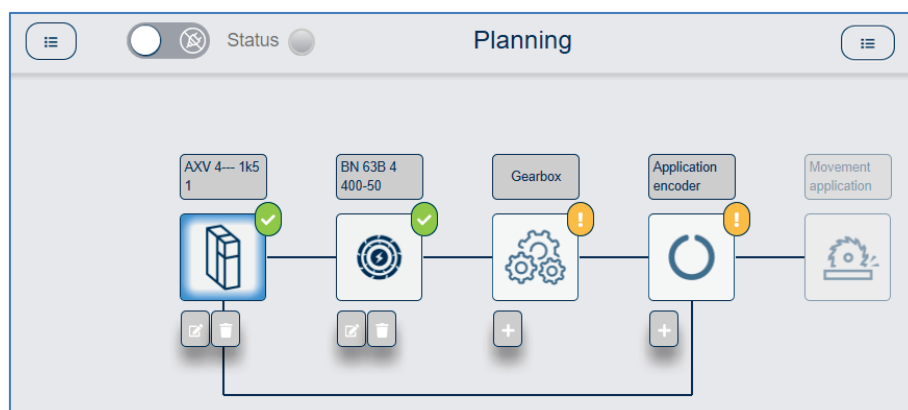
2.1 Possible actions

With AxiaManager for PC you are able to commission entire automation systems including multiple inverters through an easy guided procedure in two ways:

- Online mode: Select the connection interface and its parameters to scan the available inverters.
- Offline mode: Select the inverter from the catalog or open an existing project.



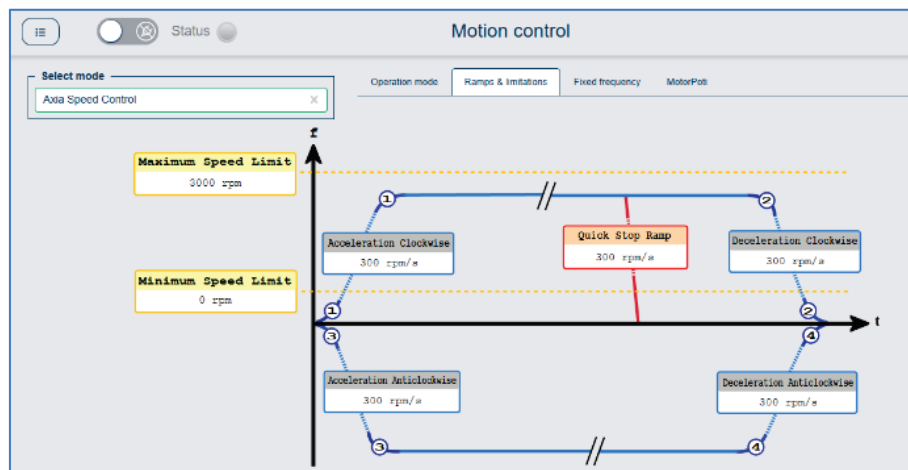
2.1.1 Planning



You can plan an entire automation system either online or offline.

- Add, edit and remove all components you need for your automation system.
- Select Bonfiglioli inverters, motors and gearboxes and from the catalog or insert parameters from third party components.
- Adapt the encoder feedback and movement application as needed in your system.

2.1.2 Configuring



You can put the motor into operation by configuring all relevant parameters.

- Determine the driving tasks by setting the control method and the operating mode.
- Set all motion control parameters with help of interactive graphs.
- Set parameters of additional functions, e.g. brake chopper, motor chopper, axis positioning and current limits.

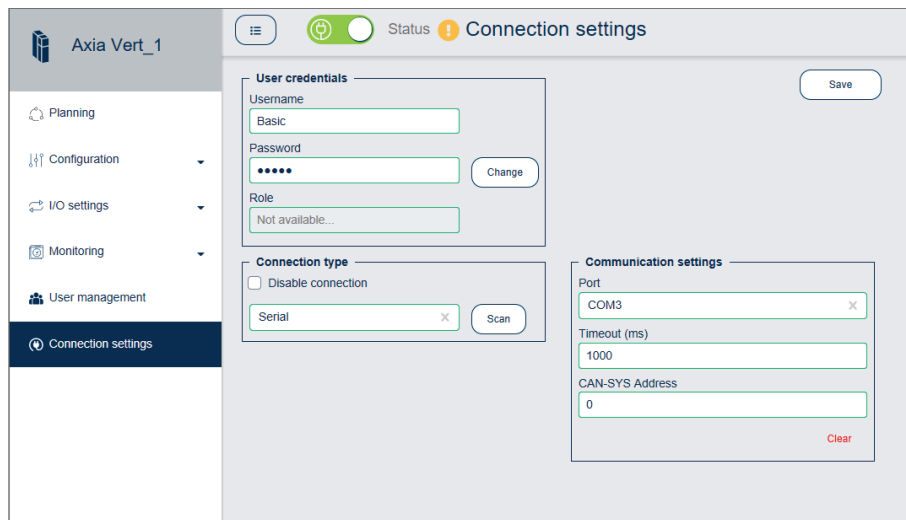
2.1.3 Structuring I/O settings



You can view and edit all I/O settings of the inverters control terminals.

- Overview of the digital and analog inputs/outputs and their associated control terminals.
- Overview of the functions assigned to each input/output.
- Set or edit inputs/outputs functions.

2.1.4 Connecting



Axia Vert_1 | Status | Connection settings

User credentials

Username: Basic

Password: masked | Change

Role: Not available...

Connection type

☐ Disable connection

Serial | Scan

Communication settings

Port: COM3

Timeout (ms): 1000

CAN-SYS Address: 0

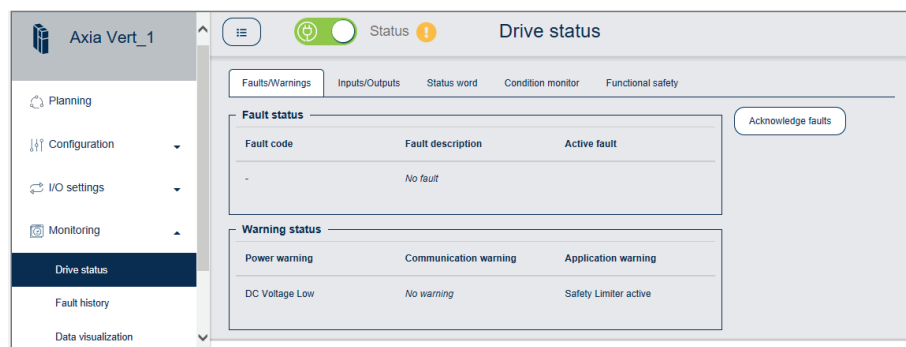
Clear

Save

You can view and edit the communication settings for the connection with the inverter.

- Check the values in the automatically prefilled fields during inverter scan in online mode.
- Complete and modify connection settings in manual mode.

2.1.5 Monitoring



Axia Vert_1 | Status | Drive status

Faults/Warnings | Inputs/Outputs | Status word | Condition monitor | Functional safety

Fault status

Fault code	Fault description	Active fault
-	No fault	

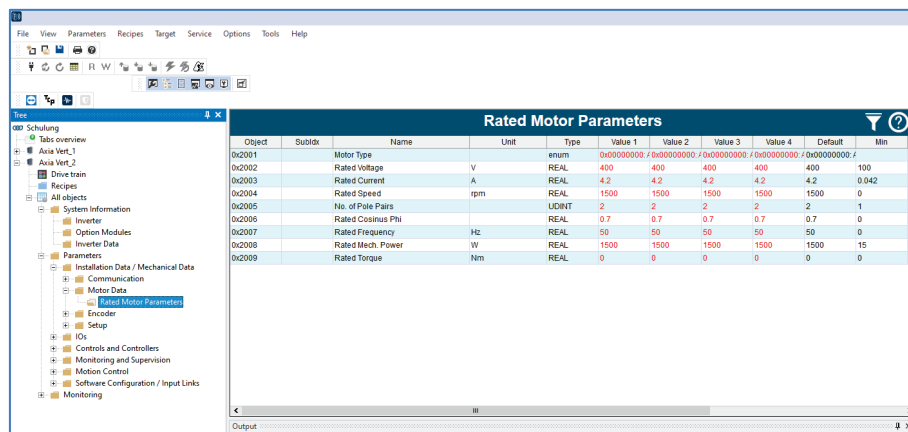
Warning status

Power warning	Communication warning	Application warning
DC Voltage Low	No warning	Safety Limiter active

Acknowledge faults

You can view operating data of inverters, motors and encoders. This window keeps you informed about actual values, reference values, status values as well as errors and warnings.

2.1.6 Tuning

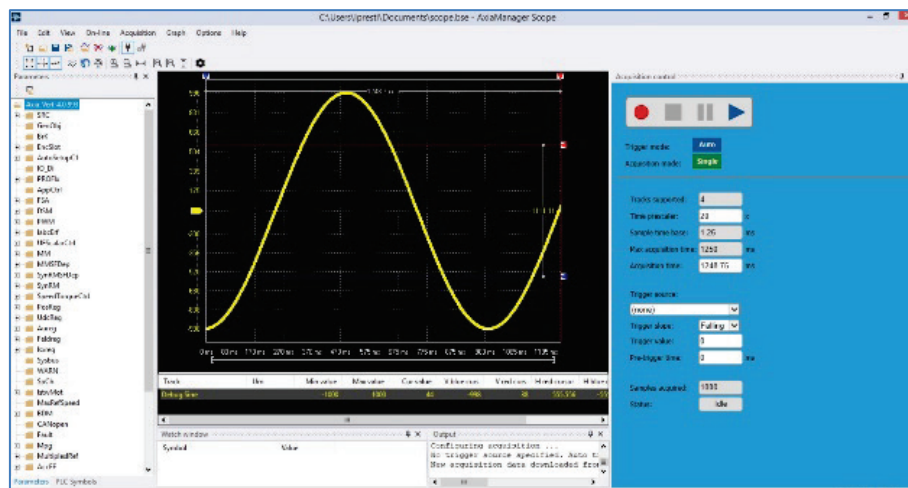


Object	SubId	Name	Unit	Type	Value 1	Value 2	Value 3	Value 4	Default	Min
0x2001		Motor Type		enum	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000	
0x2002		Rated Voltage	V	REAL	400	400	400	400	400	100
0x2003		Rated Current	A	REAL	4.2	4.2	4.2	4.2	4.2	0.042
0x2004		Rated Speed	rpm	REAL	1500	1500	1500	1500	1500	0
0x2005		No. of Pole Pairs		UDINT	2	2	2	2	2	1
0x2006		Rated Cosinus Phi		REAL	0.7	0.7	0.7	0.7	0.7	0
0x2007		Rated Frequency	Hz	REAL	50	50	50	50	50	0
0x2008		Rated Mech. Power	W	REAL	1500	1500	1500	1500	1500	15
0x2009		Rated Torque	Nm	REAL	0	0	0	0	0	0

You can access a more detailed view of parameters and objects through a tabular view which allows several functions for a more in-depth analysis and tuning.

- Read, write and edit all default object's values.
- Write only the modified parameters not yet present in the inverter.
- Reset all default values and objects to restart the inverter.
- Show, hide and filter objects by name, object or description.
- Transfer values of one parameter's dataset to all other datasets.
- Create recipes with sets of configuration objects for specific applications.
- Save the recipes and apply them to other inverters performing the same operations.

2.1.7 Monitoring with AxiaManager Scope

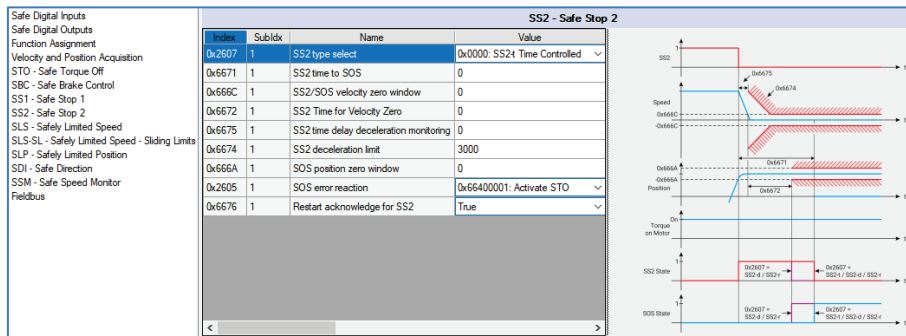


You can observe object activities and behavior of connected inverters in real-time with help of the integrated Monitor and Graph window or by using the module AxiaManager Scope.

You can visualize the course of objects in a free-run oscilloscope and a real-time oscilloscope.

- Drag & drop objects from the tabular view to the related monitoring window.
- Record the monitored samples by starting an acquisition.
- Save the monitored results in a file for future use.

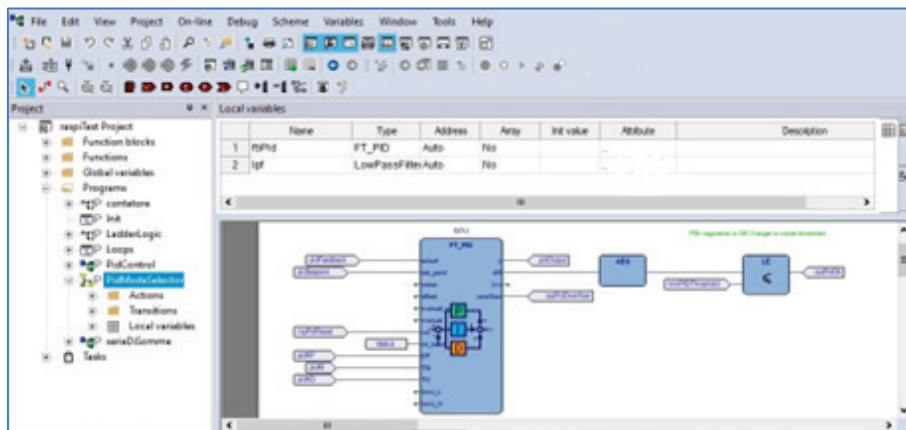
2.1.8 Setting Up Functional Safety with AxiaManager Safety



You can select the Functional Safety variant that best suits your applications' requirement. You can open the AxiaManager Safety application during the configuration in AxiaManager GUI to edit the specific objects relevant for the installed safety module.

- Configure the Functional Safety variant required for your application (Safe Torque Off, Safe Brake Control, Safe Stop etc.).
- Overview and edit all safety objects within the selected variant.

2.1.9 Developing applications with AxiaManager PLC



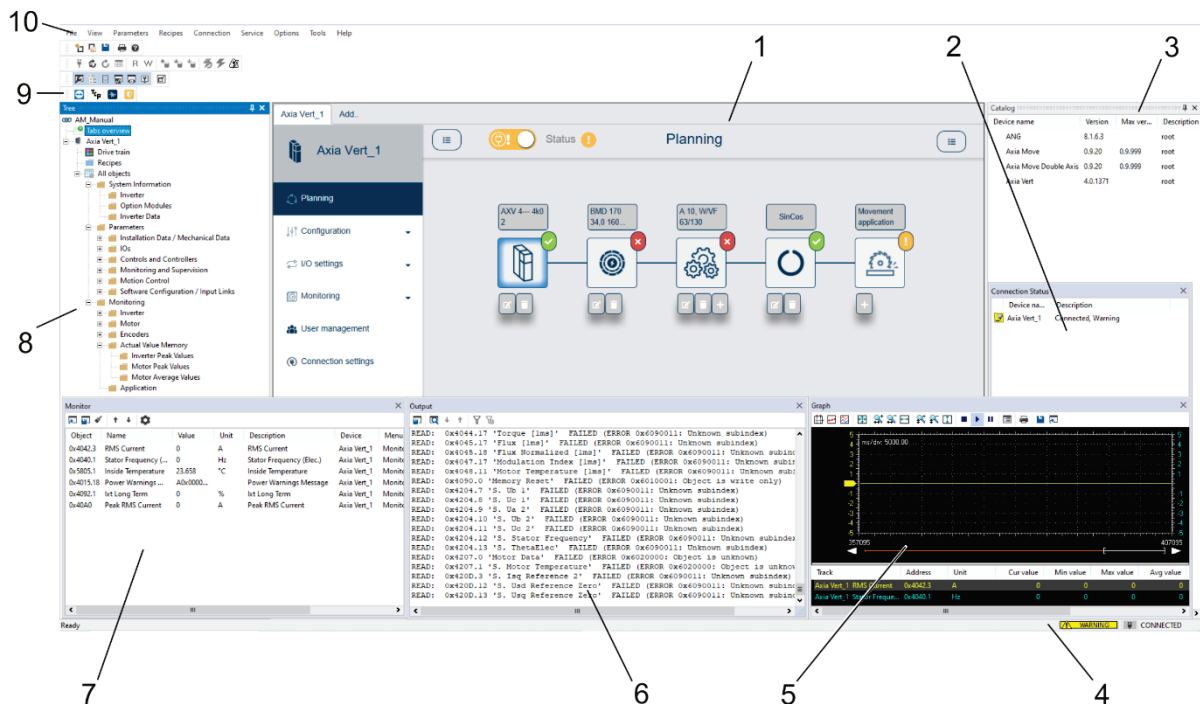
You can develop your own applications fast and easily with help of intuitive navigation and a user-friendly graphic interface.

You can write complex automation tasks including the definition of triggers, execution of single-steps and insertion of breakpoints.

- Design control sequences by simply dragging and dropping parameters directly from the AxiaManager GUI.
- Write, optimize and debug user-developed applications with a series of diagnostic tools and live debug functions.
- Simulate the whole application on the PC through a digital twin without the need of physical hardware.

2.2 Introduction to the User Interface

The figure below shows a view of AxiaManager GUI's workspace, including many of its most commonly used components.

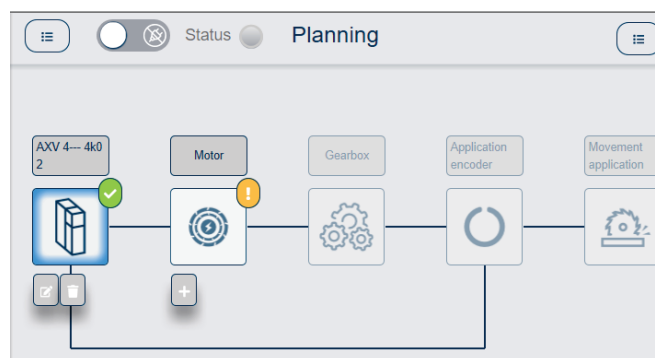


1	Project window	2	Connection status window
3	Catalog window	4	Status bar
5	Graph window	6	Output window
7	Monitor window	8	Tree window
9	Toolbars	10	Menu bar

This chapter gives an overview of these elements.

Refer to chapter 3.2 to customize the layout of the tool windows.

2.2.1 The Project Window



In the *Project* window (1) you can easily commission an entire automation system from the planning and connecting I/O's to a complete configuration including multiple inverters.

If you use the guided workflow, this is the window where you make the majority of settings.

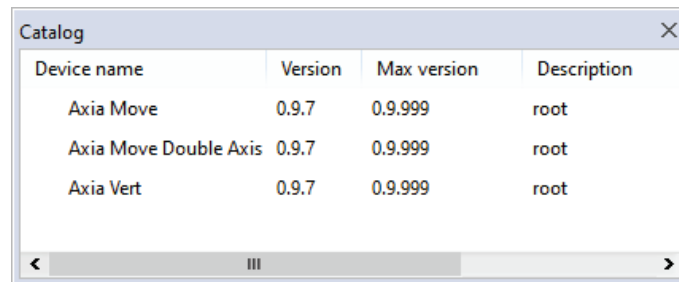
This window also displays the *Parameter grid* showing all parameters related to the corresponding node selected in the *Tree* window (8).

2.2.2 The Menu bar and the Toolbars

AxiaManager allows the user to hide or show the main toolbar to fully customize the workspace. Each operation in the environment, to realize a program, can be performed through the menus (8); the toolbars (7) contain icons which work as shortcuts for the menu's commands (9.6 and 9.9).

2.2.3 The Catalog Window

The *Catalog window* (3) lists the complete Axia range of frequency inverters.



Device name	Version	Max version	Description
Axia Move	0.9.7	0.9.999	root
Axia Move Double Axis	0.9.7	0.9.999	root
Axia Vert	0.9.7	0.9.999	root

This window contains the following tabs: *Device name*, *Version*, *Max version*, *Description*.

2.2.4 The Graph Window

The Graph window (5) shows the graphs and tracks of the selected variables. Up to 8 object values can be monitored from different inverters.

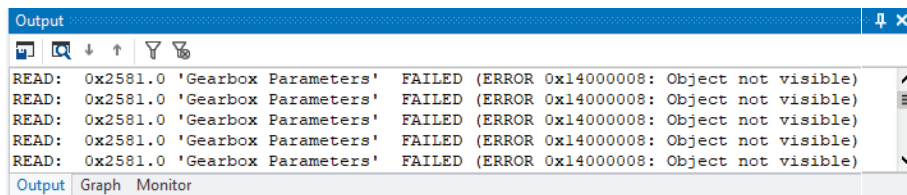


The monitored tracks are shown in the lower bar of this window.

You can personalize the view of the graph window: Show or hide grids, measure bars, split tracks and zoom in and out horizontally and vertically with help of commands defined in 9.3.10.

2.2.5 The Output Window

The *Output* window (6) is the place where AxiaManager reports its output messages.



2.2.6 The Monitor Window

The *Monitor* window (7) allows you to monitor the current values of a set of objects. Being an asynchronous tool, the *Monitor* window does not guarantee synchronization of values. Therefore, when reading the values of the variables in the *Monitor* window, be aware of the possibility that they may refer to different execution cycles of the corresponding task.

Object	Name	Value	Unit	Description	Device	User Note	Menu position
0x40A1.1	Active Power Positive	0	W	Active Power Positive	Axia Vert_1		Monitoring / Actual Value Memory / Motor Peak Values
0x4092.2	lxt ShortTerm	0	%	lxt ShortTerm	Axia Vert_1		Monitoring / Actual Value Memory / Inverter Peak Values

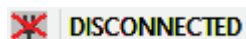
The screenshot shows the 'Monitor' window with a toolbar containing icons for refreshing, up/down arrows, and a settings gear. At the bottom, there are tabs for 'Output', 'Graph', and 'Monitor'.

The information shown in the *Monitor* window includes the Object number, its name and value, unit, description, device, user note and menu position.

2.2.7 The Connection Status Window and the Status Bar

The *Connection Status* window (2) and the *Status* bar (4) both display the connection status of the application with the target device.

If you have not yet attempted to connect to the target, the status of communication is set to *Disconnected*.



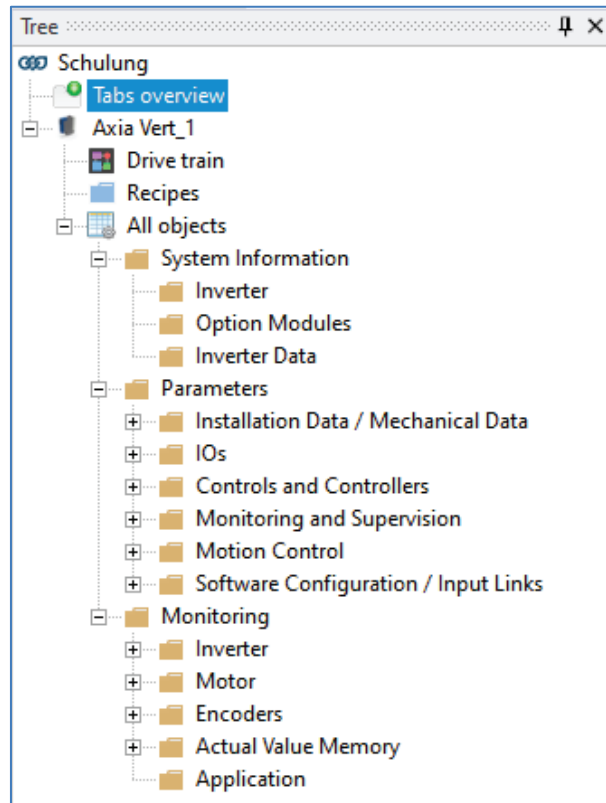
When you try to connect to the target device, the state of communication becomes one of the following:

- *Connected*: The communication has been correctly established.
- *Error*: The communication cannot be established. You should check both the physical link and the communication settings.



2.2.8 The Tree Window

The *Tree* window (8) contains all objects, components and recipes of the project, visualized in a tree-like organization.



3 Using the Environment

This chapter shows you how to deal with the UI elements AxiaManager is composed of, in order to let you set up the environment in the way which best suits your specific development process.

3.1 Conventions Used in This Document

Text Type	Description
Command, Key	Name of the command or keyboard shortcuts key
Code	Source code text
[Context menu]	Context menu voice
Menu>Item	For menu items hierarchy, the ">" symbol is used. A record File>Open Project is equivalent to "the Open Project item under the File menu".
 ...	Link to related subject within this guide
 ...	Link to related subject in an external guide
Terminology	Important term or concept
0x1234	Representation of parameter numbers
Parameter/Object	Representation of parameter names
01234	Representation of parameter values/object settings

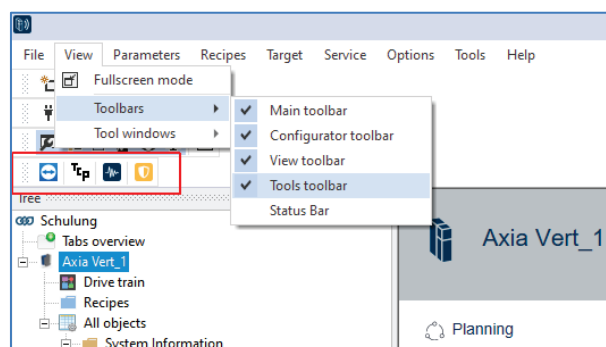
3.2 Customize the Layout

The layout of AxiaManager's workspace can be freely customized in order to suit your needs. AxiaManager takes care to save the layout configuration on application exit, in order to persist your preferences between different working sessions. You can reset the layout in menu [Options](#).

3.2.1 Show/Hide Toolbars

In details, in order to show (or hide) the toolbar, open the [View>Toolbars](#) menu and select the desired toolbar (for example, the Main toolbar).

The toolbar is then shown (hidden).



3.2.2 Move Toolbars

You can move a toolbar by clicking on its left border and then dragging and dropping it to the destination.



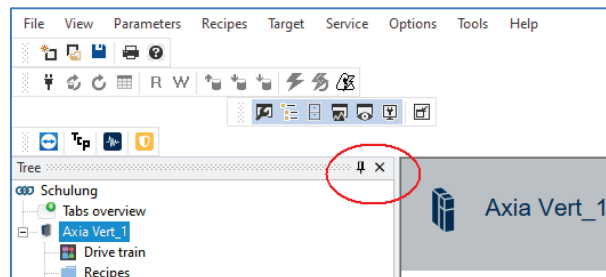
The toolbar shows up in the new position.

3.2.3 Show/Hide Tool Windows

The **View>Tool windows** menu allows you to show (or hide) a tool window (for example, the *Output* window, the *Graph* window, the *Monitor* window ...). The window is then shown (hidden).

3.2.4 Floating Tool Windows

You can undock any window from its default location in AxiaManager and move it anywhere, just click on its title bar and drag it to the location you want.

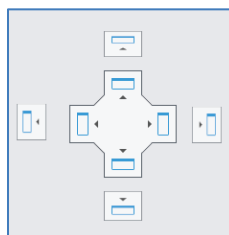


Take back a window to its most recent docked location simply double-click the title bar of the window.

3.2.5 Docking Tool Windows

AxiaManager shows you a guide diamond when you drag a window to another location to help you easily re-dock the window.

While dragging a window move the mouse cursor on the position of the guide diamond you want to use as new window position.



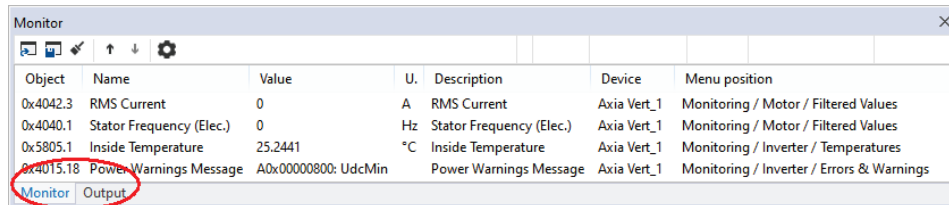
Tool windows can be fastened to one side of a frame in AxiaManager or within a frame.

3.2.6 Auto-Hide Tool Windows

By the pin button on the top right corner of the window you can switch the window to auto-hide mode or to regular docking mode.

3.2.7 Merge Several Windows in One

To achieve a clearer arrangement of the workspace it is possible to merge several tool windows into one. E.g.: Drag the *Output* window and drop it into the *Monitor* window.



In the resulting combined window click on the tab in the bottom left corner to choose the desired window.

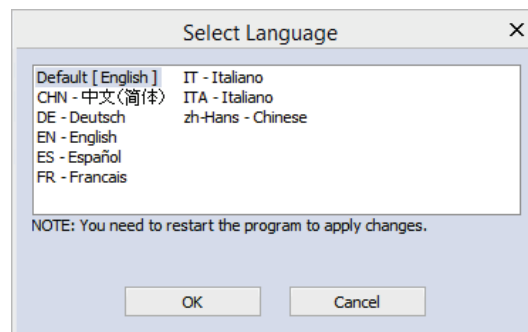
3.2.8 Full Screen Mode

In order to ease the configuration of your application, you may want to switch on the full screen mode. In full screen mode, the GUI extends to the whole working area, making easier the job of editing the configuration.

You can switch on and off the full screen mode with the  [View>Fullscreen mode](#).

3.3 Change Language

If you click [File>Change Language](#) menu you can change the language of the environment by selecting a new one from the list shown in this dialog.



After selecting the new language, confirm by the clicking the *OK* button. This change will be effective only the next time you start AxiaManager.

4 Configure Communication to Inverter



If you intend to work in offline mode, the connection of an inverter is not essential for planning and pre-configuration.

The AXIA series of frequency inverters offers several types of connection to a PC:

- USB interface (via keypad KP-DSP-01)
- Bluetooth (via REA-WL-01)
- Ethernet (via communication module CMA-ETH-01 on X310)

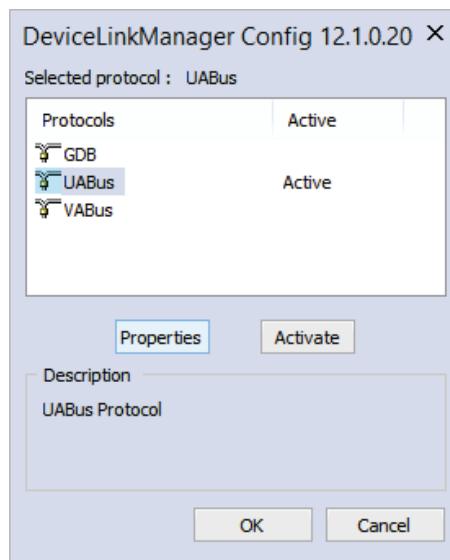
4.1 via USB-C interface (KP-DSP-01)

To employ the USB connection, the Keypad module (KP-DSP-01) must be installed. Via the USB-C interface integrated in the Keypad module, you can connect the inverter to the PC for configuration/monitoring.

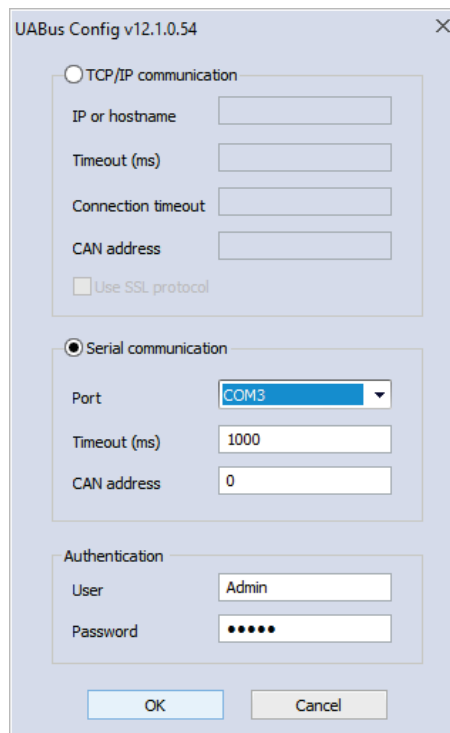
- Install the Keypad module on the inverter.
- Connect the PC workstation to the Keypad module via the USB-C terminal.
- Go to the Connection menu. Select Configure communication... (**F12**).
- In the Dialog window, *activate* the UABus protocol.



If you want to connect an inverter from the ANG series select VABus protocol.



- Go to Properties and select Serial communication.



- Select the Port, timeout and CAN address and click OK.

It is now possible to connect to the inverter by pressing the *Connect* button in the *Configurator* toolbar (🔌) or press **F11** to connect the inverter.

4.2 via Bluetooth (REA-WL-01)

To employ the Bluetooth connection, the Bluetooth module (REA-WL-01) must be installed. Via the Bluetooth connection, you can connect the inverter to the PC for configuration/monitoring.

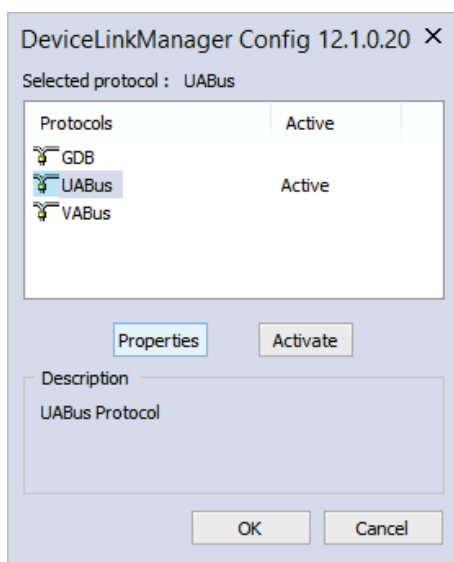


The module has 2 operating modes, Bluetooth Low Energy (pale blue led) for use with mobile device and Bluetooth Classic (deep blue led) for use with PC. By pressing the Pairing Mode Button for 1 second you can change the Bluetooth mode.

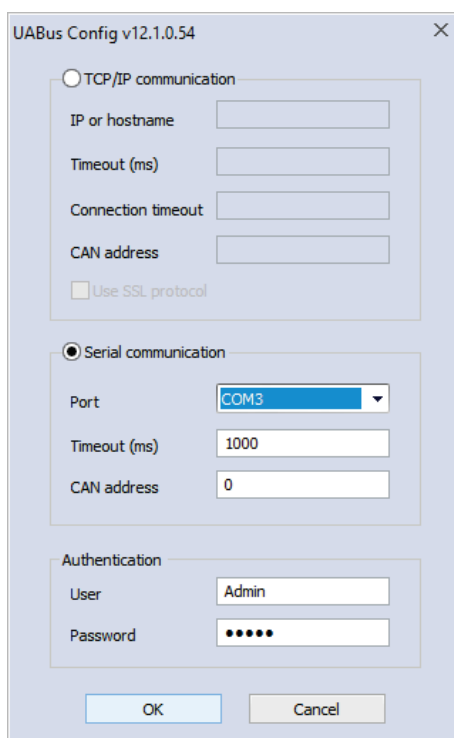
- Install the Bluetooth module on the inverter and pair it with the PC workstation (🔧📖 Operating Instructions VEC2en1).
- Go to the *Connection* menu and select *Configure communication...* (**F12**).
- In the Dialog window, *activate* the UABus protocol.



If you want to connect an inverter from the ANG series select VABus protocol.



- Go to Properties and select Serial communication.



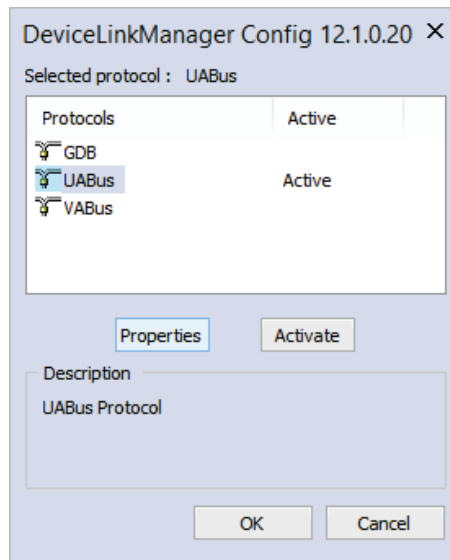
- Select the Port, timeout and CAN address and click OK.

It is now possible to connect to the inverter by pressing the *Connect* button in the *Configurator* toolbar () or press **F11** to connect the inverter.

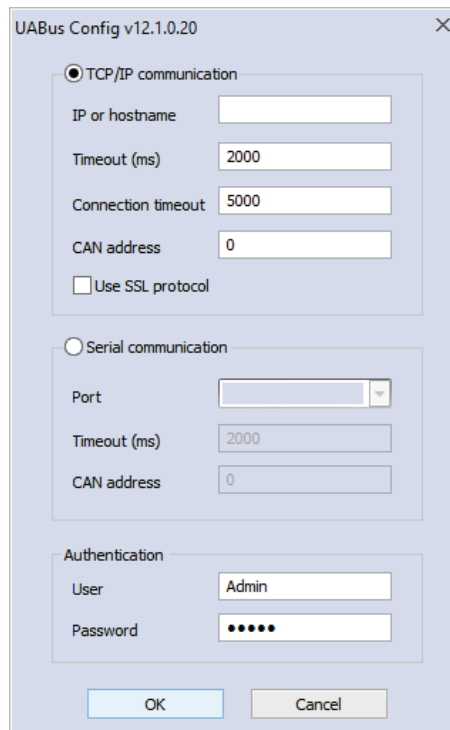
4.3 via Ethernet (CMA-ETH-01 on X310)

To employ Ethernet connection, the Ethernet module (CMA-ETH-01) must be installed. Via this connection you can connect the inverter to the PC for configuration/monitoring.

- Connect the CMA-ETH-01 to your PC and do the initial settings (🔧📖 Operating Instructions VEC2en37).
- Go to the *Connection* menu and select *Configure communication...* (F12).
- In the Dialog window, *activate* the UABus protocol.



- Go to *Properties* and select TCP/IP communication.



- Type in the IP address or hostname, CAN address, and add a user authentication. Click OK.

It is now possible to connect to the inverter by pressing the *Connect* button in the *Configurator* toolbar (🔌) or press F11 to connect the inverter.

4.4 Connect to Inverter

Online configuration

The communication settings are made during the commissioning by scanning for a frequency inverter,  5.1.2

Offline configuration

If you intend to work in offline mode, the connection of the inverter can be done later,  5.1.1

Check and Edit the Communication Settings

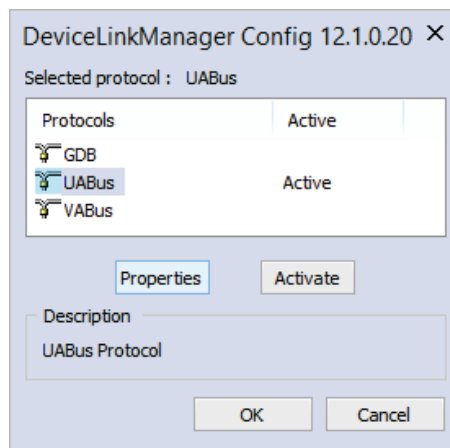
The communication settings can be edited and verified in the menu [Connection>Configure communication...](#). In this menu, you can select the protocol type:

- **UABus**: This protocol is used for Axia inverters
- **VABus**: This protocol is used for ANG inverters
- **GDB**: (not used)

4.4.1 UABus (for connection to Axia inverter)

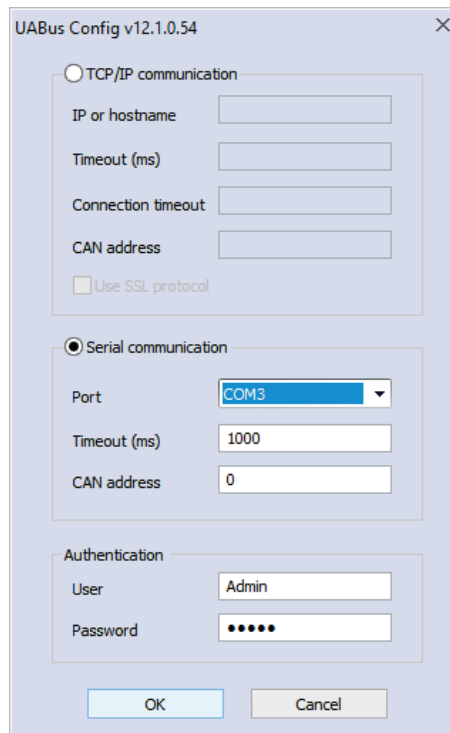
In the UABus properties, you can select the communication type:

- **TCP/IP** communication: This protocol is used for Ethernet connection.
 - **Serial** communication: This protocol is used for connection via USB/COM and Bluetooth/COM ports.
- Go to the [Connection](#) menu. Select [Configure communication...](#) (**F12**).
 - In the Dialog window, *activate* the UABus protocol.

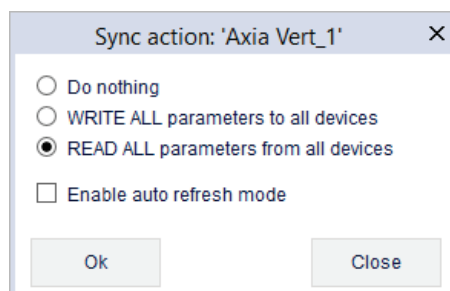


4.4.1.1 Serial communication (for USB/COM or Bluetooth COM port connection)

- Go to Properties and select Serial communication.
- Select the Port.



- Select the Port, timeout and CAN address and click OK.
- Select the *Connect* button in the *Configurator* toolbar (🔌) or press **F11** to connect the inverter.
- In the next dialog, select the required action (read/write/do nothing/enable auto refresh mode).

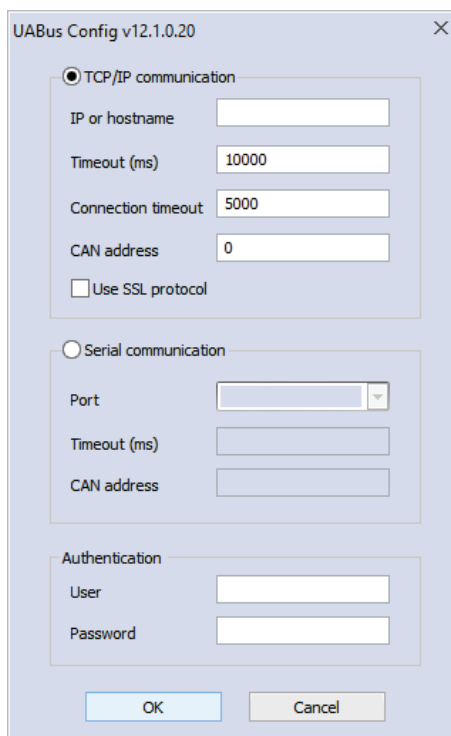


- | | |
|---------------------------|--|
| Do nothing: | AxiaManager connects to the inverter without reading or writing objects to the project/inverter. |
| Write all: | Load project setting to the inverter. |
| Read all: | Load inverter setting to the project. |
| Enable auto refresh mode: | 🔌📄 6.2.9 Refresh functions |

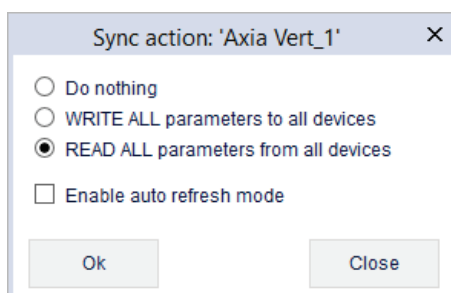
If the communication has been established correctly, the Status bar displays CONNECTED. This concludes the connection to the PC.
When connected, you can use the AxiaManager to access and parameterize objects (🔌📄 5).

4.4.1.2 TCP/IP communication (for Ethernet connection)

- Go to *Properties* and select TCP/IP communication.



- Type in the IP address or hostname, CAN address, and add a user authentication. Click OK.
- Select the *Connect* button in the *Configurator* toolbar () or press **F11** to connect the inverter.
- In the next dialog, select the required action (read/write/do nothing/enable auto refresh mode).



Do nothing:

AxiaManager connects to the inverter without reading or writing objects to the project/inverter.

Write all:

Load project setting to the inverter.

Read all:

Load inverter setting to the project.

Enable auto refresh mode:

  6.2.9 Refresh functions

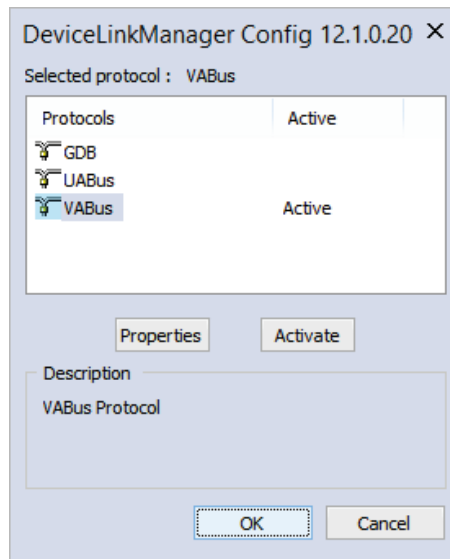
If the communication has been established correctly, the Status bar displays CONNECTED. This concludes the connection to the PC.

When connected, you can use the AxiaManager to access and parameterize objects ( 5).

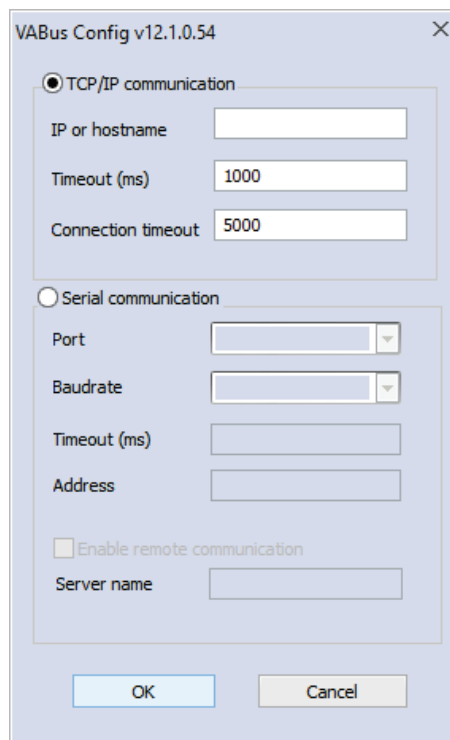
Alternatively, the TCP/IP communication can be set up with the TCP/IP Configurator ( 4.5).

4.4.2 VABus (for connection to ANG inverter)

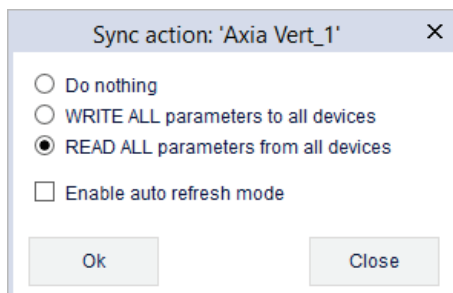
- Go to the **Connection** menu. Select **Configure communication...** (F12).
- In the Dialog window, *activate* the VABus protocol.



- Go to Properties.



- Type in the IP address or hostname and add a user authentication. Click OK.
- Select the **Connect** button in the **Configurator** toolbar (🔌) or press F11 to connect the inverter.
- In the next dialog, select the required action (read/write/do nothing/enable auto refresh mode).



- Do nothing: AxiaManager connects to the inverter without reading or writing objects to the project/inverter.
- Write all: Load project setting to the inverter.
- Read all: Load inverter setting to the project.
- Enable auto refresh mode:  6.2.9 Refresh functions

If the communication has been established correctly, the Status bar displays CONNECTED. This concludes the connection to the PC.

When connected, you can use the AxiaManager to access and parameterize objects ( 5).

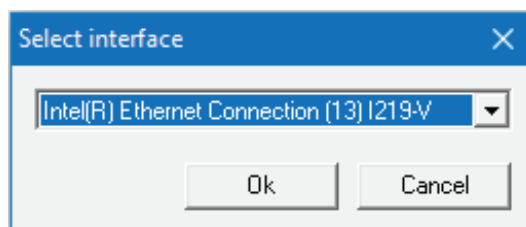
4.5 TCP/IP Configurator

The TCP/IP Configurator is a software tool for configuring IP settings for a TCP/IP connection. It can be started directly out of AxiaManager GUI.



- Click on the TCP button or go to Tools>TCP/IP Configurator.

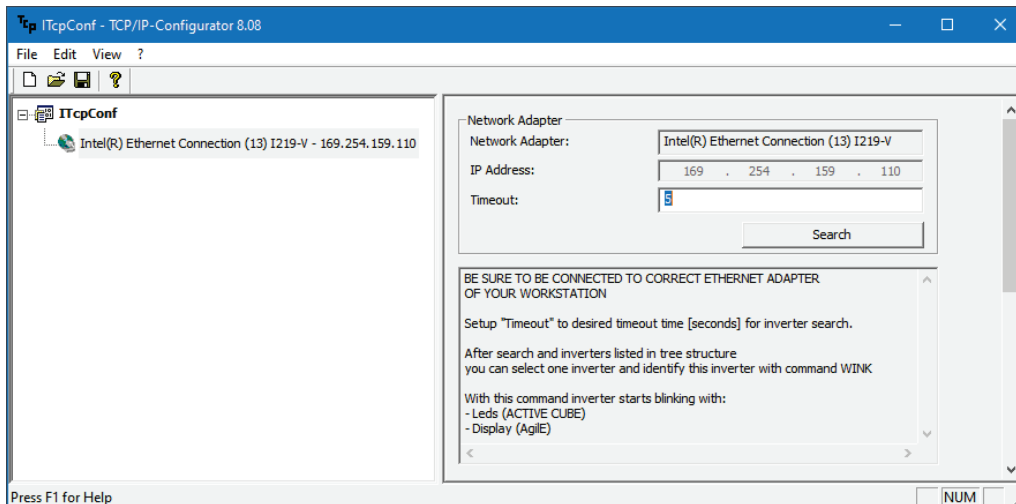
A window will appear where you can select the Ethernet adapter via which the frequency inverter is connected.



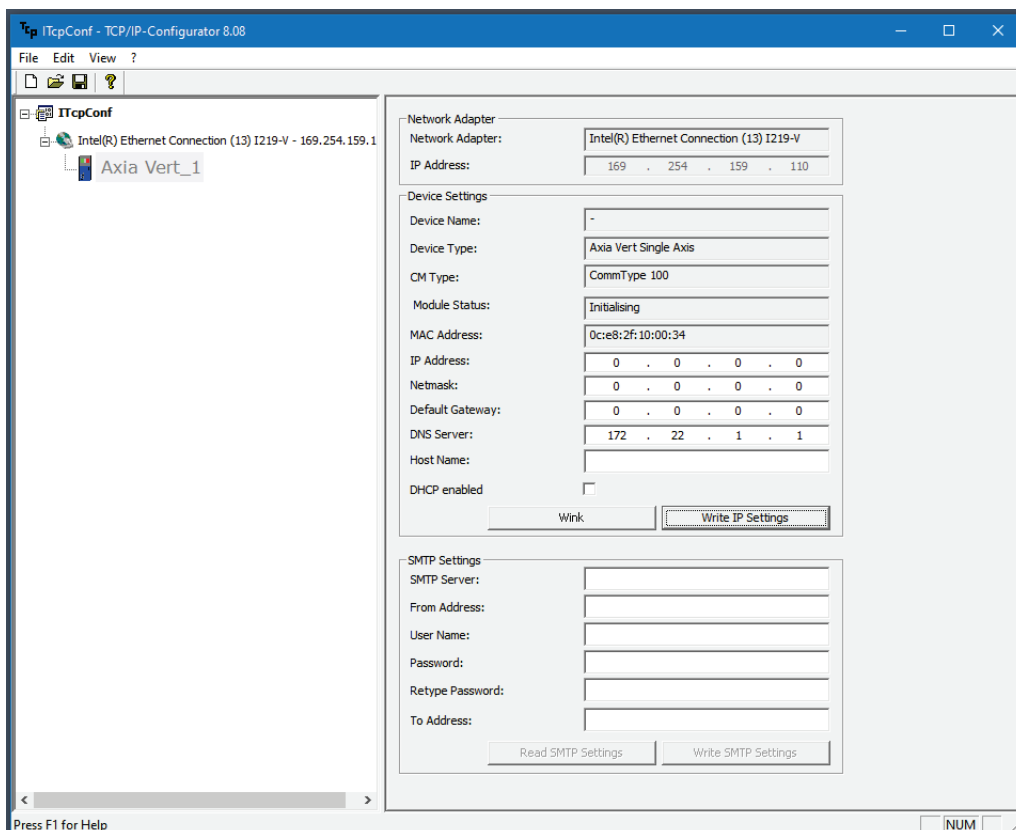
- Select the Ethernet adapter and click on **Ok**.

Once the Ethernet adapter has been selected, the configuration program is ready to search for available frequency inverters.

With the *Timeout* setting, you define how long the TCP/IP Configurator will wait for responses from the frequency inverter.



- In the *Timeout* entry field, enter the required time and click on *Search*. Upon completion of the search all frequency inverters found will be listed.
- Click on the frequency inverter to be configured.



The right part of the window shows information on the device and input fields for various settings.

- Enter the device settings required for your application. In order to apply the settings to the device, click on *Write IP settings*.



Before clicking on *Write IP settings*, make sure that you are connected with the right frequency inverter. To check this, click on the *Wink* button. The connected inverter's LEDs (green and red) will flash for 10 seconds.

5 Basic Commissioning (Guided Workflow)

AxiaManager GUI offers two commissioning methods:

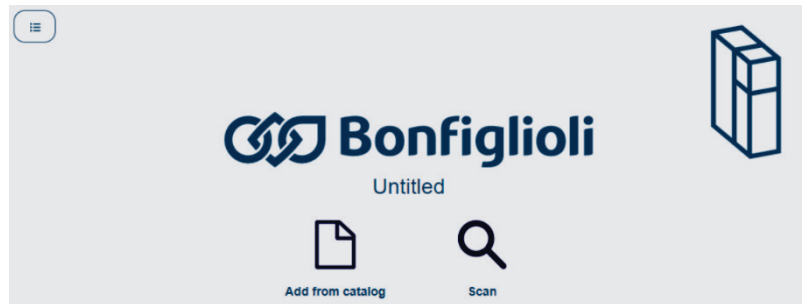
- Guided workflow:
The guided workflow systematically guides you through the motor and application setup. The individual steps of the guided workflow are described in this chapter.
- Advanced workflow:
The advanced workflow provides a tabular overview of the most important parameters that have to be set. The advanced workflow is intended for experienced users. It is described in chapter 6.

There are three different ways how you can start a project:

- Create a new project by adding an inverter from catalog,  5.1
- Scan a connected device and add it to the project,  5.1.2
- Open an existing project,  8.2

5.1 Add an Inverter

- Create a new project by selecting menu *File > New*.



In the next step you can add a frequency inverter. There are two ways how to do this:

- Add an inverter from catalog:
Use this method if you plan an offline setup, e. g. without a frequency inverter connected to your system.
- Scan connected inverters:
If you use the *Scan* function, settings such as power rating, frame size and firmware version will be detected from automatically. Relevant object values will be set automatically.
This method requires an inverter already connected to your computer. To connect an inverter  4.

Both methods are described in the following sections.

5.1.1 Add an Inverter from Catalog (Offline Configuration)

This describes how to setup a frequency inverter from the catalog.

You can use this method if you want to plan a setup without a frequency inverter connected to your system.



- Click the *Add from catalog* icon to select your Axia device from the catalog.

Filters

Family

☐ Axia Vert

☐ Axia Move

☐ Axia Move Double Axis

Select the Axia Vert device

1

Axia Vert device

2

Firmware version

Filters

Voltage

2

X

Rating (power based)

k25

X

Frame size

1

X

Safety module

Select...

| v

Technology variant

Select...

| v

Filter and mechanical form

Select...

| v

Hardware variant

Select...

| v

Communication module

Select...

| v

Encoder module X412

Select...

| v

Encoder module X432

Select...

| v

Preview

Designation

AXV 2--- k25 1

Description

Axia Vert, Frame size 1, 230 V / 1.6 A / 0.25 kW

Mains voltage [min, max]

[184 , 264] V

Mains frequency [min, max]

[45 , 66] Hz

Motor shaft power

0.25 kW

Output current

1.6 A

Long-term overload current (60 s)

3.2 A

Short-term overload current (1 s)

3.2 A

Clear

Next »

- Select the Axia family.
- Fill the filters. The filters with red colors are mandatory and the one with green color is optional.
- Insert voltage, power rating and frame size of your inverter.

You will find this information on the inverters' type plate.

The selected inverter will be shown in the *Preview* section.

- Insert information of the connected modules, if applicable.
- Click *Next* to continue.
- Select the firmware version.

You will find the version number in the Keypad display (System Information > Inverter Basics).



- Save your settings in the project.
- Continue with adding a motor (🔧📄 5.2.1).

5.1.2 Scan for a Frequency Inverter (Online Configuration)

This describes how to scan the communication ports for a frequency inverter already connected to your computer. To connect a frequency inverter,  4.

You can use this method to find a frequency inverter already connected to your system. Settings such as power rating, frame size and firmware version will be read from the inverter and set automatically in the project.



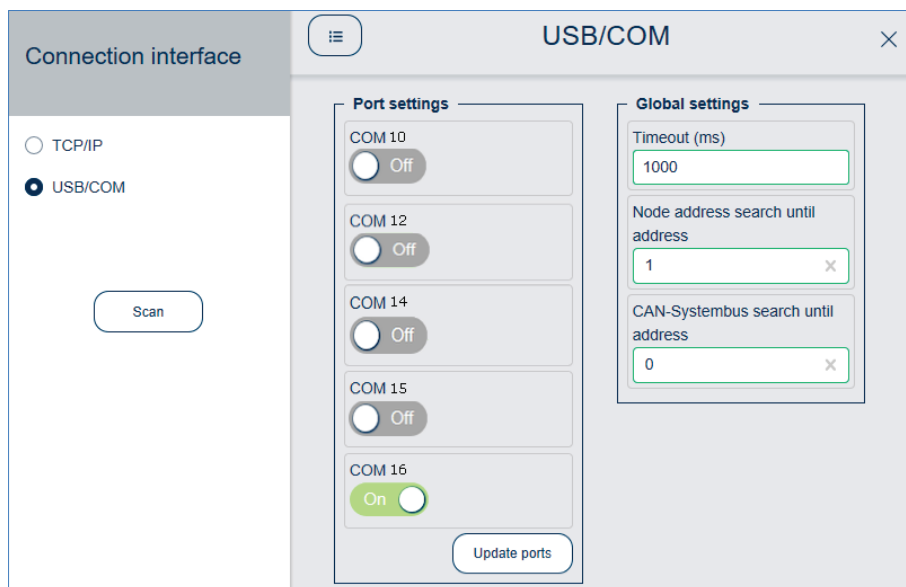
- Click the *Scan* icon to open the *Connection interface* dialog.

Connection interface settings

In the next step, select the connection interface where the inverter is connected to:

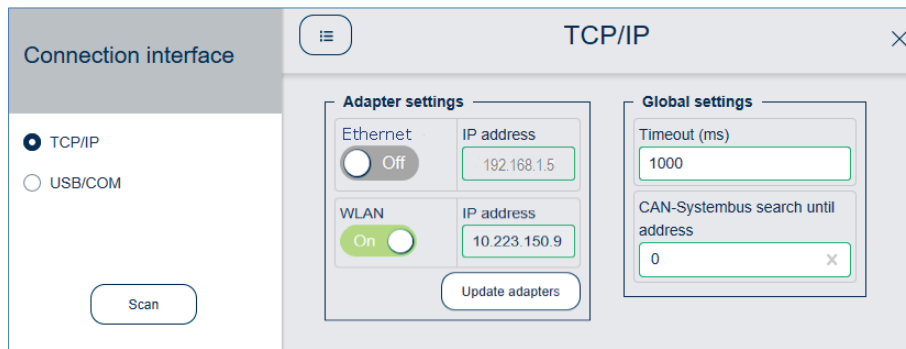
- Select USB/COM, if the inverter is connected via USB/COM or Bluetooth/COM port.
- Select TCP/IP, if the inverter is connected via Ethernet.

USB/COM:



- Select USB/COM in the connection interface.
- Select the COM port and edit the global prefilled settings if desired.

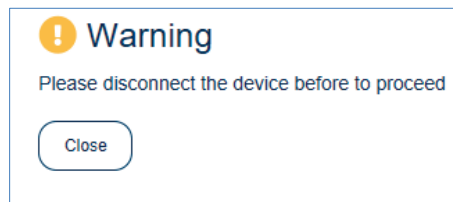
WiFi/Ethernet:



- Select TCP/IP in the connection interface.
- Select the adapter and edit the global prefilled settings if desired.

Scanning for connected inverters

When you click the *Scan* button you are prompted to disconnect the device if already connected (🔌 5.7).



NOTICE

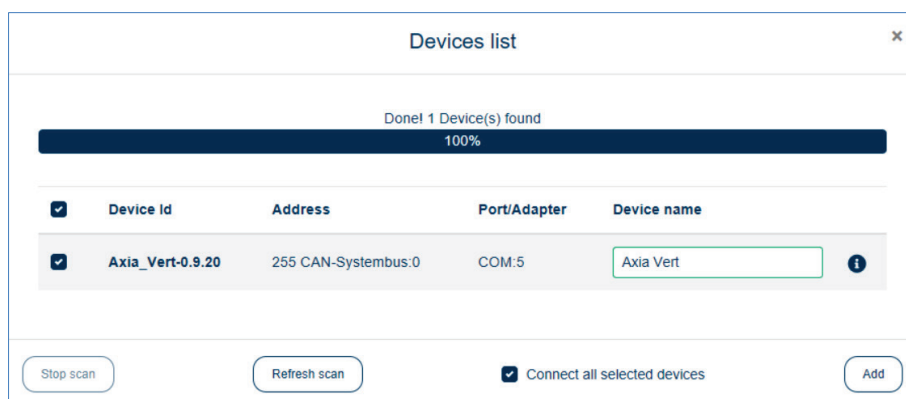
Device damage!

Project settings may be written to the inverter when connecting.

Inappropriate object values in the project may result in damages to the inverter and connected devices.

- Disable or disconnect the inverter before scanning for connection.

- Click the *Scan* button to search for inverters.
The next window will list all frequency inverters connected to your system.

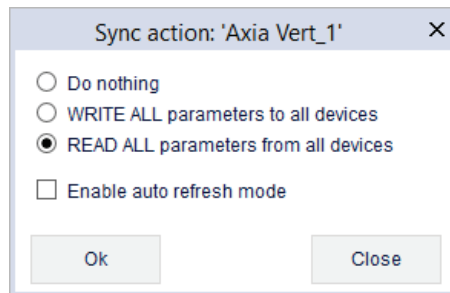


By default, all inverters found are selected.

- Deselect the inverter you do not want to add. Rename it, if needed, and click *Add*.

All inverter settings, such as voltage, power rating, frame size and firmware version are added automatically.

- Select the *Connect* button in the *Configurator* toolbar (🔌) or press **F11** to connect the inverter.
- In the next dialog, select the required action (read/write/do nothing/enable auto refresh mode).



- Do nothing: AxiaManager connects to the inverter without reading or writing objects to the project/inverter.
- Write all: Load project setting to the inverter.
- Read all: Load inverter setting to the project.
- Enable auto refresh mode: 🔄 6.2.9 Refresh functions

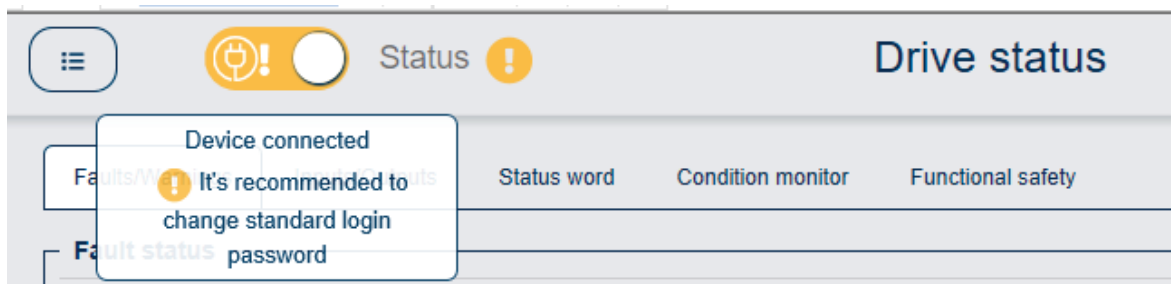
If the communication has been established correctly, the following will be displayed:

- The Connection Status control in the Project window lights green or yellow.
- The Status bar displays CONNECTED.
- The *Connect* icon in the Configurator toolbar is active.
- The connected devices are listed in the *Connections status* window.



- Save your settings in the project.
- Continue with adding a motor (🔧 5.2.1).

Check connection status

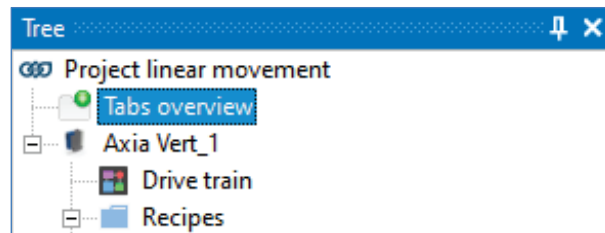


If the Connection Status control in the Project window lights yellow, go to the *Connection settings* bar and change the password.

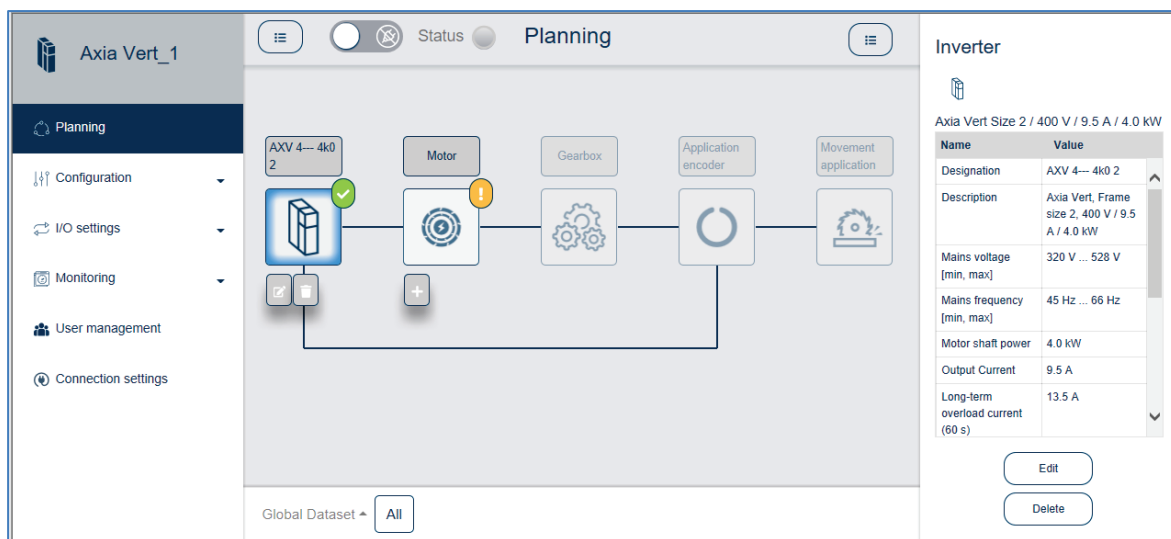
If the exclamation mark next to the Status notification is yellow, click on it to jump to the Faults/Warnings register in the *Drive status* bar. This register lists current warnings and errors of the inverter connected (🔧 5.5.1).

5.2 Plan the Setup

Once you have added the inverter it will appear in the *Planning* window of the project. Alternatively, you can call up the *Planning* window by selecting the *Tabs overview* node in the *Tree* window.



If the *Planning* Tabs is hidden in the Planning window click on this button  to show.



The green checkmark indicates that the settings of this component are complete and correct.



The exclamation mark indicates the next component that can be added.



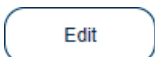
Indicates that there is a mismatch between the selected component in the planning sections and the related object values in the advanced view.



You can add a component by clicking the *+* button below the corresponding icon.



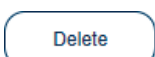
You can change the values by clicking the *Write* button below the corresponding icon.



You can change values by clicking the *Edit* button in the component detailed view.



You can delete a component by clicking the *Delete* button below the corresponding icon.



You can delete a component by clicking the *Delete* button in the component detailed view.

All settings can be made in a single dataset or in All datasets at the same time.



Select the global dataset (All or 1–4) in this options menu.

5.2.1 Add a Motor

NOTICE

Incorrect parameterization

The rated data of the motor must be entered according to the specifications on the rating plate for the motor connection type used (star or delta connection).

If the data entered deviate from the rating plate, the parameters will not be identified correctly.

- Parameterize the rated data according to the rating plate of the motor for the wiring of the motor winding. Consider the increased rated current of the connected three-phase motor.

In the next step you can add a motor. There are two ways how to do this:

- Adding a Bonfiglioli motor from catalog:
Select a motor from the catalog or use the filter function to select a motor type and fill the filters to select the motor.
- Adding a third-party motor:
If you want to use a motor that is not listed in the catalog or a third-party motor, insert the required motor data. You will find this information on the motor type plate or the technical data sheet.

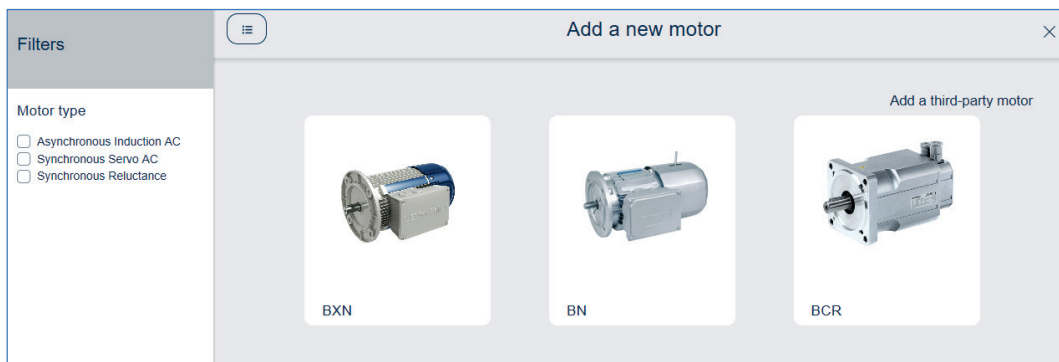
Both methods are described in the following sections.

5.2.1.1 Adding a Bonfiglioli Motor from Catalog

If you use a Bonfiglioli motor in your configuration you can search the motor catalog by series or using the filter function to select a motor type (asynchronous, synchronous, SRM).



- Add a new motor by clicking the **+** button below the motor icon.



- Select the Bonfiglioli motor family or filter the appropriate motor type.

Select the BMD motor

1

BMD motor

2

Select the feedback system

3

Motor temperature sensor

Filters

Size:

Stall torque:

Speed:

Voltage-Frequency:

Brake type:

Preview

Designation	BMD 170 45,0 1600 400
Rated voltage	310 V
Rated current	15.9 A
Rated speed	1600 rpm
Number of pole pairs	4
Rated frequency	106.67 Hz
Rated mechanical power	7000 W
Rated torque	42 Nm

Clear
Next »

- Select *Filters*.
Insert the required motor data. The filters with red colors are mandatory.
You will find this information on the motor type plate or the technical data sheet.
The selected motor will be shown in the *Preview* section.
- Select the *Feedback system* of the motor, if applicable as well as the *Feedback terminal* at the Axia inverter.
- Select the *Temperature sensor*.
- Submit the data and check the selected data.

Confirm to proceed

The following parameters will be overwritten

Motor
Motor feedback
Motor temperature

Name	Current value	New value	Write
0x2003 Rated Current	9.5	5	☒
0x2004 Rated Speed	1500	50	☒
0x2008 Rated Mech. Power	4000	1000	☒

Close
Confirm

If you have changed any values you need to confirm to proceed. New values will be written to the project.

- Tick the parameters you want to write to the project.

Color coding: The values are marked in different colors depending on its status:

- Black:** Value corresponds with the default value.
- Blue:** Value corresponds with the inverter value. i.e.: Value has been written to the inverter but is different from the default value.
- Red:** Current value in the project has not been written in the inverter. Values deviate between project and the inverter.
- Green:** New value has been taken over during the setup.



- Confirm to continue.
- New values will be written to the project.
- Save your settings in the project.
- Continue with adding a gearbox (5.2.2).

5.2.1.2 Adding a Third-Party Motor

If you want to use a third-party motor—or a Bonfiglioli motor, that is not listed in the catalog—insert the required motor data. You will find this information on the motor type plate or the technical data sheet.



Add a third-party motor

- Add a new motor by clicking the + button below the motor icon.
- Click on the button text *Add a third-party motor*.
- Insert the required *Motor data*.
You will find this information on the motor type plate or the technical data sheet.
- Select the *Feedback system* of the motor, if applicable, as well as the *Feedback terminal* at the Axia inverter.
- Select the temperature sensor.
- Submit the data and check the selected motor data.


Confirm to proceed

The following parameters will be overwritten

Motor

Motor feedback

Motor temperature

Name	Current value	New value	Write
0x2003 Rated Current	9.5	5	☒
0x2004 Rated Speed	1500	50	☒
0x2008 Rated Mech. Power	4000	1000	☒

Close

Confirm

If you have changed any values you need to confirm to proceed. New values will be written to the project.

- Tick the parameters you want to write to the project.

Color
coding:

The values are marked in different colors depending on its status:

Black: Value corresponds with the default value.

Blue: Value corresponds with the inverter value. i.e.: Value has been written to the inverter but is different from the default value.

Red: Current value in the project has not been written in the inverter. Values deviate between project and the inverter.

Green: New value has been taken over during the setup.

- Confirm to continue.
- Save your settings in the project.
- Continue with adding a gearbox (🔧 5.2.2).



5.2.2 Add a Gearbox



- Add a new gearbox by clicking the **+** button below the gearbox icon.

You can select a new gearbox from the Bonfiglioli catalog or add a third-party gearbox.

- If you use the *catalog*, select the gearbox series ...



Gearbox type

- ☐ High Precision Planetary
- ☐ Bevel
- ☐ Helical
- ☐ Worm

... or filter the appropriate gearbox type.

- Insert the required frame size and gear ratio.
- Submit the data and confirm.

Add a third-party
gearbox

If you want to add a third-party gearbox, click on the button text *Add a third-party gearbox*.

- Insert the *Frame size* and the *Gear ratio*.

You will find this information on the technical data sheet of the gearbox.

- Submit the data and check the selected Gearbox data.

Confirm to proceed

The following parameters will be overwritten

Name	Current value	New value	Write
0x6091:1 Motor shaft revolutions	1	55	☒
0x6091:2 Driving shaft revolutions	1	10	☒

Close

Confirm

- Tick the parameters you want to write to the project.
- Save your settings in the project.
- Continue with adding an application encoder, if applicable (🔧 5.2.3).



5.2.3 Add an Application Encoder

The feedback system is not detected automatically and must be added manually, if applicable:



- Select a new application encoder by clicking the *+* button below the application encoder icon.
- Select the slot where your encoder is connected to (X210, X412 or X432) and select the corresponding data of your *feedback system*.



HTL is available in slot X210.

All other encoder systems (TTL1, SinCos, Hiperface, EnDat1, EnDat2, SSI, Hiperface DSL) are available in slot X412 or X432, depending on the type of Encoder module you are using.

- Edit further settings such as *Tracks evaluation*, *Supply voltage*, *Supply mode* etc.
- Submit the data and confirm.
- Save your settings in the project.



5.2.4 Add a Movement Application



- Select a new application encoder by clicking the *+* button below the movement application icon.
- Select the *Movement type*: *Linear* or *Rotary*.
- Edit further setting such as *Track roller diameter*, *accuracy* etc.
- Submit the data and confirm.
- Save your settings in the project.



5.2.5 Complete the Planning Activities

Planning

AXV 4--- 4k0 2 ✓

BMD 170 34,0 160... ✓

A 10 ✓

SinCos ✓

LINEAR ✓

Inverter

Axia Vert Size 2 / 400 V / 9.5 A / 4.0 kW

Name	Value
Designation	AXV 4--- 4k0 2
Description	Axia Vert, Frame size 2, 400 V / 9.5 A / 4.0 kW
Mains voltage [min, max]	320 V ... 528 V
Mains frequency [min, max]	45 Hz ... 66 Hz
Motor shaft power	4.0 kW
Output Current	9.5 A
Long-term overload current (60 s)	13.5 A

Edit

Delete



The green checkbox indicates that the settings of this component are complete and correct.



The exclamation mark indicates the next component that can be added.



Indicates that there is a mismatch between the selected component in the planning sections and the related object values in the advanced view.



You can add a component by clicking the *+* button below the corresponding icon.



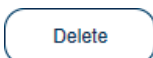
You can change the values by clicking the *Write* button below the corresponding icon.



You can change values by clicking the *Edit* button in the component details view.



You can delete a component by clicking the *Delete* button below the corresponding icon.



You can delete a component by clicking the *Delete* button in the component detail's view.

If you want to call up the *Planning* window at a later stage select the *Tabs overview* node in the *Tree* window.

5.3 Configure the Motor

The *Configuration* tab displays all objects relevant for the inverter control. It is possible to setup the objects that allow to perform a motor tuning.

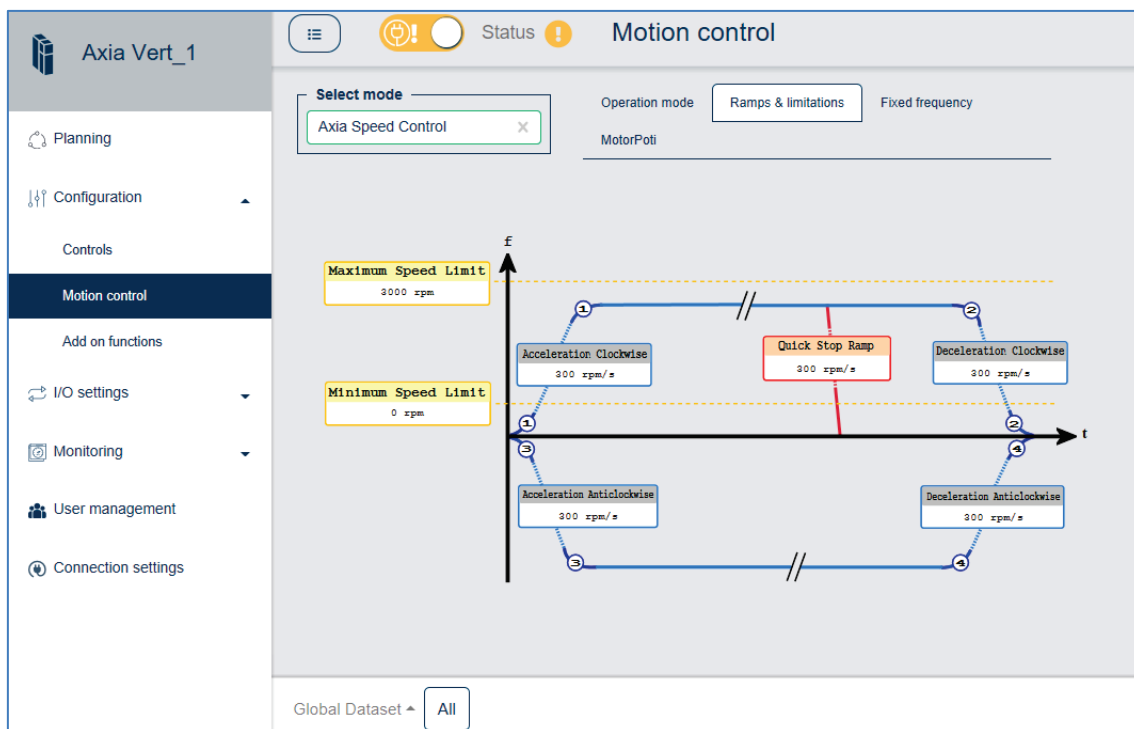
The *Configuration* tab includes the sub tabs *Controls*, *Motion Control* and *Add-on functions*.

If the *Configuration* tab is hidden click on this button  to show.

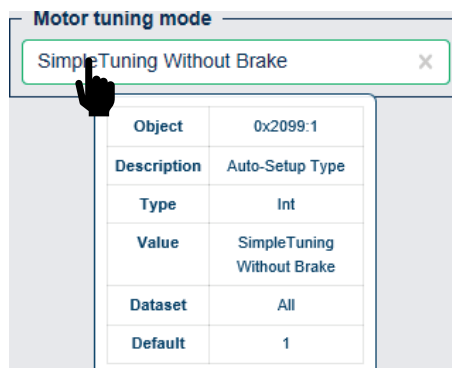
General handling options in the Configuration tabs:

This paragraph gives an overview over the operating options in this tab. The screenshots are just examples and are used to display the handling options (the *Motion control* tab is described here: 5.3.2).

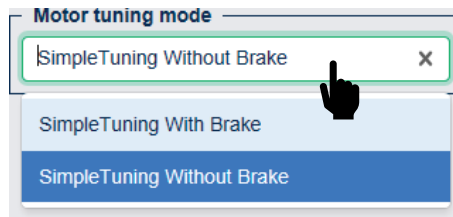
Depending on the selected mode a set of register tabs is available at the top of the Project window where further settings can be made.



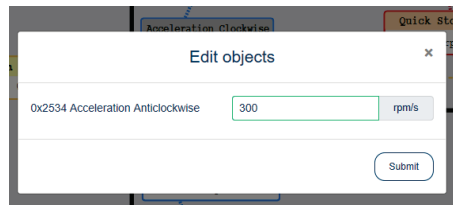
The selection field of each parameter displays the selected values. If you move the cursor over the selection field all objects information will pop up:



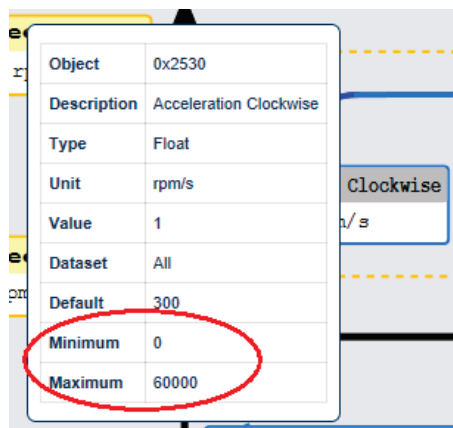
Clicking the selection field opens a drop-down menu displaying the possible settings:



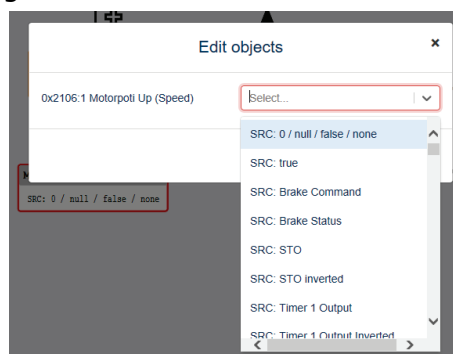
The desired value for each parameter is entered in the white entry fields of the respective parameter. Click on the entry field to enter the desired value:



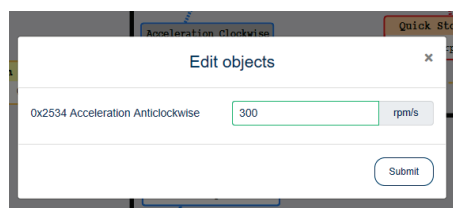
If the value is numerical (e.g. rotations per minute, [rpm]), the value range is limited by the minimum and maximum value possible for this parameter. The value range can be displayed in the pop-up menu which is visible if you move the cursor over the entry field:



If a parameter allows a selection of values, the selection field opens a drop-down menu displaying the possible settings:



- Press the Submit button to enter the value.



- After finishing the motor tuning, save your settings in the project.

5.3.1 Controls tab

NOTICE

Drive damage

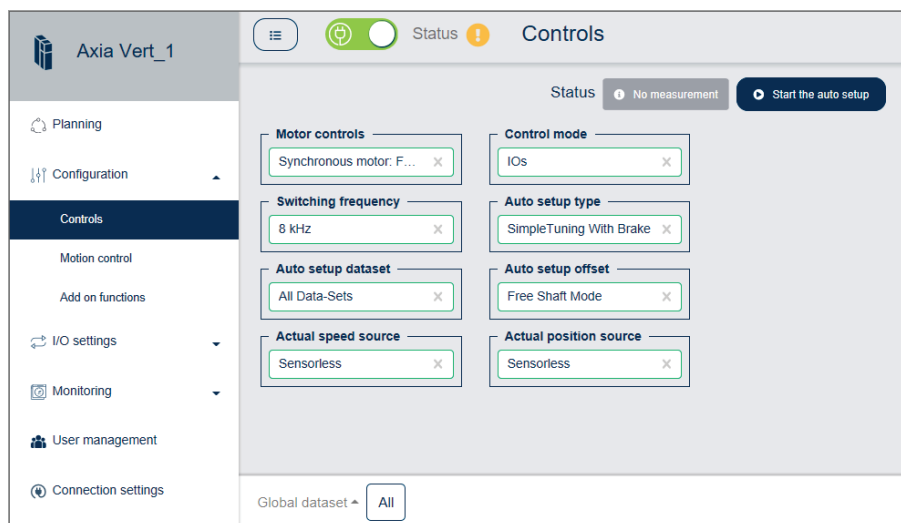
The control method of the motor depends on the set motor type **0x2001** *Motor Type* and the motor control **0x2080** *Motor Control*. The motor type setting must correspond to the motor type used, otherwise the motor may be damaged.

- Make sure to enter the motor/machine data according to the rating plate of the motor.

The *Controls* tab displays all motor control objects needed for the motor tuning: The current motor configuration, the controlling method, the reference frequency source and the tuning mode. Here, you can setup the objects that allow to perform a motor tuning and start the motor tuning.

These are the sequences to start a motor tuning:

- Click on the button *Start auto setup* to start the motor tuning.
- In case a dialog box pops up, follow and confirm the information.
- The status to the left of the button, displays the status of motor tuning while it is on-going, when it's completed or when it's stopped
- Hovering the status gives more information through a tooltip.

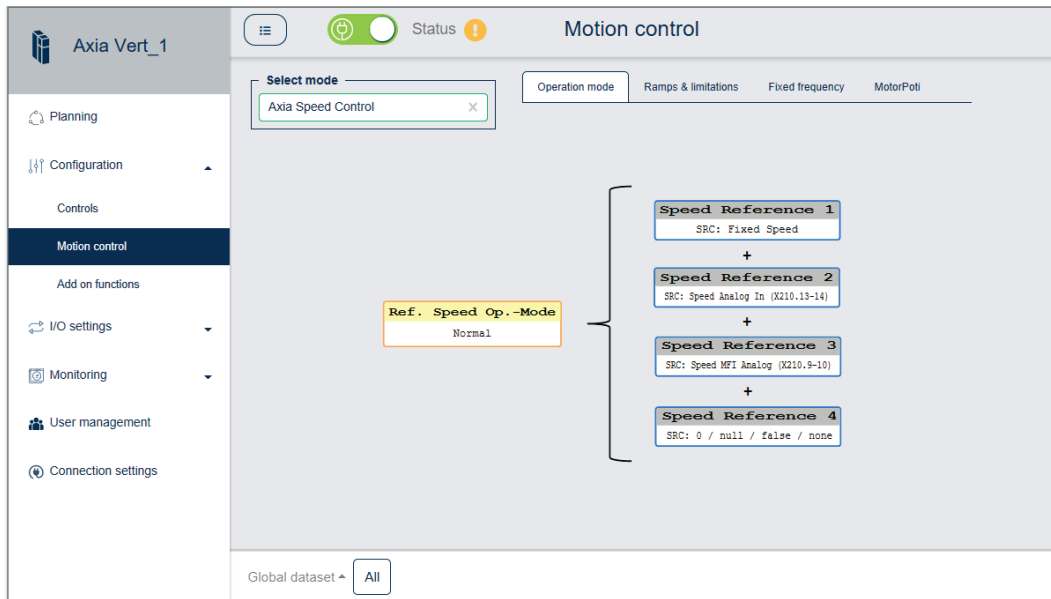


Depending on the selected *Motor Control Mode*, a set of register tabs is available at the top of the main frame, where further parameters can be edited.

- Click through the register tabs to display and edit all relevant parameters.

5.3.2 Motion Control tab

In the *Motion control* tab, it is possible to select the *Mode of operation*.

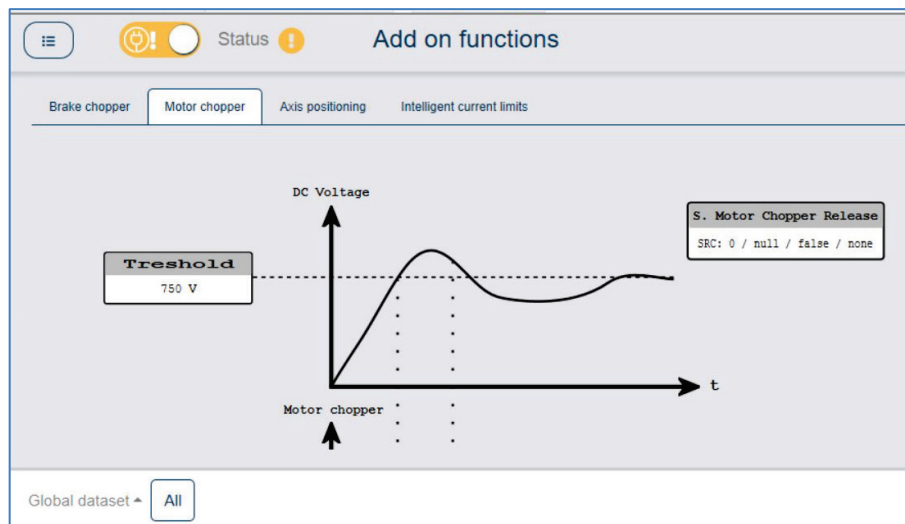


Depending on the selected *Mode of Operation I/O*, a set of register tabs can be opened at the top of the main frame. This tab allows editing further parameters.

- Click through the register tabs to display and edit all relevant parameters.

5.3.3 Add on functions tab

In the *Add on functions* tab, further parameters regarding the motor tuning can be made. Available register tabs are: Brake chopper, motor chopper, axis positioning and intelligent currents limits.



Depending on the selected register tab, further parameters can be edited.

- Click through the register tabs to display and edit all relevant parameters.

5.4 Structure the I/O Settings

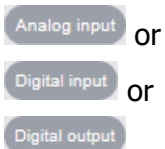
The *I/O Settings* tab gives an overview of the digital and analog inputs/outputs and their assigned functions.

It also displays all disabled hardware terminals and allows to assign functions to every single input/output.

If the *I/O Settings* tab is hidden click on this button  to show.

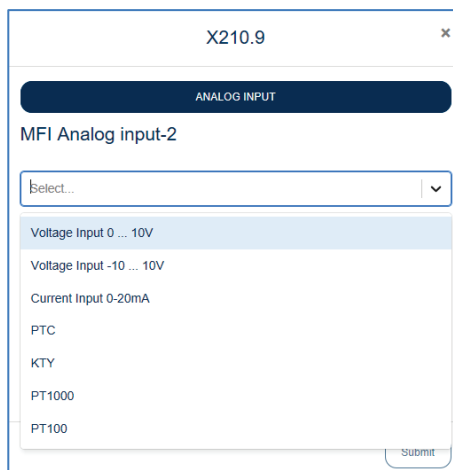


Active I/Os are indicated by a green background.

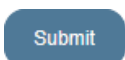


- To assign a function to an input or output click on the corresponding button.

The following dialog opens:



- Select the function for this input/output from the drop-down list.
- Click "Submit" to confirm the selection.



5.5 Monitoring Functions

The *Monitoring* tab displays actual values of operating data deriving from inverters, motors and encoders. Some of these values change continuously and are read from the operating data memory. This also includes reference and status values, errors and warnings.

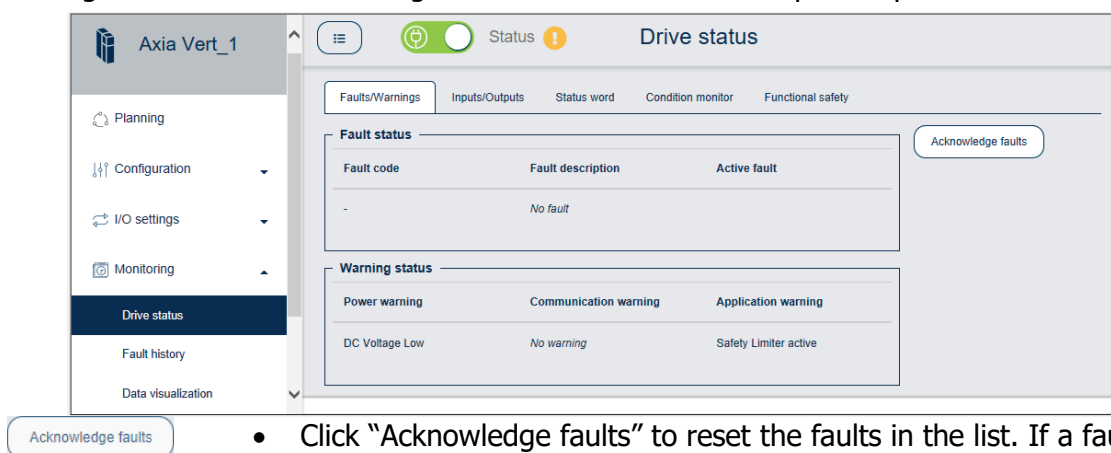
5.5.1 Monitoring: Drive Status

The Monitoring > Drive Status tab keeps you informed about the actual status of the inverter. This tab is grouped in the following register tabs: *Faults/warnings*, *Inputs/outputs*, *Status word*, *Condition monitor* and *Functional safety*.

If the *Monitoring* tab is hidden click on this button  to show.

Faults/Warnings

This register lists current warnings and errors code and description if present.



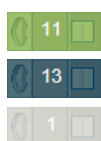
Fault code	Fault description	Active fault
-	No fault	

Power warning	Communication warning	Application warning
DC Voltage Low	No warning	Safety Limiter active

- Click "Acknowledge faults" to reset the faults in the list. If a fault is present, hovering the fault code gives information about remedy or people to contact.

Inputs/Outputs

The *Inputs/Outputs* register displays the state of the digital and analog connections and their assigned functions.

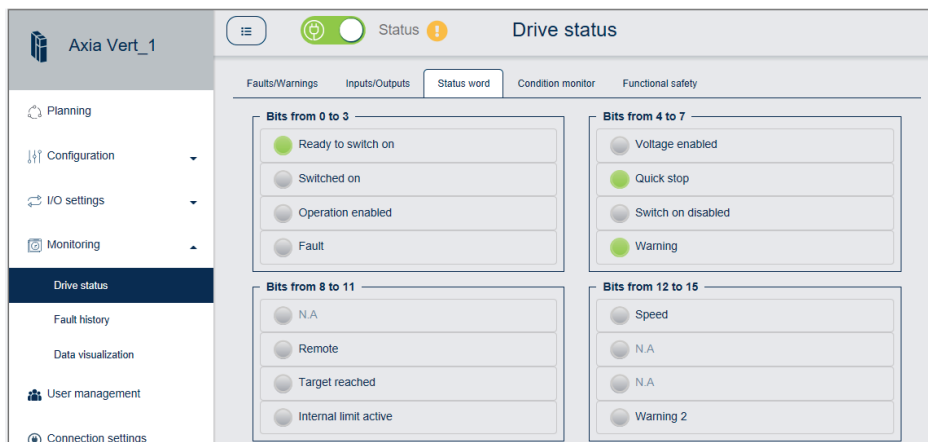
Terminal is disabled.

Input/output is not active.

Input/output is not active.

Status word

The *Status word* register displays the bit status and associated states. Hovering each state gives more information about the bit index and the bit status.

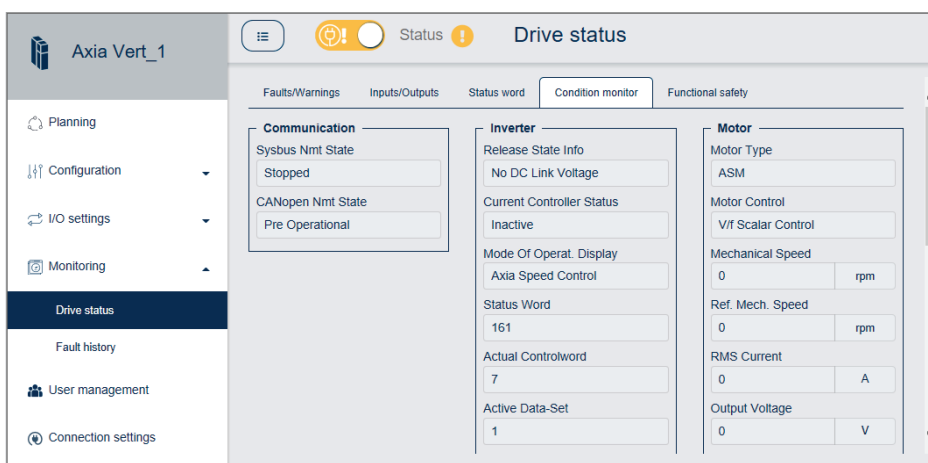


Bit is active.

Bit is not active.

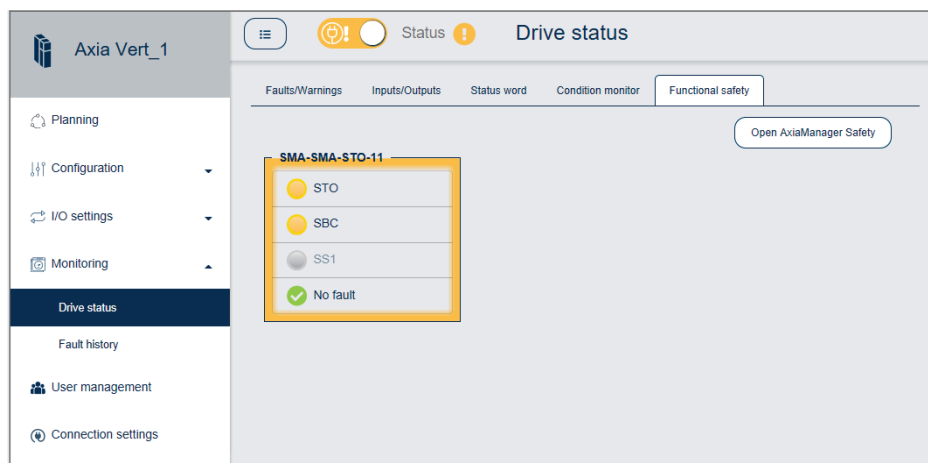
Condition monitor

The condition monitor displays a set of relevant actual values.



Functional safety

The functional safety displays the status of safety functions based on the integrated Axia safety module. It allows also to open the AxiaManager Safety tool.

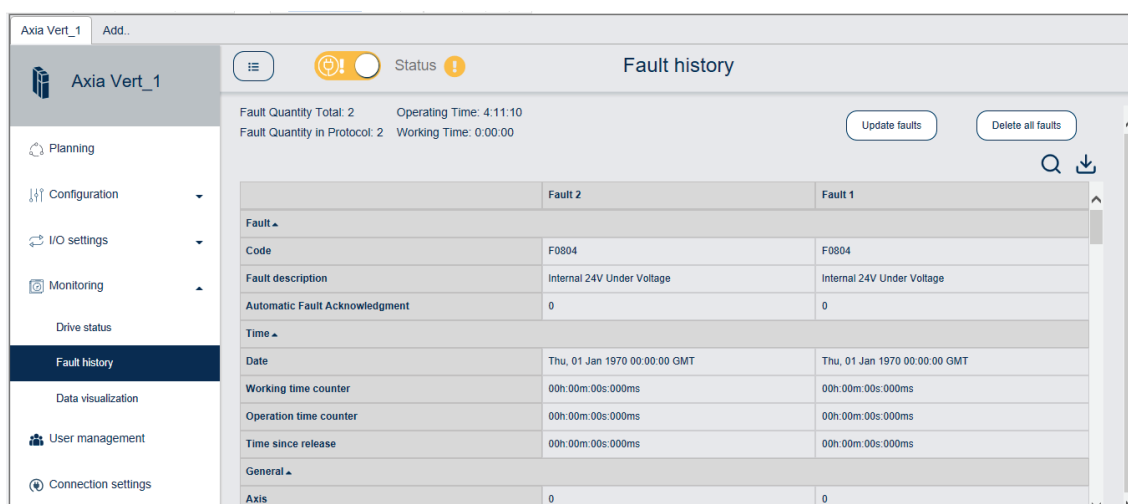


Open AxiaManager Safety

- Click this button to open the AxiaManager Safety application.

5.5.2 Monitoring: Fault History

The *Fault history* tab lists faults codes and environment in the protocol stored inside the inverter. The faults are listed in a chronological order.



Update faults

Update faults in the fault history.

Delete all faults

Delete all faults from the fault history.



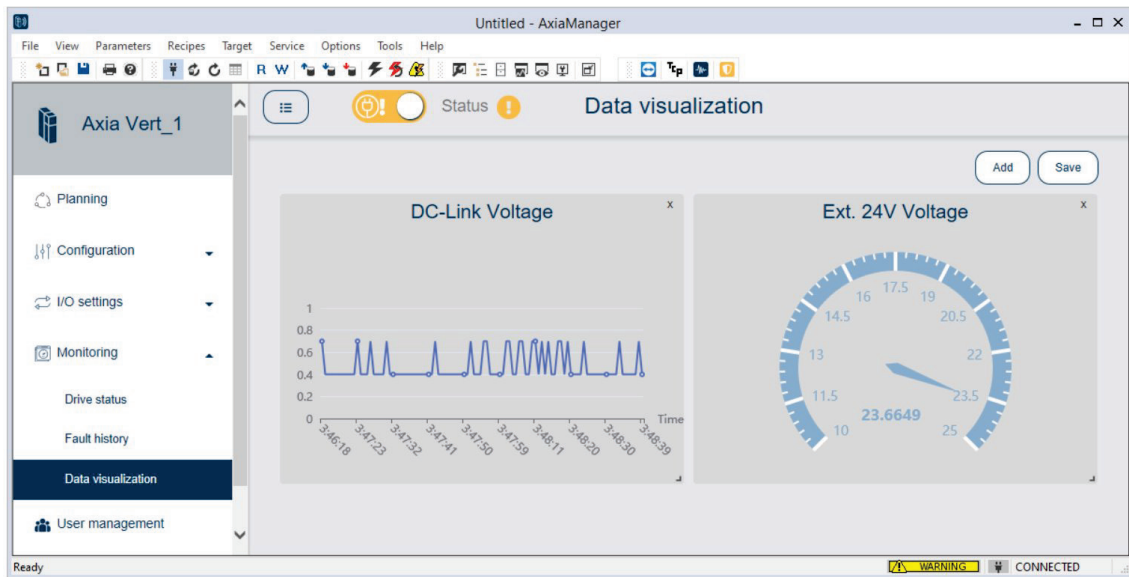
Export the fault history into an MS Excel file.



Search fault by code.

5.5.3 Monitoring: Data Visualization

This tab allows the monitoring of selected actual values by three different widgets: Line (Single axis) view, Text view and Gauge view.



Widget type: Line

Widget type: Gauge

- Press *Add* to create a new widget.
The *Add widget* dialog pops up.

×

Add widget

Object index	0x 5801
Object subIndex	1 ×
Widget type	Line(Single Axis) ×
Description	DC-Link Voltage
Value	0.3754
Unit	V
Minimum	0
Maximum	1 ×

Clear
Add

- Select the object you want to visualize by directly entering the object number and subindex, if applicable.
- Select the Widget type: Line (Single axis), Text or Gauge.
- Press *Add* to visualize the data.

The *Add widget* dialog closes.

- Press *Save* in the Data visualization tab to save the widget inside the project.

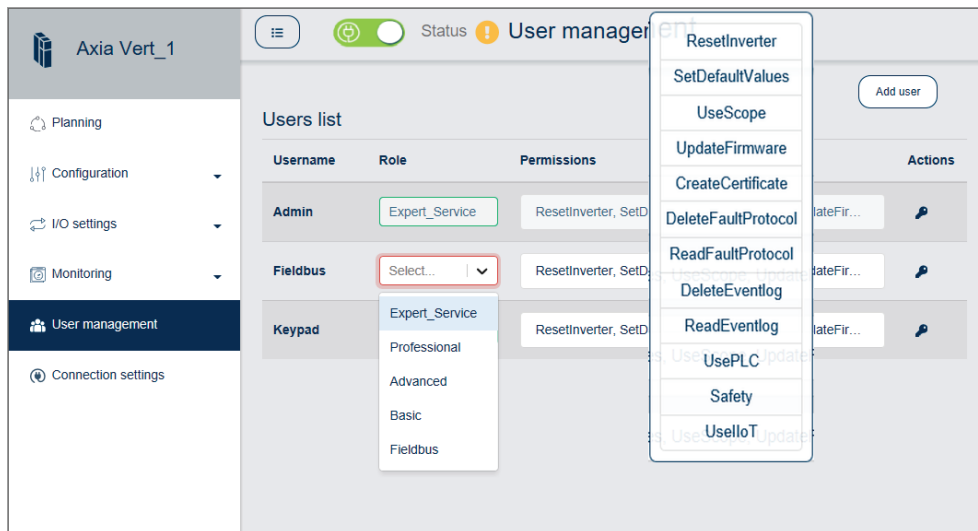
5.6 User Management

The *User Management* tab displays a list of users with roles and permissions. It is possible to add new users, change roles, change passwords and delete users. Up to ten individual users can be administrated.

If the *User Management* tab is hidden click on this button  to show.



The *User Management* is accessible only to the admin user.
The *User Management* tab requires an active connection.



Add user

- Add a new user to the user list.
 - Insert a username and a password.
- The new user appears in the users list.
- Assign a role (access level) and select permissions.

The roles and permissions are freely definable per user. The login to the inverter is possible only by a created user.

Username	Role	Permissions	Password
Admin	Expert	Full access, User management	"admin" (changeable)
Fieldbus	Variable	Fieldbus access limits	variable
Keypad	Variable	Keypad access limits	variable
Service (hidden user)	Expert	Full access	Inverter serial number dependent

Roles

The following roles are assignable:

- Basic
- Advanced
- Professional
- Expert

The **Admin** user has full access and can assign roles and permissions.

Expert role users have Write access to all objects. Only Expert role users are capable to save and download the full parameterization, including internal objects set during motor auto tuning.

Objects located on Expert access level are not visible in AxiaManager GUI but can be made visible by entering a password. Objects located on Expert level are typically ones that do not need to be touched by any user.

Expert Role of a user does not imply that he can see objects on Expert level (🔑 9.6).

Users with other roles (**Basic, Advanced, Professional**) are capable to read objects on higher access level but cannot modify them (🔑 9.6).

Permissions

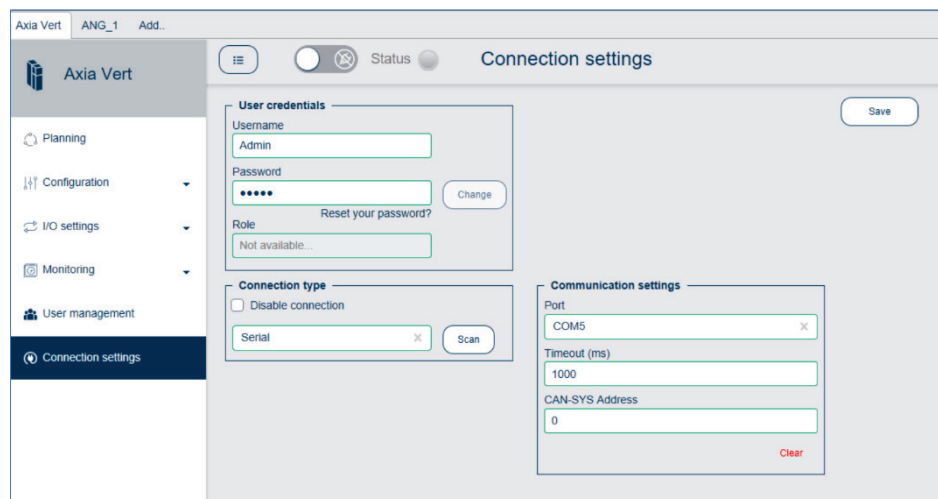
The following permissions are individually assignable to each user:

- Reset inverter
- Set default values
- Use oscilloscope function
- Update firmware
- Create certificate
- Delete fault protocol
- Delete event log
- Read event log
- Use PLC function
- Access safety setting
- Use IoT

5.7 Connection Settings

This tab displays the communication settings for the connection with the inverter. It allows to set user information and reset passwords.

If the *Connection settings* tab is hidden click on this button  to show.



User credentials

Username

Password

Save

- When changing the username, enter name and password, if needed.

The passwords are administrated in the *User management* tab by the admin user. The admin user can also reset the password in his window.

- Press the *Save* button in the upper right corner to save the configuration.



If you log in as Admin, take care not to press the *Change* button during this procedure.

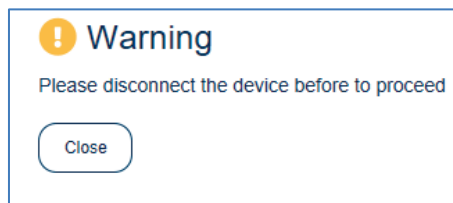
If you have accidentally changed your Admin password and need a reset you have to demand a new token from the manufacturer (see next paragraph: "Reset password").

Connection type

Displays the actually used connection type. It can be selected here:

- **TCP/IP** for Ethernet connection.
- **Serial** for connection via USB/COM or Bluetooth COM port.

When you click the *Scan* button you are prompted to disconnect the device first.



- Tick the *Disable connection* check box.
- Click the *Scan* button to search for inverters, 5.1.2

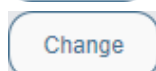
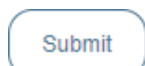
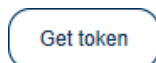
Communication settings

Displays the actual communication settings. It can be selected here: [Connection>Configure communication... F12](#).

5.7.1 Reset Password

When you are in logged in as Admin user you can reset your password to factory state.

Reset your password? This link only appears when logged is as Admin user.



- Press *Get token* to send an e-mail to Bonfiglioli demanding a new token. The e-mail contains a device specific key.
- You will receive an e-mail with a new key.
- Enter the received key and press *Submit*.
- Press the *Change* button to confirm the password change.

6 Commissioning for Advanced Users

This chapter describes an alternative to the guided workflow in chapter 5. The commissioning is made by selecting the objects directly and editing their values. This workflow is intended for experienced users.

The advanced workflow provides a tabular overview of the most important objects that have to be set. The motor data are entered manually. The auto-tuning can be started directly via a drop-down box.

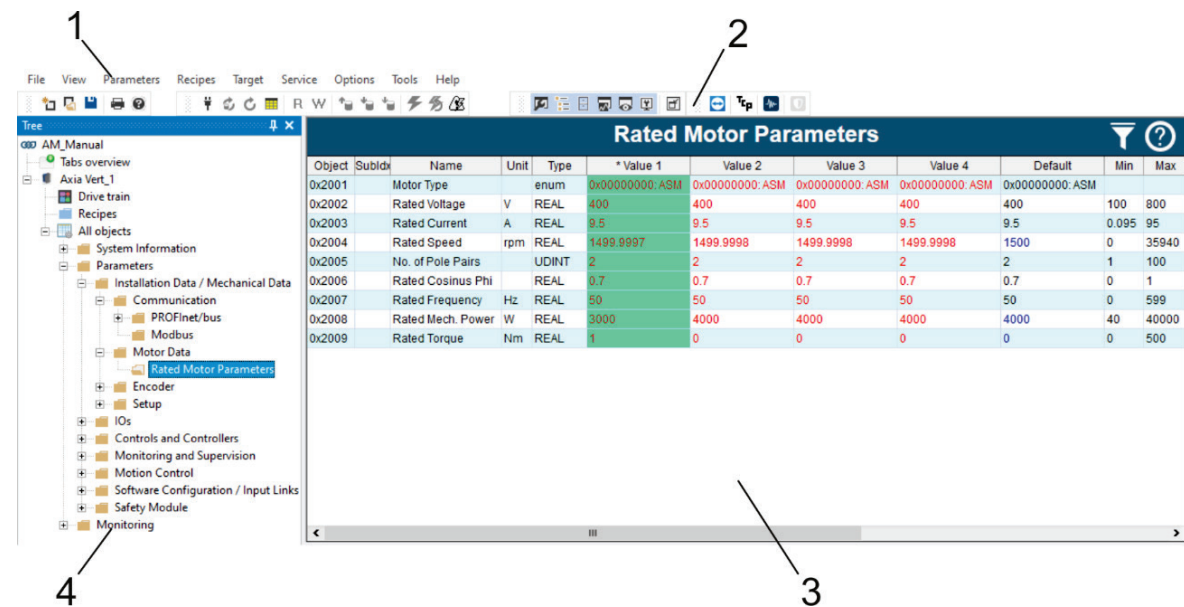
NOTICE

Incorrect parameterization

The rated data of the motor must be entered according to the specifications on the rating plate for the motor connection type used (star or delta connection).

If the data entered deviate from the rating plate, the parameters will not be identified correctly.

- Parameterize the rated data according to the rating plate of the motor for the wiring of the motor winding. Consider the increased rated current of the connected three-phase motor.



1	Menu bar	2	Toolbars
3	Parameters grid	4	Tree window

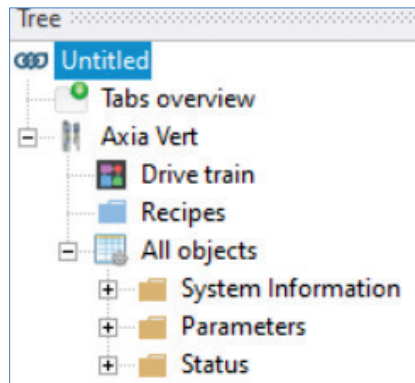
Chapter 6.1 gives an overview of the *Tree* window (4) elements and their functions.

Chapter 6.2 gives an overview of *Parameters grid* elements and their functions.

All functions in the menu bar are explained in chapter 9.6 .The toolbars (2) contain icons which work as shortcuts for the menu's commands (9.9).

6.1 Tree Window

The *Tree* window (4) is used to navigate project components, parameters and to add/remove catalog components to a project.



Show page/grid in the main frame

Left click on the node to show the related page/grid in the main frame.

Add new device to a project

To add a new device to a project right-click on the root node then click on **[Add]** in the popup menu. Available catalog devices will be shown in the *Device catalog* window. Select desired device to add. The device will be added to the project as child of the root node.

Rename device node caption

Select device node then press F2. Write desired caption to identify Device.

Remove device from the project

Right click on the device node. Select **[Remove]** from the popup menu.

Change device type and version

Right click on the device node. Select **[Change]** from the popup menu.

Add new application to a project

To add a new device to a project right click on the Application node then click on **[Add]** in the popup menu. Available catalog applications will be shown in a window. Select desired application to add. Device will be added to the project as child of the Application node.

Remove associated application from device

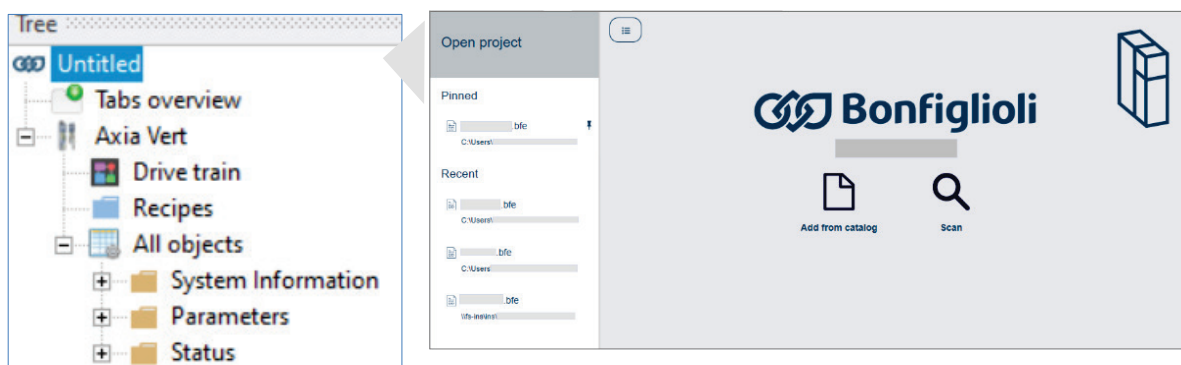
Right click on the associated application item node to remove. Select **[Remove]** from the popup menu.

Download application into target

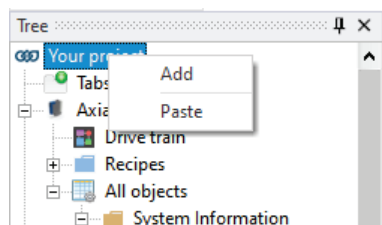
Right click on the associated application item node. Select **[PLC download]** from the popup menu.

6.1.1 Project tab

The *Project* root node in the Tree window is used to navigate project components, parameters and to add/remove catalog components to a project.



In the Project root node in the tree window you can add inverters and recipes to the inverter.



- Right-click on the node and **[Add]** a new inverter.

The Device catalog is opened where a device can be selected.

Or:

- Right-click on the node and **[Paste]** an inverter from the buffer memory.

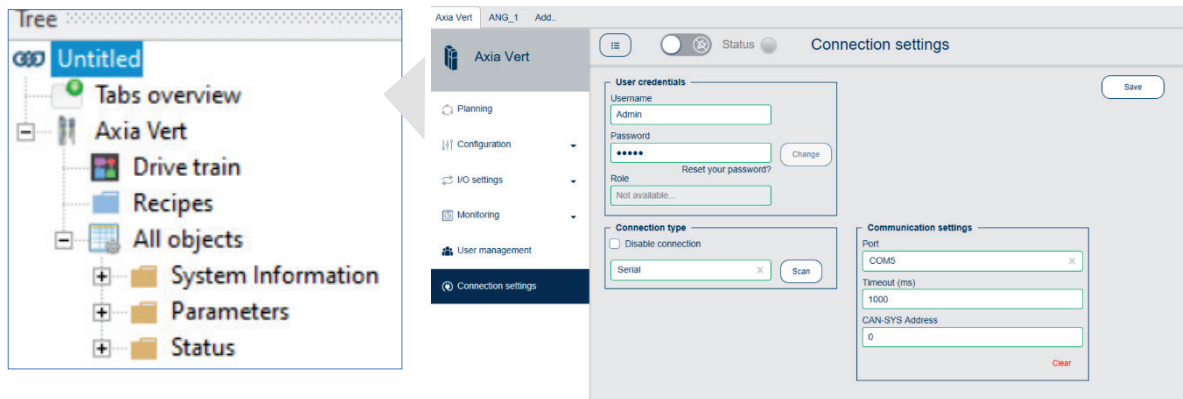
To copy an inverter to the buffer memory,  6.1.3.

Alternatively, it is possible to select an inverter from the *Catalog* window and drag-and-drop it into the project root node.

6.1.2 Tabs overview

The *Tabs overview* node in the *Tree* window lets you easily navigate among the several inverters in the project. It is also possible to add new inverters.

The *Tabs overview* node is an alternative to the navigation through the *Tree* window and gives access to the guided workflow explained in chapter 5. If you want to use the advanced workflow instead of navigating the nodes in the *Tree* window to edit components and parameters in your setup.



- Left click on the *Tabs overview* node in the Tree window to show the main frame and its corresponding tabs.

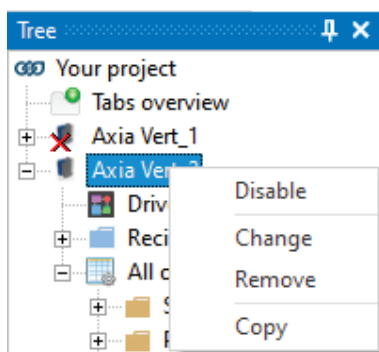
If the *Planning* Tab is hidden in the main frame click on this button  to show.

In the *Tabs overview*, for each inverter in the project you can:

- Plan the setup,  5.2
- Start the motor tuning,  5.3
- Configure the I/O settings,  5.4
- Access the Monitoring functions,  5.5
- Access the User Management,  5.6
- Access the Connection settings  5.7

6.1.3 Inverter node

All present inverters in the project appear as *Inverter* nodes in the *Tree* window.



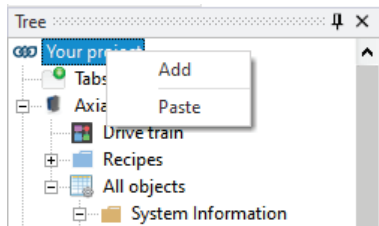
Disable: When you scan for inverters you are prompted to disconnect the device, if already connected to AxiaManager.

- Right-click on the inverter node and select [Disable].

Change: The Device catalog is opened where you can select a device.

Remove: Deletes the inverter from the project.

Copy: If you want to add a further inverter with the same settings to your project select *[Copy]* and *[Paste]* the inverter to the project by right-clicking the project root node ( 6.1.1):

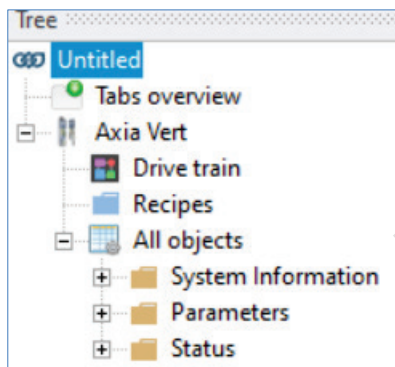


6.1.4 All Objects node

The *All objects* node in the Tree window contains all available parameters arranged in the subdirectories "System Information", "Parameters" and "Status".



The number of visible and thus, editable parameters, depends on the Menu Access level. The lower the access level the less parameters are visible. To change the access level  9.6.



All objects									
Object	SubId	Name	Unit	Type	* Value 1	Value 2	Value 3	Value 4	Default
0x203D		Holding Current	A	REAL	0	0	0	0	0
0x2078		Encoder slot X412X4		USINT	62				0
0x2080		Motor Control		enum	0x00000000: V/f Sc				0x00000000: V/f Sc
0x2081		Actual Speed Source		enum	0xFFFFFFFF: Sens	0xFFFFFFFF: Sens	0xFFFFFFFF: Sens	0xFFFFFFFF: Sens	0xFFFFFFFF: Sens
0x209A		Axia Automatic Tuning		enum	0x00000000: Not D	0x00000000: Not D	0x00000000: Not D	0x00000000: Not D	0x00000000: Not D
0x2103		Data Set Change-Ov		USINT	10				0
0x2103	10	Data Set Change-Ov		enum	0x00000000: Contr				0x00000000: Contr
0x2209		PWM		USINT	7				0
0x2209	1	Switching Frequency kHz		enum	0x00000008: 8 kHz				0x00000008: 8 kHz
0x2200		Control Mode		enum	0x00000001: IOS	0x00000001: IOS	0x00000001: IOS	0x00000001: IOS	0x00000001: IOS
0x2201		Mode of Operation IC		enum	0xFFFFFFFF: Axia S	0xFFFFFFFF: Axia S	0xFFFFFFFF: Axia S	0xFFFFFFFF: Axia S	0xFFFFFFFF: Axia S
0x2202		Mode of Operation Ki		enum	0x00000000: No M	0x00000000: No M	0x00000000: No M	0x00000000: No M	0x00000000: No M
0x2406		IGBT Overtemp. Thre °C		REAL	145				145
0x2407		Int Mode		enum	0x00000001: Use b				0x00000001: Use b
0x2625	1	Error Code		UINT	0				0
0x255F		Ramp 1/2 Switch-Ov		enum	0x00000000: SRC	0x00000000: SRC	0x00000000: SRC	0x00000000: SRC	0x00000000: SRC
0x3801		Serialnumber		STRING	DE10223200086				
0x3802		Device ID		UDINT	5				0

In the subdirectory **System Information** contains information about the inverter and the integrated option modules. Properties such as hardware part numbers, software versions, rated current and voltage are shown. The objects in this node are read out from the inverter.

The subdirectory **Parameters** contains all objects necessary to configure the inverter. Installation data, I/O and communication settings, motor and encoder data can be edited. The objects in this node can be written to the inverter.

The subdirectory **Status** displays operating data of inverters, motors and encoders, actual values such as long-term and peak current and power, temperatures and positions. Some of these values change continuously and are read from the operating data memory. This also includes reference and status values, errors and warnings.

6.1.5 Objects Relevant to Commissioning

The objects listed below refer to a basic setup via AxiaManager GUI:

- Go to: Parameters/Installation/Communication/Ethernet:
- Insert IP address (object **0x3903/1**)
- Insert subnetmask (object **0x3903/2**)
- Activate IP settings by setting value to 1 (object **0x3903/10**).
- Reboot device.

- Go to node: Parameters/Installation/Motor/Rated Parameters.
- Insert the following motor data:
 - Motor Type: (ASM, SynRM, PMSM, Grid, object **0x2001**)
 - Rated Voltage (object **0x2002**)
 - Rated Current (object **0x2003**)
 - Rated Speed (in rounds per minute [rpm], object **0x2004**)
 - No. of Pole Pairs (object **0x2005**)
 - Rated Cosinus Phi (object **0x2006**)
 - Rated Frequency (object **0x2007**)
 - Rated Mech. Power (object **0x2008**)
 - Rated Torque (object **0x2009**)

- Go to node: Parameters/Installation/Encoder via X210:
- Set HTL encoder data (irrelevant for sensorless control).

If closed-loop control for FOC or motor feedback information are required, an HTL encoder signal (A/B/Z-Track) can be evaluated by Basic I/O (X210.3-5).

- Encoder Type (**0x3840/1**)
- Speed Filter Constant (**0x3840/10**)
- Change Sense of Rotation (**0x3840/11**)
- Division Marks (**0x3840/20**)
- Z-Track Window (**0x3840/21**)

- Go to node: Parameters/Installation/Motor/Control:
- Set motor control data:

Choose V/f-scalar control for simple ASM-applications. For higher demands on speed or torque accuracy select Field orientated control (FOC) applicable to all types of motors. In addition, the HTL encoder signal can be integrated into the speed or position control.

- Motor Control (**0x2080**)
- Actual Speed Source (**0x2081**)
- Actual Position Source (**0x2082**)

- Go to node: Parameters/Controls and Controllers/Controls/Mode:
- Select control method:

Choose IO's for controlling the inverter via I/O contacts. The mode of operation can be assigned as the Manufacture Velocity or Torque Mode.

- Control Mode (**0x2200**)
- Mode of Operation IO's (**0x2201**)
- Data Set Change-Over Mode (**0x2103/10**)

6.2 Parameters Grid

When an object in the *Tree* window is selected the main frame displays the *Parameters* grid (3). This grid lists all parameters related to the selected object. In the *Parameters* grid you can select parameters and set the corresponding values.

- Click on an object node in the *Tree* window to list all corresponding information for this parameter set.

Rated Motor Parameters												
Object	Subid	Name	Unit	Type	* Value 1	Value 2	Value 3	Value 4	Default	Min	Max	User Note
0x2009		Rated Torque	Nm	REAL	0	0	0	0	0	0	500	Parameters / Installation Data /
0x2008		Rated Mech. Power	W	REAL	3000	4000	4000	4000	4000	40	40000	Parameters / Installation Data /
0x2007		Rated Frequency	Hz	REAL	50	50	50	50	50	0	599	Parameters / Installation Data /
0x2006		Rated Cosinus Phi		REAL	0.7	0.7	0.7	0.7	0.7	0	1	Parameters / Installation Data /
0x2005		No. of Pole Pairs		UDINT	2	2	2	2	2	1	100	Parameters / Installation Data /
0x2004		Rated Speed	rpm	REAL	1499.9997	1499.9998	1499.9998	1499.9998	1500	0	35940	Parameters / Installation Data /
0x2003		Rated Current	A	REAL	9.5	9.5	9.5	9.5	9.5	0.095	95	Parameters / Installation Data /
0x2002		Rated Voltage	V	REAL	400	400	400	400	400	100	800	Parameters / Installation Data /
0x2001		Motor Type		enum	0x00000000: ASM	0x00000000: ASM	0x00000000: ASM	0x00000000: ASM	0x00000000: ASM			Parameters / Installation Data /

Color coding

The values in the *parameters grid* are marked in different colors depending on its status:

- Black:** Value corresponds with the default value.
- Blue:** Value corresponds with the inverter value. i.e.: Value has been written to the inverter but is different from the default value.
- Red:** Current value in the project has not been written in the inverter. Values deviate between project and the inverter.

In the Parameters grid there is a variety of functions available which facilitates the work with objects:

Select rows

If you want to select a single row in the object list, you can press *Left-click*.

If you want to add another row to the selection, you can press *Ctrl + left click* or *right-click*.

to select a set of rows, you can press *Shift + left-click*.

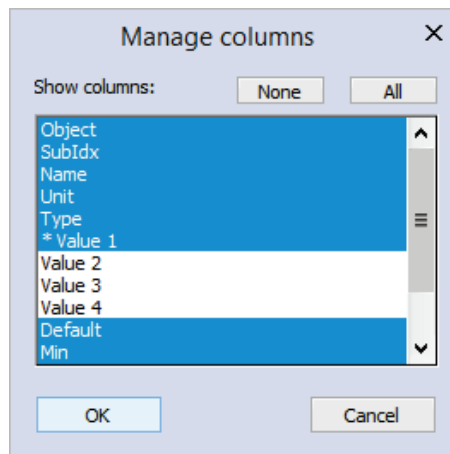
If you want to select all the rows in the grid go to menu *Parameters>Select all* or press *Ctrl+A*.

Resize columns

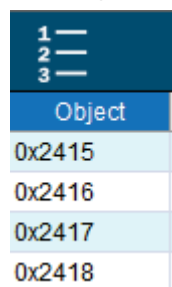
It is possible to resize a column left-clicking on the right margin of the header of the column to resize and moving the mouse (with the button pressed) on the left or on the right to reduce or to enlarge the column.

Manage columns

You can show or hide single columns in the parameters grid. Right-click on the column header and select *Hide column* or *Manage columns...* to open the following dialog:



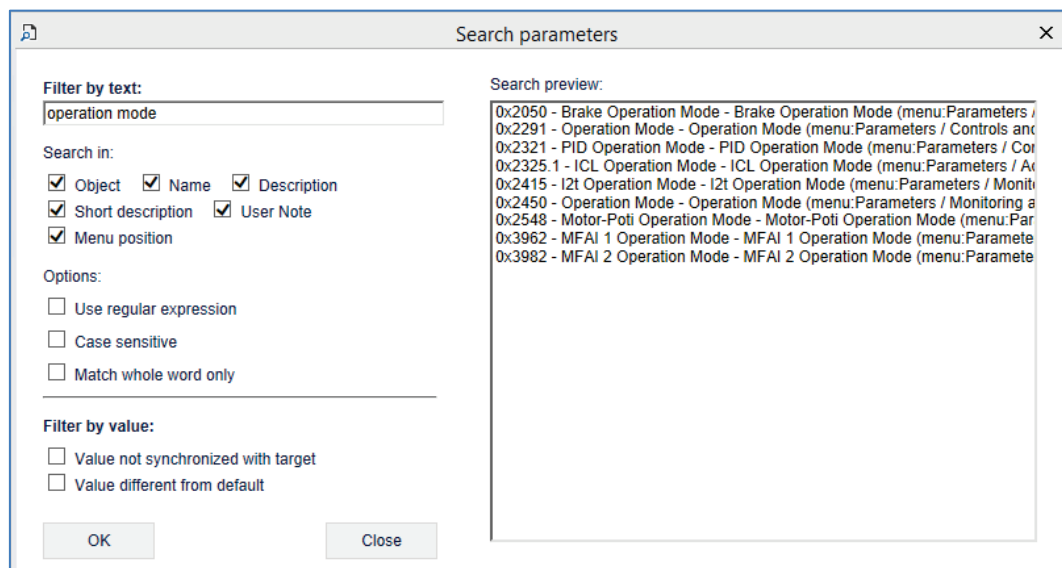
Select *None*, *All* or click on the column name to select or deselect a column.
By clicking on the header of the *Object* column, the entire list can be sorted up or down.



If you want to add a parameter grid to a recipe, you can right-click the parameter and select [Add to recipe...] to select all parameters. To select all parameters in the parameter grid to add to a recipe, you can press **ctrl+A** or go to Parameters>Select all to select all parameters.

Search Parameters

Press **ctrl+F** or select Parameters>Search parameters... if you want to search for parameters by text. As an alternative, you can press  above the column header.



Type in the object name and select search criteria. The results are listed in the right window where you can select the required object. Press OK or double-click on the required object to jump to the parameter in the object group node in the Tree window.



Note that the search applies only in the selected object group in the Tree window.

- To search all parameters preselect the "All objects" node in the Tree window first and then start the search.

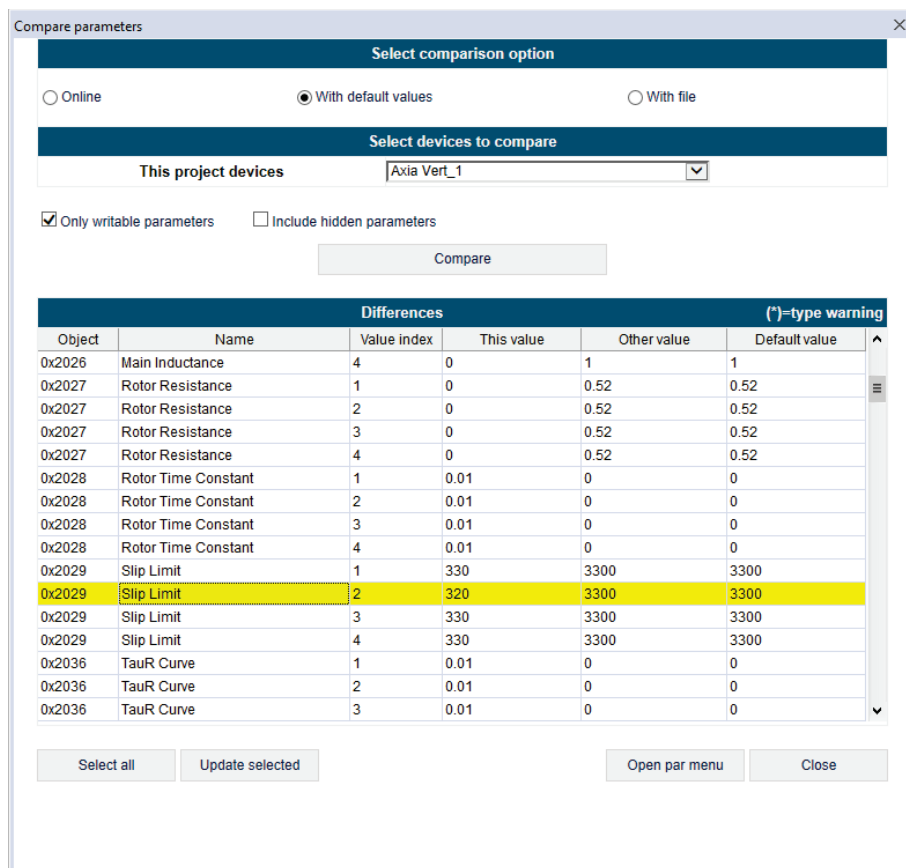


Press this button to open the help file. It contains all objects' properties and detailed description regarding the properties, structure and setting options.

Compare parameters

Parameters > Compare parameters... opens the *Compare parameters* dialog which offers a variety of comparison options.

This function allows the comparison of objects between two projects. It is also possible to update object values and to open the objects menu.



Object	Name	Value index	This value	Other value	Default value
0x2026	Main Inductance	4	0	1	1
0x2027	Rotor Resistance	1	0	0.52	0.52
0x2027	Rotor Resistance	2	0	0.52	0.52
0x2027	Rotor Resistance	3	0	0.52	0.52
0x2027	Rotor Resistance	4	0	0.52	0.52
0x2028	Rotor Time Constant	1	0.01	0	0
0x2028	Rotor Time Constant	2	0.01	0	0
0x2028	Rotor Time Constant	3	0.01	0	0
0x2028	Rotor Time Constant	4	0.01	0	0
0x2029	Slip Limit	1	330	3300	3300
0x2029	Slip Limit	2	320	3300	3300
0x2029	Slip Limit	3	330	3300	3300
0x2029	Slip Limit	4	330	3300	3300
0x2036	TauR Curve	1	0.01	0	0
0x2036	TauR Curve	2	0.01	0	0
0x2036	TauR Curve	3	0.01	0	0

This window allows to set several comparison options and select devices for a comparison. The result appears in a list where you can view differences and select single objects for further actions:

- Press *Select all* to mark all objects in the result.
- Press *Update selected* to write the values of the selected objects into the project.
- Press *Open par menu* to jump to the selected parameter in the object group node in the Tree window.
- Press *Close* to abandon the dialog without any changes.



With the *Open parameter menu* you can jump to the parameter in the project to compare the values in the recipe against the one in the project.

- Right-click on the object in the parameters grid and select *[Open parameter menu]*.

Show hidden parameters

- Go to *Parameters>Show hidden parameters* to show or hide parameters.



The number of visible and thus, editable parameters, depends on the Menu Access level. The lower the access level the less parameters are visible. To change the access level  9.6.

6.2.1 Edit Values

Editing values causes the value to be modified in the grid but not in the connected device until the parameter writing takes place ( 9.8.3). Values are aligned with device values when successful Read/Write operations are done. In this case the value of the parameter color is **black**.

When a value is different from the device value (because of editing or because it has not been read yet) is shown in **red** color. It is shown in red until a write of the parameter on the device is successfully done or the parameter value is restored reading its value from the device. The value shown in the grid will be updated.

If the value in the grid is different from the default value, the default value is shown in **blue** instead of black.

hum	Full	
INT	0	usec
INT	0	usec
INT	1	

Values and User notes can be edited by entering the cell.

- Press **Enter** or **Tab** to confirm and jump to the next value field in the row.
- Press **Arrow down** to confirm and jump to the value field in the next row.



Entry fields to decimal separators can be entered as point or comma. Do not enter a thousand separator.



User notes are only stored in the project and are not written to the inverter.

m	38400	
DL	False	
m	Enabled	
m	38400	
m	14400	
m	19200	
m	38400	
m	56000	
m	57600	
T	115200	usec
T	128000	usec
T	1	

If a parameter is associated to an enum type, a combo box to choose new parameter from, is shown.

6.2.2 Set Default Values

Object	Subldx	Name	Unit	Type	Value	Default	
0x607A		Target Position	u	DINT	0	0	-2
0x607D	1	Min Position Limit	u	DINT	0	0	-2
0x607D	2	Max Position Limit	u	DINT	0	0	-2
0x6080		Max Motor Speed	rpm	UDINT	65535	65535	1
0x6081		Profile Velocity	u/s	UDINT	327680	327680	0
0x6083		Profile Acceleration	u/s²	UDINT	327680	327680	0
0x6084		Profile Deceleration	u/s²	UDINT	327680	327680	0
0x6085		Quick Stop Deceleration	u/s²	UDINT	655360	655360	0
0x6086		Motion Profile Type		enum	0x00000000: Lin	0x00000000: Lin	0

- Enter the new value in the *Value* column.
- Right-click in the Value field and select *[Set to default value]* from the context menu.

The value is taken over to *Default* column.

- Save your settings in the project.

6.2.3 Restore Default Values



- Click this icon or go to *Connection > Restore default values* to reset the objects actually displayed in the parameters grid to default.
- Confirm selection and tick the objects you want to restore in the Restore filter dialog.

Restore filter

☐ Communication objects
☐ Application objects
☐ Other objects
☐ All objects

Ok

Cancel

The inverter starts a reboot. When finished, you are requested to read all values from the inverter.

AxiaManager

?

Axia Vert_1 restored to default values
 Do you want to read ALL values?

OK

Cancel

6.2.4 Read Parameters from the Inverter

If the inverter is connected to the PC its configuration can be downloaded into the project. It is also possible to read single object values from the inverter on demand.

General procedure

To read an object from the inverter follow these steps:

- Select the object in the parameter grid.
The object will be marked in yellow.
- Click on the Read button ("R") in the *Configurator* toolbar.

The parameter is read from the inverter. If the inverter value corresponds with the value in the project, it is shown in **blue**, if it deviates from the default value and **black**, if it corresponds with the default value.

AxiaManager offers several read functions depending on the current task:

Read parameter

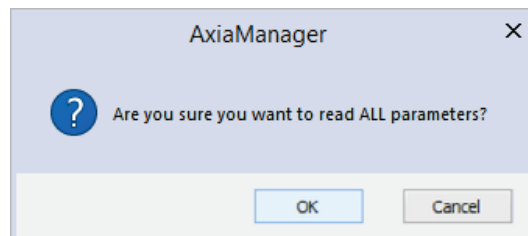
-  Click on this button to read the objects actually displayed in the parameters grid.
If one or more objects are selected only these are read into the project.

Read selected

Go to menu *Parameters>Read selected* [**Ctrl+R**]: Values of objects selected in the parameters grid are read into the project.

Read all

-  Click on this button (or go to menu *Parameters>Read all* [**Ctrl+Shift+R**]) to read all objects into the project.
Confirm to read all parameters.



6.2.5 Write Parameters to the Inverter

When the configuration is finished a configuration file can be transferred (uploaded) to the inverter. It is also possible to write single object values to the inverter at any time, provided that the inverter is connected to the PC.

General procedure

To write objects to the inverter follow these steps:

- Select an object in the parameter grid.
The object will be marked in yellow.
- Adjust the value, if necessary.
- Click on the Write button ("W") in the *Configurator* toolbar.

The parameter is written to the inverter. If the inverter value corresponds with the value in the project, it is shown in **blue**, if it deviates from the default value and **black** if it corresponds with the default value.

AxiaManager offers several write functions depending on the current task:

Write parameter



Click on this button to write the objects actually displayed in the parameters grid. If one or more objects are selected only these are written.

Only objects that are available on this access level will be transferred. If necessary, adjust the menu access level in the menu *File>Change menu access level...*. This is only required for advanced settings. For authorized personnel only!

Write all modified



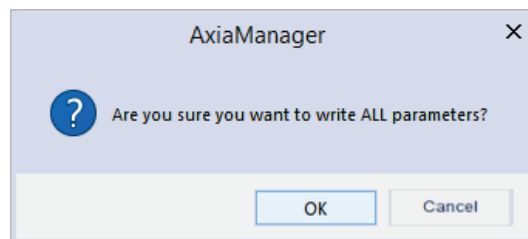
Click on this button to write only modified values to the inverter.

Write all parameters



Click on this button (or go to menu *Parameters>Write all* [*Ctrl+Shift+W*]) to write to the inverter the object values in the project.

Confirm to write all parameters.



Write selected parameter

Go to menu *Parameters>Write selected* [*Ctrl+W*] to write the values of objects selected in the parameters grid.

Write all modified

Go to menu *Parameters>Write all modified* to write only values of modified objects.

Write default values

Go to menu *Parameters>Write default values* Default values are written into the inverter.

Export to text file

Go to menu *Parameters>Export to text file...* to export objects as text.

Only those objects shown in the actual parameter grid are exported.

6.2.6 Working with Data sets

A data set is an array of same data type. There are objects which can be populated by values once (shown by one *Value* column) as well as objects which can be assigned four different values using data sets 1...4 (shown by columns *Value 1*, *Value 2*, *Value 3*, *Value 4*).

Rated Motor Parameters												
Object	SubIdx	Name	Unit	Type	Value 1	Value 2	Value 3	Value 4	Default	Min	Max	
0x2001		Motor Type		enum	0x00000000	0x00000000	0x00000000	0x00000000	0x00000000			
0x2002		Rated Voltage	V	REAL	400	400	400	400	400	100	800	
0x2003		Rated Current	A	REAL	4.2	4.2	4.2	4.2	4.2	0.042	42	
0x2004		Rated Speed	rpm	REAL	1500	1500	1500	1500	1500	0	35940	
0x2005		No. of Pole Pairs		UDINT	2	2	2	2	2	1	100	
0x2006		Rated Cosinus Phi		REAL	0.7	0.7	0.7	0.7	0.7	0	1	
0x2007		Rated Frequency	Hz	REAL	50	50	50	50	50	0	599	
0x2008		Rated Mech. Power	W	REAL	1500	1500	1500	1500	1500	15	15000	
0x2009		Rated Torque	Nm	REAL	0	0	0	0	0	0	500	

This function allows for storing parameter settings in of one of four (or all four) data sets. Each data set can be recalled by a data set change-over.

Transfer value 1 to all data sets

Value 1	Value 2	Value 3	Value 4	
0x00000000	0x00000000	0x00000000	0x00000000	0
300			400	4
4.2			4.2	4
1500			1500	1
2	2	2	2	2
0.7	0.7	0.7	0.7	0
50	50	50	50	5
1500	1500	1500	1500	1
0	0	0	0	0

- Enter the new value in the *Value 1* column.
- Right-click in the Value 1 field and select *[Set value to all others]* from the context menu.

The value is taken over to data sets 2 to 4.

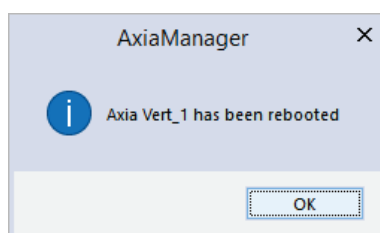
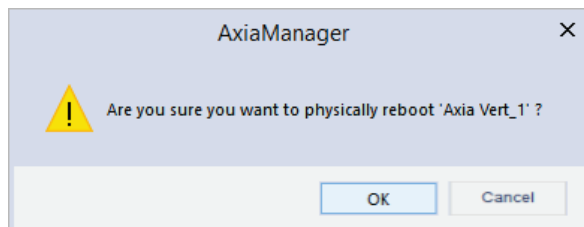
- Save your settings in the project.

6.2.7 Reboot Device



Click this icon in the *Configurator* toolbar (or go to [Connection > Device reboot](#)) to reboot the inverter.

Confirm if you want to physically reboot and read all values from the inverter.

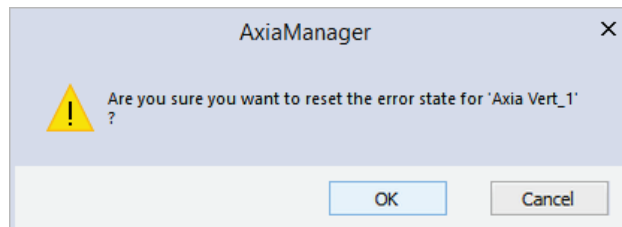


6.2.8 Acknowledge faults

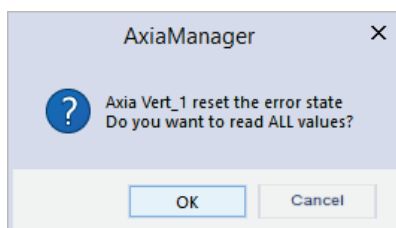


Click this icon in the *Configurator* toolbar (or go to [Connection > Acknowledge faults](#)) to reset the faults.

Confirm to reset the error state.



When finished, you are requested to read all values from the inverter.



6.2.9 Refresh functions

Refresh page



- Click this icon in the *Configurator* toolbar (or go to [Parameters>Refresh page](#) to reload in the project the values of actually displayed objects.

Toggle Auto Refresh mode



- Click this icon in the *Configurator* toolbar (or go to [Parameters>Auto refresh mode](#)) to activate the auto refresh mode.

If activated, values are automatically written to the inverter as soon as values have been edited.

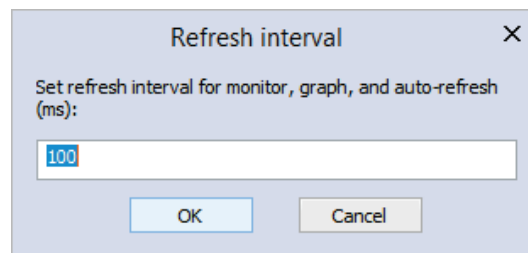


Note that if the *Compare* function is used the Auto refresh mode is deactivated!

After the activation of the auto refresh mode, the object values from the current project, if modified previously without a write operation, are overwritten by the object values stored in the inverter, and hence will be lost.

Refresh interval

Go to [Options>Refresh interval...](#) to open the Refresh interval dialog. In this window you can select the interval for the *Toggle Auto Refresh* mode. This setting is also valid for the *Monitor* and the *Graph* function.



7 Working with Recipes

Recipes consist of a set of objects that you can create to define specific values and save them as a preset.

Drag-and-drop parameters into the recipe, modify values and export them as separate files. Then load the recipe in another project and write the values into the project in one go.

Use recipes for applications that you need more often and reuse them over and over in different projects. You can also select values of one single object and write it into your project. This way you can create typical value settings very fast.

Recipes appear as nodes in the *Tree* window and are managed in the Recipes menu.

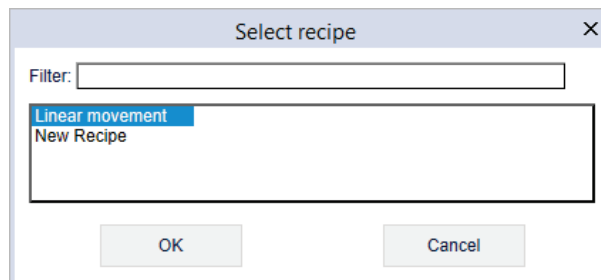
7.1 Create a New Recipe

- To add a new recipe to the project, click menu *Recipes>Add recipe*. This adds a "New Recipe" node below the *Recipes* root node.
- Alternatively, right-click on the *Recipes* root node in the *Tree* window and select *[Add recipe]*.
- Double-click on "New Recipe" to rename the new recipe.
- Save the recipe by selecting *Recipes>Export recipe*.

7.2 Add Objects to the Recipe

Once you have created a recipe you can start to add objects (including their values) from your project.

- To add an object to a recipe select the object in the parameter grid and drag-and-drop it into the recipe node.
- Alternatively, you can right-click on the object and select *[Add to recipe ...]*. If there is more than one recipe in your project the *Select recipe* dialog pops up.



- Select the recipe in the *Select recipe* dialog and confirm.
- If the object is a multi-dimensional parameter, specify the sub-index to add to the recipe.

The object is now part of the recipe.



Note that the objects added in the recipe include the values of the projects. Values can be edited in the recipe and written back to the project, if desired.

To change values in the recipe  7.3.

7.2.1 Select All Objects

If you want to select all parameters in the parameter grid to add to the recipe, you can press *Ctrl+A* or go to *Parameters>Select all* to select all parameters.

7.3 Edit Values in the Recipe

Objects you have added to the recipe include the values set in the projects. It is possible to use different values in the recipe and save them in the export. Recipe values can be written back into a project.

To save a recipe  7.6.

To write values from a recipe into the project  7.4.

- To change an object value in the recipe select the object in the recipe grid and change the value in the "Value" column.
- Right-click on the object in the recipe grid and select *[Set selected recipe values]*.



With the "Open parameter menu" command in the context menu you can jump to the parameter in the project to compare the values in the recipe against the one in the project.

- Right-click on the object in the recipe grid and select *[Open parameter menu]*.
- Save the values in the recipe by selecting *Recipes>Export recipe*.

7.4 Write Recipe Values to the Project

The main purpose of recipes is to load preset objects and values into a project. There are two ways a achieve this.

- To gain maximum benefit of recipes use the *[Write ALL recipe values]* command.
- If you want to load single object values into your project use the "Write selected recipe value" command.
- Right-click on a single object in the recipe grid and select *[Write selected recipe value]*.

Or:

- Right-click on the Recipe node in the Tree window and select *[Write ALL recipe values]*.

Recipe value(s) are overwritten to the project.

Alternatively, you can go to the menu bar and select *Recipes>Write selected recipe values* or *Recipes>Write ALL recipe values*.

7.5 Delete Single Objects from a Recipe

- To delete a parameter from a recipe right-click on the object and select *[Delete selected values]*.
- Save the recipe by selecting *Recipes>Export recipe*.

7.6 Export a Recipe

If you want to use your recipes in other projects you need to save them as a .RCP file to your file directory.

- To export a recipe, click *Recipes>Export recipe*.
- You are required to enter the recipe name in the *Name* text area.
- Alternatively, right-click on the *Recipes* node in the *Tree* window and select *[Export recipe]*.



Note: Each time you make any changes to your recipe, remember to export the recipe to save changes.

7.7 Add a Recipe to the Project

Use the *Import recipe* menu if you want to use one of your previously exported recipes in your actual project.

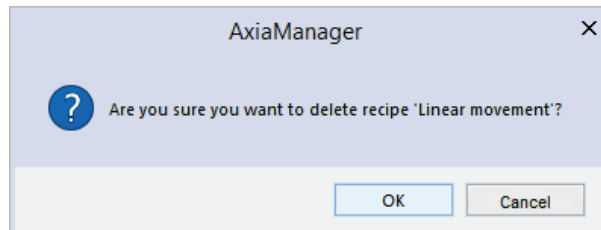
- To add a recipe to the actual project, click *Recipes>Import recipe*.
- This causes a dialog box to appear, which lets you import an existing recipe file (.RCP file).

The recipe is added as a child node below the *Recipes* node in the *Tree* window.

- Alternatively, right click on the *Recipes* root node in the *Tree* window and select *Import recipe*.

7.8 Delete a Recipe from the Project

- To delete a recipe from the project, click *Recipes>Delete recipe* and confirm in the popup menu.
- Alternatively, right click on the recipe node you want to delete in the *Tree* window, select *[Delete recipe]* in the popup menu and confirm.

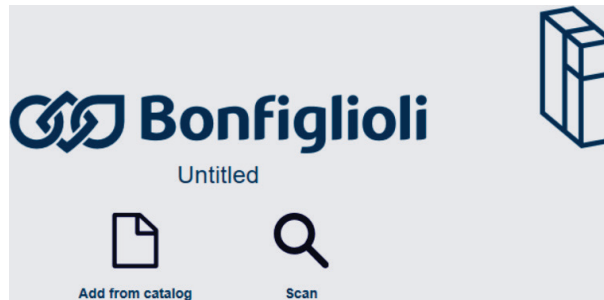


8 Managing Projects

This chapter focuses on how to handle AxiaManager GUI projects. An AxiaManager project file (file extension **.bfe**) includes all components' information, parameter settings and layout preferences of the project. This chapter explains how to organize the project files.

8.1 Create a New Project

To start a new project, click  **File>New** of the AxiaManager menu. This causes a dialog box to appear, which lets you create a new project (🔗 5.1).



8.2 Open an Existing Project

To open an existing project, click  **File>Open** of AxiaManager menu. This causes a dialog box to appear, which lets you open an existing acquisition.

Alternatively, you can open a project from the *Workspace* area (when no project is open). The *Open Project* tab lists recently opened projects).

8.3 Save a Project

When you make any change to the project you are required to save it in order to persist that change.

To save the file, you can select the corresponding item  **File>Save**.

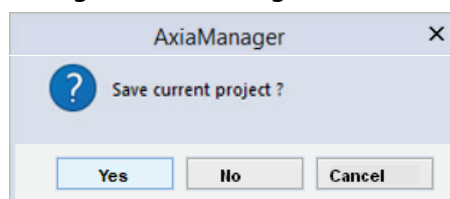
You are required to enter the name of the project in the *Name* text area.

8.4 Save to an Alternative Location

You can also use the **File>Save As ...** command to rename the file, change its format or modify the location of where you want to save the file.

8.5 Close the Project

You can terminate the working session either by explicitly closing the acquisition or by exiting AxiaManager GUI. In both cases, when there are changes not yet persisted to file, AxiaManager asks you to choose between saving and discarding them.



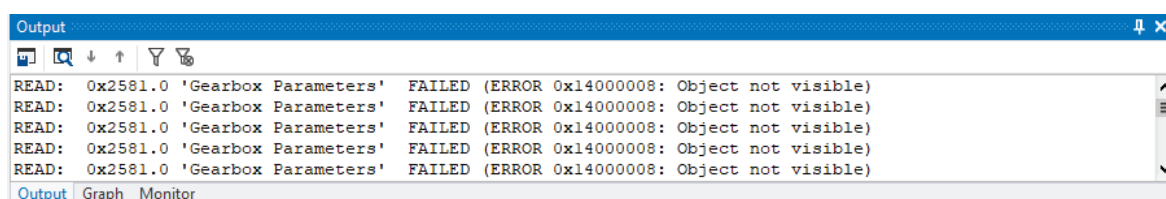
To close the file, select the item **File>Close**; AxiaManager GUI shows the *Welcome* page, so that you can rapidly start a new working session.

9 User Interface Reference

This chapter lists all functionalities of AxiaManager GUI. It is intended as a reference guide, where you can look for functions in the windows, menus and toolbars.

9.1 Using the Output Window

The *Output* window (6) is the place where AxiaManager GUI reports its output messages. Use the *Output window* to view READ, WRITE and Application error message reports.

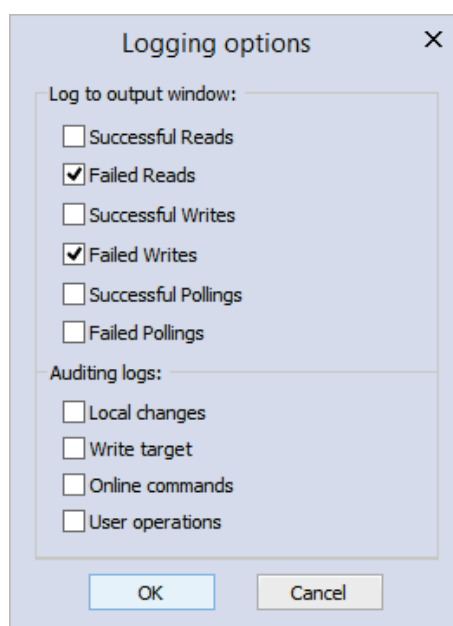


The *Output* toolbar contains the following functions:



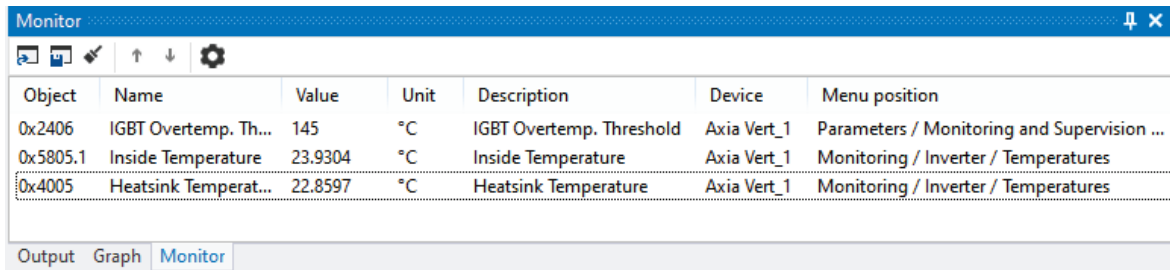
Icon	Command	Description
	<i>Save output to file</i>	Save the reporting messages to .txt file.
	<i>Find on output</i>	Text search in the messages.
	<i>Go to next result</i>	Jump to next message line.
	<i>Go to previous</i>	Jump to previous message line.
	<i>Filter on output</i>	Text input to filter messages.
	<i>Clear filter on output</i>	Clear filter to view all messages.

Reading/writing parameters or polling operations can be logged to show their results in this window by selecting menu [Options>Logging options...](#)



9.2 Using the Monitor Window

The *Monitor* window is useful to continuously monitor a set of objects. You can select any object, even from different project devices.



Object	Name	Value	Unit	Description	Device	Menu position
0x2406	IGBT Overtemp. Th...	145	°C	IGBT Overtemp. Threshold	Axia Vert_1	Parameters / Monitoring and Supervision ...
0x5805.1	Inside Temperature	23.9304	°C	Inside Temperature	Axia Vert_1	Monitoring / Inverter / Temperatures
0x4005	Heatsink Temperat...	22.8597	°C	Heatsink Temperature	Axia Vert_1	Monitoring / Inverter / Temperatures

Output Graph Monitor

In connection status, you can add or remove parameters to the *Monitor* window.

- To add an object to the *Monitor* window, select an object with a mouse-click in the *Parameter* grid and drag-and-drop it in the *Monitor* window.

The object is enqueued in the reading list. Each record of the list shows the device it belongs to, the name and value of the object as well as the unit of measure and the object description. The values are cyclically refreshed.

- To remove a parameter from the monitor list, select the parameter and press the **Del** key.

The *Monitor* toolbar contains the following functions:

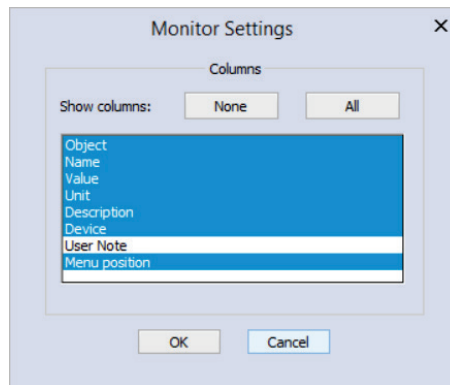


Icon	Command	Description
	<i>Load monitor list</i>	Load a previously stored messages exchange file (.mlx file).
	<i>Save monitor list</i>	Save the messages to an exchange file (.mlx file).
	<i>Clear monitor list</i>	Deletes all messages.
	<i>Move up monitor item</i>	Jump to previous message line.
	<i>Move down monitor item</i>	Jump to next message line.
	<i>Open monitor settings</i>	Open the monitor settings to determine the appearance of the <i>Monitor</i> window.

Show or hide columns



Click on the *Monitor settings* button to open the dialog where you can show or hide columns.



Reading intervals

The object values in the monitor list are cyclically refreshed. The cycle time between two consecutive readings of the same parameter in the monitor list depends on the following parameters:

- the number of objects shown in the *Parameter grid*
- the number of objects listed in the *Monitor* window
- the status of the Auto Refresh option

Example:

- 10 objects shown in the *Parameter grid*.
- 10 objects are listed in the *Monitor* window
- Auto Refresh option is ON

In this example, the cycle time equals 20 readings for each parameter.

Autosave

Activate the Autosave monitor list in menu options to save the monitor list periodically.

9.3 Working with the Graph

The Graph window allows you to plot the evolution of the values of a set of parameters. Being an asynchronous tool, it cannot guarantee synchronization of samples. The Graph window consists of three elements, as shown in the following picture.



1	Graph toolbar
2	Chart area
3	Track area

Toolbar (1)

The upper area of the *Graph* window shows the graph toolbar. You can personalize the view of the graph window: Show or hide measure bars and acquisitions, split tracks and change the zoom (9.3.10).

You can start/stop acquisitions of an up to eight tracks (9.3.4).

Save and print tracks for offline analyzation (9.3.18).

Chart area (2)

This area shows the graphs of the selected tracks. It includes several items:

- Plot: area containing the curve of the tracks.
- Vertical cursors: cursors identifying up to four distinct vertical lines. The values of each track at the intersection with these lines are reported in the corresponding columns.
- Scroll bar: if the scale of the x-axis is too large to display all the samples in the Plot area, the scroll bar allows you to slide back and forth along the horizontal axis.

Track area (3)

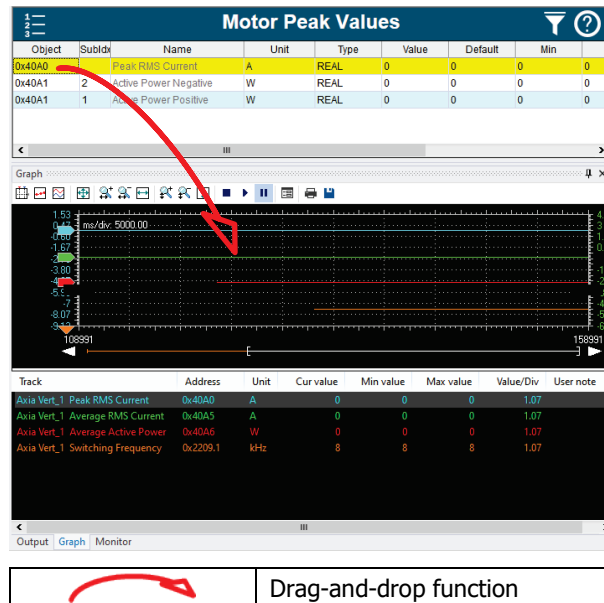
The lower section of the Graph window is a table consisting of a row for each selected track.

Autosave

Activate the *Autosave graph list* in menu options to save the graph list periodically.

9.3.1 Add a Parameter to the Graph

In order to plot the evolution of the value of a parameter, you need to add it to the graph. In order to add a parameter to the graph, you can select it in the Parameters grid and then drag-and-drop it into the chart area or the track area.



9.3.2 Remove a Parameter from the Graph

If you want to remove a track from the graph, select it by clicking on its name once, then press the **Del** key.

9.3.3 Control the Data Acquisition and Display

The Graph includes a toolbar with several commands, which can be used to control the acquisition process and the way data are displayed. This chapter focuses on these commands. The *Acquisition Control* window includes commands, which can be used to control the acquisition process. This chapter focuses on these commands.

Note that all the commands in the toolbar are disabled if no track has been added to the graph.

9.3.4 Start and Stop Data Acquisition

When you add a parameter to the graph via drag-and-drop, data acquisition begins immediately.



You can suspend the acquisition by clicking on *Pause acquisition*.



The curve freezes (while the process of data acquisition is still running in background), until you click on *Restart acquisition*.



In order to stop the acquisition you may click on *Stop acquisition*.

In this case, when you click on *Restart acquisition*, the evolution of the value of the parameter is plotted from scratch.

9.3.5 Set the Scale of the Axes



When you open the graph, AxiaManager GUI applies a default scale to the axes. However, if you want to set a different scale, you can do that by opening the *Graph Settings* by clicking on this icon in the graph toolbar.

The *Graph Settings* window will open, allowing you to change both the vertical and the horizontal axis as well as further graphical settings.

Name	Unit	Value/div	Offset	Hide	Format
Axia Vert_1 Rated Current	A	20	-0	☐	...
Axia Vert_1 Rated Voltage	V	20	-0	☐	...
Axia Vert_1 Rated Torque	Nm	50	-250	☐	...
Axia Vert_1 Rated Mech. Power	W	5000	-20000	☐	...
Axia Vert_1 Rated Frequency	Hz	100	-300	☐	...
Axia Vert_1 No. of Pole Pairs		10	-50	☐	...
Axia Vert_1 I2t Winding	%	20	-0	☐	...

The **horizontal scale** is the same for all active tracks. **ms/DIV** specifies the time base (here 5000 ms/div).

The **vertical scale** can be different for every track, you can specify the desired scale in the edit box labeled *Value/div*. This parameter determines the scaling of the signal on the display. This value is always referenced to the defined physical units of the signal. Special handling applies to boolean signals, indicated with "B". The boolean value FALSE is always displayed as 0.0, the boolean value TRUE is always displayed as 1.0.

9.3.6 Adapt Graph properties

You can further customize the appearance of the graph by clicking on the *Graph settings* icon in the toolbar. In the window that pops up you can choose whether to display or not the Background grid, the time slide bar, and the Tracks list.

9.3.7 Change the polling rate

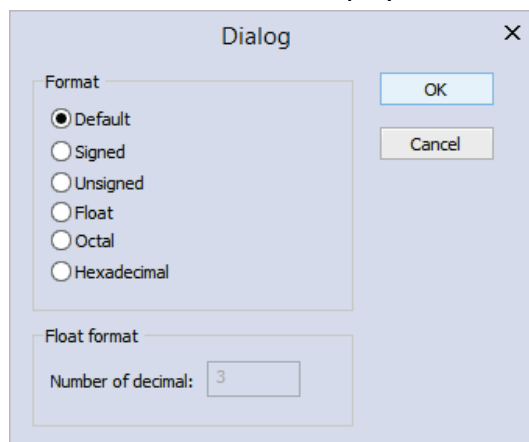
AxiaManager periodically sends queries to the target device, in order to read the data to be plotted in the Graph. The polling rate can be configured by entering a new value in the input field *Sample polling rate*. The actual rate depends on the performance of the target device (in particular, on the performance of its communication task). You can read the actual rate in the display field *Real rate*.

9.3.8 Tracks list

In the tracks list you can set the **unit**, vertical scale (**Value/div**) and **offset** value for each track. The offset is set in absolute numbers and is always referenced to the defined physical unit of the parameter. The value of the desired offset can be entered directly and accepted with **ENTER**.

9.3.9 Format

In the Format dialog you can select the numerical format for each track. If you select *Float* you can determine the number of decimals to be displayed.



9.3.10 Adapt View Preferences

The *Graph* window includes commands, which can be used to adapt the way graphs are displayed.

Icon	Command	Description
	<i>Show measure bars</i>	Show or hide measure bars in the graph window ( 9.3.11).
	<i>Show acquisitions</i>	Highlight the single values detected during data acquisition ( 9.3.12)
	<i>Vertical split</i>	Split the graph view to show the graphs in single windows ( 9.3.13.)
	<i>Show all values</i>	 9.3.15
	<i>Horizontal zoom in</i>	 9.3.14
	<i>Horizontal zoom out</i>	
	<i>Horizontal show all</i>	
	<i>Vertical zoom in</i>	
	<i>Vertical zoom out</i>	
	<i>Vertical show all</i>	

9.3.11 Take Measures

The graph includes a measure bar, which can be exploited to take some measures on the chart; in order to show and hide them, click on the *Show measure bars* icon in the toolbar.



If you want to measure a time interval between two events, you just have to move one bar to the point in the graph that corresponds to the first event and the other to the point that corresponds to the second one.



The time interval between the two bars is shown in the top left corner of the chart.

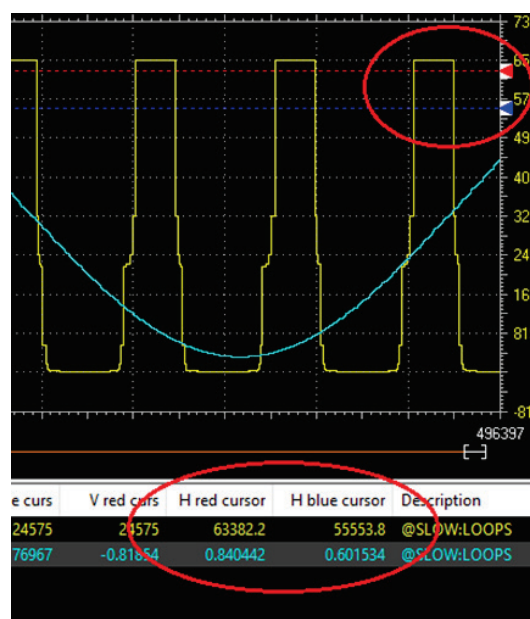
You can use a measure bar also to read the value of all the tracks in the graph at a particular moment: move the bar to the point in the graph which corresponds to the instant you want to observe.

In the tracks list, you can now read the values of all the tracks at that particular moment.

Track	Min value	Max value	Cur value	Value/Di	V blue curs	V red curs	H red cursor	H blue cur...	Descriptio
@SLOW:LOOPS.LOOPSV...	0	65535	22015	8191.38	24575	24575	53247.2	12287.8	@SLOW:L
@SLOW:LOOPS.Y	-1	1	0.977755	0.25	0.0176967	-0.81854	0.66766	-0.582338	@SLOW:L

In addition to the vertical bar, by enabling the measure bars, you will also find two horizontal bars on the right of the grid. They work the same way of the vertical bars, but they take values on the vertical axis.

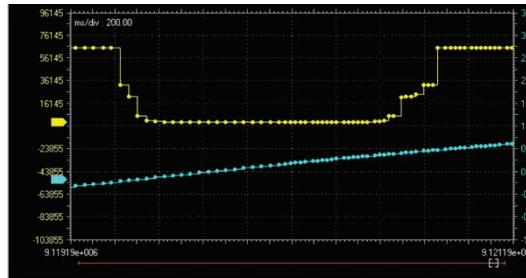
Like the vertical bars, also the horizontal bars have their values displayed for every track in the table below the chart.



9.3.12 View Samples



If you click on the *Show acquisitions* icon, the tool highlights the single values detected during data acquisition.

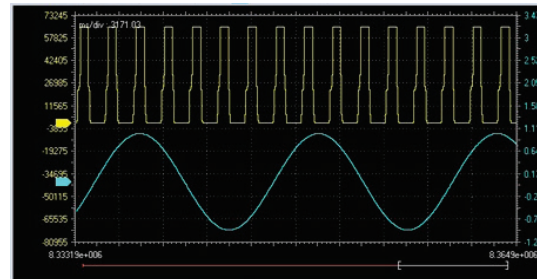
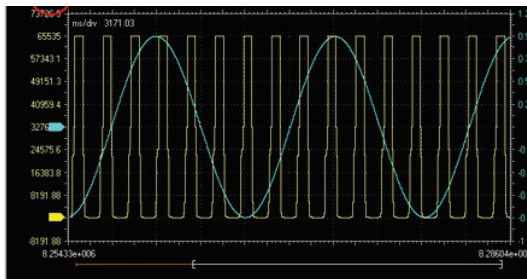


You can click on the same item again, in order to go back to the default view mode.

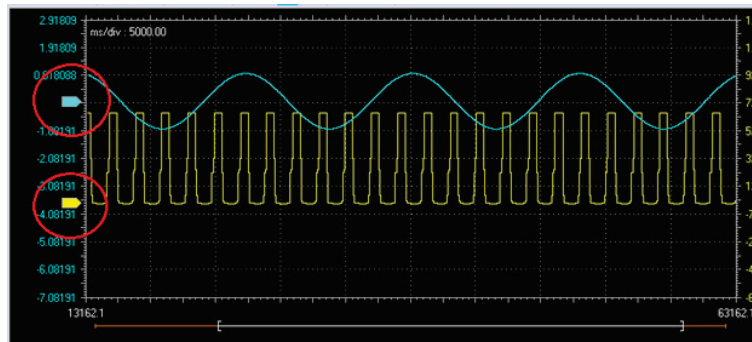
9.3.13 Split Tracks



When you are watching the evolution of two or more tracks, you may want to split the respective tracks. For this purpose, click on the *Vertical split* icon in the graph toolbar.



To separate traces you can also manually move them; to do so grab the corresponding colored flag on the left of the chart and drag it to the desired location.



9.3.14 Change the Zoom

In the graph toolbar you can also find icons for zoom in and out, and also to force the graph to display all the samples.



These options are axis-related, so you can zoom in, zoom out and show all samples for the **horizontal** axis alone ...



... as well as you can zoom in, zoom out and show all samples for the **vertical** axis alone.



9.3.15 Show all Values

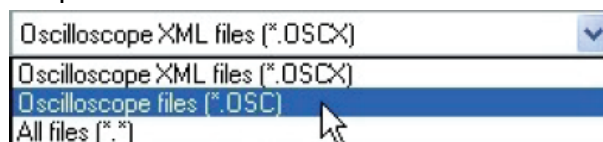


You can also quickly force the oscilloscope to display all samples for both horizontal and vertical axis (which means show all values) with this icon.

9.3.16 Save Acquisitions to a File

AxiaManager allows you to persist the acquisition by saving the data to a file in order to further analyze the data in offline mode:

- Stop acquisition before saving data to a file.
- Click on the *Save acquisition to file* icon in the toolbar.
- Choose between the available output file format: .OSC is a simple plain-text file, containing time and value of each sample; .OSCX is an XML file, which includes more complete information, which can be further analyzed offline and with other tools, e. g. AxiaManager Scope.



- Choose a file name and a destination directory, then confirm the operation.

9.3.17 Load Acquisitions



- To load previously stored acquisitions (or acquisitions from other projects) click on the *Load acquisition from file* icon in the toolbar.
- Select an existing .OSCX file from your file directory and click *Open*.

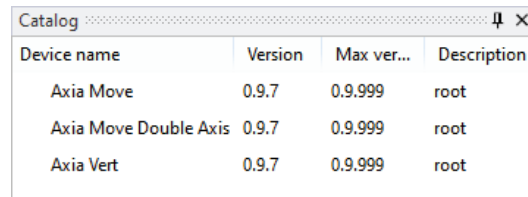
9.3.18 Print the Graph

AxiaManager GUI allows you to persist the acquisition by printing a view of the data plotted in the graph. Follow this procedure to print a view of the data plotted in the Graph:

- Either suspend or stop the acquisition.
- Move the time slide bar and adjust the zoom, in order to include the elements in the view you want to print.
- Click on the *Print graph* icon.

9.4 Work with the Catalog

The *Catalog* window lists the Axia range of inverters that can be added to the project. The list of devices depends on the contents of the AxiaManager GUI catalog, which contains all available devices.



Device name	Version	Max ver...	Description
Axia Move	0.9.7	0.9.999	root
Axia Move Double Axis	0.9.7	0.9.999	root
Axia Vert	0.9.7	0.9.999	root

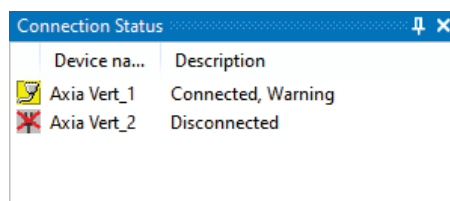
- To add an inverter to the project, select the device with a mouse-click and drag-and-drop it in the project root node in the *Tree* window.

It is possible to show only the actual version of each catalog item or all the available versions of the catalog items.

- Check *Options > Show all versions in catalog* to list all available versions of the catalog items in the *Catalog* window.

9.5 Monitor the Connection Status

The *Connection Status* window displays the connection status of the application with the target device.



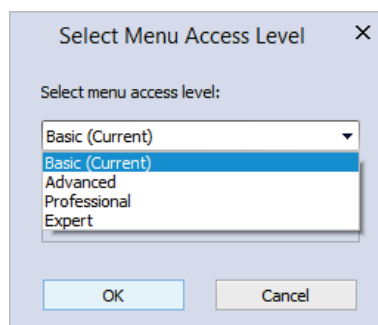
Device na...	Description
 Axia Vert_1	Connected, Warning
 Axia Vert_2	Disconnected

Use this window to watch the detailed status of communication for all inverters used in the actual project. This is especially useful when you are using multiple inverters in your project. These messages/statuses are possible:

- **Disconnected:** If you have not yet attempted to connect to the target, e.g. if you work in offline mode during the planning phase.
- **Connected:** The communication has been established correctly.
- **Unknown:** The communication status cannot be detected.
- **Warning:** A warning message has occurred. Check the drive status or Output window for details.
- **Error:** The communication cannot be established. You should check both the physical link and the communication settings.

9.6 Change Menu Access Level...

If you click [File>Change Menu Access Level...](#) menu you can manage the level of access for each user role.



After selecting the menu access level, enter a password if needed, and confirm by clicking the *OK* button.

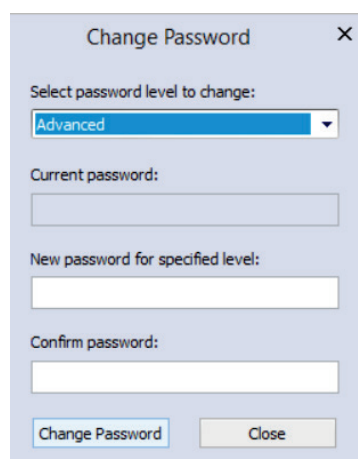
The user role determines the visibility and access to objects in the *Tree* window.

A Basic user can see a certain selection of objects but cannot change values. The selection of objects depends on the permissions which are determined in the *User Management* tab.

A Basic User is able to change the access level up to Professional if the level is not secured by a password or if the user knows the password. In this case objects are not only visible to a basic user, but values can also be changed.

9.7 Change Menu Access Level Password

If you click [File>Change Menu Access Level Password...](#) menu you can manage the passwords for each user role.



After selecting the level you want to change, enter a password and confirm by clicking the *Change Password* button.

If the entry field *Current password* is greyed out there is currently no active password for this user level.



Note that the basic user level cannot be secured with a password.

9.8 Menu Bars Reference

In the following tables you can see the list of all AxiaManager GUI's commands. You may find some disabled commands or even some unavailable commands if there is no logical relation to the active project.

9.8.1 File Menu

Command	Icon	Key	Description
<i>New</i>		<i>Ctrl+N</i>	Creates a new AxiaManager project.
<i>Open...</i>		<i>Ctrl+O</i>	Opens an existing AxiaManager project.
<i>Save</i>		<i>Ctrl+S</i>	Saves the currently open project.
<i>Save As...</i>			Saves the currently open project specifying new name, location and extension.
<i>Close</i>			Closes the open project.
<i>Print...</i>		<i>Ctrl+P</i>	Prints the project window.
<i>Print Preview</i>			Creates a preview of the currently active window, ready to be printed.
<i>Print Setup...</i>			Opens the printer setup dialog box.
<i>Change language...</i>			Opens the <i>Select Language</i> menu. You can change the language of the environment by selecting a new one from the list shown in this dialog. You need to restart AxiaManager to apply changes.
<i>Change Menu Access Level...</i>			Opens the <i>Select Menu Access Level</i> menu. You can change the user role by selecting the access level from the list shown in this dialog.
<i>Change Menu Access Level Password...</i>			Opens the <i>Change Password</i> menu. You can select the level and change the password for the selected level.
<i>Exit</i>			Closes AxiaManager.

9.8.2 View Menu

Command	Icon	Description
<i>Fullscreen mode</i>		Expands the currently active window to fill entire screen. (Esc to exit from this mode).
<i>Toolbars</i>		
<i>Main toolbar</i>		Shows or hides the <i>Main</i> toolbar.
<i>Configurator toolbar</i>		Shows or hides the <i>Configurator</i> toolbar.
<i>View toolbar</i>		Shows or hides the <i>View</i> toolbar.
<i>Tools toolbar</i>		Shows or hides the <i>Tools</i> toolbar.
<i>Status bar</i>		Shows or hides the <i>Status</i> bar.
<i>Tool windows</i>		
<i>Tree</i>		Shows or hides the <i>Tree</i> window.
<i>Catalog</i>		Shows or hides the <i>Catalog</i> window.
<i>Connection Status</i>		Shows or hides the <i>Connection Status</i> window.
<i>Output</i>		Shows or hides the <i>Output</i> window.
<i>Graph</i>		Shows or hides the <i>Graph</i> window.
<i>Monitor</i>		Shows or hides the <i>Monitor</i> window.

9.8.3 Parameters Menu

Command	Key	Description
<i>Read selected</i>	<i>Ctrl+R</i>	Values of objects selected in the parameters grid are read into the project.
<i>Write selected</i>	<i>Ctrl+W</i>	Values of objects selected in the parameters grid are written into the inverter.
<i>Write default values</i>		Sets the values of objects selected in the parameters grid to default.
<i>Refresh page</i>		Reloads all objects in the project.
<i>Select all</i>	<i>Ctrl+A</i>	Selects all objects in the parameters grid.
<i>Read all</i>	<i>Ctrl+Shift+R</i>	Values of all inverters' objects are read into the project.
<i>Write all</i>	<i>Ctrl+Shift+W</i>	Values of all objects in the project are written into the inverter.
<i>Write all modified</i>		Only modified values are written into the inverter.
<i>Compare parameters...</i>		Opens the <i>Compare parameters</i> dialog which offers a variety of compare functions.
<i>Search parameters...</i>	<i>Ctrl+F</i>	Opens the <i>Search parameters</i> dialog which offers a variety of search criteria and filter options.
<i>Show hidden parameters</i>		Shows/hides all parameters in the parameters grid.
<i>Auto refresh mode</i>		Activates the auto refresh mode. Values are automatically written to the inverter cyclically.
<i>Export to text file...</i>		Lets you export an AxiaManager object as text.

9.8.4 Recipes Menu

Command	Description
<i>Add recipe</i>	Adds a new recipe node to the <i>Tree</i> window.
<i>Import recipe</i>	Adds a previously exported recipe file (.RCP file) to the project.  7.7
<i>Delete recipe</i>	Deletes the selected recipe node from the project.
<i>Export recipe</i>	Lets you export an AxiaManager recipe file to a library.
<i>Delete selected values</i>	Deletes values of objects selected in the parameter grid from the recipe.
<i>Set selected recipe values</i>	Object values selected in the parameter grid are taken to the recipe.  7.3
<i>Write selected recipe values</i>	Object values selected in the parameter grid are written into the project.  7.4
<i>Write ALL recipe values</i>	All object values in the recipe are written into the project.  7.4

9.8.5 Connection Menu

Command	Key	Description
<i>Configure Communication...</i>	<i>F12</i>	Open the Device Link Manager
<i>Connect</i>	<i>F11</i>	Establish a connection to the target.
<i>Restore default values</i>		Loads the default values from the inverter to the project.
<i>Device reboot</i>		Reboots the device.
<i>Acknowledge faults</i>		Acknowledge faults to confirm errors and warning messages.

9.8.6 Service Menu

Command	Description
<i>Open with AxiaManager Scope</i>	Opens the <i>AxiaManager Scope</i> application
<i>Open with AxiaManager Safety</i>	Opens the <i>AxiaManager Safety</i> application
<i>Offline Graph viewer</i>	Opens the <i>Offline Graph viewer</i> application

9.8.7 Options Menu

Command	Description
<i>Logging options...</i>	Opens the Logging options dialog where you can select the types of logs to be listed in the <i>Output</i> window.
<i>Refresh interval...</i>	Opens the Refresh interval dialog where you can select the interval for the <i>monitor</i> window, <i>graph</i> window and the <i>Toggle Auto Refresh</i> mode.
<i>Reset bars position</i>	Resets the layout of the dock bars to factory state.
<i>Autosave monitor list</i>	Activate to save the monitor list periodically.
<i>Autosave graph list</i>	Activate to save the graph list periodically.
<i>Show all versions in catalog</i>	All versions of each catalog item are shown in the <i>catalog window</i> . If unchecked, only the last version of each item is shown.
<i>Show addresses in HEX</i>	All object and parameter addresses are shown in hexadecimal numerals (checked by default).

9.8.8 Tools Menu

Command	Description
<i>Remote support</i>	Opens the Remote support (Team Viewer).
<i>TCP/IP Configurator</i>	Opens the TCP/IP Configurator.
<i>Check for Updates...</i>	Checks for the most recent AxiaManager update.

9.8.9 Help Menu

Command	Key	Description
<i>Help</i>	<i>F1</i>	Context-sensitive help. Opens the topic related to the currently active window.
<i>About...</i>		Credits and version information.

9.9 Toolbars Reference

In the following tables you can see the list of all AxiaManager's toolbars. The buttons making up each toolbar are always the same, whatever the currently active project. However, some of them may produce no effect if there is no logical relation to the active project.

9.9.1 Main Toolbar



Icon	Command	Description
	<i>New</i>	Creates a new AxiaManager project.
	<i>Open...</i>	Opens an existing AxiaManager project.
	<i>Save</i>	Saves the current open project.
	<i>Print...</i>	Prints the project window.
	<i>About...</i>	Credits and version information

9.9.2 Configurator Toolbar



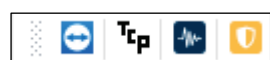
Icon	Command	Description
	<i>Connect/Disconnect communication</i>	AxiaManager tries to establish a connection to the target.
	<i>Toggle auto refresh mode</i>	Activates the auto refresh mode. Values are automatically written to the inverter as soon as values have been edited.
	<i>Refresh page</i>	Refreshes the page upon command (if auto refresh mode is off).
	<i>Select all parameters</i>	Selects all objects in the parameters grid.
	<i>Read parameters</i>	Values of selected objects in the parameters grid are read from the inverter.
	<i>Write parameters</i>	Values of selected objects in the parameters grid are written into the inverter.
	<i>Read all</i>	Values of all inverters' objects are read into the project.
	<i>Write all</i>	Values of all objects in the project are written into the inverter.
	<i>Write all modified</i>	Only modified values are written into the inverter.
	<i>Restore default values</i>	Loads the default values from the inverter to the project.
	<i>Device reboot</i>	Reboots the device.
	<i>Acknowledge faults</i>	Acknowledge faults to confirm errors and warning messages.

9.9.3 View Toolbar



Icon	Command	Description
	<i>Output</i>	Shows or hides the <i>Output</i> window.
	<i>Tree</i>	Shows or hides the <i>Tree</i> window.
	<i>Catalog</i>	Shows or hides the <i>Catalog</i> window.
	<i>Graph</i>	Shows or hides the <i>Graph</i> window.
	<i>Monitor</i>	Shows or hides the <i>Monitor</i> window.
	<i>Connection Status</i>	Opens the <i>Connection Status</i> window.
	<i>Fullscreen Mode</i>	Expands the currently active window to fill entire screen. (Esc to exit from this mode).

9.9.4 Tools Toolbar



Icon	Command	Description
	<i>Remote support</i>	Opens the Remote support (Team Viewer)
	<i>TCP/IP Configurator</i>	Opens the TCP/IP Configurator
	<i>AxiaManager Scope</i>	Opens the AxiaManager Scope application
	<i>AxiaManager Safety</i>	Opens the AxiaManager Safety application

9.9.5 Graph Toolbar



Icon	Command	Description
	<i>Show measure bars</i>	Show or hide measure bars in the graph window.
	<i>Show acquisitions</i>	Highlight the single values detected during data acquisition.
	<i>Vertical split</i>	Split the graph view to show the graphs in single windows.
	<i>Show all values</i>	Force the graph to display all samples for both horizontal and vertical axis.
	<i>Horizontal zoom in</i>	Zoom in for in horizontal axis.
	<i>Horizontal zoom out</i>	Zoom out in horizontal axis.
	<i>Horizontal show all</i>	Show all samples in horizontal axis.
	<i>Vertical zoom in</i>	Zoom-in in vertical axis.
	<i>Vertical zoom out</i>	Zoom-out in vertical axis.
	<i>Vertical show all</i>	Show all samples in vertical axis.
	<i>Stop acquisition</i>	Stops the track acquisition.
	<i>Restart acquisition</i>	The current data is acquired continuously and the display runs through continuously. The data is visible in the display.
	<i>Pause acquisition</i>	Lets you pause the track acquisition.
	<i>Graph settings</i>	Opens the <i>Graph Settings</i> dialog. Set the scale of the axes and edit the tracks list
	<i>Print graph</i>	Prints the currently active graphs.
	<i>Save acquisitions to file</i>	Saves samples acquired by the graph to a file.
	<i>Load acquisitions from file</i>	Load a previously stored acquisition file (.OSCX) to the graph.

9.9.6 Output Toolbar



Icon	Command	Description
	<i>Save output to file</i>	Save the reporting messages to .txt file.
	<i>Find on output</i>	Text search in the messages.
	<i>Go to next result</i>	Jump to next message line.
	<i>Go to previous</i>	Jump to previous message line.
	<i>Filter on output</i>	Text input to filter messages.
	<i>Clear filter on output</i>	Clear filter to view all messages.

9.9.7 Monitor Toolbar



Icon	Command	Description
	<i>Load monitor list</i>	Load a previously stored messages exchange file (.mlx file).
	<i>Save monitor list</i>	Save the messages to an exchange file (.mlx file).
	<i>Clear monitor list</i>	Deletes all messages.
	<i>Move up monitor item</i>	Jump to previous message line.
	<i>Move down monitor item</i>	Jump to next message line.
	<i>Open monitor settings</i>	Open the monitor settings to determine the appearance of the <i>Monitor</i> window.

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AUSTRALIA

Bonfiglioli Transmission (Aust.) Pty Ltd

2, Cox Place Glendenning NSW 2761
Locked Bag 1000 Plumpton NSW 2761
Tel. +61 2 8811 8000



BRAZIL

Bonfiglioli Redutores do Brasil Ltda

Travessa Cláudio Armando 171 -
Bloco 3 CEP 09861-730 - Bairro
Assunção
SãoBernardodoCampo-SãoPaulo
Tel. +55 11 4344 2322



CHINA

Bonfiglioli Drives (Shanghai) Co. Ltd.

#68, Hui-Lian Road, QingPu
District, 201707 Shanghai
Tel. +86 21 6700 2000



#568, Longpan Road, Jiading District,
201707 Shanghai



Bonfiglioli Trading (Shanghai) Co. Ltd.

Room 423, 4th Floor, #38, Yinglun
Road, China (Shanghai) Pilot Free
Trade Zone, Shanghai



FRANCE

Bonfiglioli Transmission s.a.

14 Rue Eugène Pottier
Zone Industrielle de Moimont II
95670 Marly la Ville
Tel. +33 1 34474510



GERMANY

Bonfiglioli Deutschland GmbH

Sperberweg 12 - 41468 Neuss
Tel. +49 0 2131 2988 0



Bonfiglioli Deutschland GmbH Krefeld

Europark Fichtenhain B6 - 47807 Krefeld
Tel. +49 0 2151 8396 0



O&K Antriebstechnik GmbH

Ruhrallee 8-12 - 45525 Hattingen
Tel. +49 0 2324 2050 1



INDIA

Bonfiglioli Transmission Pvt. Ltd.

Mobility & Wind Industries

AC 7 - AC 11 Sidco Industrial Estate
Thirumudivakkam Chennai - 600 044
Tel. +91 844 844 8649



Discrete Manufacturing & Process Industries - Motion & Robotics

Survey No. 528/1,
Perambakkam High Road Mannur
Village,
Sriperumbudur Taluk Chennai - 602105
Tel. +91 844 844 8649



Discrete Manufacturing & Process Industries

Plot No.A-9/5, Phase IV MIDC Chakan,
Village Nighoje Pune - 410 501
Tel. +91 844 844 8649



ITALY

Bonfiglioli S.p.A. Riduttori Discrete Manufacturing &

Process Industries

Via Cav. Clementino Bonfiglioli, 1
40012 Calderara di Reno
Tel. +39 051 6473111



Discrete Manufacturing & Process Industries

Via Sandro Pertini, lotto 7b
20080 Carpi
Tel. +39 02985081



Discrete Manufacturing & Process Industries

Via Saliceto, 15 - 40010 Bentivoglio



Mobility & Wind Industries

Via Enrico Mattei, 12 Z.I. Villa Selva
47122 Forlì
Tel. +39 0543 789111



Motion & Robotics

Via Unione, 49 - 38068 Rovereto
Tel. +39 0464 443435/36



NEW ZEALAND

Bonfiglioli Transmission (Aust.) Pty Ltd

88 Hastie Avenue, Mangere Bridge,
2022 Auckland
PO Box 11795, Ellerslie
Tel. +64 09 634 6441



SINGAPORE

Bonfiglioli South East Asia Pte Ltd

8 Boon Lay Way, #04-09,
8@ Tadehub 21, Singapore 609964
Tel. +65 6268 9869



SLOVAKIA

Bonfiglioli Slovakia s.r.o.

Robotnícka 2129
Považská Bystrica, 01701 Slovakia
Tel. +421 42 430 75 64



SOUTH AFRICA

Bonfiglioli South Africa Pty Ltd.

55 Galaxy Avenue, Linbro Business Park,
Sandton, Johannesburg
2090 South Africa
Tel. +27 11 608 2030



SPAIN

Tecnotrans Bonfiglioli S.A

Pol. Ind. Zona Franca, Sector C,
Calle F, nº 6 - 08040 Barcelona
Tel. +34 93 447 84 00



TURKEY

Bonfiglioli Turkey Jsc

Atatürk Organize Sanayi Bölgesi,
10007 Sk. No. 30
Atatürk Organize Sanayi Bölgesi,
35620 Çiğli - İzmir
Tel. +90 0 232 328 22 77



UNITED KINGDOM

Bonfiglioli UK Ltd.

Unit 1 Calver Quay, Calver Road, Winwick
Warrington, Cheshire - WA2 8UD
Tel. +44 1925 852667



USA

Bonfiglioli USA Inc.

3541 Hargrave Drive
Hebron, Kentucky 41048
Tel. +1 859 334 3333



VIETNAM

Bonfiglioli Vietnam Ltd.

Lot C-9D-CN My Phuoc Industrial Park 3
Ben Cat - Binh Duong Province
Tel. +84 650 3577411



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HEADQUARTERS
Bonfiglioli S.p.A
Registered Office: Via Bazzane, 33
40012 Calderara di Reno BO
Head office: Via Isonzo, 65/67/69
40033 Casalecchio di Reno BO
ITALY

tel: +39 051647 3111
www.bonfiglioli.com