

Application Manual



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Device Dashboard
Software

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Translation of the german original User Manual

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1 Introduction

1.1 Information on this document

This document forms an integral part of the product and must be read and understood prior to using it. It contains important and safety-related information for the proper use of the product as intended.

Availability of information

Make sure this document is kept at the ready in the vicinity of the product throughout its service life. Check this document regularly for updates and revisions. This document is not subject to any updating service.

[Start | Bucher Automation - We automate your success.](#)

For further information refer to the following information products:

- User manuals
Information on commissioning Bucher-Automation products
- Online help for the JetSym software
Functions of software products with application examples
- Application-oriented manuals
Product-independent documentation
- Version updates
Information about changes to the software products and operating system of your device

1.2 Typographical conventions

This manual uses different typographical effects to support you in finding and classifying information. Below, there is an example of a step-by-step instruction:

- ✓ This symbol indicates requirements which have to be met before executing the following action.
- ▶ This sign or a numbering at the beginning of a paragraph marks an action instruction that must be executed by the user. Execute the instructions one after the other.
- ⇒ The target after a list of instructions indicates reactions to, or results of these actions.

Info

Further information and practical tips

In the info box you will find helpful information and practical tips about your product.

2 Product description

The Device Dashboard is a browser-based software application designed to display in a user-friendly way key information and settings of a JC-4xx generation Bucher Automation control system. The purpose of this application is to provide machine manufacturers and operators with additional first-level support resources.

i Info

The values displayed are read-only and may not be adjusted from within the application. To do this, the JetSym software tool is required.

3 System requirements

To use the Device Dashboard, the following requirements must be met:

- You are using a Bucher Automation control system, generation JC-4xx or higher.
- The control system features a valid JCF4-C_HTTP option license.
- Your PC or mobile device is running a standard browser.
- The control system and dashboard client are connected to the same IP network.
- The IP address of the controller is known.

4 Starting the Device Dashboard

i Info

Adjusting the IP address

Following initial call-up, the default IP address of a Bucher-Automation control system (192.168.1.1) usually needs to be replaced by the customer-specific IP address.

i Info

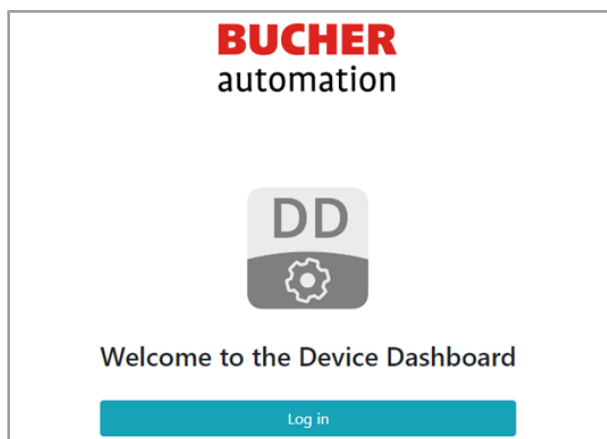
Protection against unauthorized access

It is recommended that the controller log-in credentials be changed to prevent unauthorized access to the Device Dashboard. For detailed information on how to change the log-in credentials refer to the control system's User Manual.

To open the Device Dashboard proceed as follows:

1. Enter the URL <http://192.168.1.1/index.html> or the IP address 192.168.1.1 in your browser's address bar:

⇒ The login page is shown:



2. Click Log in.
3. Enter the login credentials. These are by default:
User name: service
Password: service
4. Click OK.

⇒ You are logged into the system. The [homepage](#) [▶ 8] of the Device Dashboard is shown. By default, this is the Overview page.

5 User interface layout

The main areas of the application’s user interface are:

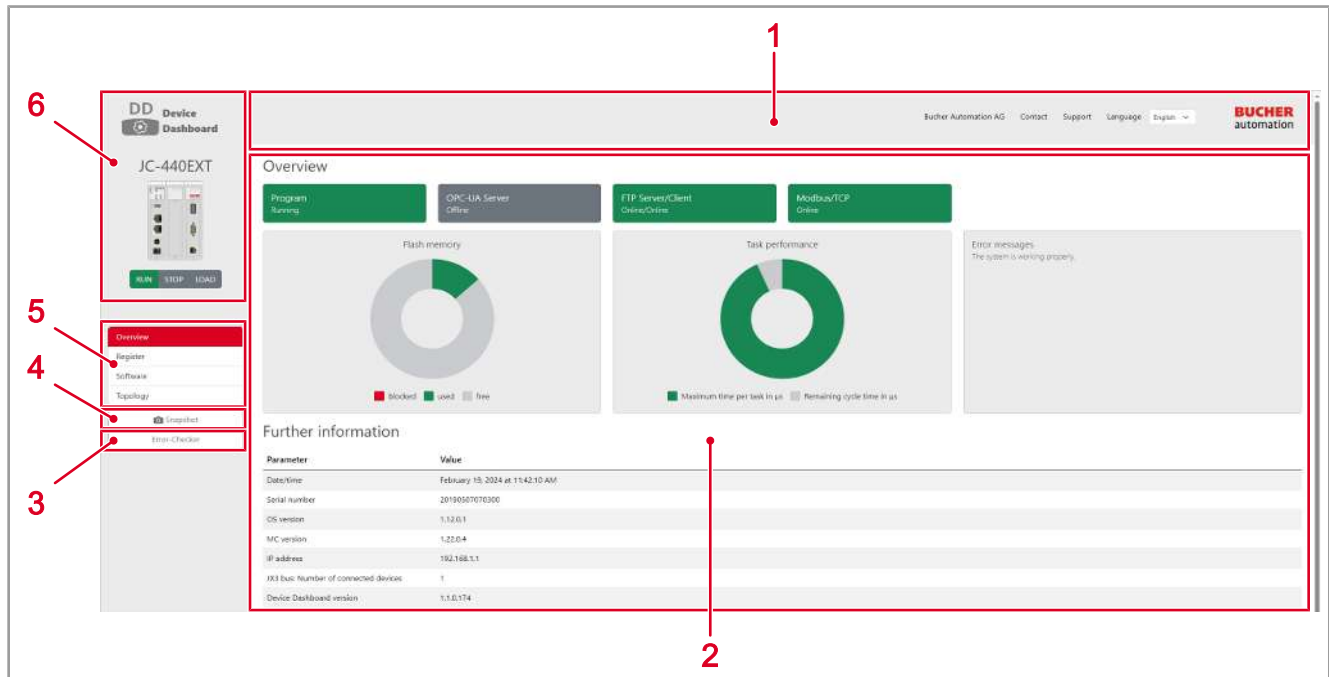


Fig. 1: User interface of the application

1	Header bar
2	Content area
3	Error checker feature
4	Snapshot feature
5	Menu
6	Status graphic

Header bar

Contacts and language settings

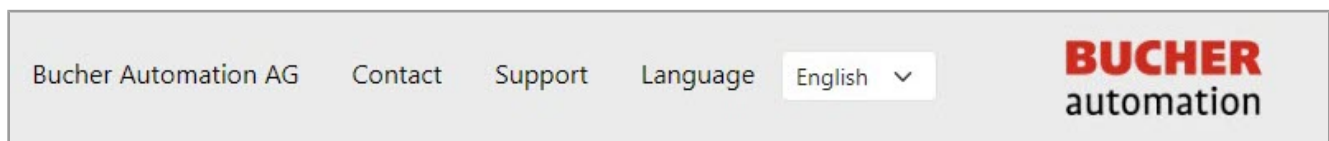


Fig. 2: Header bar with contacts and language settings

The header bar offers quick access to the following options:

- **Bucher Automation AG:** Use this link to open the Bucher Automation AG Homepage with a full range of content detailing the company’s products and services.
- **Contact:** Use this link to contact Bucher Automation AG for any general concern, excluding support requests.
- **Support:** Use this link to request support. Enter the details of your support case as prompted.
- **Language:** Click this button to change the user interface language. The available languages are German and English.

Content area

The content shown here depends on the page selected in the menu. For a detailed description on this topic, refer to section [Description of the Device Dashboard views \[▶ 10\]](#).

Side bar



Fig. 3: Operating mode view

This graphic shows the controller name and the mode selector position. With the controller typically located in a control cabinet at some distance from the machine, this view provides for remote access to the controller operating mode. In the graphic, the current switch position is highlighted green.

The following switch positions are available:

- Run: The control system will initiate the application program automatically after reboot.
- Stop: The control system will not initiate the application program automatically after reboot.
- Load: The control system executes the *autocopy.ini* file located on the SD card.

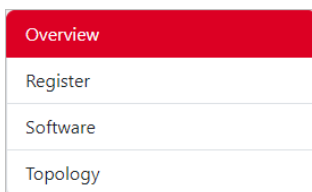


Fig. 4: Menu

The content of the individual pages is detailed in the [Description of the Device Dashboard views \[▶ 10\]](#) section.



Fig. 5: Snapshot feature

The snapshot feature can be used to capture and store the current system state. The capture includes the full set of data featured on the [Overview](#), [Register](#) and [Software](#) pages and exports it to csv file format. A snapshot taken of the fault-free system can be a valuable reference for diagnosing error states.

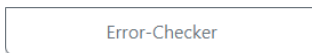


Fig. 6: Error checker

The error checker exports diagnostics data in csv file format to a password-protected zip archive. When requesting product support, include this zip archive in your communication with the Bucher-Automation support team in order for the data to be used for troubleshooting purposes.

6 Description of the Device Dashboard views

This section details the individual content of the Device Dashboard pages that can be selected from the Menu in the side bar.

6.1 Overview

The Overview page features key controller parameters in the form of widgets.



Fig. 7: Overview page

State of the communication participants

Widgets visualize the availability of the individual communication participants:

- OPC UA server
- FTP server/client
- Modbus/TCP

Where:

- Gray signals that the communication participant is offline.
- Green signals that the communication participant is available.
- Orange signals an error of the communication participant.

Application program status

The Program widget shows the state of the application program, not the controller. There are two states:

- Program started: The widget is shaded green.
- Program stopped: The widget color changes to gray.

Error messages



Fig. 8: Error messages widget with error details

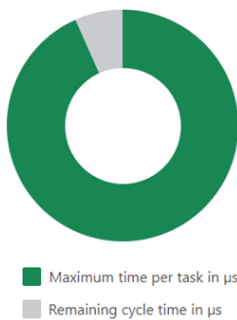
The Error messages widget facilitates error monitoring. The widget being shaded gray indicates that no errors are pending on the controller. If an error is logged, the widget color changes to orange and a short error description is prompted. Hover the mouse pointer over the *Info* icon to display a detailed description of the error.

Flash memory



The Flash memory widget visualizes the controller's flash memory usage. Available memory space is marked gray, used space is marked green.

Fig. 9: Flash memory widget



Task performance

The Task performance widget shows the relation between the number of tasks used in the application program and the maximum cycle time available on the controller. The higher the number of tasks being run, the smaller is the time available for processing one task, making the green segment narrow accordingly.

Fig. 10: Task performance widget

Further information

Under Further information you can find additional controller data relevant for first-level support.

6.2 Registers

The Register page lists the most important registers of the control system register interface. In addition, user-specific registers can be added manually.

Each entry shows the current online value of the register. The values shown are read-only and cannot be adjusted from within the Device Dashboard. To modify register values, the JetSym programming tool is required.

Electronic Data Sheet (EDS)		
Reg. #	Description	Value
100500	Activated interface	CPU
100501	Module number	0
100600	Internal version number	2
100601	Modul ID	1102
100602	Modul name	JC-440EXT-AXS_010-TEC-PAT-EC...
100613	PCB revision	0
100614	PCB options	6

Application program		
Reg. #	Description	Value
210000	Application program is running	1
210001	JetVM version	1.17.0.12
200006	Error register (bit-coded)	0



Custom				
Address	Description	Type	Format	Value
210077	Timer value in milliseconds	Register Int	Default	0
210060	Task ID	Register Int	Default	0
210011	Current task number	Register Int	Default	-1
202930	Time in seconds	Register Int	Default	187
210063	Web state	Register Int	Default	0

Fig. 11: Register page with key data

Adding and updating registers manually

The Custom section accommodates up to 10 individual registers and 1 register range for subsequent register numbers.

To add user-specific registers, proceed as follows:


- ✓ The controller and expansion modules are connected to the Device Dashboard.
- 1. To add an individual register, enter the data in the table as required.
Address, Type and Format are mandatory fields.
The language in the Description field is not being localized. Use a default language.
- 2. To add a register range, enter the required data in the bottom most line of the table and click Show results.
⇒ All table expands listing all registers within the defined range along with their respective value.
- 3. Having made the necessary entries, click the  button to manually update the register values or enable the  button for automatic update once per second.
⇒ The user-defined registers are shown and their values continually updated.

Saving custom registers

Entries not being saved are lost when closing the application.

To make entries permanently available, proceed as follows:

- ✓ There is an FTP connection to the controller.

1. Click the  button.
 - ⇒ All entries are exported to a txt file which is stored in the download directory of your computer.
 - ⇒ A window pops up describing how to transfer the file to the file system of the Device Dashboard.
2. Follow the instructions.
3. Ensure that the name of the txt export file remains unchanged (*customRegisters.txt*). Otherwise the software will not be able to process the file.
 - ⇒ The custom registers are now permanently available.

6.3 Software

With the control systems of the JC-4xx generation or higher, the range of available features can be enhanced by adding separately available extension modules. Using these modules requires a corresponding entry in the license file.

The **Software** page provides for a summary of all modules available for the given controller along with their current state and the respective license count. In the list, any license of a module that has not been purchased is marked as invalid.

Basic modules			
Module	Version		
Motion Control	1.22.0.4		

Optional modules			
Module	License status	Count	Expiration date
JCF4-M_AX	valid	10	-/-
JCF4-M_TECHNO	valid	1	-/-
JCF4-M_PATH	valid	1	-/-
JCF4-C_ETHERCAT_MASTER	valid	1	-/-
JCF4-C_CANOPEN_MASTER	invalid	0	-/-
JCF4-C_OPCUA_CLIENT	invalid	0	-/-
JCF4-C_OPCUA_SERVER	invalid	0	-/-
JCF4-C_MODBUS/TCP	valid	1	-/-
JCF4-C_HTTP	valid	1	-/-
JCF4-C_SMTP	valid	1	-/-
JCF4-C_FTP_CLIENT	valid	1	-/-
JCF4-C_ETH_(PRIM)	valid	1	-/-
JCF4-C_MQTT	valid	1	-/-
JCF4-C_WEBSOCKETS	invalid	0	-/-
JCF4-C_JSON	invalid	0	-/-
JCF4-C_TSN	invalid	0	-/-
JCF4-M_SV1	invalid	0	-/-

Fig. 12: Software page with license information

6.4 Topology

The **Topology** page shows the currently enabled controller and all expansion modules connected to it. This is a valuable resource when investigating potential breaks in the physical cabling.

Depending on the switch position, the hardware connected via JX3 bus or via EtherCAT® bus is shown.

Selecting a system component displays additional details on the hardware.

The screenshot shows two side-by-side views of the 'Topology' page. Both views have a toggle switch at the top right, currently set to 'JX3' (indicated by a blue circle) and 'EtherCAT®' (indicated by a grey circle).
The left view shows a rack of modules. The 'JC-440' controller module is highlighted with a blue box. Below it, the 'Details' section is displayed:
Designation: JC-440EXT
Information: Controller
Serial number: 20190507070300
OS version: 1.12.0.1
The right view shows the same rack, but the 'JX3-DIO16' expansion module is highlighted with a blue box. Below it, the 'Details' section is displayed:
Designation: JX3-DIO16
Information: 8 digital inputs and 8 digital outputs
Serial number: 20080901070014
OS version: 1.41.0.0

Fig. 13: Topology page with details on hardware connected via JX3 bus.

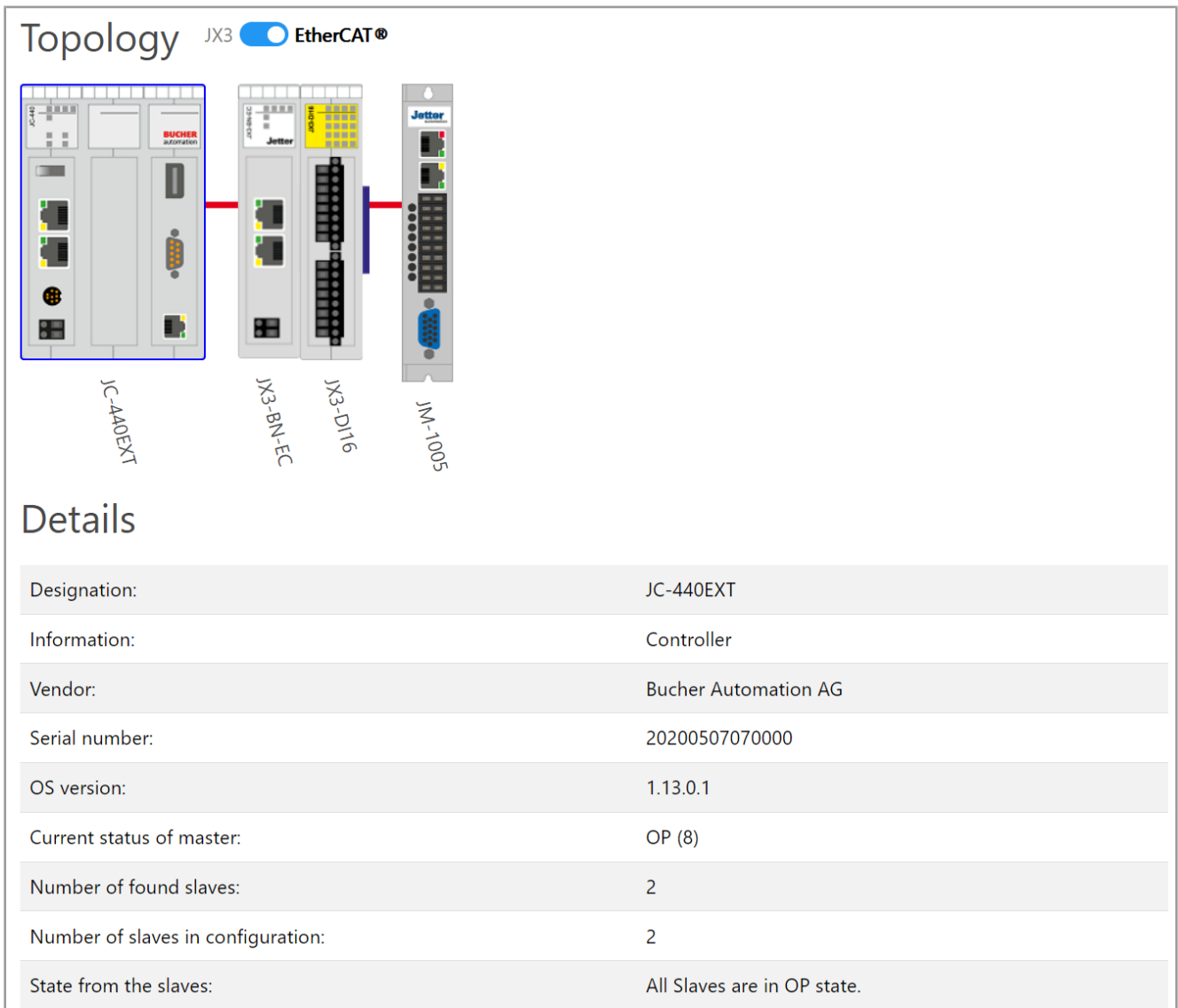


Fig. 14: Topology page with details on hardware connected via EtherCAT® bus.

7 Update of the Device Dashboard software

Info

Updating the of software of the Device Dashboard does not affect the OS file of the controller.

The update of the Device Dashboard software is performed by means of the JetSym programming tool. For a detailed description of the update process, refer to the Online help, section *Updating the Operating System via Hardware Manager*.

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