FactoryViews 1.4.2 with MES4 V3

Content

1 Installation and Activation

1.1 Installation of „WIBU CodeMeter User Runtime for Windows"

FactoryViews uses the CodeMeter Runtime to access CodeMeter-based licenses.
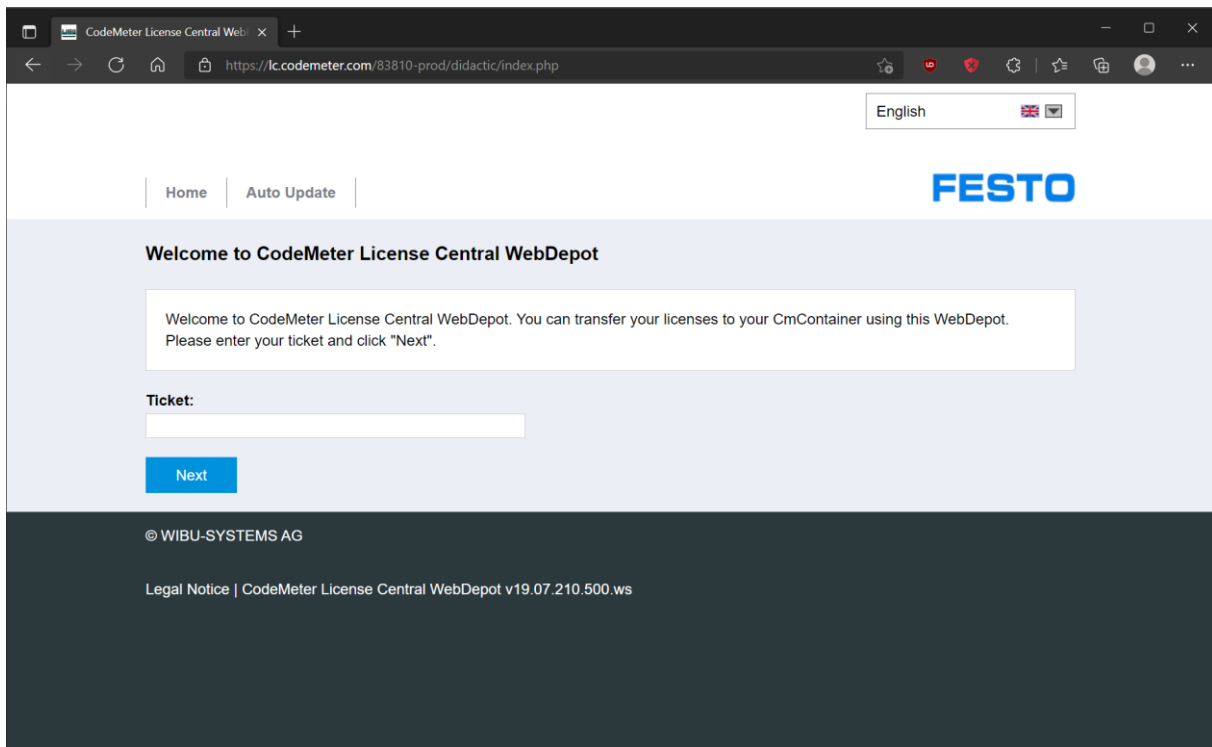The licenses can be integrated on a USB dongle or via a license file.

Note: Administrator rights are required for installing the CodeMeter User Runtime.

Download "WIBU CodeMeter User Runtime for Windows" from the manufacturer's homepage and install it, if not already installed on your PC.
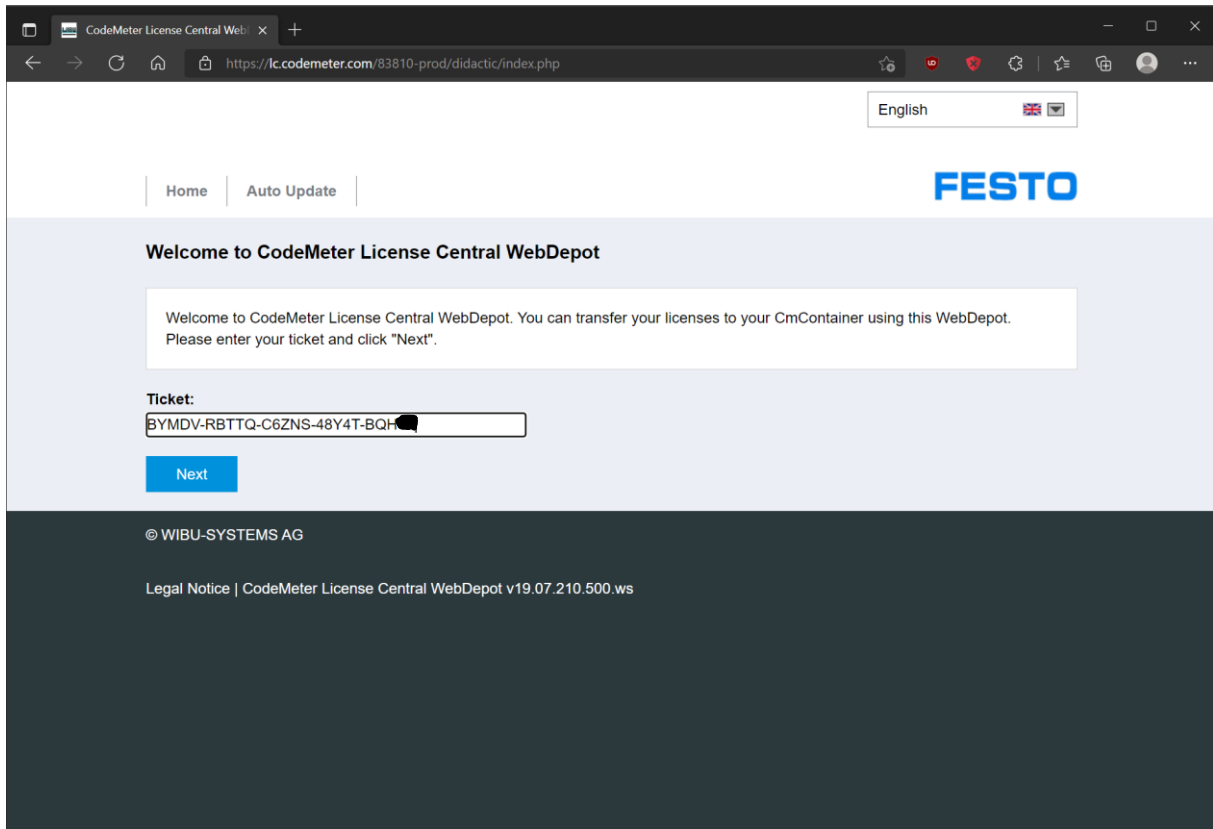Link to download page: https://www.wibu.com/support/user/user-software.html
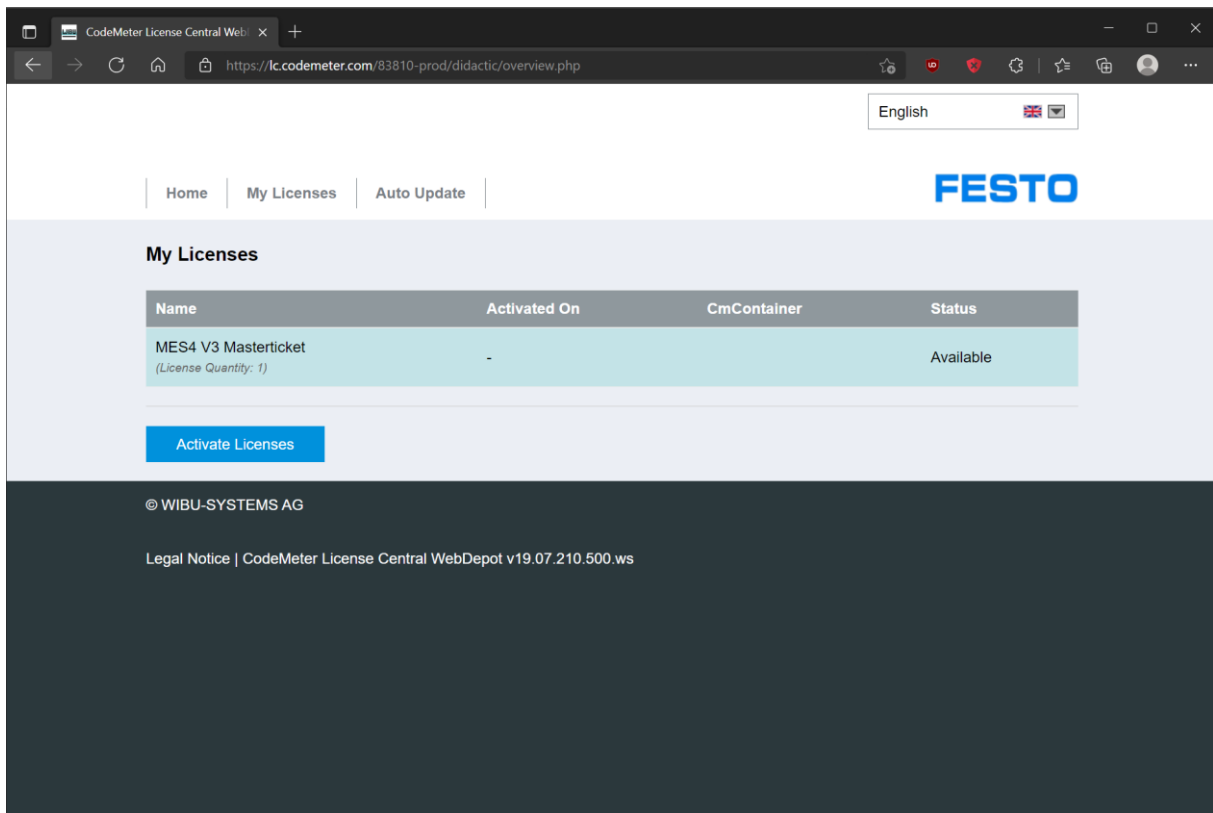
1.2 Activate licenses

Open the WebDepot via http://cm.festo-didactic.com/webdepot/index.php

Enter a ticket of a license to be activated and click "Next".
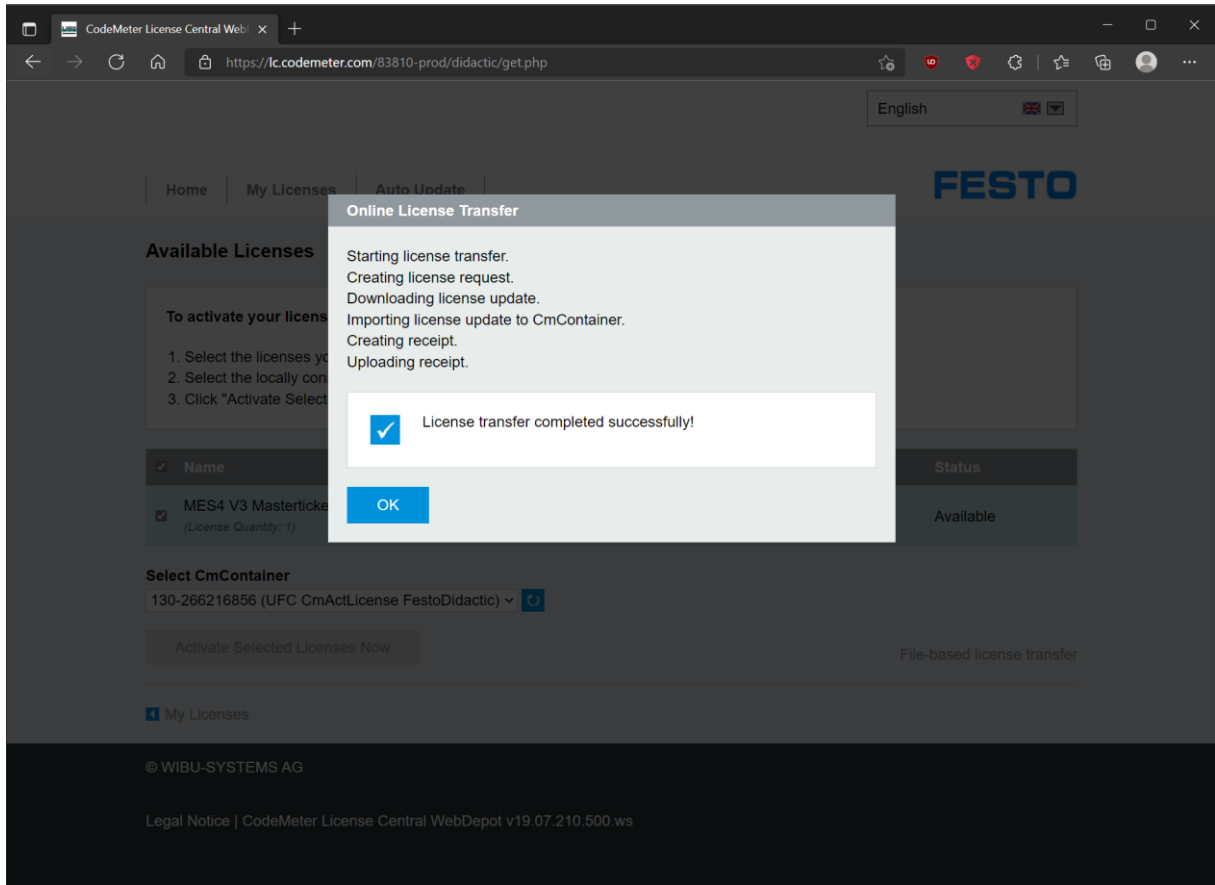

Click on "Activate Licenses".

Depending on the license type, an option might be shown to install the license either on a virtual dongle on the PC (as here) or on a connected USB license dongle.

Select those licenses, which you would like to active on this PC now, and click on "Activate Selected Licenses Now".

The license activation is complete.

1.3 Extract

Open "FactoryViews.exe" and extract the content to a local drive with write access, e.g. to C:\Festo
Note: For extraction, a valid license of FactoryViews app (e.g. MES4 V3) must be activated.

> Local Disk (C:) > Festo > FactoryViews

	Name
	MES4Core
	MongoDB
	NodeRed
	NodeServer
	TIA sample project
	UaToMes4
	XAMPP
	FactoryViews - Control Panel.exe
	Setup.bat
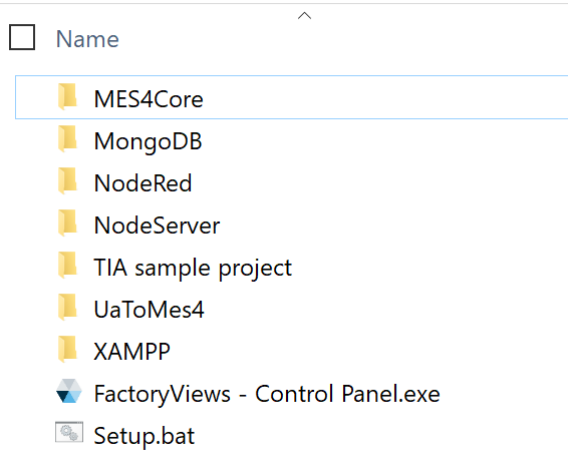
1.4 Setup

Start the file "Setup.bat". Two actions are executed:

1. A license to run FactoryViews is automatically updated in CodeMeter if necessary. This license is independent of your MES4 licenses or licenses for additional apps and serves to protect the software. Confirm this update.

CodeMeter ? X

Information:

Aktualisierung für CmContainer 130-2060862264 Firm Item 6000118 --> erfolgreich (3 Mal)

OK
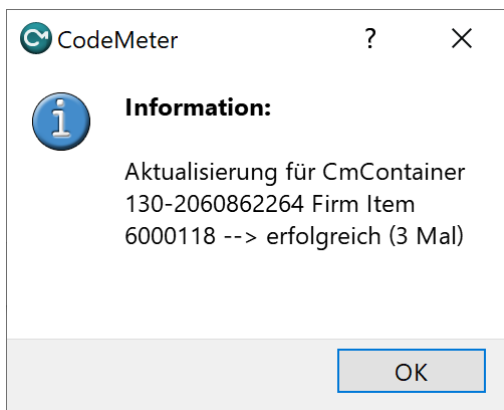
2. Path information for the web and database server are adapted to your local copy.
Type "1" and "Enter" to perform the update.

Then terminate the setup with any key.

If you move the "FactoryViews" directory later, the setup must be run again.

2 Starting FactoryViews and MES4 V3

2.1 Configuration of Apps

In the file "FactoryViews\NodeServer\config.jsonc" settings can be made to your installation of FactoryViews.
In the "apps" section, you can enable (true) or disable (false) individual apps, as shown below.

```
 5      /*
 6      Validate license for the app.
 7      If licence present, process app requests.
 8      */
 9      "apps": {
10          //true = enable app
11          //false = disable app
12
13          "mes4":      false,
14          "webshop":   false,
15          "energy":    false,
16          "infoportal":   true,
17          "ar":        false,
18          "maintenance":  false,
19          "uaToMes4":     false,
20          "stations":     false
21      },
```

On startup of the Control Panel, for activated apps the system first checks whether a valid license is available, if necessary, and if the app has been installed. The app is then activated on the FactoryViews user interface.
Deactivated apps are not selectable on the user interface, related services are not started, and no license check is performed.

2.2 Starting FactoryViews Control Panel

Run „FactoryViews - ControlPanel.exe".
The following services are automatically started depending on the configured range of functions:

Service	Description
NodeServer	HTTP web server for FactoryViews apps
Mes4Core	MES4 services for communication via TCP/IP and to the database
UaToMes4	MES4 interface for OPC UA (Data Access)
Apache	HTTP web server for FactoryViews apps
MySQL	SQL database server for FactoryViews apps
MongoDB	NoSQL database server for FactoryViews apps
NodeRed - MES4	Node-RED application for additional MES4 services
NodeRed - Webshop	Node-RED application to connect the Webshop to MES4
NodeRed - Stations	Node-RED based station specific applications
NodeRed - Energy	Node-RED based energy monitoring app

When starting apps for which no valid license is available, a corresponding error message appears. To avoid this, either a valid license should be available on the PC or on a connected license dongle (see section 1.2), or the app should be disabled in the configuration (see section 2.1).
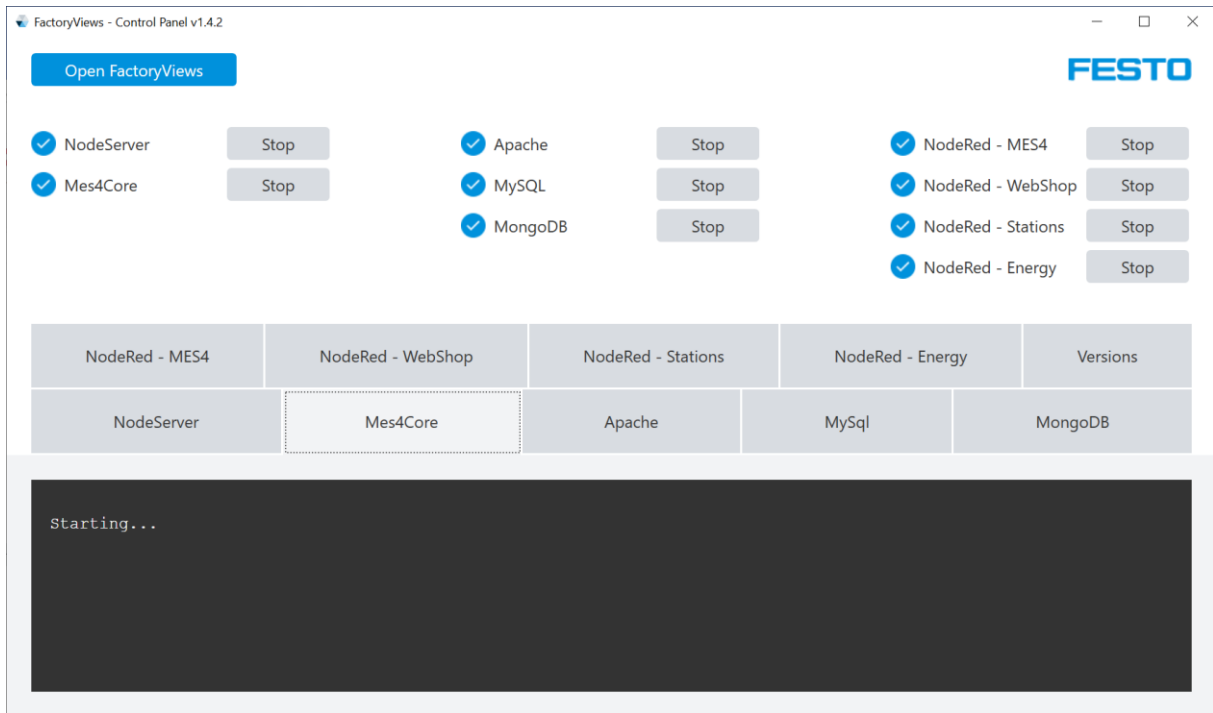
All services of activated Apps must be started successfully (blue check icon).
Otherwise stop any running services on your system, e.g. web or database server and restart the services in the control panel, or the Control Panel if needed.

When the software is started for the first time, the operating system may offer to create firewall rules. The creation is only required if the software is to be accessed from devices within the network. For purely local use, the firewall suggestions can be cancelled.

2.3 Starting the FactoryViews User Interface

Open the user interface by
- choosing „Open FactoryViews" on the Control Panel, or
- navigating in a web browser on the same PC to
  http://localhost or
  http://127.0.0.1 or
- navigating in a web browser on a network connected device to
  http://{ip} where {ip} is the IP address of the host PC running the FactoryViews Control Panel, or
  http://mes-pc.festo.systems, if you have purchased a learning factory with MES PC and DNS service.
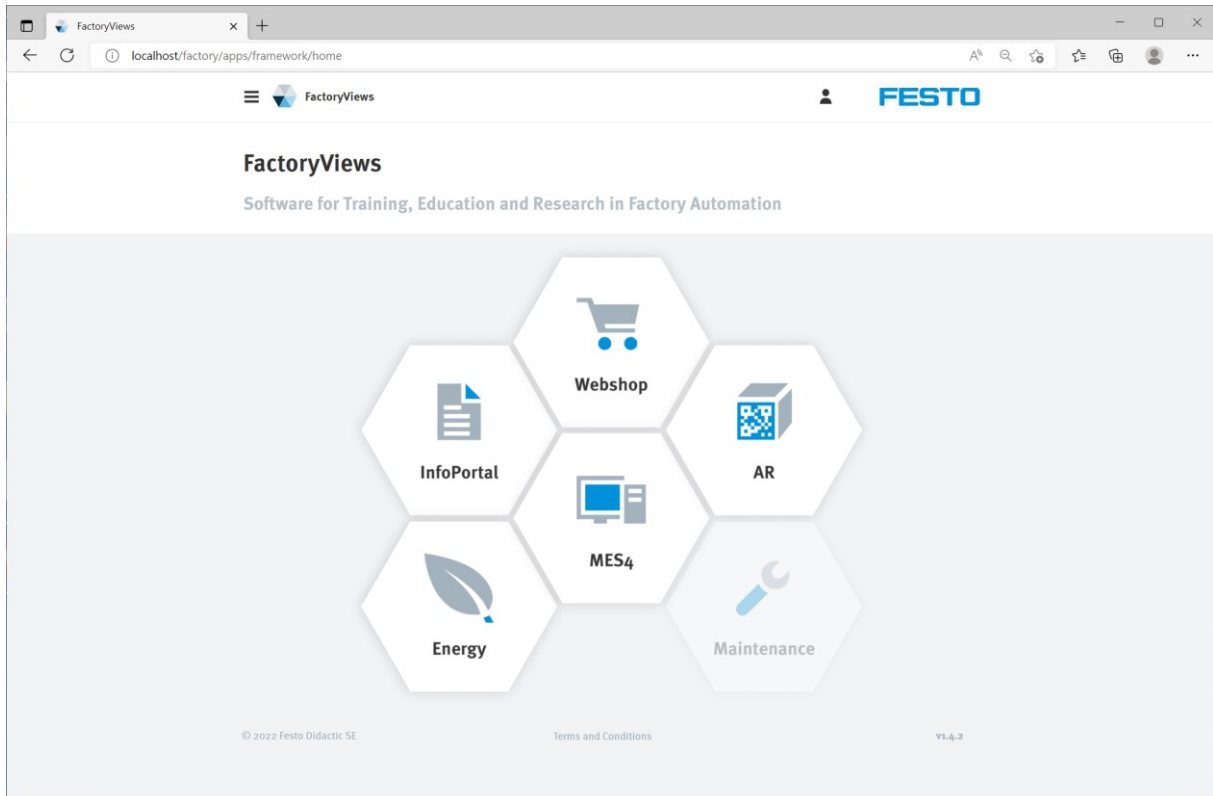
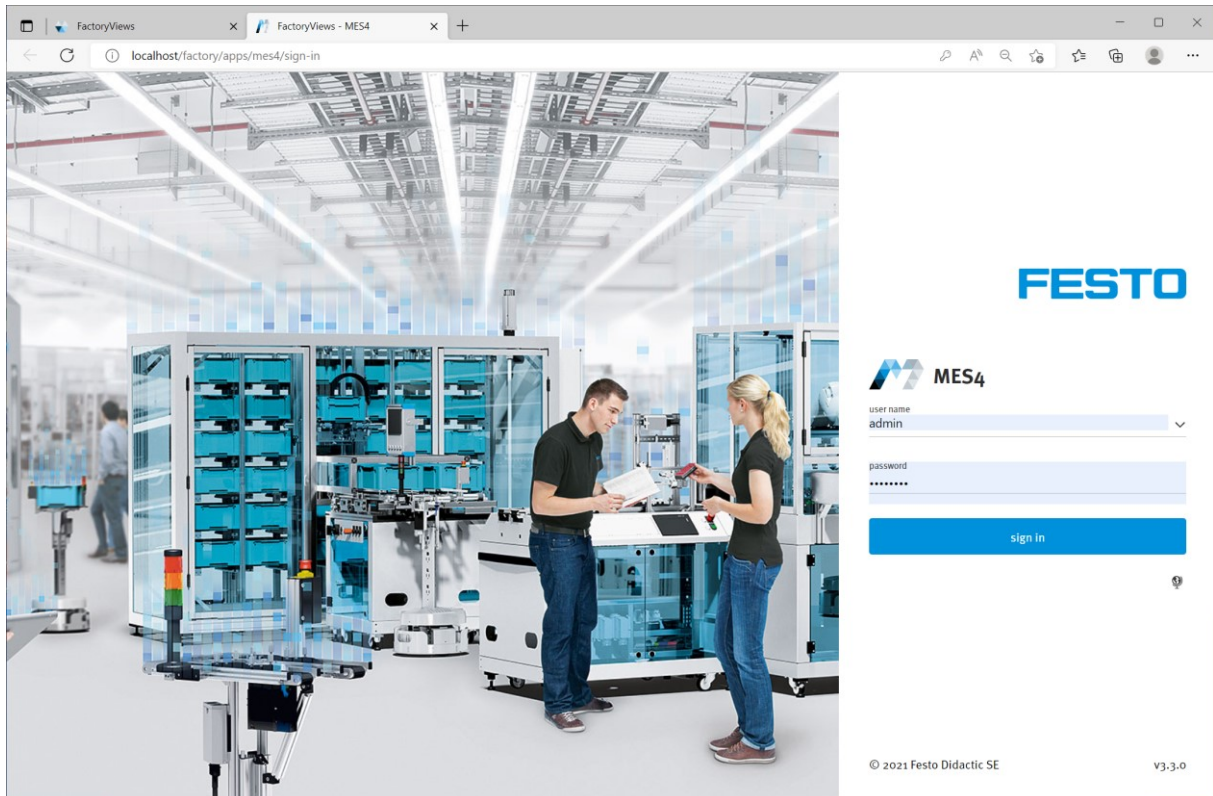## 2.4   Starting MES4 V3

Choose "MES4" in FactoryViews. The login screen appears.

The following logins are available:

Name	Password
user	Festo4.0
admin	Festo4.0
admin-lite *	Festo4.0

* Only available in the "Lite" installation package.

The logins have the following authorizations in the various views:

| View	Action	user	admin	admin-lite
System	Display	■	■	■*)
	Add		■	■
	Change		■	■
	Activate		■	■
	Delete		■	■
	Import		■	■
	Export		■	■
Parts	Display	■	■	■
	Test workplan	■	■	■
	Add		■	■
	Duplicate		■	■
	Change		■	■
	Delete		■	■
Orders	Display	■	■	■
	Show status	■	■	■
	Add	■	■	■
	Import	■	■	■
	Change step status		■	■
	Delete		■	■
Operation	Display	■*)	■*)	
Queries	Display	■	■	■
	Add		■	■
	Duplicate		■	■
	Change		■	■
	Delete		■	■

*) Start view after login

3 Backup and Restore

3.1 Scope of backup

The current status can be saved in an fdb file using the "Backup" function.
This includes
- FactoryViews framework: All texts in all languages
- MES4 V3: Complete databases (MariaDB + MongoDB) including system configuration, workpieces, orders, database queries, station templates as well as all texts and program messages in all languages.
- Webshop: Complete database (MariaDB) including orders, products, webshop settings, but no custom added files.

3.2 Backup

Click on "Backup and restore" in the menu, "new backup" and enter the name, description and creator information.
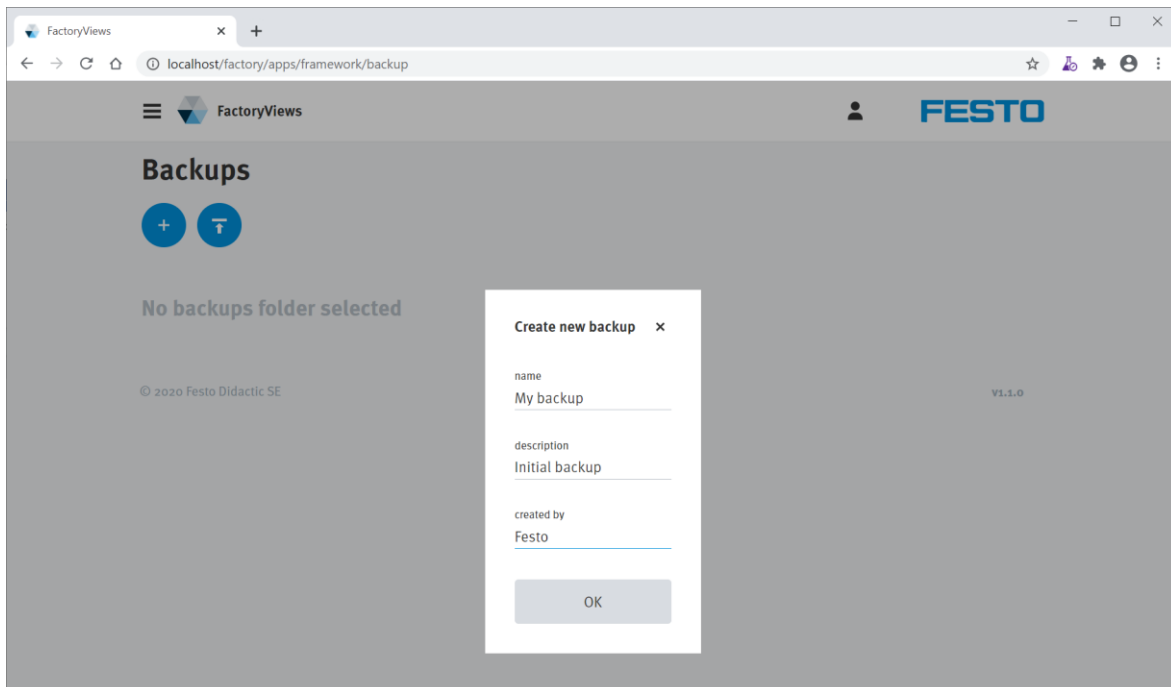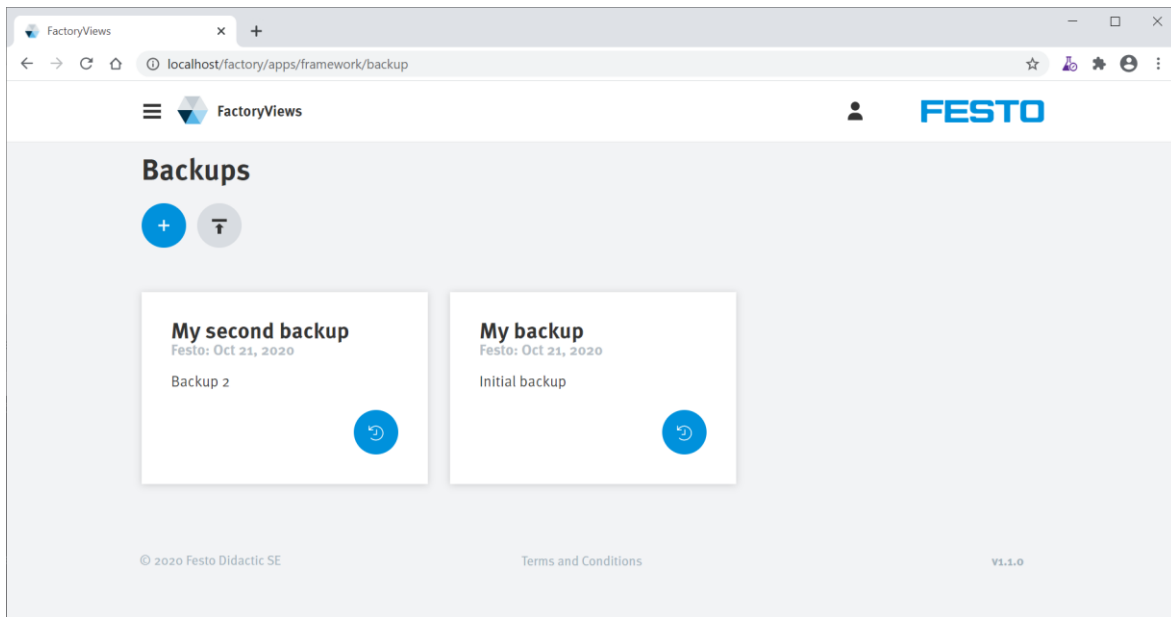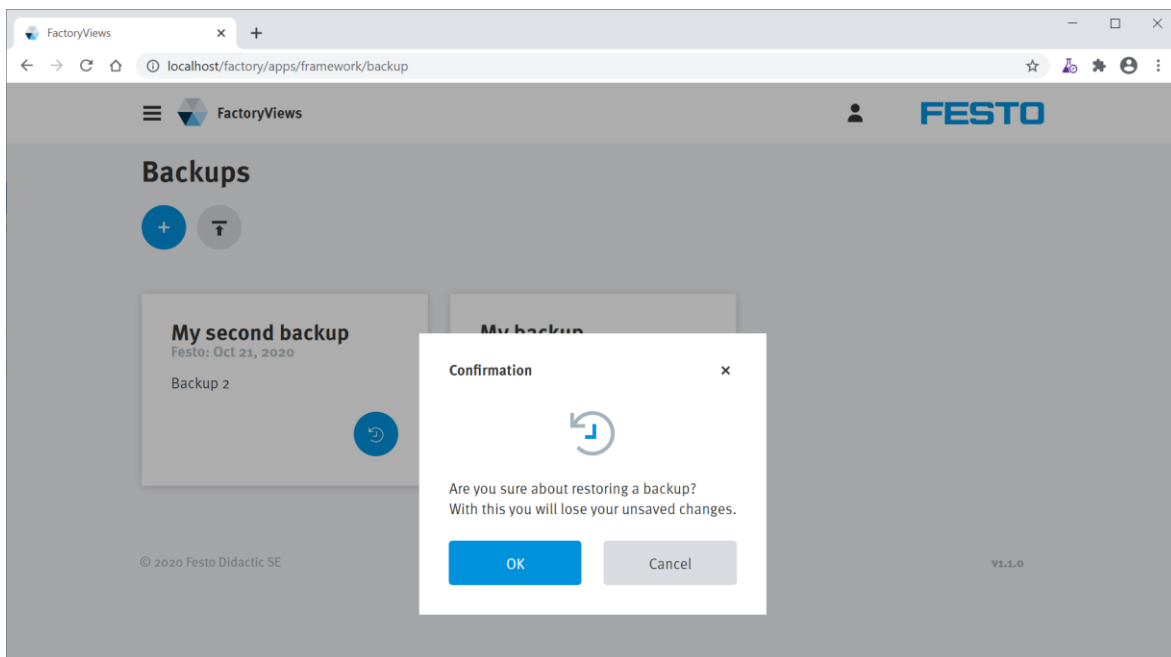

Then click on "OK".
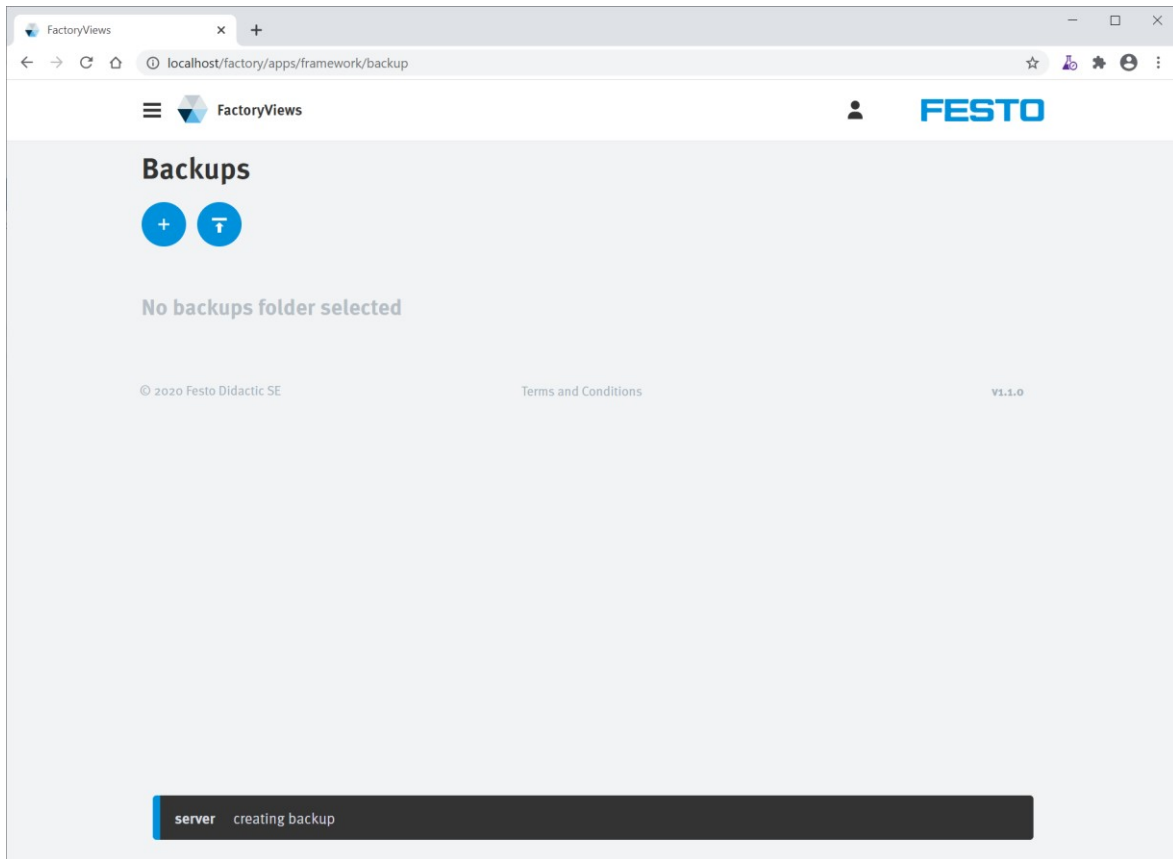
The backup has been created and downloaded.
Depending on the browser settings, the file is typically located in the user's Downloads folder.
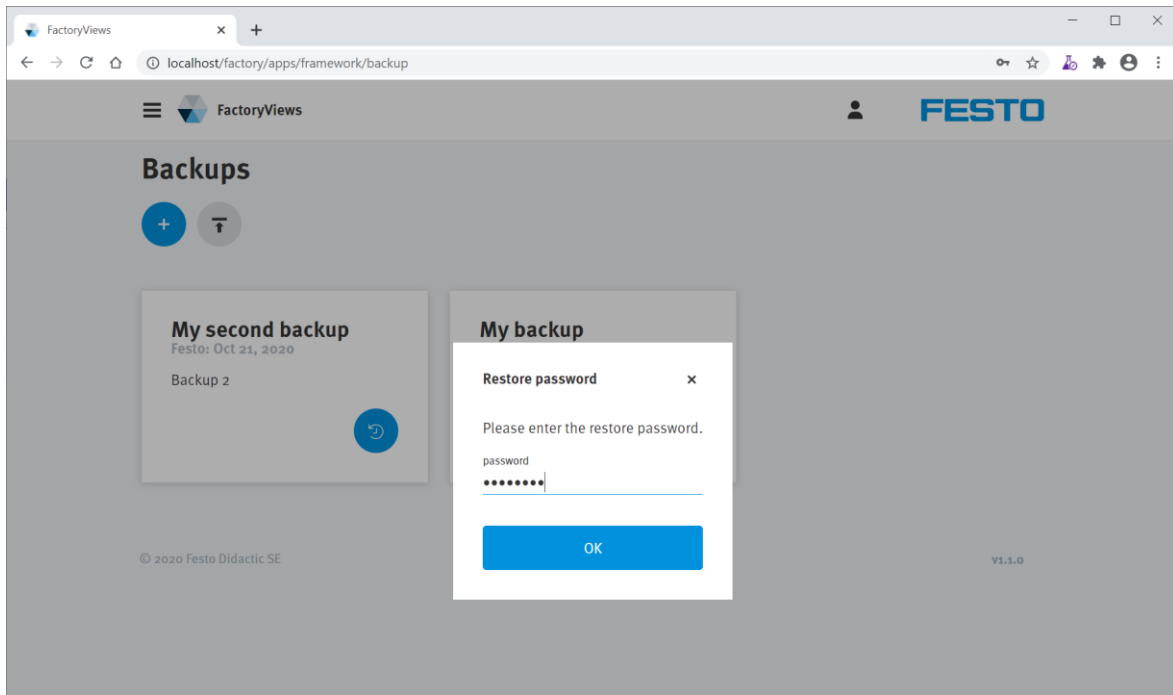
3.3   Restore

To restore, click Upload Data on the Backup and Restore menu and select one or more fdb backup files. Details about the backups are displayed.
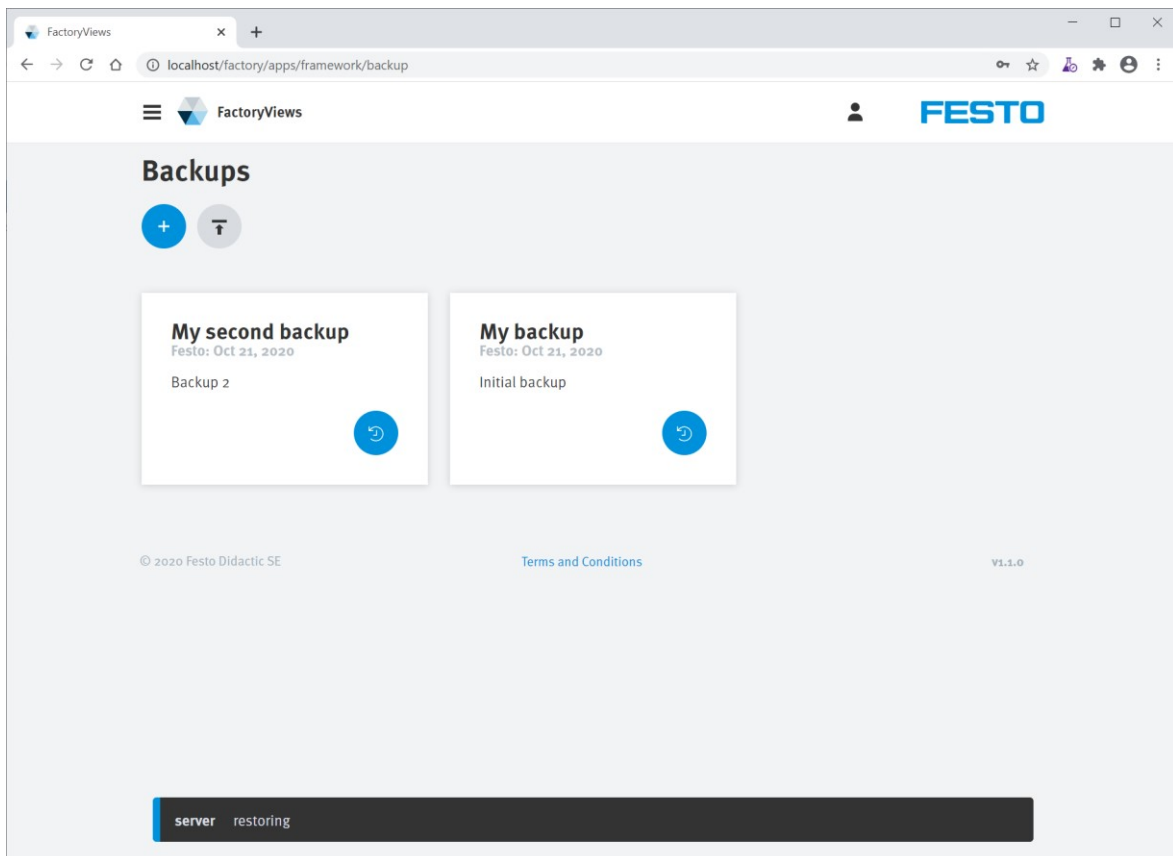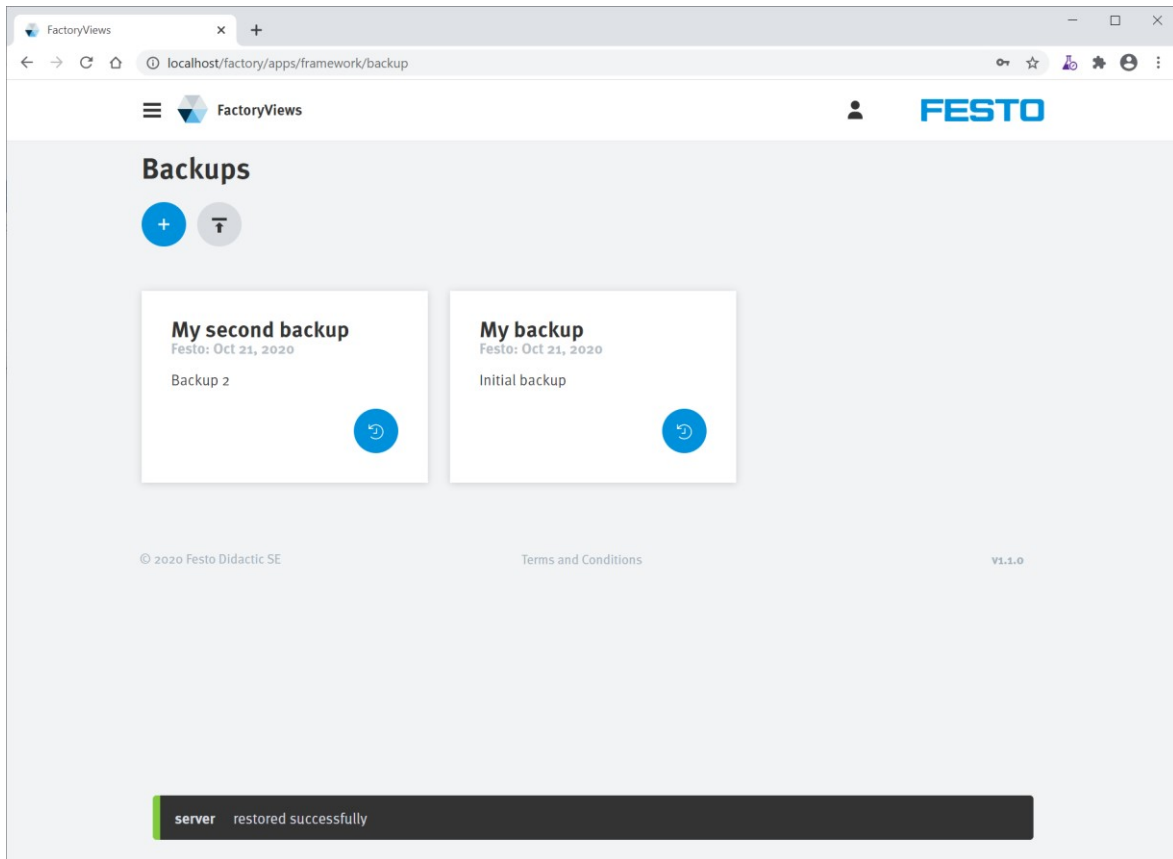

On one backup card click "restore".

Confirm with „OK".

Enter the password "Festo4.0" and confirm with "OK".

The saved state has been restored.

4 Terminating FactoryViews

To terminate the application, close the browser windows and the FactoryViews Control Panel.