

# **Unified-E Client User Manual**

## **Run HMI Visualizations on the HMI Device**

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# 1 Introduction

The Unified-E Client for Windows is the runtime application for HMI apps created with the Unified-E App Designer. It is installed on the respective operator device – for example on an industrial panel or an IPC – and hosts the configured HMI app there.

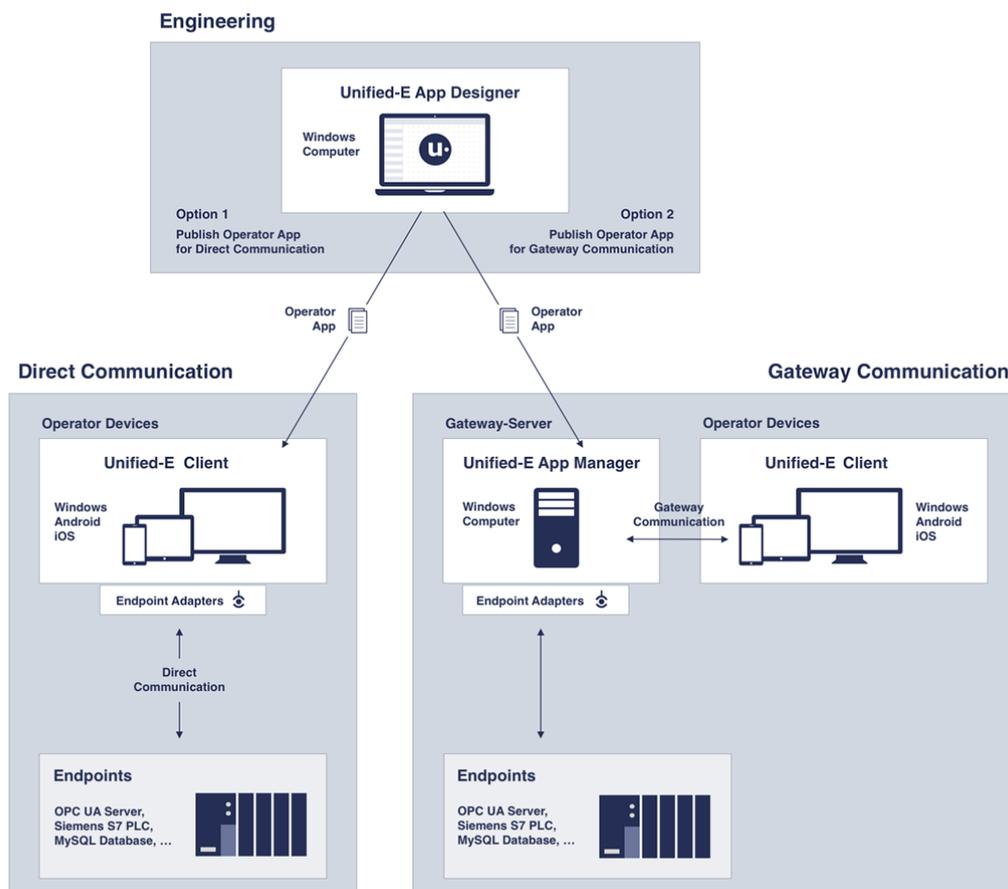
The Unified-E Client takes over the communication with the controller and displays the HMI app views for operation. It supports both direct communication with a PLC and gateway communication via a central gateway PC with the help of the Unified-E App Manager.

This guide describes how to use the Unified-E Client on Windows. The functions are also available in the “Unified”-E apps for Android and iOS, which can be obtained from the respective app stores.

In the following chapters, you will learn how to install the Unified-E Client on a target Windows device, start and operate an HMI app, and how to configure general settings.

## 1.1 Software Components

Unified-E consists of several programs or software components, the most important components are illustrated in the following figure. All programs can be downloaded from the Unified-E website – for development purposes, all programs are available free of charge.



### Unified-E App Designer:

The Unified-E App Designer (App-Designer for short) is an HMI editor that is used to configure the operator app or HMI app. The configuration is stored in a project file. For use at runtime, an app package file must be created in the App-Designer using the "Publish" function, which contains the HMI app in an optimized form.

The App-Designer user manual can be downloaded from the Unified-E website.

### Unified-E Client (subject of the manual):

The Unified-E Client is installed as an HMI client on the respective operator device. It is used to execute the visualization created in the App Designer and thus enables the operation and monitoring of machines and plants.

All functions of the Unified-E Client are described in detail in the following chapters.

### Unified-E App Manager (optional):

The optional Unified-E App Manager functions as an HMI server with central data storage or as an Internet gateway. The server function is used when, for example, a smartphone is to communicate with the plant via the Internet, or several operator devices access a plant at the same time. Since the HMI server acts as a gateway from the point of view of the HMI clients, this is also referred to as gateway communication.

The user manual for the Unified-E App Manager can be downloaded from the Unified-E website.

## **1.2 Important Terms**

### **1.2.1 App**

At Unified-E, the term "app" is used as a short form for operator app or HMI app. The app is created in the App-Designer as described above and is used to run on the HMI operator device with the help of the Unified-E Client. To run, the app must be registered once in the Unified-E Client, as described in chapter 2.1 described.

### **1.2.2 Direct Communication**

In direct communication, the HMI device – for example, an HMI Windows panel, tablet or smartphone – connects directly to the PLC controller or another data source without an intermediate server. A gateway component such as the Unified-E App Manager is not required in this case.

The connection is made via native protocols such as Modbus, S7 or OPC UA, which are integrated directly into the Unified-E Client. A separate direct license is required for each operator device.

This architecture is particularly suitable for individual machines with one or a few control panels, as well as for projects where the operator devices are located in the same network as the PLC and the infrastructure effort is to be kept as low as possible.

This type of communication requires a Direct license, as described below.

### 1.2.3 Gateway Communication

Gateway communication refers to an architecture in which the connection between the HMI devices and the PLC is not direct, but via a central gateway PC. This runs the Unified-E App Manager, which serves as an intermediary between the endpoints (PLC controllers) and the Unified-E Client and provides the data centrally for all connected devices.

With this type of communication, no licensing is required in the Unified-E Client. Instead, licensing is done via a Gateway license in the Unified-E App Manager, which covers access to multiple HMI devices.

### 1.2.4 Direct License

The Direct license is used for HMI apps with direct communication to controllers or other endpoints. It is activated on a specific HMI device – e.g. a Windows PC or Android panel – and is then bound to this device. A one-time internet connection is required for activation.

Once activated, as many HMI apps as you want can be added or updated, even without an internet connection. The number of endpoints or datapoints is not limited and depends only on the performance of the device.

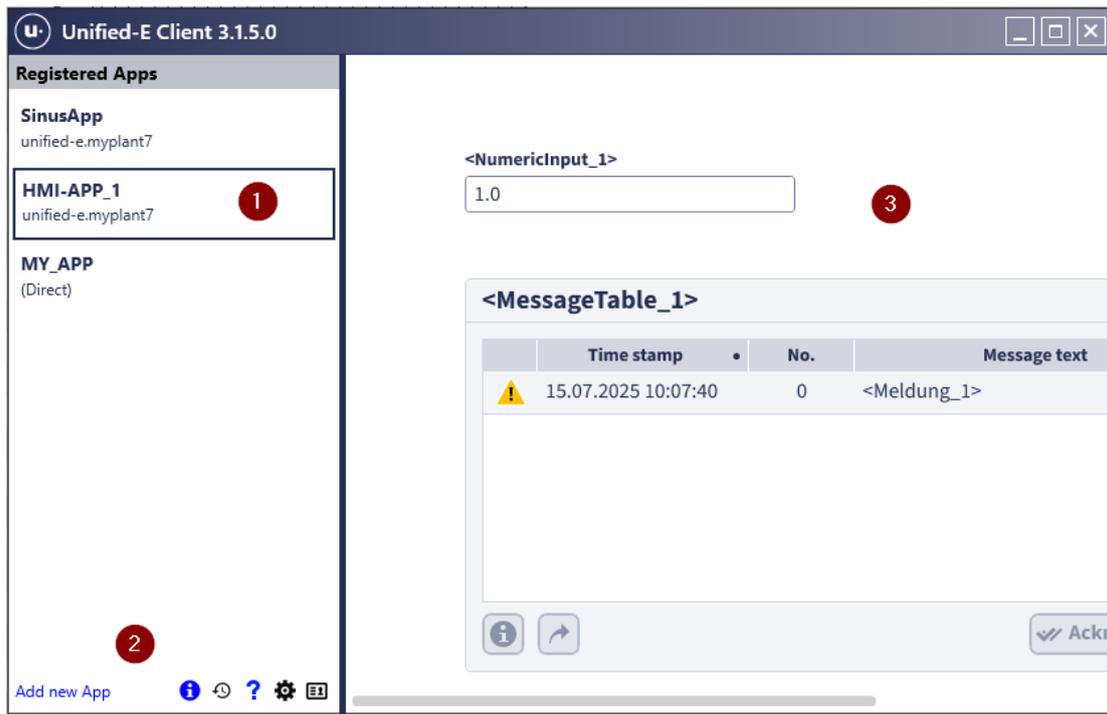
A license transfer to another device is possible to a limited extent. Details can be found in the license description on the Unified-E website.

## 1.3 Unified-E Client at a Glance

The user interface of the Unified-E Client can be started in different modes:

- **Universal view:**  
In this standard view after installation, HMI apps can be registered, visualized directly, but also general settings can be made.
- **Window View:**  
A specific HMI app launches in its own window. This mode is particularly suitable if other Windows applications are used in parallel to the Unified-E Client (see chapter 2.6).
- **Fullscreen mode:**  
The HMI app is displayed in full screen – ideal for permanently installed HMI panels that are used directly on a machine (see chapter 2.6).

#### Structure of the universal view:



Areas (numbering as shown in the figure):

1. "Registered apps" list:  
All registered apps are displayed here. By clicking on the app entry, the HMI visualization opens in the right area. Further functions can be accessed via the context menu.
2. Action bar below: The following functions are available here:
  - a. "Add new App" link: Opens an input mask in the right-hand area for registering a new app (see chapter 2.1).
  - b. "i" symbol: Shows the version of the current Unified-E Client.
  - c. "Version History" icon: Displays information about the history of the Unified-E client.
  - d. Help icon: Opens this help in the PDF reader
  - e. Settings icon: Opens a dialog for general settings that apply to all apps (see chapter 3).
  - f. License symbol: Opens a dialog for activating the direct license (see chapter 4).
3. Workspace:  
The selected HMI app is displayed here or masks of functions (such as "Add new App") are displayed.

## 2 Manage Registered Apps

Registered apps are managed in the Universal view in the left pane. Corresponding functions can be accessed in the action bar at the bottom or via the context menu.

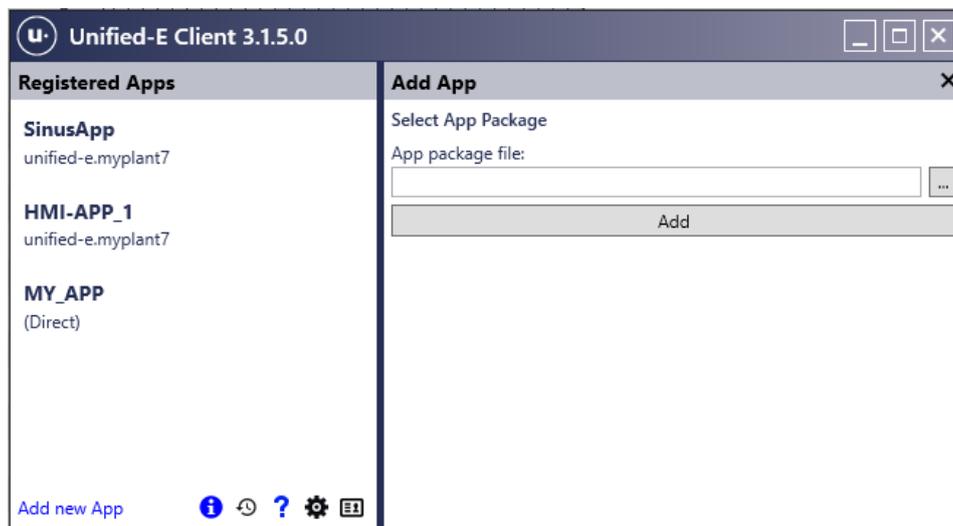
### 2.1 Add App

A new HMI app can be registered or added via the "Add new App" link in the bottom toolbar. A window then appears in the workspace to select the type of communication, which determines the further process.

Note: For iOS and Android devices, adding a new app can be done simply by scanning the QR code in the App Manager or App Designer via the camera. This function is not supported in the Unified-E Client for Windows, and app registration is done manually.

#### 2.1.1 Add App Manually for Direct Communication

The app package file, which contains all HMI app data, must be selected for registration.



- "... button: Here you can select the app package file in the file dialog
- "Add" button: After successful registration, the app appears in the left list of registered app of the Unified-E client and can be started.

#### 2.1.2 Add App Manually for Gateway Communication

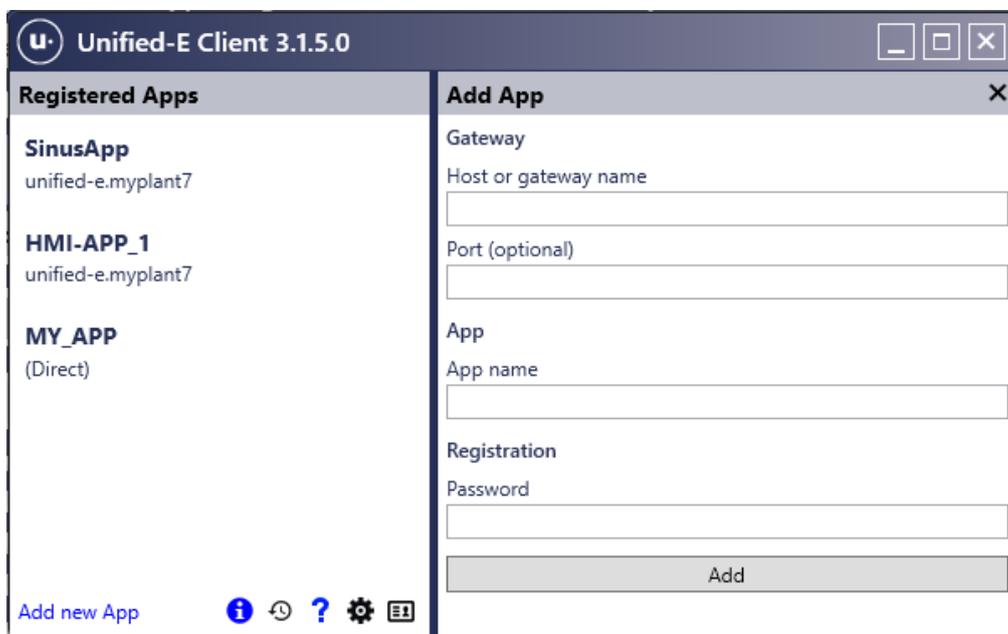
If the HMI app is operated via gateway communication, the operator device must be manually "paired" with the Unified-E App Manager. This one-time process establishes the connection between the HMI panel and the gateway PC. To do this, follow these steps:

**Step 1: Start the pairing process (operator device registration) in the App Manager:**

Open the Unified-E App Manager and start the "Register new operator device" dialog as described in the App Manager user manual. "Start" initiates the pairing process. All the necessary information is displayed, in particular the registration password, which must be entered in the next step in the Unified-E Client.

**Step 2: Enter gateway PC data in the Unified-E Client:**

In the Unified-E Client, select the "Gateway communication" option and enter the following data in the "Add new App" dialog:



- Gateway:
  - Host or gateway name: Identification for the gateway PC:
    - For Basic license (offline mode): Local IP address or host name of the gateway PC. See the "Gateway address" tab in the registration dialog on the App Manager
    - For all other licenses: Fully qualified gateway name (e.g., MyAccount.LicenseName)
  - Port (optional):
    - Required for Basic licenses only
- App:
  - App Name: Exact name of the app in App-Manager
- Register:
  - Password: Registration password according to the App-Manager

- «Add» button: Starts pairing. After a successful connection, the app appears in the left list of the Unified-E client and can be started by selecting the app.

## 2.2 Remove App

To remove a registered app, follow these steps:

1. Select the app to be removed from the list
2. Open the context menu and select "Remove app"

Note: Make sure to back up important app data before deleting it (see 2.5).

## 2.3 App Settings

The app settings of an HMI app can be opened via the context menu of the respective app via the menu item "App settings". A window will then appear in the workspace to adjust the app settings:

### Settings for HMI app with direct communication:

The following properties can be configured here:

- **App name:** Name of the app in the "Registered apps" list, which can be changed for direct communication
- **Language:** Initial app language of the app at startup, the app languages configured in the HMI project are available
- **Endpoints:** Addresses of the endpoints can be adjusted here
- **Auto-open on start:** Set to "On" so that the HMI app opens automatically when the Unified-E Client application is started
- **Update app:** Replaces the currently registered app with a new app package:
  - **Installed app:** Displays version and original filename of the currently registered HMI app
  - **"Update now" button:** Starts the update process (see chapter 2.4)

### Settings for HMI app with gateway communication:

The following properties are available:

- **Language:** Initial app language of the app at startup, the app languages configured in the HMI project are available
- **Open automatically on start:** Set it to "On" so that the HMI app opens automatically when the Unified-E Client application is started

## 2.4 Update an Existing App

You can start an app update via the context menu of the respective HMI app via "Update app". A window opens in the workspace with the following elements:

- **App package file:** Path to the app package file. By clicking the "..." button alternatively, the file dialog can be used for selection
- **"Update" button:** Replaces the currently registered HMI app with the selected app package

## 2.5 Open App Data Folder

In the case of direct communication, the following data is stored locally on the HMI operator panel:

- Recipe datasets
- Messages (Alarms) archive, messages CSV files
- Curve recordings

When using local user management, user data is also stored locally – both for gateway and direct communication.

You can open the data folder with the saved files via the context menu of the respective HMI app under "Open data folder". For example, this folder can be used for backup purposes or to manually delete or add recipe datasets.

## 2.6 Create a Desktop Shortcut for an App

To start an HMI app on the operator device in full-screen mode or in your own window, a corresponding desktop shortcut can be created in the Unified-E Client.

### To create a desktop shortcut for full-screen mode:

In the context menu of the HMI app, select the menu item «Create desktop shortcut (full screen)». This creates a shortcut on the desktop called "Unified-E Client – <App Name> – Full Screen".

### To create a desktop shortcut for windowed mode:

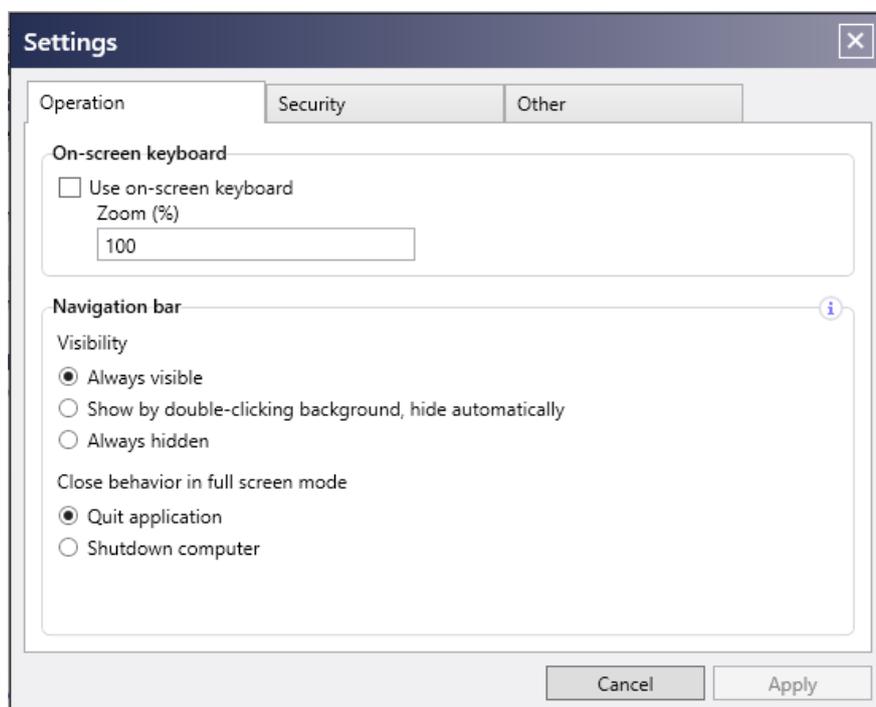
In the context menu of the HMI app, select the menu item "Create desktop shortcut (window)". This creates a shortcut on the desktop called "Unified-E Client – <App Name> – Window".

## 3 Common Settings

The Settings dialog is opened via the context menu under "Common settings" and allows the configuration of basic parameters for the operation, security and behavior of the Unified-E Client. The settings are divided into three tabs: "Operation", "Security" and "Other".

### 3.1 Operation Tab

In this area, you can set settings for the on-screen keyboard, as well as the visibility of the navigation bar and the behavior when closing in full-screen mode.



#### On-screen keyboard:

The on-screen keyboard (or virtual keyboard) allows text or number input directly on the touchscreen.

- **Use on-screen keyboard:** Enables the built-in on-screen keyboard that appears on touch devices
- **Zoom (%):** Scale factor of the on-screen keyboard to adjust the size

#### Navigation bar:

The navigation bar contains buttons for "Back" (switches to the previous view) and "Close" (closes the Unified-E client or shuts down the computer).

- **Visibility:** Configures the visibility of the optional navigation bar below the HMI app:
  - **Always visible:** The navigation bar is always displayed

- Show by double-clicking background, hide automatically: The bar appears when you double-click and then automatically disappears again
- Always hidden: The bar remains permanently hidden
- Close behavior in fullscreen mode:
  - Quit application: Closing the HMI app in full-screen mode will only close the app
  - Computer shutdown: The entire system shuts down when closed

## 3.2 Security Tab

Restrictions on access to the application can be defined here.

- Windows users who are not assigned to the Administrator role can only launch the application in full-screen mode:  
Enable this option to allow non-administrators to access the application only in full-screen mode. This prevents unwanted interactions with the operating system

## 3.3 Other Tab

This tab contains settings for the language, update check, and output format of CSV files.

### Language:

Here, the language for the user interface of the Unified-E Client is selected.

### Check for updates:

- Automatically check for updates: If the option is active, the application will automatically check for new updates when it starts
- "Check for updates now" button: Manually triggers an update check

### CSV files:

The output format for CSV files (e.g. B. CSV recordings, CSV message files) can be defined based on regional settings:

- Use local regional settings: Time, number, and delimiter formats are chosen according to the current Windows system settings
- Use culture-independent settings (invariant): Uniform, standardized format independent of local language settings is used (similar US format)

## 4 Activate Direct License

The "Manage Direct License" dialog is opened via the context menu of the HMI app under "Manage Direct License". It is used to activate a direct license on the current operator device. This license is required if HMI apps with direct communication are operated on this device.

Note: For HMI apps with gateway communication, no license activation is required in the Unified-E client.

### Preconditions:

To activate it, you will need the license name and password. If you purchased the license through a reseller, the supplied license key must be registered in the Unified-E Portal. During the registration process, you set the license name and password.

- A one-time Internet connection is required for license activation
- After successful activation, the Unified-E Client can also be used without the Internet
- The license is permanently linked to the operator device when activated. A later license transfer to another device is only possible to a limited extent

### Activate license:

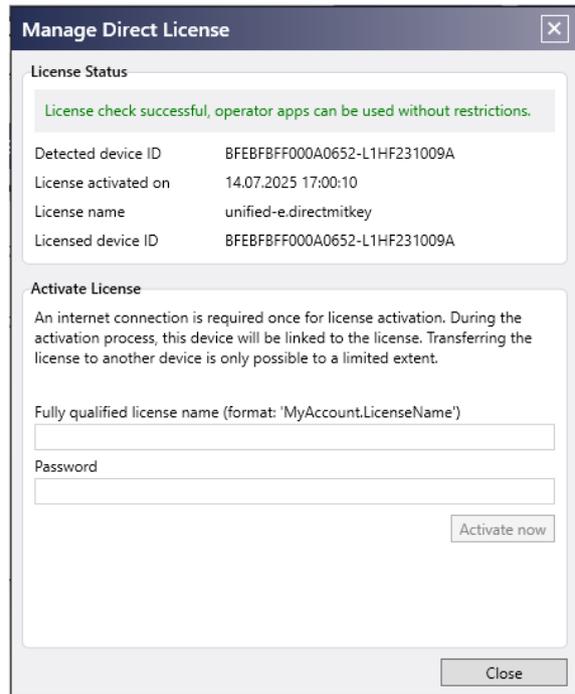
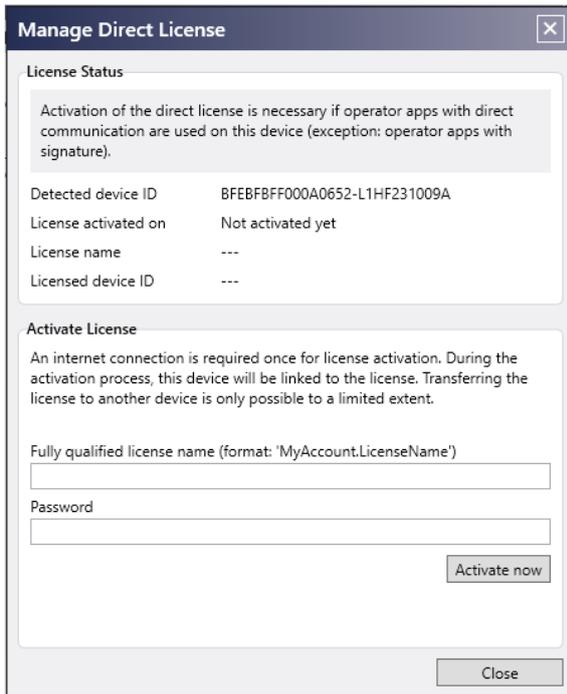
A new Direct License can be activated in the lower area:

- **Fully qualified license name:** Enter the full name of the license here, e.g. "MyAccount.LicenseName". The license name is defined via the Unified-E website
- **Password:** The associated license password
- **"Activate now" button:** Starts the online activation of the license. After successful activation, the license is permanently linked to the device ID of the current HMI device

### License status:

The upper part of the dialog shows the current license status, e.g. whether the license has already been activated and which device ID is linked to the license.

The figure below shows the dialog before and after license activation.



## 5 Appendix

### 5.1 Support and Further Information

For further information on the use of the Unified-E Client, please visit our website at [www.unified-e.com](http://www.unified-e.com). In particular, the "First Steps" section offers a compact introduction with clear examples and frequently asked questions.

If you need technical support or have specific questions about your configuration, you can always contact our support team. To do so, please send an e-mail to:

[support@unified-e.com](mailto:support@unified-e.com)

We will do our best to process your request as quickly as possible. Please include relevant screenshots or a short description of your project structure in your email – if available – to enable efficient editing.