Data2Unified Add-In Instructions

SIMATIC HMI Comfort Panels, WinCC Runtime Advanced, SIMATIC HMI Unified Comfort Panels, SIMATIC WinCC Unified V16

https://support.industry.siemens.com/cs/ww/en/view/109770510

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1 Introduction

1.1 Overview

SIMATIC WinCC Unified is the all-new visualization system from Siemens for automation applications. The SIMATIC WinCC Unified System consists of the SIMATIC WinCC visualization software and the new SIMATIC HMI Unified Comfort Panels

The "Data2Unified" add-in offers you the possibility to convert your configuration contents into a WinCC Unified configuration so that you do not have to recreate the contents of your previous configurations from scratch.

1.2 Principle of Operation
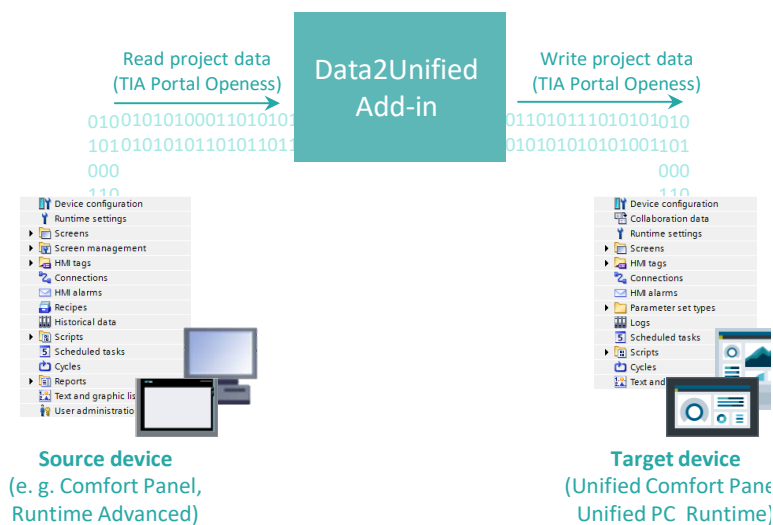
The "Data2Unified" add-in accesses the project contents of the devices via the Openness interface of the TIA Portal. It extracts the content from the source devices and re-creates it in the Unified target device.

Note	The "Data2Unified" add-in is under continuous development, which will gradually allow it to support additional TIA Portal project elements.
	The link to download the latest version of the add-in is available within this article.

1.3 "Data2Unified" Add-In User Interface

Note	The user interface and the event log ("Log file") are only available in English.
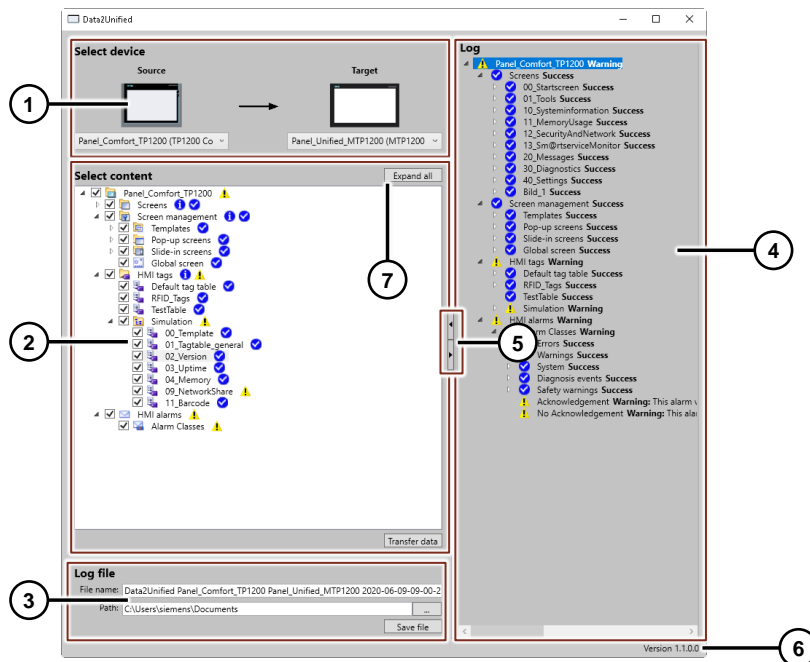
(1) Selection area for source and target device ("Select device")

(2) Configuration area for project data of the source device ("Select content")

(3) Configuration area of the log file ("Log file")

(4) Overview of the conversion result

(5) Speedy Splitter, changing the size of the conversion area

(6) Version number

(7) Expand/Collpase all project data

1.4 Components Used

This application example was created with the following hardware and software components:

Components	Quantity	Item number	Note
SIMATIC WinCC Unified Engineering V16	1	6AV2153-….1-6…	-
SIMATIC WinCC Unified PC Runtime V16	1	6AV2154-….1-6…	-
PC Station with WinCC Runtime Advanced V16	1	6AV2104-….6-0…	-
SIMATIC HMI Comfort Panel TP1200	1	6AV2124-0MC01-0AX0	Alternatively, any other SIMATIC HMI Comfort Panel can be used.
SIMATIC HMI Unified Comfort Panel MTP1200	1	6AV2128-3MB06-0AX0	Alternatively, any other SIMATIC HMI Unified Comfort Panel can be used.

2 General

2.1 Requirements

To use the "Data2Unified" add-in, the following requirements must be met:

- SIMATIC WinCC Unified V16 must be installed.
- The project must be upgraded to TIA Portal V16.
- At least one supported source and target device must be configured in the project.

2.2 Supported Devices

The following table shows you which devices in the TIA Portal are supported by the "Data2Unified" add-in.

Table 2-1

Device family	supported by the "Data2Unified" add-in
Panel-based	
Basic Panels	✗
Comfort Panels	✓
Comfort Panels PRO	✓
Outdoor Panels	✓
Mobile Panels	✓
PC-based	
Runtime Advanced	✓
Runtime Professional	✗

2.3 Supported TIA Portal Project Elements

The following contents are supported by version V1.1.0.0 of the "Data2Unified" add-in for conversion to SIMATIC WinCC Unified:

Screen objects

Following elements are supported:

- Basic objects (e. g. Text box, Graphic view, Rectangle)

Note	Screen objects that are bound to a style can only be converted correctly to a limited extent.

Note	The property "fill pattern" is not yet supported correctly. In WinCC Unified, the background is always displayed "solid" with the background color that is configured in the SIMATIC HMI Comfort Panel.

Note	Conversion of animation of basic objects are not supported in this version.

Screens

Following elements are supported:

- Screens

Note	After you have converted the screens and screen management elements, you must manually create the image hierarchy with screen windows in WinCC Unified.
	Further information, such as how to create templates and pop-ups under WinCC Unified, can be found in the application example "Guide to switching from Comfort Panels to Unified Comfort Panels" (available expected 07/2020)
	https://support.industry.siemens.com/cs/ww/en/view/109768002

Note	Conversion of animation and events of screens are not supported in this version.

Screen management

Following elements are supported:

- Templates
- Pop-up screens
- Slide-in screens
  Note: Conversion of slide-in screens are only possible, if they are activated inside the engineering.
- Global screen

Note	After you have converted the screens and screen management elements, you must manually create the image hierarchy with screen windows in WinCC Unified.
	Further information, such as how to create templates and pop-ups under WinCC Unified, can be found in the application example "Guide to switching from Comfort Panels to Unified Comfort Panels" (available expected 07/2020)
	https://support.industry.siemens.com/cs/ww/en/view/109768002

Note	Conversion of animation and events of screen management elements are not supported in this version.

HMI tags

Following elements are supported:

- Tag tables
- Tags

Note	Conversion of UDT structures are not supported by the current version and must be created manually under WinCC Unified.

HMI alarms

Following elements are supported:

- Discrete alarms
- Analog alarms
- Alarm classes

3 Engineering

3.1 Adding User to User Group

To use the Data2Unified add-in, the user on the engineering computer must belong to the "Siemens TIA Openness" user group. Without the assignment, no access to the project files is possible.
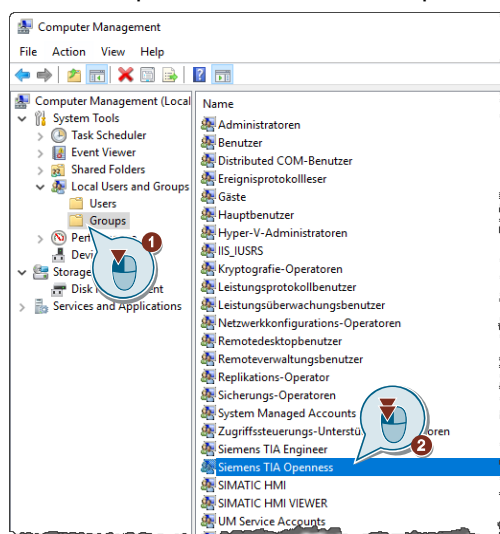
How to assign a new user to the "Siemens TIA Openness" user group is described below.

Adding users to the TIA Openness group

1. Right-click on the Windows icon and open Computer Management.
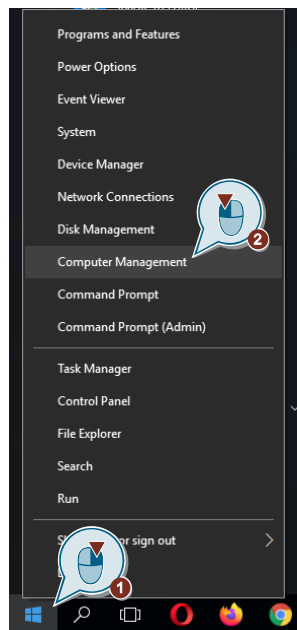
2. Under the category "Local Users and Groups", open the folder "Groups" (1) and then open the "Siemens TIA Openness" group by double-clicking it (2).

3. Adding users:

- Click "Add" (1) in the Properties View of the group.
- In the "Select Users" window, click "Advanced" (2).
- Then click "Find Now" (3) in the Advanced View.
- Select the user with which you are logged in on the PC (4).
- Confirm the user selection with "OK" (5).
- Then click on "Apply" (6) in the "Siemens TIA Openness" Properties View.
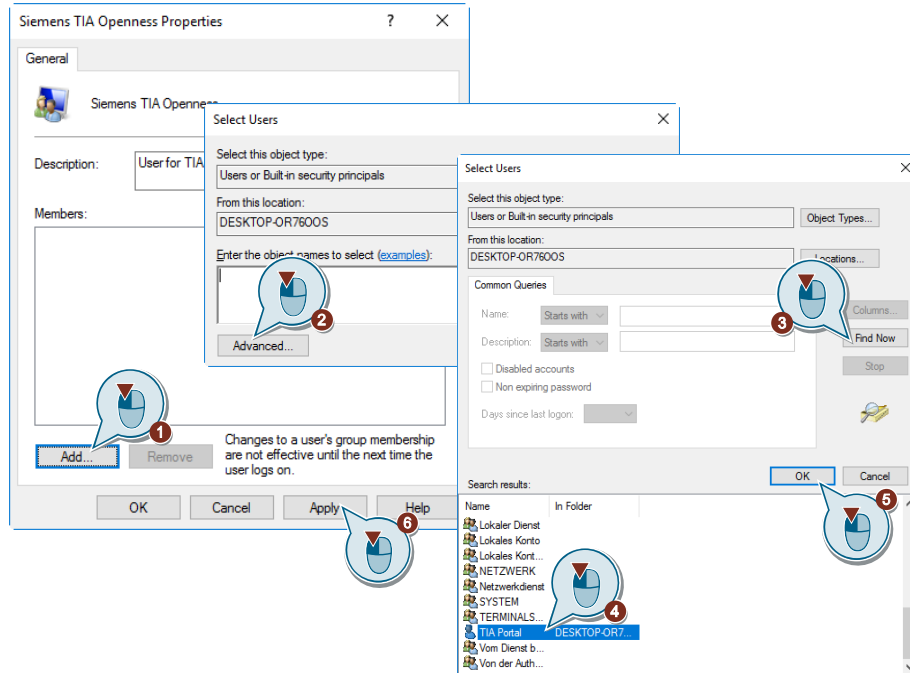

4. Restart your PC for the change to take effect.

3.2 Enabling the Add-In

1. Download the "Data2Unified" add-in from this article and unzip it.
2. Open the file explorer, then open the TIA installation directory (default "C:\Program Files\Siemens\Automation\Portal V16\AddIns") and copy the "Data2Unified.addin" file into it.
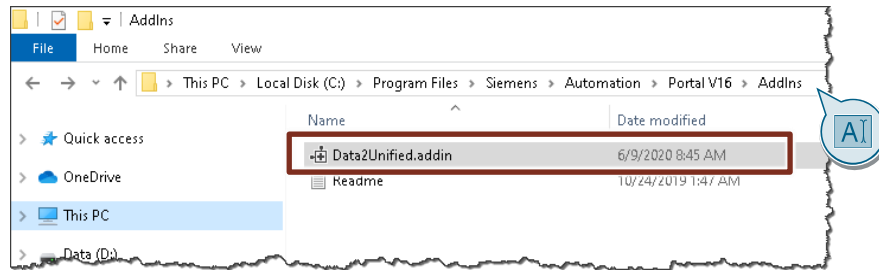
3. Open the TIA Portal V16.
4. Activate the add-in in the TIA Portal:
   - In the TIA Portal, open the "Add-Ins" tab (1).
   - In the details, open the Status drop-down list and select "Activate" (2).
   - Confirm the window for activating the add-in by clicking "Yes" (3).
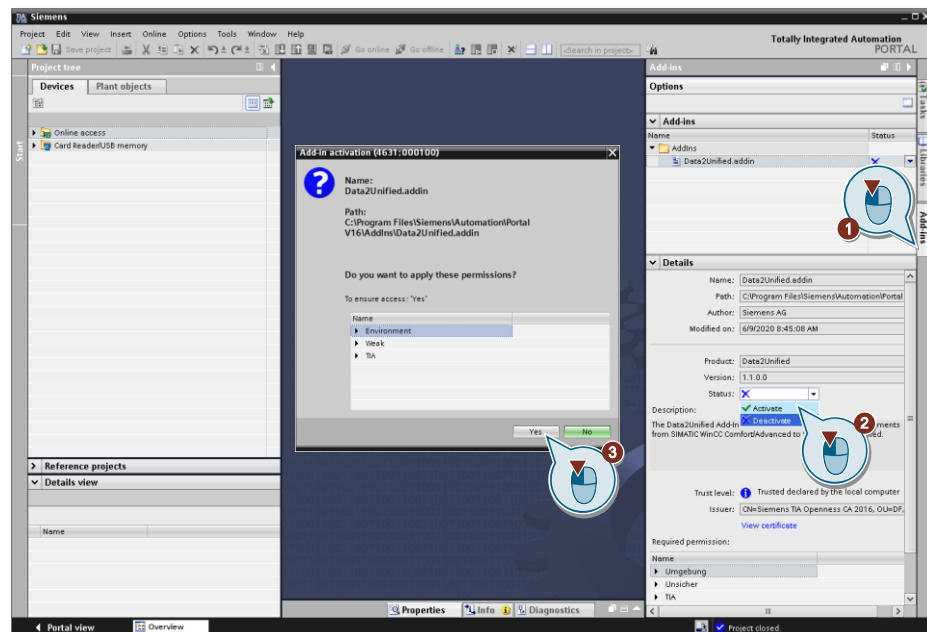
5. The add-in can now be used in the TIA Portal.

3.3 Operation

Opening the "Data2Unified" add-in user interface

1. Open your TIA Portal project with an existing configuration for the supported devices (e.g. SIMATIC HMI Comfort Panel).

2. Use "Add new device" to add a SIMATIC HMI Unified Comfort Panel in the appropriate size.
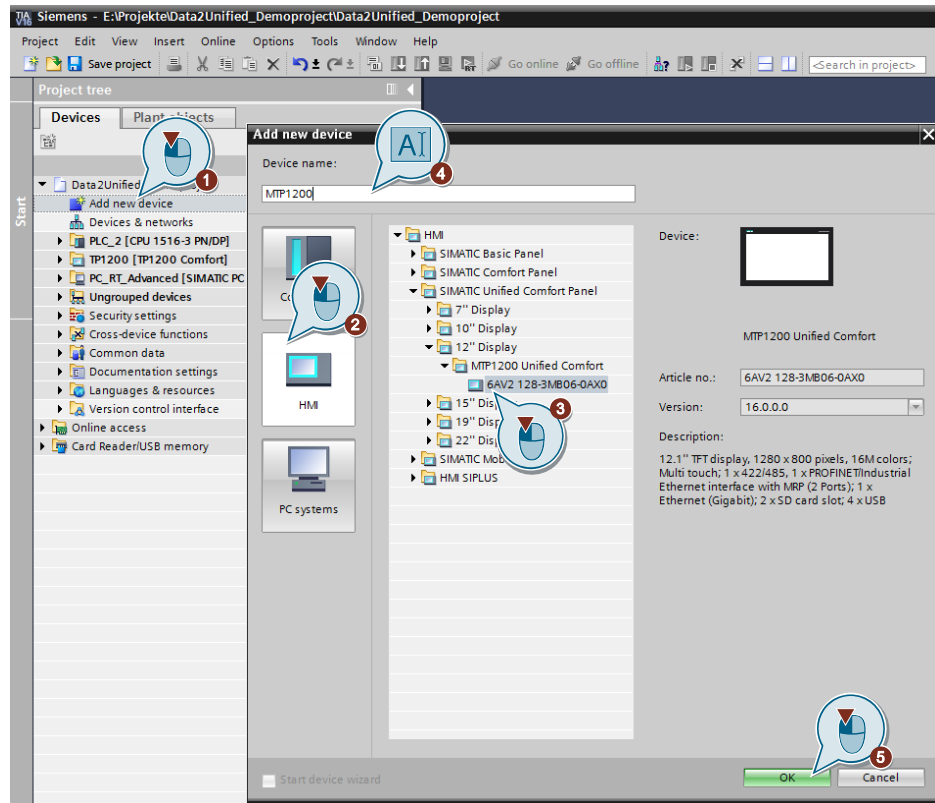

| Note | If you are using a PC station with WinCC Runtime Advanced, add a PC station with WinCC Unified Runtime as the target device. |

3. If you have configured tags with controller connection, open the "Devices & networks" editor in the next step and add an HMI connection.
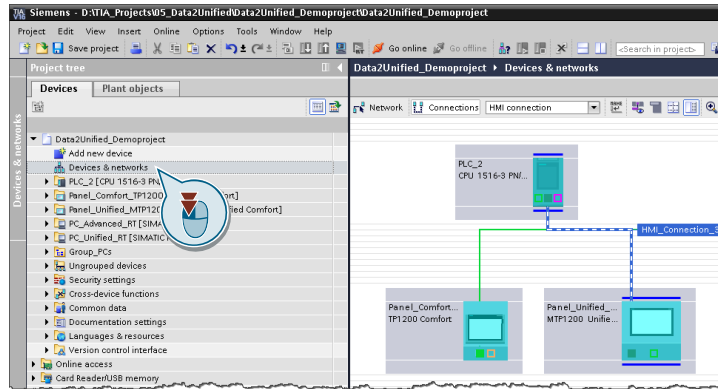

4. Right-click on the Comfort Panel in the project navigation and select "Data2Unified > Start" in the context menu.
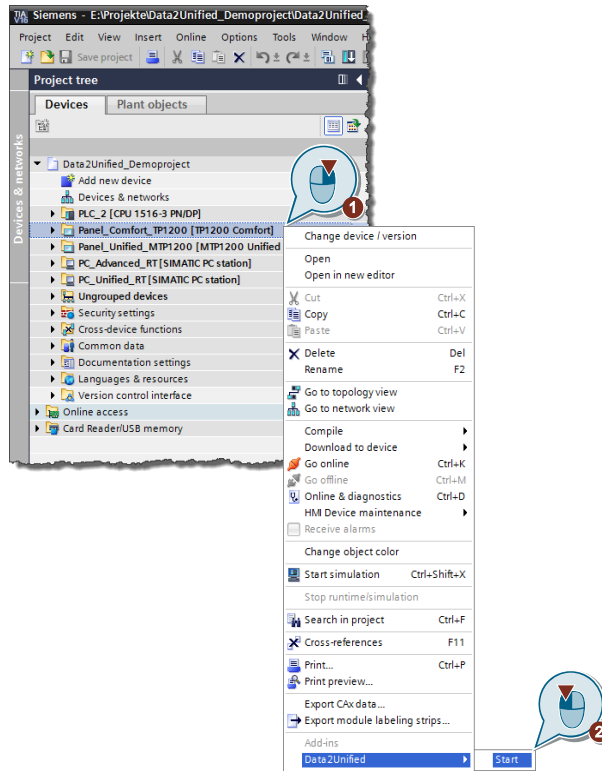
The user interface of the add-in opens. The Comfort Panel set as the source device by default and the project contents are then retrieved.

Note   If you start the add-in via the context menu of the Unified Comfort Panel, the target device is preset and you can select the source device.

5. In the next step, select the Unified Comfort Panel as the target device in the user interface for the "Data2Unified" add-in by clicking the drop down menu under select target device.
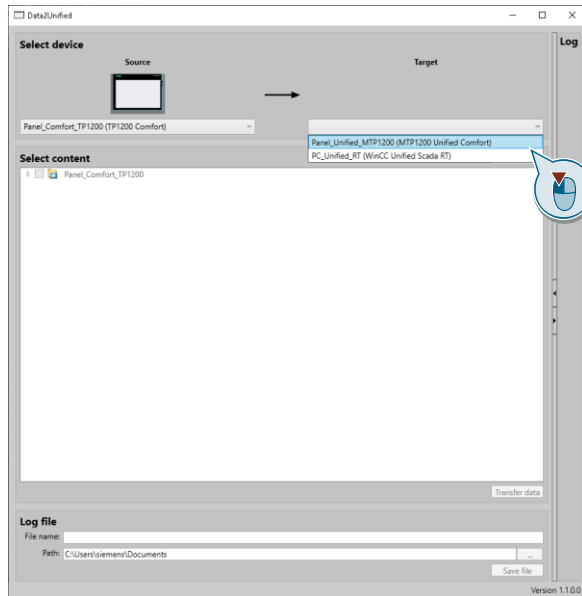

Note	If you have selected a PC station with Runtime Advanced as the source device, you must select a PC station with WinCC Unified Runtime as the target device.

6. Select project contents:

    -   In the "Select content" field, select the content that you want to transmit to the target device (Unified Comfort Panel) (1).
    -   Then click on "Transfer Data" (2).
    -   Confirm by clicking "Yes" (3) in the dialog box.
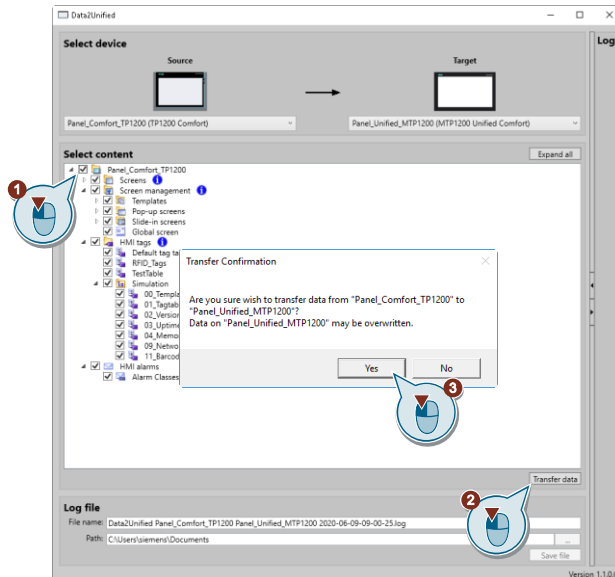
7. Then save the "Log file" to get an exact overview of the conversion. To do so, proceed as follows:

    -   Enter a unique name (1) if necessary.

    -   Then select the storage location (2).

    -   Then click "Save" (3).

    -   Click on "OK" (4) to close the information box.
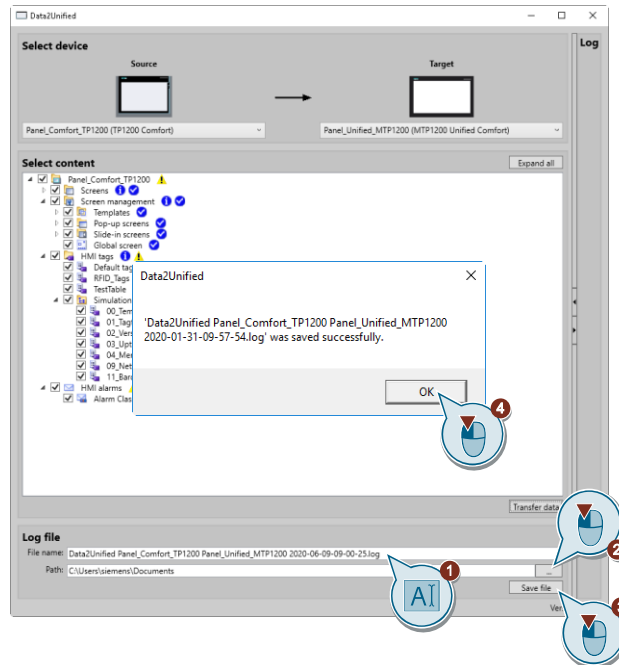
Note   If you have configured tags with controller connection, please refer to Chapter 3.5.3.

8. The conversion of the project contents has been completed and you can close the user interface of the "Data2Unified" add-in.

3.4 Analyzing Log Files

The log file is the event log of the "Data2Unified" add-in. It records, in detail, which of the TIA Portal project elements and their respective properties have been converted to Unified.

The file itself can be saved in "*.log" format and then opened in Microsoft Excel or Notepad, among other options.

| Note | To evaluate the log file effectively, Microsoft Excel is recommended for subsequent analysis (see Chapter 3.4.2). You can also filter the data this way. |

3.4.1 Components of the Log File

The log file of the "Data2Unified" add-in contains the following five pieces of information:

- "Date/Time"
- "Type"
- "Category"
- "Path"
- "Message"

Date/Time

"Date/Time" specifies the timestamp when the TIA Portal object was converted to WinCC Unified.

Type

"Type" describes the status of the conversion. A distinction is made between the following types:

Table 3-1

Type	Description
Success	The object/property was successfully converted.
Error	The object/property could not be converted.
Skipped	The object/property was omitted during conversion.
Not supported	The property is not supported and was not converted.
Information	Shows the start and end of a conversion sequence, not relevant for the conversion

Category

"Category" specifies which kind of TIA Portal project element it is, for example, "Tag", "Tag table", "Alarm class".

Path

"Path" specifies where to find the TIA Portal project element in the TIA Portal Project navigation.
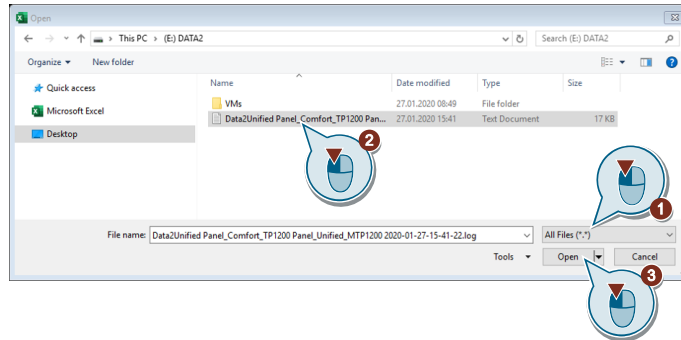
Message

"Message" contains a detailed description of the TIA Portal project element and its properties based on its "Type".
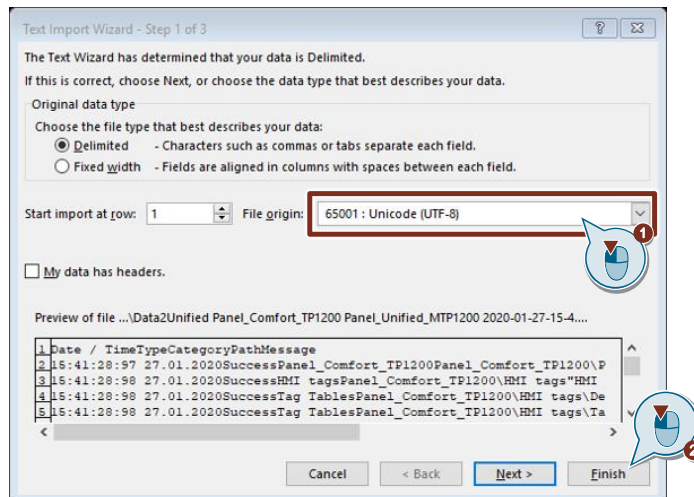
3.4.2 Opening Log File with Microsoft Excel

To open the "log file" with Microsoft Excel, proceed as follows.

1. Open Microsoft Excel.

2. Then click "File > Open" and browse to the location where the log file is stored.

3. To open the log file, select "All Files (".")" (1). Then select the "Log file" (2) and click "Open" (3).

4. In the "Text Import Wizard" that opens, select the entry "65001: Unicode (UTF-8)" (1) as the "File origin" and then click "Finish" (2).

5. You can then filter the individual columns in Microsoft Excel.

3.5 Error Handling

3.5.1 Add-In is Missing in the TIA Portal Context Menu

Malfunction

The "Data2Unified" add-in entry is missing from the context menu of the source device, although the add-in is displayed as enabled in the TIA Portal. This occurs usually after a restart of the TIA Portal.

Remedy

In this case, check whether:

- the registered user is a member of the "Siemens TIA Openness" group
- the "Data2Unified" add-in is enabled

If both of these conditions are met and the "Data2Unified" add-in still does not appear, disable the add-in via the "Add-Ins" tab and then enable it again.

3.5.2 Device Cannot be Selected Under "Select Device"

Malfunction

The user interface of the "Data2Unified" add-in is opened. However, you cannot select the source device ("Source") or the target device ("Target") under "Select device".
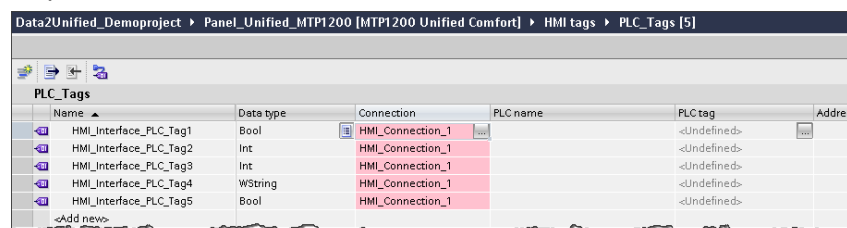
Remedy

In this case, check if the device is supported by the "Data2Unified" add-in (see Chapter 2.2)

3.5.3 Connection or PLC Tag is Displayed with a Red Background

Malfunction

If you have configured tags with controller connection in your project and have executed the add-in, but the HMI connection is displayed incorrectly in the first step.
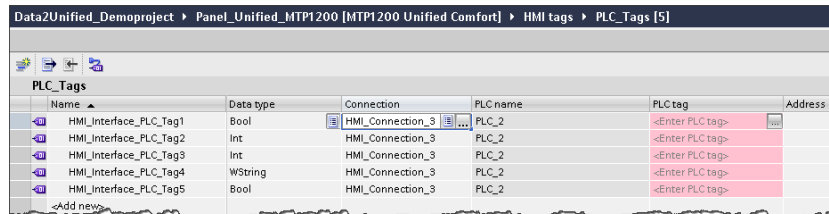

Remedy

In this step, open the extended view in the "Connection" column and select the name of the HMI connection between the PLC and its Unified Comfort Panel—in this case, "HMI_Connection_3".
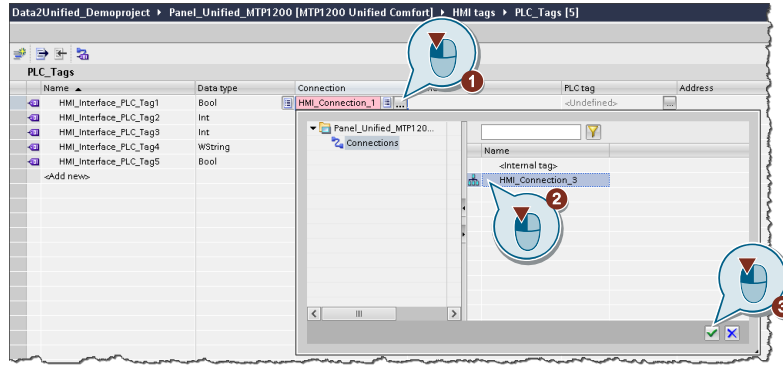
You can then transfer the property to all tags with controller connection (copy and paste).

Resulting failure

After the successful correction of the connection, the "PLC tag" column is highlighted in red, as these still need to be stored.

Remedy

After correcting the connection name, open the add-in again and run the conversion of the tag table/tag again. The PLC tags are then set automatically.
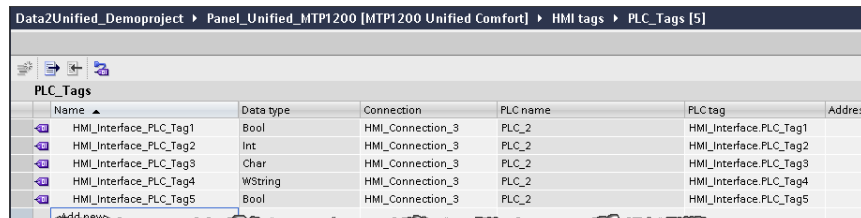
4 Appendix

4.1 Service and support

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support.industry.siemens.com/cs/ww/en/sc/2067

4.2 Links and literature

Table 4-1

No.	Subject
\1\	Siemens Industry Online Support https://support.industry.siemens.com
\2\	Link to the article page of the application example https://support.industry.siemens.com/cs/ww/en/view/109770510

4.3 Change documentation

Table 4-2

Version	Date	Change
V1.0	02/2020	First edition
V1.1	07/2020	• Adjust description to Data2Unified V1.1.0.0 • support of further TIA projects elements • small bug fixes based on feedbacks