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SIMATIC Energy Suite V14 SP1 Visualization Example

WinCC V14 SP1 (Comfort/Advanced/Professional),
Comfort Panel, WinCC Runtime Advanced V14 SP1,
WinCC Runtime Professional V14 SP1

<https://support.industry.siemens.com/cs/ww/en/view/109739775>

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1 Task

Introduction

In many companies the energy costs represent a great share of the total costs. When the internal energy flows cannot be acquired, only the total energy consumption and the total costs are known. In this case the plant is like a black box.

Due to the following developments, the energy management is becoming an increasingly central topic in production:

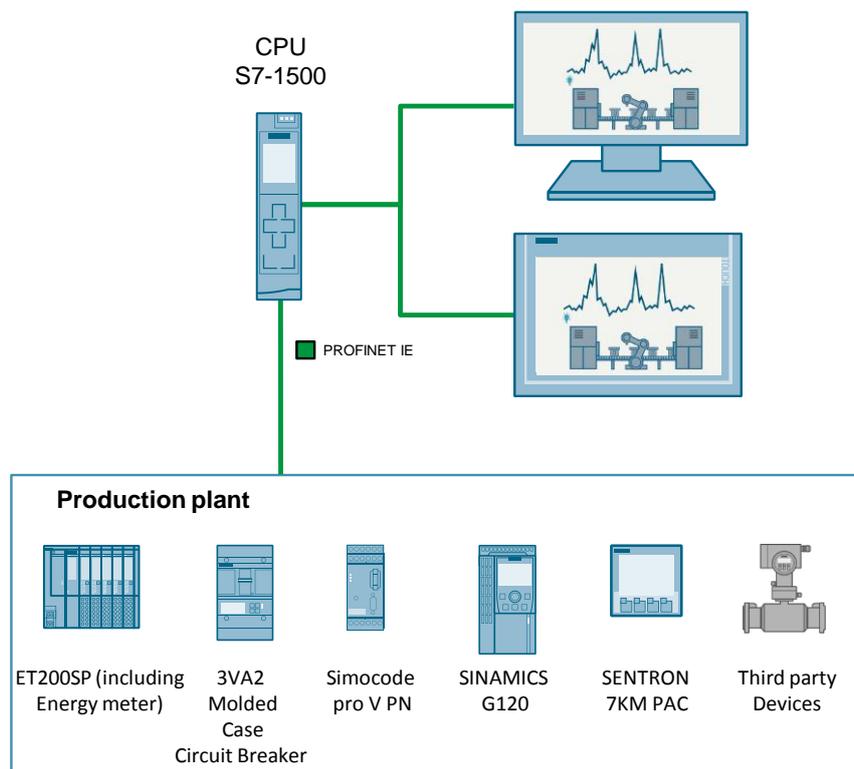
- Increasing energy costs
- Increasing significance of environmentally-friendly production processes
- Legal measures

With the SIMATIC Energy Suite you can acquire and archive the energy consumption of your production plant. You can display the energy data on an HMI operator panel to give you an additional overview of the current energy consumption.

Overview of the automation task

The following figure provides an overview of the automation task.

Figure 1-1



Description of the application example

The application example shows you how to visualize the energy data of your production plant. The energy data is displayed on the Comfort Panels as well as with WinCC Runtime Advanced and WinCC Runtime Professional.

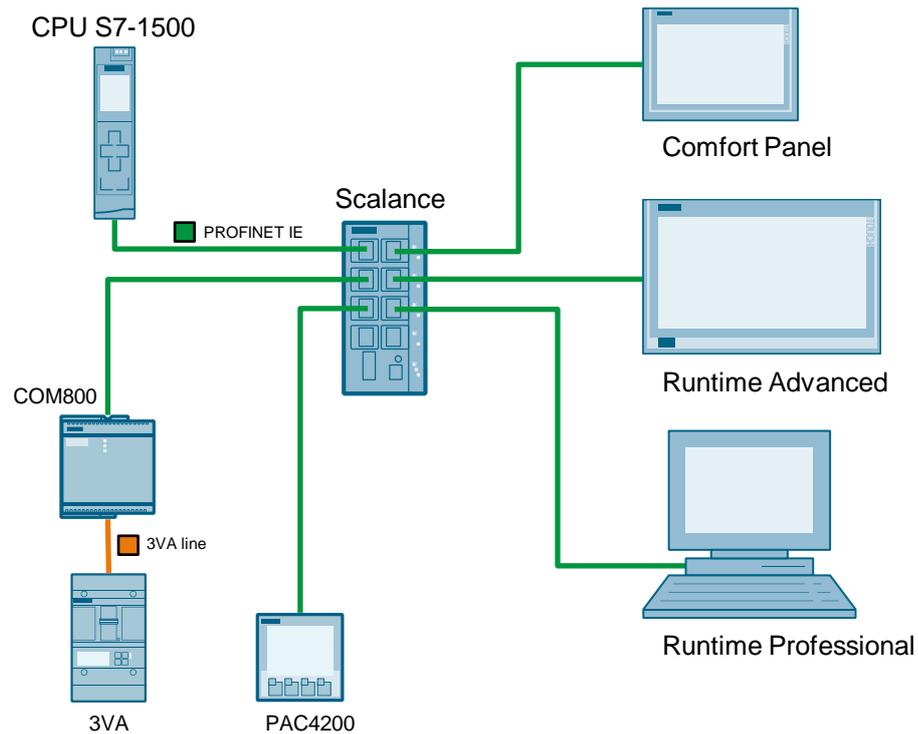
2 Solution

2.1 Overview

Schematic layout

The figure below shows a schematic illustration of the main components of this solution.

Figure 2-1



Advantages

The solution presented here offers the following advantages:

- Reducing the engineering effort
- Uniform visualization layout
- Time and costs savings
- Visualizing the SIMATIC Energy Suite energy data
- User-defined adjustment of the visualization

Topics not covered by this application

This application example does not contain a description of:

- Basic programming of controllers and HMIs.
- Creating an energy program with SIMATIC Energy Suite

Information for creating an energy program with SIMATIC Energy Suite can be found in the application example "SIMATIC Energy Suite – Getting Started".

<https://support.industry.siemens.com/cs/ww/en/view/109739102>

Assumed knowledge

Basic knowledge of:

- the interaction of controller and HMI.
- the configuration of a controller as well as an HMI.
- the configuration of SIMATIC Energy Suite

2.2 Hardware and software components**2.2.1 Validity**

This application example is valid for the following components:

- STEP 7 Professional V14 SP1
- WinCC Advanced V14 SP1
- WinCC Professional V14 SP1
- Comfort Panels
- CPU S7-1500 as of firmware V2.0

2.2.2 Components used

The application example has been created with the following components.

Hardware components

Table 2-1

Component	Qty.	Article number	Note
CPU 1513-1 V2.0	1	6ES7513-1AL01-0AB0	Firmware V2.0 required. Alternatively, any other CPU from the S7-1500 product family that has firmware V2.0 (apart from S7-1500S) can be used.
SIMATIC Memory Card (24MB)	1	6ES7954-8FL02-0AA0	Alternatively, you can also use SIMATIC memory cards with other storage sizes
TP1200 Comfort Panel	1	6AV2124-0MC01-0AX0	Alternatively, any other Comfort Panel can also be used.
3VA2 molded-case circuit breaker	1	3VA2225-5KQ32-0AA0	Molded-case circuit breaker are only supported with ETU 8 series
COM800 data concentrator		3VA9987-0TA10	Alternatively, a COM100 can also be used.
SETRON PAC4200		7KM4211-.BA00-.AA0	Switched Ethernet PROFINET expansion module required

2 Solution

2.2 Hardware and software components

Software components

Table 2-2

Component	Qty.	Article number	Note
SIMATIC STEP 7 Professional V14 SP1 Update 2	1	6ES7822-1A.04-0YA5	-
WinCC Professional V14 SP1 Update 2	1	6AV2103-0XA04-0A.5	-
WinCC Runtime Advanced V14 SP1 Update 2	1	6AV2104-0.A04-0A.0	-
WinCC Runtime Professional V14 SP1 Update 2	1	6AV2105-0.A04-0A.0	-
SIMATIC Energy Suite V14 SP1 Update 2	1	6AV2108-0AA04-0A.5	-

3 Configuration and Settings

3.1 Prerequisite

For you to be able to use the visualization properly, it is assumed that you have already generated an energy program with the SIMATIC Energy Suite. For more information, please refer to the “SIMATIC Energy Suite - Getting Started” application example:

<https://support.industry.siemens.com/cs/ww/en/view/109739102>.

In the present application example and the corresponding example project, the following components have already been created in the TIA Portal project:

- a CPU S7-1513
- a Comfort Panel
- one PC station with WinCC Runtime Advanced
- one PC station with WinCC Runtime Professional

Energy program in the example project

In the example project, an energy program with the following three energy objects has already been created and generated in the CPU S7-1513:

Table 3-1

Energy object	Energy data source	Energy data	Operator panel
"Energy_Filling_Comfort"	SETRON PAC4200	Advanced energy data	Comfort Panels
"Energy_Packaging_RT_Adv"	Variable from DB	Basic energy data	Runtime Advanced
"Energy_line1_RT_Prof"	COM800	Advanced energy data	Runtime Professional

Example project basic energy data

Note You can generate basic energy data from a tag as well as from the connected measurement hardware.

In the example project, this has been implemented for WinCC Runtime Advanced by means of a tag from a global data block.

Every second a random value changes the value of the tags within predefined limits. All STEP 7 blocks that are required for the energy value simulation can be found in the controller in “Program blocks” in the folder “Simulation”.

Download the configuration to the “PLCSim Advanced”. In WinCC Runtime Advanced, you can then test the Energy Suite visualization without measurement hardware and restriction.

Example project advanced energy data

Note You can generate advanced energy data with the Energy Suite V14 only from a connected measurement hardware.

In the example project, this has been realized for the Comfort Panel and WinCC Runtime Professional. To be able to use the visualization without restrictions, you need real measurement hardware. A simulation is not possible.

3.2 Creating an Energy Suite V14 SP1 visualization

3.2.1 Creating a visualization on Comfort Panels and WinCC Runtime Advanced

The table below shows you the configuration steps that enable you to connect the visualization examples from this application example with an existing energy program.

Hinweis

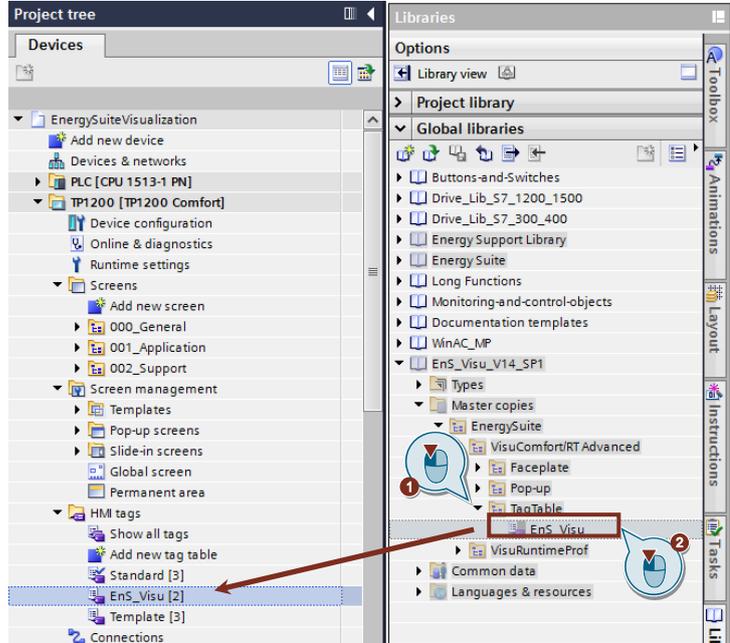
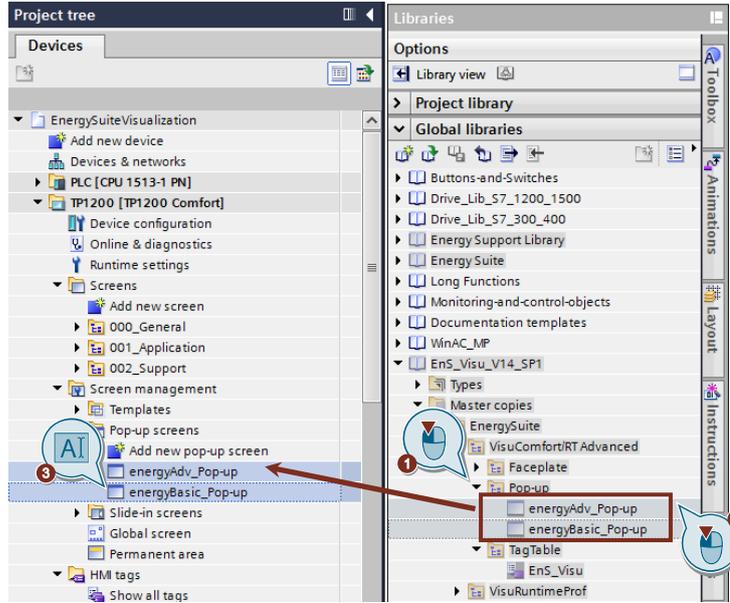
To visualize the extended energy data (current, voltage, frequency, ...) on your operator panel, you must configure an acyclic communication.

For more information, please refer to the "SIMATIC Energy Suite - Getting Started" application example in chapter 5.4.3 "Configuring acyclic communication":

<https://support.industry.siemens.com/cs/ww/en/view/109739102>.

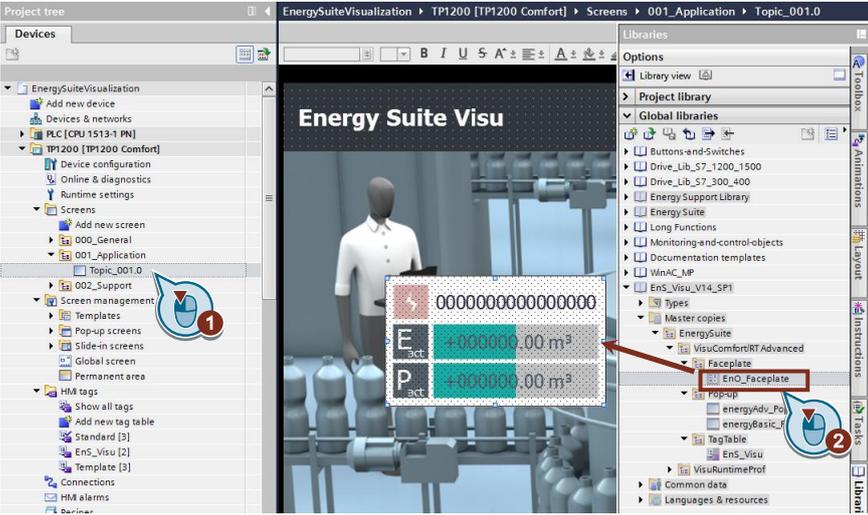
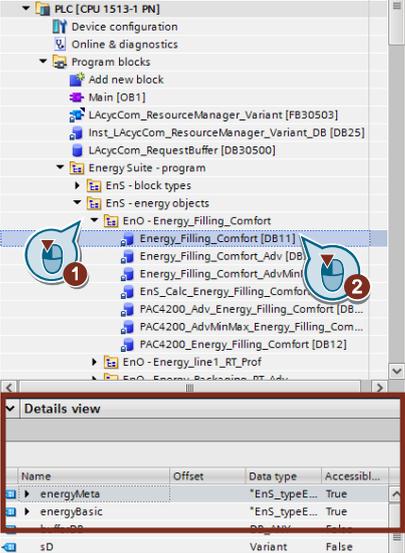
Table 3-2

No.	Action
1.	Download the "109739775_EnS_Visu_LIB_V14_SP1.zip" library from the entry page of this application example and save it locally on your computer. https://support.industry.siemens.com/cs/ww/en/view/109739775
2.	Unzip the zip file.
3.	<ul style="list-style-type: none"> Open the "Libraries" task card in the TIA Portal (1). Click on "Open global library" (2). Navigate to the unzipped "EnS_Visu_V14_SP1" library and select it (3). Click on "Open" to open the library in your project (4).

No.	Action
<p>4.</p>	<p>Inserting tag table</p> <ul style="list-style-type: none"> Open the “Master copies > EnergySuite >VisuComfort/RT Advanced >TagTable” folder in the “Global library” (1). Drag the “EnS_Visu” tag table to the “HMI tags” of the operator panel (2). 
<p>5.</p>	<p>Inserting pop-up</p> <ul style="list-style-type: none"> Open the “Master copies > EnergySuite >VisuComfort/RT Advanced >Pop-up” folder in the “Global library” (1). Drag both, the “energyBasic_Pop-up” and “energy Adv_Pop-up” into the “Pop-up screens” of the HMI (2).  <p>Note</p> <p>For each further energy object, you need to insert a separate pop-up screen. Before you paste the pop-ups again, change the name of the pop-up screens (3), otherwise the system function "ShowPopupScreen" will call the wrong pop-up screen.</p>

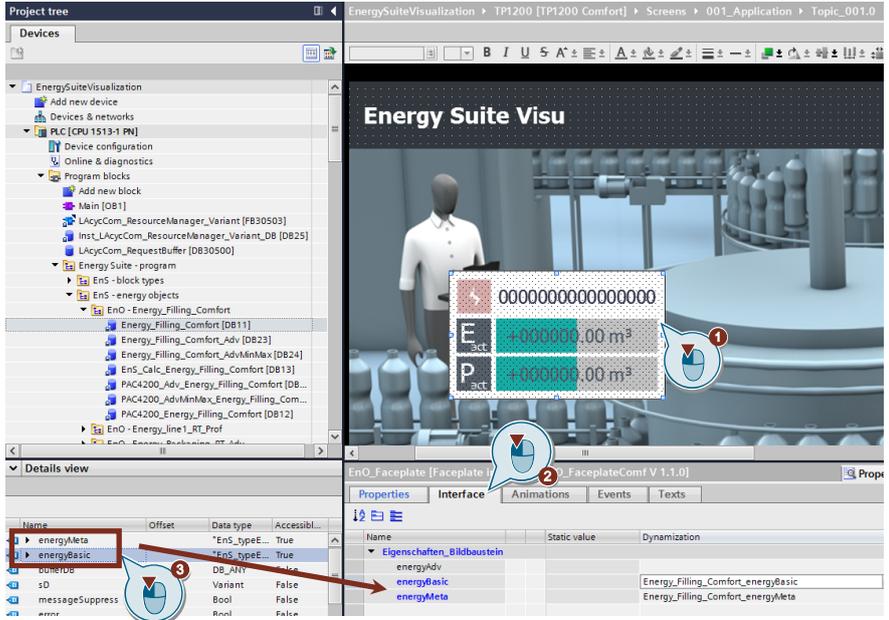
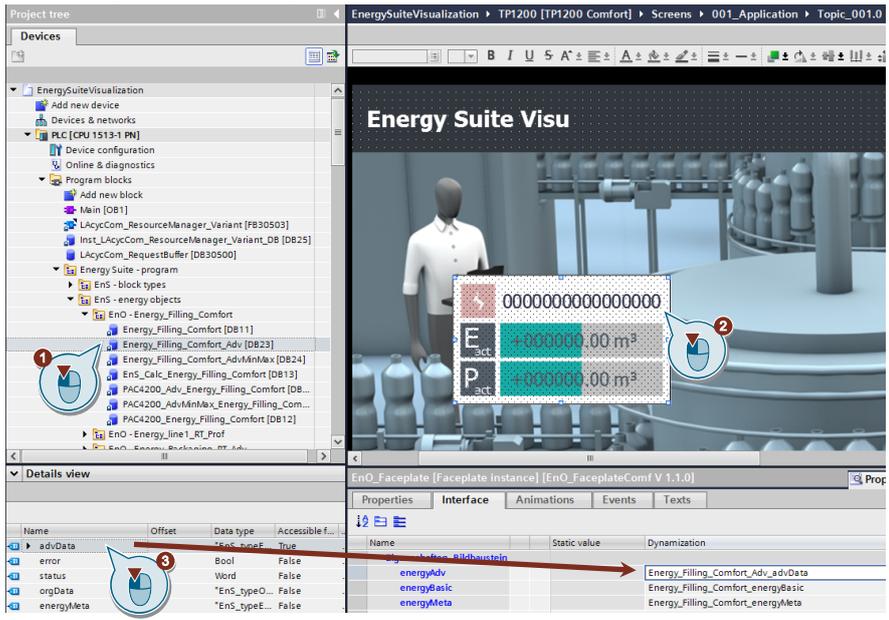
3 Configuration and Settings

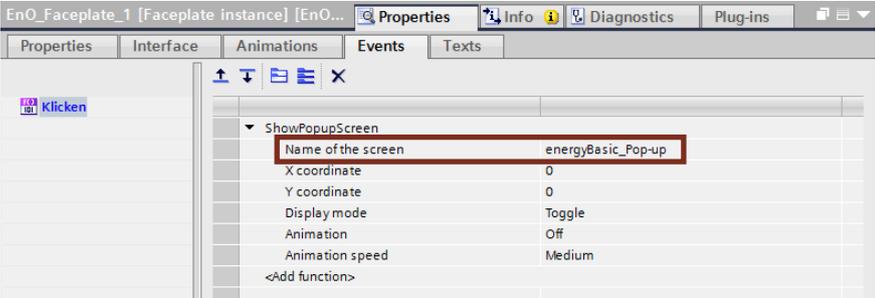
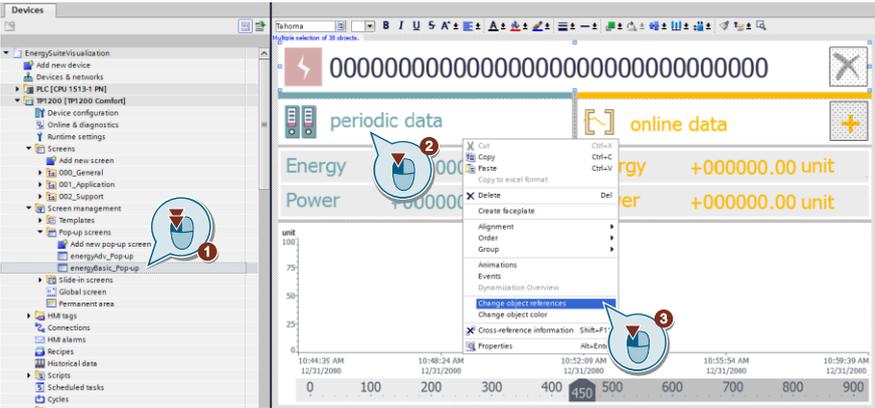
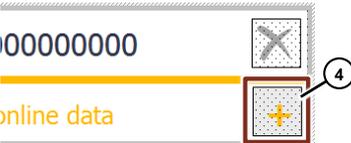
3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action																
6.	<p>Inserting faceplate</p> <ul style="list-style-type: none"> Open the screen in which you would like to place the faceplate for the energy values. In this application example the “Topic_001.0” screen (1). Drag the “EnO_Faceplate” faceplate from the “Faceplate” library folder to the desired screen (2). 																
7.	<p>Detail view of the energy object - opening data block</p> <ul style="list-style-type: none"> Open the folder of the energy object to be visualized, here “EnO – Energy_Filling_Comfort”, in the CPU in “Program blocks > Energy Suite Program > EnS – energy objects” (1). Select the “Energy_Filling_Comfort” data block (2). The “Details view” of the data block opens in the project navigation.  <table border="1" data-bbox="475 1601 880 1758"> <thead> <tr> <th>Name</th> <th>Offset</th> <th>Data type</th> <th>Accessibl...</th> </tr> </thead> <tbody> <tr> <td>energyMeta</td> <td></td> <td>EnS_typeE...</td> <td>True</td> </tr> <tr> <td>energyBasic</td> <td></td> <td>EnS_typeE...</td> <td>True</td> </tr> <tr> <td>sD</td> <td></td> <td>Variant</td> <td>False</td> </tr> </tbody> </table>	Name	Offset	Data type	Accessibl...	energyMeta		EnS_typeE...	True	energyBasic		EnS_typeE...	True	sD		Variant	False
Name	Offset	Data type	Accessibl...														
energyMeta		EnS_typeE...	True														
energyBasic		EnS_typeE...	True														
sD		Variant	False														

3 Configuration and Settings

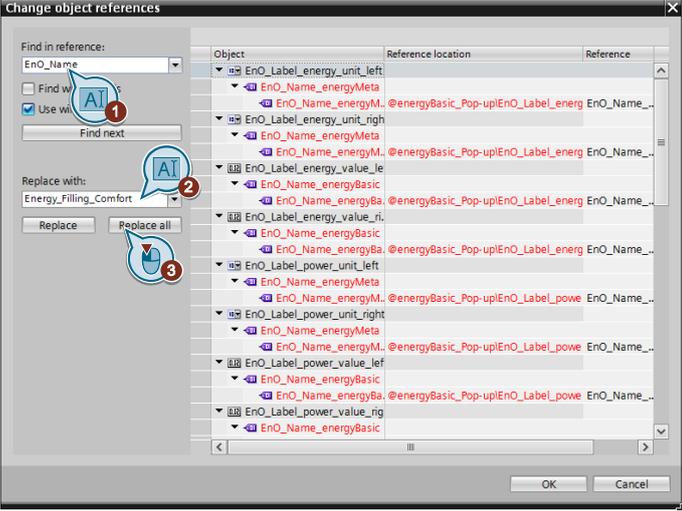
3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
8.	<p>Interconnecting UDTs</p> <ul style="list-style-type: none"> Select the faceplate in the screen (1). Open the “Interface” of the faceplate (2). Individually drag the UDTs “energyMeta” and “energyBasic” from the detail view to the interface parameter of the faceplate with the same name, using drag-and-drop (3). 
9.	<p>Interconnecting UDTs</p> <ul style="list-style-type: none"> In the CPU in “Energy Suite - program”, select the “Energy_Filling_Comfort_Adv” data block (1). Select the faceplate in the work area (2). From the “Details view” of the data block, drag the “advData” UDT to the “energyAdv” interface parameter.  <p>The faceplate is now completely interconnected.</p>

No.	Action
10.	<p>Optional: Adjusting the pop-up call</p> <p>If you visualize several energy objects, you have to adjust the name of the corresponding pop-up (from step 5) in the pop-up events.</p> 
11.	<p>Adjusting object references</p> <p>Adjust the tag references of the tags to the faceplates using the “Change object references” dialog. You can exchange a great number of tags on faceplates with it, for example, when the faceplate was created with copy and paste. Adjust the pop-up as follows:</p> <ul style="list-style-type: none"> • Open the “energyBasic_Pop-up” pop-up (1). • Select all objects of the pop-up with the <CTRL+A> key combination. • Right click an object of the pop-up (2). • Click “Change object references” in the context menu (3).  <p>Note</p> <p>If you visualize several energy objects, you may have to adjust the system function "ShowPopupScreen" for the button which shows/hides the advanced energy data (4). The system function parameter "Name of the screen" must be identical to the pop-up screen name "energyAdv_Pop-up"/"energyBasic_Pop-up" of the energy object.</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>energyBasic_Pop-up</p>  </div> <div style="text-align: center;"> <p>energyAdv_Pop-up</p>  </div> </div>

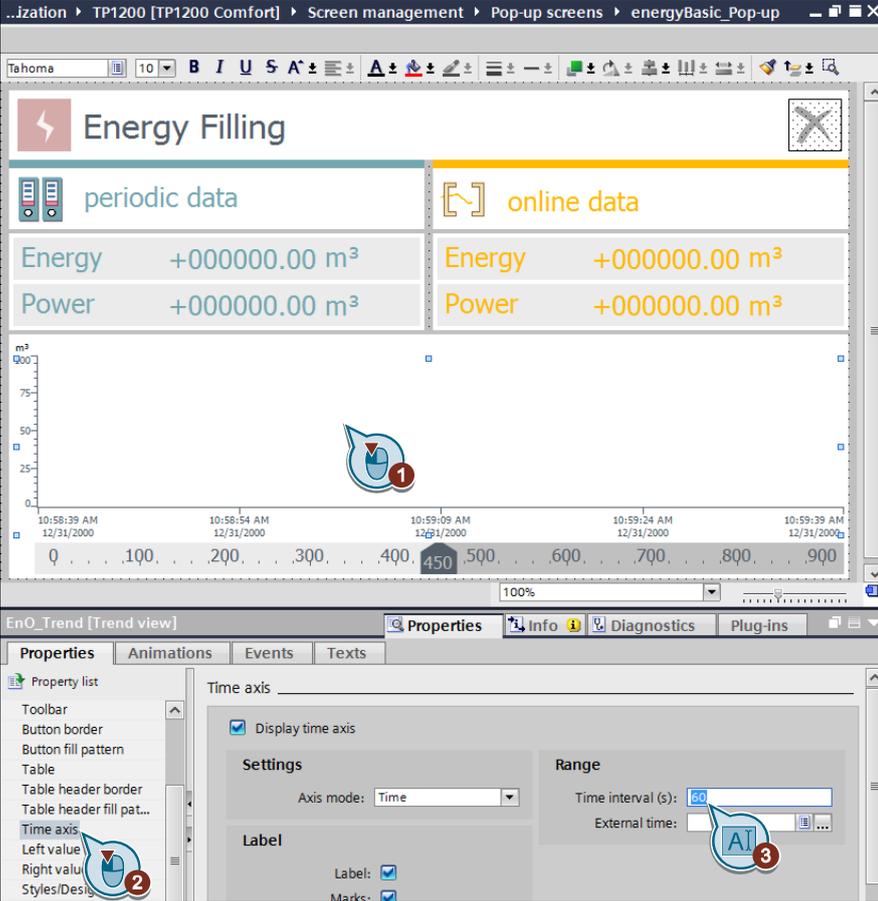
3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
12.	<p>Adjusting object references</p> <ul style="list-style-type: none">• Enter “EnO_Name” in the “Find in reference” field (1).• Replace the name of the “Energy_Filling_Comfort” energy object (2). Make sure the spelling of the energy object is identical to that in the energy object table of the controller.• Click on “Replace all” (3).  <p>Close the dialog with “OK” once all 15 object references have been changed.</p>
13.	<p>Adjusting object references</p> <p>Repeat steps 10 and 11 for the “energyAdv_Pop-up” pop-up.</p> <p>Note</p> <p>When you have adjusted all objects successfully, you will get an information box “Number of replaced elements: 57”.</p>

3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
14.	<p>Optional: Changing the time interval of the trend display</p> <ul style="list-style-type: none"> • Select the trend display (1). • Open the “time axis” entry in the properties (2). • Enter the new duration in seconds in the entry field next to “Time interval” (3).  <p>Note: An adjustment of the time interval is recommended as soon as you select an archiving period that is unequal 15 minutes.</p>
15.	Save your project.
16.	Transfer the configuration to your operator panel, or start WinCC Runtime Advanced.

3.2.2 Creating a visualization in WinCC Runtime Professional

The table below shows you the configuration that enables you to connect the visualization examples with an existing energy program.

Note

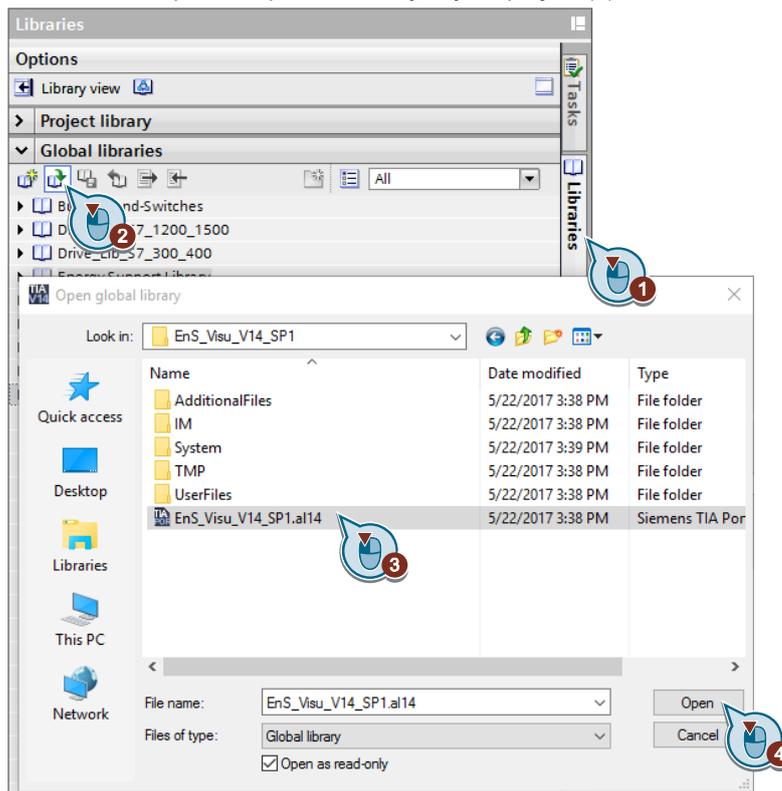
Make sure that you have also installed “SIMATIC Energy Suite Runtime Toolbox V14” for WinCC Runtime Professional.

More information on the “SIMATIC Energy Suite Runtime Toolbox V14” can be found in the application example “SIMATIC Energy Suite – Getting Started” in chapter 4.3.

<https://support.industry.siemens.com/cs/ww/en/view/109739102>

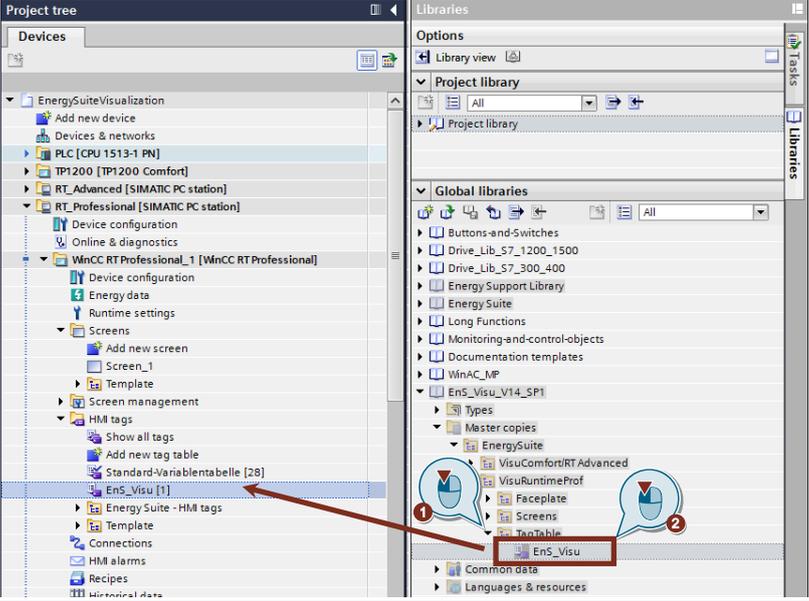
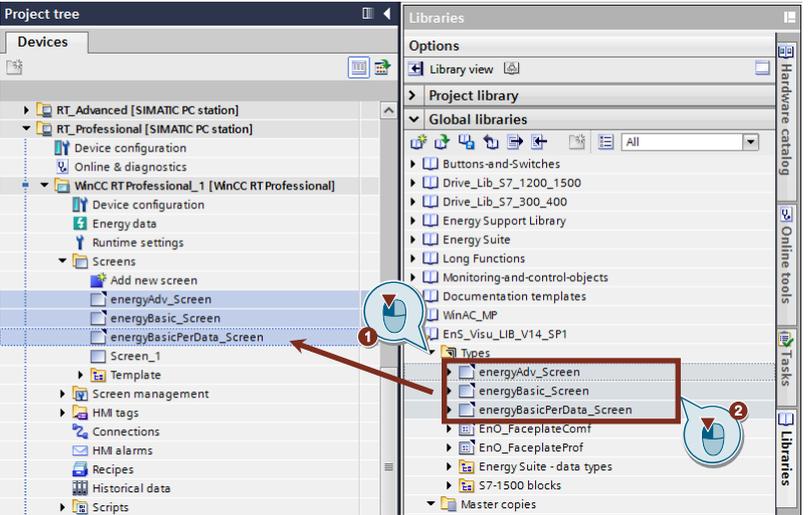
Table 3-3

No.	Action
1.	Download the “109739775_EnS_Visu_LIB_V14_SP1.zip” library from the entry page of this application example and save it locally on your computer. https://support.industry.siemens.com/cs/ww/en/view/109739775
2.	Unzip the zip file.
3.	<ul style="list-style-type: none"> Open the “Libraries” task card in the TIA Portal (1). Click on “Open global library” (2). Navigate to the unzipped “EnS_Visu” library and select it (3). Click on “Open” to open the library in your project (4).



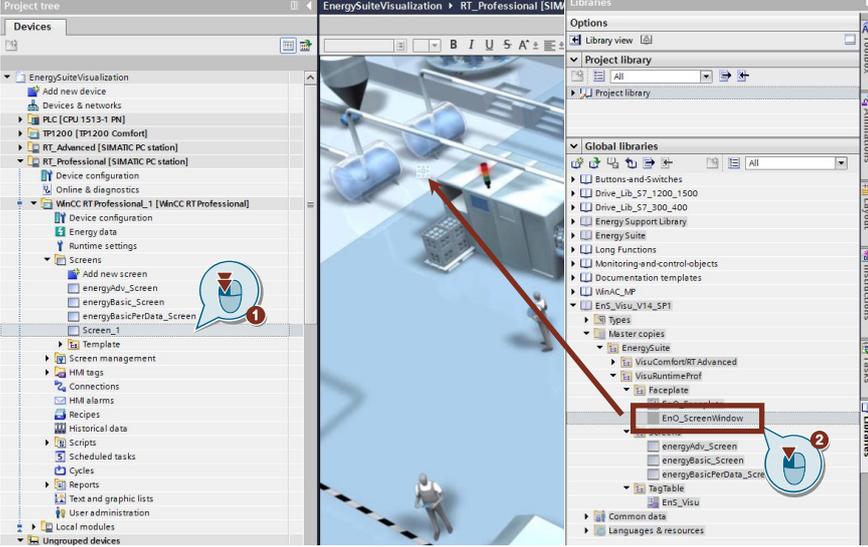
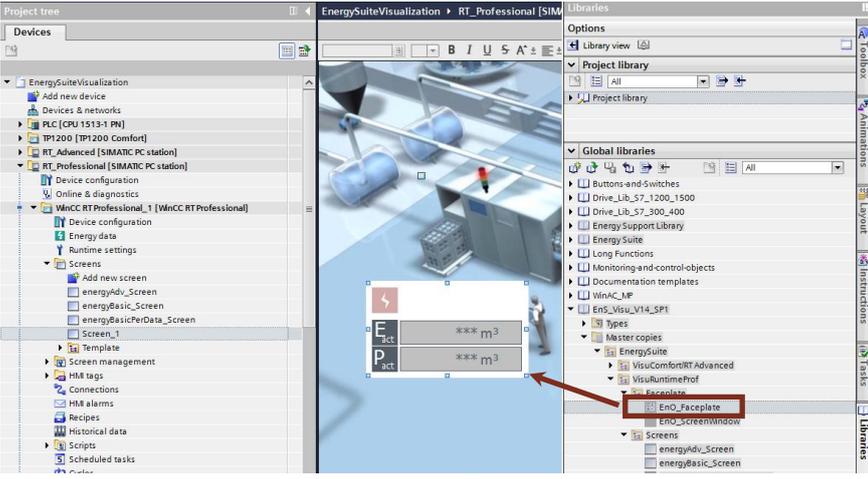
3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
4.	<p>Inserting tag table</p> <ul style="list-style-type: none"> Open the “Master copies > EnergySuite > VisuRuntimeProf > TagTable” folder in the “Global library” (1). Drag the “EnS_Visu” tag table to the “HMI tags” of the operator panel (2). 
5.	<p>Inserting screens</p> <ul style="list-style-type: none"> Open the “Types” folder in the library (1). Drag the screens below to the “Screens” of WinCC RT Professional. <ul style="list-style-type: none"> “energyAdv_Screen” “energyBasic_Screen” “energyBasicPerData_Screen”  <p>Note In the library in the folder “Templates > EnergySuite > VisuRuntimeProf > Screens”, you can also find those three screens without typing.</p>

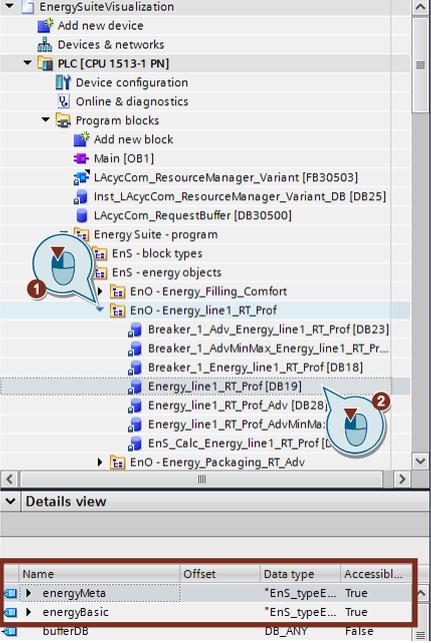
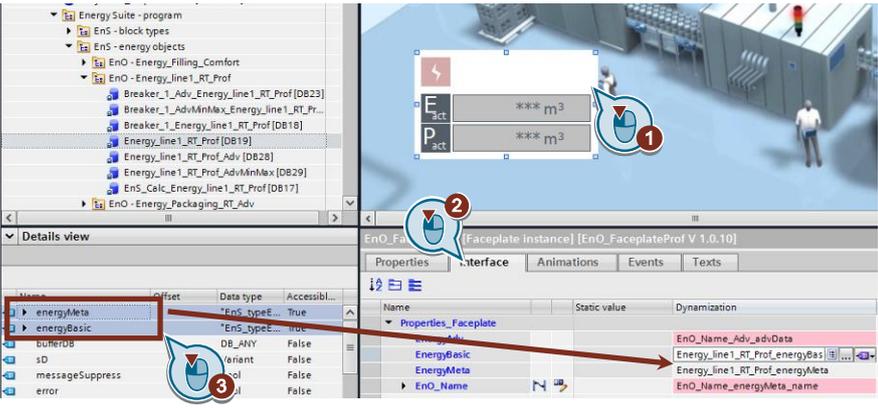
3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
6.	<p>Inserting screen window</p> <ul style="list-style-type: none"> Open the screen in which you would like to place the energy values. In this application example in “Screen_1” (1). Drag the “EnO_ScreenWindow” screen window to the work area of the screen (2).  <p>Note:</p> <p>The screen window only has to be placed once in the screen, even for several energy objects.</p> <p>In Runtime, the screen window automatically adjusts itself to the size of the screens from step 5 and the energy data is therefore displayed in the appropriate screen.</p>
7.	<p>Inserting faceplate</p> <p>Drag the “EnO_Faceplate” faceplate to “Screen_1”.</p> 

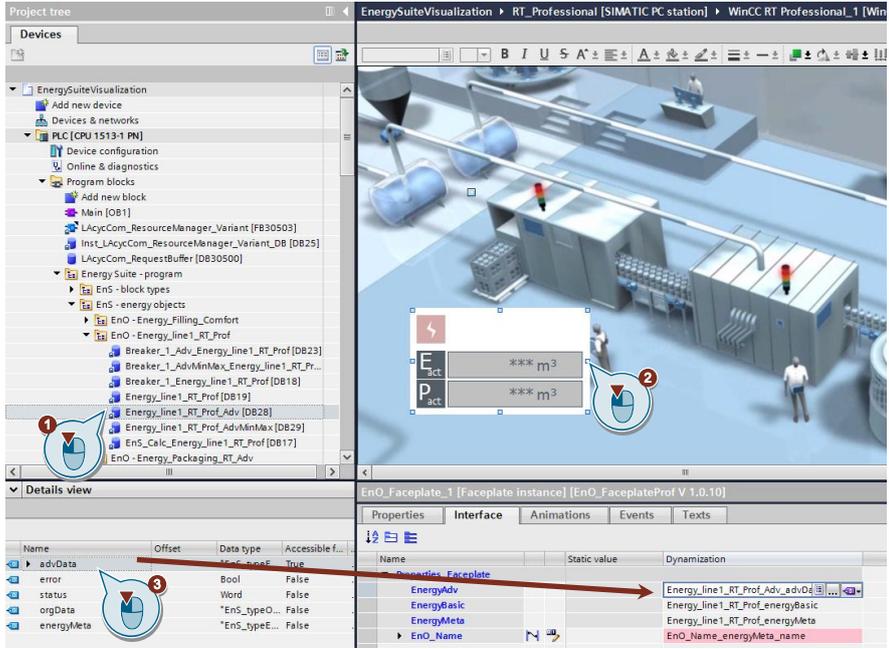
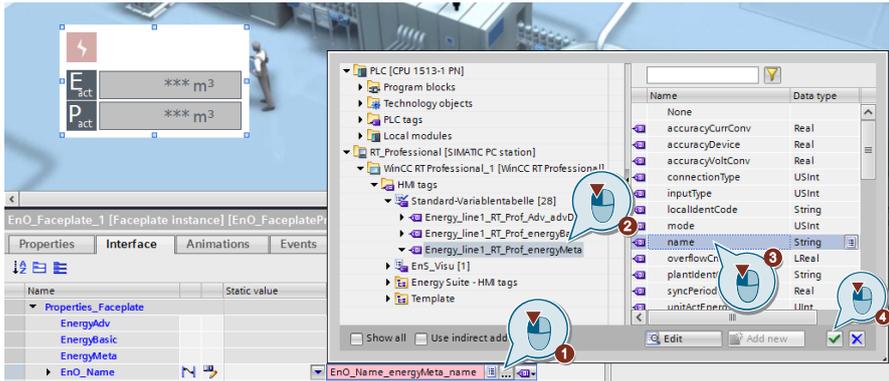
3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action																
8.	<p>Detail view of the energy object - opening data block</p> <ul style="list-style-type: none"> Open the folder of the energy object to be visualized in the CPU in “Program blocks > Energy Suite – program > EnS – energy objects”. In this application example “EnO – Energy_line1_RT_Prof” (1). Select the "Energy_line1_RT_Prof" data block (2). The “Details view” of the data block opens in the project navigation.  <table border="1" data-bbox="475 1070 890 1153"> <thead> <tr> <th>Name</th> <th>Offset</th> <th>Data type</th> <th>Accessibl...</th> </tr> </thead> <tbody> <tr> <td>energyMeta</td> <td></td> <td>*EnS_typeE...</td> <td>True</td> </tr> <tr> <td>energyBasic</td> <td></td> <td>*EnS_typeE...</td> <td>True</td> </tr> <tr> <td>bufferDB</td> <td></td> <td>DB_ANY</td> <td>False</td> </tr> </tbody> </table>	Name	Offset	Data type	Accessibl...	energyMeta		*EnS_typeE...	True	energyBasic		*EnS_typeE...	True	bufferDB		DB_ANY	False
Name	Offset	Data type	Accessibl...														
energyMeta		*EnS_typeE...	True														
energyBasic		*EnS_typeE...	True														
bufferDB		DB_ANY	False														
9.	<p>Interconnecting UDTs</p> <ul style="list-style-type: none"> Select the template in the work area (1). Open the “Interface” of the faceplate in “Properties” (2). Individually drag the UDTs “energyMeta” and “energyBasic” from the detail view to the interface parameter of the faceplate with the same name, using drag-and-drop (3).  <table border="1" data-bbox="842 1675 1353 1769"> <thead> <tr> <th>Name</th> <th>Static value</th> <th>Dynamization</th> </tr> </thead> <tbody> <tr> <td>Properties_Faceplate</td> <td></td> <td></td> </tr> <tr> <td>EnergyBasic</td> <td>Energy_line1_RT_Prof_energyBas...</td> <td></td> </tr> <tr> <td>EnergyMeta</td> <td>Energy_line1_RT_Prof_energyMeta</td> <td></td> </tr> <tr> <td>EnO_Name</td> <td>EnO_Name_energyMeta_name</td> <td></td> </tr> </tbody> </table>	Name	Static value	Dynamization	Properties_Faceplate			EnergyBasic	Energy_line1_RT_Prof_energyBas...		EnergyMeta	Energy_line1_RT_Prof_energyMeta		EnO_Name	EnO_Name_energyMeta_name		
Name	Static value	Dynamization															
Properties_Faceplate																	
EnergyBasic	Energy_line1_RT_Prof_energyBas...																
EnergyMeta	Energy_line1_RT_Prof_energyMeta																
EnO_Name	EnO_Name_energyMeta_name																

3 Configuration and Settings

3.2 Creating an Energy Suite V14 SP1 visualization

No.	Action
10.	<p>Interconnecting UDTs</p> <ul style="list-style-type: none"> In the CPU in “Energy Suite - program”, select the “Energy_line1_RT_Prof_Adv” data block (1). Select the faceplate in the work area (2). From the “Details view” of the data block, drag the “advData” UDT to the “energyAdv” interface parameter. 
11.	<p>Supplementing EnO_Name</p> <ul style="list-style-type: none"> Open the advanced view of the “EnO-Name” interface parameter (1). In Runtime Professional under “HMI tags”, open the “Energy_line1_RT_Prof_energyMeta” structure (2). Select “name” structure element (3). Confirm your selection (4).  <p>Note: The screen tags (from step 5) are supplemented via a script by the name entered for the energy object in the “EnO_Name” field (tag prefix). With this step, all tags of the screens are interconnected with the parameters of the energy program.</p>
12.	Save your project.
13.	Start Runtime Professional.

3.3 Adjusting the Energy Suite V14 visualization

If you have already created an Energy Suite V14 energy program, you can adjust the visualization of the energy data to the latest version with the attached library.

Advantage

- Your Energy Suite V14 configuration is available for further use
- Via the advanced energy data, you can easily expand your visualization

Prerequisite

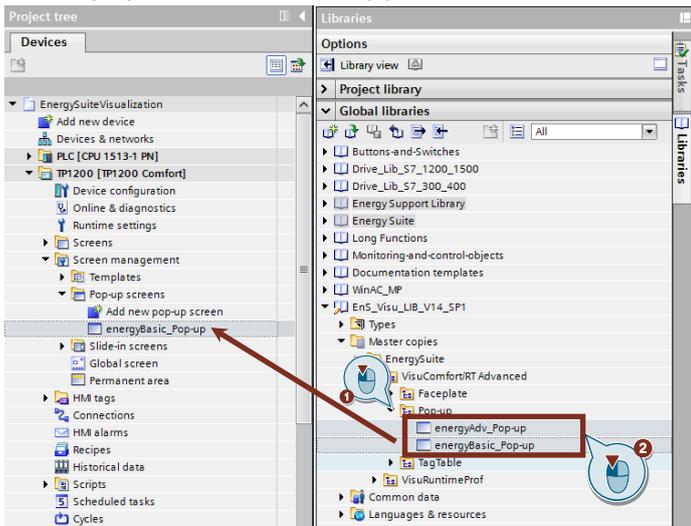
Prior to changing your visualization to Energy Suite V14 SP1, you first need to generate your energy program with the Energy Suite V14 SP1 and configure an acyclic communication for the extended energy data. For more information, please refer to the “Energy Suite - Getting Started” application example in the chapter “Generating the program code”:

<https://support.industry.siemens.com/cs/ww/en/view/109739102>

3.3.1 Adjusting the visualization on Comfort Panels and WinCC Runtime Advanced

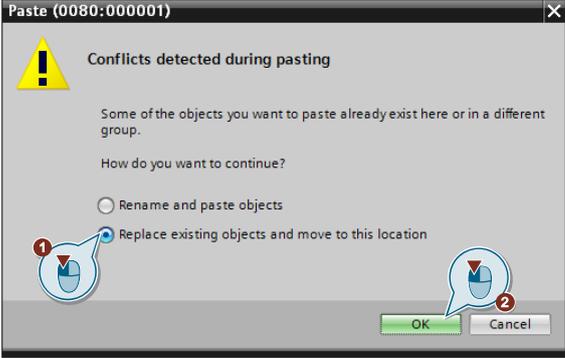
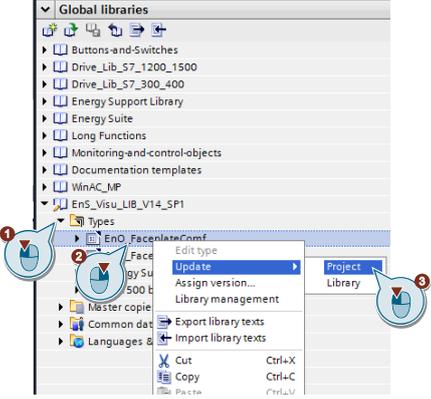
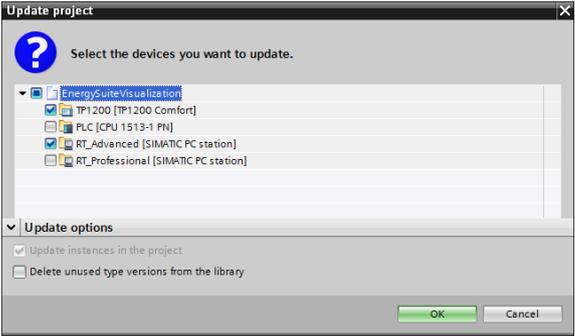
The following table shows you which alterations are necessary to adjust your visualization to the latest version.

Table 3-4

No.	Action
1.	Download the “109739775_EnS_Visu_LIB_V14_SP1.zip” library and unzip the file. Open the library in TIA Portal (see steps 1 to 3 in Table 3-2).
2.	<p>Replacing the pop-up</p> <ul style="list-style-type: none"> • Open the “Master copies > EnergySuite >VisuComfort/RT Advanced >Pop-up” folder in the “Global library” (1). • Drag both, the “energyBasic_Pop-up” and “energy Adv_Pop-up” into the “Pop-up screens” of the HMI (2).  <p>A notification window appears, stating that the name “energyBasic_Pop-up” already exists.</p>

3 Configuration and Settings

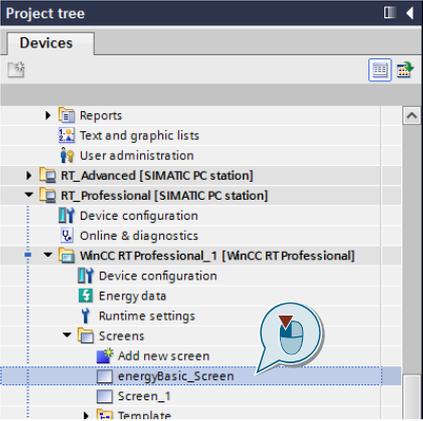
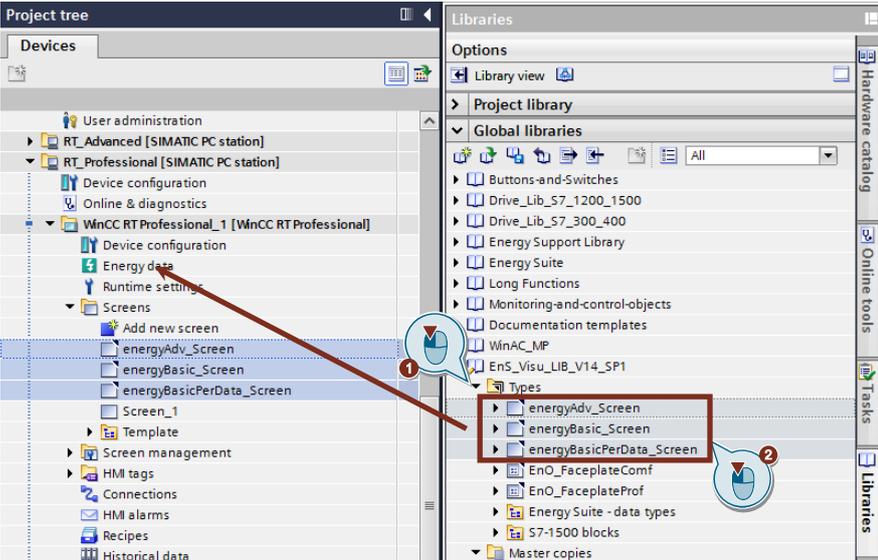
3.3 Adjusting the Energy Suite V14 visualization

No.	Action
3.	<ul style="list-style-type: none"> • Select the "Replace existing objects and move to this location" option (1). • Confirm the selection with "OK" (2). 
4.	<p>Updating the faceplate instance</p> <ul style="list-style-type: none"> • Open the types of the "Global libraries" (1). • Right-click the "EnO_FaceplateComf" type (2). • Select the "Update > Project" option (3). 
5.	<p>Select the devices for which you want to update the faceplate type and confirm the selection by clicking "OK".</p>  <p>All existing faceplate instances in the project have been updated to the latest type and the interfaces have been adopted.</p> <p>Note If your project has not been updated to TIA Portal V14 SP1 yet, a note appears asking you to confirm the update.</p>
6.	<p>Proceed with the further configurations as described in Table 3-2 , starting from step 9.</p>

3.3.2 Adjusting the visualization of WinCC Runtime Professional

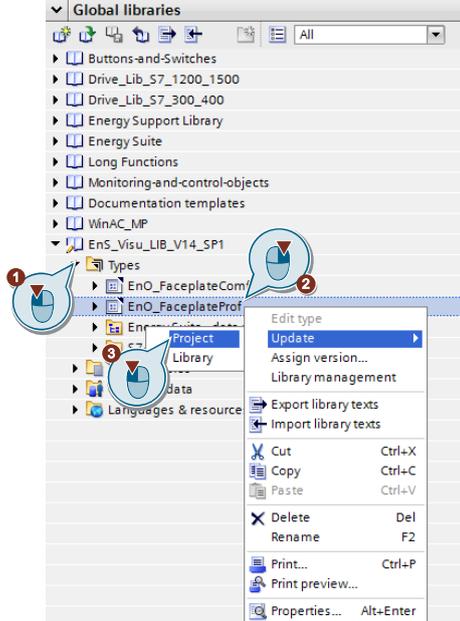
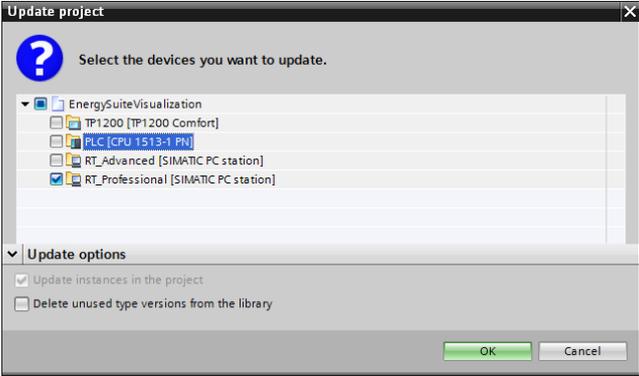
The following table shows the necessary steps to update the Energy Suite V14 visualization examples to the latest version.

Table 3-5

No.	Action
1.	Download the "109739775_EnS_Visu_LIB_V14_SP1.zip" library and unzip the file. Open the library in TIA Portal (see steps 1 to 3 in Table 3-3).
2.	Select the "energyBasic_Screen" screen in Runtime Professional and delete it. 
3.	Inserting new screens <ul style="list-style-type: none"> • Open the "Types" of the library (1) • Drag the screens below from the library to the "Screens" of WinCC RT Professional (2). <ul style="list-style-type: none"> - "energyAdv_Screen" - "energyBasic_Screen" - "energyBasicPerData_Screen" 

3 Configuration and Settings

3.3 Adjusting the Energy Suite V14 visualization

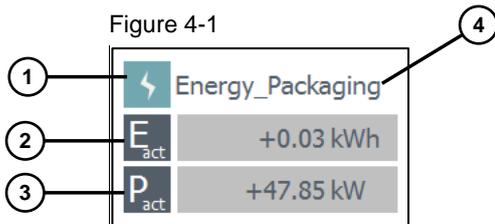
No.	Action
4.	<p>Updating the faceplate instance</p> <ul style="list-style-type: none"> • Open the types of the “Global libraries” (1). • Right-click the “EnO_FaceplateProf” type (2). • Select the “Update > Project” option (3). 
5.	<p>Select the devices for which you want to update the faceplate type and confirm the selection by clicking “OK”.</p>  <p>All existing faceplate instances in the project have been updated to the latest type and the interfaces have been adopted.</p> <p>Note If your project has not been updated to TIA Portal V14 SP1 yet, a note appears asking you to confirm the update.</p>
6.	<p>Proceed with the further configurations as described in Table 3-3 , starting from step 10.</p>

4 Operating the Application Example

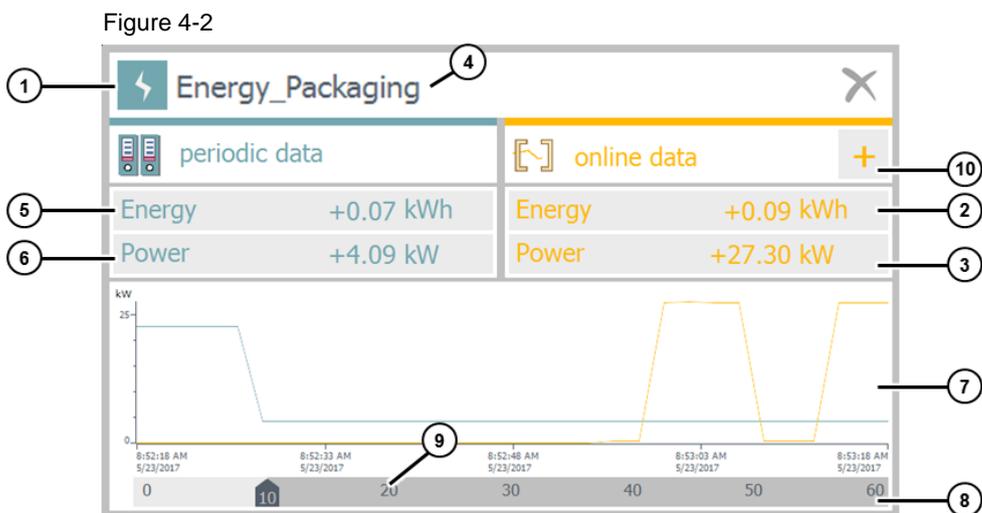
4.1 Comfort Panels and WinCC Runtime Advanced

With Comfort Panels and WinCC Runtime Advanced, the energy data is displayed to you as faceplate. When you click on the faceplate, a pop-up opens up. This pop-up (see figure 4-2) shows you the current and periodic energy data. For the current energy data, you have the option to show the advanced energy data via the expand button "+" (Pos. No. 10) (Figure 4-3).

Faceplate



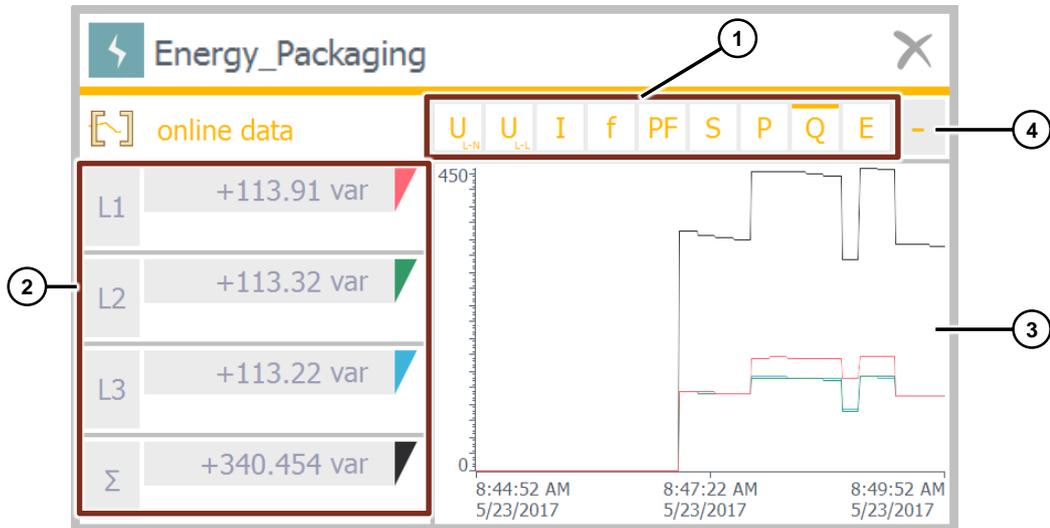
Pop-up basic energy data



- ① Status of the energy object
- ② Current energy consumption (unit is adjusted automatically)
- ③ Current power (unit is adjusted automatically)
- ④ Name of the energy object
- ⑤ Energy consumption of the last period
- ⑥ Average power of the last period
- ⑦ Graphic display with current power and average power of the last period
- ⑧ Total period in seconds
- ⑨ Current period in seconds
- ⑩ Showing "advanced energy data" (see Figure 4-3)

Pop-up Advanced energy data

Figure 4-3

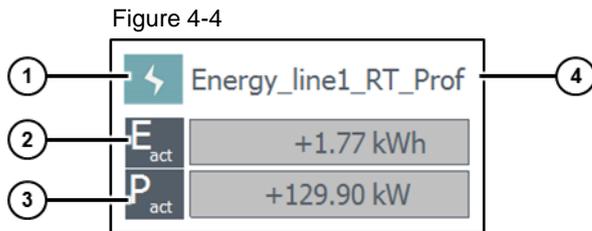


- ① Button for selecting the electrical measurand
- ② Current measured value, depending on the selected measurand
- ③ Graphical display for visualization of the measured values
- ④ Hiding "advanced energy data" display

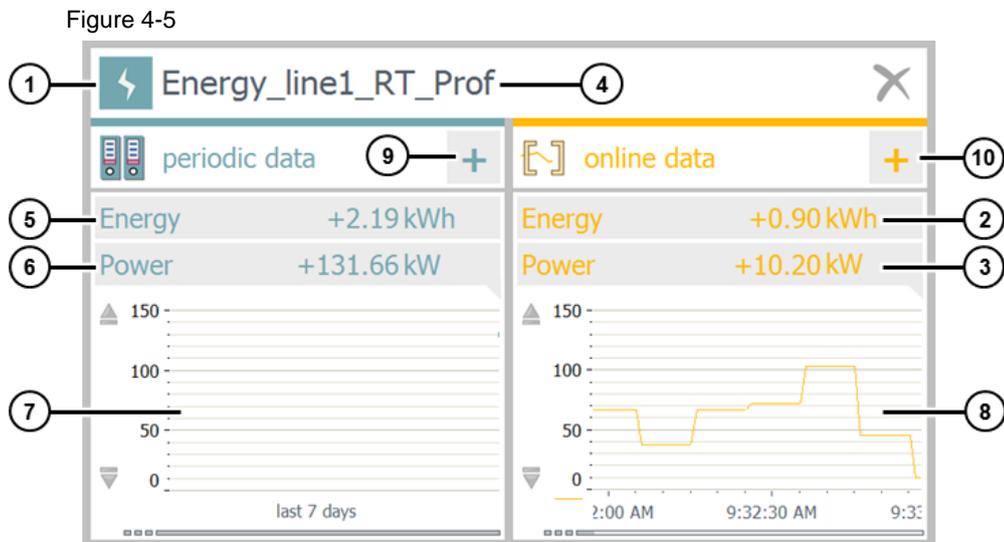
4.2 WinCC Runtime Professional

In WinCC Runtime Professional the energy data is also shown to you as faceplate. When you click on the faceplate, a screen window opens up. This screen window (see figure 4-4) shows you the online and periodic data. In the detail view, you have the option to display the archived data in a user-defined view (Figure 4-6) or to show the advanced energy data (Figure 4-7).

Faceplate



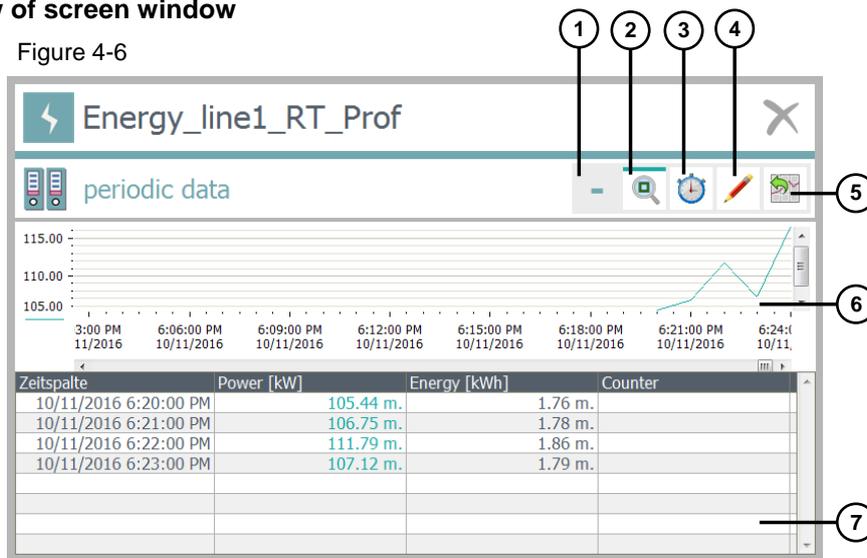
Screen window overview



- ① Status of the energy object
- ② Current energy consumption
- ③ Current power
- ④ Name of the energy object
- ⑤ Energy consumption of the last period
- ⑥ Average power of the last period
- ⑦ Graphic display with power of the periodic data (automatically scaled)
- ⑧ Graphic display with power of the online data (automatically scaled)
- ⑨ Button to view the detail display (see Figure 4-6)
- ⑩ Showing "advanced energy data" (see Figure 4-7)

Detail view of screen window

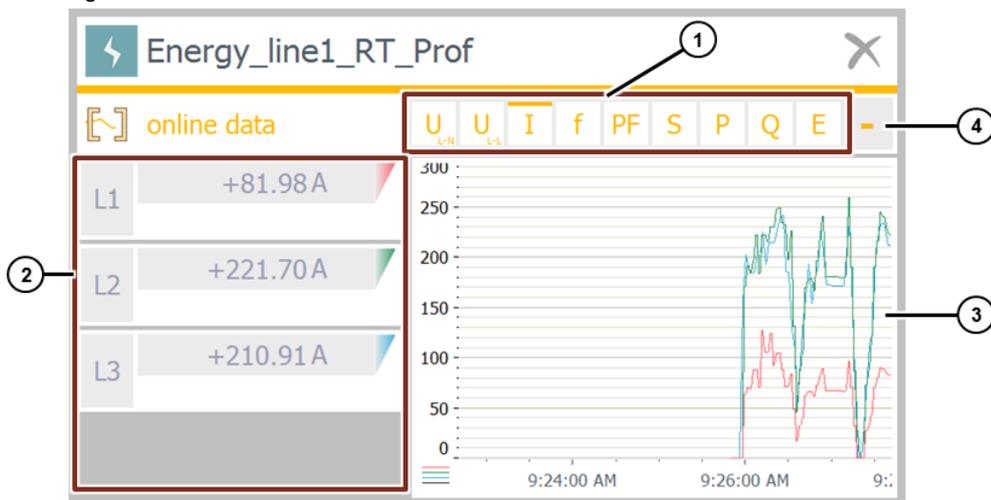
Figure 4-6



- ① Closing the detail view
- ② Enlarging/minimizing of graphic display of periodic data
- ③ Selection for manual time range
- ④ Manual adjustment of energy values
- ⑤ Data export of current course of the trend
- ⑥ Graphic display of periodic data
- ⑦ Tabular view of periodic data

Screen window Advanced energy data

Figure 4-7



- ① Button for selecting the electrical quantity
- ② Current measured value
- ③ Graphical display for visualization of the measured values
- ④ Hiding "advanced energy data"

5 Links & Literature

Table 5-1

	Topic
\1\	Siemens Industry Online Support https://support.industry.siemens.com
\2\	Download page of the entry https://support.industry.siemens.com/cs/ww/en/view/109739775
\3\	SIMATIC Energy Suite in Online Support https://support.industry.siemens.com/cs/ww/en/view/109738104
\4\	SIMATIC Energy Suite - Getting Started https://support.industry.siemens.com/cs/ww/en/view/109739102
\5\	Energy data acquisition in the Online Support https://support.industry.siemens.com/cs/ww/en/view/109738130
\6\	SIMATIC Energy Suite – Example of the Energy Data Files https://support.industry.siemens.com/cs/ww/en/view/109739772
\7\	Energy management with SIMATIC in Industry Online Support https://support.industry.siemens.com/cs/ww/en/view/68043160

6 History

Table 6-1

Version	Date	Modifications
V1.0	11/2016	First version
V2.0	06/2017	Description for "Advanced energy data" added
V2.1	08/2017	Adjust to TIA Portal V14 SP1 Update 2 Step "Removing/Hiding elements for advanced energy data" deleted