

SIMATIC HMI

HMI devices Basic Panels migration guide

Getting Started

Preface

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Replacing an HMI device

2

Migrating a project

3

Commissioning the HMI device

4

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

DANGER

indicates that death or severe personal injury **will** result if proper precautions are not taken.

WARNING

indicates that death or severe personal injury **may** result if proper precautions are not taken.

CAUTION

indicates that minor personal injury can result if proper precautions are not taken.

NOTICE

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

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The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

Proper use of Siemens products

Note the following:

WARNING

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Preface

Purpose of the migration guide

The migration guide contains all necessary information clearly arranged for you to migrate to the new Basic Panels. It basically covers the following points:

- Replacing the HMI devices and the differences connected with the process
- Adaptations in the migrated database of the HMI project

Note

The content of the migration guide describes the replacement of a predecessor device with the corresponding successor from the Basic series, see "Replacing the predecessor device with a Basic HMI device (Page 8)".

If you replace the predecessor device with any HMI device of the Basic series, this migration guide can only be used to a limited extent.

Note

This document is only a migration guide. Safety information, as well as the complete installation and commissioning are described in the operating instructions.

Contents

The migration guide is structured as follows:

- Introduction (Page 7)
This chapter describes which predecessor device is replaced by which Basic HMI device and the most important new features for the Basic HMI devices.
- Replacing an HMI device (Page 9)
This chapter basically covers the questions that arise when replacing a predecessor device with the corresponding Basic HMI device:
 - Does the mounting cut-out change?
 - Are type and position of the interfaces different?
 - Is the soft key assignment different?
 - Is the data input different?

- Migrating a project (Page 21)

This chapter mainly covers the steps after migration of the WinCC flexible database that result from the changeover of the HMI device. In addition, it shows how you implement the new features of the Basic HMI devices in the WinCC project:

- Changing the screen format, if necessary
- Setting the address of the HMI device in WinCC (TIA Portal)

- Commissioning the HMI device (Page 27)

This chapter describes the revised or new procedures for commissioning the Basic HMI devices:

What the migration guide does not contain

The following contents are not covered by the migration guide or only covered partially:

- The migration guide does not contain any details on the migration of a WinCC project to a WinCC (TIA Portal) project.

For more information, refer to the WinCC (TIA Portal) Information System under "Migrating projects".

- The migration guide does not contain any details on parameter assignment of the HMI device.

For more information, refer to the operating instructions of the HMI device.

Naming conventions and validity

The migration guide applies to the following devices and the following naming conventions apply.

| Term | Applies to | | |
|--|--|--|---|
| Plant | <ul style="list-style-type: none"> • System • Machining center • One or several machines | | |
| | Predecessor devices | Successor devices | |
| HMI device | <ul style="list-style-type: none"> • TD 100C • TD 200 • TD 200C • TD 400C • OP 73micro • TP 177micro • OP 73 • OP 77A • TP 177A | <ul style="list-style-type: none"> • KTP400 Basic mono PN • KTP400 Basic color PN • KTP600 Basic mono PN • KTP600 Basic color PN • KTP600 Basic color DP • KTP1000 Basic color PN • KTP1000 Basic color DP • TP1500 Basic color PN | <ul style="list-style-type: none"> • KP300 Basic mono PN • KP400 Basic color PN • KTP400 Basic • KTP700 Basic • KTP700 Basic DP • KTP900 Basic • KTP1200 Basic • KTP1200 Basic DP |
| Text display Text display HMI device | <ul style="list-style-type: none"> • TD 100C • TD 200 • TD 200C • TD 400C | – | |
| Key HMI device | <ul style="list-style-type: none"> • TD 200 • TD 400C | <ul style="list-style-type: none"> • OP 73micro • OP 73 • OP 77A | <ul style="list-style-type: none"> • KP300 Basic mono PN • KP400 Basic color PN |
| Touch HMI device | <ul style="list-style-type: none"> • TP 177micro • TP 177A | <ul style="list-style-type: none"> • KTP400 Basic mono PN • KTP400 Basic color PN • KTP600 Basic mono PN • KTP600 Basic color PN • KTP600 Basic color DP | <ul style="list-style-type: none"> • KTP1000 Basic color PN • KTP1000 Basic color DP • TP1500 Basic color PN |

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Introduction

The following predecessor devices are replaced by Basic Panels 2nd Generation:

| Predecessor device | Basic Panels 1st Generation | Basic Panels 2nd Generation |
|--|---|--|
| <ul style="list-style-type: none"> • TD 100C • TD 200 • TD 200C • TD 400C • OP 73micro • TP 177micro • OP 73 • OP 77A • TP 177A | <ul style="list-style-type: none"> • KTP400 Basic mono PN • KTP400 Basic color PN • KTP600 Basic mono PN • KTP600 Basic color PN • KTP600 Basic color DP | <ul style="list-style-type: none"> • KTP400 Basic • KTP700 Basic • KTP700 Basic DP • KTP900 Basic • KTP1200 Basic • KTP1200 Basic DP |

1.1 Features and benefits of the Basic HMI devices

Focused on fundamentals – the new HMI devices

The new, cost-effective HMI generation meets the trend toward high-quality visualization for smaller and medium-sized plants, and even for machinery.

With the second generation of SIMATIC HMI Basic Panels, Siemens AG meets user requirements for high-quality visualization and operation. While the price of the new devices is in line with the current panels, the scope of performance has been considerably extended. The high resolution and color depth of 65,536 colors are major contributing factors.

Connectivity by means of either PROFINET or PROFIBUS interface plus USB connection has been significantly improved. The new panels can be configured and operated more easily in the TIA Portal using the new software version of WinCC with simplified programming.



The proven key panels KP300 Basic and KP400 Basic continue to remain an integral part of the basic product line.

1.2 Replacing the predecessor device with a Basic HMI device

Note

Limited comparability based on display size

When replacing the HMI device, the screen format may be changed under certain circumstances, .e.g. from 4:3 to "widescreen". This means that you are only able to compare the old and new HMI devices using the display size to a limited extent. You must use the following table to determine the suitable replacement device.

| Predecessor device | Article No. | Successor device | Article No. |
|-----------------------|--------------------|----------------------|--------------------|
| TD 100C | 6ES7272-1BA10-0YA1 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| TD 200 | 6ES7272-0AA30-0YA1 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| TD 200C | 6ES7272-1AA10-0YA1 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| TD 400C | 6AV6640-0AA00-0AX1 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| KTP400 Basic mono PN | 6AV6647-0AA11-3AX0 | KTP400 Basic | 6AV2123-2DB03-0AX0 |
| KTP400 Basic color PN | 6AV6647-0AK11-3AX0 | | |
| OP 73micro | 6AV6640-0BA11-0AX0 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| TP 177micro | 6AV6640-0CA11-0AX1 | KTP700 Basic | 6AV2123-2GB03-0AX0 |
| KTP600 Basic mono PN | 6AV6647-0AB11-3AX0 | KTP700 Basic DP | 6AV2123-2GA03-0AX0 |
| KTP600 Basic color PN | 6AV6647-0AD11-3AX0 | | |
| KTP600 Basic color DP | 6AV6647-0AC11-3AX0 | | |
| OP 73 | 6AV6641-0AA11-0AX0 | KP300 Basic mono PN | 6AV6647-0AH11-3AX0 |
| OP 77A | 6AV6641-0BA11-0AX1 | KP400 Basic color PN | 6AV6647-0AJ11-3AX0 |
| TP 177A | 6AV6642-0AA11-0AX1 | KTP700 Basic | 6AV2123-2GB03-0AX0 |
| KTP600 Basic mono PN | 6AV6647-0AB11-3AX0 | KTP700 Basic DP | 6AV2123-2GA03-0AX0 |
| KTP600 Basic color PN | 6AV6647-0AD11-3AX0 | | |
| KTP600 Basic color DP | 6AV6647-0AC11-3AX0 | | |

Replacing an HMI device

2.1 Overview of HMI devices

Differences in design and operating concept after replacement of HMI devices

This chapter describes the differences and additional functions of the successor devices regarding enclosure, display, interfaces and data input.

Enclosure

- Mounting
 - KP300 Basic mono PN and KP400 Basic color PN are intended for horizontal installation.
 - The Basic Panels 2nd Generation are suited for vertical and horizontal installation.
- Enclosure material

All Basic Panels have a plastic enclosure.

Display

All Basic HMI devices have a higher resolution and a larger display area than the predecessor device. The displays of the individual Basic HMI devices have the following properties:

- KP300 Basic mono PN
 - FSTN mono display (black/white)
 - 4-color backlighting (white, red, green, yellow)
 - Active display area 3.6"
- KP400 Basic color PN
 - Widescreen TFT display
 - 256 colors
 - Active display area 4.3"
- KTP400 Basic
 - Touch screen, analog, resistive
 - Color depth 16 bits
 - Active display area 4.3"
- KTP700 Basic and KTP700 Basic DP
 - Touch screen, analog, resistive
 - Color depth 16 bits
 - Active display area 7"

- KTP900 Basic
 - Touch screen, analog, resistive
 - Color depth 16 bits
 - Active display area 9"
- KTP1200 Basic and KTP1200 Basic DP
 - Touch screen, analog, resistive
 - Color depth 16 bits
 - Active display area 12"

| Predecessor device | Display resolution [pixels] | Basic Panels 1st Generation | Display | | |
|--------------------|-----------------------------|-----------------------------|-----------------------|---------------|---------------------|
| | | | Dimensions W × H [mm] | Size [inches] | Resolution [pixels] |
| TD 100C | 132 × 65 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| TD 200 | 181 × 33 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| TD 200C | 181 × 33 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| | | KTP400 Basic mono PN | 77 × 58 | 3.8" | 320 × 240 |
| | | KTP400 Basic color PN | 95 × 54 | 4.3" | 480 × 272 |
| TD 400C | 192 × 64 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| | | KTP400 Basic mono PN | 77 × 58 | 3.8" | 320 × 240 |
| | | KTP400 Basic color PN | 95 × 54 | 4.3" | 480 × 272 |
| OP 73micro | 160 × 48 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| TP 177micro | 320 × 240 | KTP600 Basic mono PN | 115 × 86 | 5.7" | 320 × 240 |
| | | KTP600 Basic color PN | 115 × 86 | 5.7" | 320 × 240 |
| | | KTP600 Basic color DP | 115 × 86 | 5.7" | 320 × 240 |
| OP 73 | 160 × 48 | KP300 Basic mono PN | 87 × 31 | 3.6" | 240 × 80 |
| OP 77A | 160 × 64 | KP400 Basic color PN | 95 × 53.8 | 4.3" | 480 × 272 |
| TP 177A | 320 × 240 | KTP600 Basic mono PN | 115 × 86 | 5.7" | 320 × 240 |
| | | KTP600 Basic color PN | 115 × 86 | 5.7" | 320 × 240 |
| | | KTP600 Basic color DP | 115 × 86 | 5.7" | 320 × 240 |

| Basic Panels 2nd Generation | Display | | |
|-----------------------------|-----------------------|---------------|---------------------|
| | Dimensions W × H [mm] | Size [inches] | Resolution [pixels] |
| KTP400 Basic | 95 × 54 | 4.3" | 480 × 272 |
| KTP700 Basic | 154 × 86 | 7" | 800 × 480 |
| KTP700 Basic DP | 154 × 86 | 7" | 800 × 480 |
| KTP900 Basic | 198 × 112 | 9" | 800 × 480 |
| KTP1200 Basic | 261 × 163 | 12" | 1280 × 800 |
| KTP1200 Basic DP | 261 × 163 | 12" | 1280 × 800 |

Interfaces

Depending on the type of device, all successor devices have either a PROFINET or an RS-422/RS-485 interface.

Data input

- KP300 Basic mono PN and KP400 Basic color PN have an alphanumeric input block, which is operated like the keypad of a cellular phone.
- All Basic HMI devices have function keys. With the exception of the KP300 Basic mono PN, all function keys can be marked with a labeling strip.
- The Basic HMI devices with touch screen have a screen keyboard.

See also

Interfaces (Page 15)

Mapping of the soft key assignment (Page 18)

Data input (Page 19)

2.2 Mounting cut-out

Enclosure dimensions

Predecessor device and Basic Panel 1st Generation

The table below compare the dimensions for mounting cut-out, device depth and enclosure front of predecessor devices and Basic Panels. The values for the mounting cut-out apply to horizontal mounting.

| Predecessor device | Dimensions | | | Basic Panel 1st Generation | Dimensions | | |
|--------------------|--------------------------------|------------------------|-------------------------------|----------------------------|--------------------------------|------------------------|-------------------------------|
| | Mounting cut-out W × H [mm] | Mounting depth [mm] | Enclosure front W × H [mm] | | Mounting cut-out W × H [mm] | Mounting depth [mm] | Enclosure front W × H [mm] |
| TD 100C | 82 × 69.5 | 36 | 90 × 76 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| TD 200 | 138 × 68 | 27 | 148 × 76 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| TD 200C | 138 × 68 | 28 | 148 × 76 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| | | | | KTP400 Basic mono PN | 123 × 99 | 40 | 140 × 116 |
| | | | | KTP400 Basic color PN | 123 × 99 | 40 | 140 × 116 |
| TD 400C | 163.5 × 93.5 | 31 | 174 × 102 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| | | | | KTP400 Basic mono PN | 123 × 99 | 40 | 140 × 116 |
| | | | | KTP400 Basic color PN | 123 × 99 | 40 | 140 × 116 |
| OP 73micro | 138 × 68 | 29 | 154 × 84 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| TP 177micro | 197 × 141 | 45 | 212 × 156 | KTP600 Basic mono PN | 197 × 141 | 44 | 214 × 158 |
| | | | | KTP600 Basic color PN | 197 × 141 | 44 | 214 × 158 |
| | | | | KTP600 Basic color DP | 197 × 141 | 44 | 214 × 158 |
| OP 73 | 138 × 68 | 29 | 154 × 84 | KP300 Basic mono PN | 149 × 82 | 30 | 165 × 97 |
| OP 77A | 135 × 171 | 39 | 150 × 186 | KP400 Basic color PN | 135 × 171 | 33 | 162 × 189 |
| TP 177A | 197 × 141 | 50 | 212 × 156 | KTP600 Basic mono PN | 197 × 141 | 44 | 214 × 158 |
| | | | | KTP600 Basic color PN | 197 × 141 | 44 | 214 × 158 |
| | | | | KTP600 Basic color DP | 197 × 141 | 44 | 214 × 158 |

Compatibility of the mounting cut-outs Basic Panel 2nd Generation – 1st Generation

The table below shows the dimensions of the mounting cut-out, device depth and enclosure front.

| Basic Panel 2nd Generation | Mounting cut-out W × H [mm] | Mounting depth [mm] | Enclosure front W × H [mm] | Compatible Basic Panels 1st Generation |
|-----------------------------------|--------------------------------|------------------------|-------------------------------|--|
| KTP400 Basic | 123 × 99 | 35 | 141 × 116 | KTP400 Basic mono PN KTP400 Basic color PN |
| KTP700 Basic KTP700 Basic DP | 197 × 141 | 39 | 214 × 158 | KTP600 Basic mono PN KTP600 Basic color PN KTP600 Basic color DP |
| KTP900 Basic | 251 × 166 | 40 | 267 × 182 | – |
| KTP1200 Basic KTP1200 Basic DP | 310 × 221 | 55 | 330 × 245 | – |

Compatibility of mounting cut-outs to the predecessor devices

You can install the following HMI devices in the mounting cut-out of the predecessor devices:

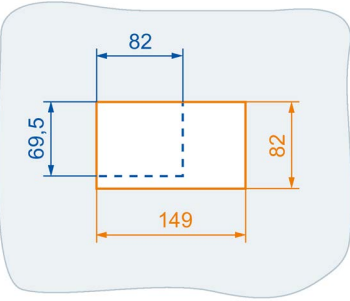
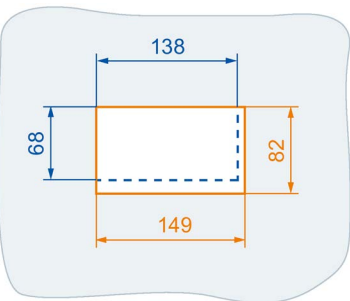
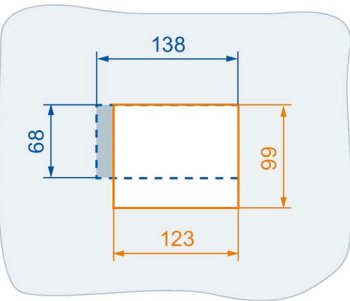
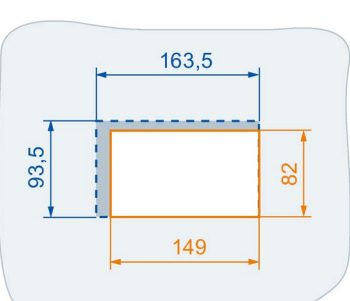
| Basic Panel 2nd Generation | Basic Panel 1st Generation | Predecessor device and mounting cut-out [mm] | |
|-----------------------------------|--|--|-----------|
| KTP400 Basic | | OP 77A | 135 × 171 |
| KTP700 Basic KTP700 Basic DP | KTP600 Basic mono PN KTP600 Basic color PN KTP600 Basic color DP | TP 177micro TP 177A | 197 × 141 |
| KTP900 Basic | – | – | – |
| KTP1200 Basic KTP1200 Basic DP | – | – | – |

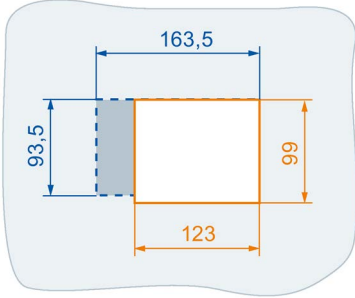
Note that despite the same dimensions for the mounting cut-out, the device depth and/or the enclosure front dimensions may differ from the respective dimensions of the predecessor devices.

Different mounting cut-outs in comparison to the predecessor devices

Basic Panels 1st Generation

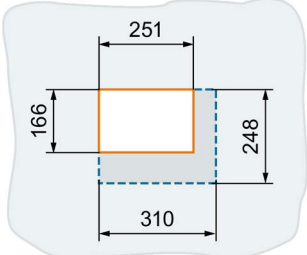
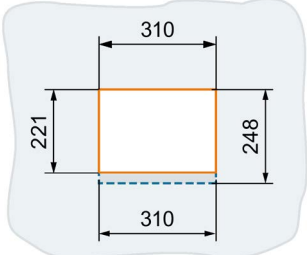
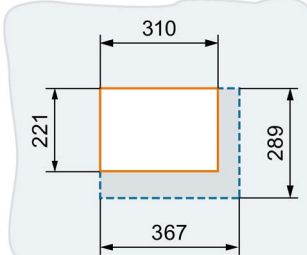
The figures below clearly illustrate the adjustments that are required on an existing mounting cut-out during the installation of a Basic Panel 1st Generation. The dimensions are specified in millimeters.

| | |
|---|---|
| <p>Blue:</p> <ul style="list-style-type: none"> • TD 100C <p>Orange:</p> <ul style="list-style-type: none"> • KP300 Basic mono PN  | <p>Blue:</p> <ul style="list-style-type: none"> • TD 200 • TD 200C • OP 73micro and OP 73 <p>Orange:</p> <ul style="list-style-type: none"> • KP300 Basic mono PN  |
| <p>Blue:</p> <ul style="list-style-type: none"> • TD 200C <p>Orange:</p> <ul style="list-style-type: none"> • KTP400 Basic mono PN • KTP400 Basic color PN • KTP400 Basic  | <p>Blue:</p> <ul style="list-style-type: none"> • TD 400C <p>Orange:</p> <ul style="list-style-type: none"> • KP300 Basic mono PN  |

| | |
|---|--|
| <p>Blue:</p> <ul style="list-style-type: none"> • TD 400C <p>Orange:</p> <ul style="list-style-type: none"> • KTP400 Basic mono PN • KTP400 Basic color PN • KTP400 Basic  | |
|---|--|

Basic Panels 2nd Generation

The figures below clearly illustrate the adjustments that are required on an existing mounting cut-out during the installation of a Basic Panel 2nd Generation. The dimensions are specified in millimeters.

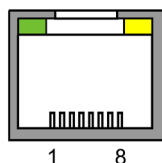
| | | |
|---|---|---|
| <p>Blue:</p> <ul style="list-style-type: none"> • KTP1000 Basic color PN • KTP1000 Basic color DP <p>Orange:</p> <ul style="list-style-type: none"> • KTP900 Basic  | <p>Blue:</p> <ul style="list-style-type: none"> • KTP1000 Basic color PN • KTP1000 Basic color DP <p>Orange:</p> <ul style="list-style-type: none"> • KTP1200 Basic  | <p>Blue:</p> <ul style="list-style-type: none"> • TP1500 Basic color PN <p>Orange:</p> <ul style="list-style-type: none"> • KTP1200 Basic  |
|---|---|---|

2.3 Interfaces

Data transmission interfaces

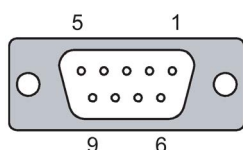
Basic Panels

All Basic Panels PN (1st Generation) and Basic Panels (2nd Generation) are equipped with an Ethernet interface.



The following HMI devices are equipped with an RS-422/RS-485 interface for data transmission. The transmission rate is ≤ 12 Mbps.

- KTP600 Basic DP
- KTP700 Basic DP
- KTP1200 DP



Predecessor devices

All predecessor devices have a serial RS-485 interface. On the OP 77A and TP 177A, the RS-422 standard interface can also be used at the same connection.

Position of the interfaces

The figures below show the interfaces on the Basic Panel 1st Generation.

- KP300 Basic mono PN



- ① Power supply connector
- ② PROFINET (100 MB Ethernet)

- KP400 Basic color PN



- ① Recesses for mounting clips
- ② Power supply connector
- ③ PROFINET (100 MB Ethernet)

- KTP400 Basic mono PN



- ① Power supply connector
- ② Functional grounding connection
- ③ PROFINET (100 MB Ethernet)

- KTP400 Basic color PN



- ① Recesses for mounting clips
- ② Power supply connector
- ③ PROFINET (100 MB Ethernet)

- KTP600 Basic mono PN and KTP600 Basic color PN



- ① Power supply connector
- ② PROFINET (100 MB Ethernet)

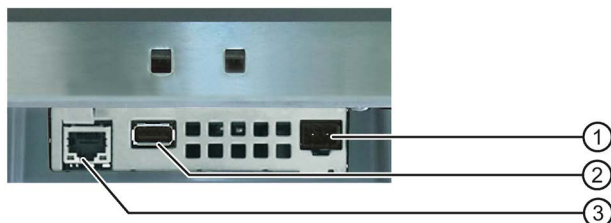
- KTP600 Basic color DP



- ① Power supply connector
- ② PROFIBUS (RS 422/RS 485)

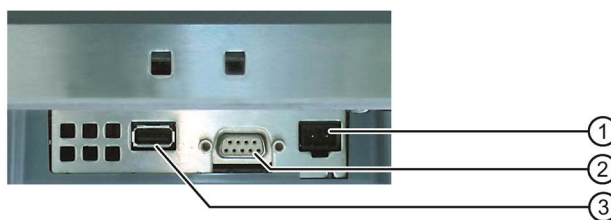
The figures below show the interfaces on the Basic Panel 2nd Generation.

- KTP400 Basic
- KTP700 Basic
- KTP900 Basic
- KTP1200 Basic



- ① Power supply connector
- ② USB 2.0 interface
- ③ Ethernet interface

- KTP700 Basic DP
- KTP1200 Basic DP



- ① Power supply connector
- ② RS-422/RS-485 port
- ③ USB 2.0 interface

2.4 Mapping of the soft key assignment

Number of function keys on predecessor device and Basic HMI device

All Basic HMI devices have at least as many function keys as the predecessor device.

Exception: The KTP400 Basic has four function keys. When replacing a TD 400C (with eight function keys), the last four function keys (F5 to F8) cannot be assigned for the KTP400 Basic.

Assignment of the function keys of predecessor device on Basic HMI device

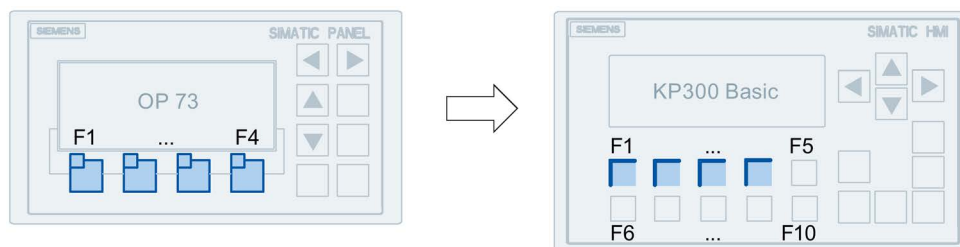
The assignment of a function key on a predecessor device is transferred to the function key at the same position relative to the display of the Basic HMI device. The functions can be assigned different numbers on the Basic HMI device. If necessary, edit the description of the soft key assignment in the plant documentation.

Note

Create new labeling strips after replacing the device, if necessary. Labeling strips are provided as a Word document on the Internet (entry ID 11274631). You can find the Word document on the installation DVD in the "Support" folder.

Example: Function key assignment for KP300 Basic mono PN

The following figure shows an example of how to assign the four functions keys (F1 to F4) from OP 73 to KP300 Basic mono PN.



2.5 Data input

Alphanumeric input block

The key-operated Basic HMI devices (KP300 Basic mono PN and KP400 Basic color PN) have an alphanumeric input block, which is operated like the keypad of a cellular phone (see figure below).

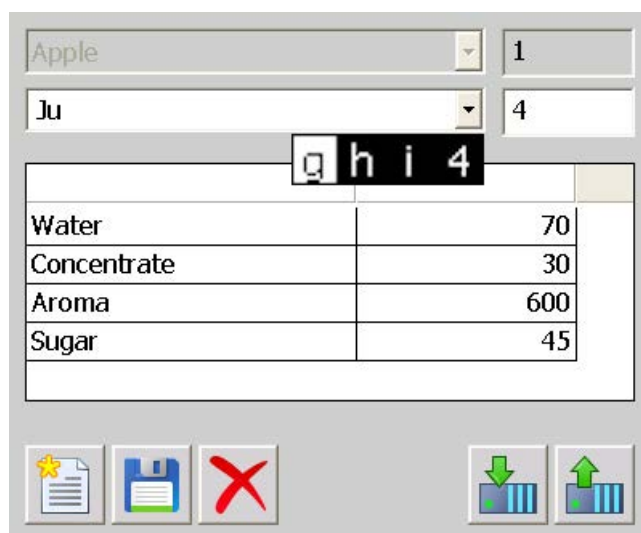
The OP 77A is the only predecessor device that has an alphanumeric input block. For more information on inputting data in the Basic HMI devices, refer to the operating instructions for the Basic Panels, chapter "Operating the device".

"Basic Panels 1st Generation" operating instructions

(<http://support.automation.siemens.com/WW/view/en/31032678>)

Alphanumeric input principle

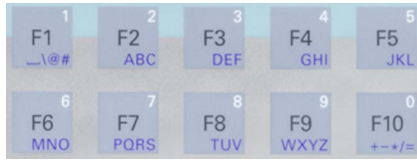
Press a button repeatedly to jump between available characters. When you press a key long enough, the number is inserted automatically. The characters available for input depends on the text box involved. The following figure shows the entry of a value using the alphanumeric input block.



The following figure shows the alphanumeric input block for the KP400 Basic color PN:



The following figure shows the alphanumeric input keys for the KP300 Basic mono PN, which are integrated in the function keys.



Screen keyboard on the touch screen

The Basic Panels 1st Generation and 2nd Generation according to chapter "Introduction (Page 7)" open up a screen keyboard. The appearance and the key layout of the screen keyboard depends on the HMI device.

"Basic Panels 2nd Generation" operating instructions

(<http://support.automation.siemens.com/WW/view/de/90114350/0/en>)

Migrating a project

3.1 Overview

The following Basic HMI devices are configured with WinCC (TIA Portal) V11 or higher:

- KP300 Basic mono PN
- KP400 Basic color PN
- KTP400 Basic mono PN
- KTP600 Basic mono PN
- KTP600 Basic color PN
- KTP600 Basic color DP

The following Basic HMI devices are configured with WinCC (TIA Portal) V13 or higher:

- KTP400 Basic
- KTP700 Basic
- KTP700 Basic DP
- KTP900 Basic
- KTP1200 Basic
- KTP1200 Basic DP

To replace the HMI devices, it may be necessary to migrate the project data to WinCC (TIA Portal). The following formats are supported for migrating the project data to WinCC (TIA Portal):

- Project file from WinCC flexible 2008 SP2
- Project file from WinCC flexible 2008 SP3

Note

Detailed information on migration of the project data is available in the WinCC Information System.

Available memory

All Basic HMI devices mentioned in the migration guide have 10 MB memory that can be used for application data. The memory is at least as high as the memory of the predecessor devices. All Basic HMI devices also have an internal memory of 256 KB for recipes.

The Basic HMI devices therefore have sufficient memory to visualize the process sequences just like the predecessor devices and to save the process data.

3.2 Migrating a project

The steps listed below only represent an overview of the migration of a WinCC flexible project. A detailed description of the individual migration steps is available in the WinCC Information System under "Migrating projects".

Procedure

1. Save all data of the old HMI device, especially process-relevant data such as recipes.
2. Migrate the original project.

Note

If necessary, migrate the project first to WinCC flexible 2008 SP2 and then to WinCC (TIA Portal).

3. Edit the migrated project based on the migration protocol.

The project data are migrated to WinCC (TIA Portal) and post-edited. The predecessor device is still included in the project. Before you switch over the HMI device, specify the settings for screen changeover.

3.3 Changing the screen format

3.3.1 Overview

Introduction

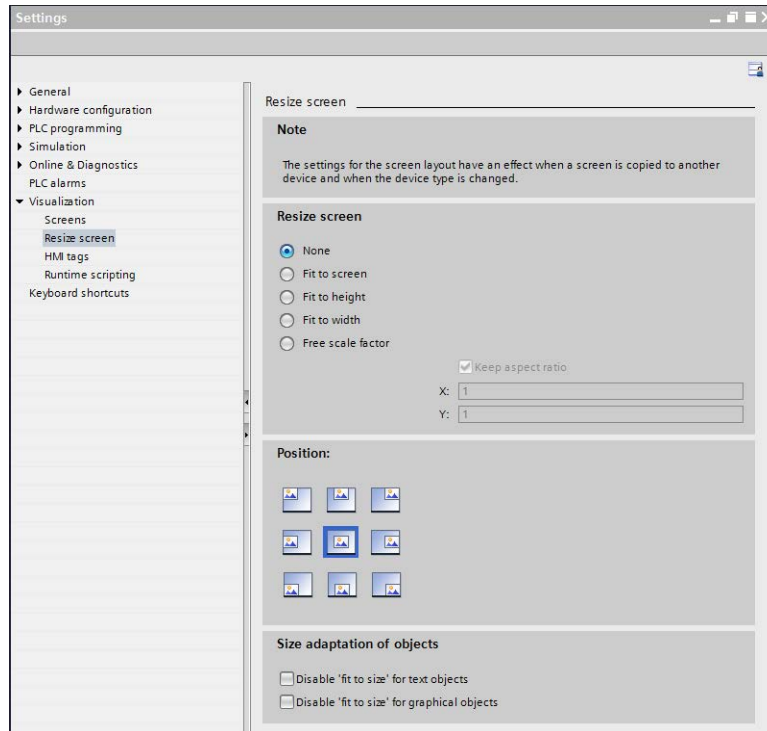
An essential feature of WinCC (TIA Portal) is the option of changing the display format (e.g. from 4:3 to widescreen in the KP400 Basic color PN). This change has increased the visualization area by up to 50%.



In the course of project migration, you will switch from the predecessor device to the Basic HMI device in WinCC (TIA Portal). Before switching the HMI device, you define how the previous screen contents are to be migrated into the new format.

Settings for the adaptation of screens

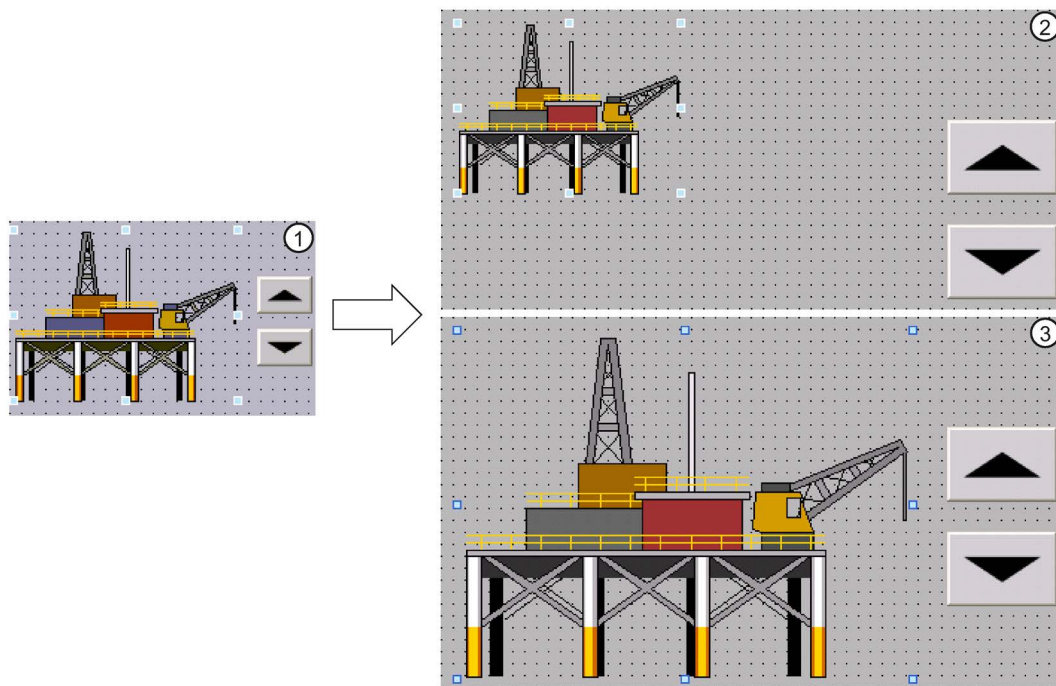
You make the settings for the adaptation of screens centrally in WinCC (TIA Portal) for all screens of the project. To do this, open the "Settings" dialog with "Options > Settings". The various options are listed in the "Settings" dialog box under "Visualization > Adaptation of screens and screen objects":



3.3.2 Additional setting options

You have the option to use "Free scaling" under "Settings" to enter scaling factors for X and Y alignment, if necessary. For example, enter the factor "1.5" for a 1.5 magnification.

You can also suppress automatic resizing of text and graphic objects. The following figure shows the effects of automatic resizing based on a graphic object with two aligned buttons:



- ① Initial situation:
 - Two buttons are aligned on a graphic object.
 - In the object properties of the graphic object, the "Adapt object size to graphic" or "Match object size to graphic" option is activated under "Display > Fit to size".
- ② Option 1: You want to retain the original properties of the graphic object after changing over the HMI device.
 - Clear the option "Suppress fit to size for graphic objects" in the settings under "Fit to size of objects".

Result: The graphic object is retained in its original size after changing over the HMI device. The alignment with the buttons is lost.
- ③ Option 2: After changing over the HMI device, the graphic object is to be placed relative to the new screen resolution.
 - Select the option "Suppress fit to size for graphic objects" in the settings under "Fit to size of objects".

The "Adapt graphic to object size" option is automatically selected in the object properties of the graphic object. The two buttons are still aligned correctly to the graphic object after changeover of the HMI device.

You can find more information on this topic in the WinCC Information System under "Visualizing processes > Using general functions > Replacing device > Adapting screens to new device".

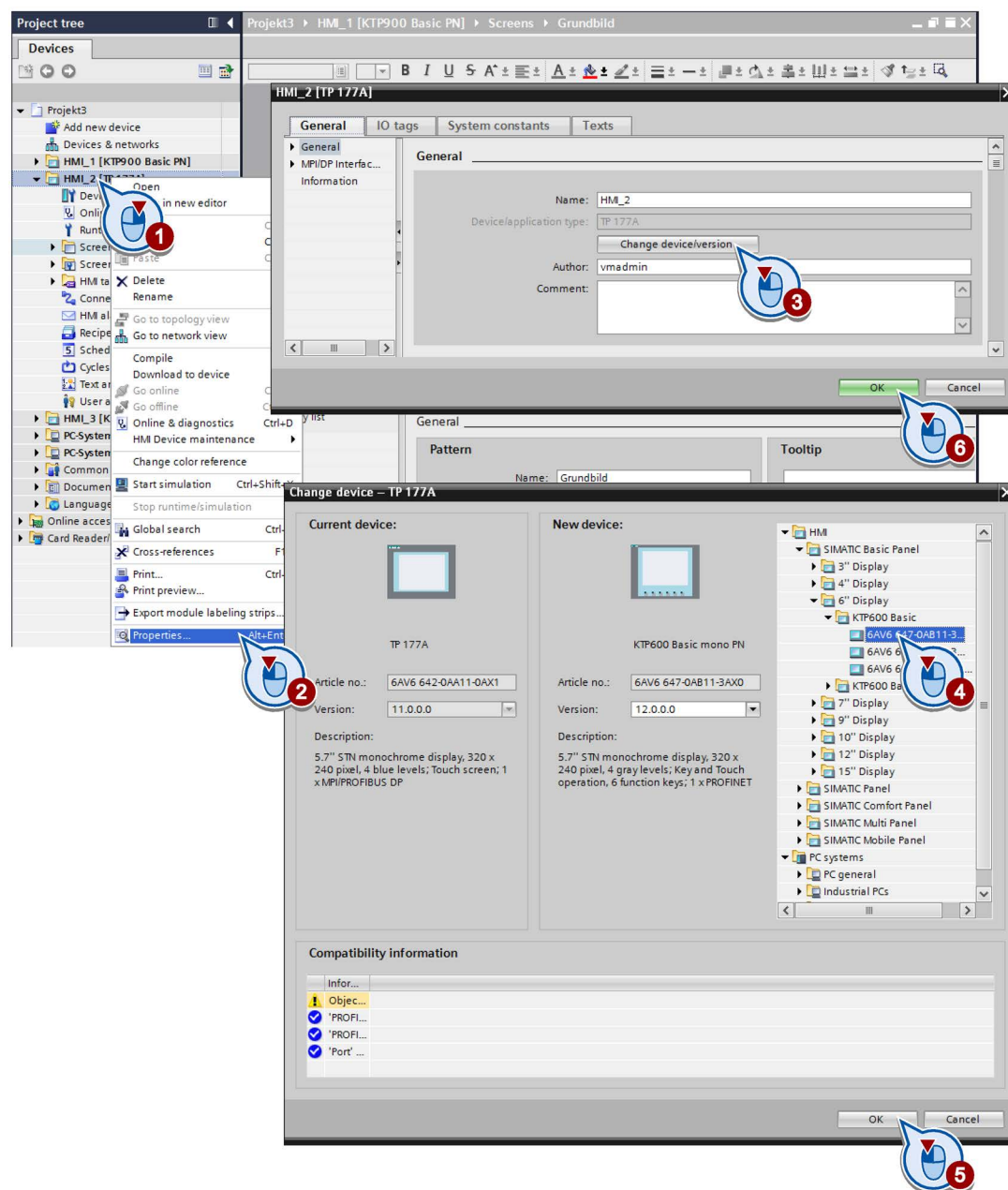
3.4 Switching over the HMI device

Requirements

- Adaptations for screens and screen objects are set for changing the display format (see Changing the screen format (Page 22)).
- The project tree is open in WinCC (TIA Portal).

Procedure

Proceed as follows:



Result

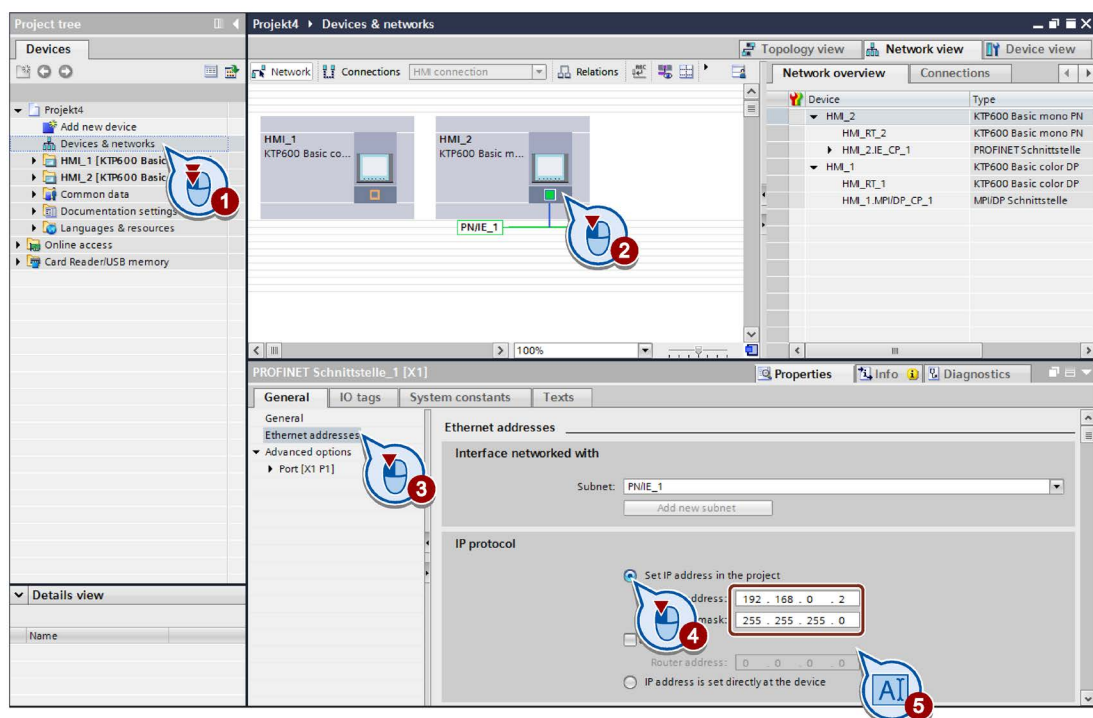
The HMI device is changed over:

- The format of the screens may be changed (e.g. from 4:3 to widescreen).
- The screen objects are placed according to the settings in the screens.
- The assignment of the function keys is migrated according to the function key assignment.

3.5 Setting the address of the HMI device

In WinCC flexible, an IP address set for an HMI device in the project was not transferred to the HMI device.

As of WinCC (TIA Portal) V11, an IP address set in the project is assigned to the respective HMI device during the transfer. You assign IP addresses for all HMI devices centrally in the "Devices & Networks" editor:



As an alternative, you can still set the IP address using the Control Panel of the HMI device or an DHCP server. In both cases, select the option "Get IP address another way" in WinCC (TIA Portal).

Commissioning the HMI device

4.1 Overview

To transfer the migrated project from the configuration PC to the Basic HMI device, connect the Basic HMI device to one of the following interfaces on the configuration PC:

- Ethernet, with all predecessor devices
- PROFIBUS/MPI, only with KTP700 Basic DP and with KTP1200 Basic DP

In the event of a fault, it is usually sufficient to restart the device or update the operating system. Resetting to factory settings is only necessary in case of serious errors, for example, in case of a corrupt file system.

4.2 Transferring the project

Transferring a project

Please refer to the following for a description of how to transfer a project:

- The Quick Install Guide enclosed with the Basic HMI device.
- The operating instructions for the Basic Panels, chapter "Commissioning a project".

"Basic Panels" operating instructions

(<http://support.automation.siemens.com/WW/view/en/31032678>)