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How do you configure the horn in SIMATIC PCS 7?

SIMATIC PCS 7 V8.2 / V9.0

<https://support.industry.siemens.com/cs/ww/en/view/89279751>

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1 Horn Configuration in SIMATIC PCS 7

Introduction

You use the horn to trigger optical or acoustic signal transmitters. You use the Horn Editor you configure which signals are to trigger which messages on arrival.

Notes

- The horn can be configured on OS single stations, OS servers and OS clients.
- It can be configured on one or more of these stations.
- It can be configured separately on each of these stations.
- Each of these horns can be acknowledged both only locally and from multiple stations through an acknowledgment group.
- Multiple acknowledgment through an acknowledge tag continues to be possible for the sake of compatibility with earlier versions. A description of this is available in the FAQ response in Entry ID [17778088](#).

Validity

The following configuration has been made with the SIMATIC PCS 7 V9.0. This example applies for the versions PCS 7 V8.2 / V9.0 and WinCC V7.4 / V7.4 SP1.

2 Configuring and Selecting the Message Classes

Introduction

In the horn you create the signal tags which you link to message properties. In the case of an incoming message the signal tag of the assigned message class is set to "1". If you do not specify a message class, every incoming message enables the signal tag.

Prerequisites

Configure all the single-user stations, servers, redundant servers and client OS stations in the SIMATIC Manager in accordance with the configuration manual "[SIMATIC PCS 7 Engineering System \(V9.0\)](#)".

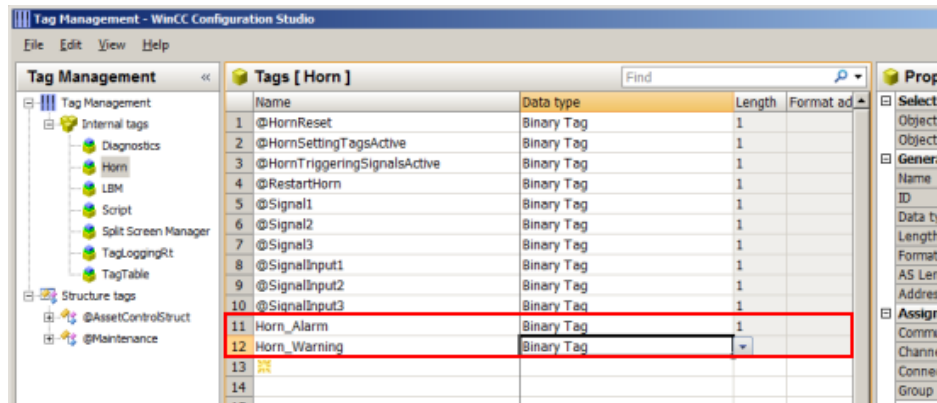
Open the desired SIMATIC PCS 7 OS station through the WinCC Explorer on the Engineering Station.

Procedure

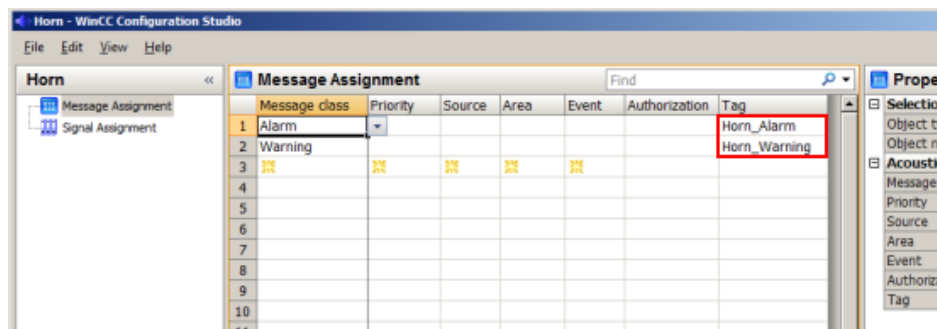
1. Open the Horn Editor by double-clicking the horn icon in the WinCC Explorer.
2. Now go to the event class pull-down menu and select the "Alarm" message class in the "Message Assignment" tab, in the "Message class" column and select "Warning" in the next line.
3. Insert any other message classes that are required.

2 Configuring and Selecting the Message Classes

4. In the previous versions down PCS 7 V8.1 and WinCC this step can be skipped, because in step 5 the tags were created automatically with a click on the "Apply" button. In newer versions you must create the tags yourself by going to the "Tag Management", opening the "Internal Tags/Horn" directory and creating the required tags as "Binary Tags". The trigger for the horn is controlled at a later point in the assignment process by means of these tags.



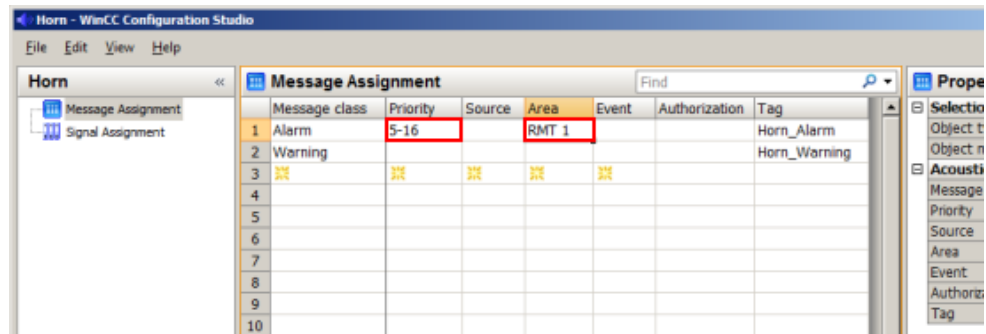
5. Then, in the "Tag" column, you enter names for the tags of the message classes.



3 Selecting the Message Priority

Introduction

In the "Message Assignment" tab, you can restrict messages to a specific area and/or specific priorities, for example.



With the message priority you specify in addition and independent of the message class which messages are to trigger a signal first. You define the priorities for single messages in the Alarm Logging.

Procedure

In the "Message Assignment" tab you enter the message priority number in the "Priority" column. You can use the following entries.

Entry in "Priority"	Example	Meaning
No entry		The messages set the signal tags regardless of the priority.
Number	5	One specific priority.
Number, number, number	5, 7, 9	Multiple specific priorities.
Number x - Number n	5 - 9	Priorities between Number x and Number n inclusive.
< Number or > Number	< 5 or > 5	Priorities less than or greater than the number.
<= Number or >= Number	<= 5 or >= 5	Priorities less than or equal or greater than and equal to the number.
0	0	The signal tag is set only for "0" priorities.

Note

It is not possible to combine entries, "1-5, 10, <50" for example.

3 Selecting the Message Priority

Do not assign to a signal tag a combination of message priority and message class that is already being used in another signal tag. In this case, an incoming message could not set this signal tag, as the first assignment already fulfills the conditions for the triggering of the signal. A variable must not be described by several conditions.

The following example shows how the system behaves:

Table 3-1: Example 1

Message class	Priority	Source	Area	Event	Authorization	Tag
Alarm					<Default>	AlarmTag
Alarm	10				<Default>	AlarmHighTag

Table 3-2: Example 2

Message class	Priority	Source	Area	Event	Authorization	Tag
Alarm	>5				<Default>	AlarmTag
Alarm	10				<Default>	AlarmHighTag

Incoming messages of message class "Alarm" with priority "10" never activate the signal tag "AlarmHighTag". In both cases the first condition sets the "AlarmTag" signal tag and triggers the associated signal.

4 Defining Trigger Authorization of the Signal Tags

Introduction

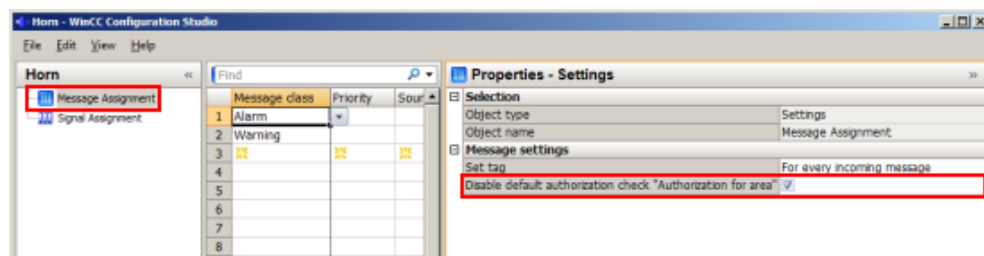
In the "Message Assignment" tab you define in the "Authorization" column whether the signal tag is triggered user-specifically. The authorizations of the logged-on user are taken from the configurations of the User Administrator.

Authorizations

This setting "Authorization for area" is useful for OS stations on which an operator is working who only has access to single areas and only has the messages from these areas displayed. In this way the horn is enabled only for messages that that user can also see.

Authorization check: Disable "Authorization for area"

If the OS station is one of many OS stations in a central control room, the horn should always be enabled regardless of the authorization of the user currently logged on. For this you check the option "Deactivate default authorization check "Authorization for area"".



5 Defining the Trigger of the Horn

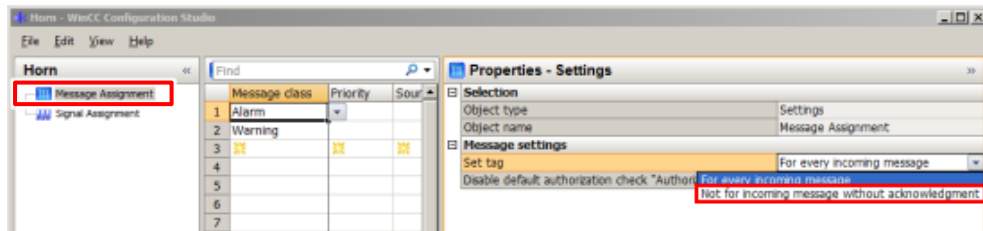
Introduction

In the case of rapidly repeated messages, the horn is enabled once again for each incoming message. This can be uncomfortable for the operators if messages are repeated frequently.

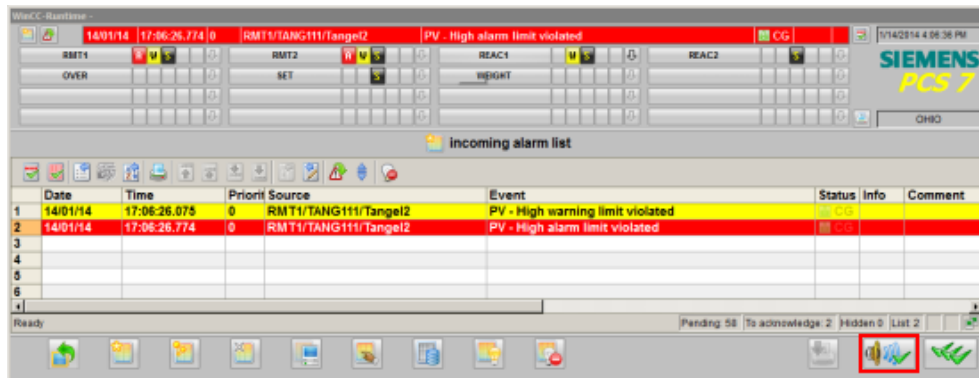
Not for incoming messages without acknowledgment

If you select "Not for incoming messages without acknowledgment", the horn is enabled only when an incoming message has been acknowledged beforehand.

NOTE The settings are only visible if "Message Assignment" is selected in the tree structure.



In this way the operator has the option of acknowledging only the horn and not the message itself. When a new message arrives, the horn is not enabled again.



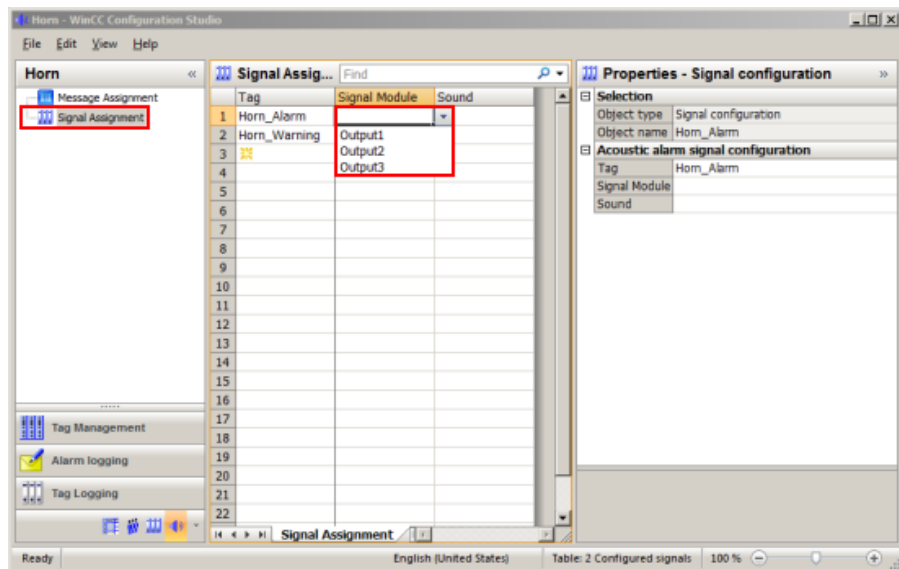
6 Assigning Signal Transmitters to a Signal Tag

Introduction

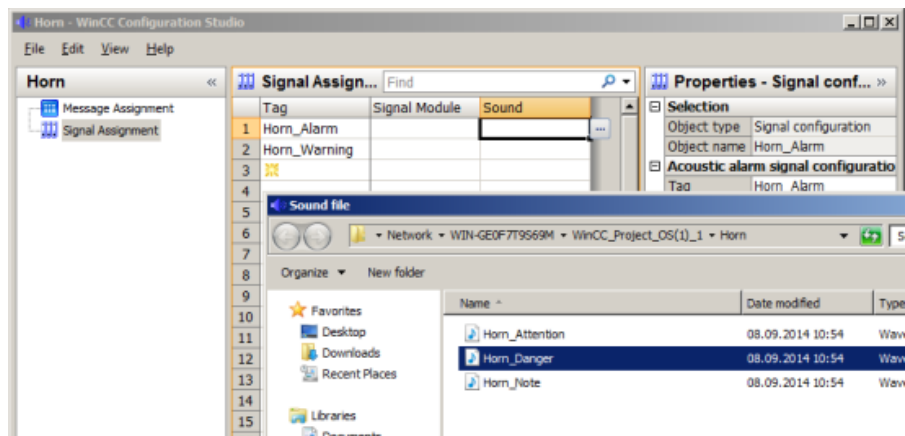
The signals can be output either through an installed signal module, in a PCI slot, for example, or using the sound files (*.wav) which can be output through the installed sound card of the PC.

Procedure

1. Open the "Signal Assignment" tab.
2. With a double-click in the field of the "Tag" column you can select the created tags.
3. Double-click in the "Signal module" column to select one of the three possible hardware outputs of the signal module.



4. Double-click in the "Sound" column to select one of the existing sound files from the Standard PCS 7 version.



Note

You can also use your own sound files. Details about creating your own sound files are available in the WinCC Online Help. We would advise you also to save the files and the template files in your project path. In this case the sound files are also saved when the project is saved, and the path details are still correct even after loading the OS station.

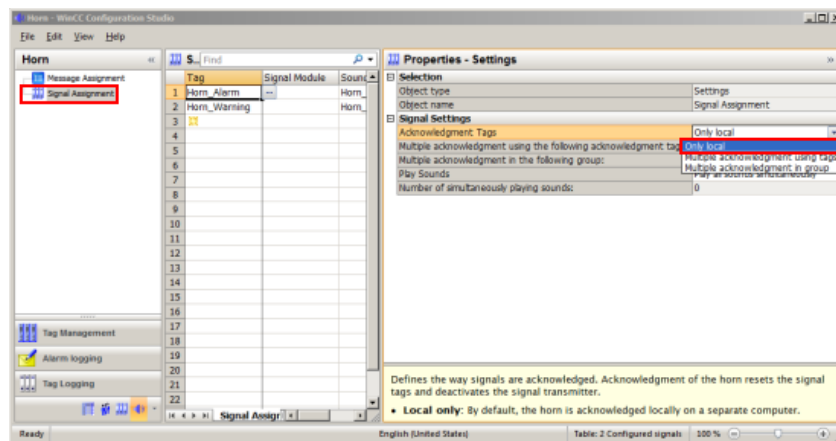
7 Configuring the Horn Acknowledgment Behavior

The acknowledgment of the horn can be done either locally by the OS station on which the horn is configured or also by other OS stations through multiple acknowledgment.

Local acknowledgment

If the acknowledgment is to be exclusively by the local OS station, select the "Only local" under "Horn acknowledgment".

NOTE The settings are only visible if "Signal Assignment" is selected in the tree structure.

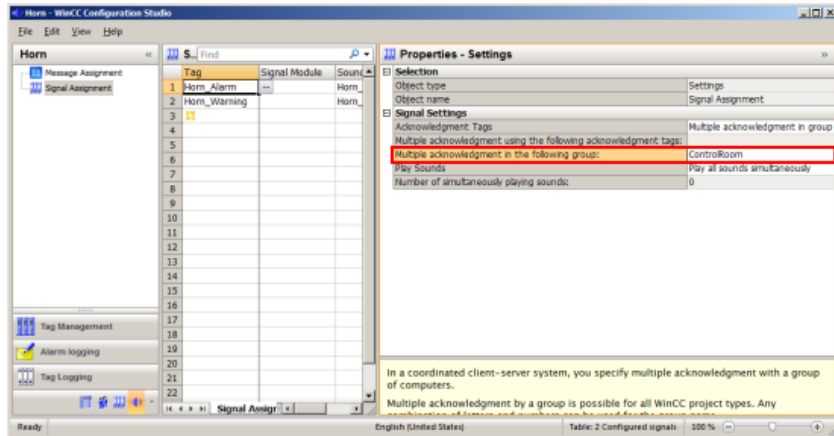


Multiple acknowledgment via a group

If you want it to be possible for the horn to be acknowledged also by other OS stations, you have to configure an acknowledgment group. For this, under "Horn acknowledgment:" you select the option "Multiple acknowledgment in the following group:" and enter a group name of your choice.

All OS stations which have the same group name configured form an acknowledgment group. If the "Acknowledge horn" or "Acknowledge message" button is pressed on one of these OS stations, an enabled horn will be acknowledged on all the OS stations configured in the same acknowledgment group.

7 Configuring the Horn Acknowledgment Behavior



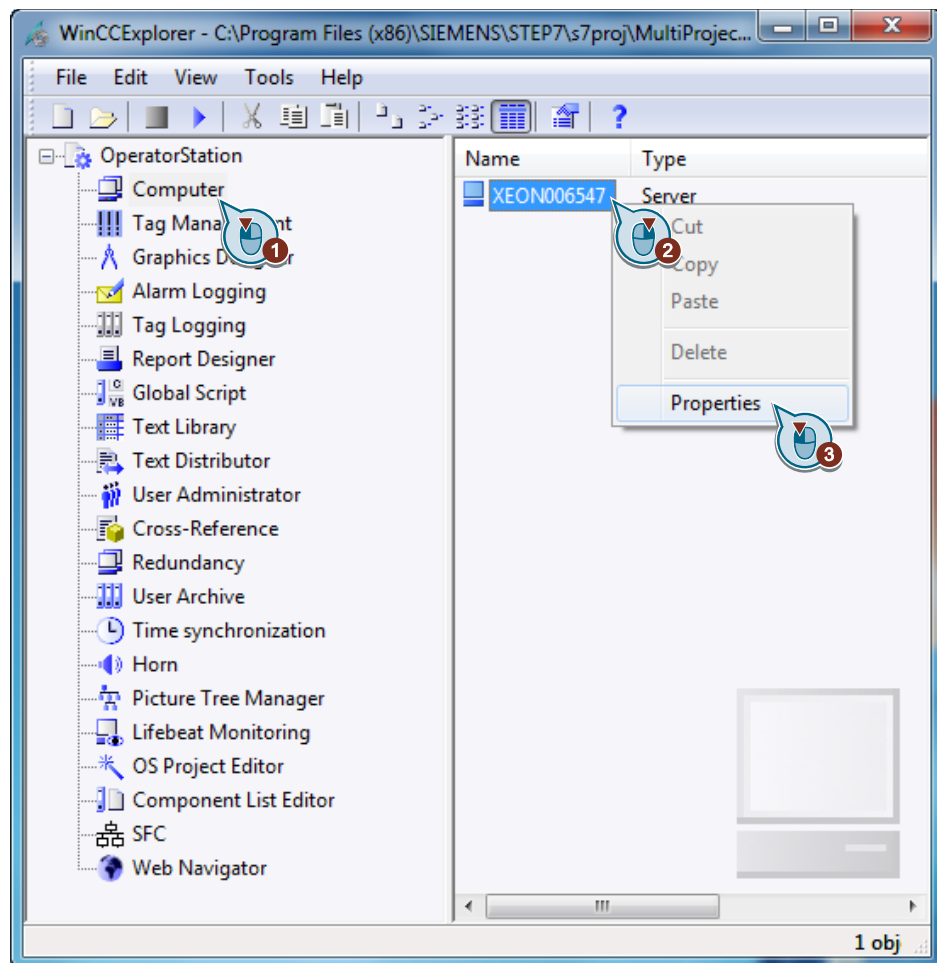
8 Completion

Introduction

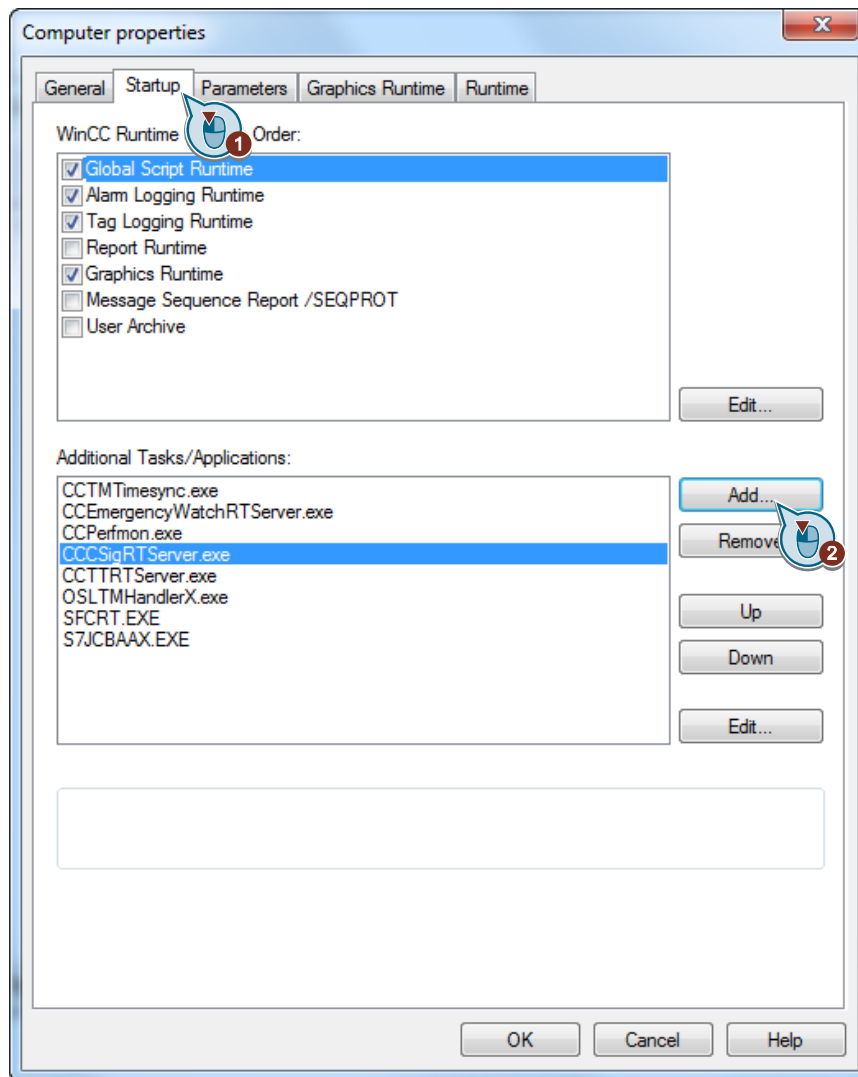
After configuring the horn you must enter the task "HMRT.exe" in the startup list of your OS project to make the configuration effective.

Procedure

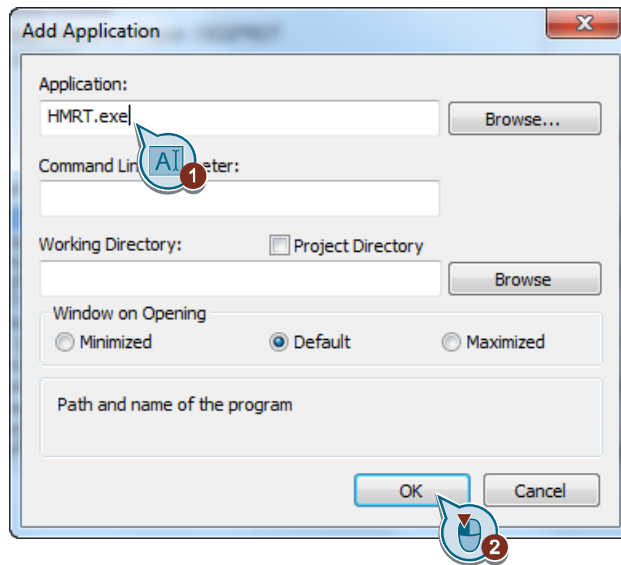
1. In the WinCC Explorer you click "Computer" and in the computer name pop-up menu you select "Properties".



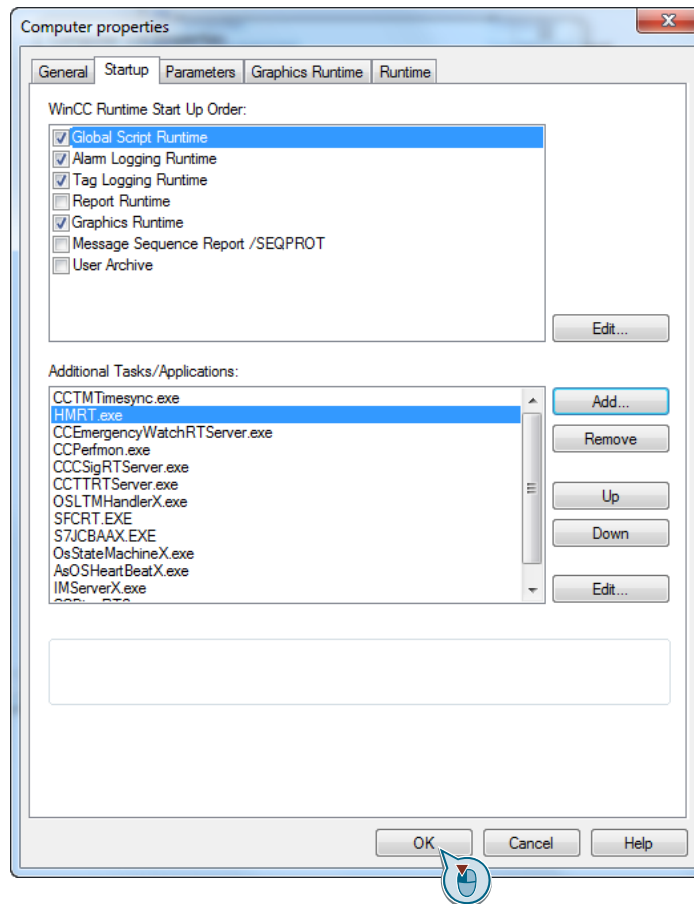
2. Go to the "Startup" tab and click the "Add..." button.



3. In the "Application:" text field you enter "HMRT.exe" and click the "OK" button.



4. Click the "OK" button.



5. Acknowledge the message and restart your project.

