

5. Activation

5.1 Activation of the WIN starter packages

WIN starter packages are:

- | | |
|--|------------|
| • WIN complete KombiSIGN 71 | 860.640.06 |
| • WIN system KombiSIGN 70 | 860.840.04 |
| • WIN system KombiSIGN 71 | 860.640.04 |
| • WIN complete with WIN transmitter performance KombiSIGN 71 | 860.640.16 |
| • WIN system with WIN transmitter performance KombiSIGN 70 | 860.840.14 |
| • WIN system with WIN transmitter performance KombiSIGN 71 | 860.640.14 |

To activate the WIN starter packages proceed as follows:

1. Start up your PC and start the WIN software.
2. The following window appears. Confirm by clicking "Next".



3. Connect the WIN receiver to your PC using the USB cable provided. Click "Search" to search for the connected WIN receiver.



Note: If the WIN receiver is not recognized as hardware, please install the driver manually. Manual driver installation is described in chapter 3.

4. The WIN receiver has been detected. Click "OK" to proceed with the configuration.



5. You can now mount the three WIN transmitters, which are included with the WIN system or WIN complete kits on your signal towers. These three WIN transmitters are pre-configured, i.e. connection to the WIN receiver has already been established.



If you want to add further WIN transmitter, you can do this after activation of the WIN system/complete.

Note: Activation of additional, WIN transmitters, which are not pre-configured and additional WIN receiver, is described in chapter 5.2

5.2 Activation of the additional WIN components

Additional WIN components are:

- WIN transmitter KombiSIGN 71 860.640.05
- WIN transmitter performance KombiSIGN 71 860.640.15
- WIN transmitter control KombiSIGN 71 860.640.25
- WIN transmitter KombiSIGN 70 860.840.05
- WIN transmitter performance KombiSIGN 70 860.840.15
- WIN transmitter control KombiSIGN 70 860.840.25
- WIN receiver 860.000.01

5.2.1 WIN transmitter

Note: the three WIN transmitters included in the WIN system or WIN complete kits are pre-configured.

If you want to use more than three WIN transmitters, configuration is carried out as follows:

1. Start the WIN software.
2. Connect the WIN transmitter to your PC using the USB cable.

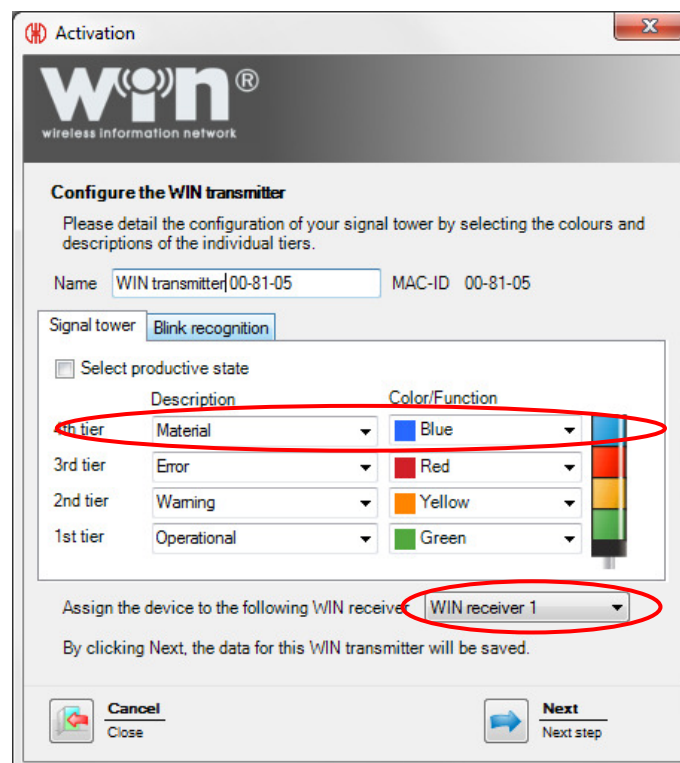


3. The following box appears on the screen:

Click "Search" to search for the connected WIN transmitter. Once it has been found, click "Next".



4. Configure your WIN transmitter and assign it to a WIN receiver.



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5. If several WIN transmitter need to be configured, select "Configure a WIN transmitter" and click "Next". Repeat the process from step 3 onwards.



If you want to configure a receiver, select "Configure a receiver", see chapter 5.2.4.

If you want to finish a configuration, select "Finish configuration".

To confirm your selection click "Next".

6. Disconnect the USB connection to the WIN transmitter.



7. The WIN transmitter can now be integrated into the signal towers. (Refer to chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**)

5.2.2 WIN transmitter performance

Note: The three WIN transmitter performances included in the WIN system performance or WIN complete performance kits are pre-configured.

If you want to use more than three WIN transmitters performance, configuration is carried out as follows:

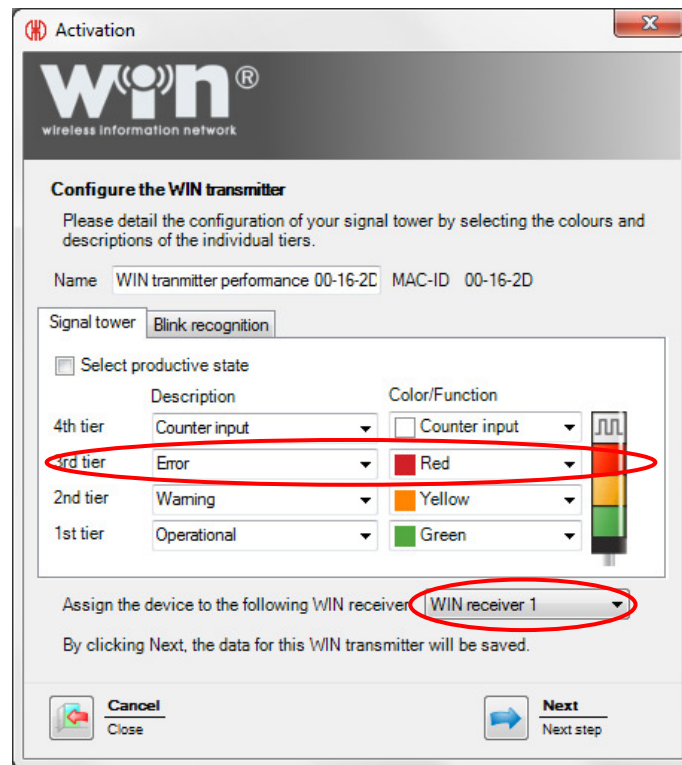
1. Start the WIN software.
2. Connect the WIN transmitter performance to your PC using the USB cable.



3. The following box appears on the screen:
Click "Search" to search for the connected WIN transmitter performance. Once it has been found, click "Next".



4. Configure your WIN transmitter performance and assign it to a WIN receiver.
In addition, configure the counter input to the tier on which the count impulse is applied.



5. If several WIN transmitters' performance needs to be configured, select "Configure a WIN transmitter" and click "Next". Repeat the process from step 3 onwards.



If you want to configure a receiver, select "Configure a receiver", see Chapter 02.4.

If you want to finish a configuration, select "Finish configuration".
To confirm your selection click "Next".

6. Disconnect the USB connection to the WIN transmitter performance.



7. The WIN transmitter performance can now be fitted into the signal towers. (Refer to chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**)

5.2.3 WIN transmitter control

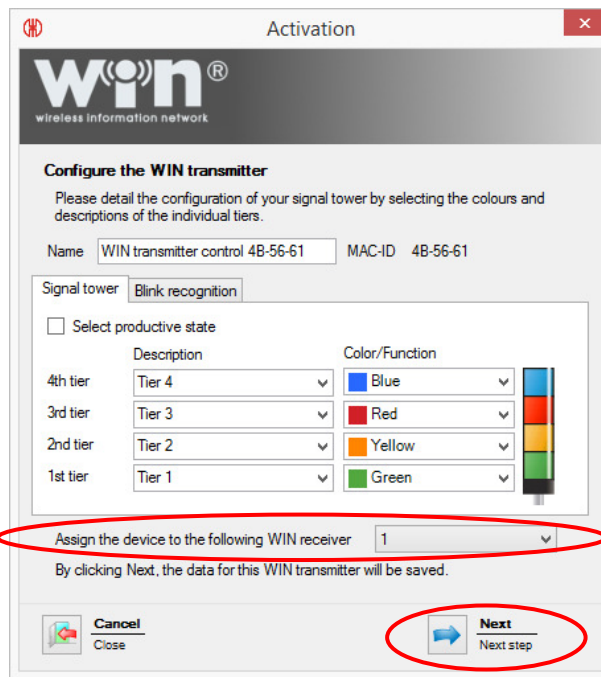
1. Start the WIN software.
2. Connect the WIN transmitter to your PC using the USB cable.



3. The following box appears on the screen:
Click "Search" to search for the connected WIN transmitter control. Once it has been found, click "Next".



- Configure your WIN transmitter control and assign it to a WIN receiver.

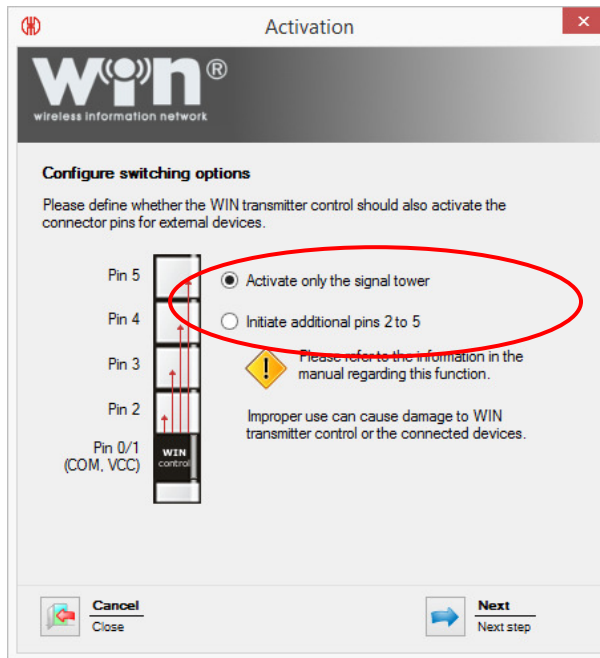


- Configure the switch status of WIN transmitter control by defining the individual tiers. You can choose between "Off", "On" or "Blinking".



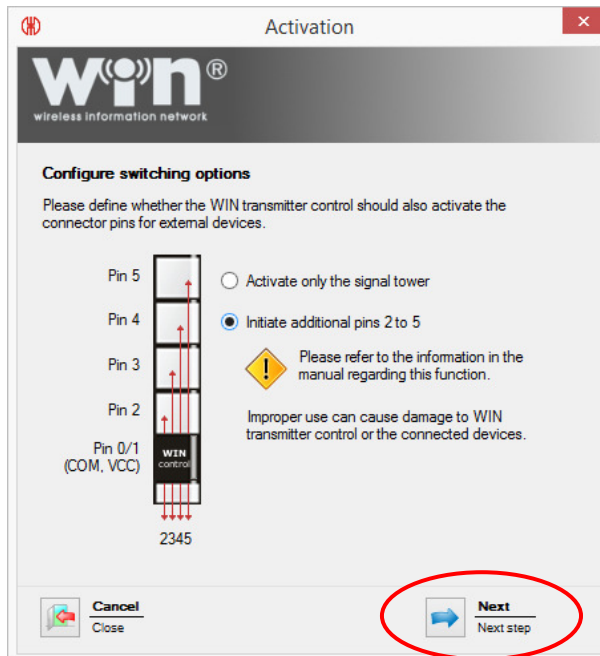
Note: The switched condition is activated as seen as the WIN transmitter control is energized.

6. Configure the switch conditions of the WIN transmitter control. You can choose between the standard (default) "Activate only the signal tower" and "Initiate additional pins 2 to 5".

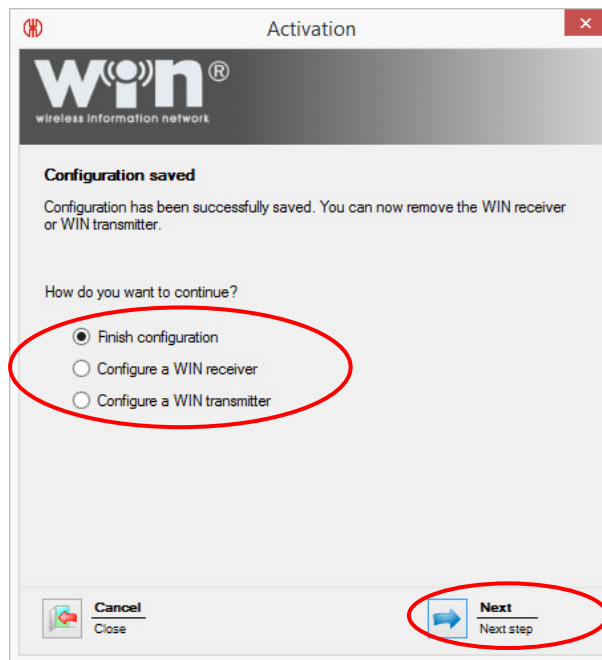


Note: See safety instructions in chapter 1.3.

7. Confirm your selection with "Next".



8. If several WIN transmitters need to be configured, select "Configure a WIN transmitter" and click "Next". Repeat the process from step 3 onwards.



If you want to configure a receiver, select "Configure a receiver", see chapter 5.2.4.

If you want to finish a configuration, select "Finish configuration".

To confirm your selection click "Next".

9. Disconnect the USB connection to the WIN transmitter control.

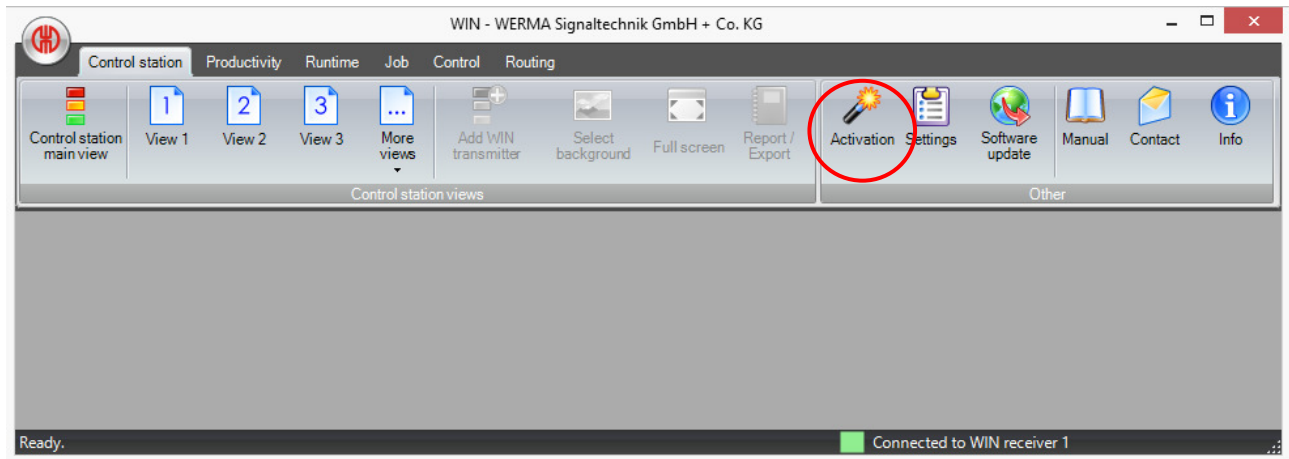


10. The WIN transmitters can now be integrated into the signal towers. (Refer to chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**)

5.2.4 WIN receiver

Configure the new WIN receiver as follows:

1. Connect to the existing database on a network drive (see chapter 2.2).
2. Click "Activation" and proceed as described in chapter 8.1.



6. Fitting - WIN transmitter / WIN transmitter performance / WIN transmitter control

By means of the bayonet system, the WIN transmitter can be fitted as the **lowest element** of the WERMA KombiSIGN 70 or KombiSIGN 71 signal tower. Ensure that the white markings of the individual elements are aligned on top of each other. Turn the WIN transmitter slightly until it clicks on the terminal element (see following picture).



7. Program functions

The WIN menu offers six different main modules:

- Control Station Module
- Productivity Module
- Runtime Module
- Job Module
- Control Module
- Routing Module

Additionally, Reporting and Data Export functions are available in the following modules:

- Control Station Module
- Productivity Module
- Runtime Module
- Job Module

For a detailed description of the functions, refer to the relevant Module chapter (7.1 to 7.4 as well as 7.7)

7.1 Control Station Module

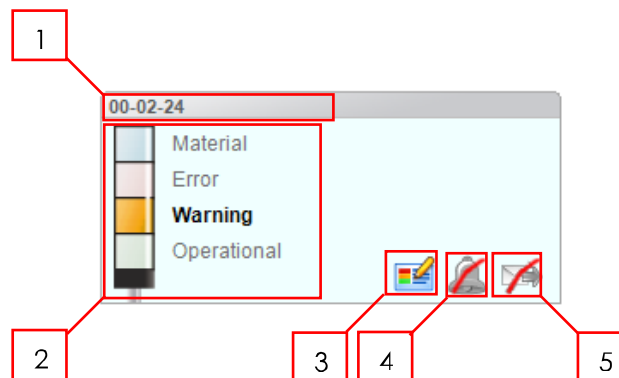
The Control Station view shows the status of up to 50 machines and the jobs being worked on. You can quickly see if a machine is in an error condition or running normally. This module helps you to quickly take action to reduce downtime. You can see the performance progress of jobs on each machine immediately. You can install a layout of your workshop in the control station view.

7.1.1 Control station depiction

7.1.1.1 WIN transmitter

The control station depiction of a WIN transmitter includes following information:

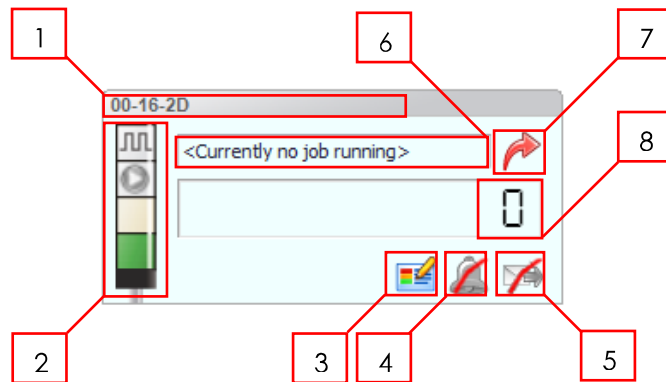
1. WIN transmitter name
2. Status depiction
3. Edit WIN transmitter configuration
4. Set up the status change message
5. Set up the status transmission



7.1.1.2 WIN transmitter performance without running job

The control station depiction of a WIN transmitter performance **without** running Job includes following information:

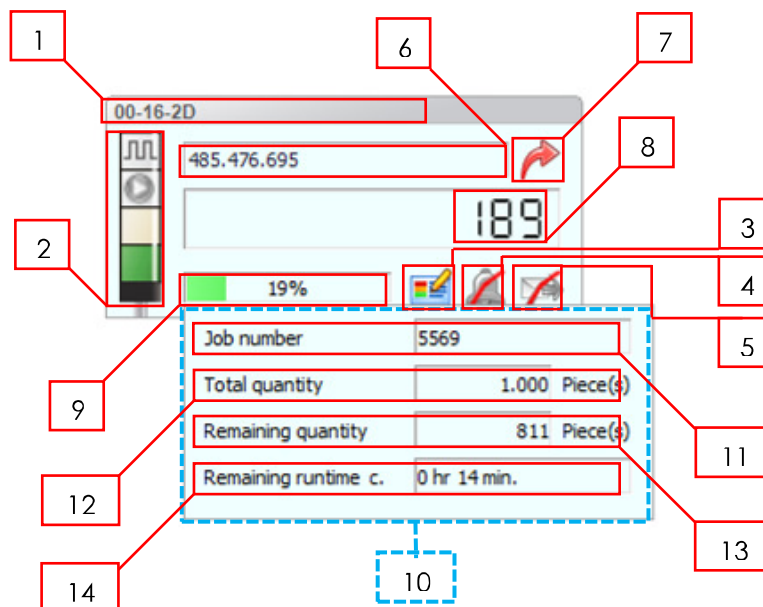
1. WIN transmitter performance name
2. Status depiction
3. Edit WIN transmitter performance configuration
4. Set up the status change message
5. Set up the status transmission
6. Depiction "No running Job"
7. Edit new Job
8. Current quantity without target value



7.1.1.3 WIN transmitter performance with running job

The control station depiction of a WIN transmitter performance **with** running Job includes following information:

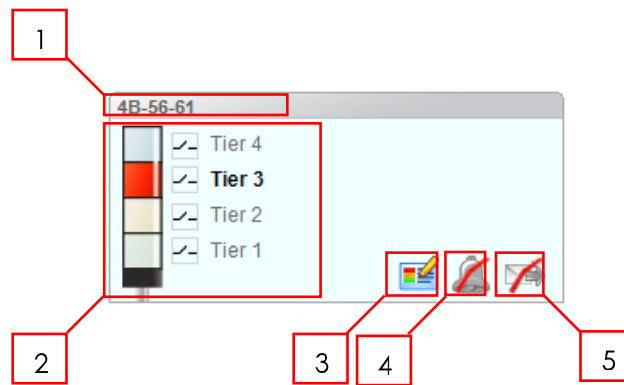
1. WIN transmitter performance name
2. Status depiction
3. Edit WIN transmitter performance configuration
4. Set up the status change message
5. Set up the status transmission
6. Displays the running job
7. Jump to Job Module
8. Current quantity
9. Fulfillment level of the job
10. Mouse over function for job details
11. Job number
12. Total quantity of the job
13. Remaining quantity of the job
14. Remaining runtime of the job



7.1.1.4 WIN transmitter control – manual control mode

The Control Station view of WIN transmitter control **in manual control mode** displays the following information:

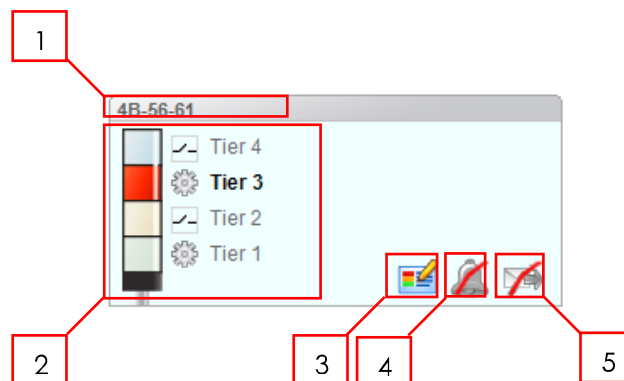
1. WIN transmitter control name
2. Display of the status within manual control mode. A description of the functions can be found in chapter 7.1.4.
3. Edit WIN transmitter control configuration
4. Set up the status change message
5. Set up the status transmission



7.1.1.5 WIN transmitter control with defined switching rule

The Control Station view of WIN transmitter control **in defined switching rule mode** displays the following information:

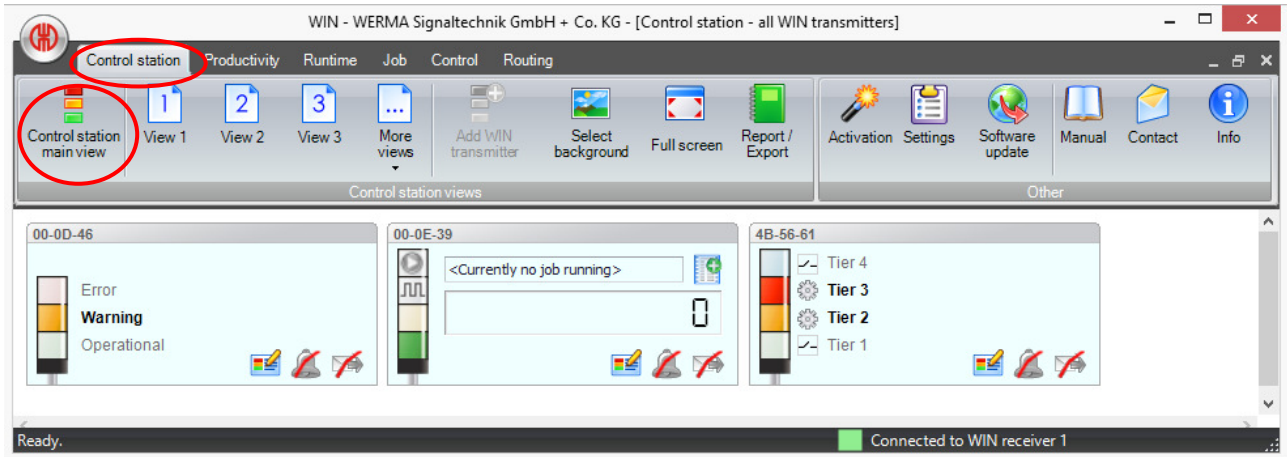
1. WIN transmitter control name
2. Display of the status within defined switching rule mode. A description of the functions can be found in chapter 7.5.2.
3. Edit WIN transmitter control configuration
4. Set up the status change message
5. Set up the status transmission



7.1.2 Views into the control station

7.1.2.1 Control station main view

The Control Station main view gives an overview of **all WIN transmitters** which have been configured.

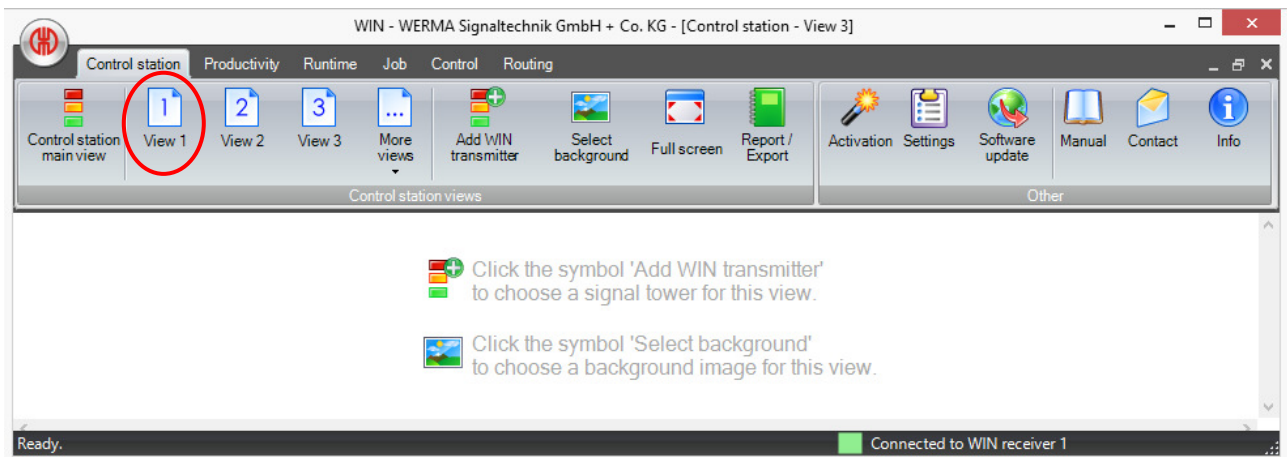


7.1.2.2 Further views

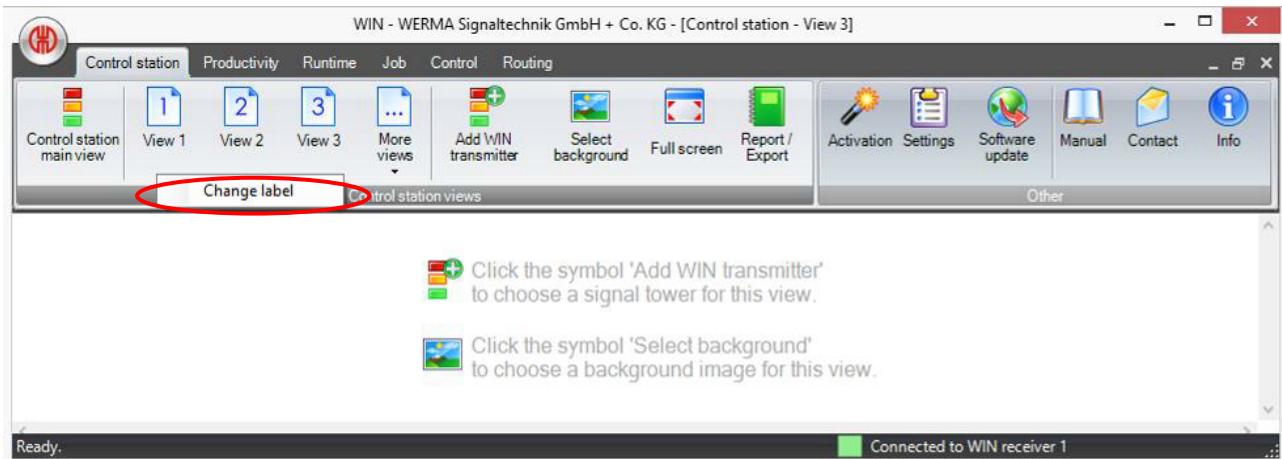
By opening up further views, specific groups of WIN transmitter can be selected and displayed.

To configure another view, proceed as follows:

1. Views can be opened by clicking the mouse on the relevant view number.



2. The names of the individual views can be edited by right-clicking on the view icon.

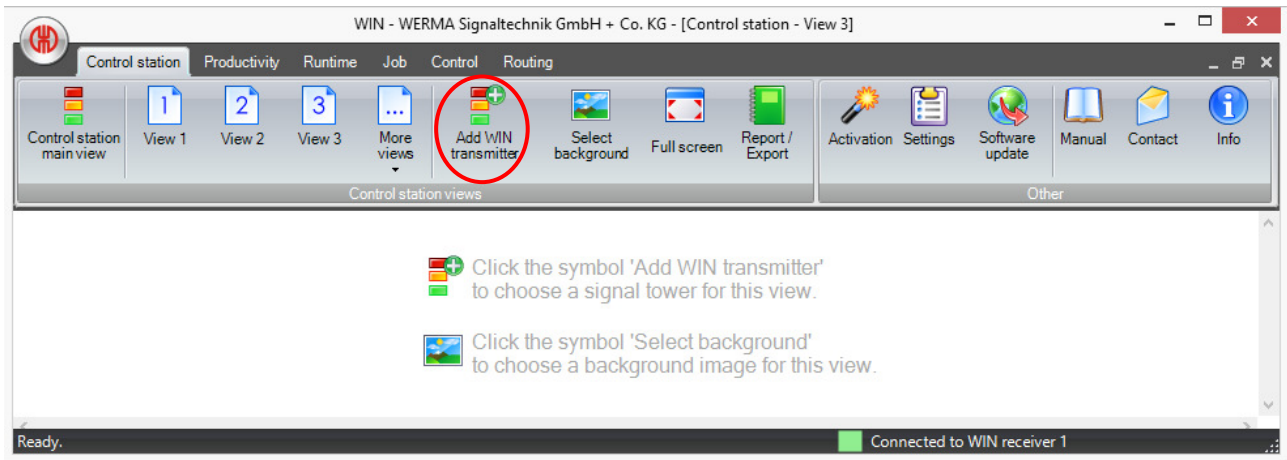


3. Confirm your entry with "OK".

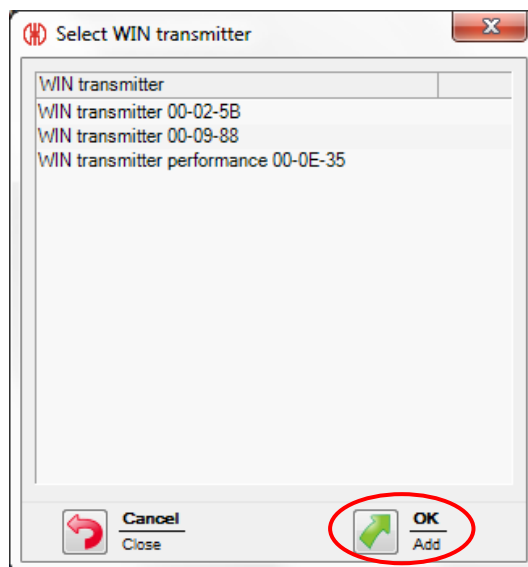


7.1.2.3 Adding a WIN transmitter to a View

1. By clicking "Add WIN transmitter", any number of WIN transmitters can be added to the selected view.

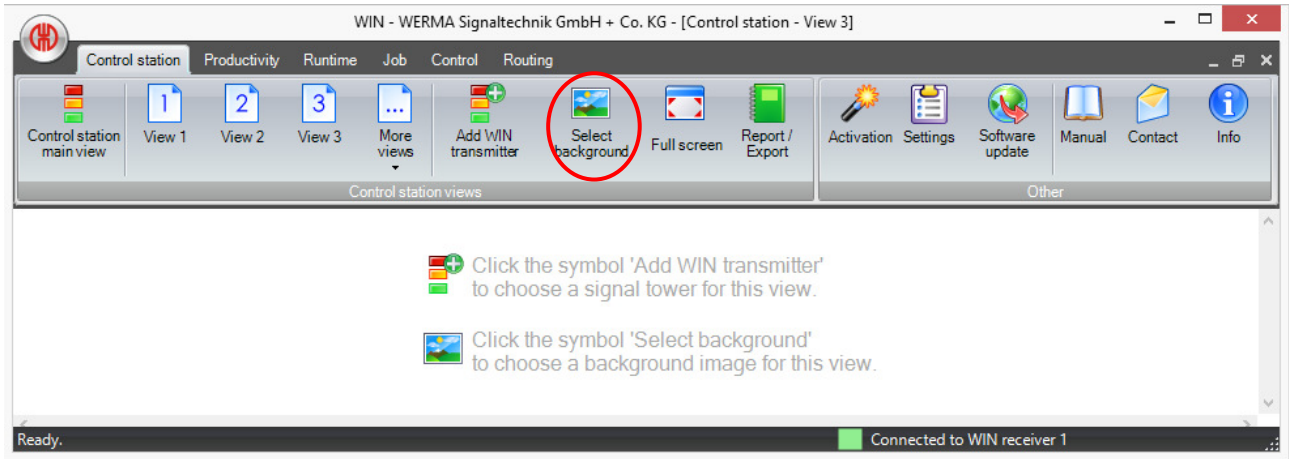


2. Confirm your choice with "OK".

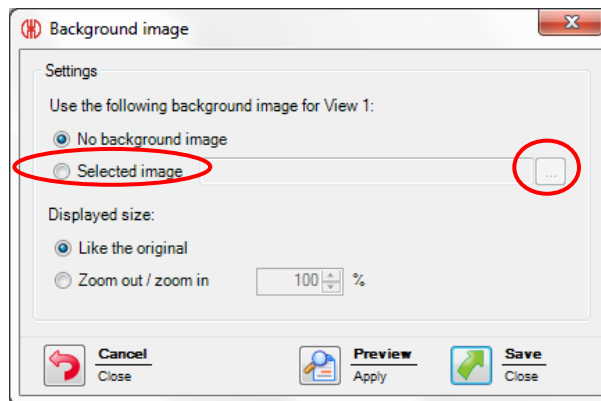


7.1.2.4 Selecting a background for a View

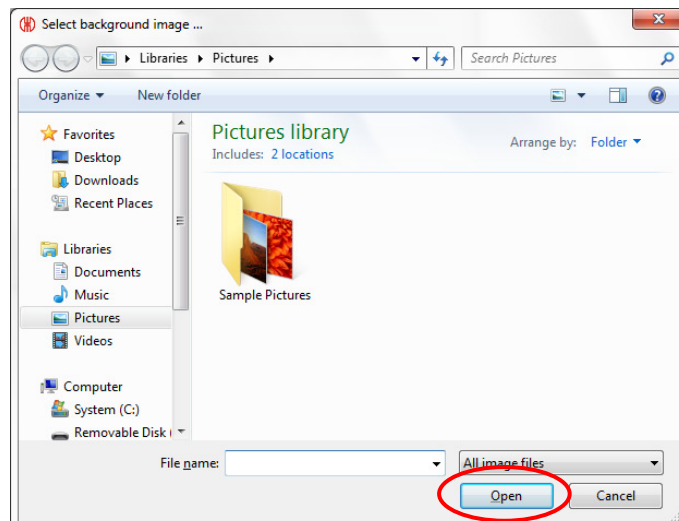
1. To add or edit a background, click the "Select background" button on the menu bar. You can define images in all popular image formats (jpg, bmp, tiff, ...) as a background for this view.



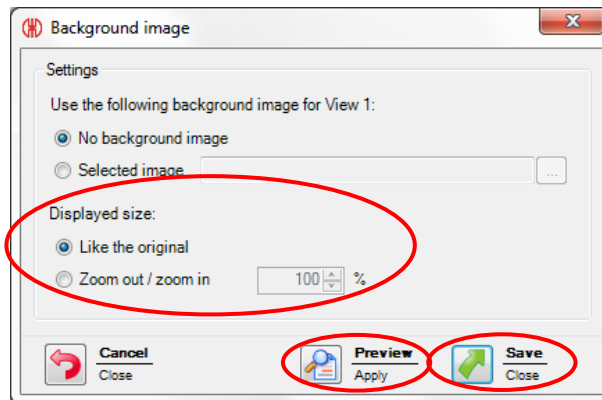
2. A window opens where you choose "Selected image" and click on "..." to select the background image.



3. In the following window, you may select your background.



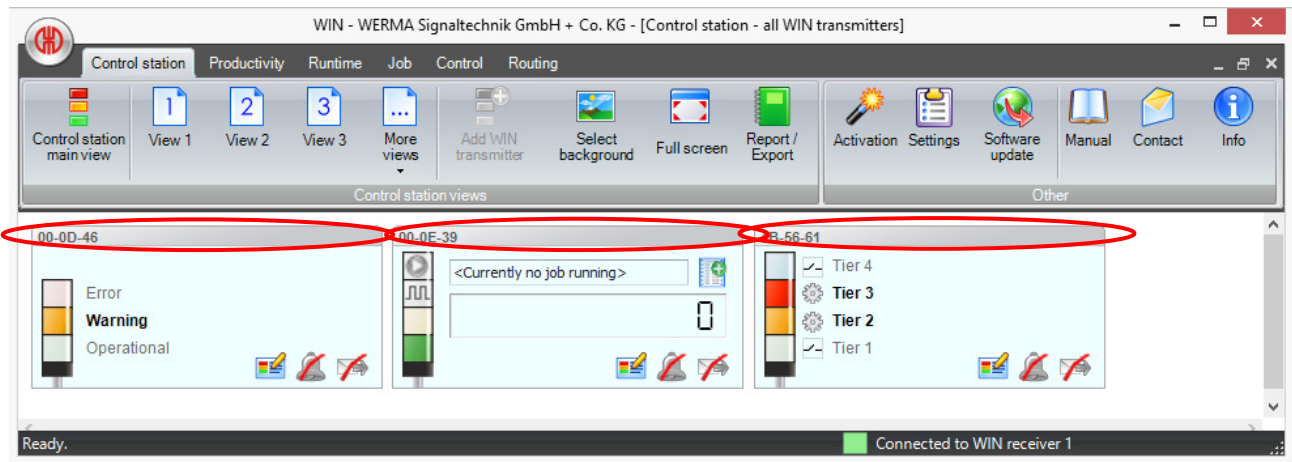
4. You can also choose if you want to zoom in or out of the image or insert it in its original size. To select the desired image and add it as a background, click "Open". Click "Save" to add the background image to the view. A preview is displayed via the "Preview" button.



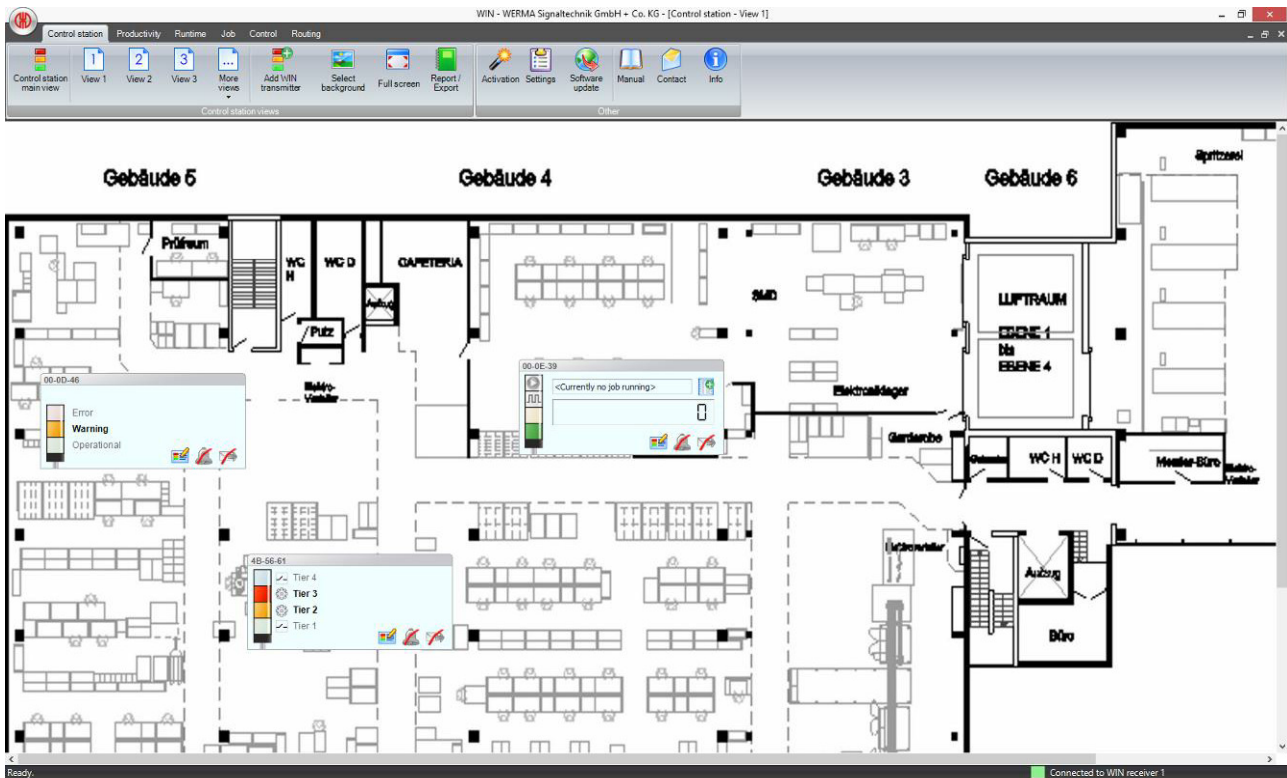
Note: The desired image must be stored on your PC or a data drive connected to your PC. If you want to use the multiple access function, the background image must be saved on a network drive.

7.1.2.5 Re-positioning a WIN transmitter icon

Every WIN transmitter can be re-positioned. Simply select the desired WIN transmitter on the menu bar by left clicking and dragging to the desired position.

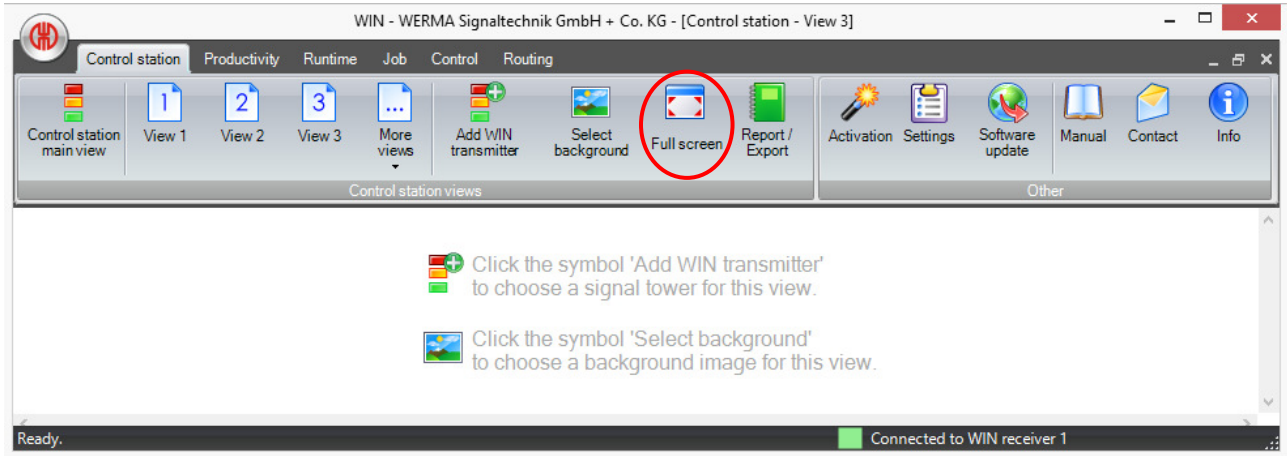


Example: A floor-plan of the production area has been used as a background. The WIN transmitters have been placed at the positions of their corresponding machines.



7.1.2.6 Full Screen Mode

You can use the Full screen mode for all views in the Control Station and Productivity Module. To edit the Full screen mode, click the "Full screen" button on the menu bar. To close the Full screen mode press the "esc" button.



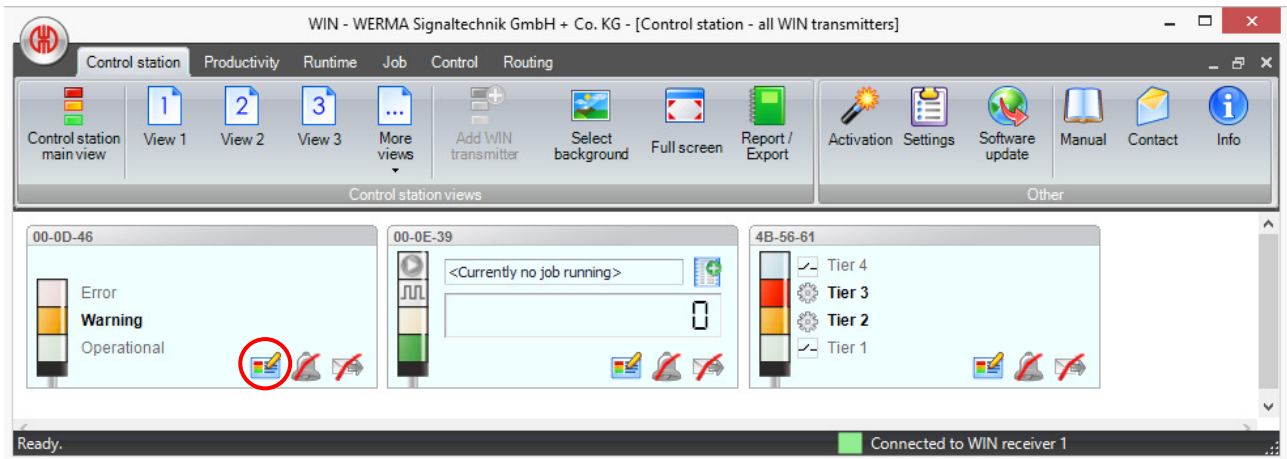
7.1.3 Configuration WIN transmitter

7.1.3.1 Editing WIN transmitter

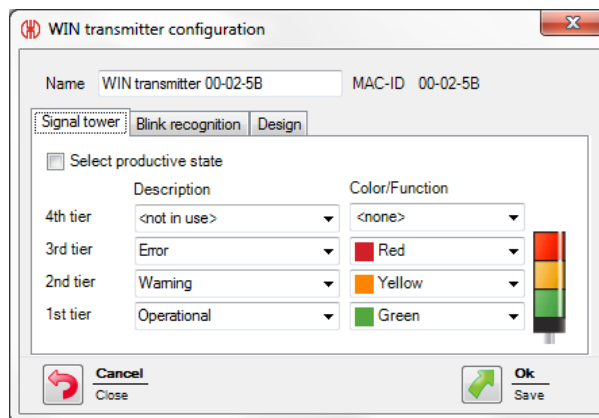
Every WIN transmitter can be individually named and configured.

To configure a WIN transmitter, proceed as follows:

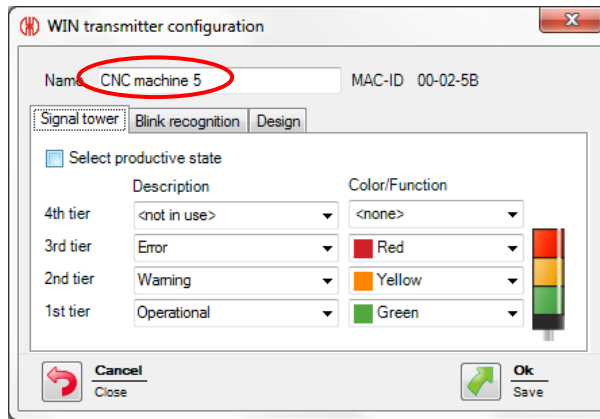
1. Select the WIN transmitter to be configured in one of your views.
2. Click the “Edit WIN transmitter” button.



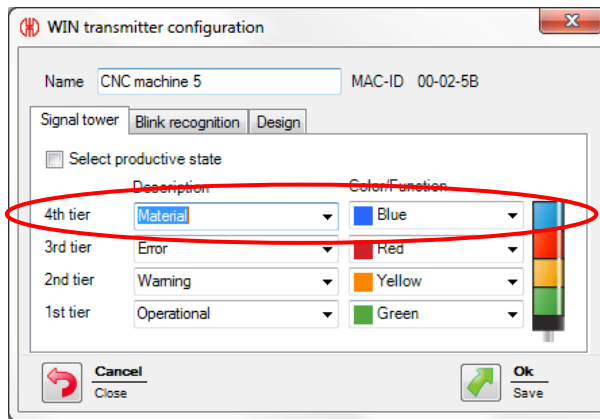
3. The WIN transmitter configuration menu will pop up.



-
4. The name of the WIN transmitter can be matched to its intended use (e.g. CNC machine)

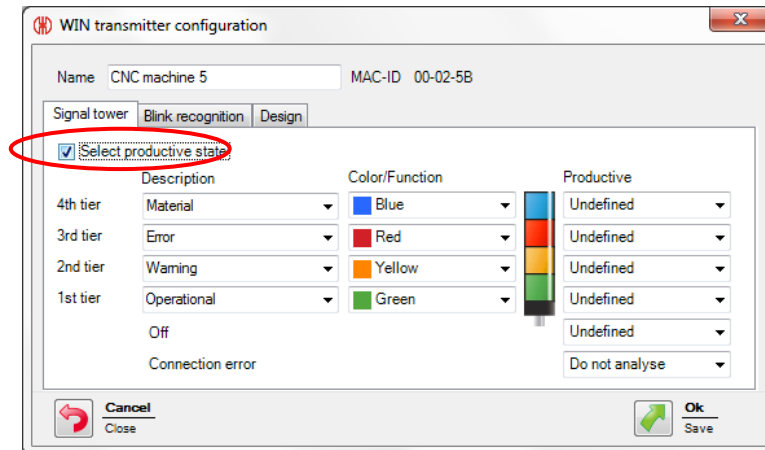


5. By changing the description of the individual tiers, the WIN transmitter configuration can be matched to its specific signal tower. Just enter the desired meaning in the "Description" box.

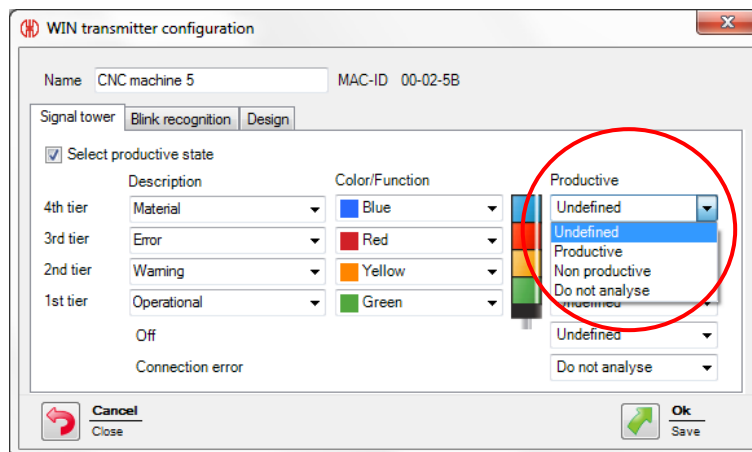


Note: The "Description" box can be edited according to individual requirements. The individual "Descriptions" can also be chosen from the drop-down list.

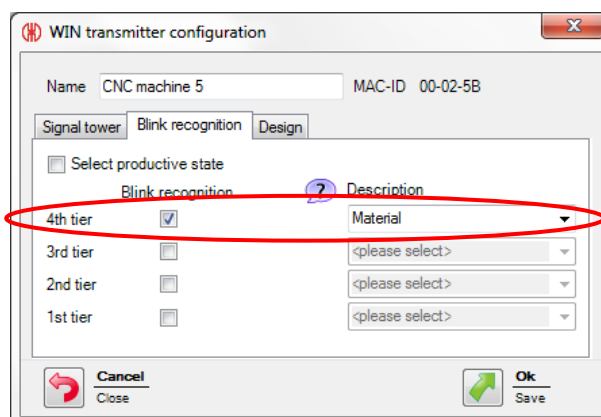
6. Define the productive states to analyze these in the productivity module, see chapter **Fehler! Verweisquelle konnte nicht gefunden werden.** Please click on the check box.



7. For each state, you can choose between "Productive", "Non productive", "Undefined" or "do not analyze". The definition can also be made for the states "Off" and "Connection error".



8. If your signal tower has an additional blink function, you can activate this on the Blink recognition tab. You can then activate the blink recognition for each tier of your signal tower and add a description.

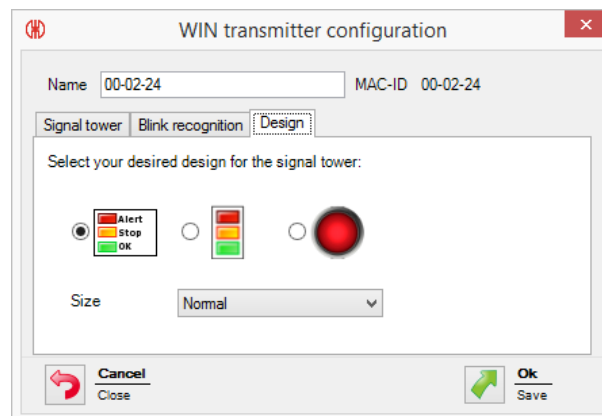


Note: Blink recognition detects blinking signals between 0.8 Hz and 15 Hz generated by a machine or control unit (e.g. via the PLC).

Note: For each states of the blink recognition, you can choose between “Productive”, “Non productive”, “Undefined” or “Do not analyze”.

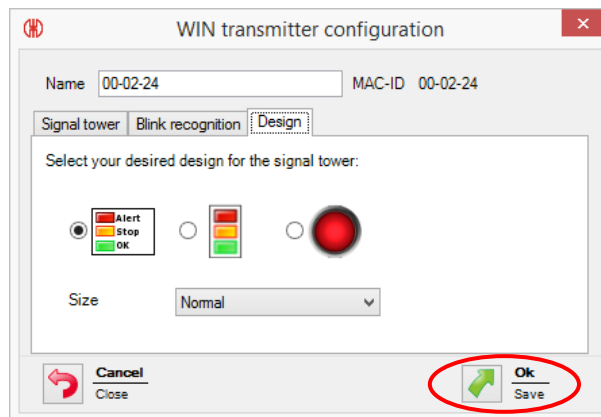
9. You can select a design variant for your signal tower in the Design tab. You can choose between:

- signal tower with text
 - Normal size (100%)
 - Large size (200%)
- signal tower without text
 - Normal size (100%)
 - Large size (200%)
- individual light
 - Small size (25%)
 - Normal size (100%)
 - Large size (200%)



Note: If you have selected a design variant with individual light and your signal tower displays two active statuses, the WIN software automatically switches to the signal tower without the text display variant.

10. By clicking “OK”, your changes are saved and the WIN transmitter configuration window is closed.

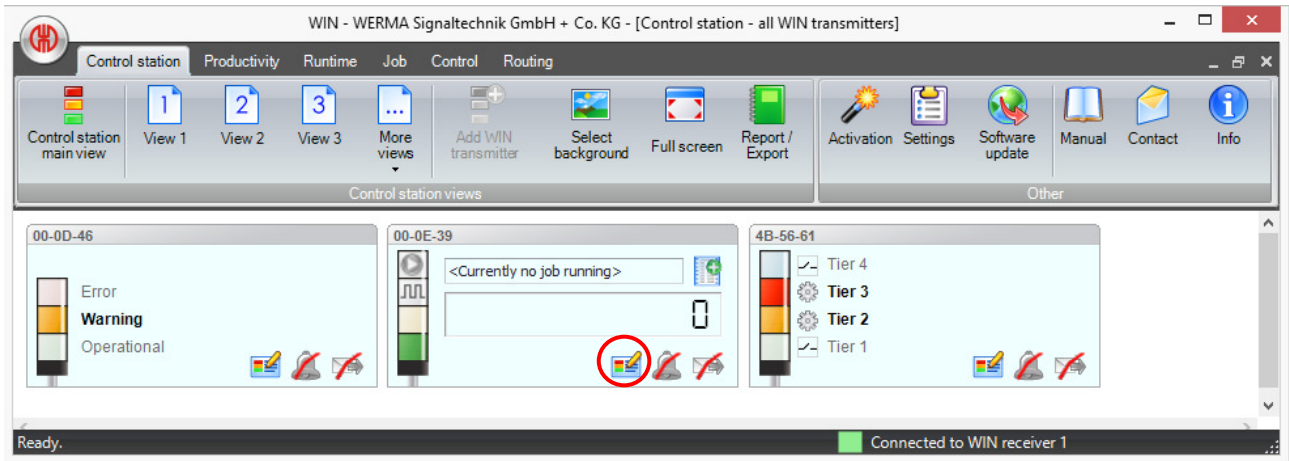


7.1.3.2 Editing WIN transmitter performance

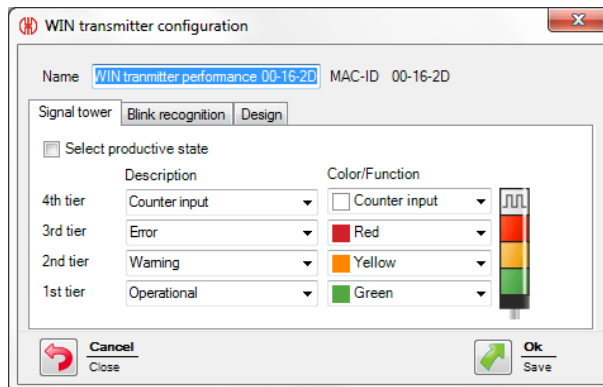
Every WIN transmitter performance can be individually named and configured.

To configure a WIN transmitter performance, please proceed as follows:

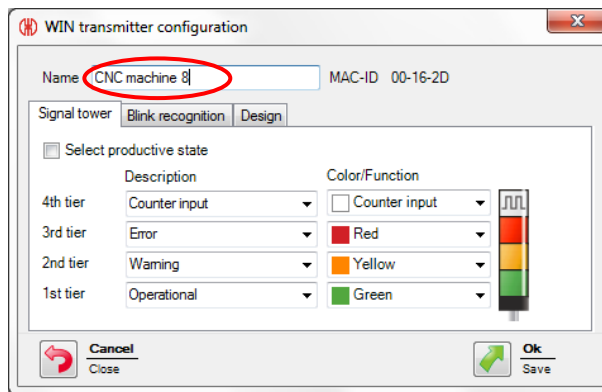
1. Select the WIN transmitter performance to be configured in one of your views.
2. Click the “Edit WIN transmitter” button.



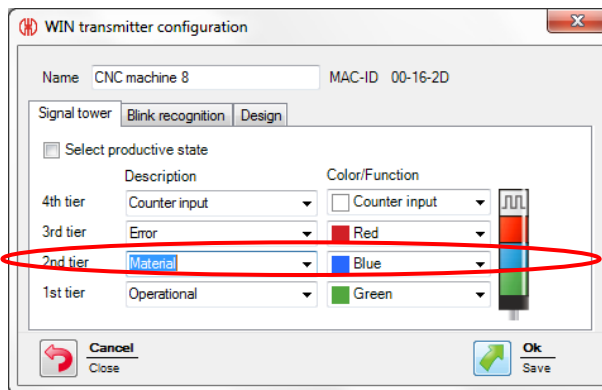
3. The WIN transmitter configuration menu will pop up.



- The name of the WIN transmitter performance can be matched to its intended use (e.g. CNC machine)

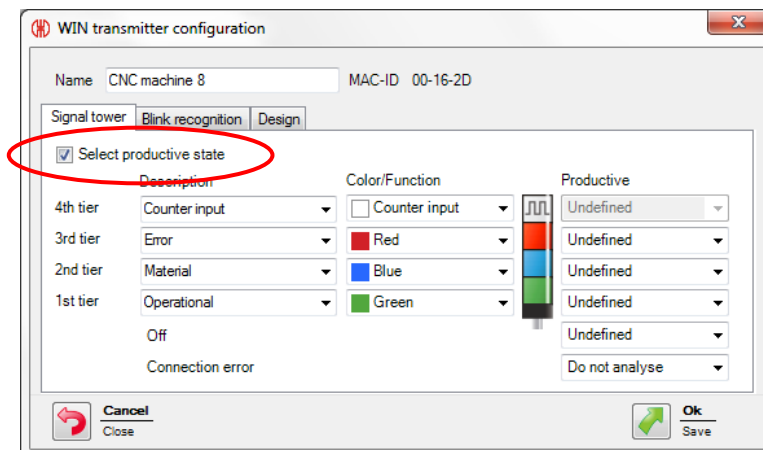


- By changing the description of the individual tiers, the WIN transmitter configuration can be matched to its specific signal tower. Enter the desired meaning in the "Description" box.

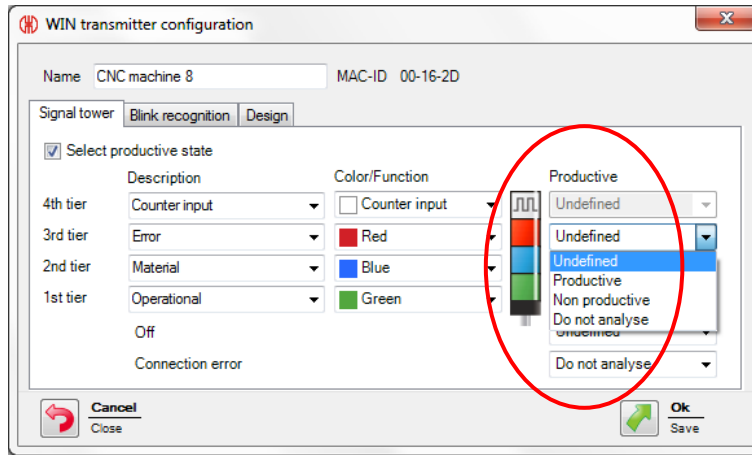


Note: The "Description" box can be edited according to individual requirements. The individual "Descriptions" can also be chosen from the drop-down list.

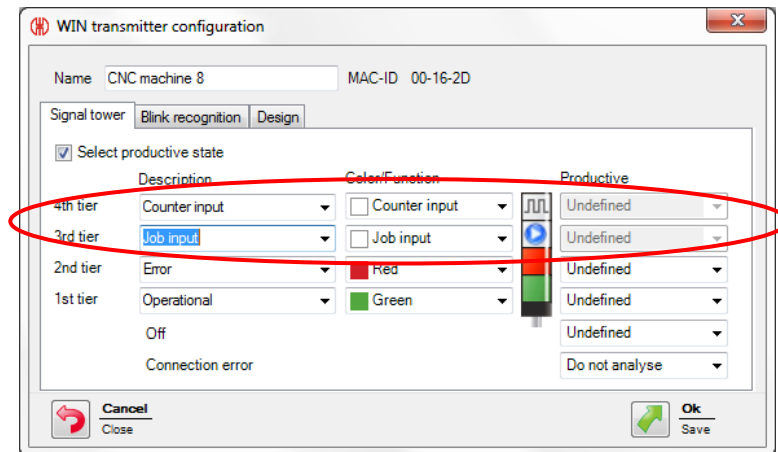
- Define the productive states to analyze these in the productivity module, see chapter **Fehler! Verweisquelle konnte nicht gefunden werden..** Please click on the check box.



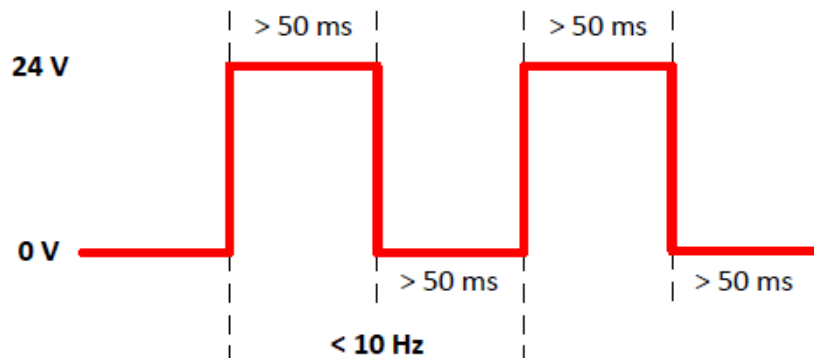
7. For each state, you can choose between “Productive”, “Non productive”, “Undefined” or “Do not analyze”. The definition can also be done for the states "Off" and "Connection error".



8. In addition, in the tab "Signal tower" you can select the function "counter input" and / or "job input".



Note: The counter input and the job input must be defined for **one tier** on WIN transmitter performance. The maximum counting frequency is 10 Hz with minimum “on” and “off” times of 50ms.



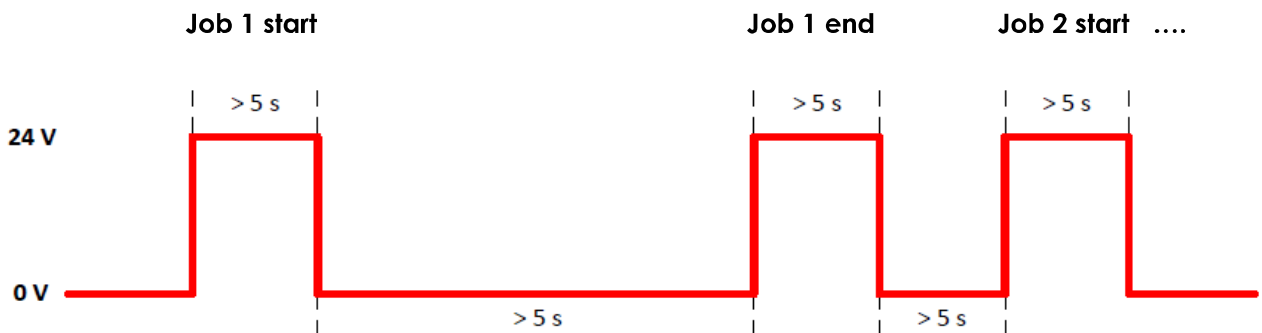


Caution:

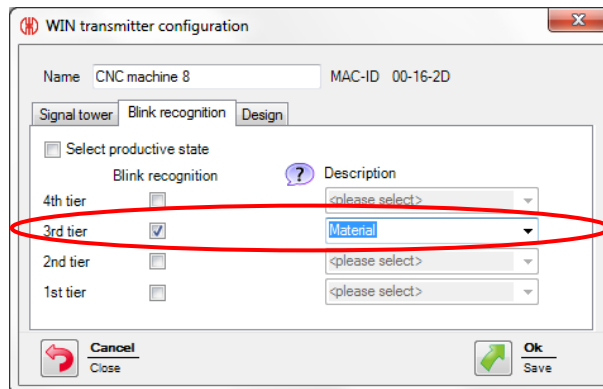
The default setting for the counter input is tier 4. This can be changed to another tier but the WIN transmitter performance must be connected to the PC via the USB port. This new configuration is transmitted to the WIN transmitter performance. Only after this step is the counter input of WIN transmitter performance configured for the new tier.



Note: The impulse on the tier configured for the job input must be applied for at least five seconds. The first impulse starts the job, and the second impulse ends the job. If you have already created another job with "active waiting", it can be started with a further impulse. The impulse can be present for the whole duration of the job, then it must be inactive for at least five seconds, so that a further impulse ends the job (see the figure below). To label a job with "active waiting" label, follow the steps in Chapter 0.



-
9. If your signal tower has an additional blink function, you can activate this on the blink recognition tab. You can then activate the blink recognition for each tier of your signal tower and add a description.



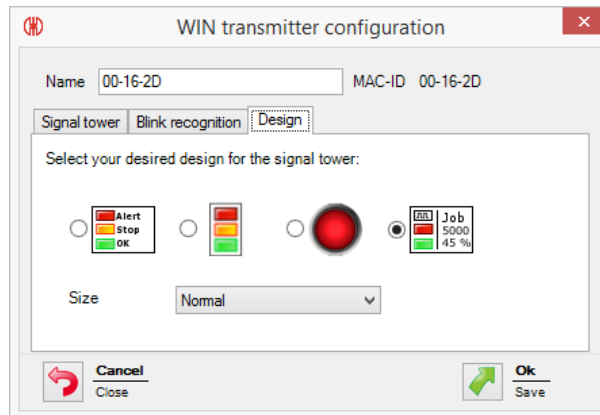
Note: Blink recognition detects blinking signals between 0.8 Hz and 15 Hz generated by a machine or control unit (e.g. via the PLC).

Note: The blink recognition cannot be set for the tier with a counter input and for the tier with a job input.

Note: For each state of the blink recognition, you can choose between "Productive", "Non productive", "Undefined" or "Do not analyze".

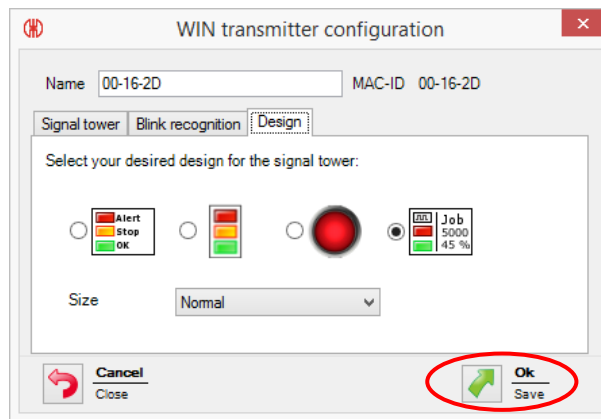
10. You can select a design variant for your signal tower in the "Design" tab. You can choose between:

- signal tower with text
 - Normal size (100%)
 - Large size (200%)
- signal tower without text
 - Normal size (100%)
 - Large size (200%)
- individual light
 - Small size (25%)
 - Normal size (100%)
 - Large size (200%)
- signal tower with job details
 - Normal size (100%)



Note: If you have selected a design variant with individual light and your signal tower displays two active statuses, the WIN software automatically switches to the signal tower without the text display variant.

11. By clicking “OK”, your changes are saved and the WIN transmitter configuration window is closed.

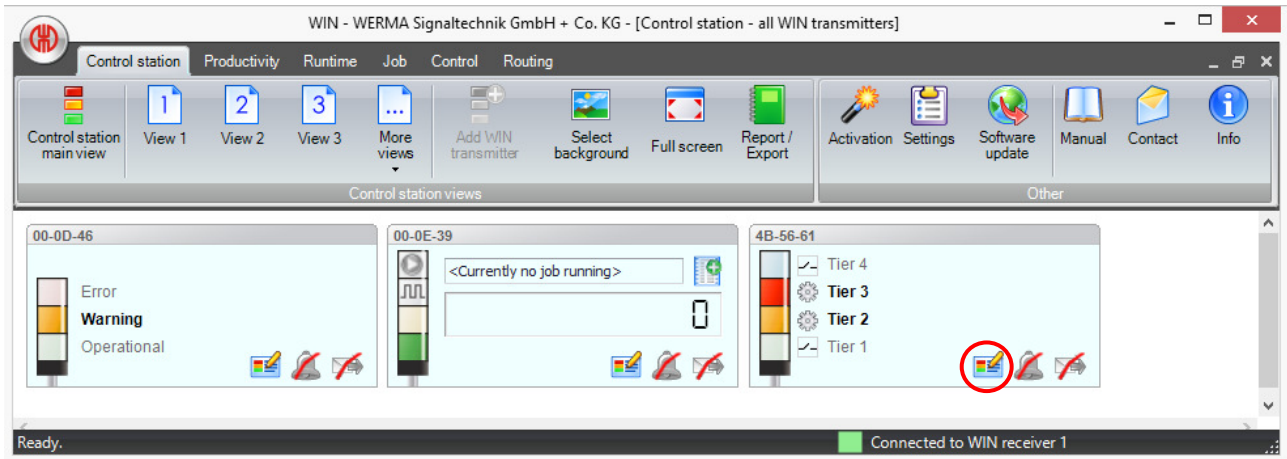


7.1.3.3 Editing WIN transmitter control

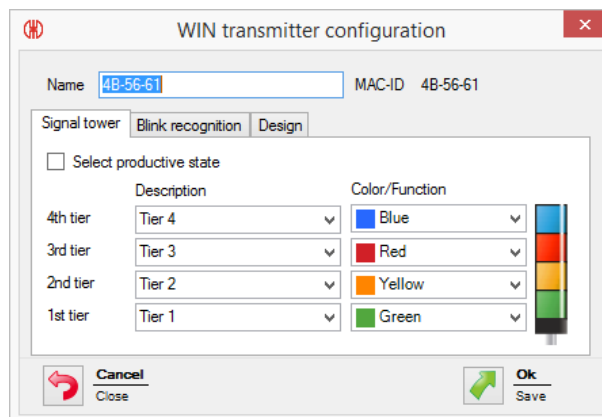
Each WIN transmitter control can be individually named and configured.

To configure a WIN transmitter control, proceed as follows:

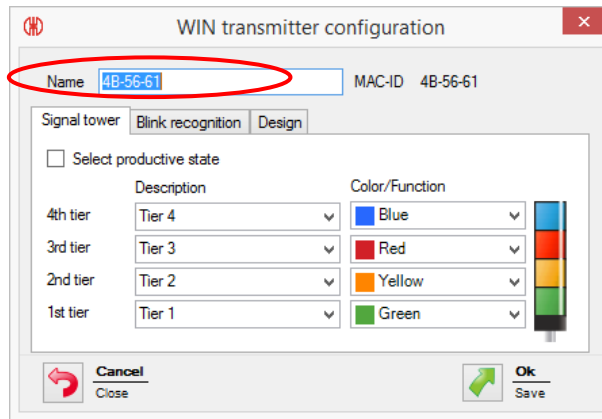
1. Select the WIN transmitter control to be configured in one of your views.
2. Click the “Edit WIN transmitter” button.



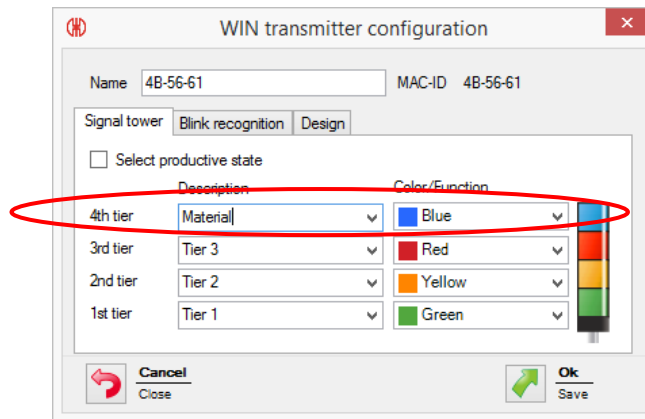
3. The WIN transmitter configuration menu will pop up.



-
4. The name of the WIN transmitter can be matched to its intended use (e.g. CNC machine)

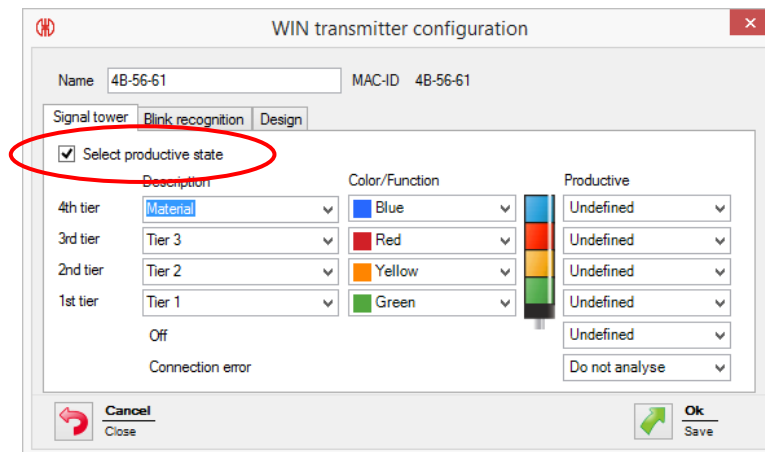


5. By changing the description of the individual tiers, the WIN transmitter configuration can be matched to its specific signal tower. Just enter the desired meaning in the "Description" box.

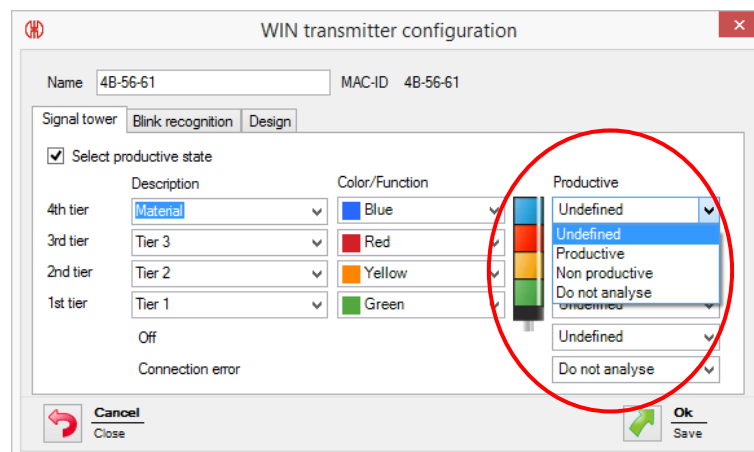


Note: The "Description" box can be edited according to individual requirements. The individual "Descriptions" can also be chosen from the drop-down list.

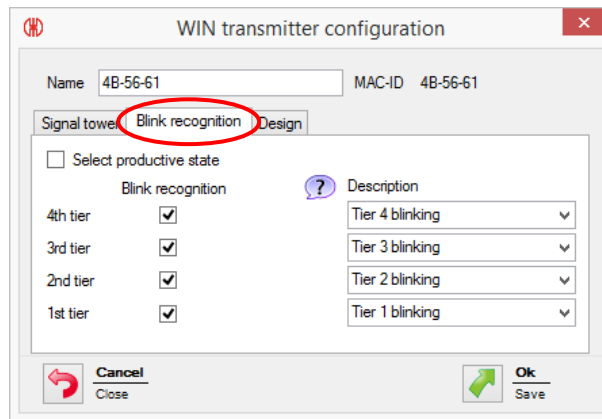
6. Define the productive states to analyze these in the productivity module, see chapter **Fehler! Verweisquelle konnte nicht gefunden werden.** Please click on the check box.



7. For each state, you can choose between "Productive", "Non productive", "Undefined" or "do not analyse". The definition can also be made for the states "Off" and "Connection error".



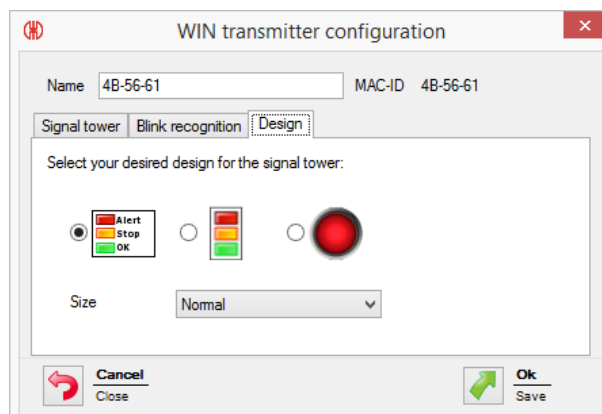
8. With WIN transmitter control the blink recognition mode is active for all tiers. An individual tier can be activated in either manual control or switching rule mode the blink recognition can be deactivated through the tick box.



Note: The blink recognition instruction is transmitted to the signal tower terminal element connections at 1 Hz.

Note: For each state of the blink recognition, you can choose between "Productive", "Non productive", "Undefined" or "Do not analyse".

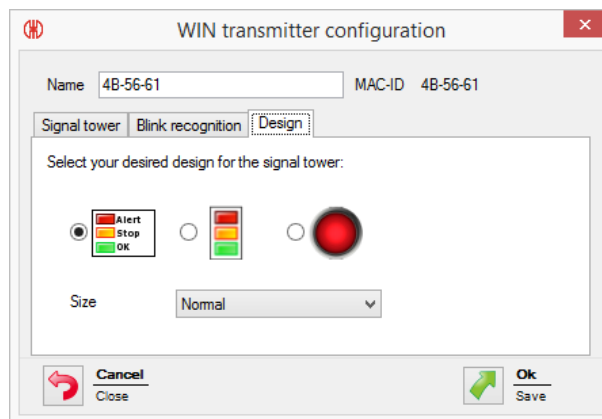
9. You can select a design variant for your signal tower in the Design tab. You can choose between:
- signal tower with text
 - Normal size (100%)
 - Large size (200%)
 - signal tower without text
 - Normal size (100%)
 - Large size (200%)
 - individual light
 - Small size (25%)
 - Normal size (100%)
 - Large size (200%)



Note: Manual control of the signal tower tier is only possible in the design version with text (both sizes).

Note: If you have selected a design variant with individual light and your signal tower displays two active statuses, the WIN software automatically switches to the signal tower without the text display variant.

10. By clicking “OK”, your changes are saved and the WIN transmitter configuration window is closed.

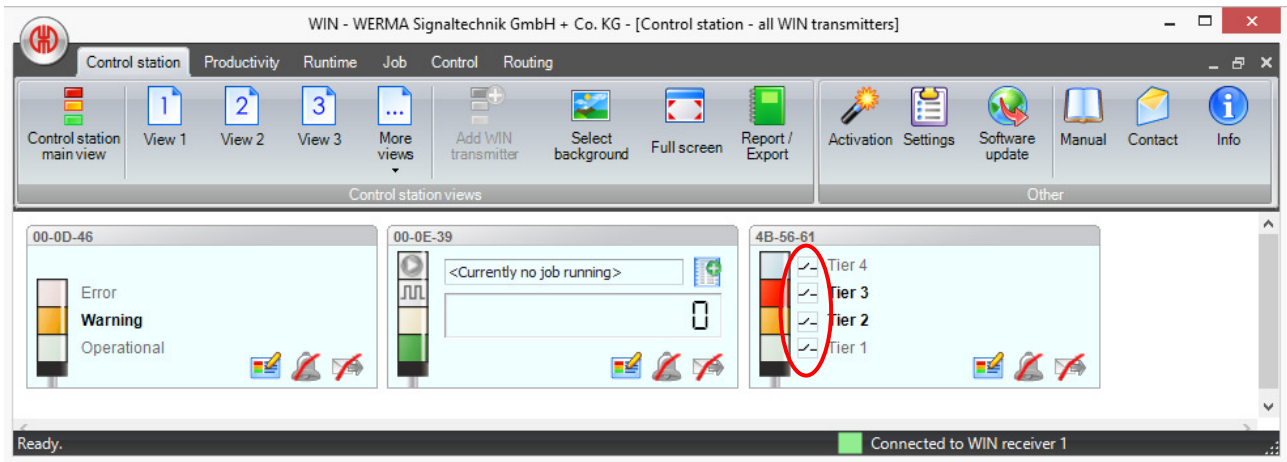


7.1.4 Manuel control with WIN transmitter control

Each WIN transmitter control can be switched or controlled – see chapter 7.5.

To control a WIN transmitter control manually follow these steps:

1. Select the WIN transmitter control to be controlled in one of the views.
2. Click on the symbol “switch” next to the appropriate tier.



3. The following menu will appear and you can choose between “Off“, “On” or “Blinking“.

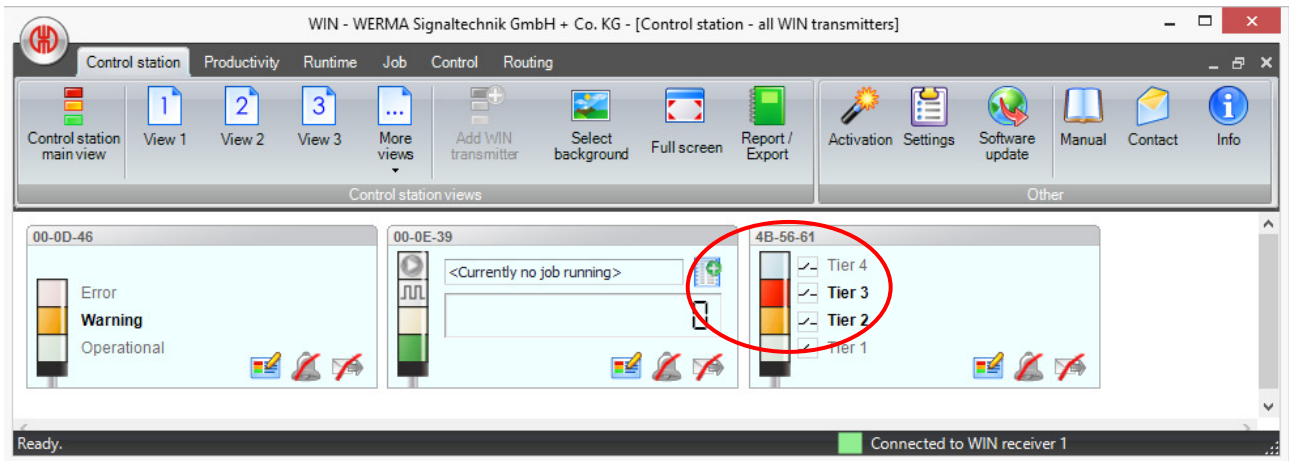


Note: Please note that the switch symbol will flicker during activation of this mode. As soon as activation has been completed the symbol will return to a permanent state.

Note: Please note that you can only activate a blinking mode if blink recognition function for that tier has been activated.

Note: See safety instructions in chapter 1.3.

4. The signal tower then displays the function selected for each tier.

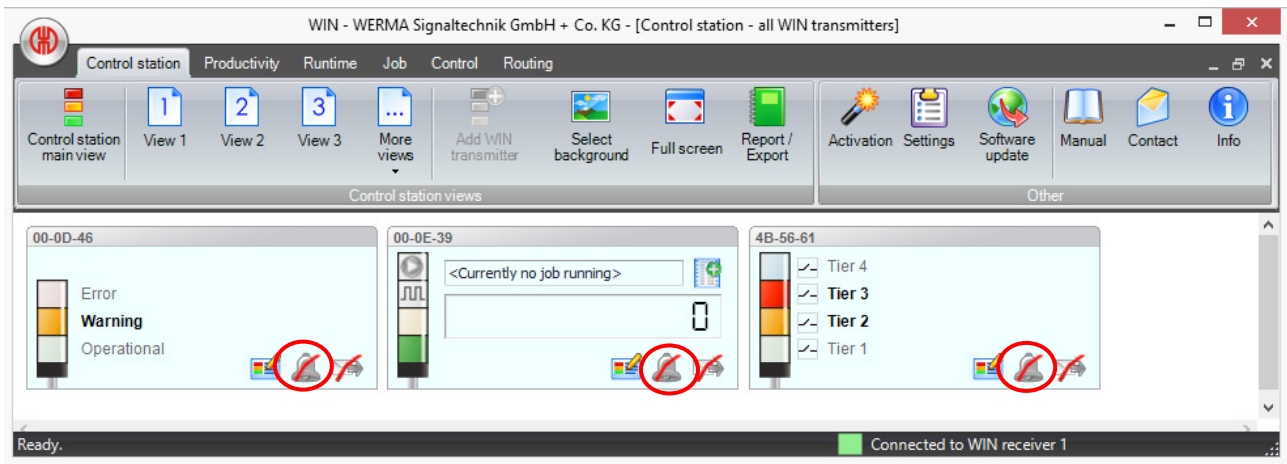


7.1.5 Status Change Message

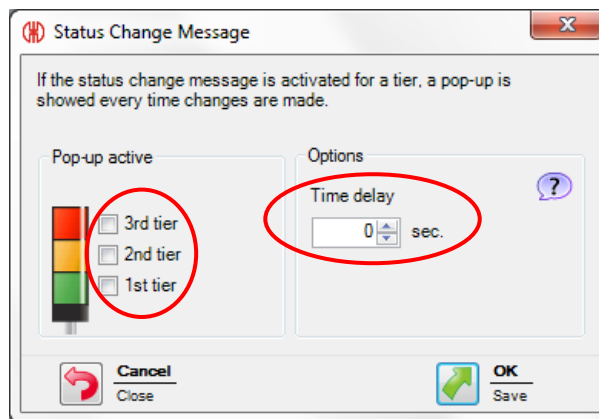
If the Status Change Message option is active for a WIN transmitter, a pop-up window appears when the signal tower changes state. This function allows you to minimize the WIN software and work with other programs without impairing the monitoring of your machines. A pop-up window will always inform you of any changes in machine status. You can store an individual sound for the status change message in the settings, see chapter 9.3.

To set up the status change message, proceed as follows:

1. The Status Change Message can be activated by clicking the “bell” symbol.



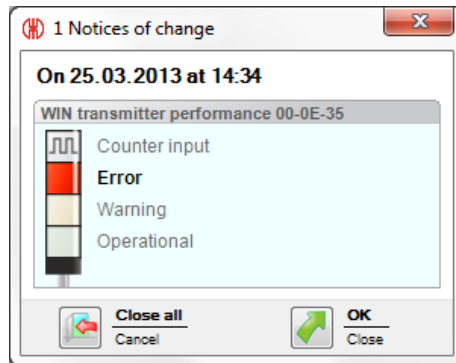
2. The following window opens and you can choose which tier and the time after which a popup window will be created. Your settings are saved by clicking on "OK".



Note: When the WIN software is closed the user-specific settings will be saved.

Note: For the tier with counter input to the WIN transmitter performance, the status change message cannot be generated.

3. Once a status change message has been activated for a WIN transmitter, a pop-up window appears whenever there is a change. To close these messages, click "OK". If there are several messages, you can click "Close all" to close all the messages.



7.1.6 Status transmission

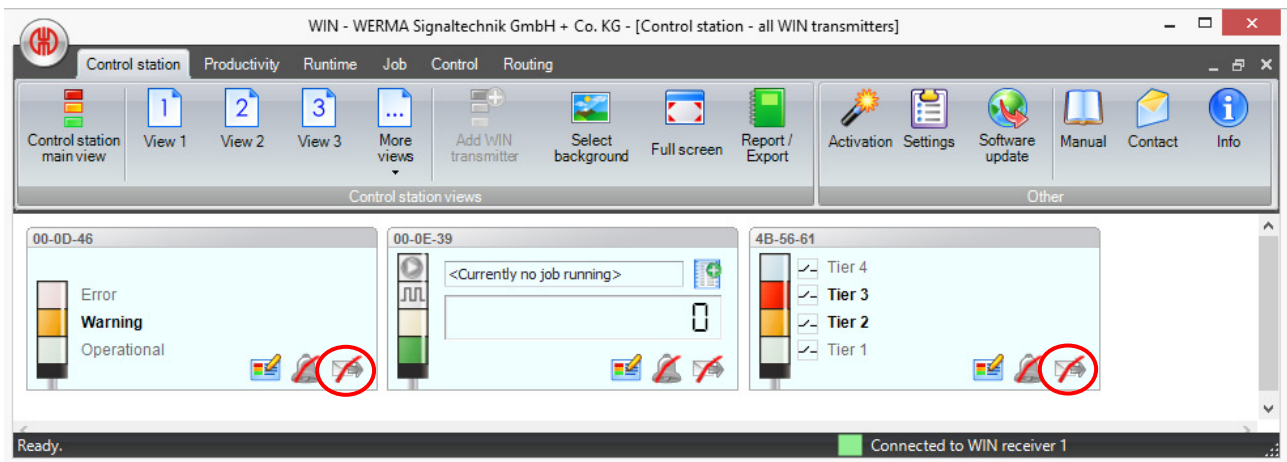
7.1.6.1 WIN transmitter / WIN transmitter control

Note: If the status transmission for a WIN transmitter / WIN transmitter control is active, you are informed by e-mail of a status change of your signal tower, see chapter 9.2.1 under Settings.

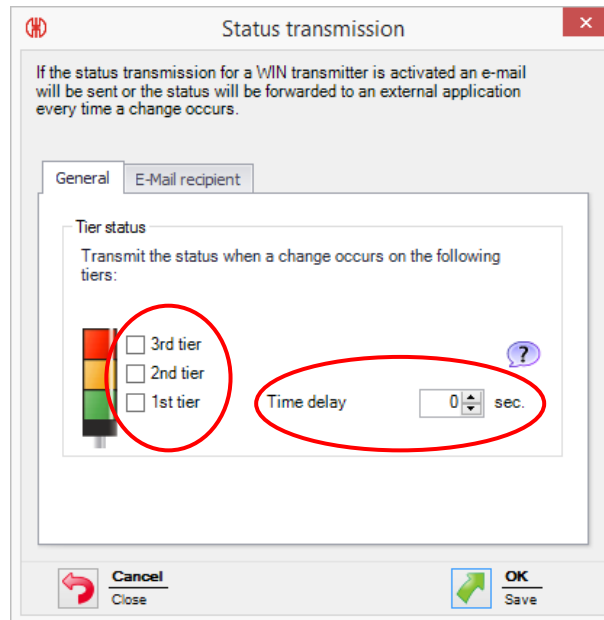
You can also transfer the status change to an external application, see chapter 9.2.2.

To set up the status transmission, proceed as follows:

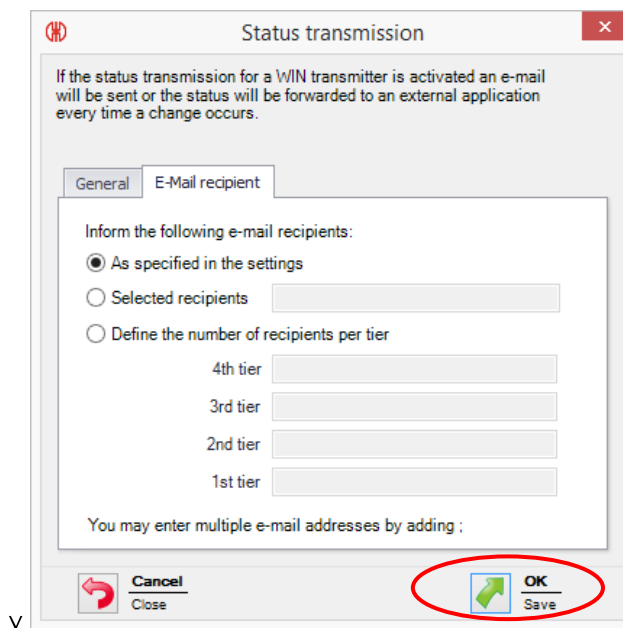
1. Click on the "envelope symbol".



2. In the Status Transmission window, “General” tab, you can activate the status transmission for individual tiers. You can also use the time delay option to specify when you wish to be informed, i.e. the minimum time that the signal status must exist before an e-mail is sent or an application is started. If the signal status is cleared before the end of the time delay, no status transmission is sent.



-
3. In the "E-mail recipient" tab you can select who should receive the email. You can either send the e-mail to:
- The default recipient(s) specified in Settings (see chapter 9.2.1)
 - Specified recipient(s): Choose "Selected recipients" and enter the relevant e-mail address(es). For multiple addresses, enter a semicolon between each address.
 - Specified recipient(s), dependent on the activated tier. Select Define recipients per tier and enter the email address(es) as required. For multiple addresses, enter a semicolon between each address



4. To save the setting click "OK".

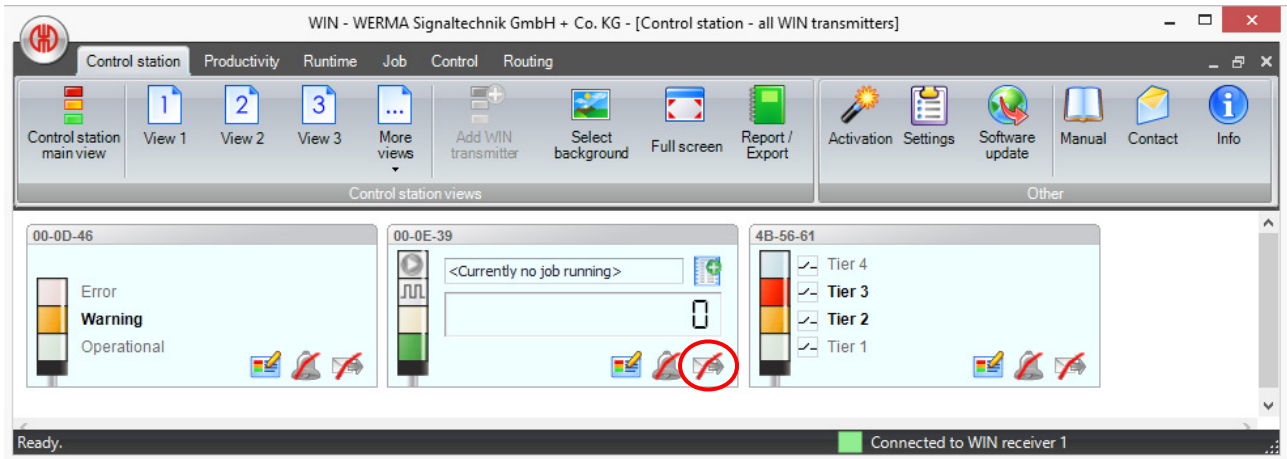
7.1.6.2 WIN transmitter performance

Note: If the status transmission for a WIN transmitter is active, you are informed by e-mail of a status change of your signal tower, see chapter 9.2.1 under Settings.

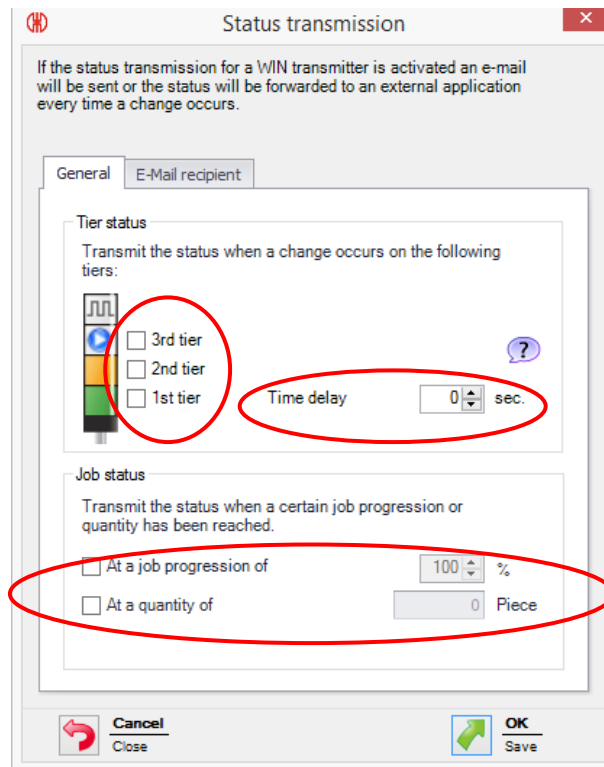
You can also transfer the status change to an external application, see chapter 9.2.2.

To set up the status transmission, proceed as follows:

1. Click on the “envelope symbol”.



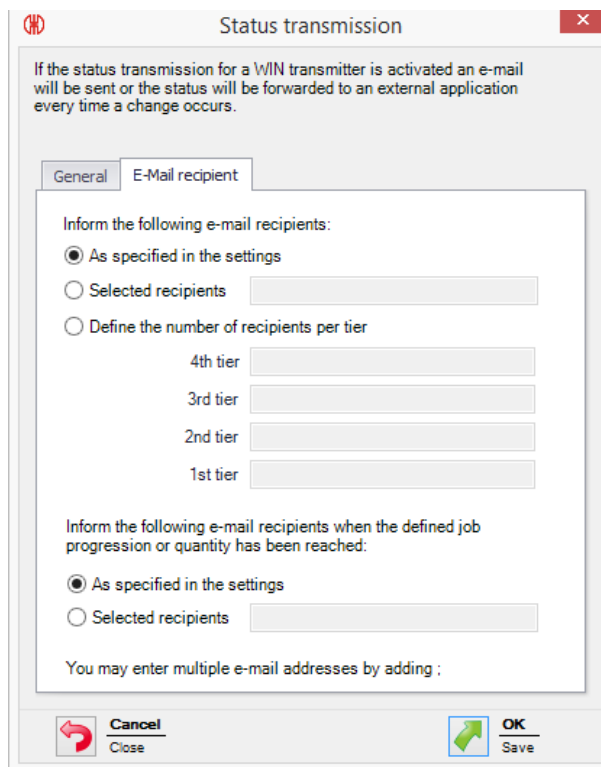
2. In the Status Transmission window, "General" tab, you can activate the status transmission for each individual tier. You can also use the time delay option to specify when you wish to be informed, i.e. the minimum time that the signal status must exist before an e-mail is sent or an application is started. If the signal status is cleared before the end of the time delay, no status transmission is sent. With WIN transmitter performance you can configure status notification to be triggered when a running job reaches a defined percentage of job progression or a certain quantity produced.



3. In the E-mail recipient tab you can select who should receive the email. You can either send the e-mail to:
- the default recipient specified in Settings (see chapter 9.2.1)
 - specified recipient(s): Choose "Selected recipients" and enter the relevant e-mail address(es). To separate multiple addresses, enter a semicolon after each address.
 - Specified recipient(s), dependent on the activated tier. Select Define recipients per tier and enter the email address(es) as required. For multiple addresses, enter a semicolon between each address

For WIN transmitter performance, you can also configure email recipients for job progression and/or quantity produced. Select:

- "As specified in the settings" to use the default recipient
- "Selected recipients" to notify others. For multiple addresses, enter a semicolon between each address.



The screenshot shows a dialog box titled "Status transmission" with a close button (X) in the top right corner. Below the title bar, there is a text box containing the following text: "If the status transmission for a WIN transmitter is activated an e-mail will be sent or the status will be forwarded to an external application every time a change occurs." Below this text, there are two tabs: "General" and "E-Mail recipient", with "E-Mail recipient" being the active tab. The "E-Mail recipient" tab contains the following content: "Inform the following e-mail recipients:" followed by three radio button options: "As specified in the settings" (selected), "Selected recipients" (with an empty text input field), and "Define the number of recipients per tier" (with four sub-input fields labeled "4th tier", "3rd tier", "2nd tier", and "1st tier"). Below this, there is another section: "Inform the following e-mail recipients when the defined job progression or quantity has been reached:" followed by two radio button options: "As specified in the settings" (selected) and "Selected recipients" (with an empty text input field). At the bottom of the dialog box, there is a "Cancel" button (with a red arrow icon) and an "OK" button (with a green arrow icon). Below the "Cancel" button, the text "Close" is visible. Below the "OK" button, the text "Save" is visible. At the very bottom of the dialog box, there is a line of text: "You may enter multiple e-mail addresses by adding :

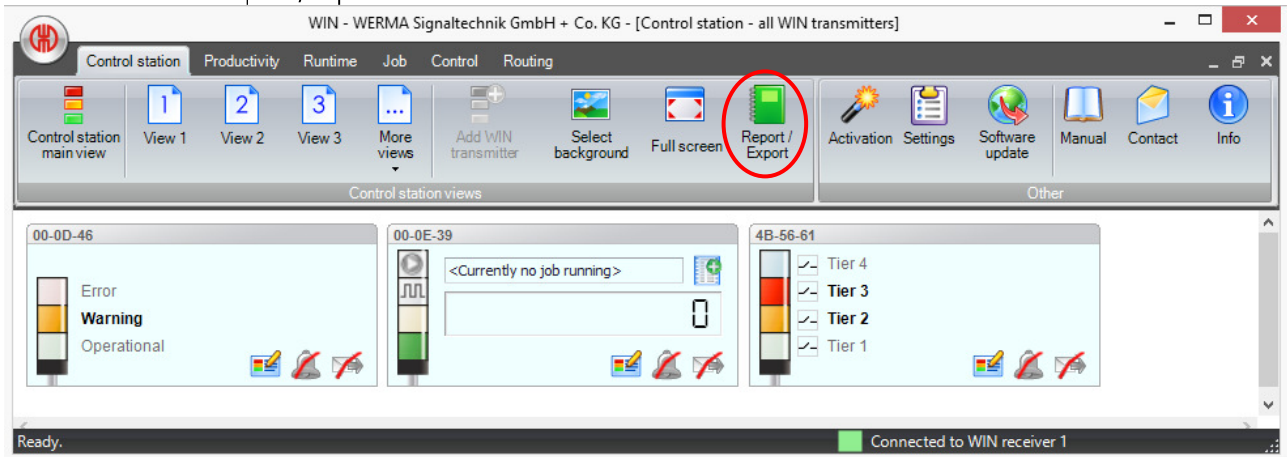
4. To save the setting click "OK".

7.1.7 Report

Note: A report can only be generated from the currently selected view. By selecting the Main View, all WIN transmitters can be included. Select or create a different view to select particular WIN transmitters.

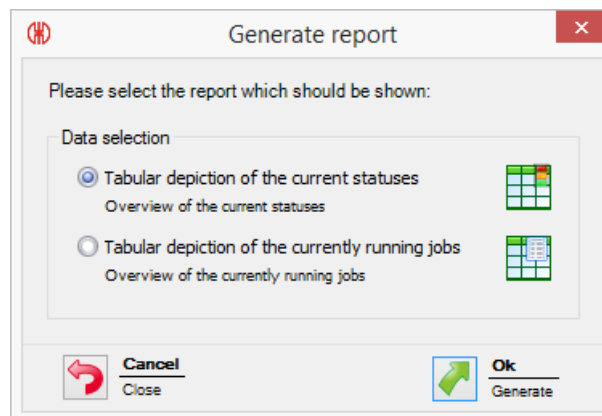
To generate a report, proceed as follows:

1. Click on Report/Export.

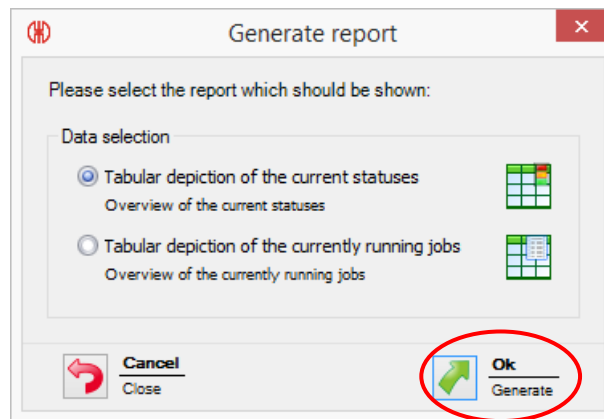


2. Now select which report you want to generate. Choose between:

- Tabular depiction of the current statuses
- Tabular depiction of the currently running jobs



3. Confirm your selection with "OK".



4. You can now see a preview of your selected report. Additional functions are described in section 7.7, Report and Export Functions.

7.2 Productivity Module

Using the Productivity Module you can check the productivity of your machines over any time period. You can look for example at the last working day, or define specific time periods such as shift patterns. Using this module it is possible to retrospectively analyze downtime and fault conditions and thus help improve efficiency in the future.

7.2.1 Productivity display

The productivity views adopt the settings of the WIN transmitter configuration and of the Control Station Module:

- WIN transmitter Name
- WIN transmitter colour and function
- WIN transmitter signal description
- WIN transmitter positions
- Name of view
- Background

7.2.1.1 WIN transmitter / WIN transmitter control

The pie charts display the individual states of the WIN transmitters / WIN transmitters control.



The states of the WIN transmitters / WIN transmitters control correspond to those of the Control Station Module plus the two states "Off" (purple) and "Connection Error" (grey).

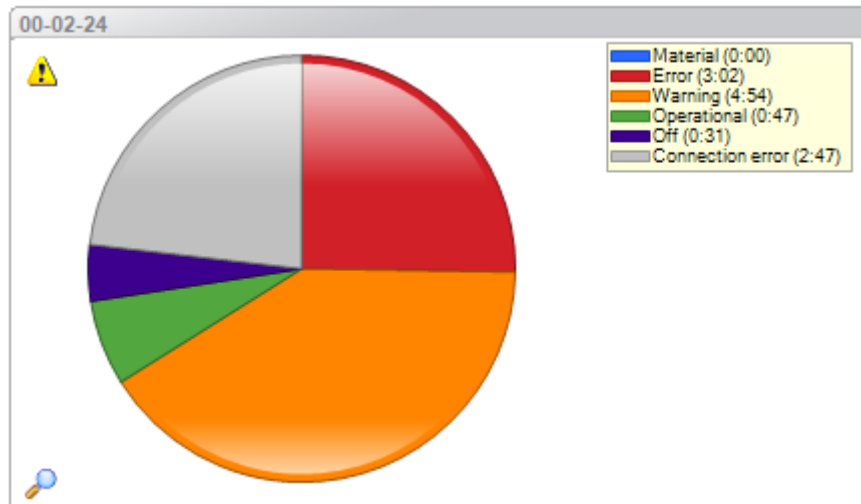
The "OFF" state applies if no signal tower element is active but there is still power to the signal tower.

The "Connection Error" applies when:

- wireless communication cannot be established between the WIN transmitter and the WIN receiver,
- the WIN software is not operational,
- the PC is in the Off state,
- the Microsoft SQL Server cannot be reached and therefore no database connection can be established
- the WIN transmitter is not connected to the power supply or
- the WIN receiver is not connected to the PC.

Note: The shaded areas within the pie chart represent the blink recognition for the respective tier.

Clicking on the “magnifying glass” enlarges the pie chart and displays the status descriptions.

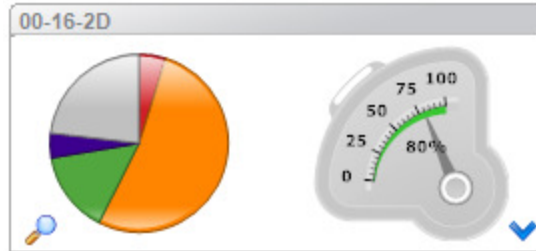


Click on the “magnifying glass” again to zoom out.

Note: If more than one tier has been simultaneously active, a yellow triangle will appear.

7.2.1.2 WIN transmitter performance

In the pie charts the individual states of the WIN transmitter performance and productivity in a speedometer chart appears.



The states of the WIN transmitter performance correspond to those of the Control Station Module plus the two states “Off” (purple) and “Connection Error” (grey).

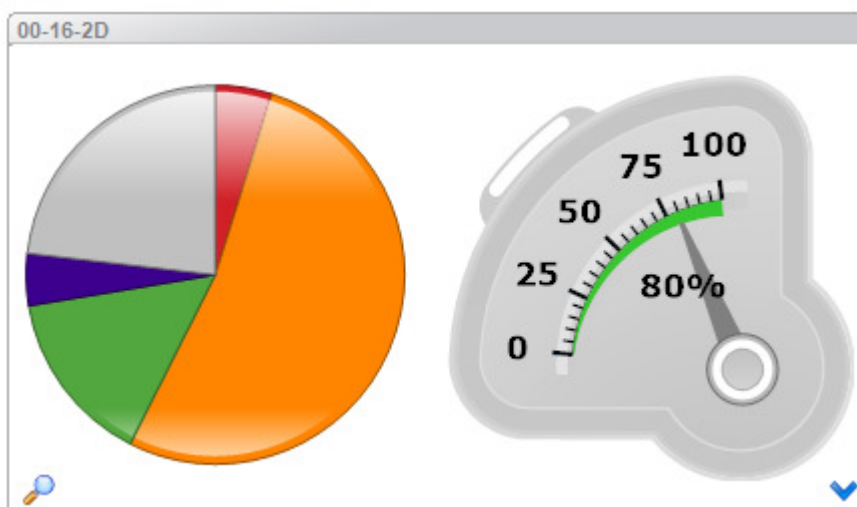
The “OFF” state applies if no signal tower element is active but there is still power to the signal tower.

The “Connection Error” applies when:

- wireless communication cannot be established between the WIN transmitter and the WIN receiver,
- the WIN software is not operational,
- the PC is in the Off state,
- the Microsoft SQL Server cannot be reached and therefore no database connection can be established
- the WIN transmitter is not connected to the power supply or
- the WIN receiver is not connected to the PC.

Note: The shaded areas within the pie chart illustrate the blink recognition for the respective tier.

Clicking on the “magnifying glass” enlarges the pie chart.



Click on the “magnifying glass” again to zoom out.