



Manual **WERMA-WIN**

Version: 4.6 - 07/2018 310.860.005

PROCESS OPTIMISATION SYSTEMS

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1 Installation

WERMA-WIN is installed first during installation. The WERMA-WIN database is then installed and set up or a connection is made to an existing database.



Administrator rights are needed to install WERMA-WIN.

1.1 Installing WERMA-WIN

- 1. Make sure that the system requirements are met.
- 2. Download the latest version of WERMA-WIN at www.werma.com/win.
- 3. Extract the downloaded ZIP file.
- 4. Double-click on the WERMA-WIN-x-x-x-xxxx.exe file to start the installation.
 → The installation assistant starts.

(#) WERMA WIN		×	
(})	WERMA WIN 4 Update Installation The installation files will now be unpacked. Please specify the destination folder and click on 'Install'. WERMA WIN 4 Update Installation Die Installationsdateien müssen nun entpackt werden. Bitte geben Sie das Zielverzeichnis an und klicken Sie dann auf 'Install'. Installation mise à jour WERMA WIN 4 Pour continuer l'installation, le fichier doit être décompressé. Spécifiez le dossier de destination et cliquez sur "Install"		
	Destination folder <u>s\VM_Win10\Desktop\WERMA-WIN-4-4-0-1642-update</u> V Browse Installation progress		
	Install Cancel		

- 5. Follow the instructions in the installation assistant.
 - → Once the installation assistant has ended, the assistant to install the WERMA-WIN database appears.



1.2 Installing the WERMA-WIN database

There are three options available to you for installing the WERMA-WIN database.



Install the database locally:

- The WERMA-WIN database is installed locally on the PC on which WERMA-WIN is installed.

Connect to existing database:

- A connection to an existing WERMA-WIN database is established using a link file previously installed.

IT expert installation:

- Establishment of a connection to a WERMA-WIN database on another desktop PC.
- Establishment of a connection to an empty Microsoft SQL server database in the network.
- Establishment of a connection to a Microsoft SQL server database in the network already containing WERMA-WIN data.

WERMA®

1.2.1 Installing the database locally

- (j) To access the WERMA-WIN database, WERMA-WIN creates a user and an associated password with the following data:
 - User: wermawin
 - Password: Tyz19\$1x50WsR3Ed7m
- (i) The WERMA WIN 4 Server Service and the WERMA WIN 4 Connector Service are both installed when the WERMA-WIN database is installed. These services run in the background when the PC is switched on. All collected WERMA-WIN data is written to the WERMA-WIN database without WERMA-WIN running and a user being logged on.

1. Click on Install database.



- 2. Click on Next.
 - \rightarrow The WERMA-WIN database is installed locally on the PC.
 - \rightarrow Once the database has been installed, a window appears in which to save the link file.

🛞 WERMA-WIN database setup	×
Save Link File for multi-user access	₿
In order to connect further PCs to WERMA-WIN, a Link File will now be a	saved.
The following data will be saved in the Link File: 1. Connection to database Server name: DESKTOP-6M5NQLP Instance: WERMAWIN Database: WERMAWIN User: WERMAWIN Password: ***** IP addresses for alternative search: * 192.168.50.178 2. Connection to Server Service	
Eack Cancel	Next

3. Click on Save to save the link file.

The link file lets you connect other workplaces to the WERMA-WIN database.

1.2.2 Connecting to an existing database

(i) The WERMA WIN 4 Connector Service is installed when connecting to the existing WERMA-WIN database. This service runs in the background when the PC is switched on. All collected WERMA-WIN data from the connected WIN receiver is written to the WERMA-WIN database without WERMA-WIN running and a user being logged on.

1. Click on **Connect to existing database**.



2. Click on Next.

 (\mathbf{i})

- 3. Open the link file.
 - → The installation assistant checks the connection settings and establishes the connection to the existing WERMA-WIN database.

1.2.3 IT expert installation

- 1. Click on IT expert installation.
 - → The WERMA-WIN database setup window appears.



IT expert installation offers the following options:

- Use of the database installed by WERMA-WIN
- Use of a newly created empty Microsoft SQL server database
- Use of a Microsoft SQL server database with WERMA-WIN files

1.2.3.1 Using the database installed by WERMA-WIN

- 1. Select A database that has been installed by WERMA-WIN.
- 2. Click on Next.

() WERMA-WIN database setup	×
Expert installation	
The name of the server on which the WERMA-WIN database is installed is required to connect to the WERMA-WIN database. The computer name or the address can be used as a server name. If this information is unknown please the Link File as described in the manual or contact your network administrate	⊧IP ⊧use or.
Server name Check	
Back Cancel	Next OK

- 3. In the Server name field, enter the name of the server on which the WERMA-WIN database has been installed.
- (i) The server name can be found in the WERMA-WIN link file (.wde) saved when installing the WERMA-WIN database.

🕷 WERMA-WIN database set	up X
Expertinstallation	(H)
O Install the Server Service o	in this PC
The Server Service must b recommend installing the S installed.	e installed and activated once per database. We Server Service on the PC where the database is
The Server Service uses the in use for a different network	he TCP Port 9710 as standard. If this port is already rk service please select an alternative TCP-Port
TCP-Port	9710
 Connect to the following Se 	Check Irver Service
Server name	DOKUMERIK 0738
TCP-Port	9710 🜩
	Check
Hack Cancel	Rext OK

5. Select whether the **WERMA WIN 4 Server Service** is to be installed on this PC or whether you wish to establish a connection to an existing server service.

Installing the WERMA WIN 4 Server Service

If the WERMA WIN 4 Server Service is to be installed on this PC:

1. Select Install the Server Service on this PC.

● Install the Server Service on this PC			
The Server Service must be installed and activated once per database. We recommend installing the Server Service on the PC where the database is installed.			
The Server Service uses the TCP Port 9710 as standard. If this port is already in use for a different network service please select an alternative TCP-Port			
TCP-Port	9710 🜩 Check		

- 2. You may need to change the server service TCP port in the TCP-Port field.
- 3. Click on Next.
 - \rightarrow The connection to the WERMA-WIN database is created.



Connection to an existing server service

If a connection is to be made to an existing server service:

1. Select Connect to the following Server Service.

Connect to the following Server Service			
Server name	DOM: HER IT D		
TCP-Port	9710 🜩		
	Check		
Note: The Server Service is Server Service will be uninst	currently installed on this PC. If you continue the alled.		

- 2. In the Server name field, enter the name of the server on which the server service has been installed.
- 3. Enter the server service TCP port in the TCP-Port field.
- 4. Click on Next.

 \rightarrow The connection to the WERMA-WIN database is created.

(i) The **WERMA WIN 4 Connector Service** is installed during installation. This service runs in the background when the PC is switched on. All collected WERMA-WIN data from the connected WIN receiver is written to the WERMA-WIN database without WERMA-WIN running and a user being logged on.

1.2.3.2 Using a newly created empty Microsoft SQL server database

Requirements:

- An empty database has been set up on the Microsoft SQL server.
- A corresponding database user is linked to the database login.
- The database meets the following requirements:

Compatible from:	Microsoft SQL Server 2008	
Recommendation:	Microsoft SQL Server 2014	
Collation	Latin1_General_CI_AS	
Role membership:	db_datareader	
	db_datawriter	
	db_ddladmin oder db_owner	

- 1. Select A newly created empty Microsoft SQL server database.
- 2. Click on Next.

(WERMA-WIN database s	etup	×
Expert installation		æ
Please enter the database s	erver connection settings.	
The Server name is the name WIN. In the Instance name b WERMA WIN. Alternatively, box	e of the computer on which you lox, enter the name of the instar you can combine these as 'Ser	have installed SQL Server for WERMA nee of SQL Server that you want to use for vername\instancename' in the Server name
If you have not specified an box empty.	instance name for your SQL Se	rver installation, leave the Instance name
This information is available	from your network administrat	or.
Server name		(e.g. srv-sqldb-01)
Instance name		(e.g. WERMAWIN)
Database		(e.g. WERMAWIN)
User name		(e.g. WERMAWIN)
Password		(e.g. Tyz19\$lx50WsR3Ed7m)
	Check	
Gancel		Rext OK

3. Enter the access data for the empty database in the appropriate fields.

(i) You do not have to complete the **Instance name** field.

4.	Click	on	Next.
----	-------	----	-------

() WERMA-WIN database setup	×
Expert installation	€
 Install the Server Service on this PC The Server Service must be installed and activated once per database recommend installing the Server Service on the PC where the database installed. The Server Service uses the TCP Port 9710 as standard. If this port is in use for a different network service please select an alternative TCF 	e. We se is s already P-Port
TCP-Port 9710	
Connect to the following Server Service	
Server name	
TCP-Port 9710	
Eack Cancel	Next OK



5. Select whether the **WERMA WIN 4 Server Service** is to be installed on this PC or whether you wish to establish a connection to an existing server service.

Installing the WERMA WIN 4 Server Service

If the WERMA WIN 4 Server Service is to be installed on this PC:

1. Select Install the Server Service on this PC.

Install the Server Service of the Server Server Service of the Server Service of the Server Service of the Server Service of the Server Server Server Service of the Server	on this PC
The Server Service must b recommend installing the S installed.	e installed and activated once per database. We Server Service on the PC where the database is
The Server Service uses the in use for a different network of the server server in the server server and the server serve	he TCP Port 9710 as standard. If this port is already rk service please select an alternative TCP-Port
TCP-Port	9710 🚖 Check

- 2. You may need to change the server service TCP port in the TCP-Port field.
- 3. Click on Next.
 - \rightarrow The connection to the database is created.

Connection to an existing server service

If a connection is to be made to an existing server service:

1. Select Connect to the following Server Service.

Connect to the following Server Service			
Server name	0.00.0000.07.0		
TCP-Port	9710 🜩		
	Check		
Note: The Server Service is a Server Service will be uninet	currently installed on this PC. If you continue the		

- 2. In the Server name field, enter the name of the server on which the server service has been installed.
- 3. Enter the server service TCP port in the TCP-Port field.
- 4. Click on Next.
 - \rightarrow The connection to the database is created.
- (i) The **WERMA WIN 4 Connector Service** is installed during installation. This service runs in the background when the PC is switched on. All collected WIN data from the connected WIN receiver is written to the WIN database without WIN software running and a user being logged on.

1.2.3.3 Using a Microsoft SQL server database with WERMA-WIN files

- 1. Select Microsoft SQL server database with WERMA-WIN files.
- 2. Click on Next.

(WERMA-WIN database s	etup	×
Expert installation		æ
Please enter the database s	erver connection settings.	
The Server name is the name WIN. In the Instance name b WERMA WIN. Alternatively, box	e of the computer on which you lox, enter the name of the instar you can combine these as 'Ser	have installed SQL Server for WERMA nee of SQL Server that you want to use for vername\instancename' in the Server name
If you have not specified an box empty.	instance name for your SQL Se	rver installation, leave the Instance name
This information is available	from your network administrat	or.
Server name		(e.g. srv-sqldb-01)
Instance name		(e.g. WERMAWIN)
Database		(e.g. WERMAWIN)
User name		(e.g. WERMAWIN)
Password		(e.g. Tyz19\$lx50WsR3Ed7m)
	Check	
Gancel		Rext OK

3. Enter the access data for the empty database in the appropriate fields.

(i) You do not have to complete the **Instance name** field.

4.	Click	on	Next.
----	-------	----	-------

(#) WERMA-WIN database setup	×
Expertinstallation	€
O Install the Server Service on this PC	
The Server Service must be installed and activated once per databas recommend installing the Server Service on the PC where the databas installed.	se. We sse is
The Server Service uses the TCP Port 9710 as standard. If this port in use for a different network service please select an alternative TC	is already P-Port
TCP-Port 9710	
Connect to the following Server Service	
Server name	
TCP-Port 9710 🜩	
Check	
Eack Cancel	Next OK



5. Select whether the **WERMA WIN 4 Server Service** is to be installed on this PC or whether you wish to establish a connection to an existing server service.

Installing the WERMA WIN 4 Server Service

If the WERMA WIN 4 Server Service is to be installed on this PC:

1. Select Install the Server Service on this PC.

Install the Server Service of the Server Server Service of the Server Service of the Server Service of the Server Service of the Server Server Server Service of the Server	on this PC
The Server Service must b recommend installing the S installed.	e installed and activated once per database. We Server Service on the PC where the database is
The Server Service uses the in use for a different network of the server server in the server server and the server serve	he TCP Port 9710 as standard. If this port is already rk service please select an alternative TCP-Port
TCP-Port	9710 🚖 Check

- 2. You may need to change the server service TCP port in the TCP-Port field.
- 3. Click on Next.
 - \rightarrow The connection to the WERMA-WIN database is created.

Connection to an existing server service

If a connection is to be made to an existing server service:

1. Select Connect to the following Server Service.

Connect to the following Server Service				
Server name	0.00.0000.07.0			
TCP-Port	9710 🜩			
	Check			
Note: The Server Service is a	currently installed on this PC. If you continue the			

- 2. In the Server name field, enter the name of the server on which the server service has been installed.
- 3. Enter the server service TCP port in the TCP-Port field.
- 4. Click on Next.
 - \rightarrow The connection to the WERMA-WIN database is created.
- (i) The **WERMA WIN 4 Connector Service** is installed during installation. This service runs in the background when the PC is switched on. All collected WERMA-WIN data from the connected WIN receiver is written to the WERMA-WIN database without WERMA-WIN running and a user being logged on.

1.3 Firewall configuration

All necessary port enables are configured by default when WERMA-WIN is installed. If you are using additional firewall or network products, it may be necessary to adapt them manually.

Source	Destination	Туре	Port	Remark
Server Client	Microsoft SQL Server	UDP/TCP	_	We recommend allowing all network connections for sqlservr.exeand sql browser.exein the Micro- soft SQL Server installation.
				Refer to the Administration Manual for the Microsoft SQL server for a different configuration.
Server	Server	TCP	9710*	Database connection to
Client				the WERMA WIN 4 Server Service
Server	WIN ethernet receiver	TCP	80*	http data connection
Server	WIN ethernet receiver	UDP broadcast	5000	Retrieval of device infor- mation
Server	External mail server	TCP	25*	Mail sent by SMTP to the configured server
Server	www.werma-win.com**	TCP	443	Mail sent using the inte- grated mail function. Con- figuration of a web proxy is possible.
Server Client	www.werma.com** www.werma-win.com**	TCP	80	Update testing, retrieval of the Online Help and Con- tact site

1. Make sure that the following network connections are not blocked:

* Can be configured differently in WERMA-WIN with activation of the WERMA-WIN devices.

** We recommend enabling access to other subdomains for future updates of WERMA-WIN.

1.4 Manual driver installation

Manual driver installation is only required if the device driver software has not been automatically installed when connecting a WERMA-WIN device.

(i)

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1.4.1 Windows 7



1. Click on Change setting....

(j)	Update Driver Software - WIRELESS-DEVICE	x
Но	w do you want to search for driver software?	
4	Search automatically for updated driver software Windows will search your computer and the Internet for the latest driver software for your device, unless you've disabled this feature in your device installation settings.	
a	Browse my computer for driver software Locate and install driver software manually.	
		Cancel

2. Click on Browse my computer for driver software.

r	×
G	Update Driver Software - WIRELESS-DEVICE
	Browse for driver software on your computer
	Search for driver software in this location:
	C:\Program Files\WERMA-WIN-4 Browse
	✓ Include subfolders
	Let me pick from a list of device drivers on my computer
	This list will show installed driver software compatible with the device, and all driver software in the same category as the device.
	Next Cancel

3. Click on Browse.

- 4. Navigate to the WERMA-WIN installation directory and open the Driverfolder.
- 5. Click on Next.

 \rightarrow The device drivers are installed.

😡 📱 Update Driver Software - USB Serial Converter	
Windows has successfully updated your driver software	
Windows has finished installing the driver software for this device:	
USB Serial Converter	
	Close

6. Once successfully installed, click on **Close** to close the hardware assistant. \rightarrow The WERMA-WIN device is now ready for operation.

1.4.2 Windows 10

÷	Update Drivers – WIRELESS-DEVICE	~
	Windows was unable to install your WIRELESS-DEVICE	
	Windows could not find drivers for your device.	
	If you know the manufacturer of your device, you can visit their website and check the support section for downloadable drivers.	
	→ Search for updated drivers on Windows Update	
	Clo	se

1. Open Device Manager.



 \rightarrow The **Device Manager** window appears.

🛓 Device Manager	-		×
File Action View Help			
V 🗄 DESKTOP-6M5NQLP			
> 👖 Audio inputs and outputs			
> 😸 Batteries			
> 💻 Computer			
> 👝 Disk drives			
> 🔙 Display adapters			
> 🔐 DVD/CD-ROM drives			
> 🙀 Human Interface Devices			
> 📷 IDE ATA/ATAPI controllers			
> Keyboards			
> U Mice and other pointing devices			
> Demonstration of the second			
See Network adapters			
Cher devices			
WIRELES Update driver			
Disable device			
Software de Uninstall device			
Sound vide			
Scan for hardware changes			
Sen System devi Properties			
V 🗍 Universal Seriar Bus controllers			
 Intel(R) USB 3.0 eXtensible Host Controller - 1.0 (Microsoft) USB Root Hub (USB 3.0) 			
Launches the Update Driver Wizard for the selected device.			

- 2. Right-click on **WIRELESS DEVICE**.
- 3. Select Update driver in the pop-up menu.



4. Click on Browse my computer for driver software.

		\times
←	Update Drivers – WIRELESS-DEVICE	
	Browse for drivers on your computer	
	Search for drivers in this location:	
	C:\Program Files\WERMA-WIN-4 VBrowse	
	☑ Include subfolders	
	→ Let me pick from a list of available drivers on my computer This list will show available drivers compatible with the device, and all drivers in the same category as the device.	
	Next Cance	

- 5. Click on Browse.
- 6. Navigate to the WERMA-WIN installation directory and open the Driverfolder.

7. Click on Next.

ightarrow The device drivers are installed.



	×
←	
Windows has successfully updated your drivers	
Windows has finished installing the drivers for this device:	
USB Serial Converter	
	Close
	CIOSE

- 8. Once successfully installed, click on **Close** to close the hardware assistant.
 - \rightarrow The WERMA-WIN device is now ready for operation.

2 Activation of the WIN devices

WIN receiver or WIN ethernet receiver must be connected to a PC and configured before WERMA-WIN data from the signal towers can be received. WIN transmitters should then be configured and assigned to a WIN receiver or WIN ethernet receiver.

2.1 WIN receiver

1. Click on Activation in the toolbar.



2. Click on Activate WIN device.

(#) Activation	×
wireless information network	
Activation requires two steps:	
1. Connect and configure the WIN receiver	
2. Connect and configure the WIN transmitters	
We recommend that you do not connect more than 1 WIN receiver or 1 WIN transmitter to your PC during activation. The wizard informs you when it is safe to connect or disconnect a device.	
After the first activation, you may connect a further WIN transmitter anytime. The activation wizard then starts automatically.	
Cancel Close Next step	

3. Read the information text and click on Next.

(#) Activation	×
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers Please start search Search	
Cancel Rext Rext Step	

- 4. Connect WIN receiver to the computer and click on Search.
 - $\rightarrow\,$ WERMA-WIN searches for the connected WIN receiver.

(#) Activation	×
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers WIN receiver 1 (MAC 00-6F-F0) Search	
Cancel Rext Next Step	

- 5. Once WIN receiver has been recognised, click on Next.
- () A message appears if a new firmware version is available. Click on **Yes** to install the new firmware version.

(#) Activation		×
wireless information	N ® network	
WIN receiver c	onfiguration	
Enter the name have to select	of the WIN receiver. When configuring the WIN transmitter, you the name of the WIN receiver again.	
Name	Production	
	e.g. Production	
Channel	1 V Please do not change unless you are running multiple WIN systems in parallel - in this case re to manual.	fer
By clicking Nex configuration is	d, the name for this WIN receiver is saved and the WIN transmitte started.	er
Cancel Close	Next Next step	

- 6. Enter the description of the WIN receiver in the Name field.
- (i) The transmission channel of the individual systems can be changed to enable the best possible radio connection when several WERMA-WIN systems are run in parallel. We recommend only operating one WIN receiver per transmission channel.
- 7. Select another transmission channel in the **Channel** selection list if necessary.
- 8. Click on Next.



 \rightarrow The configuration is transferred to the WIN receiver.

2.2 WIN ethernet receiver

1. Click on **Activation** in the toolbar.



- 2. Click on Activate WIN device.
- 3. Click on Next.



4. Read the information text and click on Next.

(#) Activation	Х
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers Please start search Search	
Cancel Close Next Step	

5. Use the USB cable to connect WIN ethernet receiver to the computer and click on **Search**. \rightarrow WERMA-WIN searches for the connected WIN ethernet receiver.

(#) Activation	×
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers	
New WIN ethemet receiver (MAC 00-27-1 Search	
Cancel Close Next Next step	

6. After WIN ethernet receiver has been recognised, click on Next.

(i) A message appears if a new firmware version is available. Click on **Yes** to install the new firmware version.

(#) Activation		×
	network	
WIN receiver c	onfiguration	
Enter the name have to select	e of the WIN receiver. When configuring the WIN transmitter, you the name of the WIN receiver again.	
Name	Production	
	e.g. Production	
Channel	Please do not change unless you are running multiple WIN systems in parallel - in this case refut to manual.	er
By clicking Ne configuration is	d, the name for this WIN receiver is saved and the WIN transmitter started.	
Cancel Close	Next Next Step	

- 7. Enter the description of the WIN ethernet receiver in the Name field.
- (i) The transmission channel of the individual systems can be changed to enable the best possible radio connection when several WERMA-WIN systems are run in parallel.

We recommend only operating one WIN receiver per transmission channel.

- 8. Select another transmission channel in the **Channel** selection list if necessary.
- 9. Click on Next.

(#) Activation	×	<
wireless information network		
Network configuration f	or WIN ethernet receiver	
Automatically obtain a	an IP address via DHCP	
If you select this opti administrator can pro	ion, please ensure that UDP broadcasts are permitted on your network. Your network wide further details.	
 Use the following stat 	tic IP address:	
IP-Address	0 . 0 . 0 . 0 z.B. 192.168.0.42	
Subnet mask	0 . 0 . 0 . 0 z.B. 255.255.0	
Default gateway		
DNS-Server	0.0.0.	
Show advanced netwo	ork configuration	
Please enter, for exa UDP broadcast is not	Imple, a DNS name for the WIN ethernet receiver if it is in a different sub-network or possible.	
The configuration dat regarding the configu []	a can be obtained from your network administrator. Please also refer to the notes ration in the user manual.	
Cancel Close	Next Step	

There are three options available to connect to the network:

- Automatically obtaining an IP address via DHCP
- Using a static IP address
- Advanced network configuration

The **Advanced network configuration** must be used on the following cases:

- The WIN ethernet receiver and WERMA-WIN server service are in the same sub-network.
- UDP broadcast is not allowed.
- A static IP address should not be assigned.

2.2.1 Automatically obtaining an IP address via DHCP

- 1. Select Automatically obtain an IP address via DHCP.
- 2. Click on Next.

 (\mathbf{i})

- $\rightarrow\,$ The configuration is transferred to the WIN ethernet receiver.
- \rightarrow The configuration has been successfully completed.

Configuration saved Configuration saved Configuration saved. You can now remove the WIN receiver or WIN transmitter.
Configuration saved Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.
How do you want to continue?
Finish configuration
◯ Configure a WIN receiver
◯ Configure a WIN transmitter
Cancel Close

3. Now choose whether you wish to perform further configuration or finish configuration.

4. Click on Next.

2.2.2 Using a static IP address

1. Select Use the following static IP address:.



(*) Activation ×
wireless information network
Network configuration for WIN ethernet receiver
O Automatically obtain an IP address via DHCP
If you select this option, please ensure that UDP broadcasts are permitted on your network. Your network administrator can provide further details.
Use the following static IP address:
IP-Address 0 , 0 , 0 , 0 z.B. 192.168.0.42
Subnet mask 0 . 0 . 0 . 0 z.B. 255.255.255.0
Default gateway 0 . 0 . 0
DNS-Server 0.0.0.0
Show advanced network configuration
Please enter, for example, a DNS name for the WIN ethernet receiver if it is in a different sub-network or UDP broadcast is not possible.
The configuration data can be obtained from your network administrator. Please also refer to the notes regarding the configuration in the user manual.
Download manual
Close Next Next step

2. Enter the network data into the corresponding fields.

Your network administrator will provide the requisite data.

3. Click on Next.

(i)

- \rightarrow The configuration is transferred to the WIN ethernet receiver.
- \rightarrow The configuration has been successfully completed.

(#) Activation	Х
wireless information network	
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
O Configure a WIN receiver	
O Configure a WIN transmitter	
Cancel Next Close Next Step	

- 4. Now choose whether you wish to perform further configuration or finish configuration.
- 5. Click on Next.

2.2.3 Advanced network configuration

1. Select Use the following static IP address:.

(#) Activation		\times
wireless information network		
Network configuration for	WIN ethernet receiver	
 Automatically obtain an 	IP address via DHCP	
If you select this option administrator can provi	 please ensure that UDP broadcasts are permitted on your network. Your net de further details. 	work
 Use the following static 	IP address:	
IP-Address	0,0,0.0z.B. 192.168.0.42	
Subnet mask	0 . 0 . 0 . 0 z.B. 255.255.255.0	
Default gateway	0.0.0.	
DNS-Server	0.0.0.	
Show advanced network	: configuration	
Please enter, for exam UDP broadcast is not p	ole, a DNS name for the WIN ethernet receiver if it is in a different sub-network sssible.	c or
The configuration data regarding the configura	an be obtained from your network administrator. Please also refer to the note: tion in the user manual.	s
Download manual		
Close	Next Next step	

2. Enter the network data into the corresponding fields.

(i) Your network administrator will provide the requisite data.

- 3. Enable Advanced network configuration.
- 4. Click on Next.

(#) Activation		\times
wireless information network	B	
Advanced network cor	figuration for WIN ethernet receiver	
By default, the TCP/IP con ethemet receiver. You can configured in your DNS ser	nection will be directly established with the IP address of the WIN however define a DNS name which has been appropriately ver.	
IP / DNS name	192.168.50.173	
TCP-Port	80 (Default value: 80)	
Cancel Close	Next Next Step	



- 5. Enter the IP address or DNS name of WIN ethernet receiver in the IP / DNS name field.
- 6. You may need to change the TCP port in the **TCP-Port** field.
- (i) Your network administrator will provide the requisite data.

7. Click on Next.

 \rightarrow The configuration has been successfully completed.

(*) Activation	×
wireless information network	
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
◯ Configure a WIN receiver	
Configure a WIN transmitter	
Cancel Rext Next Step	

- 8. Now choose whether you wish to perform further configuration or finish configuration.
- 9. Click on Next.

2.3 WIN transmitter

- 1. Start WERMA-WIN.
- 2. Use the USB cable to connect WIN transmitter to the computer.



 \rightarrow The **Activation** window appears.

(#) Activation	×
wireless information network	
Connect the WIN transmitter	
Please connect the WIN transmitter to be configured and click on Search.	
Connected WIN transmitter New WIN transmitter Search	
Cancel Next	
Close Next step	

- **3.** Click on **Search** if WIN transmitter has not automatically been found. \rightarrow WERMA-WIN searches for the connected WIN transmitter.
- 4. Once WIN transmitter has been recognised, click on Next.

(#) Activation	ו		×
wireless inform			
Configure t	he WIN transmitter		
Please con individual ti	figure your signal tower by selectir ers.	ng the colours and descriptions of the	
Name Wil	N transmitter 00-27-05	MAC-ID 00-27-05	
Signal tower	Blink recognition		
Select p	roductive state		
	Description	Colour/Function	
4th tier	<not in="" use=""> ~</not>	<none> ~</none>	
3rd tier	Error ~	Red ~	
2nd tier	Warning ~	Yellow V	
1st tier	Operational ~	Green V	
Assign the By clicking	device to the following WIN recein Next, the data for this WIN transm	ver <a center;"="" href="https://www.enabledication-complexity-style=" text-align:="">equal text-align: center; cente	
Close	el	Next Next step	

- 5. Enter the description of the WIN transmitter in the Name field.
- 6. Configure WIN transmitter in the Signal tower and Blink recognition tabs.
- 7. Assign WIN transmitter in the selection list Assign the device to the following WIN receiver to a WIN receiver.
- 8. Click on Next.
 - \rightarrow The configuration has been successfully completed.

() Activation	×
wireless information network	
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
O Configure a WIN receiver	
O Configure a WIN transmitter	
Cancel Close Next step	

- 9. Now choose whether you wish to perform further configuration or finish configuration.
- 10. Click on Next.
- **11.** Disconnect the USB connection from the WIN transmitter.
 - \rightarrow The WIN transmitter is configured and can be fitted on the signal tower.

2.4 WIN transmitter performance

- 1. Start WERMA-WIN.
- 2. Use the USB cable to connect WIN transmitter performance to the computer.



 \rightarrow The **Activation** window appears.

(#) Activation	×
wireless information network	
Connect the WIN transmitter	
Please connect the WIN transmitter to be configured and click on Search.	
Connected WIN transmitter New WIN transmitter (MAC 00-27-C2) Search	
Cancel	

- 3. Click on **Search** if WIN transmitter performance has not automatically been found. → WERMA-WIN searches for the connected WIN transmitter performance.
- 4. Once WIN transmitter performance has been recognised, click on Next.
| (#) Activatio | 'n | × |
|---|--|---|
| | PPD®
mailon network | |
| Configure | the WIN transmitter | |
| Please co
individual | nfigure your signal tower by selecting the colours and descriptions of the
tiers. | |
| Name W | IN transmitter performance 00-27-C MAC-ID 00-27-C2 | |
| Signal tower | Blink recognition | |
| Select | productive state | |
| | Description Colour/Function | |
| 4th tier | Counter input | |
| 3rd tier | Error V Red V | |
| 2nd tier | Warning Vellow V | |
| 1st tier | Operational V Green V | |
| Assign the device to the following WIN receiver
Sy clicking Next, the data for this WIN transmitter will be saved. | | |
| Car
Clos | e Next Step | |

- 5. Enter the description of the WIN transmitter performance in the Name field.
- 6. Configure WIN transmitter performance in the Signal tower and Blink recognition tabs.
- 7. Assign WIN transmitter performance in the selection list Assign the device to the following WIN receiver to a WIN receiver.
- 8. Click on Next.
 - \rightarrow The configuration has been successfully completed.

() Activation	×
wireless information network	
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
O Configure a WIN receiver	
O Configure a WIN transmitter	
Cancel Close Next Next step	

- 9. Now choose whether you wish to perform further configuration or finish configuration.
- 10. Click on Next.
- **11.** Disconnect the USB connection from the WIN transmitter.
 - \rightarrow The WIN transmitter performance is configured and can be fitted on the signal tower.

2.5 WIN transmitter control

- 1. Start WERMA-WIN.
- 2. Use the USB cable to connect WIN transmitter control to the computer.



 \rightarrow The **Activation** window appears.

() Activation	×
Connect the WIN transmitter	
Please connect the WIN transmitter to be configured and click on Search.	
Connected WIN transmitter New WIN transmitter (MAC 00-39-83)	
Cancel Next Step	

- **3.** Click on **Search** if WIN transmitter control has not automatically been found. \rightarrow WERMA-WIN searches for the connected WIN transmitter control.
- 4. Once WIN transmitter control has been recognised, click on Next.

(#) Activati	on	×	
	PPD [®]		
Configure	the WIN transmitter		
Please co individual	nfigure your signal tower by selecting the tiers.	he colours and descriptions of the	
Name W	IN transmitter control 00-39-83	IAC-ID 00-39-83	
Signal towe	Blink recognition		
Select	productive state		
	Description Co	olour/Function	
4th tier	Tier 4 🗸 🗸 🗸	Blue v	
3rd tier	Tier 3 🗸 🗸 🗸	Red v	
2nd tier	Tier 2 🗸 🗸	Yellow ~	
1st tier	Tier 1 v	Green V	
Acciec the	dentes to the Collection MUNI-		
Pu slicking Next, the data for this WIN transmitter will be asved			
Cancel Rext Token Rext Next step			

- 5. Enter the description of the WIN transmitter control in the Name field.
- 6. Configure WIN transmitter control in the Signal tower and Blink recognition tabs.
- 7. Assign WIN transmitter control in the selection list Assign the device to the following WIN receiver to a WIN receiver.
- 8. Click on Next.

(#) Activation	×
wireless information network	®
Configure power on sta	te
Please define the powe-on	state for WIN transmitter control.
4th tier	Off ~
3rd tier	Off ~
2nd tier	Off ~
1st tier	Off ~
	-
Cancel Close	Next Next step

9. Configure the switching status of the individual tiers in the respective selection lists.

(i) The switching status is activated as soon as power is supplied to the WIN transmitter control.

10. Click on Next.

(#) Activation	\times
wireless information network	
Configure switching options	
Please define whether the WIN transmitter control should also activate the connector pins for external devices.	
Pin 5 Activate only the signal tower	
Pin 4 ү 🔿 Initiate additional pins 2 to 5	
Pin 3 Please refer to the information in the manual regarding this function.	
Pin 2 Improper use can cause damage to WIN transmitter control or connected devices.	
Pin 0/1 WIN (COM, VCC) control	
Cancel Close Next Next step	

- 11. Select the switching condition of the WIN transmitter control.
- 12. Click on Next.
 - \rightarrow The configuration has been successfully completed.

(*) Activation	×
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
◯ Configure a WIN receiver	
◯ Configure a WIN transmitter	
Cancel Rext Step	

- **13.** Now choose whether you wish to perform further configuration or finish configuration.
- 14. Click on Next.
- **15.** Disconnect the USB connection from the WIN transmitter.
 - \rightarrow The WIN transmitter control is configured and can be fitted on the signal tower.



2.6 Changing transmission channel

The transmission channel of the individual systems can be changed to enable the best possible radio connection when several WERMA-WIN systems are run in parallel. Four different transmission channels are available.



We recommend only operating one WIN receiver per transmission channel.

1. Click on Activation in the toolbar. \rightarrow The Activation window appears.



2. Click on Change transmission channel.



- 3. Read the information text and click on Next.
 - \rightarrow The activation assistant for a WERMA-WIN device appears.

(#) Activation	×
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers	
Please start search Search	
Cancel Close Pext Next Step	

- 4. Start up WIN receiver or WIN ethernet receiver again.
- 5. Select the preferred transmission channel in the **Channel** selection list during activation.



(i) WIN transmitter must be reconfigured if the WIN receiver transmission channel is changed after WIN transmitter has been configured.

2.7 Firmware update

- 1. Click on **Activation** in the toolbar.
 - \rightarrow The **Activation** window appears.

(#) Activation		\times
	n network	
These menu optic	ons allow you to optimally configure your WIN system	
	Activate WIN device Configure WIN transmitter/WIN receiver	
	Change transmission channel Run WIN system on a different channel	
	Firmware update Update your WIN devices	
ما <u>م</u> ا	Swap WIN receiver (USB) and WIN ethernet receiver Import wireless parameters	
Cancel Close	Next Next step	

2. Click on Firmware update.



- 3. Read the information text and click on Next.
 - $\rightarrow\,$ The activation assistant for a WERMA-WIN device appears.

(#) Activation	Х
wireless information network	
Connect the WIN receiver	
Please connect the WIN receiver to be configured and click on Search.	
Configurable WIN receivers	
Please start search Search	
Cancel Close Next Next step	

- 4. Start up WIN receiver or WIN ethernet receiver again.
- 5. During activation, confirm the firmware update message with Yes.
 - \rightarrow The **Firmware update** window appears.

Firmware update	
Click 'Start update Please observe that installation proc	to install the firmware update. must not be interrupted after the installation cess has started.
Cancel Close	Start update Firmware update

- 6. Click on Start update.
 - \rightarrow The firmware is updated.

2.8 Swapping WIN receiver and WIN ethernet receiver

A WIN receiver can be replaced by a WIN ethernet receiver. An assistant can be used to transmit all the WIN transmitters assigned to the WIN receiver to the WIN ethernet receiver.

- **1.** Click on **Activation** in the toolbar.
 - \rightarrow The **Activation** window appears.

(#) Activation		\times
	n network	
These menu optic	ons allow you to optimally configure your WIN system	
	Activate WIN device Configure WIN transmitter/WIN receiver	
	Change transmission channel Run WIN system on a different channel	
	Firmware update Update your WIN devices	
23	Swap WIN receiver (USB) and WIN ethernet receiver Import wireless parameters	
Cancel Close	Next Next step	

- 2. Click on Swap WIN receiver (USB) and WIN ethernet receiver.
 - \rightarrow The **Activation** window appears.

(#) Activation		×
wireless information network		
Swap WIN ethernet receiver	and WIN receiver (USB)	
The swap function enables you to i installation without having to reconf of both devices will be swapped.	ntegrate the WIN ethernet receiver into an existing igure the WIN transmitters. The wireless parameters	
Please connect both devices to the	e computer via USB.	
WIN receiver (USB)	ease start search	
WIN ethemet receiver Ple	ease start search	
	Search	
Ciose	Next Next step	

3. Connect WIN receiver and WIN ethernet receiver to the computer.

4. Click on Search.

 \rightarrow WERMA-WIN searches for the connected WIN receiver and WIN ethernet receiver.

(#) Activation		×
wireless information network		
Swap WIN ethernet receiv	ver and WIN receiver (USB)	
The swap function enables you installation without having to red of both devices will be swapped	to integrate the WIN ethemet receiver into an existing configure the WIN transmitters. The wireless parameters d.	
Please connect both devices to	the computer via USB.	
WIN receiver (USB)	Production	
WIN ethemet receiver	Warehouse	
	Search	
Cancel Close	Next Next step	

5. Once WIN receiver has been recognised, click on Next.
 → WIN receiver and WIN ethernet receiver are swapped.

(#) Activation	×
wireless information network	
Configuration successful	
WIN receiver (USB) and WIN ethemet receiver configurations successfully amende	d.
win se0.xxx.xx b stree	
Please click on 'Next' and check the network configuration of the WIN ethemet receiver.	
Cancel	

- 6. Once they have been successfully swapped, amend or strike through the MAC addresses printed on the type labels.
- 7. Click on Next to complete the swap and check the configuration of the WIN ethernet receiver.



(#) Activation	×
wireless information network	
Network configuration fo	r WIN ethemet receiver
 Automatically obtain ar 	IP address via DHCP
If you select this optio administrator can prov	n, please ensure that UDP broadcasts are permitted on your network. Your network ide further details.
Use the following static	IP address:
IP-Address	192 . 168 . 0 . 42 z.B. 192.168.0.42
Cancel Cancel Concel	255 . 255 . 255 . 0 z.B. 255.255.0
Default gateway	0.0.0.
DNS-Server	0.0.0.
Show advanced networ	k configuration
Please enter, for exan UDP broadcast is not p	nple, a DNS name for the WIN ethernet receiver if it is in a different sub-network or ossible.
The configuration data regarding the configura	can be obtained from your network administrator. Please also refer to the notes ation in the user manual.
Download manual	
Cancel Close	Next Step

- 8. Check the configuration of the WIN ethernet receiver and adapt if necessary.
- 9. Click on Next to save the configuration.
 - \rightarrow The swap has been successfully completed.

() Activation	×
wireless information network	
Configuration saved	
Configuration successfully saved. You can now remove the WIN receiver or WIN transmitter.	
How do you want to continue?	
Finish configuration	
O Configure a WIN receiver	
O Configure a WIN transmitter	
Cancel Close Next Next step	

- **10.** Now choose whether you wish to perform further configuration or finish configuration.
- 11. Click on Next.

3 Program functions

WERMA-WIN is subdivided into six main modules:

- Control station
- Productivity
- Runtime
- Job
- Control
- Routing

3.1 Control station

The statuses and job details of up to 50 machines, systems and workplaces are displayed in an overview in the **Control station** module. The overview shows which machine is running or has a fault. This enables reaction times and downtimes to be effectively shortened.

The job details show how far the jobs have progressed on the individual machines.

The position of a machine can be easily identified by the integration of a building plan into the Control station module.



3.1.1 Control station display

The control station display of the WIN transmitter shows the status of the respective signal tower or machine and enables the WIN transmitters to be configured.

WERMA

3.1.1.1 WIN transmitter

The control station display of the WIN transmitter includes the following information:



	Status change message option is enabled.
3	Edit WIN transmitter configuration
4	Status display of tiers
5	Name of the WIN transmitter

3.1.1.2 WIN transmitter performance with running job

The control station display of a WIN transmitter performance with running job includes the following information:



ltem	Description			
1	Display of running job with job name			
2	Call up job details			
3	Current quantity			
4	Edit WIN transmitter configuration			
5	nable, disable and set up status transmission			
	Status transmission is disabled.			
	🖼 Status transmission is enabled.			
6	Enable, disable and set up status change message option			
	Status change message option is disabled. Status change message option is enabled.			
7	Mouse over function for additional job details			
8	Job progression of job			
9	Status display of tiers			
10	Name of the WIN transmitter			

(i) The additional job details (7) appear as soon as the cursor hovers over the job progression of the job (8).

3.1.1.3 WIN transmitter performance without running job

The control station display of a WIN transmitter performance without running job includes the following information:



ltem	Description
1	No running job information
2	Enternewjob
3	Reset counter value
4	Enable, disable and set up status transmission Status transmission is disabled.

ltem	Description
	Status transmission is enabled.
5	Enable, disable and set up status change message option
	Status change message option is disabled.
6	Edit WIN transmitter configuration
7	Current quantity without plan specification
8	Status display of tiers
9	Name of the WIN transmitter

3.1.1.4 WIN transmitter control

The control station display of the WIN transmitter control includes the following information:



ltem	Description			
1	Enable, disable and set up status transmission			
	Status transmission is disabled.			
	Status transmission is enabled.			
2	able, disable and set up status change message option			
	 Status change message option is disabled. Status change message option is enabled. 			
3	Edit WIN transmitter configuration			
4	Status display of tiers			
	Tier can be switched manually			
	🕸 Tier is controlled with a switching rule			
5	Name of the WIN transmitter			

3.1.2 Views

The Control station main view or a user-defined view can be used in the Control station module.

3.1.2.1 Control station main view

The **Control station main view** gives an overview of all WIN transmitters that have been configured. The **Control station main view** can be provided with a background image.



3.1.2.2 User-defined views

Additional user-defined views can be created in addition to the Control station main view.

The user-defined views can be named as required and be provided with a background image. Different WIN transmitters can be displayed in every user-defined view.



Control sta	tion Productivity Rur	ntime Job Control F	Control station - View 1 - WIN 4.4.0.160	7 - WERMA Signaltechnik GmbH + Co. KG	- 8 ×
Control station main view	1 2 3 Wiew 2 View	4 3 View 4 More	Add WIN Select transmitter background Full screen Report / Export	Activation Settings Software update	
	Control stat	tion views	Design	Other	
Unit 1 Error Warning Operational	1 2 1	Unit 3	e X 7		^
					v
Ready.					Connected to WIN receiver Production

The user-defined views of the **Control station**, **Productivity** and **Runtime** modules are always identical. All view settings are applied.

Naming a user-defined view

- 1. Click on **Settings** in the toolbar. \rightarrow The **Settings** window appears.
- 2. Select the Views tab.
- 3. Highlight the required view.
- 4. Click on Edit.

(i)

 \rightarrow The **Edit view** window appears.

Edit view		×	
Name	Assembly		
)	Cancel	OK Save	

- 5. Enter the name of the view in the Name field.
- **6.** Click on **OK**. \rightarrow The name of the view has been changed.
- 7. Click on OK to apply the settings.

Adding WIN transmitter to a view

- 1. Call up the required view.
- 2. Click on Add WIN transmitter.
 → The Select WIN transmitter window appears.

(#) Select WIN transmitter	×
WIN transmitter	
Unit 1	
Unit 2	
Unit 3	
Close	Add

- 3. Highlight the required WIN transmitter.
- 4. Click on OK.
 - \rightarrow The WIN transmitter has been added to the view.

Removing WIN transmitter from the view

- 1. Call up the required view.
- 2. Right-click on the WIN transmitter to be removed.
- 3. Select **Remove** in the pop-up menu.



- **4.** Confirm the prompt with **Yes**.
 - \rightarrow The WIN transmitter has been removed from the view.

3.1.2.3 Selecting the background image of a view

- 1. Call up the required view.
- 2. Click on Select background.
 → The Background image window appears.

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(#) Background image		×
Settings		
Use the following background ima	age for View 1:	
No background image		
O Selected image		
Displayed size:		
As original		
O Zoom out / zoom in	100 🔹 %	
Cancel Close	Preview Apply	Close

3. Select Selected image.

- 4. Click on **Browse** and open the required background image.
- (i) The background image needs to be saved on the local PC.

If more than one computer is accessing a WERMA-WIN database, then the background image must be saved on a network drive.

- 5. Select As original to paste the background image in its original size.
- 6. Select Zoom out / zoom in to paste the background imaged scaled.
- (i) Clicking on **Preview** allows a **preview** of the background image to be displayed.
- 7. Click on Save to paste the background image into the view.

3.1.2.4 Removing the background

- 1. Call up the required view.
- 2. Click on Select background.

 \rightarrow The **Background image** window appears.

(#) Background image	×
Settings	
Use the following background image for View 1:	
○ No background image	
Selected image E:\floor plan.jpg	
Displayed size:	
O Zoom out / zoom in 100 ⊊ %	
Cancel Close Preview Apply	

- 3. Select No background image.
- 4. Click on Save to paste the background image into the view.

- or -

1. Call up the required view.

2. Right-click in the view.

3. Select Remove Background.



3.1.2.5 Repositioning a WIN transmitter

Every WIN transmitter can be repositioned anywhere in the view.

1. Left-click on the name of the WIN transmitter and hold down the mouse key.

Unit	3	N	
	- Tier 4	13	
	- Tier 3		
	🐉 Tier 2		
	🌼 Tier 1		a 🚽
		2	

2. Drag the WIN transmitter to the desired position and release the mouse key.

3.1.2.6 Full screen mode

Every view can be displayed in full screen and without the menu bar.

- **1.** Call up the required view.
- 2. Click on **Full screen** in the menu bar.

To close the full screen view:

1. Press ESC.

3.1.3 Configuring WERMA-WIN devices

Every WIN transmitter can be individually named and configured in accordance with the scope of its functions.

3.1.3.1 Configuring WIN transmitter

1. Click on Edit WIN transmitter $\stackrel{\text{III}}{=}$ in the control station display of the desired WIN transmitter. \rightarrow The WIN transmitter configuration window appears.

(#) WIN trans	smitter configurat	ion					×
Name Unit	3			MAC-ID	00-39-83		
Signal tower	Blink recognition	Design					
Select p	roductive state						
	Description			Colour/Fu	inction		
4th tier	Tier 4		\sim	Blue		~	
3rd tier	Tier 3		\sim	Red		~	_
2nd tier	Tier 2		\sim	Yello	w	~	_
1st tier	Tier 1		\sim	Gree	n	\sim	
					4	OK Save	Ē

- 2. Configure the following settings:
- Name of the WIN transmitter
- Tiers and colours of the signal tower
- Blink recognition
- Display of the WIN transmitter
- 3. Once configuration has been completed, click on OK to save the settings.

Modifying the name

Every WIN transmitter can be individually named.

1. Enter the name of the WIN transmitter in the Name field.

Name Unit 3

Modifying the tiers and colours of the signal tower

The tiers and colours can be modified on the signal tower installed. A productive state can be defined, if required, for every tier and the states **Off** and **Connection error**. The productive states are evaluated in the **Productivity** module.

1. Select the Signal tower tab.

Signal tower	Blink recognition	Design							
Select productive state									
	Description			Colour/Function					
4th tier	Tier 4		\sim	Blue	~				
3rd tier	Tier 3		\sim	Red	~				
2nd tier	Tier 2		\sim	Yellow	~				
1st tier	Tier 1		\sim	Green	~				

2. Specify a Name and Colour/Function for the tiers of the WIN transmitter.

(i) A user-defined name can be entered in the **Name** selection list. As soon as the configuration of the WIN transmitter has been saved, this user-defined name can be called up again using the selection list.

If a user-defined name is no longer used, it will not be displayed in the selection list any longer. Consequently, it is possible to remove misspelt or incorrectly created names (for example, material mterial from the selection list.

Selecting productive states

To define the productive states of the tiers:

1. Select check box Select productive state.

2. The Productive column to select the productive states is shown.

Signal tower	Blink recognition	Design				
Select pr	roductive state					
	Description		Colour/Function		Productive	
4th tier	Tier 4	~	Blue	~	Undefined	\sim
3rd tier	Tier 3	~	Red	~	Undefined	\sim
2nd tier	Tier 2	~	Yellow	~	Undefined	\sim
1st tier	Tier 1	~	Green	~	Undefined	\sim
	Off				Undefined	\sim
	Connection error	r			Do not analyse	\sim

3. Select productive states for the tiers of the WIN transmitter.



The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive
- Do not analyse
- Undefined

Modifying blink recognition

If the signal tower installed has a blinking function, it can be evaluated using blink recognition. A productive state can be defined for every tier. The productive states are evaluated in the **Pro-ductivity** module.



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

1. Select the Blink recognition tab.

Signal tower	Blink recognition	Design				
Select productive state						
	Blink recognition	?	Description			
4th tier	\checkmark		Tier 4 blinking	\sim		
3rd tier	\checkmark		Tier 3 blinking	\sim		
2nd tier	\checkmark		Tier 2 blinking	\sim		
1st tier	\checkmark		Tier 1 blinking	\sim		

- 2. Enable or disable the **Blink recognition** checkbox to enable or disable blink recognition for the individual tiers of the WIN transmitter.
- 3. Define a **description** for the tiers of the WIN transmitter.
- (i) A user-defined description can be entered in the **Description** selection list. As soon as the configuration of the WIN transmitter has been saved, this description can be called up again using the selection list.



Selecting productive states

To define the productive states of the tiers:

- 1. Enable Select productive state.
 - \rightarrow The **Productive** column to select the productive states is shown.

Signal tower	Blink recognition	Design				
Select p	roductive state					
1	Blink recognition	?	Description		Productive	
4th tier	\checkmark		Tier 4 blinking	\sim	Undefined	~
3rd tier	\checkmark		Tier 3 blinking	\sim	Undefined	~
2nd tier	\checkmark		Tier 2 blinking	~	Undefined	~
1st tier	\checkmark		Tier 1 blinking	~	Undefined	~

2. Select productive states for the tiers of the WIN transmitter.



The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive
- Do not analyse
- Undefined

Modifying the control station display

The control station display of the WIN transmitter can be modified.

1. Select the **Design** tab.



- 2. Select the design variant of the WIN transmitter.
- 3. If necessary, select the size of the control station display in the Size selection list.

(i) If you have selected a display variant with **individual light** and the signal tower displays two states, the control station display automatically switches to the **Signal tower without text** display variant.

3.1.3.2 Configuring WIN transmitter control

- 1. Click on Edit WIN transmitter in the control station display of the desired WIN transmitter control.
 - $\rightarrow\,$ The WIN transmitter configuration window appears.

(#) WIN trans	(#) WIN transmitter configuration							
Name Unit	3		MAC-ID	00-39-83				
Signal tower	Blink recognition	Design						
Select p	roductive state							
	Description		Colour/Fu	nction				
4th tier	Tier 4	~	Blue		~			
3rd tier	Tier 3	~	Red		~			
2nd tier	Tier 2	\sim	Yellov	N	~ <u> </u>			
1st tier	Tier 1	~	Green	ı	~			
	eel				OK Save			

- 2. Configure the following settings:
- Name of the WIN transmitter control
- Tiers and colours of the signal tower
- Blink recognition
- Control station display of the WIN transmitter control
- 3. Once configuration has been completed, click on OK to save the settings.

Modifying the name

Every WIN transmitter control can be individually named.

1. Enter the name of the WIN transmitter control in the Name field.

Name Unit 3

Modifying the tiers and colours of the signal tower

The tiers and colours can be modified on the signal tower installed. A productive state can be defined, if required, for every tier and the states **Off** and **Connection error**. The productive states are evaluated in the **Productivity** module.

1. Select the Signal tower tab.

Signal tower	Blink recognition	Design							
Select productive state									
	Description			Colour/Function					
4th tier	Tier 4		\sim	Blue	\sim				
3rd tier	Tier 3		\sim	Red	~				
2nd tier	Tier 2		\sim	Yellow	~	_			
1st tier	Tier 1		\sim	Green	\sim				
						Π.			

2. Specify a Name and Colour/Function for the tiers of the WIN transmitter control.

(i) A user-defined name can be entered in the **Name** selection list. As soon as the configuration of the WIN transmitter control has been saved, this user-defined name can be called up again using the selection list.

If a user-defined name is no longer used, it will not be displayed in the selection list any longer. Consequently, it is possible to remove misspelt or incorrectly created names (for example, material mterial from the selection list.



Selecting productive states

To define the productive states of the tiers:

1. Select check box **Select productive state**.

2. The Productive column to select the productive states is shown.

Signal tower	Blink recognition	Design				
Select pr	oductive state					
	Description		Colour/Function		Productive	
4th tier	Tier 4	~	Blue	~	Undefined	\sim
3rd tier	Tier 3	~	Red	~	Undefined	\sim
2nd tier	Tier 2	~	Yellow	~	Undefined	\sim
1st tier	Tier 1	~	Green	~	Undefined	\sim
	Off				Undefined	\sim
	Connection error				Do not analyse	\sim

3. Select productive states for the tiers of the WIN transmitter control.



The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive
- Do not analyse
- Undefined

Modifying blink recognition

Blink recognition is enabled by default for all tiers with the WIN transmitter control. Blink recognition can be used with the **manual control** function or with the definition of a switching rule.

A productive state can be defined for every tier. The productive states are evaluated in the **Pro-ductivity** module.



The blink signal is transmitted to the signal tower and the terminals at a switching frequency of 1 Hz.

1. Select the **Blink recognition** tab.



- 2. Enable or disable **Blink recognition** to enable or disable blink recognition for the individual tiers of the WIN transmitter control.
- 3. Define a **description** for the tiers of the WIN transmitter control.

(i) A user-defined description can be entered in the **Description** selection list. As soon as the configuration of the WIN transmitter control has been saved, this description can be cal-

(\mathbf{i})	led up again using the selection list
U	ied up again using the selection list.

Selecting productive states

To define the productive states of the tiers:

- 1. Enable Select productive state.
 - \rightarrow The **Productive** column to select the productive states is shown.

Signal tower	Blink recognition	Design				
Select p	roductive state					
1	Blink recognition	?	Description		Productive	
4th tier	\checkmark		Tier 4 blinking	\sim	Undefined	\sim
3rd tier	\checkmark		Tier 3 blinking	\sim	Undefined	\sim
2nd tier	\checkmark		Tier 2 blinking	\sim	Undefined	~
1st tier	\checkmark		Tier 1 blinking	\sim	Undefined	~

2. Select productive states for the tiers of the WIN transmitter control.

The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive

 (\mathbf{i})

- Do not analyse
- Undefined

Modifying the control station display

The control station display of the WIN transmitter control can be modified.

(i) The **manual control** function is only possible in the **Signal tower with text** display variant.

1. Select the **Design** tab.



2. Select the display variant of the WIN transmitter control.

3. If necessary, select the size of the control station display in the Size selection list.

(i) If you have selected a display variant with **individual light** and the signal tower displays two states, the control station display automatically switches to the **Signal tower without text** display variant.



3.1.3.3 Configuring WIN transmitter performance

1. Click on Edit WIN transmitter in the control station display of the desired WIN transmitter performance.

 \rightarrow The WIN transmitter configuration window appears.

(#) WIN trans	mitter configuration	n		×
Name Unit	2		MAC-ID 00-27-C2	
Signal tower	Blink recognition D	esign		
Select pr	roductive state			
	Description		Colour/Function	
4th tier	Counter input	~	Counter input	~
3rd tier	Error	~	Red	~
2nd tier	Warning	\sim	Yellow	~
1st tier	Operational	\sim	Green	~
				—
Close			2	OK Save

- 2. Configure the following settings:
- Name of the WIN transmitter performance
- Tiers and colours of the signal tower
- Blink recognition
- Control station display of the WIN transmitter performance
- 3. Once configuration has been completed, click on OK to save the settings.

Modifying the name

Every WIN transmitter performance can be individually named.

1. Enter the name of the WIN transmitter performance in the Name field.

Name Unit 3

Modifying the tiers and colours of the signal tower

The tiers and colours can be modified on the signal tower installed. A productive state can be defined, if required, for every tier and the states **Off** and **Connection error**. The productive states are evaluated in the **Productivity** module.

1. Select the Signal tower tab.

Signal tower	Blink recognition	Design			
Select pr	oductive state				
	Description			Colour/Function	
4th tier	Counter input		\sim	Counter input	~
3rd tier	Tier 3		\sim	Red	~
2nd tier	Waming		\sim	Yellow	~
1st tier	Operational		\sim	Green	~

2. Specify a Name and Colour/Function for the tiers of the WIN transmitter.

A user-defined name can be entered in the **Name** selection list. As soon as the con-

(i)

(j) figuration of the WIN transmitter has been saved, this user-defined name can be called up again using the selection list.

If a user-defined name is no longer used, it will not be displayed in the selection list any longer. Consequently, it is possible to remove misspelt or incorrectly created names (for example, material mterial from the selection list.

(i) The **Counter input** and **Job input** functions can each only be defined for one tier.

The maximum counter frequency of the counter input is 10 Hz (> 50 ms 24 V - > 50 ms 0 V). $v = \frac{1}{1000} =$

(i) The **Counter input** function was assigned to a tier during activation of the WIN transmitter performance. If the **Counter input** function is to be assigned to another tier, you must connect the WIN transmitter performance to the PC using the USB cable to transfer the modified configuration.

(i) The impulse at the tier configured for the **Job input** function 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 as **active waiting**, it can be started with a further impulse.

The impulse can also be applied for the whole duration of the job. Then the impulse must be inactive for at least five seconds so that a further impulse ends the job.



Selecting productive states

To define the productive states of the tiers:

- 1. Select check box **Select productive state**.
- 2. The Productive column to select the productive states is shown.



Signal tower	Blink recognition	Design					
Select pr	oductive state						
	Description			Colour/Function		Productive	
4th tier	Counter input		\sim	Counter input	\sim	Undefined	\sim
3rd tier	Tier 3		\sim	Red	\sim	Undefined	\sim
2nd tier	Warning		\sim	Yellow	\sim	Undefined	\sim
1st tier	Operational		\sim	Green	\sim	Undefined	\sim
	Off					Undefined	\sim
	Connection error					Do not analyse	\sim

3. Select productive states for the tiers of the WIN transmitter performance.

(i)

(i)

The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive
- Do not analyse
- Undefined

Modifying blink recognition

If the signal tower installed has a blinking function, it can be evaluated using blink recognition. A productive state can be defined for every tier. The productive states are evaluated in the **Pro-ductivity** module.

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

1. Select the Blink recognition tab.

Signal tower	Blink recognition	Design		
Select p	roductive state			
	Blink recognition	?	Description	
4th tier	\checkmark		Tier 4 blinking	~
3rd tier	\checkmark		Tier 3 blinking	~
2nd tier	\checkmark		Tier 2 blinking	\sim
1st tier	\checkmark		Tier 1 blinking	~

- 2. Enable or disable the **Blink recognition** checkbox to enable or disable blink recognition for the individual tiers of the WIN transmitter performance.
- 3. Defining a **description** for the tiers of the WIN transmitter performance.
- (i) A user-defined description can be entered in the **Description** selection list. As soon as the configuration of the WIN transmitter performance has been saved, this description can be called up again using the selection list.

Selecting productive states

To define the productive states of the tiers:

- 1. Enable Select productive state.
 - \rightarrow The **Productive** column to select the productive states is shown.

Signal tower	Blink recognition	Design				
Select p	productive state					
	Blink recognition	?	Description		Productive	
4th tier	\checkmark		Tier 4 blinking	\sim	Undefined	\sim
3rd tier	\checkmark		Tier 3 blinking	~	Undefined	\sim
2nd tier	\checkmark		Tier 2 blinking	~	Undefined	~
1st tier	\checkmark		Tier 1 blinking	~	Undefined	~

2. Select productive states for the tiers of the WIN transmitter performance.

The productive states are calculated in the evaluation based on the following priority:

- Non productive
- Productive

 (\mathbf{i})

- Do not analyse
- Undefined

Modifying the control station display

The control station display of the WIN transmitter performance can be modified.

1. Select the **Design** tab.



- 2. Select the display variant of the WIN transmitter performance.
- 3. If necessary, select the size of the control station display in the Size selection list.
- (i) If you have selected a display variant with **individual light** and the signal tower displays two states, the control station display automatically switches to the **Signal tower without text** display variant.

3.1.4 Resetting the counter

Quantities can be counted without or with job with every WIN transmitter performance. The counter can only be reset when counting without a job.

- 1. In the control station display of the WIN transmitter performance, click on **Reset counter** \Im .
- **2.** Confirm the prompt with **Yes** to reset the quantity counter. \rightarrow The counter has been reset.



3.1.5 Manual control

Every WIN transmitter control can be switched or controlled manually or via a switching rule.

- 1. Click on **Switch** ⁻⁻ beside the tier to be switched.
 - \rightarrow The menu to select the switching status appears.



2. Select the switching status of the tier. \rightarrow The tier of the signal tower is switched and displayed in the control station display.

i	Tiers that can be controlled with a switching rule ($\stackrel{}{\otimes}$) cannot be manually controlled.
i	The Blinking status is only available if the blink recognition of the tier is enabled.
i	The Switch symbol can flicker during transmission of the switching status. As soon as the transmission of the WIN transmitter control has been confirmed, the symbol changes to a permanent display.

3.1.6 Status change message

If the status change message of a WIN transmitter is enabled, a pop-up window appears when the status of the signal tower is changed. This allows you to minimise the WERMA-WIN program window without neglecting to monitor the machines.



- 1. Click on Status change message option deactivated in the control station display of the WIN transmitter.
 - → The **Status Change Message** window appears.

🛞 Status Change Message	×
If the status change message is ac every time changes are made.	tivated for a tier, a pop-up is displayed
Pop-up active 4th tier 3rd tier 2nd tier 1st tier	Options Time delay 0 ÷ sec.
Cancel Close	OK Save

- 2. Enable the tiers in the **Pop-up active** area for which a pop-up window is to be displayed in the event of a status change.
- (i) A status change message can be generated for a tier with the function **Counter input** with the WIN transmitter performance.

3. Define the Time delay in the Options area.

(i) The pop-up window only appears when the new status is unchanged during the defined **time delay**. No pop-up window appears if the status has changed again within the **time delay**.

- 4. Click on OK to save the settings.
 - \rightarrow The status change message has been enabled.

→ The **Status change message option activated** symbol play of WIN transmitter.

(i) An individual sound can be defined under Settings for the status change message.

3.1.7 Status transmission

If the status transmission of a WIN transmitter is active, an e-mail is sent to one or more recipients when the status of the signal tower changes. This enables WERMA-WIN to be run on an unattended PC or server without neglecting to monitor the machines.

3.1.7.1 WIN transmitter and WIN transmitter control

1. In the control station display of the WIN transmitter or WIN transmitter control, click on Status

transmission deactivated 🌾

 \rightarrow The **Status transmission** window appears.

🛞 Status transmission	×
If the status transmission for a WIN transmitter is activated an e-mail will be severy time a change occurs.	ent
General E-Mail recipient	
Tier status	
Transmit the status when a change occurs on the following tiers:	
2nd tier	
□ 1st tier Time delay 20 🐳 sec.	
Close OK Save	

- 2. In the General tab, enable the tiers ifor which an e-mail is to be sent in the event of a status change.
- 3. Define the Time delay.

 (\mathbf{i})

The e-mail is only sent if the new status is unchanged during the defined **time delay**. No email is sent if the status has changed again within the **time delay**.

4. Select the E-mail recipient tab.

5. Select the e-mail recipient.

Option	Description
As specified in Settings	Send an e-mail to the recipient specified under
	Settings.
Selected recipients	Send an e-mail to the specified recipient(s).
	Multiple recipients are separated by a semi- colon (;).
Define a recipient per tier	Send an e-mail to the specified recipient(s) per tier.
	Multiple recipients are separated by a semi- colon (;).

6. Click on OK to save the settings.

- \rightarrow Status transmission has been enabled.
- → In the control station display of the WIN transmitter or WIN transmitter control, the **Status transmission activated** Symbol appears.

3.1.7.2 WIN transmitter performance

1. In the control station display of the WIN transmitter performance, click on Status transmission

deactivated 🏸

 \rightarrow The **Status transmission** window appears.

(#) Status trans	smission			×
If the status tran every time a cha	smission for a WII Inge occurs.	N transmitter is a	ctivated an e-mai	il will be sent
General E	-Mail recipient			
Tier status			No. Fellowing	
tiers:	the status when a	a change occurs	on the following	
	4th tier 3rd tier 2nd tier			2
	1st tier	Time delay	20 🜲	sec.
- Job status				
quantity h	nas been reached	a certain job proj J.	gression or	
🗌 Ataj	ob progression of	F	100 🔺	%
Ataq	uantity of		0	Piece
Cano Close	el		~	OK Save

- 2. In the **Tier status** area of the **General** tab, enable the tiers, for which an email is to be sent in the event of a status change.
- 3. Define the Time delay.

(i) The e-mail is only sent if the new status is unchanged during the defined **time delay**. No email is sent if the status has changed again within the **time delay**.

- 4. In the Job status area, define whether an e-mail is also to be sent if a certain job progression is reached or when a certain quantity is reached.
- 5. Select the E-mail recipient tab.
- 6. Select the e-mail recipient.

Option	Description							
As specified in Settings	Send an e-mail to the recipient specified under							
	Settings.							
Selected recipients	Send an e-mail to the specified recipient(s).							
	Multiple recipients are separated by a semi-							
	colon (;).							
Define a recipient per tier	Send an e-mail to the specified recipient(s) per							
	tier.							
	Multiple recipients are separated by a semi- colon (;).							

- 7. Click on OK to save the settings.
 - \rightarrow Status transmission has been enabled.

 \rightarrow In the control station display of WIN transmitter performance, the **Status transmission activated** vated symbol appears.



3.1.8 Report

A report can be generated for each view. In the **Control station main view**, the report takes into account all WIN transmitters. In the user-defined views, the report takes into account the WIN transmitter contained in the respective view.

- 1. Call up the required view.
- 2. Click on Report / Export in the toolbar.
 → The Generate report window appears.

🛞 Generate report	×
Please select the report to be shown:	
Data selection	
Tabular display of current statuses Overview of the current statuses	
 Tabular display of currently running jobs Overview of the actual quantities 	
Cancel Close	Ok Generate

- 3. Select the required report in the **Data selection** area.
- 4. Click on OK.
 - \rightarrow The report is generated.
 - \rightarrow The Print preview for the report appears.

3.2 Productivity

The capacity of the machines can be analysed for any time intervals in the **Productivity** module. Work shifts, errors and downtimes can therefore be detected retrospectively, for instance for the last working day or for defined time intervals.



3.2.1 Views

The **Productivity main view** or a user-defined view can be used in the **Productivity** module.

3.2.1.1 Productivity main view

The **Productivity main view** gives an overview of all WIN transmitters that have been configured. The **Productivity main view** can be provided with a background image.

	Productivity - all WIN transmitters - WIN 4.4.0. 1607 - WERMA Signaltechnik GmbH + Co. KG															- 8	×				
	Control station	Productivity	Runtime	Job	Control	Routing															×
0	1	2	3	4		$\mathbf{\Sigma}$	2 9				Þ		 A second s		\bigcirc	i					
Productivity main view	View 1	View 2	View 3	View 4	More	Show Combined Productivity	Add WIN transmitter	Select background	Full screen	Report / Export	Activation	Settings	Software update	Manual	Contact	Info					
		Produ	ctivity views					Design					Other								
Time interval	Last hour			/ S	itart 11/09/2	2017 ~ 12:25:	59 🚖 🗆	Show value	esin %	A []	nalyse only jo	b productiv	rity		Refresh Re-calculat	-					
	Updat	e after 120	g sec.		End 11/09/.	2017 ~ 13:25:	59 💌 L	Hide do not	t analyse'	L 4	nalyse produc	tive states									
Unit 1				Unit 2				Unit 3													<u></u>
			6:57 30:04 5:52 74:25	1		50 J	00														
) '				25 32·	*			-	0:00										
<i>P</i>				<i>></i>			V	<i>></i>													
																					~
				_					^												
Ready.															Cor	nected to	WIN receive	er Production	1		


3.2.1.2 User-defined views

Additional user-defined views can be created in addition to the Productivity main view.

The user-defined views can be named as required and be provided with a background image. Different WIN transmitters can be displayed in every user-defined view.



The user-defined views of the **Control station**, **Productivity** and **Runtime** modules are always identical. All view settings are applied.

Adding WIN transmitter to a view

1. Call up the required view.

 (\mathbf{i})

- 2. Click on Add WIN transmitter.
 - → The **Select WIN transmitter** window appears.

🛞 Select WIN transmitter	×
WIN transmitter	
Unit 1	
Unit 2	
Unit	
Cancel Close	OK Add

- **3.** Highlight the required WIN transmitter.
- 4. Click on OK.

 \rightarrow The WIN transmitter has been added to the view.

Removing WIN transmitter from the view

- 1. Call up the required view.
- 2. Right-click on the WIN transmitter to be removed.
- 3. Select **Remove** in the pop-up menu.



4. Confirm the prompt with **Yes**. \rightarrow The WIN transmitter has been removed from the view.

Selecting the background image of a view

- 1. Call up the required view.
- 2. Click on Select background.
 - → The **Background image** window appears.

🛞 Background image	×
Settings	
Use the following background image for View 1:	
No background image	
O Selected image	
Displayed size:	
As original	
O Zoom out / zoom in 100 ≑ %	
Cancel Close Close Cancel Close Close Cancel Close Clo	

- 3. Select Selected image.
- 4. Click on **Browse** and open the required background image.
 - The background image needs to be saved on the local PC.

If more than one computer is accessing a WERMA-WIN database, then the background image must be saved on a network drive.

- 5. Select As original to paste the background image in its original size.
- 6. Select Zoom out / zoom in to paste the background imaged scaled.
- (i) Clicking on **Preview** allows a **preview** of the background image to be displayed.

(i)



7. Click on **Save** to paste the background image into the view.

Repositioning a WIN transmitter

Every WIN transmitter can be repositioned anywhere in the view.

1. Left-click on the name of the WIN transmitter and hold down the mouse key.

U	nit	3	N	
		- Tier 4	13	
		- Tier 3		
		🍪 Tier 2		
		🍪 Tier 1		
	r l			ビ 🔏 🏸

2. Drag the WIN transmitter to the desired position and release the mouse key.

3.2.1.3 Full screen mode

Every view can be displayed in full screen and without the menu bar.

- 1. Call up the required view.
- 2. Click on **Full screen** in the menu bar.

To close the full screen view:

1. Press ESC.

3.2.2 Productivity view

The pie charts of the productivity display show the individual statuses of the WIN transmitters.



The displayed statuses of the WIN transmitters correspond to the settings entered in the **Control** station module. The **Off** (lilac) and **Connection error** (grey) statuses are also displayed. Blink recognition is shown as shaded areas in the pie chart.

Off and Connection error statuses occur in the following cases:

Status	Description
Off	Signal tower is off but is supplied with power.
Connection error	No radio connection between WIN transmitter and WIN receiver.
	WERMA WIN 4 Server Service and WERMA WIN 4 Connector Service have not started.
	PC with WERMA-WIN database (Server PC) is switched off.
	Microsoft SQL server cannot be accessed and there is no connec-

Status	Description
	tion to the WERMA-WIN database.
	There is no power supply to the WIN transmitter.
	WIN receiver is not connected to the PC.

(i) A yellow warning triangle 📤 indicates a signal overlap.

3.2.2.1 Adapting the productivity display

The time interval of the values displayed can be modified in the options bar.

Time interval	<manually> ~</manually>	Start 0	09/08/2017	~ 11:39:29	Show values in %	Analyse only job productivity	400	Refresh
	Update after 120 🗘 sec.	End 0	09/08/2017	× 12:39:29	🖶 🗌 Hide 'do not analyse'	Analyse productive states		Re-calculate

The values displayed can be further filtered and modified by using additional options. The following options are available to you:

Option	Description
Update after	Automatically update productivity display after the
	set time.
Display values as a %	Display runtime as a percentage.
Hide 'do not analyse'	Ignore all statuses defined as Do not analyse in the WIN transmitter configuration and do not display them in the pie chart.
Analyse only job productivity	Ignore with all WIN transmitter performance times without job.
Analyse productive states	Display all statuses defined as Productive and/or Non productive in the WIN transmitter configuration in the pie chart.

To adapt the productivity display:

- 1. Select the pre-set time interval in the **Time interval** selection list or enter another time interval in the **From** and **To** fields.
- (i) If time periods have been defined under Settings, they can be selected in the **Time inter-val** selection list.
- 2. Enable or disable additional options if necessary.
- 3. Click on Refresh.

3.2.2.2 Zoom in or zoom out of the productivity display

- 1. Click on the magnifying glass \checkmark in the productivity display.
 - \rightarrow You zoom into or out of the productivity display.
 - \rightarrow The descriptions of the tiers of the signal tower are also displayed in the zoomed in display.

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3.2.2.3 Selecting the display variant

It is possible to choose between different display variants with WIN transmitter performance.

Display variant	Display
Status	Unit 2
Productivity	Unit 2 Cycle times 10 10 10 10 10 10 10 10 10 10
Combined	Unit 2 5 100 25 1 32% 0 3 0 3 0 3

To select a display variant:

- **1.** Click on the arrow symbol \checkmark .
 - $\rightarrow\,$ The menu to select the display variant appears.



2. Select the display variant.

3.2.2.4 Combined productivity

Combined productivity can be shown in each view.

						Producti	vity - all WIN	transmitters -	WIN 4.4.0.16	07 - WERMA	A Signaltechnik	GmbH + C	Co. KG						-	6	×
<u> </u>	Control station	Productivity	Runtime	Job	Control	Routing													^	- 6	х
	1	2	3	4			=0	2			Þ		 A second s		\bigcirc	i					
Productivity main view	View 1	View 2	View 3	View 4	More	Hide Combined Productivity	Add WIN transmitter	Select background	Full screen	Report / Export	Activation	Settings	Software update	Manual	Contact	Info					
		Produ	ctivity views					Design					Other								
Time interval	Last hour		`	~	Start 11/09/2	017 ~ 12:25	:59 😫 [Show value	is in %	A	inalyse only jo	b productiv	vity		Refresh						_
	Update	after 120	🗘 sec.	_	End 11/09/2	017 ~ 13:25	:59 😫 [Hide 'do no	t analyse'		inalyse produc	ctive states	,	S	Re-calculat	e					
(11.11.4								(11.11.0													~
Unit 1		1	11111 98%	Onit 2			6808 81%	Unit 3			68080 987	•									
		· · ·	60000 1%	-			Hallan 49%	^			ECONO 1%										
(V											
<i>"</i>				<i>></i>				<i>"</i>													
1																					~
Hauptansich	nt - Total produc	tivity							~												
	n - rotar produc	Change and the second s			Operational (92%) Error (17%)																
						_															
V V			W																		
	A COLORED	and a state of the																			
L																					
Ready.				_											Cor	nected to	WIN receiver P	roduction			

Showing combined productivity

1. Click on the arrow 🔥 at the bottom of the view.

- or -

2. Click on Show combined productivity in the toolbar.

Hiding combined productivity

1. Click on the arrow v above combined productivity.

- or -

(i)

2. Click on Hide combined productivity in the toolbar.

3.2.3 Report

A report can be generated for each view. In the **Productivity main view**, the report takes into account all WIN transmitters. In the user-defined views, the report takes into account the WIN transmitters contained in the respective view.

The report is generated with the times and settings defined in the Options bar.

- 1. Call up the required view.
- 2. Click on **Report / Export** in the toolbar.
 - \rightarrow The **Generate report** window appears.

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- 3. Select Tabular display of data or Graphical display of data.
- 4. Click on OK.
 - \rightarrow The report is generated.
 - ightarrow The Print preview for the report appears.

3.3 Runtime

The **Runtime** module shows an overview of the operation and downtimes of the machines monitored. This quickly detects patterns of downtime with machines, giving you improved transparency in the production process. This forms the basis for improving the efficiency of the machines monitored.



3.3.1 Views

The Runtime main view or a user-defined view can be used in the Runtime module.

3.3.1.1 Runtime main view

The data of all WIN transmitters already configured can be displayed in the **Runtime main view**.



3.3.1.2 User-defined views

The user-defined views defined in the **Control station module** or **Productivity module** are available in addition to the **Runtime main view**. The user-defined views show an overview of the WIN transmitters assigned in each case.





(i) The user-defined views of the **Control station**, **Productivity** and **Runtime** modules are always identical. All view settings are applied.

3.3.1.3 Comparing multiple machines

Additional windows can be opened and arranged as required in the **Runtime main view** to compare multiple machines.

1. In the toolbar, expand Runtime main view by clicking on the arrow -.



2. Select New window.

 \rightarrow A further window appears and can be arranged as required.

3.3.2 Runtime display

The runtime display shows a separate diagram for each WIN transmitter.

3.3.2.1 WIN transmitter and WIN transmitter control

The WIN transmitter and WIN transmitter control runtime display includes the following information:



Item	Description
1	Display of statuses in the selected time interval
2	Note field

Item	Description
3	Number of statuses in the selected time interval
	The blink recognition signal is displayed as a shaded area in the colour of the respective tier.

(j) Following a power loss, the **Power loss** (1) warning symbol is displayed as soon as power is supplied again to the WIN transmitter or WIN transmitter control. There may be incorrect data during the preceding time interval.

The WIN transmitter performance runtime display includes the following information:

3.3.2.2 WIN transmitter performance

Unit 2 Actual 2, 714 pcs. 09/08/2017 - Plan 2,628 pcs. 15:19 15.000 12,000 9,000 6,000 3,000 Tier 3 (0%) 0> 0x Warning (0%) 1x Operational (48%) 1x Off (52%) 0x Connection error (0%) Note 841.225.978 lob 1 4

		-			
	09/08/2017 14:19:27	14:30	14:45	15:00	15:15 09/08/2017 15:19:27
23	3)				(4)
tem	Description				
1	Status display,	quantity o	display for the selected	time interval depe	nding on the display
	version				
2	Note field				
3	Job field				
4	Number of sta	tuses in th	e selected time interva		
	The blink reco	anition sia	inal is displayed as a sha	ided area in the co	lour of the respective

tier.

(i) Following a power loss, the **Power loss** \triangle warning symbol is displayed as soon as power is supplied again to the WIN transmitter performance. There may be incorrect data during the preceding time interval.



3.3.2.3 Modifying the runtime display

The time period of the values displayed can be modified in the options bar. The buttons in the navigation bar can be used to scroll through and zoom into the diagram displayed.

Options bar

Time interval	<manually> ~</manually>	Start 09/08/2017 V 14:19:27	Show plan quantity	Refresh	Options
	Update after 30 🖕 sec.	End 09/08/2017 ~ 15:19:27	Show plan cycle time	Re-calculate	Hide

The values displayed can be further filtered and modified by using additional options. The following options are available:

Option	Description
Update after	Automatically update runtime display after the set
	time.
Show plan quantity	Show plan quantity with WIN transmitter per-
	formance.
Show plan cycle time	Show plan cycle time with WIN transmitter per-
	formance.

To modify the runtime display:

- 1. Select pre-set time interval in the **Time interval** selection list or enter another time interval in the **Start** and **End** fields.
- (i) If time periods have been defined under Settings, they can be selected in the **Time inter-val** selection list.
- 2. Enable of disable additional options if necessary.
- 3. Click on Refresh.

To hide the options bar and zoom into the display of the diagram:

1. Click on **Hide options** in the options bar.

To show the options bar again:

1. Click on Show options .

Navigation bar

Ange time interval

Button	Function
Ţ	Show earlier time interval.
	Show later time interval.
4	Zoom out of diagram and zoom into time interval displayed.
\sim	Zoom into diagram and zoom out of time interval displayed.

3.3.3 Notes/Fault conditions

Different notes or fault conditions can be entered for each WIN transmitter in the **Runtime** module.

3.3.3.1 Creating a note/fault condition

Notes or fault conditions can be created for defined time intervals.

The time interval of a note or fault condition can be defined in two ways:

- Manually defining the time interval of the note or fault condition
- Defining the time interval of the note or fault condition based on the duration of a status

Manually defining the time interval of the note or fault condition

- 1. Left-click and hold down the mouse key in the WIN transmitter diagram.
- 2. With the mouse key held down, move the cursor to the right or left to define the time interval of the note or fault condition.



3. Release the mouse key.

 \rightarrow The **Edit note** window appears.

Defining the time interval of the note or fault condition based on the duration of a status

- 1. Click twice on a status in the WIN transmitter diagram. \rightarrow The **Edit note** window appears.
- i If **Use touch interface to assign fault conditions** has been enabled under Settings, the display option for **touch screen** appears instead of the **Edit note** window. A defined fault condition can only be selected in this case. It is not possible to create a note.

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Editing a note/fault condition

(#) Create note					×
WIN transmitter	Unit 3				
Fault condition	<no reas<="" specific="" td=""><td>son></td><td></td><td></td><td>\sim</td></no>	son>			\sim
Colour	\sim	Start	12/09/2017 ~	/ 12:19:50	-
Note		End	12/09/2017 ~	/ 12:25:20	-
					^
					~
Close				Save	

1. Select Fault condition in the selection list.

Fault conditions must have previously been defined under Settings. The defined fault conditions can then be selected in the **Fault condition** selection list.

2. Select the Colour.

(i)

- 3. Modify the time interval in the Start and End fields.
- 4. Enter a note in the **Note** field.
- 5. Click on OK to save the note or fault condition.

3.3.3.2 Displaying a note/fault condition

- 1. Place the cursor on the note.
 - \rightarrow The note is displayed in an information window.



3.3.3.3 Editing a note/fault condition

- **1.** Right-click on the required note.
- 2. Select Edit in the pop-up menu.
- or -
- 1. Double-click on the required note.
 - ightarrow The **Edit note** window appears.

🛞 Edit note					×
WIN transmitter	Unit 3				
Fault condition	Support				\sim
Colour		Start	12/09/2017 ~	12:27:50	-
Note		End	12/09/2017 ~	12:33:20	-
I					^
					. ·
Cancel Close				A Save	

- 2. Modify the note as required.
- 3. Click on OK to save all changes.

3.3.3.4 Deleting a note/fault condition

- 1. Right-click on the note to be deleted.
- 2. Select **Delete** in the pop-up menu.
- **3.** Confirm the prompt with **Yes**. \rightarrow The note has been deleted.

3.3.3.5 Limiting the view to the time interval of a note/fault condition

- 1. Right-click on the required note.
- 2. Check Select time interval in the pop-up menu.
 → The view zooms into or out of the time interval of the note.

3.3.4 Job

If a job has been created in the Job module for a WIN transmitter performance, this appears in the diagram.



3.3.4.1 Displaying a job

- 1. Place the cursor on the job or the associated line.
 - \rightarrow The job information is displayed in an information window.

lob	N	
000	hà 🔒	Job 841.225.978
	14:45	Plan quantity: 10,000 pcs.
	09/08/2017	Actual quantity: 2,685 pcs.

3.3.4.2 Limiting the view to the time interval of a job

1. Right-click on the job.

Job	2	Select time interval
	09/08/2	Go to Job overview

Check Select time interval in the pop-up menu.
 → The view zooms into or out of the time interval of the job.

3.3.4.3 Displaying job information

1. Right-click on the job.

Job	F	Select time interval
	09/08/2	Go to Job overview

- 2. Select Go to Job overview in the pop-up menu.
 - \rightarrow The **Job** module appears and displays the corresponding job.

3.3.5 Report

(i)

A report can be generated for each view. In the **Runtime main view** the report takes into account all WIN transmitters. The report takes into account the WIN transmitters contained in the respective view in the user-defined views.

The report is generated with the times and settings defined in the **Options bar**.

- 1. Call up the required view.
- 2. Click on Report / Export in the toolbar.
 → The Generate report window appears.



- 3. Select the required report in the **Data selection** area.
- 4. Click on OK.
 - \rightarrow The report is generated.
 - ightarrow The Print preview for the report appears.

3.4 Job

The Job module shows which job is running on which machine and how far it has progressed.

Control station Productivity Runtime Job Control Re	Job overview - WIN 4.4.0.1642 - WERMA Signaltechnik GmbH + Co. KG	- 8 × ^ - 8 ×
Job overview Fight Delete Troport Jobs	Eul screen Report/ Export Design Other	
ID Description Job number Machine _ <al> ID Job number Description</al>	Start date v unti v State Al> v Machine State v Xob progression	Job details
Auto jobs	*	
		OOO Schedule deviation
Ready.		Connected to WIN receiver Production

No jobs can be created for WIN transmitter and WIN transmitter control.

(i)

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3.4.1 Job overview

The job overview shows all jobs created with the relevant details. Auto jobs are listed in a separate area that can be shown and hidden.

	ID		D	escription				Start	date		~	until	~
	Job number			Machine	<all></all>		\checkmark	5	State	<all></all>		>	
	ID .	*	Job number	Description	I		Mach	ine		State	~	Job progression	
Þ	1		4856	841.225.9	78		Unit :	2		Comp	eted	104%	
	2		6483	846.365.9	78		<not< td=""><td>assigned></td><td></td><td>🔴 Waitin</td><td>g</td><td>0%</td><td></td></not<>	assigned>		🔴 Waitin	g	0%	
	3		7984	207.866.1	24		<not< td=""><td>assigned></td><td></td><td>🔴 Waitin</td><td>g</td><td>0%</td><td></td></not<>	assigned>		🔴 Waitin	g	0%	
	4		1472	114.458.3	23		<not< td=""><td>assigned></td><td></td><td>🔴 Waitin</td><td>g</td><td>0%</td><td></td></not<>	assigned>		🔴 Waitin	g	0%	
	5		8952	846.365.9	78		<not< th=""><th>assigned></th><th></th><th>🔴 Waitin</th><th>g</th><th>0%</th><th></th></not<>	assigned>		🔴 Waitin	g	0%	
	6		4856	841.225.9	78		Unit	2		Compl	eted	26%	
	7		2323	842.715.7	77		Unit	2		Runni	ng	0%	
Auto jobs													
	Job number	•	Description			Machine		Activated	Wee	ekday	Start tir	me	
•	2323		842.715.777			Unit 2		~	Mon	, Thu, Fri	10:12		
	6578		759.681.956			Unit 2		~	Tue	, Wed	12:12		

Clicking on the column name in the job overview lets you collate the displayed jobs in ascending or descending order.

The fields in the options bar can be used to filter and collate the displayed jobs.

ID	Description		Start date	¥	until	~
Job number	Machine	<all> ~</all>	State	<all></all>	~	

3.4.1.1 Showing Auto jobs

1. Click on the arrow 🔥 at the bottom of the view.

- or -

 (\mathbf{i})

1. Click on Show Auto jobs in the toolbar.

3.4.1.2 Hiding Auto jobs

1. Click on the arrow 💌 above the Auto jobs overview.

- or -

1. Click on Hide Auto jobs in the toolbar.

3.4.2 Job details

Job details show all information on a job selected in the job overview.

ob details				*	\$ 3	
- Job informatio	n					
	ID	1	State	Completed		
Job	o number	4856				
De	escription	841.225.978				
	Machine	Unit 2				
○○● Sche	dule dev	viation +1.9	hr		\bigcirc	
	Plar	1		Actual		
Set up	time	0:00 h	r [0:00	hr	
Start	time 09/	08/2017 12:21		09/08/2017 12	:21	
Run	time 0 hr	17 min.		2 hr 10 min.		
End	time 09/	08/2017 12:38		09/08/2017 14:31		
	progress	ion: 104%			\odot	
		Piece	!			
-					וו ר	
Actual -				-0	1,048	
0	262	524	78	6 1,048		
Actual	total qua	ntity: 1,048 —	– Plan tota	al quantity: 1,0	00	

Button	Function
\$\$	Refresh job details and job overview.
*	Switch to the Productivity or Runtime module.
\bigcirc	Hide area.
	Show area.

A traffic light display offers a fast overview of how well or poorly the job is running or has run in the **Schedule deviation**, **Job progression** and **Productivity** areas.

The traffic light setting can be individually modified if required.

3.4.2.1 Schedule deviation

The **Schedule deviation** area displays information on the set-up, start, run and end time.

Schedule deviation +1.9 hr			
	Plan	Actual	
Set up time	0:00 hr	0:00 hr	
Start time	09/08/2017 12:21	09/08/2017 12:21	
Runtime	0 hr 17 min.	2 hr 10 min.	
End time	09/08/2017 12:38	09/08/2017 14:31	

(i)



The schedule deviation is specified in machine hours. 0.1 machine hours corresponds to 6 minutes, 1 machine hour corresponds to 60 minutes.

3.4.2.2 Job progression

The Job progression area displays information on the plan quantity and actual quantity.



The current files are displayed for jobs currently running. The job progression is calculated as the ratio of the current actual quantity to the current plan quantity, expressed as a percentage.

The data for completed jobs is displayed at the end of the job. The job progression is calculated as the ratio of the actual quantity to the plan quantity, expressed as a percentage.

In addition, you can see the actual correction and the factor, entered for this job.

3.4.2.3 Productivity

The **Productivity** area displays information on the plan cycle time and the actual cycle time.



The current data is displayed for jobs currently running. The productivity is calculated as the ratio of the current actual cycle time to the current plan cycle time, expressed as a percentage.

The data for completed jobs is displayed at the end of the job. The productivity is calculated as the ratio of the actual cycle time to the plan cycle time, expressed as a percentage.

3.4.2.4 Editing traffic light settings

The traffic lights for **Schedule deviation**, **Job progression** and **Productivity** can be individually adapted.

The traffic light settings are saved in a local configuration file. You have to edit this local configuration file to change the traffic light setting.

- (i) The configuration file must be copied to transfer the altered traffic light setting to other PCs.
- 1. Open the following folder on your PC: C:\ProgramData\WERMA\WERMA-WIN-3.0oder C:\ProgramData\WERMA\WERMA-WIN-4.0
- 2. Use a text editor (e.g. Notepad) to open the configuration file WERMA-WIN. in i
- 3. Search for the following segment in the configuration file.

[Orders]

```
ProductivityGreenLimit=100
ProductivityYellowLimit=75
```

CompletionGreenLimit=100 CompletionYellowLimit=90

RuntimeGreenLimit=100 RuntimeYellowLimit=110

Setting	Description	Example	
Productivity			
ProductivityGreenLimit	Indicates until what per-	ProductivityGreenLimit=100	
	centage value the traffic	ProductivityYellowLimit=75	
		Productivity 0% to 74%: Traffic light is red	
ProductivityYellowLimit	Indicates up to what per- centage the traffic light is	Productivity 75% to 99%: Traffic light is yellow	
	switched to reliow.	Productivity 100% or higher: Traf- fic light is green	
Job progression			
CompletionGreenLimit	Indicates until what per-	CompletionGreenLimit=100	
	centage value the traffic light is switched to Green	CompletionYellowLimit=90	
		Job progression 0% to 89%: Traf- fic light is red	
CompletionYellowLimit	Indicates up to what per- centage the traffic light is	Job progression 90% to 99%: Traf- fic light is yellow	
	switched to reliow.	Job progression 100% or higher: Traffic light is green	
Schedule deviation			
RuntimeGreenLimit	Indicates until what per-	RuntimeGreenLimit=100	
	centage value the traffic	RuntimeYellowLimit=110	
		Schedule deviation 0% or nega- tive: Traffic light is green	
		Schedule deviation 1% to 10%: Traffic light is yellow	



Setting	Description	Example
RuntimeYellowLimit	Indicates up to what per- centage the traffic light is switched to Yellow.	Schedule deviation greater than 11%: Traffic light is red

4. Save the configuration file once all changes have been made.

(i) The modified traffic light setting will be available as soon as WERMA-WIN is restarted.

3.4.3 Entering a job

(i)

Jobs can be manually entered or imported from a job list.

Auto jobs can be created for recurring jobs. Auto jobs start and end the jobs automatically.

An Auto job is only started if no other job is running on the selected WIN transmitter performance or it has the status **Active waiting**.

3.4.3.1 Entering a job manually

- 1. Click on **Enter job** in the toolbar.
 - \rightarrow The **Enter job** window appears.

🛞 Enter job	×
Job information ID B Job number Description Machine <pre></pre> <pre></pre> <pre></pre> <pre>// Cont assigned></pre> <pre> </pre>	Start/End Set start time Calculated end time Set end time End with quantity Opcs.
Plan auto job Plan values ▲ Quantity 0 Cycle time 0.0 Set up time 0:00 ♥ hr Factor 1.000 Runtime 0 hr 1 min.	Recurrence pattern Monday Tuesday Friday Saturday Saturday Sunday Range of recurrence Start 01/01/1753 Image: Constraint of the second
Set Actual value Amend actual quantity 0 0 Piece(s) Actual set up time 0:00 V Marcel Close	Start Job OK Save

2. Enter the required Job number and the Description in the Job information area.

The **ID** is a continuous number and is automatically issued by WERMA-WIN.

(i)

3. Select the WIN transmitter performance on which the job is to run in the Machine selection list.

Plan values	Description
Quantity	Volume to be produced
Cycle time	Time needed to produce a part
Set up time	Set up time for the job
	If a part has been produced before the end of the set up time ente- red, the actual set up time is set to this time.
Runtime	The time calculated by WERMA-WIN that is required to produce the job (including set up time).
Factor	Number of pieces per cycle
Amend actual quan- tity	Positive or negative correction values (e.g. with poor parts)
Actual set up time	Time from the start of job to the first quantity being transmitted
	WERMA-WIN automatically sets the time which can be manually altered.

4. Enter the required plan values for the job in the **Plan values** area.

5. Enable Set end time and enter the end time if the job is to be ended at a certain time.

6. Enable End with quantity if the job is to be ended when the plan quantity is reached.

If **Set end time** and **End with quantity** are enabled simultaneously, the job is ended as soon as the end time or the plan quantity has been reached.

(i) There can be deviations relating to the actual quantity (≥ plan quantity) due to radio transmission.

Once all information has been entered:

1. Click on **Start** to start the job immediately.

- or -

 (\mathbf{i})

1. Click on **OK** to save the job and set the status to **Waiting**.

3.4.3.2 Entering Auto jobs

- 1. Click on **Enter job** in the toolbar.
 - \rightarrow The **Enter job** window appears.



(#) Enter	job		×
Job info	mation ID Job number Description Machine	8 <not assigned=""></not>	Start/End Set start time Calculated end time Set end time End with quantity Recurrence pattern
Plan va	auto job lues Quantity Cycle time Set up time Factor Runtime	0 Piece(s) 0.0 sec. 0:00 ♥ hr 1.000 Piece(s)/cyde 0 hr 1 min.	Monday Tuesday Wednesday Thursday Friday Saturday Sunday Range of recurrence Start 01/01/1753 ∨ No end date End after Jobs End by ∨
Set Actu	Amend actual quantity Actual set up time Cancel Close	0 🗘 Piece(s)	Start OK Save

2. Enter the required Job number and the Description in the Job information area.

(i) The ID is a continuous number and is automatically issued by WERMA-WIN.

3. Select the WIN transmitter performance on which the job is to run in the Machine selection list.

	-
Plan values	Description
Quantity	Volume to be produced
Cycle time	Time needed to produce a part
Set up time	Set up time for the job
	If a part has been produced before the end of the set up time ente- red, the actual set up time is set to this time.
Runtime	The time calculated by WERMA-WIN that is required to produce the
	job (including set up time).
Factor	Number of pieces per cycle
Amend actual quan-	Positive or negative correction values (e.g. with poor parts)
tity	
Actual set up time	Time from the start of job to the first quantity being transmitted
	WERMA-WIN automatically sets the time which can be manually altered.
	•

4. Enter the required plan values for the job in the **Plan values** area.

 (\mathbf{i})

No actual correction and actual set up time can be planned for an Auto job.

5. Enable Plan Auto job.

 \rightarrow The fields for entering Auto job data are enabled.

(#) Enter	rauto job		×
Job info	ID Job number Description Machine	<auto job=""></auto>	Start/End Set start time 14:45 Calculated end time 14:46 Set end time 00:00 End with quantity 0 pcs.
Plan va	auto job Ilues Quantity Cycle time Set up time Factor Runtime	0 Piece(s) 0.0 sec. 0:00 ♥ hr 1.000 Piece(s)/cycle 0 hr 1 min.	Recurrence pattern Monday Tuesday Wednesday Thursday Friday Saturday Sunday Range of recurrence Start 11/09/2017 No end date End after Jobs End by Y
Set Act	Amend actual quantity Actual set up time Cancel Close	0 ☆ Piece(s) 0:00 ∨ hr	Start OK Job Save

- 6. Enter the required start time in the Set start time field in the Start/End area.
 - → The end time calculated by WERMA-WIN automatically appears in the Calculated end time field.
- 7. Enable Set end time and enter the end time if the job is to be ended at a certain time.
- 8. Enable End with quantity if the job is to be ended when the plan quantity is reached.
- (i) If **Set end time** and **End with quantity** are enabled simultaneously, the job is ended as soon as the end time or the plan quantity has been reached.

(i) There can be deviations relating to the actual quantity (≥ plan quantity) due to radio transmission.

- 9. Enable the weekdays on which the Auto job is to be performed in the **Recurrence pattern** area.
- 10. Select the time interval within which the Auto job is to be performed in the **Range of recur**rence area.

Field/Option	Description
Start	Start date of Auto job
No end date	Auto job remains enabled until it is manually disabled.
Ends after × jobs	Auto job is disabled after the specified number of jobs.
End by	Auto job is disabled up to the specified time.

(i) WERMA-WIN checks for a duration of 1 year whether Auto jobs overlap. Overlapping

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11. Click on **OK** to save the Auto job.

3.4.3.3 Importing a job list

A job list can be imported in CSV form to create several jobs simultaneously.

Requirement:

- There is a CSV file available in a suitable format.
- Click on Import job list in the toolbar.
 → The Import jobs window appears.

🛞 Import jobs	×
CSV import	and import the inh list. The imported inhe will he
displayed in the	job overview.
Filename	
File format	Western European (Windows)
Close	Start

- 2. Click on **Browse** and open the CSV file you require.
- 3. Adapt the File format if necessary.
- 4. Click on Next.
 - \rightarrow The CSV file is imported and checked.
 - \rightarrow If the check is successful, the jobs appear in the job overview.

Format of the job list

The CSV file must meet the following requirements to correctly import a job list.

Column label or header:

- JOBNUMBER
- DESCRIPTION
- MACHINE
- QUANTITY
- CYCLETIME
- SETUPTIME
- FACTOR

Format rules:

- The Windows standard character set (for example Western European) Or Unicode (UTF-8)
- Header or first row with column label must be specified.
- The delimiters are a semicolon (), comma (), tab () or pipe (). Only one delimiter is allowed per document.
- SETUPTIMEmust be in the format [hh]h:mm(e.g. 0:0).
- CYCLETIMEmust be in seconds (e.g. 0.8.

- Decimal numbers must always use a point as a decimal separator (e.g. 0.9.
- Each data value can be enclosed in double quote marks, thus the data value can also be text, which can include a semicolon (;).
- One decimal place is allowed after the point for the cycle time (CYCLETIME).
- Three decimal places are allowed after the point for the factor (FACTOR).
- The maximum number of characters is checked.

Not relevant:

- The column order is not relevant (data is identified by the header).
- Column labels and headers are not case-sensitive.
- A maximum of 7 columns can be created. Not all columns need to be specified.

Example:

JOBNUME	BER DESCRIPTION MACHINE QUANT	ITY CYCLE	TIME SETUPTI/	ME FACTOR
4800	"Round parts;4711" job Machine 2 10000	0.8	01:00	2
4801	"Round parts;4500" job Machine 3 15000	1.0	05:00	1
4802	"Round parts;3520" job Machine 2 10000	0.7	01:00	2
4803	"Round parts;8466" job Machine 5 20000	1.2	10:00	5
4804	"Round parts;0124" job Machine 6 5000	1.5	01:50	1
4805	"Round parts;4500" job Machine 2 50000	1.0	03:00	1

3.4.4 Starting a job

Jobs can be started in the following way:

- Manually
- Quick start
- With the first impulse at the Counter input tier
- With the first impulse at the Job input tier

3.4.4.1 Starting a job manually

- 1. Select a job with the status **Waiting** in the job overview.
- **2.** Click on **Start job** in the toolbar. \rightarrow The job is started.

- or -

- 1. Right-click on the job to be started.
- 2. Select Start job in the pop-up menu.
 - \rightarrow The job is started.



3.4.4.2 Job quick start

Jobs from all modules can be started using a keyboard shortcut. Once the ID, job number or description has been entered, the program searches for a corresponding job and starts it immediately.

1. In the toolbar, expand **Start job** by clicking on the arrow •.

lacksquare			\$\$	÷	
Start job ≁	End job	Edit job	Delete job	Import job list	
P	े Quick star	t	ALT + F1		
Ö	Start with	1st piece	ALT	+ F2	
	Start with	job input	ALT	+ F3	

2. Select Quick start.

 \rightarrow The **Job quick start** window appears.

(#) Job quick start X									
1. Please select a search attribute for the job.									
a ()									
Job number									
Please enter the job number by keyboard or barcode scanner and confirm the start.									
Job number									
Cancel Close OK Start									

- 3. Choose the attribute the program is to search for.
- 4. Enter the value of the selected attribute into the corresponding field.
- 5. Click on OK to search for a job with the corresponding attribute.
 → If a job with the corresponding value is available, then it is started immediately.

3.4.4.3 Job start with 1st piece

Jobs can be started as soon as the first impulse to the **Counter input** tier of a WIN transmitter performance has been transmitted.

The job can be ended by a further impulse to the **Job input** tier.

1. Select a job with the status Waiting in the job overview.

2. In the toolbar, expand Start job by clicking on the arrow -.

D			\$\$	•
Start job *	End job	Edit job	Delete job	Import job list
2	े Quick star	t	ALT	+ F1
Ø	Start with	1st piece	ALT	+ F2
	Start with	job input	ALT	+ F3

3. Select Start with 1st piece.

- \rightarrow The status of the job changes to **Active waiting**.
- → The job starts automatically as soon as the first impulse to the **Counter input** tier of a WIN transmitter performance has been transmitted.

- or -

- 1. Right-click on the job to be started.
- 2. Select Start with 1st piece in the pop-up menu.
 - \rightarrow The status of the job changes to **Active waiting**.
 - → The job starts automatically as soon as the first impulse to the **Counter input** tier of a WIN transmitter performance has been transmitted.

3.4.4.4 Job start with job input

Jobs can be started as soon as the first impulse to the **Job input** tier of a WIN transmitter performance has been transmitted.

The job can be ended by a further impulse to the **Job input** tier.

- 1. Select a job with the status **Waiting** in the job overview.
- 2. In the toolbar, expand Start job by clicking on the arrow •.



3. Select Start with job input.

- \rightarrow The status of the job changes to **Active waiting**.
- → The job starts automatically as soon as the first impulse to the **Job input** tier of a WIN transmitter performance has been transmitted.

- or -

- 1. Right-click on the job to be started.
- 2. Select Start with job input in the pop-up menu.
 - \rightarrow The status of the job changes to **Active waiting**.
 - → The job starts automatically as soon as the first impulse to the **Job input** tier of a WIN transmitter performance has been transmitted.

3.4.5 Ending a job

- 1. Select the required job in the job overview.
- 2. Click on End job in the toolbar.

- or -

- 1. Right-click on the required job.
- 2. Select End job in the pop-up menu.



3.4.6 Enabling Auto jobs

1. Enable the checkbox in the Activated column in the overview of Auto jobs.

Au	uto jobs			
	Job number 🛛 🔺	Description	Machine	Activated
Þ	2323	842.715.777	Unit 2	K

3.4.7 Disabling Auto jobs

1. Disable the checkbox in the Activated column in the overview of Auto jobs.

Au	uto jobs			
	Job number 🛛 🔺	Description	Machine	Activated
۲	2323	842.715.777	Unit 2	
				42

3.4.8 Editing a job

- 1. Select the required job in the job overview.
- 2. Click on Edit job in the toolbar.

- or -

- 1. Right-click on the required job.
- **2.** Select **Edit job** in the pop-up menu. \rightarrow The **Edit job** window appears.

(#) Edit jo	ob		×
Job info	mation ID Job number Description Machine	5 <u>8952</u> 846.365.978 <pre></pre>	Stat/End Set start time Calculated end time Set end time End with quantity 630 pcs.
Plan a	auto job Quantity Cycle time Set up time Factor Runtime	630 Piece(s) 0.0 sec. 0:00 ¥ hr 1.000 Piece(s)/cycle 0 hr 1 min.	Recurrence pattern Monday Tuesday Wednesday Thursday Friday Saturday Sunday Sunday Range of recurrence Start 01/01/1753 Image: Constraint of the second
Set Actu	Amend actual quantity Actual set up time Cancel Close	0 0 Piece(s) 0:00 ∨ hr	Start Job OK Save

3. Edit the job information as required.

Once all information has been entered:

1. Click on Start to start the job immediately.

- or -

1. Click on **OK** to save the job and set the status to **Waiting**.

3.4.9 Correction of a completed job

- 1. Select the job with the status **Completed** in the Job overview.
- 2. Click on Edit job in the toolbar.

- or -

- 1. Right-click on the required job.
- **2.** Select **Edit job** in the pop-up menu. \rightarrow The **Edit job** window appears.

(#) Edit j	ob		×
Job info	omation		Start/End
	ID	1	Set start time
	Job number	4856	Calculated end time 12:38
	Description	841.225.978	Set end time 00:00 on Day 1
	Machine	Unit 2	End with quantity 1,000 pcs.
			Recurrence pattern
Plan	auto job		Monday Tuesday Wednesday Thursday
Plan va	alues		Friday Saturday Sunday
曲	Quantity	1,000 Piece(s)	
	Cycle time	1.0 sec.	Range of recurrence
	Set up time	0:00 🖌 hr	Start 01/01/1753 V No end date
	Factor	1.000 Piece(s)/cycle	O End after 0 Jobs
	Runtime	0 hr 17 min.	◯ End by ✓
Set Act	tual value		
	Amend actual quantity	1,000 🗘 Piece(s)	
	Actual set up time	0:00 🗸 hr	
5	Cancel		

- 3. Change the job information as required.
- 4. Click on **OK** to save the settings.

3.4.10 Deleting a job

- 1. Select the job in the job overview.
- 2. Click on **Delete job** in the toolbar.

- or -

WERMA

- **1.** Right-click on the job to be deleted.
- 2. Select **Delete job** in the pop-up menu.

3.4.11 Duplicating a job

- 1. Right-click on the required job.
- 2. Select Duplicate job in the pop-up menu.
 → The Duplicate job window appears.

(Copy	job		×
Job info	mation		Start/End
	ID	8	Set start time
	Job number	8952	Calculated end time
	Description	846.365.978	Set end time 00:00 🗘 on Day 1
	Machine	<not assigned=""></not>	End with quantity 630 pcs.
Plan a	auto job		Monday Tuesday Wednesday Thursday
Plan va	lues		Friday Saturday Sunday
每	Quantity	630 Piece(s)	
	Cycle time	0.0 sec.	Range of recurrence
	Set up time	0:00 🗸 hr	Start 01/01/1753 V No end date
	Factor	1.000 Piece(s)/cycle	O End after 0 Jobs
	Runtime	0 hr 1 min.	O End by
Set Actu	ual value		
	Amend actual quantity	0 🗘 Piece(s)	
	Actual set up time	0:00 V hr	
5	Cancel Close		Start Job OK Save

- 3. Modify the job information as required.
- 4. Click on OK to save the settings.

3.4.12 Report

A report can be generated for the filters currently selected and the current collation in the job overview. Only jobs on the machine are taken into account in the report as soon as a certain machine has been selected in the filter menu.

- 1. Adapting the required filters and collation.
- 2. Click on **Report / Export** in the toolbar.
 - \rightarrow The **Generate report** window appears.



3. Select the required report in the Data selection area.

Selecting **Tabular display of data** allows the content of the report to be individually adapted.

4. Click on OK.

(i)

- \rightarrow Selecting **Tabular display of data** generates the report and the Print preview is displayed.
- \rightarrow Selecting **Tabular display of data** makes the window appear for further data selection.



- 5. Adapt the report by enabling or disabling the individual checkboxes.
- 6. Click on OK.
 - \rightarrow The report is generated.
 - ightarrow The Print preview for the report appears.

3.5 Control

In the **Control** module, rules with different logic functions can be defined, with which WIN transmitter control can be switched or controlled. The WIN transmitter included in the WERMA-WIN network can be used as the input signals for the logic functions.



(Switching rules - WIN 4.4.0. 1642 - WERMA Signaltechnik GribH + Co. KG - 6										×							
		Control statio	n Proc	ductivity	Runtime	dol	Control	Routir	ng P				0	i)	~	- 6'	X
1	Overview of rules	New rule (Assistant)	New rule (Expert)	Edit rule	Duplicate rule	Delete rule	Enable rule	Disable rule	Activation	Settings	Software update	Manual	Contact	Info				
г	News				Rules	34	0		Manager		Other							
ŀ	Name				▲ Resu	It	Proce	ssed	Message									
L																		
L																		
F	leady.														Connected to WIN receive	r Production		
-																		

(i) No rules can be defined for WIN transmitter and WIN transmitter performance.

3.5.1 Overview of rules

The overview of rules shows a list of all switching rules that have been created and their current status.

								S	witching ru	lles - WIN 4.4	4.0.1642 -	WERMA Si	gnaltech	inik GmbH + Co. KG		- 8 ×
~	Control statio	n Proc	ductivity	Runtime	Job	Control	Routir	ng stre	745 1							* - B' X
5.3	92	9		1	SC			le la constante de la constant					Ú			
of rules	New rule (Assistant)	New rule (Expert)	Edit rule	Duplicate rule	Delete rule	Enable rule	Disable rule	Activation	Settings	Software update	Manual	Contact	Info			
				Rules						Other						
Name				A Resu	ult	Proce	essed	Message								
Ready.															Connected to WIN receiver Production	

Column	Description
Name	Name of switching rule
Result	Current result of switching rules (e.g. On, Off, Blinking)
Processed	Switching rule being processed
	🗯 = No connection to WIN transmitter control
	$\overline{\mathbf{z}}$ = Switch being processed
Message	More information on the rule

3.5.2 Defining new rules

New rules can be defined either using an assistant, which takes you step by step through the settings, or in an Expert mode.

3.5.2.1 Creating a new rule with assistants

- 1. Click on New rule (Assistant) in the toolbar.
 - \rightarrow The **Define new switching rule** window appears and shows an example of a switching rule.



2. Click on Next.

 \rightarrow The window to select the logic function appears.

WERMA

Selecting the logic function

(#) Define new switching rule					×
Logic function		AND-Logic example			
Please select the logic function that the input signals should be	assigned to.	Input signals	Logic function	Output signals	
Description	Logic function				
Each tier must be in the selected status	AND				
At least one tier must have the defined status	OR		WIN transmitter 1		
No tier may be in the defined status	NOR				
Enter custom logic function (expert mode)				AND	
			WIN transmitter 2	→	WIN transmitter control
ack Gancel					Next Next step

3. Select the Logic function with which the input signals are to be linked.

Logic function	Description
AND	Each tier must be in the selected status.
OR	At least one tier must have the selected status.
NOR	No tier may be in the defined status.

The graphic on the right in the window shows an example of the logic function selected. You may wish to create your own logic functions.

4. Click on Next.

 (\mathbf{i})

 \rightarrow The window to select the input signal appears.

Selecting the input signal

(#) Define new switching rule						×
Input signals for AND-Logic f	unction			AND-Logic example		
Please select the input signals that are to be assigned to the switching rule AND.			Input signals	Logic function	Output signals	
WIN transmitter WIN transmitter Switching delay If a switching delay is set up then th Delay 0	he input signals must re	Status	Add Edit Collecte	WIN transmitter 1	→ AND 0	WIN transmitter control
Cancel						Next Next step

5. Click on Add to select the input signals for the selected logic function.

 \rightarrow The **Select tier and status** window appears.

(#) Select tier and status					×			
1. WIN transmitter select		2. Cho	ose tier	3. Select status				
Name	MAC-Id	Tier	Description	Blink recognition	Description			
Unit 1	002705	1	Operational	-	On			
Unit 2	0027C2	2	Warning	-	Off			
Unit 3	003983	3	Error -		Connection error			
Note: Only configured tiers are displayed. The tiers can be configured in the Control station module. The counter input of a WIN transmitter performance cannot be used as an input signal.								
Cancel Close					Apply			

The **Select tier and status** window shows all the WIN transmitters included in the WERMA-WIN network. The available tiers and statuses correspond to the tiers and statuses configured in the **Control station** module.

The blinking status is only displayed if blink recognition is enabled for the tier.

6. Select the WIN transmitter to be used as the input signal.

7. Select the tier of the WIN transmitter to be used as the input signal.

- (i) The counter input of a WIN transmitter performance cannot be used as input signal for a logic function.
- 8. Select the status in which the selected tier is to be.
- 9. Click on OK to apply the settings.
 - → The Define new switching rule window appears and shows the input signal defined in the list.



- **10.** Click on **Add**, if necessary, to add an additional input signal.
- **11.** Click on **Edit**, if necessary, to modify the selected input signal.
- 12. Click on Delete, if necessary, to delete the selected input signal.
- 13. Set the switching delay in the **Delay** field.

(i)


(i) The switching delay defines how long all input signals have to be in the same status for the output signal to be switched.

14. Click on Next.

 \rightarrow The window for selection of the output signal appears.

Selecting the output signal

() Define new switching rule			_		×
Output signals for logic function	anle		AND-Logic example		
	ig raio.		Input signals	Logic function	Output signals
WIN transmitter	Tier	Add Edit Belete	WIN transmitter 1		0 WIN transmitter control
Permanent light Blinking Back Cancel			Ŧ		Next Next Step

15. Click on Add.

 \rightarrow The **Select tier** window appears.

¢	Select tier					×	
	1. WIN transmitter control select		2. Choose tier				
	Name	MAC-Id	Tier	Description	Blink recognition		
	Unit 3	003983	1	Tier 1	Tier 1 blinking		
			2	Tier 2	Tier 2 blinking		
			3	Tier 3	Tier 3 blinking		
			4	Tier 4	Tier 4 blinking		
			Note: Onl configure	ly configured tiers are (d in the Control station	displayed. The tiers can be module.		
	Ciose				Apply		

- 16. Select the WIN transmitter control to be used as the output signal.
- 17. Select the tier to be switched.
- 18. Click on OK to apply the settings.
 - → The **Define new switching rule** window appears and shows the input signal defined in the list.

) Define new switching rule		
Output signals for logic function		
Please select the output signals that are	assigned to the switching rule	
WIN transmitter	Tier	💠 Add
Unit 3	1	A rate
		J Edit
		🗶 Delete

- 19. Click on Add, if necessary, to add an additional output signal.
- 20. Click on Edit, if necessary, to modify the selected output signal.
- 21. Click on Delete, if necessary, to delete the selected output signal.
- 22. Define whether the output signal should be switched as a permanent light or blinking.
- 23. Click on Next.

(#) Define new switching rule	×
Save switching rule	
Please enter a name for the switching rule which will be displayed in the overview.	
Name	
Advanced settings can be made once the switching rule has been saved.	
Show the advanced settings dialog	
Gancel Ok Cancel Save	

- 24. In the Name field, enter a name for the switching rule.
- **25.** Enable **Show the advanced settings dialog** if more settings are to be entered for the switching rule.
- 26. Click on OK to save the switching rule.
 - \rightarrow The switching rule appears in the rule overview and is enabled.

Control station Productivity Runtime Job Control Routing Image: Control station Image: Control station Image:									5	Switching ru	iles - WIN 4.	4.0.1642 -	WERMA Si	gnaltech	nik GmbH + Co. KG
Image: Second problem Image: Second pro		Control statio	n Prod	luctivity	Runtime	Job	Con	ntrol Rout	ing						
Overview New rule New rule Edit rule Duplicate Delete Enable Disable Activation Settings Software update Antivation Settings Software Update Software Softwa		\$	•		1	\$\$			Þ				\bigcirc	i	
	Overview of rules	New rule (Assistant)	New rule (Expert)	Edit rule	Duplicate rule	Delete rule	Ena ru	ble Disable le rule	Activation	Settings	Software update	Manual	Contact	Info	
Rules Other					Rules						Other	r			
Name 🔺 Result Processed Message	Name				🔺 Resi	ult		Processed	Message						
▶ Material message Off ✓	Materia	l message			Off										



3.5.2.2 Defining new rules in Expert mode

- 1. Click on New rule (Expert) in the toolbar.
 - → The **Define new switching rule** window appears.

(#) Define n	ew switching rule	×
Please dete	amine the settings for the switch function.	
Name	New rule 1	
Output	signals:	
No tie	r defined 🥖	Edit
Logic f	unction for permanent light:	
No ru	e defined 🖉	Edit 👻
Logic f	unction for blinking light:	
No ru	e defined 🖉	Edit 👻
lf both	logic functions are true activate the following output signal: Permanent light	
Clo Can	se cel	Ok Save

2. In the Name field, enter a name for the switching rule.

Selecting the output signal

- 1. Click on Edit beside the Output signals field.
 - \rightarrow The **Define new switching rule** window appears and shows an example of a switching rule.

() Define new switching rule					×
Output signals for logic function			AND-Logic example		
Please select the output signals that are assigned to the switch	ing rule.		locut signals	Logic function	Output signals
WIN transmitter Switch the output signal as follows: Permanent light Blinking	Tier	Add Celt Celete	WIN transmitter 1 WIN transmitter 2		WIN transmitter control
Back Cancel					Next Next step

- 2. Click on Add.
 - ightarrow The **Select tier** window appears.

¢	Select tier					\times
	1. WIN transmitter control select		2. Choo	se tier		
	Name	MAC-Id	Tier	Description	Blink recognition	
	Unit 3	003983	1	Tier 1	Tier 1 blinking	
			2	Tier 2	Tier 2 blinking	
			3	Tier 3	Tier 3 blinking	
			4	Tier 4	Tier 4 blinking	
			Note: On configure	ly configured tiers are (d in the Control station	displayed. The tiers can be module.	
	Close				Apply OK	

- 3. Select the WIN transmitter control to be used as the output signal.
- 4. Select the tier to be switched.
- 5. Click on OK to apply the settings.
 - → The **Define new switching rule** window appears and shows the input signal defined in the list.

(#) Define new switching rule		
Output signals for logic function		
Please select the output signals that are assigned to the	ne switching rule.	
WIN transmitter	Tier	Add
Unit 3	1	
		/ Edit
		🗶 Delete

- 6. Click on Add, if necessary, to add an additional output signal.
- 7. Click on Edit, if necessary, to modify the selected output signal.
- 8. Click on Delete, if necessary, to deleted the selected output signal.
- 9. Define whether the output signal should be switched as a permanent light or blinking.
- 10. Click on Next to save the settings.
 - → The **Define new switching rule** window appears.

Selecting the logic function for permanent light

- 1. Click on Edit beside the Logic function for permanent light field.
 - \rightarrow The **Define new switching rule** window appears and shows an example of a switching rule.



(Define new switching rule			×
Logic function for Permanent light Please select the logic function that the input signals should be	e assigned to.	AND-Logic example	Output signals
Description Each tier must be in the selected status At least one tier must have the defined status	Logic function AND OR ND	WIN transmitter 1	
At least one tier must have the defined status No tier may be in the defined status Enter custom logic function (expert mode)	OR NOR	WIN transmitter 1	0 WIN transmitter control
Back Cancel			Next Next step

2. Select the Logic function with which the input signals are to be linked.

Logic function	Description
AND	Each tier must be in the selected status.
OR	At least one tier must have the selected status.
NOR	No tier may be in the defined status.

The graphic on the right in the window shows an example of the logic function selected. You may wish to create your own logic functions.

3. Click on Next.

 (\mathbf{i})

 \rightarrow The window to select the input signal appears.

Selecting the input signal

(#) Define new switching rule					×
Input signals for AND-Logic function - P	² ermanent light		AND-Logic example		
Please select the input signals that are to be ass	signed to the switching rule A	ND.	Input signals	Logic function	Output signals
WIN transmitter T Switching delay If a switching delay is set up then the input signature Delay 0 💸 sec.	Tier Status	Add Add	WIN transmitter 1	→ AND _0	WIN transmitter control
Gancel					Next Next step

- 4. Click on Add to select the input signals for the selected logic function.
 - $\rightarrow\,$ The Select tier and status window appears.

🛞 Select tier and status					×
1. WIN transmitter select		2. Choo	ose tier		3. Select status
Name	MAC-Id	Tier	Description	Blink recognition	Description
Unit 1	002705	1	Operational	-	On
Unit 2	0027C2	2	Warning	-	Off
Unit 3	003983	3	Error	-	Connection error
		Note: Or The cou	ily configured tiers are d	isplayed. The tiers can be con smitter performance cannot be	figured in the Control station module. used as an input signal.
Close					Apply

(i) The **Select tier and status** window shows all the WIN transmitters included in the WERMA-WIN network. The available tiers and statuses correspond to the tiers and statuses configured in the **Control station** module.

The blinking status is only displayed if blink recognition is enabled for the tier.

- 5. Select the WIN transmitter to be used as the input signal.
- 6. Select the tier of the WIN transmitter to be used as the input signal.
- (i) The counter input of a WIN transmitter performance cannot be used as the input signal for a logic function.
- 7. Select the status in which the selected tier is to be.
- 8. Click on OK to apply the settings.
 - → The **Define new switching rule** window appears and shows the input signal defined in the list.

🛞 Define new switching rule						×
Input signals for AND-Logic f Please select the input signals that	unction - Permane are to be assigned to	e nt light the switching rule A	ND.	AND-Logic example	Logic function	Output signals
WIN transmitter Unit 1 Switching delay If a switching delay is set up then th Delay 0	Tier 1 he input signals must of sec.	Status On emain the same for f	 Add Edit Delete 	WIN transmitter 1		WIN transmitter control
Cancel						Next Next step

9. Click on Add, if necessary, to add an additional input signal.



- 10. Click on Edit, if necessary, to modify the selected input signal.
- 11. Click on **Delete**, if necessary, to delete the selected input signal.
- 12. Set the switching delay in the Delay field.

(i) The switching delay defines how long all input signals have to be in the same status for the output signal to be switched.

- 13. Click on Next to save the settings.
 - → The **Define new switching rule** window appears.

Selecting the logic function for blinking

- 1. Click on Edit beside the Logic function for blinking light field.
 - \rightarrow The **Define new switching rule** window appears and shows an example of a switching rule.



2. Select the Logic function with which the input signals are to be linked.

Logic function	Description
AND	Each tier must be in the selected status.
OR	At least one tier must have the selected status.
NOR	No tier may be in the defined status.

The graphic on the right in the window shows an example of the logic function selected. You may wish to create your own logic functions.

3. Click on Next.

 (\mathbf{i})

 \rightarrow The window to select the input signal appears.

Selecting the input signal

🛞 Define new switching rule						×
Input signals for AND-Logic Please select the input signals th	c function - Blinking nat are to be assigned to th	ne switching rule A	ND.	AND-Logic example	Logic function	Output signals
WIN transmitter	Tier	Status	Add	WIN transmitter 1	AND 0	WIN transmitter control
Cancel						Next Next step

4. Click on Add to select the input signals for the selected logic function.

1. WIN transmitter sele	ct	2. Choo	ose tier		3. Select status
Name	MAC-Id	Tier	Description	Blink recognition	Description
Unit 1	002705	1	Operational	-	On
Unit 2	0027C2	2	Warning	-	Off
Unit 3	003983	3	Error	-	Connection error
		Note: Or The cou	ily configured tiers are d nter input of a WIN tran	displayed. The tiers can be con ismitter performance cannot be	figured in the Control station mo used as an input signal.

(i) The **Select tier and status** window shows all the WIN transmitters included in the WERMA-WIN network. The available tiers and statuses correspond to the tiers and statuses configured in the **Control station** module.

The blinking status is only displayed if blink recognition is enabled for the tier.

- 5. Select the WIN transmitter to be used as the input signal.
- 6. Select the tier of the WIN transmitter to be used as the input signal.
- (i) The counter input of a WIN transmitter performance cannot be used as the input signal for a logic function.
- 7. Select the status in which the selected tier is to be.
- 8. Click on OK to apply the settings.

×



→ The **Define new switching rule** window appears and shows the input signal defined in the list.

W Define new switching rule	×
Input signals for AND-Logic function - Blinking	AND-Logic example
Please select the input signals that are to be assigned to the switching rule AND.	Input signals Logic function Output signals
WIN transmitter Tier Status Add Unit 1 1 On Image: Edit Image: Edit Switching delay Image: Edit ima	WIN transmitter 1 WIN transmitter 2 WIN transmitter 2
Eack Cancel	Next Next step

- 9. Click on Add, if necessary, to add an additional input signal.
- 10. Click on Edit, if necessary, to modify the selected input signal.
- 11. Click on **Delete**, if necessary, to delete the selected input signal.
- 12. Set the switching delay in the **Delay** field.
- (j) The switching delay defines how long all input signals have to be in the same status for the output signal to be switched.
- 13. Click on Next to save the settings.
 - \rightarrow The **Define new switching rule** window appears.
- 14. Select whether the output signal is to be switched as a **Permanent light** or **Blinking**, if both logic functions apply.
- 15. Click on OK to save the switching rule.
 - \rightarrow The switching rule appears in the rule overview and is enabled.

6	¥)										5	Switching ru	iles - WIN 4.4	4.0.1642 -	WERMA Si	gnalted	hnik GmbH + Co. KG
1		Control statio	n Prod	luctivity	Run	time	Job	Co	ntrol	Routi	ng						
		P			1	*	22		D		p		N		\bigcirc	ſ)
Ov of	erview Frules	New rule (Assistant)	New rule (Expert)	Edit rule	Dupli ru	icate ile	Delete rule	En	able ule	Disable rule	Activation	Settings	Software update	Manual	Contact	Info	
					Rules								Other				
	Name					Resu	ilt		Proc	essed	Message						
+	Material	message				Off				1							
	Support	enquiry				Off				1							
ľ																	

3.5.2.3 Entering custom logic function in expert mode

- 1. Select Enter custom logic function (expert mode) in the Switching rule window.
- 2. Click on Next.
 - → The Logic function (expert mode) window appears.

(#) Define new switching rule	×
Certain new switching rule Logic function (expert mode) Please enter your custom logic function here. Tip: Create an AND/OR-Logic function with the assistant and edit the logic function using the expert mode. Further information and examples can be found in the manual. Logic function WIN transmitter AND OR NOT	Example of a custom logic function (expert mode)
() Check	WIN transmitter 2

3. Enter a custom logic function in Visual Basic Syntax or create it using the buttons in the Logic function area.

Button	Function
WIN transmitter	Enter tier and status of a WIN transmitter.
AND	Enter logic function AND.
OR	Enter logic function OR.
NOT	Enter logic function NOT.
()	Insert brackets.

(i) The program code uses the MAC-IDs of the WIN transmitters, not the individual WIN transmitter names.

- 4. Click on **Check** to check the switching rule created.
 - \rightarrow WERMA-WIN checks the switching rule.
 - → If the switching rule includes errors, a window appears with relevant information on resolving the errors.
- 5. Click on Next.
 - \rightarrow The switching rule is saved.

Examples of custom logic functions

Example 1: AND rule

Tiers 1 and 2 of an WIN transmitter must be **ON**.

Slave("0024B1").Tier1.On AND Slave("0024B1").Tier2.On

Example 2: OR rule

Tier 1 of a WIN transmitter must be **Blinking** or Tier 2 of the same WIN transmitter must be **OFF**. Slave("0024B1").Tier 1.Blink OR Slave("0024B1").Tier 2.Off



Example 3: NOR rule

Neither of the two WIN transmitter may display a connection error.

```
NOT (Slave("0024B1").Tier1.Error OR Slave("0024B2").Tier1.Error)
```

Example 4: Logic function using variables

```
' declare variables
Dim a As Boolean
Dim b As Boolean
Dim x As Boolean
' read out Slave status and store in variables
a = Slave("0024A1").Tier1.On
b = Slave("0024A2").Tier1.On
' Program code which processes variables.
x = a OR b
' Note: if multiple program lines are entered,
' the result of the logic function must be returned as Boolean data type with
' 'Return'.
Return x
```

3.5.3 Enabling a rule

- 1. Select the switching rule in the rule overview.
- 2. Click on Enable rule in the toolbar.
- 3. Confirm the prompt with Yes to enable the rule.

3.5.4 Disabling a rule

(i) The WIN transmitter control remains in the last transmitted status as soon as a switching rule has been disabled.

- 1. Select the switching rule in the rule overview.
- 2. Click on **Disable rule** in the toolbar.
- 3. Confirm the prompt with Yes to disable the switching rule.

3.5.5 Editing a rule

- 1. Select the switching rule in the rule overview.
- 2. Click on Edit rule in the toolbar.

 \rightarrow The Edit switching rule window appears.

🛞 Edit swit	ching rule	×		
Please dete	amine the settings for the switch function.			
Name	Support enquiry Enable switching rule			
Output	signals:			
- Unit 3	, tier 2	🖋 Edit		
Logic f	unction for permanent light:			
AND-L	AND-Logic function with 1 input signals			
Logic f	unction for blinking light:			
AND-L	ogic function with 2 input signals	🖋 Edit 🛛 👻		
lf both	logic functions are true activate the following output signal: Permanent light Blinking			
Clo Can	se cel	Ok Save		

- 3. Enable or disable Enable switching rule to immediately enable or disable the switching rule.
- 4. Adapt the output signals by clicking on Edit, if necessary.

(i) Only one switching rule can be enabled on an output signal.

- 5. Adapt the Logic function for permanent light and the Logic function for blinking light: by clicking on Edit, if necessary.
- 6. Remove the Logic function for permanent light and the Logic function for blinking light: by expanding the Edit button and clicking on Delete, if necessary.
- 7. Select whether the output signal is to be switched as a **Permanent light** or **Blinking**, if both logic functions apply.
- 8. Click on OK to apply the settings.

3.5.6 Duplicating a rule

- 1. Select the switching rule in the rule overview.
- 2. Click on **Duplicate rule** in the toolbar.
- 3. Confirm the prompt with Yes.
 → The Duplicate switching rule window appears.

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(#) Duplicate switching rule	×
Please determine the settings for the switch function.	
Name New rule 1 Fnable switching rule	
Output signals:	
- Unit 3, tier 2	🖋 Edit
Logic function for permanent light:	
AND-Logic function with 1 input signals	🖋 Edit 🛛 👻
Logic function for blinking light:	
AND-Logic function with 2 input signals	🖋 Edit 🛛 👻
If both logic functions are true activate the following output signal: Permanent light Blinking	
Close Cancel	V Ok Save

- 4. Enter the name of the switching rule in the Name field.
- 5. Enable or disable Enable switching rule to immediately enable or disable the switching rule.
- 6. Adapt the output signals by clicking on Edit, if necessary.

(i) Only one switching rule can be enabled on an output signal.

- 7. Adapt the Logic function for permanent light and the Logic function for blinking light: by clicking on Edit, if necessary.
- 8. Remove the Logic function for permanent light and the Logic function for blinking light: by expanding the Edit button and clicking on Delete, if necessary.
- 9. Select whether the output signal is to be switched as a **Permanent light** or **Blinking**, if both logic functions apply.
- 10. Click on OK to apply the settings.

3.5.7 Deleting a rule

(i) The WIN transmitter control remains in the last transmitted status once a switching rule has been deleted.

- 1. Select the switching rule in the rule overview.
- 2. Click on **Delete rule** in the toolbar.
- 3. Confirm the prompt with Yes to delete the rule.

3.6 Routing

The **Routing** module shows an overview of the WERMA-WIN network. A tree structure shows the structure and the quality of the radio connections between the individual devices.



Display	Description
WIN USB	WIN receiver
WIN TCP/IP	WIN ethernet receiver
00-0E-39	WIN transmitter, WIN transmitter control, WIN transmitter performance
WIN USB 00-0E-39	Good radio connection between the devices.
USB 00-0E-39	Weak radio connection between the devices.

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Display	Description
WIN USB 00-0E-39	Poor radio connection between the devices.

To ensure the best possible radio connection, every WIN transmitter automatically looks for the best transmission path to the WIN receiver. Other WIN transmitter can act as repeaters and forward the radio signal to improve the radio connection or increase the range.



(i) A WIN transmitter can set up a connection to the WIN receiver via at most two more WIN transmitters.

(i) Unconnected but configured WIN transmitters are displayed in the lower part of the window, if there are any.



3.6.1 Displaying connection status

The connection status and the connection type of all WIN receivers saved in the WERMA-WIN database can be displayed in the **Connection status** window.

1. Click on **Connection status** in the toolbar.

→ The **Connection status** window appears.

ď) (Conne	ection status				×
Γ	Τ		Name	Connection type	Date/Time	Message	
	Þ	\checkmark	Production	USB	08/09/2017 09:07:30	Connected to computer 'DESKTOP-6M5NQLP'.	
		*	Warehouse	TCP/IP	08/09/2017 10:08:26	Device not be found in network.	
							Close

3.6.2 Optimising radio communication

Radio communication can be improved by implementing the following measures:

- Position the WERMA-WIN devices within sight of each other.
- Remove as many metal surfaces as possible between the WERMA-WIN devices.
- Position WIN receiver as ideally as possible.
- Poor radio connections can be improved by the use of a repeater (WIN transmitter).
- Connect any parts of the system outside of radio range via a further WIN receiver.

3.7 Settings

The functions of WERMA-WIN can be modified under Settings.

(i) Settings can be protected by a password to prevent unauthorised access.

To call up Settings:

- 1. Click on **Settings** in the toolbar.
 - \rightarrow The **Settings** window appears.



	Status transmission	Sound Re	eports	WIN devices	Database	Time period	Fault conditions	Fur 1
Lan	guage English	>]					
		Search for p	roduct u	updates at Start	up			
(W	9 . 09:38	Display minin	nised wir	ndow only				
NIP		in the Systen	n tray					
At Startup, o	pen the following Viev	w:		Marrie				
At Startup, o Module	pen the following View	N:	>	View	ht .			A
At Startup, o	pen the following View	N:	~	View Hauptansic Ansicht 1	ht			^
At Startup, o Module	pen the following Viev <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre></pre> <pre>Open in fullscree</pre>	w: en mode	~	View Hauptansic Ansicht 1 Ansicht 2	ht			^
At Startup, o Module Time interval	pen the following View <pre></pre> <pre><!--</td--><td>w: en mode</td><td>➤</td><td>View Hauptansic Ansicht 1 Ansicht 2 Ansicht 3</td><td>ht</td><td></td><td></td><td>< ></td></pre>	w: en mode	➤	View Hauptansic Ansicht 1 Ansicht 2 Ansicht 3	ht			< >

3.7.1 General

Various settings can be adapted in the **General** tab.

(#) Settin	gs									×
General	Views	Status	transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Fur 🔸 🕨
	Lang	guage	English	Search f	• or product	updates at Start	tup			
At S	🛞	os pen the f	9:38	Display n in the Sy /:	ninimised w stem tray	vindow only				
	Module	<no s<="" td=""><td>election></td><td></td><td>~</td><td>View</td><td>-b+</td><td></td><td></td><td>A</td></no>	election>		~	View	-b+			A
Time	Open in fullscreen mode Time interval				Ansicht 1 Ansicht 2 Ansicht 3	JIL			~	
5	Cancel Close								A Sa	¢

The following settings can be adapted:

- Program interface language
- Search for updates
- Minimise program window in the system tray
- View at program start

3.7.1.1 Selecting the language of the program interface

- 1. Select the language in the Language selection list.
- 2. Click on OK to save the settings.
 - \rightarrow WERMA-WIN is restarted and appears in the selected language after the restart.

3.7.1.2 View at program start

It is possible to set which module is to be automatically displayed in which view when the program starts.

Module	Main view	More views	Time interval	Full screen mode
Control station	~	~		✓
Productivity	~	~	~	~
Runtime	~	~	~	
Job	~			
Control	~			
Routing	~			

The following views are possible:

- 1. Select the desired module in the **Module** selection list.
- 2. Select the required view in the View list.
- 3. If the **Runtime** or **Productivity** module has been selected, select the required time interval in the **Time interval** selection list.
- 4. Enable Open in fullscreen mode if WERMA-WIN is to be started in full-screen mode.
- 5. Click on **OK** to save the settings.

3.7.1.3 Minimising program window in the system tray

The minimised WERMA-WIN program window can be displayed in the taskbar (Windows standard) or in the system tray.



To display the minimised WERMA-WIN program window in the system tray.

- 1. Enable Display minimised window only in the System tray.
- 2. Click on OK to save the settings.

3.7.1.4 Updates

WERMA-WIN can search for updates after every program startup.

1. Enable Search for product updates at Startup.

2. Click on OK to save the settings.

The computer must be connected to the internet and must be able to access www.werma.com to search for updates.

(i)

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3.7.2 Views

The views of the **Control station**, **Productivity** and **Runtime** modules can be created and adapted in the **Views** tab.

(₩) s	ettings									×
Gen	eral Views	Status transmissi	on Sound	Reports	WIN devices	Database	Time period	Fault o	conditions	Fur 1 +
Ni Vi Vi Vi Vi Vi Vi Vi Vi	ame ew 1 ew 2 ew 3 ew 4 ew 5 ew 6 ew 6 ew 7 ew 8								 Add Edit Delete Copy 	
Vi	ew 10	el						~	Move d	p own ¢ ve

The following functions are possible:

- Add view
- Copy view
- Rename view
- Sort views
- Delete view

3.7.2.1 Adding a view

1. Click on Add.

 \rightarrow The **Create view** window appears.

Create view	×
Name	
Cancel Close	OK Save

2. In the Namefield, enter the name of the view.

(i) If the name of the view contains a & then it must be entered as & & The name Bearing 1 & Bearing 2 for example, must be entered as Bearing 1 & & Bearing 2

3. Click on **OK** to add the view.

3.7.2.2 Copying a view

- 1. In the list of views, select the view to be copied.
- 2. Click on Copy.

 \rightarrow The **Copy view** window appears.

Copy view			x
Name	Copy of Assembly		
	ancel lose	OK Save	

- 3. In the Namefield, adapt the name of the view.
- 4. Click on **OK** to copy the view.

3.7.2.3 Renaming a view

- 1. In the list of views, select the desired view.
- 2. Click on Edit.
 - → The **Edit view** window appears.



3. In the Namefield, adapt the name of the view.

If the name of the view contains a & then it must be entered as && The name Bearing 1
 & Bearing 2 for example, must be entered as Bearing 1 && Bearing 2

4. Click on OK to save the setting.

3.7.2.4 Sorting views

You can adapt the order of the views in the toolbar.

1. In the list of views, select the desired view.

2. Click on Move up or Move down to move the view.

Views arranged at the top of the list of view appear first in the toolbar.

3.7.2.5 Deleting a view

- 1. In the list of views, select the view to be deleted.
- 2. Click on Delete.
- 3. Confirm the prompt with Yes.

(i)



3.7.3 Status transmission

A status transmission can be enabled by e-mail for individual WIN transmitters in the **Control sta**tion module. The necessary settings can be modified in the **Status transmission** tab. The transfer of the status transmission to an external program using WINtoApplication can also be configured.

(#) Settin	gs									×
General	Views	Status transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Fur 1	F
Re Se Tra WI wh rea	Transmi ecipient Inder ansmit sta NtoAppli en a tier ached or	it status by E-Mail mail@werma+ atus to application cation allows addition, state of a WIN slave an order progression	vin.com al extern changes is exceed	al program , a counte Jed.	is to start r value is	Edit Detail	5 WINtoApplic	ation		
5	Cancel Close							A Sa	K ive	

The following settings are possible:

- Disable e-mail transmission
- Modify settings of integrated e-mail transmission function
- Configure own SMTP server for the transmission of e-mails
- Modify message text
- Configure WINtoApplication

3.7.3.1 Disabling e-mail transmission

- 1. Click on Edit.
 - \rightarrow The **E-Mail settings** window appears.

🛞 E-Mail settings		×
Server settings Messa	age	
 Disable mail tra 	ansmission	
Send an E-Ma	ail via built-in transmitting feature (recommended)	
Send an E-Ma	ail with your own SMTP server	
E-Mail add	ress(es) of recipients and sender	
Recipient		
	You may enter multiple E-Mail addresses by delimiting with a semicolon (;)	
Sender	mail@werma-win.com	
Web proxy	<no proxy="" web=""> Configure</no>	
	Send test E-Mail	
Please refer	to the information in the manual regarding this function.	
Cancel Close	OK Save	

2. Select Disable mail transmission.

3. Click on OK to save the setting.

3.7.3.2 Integrated transmission function

The e-mail transmission function integrated in WERMA-WIN is restricted as follows:

- Max. 10 recipients per e-mail
- Max. 100 different recipients in seven days
- Max. 240 e-mails in 4 hours
- (j) If more than 240 e-mails are sent in 4 hours, then message delivery is interrupted for one hour. The messages that accumulate during the interruption are not subsequently sent.

Transmission using your own SMTP server is recommended if the transmission function is to be used beyond these limits.

1. Click on Edit.

 \rightarrow The **E-Mail settings** window appears.



DE-Mail settir	ngs		×
Server settings	Message		
O Disable	e mail transmissi	on	
Send a	an E-Mail via bu	ilt-in transmitting feature (recommended)	
◯ Send a	an E-Mail with ye	pur own SMTP server	
E-Ma	ail address(e:	s) of recipients and sender	
Recip	pient		
		You may enter multiple E-Mail addresses by delimiting with a semicolon (;)	
Send	er	mail@werma-win.com	
Web	proxy	<no proxy="" web=""> Configure</no>	
		Send test E-Mail	
Pleas	e refer to the in	formation in the manual regarding this function.	
A Cance	P	ок	

- 2. Select Send an E-Mail via built-in transmitting feature (recommended).
- 3. Enter e-mail recipients in the **Recipient** field.

i	Multiple recipients are separated by a semicolon (;).
i	If no e-mail recipient is specified, the recipient must be specified when enabling status transmission for the respective WIN transmitter.
4. Add	apt the web proxy by clicking on Configure if necessary.
i	Clicking on Send test E-Mail sends a test e-mail to test the settings entered.

5. Click on OK to save the settings.

Configuring the web proxy

If a web proxy is used in the network, the access data can be entered in the **Configuration of web proxy** window.

(#) Configuration of v	veb proxy X								
The 'WERMA WIIN Server Service' needs to access https-websites in order to send an E-Mail via built-in transmitting feature. Please enter the required configuration here if your network requires the usage of web proxy.									
Configuration of http	ps web proxy								
Server									
Port	8080 \$								
User									
Password									
	Check								
The configuration will be internet service provide	provided by your network administrator or r.								
Close	Ok Save								

1. Enter access data into the respective fields.



Your network administrator will provide the requisite data.

2. Click on Check.

 \rightarrow WERMA-WIN checks the data entered.

3. Click on OK to save the settings.

3.7.3.3 Custom SMTP server

- 1. Click on Edit.
 - \rightarrow The **E-Mail settings** window appears.



🛞 E-Mail settings	5	×								
Server settings M	Message									
O Disable ma	nail transmission									
Send an E	E-Mail via built-in transmitting feature (recommended)									
Send an E	E-Mail with your own SMTP server									
E-Mail address(es) of recipients and sender										
Recipien	nt									
	You may enter multiple E-Mail addresses by delimiting with a semicolon (;)									
Sender	mail@wema-win.com									
Web pro	<no proxy="" web=""> Configure</no>									
Please n	Send test E-Mail									
Cancel Close	OK Save									

2. Select Send an E-Mail with your own SMTP server.

 \rightarrow The fields to adapt your custom SMTP server appear.

Hail settings		×
Server settings Message		
 Disable mail transmission 	n	
Send an E-Mail via buil	in transmitting feature (recommended)	
Send an E-Mail with yo	ur own SMTP server	
E-Mail address(es) of recipients and sender	
Recipient		
	You may enter multiple E-Mail addresses by delimiting with a semicolon (;)	
Sender		
	(your E-Mail address)	
Your E-Maill serve	er data	
Server name		
	(alternative Server IP-Address)	
Port	25 🔄 Standard port 25	
Access data (if re	quired)	
User name		
Password	Send test E-Mail	
The configuration for network administrator	the E-Mail server and account information will be provided by your or internet service provider.	
Please note: All E-Ma	ils are sent by the Server Service.	
	<u>ок</u>	
Close	Save	

3. Enter e-mail recipients in the **Recipient** field.

- (i) Multiple recipients are separated by a semicolon (;).
- 4. Enter the sender address in the Sender field.
- 5. Enter the details of your SMTP server in the respective fields in the Your E-Mail server data and Access data (if required) areas.

(i) Your network administrator or internet provider can provide the requisite data.

Clicking on **Send test e-mail** sends a test e-mail to test the settings entered.

6. Click on OK to save the settings.

(i)

3.7.3.4 Modifying message text

The subject and the text of the e-mail can be modified by inserting individual texts and different placeholders.

1. Call up the **Message** tab.

E-mail settings		X
erver settings Message		
Subject Message from %name% (%reason%) Message text The WIN slave %name% is now in the following state: tier 4 (%statename3%): %state4% tier 3 (%statename3%): %state3% tier 2 (%statename3%): %state2% tier 1 (%statename1%): %state1% {performance}Actual quantity: %counter% Job number: %order-number% Job number: %order-number% Total quantity: %counter% Message sent at %time% Message sent at %time%	The following placeholders can be used: %name %; WIN transmitter name %time %: Date and time %reason %; reason for sending mail States (0=off, 1=on, 2=blinking, 3=error): %state 1%: State of tier 1 %state 2%: State of tier 2 %state 3%: State of tier 2 %state 3%: State of tier 3 %statehame 1%: Name of tier 1 %statename 1%: Name of tier 1 %statename 1%: Name of tier 3 %statename 2%: Name of tier 3 %statename 4%: Name of tier 3 %statename 4%: Name of tier 3 %statename 4%: Name of tier 4 For WIN transmitter performance: %ounter %: counter value %order-number%: order no %order-description %; description %order-progression %; job progression	
	Default values	
Cancel Close	Arr Save	

2. Enter the text and desired placeholders in the Subject and Message fields.

Clicking on **Reset** resets the subject and the message text to the default values.

(i)



3. Click on **OK** to save the setting.

Example of a message text:

The WIN transmitter %name% changed its status at %time%.

Tier 4 (%statename4%): %state4%

Tier 3 (%statename3%): %state3%

Tier 2 (%statename2%): %state2%

Tier 1 (\$statename1%): \$state1%

Placeholders/Parameters

The following placeholders/parameters are available:

Placeholders/Parameters	Description
%slaveid%	ID of the WIN transmitter
%name%	Name of the WIN transmitter
%time%	Date and time of status transmission
%reason%	Reason for status transmission
%state1%	Status of tier 1
%state2%	Status of tier 2
%state3%	Status of tier 3
%state4%	Status of tier 4
%statename1%	Name of tier 1
%statename2%	Name of tier 2
%statename3%	Name of tier 3
%statename4%	Name of tier 4
%counter%	Counter status of the job
%order-id%	Job ID
%order-number%	Jobnumber
%order-description%	Name of job
%order-total%	Total amount of job
%order-progression%	Progression of job

All placeholders/parameters begin and end with the character %

3.7.4 Sound

(i)

Status change messages can be indicated by playing an individual signal tone.

(#) Setti	ngs								×			
Views	Status transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Functions	• •			
	Play the following sound file when new status change messages are issued:											
	O No sound											
 Default system sound 												
	 Select 	ted sound										
				Play	Stop)						
				-								
5	Close								-			

- (i) WERMA-WIN offers a pre-selection of signalling sounds. An overview of the pre-selection is displayed by clicking on ?.
- 1. Select which sound is to be played when a status change message appears.
- 2. Select Selected sound and click on Browse to play an individual sound.
- 3. Select the file in the appropriate format and click on **Open**.

(i) Files in the popular audio formats (.mp3 .wavetc.) can be used.

(i) The selected sound can be tested by clicking on **Play** and **Stop**.

4. Click on OK to save the settings.

3.7.5 Reports

Individual headers and footers can be saved for reports.



(#) Setti	ngs								×
Views	Status transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Functions	• •
Cor	mpany name	WERMA	Signaltec	hnik GmbH + C	o. KG				
Cor	mpany logo				(})	WEF		P Select	
								🔊 Reset	
5	Close							Arr Save	

- 1. In the Company name field, enter the text for the footer.
- 2. Click on **Select** to paste an individual company logo into the header.
- Graphics in the popular graphic formats (. jpg .pngetc.) can be used. The graphic file may not exceed 1 MB. The height and width are each restricted to 2,000 pixels.
 Clicking on **Reset** resets all settings to the default settings (WERMA logo and WERMA com-
- 3. Click on **OK** to save the settings.

3.7.6 WIN devices

pany name).

WERMA-WIN devices which are no longer in the WERMA-WIN network can be deleted. All the data recorded by these devices will be deleted from the WERMA-WIN database.

Name Connected to WIN receiver Production Unit 1 Production Unit 2 Production Unit 3 Production Warehouse Image: Connected to WIN receiver	ene	ral Views	Status transmission	n Sound	Reports	WIN devices	Database	Time period	Fault conditions	Fur 1
Production Unit 1 Production Unit 2 Production Unit 3 Production Warehouse Image: Compare the second		Name				Connected to	WIN receive	r	🎉 Delete	
Unit 1 Production Unit 2 Production Unit 3 Production Warehouse	Þ	Productio	n							
Unit 2 Production Unit 3 Production Warehouse		Unit 1				Production				
Unit 3 Production Warehouse		Unit 2				Production				
Warehouse		Unit 3				Production				
		Warehous	se							

(i) WIN receivers can only be removed if the power supply to the WIN receiver is disconnected.

WIN transmitters can only be removed if the power supply to the WIN transmitter is disconnected.

1. Select the WERMA-WIN device to be deleted in the list of WERMA-WIN devices.



Several WERMA-WIN devices can be selected by pressing CTRL.

- 2. Click on Delete.
- 3. Confirm the prompt with Yes.

3.7.7 Database

In the **Database** tab, various settings of the WERMA-WIN database can be adapted and the device data backed up or imported.



The following functions are available:

- Adapt connection settings in the Database assistant
- Export devices
- Import devices
- Clean old data

3.7.7.1 Database assistant

The database assistant can be used to edit the connection settings for the database.

- 1. Click on Database assistant.
- 2. Confirm the prompt with Yes.
 - \rightarrow WERMA-WIN is ended and the assistant appears to set up the database.

(#) WERMA-WIN data	base setup	×
Database setup	CH C)
\checkmark	Database installed The local database is installed	
	Use local database server Reset connection settings	
	Connect database Connect to existing database Choose this option to connect to an existing WERMA- WIN database with a Link File.	
	IT expert installation Further installation options	
	Save Link Filee to Save as file	
	Close Cancel	

The assistant to set up the database offers the following functions:

Function	Description
Use local database server	Reset existing connection settings.
Connect database	Connect to an existing WERMA-WIN database and
	thus enable multi-user access to the database.
IT expert installation	Enable Expert installation and adapt the saved
	connection settings.
Save Link File to	Save the link file to connect other workplaces to
	the WERMA-WIN database.

3.7.7.2 Exporting devices

All device configurations and switching rules can be exported to apply all configured WERMA-WIN devices from an existing installation to a new installation or to another workplace.

- 1. Click on **Export devices**.
- 2. Select the filename and storage location for the export file.
- 3. Click on Save.

3.7.7.3 Importing devices

(i) During import, all existing device configurations and switching rules are overwritten.

1. Click on Import devices.

- 2. Select the saved export file.
- 3. Click on Open.

4. Confirm the prompt with Yes.

3.7.7.4 Cleaning data

Old data can be cleaned and deleted from the WERMA-WIN database. You can specify from what point in time the data is to be kept.

1. Click on Clean data....

 \rightarrow The **Data Removal** window appears.

🛞 Data Removal	×
Use the Data Removal option to delete all data olde specified number of days.	r than the
Save the last 30 📩 days	
Cancel Close	OK Delete

- 2. Select the time interval from when the data is to be kept.
- 3. Click on OK.
- 4. Confirm the prompt with Yes.

3.7.8 Time period

Time periods (e.g. shift times) can be defined for the selection in the **Productivity** module.

(🛞 Settir	gs								×
	General	Views	Status transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Fur 🔸 🕨
	Individ are the	ual time p n availab	eriods for WIN can be le for various analysis	e entered, tools with	, edited or iin WIN.	deleted here. 1	he defined ti	me periods		
	N	ame			Start	End			💠 Add	
									🖋 Edit	
									🔉 Delete	
									Move u	p
									Move d	own
	5	Cancel Close							A Sa	C ve

3.7.8.1 Adding time periods

- 1. Click on Add.
 - \rightarrow The **Enter time period** window appears.

WERMA

(#) Enter time	period			Х
Name Start time End time	00:00	<>	 ✓ Monday ✓ Tuesday ✓ Wednesday ✓ Thursday ✓ Friday ✓ Saturday ✓ Sunday 	
	cel		A Save	

- 2. Enter the name of the time period entry in the Name field.
- 3. Enter the start of the time period in the Start time field.
- 4. Enter the end of the time period in the End time field.
- 5. Enable weekdays to which the time period applies.
- 6. Click on OK to save the settings.

3.7.8.2 Adapting time periods

- 1. Select the required time period entry in the list of time periods.
- 2. Click on Edit.
 - \rightarrow The **Edit time period** window appears.



- 3. Adapt the time period entry as required.
- 4. Click on OK to save the settings.

3.7.8.3 Sorting time periods

- 1. Select the required time period entry in the list of time period entries.
- 2. Click on Move up or Move down to move the time period entry.

i Time period entries arranged at the top of the list of view appear first in the selection list in the **Productivity** module.

3.7.8.4 Deleting a time period

1. Select the time period entry to be deleted in the list of time periods.

- 2. Click on Delete.
- 3. Confirm the prompt with Yes.

3.7.9 Fault conditions

Company-specific fault conditions (e.g. lack of material) can be defined for the creation of notes in the **Runtime** module. When a fault occurs, it is possible to select from the predefined fault conditions.

(#) Settin	ngs								×
General	Views	Status transmission	Sound	Reports	WIN devices	Database	Time period	Fault conditions	Fur • •
Define	your ow	n fault conditions and a	assign a s	specific co	lour.				
D	escriptio	n			Colour			💠 Add	
								/ Edit	
								40	
								🔉 Delete	
								Move u	q
								J. Move o	lown
			i dur					- Inore e	
	e touch i	nterrace to assign faul	t conditio	ns					
6	Cancel							0	к
	Close	-						Sa	ive

Use touch interface to assign fault conditions must be enabled to show the display version for the **touch interface** instead of the **Edit note** window in the event of a fault. A defined fault condition can only be selected in this case.

(#) Enter fault condition	×
Ca 0	ncel
Material	Support
Quality i	

3.7.9.1 Adding fault conditions

1. Click on Add.

(i)

WERMA

 \rightarrow The Enter fault condition window appears.

🛞 Enter fault c	ondition	×
Description	D	
Additional note		
		^
		~
Close	el OK Save	

- 2. Enter the fault condition in the **Description** field.
- 3. Select a **Colour** for the fault condition.
- 4. Enter additional information in the Additional note field if necessary.
- 5. Click on OK to save the settings.

3.7.9.2 Modifying fault conditions

- 1. Select the required fault condition in the list of fault conditions.
- 2. Click on Edit.
 - \rightarrow The Edit fault condition window appears.

Hit fault condition					
Description	Material				
Colour	\sim				
Additional not	2				
	^				
	Y				
	e OK Save				

- 3. Modify the fault condition as required.
- 4. Click on **OK** to save the settings.

3.7.9.3 Collating fault conditions

- 1. Select the required fault condition in the list of fault conditions.
- 2. Click on Move up or Move down to move the fault conditions.

Fault conditions arranged at the top of the list of fault conditions appear first in the selection list in the **Runtime** module.

(i)

3.7.9.4 Deleting fault conditions

- 1. In the list of fault conditions, select the fault condition to be deleted.
- 2. Click on Delete.
- 3. Confirm the prompt with Yes.

3.7.10 Functions

The modules and functions that are to be available at a workplace can be enabled or disabled in the **Functions** tab. **Settings** can also be protected by a password to prevent unauthorised access.

(#) Setti	ings									×	
Views	Status transmission	Sound	Reports	WIN d	evices	Database	Time period	Fault conditions	Functions	• •	
Defin prote	e the WIN functions th cted.	nat are av	railable on	this PC	. The dia	alogue settir	igs can be pas	sword			
Fund	ction				Enal	bled		De	fine		
Show	w 'Control station' mod	dule						Pas	Password		
-> N	Nanual switching of W	IN transm	itter cont	rol		/		to De	lete		
Sho	Show 'Productivity' module				/		2.S Pas	sword			
Sho	Show 'Runtime' module				/						
Show	w 'Job' module					/					
Show	w 'Control' module					/					
Sho	w 'Routing' module					/					
5	Close								CK Save	-	

3.7.10.1 Enabling and disabling functions

To enable a module or a function:

1. Enable the checkbox in the **Enabled** column in the list of modules and functions.

Function	Enabled
Show 'Control station' module	 Image: A start of the start of
-> Manual switching of WIN transmitter control	×
Show 'Productivity' module	√ s

2. Click on OK to save the settings.

To disable a module or a function:

1. Disable the checkbox in the **Enabled** column in the list of modules and functions.

Function	Enabled
Show 'Control station' module	~
-> Manual switching of WIN transmitter control	
Show 'Productivity' module	22

2. Click on OK to save the settings.
WERMA

3.7.10.2 Protecting settings with a password

- 1. Click on Define.
 - → The **Enter password** window appears.

(#) Enter password		×					
Enter a password which will be requested before the Settings dialog is opened. The same password is used on every Client.							
Old password							
New password							
Repetition							
Close	A Save						

Enter the existing password in the **Old password** field.

(i) If no password has been assigned, leave the **Old password** field empty.

- 2. Enter a new password in the **New password** field and in the **Repetition** field.
- 3. Click on **OK** to protect the settings with the password entered.

3.7.10.3 Deleting a password

1. Click on Delete.

(i)

2. Confirm the prompt with Yes.

3.8 Reports and exports

In the print preview, the export can be adapted or exported before printing.

Company name and logo can be modified under Settings.

2	Print preview 'Runtime - statuses'									-	. 8	×												
Print	Quick Print	Scale	Margins *	Orientation	Size	Find	Thumbnails	Editing Fields	First Page	Previous Page	Next Page	Last Page	► ∛] ≪	Many Pages	Q Zoom Out	Q Zoom	Q Zoom In	Watermark	Export To *	E-Mail As *	Close			
Pr	int		Page	Setup	R			Na	avigation						Zoom			Page Background	Exp	port	Close			^
	Runtime - statuses										(#) V	/EF	≂∾	A										

Machine	Start	End	Duration Tier 1 (Sec.)	Tier 2	Tier 3	Tier 4	
Unit 1	06/08/2017 21:17:53	07/08/2017 16:43:24	69,932 No data received	t			
Unit 2	06/08/2017 21:17:53	07/08/2017 16:43:22	69,930 No data received	t			
Unit 3	06/08/2017 21:17:53	07/08/2017 16:43:30	69,937 No data received	1			
Unit 2	07/08/2017 16:43:22	07/08/2017 16:46:25	183				
Unit 1	07/08/2017 16:43:24	07/08/2017 16:46:25	180	Warning			
Unit 3	07/08/2017 16:43:30	07/08/2017 16:46:25	175				
Unit 1	07/08/2017 16:46:25	07/08/2017 16:46:29	4 No data received	đ			
Unit 2	07/08/2017 16:46:25	07/08/2017 16:46:28	3 No data received	đ			
Unit 3	07/08/2017 16:46:25	07/08/2017 16:46:36	11 No data received	t			
Unit 2	07/08/2017 16:46:28	07/08/2017 17:22:46	2,178				
Unit 1	07/08/2017 16:46:29	07/08/2017 17:22:46	2,177	Warning			
Unit 3	07/08/2017 16:46:36	07/08/2017 17:22:46	2,170				
Unit 3	07/08/2017 17:22:46	08/08/2017 09:01:58	56,352 No data received	đ			
Unit 1	07/08/2017 17:22:46	08/08/2017 09:01:56	56,350 No data received	t			
Unit 2	07/08/2017 17:22:46	08/08/2017 09:02:07	56,361 No data received	t			
Unit 1	08/08/2017 09:01:56	08/08/2017 09:27:09	1.513	Warning			

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Functio	n	Description
Print		
	P	Print report.
	Print	The print settings can be adapted.
	Quick Print	Print report on the default printer without adapting print settings.
Page s	etup	
	Scale	Enlarge or reduce report as a percentage or to page width.
	Margins	Adapt page margins.
	Orientation	Adapt page orientation (portrait or landscape).
		Adapt paper size of the report.
	Size	Note: All reports are optimised for A4.
Naviga	tion	
	Find	Search for text in the report.
	Thumbnails	Show and hide miniature view of the report.

Functio	n	Description
		Move to first page.
	First Page	
		Move to previous page.
	Previous Page	
		Move to next page.
	Next Page	
		Move to last page.
	Last Page	
Zoom		
	k	Enable default cursor.
	Ð	Enable the hand cursor to drag the print preview of the report with the cursor.
	٩	Select the zoom cursor to zoom out of or zoom into the print preview.
		Display multiple pages in the print preview.
	Many Pages	
	O	Zoom out of print preview.
	Zoom Out	
	Q	Set zoom to a fixed value.
	Zoom	
	Ð	Zoom into print preview.
	Zoom In	
Backg	round	
		Insert a watermark into a report.
	Watermark	Delete a watermark in a report.
Export		
	POF -	Export report.
	Export To +	The export file format can be selected.
	109	Send report as e-mail attachment.
	E-Mail As ▼	The e-mail attachment file format can be selected.
Close		
	Close	Close print preview.

3.8.1 Pasting a watermark

An individual text, an image or a combination of text and image can be used as a watermark.

- 1. Click on **Watermark** in the toolbar.
 - \rightarrow The **Watermark** window appears.

Watermark		×		
	Text Waterm	nark Picture Watermark		
	Text:	×		
	Direction:	Forward Diagonal V Color:		
	Font:	Verdana V Size: 36 V		
		Bold Italic		
	Transparency (0-255): 50			
	Position	Page Range		
	🔾 In front	All O Pages:		
	Behind	Enter page numbers and/or page ranges separated by commas. For example: 1,3,5-12		
Clear All		OK Cancel		

- 2. Enter the text in the Text Watermark tab and format it as required.
- 3. Upload a picture in the Picture Watermark tab and format it as required.
- 4. Select the position of the watermark in the **Position** area.
- 5. In the Page range area, select the pages on which the watermark is to be inserted.

Multiple single pages are separated by a semicolon (;) (e.g. 3;5;7).
 Page ranges are specified by a hyphen (e.g. 3-5)

6. Click on OK to paste the watermark.

3.8.2 Deleting the watermark

1. Click on Watermark in the toolbar. \rightarrow The Watermark window appears.



Watermark		x				
	Text Watermark	Picture Watermark				
	Text: DRA	FT v				
	Direction: Forw	vard Diagonal 💙 Color: 🗾 🗸				
	Font: Verd	ana 💙 Size: 36 💙				
	B	ld 🗌 Italic				
RAN	Transparency (0-255): 50					
¥						
	Position	Page Range				
	O In front	All OPages:				
	Behind	Enter page numbers and/or page ranges separated by commas. For example: 1,3,5-12				
Clear All		OK Cancel				

- 2. Click on Clear all to delete the watermark.
- **3.** Click on **OK** to apply the settings.

3.8.3 File formats

The following file formats are available for export and as e-mail attachment:

File format	Export	E-mail attachment
PDF file	~	\checkmark
HTML file	~	
Excelfile	~	\checkmark
Excel 2007 document	~	\checkmark
CSV file	~	\checkmark
Picture file	\checkmark	\checkmark

4 Automation interfaces

WERMA-WIN has 3 automation interfaces.

The XML interface makes it possible to make data available to third-party programs or to import data from a third-party program into WERMA-WIN.

The WINtoApplication makes it possible for the statuses of a signal tower to be transmitted to an external application.

The WERMA-WIN CLI Tool makes it possible for external applications to switch a WIN transmitter control controlled by the program.

4.1 XML interface

The XML interface consists of an export and an import module. It is possible to enable or disable both modules separately.

Information about imports and exports currently in progress as well as the status of the XML interface is displayed in the **Interface status** area.

The XML interface is set up on the (server) PC on which the WERMA-WIN server service is executed.

For optimum availability of the XML interface, WERMA recommends:

- Saving the export file or import file on a local data medium (not on a network drive).

- Setting up an exception in the virus scanner for the export file and the import directory so that the export file is not completely scanned on every export.

- Setting up write authorisation for the WERMA-WIN server service for the directory. The WERMA-WIN server service is executed under Windows user account Network Service

WERMA-WIN does not archive the exported data. For error analysis purposes WERMA recommends archiving the XML export files in the external system.

4.1.1 Export

(i)

During the export process changes to statuses, counter values and jobs are exported incrementally to an XML file. This sees a record written to the XML file for each change.

4.1.1.1 Configuring the XML interface

1. WERMA-WINOpen the Administration Console on the server PC.

WERMA

	WERMA-WIN Administration Console 4.5.0.2124 - WERMA Signaltechnik GmbH + Co. KG	_		×
Administration				~
XML interface Manual Contact Info				
Interfaces Support				
Interfaces Support			_	

- 2. In the Interfaces area of the toolbar, click XML interface. \rightarrow The XML interface window appears.
- 3. Select the Export tab.

Export	Import	
Configu	uration	
Filename		•••
		Specify the file to which to export the XML data.
		Note: Recommended file on local disk.
System II	D	(optional)
		If you use multiple WERMA-WIN systems, you can later uniquely identify the various systems via the system ID in the processing of data.
		✓ Enable ✗ Disable
Export	current o	onditions
When cor option of counters changes	mmissioning th manually exp and jobs. In r are exported	The XML export interface, you have the orting the current state of all signals, equal operation of the interface, the incrementally.

- **4.** In the **Configuration** area click **Search**, then select the storage location and also enter the name XML file.
- 5. If required, enter the system ID of the WERMA-WIN system in the field System ID.

(i) Entering the system ID makes it possible to unambiguously identify different WERMA-WIN systems while processing the data.

4.1.1.2 Enabling the XML interface

1. Click Enable.

(i) If the XML interface is enabled for the first time, WERMA recommends performing a oneoff manual export of the data.

4.1.1.3 Disabling the XML interface

1. Click Disable.

(i) WERMA-WIN does not archive the exported data. For error analysis purposes WERMA recommends archiving the XML export files in the external system.

4.1.1.4 Element and attribute description

(j) WERMA recommends that you ignore unknown elements and attributes when processing the XML export file.

General attributes

Attributes	Data type	Description	Values
rowid	[bigint]	This is increased	
		consecutively	
		with each expor-	
		ted record; it is	
		unique for each	
		record.	
		To detect dupli-	
		cates in the	
		event an error	
		occurs, the exter-	
		nal system should	
		import each	
		rowidonlyonce.	



Attributes	Data type	Description	Values
		rowidcan be	
		used as the pri-	
		mary key for the	
		data records	
timestamp	[datetime]	Time stamp in ISO	
		8601 format	
refid	Different, see	When database	
	data type at	objects are expor-	
	respective ele-	ted directly the	
	ment	r e f i dspecifies	
		the internal ID in	
		the WERMA-WIN	
		database.	

<data>

<data>contains all export data.

Attributes	Data type	Description	Values
version	[nvarchar]	Version of the	
	(20)	XML schema defi-	
		nition	
systemid	[nvarchar]	System ID, which	
	(25)	was configured in	
	(20)	the WERMA-WIN	
		Administration	
		Console.	
appname	[nvarchar]	Name of the	
	(max)	exporting app-	
	(max)	lication	
appversion	[nvarchar]	Version number	
	(20)	of the exporting	
		application	

<slaveref>

Reference to a WIN transmitter. It is possible to use the refidor the macidto unequivocally identify a WIN transmitter.

Attributes	Data type	Description	Values
refid	[smallint]	When database	
		objects are expor-	
		ted directly the	
		refidspecifies	
		the internal ID in	
		the WERMA-WIN	
		database.	
macid	[nvarchar]	Assignment to a	

Attributes	Data type	Description	Values
	(6)	WIN transmitter	
		via the wireless	
		MAC address	
		Notation: Lower	
		case letters	
		without hyphens	

<slavestate>

A new status was received for a WIN transmitter.

Data type	Description	Values
[tinyint]	Status tier 1	
		0= Off=Off
[tinyint]	Status tier 2	1= 0n=On
[4:	Status tion 2	2= Blinking=Blinking
	310103 Her 3	3= [Error]=Connection error
[tinyint]	Status tier 4	
	Data type [tinyint] [tinyint] [tinyint] [tinyint]	Data typeDescription[tinyint]Status tier 1[tinyint]Status tier 2[tinyint]Status tier 3[tinyint]Status tier 4

<counterinfo>

A new counter value was received for a WIN transmitter performance, the counter manually reset, or a job started or completed.

Attributes	Data type	Description	Values
tier	[tinyint]	Configured coun-	1= Tier 1
		ter tier	2= Tier 2
			3= Tier 3
			4= Tier 4
value	[int]	Counter status,	Value >= 0
		display in control	
		station	
orderrefid	[int]	Reference to an	
		internal job ID	

<order>

<order >contains data belonging to a job.

Attributes	Data type	Description	Values
orderid	[int]	Job ID generated by WERMA-WIN	
		The job ID is displayed in the job module.	



Attributes	Data type	Description	Values
refid	[int]	When database objects are exported directly the refidspe- cifies the internal ID in the WERMA-WIN data- base.	
number	[nvarchar] (60)	Selected job number	
description	[nvarchar] (250)	Selected job name	
state	[tinyint]	Current job status	1= Waiting=Only crea- ted 2= Processing=In pro- gress 3= Completed=Com- pleted 4= WaitForStart(see waitmode)
waitmode	[tinyint]	If state= 4 the wait- modeindicates when the job will be started.	0= Counter=Start with next piece 1= Signa I=Start, as soon as tier job input is enabled
targetamount	[decimal] (18.3)	Plan quantity	
piecespersignal	[decimal] (18.3)	Factor (number of pie- ces per cycle)	
timepersignal	[decimal] (18.1)	Plan cycle time in seconds	
targetsetuptime	[int]	Plan set up time in minutes	
amountcorrection	[decimal] (18.3)	Actual correction (piece)	
realbegintime	[datetime]	Time when the job was started (or empty character string)	
realendtime	[datetime]	Time when the job was completed (or empty character string)	
realsetuptime	[int]	Actual set up time	
realamount	[decimal]	Actual quantity	
	(18.3)		

Attributes	Data type	Description	Values
		Is set when the job was completed. It is possible to determine the number of pieces until the job is com- pleted using <coun- ter info>in the XML interface.</coun- 	
autostoptimeenabled	[bit]	The job is completed automatically taking into consideration: - autoStopTime - autostoptimedays	0= Job will not be com- pleted 1= Job will be completed
autostoptime	[datetime]	Time at which the job is to be completed automatically	
autostoptimedays	[int]	Specifies after how many days the job is to be completed.	
autostoptargetamount	[bit]	Job is completed automatically as soon as the plan quantity is reached.	0= Job will not be com- pleted 1= Job will be completed

<deleteinfo>

<deleteinfo>flags a record as deleted.

Attributes	Data type	Description	Values
type		Record type	order
refid	[int]	Internal record ID	

<sync>

<sync>highlights the start and the end of the XML export.

Attributes	Description	Values
state	Specifies if the sync tag stands for	
	the start (started) or the end (com-	
	pleted of the synchronisation.	
syncid	Unambiguous GUID to assign the	
	sync end to the start.	

() WERMA

4.1.1.5 Example XML export file

Example of an XML export file

xml version="1.0" encoding="UTF-8"?
<data appname="WERMA-WIN-3.0" appversion="4.5.0.1816" systemid="Wermapc235" version="1.0"></data>
- <slavestate rowid="551807" tier1="0" tier2="0" tier3="0" tier4="0" timestamp="2018-02-14T15:03:35.5919399+01:00"></slavestate>
<slaveref macid="006C36" refid="1"></slaveref>
- <slavestate rowid="551808" tier1="0" tier2="0" tier3="0" tier4="0" timestamp="2018-02-14T15:03:35.8260887+01:00"></slavestate>
<slaveref macid="006C79" refid="3"></slaveref>
slavestate tier4="0" tier3="0" tier2="0" tier1="1" timestamp="2018-02-14T15:03:41.7800895+01:00" rowid="551809">
<slaveref marid="1006C36" refid="1"></slaveref>
<pre>colouroactate tiard="0" tiar3="0" tiar1="1" timestamn="2018-02-14T15:03:41 0088001+01:00" rowid="551810"></pre>
<slaveref macid="006C29" refid="3"></slaveref>
<pre>> </pre> / dove at the fait = "0" ther 2 = "0" ther 1 = "2" timestamp = "2019-02-14T15-02-42 0142072±01-00" rewid="551911">>
violationale // files/="0" fil
Statestate det = 0
<saverer macd="uucc/9" rend="3"></saverer>
- <slavestate rowid="551813" tier1="0" tier3="0" tier4="0" timestamp="2018-02-14115:03:58.5163838+01:00"></slavestate>
<slaverer macid="006C36" rend="1"></slaverer>
- <counterinto orderrefid="" rowid="551814" tier="1" timestamp="2018-02-14T15:12:13.9583469+01:00" value="0"></counterinto>
<slaveref macid="006BBD" refid="6"></slaveref>
- <order <="" autostoptargetamount="1" autostoptime="00:00:00" autostoptimedays="1" autostoptimeenabled="0" realamount="0" refid="180848" rowid="551815" td="" timestamp="2018-02-14T15:13:08.2450790+01:00"></order>
realsetuptime="0" realendtime="" realbegintime="" amountcorrection="0" targetsetuptime="0" timepersignal="0.8" piecespersignal="10" targetamount="1000" waitmode="0" state="1" description="A00014" number="A00014"
orderid="87677">
<slaveref macid="006BBD" refid="6"></slaveref>
- <order <="" autostoptargetamount="1" autostoptime="00:00:00" autostoptimedays="1" autostoptimeenabled="0" p="" realamount="0" refid="180848" rowid="551816" timestamp="2018-02-14T15:17:35.0651364+01:00"></order>
realsetuptime="0" realendtime="" realbegintime="2018-02-14T15:17:35.0494684+01:00" amountcorrection="0" targetsetuptime="0" timepersignal="0.8" piecespersignal="10" targetamount="1000" waitmode="0" state="2"
description="A00014" number="A00014" orderid="87677">
<slaveref macid="006BBD" refid="6"></slaveref>
- <counterinfo orderrefid="180848" rowid="551817" tier="1" timestamp="2018-02-14T15:17:35.0651364+01:00" value="0"></counterinfo>
<slaveref macid="006BBD" refid="6"></slaveref>
- <counterinfo orderrefid="180848" rowid="551818" tier="1" timestamp="2018-02-14T15:17:35.0961291+01:00" value="0"></counterinfo>
<slaveref macid="006BBD" refid="6"></slaveref>
- <order <="" autostoptargetamount="1" autostoptime="00:00:00" autostoptimedays="1" autostoptimeenabled="0" p="" realamount="0" refid="180848" rowid="551819" timestamp="2018-02-14T15:30:47.7027443+01:00"></order>
realsetuptime="0" realendtime="2018-02-14T15:30:47.7027443+01:00" realbegintime="2018-02-14T15:17:35.0500000" amountcorrection="0" targetsetuptime="0" timepersional="0.8" piecespersional="10"
targetamount="1000" waitmode="0" state="3" description="A00014" number="A00014" orderid="87677">
<slaveref macid="006BBD" refid="6"></slaveref>
- <counterinfo orderrefid="" rowid="551820" tier="1" timestamp="2018-02-14T15:30:47.7495606+01:00" value="0"></counterinfo>
<slaveref madd="006BBD" refid="6"></slaveref>
<pre><deleteinfo refid="180848" rowid="551821" timestamp="2018-02-14T15:30:50.1872793+01:00" type="order"></deleteinfo></pre>

4.1.1.6 Accessing the XML export

WERMA-WIN regularly opens the XML export file for write access purposes only and to check if the XML export file can be overwritten. Consequently, the XML export file must be renamed before the XML export file can be processed by an external system.

If the XML export file was renamed, WERMA-WIN creates a new file when the next export is run.

(i) If WERMA-WIN has opened the XML export file, it cannot be renamed. In that case the external system must make several attempts to rename the XML export file.

Access can be granted to the XML export file according to the following schema:



- (i) To prevent a new XML export file being created after it has been renamed, although no data needs to be processed, WERMA recommends only renaming and processing the XML export file as soon as its size exceeds 120 bytes. An empty XML export file without exported data is approx 120 bytes in size (depending on the stored system ID).
- (i) WERMA-WIN exports new data within a few milliseconds. If the external system is to process the data very quickly, WERMA recommends using the Windows API to monitor the file system or rather the XML export file (for example with .NET FileSystemWatche). In this case, WERMA recommends not checking the size of the file and to process the XML export file immediately after it is created.

4.1.1.7 Exporting data manually

The manual export serves as the initial synchronisation after the XML interface is enabled for the first time. This exports all tier statuses, counter statuses and jobs. It is then subsequently possible to use the automated export interface.

- 1. Configuring the XML interface.
- 2. Click Export in the Export current statuses area.



(i) Depending on the number of jobs, manual export can take some time.

4.1.2 Import

During the import process WERMA-WIN reads in data from an XML file. The XML file can contain several data records. The data records to be imported can be different data record types, for example, Set up jobor Start job Each data record is processed individually.

An import report is created for each imported file in the form of an XML file and saved in a dedicated directory. The file name is suffixed with -result

4.1.2.1 Configuring the XML interface

(i) The file names of the XML files to be imported in the import directory must observe a specified schema.

An example shows the structure of the XML import file.

1. Open the WERMA-WIN Administration Console on the server PC.

			WERMA-WIN Administration Console 4.5.0.2124 - WERMA Signaltechnik GmbH + Co. KG	-	×
Adminis	stration				^
XML interface Ma	anual Contact	Info			
Interfaces	Support				
Interfaces	bapport				

- 2. In the Interfaces area of the toolbar, click XML interface. \rightarrow The XML interface window appears.
- 3. Select the Import tab.

Export Import	
Configuration	
Import directory	•••
	Specify the directory from which to read the XML files.
Results directory	
	A results file for each processed XML file is placed in this directory. The external system can process this as confirmation.
Archive directory	•••
	This directory contains the processed XML files
Number of days after	which files will be from the archive
	✓ Enable ✗ Disable
Note: Recomme	nded directories to local disk.

WERMA

- 4. In the Configuration area click Search and select Import directory.
- 5. Select **Results directory**, in which a results file of every imported XML file is saved.

(i) The Results file can be processed by the external system as feedback.

- 6. Select Archive directory, into which the processed XML files are moved.
- 7. In the Number of days after which archive files are deleted field, specify how long archived files should be kept.

4.1.2.2 Enabling the XML interface

1. Click Enable.

4.1.2.3 Disabling the XML interface

1. Click Disable.

(i) WERMA-WIN does not archive the exported data. For error analysis purposes WERMA recommends archiving the XML export files in the external system.

4.1.2.4 Element and attribute description

General attributes

Attributes	Data type	Description	Values
rowid	[nvarchar] (60)	The rowids used for the record in the results file.	
		The external sys- tem is able to assign the rowid as required (max. 60 characters).	
		The rowidfor each respective import file must be unambiguous.	
timestamp	[datetime]	Time stamp in ISO 8601 format	
		Date entries are evaluated as local time/time zone.	

Attributes	Data type	Description	Values
		Example:	
		31.12.2017	
		19:00:00 = 2017-	
		12-31T19:00:00	

<data>

<data>contains all export data.

Attributes	Data type	Description	Values
version	[nvarchar]	Version of the	
	(20)	XML schema defi-	
	(= -)	nition	
appname	[nvarchar]	Name of the	
	(max)	exporting app-	
	(max)	lication	
appversion	[nvarchar]	Version number	
	(20)	of the exporting	
	(20)	application	
cancelonerror	[bit]	Specifies if pro-	false=Continue processing
		cessing of the	with the next record
		import file is to be	true Cancel processing the
		continued if an	file
		import error	
		occurs.	

<slaveref>

Reference to a WIN transmitter. It is possible to use the refidor the macido unequivocally identify a WIN transmitter.

Attributes	Data type	Description	Values
refid	[smallint]	Assignment to	
		aWIN transmitter	
		via the database	
		ID	
macid	[nvarchar]	Assignment to a	
	(6)	WIN transmitter	
		via the wireless	
		MAC address	
		Notation: Lower	
		case letters	
		without hyphens	

<orderref>

Assignment to a job. Can be selected using orderidor refid



Attributes	Data type	Description	Values
orderid	[int]	The job ID shown in the user inter- face The order i ds	
		generated con- tinuously. If the job with the hig- hest or der i dwas deleted, the or der i dfor the next job is used	
refid	[int]	Assignment to a job via the data- base ID	

Setting up a job

Attributes	Data type	Description	Values
number	[nvarchar] (60)	Job number	String with 60 characters, no line breaks
description	[nvarchar] (250)	Job name	String with 250 characters, no line breaks
targetamount	[decimal] (18.3)	Plan quantity	Integer
piecespersignal	[decimal] (18.3)	Factor (number of pieces per cycle)	Integer
timepersignal	[decimal] (18.1)	Plan cycle time in seconds	Decimal number max. one place after the decimal point
targetsetuptime	[int]	Plan set up time in minutes	Integer
autostoptargetamount	[bit]	Complete job automatically when the plan quantity is rea- ched.	t r ue = Complete job f a I se = Do not complete job
autostoptimeenabled	[bit]	Complete job automatically when the auto- stopt imeis rea- ched.	t r ue = Complete job f a I se = Do not complete job
autostoptime	[datetime]	Time at which the job is com- pleted auto-	Date + time: 2017-12- 31T19:00:00

Attributes	Data type	Description	Values
		matically.	
		autostoptime evaluatesthe time only.	
autostoptimedays	[int]	If the job is not	
		to be com-	
		pleted on the	
		start day, it is	
		possible to spe-	
		cify a number	
		of days after	
		which the job	
		will be com-	
		pleted auto-	
		matically.	



(i)

Do not use the attributes refidand orderidwhen setting up a new job.

A point (.) is used as a decimal separator for decimal numbers.

Thousands separators are not supported.

Decimal places of quantities are ignored.

Editing a job

Attributes	Data type	Description	Values
amountcorrection	[int]	Actual cor- rection	
		Is added to the quantity deter- mined per clock signal.	
		If the actual cor- rection is nega- tive, it is subtracted from the determined quantity.	
realsetuptime	[int]	Actual set up time in minutes	



If an attribute is not specified, the value stored to date remains valid.



When using the attributes refidand orderid

- Specify just one of the two attributes when editing a job. If there is an option in the external system to save the refidgenerated when creating the job, the attribute refidshould always be specified for subsequent processing operations. In that case, the attribute orderidneed not be transferred.
- If both attributes are specified, both IDs must reference the same job.

Deleting the assignment of a WIN transmitter

Attributes	Description	Values
slaveref refid	Delete the assignment of a WIN transmitter to a job.	empty
slaveref macid	Delete the assignment of a WIN transmitter to a job.	empty

Starting a job

 (\mathbf{i})

Attributes	Description	Values
action rowid="" type="order-start"	Start job.	
action orderref refid="" type-	Start job.	
e="order-start"		
action orderref oderid="" type-	Start job.	
e="order-start"		

Changing job to active waiting

Attributes	Description	Values
action rowid="" type="order-wait-	Please wait	
for-start" waitmode=""	for counter	
	input or job	
	input to start	
	the job.	
action orderref refid ="" type-	Please wait	
e="order-wait-for-start" waitmode="	for counter	
II.	input or job	
	input to start	
	the job.	
action orderref oderid ="" type-	Please wait	
e="order-wait-for-start" waitmode="	for counter	
"	input or job	
	input to start	
	the job.	
waitmode	Specification,	s i gna I= Job input
	if a counter	counter=Counterinput
	input or job	
	input triggers	
	the change.	

Completing a job

Attributes	Description	Values
action rowid="" type="order-stop"	Complete	
	job.	
action orderref refid ="" type-	Complete	
e="order-stop"	job.	
action orderref oderid ="" type-	Complete	
e="order-stop"	job.	

Deleting a job

Attributes	Description	Values
action rowid="" type="order-delete"	Delete job.	
action orderref refid ="" type- e="order-delete"	Delete job.	
action orderref oderid ="" type- e="order-delete"	Delete job.	

4.1.2.5 Example of an XML import file

An example for an XML import file is available in the installation directory of WERMA-WIN in the subdirectory **Docs**

4.1.2.6 File name

(i)

The file name can be assigned as desired; however, it must end with a time stamp corresponding to the format -YYYYMDDhhmms sand the file extension . xml



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Examples:

```
order-20180301150000.xml
config-20180301150104.xml
start-order-20180301153041.xml
```

4.1.2.7 Results file

The results file is created during the import operation and saved to the results directory with the suffix -result If the file already exists, the name is suffixed with -0002 - 0003 and so forth.

Example of a results file

```
<?xml version="1.0" encoding="utf-8"<mark>?></mark>

<
  < !-- XML format errors etc. -->
  <result timestamp="2018-01-17T11:08:31.2922173+01:00" type="file" success="false">
    <exception type="..." message="..." />
  </result>
    <result rowid="..." timestamp="2018-01-17T11:08:31.2922173+01:00" type="order" success="false">
    <!-- If available, all ID attributes are transferred in the results file -->
    <orderref refid="4711" orderid="2" />
    <exception type="..." message="..." />
  </result>
  <result rowid="..." timestamp="2018-01-17T11:08:31.2922173+01:00" type="order" success="true">
    <orderref refid="4711" orderid="2" />
  </result>
 <!-- Process (for example, Start job) was successfully executed -->
  <result rowid="..." timestamp="2018-01-17T11:08:31.2922173+01:00" type="action" success="true" />
  <!-- Process (for example, Start job) was not successfully executed -->
 <result rowid="..." timestamp="2018-01-17T11:08:31.2922173+01:00" type="action" success="false">
    <exception type="..." message="..." />
  </result>
</results>
```

4.1.3 Interface status

The **Interface status** area displays information about the current status of the XML interface as well as imports and exports currently in progress.

Interface status

(i)



Errors are also logged in the Windows Event Viewer and in the WERMA-WIN error log.

4.2 WINtoApplication

The WINtoApplication allows you to transmit the statuses of a signal tower to an external application and specifically further process them in this application. This application can be set up individually for each user.

(i) The application data is stored, user-related, locally and not in the WERMA-WIN database. The settings of the WINtoApplication can be exported and imported for use on another PC or with another user.

(j) The WINtoApplication only operates with an active user login. A user must be continuously logged in.

1. If the **Settings** window is not yet open, click on **Settings** in the toolbar.

2. Click on **Start WinToApplication** in the **Status transmission** tab. \rightarrow The **WINtoApplication task overview** window appears.



The WINtoApplication task overview shows an overview and the status of all available tasks.

Status	Description
✓	The task has been successfully performed.
*	There was an error the last time the task was performed. The History shows error details.
÷	The task is running.

(i)

Clicking on **Refresh** updates the task overview.



(i) The symbol in the system tray can be used to enable and disable tasks and end WINtoApplication.

4.2.1 Adding a task

1. Click on Add.

 \rightarrow The WINtoApplication task configuration window appears.

🖗 WINtoApplica	tion task configuration		
1/3 Gener	al settings		*.exe *.bat *.cmd
You can create i	new tasks or edit existing tasks with this assistant.		
Please specify th	ne settings for the application		
Description]	
	Enabled		
Comment		A	
Close			Next
Cancel			Next step

- 2. Enter the name of the task in the **Description** field.
- 3. Enter an additional description of the task in the **Comment** field, if necessary.
- 4. Select **Enabled** if the task is to be immediately enabled once it has been created.
- 5. Click on Next.
 - \rightarrow The window to input the application settings appears.

() WINtoApplication task configuration		_ – ×
2/3 Application settings		*.exe *.bat *.cmd
Please specify here which application should be started and define the p	arameters which will be transferred to the application.	
Application Parameters The application cannot be started multiple times simultaneously Tip: To transfer the parameters correctly to the application, put the placeholders in quotes. Example: "%name%" "%state 1%"	The following placeholders can be used as parameters: %Gaveid%: ID of the WIN transmitter %time%: Date and time %time%: Date and time States (0=off, 1=on, 2=blinking, 3=error): %state 1%: State of tier 1 %state 2%: State of tier 2 %state 2%: State of tier 3 %state 4%: State of tier 4 Description (e.g. ready for operation) %statename 1%: Description 1 %statename 2%: Description 2 %statename 2%: Description 3 %statename 4%: Description 4 For WIN transmitter performance: %counter %: counter value %order -discription%: description %order -description%: description %order -total%: total pieces %order -total%: job progression	×
ace Back		Next Next step

- 6. Click on ... in the Application field to select the external application.
- 7. In the **Parameter** field, enter the Parameters which are to be transmitted to the external application.
- 8. Enable The application cannot be started multiple times simultaneously, if required, to prevent the external application from being started several times simultaneously.
- (i) By enabling **The application cannot be started multiple times simultaneously**, the program waits until the external application has ended. The external application is then called up again.

Disable **The application cannot be started multiple times simultaneously** if applications expect a multiple start.

9. Click on Next.

 \rightarrow The window to select the WIN transmitter appears.



P WINtoApplication task configuration			_ – ×
3/3 Select WIN transmitters			*.exe *.bat *.cmd
Please specify which WIN transmitters and status changes should be Select the individual WIN transmitters in the left panel and configure t	esponded to. he appropriate options on the right.		
WIN transmitter	Change of tier state		
Unit 1	-	Time delay	
Unit 2 Unit 3	 4. tier: Counter input 3. tier: Error 	20 🗘 sec.	
	2. tier: Warning	20 🌲 sec.	
	1. tier: Operational	20 🌲 sec.	
	Change of job state		
	At a job progression of	0 🗘 %	
	At a quantity of	0 🌲 Piece	
	Transmit new counter values immediately		
Back Cancel			OK Save

- **10.** From the list of WIN transmitters, select the WIN transmitters whose status changes are to be transmitted.
- 11. In the **Change of tier state** area, select for which tiers the status changes are to be transmitted.
- **12.** Enter a **time delay** for each tier if necessary.
- (i) The status change is only transmitted if the new status is unchanged during the defined **time delay**. No status change is transmitted if the status has changed again within the **time delay**.
- **13.** In the **Change of job state** area, select at which job progression or at which quantity the status change is to be transmitted.
- 14. Enable Transmit new counter values immediately if every changed counter status is to be transmitted.

(i) The **Change of job state** area is only available if a WIN transmitter control is selected.

- 15. Click on OK.
 - \rightarrow The window in which to create an Autostart shortcut appears.

🖗 WINtoApplication task configuration	_
Start WINtoApplication at windows startup	*.exe *.bat *.cmd
Do you want to configure WINtoApplication to start up with the Windows user log-on?	
Start WINtoApplication at windows startup	
Back Cancel	OK Save

- **16.** Enable **Start WINtoApplication at windows startup** if WINtoApplication is to be automatically started when the PC is started or after user login.
- 17. Click on OK to save the task.

4.2.1.1 Placeholders/Parameters

The following placeholders/parameters are available:

Placeholders/Parameters	Description
%slaveid%	ID of the WIN transmitter
%name%	Name of the WIN transmitter
%time%	Date and time of status transmission
%reason%	Reason for status transmission
%state1%	Status of tier 1
%state2%	Status of tier 2
%state3%	Status of tier 3
%state4%	Status of tier 4
%statename1%	Name of tier 1
%statename2%	Name of tier 2
%statename3%	Name of tier 3
%statename4%	Name of tier 4
%counter%	Counter status of the job



Placeholders/Parameters	Description
%order-id%	Job ID
%order-number%	Jobnumber
%order-description%	Name of job
%order-total%	Total amount of job
%order-progression%	Progression of job



All placeholders/parameters begin and end with the character %

4.2.2 Editing a task

- 1. Select the required task in the task overview.
- 2. Click on Edit.
 - \rightarrow The WINtoApplication task configuration window appears.

P WINtoApplicat	ion task configuration		_
1/3 Genera	al settings		*.exe *.bat *.cmd
You can create n	ew tasks or edit existing tasks with this assistant.		
Please specify the	e settings for the application		
Description	Counter		
	🗹 Enabled		
Comment		*	
		v	
Close Cancel			Next Next step

- 3. Enter the name of the task in the **Description** field.
- 4. Enter an additional description of the task in the Comment field, if necessary.
- 5. Select **Enabled** if the task is to be immediately enabled once it has been created.
- 6. Click on Next.
 - \rightarrow The window to input the application settings appears.



- 7. Click on ... in the Application field to select the external application.
- 8. In the **Parameter** field, enter the parameters which are to be transmitted to the external application.
- **9.** Enable **The application cannot be started multiple times simultaneously**, if required, to prevent the external application from being started several times simultaneously.
- (i) By enabling **The application cannot be started multiple times simultaneously**, the program waits until the external application has ended. The external application is then called up again.

Disable **The application cannot be started multiple times simultaneously** if applications expect a multiple start.

10. Click on Next.

 \rightarrow The window to select the WIN transmitter appears.



P WINtoApplication task configuration			_ – ×
3/3 Select WIN transmitters			*.exe *.bat *.cmd
Please specify which WIN transmitters and status changes sho Select the individual WIN transmitters in the left panel and conf	ld be responded to. igure the appropriate options on the right.		
WIN transmitter	Change of tier state		
Unit 1		Time delay	
Unit 2 Unit 3	 A. tier: Counter input 3. tier: Error 2. tier: Warning 1. tier: Operational Change of job state At a job progression of At a quantity of Transmit new counter values immediately.	20 ↓ sec. 20 ↓ sec.	
Back Cancel			OK Save

- 11. From the list of WIN transmitters, select the WIN transmitters whose status changes are to be transmitted.
- 12. In the **Change of tier state** area, select for which tiers the status changes are to be transmitted.
- **13.** Enter a **time delay** for each tier if necessary.
- (i) The status change is only transmitted if the new status is unchanged during the defined **time delay**. No status change is transmitted if the status has changed again within the **time delay**.
- 14. In the **Change of job state** area, select at which job progression or at which quantity the status change is to be transmitted.
- 15. Enable Transmit new counter values immediately if every changed counter status is to be transmitted.

The **Change of job state** area is only available if a WIN transmitter control is selected.

16. Click on OK.

 (\mathbf{i})

 \rightarrow The window in which to create an Autostart shortcut appears.

🖗 WINtoApplication task configuration	
Start WINtoApplication at windows startup	*.exe *.bat *.cmd
Do you want to configure WINtoApplication to start up with the Windows user log-on?	
Start WINtoApplication at windows startup	
Back	<u>ок</u>
Cancel	Save

- **17.** Enable **Start WINtoApplication at windows startup** if WINtoApplication is to be automatically started when the PC is started or after user login.
- 18. Click on OK to save the task.

4.2.2.1 Placeholders/Parameters

The following placeholders/parameters are available:

Placeholders/Parameters	Description
%slaveid%	ID of the WIN transmitter
%name%	Name of the WIN transmitter
%time%	Date and time of status transmission
%reason%	Reason for status transmission
%state1%	Status of tier 1
%state2%	Status of tier 2
%state3%	Status of tier 3
%state4%	Status of tier 4
%statename1%	Name of tier 1
%statename2%	Name of tier 2
%statename3%	Name of tier 3
%statename4%	Name of tier 4
%counter%	Counter status of the job



Placeholders/Parameters	Description
%order-id%	Job ID
%order-number%	Jobnumber
%order-description%	Name of job
%order-total%	Total amount of job
%order-progression%	Progression of job



All placeholders/parameters begin and end with the character %

4.2.3 Duplicating a task

- 1. Select the required task in the task overview.
- 2. Click on Duplicate.
 - \rightarrow The WINtoApplication task configuration window appears.

🔗 WINtoApplicat	tion task configuration		_
1/3 Genera	al settings		*.exe *.bat *.cmd
You can create r	new tasks or edit existing tasks with this assistant.		
Please specify th	e settings for the application		
Description	Counter		
	Z Enabled		
Comment		<u>^</u>	
		Ψ.	
Close Cancel			Next Next step

- 3. Enter the name of the task in the **Description** field.
- 4. Enter an additional description of the task in the Comment field, if necessary.
- 5. Select **Enabled** if the task is to be immediately enabled once it has been created.
- 6. Click on Next.
 - \rightarrow The window to input the application settings appears.



- 7. Click on ... in the Application field to select the external application.
- 8. In the **Parameter** field, enter the parameters which are to be transmitted to the external application.
- **9.** Enable **The application cannot be started multiple times simultaneously**, if required, to prevent the external application from being started several times simultaneously.
- (i) By enabling **The application cannot be started multiple times simultaneously**, the program waits until the external application has ended. The external application is then called up again.

Disable **The application cannot be started multiple times simultaneously** if applications expect a multiple start.

10. Click on Next.

 \rightarrow The window to select the WIN transmitter appears.

P WINtoApplication task configuration			_ – ×
3/3 Select WIN transmitters			*.exe *.bat *.cmd
Please specify which WIN transmitters and status changes Select the individual WIN transmitters in the left panel and	should be responded to. configure the appropriate options on the right.		
WIN transmitter	Change of tier state		
Unit 1		Time delay	
Unit 2 Unit 3	 A. tier: Counter input 3. tier: Error 2. tier: Warning 1. tier: Operational Change of job state At a job progression of At a quantity of Transmit new counter values immediately.	20 ↓ sec. 20 ↓ sec. 20 ↓ sec. 20 ↓ sec. 20 ↓ sec.	
Back Cancel			OK Save

- 11. WIN transmitterFrom the list of WIN transmitters, select the WIN transmitters whose status changes are to be transmitted.
- 12. In the **Change of tier state** area, select for which tiers the status changes are to be transmitted.
- **13.** Enter a **time delay** for each tier if necessary.
- (i) The status change is only transmitted if the new status is unchanged during the defined **time delay**. No status change is transmitted if the status has changed again within the **time delay**.
- 14. In the **Change of job state** area select at which job progression or at which quantity the status change is to be transmitted.
- 15. Enable Transmit new counter values immediately if every changed counter status is to be transmitted.

The **Change of job state** area is only available if a WIN transmitter control is selected.

16. Click on Next.

 (\mathbf{i})

 \rightarrow The window in which to create an Autostart shortcut appears.

🖗 WINtoApplication task configuration	
Start WINtoApplication at windows startup	*.exe *.bat *.cmd
Do you want to configure WINtoApplication to start up with the Windows user log-on?	
Start WINtoApplication at windows startup	
Back	<u>ок</u>
Cancel	Save

- 17. Enable Start WINtoApplication at windows startup if WINtoApplication is to be automatically started when the PC is started or after user login.
- 18. Click on OK to save the task.

4.2.3.1 Placeholders/Parameters

The following placeholders/parameters are available:

Placeholders/Parameters	Description
%slaveid%	ID of the WIN transmitter
%name%	Name of the WIN transmitter
%time%	Date and time of status transmission
%reason%	Reason for status transmission
%state1%	Status of tier 1
%state2%	Status of tier 2
%state3%	Status of tier 3
%state4%	Status of tier 4
%statename1%	Name of tier 1
%statename2%	Name of tier 2
%statename3%	Name of tier 3
%statename4%	Name of tier 4
%counter%	Counter status of the job


Placeholders/Parameters	Description
%order-id%	Job ID
%order-number%	Jobnumber
%order-description%	Name of job
%order-total%	Total amount of job
%order-progression%	Progression of job

 (\mathbf{i})

(i)

All placeholders/parameters begin and end with the character %

4.2.4 Enabling or disabling an individual task

1. Select the required task in the task overview and enable or disable the checkbox in the **enabled** column.

P WINtoApplication task overview			
File Tools ?			
	Enabled	Name	Comment
Þ		Counter	
	43	Malfunction	

The statuses will continue to be monitored if a task is disabled. Status transmission to the external application is stopped.

4.2.5 Enabling or disabling all tasks

1. Right-click on the WINtoApplication symbol in the information section.



2. Select **Enable** or **Disable** in the menu.

(i) The statuses will continue to be monitored if the tasks have been disabled but status transmission to the external application is terminated.

4.2.6 Deleting a task

1. Select the required task in the task overview.

- 2. Click on Delete.
- 3. Confirm the prompt with Yes.

4.2.7 Exporting tasks

An export can be created to use the created tasks on another PC or for another user.

- 1. Click on **Export** in the **Tools** menu.
 - \rightarrow The **Export task configuration** window appears.

② Export task cor	figuration		x
Export To			
Cancel Close		OK Save	

- 2. Click on ... in the Export To field.
- 3. Select the filename and storage location for the export file.
- 4. Click on Save.
- 5. Click on OK.

4.2.8 Importing tasks

1. Click on **Import** in the **Tools** menu.

→ The Import task configuration window appears.

🕜 Import task co	P Import task configuration	
Import of	Delete all existing tasks before the import is activated	
Close	OK Save	

- 2. Enable **Delete all existing tasks before the import is activated** if all existing jobs are to be deleted before the import.
- 3. Click on ... in the Import of field and select the import file.
- 4. Confirm the prompt with Yes.



4.2.9 History

A history log is automatically created to understand previous processes better and identify errors. This indicates which parameters have been transmitted to which external application.

To display the history log of a task:

1. Hover your cursor over the Status column to select the required task in the task overview.

4.2.10 Settings

The processing of all jobs can be started and a startup shortcut created for the WINtoApplication in Settings.

- 1. Click on Settings in the Tools menu.
 - \rightarrow The **Settings** window appears.



- 2. Enable Task processing enabled to start the processing of all jobs.
- **3.** Enable **Start WINtoApplication at windows startup** if WINtoApplication is to be automatically started when the PC is started or after user login.
- 4. Click on OK to save the task.

4.2.11 Exiting WINtoApplication

To move WINtoApplication into the system tray:

1. Click on **Close overview** in the **File** menu or close the WINtoApplication task overview by clicking on **X**.

To fully exit the WINtoApplication and the execution of all task:

1. Right-click on the WINtoApplication symbol in the system tray.



- 2. Select Exit in the pop-up menu.
- 3. Confirm the prompt with Yes.

4.3 WERMA-WIN CLI Tool

The WERMA-WIN CLI Tool (command-line interface tool) makes it possible to automate WIN transmitter control with different commands using an external application.

To call up the WERMA-WIN CLI tool:

1. Open the command line.



2. Enter the path for WERMA-WIN in the command line (e.g. cd C:\Program Files (x86)\WERMA-WIN-4.

The following functions are available:

Function	Des- cription	Command line entry/example
/help	Shows all possible functions.	WIN-CLI.exe /help
/server	Adapts the WERMA- WIN ser- ver's port and ser- ver. The default set- ting is the server set- ting of WERMA- WIN	<pre>/server <server>[:<port>] Example: WIN-CLI.exe /server Winserver01:10710</port></server></pre>



Function	Des-	Command line	entry/example	
(a	Cription	lowitaboont	al colours stiers set	a.t.a.>
/SWIT-	the WIN			
cheoninoi	transmitter	<srave></srave>		
	control.	"id: <slave-id>"</slave-id>	1: Tier1	0: Off
		"maci-	2: Tier2	1: On
		d: <slave- macid>"</slave- 	3: Tier3	2: Blinking
		"name: <slave- name>"</slave- 	4: Tier4	
		Example:		
			On	
			WIN-CLI.exe /switchcontrol "id:7" 2 1	
			Blinking	
		Д	WIN-	
			CLI.exe /switchcontr 2	ol "name:machine1" 2 -
			Off	
			WIN-CLI.exe /switchc 2 0	ontrol "macid:03162D"
/export-sla-	Create a	/export-slav	ves <file></file>	
ves	CSV file	Example:		
	with all	WIN-CLL.exe	/export-slaves "C:\te	est.csv"
	WIN trans-			
	mitter			
	from the			
	WERMA-			
	base in			
	the selec-			
	ted loca-			
	tion			
	< filæ.			
Evit Codo	vit Code Description			

Exit Code	Description
0.	command successfully executed
1.	no command is executed, help message displayed
-1.	an exception occurred, see command line output

5 Fault diagnostics

Possible errors and the current status of the WERMA-WIN devices are displayed by the respective LEDs.

5.1 WIN transmitter, WIN transmitter performance, WIN transmitter control

LED	Description
Green	Radio connection established to the WIN receiver.
Red	No radio connection possible to the WIN receiver.

5.2 WIN transmitter control

The blue status LEDs shows the status of the outputs.



WERMA

ltem	Description
1	Tier 4 output
2	Tier 3 output
3	Tier 2 output
4	Tier 1 output

LED		Description
C. C. M. Market	On	Output was switched manually or by a switching rule.
	Off	Output was not switched.

(i) The blue LEDs only light up if **Activate additional pins 2 to 5** was selected during configuration of the switching behaviour of the WIN transmitter control.

5.3 WIN receiver

LED	Description
Green	Radio connection established to the WIN transmitter.
Red	No radio connection possible to the WIN transmitter.

5.4 WIN ethernet receiver

LED Ethernet connection	Description
Green	

LED Ethernet connection		Description
	On	Connection established to the network.
	Off	No connection possible to the network.
	Blinking	Network activity
Yellow		
	On	Connection established to WERMA-WIN.
	Off	No connection established to WERMA-WIN.

WERMA

6 Software update

As soon as a software update is available, it can be downloaded and installed from the WERMA homepage.

- 1. Click on **Software update** in the toolbar. \rightarrow The Download area on the WERMA homepage appears.
- 2. Download the update file and install on the PC.
- (j) If several workplaces are accessing a common WERMA-WIN database, you first need to install the software update on the PC with the WERMA-WIN database (server PC). An appropriate message appears if the installation is first started on a client PC.

The software update must be run on all PCs connected to the common WERMA-WIN database.

7 System requirements

|--|

	Server PC	Client PC
Installed software	Microsoft SQL server	WERMA-WIN
components	WERMA-WIN	Network connection to Microsoft
	WERMA-WIN database	SQL server with the WERMA-WIN data- base
	Device driver for hardware	Device driver for hardware
Processor	Pentium III compatib	le processor or higher
	Dual Core processo	or is recommended
Minimum RAM	2 GB	1 GB
Free hard disk	8 G B	8 G B
space (recom- mended)		
USB port	Required for the hard	dware configuration.
	The configuration can also	be used on the Client PC.
Screen resolution	At least: 1280 x 1024	
	Recommended: 1	920 x 1080 or higher
	Scaling of font size	e (DPI) 100% (96 DPI)
Microsoft.NET Fra-	Automatically installed w	hen installing WERMA-WIN.
mework 4.5.2		
Supported ope-	Window	ws 7 SP1
	Wind	ows 8
	Windo	ows 8.1
	Windows Serv	ver 2008 R2 SP1
	Windows	Server 2012
	Windows Se	erver 2012 R2
	Windo	ows 10
	Windows S	Server 2016
Supported SQL	Microsoft SQL Server 2008 SP4	
server	Microsoft SQL Server 2008 R2 SP3	
	Microsoft SQL Server 2012 SP4	
	Microsoft SQL Server 2014 SP2 (recom- mended)	
	Microsoft SQL Server 2016 SP2	
	Microsoft SQL Server 2017	

(i) Unless otherwise specified, the 32 Bit (x86) and 64 Bit (x64) versions are supported.



(j) Supported operating systems and SQL Sever versions are only supported as long as Microsoft also supports them through the Microsoft Support Lifecycle.

The automatic installation of the database onto a domain controller is not supported. Manual installation is possible.

Installation of the Windows server core and nano server is not supported.

The Windows server role **Remote desktop services** is not supported on the server PC.

Only Microsoft SQL server editions Express, Workgroup, Standard, Enterprise and Datacenter for Windows, as well as the supplied Microsoft SQL Server 2014 Express database, are supported.

In each case, only the latest Microsoft Windows and Microsoft SQL server service packs are supported.

7.1 Network stability and security

(i) WERMA recommends that you only operate WERMA-WIN in a reliable LAN environment (TCP/IP network). The function or performance of WERMA-WIN could be impaired in an unstable or insecure network.

8 Keyboard shortcuts

Keyboard shortcuts let you work more quickly with WERMA-WIN. You can select from general keyboard shortcuts and combinations that apply to the specific module.

Keyboard shortcut	Description
F1	Display Help.
F5	Refresh active window.
F10	Enable menu bar.
F11	Maximise active window.
CTRL + F1	Minimise menu bar.
CTRL + F4	Close active document.
CTRL + A	Select all items.
CTRL + C	Copy selected item.
CTRL + D	Delete selected item.
CTRL + N	Open new window.
CTRL + O	Open document / file.
CTRL + P	Print document.
CTRL + V	Paste selected item.
CTRL + W	Close current window.
CTRL + X	Cut selected item.
CTRL + Z	Undo action.
ALT + F4	Close active item or end active app.
ALT + P	Display preview window.
DELETE	Delete selected item.

8.1 Windows standard

8.2 General

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
CTRL + F4	Close active document.
CTRL + F6	Call up Control station main view.
CTRL + F7	Call up Productivity main view.
CTRL + F8	Call up Runtime main view.
CTRL + F9	Call up Job main view.

Keyboard shortcut	Description
CTRL + F10	Call up Control main view.
CTRL + F11	Call up Routing main view.
CTRL + F12	Call up Runtime module with WIN transmitter selection.
ALT + F1	Call up Job quick start window.

8.3 Control station

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
F8	Add WIN transmitter.
F9	Select background.
F11	Start full screen mode.
F12	Generate report.
CTRL + F4	Close active document.
ALT + F1	Call up Job quick start window.
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.
ESC	Exit full screen mode.

8.4 Productivity

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
F7	Show combined productivity.
F8	Add WIN transmitter.
F9	Select background.
F11	Start full screen mode.
F12	Generate report.
CTRL + F4	Close active document.
ALT + F1	Call up Job quick start window.
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.
ESC	Exit full screen mode.

8.5 Runtime

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
F7	Call up the Status view.
F8	Call up the Quantity view.
F9	Call up the Combined view.
F11	Start full screen mode.
F12	Generate report.
CTRL + F4	Close active document.
ALT + F1	Call up Job quick start window.
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.
ESC	Exit full screen mode.

8.6 Job

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
F9	Show Auto jobs.
F12	Generate report.
CTRL + E	Edit job.
CTRL + I	Import job list.
CTRL + N	Enterjob.
CTRL + Q	End job.
CTRL + R	Start job.
CTRL + F4	Close active document.
ALT + F1	Call up Job quick start window.
ALT + F2	Start with 1st piece
ALT + F3	Start with job input
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.
ESC	Exit full screen mode.
DELETE	Delete job.

8.7 Control

Keyboard shortcut	Description
F1	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
CTRL + F4	Close active document.
CTRL + D	Duplicate rule.
CTRL + E	Edit rule.
CTRL + N	Create new rule (assistant).
CTRL + Q	Disable rule.
CTRL + R	Enable rule.
ALT + F1	Call up Job quick start window.
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.
DELETE	Delete rule.
CTRL + Shift + NCTRL + N	Create new rule (Expert).

8.8 Routing

Keyboard shortcut	Description
Fl	Call up manual.
F2	Call up contact page.
F3	Call up Information window.
F12	Call up the Connection status window.
CTRL + F4	Close active document.
ALT + F1	Call up Job quick start window.
ALT + F6	Call up Activation window.
ALT + F7	Call up Settings window.
ALT + F8	Search for software update.

9 FAQ – Frequently Asked Questions

On which frequency band does the WIN system run?

WIN runs on the frequency band 912.997284 – 916.996307 MHz. This short-range radio system has no effect on existing Wi-Fi or Bluetooth networks.

Can WIN be run on different radio channels?

Yes, you can choose from four radio channels. You should only run one WIN receiver per channel.

The channels have the following frequencies:

Channel	Frequency
1	912.997284 MHz
2	913.997040 MHz
3	916.996307 MHz
4	915.996552 MHz

Why are different radio channels needed? When should the radio channel be changed?

If more than one WIN receiver is run on a channel, it can cause transmission problems between the systems. This can be seen by the frequency connection errors. In this case, the WIN receiver should be run on different radio channels.

How can I increase the range?

Every WIN receiver possesses a repeater function, which can be used to increase the range between the WIN receiver and the WIN transmitter. Every WIN transmitter can thereby establish a connection to the WIN receiver using a maximum of 2 WIN transmitter (repeaters).

Is the radio transmission encrypted?

The WIN system is equipped with several protection mechanisms, which prevent the radio transmission being intercepted. However, unrestricted security against interception cannot be guaranteed. In addition, no confidential data from the WIN system is transmitted wirelessly.

How often does the WIN transmitter transmit the signal status to the WIN receiver?

If the status of the signal tower changes, the WIN transmitter sends this new signal status to the WIN receiver within a response time of up to 5 seconds. If the signal status does not change, the WIN transmitter transmits the signal status every 15 seconds to the WIN receiver.

Why can the WIN transmitter not establish a connection to the WIN receiver?

Check the following points:

- The WIN receiver (USB) must be connected to the PC by USB. The red or green LED must light up.
- The WIN transmitter must be connected to a power supply. The red or green LED must light up.
- The WIN transmitter must be configured.



- The radio connection must not be disrupted.
- If the WIN receiver has been configured on another radio channel, the assigned WIN receivers have to be reconfigured on the WIN receiver.

There are frequent connection errors to the WIN transmitters. What can be done?

- Data will only be logged while WERMA-WIN is running. WERMA-WIN must be running in the monitoring period.
- The connection quality can be checked in the Routing module. The use of additional WIN transmitters as repeaters is recommended if connection lines appear red. A WIN transmitter must be positioned at the critical point for this purpose.
- There needs to be a permanent 24 V power supply connected to Pin 5 on every WIN transmitter.

Why does the PC not recognise the WIN receiver?

- WERMA-WIN must be installed and started on the PC.
- Disconnect the USB connection from the WIN receiver and reconnect it.
- Manually install the driver.
- The Windows Service WERMA WIN 4 Connector Service must have started.

Why can WERMA-WIN not be installed?

Administrator rights are needed to install WERMA-WIN.

How many WIN transmitters can be monitored by one WIN receiver?

Up to 50 WIN transmitters can be monitored.

What happens if more than 50 WIN transmitters are connected?

If more than 50 WIN transmitters are connected, this can lead to radio problems between the WIN transmitters.

How many signal elements can be monitored per WIN transmitter?

Up to 4 elements can be monitored per WIN transmitter. Up to 8 statuses can be monitored using blink recognition.

How many signal elements can be monitored per WIN transmitter performance?

Up to 3 elements can be monitored per WIN transmitter performance. Up to 6 statuses can be monitored using blink recognition.

A tier is essential for the counter input.

You can monitor up to 2 elements or a maximum of 4 statuses if a tier is also fitted with the job input.

How many strokes per minute (e.g with punching) can WERMA-WIN count or record?

WERMA-WIN can count up to a maximum of 600 strokes per minute. The timer of the machine or control must be increased (> 100 ms) to detect the correct quantity of the machine.

Why does the WIN receiver light up red?

The WIN receiver is ready for operation but is not connected to a WIN transmitter.

Why is the red status LED on the WIN transmitter lit?

The WIN transmitter is ready for operation but is not connected to a WIN receiver.

What is the maximum permissible USB cable length between the WIN receiver and PC?

The cable length should not exceed 3 metres. The maximum cable length can be increased using a USB hub.

Can the collected data be further processed?

Yes, all data is stored in a Microsoft SQL server database. The data can be read (Microsoft Excel, Microsoft Access ...). Avoid changing the database to avoid loss of data.

What steps need to be taken with time changes?

A time change can lead to a data loss. If the system time is synchronised several times (e.g. automatically with a server), then we would recommend doing so outside the monitoring period.

Can a WIN transmitter performance be configured to have the same configuration as a WIN transmitter?

No, a WIN transmitter performance always needs one tier allocated to the counter input.

What must be considered when installing WERMA-WIN?

The system requirements need to be observed. Administrator rights are needed to install WERMA-WIN.

How fast can a WIN transmitter performance count on the tier with counter input?

The counter impulse can be up to 10 Hz.

Can blink recognition be set up for all tiers of the WIN transmitter performance?

No, blink recognition cannot be selected for the tier with counter input or for the tier with job input.

Is it possible to read data from an ERP system into WERMA-WIN?

Yes, you need to create a CSV file with the correct format for this. This can then be imported into WERMA-WIN.

Are there any keyboard shortcut functions in the software?

Yes, WERMA-WIN can be quickly operated using the keyboard with a number of different keyboard shortcuts.

What must be observed when saving data to the WERMA-WIN database?

The PC to which the WIN receiver is connected by a USB cable must be continuously in operation.

The PC on which the WERMA-WIN database is installed must be in operation around the clock



The **WERMA WIN 4 Server Service** and the **WERMA WIN 4 Connector Service** must have been started.

Why is the WERMA WIN 4 Server Service needed?

The service runs in the background when the PC (client and server) is running. The collected WERMA-WIN data from the WIN receiver is transmitted to the **WERMA WIN 4 Server Service** without WERMA-WIN being started and a user being logged in.

What is the WERMA WIN 4 Server Service needed for?

The service runs in the background when the PC (client and server) is running. The collected WERMA-WIN data from the WIN receiver is transmitted to the **WERMA WIN 4 Server Service** without WERMA-WIN being started and a user being logged in.

Can energy-saving mode or hibernation mode be enabled on a PC with WERMA-WIN?

We recommend disabling energy-saving mode and hibernation state for the following uses:

- PC with the WERMA-WIN database
- PC with the WERMA WIN 4 Server Service
- PC with a connected WIN receiver (USB)

Can the WIN ethernet receiver be operated over the internet?

From a technical perspective, the WIN ethernet receiver can be operated over the internet.

In spite of basic security measures, we would nevertheless strongly recommend in this case providing additional security for the connection to the WIN ethernet receiver, for example via an encrypted VPN connection.