

3622-WebInterface-01-0110

Use of the application program

Product family: Communication
Product type: Gateways
Manufacturer: IPAS GmbH

Name: 3622-WebInterface-01-0110
Order number: 3622-141-08

Functions

The ComBridge Web Control Interface contains a web server for the control and monitoring of EIB/KNX systems. A standard web browser can be used for the control.

An object server connection is supported for communication with the ComBridge Studio visualization software. An EIBnet/IP tunnel connection for parameterization with ETS 3 is also available. This results in three different possibilities of application:

- Parameterization of an EIB/KNX installation via Ethernet with ETS 3
- Clear and concise visualisation of up to 40 functions via integrated web server
- Connection to ComBridge Studio visualisation systems

Brief description of the function modules

EIBnet/IP tunnel connection:

Client software products such as ETS 3, which are based on the EIBnet/IP tunnel protocol, can connect to the ComBridge Web Control Interface. Like this, an EIB/KNX installation can be parameterized and configured easily via an IP network.

Web based visualisation:

A web server is integrated into the ComBridge Web Control Interface in order to be able to control and monitor the connected EIB/KNX installation from a standard browser. The control pages can show up to 8 functions. Up to 5 pages are made available. The display can be modified via a configuration page.

Connection to the ComBridge Studio visualisation system:

The Gateway is administered by a central software component, the ComBridge Studio Core Service (see ComBridge Studio software documentation). This service makes the information transmitted by the Gateway available at different interfaces.

Amongst others the following interfaces are supported:

- OPC Services
- WEB-visualisation
- Data base services
- e-Mail services

Please see ComBridge Studio documentation for further information.

Parameterization of the device

The parameterization of the device is performed via ETS. The data types of the 40 available functions are defined. All other layout and design settings are performed directly on the device via a browser.

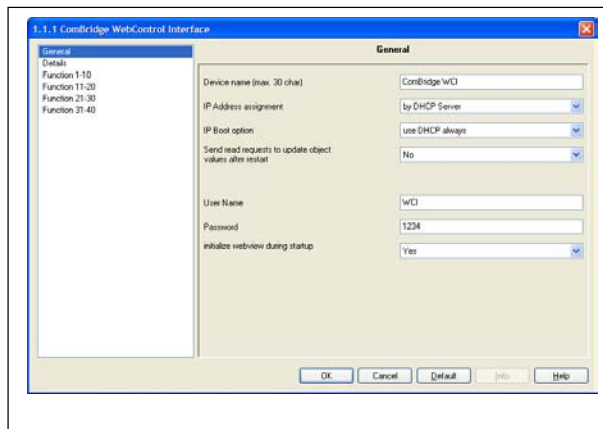
Overview of the ETS parameterization

Fundamental specifications about the device are made in the ETS parameterization.

This includes amongst others the identification via an IP address.

By default, the IP address is obtained from a DHCP server. If this option is de-activated, the device is initialised with a parametered IP address and subnet mask.

In addition, a standard gateway or router can be defined, which offers the possibility to reach clients on the internet or another network.



When selecting DHCP, it is also possible to change to a fixed IP address if no DHCP server is available.

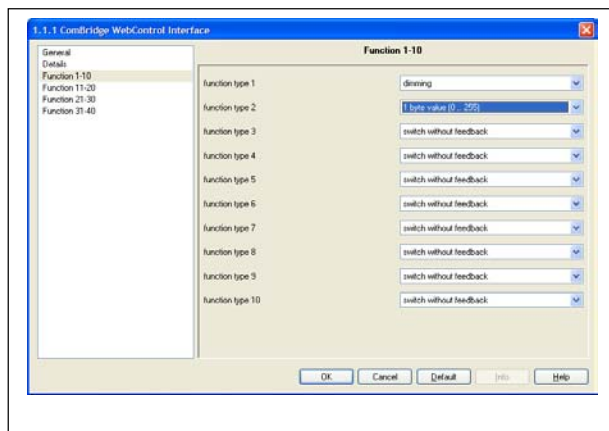
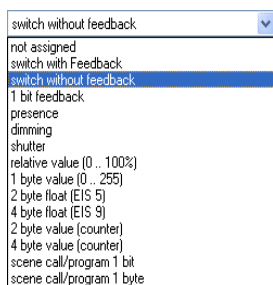
A fixed IP address is recommended if a server is used as the visualisation server, so that it can always be contacted.

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In order to protect access to a website you can define a user name and password.

Via an additional parameter the user can decide whether the user defined settings, which are performed directly via the websites, are to be retained or initialized.

You can select the desired function types from a scroll-down list on 4 configuration pages:



The 40 available functions provide up to 80 communication objects for connection with group addresses. According to the EIS definition, the user function "blinds/slats", for example, provides 2 communication objects.

Communication objects

The following communication objects can be selected:

Possible function types Object 1 - 40
The function and type are defined in the ETS Parameterization

Obj	Function	Object name	Type	Flags
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Function 2				
0	Switch with status	Switch command	1 Bit	AKSÜ
1	Switch with status	Status	1 Bit	AKSÜL

Function 3				
0	Switch without status	Switch command	1 Bit	AKSÜ

Function 4				
0	Status	Status	1 Bit	AKSÜL

Function 5				
0	Presence	Presence	1 Bit	AKSÜL

Function 6				
0	Dimming	Dimming On/Off	4 Bit	KSÜ
1	Dimming	Dimming	4 Bit	KSÜ

Function 7				
0	Slats / Blinds	Slats	1 Bit	KSÜ
1	Slats / Blinds	Blinds	1 Bit	KSÜ

Function 8				
0	Value relative (0 to 100%)	Value (0 to 100%)	1 Byte	AKSÜL

Function 9				
0	Value (0 to 255)	Value (0 to 255)	1 Byte	AKSÜL

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Function 10				
0	2 Byte floating point	2 Byte floating point	2 Byte	AKSÜL

Function 11				
0	4 Byte floating point	4 Byte floating point	4 Byte	AKSÜL

Function 12				
0	2 Byte meter	2 Byte meter	2 Byte	AKSÜL

Function 13				
0	4 Byte meter	4 Byte meter	4 Byte	AKSÜL

Function 14				
0	Recalling scene	Recall/program scene	1 Bit	KSÜ
1	Programming scene	Recall/program scene	1 Bit	KSÜ

Function 15				
0	Recalling/ programming scene	Recall/program scene	1 Byte	KSÜ

Overview:

Nu...	Name	Funktion	Länge	K	L	S	U	A
2	Schalten Befehl	Funktion 2	1 bit	K	-	S	U	A
3	Rückmeldung	Funktion 2	1 bit	K	L	S	U	A
4	Schalten Befehl	Funktion 3	1 bit	K	L	S	U	A
6	Rückmeldung	Funktion 4	1 bit	K	L	S	U	A
8	Präsenz	Funktion 5	1 bit	K	L	S	U	A
10	Dimmen Ein/Aus	Funktion 6	1 bit	K	-	S	U	-
11	Dimmen	Funktion 6	4 bit	K	-	S	U	-
12	Lamelle	Funktion 7	1 bit	K	-	S	U	-
13	Jalousie	Funktion 7	1 bit	K	-	S	U	-
14	Wert relativ (0 .. 100%)	Funktion 8	1 Byte	K	L	S	U	A
16	Wert (0 .. 255)	Funktion 9	1 Byte	K	L	S	U	A
18	2 Byte FileKomma	Funktion 10	2 Byte	K	L	S	U	A
20	4 Byte FileKomma	Funktion 11	4 Byte	K	L	S	U	A
22	2 Byte Zähler	Funktion 12	2 Byte	K	L	S	U	A
24	4 Byte Zähler	Funktion 13	4 Byte	K	L	S	U	A
26	Szene abrufen/programmieren	Funktion 14	1 bit	K	-	S	U	-
27	Szene programmieren	Funktion 14	1 bit	K	-	S	U	-
28	Szene abrufen/programmieren	Funktion 15	1 Byte	K	-	S	U	-
40	4 Byte FileKomma	Funktion 21	4 Byte	K	L	S	U	A
42	2 Byte Zähler	Funktion 22	2 Byte	K	L	S	U	A
44	4 Byte Zähler	Funktion 23	4 Byte	K	L	S	U	A
46	Szene abrufen/programmieren	Funktion 24	1 bit	K	-	S	U	-
47	Szene programmieren	Funktion 24	1 bit	K	-	S	U	-
48	Szene abrufen/programmieren	Funktion 25	1 Byte	K	-	S	U	-

Parameter

The following parameters are available in the application:

General parameter page

Parameter	Settings
<i>General Parameter</i>	
Device name	ComBridge WCI
The name of the device is set via this parameter so that it can be identified later on in the visualisation.	
IP address allocation	Fixed IP address DHCP
The ComBridge MCG can be allocated to either a fixed IP address or to a dynamic address which is assigned by a DHCP-Server.	
IP-Boot Option	Always use DHCP Use fixed IP if DHCP is not available
This parameter only becomes visible if DHCP has been selected in the address allocation. In this operating mode you can also choose whether DHCP is always to be used or if, after a certain time, you would like to revert to a fixed IP address if DHCP is not available. This time is described below under <i>Detail</i>	
IP-Address / 1. Byte	0
IP-Address / 2. Byte	0
IP-Address / 3. Byte	0
IP-Address / 4. Byte	0
Here the standard IP address of the ComBridge MCG is pre-set. If a DHCP mode is set, this address is permanently overwritten by the addresses assigned by the DHCP-Server. The IP address 0.0.0.0 is invalid and only makes sense when the DHCP-Server is activated.	
Subnet Mask / 1. Byte	255
Subnet Mask / 2. Byte	255
Subnet Mask / 3. Byte	255
Subnet Mask / 4. Byte	255
Here the standard IP subnet mask of the ComBridge MCG is pre-set. If a DHCP mode is set, this mask is permanently overwritten by the address assigned by the DHCP-Server. If the device is configured without DHCP server (setting <i>fixed IP address</i>), the device needs to have the right subnet mask in order to work correctly.	
IP address Default Router / 1. Byte	0
IP address Default Router / 2. Byte	0
IP address Default Router / 3. Byte	0

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IP address Default Router / 4. Byte	0
The role of the standard router is to send UDP telegrams which are addressed to a PC outside of the local network. If a DHCP mode is set, this address is always permanently overwritten by the DHCP server. If the DHCP server itself does not transmit any router address, it is assumed that no router is to be used. If the device is to be parametered without a standard router, use the pre-set (invalid) address (0.0.0.0).	
Send read request for up-dating the object values after re-start	Yes no
Here the decision is made whether the device is to request the values of the 40 functions (80 objects) from the bus after a re-start.	
User Name	Any 4 characters
The web sites of the ComBridge WCI can be user name protected.	
Password	Any 4 characters
The web sites of the ComBridge WCI can be password protected.	
Initialise web display	Yes No
The user defined settings, which are performed via the web configuration pages, can be initialised during the ETS download.	

Parameter for the definition of functions

Parameter	Settings
Function type	No Function Switching without status Switching with status Status Presence Dimming Blinds 1 Byte relative (0 – 100%) 1 Byte meter (0 - 255) 2 Byte float (EIS 5) 4 Byte float (EIS 9) 2 Byte meter (EIS 5) 4 Byte meter (EIS 10) 4 Byte unsigned (EIS11) Recalling/ programming scene, 1bit Recalling/ programming scene, 1byte
Here the type of data and function of the communication object is set. This parameterization can be performed for all 40 functions.	

Parameter for special functions (Detail)

Parameter	Settings
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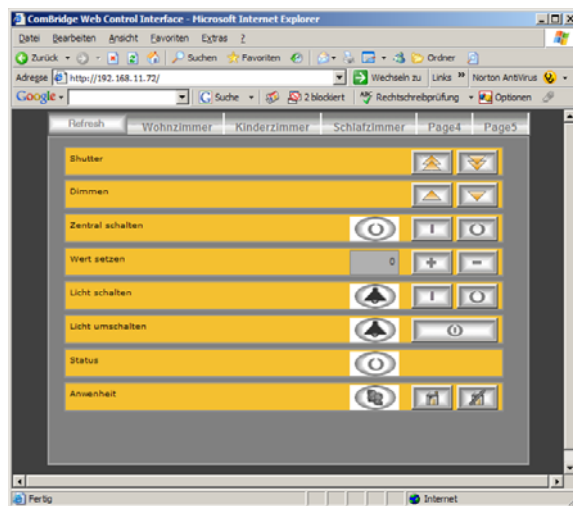
Communication time-out	1 s 5 s 10 s 20 s 30 s 60 s
This parameter defines the time-out during an IP communication. If the client does not respond to a request after this time, the connection is terminated.	
DHCP time-out	5 s 30 s 1 min 2 min
Here the time is set after which the setup reverts to the fixed IP address if no DHCP server is available.	

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Configuration and control

After the device has been loaded with ETS, all defined functions are shown in the pre-set status. The user can change the display by means of a web configuration page.

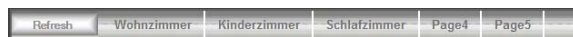
The visualisation pages are built automatically and are presented to the user as follows:



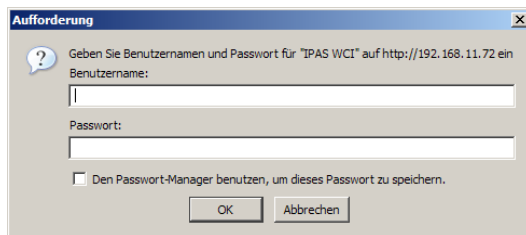
The web pages can be accessed via the IP address, which has been assigned during ETS configuration.

HTTP://<ip-address>

The navigation is displayed in the top bar:



Principally, the pages are user name and password protected.

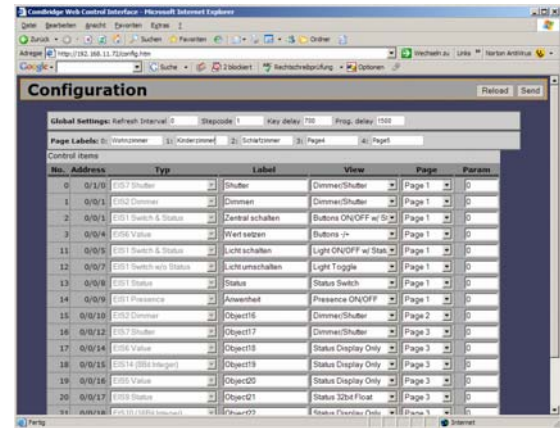


If nothing has been entered in the ETS configuration, you can directly click "OK", in order to load the visualisation.

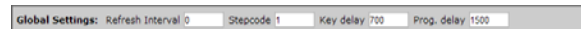
A "refresh" button for updating the communication objects is displayed. In addition, up to 5 page labels for grouping the individual functions are shown.

The display and assignment of functions to the individual page labels can be set on a configuration page.

HTTP://<ip>/config.htm



The global settings are defined in the upper bar:



Refresh-Interval

If you would like to define an automatic refresh interval, you can do so in the first entry field with a minimum refresh rate of 2 seconds.

Stepcode

Defines the step size for the function "relative dimming".

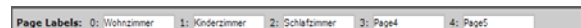
Key Delay

Defines the time which constitutes a long keystroke (dimming and blinds function).

Prog Delay

Defines the time for recognising a programming operation (programming scenes).

In the next section, descriptions for the page labels can be defined:



All functions, which have already been connected with a group address in ETS, are shown in the control section:

No.	Address	Typ	Label	View	Page	Param
0	0/1/0	EIS7 Shutter	Shutter	Dimmer/Shutter	Page 1	0
1	0/0/1	EIS2 Dimmer	Dimmen	Dimmer/Shutter	Page 1	0
2	0/0/1	EIS1 Switch & Status	Zentral schalten	Buttons ON/OFF v...	Page 1	0
3	0/0/4	EIS6 Value	Wert setzen	Buttons +/-	Page 1	0
11	0/0/5	EIS1 Switch & Status	Licht schalten	Light ON/OFF w/ S...	Page 1	0

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The following information is displayed and is available for modification:

<i>No.</i>	<i>Communication object number</i>
<i>Address</i>	<i>Connected group address</i>
<i>Type</i>	<i>Function type configured with ETS</i>
<i>Label</i>	<i>Description of the function</i>
<i>View</i>	<i>Display of the function on the website</i>
<i>Page</i>	<i>Page (page label) on which the function will be displayed</i>
<i>Param</i>	<i>Additional parameter for the function</i>

View

A number of alternative displays are available for each type of basic data (ETS configuration). This individual setting can hence be easily performed by the end user.

Function type: Switch with/without status

- Buttons ON/OFF w/ Status
- Button ON w/ Status
- Button OFF w/ Status
- Button Toggle w/ Status
- Light ON/OFF w/ Status
- Light ON w/ Status
- Light OFF w/ Status
- Light Toggle w/ Status

You can choose between a switch ON/OFF or only ON or OFF or a change-over function.

The following design is displayed for a light function :



If you choose a button function, the following design is displayed



Function type: Value setting and display

- Status Display Only
- Buttons +/-
- Set Var Value
- Set Fix Value

Values can be configured either as pure displays or as a changeable value. The "Set Var Value" function allows for a value to be changed in the display field and sent by pressing the following key:



The value can be changed stepwise via the "Button +/-" :



The step size is set on the configuration page in the field Param.

In the "Set Fix Value" function, the additional parameter defined on the configuration page is interpreted as a fixed value. When pressing the key, this value will be sent to the EIB/KNX Bus.