user manual

Version 1.70
Last update: May 2011

homeVisu Version: 1.1.18

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Introduction

homeVisu smart home controller is a Java application that allows platform-independent to control and visualize a wide range of devices and systems.
homeVisu comes with the PLC BUS driver (device). The PLC-BUS device allows a PLC BUS installation on all user code areas to control, visualize, configure and analyze.

In this guide the PLC BUS device is representative of all homeVisu devices.

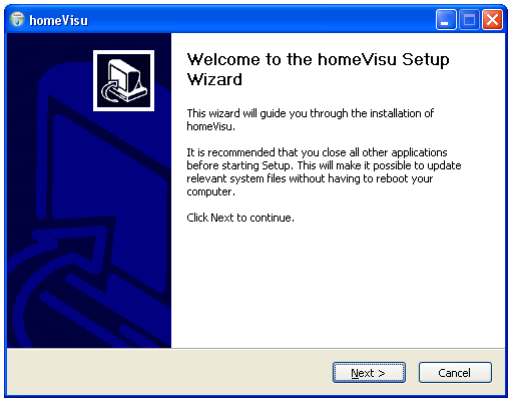
Some prerequisites are required for the operation of homeVisu as application.

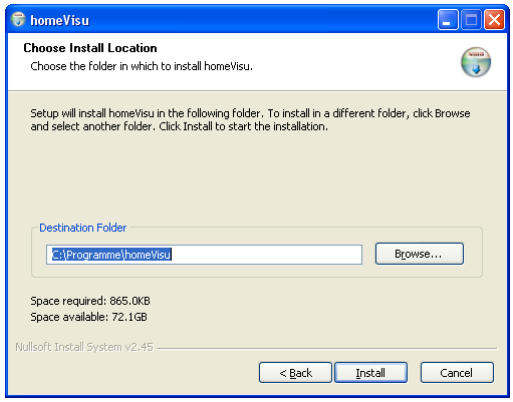
On the PC where you want to run homeVisu a Java Runtime installation version 1.6 or above must be installed.
To communicate with the PLC BUS a PLC BUS interface 1141 must be available either as RS232 or USB version.
The PLC BUS interface must be connected and installed, there are several alternatives.

Software installation

Windows

For Windows an installer that automatically installs homeVisu including the demo onto your PC is available. Only the installation directory must be specified during installation.
The default is: C:\Program Files\homeVisu\





For Windows 64Bit user.
To run homeVisu on a Windows 64bit versions, the RXTXSerial.dll must be replaced by a current 64bit version.

Linux / Ubuntu 10.04

For Linux, use the homeVisu.zip.
Copy the .zip file into user home directory and unzip the file.

After this install the RXTX extension you can find in the subfolder RXTX_install_first, or install packet under Ubuntu:

```
apt-get install librxtx-java
```

homeVisu is running under OpenJDK (openjdk-6-jdk) and Sun-Java (sun-java6-jre).
For homeVisu the better chosse is Sun-Java.
The Swing-GUI is faster with Sun-Java.

To install Sun-Java under Ubuntu 10.04 use following commands:

```
sudo su
add-apt-repository “deb http://archive.canonical.com/ lucid partner”
aptitude update
apt-get install sun-java6-jre  or  apt-get install sun-java6-jdk
apt-get install librxtx-java
```

Connection PLC-BUS interface or other RS232 devices

The following devices are currently supported by homeVisu

- PLC-BUS interface PLCBUS-T 1141 (RS232 and USB)
- Conrad 8x Relay Board *B/N 96-77-20 (no longer available)*
- Conrad 8x Relay Board 24V/DC 7A *B/N 19-77-20*
- Conrad 8x Relay Board 230V/AC 16A *B/N 19-77-30*
- ELV LAN-IP-Switch IPS 1 *B/N 20-754-32*
- ELV RS232-I/O-Board IO 88 *B/N 20-472-69*
- ELV USB-I/O-Interface UIO 88 *B/N 20-539-64* (needs COM driver)

The connection to PC will explain at the example of the PLC BUS interfaces.
For the RS232 variants there are always 2 choices:

1. Connection of the PLC-BUS interface directly to the PC
2. Connection of the PLC-BUS interface via an RS232 port server

1. connection of the PLC-BUS interface directly to the PC

The PLC BUS interface can either be connected directly to the PC as RS232 version on a free COM port, or as USB version. Should the PC not have a COM port or not have a free COM port, in this case, use the USB version of the PLC BUS interface. During the installation of the USB interface on the PC, a driver for an RS232 COM port is installed on the computer. The USB interface is also from the software addressed through a COM port. What COM port is setup by the driver, you can look under Windows at Device Manager Control Panel.

2. connecting the PLC BUS interface through a RS232 port server

For the connection of the PLC BUS RS232 interface you can use a port server. Following port servers have been tested together with homeVisu:

- Moxa NPort 5110
- Lantronix UDS1100
- SENA HelloDevice LS100

In this case homeVisu can be installed on one or more PCs. It is possible for each installation to customize the software individually. Several PCs can share a PLC BUS interface. It should be noted that a simultaneous access by 2 stations via the port server onto the PLC BUS interface is not possible. (The professional version of homeVisu provides simultaneous access to the RS232, via the temporary master device)

Set interface connection

In the setup under device setup PLC-BUS connection, the connection of the interface can be defined.
There are two options to choose from, locally via serial port or over the network.
At a local connection the COM port must be selected where the interface is connected to the PC or the COM port which has the USB driver of the interface installed.
At a network connection through a port server the IP address and the communication port must be specified, that has configured on port server.

As an option between 1 and 2, there is the possibility to install a LAN-to-COM driver on your PC. In this case the software network communication takes place by using a virtual COM port and then by the drivers over the network.
This option must not chosen with homeVisu, as homeVisu includes a direct network communication with the port server.
It offers the possibility with other software products that support the PLC BUS interface on a COM port also access the PLC BUS interface through a port server.
Direct network communication with homeVisu and an installation of the LAN-to-COM driver on the same PC is possible. It is the restriction that only one application at the same time has access to the PLC BUS interface.

homeVisu as Java applet und browser

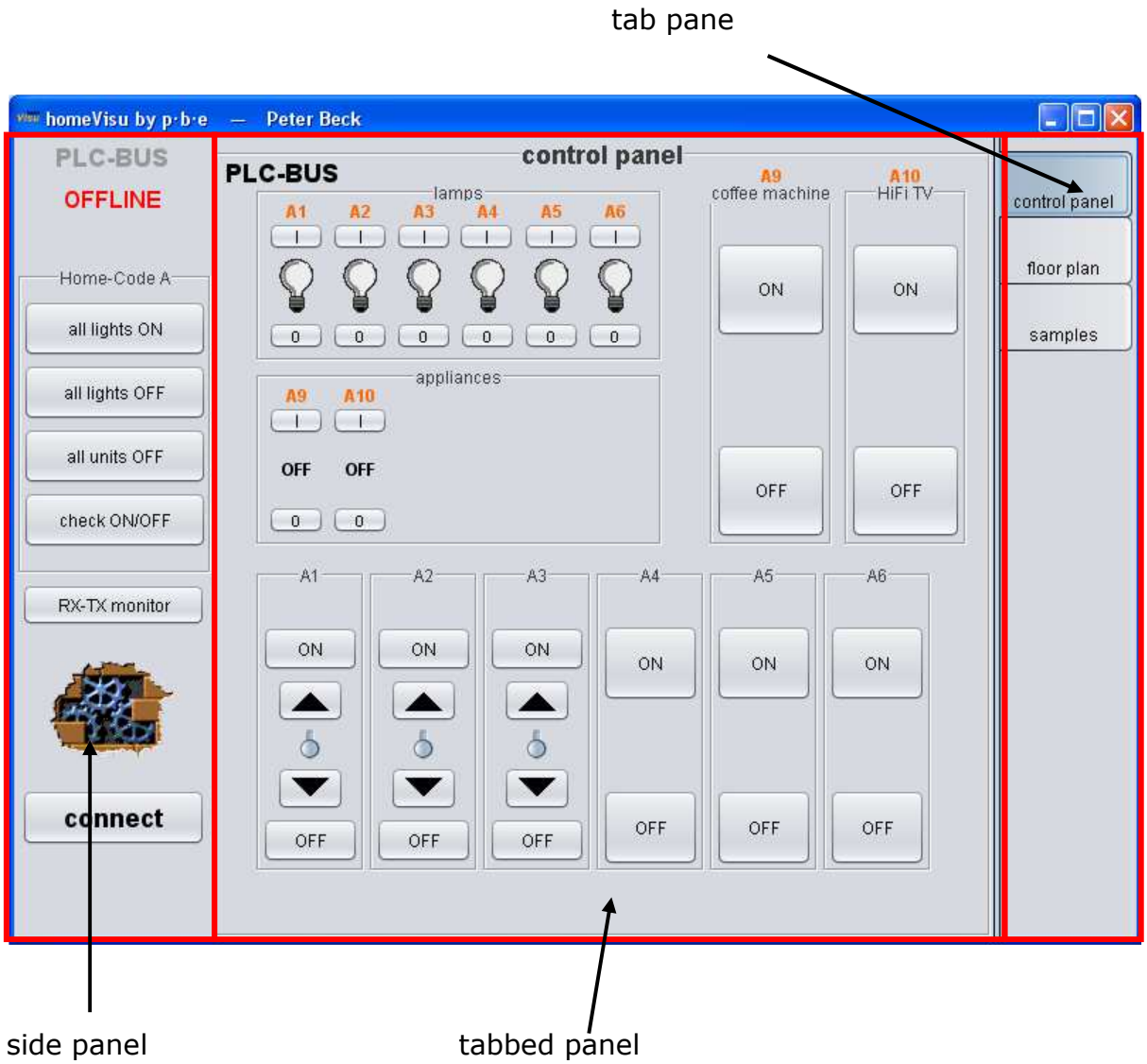
It is possible to install homeVisu on a web server like the Lantronix XPort. The XPort is also a port server with the additional feature of a built-in web server. In this case homeVisu is installed as applet on the internal Web server of the XPort.
With any computer or web terminal installed a Java enabled browser can run homeVisu applet provided by the web server, by calling the IP address of the Xport, without a software installation on the PC.
Appropriate setting up a router, this can also does via the Internet. Required security policy and maybe the installation of a firewall or a VPN are not included in the XPort.
Also in the web server solution is the restriction that only one applet at the same time can establish a connection to the interface.

Note:
For installation on a web server, the community version can not be used!
For this there is a special version of homeVisu available.

The user interface

The configuration of the user interface is made through the setup panel and the context menu of the components.
The user interface consists of three main elements

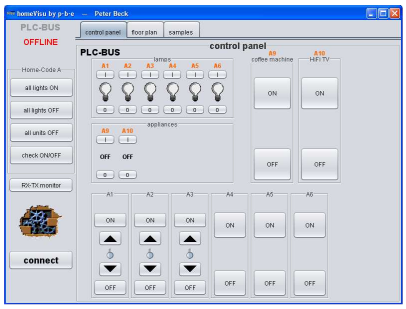
- The tabbed panel
- The tab pane
- The side panel

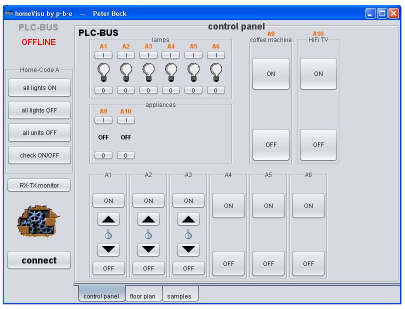


With the tabs you can select the tabbed panel, which brought the stack upwards and is therefore visible.
In the setup it is possible to configure a "single panel".
The single panel there is only one panel and the tab area is hidden.

The tab pane can be arranged on all four sides of the tabbed panel:

- top
- bottom
- left
- right


top

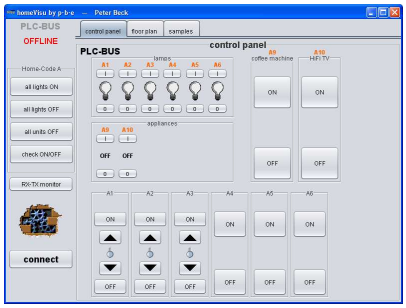

bottom

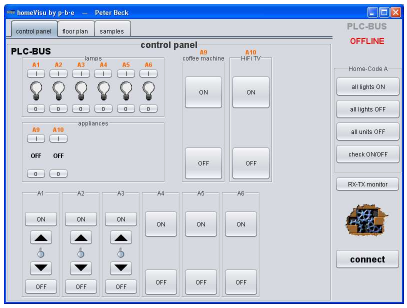

left

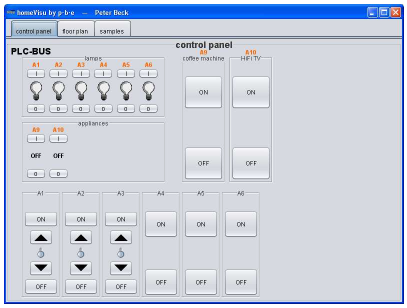
The height of the tabs can be also configuring in the setup.

The side panel can be arranged either as follows:

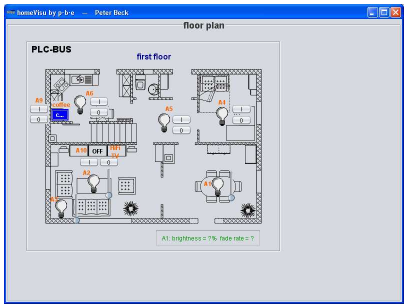
- left
- right
- hidden


left


right

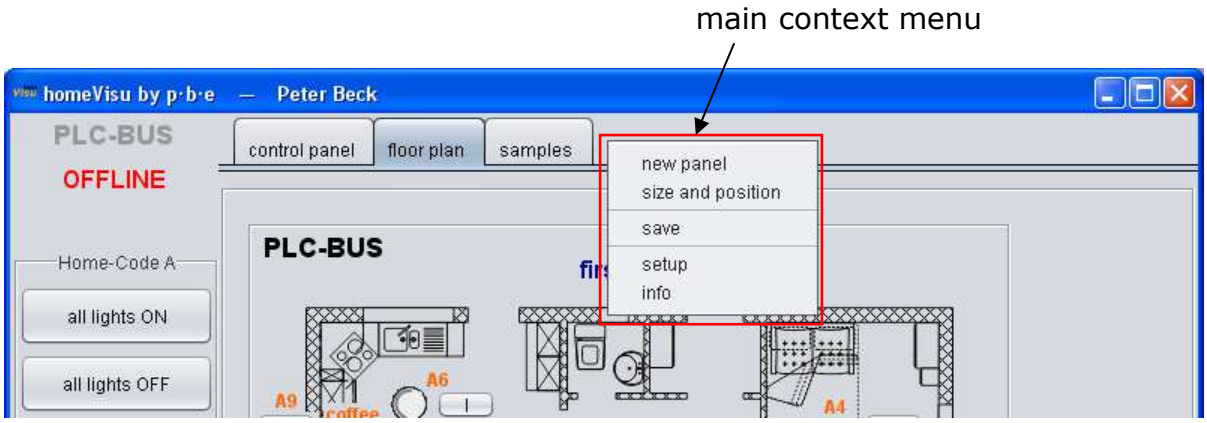

hidden

Single panel without tab pane and side panel



The tab area

The tab pane is used to switch the tabbed panels and includes the main context menu with the setup access.



Each tabbed panel is represented with its name as a tab in the tab pane.

Tabs can to be relocaded with the mouse by clicking and holding down the left mouse button.

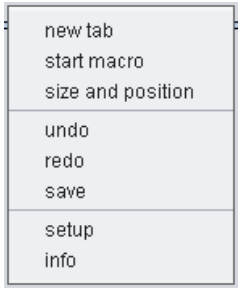
The context menu of the tab pane

The context menu can be reached with a right mouse click on the tab pane.

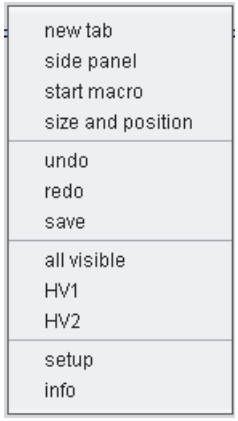
user mode

configuration mode

standard



with hidden panels



new tab

The menu item "new tab" creates a new empty tabbed panel.

side panel

The side panel reappears with the menu item "side panel".

start macro

The menu item "start macro" opens the macro windows, where you can define a macro which executed after start up once. With this macro system status can be request after start up.
Definition of the macro see section macro button.

size and position

This menu item opens the auxiliary window "size and position". With this auxiliary window the currently selected component can be positioned and resized.

undo

With the menu item "undo" accidentally moved component by mouse cannot be put again back to its previous position.
Also, text entries in the properties can be reversed
An accidentally deleted component can also be restored.

It should be noted, that there is a new component after the restoration.
Any changes before the deletion can not be restored!
Deleting a root panels, such as a tabbed panel, a single panel or the side panel, cannot be undone.

redo

With the menu item "redo", an action taken by "undo" is withdrawn.

save

With the menu item "save" the current configuration of homeVisu is stored in the file **homeVisu.ini.**

all visible

With the menu item "all visible" all hidden panels appear at once.

HV1, HV2, HVxx

This menu item makes the hidden panel with the displayed number visible.
Example:
From the demo menu item HV2 makes the hidden panel HV2 visible, which is named "floor plan".

setup

With the menu item "setup" you get into the setup of homeVisu.
Program settings can be made in the setup.
The settings of all loaded devices are also in the setup available.

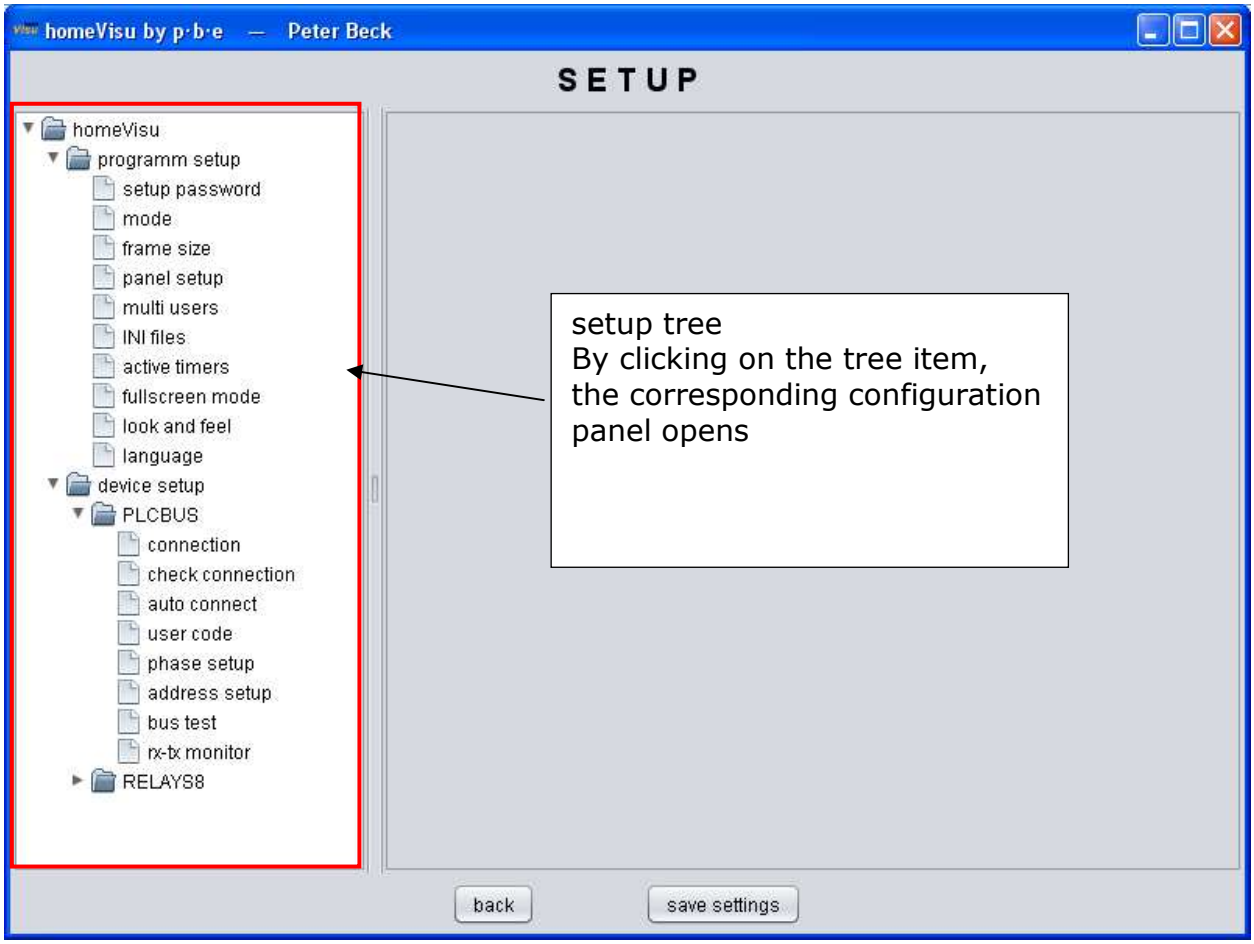
info

With the menu item "info", the info window is opened.
The info window displays the version number and the licensee of the homeVisu installation.

The setup

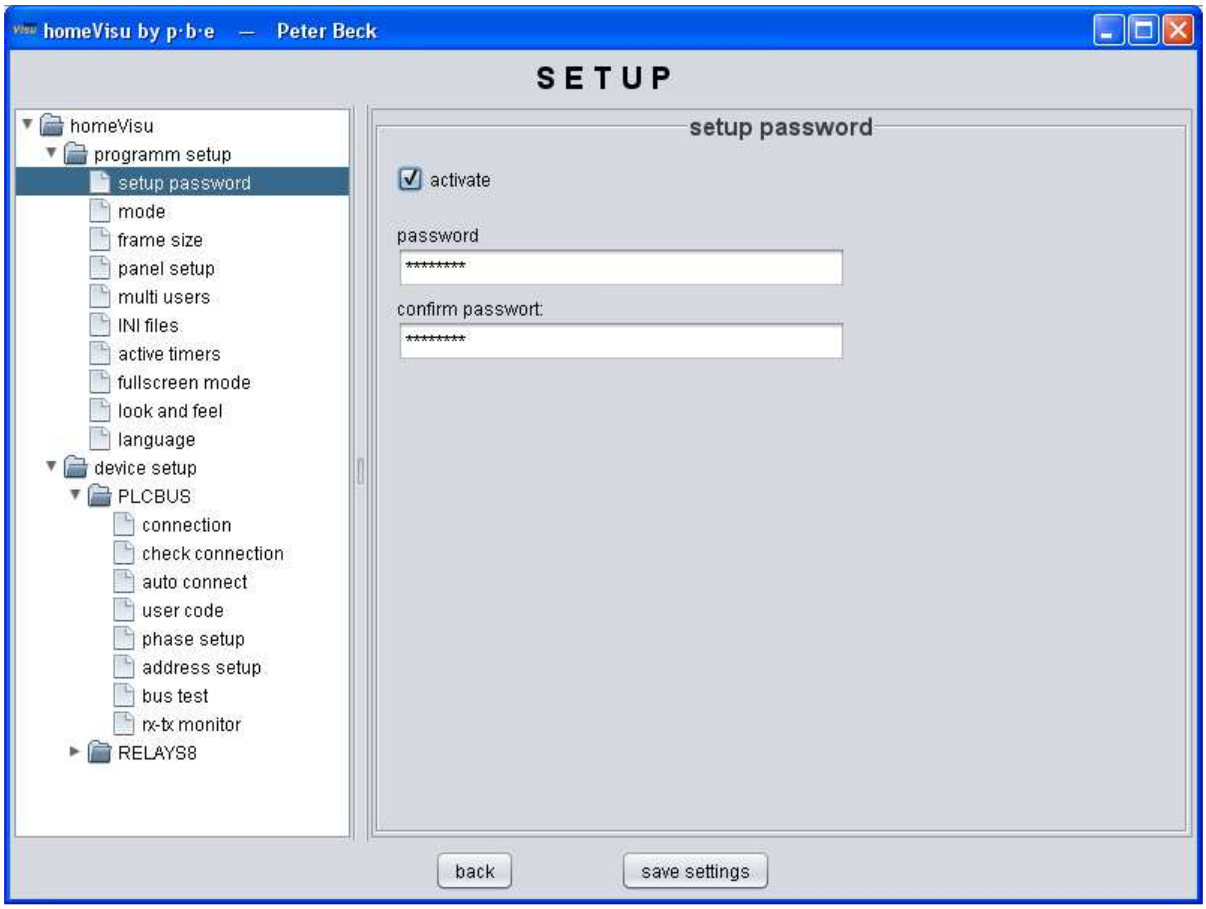
The menu item "setup" in the tab pane context menu takes you to the setup.
If the setup is protected by password, the password dialog appears:

Note:
At first program startup the password query is enabled.
There is no password assigned. Without entering a password confirm the dialog with OK.



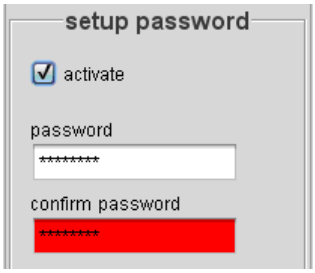
Setup password

Setup access can be secured with a password.
In this configuration panel the setup password can be enabled and assign or changed the password.



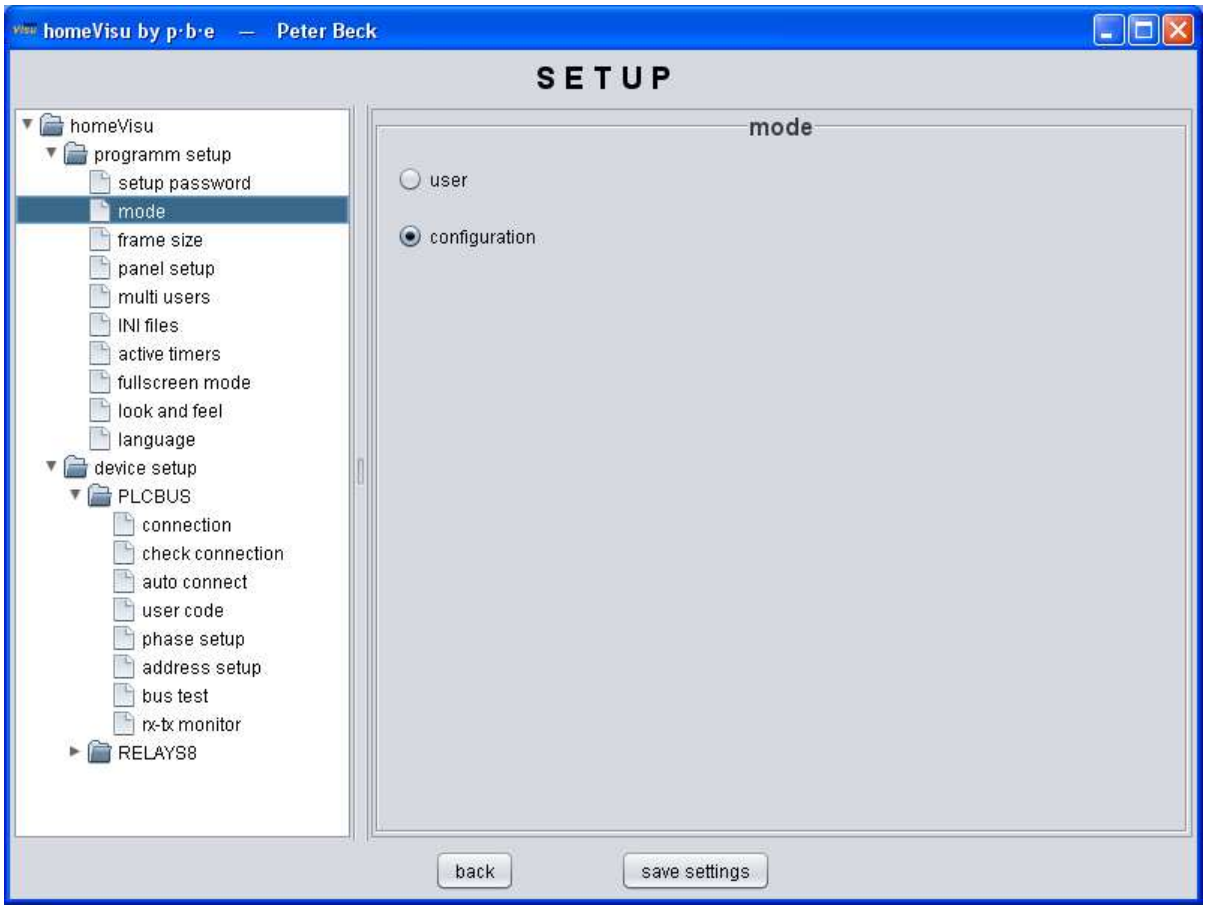
Changing the password

Once the password is changed, and the password confirmation is not identical with the password the field becomes **red** or **green** when correctly confirmed.



Operating mode

homeVisu can be configured according to the operating mode.
The operating mode is set in the configuration panel.

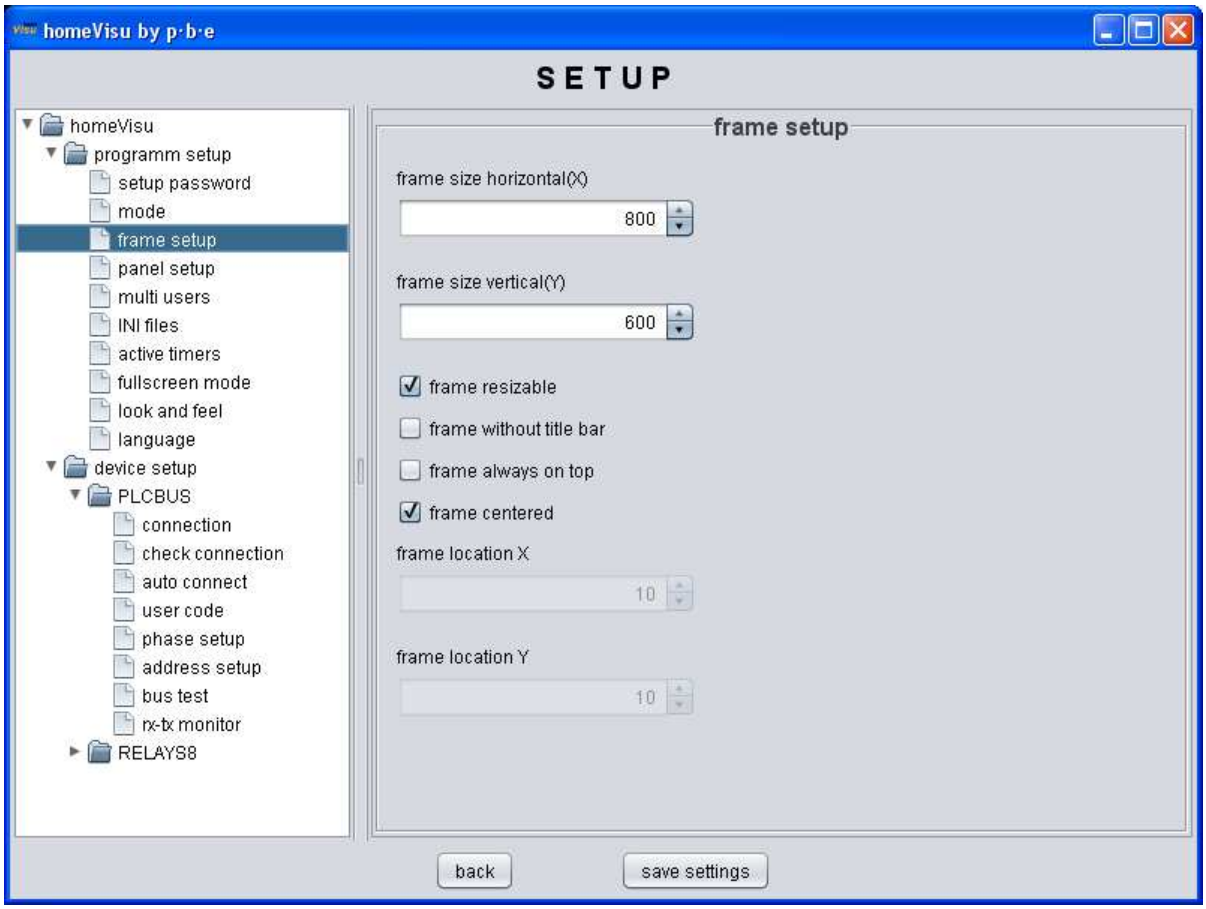


users
Any configuration options are disabled.
Components can not positioned or resized.
All context menus are turned on.
The tab context menu is reduced on the items setup and info.
The reordering of the tabs is the user allowed, but will not permanently store.

configuration
All configuration options are enabled.

Frame setup

homeVisu starts by default as a window.
This configuration panel defines the appearances of the window at startup.



Frame size
Defines the frame size at startup

frame resizeabe
Activate or deactivate the possibility to resize the homeVisu window.

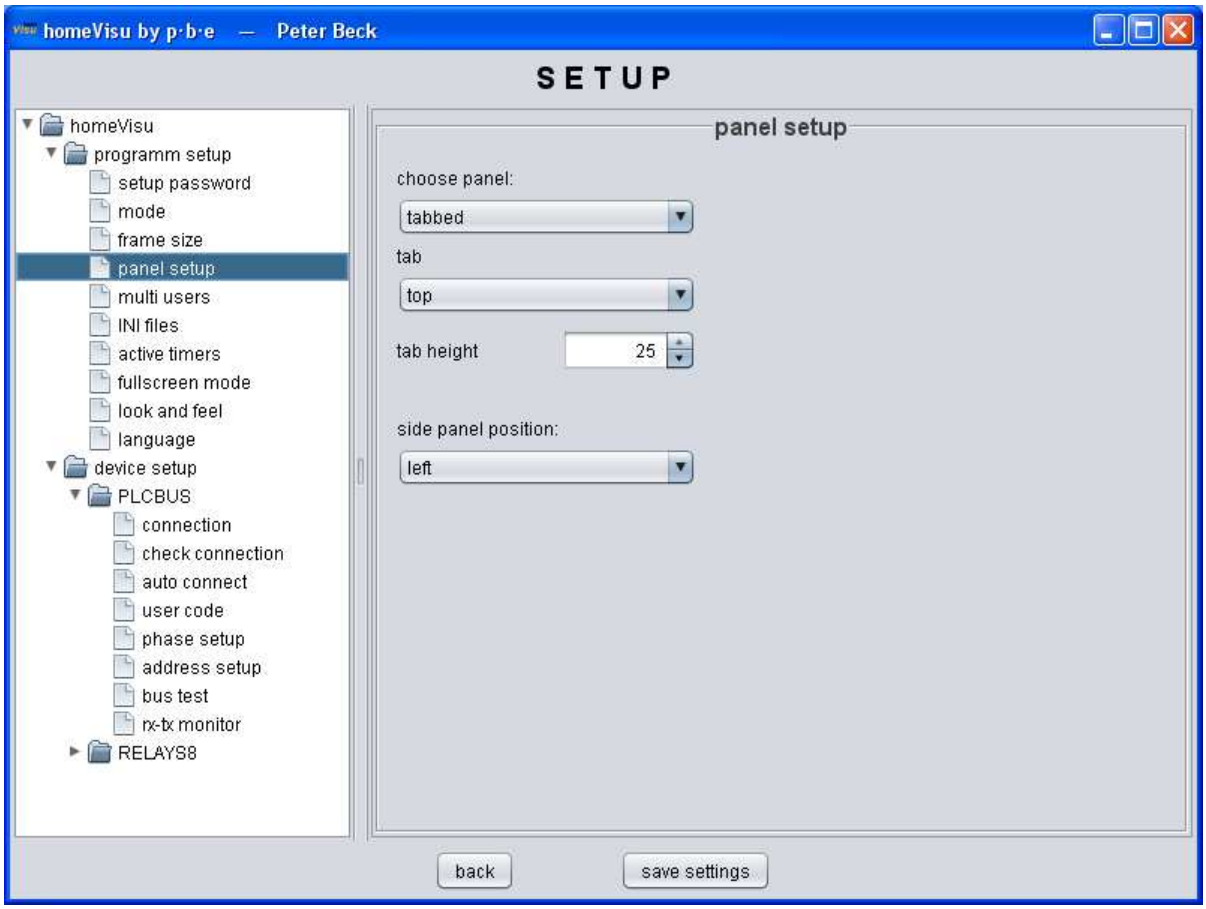
frame without title bar
This check button disabled the title bar, the frame is undecorated.

frame always on top
homeVisu is always on top of the desktop.

frame location
Defines the frame location at startup. Either centered on desktop or at given position.

Panel setup

The basic appearance of the user interface can be adjusted to appropriate needs in this configuration panel.



panel type

- tabbed
  several panels that can be selected by the tab pane.
- single
  only one Panel. The tab pane is hidden.

tab: position of the tab pane in relation to the tabbed panel.

- top
- bottom
- left
- right

Tab height: The height of the tabs can be set here.

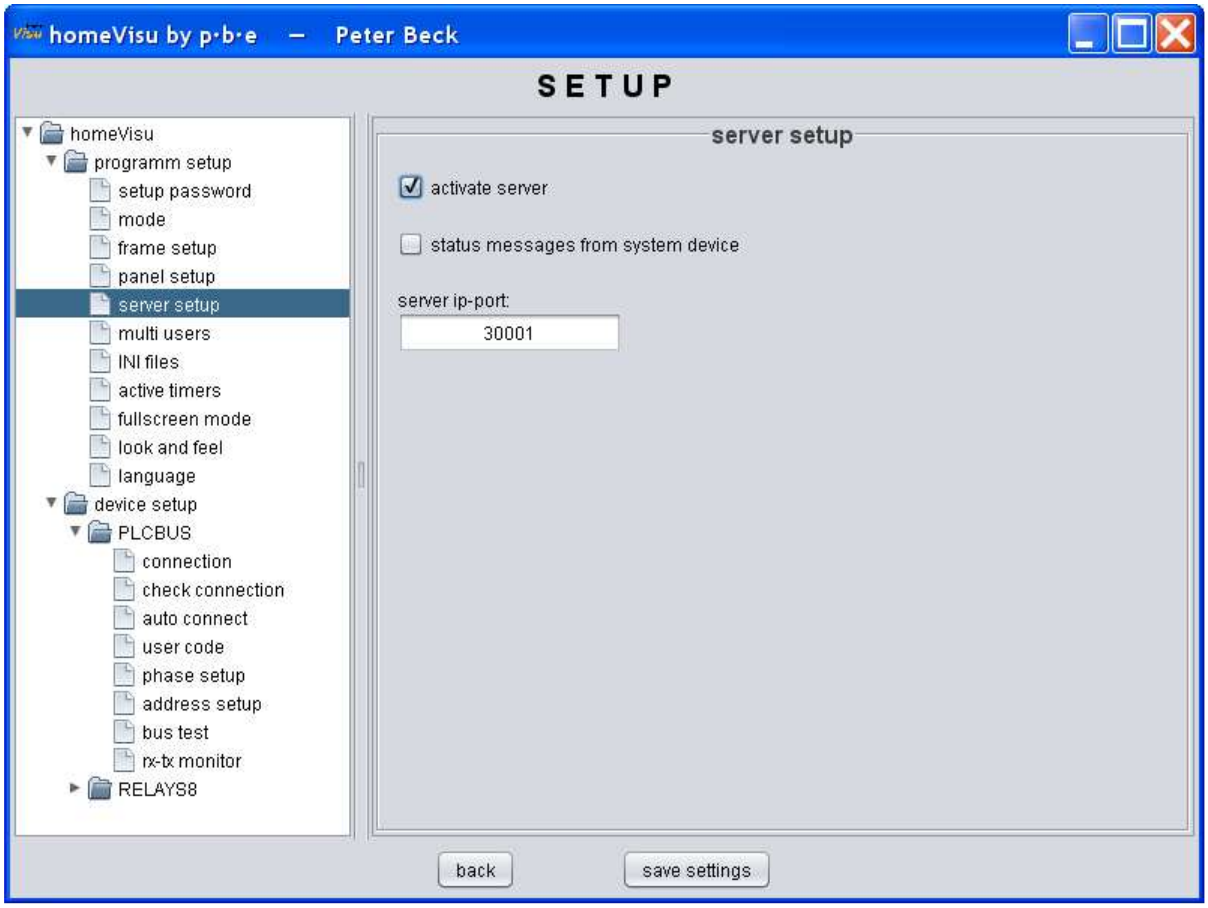
Side panel position: Position of the side panel in relation to the tabbed panel

Server setup

When server is activated, clients can remote control homeVisu over the defined port.

By sending commands - like the macro commands - a command will execute.

The server transmits all status messages to the clients. The client must only receive the status messages and visualize them.



status messages from system device

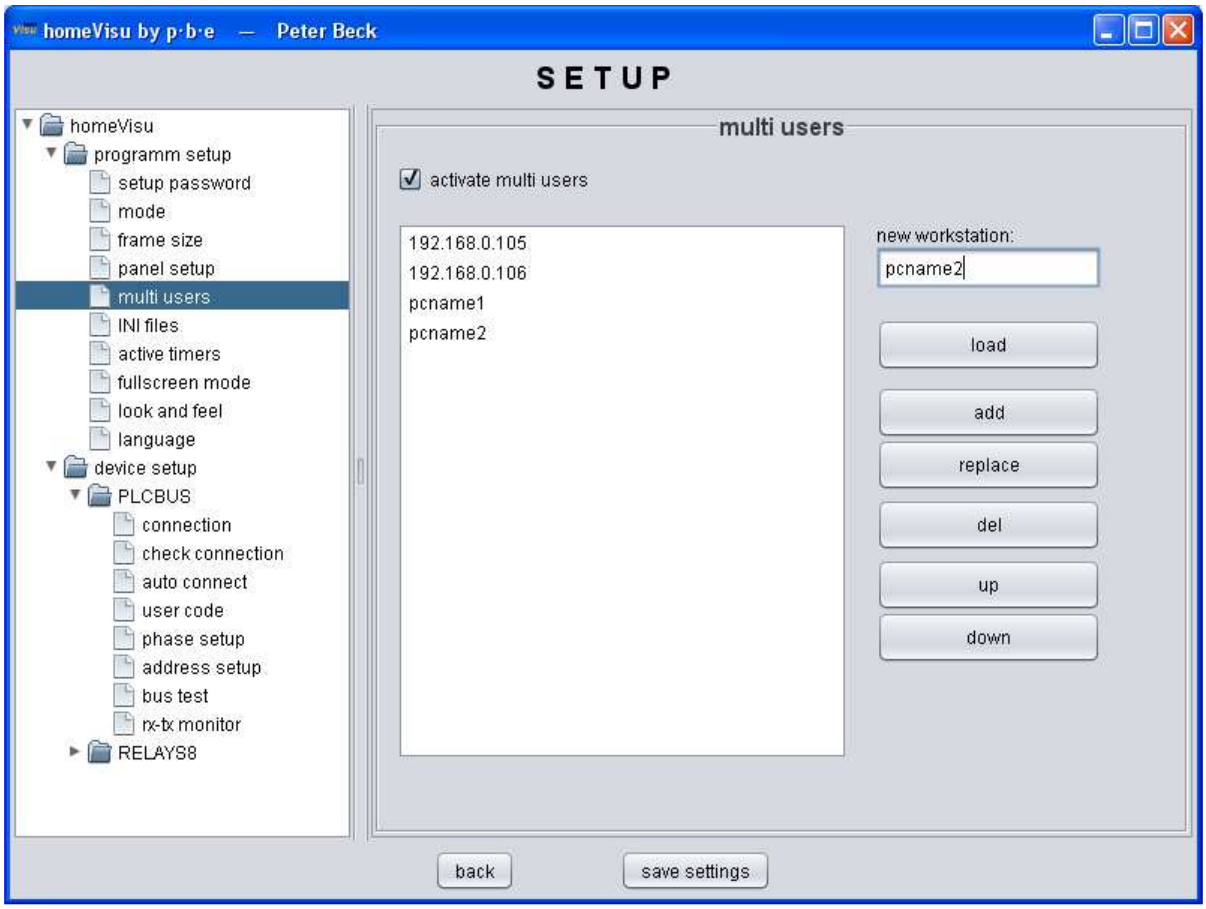
Activate the transmition of status messages from the system device.
The system device transmits every second the date of the server.

server ip-port

Here you can define the port number of the server.

Multi user

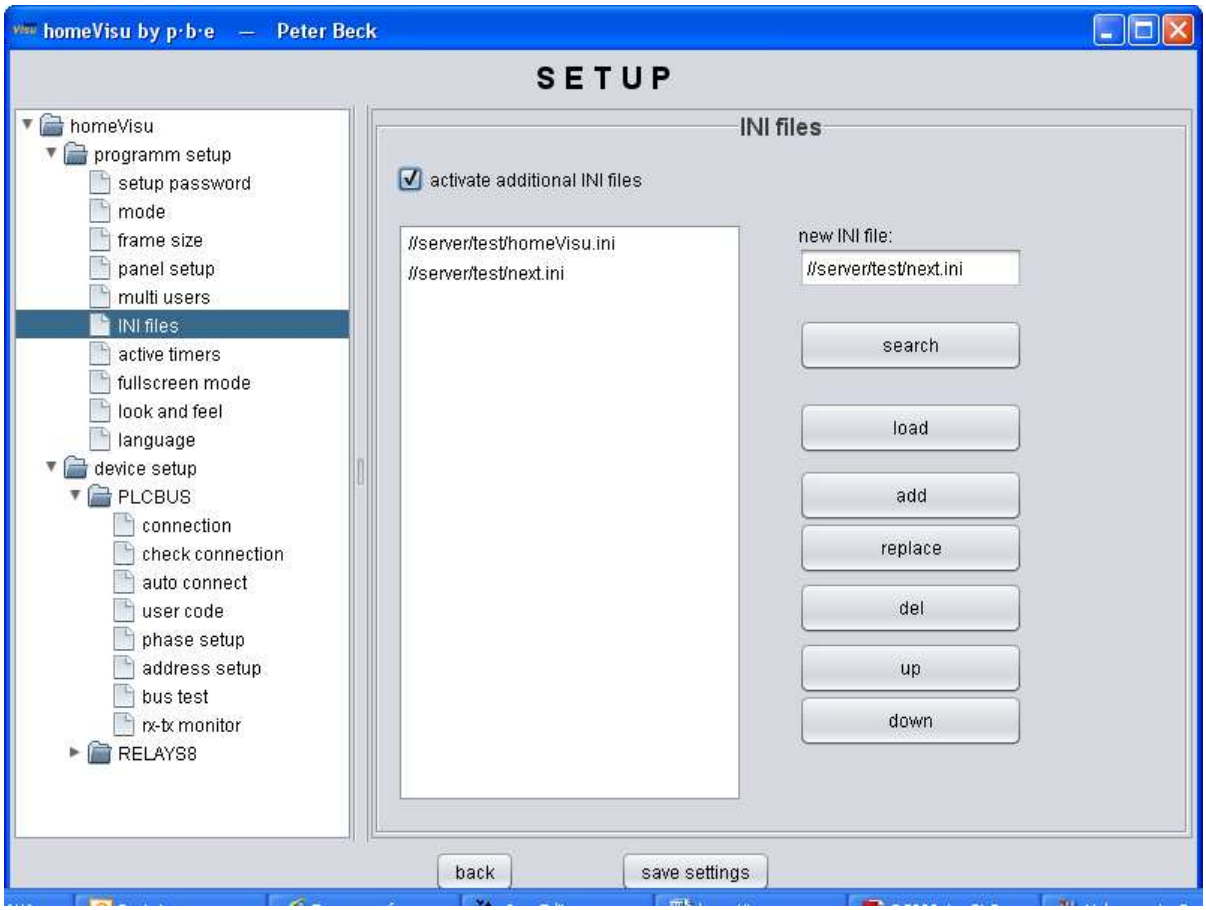
In the professional version, a group can be defined, were the group members can communicate and exchange information with each other.
The group is defined in this configuration panel.



INI files

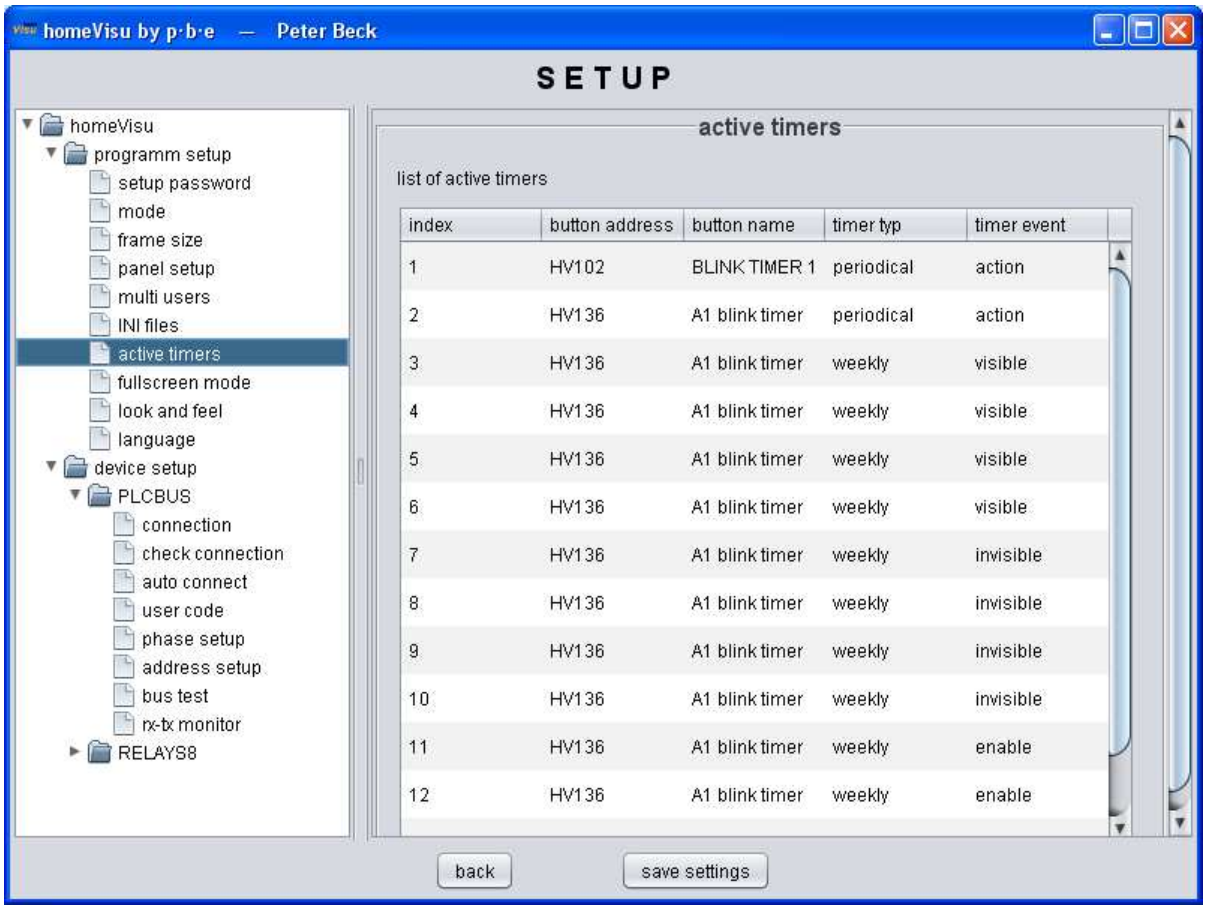
In the professional version, additional INI files can be defined, they are loaded at startup.
Overwrite values prior INI files is possible. The last loaded INI values are valid.
By specifying a path, the INI files can be loaded from a server to use common settings in the multi user mode.

This configuration panel defines the list and the order of the INI files.



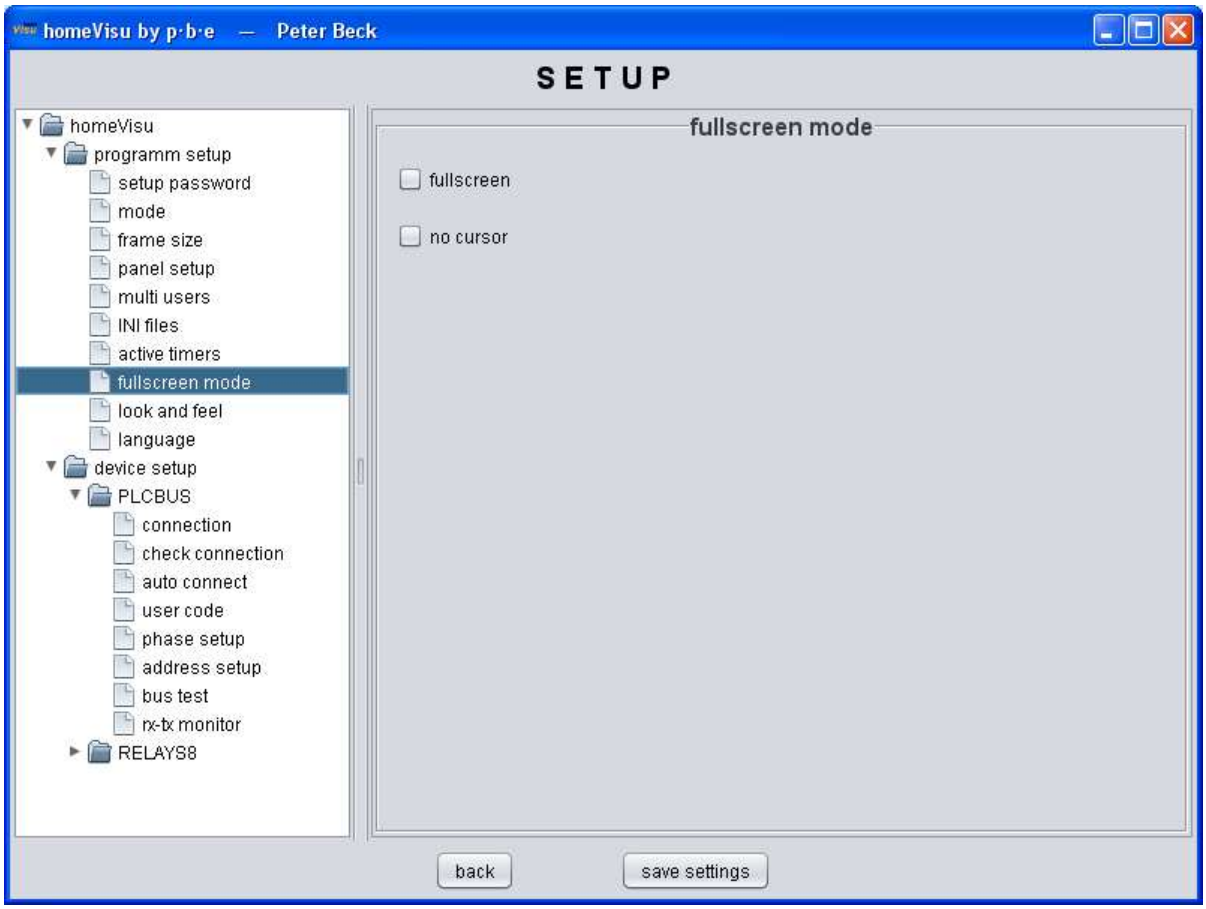
Active timer

All active timers are listed in this overview.
This is a centralized view, to identify the timer and its associated buttons.
Changes can not be performed here. To change timers, the timer must be changed in the timer window of the associated button.



Full screen mode

In the professional version in this configuration panel the full screen mode can be activated and the cursor can be hidden.



Full screen

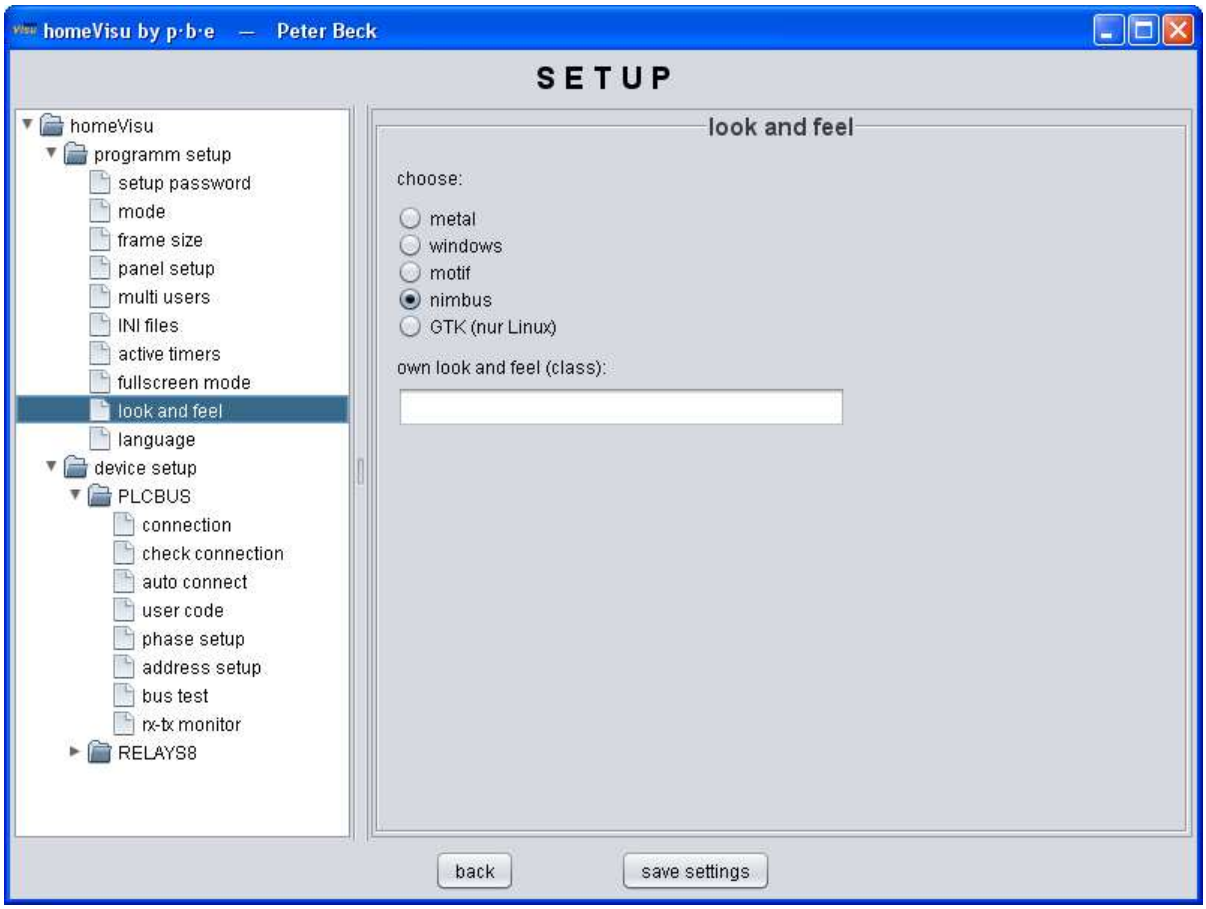
homeVisu will capture the entire screen without window frames.
In full-screen mode it is not possible to terminate the application.

No Cursor

For applications with touch screen, the cursor can be hidden here.

Look and Feel

The basic look and feel of homeVisu can be changed in this configuration panel.



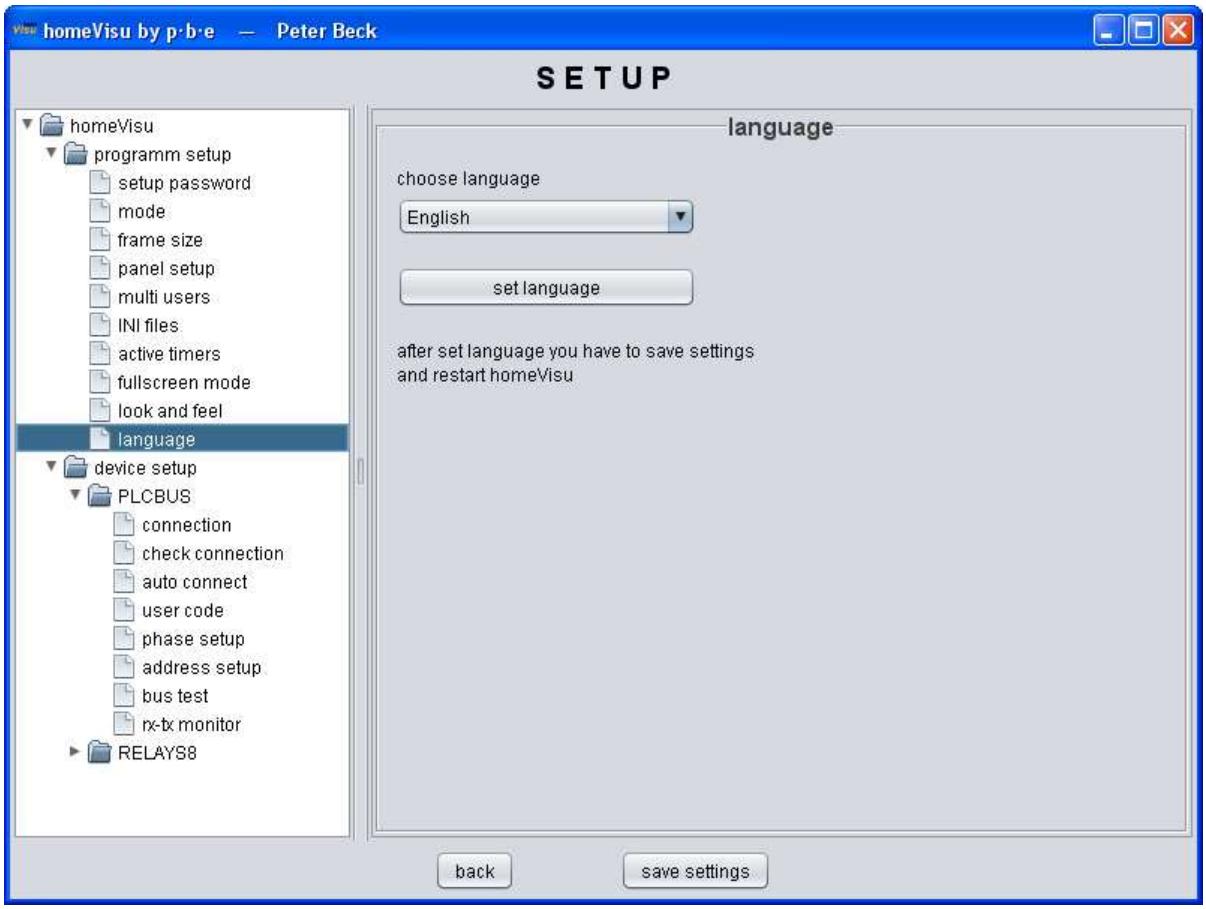
All look and feel comes with Java can be selected directly using the buttons.
Please note that under Windows, the GTK LAF and under Linux the Windows LAF is not available.

Entering the Java class name of a loaded Look And Feel every available or created Look And Feel can also be integrated.
Your own Look And Feel classes can be copied as a JAR files into the homeVisu subdirectory `/libs`.
The classes in the libs directory are loaded at startup by homeVisu.

A program restart is required for an entire change of the look and feel.

Language

The language of the menus, setup and configuration windows of homeVisu can be changed.
All language elements are stored independent from the source code in language files and can be freely translated into any language.



In this configuration panel the language for the next startup is selected.

Default language files are available for German (Deutsch.lng) and English (English.lng).
The files are located in the installation directory.
Each device and each additional component has its own language file.

New language files are generated by a copying and renaming an existing language file.

e.g.	English.lng	→	Français.LNG
	PLCBUS_English.LNG	→	PLCBUS_Français.LNG

After copying the text in the file right of the equal sign must be translated.

The base panels

There are three versions of base panels
- tabbed panel
- single panel
- side panel

All panels can include as many components.

The components can be freely positioned on the panel.

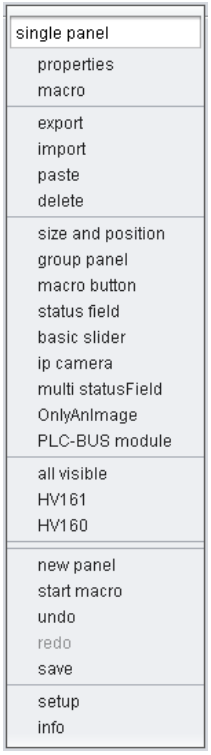
There are four differences in the panels.
1. The single panel can not be hidden.
2. The context menu of the single panel includes additional menu items from the context menu of the missing tab pane (undo, redo, save, setup, info).
3. The context menu of the single panel includes additional menu item “new panel”, to generate new single panel.
4. The width of the side panels can be set.
   Either in the setup, in the properties window or by mouse dragging on the side of the tabbed panel if the mouse pointer will change accordingly.

All panels are configured by its context menu.

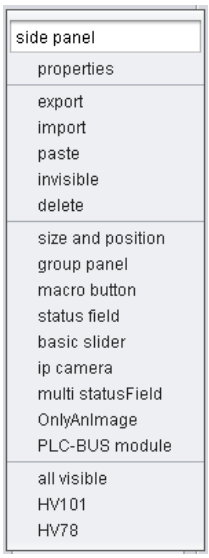
The context menu of the panels

tabbed panel

single panel

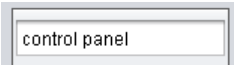


side panel



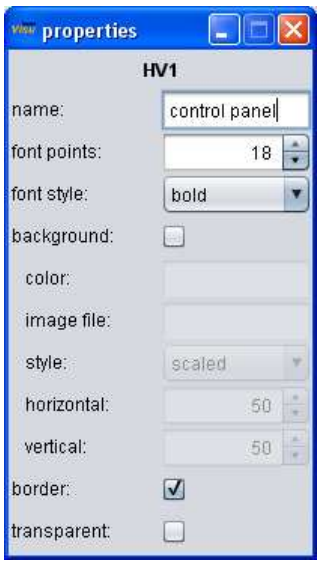
name

With the input field in the context menu enter the name of the panel.



properties

The "properties" menu item opens the properties window of the panel, where all properties can be set.



macro

The menu item "macro" opens the macro windows, where you can define a macro which will execute always you jump to this panel. With this macro system status can be request after each panel switch.
Definition of the macro see section macro button.

export

With the menu item "export" the panel can be exported in a file.
After clicking on the menu, a dialog opens where the file can be selected or created.

When exporting a panel all included components are exported in same file.
Any associated files such as graphics are not written in the export file!

import

Exported components can be imported again with the "import" menu item.
After clicking on the menu, a dialog opens where the file can be selected.

paste

Components previously selected by menu item "copy" can be insert with the menu item "paste". It inserts a copy of the component.

invisible

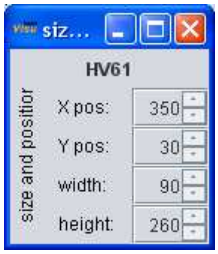
With the menu item "invisible" the panel is hidden. It remains in the background and can reappear at any time by the context menu of the tab pane.

delete

With the menu item "delete" the panel is compared to invisible permanently deleted.

size and position

This menu item opens the auxiliary window “size and position". With this auxiliary window the currently selected component can be positioned and resized.



group panel

The menu item "group panel" inserts a new group panel at the cursor position.

macro button

The menu item "macro button" inserts a new macro button at the cursor position.

status field

The menu item "status field" inserts a new status field at the cursor position.

basic slider

The menu item "basic slider" inserts a new basic slider at the cursor position.

other components

If in the subfolder "\ components" other components such as in the example the components "OnlyAnImage" and "PLC-BUS module" are installed, they will appear here in the context menu to choose.
With the selection in context menu the corresponding component is inserted at the cursor position.

all visible

With the menu item "all visible" all in the panels hidden components are appear at once.

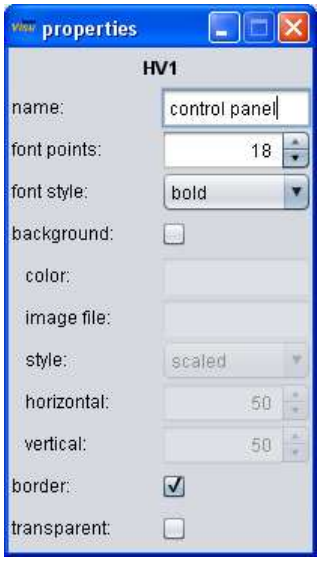
HVxx

With the menu item HVxx the hidden component HVxx reappears.

new panel

Only single panel!
This menu item generates a new single panel. There are no limits of additional single panels. To make a single panel visible, use the JUMP command of the System device.

The properties of the panels



name

With the input field enter the name of the panel.

The name appears in the frame.
For the tabbed panel the name also serves to label the tabs in the tab pane.

font size

It sets the font size of the name in the frame.

font style

It sets the font style of name in the frame.

- plain
- bold
- italics
- bold + italics

background

The using of a background is enabled.
A color and a graphic can be defined for background.
The graphic is above the colored background so the colored background is visible around the graphic.

color

The selected background color is displayed in the color field.
A double click on the color field or the button ... opens a color selection dialog.
Key del will delete the chosen color.

image file

The file name of an image file can be entered in the input field.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

style

If a background image is set, here can be defined how the graphic is displayed.

- scaled → graphic is adjusted to the background.
- tiles → a small picture is tiled.
- actual → graphic is presented unchanged.

horizontal

The horizontal position of a graphic is defined here.
This function has only effect in a graphic, which is less than the background and is shown actually.

vertical

The vertical position of a graphic is defined here.
This function has only effect in a graphic, which is less than the background and is shown actually.

frame

The visibility of the frame is on or off.

transparent

The panel is transparent.

The components

There are 4 standard components
- group panel
- macro button
- status field
- basic slider

These components are always included in homeVisu.
Additional components can be installed at any time as a plug-in. To do this, the appropriate JAR file must be copied in the subdirectory "\components".
Any component that has been copied into the subdirectory is after startup available and can be inserted.

As an example, the component "PLC BUS module" is described in this manual.

Size and position

All components can be freely positioned and resized.
Here too there are a variety of ways.
These features are only available in the configuration mode.

with the mouse

Each component can be moved and resized with the mouse.
If you move the mouse along to the edge of the component, the mouse pointer is changing. According to the mouse pointer the component can be resized in the appropriate direction.
In the middle of the upper edge, the cursor becomes a cross; which indicates that the component can now be moved with the pressed left mouse button.
Another method is with the CTRL and SHIFT key together with the right mouse button.

A hold down the SHIFT key together with the right mouse button on any part of the component increase or reduces the component synchronously with moving the mouse.
By holding down the CTRL key, the component can be moved with the right mouse button.

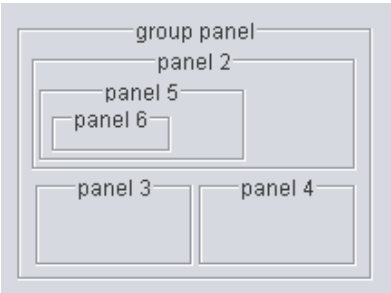
auxiliary window “size and position"

With auxiliary window size and position each component can be positioned and resized exactly to pixels.
To edit a component with the auxiliary window, you must select the component previously with the mouse. Either with a left or right mouse click on it.

The Group panel

Empty group panel with frame

The group panel can include as many components like the base panels. In this case a group can include to another group panel. Thus, group panels can be nested.
All inserted components can be positioned freely on the group panel.



Nested group panel

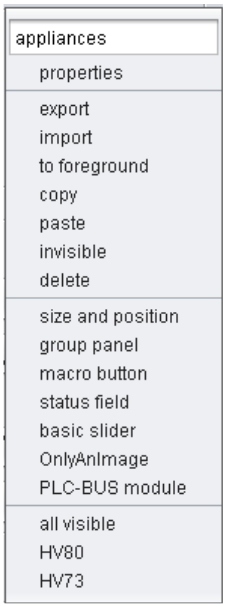
The group panel is configured by its context menu.

The context menu of the group panel

Basically, the group panel has the same context menu as the base panels.
There are only 2 additional menu items.

- to foreground
- copy

All other menu items are identical to the menu items of the base panels.



to foreground

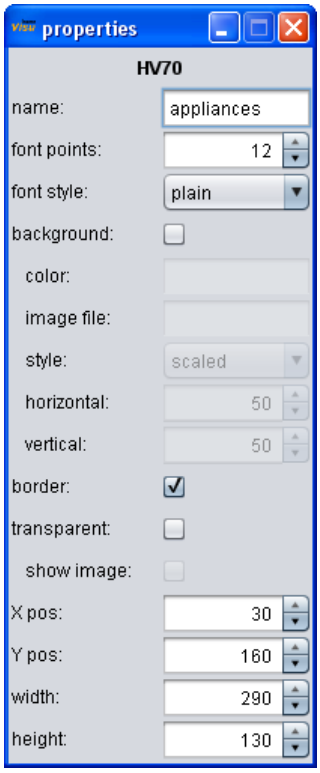
All components within a panel have a stack position. That is, the components cover each other.
Only the top component on the stack is fully visible.
With this function the component is moving on the top of the stack within its panel, so in the foreground.

copy

With the menu item "copy" the group panel including its components is marked for copying.

The properties of the group panel

The properties of the group panel correspond to the properties of base panels plus the property "show image", “transparency” and the position and size properties.



show image

Use this property; partially transparent graphics can be used as backgrounds so that in the transparent areas of the graphic the background of the base panel or of the parent panel is visible.

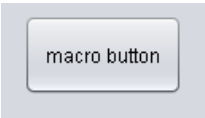
position

With the properties X pos and Y pos, the position of the group panel can define exactly on the pixel.

size

With the properties width and height, the size of the group panel can define exactly on the pixel.

The macro button



macro button

The macro button executes the commands provided by the devices.
The macro button can process a command list and address all devices within a sequence (macro).

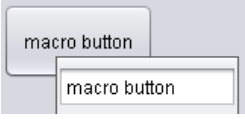
There are many options for the macro button. From the appearance, the command list, the visibility and the enable as a function of events and timers.
Each macro button can have as many timers.
The timer controls either the command execution, the visibility or the enable of the button.

The macro button is configured by its context menu.

The context menu of the macro button

button text

With the input field in the context menu enter the text of the button.

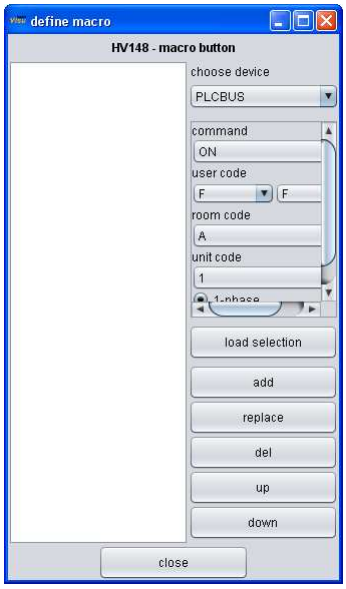


properties

The "properties" menu item opens the properties window of the macro button, where all properties can be set.

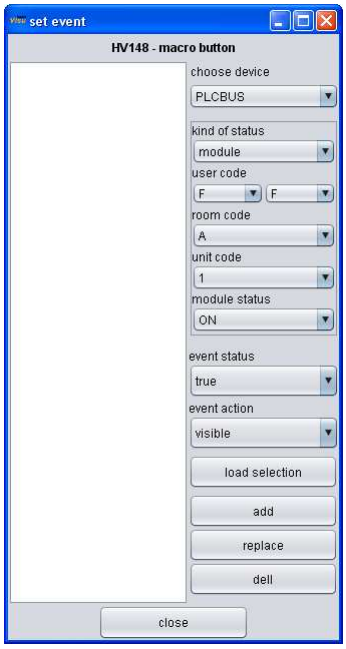
macro

The "macro" menu item opens the macro window of the macro button.
The macro window defines the command list that is executed when button is pressed.



set status

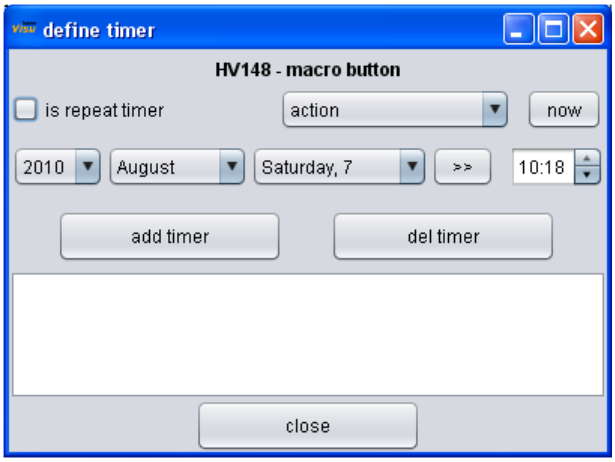
The "set status" menu item opens the event window of the macro button.
The event window defines to which status messages from the devices the button responds. Thus, the visibility or the enable can be changed depending on device status messages.



timer

The "timer" menu item opens the timer window of the macro button.
The timer window defines the timers for the button. Thus, the command execution, the visibility or the enable depending on a timer can be activated.
There are three types of timers available.

- date
- periodically
- weekly



export

With the menu item "export" the macro button can be exported in a file.
After clicking on the menu, a dialog opens where the file can be selected or created.
Any associated files such as graphics are not written in the export file!

to foreground

All components within a panel have a stack position. That is, the components cover each other.
Only the top component on the stack is fully visible.
With this function the macro button is moving on the top of the stack within its Panel, so in the foreground.

copy

With the menu item "copy" the macro button is marked for copying.

enable/disable

With the menu item "enable" or "disable", the macro button's command execution is blocked or released. Disable also prevents the command execution by a timer.

invisible

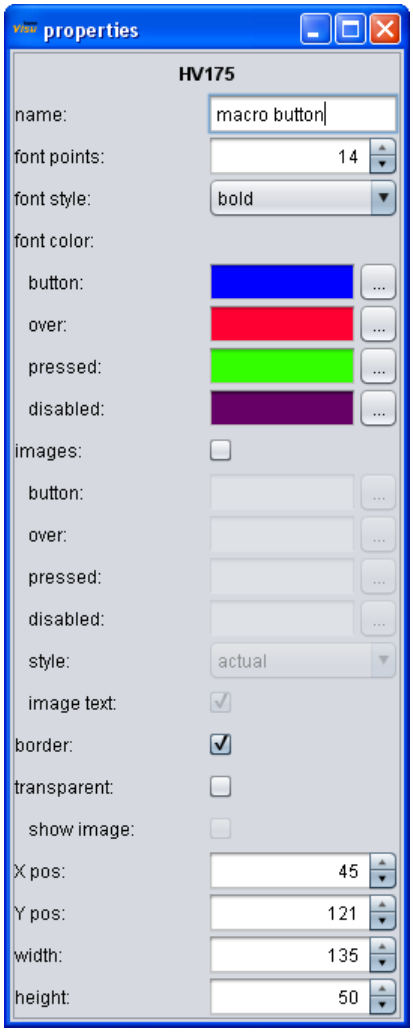
With the menu item "invisible" the macro button is hidden. It remains in the background and can reappear at any time by the context menu of its panel.

delete

With the menu item "delete" the macro button is compared to invisible permanently deleted.

The properties of the macro button

The "properties" menu item opens the properties window of the macro button, where all appearance properties can be set.



name

With the input field enter the text of the button.

font size

It sets the font size of the button text.

font style

It sets the font style of the button text.

- plain
- bold
- italics
- bold + italics

font color

It sets the font color of the button text for each state.

- button – text color in the normal state
- over – text color if mouse over
- pressed – text color if button pressed
- disabled – text color if button disabled

The selected font color is displayed in the color field.
A double click on the color field or the button ... opens a color selection dialog.
Key del will delete the chosen color.

images

The representation of background images is enabled.
Images can be defined for:

- button
- over
- pressed
- diabled

button

The file name of an image can be entered in the input field that appears in the normal state.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

over

The file name of an image can be entered in the input field that appears if the mouse is over.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

pressed

The file name of an image can be entered in the input field that appears if the button is pressed.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

disabled

The file name of an image can be entered in the input field that appears if the button is disabled.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

style

If an image is set, here can be defined how the graphic is displayed.

- scaled → graphic is adjusted to the background.
- tiles → a small picture is tiled.
- actual → graphic is presented unchanged.

image text

If a background image is set, here can be turned on the function text on graphics. Alternatively, the text can be drawn with the graphics.

frame

The visibility of the frame is on or off.

transparent

The macro button is transparent.

show image

Use this property; partially transparent graphics can be used as backgrounds so that in the transparent areas of the graphic the background of the base panel or of the parent panel is visible.

position

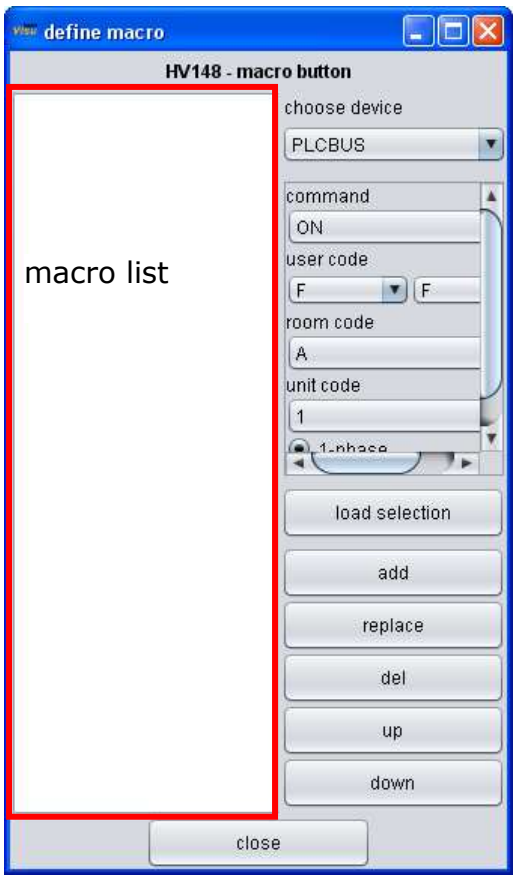
With the properties X pos and Y pos, the position of the macro button can define exactly on the pixel.

size

With the properties width and height, the size of the macro button can define exactly on the pixel.

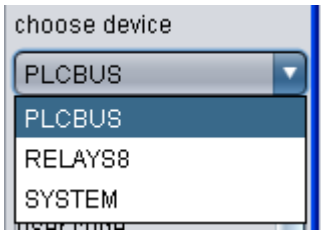
The macro window

The macro window defines the command list that is executed if button pressed.

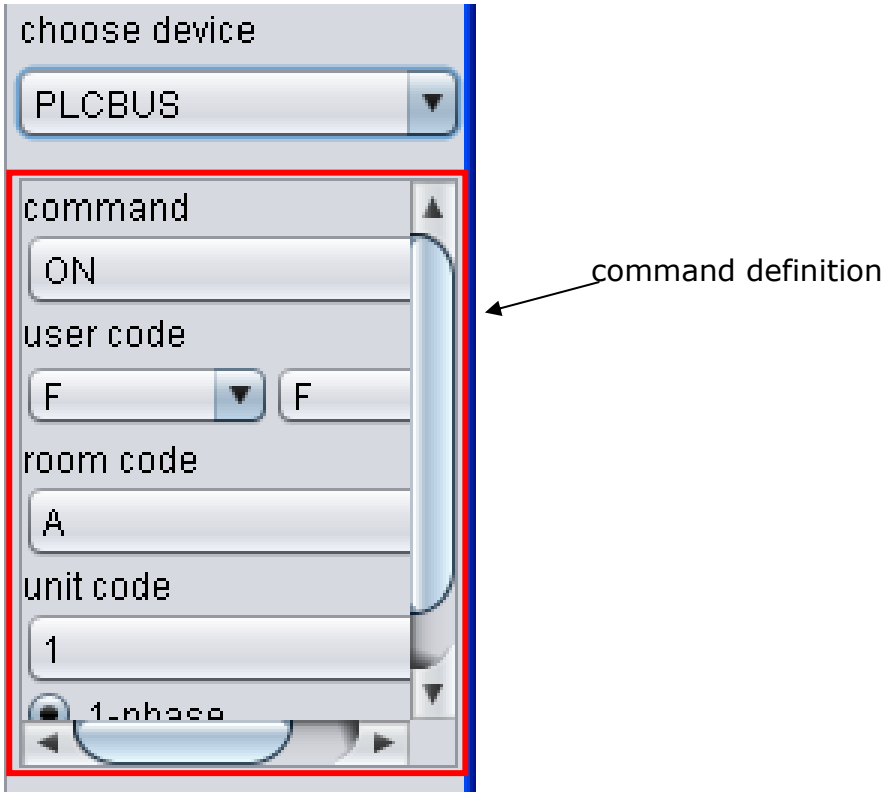


create a macro

With the device selection choose the device, whose command has to execute. Define the command in the command definition and add the command into the command list (macro).



device selection



define command

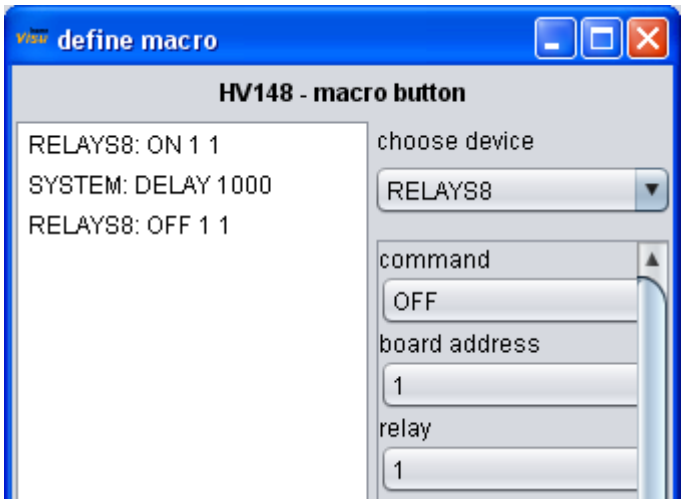
add command

Each command in the command list is executed in the order.

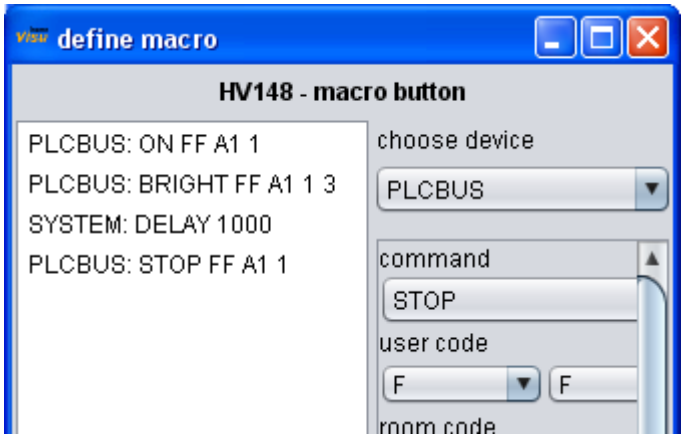
examples of macros

Relay 1 of device RELAYS8 and board address 1 is switched on for 1 second.

switch ON relay 1
wait 1000 ms
switch OFF relay 1



switch ON PLC-BUS module A1; user code FF; 1-phase
BRIGHT PLC-BUS module A1; user code FF; 1-phase; fade rate 3
wait 1000 ms
STOP fade PLC-BUS module A1; user code FF; 1-phase



load selection

The command selected in the command list is loaded in the command definition to make a change to the command.
A command can be loaded as well with a double click or press the Enter button.

add

The command in the command definition is added to the command list.
If a command is selected in the command list, the new command is inserted behind the selected command.
If no selection is made, the command is inserted at the end of the command list.

replace

The command in the command definition replaces the selected command in the command list.
If no selection is made, the command is inserted at the end of the command list.

del

The selected command in the command list is deleted.

up

The selected command in the command list moves up one position. So the command is executed before its current predecessor.

down

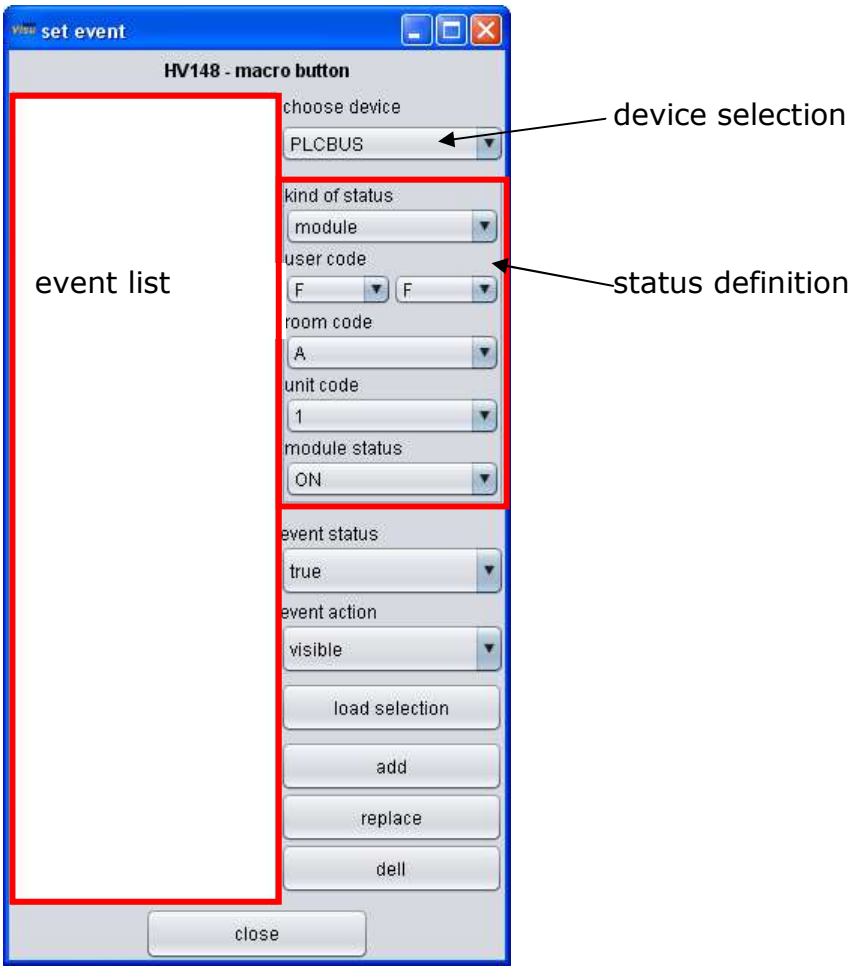
The selected command in the command list moves down one position.

close

Close the macro window.

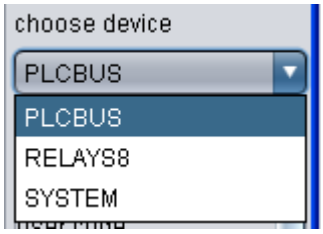
The event window

The event window defines the button responds to which status messages from the devices. Thus, the visibility or the enable can be changed depending on device status messages.

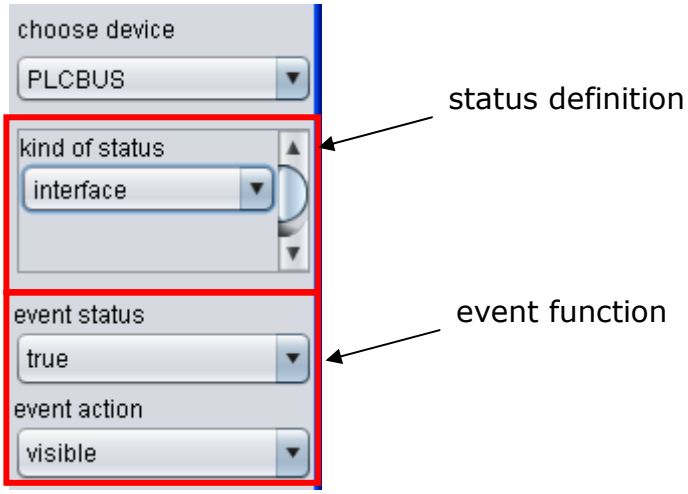


create an event

With the device selection choose the device, whose status should be processed. Define the status in the status definition, choose the event function and add the event into the event list.

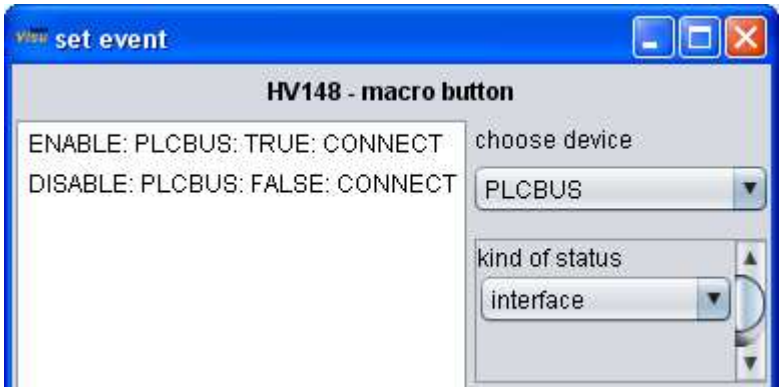


device selection



define event

add event



Each event in the event list is checked for status messages that are sent from the device and may be executed.

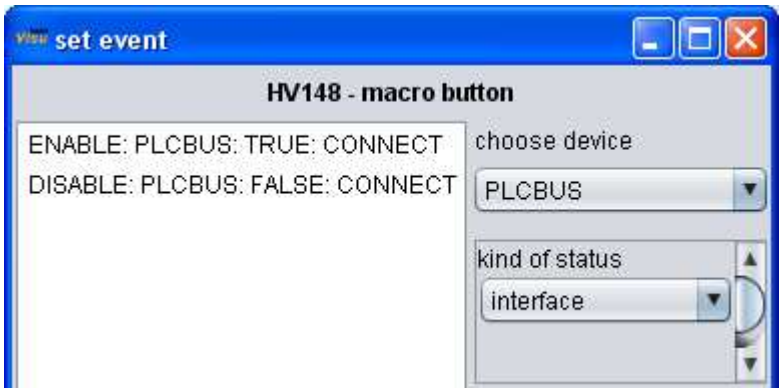
examples of events

The button is released (ENABLE) as soon as the device PLCBUS sends the status message CONNECT TRUE.

ENABLE: PLCBUS: TRUE: CONNECT

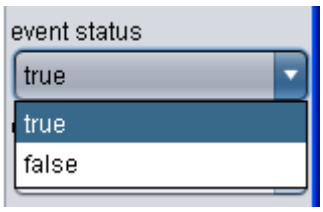
If the device PLCBUS sends the status message CONNECT FALSE the button is locked (DISABLE)

DISABLE: PLCBUS: FALSE: CONNECT



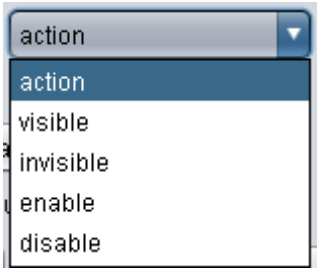
event status

The event status defines whether the event responds to a true status or to a false status.



event function

The event function defines which event will executed.



action	➔ command execution (macro)
visible	➔ show button
invisible	➔ hide button
enable	➔ release button
disable	➔ lock button

load selection

The event selected in the event list is loaded in the status definition to make a change to the event.
An event can be loaded as well with a double click or press the Enter button.

add

The event in the event definition is added to the event list.
If an event is selected in the event list, the new event is inserted behind the selected command.
If no selection is made, the event is inserted at the end of the event list.

replace

The event in the event definition replaces the selected event in the event list.
If no selection is made, the event is inserted at the end of the event list.

del

The selected event in the event list is deleted.

close

Close the event window.

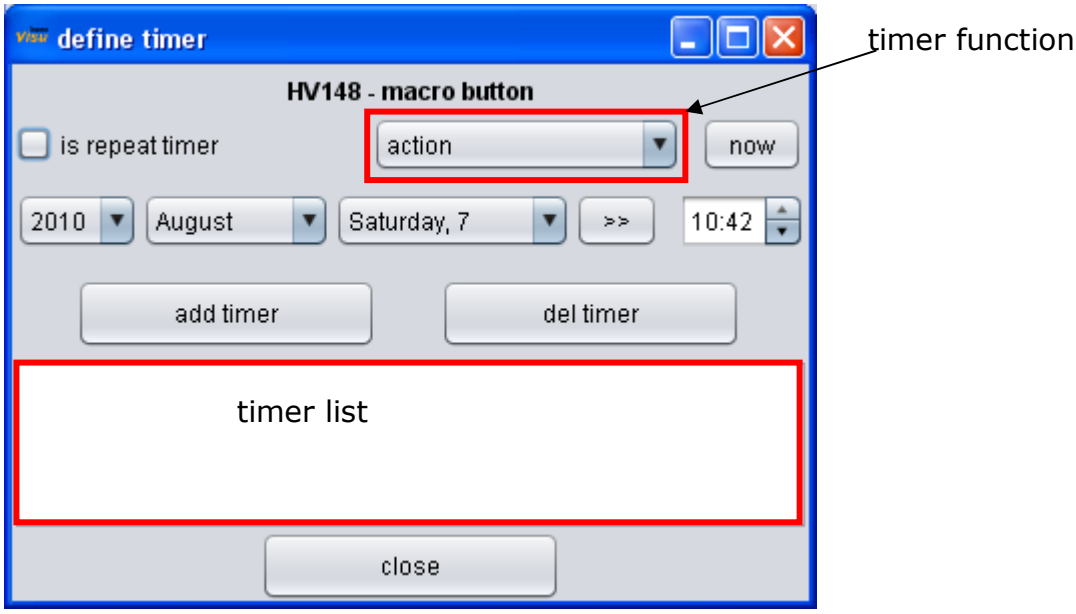
The timer window

The timer window defines the timers for the button. Thus, the command execution, the visibility or the enable depending on a timer can be activated.
There are three types of timers available.

- date
- periodically
- weekly

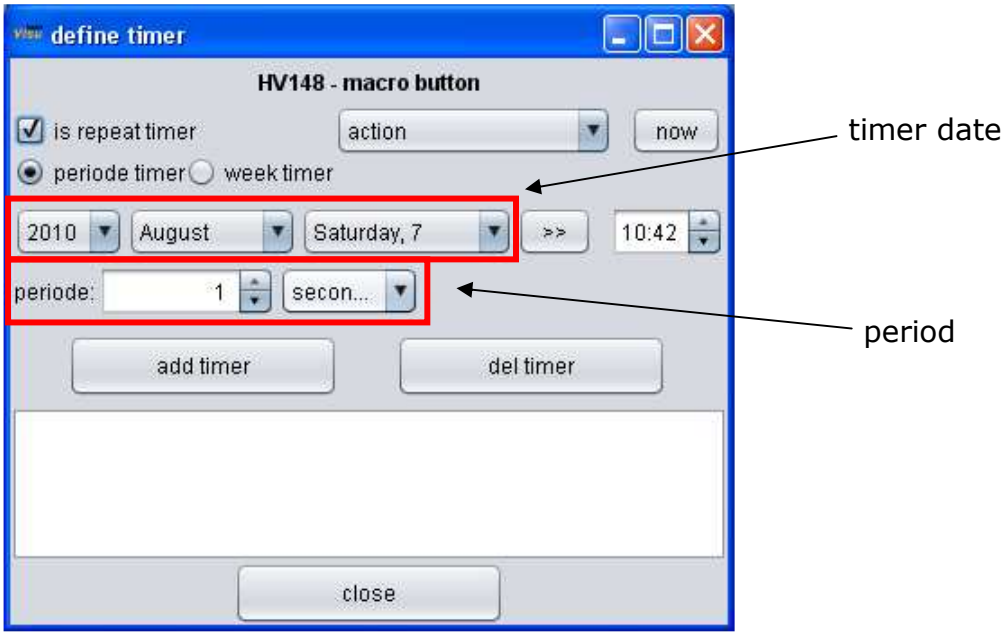
the date timer

The date timer defines a timer running on a certain day at a given time.



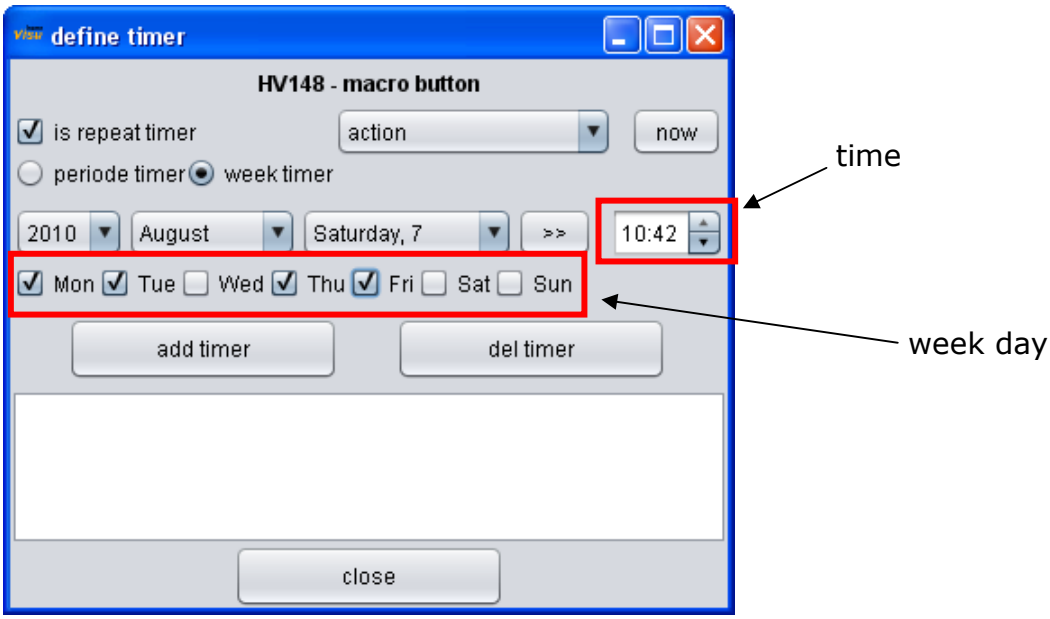
the periodically timer

The periodic timer defines a timer that repeats from a certain date and time at a given interval (period).



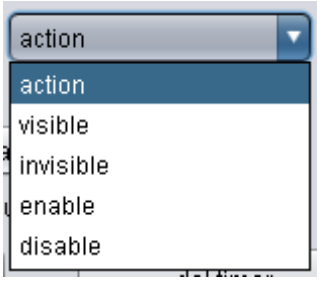
the weekly timer

The weekly timer defines a timer that repeats from a certain date on the defined weekdays at the given time.



timer function

There are 5 functions for the timer available, the timer will be executed.



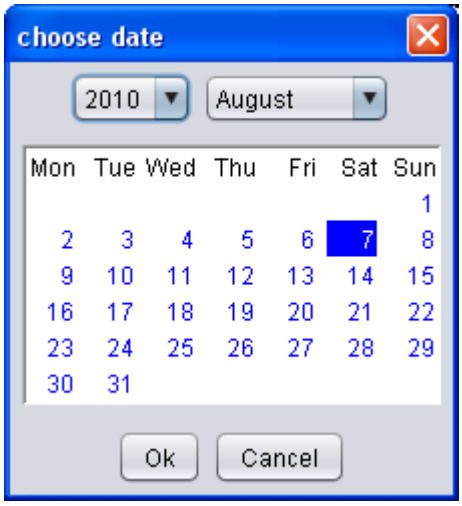
action	➔ command execution (macro)
visible	➔ show button
invisible	➔ hide button
enable	➔ release button
disable	➔ lock button

now

With the button "now" in the timer window, the date and time definition is set to the current time

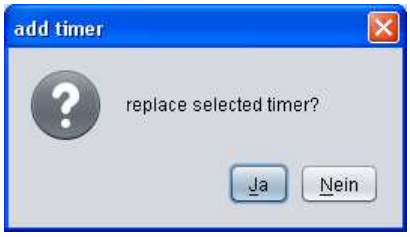
choose date

The button "select date" in the timer window, opens a dialog for date selection. With this dialog the date can be selected in a calendar view quickly and easily.



add timer

The timer is added to the timer list and will start.
If a timer in the timer list is selected, a dialog is shown, whether the timer should be replaced or added.



del timer

The selected timer in the timer list is deleted and stopped.

close

Close the timer window.

The status field

The status field visualized status messages reported by the devices.

Each status field can have two appearances

- status is false (FALSE)
- status is true (TRUE)

FALSE **TRUE**

text version

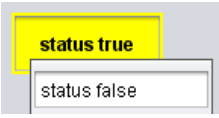
image version

The status field is configured by its context menu.

The context menu of the status field

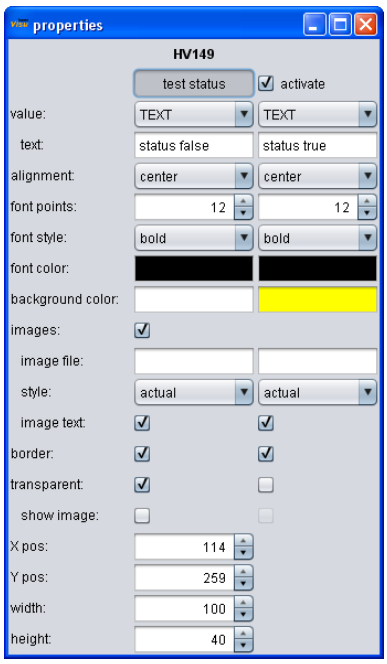
status text

With the input field in the context menu enter the status text for status <FALSE> of the field. The field text for status <FALSE> is the default appearance after initialization.



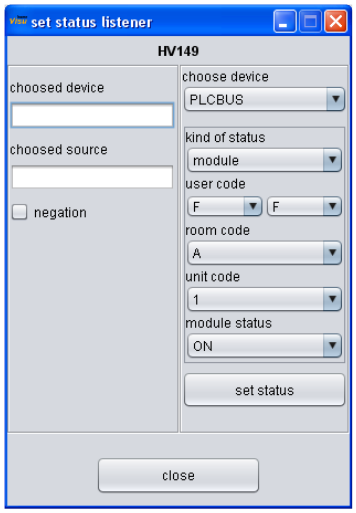
properties

The "properties" menu item opens the properties window of the status field, where all properties for the appearances can be set.



set status

The "set status" menu item opens the status window of the status field.
The status window defines which status messages of which device the status field visualizes.



export

With the menu item "export" the status field can be exported in a file.
After clicking on the menu, a dialog opens where the file can be selected or created.
Any associated files such as graphics are not written in the export file!

to foreground

All components within a panel have a stack position. That is, the components cover each other.
Only the top component on the stack is fully visible.
With this function the status field is moving on the top of the stack within its panel, so in the foreground.

copy

With the menu item "copy" the status field is marked for copying.

invisible

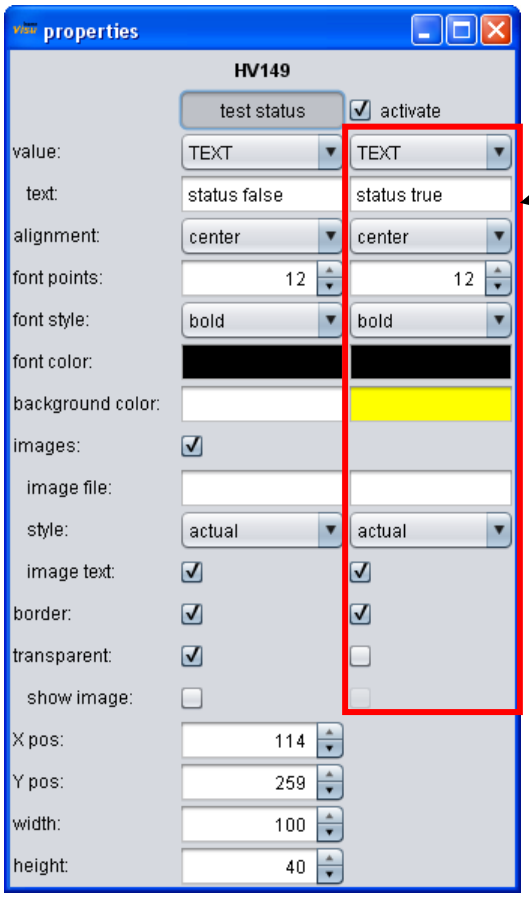
With the menu item "invisible" the status field is hidden. It remains in the background and can reappear at any time by the context menu of its panel.

delete

With the menu item "delete" the status field is compared to invisible permanently deleted.

The properties of the status field

The "properties" menu item opens the properties window of the status field, where all properties for the appearances can be set.



Definition of the appearance. Status is TRUE

test status

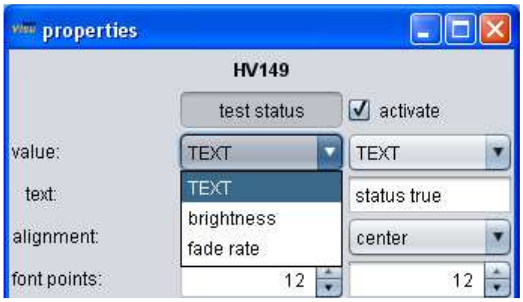
The appearance of the status field can be switched with the button. So the representation of states can be tested when creating applications.

activate

Here will be the second state >TRUE< of the status field enabled.

value

The selection defines what the status field should represent.



According as to the device status, which was defined by the function "set status", available status information offered here that can also be represented.
TEXT it means the text entered in the input field "text" is represented.
The status information's, which are transmitted from the device status, can be also integrated in the texts.

text

With the input field enter the status text which should be represented according to the status in the status field.

For the integration of status information placeholder must be integrated into the text.

This placeholder is the index number in the status information selection embedded in curly braces.

e.g.	a1: brightness ={**1**}% fade rate = **{2}**
possible presentation:	a1: brightness = 75% fade rate = 3

font size

It sets the font size of the button text.

font style

It sets the font style of the button text.

- plain
- bold
- italics
- bold + italics

text color

The set text color is shown in the color field.
A double click on the color field or the button ... opens a color selection dialog.
Key del will delete the chosen color.

background color

The set background color is shown in the color field.
A double click on the color field or the button ... opens a color selection dialog.
Key del will delete the chosen color.
Note:
If the background color has to match to the color of the Panel choose the attribute "transparent". So it is guaranteed that with a look and feel switching, the color is still the same.

images

The representation of background images is enabled.

image file

The file name of an image can be entered in the input field.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

style

If a background image is set, here can be defined how the graphic is displayed.

- scaled → graphic is adjusted to the background.
- tiles → a small picture is tiled.
- actual → graphic is presented unchanged.

image text

If a background image is set, here can be turned on the function text on graphics.
Alternatively, the text can be drawn with the graphics.

frame

The visibility of the frame is on or off.

transparent

The status field is transparent.

show image

Use this property; partially transparent graphics can be used as backgrounds so that in the transparent areas of the graphic the background of the base panel or of the parent panel is visible.

position

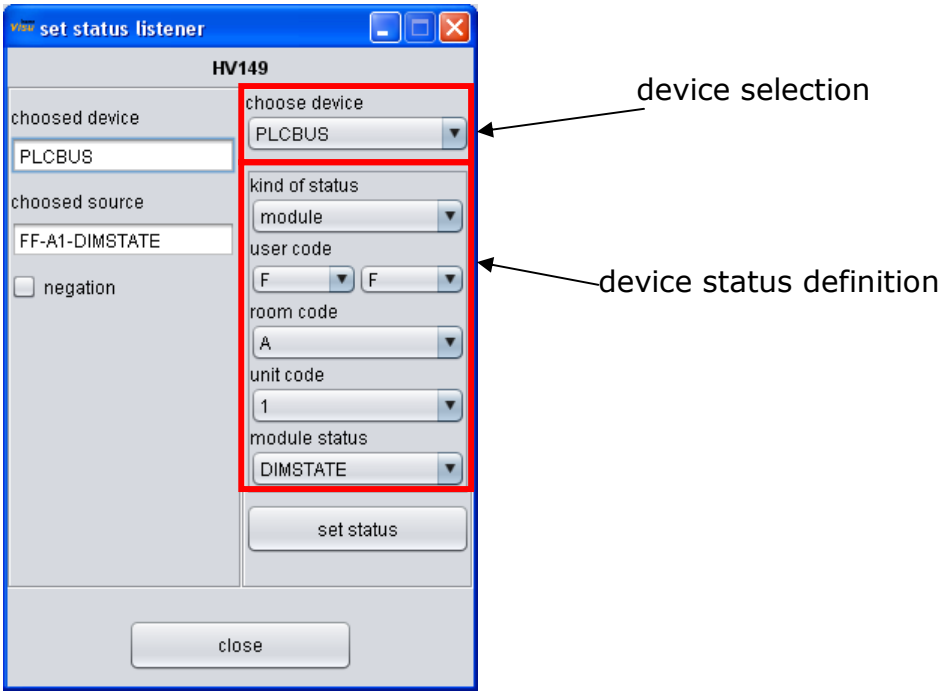
With the properties X pos and Y pos, the position of the status field can define exactly on the pixel.

size

With the properties width and height, the size of the status field can define exactly on the pixel.

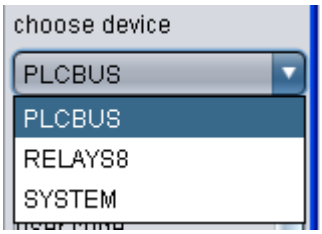
The set status windows

The status window defines which status messages of which device the status field visualizes.

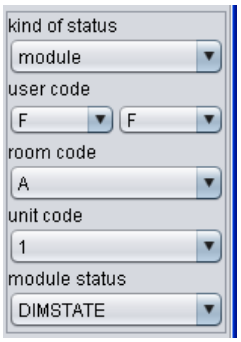


setting the status listener

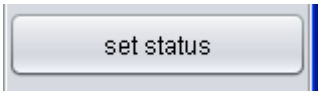
With the device selection choose the device, whose status should be processed. Define the status message in the status definition and set the status with the button "set status".
If required the status can be negated.



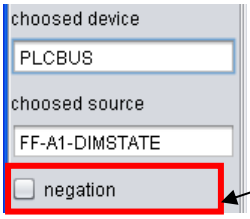
device selection



define status message



set status

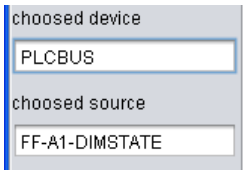


status negation

If required the status can be negated.

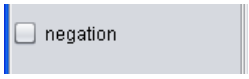
set status

With the button “set status” the selected device and the defined status message are taken over and presented in the same-named fields.
A status field shows the status messages from the device that is registered in the fields "choosed device" and "chossed source".



negation

Negation reverses the status.
The status field now represents a true state as false and one false as true.



close

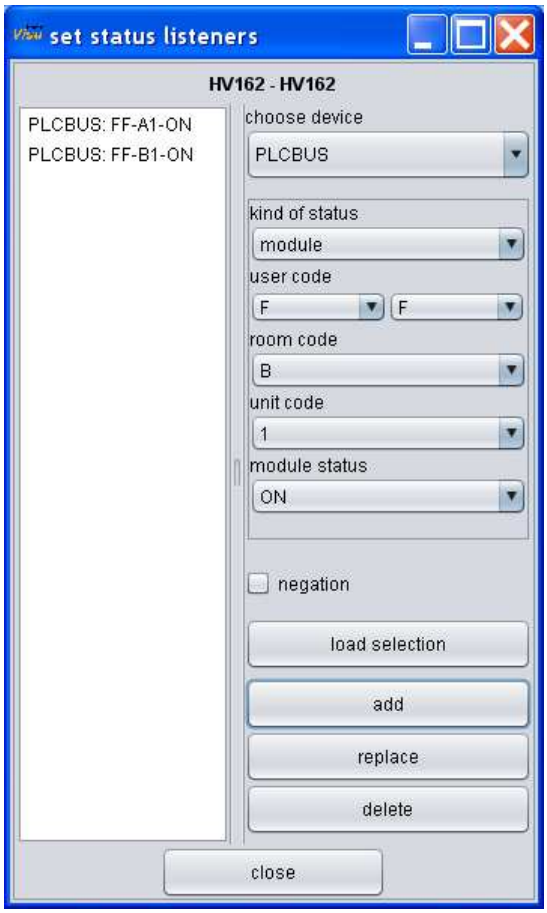
Close the set status window.

The multi status field

The multi status field extended the status field for the property to visualize the state of more than one status messages.
The multi status field you can use especially by group addresses.
When a module which you want to visualize is member in additional group addresses you can visualize also commands to this group addresses.

The multi status field just visualize the state of a status message. It could not visualize values; they are sended with the status message.

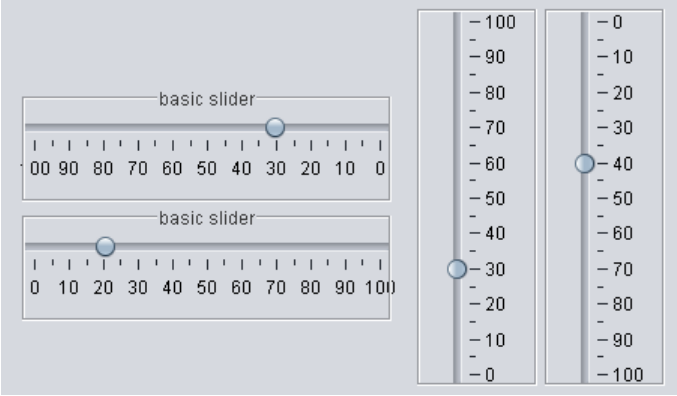
Only the window for setup the status listeners is different to the status field.
Here you can define a list.

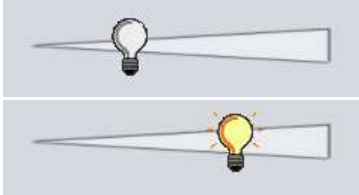


The basic slider

The basic slider is a graphical slider which visualizes state values as well, can send commands with values to the devices.

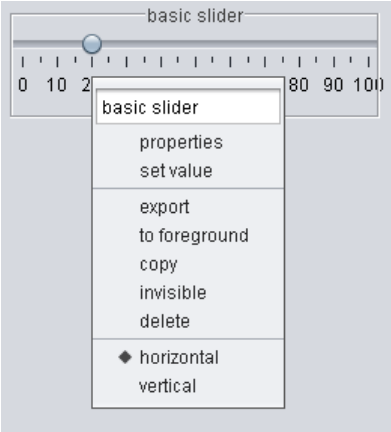
The basic slider can be displayed horizontally or vertically.
The direction can be adjusted either from right to left or left to right and from top to bottom or bottom to top.





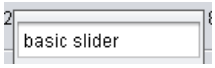
The basic slider is configured by its context menu.

The context menu of the basic slider



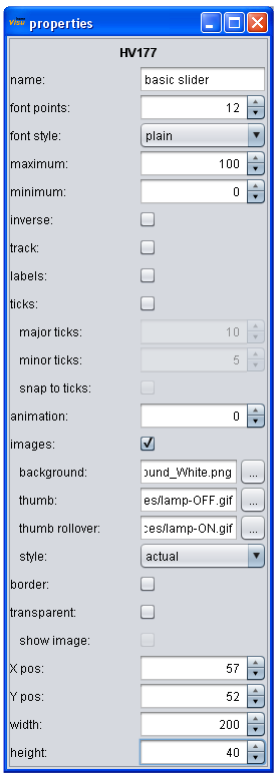
name

With the input field in the context menu enter the name of the basic slider.



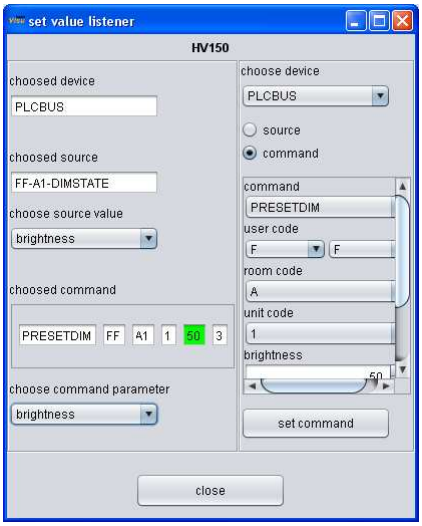
properties

The "properties" menu item opens the properties window of the basic slider, where all properties for the appearances can be set.



set value

The "set value" menu item opens the set value window of the basic slider.
The value window defines which status messages of which device the basic slider visualizes, as well as which command with which command parameter the basic slider send to the device, when the basic slider is positioned with the mouse.



export

With the menu item "export" the basic slider can be exported in a file.
After clicking on the menu, a dialog opens where the file can be selected or created.
Any associated files such as graphics are not written in the export file!

to foreground

All components within a panel have a stack position. That is, the components cover each other.
Only the top component on the stack is fully visible.
With this function the basic slider is moving on the top of the stack within its panel, so in the foreground.

copy

With the menu item "copy" the basic slider is marked for copying.

invisible

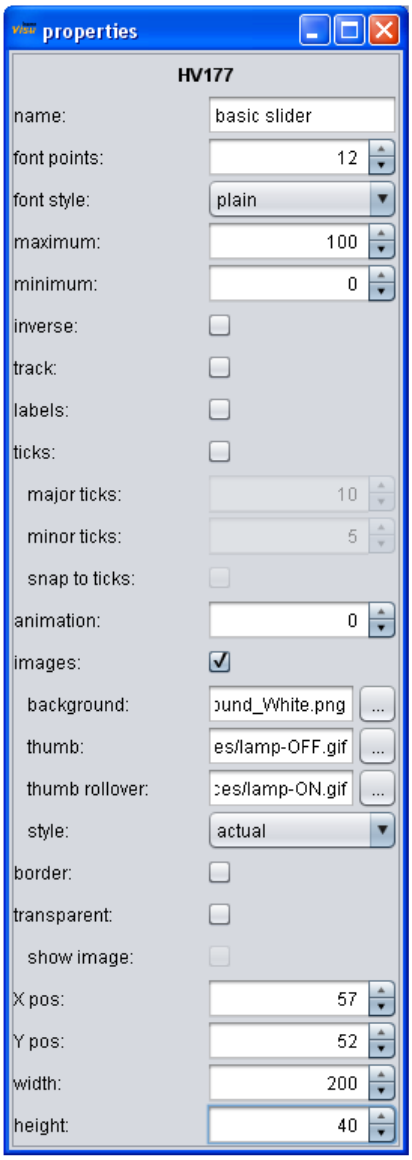
With the menu item "invisible" the basic slider is hidden. It remains in the background and can reappear at any time by the context menu of its panel.

delete

With the menu item "delete" the basic slider is compared to invisible permanently deleted.

The properties of the basic sliders

The "properties" menu item opens the properties window of the basic slider, where all appearance properties can be set.



name

With the input field enter the name of the basic slider.
The name appears in the frame.
The value of the slider can be also integrated in the name.

For the integration of the value a placeholder {0} must be integrated into the name.

e.g.	a1: brightness **{0}**%
possible presentation:	a1: brightness 75%

font size

It sets the font size of the name in the frame.

font style

It sets the font style of name in the frame.

- plain
- bold
- italics
- bold + italics

maximum

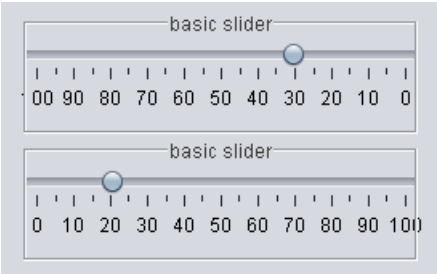
Defines the maximum scale value of the slider.

minumum

Defines the minimum scale value of the slider.

inverse

This switch reverses the direction of the slider.

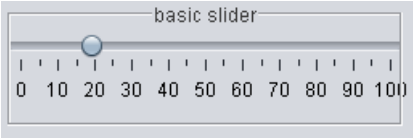


track

With this switch, the tracks are turned on or off.

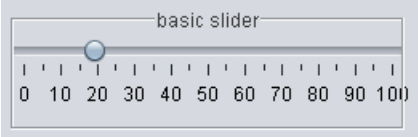
labels

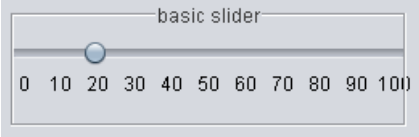
With this switch, the scales labels are turned on or off.
Labels are always at the major ticks.



ticks

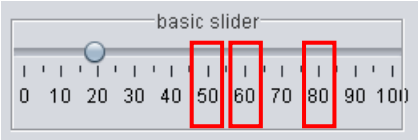
With this switch, the scales ticks are turned on or off.





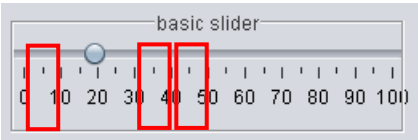
major ticks

Increment of the major ticks.
A value of 0 turns off the major ticks.



minor ticks

Increment of the minor ticks.
A value of 0 turns off the minor ticks.



snap to ticks

With this switch, the slider jumps to the next tick when you move the slider by mouse. The lowest step corresponds to the increment of the minor ticks.

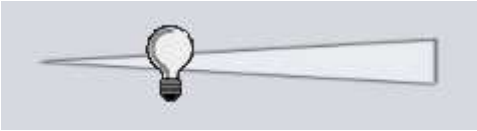
animation

With the animation, the speed of the slider animation is set. The slider button moves animated when getting a value changes. The smaller the value more quickly moves the slider to its new location. A value of 0 disables the animation. The slider immediately jumps to its new value.

images

The representation of background and thumb images is enabled.
Images can be defined for:

- background
- thumb
- thumb rollover



background and thumb image

background and rollover thumb

background

The file name of an image can be entered in the input field that appears as background.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button ... opens a file selection dialog.

thumb

The file name of an image can be entered in the input field that appears as thumb.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button opens a file selection dialog.

thumb rollover

The file name of an image can be entered in the input field that appears as thumb if rollovers thumb.
Paths are possible here.
An input must confirmed with >enter< to load the file.
A double click on the input field or the button opens a file selection dialog.

style

If an background image is set, here can be defined how the graphic is displayed.

- scaled → graphic is adjusted to the background.
- tiles → a small picture is tiled.
- actual → graphic is presented unchanged.

frame

The visibility of the frame is on or off.

transparent

The basic slider is transparent.

show image

Use this property; partially transparent graphics can be used as backgrounds so that in the transparent areas of the graphic the background of the base panel or of the parent panel is visible.

position

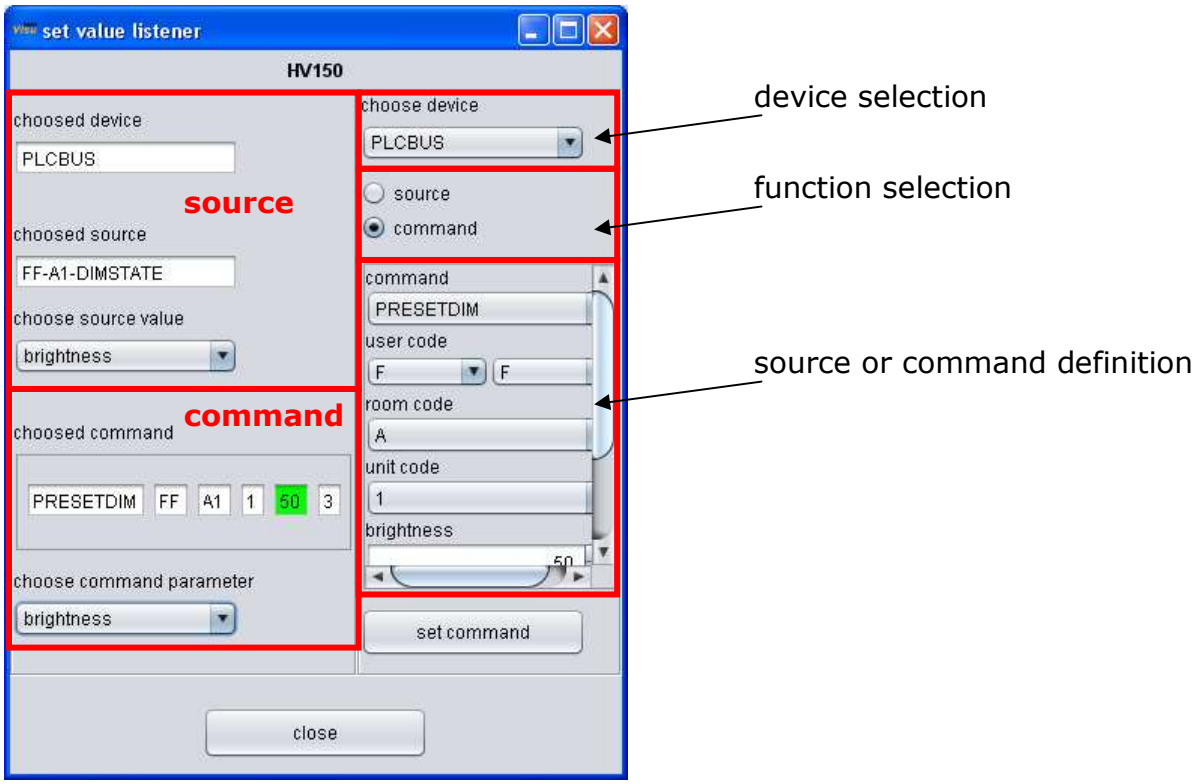
With the properties X pos and Y pos, the position of the basic slider can define exactly on the pixel.

size

With the properties width and height, the size of the basic slider can define exactly on the pixel.

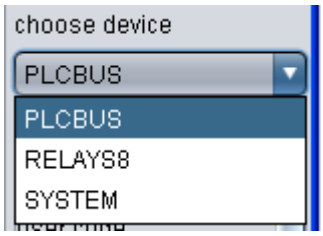
The value window

The "set value" menu item opens the set value window of the basic slider.
The value window defines which status messages of which device the basic slider visualizes, as well as which command with which command parameter the basic slider send to the device, when the basic slider is positioned with the mouse.

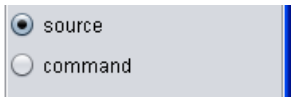


setting the value listener

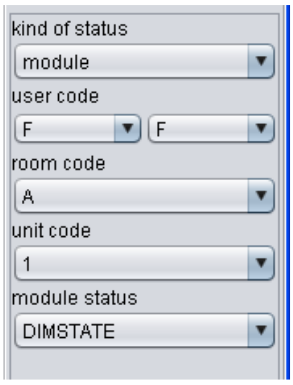
With the device selection choose the device, whose status message (source) should be processed. Choose function source, define the status message in the source definition and set the source with the button “set source”.
At last choose source value that should be visualized by the slider.



device selection



choose function source



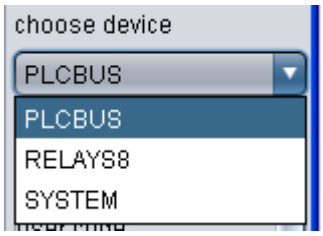
define status (source)

set source

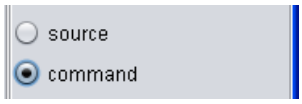
choose source value that should be visualized through the slider.

set command

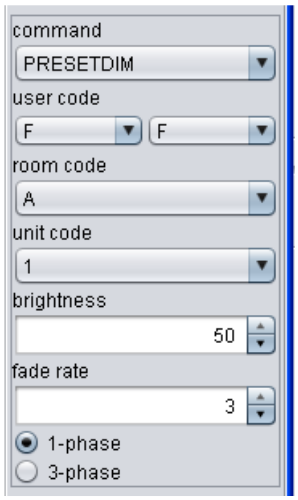
With the device selection choose the device, whose command is to execute.
Choose function command, define the command in the command definition and set the command with the button “set command”.
At last choose command parameter that is transmitted with the command.



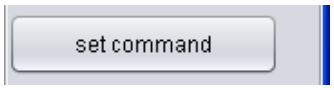
device selection



choose function command



define command



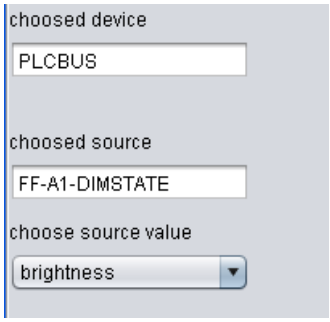
set command

The selected command parameter is highlighted in green.

choose command parameter that is transmitted with the command

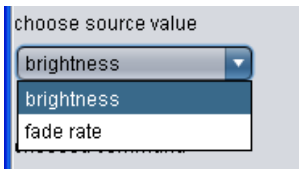
set source

With the button "set source" the selected device and the defined status message (source) are taken over and presented in the same-named fields.



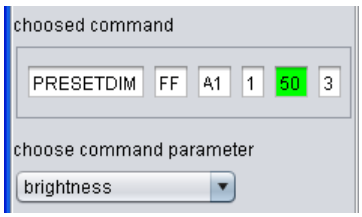
choose source value

In this selection, all with the status transmitted source values are available.
For example with the status message DIMSTATE of the PLCBUS device the source values brightness and fade rate are transmitted.



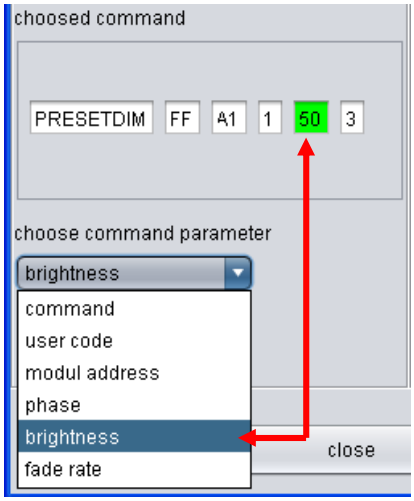
set command

With the button "set command" the selected device and the defined command are taken over and presented in the same-named fields.



choose command parameter

In this selection all command parameters are available that can be parameterized with the value of the slider.
The selected command parameter is highlighted in green.



close

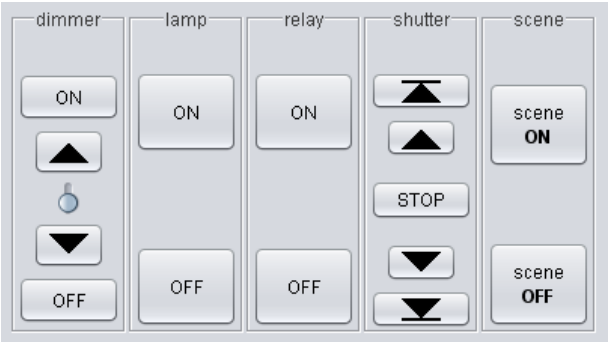
Close the value window.

The PLCBUS module

The PLCBUS module is a component plug-in that can be installed or removed as needed.
To install a component plug-in copy the JAR file in the subdirectory "\components".
Alternatively the plug-in can be removed by deleting the JAR file.

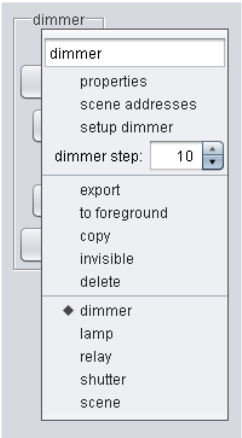
The PLCBUS module is a special component for the PLCBUS device and only works with installed PLCBUS device.

Depending on configuration, the PLCBUS module can become 5 basic appearances.



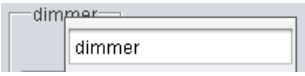
The PLCBUS module is configured by its context menu.

The context menu of the PLCBUS module



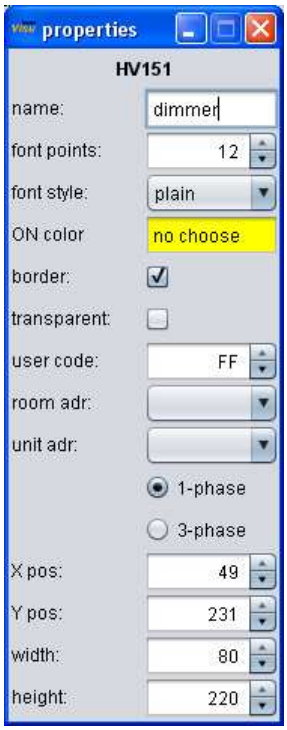
name

With the input field in the context menu enter the name of the PLCBUS module.



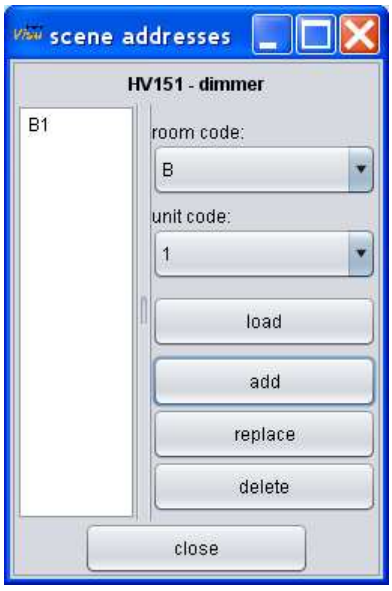
properties

The "properties" menu item opens the properties window of the PLCBUS module, where all properties can be set.



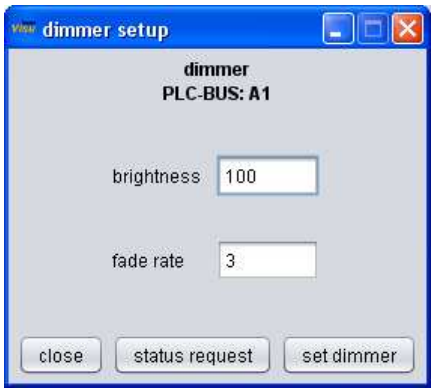
scene addressens

The "scene addresses" menu item opens the window for scene addresses definition. Each real PLC-BUS module could have up to 16 additional scene addresses it listens to.
So that commands they are sended to such scene address programmed inside the real module also could visualize by the graphic module, you can define these scene addresses for graphic module here.



setup dimmer

The "setup dimmer" menu item opens the dimmer setup window of the PLCBUS module. With the dimmer settings, the dimmer values for the brightness and the fade rate of the corresponding real PLC-BUS module can be queried or set.
The menu item is only enabled, if the PLC-BUS address is defined in the properties window.



dimmer step

With the menu item "dimmer step" step sizes of the dimmer can be defined, that are executed by the buttons brighten and dimming.

export

With the menu item "export" PLCBUS module can be exported in a file.
After clicking on the menu, a dialog opens where the file can be selected or created.
Any associated files such as graphics are not written in the export file!

to foreground

All components within a panel have a stack position. That is, the components cover each other.
Only the top component on the stack is fully visible.
With this function the PLCBUS module is moving on the top of the stack within its panel, so in the foreground.

copy

With the menu item "copy" the PLCBUS module is marked for copying.

invisible

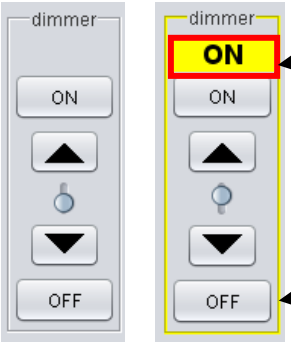
With the menu item "invisible" the PLCBUS module is hidden. It remains in the background and can reappear at any time by the context menu of its panel.

delete

With the menu item "delete" the PLCBUS module is compared to invisible permanently deleted.

dimmer

The appearance is converted into a dimmer.
Dimmers are coupled with the PLC BUS command ALL LAMPS ON or OFF.



status field
A double click in the status field of a dimmer triggered a status query of the dimmer.

button labels,
can be changed with the right mouse.

lamp

The appearance is converted into a lamp.
Lamps are coupled with the PLC BUS command ALL LAMPS ON or OFF.

button labels,
can be changed with the right mouse.

relay

The appearance is converted into a relay.
Relays respond only to the PLC BUS command ALL UNIT OFF!

button labels,
can be changed with the right mouse.

shutter

The appearance is converted into a shutter.

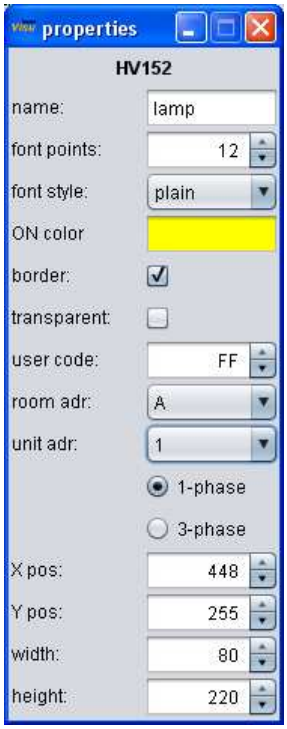
scene

The appearance is converted into a scene.

button labels,
can be changed with the right mouse.

The properties of the PLCBUS module

The "properties" menu item opens the properties window of the PLCBUS module, where all appearance properties PLCBUS address settings can be set.



name

With the input field enter the name of the PLCBUS module.
The name appears in the frame.

font size

It sets the font size of the name in the frame.

font style

It sets the font style of name in the frame.

- plain
- bold
- italics
- bold + italics

ON color

The ON color defines the color of the status field and the frame if the status is ON
The selected color is displayed in the color field.
A double click on the color field or the button ... opens a color selection dialog.

The status color of a dimmer can not be changed!

frame

The visibility of the frame is on or off.

transparent

The PLCBUS module is transparent.

user code

The user code of the PLC-BUS address to which PLCBUS module is to be connected to, is set here.
By default always the preset from the setup appears at new module components.
But can be customized for each module component.

room adr

The room address of the PLC BUS address to which the PLCBUS module is to be connected to, is set here.

unit adr

The unit address of the PLC BUS address to which the PLCBUS module is to be connected to, is set here.

phase

Over which phase to communicate, is set here.
By default always the preset from the setup appears at new module components.
But can be customized for each module component.
3-phase commands work only with a 3-phase coupler!

position

With the properties X pos and Y pos, the position of the PLCBUS module can define exactly on the pixel.

size

With the properties width and height, the size of the PLCBUS module can define exactly on the pixel.

The devices

All devices are plug-in and can be added or removed as you like.
The devices are available as JAR files and copied into the subdirectory "/ devices".
Each device who's JAR-file is located in this subdirectory, will integrate at program start.

There can be any number of devices integrated at the same time.

The devices are configured in the setup.
Each integrated device gets its own area in the setup under device settings.

Representative to all homeVisu devices the PLCBUS device will closer describe.

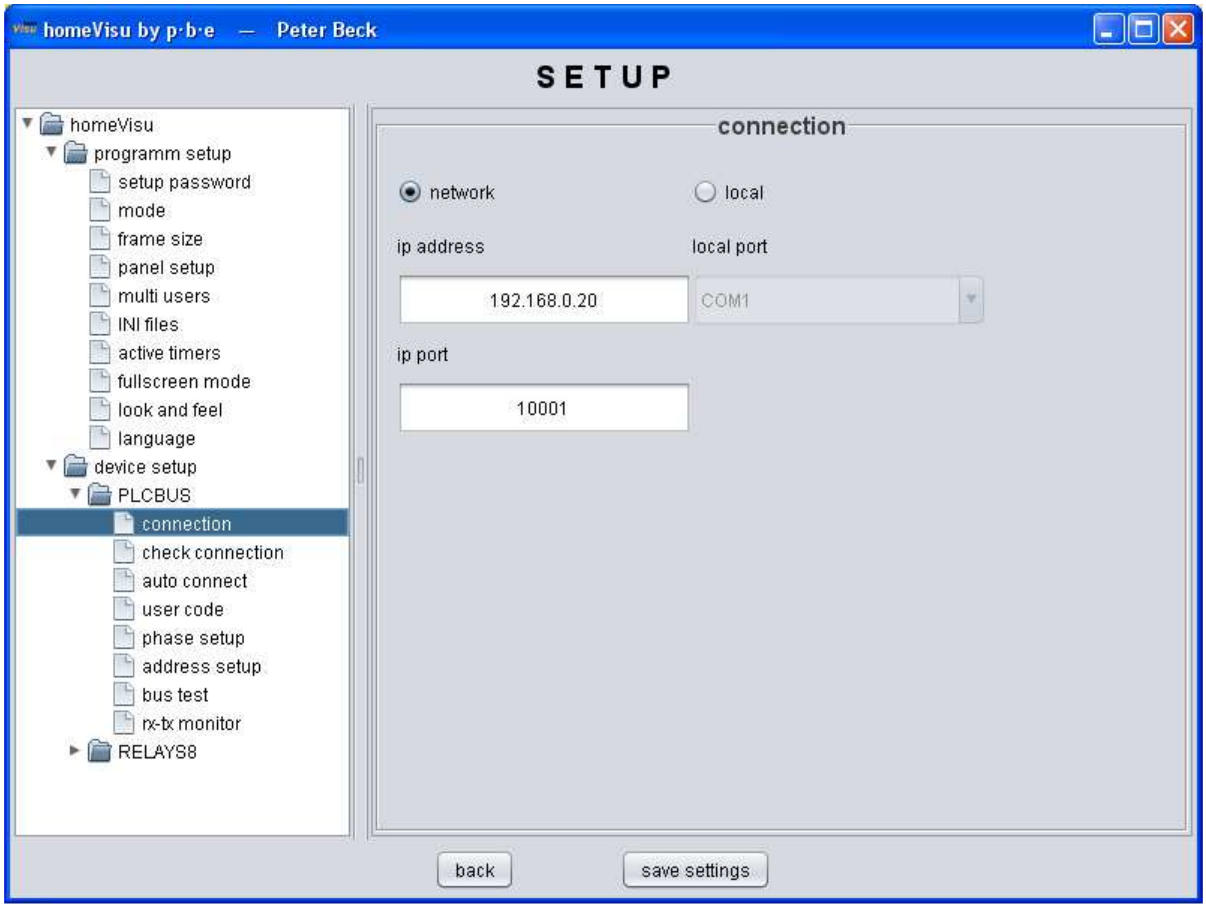
The PLCBUS device

The PLCBUS device provides the complete functionality of the PLC-BUS (Power line Communication BUS) within homeVisu.
To control PLC BUS with your PC and homeVisu the PLC BUS interface 1141 is required, whether as an RS232 or USB version.

How the interface is connected to the PC is configurate in the setup.

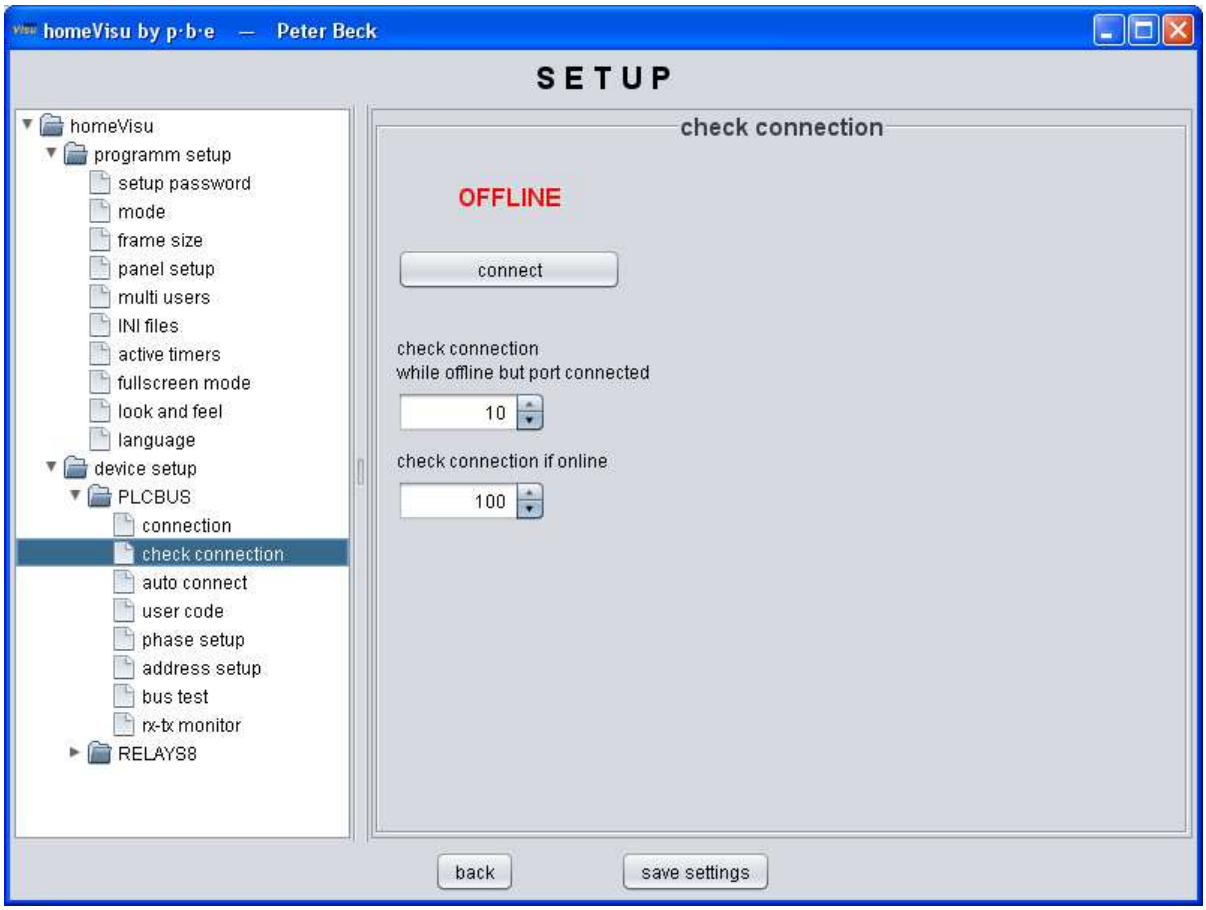
connection

There are two options to choose from, locally via serial port or over the network.
At a local connection the COM port must be selected where the interface is connected to the PC or the COM port which has the USB driver of the interface installed.
At a network connection through a port server the IP address and the communication port must be specified, that has configured on port server.



check connection

In this configuration panel, the connection to the interface (PLC-BUS) can be depending on connection status established or closed with the button "connect" or "disconnect".
The connection state is displayed accordingly.



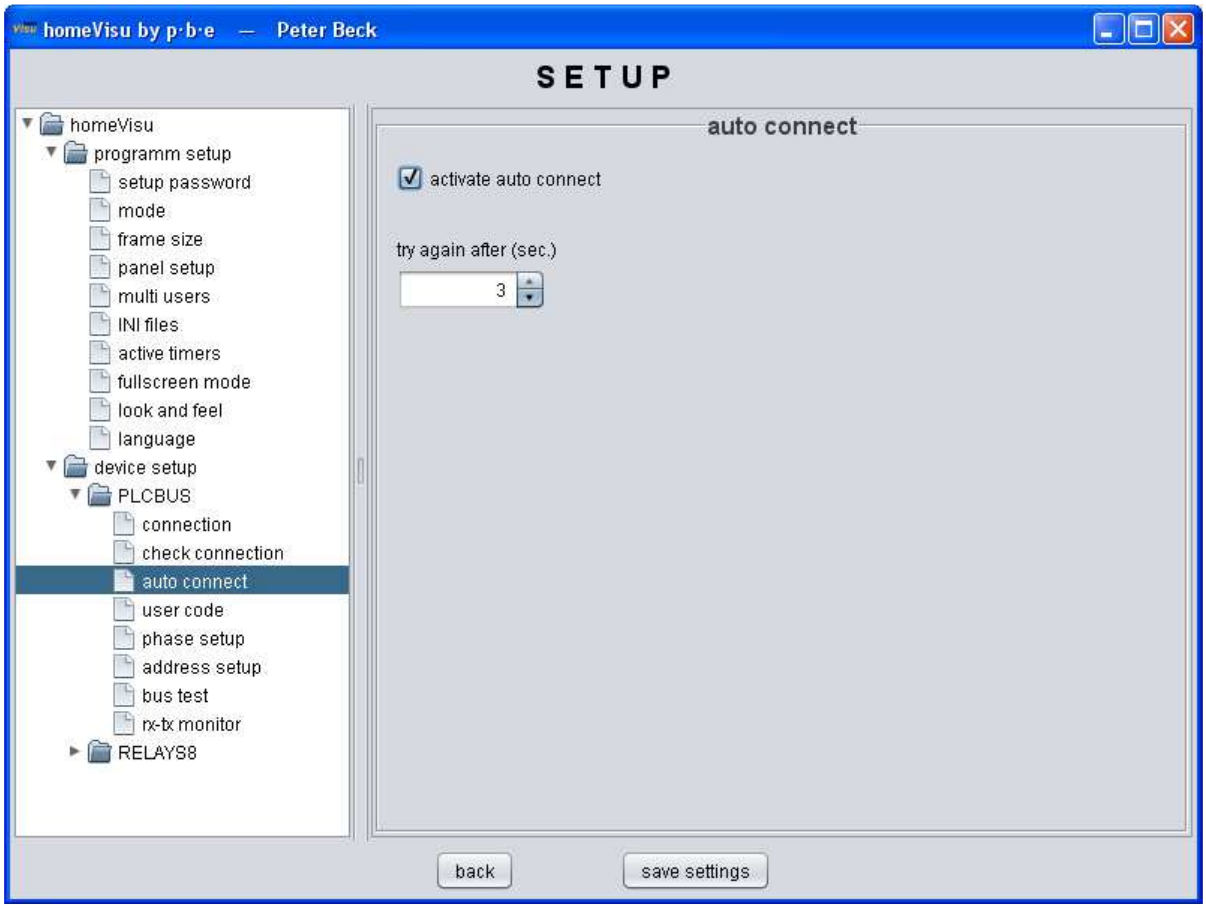
The connection to the connected interface will be checked to the preset intervals and if necessary re-connected if auto connect is enabled.

Two intervals can be set.

1. Interval if a communication doesn't establish although the port has been connected. This function is available only when auto-connect is active.
2. Interval if connected, to check if the hardware is still available.

auto connect

The auto connect can be enabled in the configuration panel.
Enabled auto-connect establishes automatic connection to the interface after program start.
Should the connection be not able, a renewed connection attempt will make after the given time.
These connection attempts are repeated until a connection is successfully established.

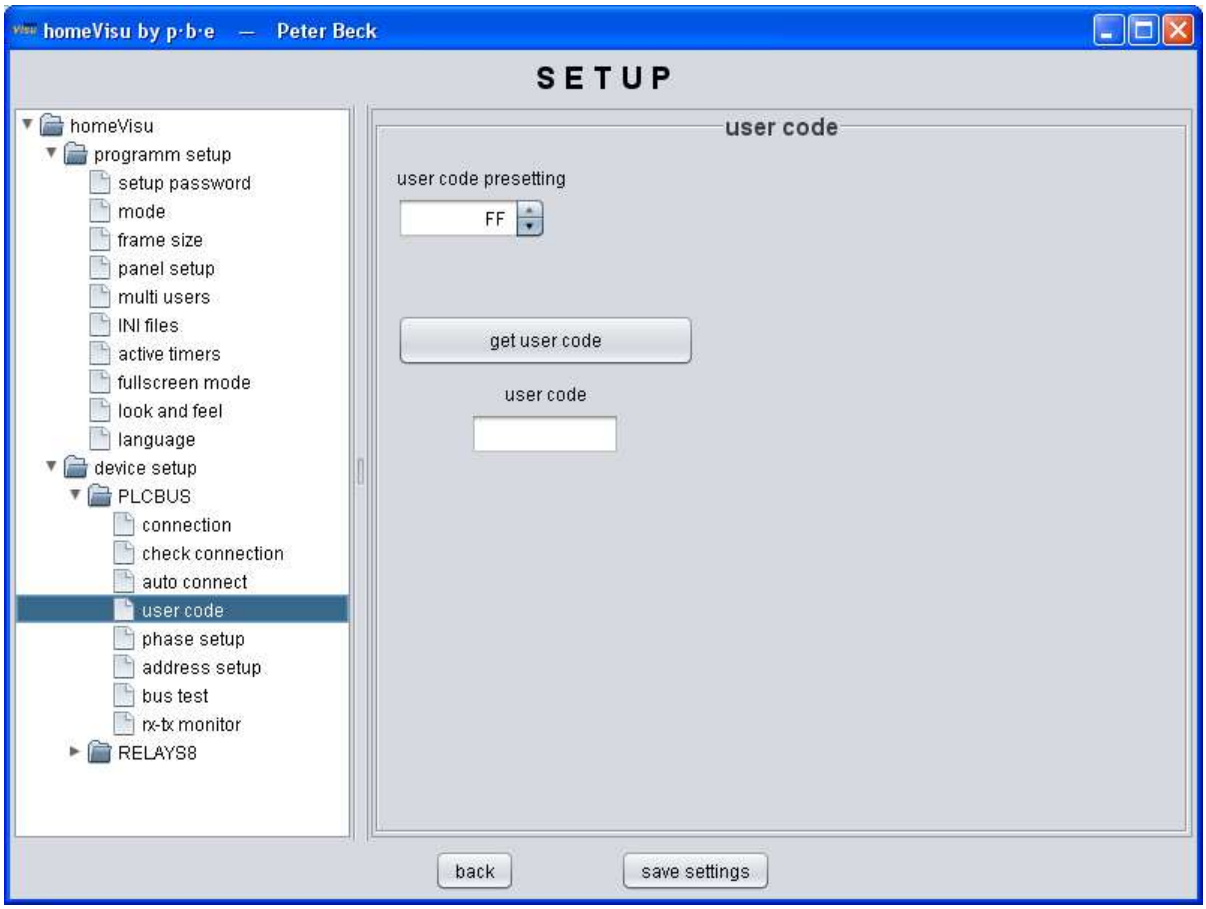


user code

In this configuration panel the user code for all new components is set for default

Note:
It is possible to define the user code for each component and for each command.

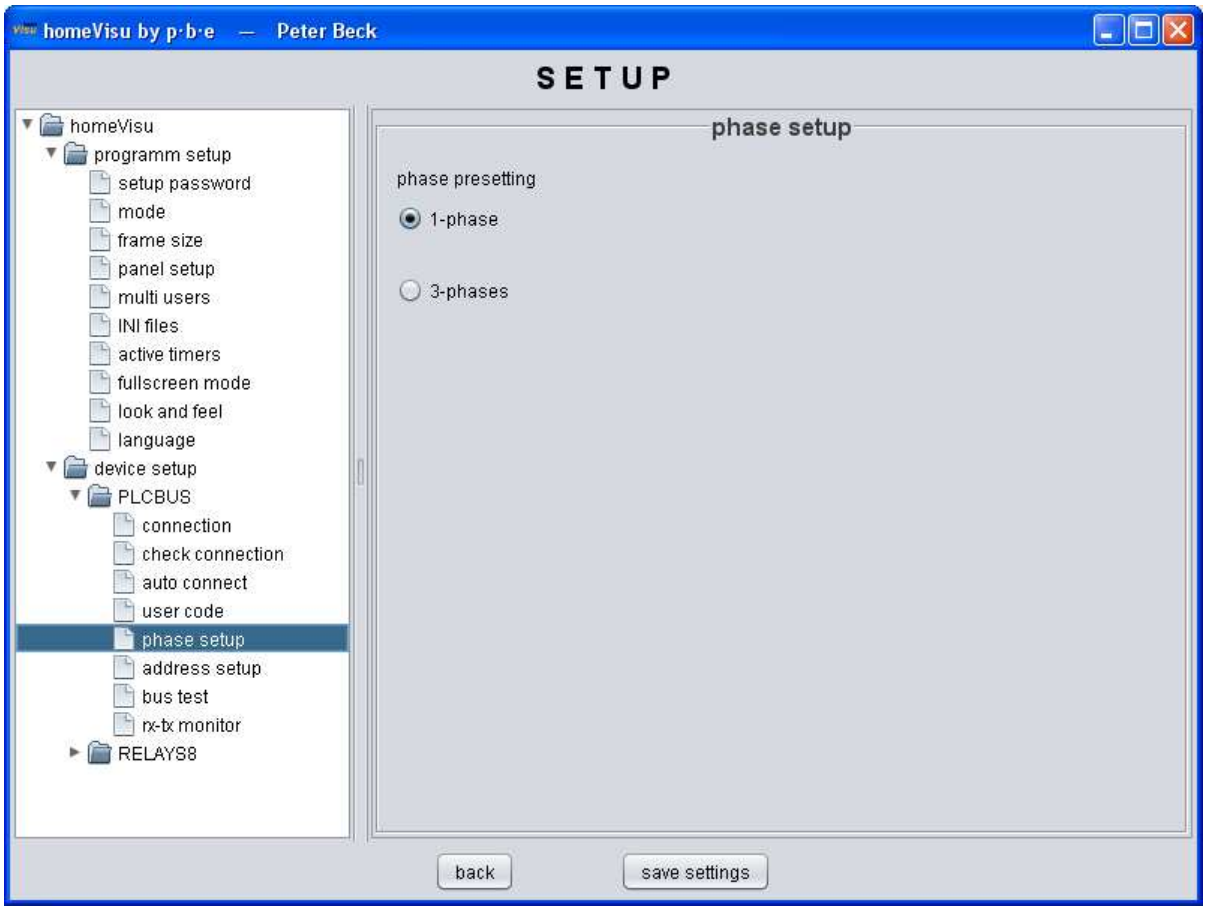
With the button "get user code" get the user code from the last received command to identify the user code of the installation.



phase setup

In this configuration panel the phase for all new components is set for default

Note:
It is possible to define the phase for each component and for each command.

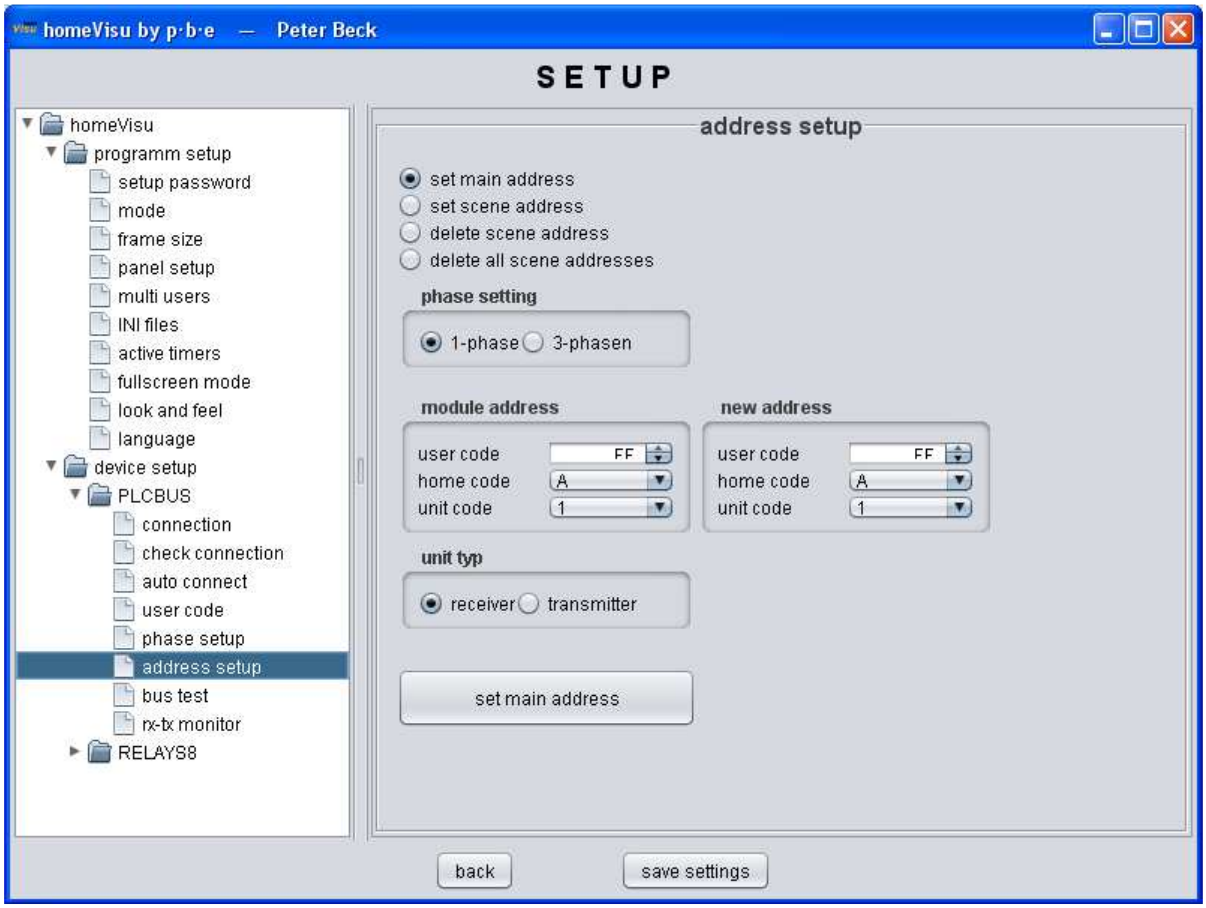


Notice:
If change user code or phase at setup, only new module use this change!
Existing modules needs to setup individual.

address setup

In this configuration panel the module addresses can be set or change. You do not need to uninstall the modules to set a new main address.

- set main address
- set scene address
- delete scene address
- delete all scene addresses in one modules



set main address

With this function the PLC BUS main address can be set at an installed module, without that you must enable the setup mode in the PLC BUS module.
The PLC-BUS module must have an existing main address.
To perform this function, enter the main address you want to change under "module address" and entered the main address you want to program under "new address". In addition, the module type must be selected if the module you want to be program is a receiver or transmitter.
If all settings are made, the main address of the module is reprogrammed with the button "set main address".

set scene address
With this function modules can be combining to a scene and program a common scene address. It is also possible to add a module to an existing scene.
Each module, which is to be in the ON status, will be assigned the scene address that has been entered at „scène address" with the button "set scene address".
Each PLC BUS module can be programmed with up to 16 different scenes addresses.

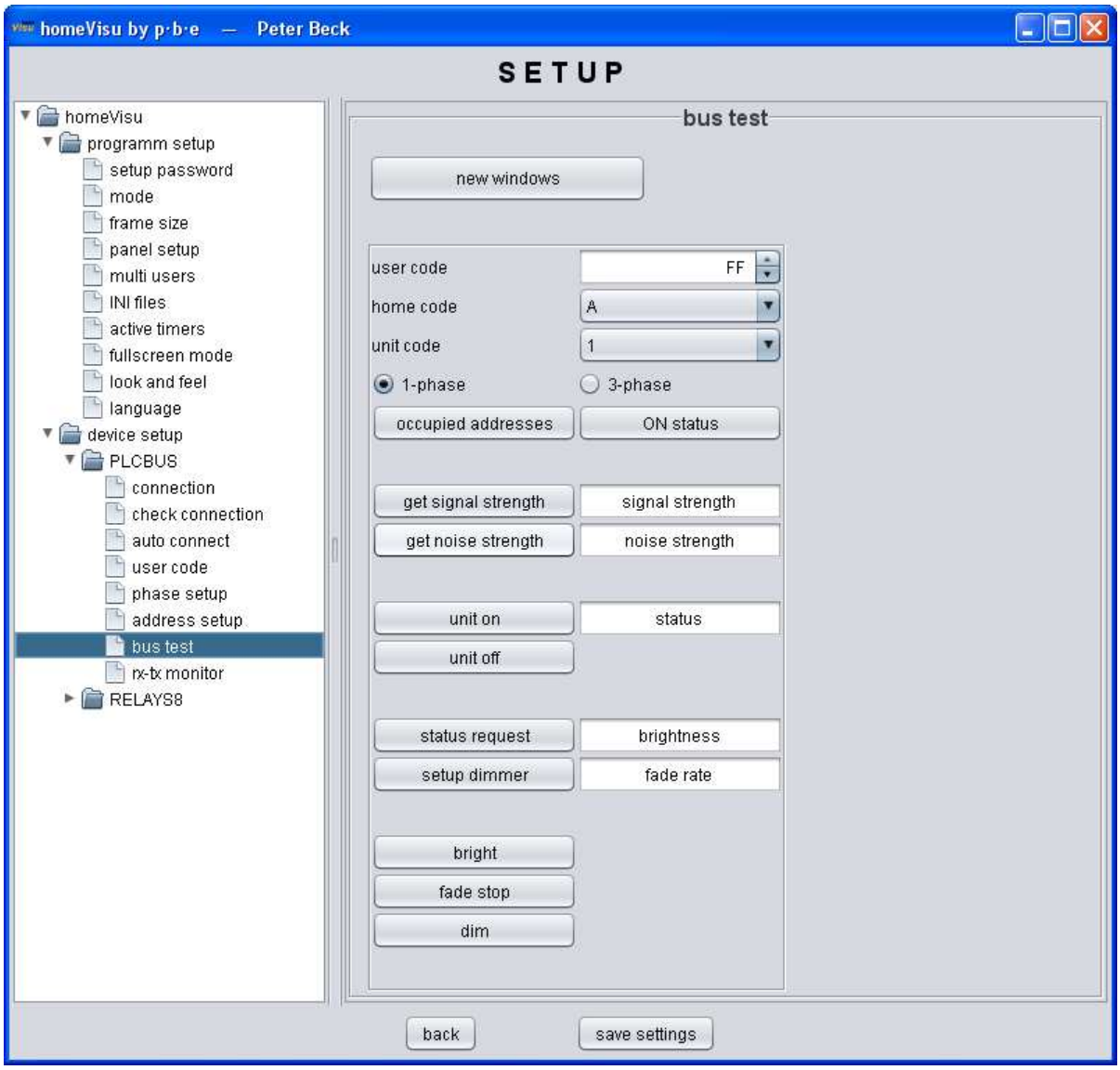
Delete scene address
Use this function to delete the scenes address that has been entered at „scène address" in all PLC BUS modules.

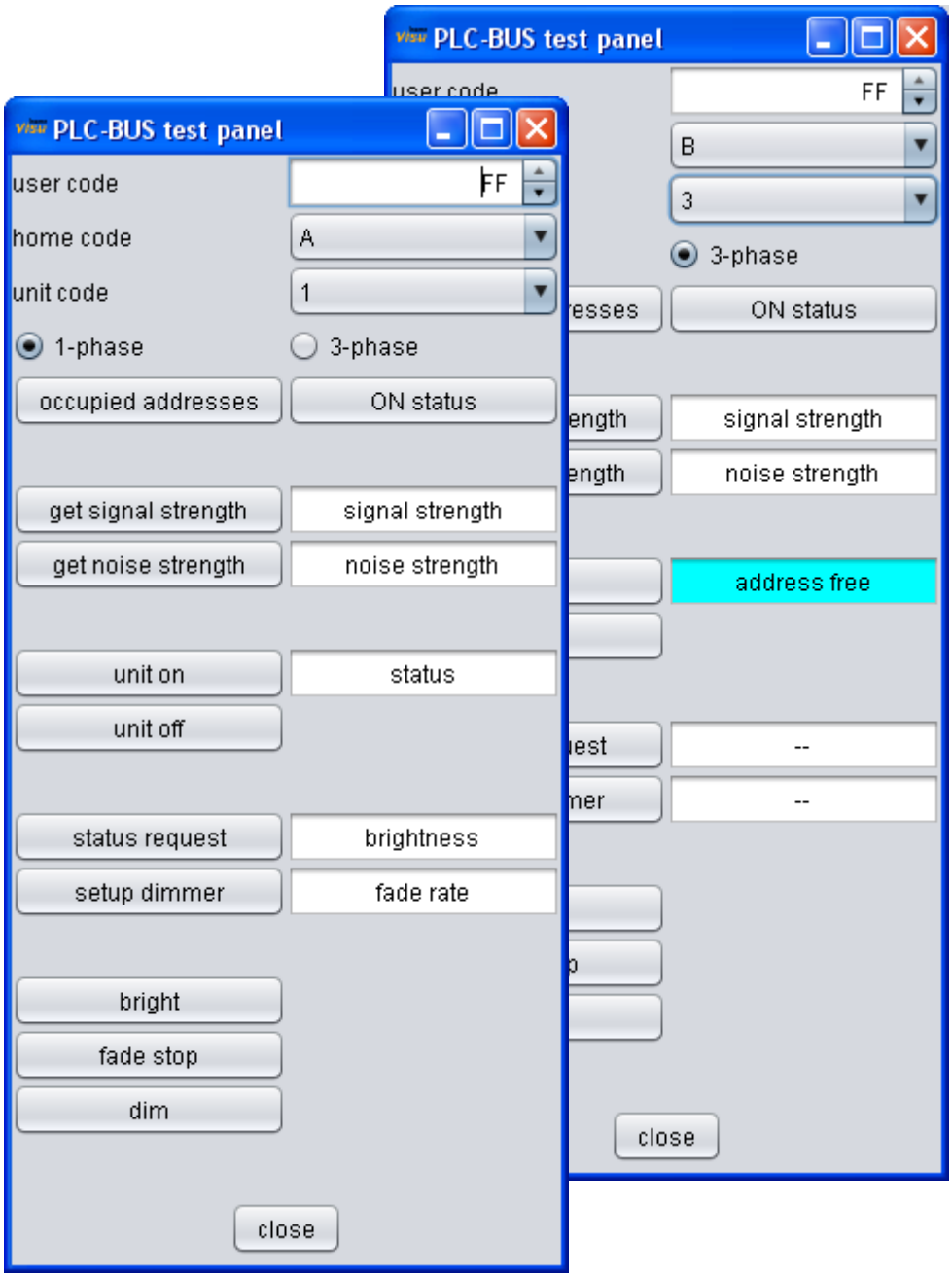
delete all scene addresses (module)
This function deletes all 16 scenes addresses in a module.
The main address of the PLCBUS module, whose scene addresses are to be deleted, must be entered at "scene address".

bus test

This configuration panel allows you to test all PLC BUS commands for each address, any user code and in both phases

It is possible to open several windows at once.

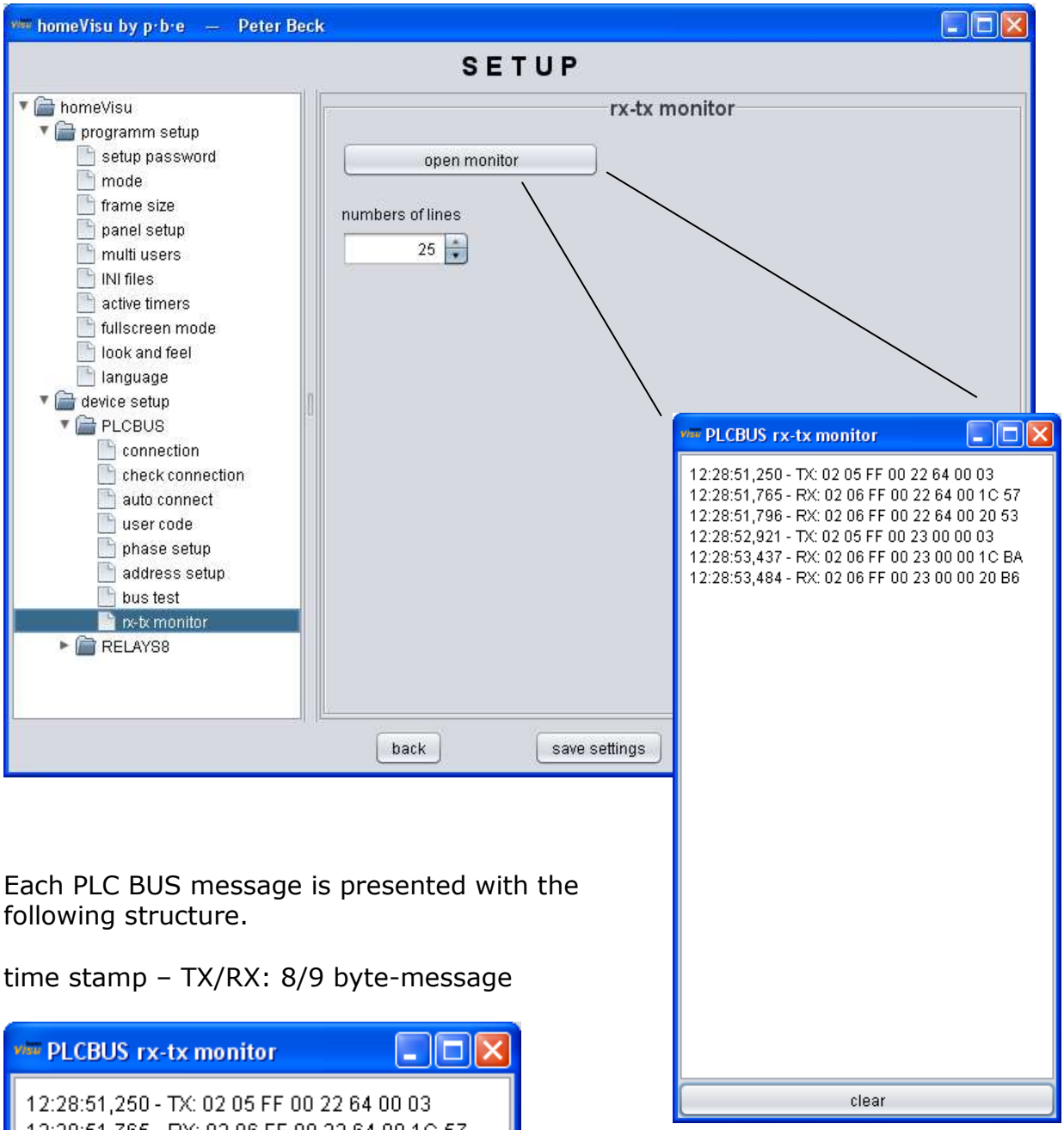



PLC-BUS test panel
user code
FF
home code
A
unit code
1
1-phase
3-phase
occupied addresses
ON status
get signal strength
signal strength
get noise strength
noise strength
unit on
status
unit off
status request
brightness
setup dimmer
fade rate
bright
fade stop
dim
close
PLC-BUS test panel
FF
B
3
3-phase
ON status
signal strength
noise strength
address free
--
--
close

test panel

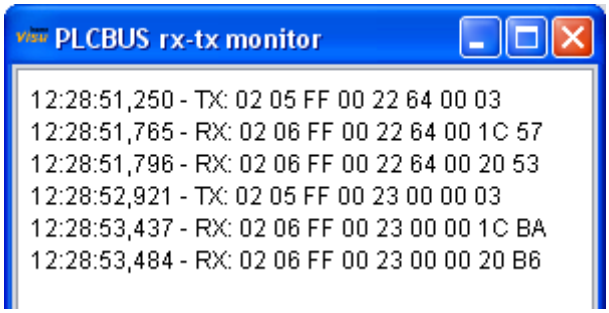
rx-tx monitor

This configuration panel allows you to open an rx-tx monitor window.
In the field "numbers of lines" is set the number of PLC-BUS messages to display.



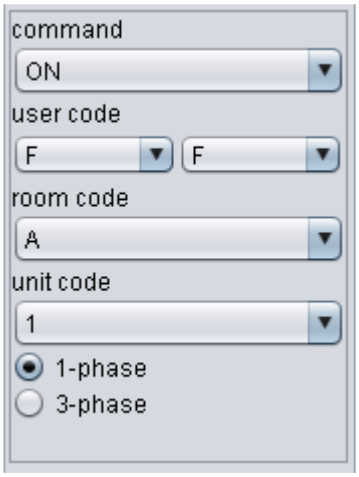
Each PLC BUS message is presented with the following structure.

time stamp – TX/RX: 8/9 byte-message



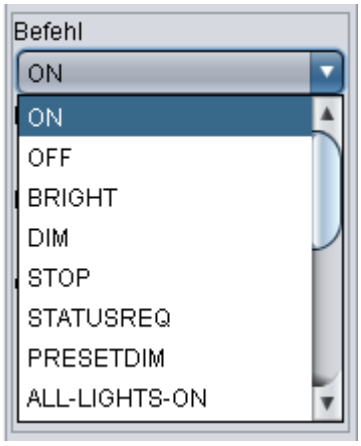
command definition

The command definition appears when a command for the PLC BUS device is defined, e.g. within the macro window.



command

The command selection defines the commands, which will execute.

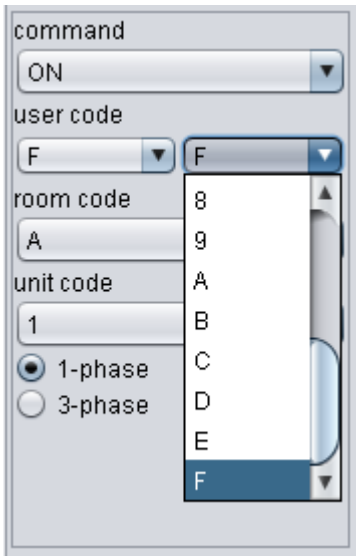


ON	-	module switch on
OFF	-	module switch off
BRIGHT	-	dimmer bright
DIM	-	dimmer dim
STOP	-	dimming stop
STATUSREQ	-	ask module status
PRESETDIM	-	dimmer setup
ALL-LIGHTS-ON	-	all lights switch on (same home code)
ALL-LIGHTS-OFF	-	all lights switch off (same home code)
ALL-UNITS-OFF	-	all modules switch off (same home code)
ALL-USER-LIGHTS-ON	-	all lights same user codes switch on
ALL-USRE-LIGHTS-OFF	-	all lights same user codes switch off

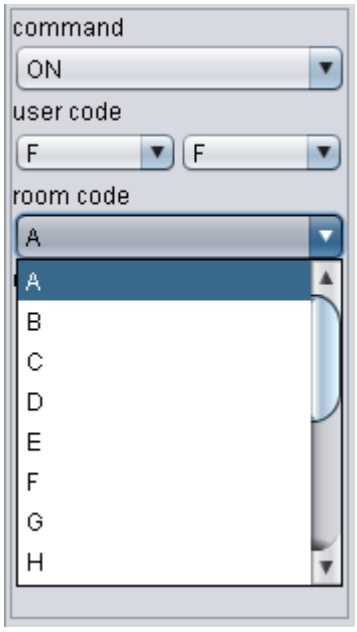
ALL-USER-UNITS-OFF	-	all modules same user codes switch off
CECKON	-	check ON status all modules same home code
CONNECT	-	connect to interface 1141
DISCONNECT	-	diconnect interface 1141
OPEN_CC	-	opens rx-tx monitor (communication console)

Depending on the selected command, additional parameters are aviable for selection.

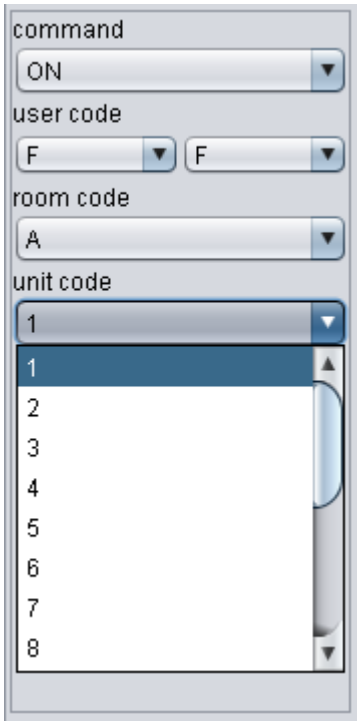
user code
User code for the PLC-BUS adressing.
The two-digit hex code is set by 2 check boxes (low byte and height byte).
Eache of 0-9, A-F



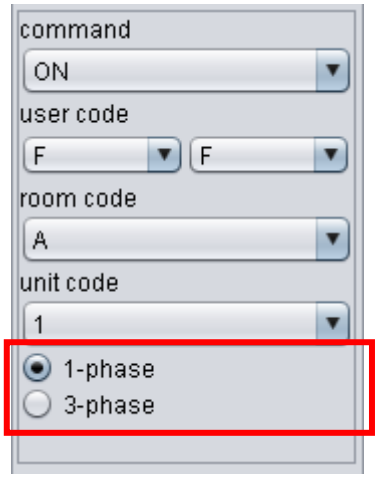
room code
Home code for the PLC-BUS adressing.
Define the home code by selecting A-P



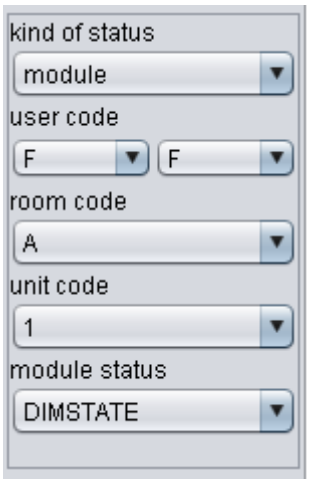
unit code
Unit-Code for the PLC-BUS adressing.
Define the unit code by selecting 1-16



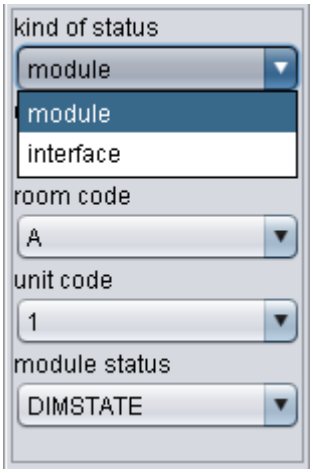
phase
Define with which phase encoding the command will executed.



status definition
The status definition appears when a status of a PLC-BUS device should be processed, e.g. when define the status listener of a status field.



kind of status
The kind of status defines the source of the status.



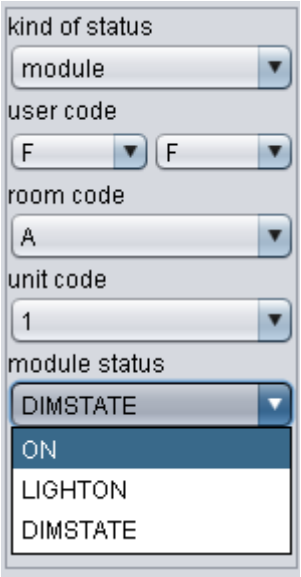
module	-	status of a PLC-BUS module
interface	-	status of the interface 1141

user code
User code for the PLC-BUS adressing.
The two-digit hex code is set by 2 check boxes (low byte and height byte).
Eache of 0-9, A-F

room code
Home code for the PLC-BUS adressing.
Define the home code by selecting A-P

unit code
Unit-Code for the PLC-BUS adressing.
Define the unit code by selecting 1-16

Module status
The module status defines the type of the status.



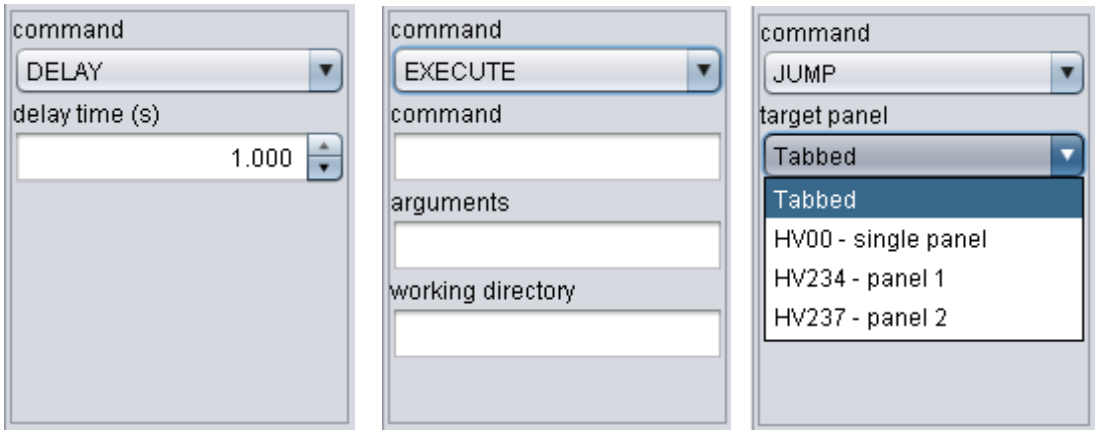
ON	-	status if a module is ON
LIGHTON	-	status if a light module is ON. corresponds to **All-Lights-ON All-Lights-OFF**
DIMSTATE	-	status of a dimmer. The dimmer status submit the two values **brightness** and **fade rate** as parameter.

The System device

The System device provides system functionalities within homeVisu.
The System device has no setup panles. There are only a command definition and a status definition.

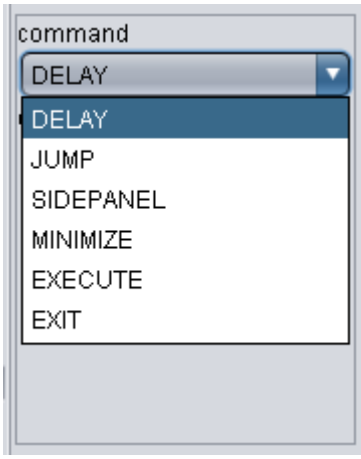
command definition

The command definition appears when a system command is defined, e.g. within the macro window.



command

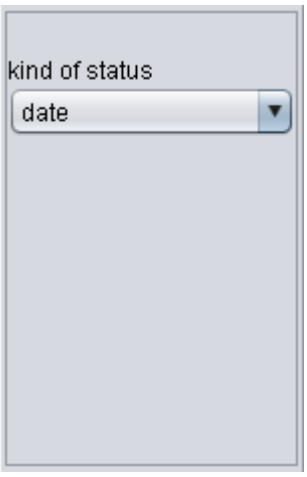
The command selection defines the commands, which will execute.



DELAY	-	perform a delay time in milliseconds.
JUMP	-	makes the choosed single panel visible Use this command to navigate between the panles.
SIDEPANEL	-	makes the side panel visible or invisible
MINIMIZE	-	minimize the frame to taskbar
EXECUTE	-	execute an other program **command**: command or program name **arguments**: argument list **working directory**: directory where the comand will execute.
EXIT	-	exit homeVisu immediatly

status definition

The status definition appears when a system status should be processed, e.g. when define the status listener of a status field.



There is only the status "date".
The system status date submits the current date as parameters.

The following parameters are submited.

{1} : year	e.g. 2010
{2} : month	e.g. 05 for May
{3} : day	01 - 31
{4} : hour	00 - 23
{5} : minute	00 - 59
{6} : second	00 – 59

notes

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