iseo 2 ®

Home and Media Control & Digital Signage System

Basics

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1   Description and versions

ISEO is the trend-setting technology in the field of Media Control, Building Automation and Digital Signage. Our system philosophy is based on the latest standards, e.g. IP networks, computer-based hardware, and time-tested bus systems, such as KNX. The entire control logic and the graphics are saved in the display unit. No separate controller is required for the devices to be controlled.

In developing ISEO great emphasis was placed on the easy learnability of the design environment. Both pre-defined design and object templates, as well as a drag & drop concept for operation assist the AV system integrator in creating media control and digital signage projects. All configuration options can be adjusted in clearly structured dialogs. The most important project elements remain visible during the design process and can be accessed directly. ISEO is an integration tool. Even the most difficult tasks in AV project design can be tackled by the variety of different interfaces and integration options it offers.

1.1   Iseo components

Iseo consists of two software components: **Iseo Designer** and **Iseo PC.** The free design environment ISEO DE-SIGNER is the tool for planning and implementing ISEO. This software allows graphic editing of object templates and designs and intuitive assignment of functions. Iseo PC is the executing component and available in the form of different licenses. Iseo PC is installed on the display units, e.g. touch panels or Digital Signage PCs and renders the user interfaces designed by Iseo Designer on the screen.

The following licenses are available for Iseo PC:

Iseo	Lite	Advanced	Pro	Premium
Number of pages per project	5	10	20	Unlimited
Number of network connections	2	5	10	Unlimited

1.2   Iseo Hardware

Iseo software can be used with any Windows® device (XP, Vista, Windows 7, ...). A special version of ISEO software has been designed for the Apple devices iPhone/iPod touch/iPad.

AV Stumpfl also offers their own devices, which are particularly suited for use with Iseo and are supplied with pre-installed software.

2   Setting up the network

All devices or subsystems to be controlled require a working network connection. You can use both the usual WLAN connections or wired LAN networks. For this purpose, the internet protocol (TCI/IP) and the Client for Microsoft networks must be installed. IP addresses for devices and LAN adapters must be within the same subnet range.

Example:192.168.1.1 to 192.168.1.255, 10.0.0.1 to 10.0.0.255. The device addresses only vary in the last group of figures.

Note: IP addresses must be permanent and not be obtained automatically.
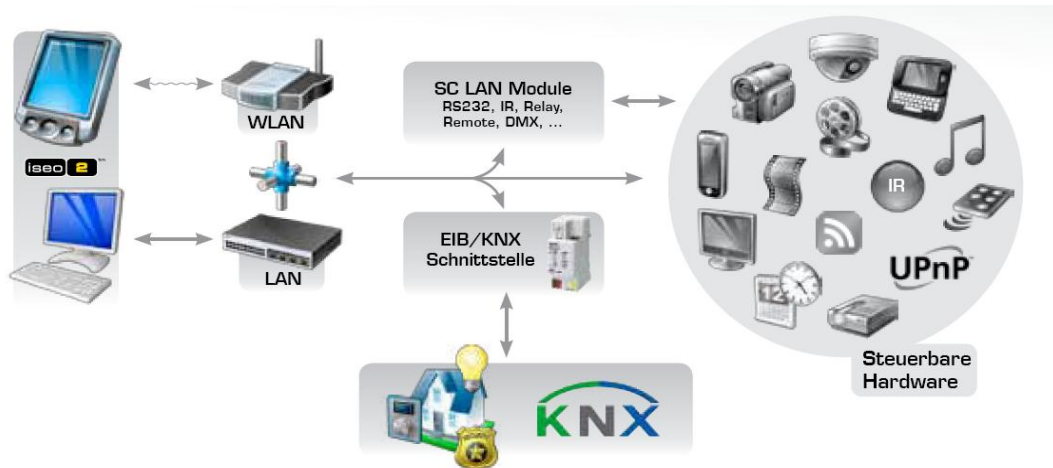
3 Iseo Designer User Interface

This chapter is primarily meant to serve as a reference. For first-time users of the Iseo Designer we suggest that you start by experimenting with the user interface and find the information about any unclear terms or menus in the chapters below.

3.1 The working environment

Iseo Designer makes you the architect of your multi-media environment. The "gridded" Desktop is the area that is displayed on the user terminal upon completion of the project in Iseo.
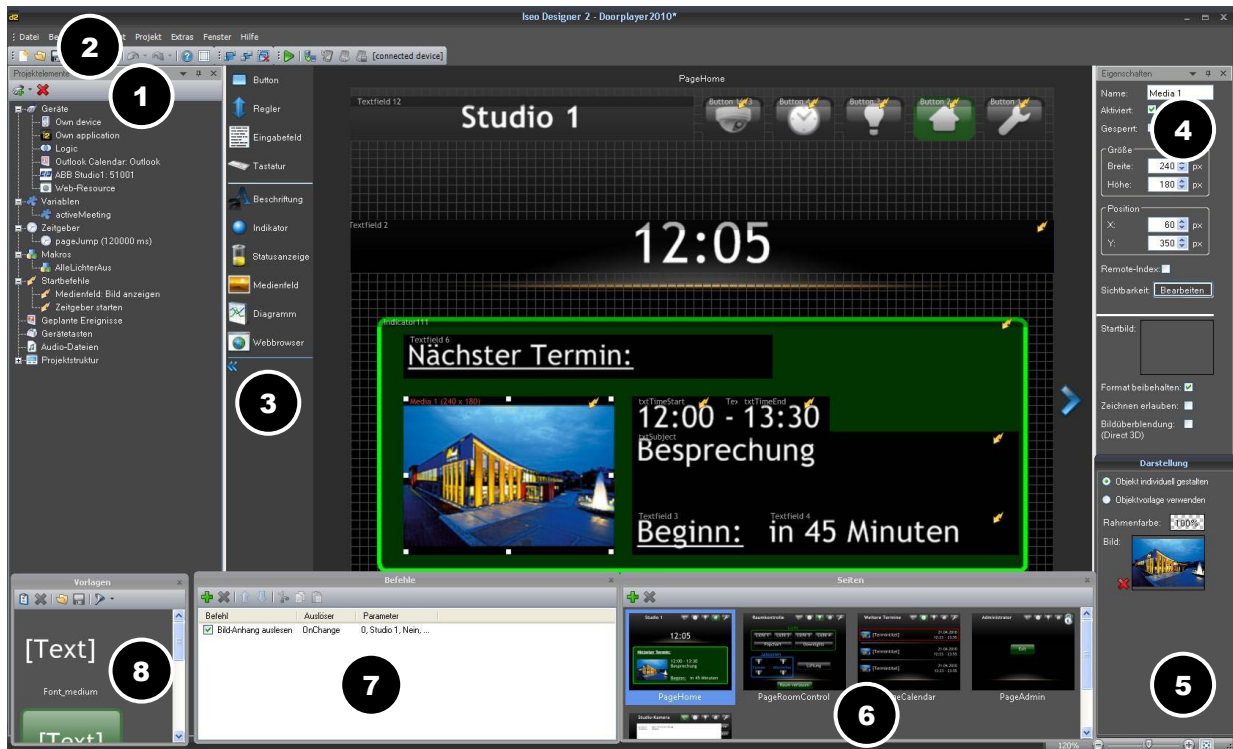

The most important components of the working environment are as follows:

1 Project elements	**5** Object display
2 Main menu and tool bar	**6** Page view
3 Object bar	**7** Command window
4 Object Properties	**8** Templates

3.2 Project elements

This window allows devices and other functions to be set up. The following categories are available:

Devices
Variables
Timers
Macros
On-load commands
Scheduled commands
Hardware buttons
Audio files
Project controls
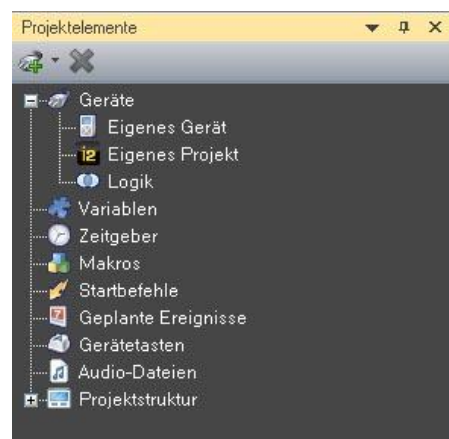
In the Project Elements window, right-click the corresponding category or click button Add element....
to add a project element. In order to delete an element right-click the corresponding element and select Delete element
or highlight the element and click button Delete selected element....

The individual project elements are described in more detail in chapter 4.

3.3 Main menu and tool bar

The main menu contains a number of additional functions and commands in addition to the standard commands
known from other programs (copy/paste, print, etc.). Below you will find a detailed description of some menu items.

Menu -> File

Menu item *File* offers all functions for managing and organizing your project. Function *New* starts the Project Wizard to open a new project. Items *Open*, *Save* and *Save as* allow loading of older projects or saving of current projects. To save your project as an image, select menu item *Export Page to Image*. Please note that the image can only be exported in *.jpg format.

Menu -> Edit

Item *Edit* allows steps to be undone or redone, objects to be cut, copied, pasted, deleted and selected. These commands refer to the highlighted objects only.

Menu >View

Item *View* allows snapping to a grid and changing the grid color.

Menu -> Project

Menu item *Project* is split up into two parts. The first part enables you to define the project properties. On tab *General* (1) you can enter a *Project name* (2) at the top, define the *Start page* (3) and enter the *Operating system* (5) and the *Viewer license* (4) used. Moreover, you can check box *Direct 3D enabled* (6) to specify whether your user terminal supports 3D animations. The bottom part (7) enables you adjust the behavior of a media field and a button in certain situations (display of image, of text, etc.).

Tab *Graphic Display* (8) allows entry of *Screen resolution* (9) and *Grid width* (10) for the output device. Moreover, you can also adjust the background, either via the predefined templates (11) or by Importing (12) graphics. Click button *Edit* (13) to edit the template, click button *New* (14) to create a new template. Button *Delete* (15) deletes the selected template.


Tab *Digital Signage* (16) is only relevant for Digital Signage projects, where you need to check box *Access Digital Signage Database* (17). In addition to this you can also define a macro by checking box *Execute macro on playlist end* (18).
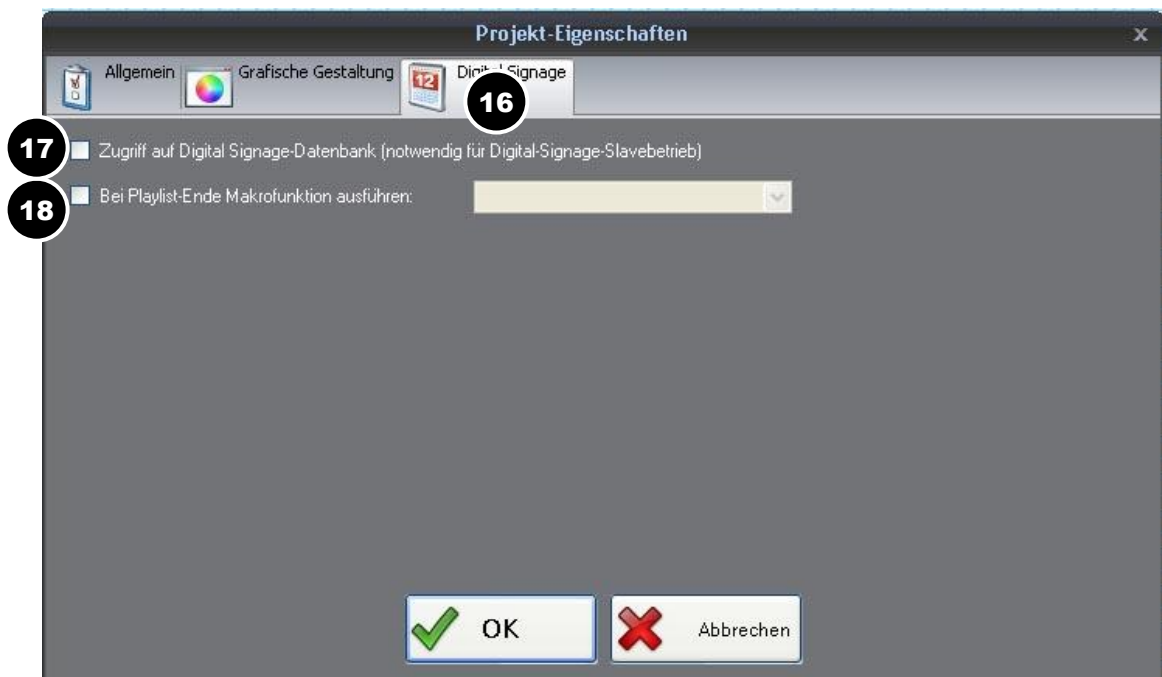
Menu -> Extras

Menu item *Extras* allows default settings to be defined under Options (Screen resolution (1), Language (2), Default Folders (3) etc.). These settings are applied automatically every time Iseo Designer starts up again.
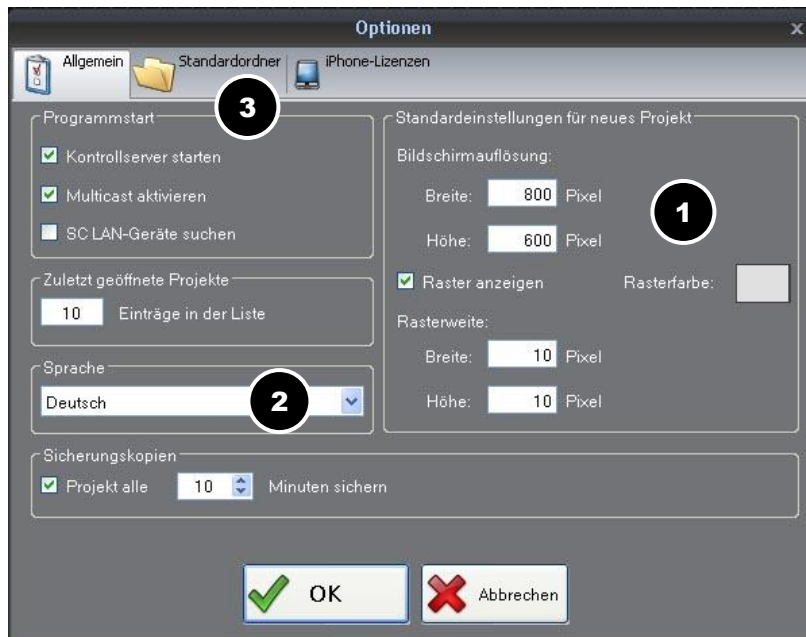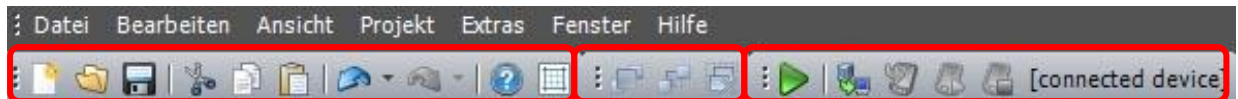
Menu >Window

Menu item *Windows* enables you to hide or display the corresponding windows. *Reset* restores the default setting.

Menu >Help

Menu item *Help* opens the Help system on the one hand and allows software updates on the other.

Tool bar

The tool bar is located below the main menu. The tool bar is split up into three different parts. The first part contains the buttons for frequently used functions. The second part offers the tools for moving highlighted elements to the front or back. The third part allows starting of the project in the test viewer by clicking the corresponding button or transfer of the project to the output device.

3.4   Object bar

Button

Click tool Button and drag a square on your desktop. The Properties window allows you to change position, size and design. Furthermore, tab *Commands* allows programming of this button. More about this in chapter 3.8.

Fader

Placed in an appropriate location, these tools, too, offer perfect flexibility. In the Properties window you can make settings for Value Range and Initial Value in addition to Position and Size. Moreover, clicking field Direction enables you to select either a vertical or a horizontal fader.

Text field

A text field is mainly used for displaying status feedback and addresses. Furthermore, the text field allows creation of moving text, which however, requires a Direct3d-compatible device.

Now create a text field. In the Properties window you will now have a option for *Ticker text* and S*peed* in addition to size, position and font. Here you can enter the direction and the speed of the ticker text.

Keyboard

The keyboard or keypad allows entry of symbols, numbers and letters. The number of characters and keys can be defined in the properties. For displaying the entered characters you need a text field.

Label

Labels are used for labeling objects. Their properties allow adjustment of font, size and color. Furthermore, labels can also be used as buttons.

Indicator

The Indicator is used for displaying conditions, e.g. whether a device is connected or not.

Status bar

The status bar allows entry of variable values, e.g. the signal strength or the battery status of your device.

Media field

A media field is used for displaying images, image sequences or films. You can choose a Start Image in the Properties, which is displayed until it is overwritten by some other image, film or image sequence. Before you can load a film onto a media field you need to create a Button and a Media Field. In the Button Properties click tab *Commands > Add > Media field: Load video*. Enter the corresponding media field and for Path the corresponding file (e.g. C:\Films\Sample film.wmv).

In order to play the film in a loop select a value of 1 as Loop parameter. 0 stands for standard playback.

Diagram

Values from a variable can be recorded and displayed graphically in a diagram (e.g. change in temperature).

Web Browser

The Web Browser is used for displaying websites. To do so you need to create a Web Browser and a button and enter the web address in the Properties window, e.g. http://www.AVstumpfl.com.

3.5 Object Properties
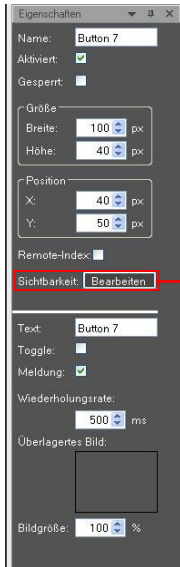
The objects used in your project and positioned on the desktop can be edited in the object properties. It is irrelevant whether these are buttons you have created yourself, imported graphics or external media (*.wav, *.mp3, etc.).
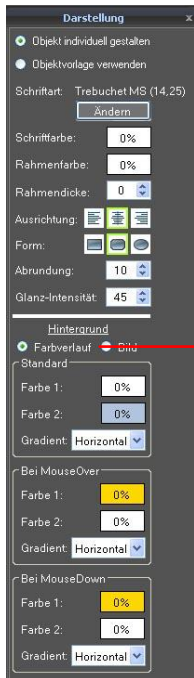
Example:

Create a button on the desktop. Highlight the corresponding object and its properties will be displayed in the Properties Window. Enter the name of the object in the project in field *Name*. Entry of a name is compulsory. By unchecking box *Enabled* the object can be disabled. In such a case it is visible but no function will be performed. Checking box *Locked* locks the object in size and position. Field *Size* lets you define the width and the height of the object. *Position* defines the location of the object on the X- and the Y-axis.

The *Remote Index* is a remote control index. Entry of a remote index is compulsory if the object is to be controlled or used by other applications. Every remote index must only be used once for every type of object. When you checkmark this box the first free index is entered automatically.

Visibility allows you entry of a condition for the visibility of an object. It allows objects to be hidden when certain conditions are fulfilled. This may be useful to exclude operating errors. If the object is to be invisible or only visible under certain conditions you click button Edit and enter the corresponding condition. Field *Text* allows labeling of the object. Check box *Toggle* to assign two conditions to an object (e.g. on/off).

Click field *Overlay Image* to supplement buttons with symbols such as loudspeaker, projector, etc. This is very useful as it allows you to modify buttons in existing templates for your purposes. For the template design to be maintained the symbols must have transparent background or an alpha channel and be saved to the corresponding format, such as GIF, PNG or TIF. But it is also possible to use normal images without transparency. The *Image size* can be enlarged or extended as a percentage of the original size.

3.6   Object View

The View tab allows editing of the object in its appearance.
You can either use pre-defined object templates (for the creation of object templates see chapter 3.9.) or customize the object.
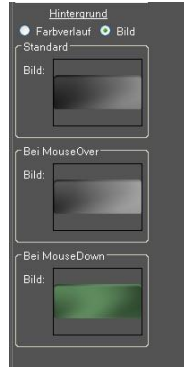
Example:

Create a button on the desktop. Check box Design Object Individually.
The View window is split up into two parts.
In the top part you can change *Font size*, *Font color*, *Frame color*, *Frame width* and *Alignment* of the text on the button on the one hand, and the *Shape* of the object on the other. Available shapes are Rectangles, Rounded rectangles and Ellipses or Circles. For a Rounded rectangle you can enter a *Radius* (0-100), whereby a value of 0 creates a normal rectangle. *Gloss intensity* makes the object appear three-dimensional. Here, too you can enter values between 0 - 100 and a value of 0 creates a 2-dimensional shape.

The bottom part allows you to change the button *Background*. Here you can choose between *Gradient* or *Image*. When you click Gradient you can assign one or two different colors to the button in field *Normal*. When you right-click the color field a popup appears. Here you can enter the transparency in steps of 10% from 0% to 100%. For *Gradient* you can choose between Horizontal, Vertical or Diagonal. The properties described above can also be set for *MouseOver* and *MouseDown*.

When you choose *Image* you can add background images by clicking the image field.

3.7   Page View

This window contains all the pages of a project. After highlighting a page in the Page preview it is displayed in the Editor. Click button   to add pages, click button   to remove the highlighted page.
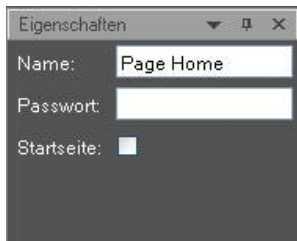
The Properties window enables you to enter a *Name* for the page. Checking box Is start page makes the highlighted page the start page after loading the project.


Access to pages containing critical functions can be *Password* protected. This means that a password needs to be entered before a page on the user terminal can be opened. The password must consist of numbers between 0-9.

No special characters are allowed in the password since only buttons 0-9, < (Backspace), C (Cancel) are available for password entry. Iseo also offers a Back button to return to the initial screen.

3.8 Commands window

In order to assign certain tasks to an object Iseo Designer uses so-called Commands. They can be found in the Object Properties on tab Commands.
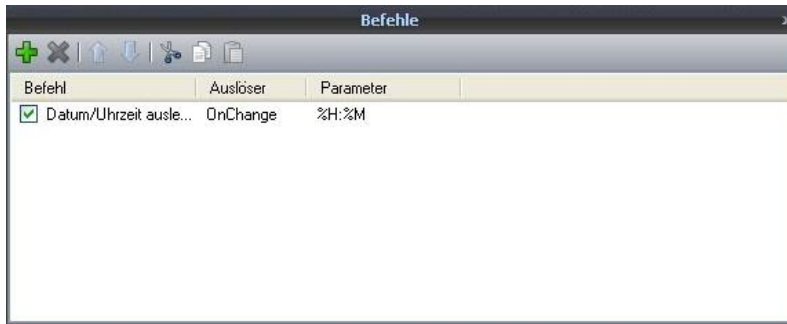
Click button ➕ to add a command, click button to remove a highlighted command.

Example:
Create a button on the desktop. Double-click the object or click button ➕ in the commands window and the command properties window opens up.
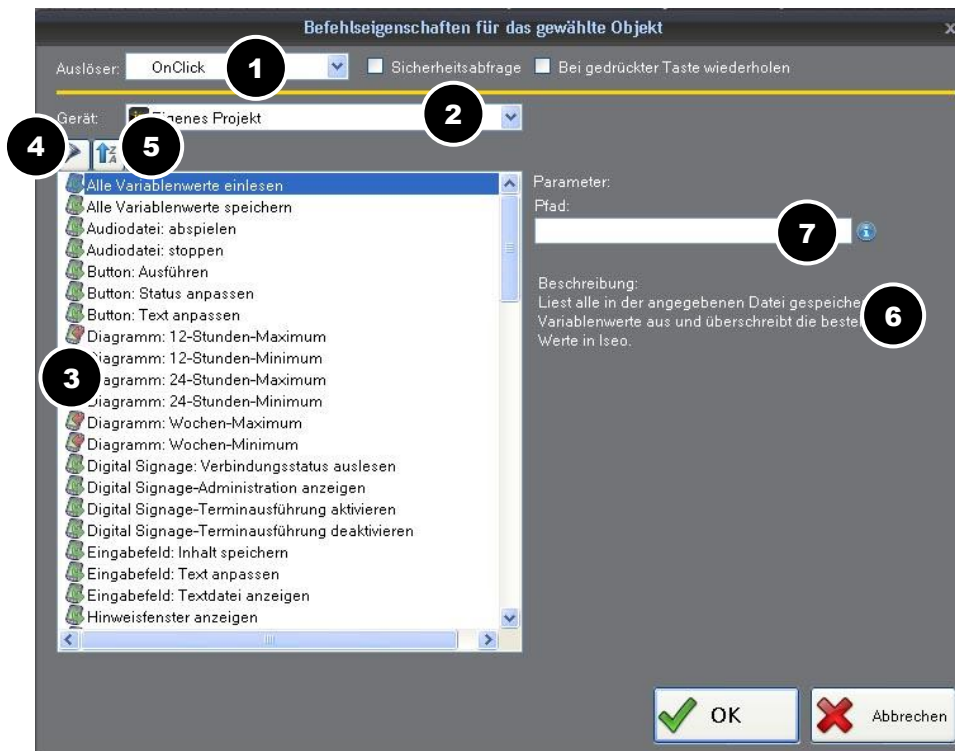

A certain trigger (1) allows you to choose a certain point of time for executing a command for an object (e.g. On-Click). For Device (2) select the device you want to control. The list shows all the devices which are either system devices or which are set up in the project elements. The symbols (3) before the command indicate whether it reads out or transmits something. Button (5) allows you to enable or disable object-specific filtering. (4). When you highlight a command, a short description of its function is displayed to the right of the selection field (6). If commands require entry of additional parameters (7) the corresponding entry fields will appear.

Several commands to be executed one after the other can be assigned to one particular object. The order of execution can be changed again at a later time by shifting the commands via buttons Up/Down.

Note: Every project must be provided with an option to stop the current project. This is done via command *Close program*.

3.9   Templates

In addition to the standard designs, Iseo Designer allows individual and customized designs which can then be saved as templates.
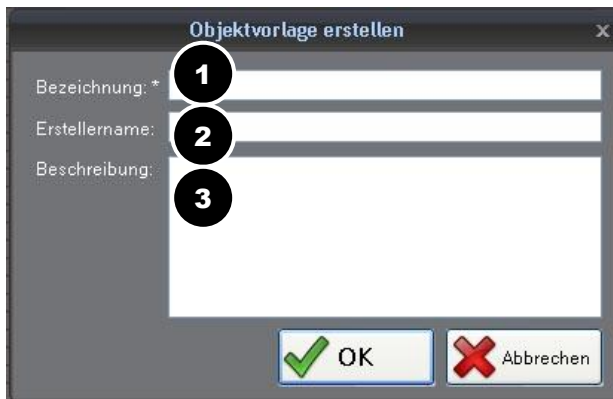
Example:

Create a button on the desktop. Design it according to your own ideas (see chapters 3.5 and 3.6). Right-click the object and select *Save as project template* in the popup menu. In window *Create object template* you can enter a Name (1), the Author's name (2) and a Description (3) of the template. After clicking button *OK* the object is listed as object template in the templates window.

To get a better overview of the templates available you can filter the templates displayed according to object types. Click the filter to select or deselect the object templates to be displayed. Click button Save as templates to save all templates of the current project to hard disk. These templates can later be used in other projects after importing them by clicking the Import button.
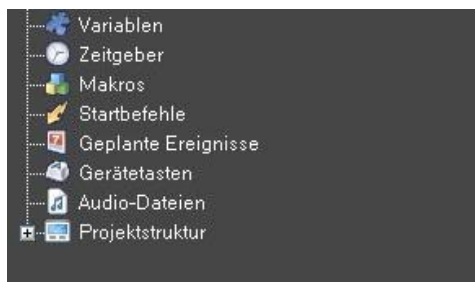
4 Project elements

4.1 Devices

The Device Pool in a project contains three devices that are set up automatically:

Own device: for controlling the Iseo hardware functions
Own Project: for controlling the project and Iseo system functions
Logic: for performing logic operations for conditional functions

In the Iseo Designer you can add the following types of devices to the Device Pool and assign their functions as a command to a graphic object. All these devices need to be directly or indirectly available on the network. Any devices without network connection need to be enabled for usage on a network via the corresponding adapters.

In the Project elements window, right-click the corresponding category in order to add a new project element. To delete it, right-click the element and select Delete device.

The following types of devices can be added:
- **Iseo**: for controlling other devices running Iseo, e.g. an SC MediaEngine
- **Wings Platinum**: for control of a PC running our multimedia software Wings Platinum.
- **HD Player**: for controlling a Stumpfl HD Player Lite or HD Player Plus
- **SC LAN IR1in/out**: for control via our IR Module, which allows controlling of any type of IR-controllable devices.
- **SC LAN Relay 8 out** : for switching functions via our Relay Module, which features 8 built-in relays.
- **SC LAN Remote 8 in**: for the switch inputs of our Remote Module. It offers 8 inputs for evaluation of keys, light barriers, motion detectors, etc.
- **SC LAN DMX512 in/out**: for DMX control of devices via our DMX Module.
- **SC Master Lite ..4 ..16**: for controlling an independent SC Master, which may have additional SC Net Modules connected to it. Select the type of device in accordance with your SC Master version, i.e. SC Master Lite, SC Master 2/4 or SC Master 6/16.
- **SC Net Module** : ...for control of SC Net Modules without SC Master unit.
- **SC PC Control**: allows control of PCs running our freeware tool SC PC Control.
- **AV Stumpfl Keyboard**: for controlling Iseo via the Keypad/Keyboard Module.
- **User defined devices** ... for control of any type of devices via serial commands. Below it select the device driver. If no driver is available you can also enter the commands directly.
- **ABB IP/EIB Gateway**: for control of building services technology in accordance with EIB standard.
- **Siemens IP Router N146**: for control of building services technology in accordance with KNX/EIB standard.
- **Siemens IP Interface N148** : for control of building services technology in accordance with KNX/EIB standard. The IP Interface N148 allows only one client, i.e. only one Iseo Touch Panel.
- **MIX 16x4 AUDIO**: for controlling Lightware Zonenmixer.
- **Outlook Calendar/Exchange Server**: for displaying and controlling information from an Outlook Calendar.
- **RSSFeed**: for displaying RSSFeeds from the specified URL in text fields.
- **WebRessource**: for displaying Webcam images and texts from a URL or for sending HTTP requests, e.g. for controlling a webcam.
- **UPnP Devices** : for controlling media servers in accordance with UPnP protocol.

4.2 Variables

Sometimes the situation demands that certain functions must only be executed if and when particular conditions are fulfilled. This can be done by defining system variables, e.g. responses from other devices. In this context the following aspects play an important role:

System variables : variable values, e.g. signals from other devices or applications, from sensors or any other objects on the interface that represent certain conditions.

Condition: is required to distinguish between individual cases. It is therefore possible to compare a variable, e.g. the value originating from a device with a freely definable second value or a second variable. The result of that comparison (true or untrue) is then used as the basis for executing commands.

Conditional functions in the Commands List of an object can be implemented via the Logic command **If clause**. E.g. when the button is clicked the command is only executed if the condition is fulfilled at this particular point of time.

Permanent monitoring of conditions allows execution of commands when the condition is fulfilled, i.e. when the comparison is true. The condition is permanently monitored at intervals of one second. This is convenient if a temperature is to be monitored via a sensor and the blinds are to be lowered when a certain value is exceeded.

Conditional visibility of objects on the interface: allows objects to be hidden when certain conditions are fulfilled. This may be useful to exclude operating errors.

Before a variable can be used it needs to be set up. For this purpose right-click *Variable* on tab *Project elements* and select *New variable*.
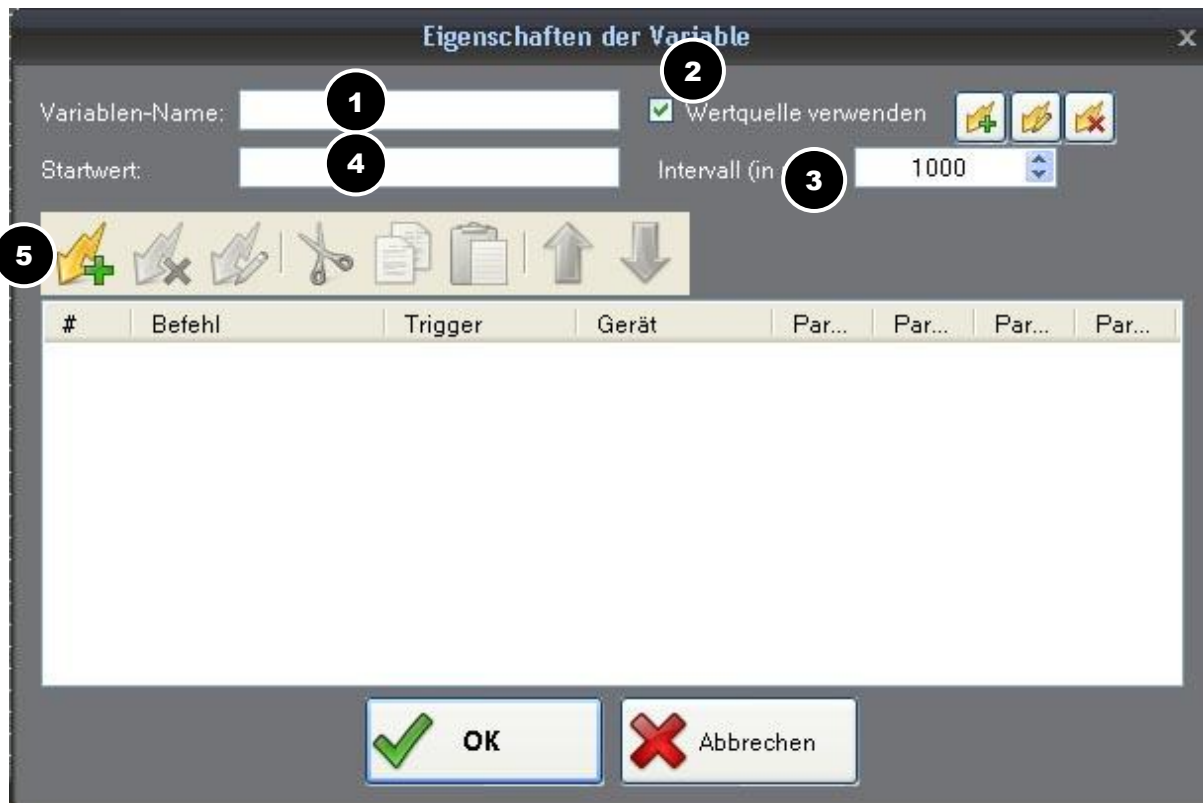

Next to Variable name (1) enter an appropriate name for the variable. When box Use value source (2) is checked you can add commands to the variable to be executed at Interval (3). A value that needs to be assigned to a project upon loading can be entered next to Initial value (4). Add a suitable command (5) if the variable is to read values from devices or functions and close the dialog by clicking *OK*.

4.3 Timers

A command can also be executed via a timer. As opposed to controlling via a button this may be an advantage in the following situations:

Certain functions can be performed just once after a certain period of time or at specified and recurring intervals. E.g. you can arrange for a ventilation system to be on for a maximum of three hours after the beginning of the event. A timer can be started when loading the touch panel or via a button.
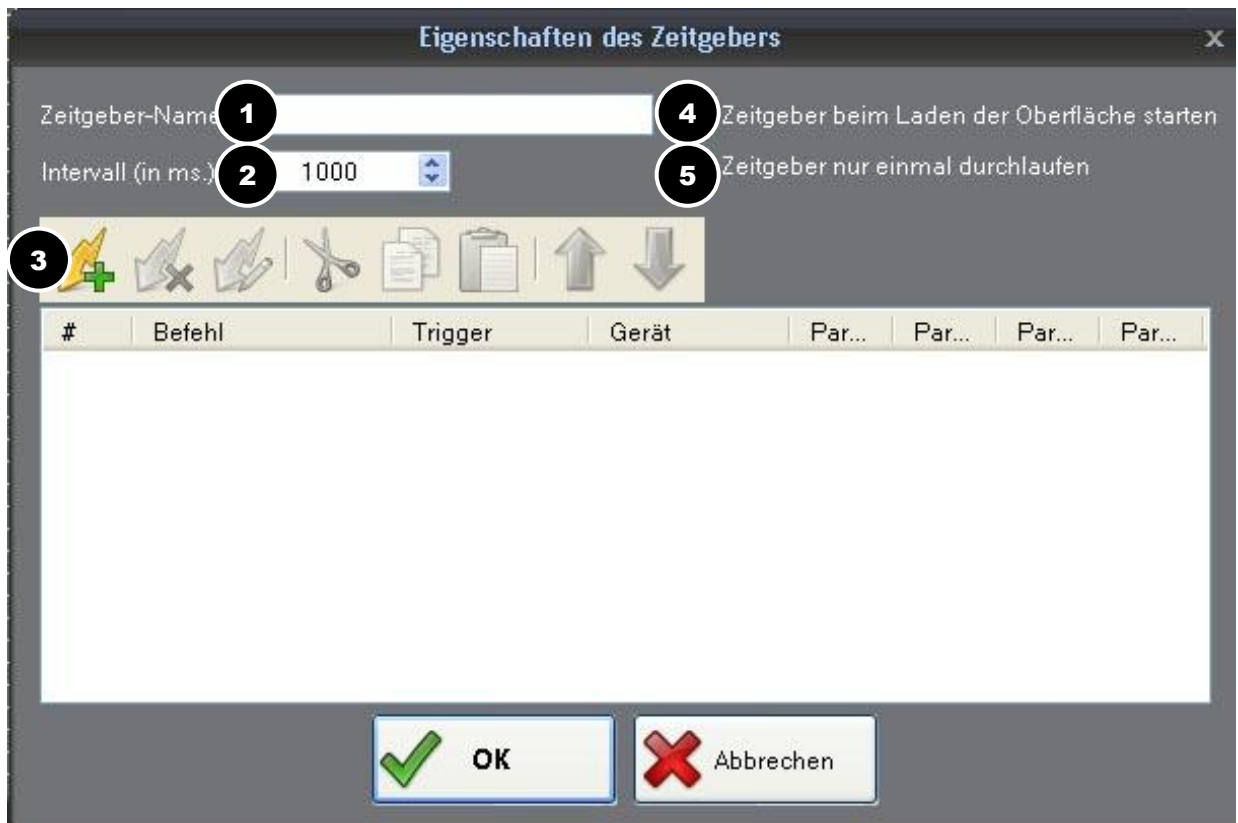

In the Project elements window right-click category *Timer* and select *New timer...*

Enter the corresponding name in field Timer name (1). Next to Interval (2) enter an interval in milliseconds, i.e. the period to elapse until the command is executed for the first time. The commands are then repeated at this interval unless the timer is stopped.

Click button Add command (3) to create the necessary commands. In the next dialog box select the device to be controlled. Following this you can select the required function by clicking it in the list of commands.

In the upper half of the dialog box there are two options for command execution:

Activate on project load (4) starts the timer as soon as the project is loaded. This is convenient for functions execution of which needs to be delayed after a restart. *Deactivate after first run* (5) generates the command Timer: Stop. This command disables the timer after the first run, i.e. all commands are only executed once. Close timer creation by clicking on OK.
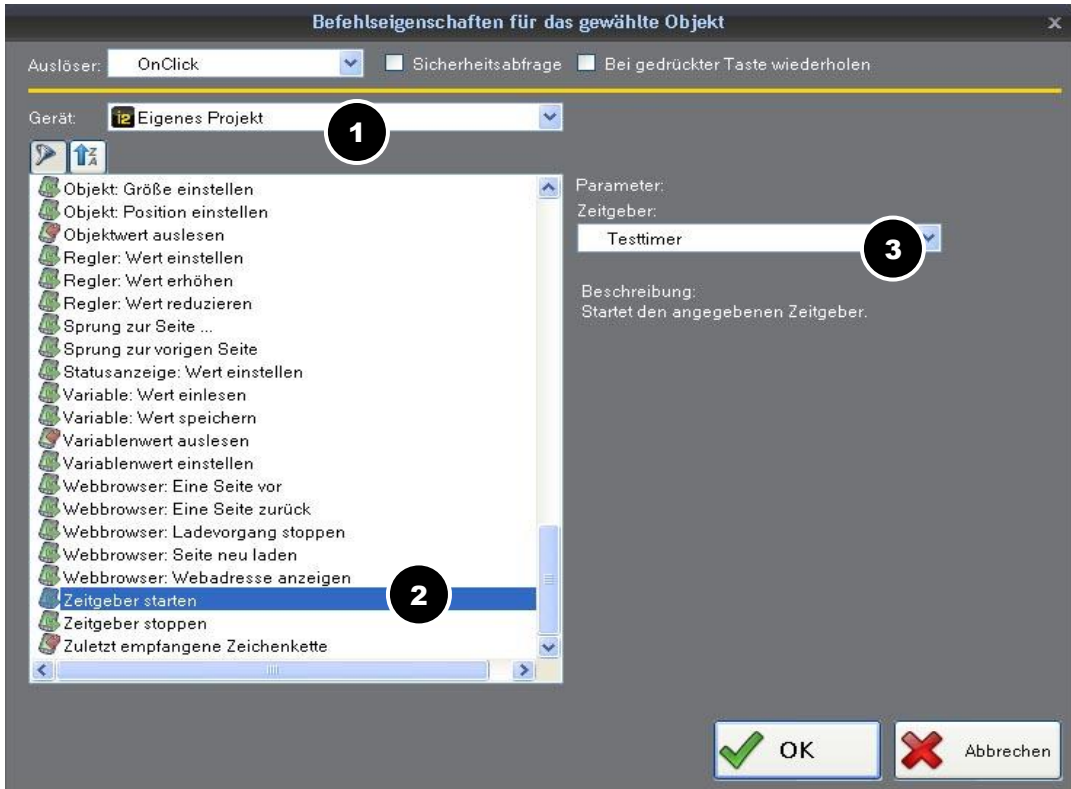
Under *Device > Own project* (1) select command *Timer: Start* (2). On the right on the Parameter side select the required timer and close the dialog by clicking OK.

4.4 Macros

Several commands can be combined into one macro and executed via the command Execute macro. This reduces the time spent on programming recurring command sequences. But even modifications, e.g. of values within the commands can be carried out centrally in such a macro.

In the Project elements window right-click category *Macro* and select *New macro...*
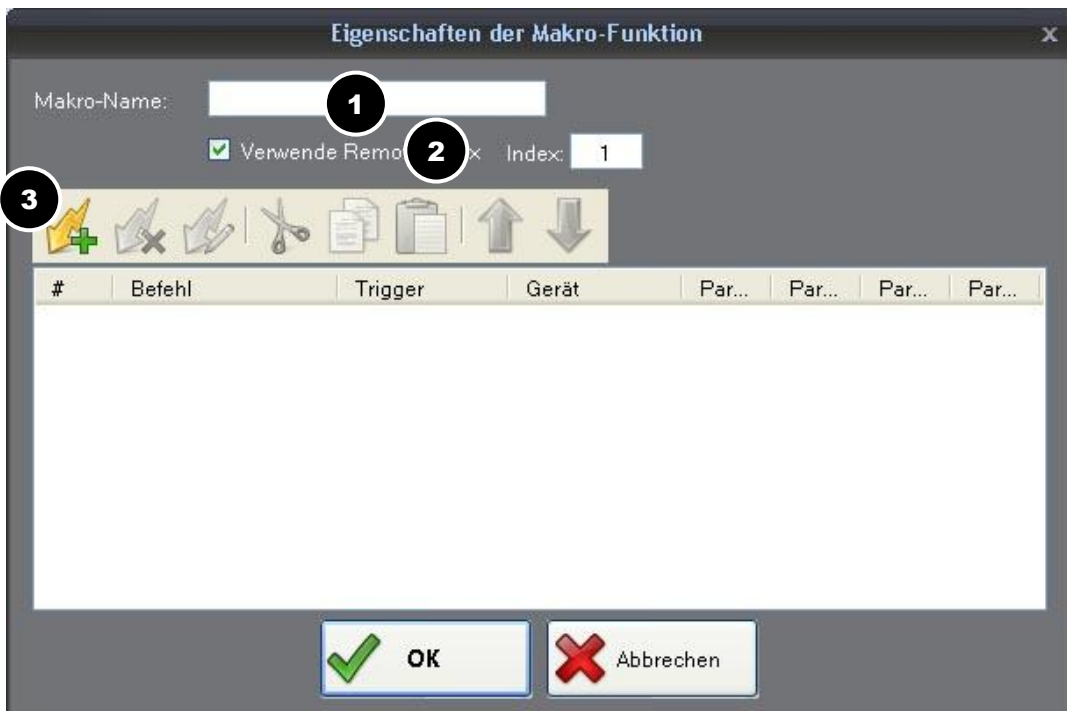
Enter an appropriate name for the macro in field *Macro name* (1). Click *Add command* (3) and set up the required command as for any other objects. Add any other necessary commands likewise and click *OK*.

Macros can also be executed directly via an external keypad. See AV Stumpfl Keyboard. For external macro execution place a checkmark next to *Used remote index* (2) and enter the index.

4.5 On-Load commands

For on-load commands you can define all those events and commands which are to be executed immediately upon loading the project. The only possible trigger to be selected is *OnLoad*.

4.6 Scheduled commands

Commands can also be executed according to a certain time schedule. I.e. you create an operation for a particular point of time and add the commands that are to be executed at the specified time.
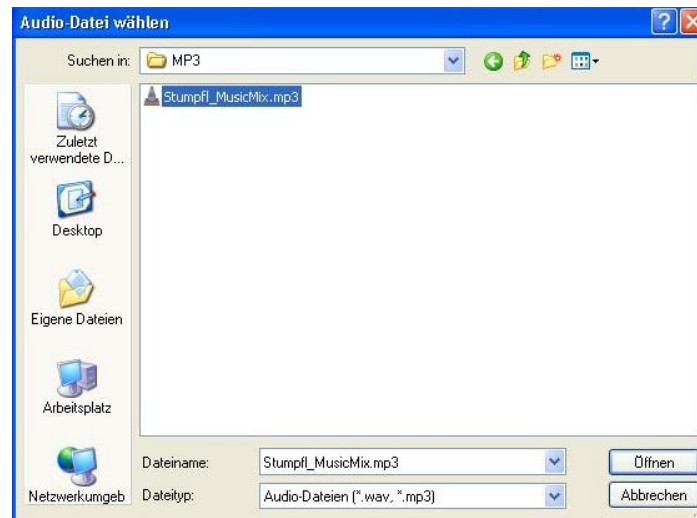

In the Project elements window right-click category Scheduled commands and select New scheduled operation. Enter a *Name* (1) for the new scheduled operation. Next to *Time* (2) enter the point of time in hours and minutes for the execution of the operation. Place a checkbox next to the weekdays (3) on which the operation is to be executed. Add the corresponding commands (4) and close the dialog by clicking *OK*.

Function *Scheduled commands* is active once the project has been loaded and the connections have been established.
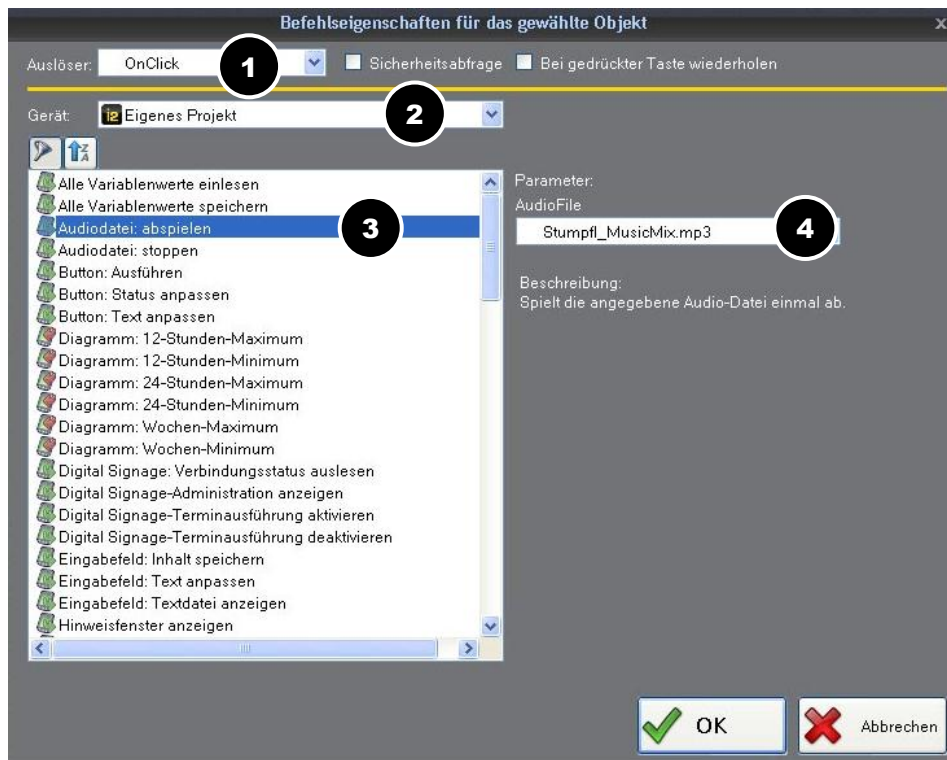
4.7 Audio files

Currently, the function playback of audio can only be used for playing entire audio files, e.g. short sounds when a key is pressed.

First you need to add the audio files you want to use to the Project elements. Right-click category Audio files and select *New audio file...* In the file dialog select the appropriate audio file and click *Open*.

Double-click the button you want to assign the audio file to open the Command Properties Dialog and configure the command as follows:

Select the corresponding Trigger (1) and *Own project* (2) for Device. For command add *Audio file: Play* (3) and, in the Parameter section on the right, select the corresponding audio file under *Audio File* (4).

4.8 Project controls

The project structure shows all the project pages and the corresponding objects on them in a tree structure. By clicking the object it is highlighted on the desktop and can be edited.