



**As versatile as your requirements.**

Simple, functional, flexible: lighting control with EASY Color Control.

**Software manual V. 1.4.1**

SEE THE WORLD IN A NEW LIGHT



# EASY Color Control Manual

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### **Hint:**

**You'll find a PDF copy of this manual on the included CD.**

## 1 Introduction

The software „EASY Color Control“ for Microsoft Windows enables the configuration of up to 16 DALI EASY / OT EASY (up to 64 using the “EASY System Coupler”) control units and EASY DMX SO control units. Therefore the EASY control units have to be connected with the PC (=online-mode<sup>1</sup>). The configuration can also be prepared without connection to the control units (=offline-mode<sup>2</sup>).

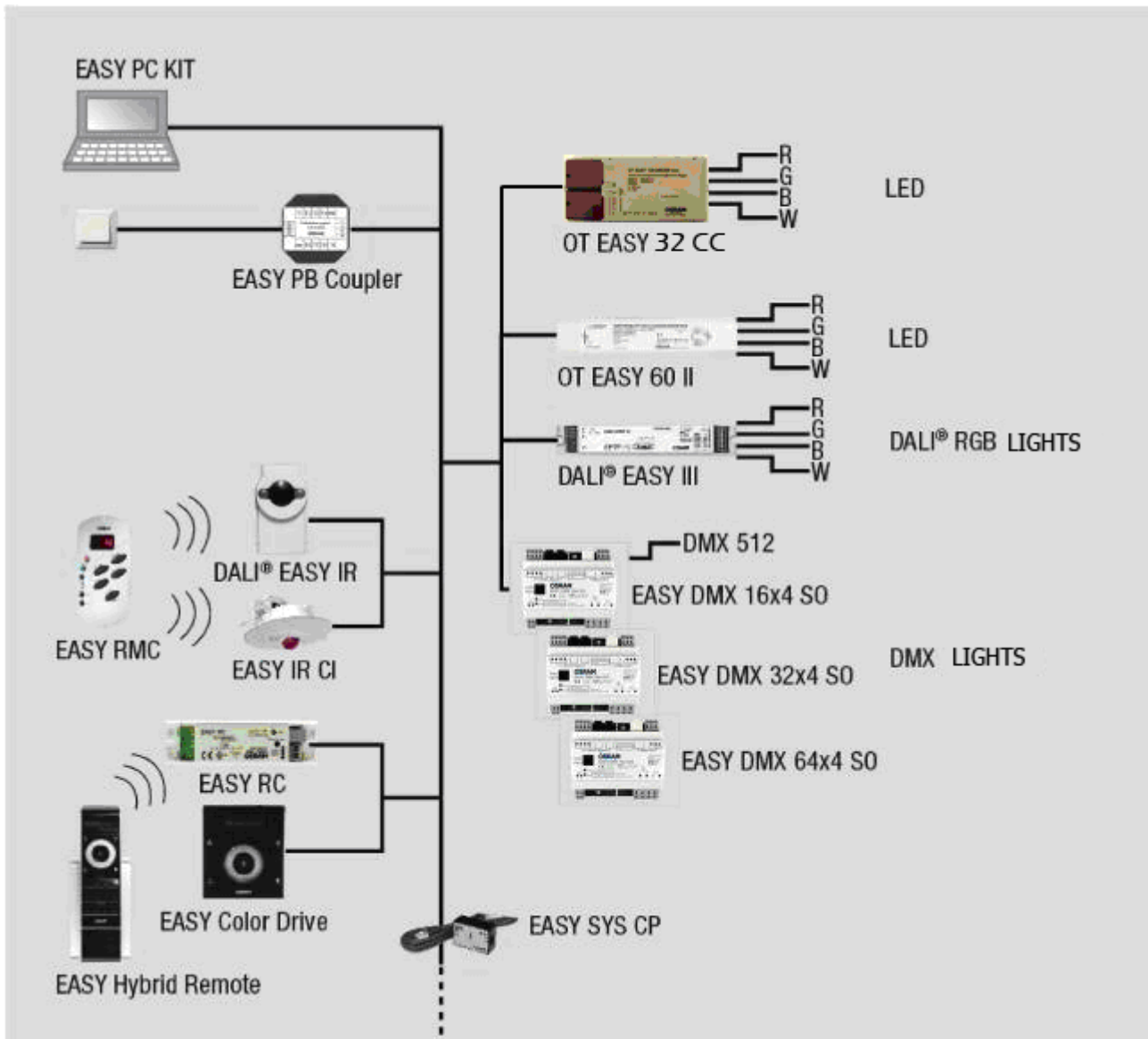


Figure 1: Overview EASY Color Control light management system

EASY Color Control Software supports the following functions:

1. System test (only online-mode)
2. Addressing the EASY control units, see tab Setup (only online-mode)
3. Setting of colours and light scenes, see tab Scene
4. Generating automatic scene sequences, see tab Sequence
5. Generating orders of different sequences as programmes, see tab Program
6. Visualisation of the system status on the PC (only online-mode)
7. Loading and saving all settings from/to a file

<sup>1</sup> In online-mode all settings have direct effect on the control units, e.g., colour changes appear immediately

<sup>2</sup> In offline-mode exists no direct connection to the equipment, but the PC allows a preview and gives a first impression of the result. In offline-mode specific functions are deactivated or have only limited functionality.

## 2 System requirements

To use the EASY Color Control Software, you need the following hard- and software:

- PC with Pentium II-processor with at least 233 MHz or similar (Pentium III-processor or similar recommended) at least 1GHz for Windows 7
- Windows 2000 Service Pack 4 / Windows XP Service Pack 3 / Windows Vista or Windows 7 - 32bit / 64bit Microsoft operating systems versions
- At least 128 MB RAM for Windows 2000 or 256 MB RAM for Windows XP or 512 MB RAM for Windows Vista or 1 GB RAM for Windows 7
- At least 20 MB free capacity on the hard drive
- SVGA-screen with a resolution of 1024x768 or higher and at least 65536 colours (16-Bit)
- CD-ROM drive
- At least one free USB-port for the online-mode

### 3 Software installation

Please put the enclosed CD into the drive and the setup program will usually start automatically (if not, please open Windows Explorer, change to CD drive and double click on the file „Setup\_OSRAM\_EASY\_Color\_Control“).

**DO NOT plug in the enclosed EASY USB adapter.**

EASY Color Control Software is available in English, German, French, Spain and Italian. Please choose your language. An installation assistant guides you through the installation process.



Figure 2: Start of the installation process

After successful installation an icon will be installed on the desktop. Furthermore EASY Color Control Software can be found in the “Start” menu → Programs → OSRAM → EASY Color Control.

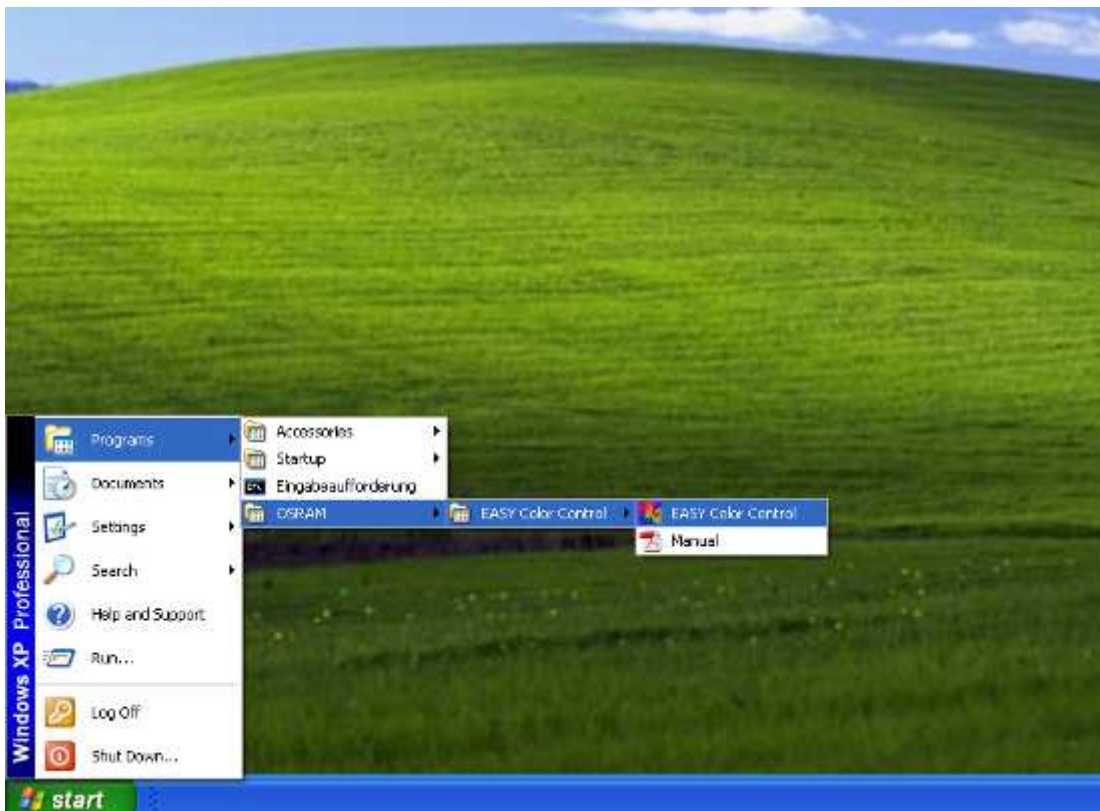


Figure 3: Start menu for EASY Color Control Software

## 4 USB driver installation

Please plug the EASY USB adapter into the free USB port of your PC. Windows driver installation wizard starts automatically. The driver is located on the enclosed CD, please use automatic driver search (recommended) or manually select your CD drive for the driver search. Possibly a note about missing driver signature is displayed, please confirm to proceed the installation process.

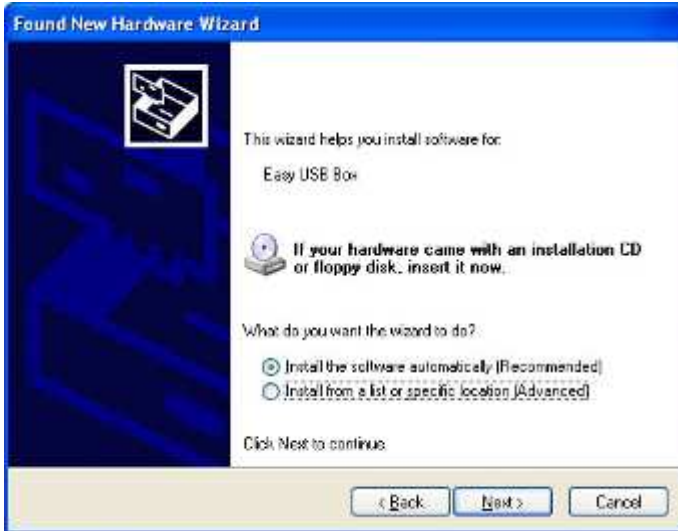


Figure 4: Driver Installation wizard

**Note:**

A backup of the driver is copied into the EASY Color Control installation folder.

## 5 Start program

At the start the EASY Color Control Software searches automatically for connected EASY control units. When the software has detected the correct number of control units, they can be addressed individually.

The following cases are differentiated:

### 1. No USB Adapter connected (EASY Color Control Software starts in offline-mode)



Figure 5: Info message, no USB Adapter found

### 2. EASY Color Control Software starts in offline-mode (no control units were found)



Figure 6: Info message when no EASY control units were found

### 3. EASY Color Control Software starts in online-mode

When EASY Color Control Software starts successfully in the online mode, initially connected EASY control units were searched for. This can last up to several minutes – depending on the number of control units. By interruption of the search process, the software starts the offline-mode. If control units without addresses are found (e.g. first operation), a note occurs and the possibility to allocate addresses is offered (recommended).

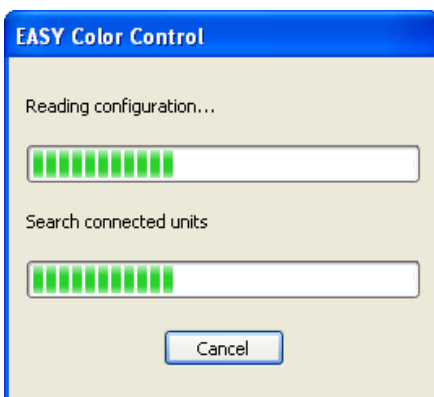


Figure 7: Searching for EASY control units

#### **Note:**

*If one or more control units is / are not found, please check the connection wiring and restart the address allocation via tab **Setup**.*

## 6 Window elements

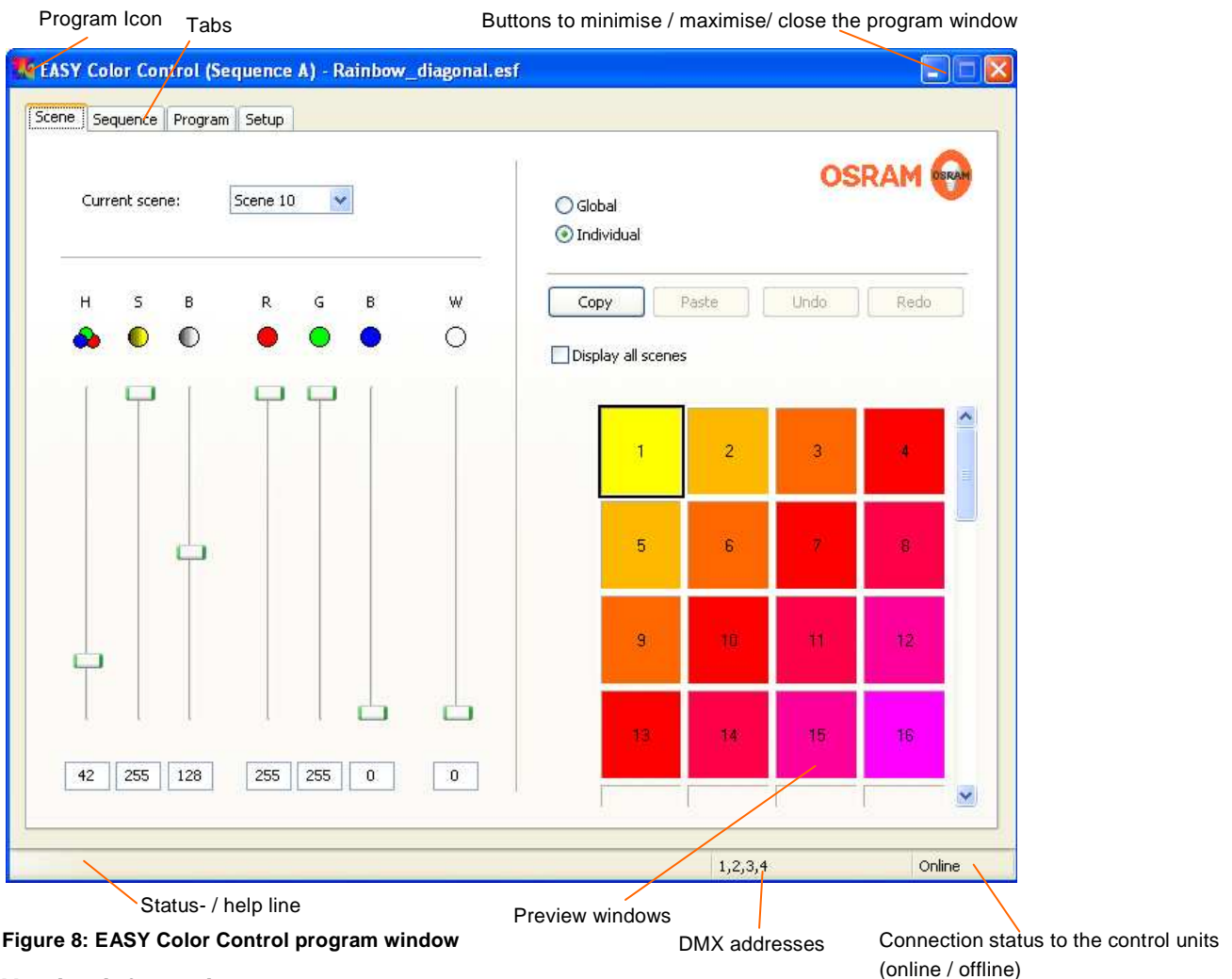


Figure 8: EASY Color Control program window

### Version information

Click onto the program icon. After selecting entry "About EASY Color Control" an info window with details about the version of the windows-software will appear. If an EASY USB adapter is connected and if a connection to the EASY control units does exist, the serial number of the adapter and the firmware version of the master control unit is shown. Via the button "more" the firmware versions of all connected units can be displayed.



Figure 9: EASY Color Control info window

### Change between Online and Offline

Change between Online and Offline and vice versa by a double click to the connection status display.

### Program updates

Updates for EASY Color Control Software are available at:

<http://www.osram.com/ecg-software>

## 7 Tab Setup

Via the tab **Setup** it is possible to adapt the EASY Color Control user interface to the installed system. Also the behaviour of the control units can be configured.

### Test of the connected control units (online only)

All channels can be switched on and dimmed central via the central “Test” slider. Check that all luminaires which are connected with the EASY control units change their brightness when you move the slider. Otherwise check the wiring.

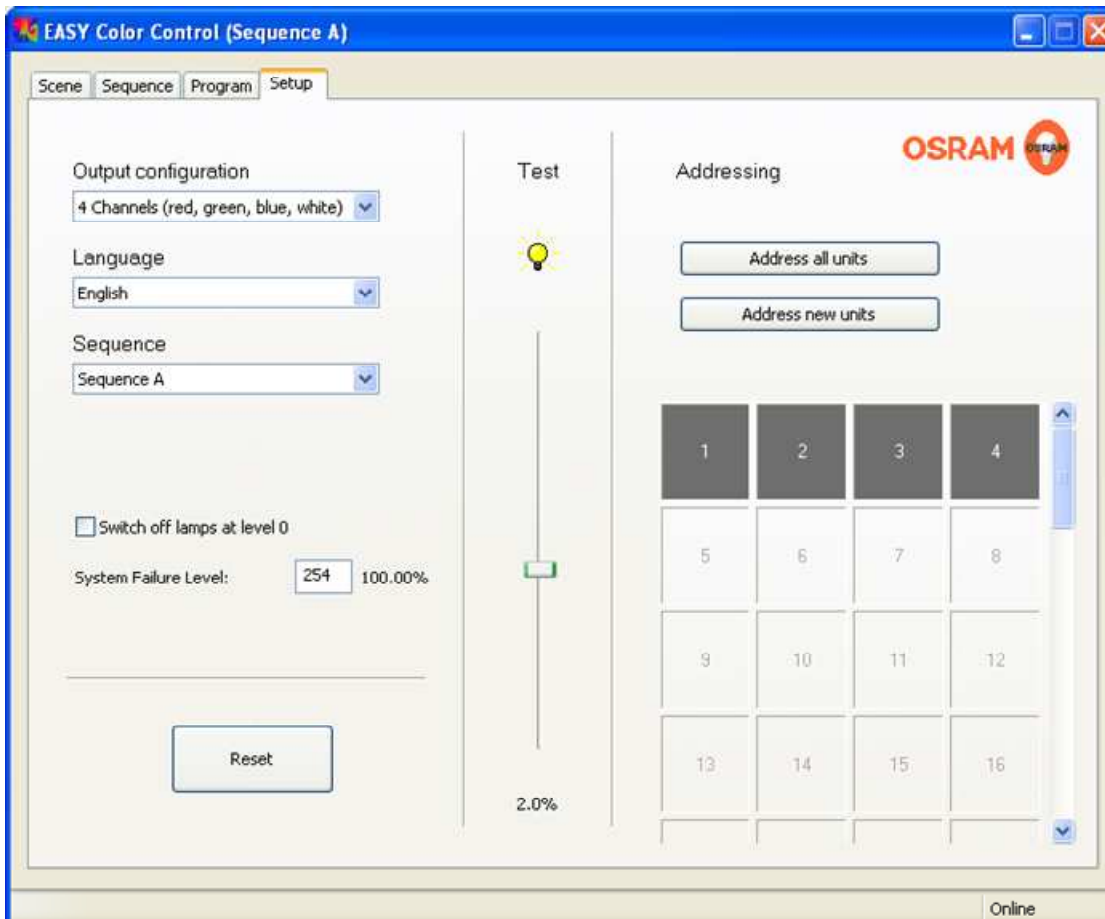


Figure 10: Tab Setup

### Address allocation for the control units (online only)

All or only the new control units can be addressed via the corresponding buttons. The second option is mainly provided for the extension of existing systems or the exchange of control units.

At the start of the addressing all control units are set to their minimal brightness. Afterwards all units are set to their maximal brightness as soon as a valid address was assigned. Thus it is possible to check which unit is already found and addressed. Please note that the allocation of the preview windows to the corresponding control units is by pure chance.

**Every unit, belonging to EASY DMX SO, shows the associated DMX addresses in the bottom of the software page** (see Figure 8). Depending on “Output configuration” settings, 2, 3 or 4 DMX addresses are associated to each units.

- 2 channels warm white and cold white ⇒ 2 Consecutive DMX addresses per unit
- 3 channels white ⇒ 3 Consecutive DMX addresses per unit
- 3 channels (red, green, blue) ⇒ 3 Consecutive DMX addresses per unit
- 4 channels (red, green, blue, white) ⇒ 4 Consecutive DMX addresses per unit
- 4 channels white ⇒ 4 Consecutive DMX addresses per unit

### Allocation of the preview window / control units (only online)

The order of the preview windows should correspond with the real structure / placement in the EASY system. Therefore the addresses can be re-sorted:

1. Select one of the preview windows with a mouse click
2. Check which unit of the real system was selected
3. When the allocation is not correct, you have to pull the selected field via Drag & Drop to the according position. Thereby the allocation of the two relevant fields is interchanged. Check the other allocations in this way one after the other.

Re-sorting allows exchanging the order of DMX units without changing the physical DMX addresses either match the preview to the real placement or correct mismatch of physical DMX addressing.

### Enabling and Disabling preview windows (only offline)

In the offline mode you can activate / deactivate the (virtual) control units via a click onto the corresponding preview window. With this function you can define the required assembly of the control units which is conform with the existing / planned system.

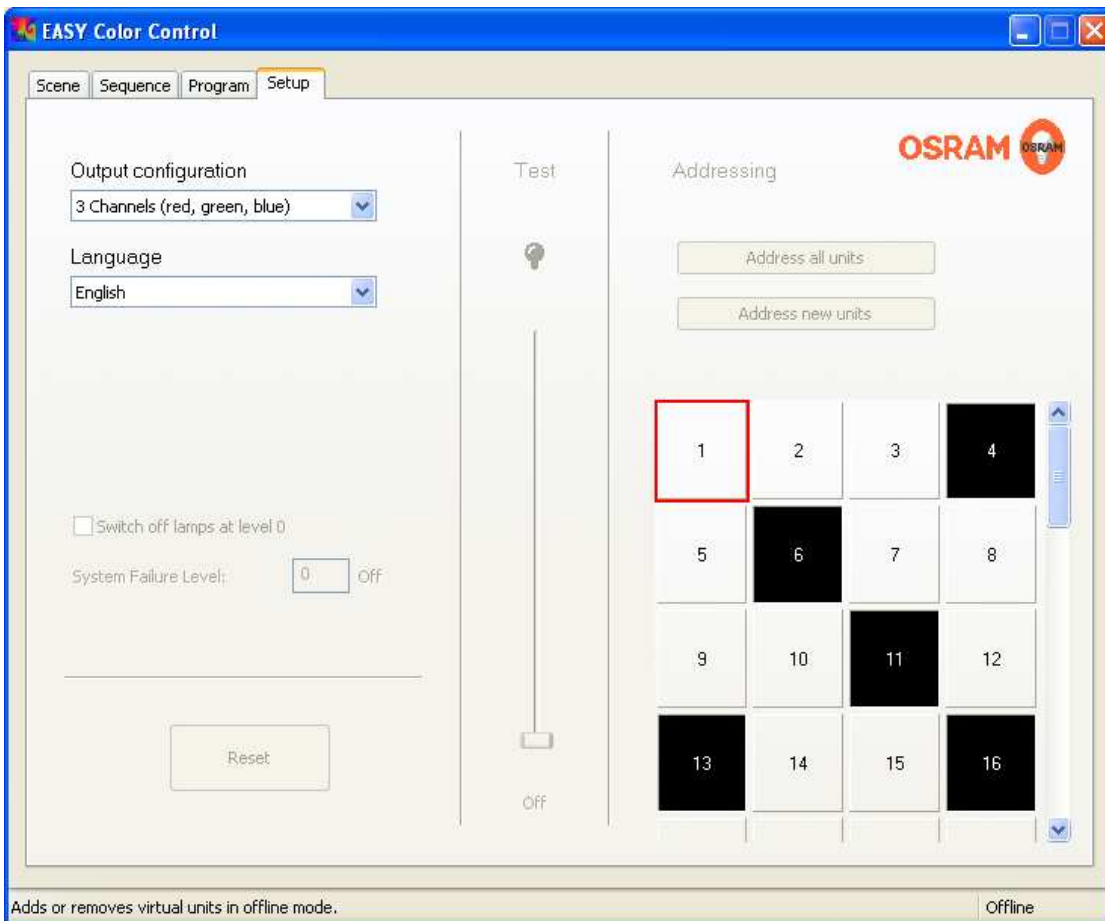


Figure 11: Activation / Deactivation of preview windows in the offline mode

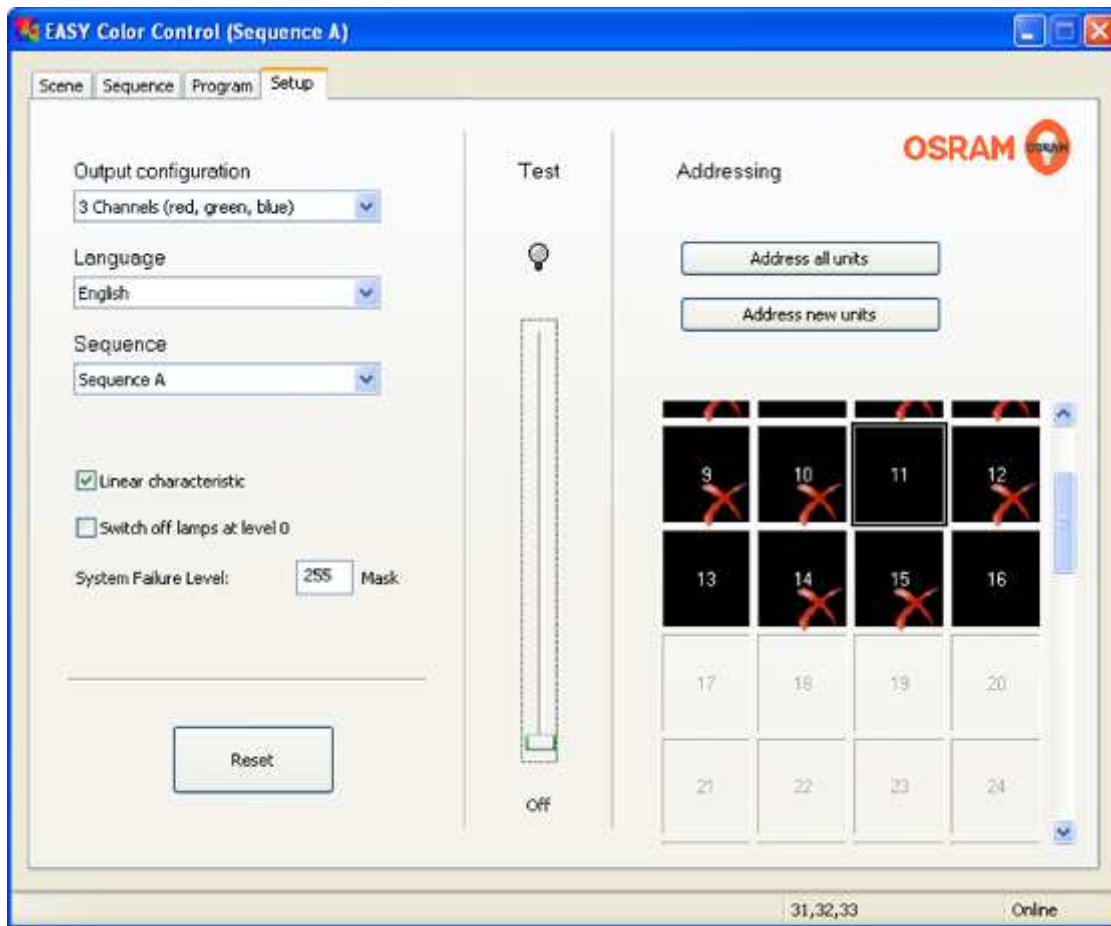


Figure 12: Enabling / Disabling of DMX units (online)

#### Enabling / Disabling of non existing DMX units (only online).

In online mode DMX units can be enabled/disabled via a double click onto the corresponding preview window. The function allows creating a consistency preview that corresponds to the installed DMX units (dimmer or fixture controlled by DMX protocol). By disable function, the related scenes are not lost and the DMX output is set to  $\emptyset$  DMX value (typically to minimum light level that correspond to no light output).

#### Language selection

By selection of the corresponding entry, the language can be changed without new installation. The new language will be valid after the next program start.

#### Configuration of the visualisation

There are five possibilities available under „output configuration“. This enables an individual visualisation of the software to match with the real system type.

- 2 channels (warm white and cold white) = channels 1 and 3 of the control units
- 3 channels white
- 3 channels (red, green, blue) = channels 1 up to 3 of the control units
- 4 channels (red, green, blue, white)
- 4 channels white

#### Configuration of the switching behaviour in the sequence mode (only online)

The adjustment „switch off lamps at level 0“ indicates if the light sources of the system are switched off in the sequence mode or if they stay in a minimal dim position.

The option „switch off lamps at level 0“ should only be selected, when it is sure that a frequent switching operation does not harm the light source. It is recommended not to select this option when fluorescent lamps are used in fast sequences.

### Configuration of the dimming curve of OT EASY control units (online only)

By checking the *“linear curve”* the dimming curve for OT EASY units can be changed from a logarithmic one (default) to a linear one. A linear curve is ideal for uniform fading, a logarithmic curve allows smooth and precise setting of colours and low dimming states.

Attention: changing the dimming curve resets the control units, scene and sequence settings will be deleted.

### Configuration of system behaviour when a DALI EASY control unit fails

The adjustment of *„System failure level“* indicates how the lighting operates by an interruption of the DALI control signal (e.g. by a power interrupt of the DALI EASY control unit). When you use the EASY control unit for the control of a general lighting system, you should select an value that guarantees an adequate brightness.

### Selection of active sequence (online only)

EASY control units support up to 4 different sequences A..D with up to 16 scenes each. Via the drop down list the corresponding sequence and scene set can be selected. The active sequence and scene set is displayed in the title bar of the EASY Color Control window.

When the sequence and scene set is changed (e.g. from A to B) all corresponding settings are downloaded from the control units automatically.

### Reset the system (only online)

Use the reset push button if you want to reset the system. Furthermore the scenes and sequence settings of all control units and of their addresses (optional) can be reset.

After the selection of the reset push button a window appears. In this window you can select which of the following actions you want to carry out:

- Reset of the scenes and sequences of all control units (addresses will not change)
- Remove addresses and perform a complete reset to the delivery state

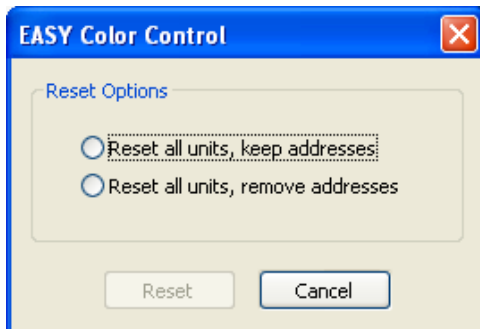


Figure 13: Selection menu after pressing the Reset button

## 8 Tab Scene

The tab scene is displayed direct after the program start. It enables the selection and adjustment of up to 16 scenes. This scenes can be selected via a ‚Drop Down‘ list. Every change of the actual scenes in the online mode is directly accomplished and saved by the control units.

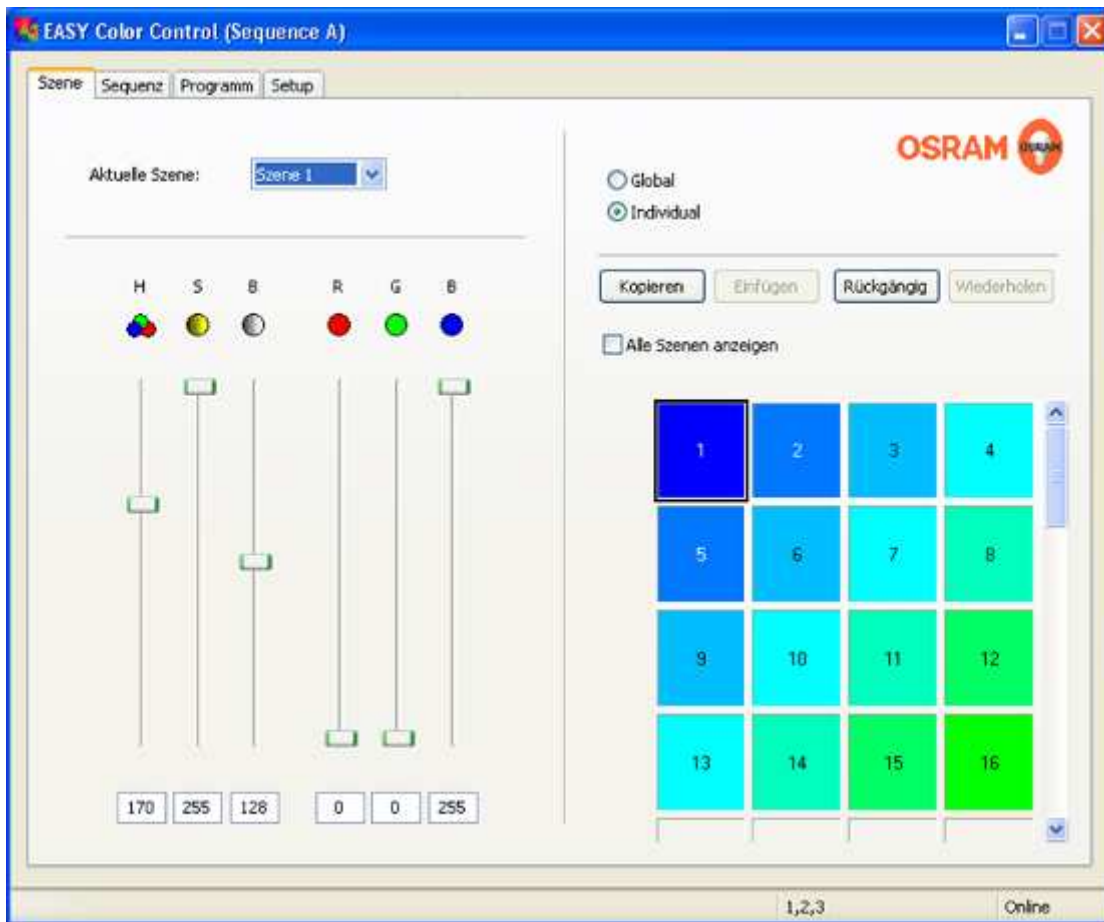


Figure 14: Tab scene after the selection and individual setting of control unit 1, scene 1

Every unit, belonging to EASY DMX SO shows the related DMX addresses bottom of the page. Each address is associated to the related scroll bar (in the example R=1, G=2, B=3) in order to give the user the full control of each DMX channel.

### Selection of control units

Click onto the corresponding preview window to select a certain control unit and to adjust it individually. The selected preview window is highlighted through a black frame. All control units behave similar when the option „Global“ is selected. The adjustment of the scene for the last selected control unit will be assigned onto all other control units.

All adjustments which are conducted onto the register card **Scene** will only affect the selected control unit(s).

**Configuration of colours**

A colour can be changed via the three sliders red (R), green (G) and blue (B) or via the three sliders hue (H), saturation (S) and brightness (B). Both settings affect each other. Each colour is displayed in the range from 0 up to 255. Additionally the percentage value is shown in the status line. If the display option **4 channels** is selected it is also possible to set up the brightness of the white channel (W) via a slider. The effect of the white channel is not shown in the preview window. Alternatively it is possible to select the colour via the windows colour dialog. Double click onto the preview window to open it.

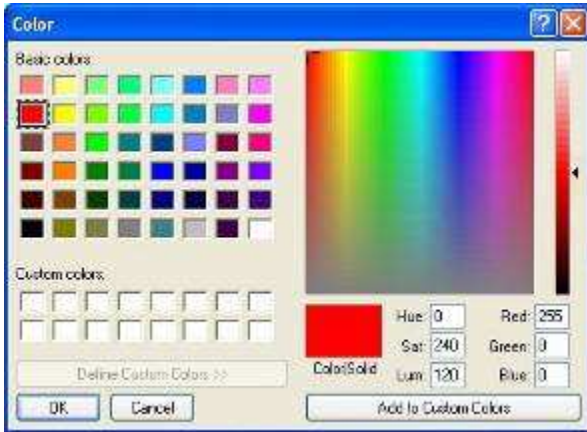


Figure 15: Setting of a colour via the windows colour dialog after double clicking onto a preview window

**Configuration of white lighting**

If the option **4 channels white ( or 3 channels white )** from the tab **Setup** is selected, a slider for adjustment of each channel is displayed, so the brightness of each channel can be set individually. The preview window is split into 4 ( or 3 ) squares which correspond with one channel each.

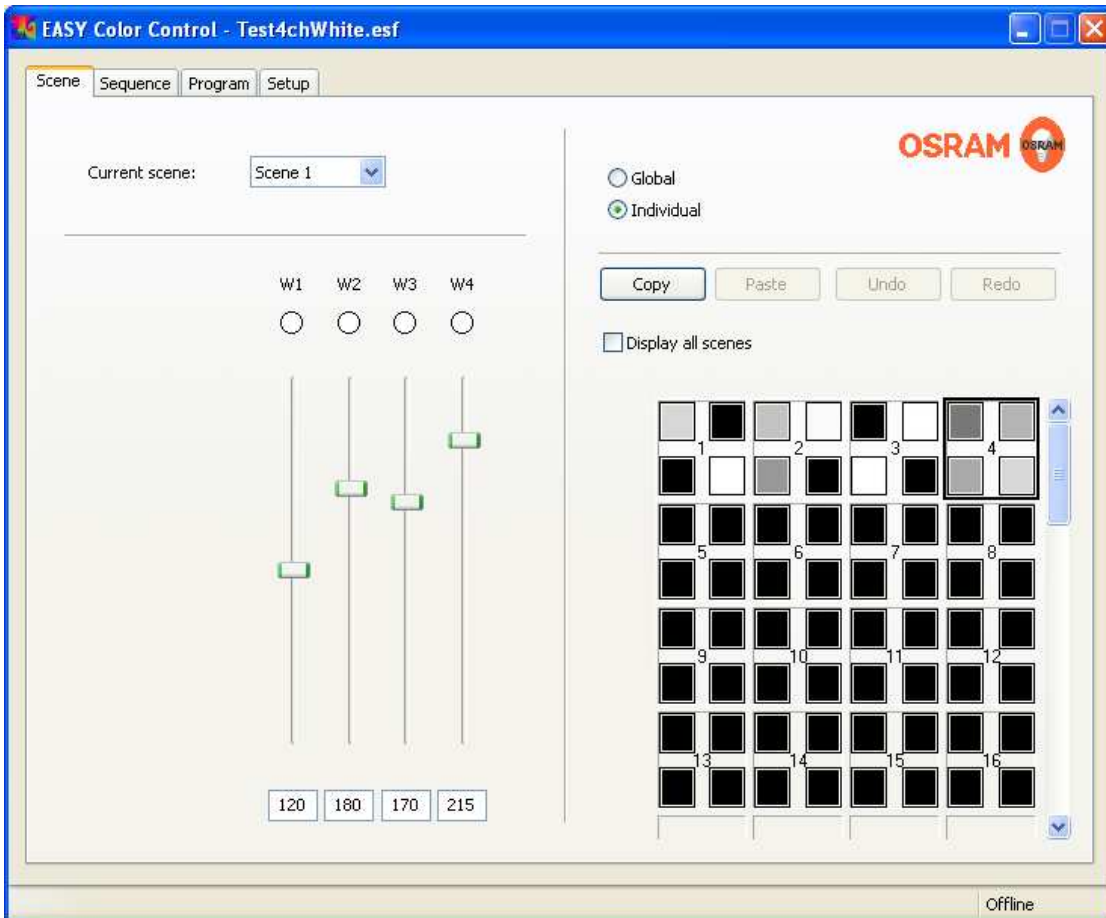


Figure 16: Tab scene, display option **4 channels white**

## Setting of the colour temperature

If the display option **2 channels** or **4 channels (warm white, cool white)** on the **Setup** tab is selected, the slider for the both white tones warm white (WW) and cool white (CW) as well as the two sliders for hue (H) and brightness (B) are displayed. In **2 channels**, the warm white channel is equal with CH1 and the cool white with CH3 of the corresponding control unit. In **4 channels (warm white, cool white)**, the warm white channel is equal with CH1 and CH2, the cool white with CH3 and CH4 of the corresponding control unit. In **4 channels (warm white, cool white)** CH1 and CH2 (respectively CH3 and CH4) have always the same value.

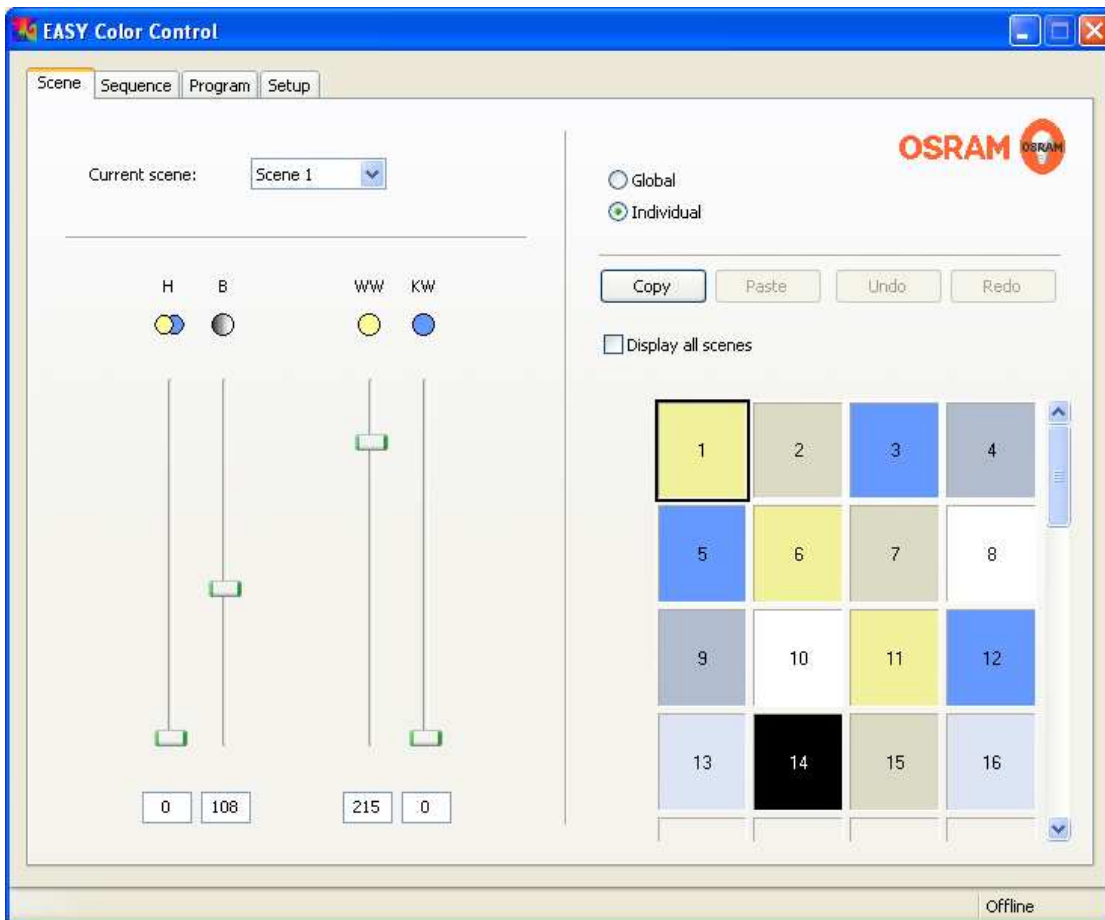


Figure 17: Tab Scene, display option 2 channels

## Copying of colours between control units

Colours can be copied via Drag & Drop. Click onto the preview window whose colour should be transferred to another unit. Keep mouse button pressed and draw the mouse pointer to the preview window on which the settings should be transferred. Then release the mouse button. Alternatively you can use the buttons **“copy”** and **“insert”** as well as the short cut keys **<Ctrl> + <C>** for copy and **<Ctrl> + <V>** for insert.

## Display of all scenes

The display option which shows large-scale preview windows and therefore only one scene, can be changed to the alternative option „Display all scenes“. This display option shows all scenes simultaneously. Therefore it enables not only the copy of single colours, but also of complete scenes and complete control unit settings. For the selection of a control unit or respectively a scene you have to move the mouse over the number of the required control unit or respective of the required scene. Click onto the number which then is highlighted. Now the line or respective the column is marked and can be copied onto a new line / column via Drag & Drop.

## Undo and redo of last changes

The last changes can be cancelled or re established via the buttons "undo" and "redo".

## 9 Tab Sequence

The Tab sequence enables an automatic fade between the scenes which were created under the Tab **scene**. An individual fade time (time to reach the final scene values) and static time (time until the start of the next fade process) can be set for each scene. Each scene which should be part of the sequence has to be enabled via the check box "Active". All scenes not marked as "Active" will be left out in the sequence process. Furthermore you can set a "start fade time" for every sequence. This start fade time can be used once instead of the fade time of the first active scene when the sequence is started. At repetitions of the sequence the normal fade time of the first scene will be used again. Therefore you can achieve an individual fade between two different sequences. Like the scenes all sequence settings are stored in the control units.

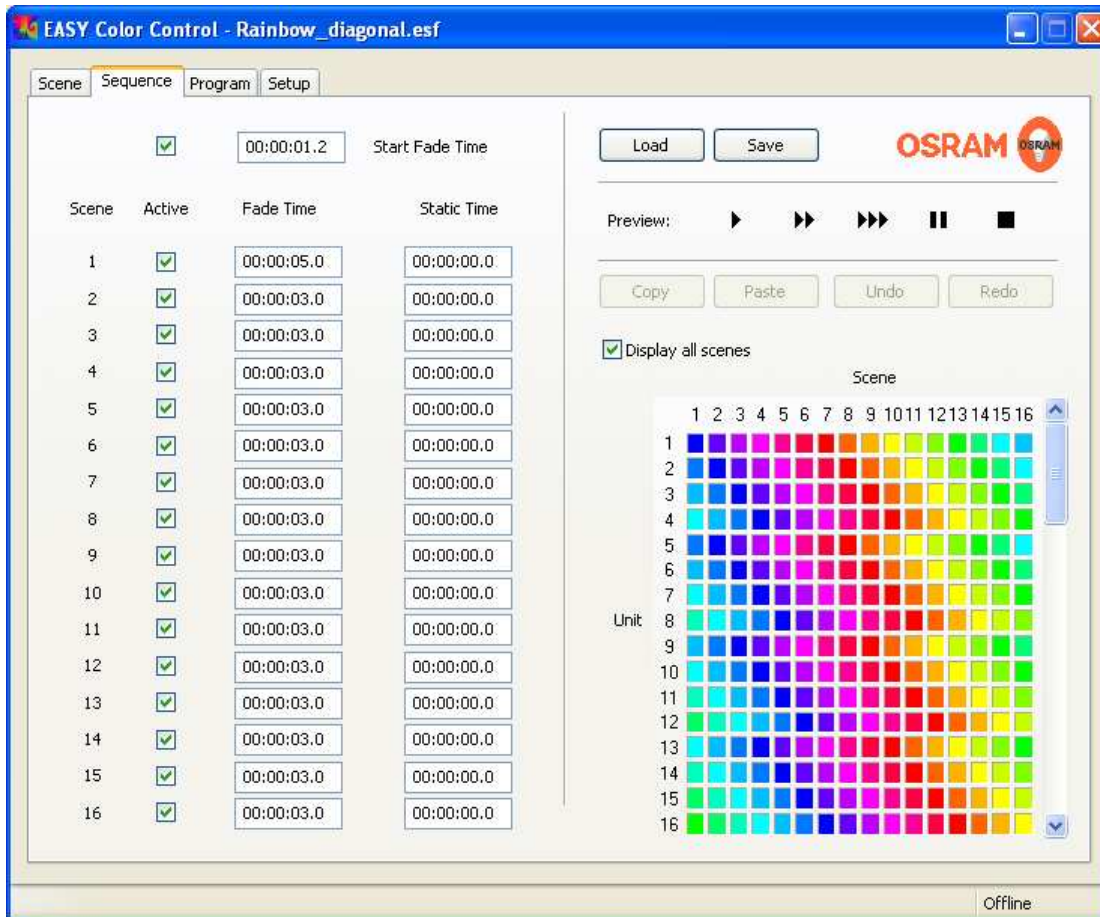


Figure 18: Tab sequence, option *display all scenes*

### Transfer of the time settings for all scenes

If the fade time and/or the static time should be the same for all active scenes, you have to press **<Ctrl> + <ENTER>** at the same time, directly after you have entered the corresponding time.

### Display of all scenes

The display option which shows a large-scale preview windows and therefore only one scene, can be changed to the alternative option **Display all scenes** on the **scene** and **sequence** tab. This display option shows all scenes at the same time. It enables not only copying of single colours, but also of complete scenes and complete control unit settings. This can be realised by Drag & Drop operation or alternatively by using the corresponding buttons or the shortcuts.

### Play back of a sequence

Play back of a sequence can be started by the button "play". The buttons with the double and triple "play"-symbol start the sequence with a 10- or 100-times faster speed rate. A running sequence can be paused by the "pause"-button or stopped by the "stop"-button. After pushing the "pause"-button, you can continue the sequence at the same point by pressing the "play"-button. After stopping the sequence and pressing the "play"-button the sequence will start again with the first active scene. If the EASY Color control window is closed or the PC adapter is disconnected during playback, the sequence is continued by the control units independently and is restarted after a mains interruption automatically.



Figure 19: Buttons for play back of a sequence, play (speed x1, x10, x100), pause and stop (from left to right)

### Saving and reloading sequences

Sequences and scenes can be saved and reloaded to/from the computer by using the corresponding buttons. The saved data files will carry the extension \* .esf (Easy Sequence File). In this manner sequence and scene settings can easily be transferred from one EASY system to other EASY systems.

The name of the data file, which is loaded at the moment is shown in the program window head line.

#### Note:

*If you have accidentally done changes in the EASY system, you could re-establish the condition before the program-start by opening the data file `AutoSaveStart.esf` in the directory "C:\Documents and Settings\AutoSaveExit.esf in the same directory. This data file contains all changes, which have been conducted until closing the program.*



Figure 20: Data file dialogue window for saving the sequence and scene settings

### Undo and redo of last changes

The last changes can be cancelled or re-established via the buttons "undo" and "redo".

### Sequence examples

Examples of EASY Color Control sequences can be found on the CD enclosed or in the internet under

<http://www.osram.com/ecg-software>

## 10 Tab Program

This tab allows the creation of programs. A program is a series of sequences, which can be played in the online mode, if a computer is connected. Before play back of a new sequence, the settings have to be transferred to the control units. This transfer may last up to several minutes, depending on the number of control units. The sequences and the runtime are shown in form of an editable list.

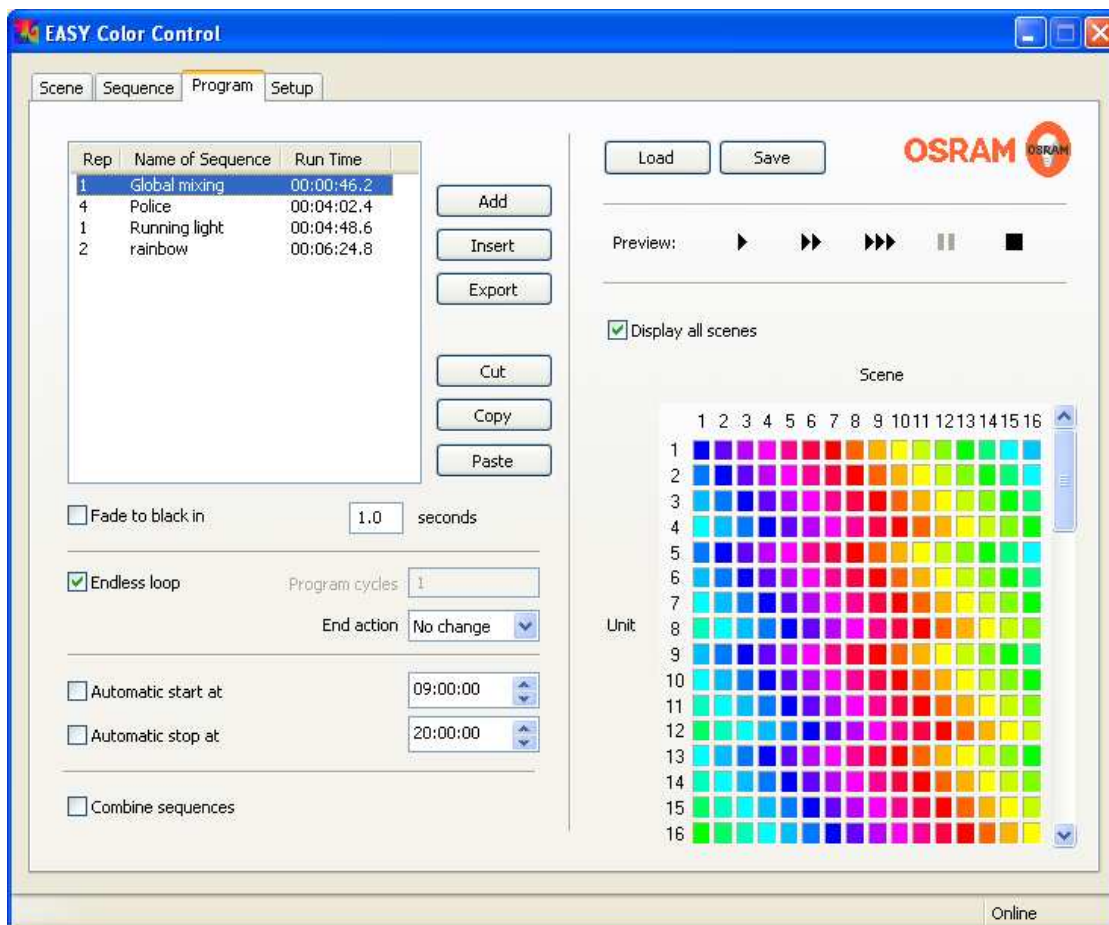


Figure 21: Tab program

### Create a program

#### Adding a sequence

Push the "add" button and choose the desired sequence data file in the file dialogue window. The selected sequence will be added at the end of the program list.

#### Insert a sequence

Mark an entry in the program list, push the "Insert" button and choose the desired sequence data file in file dialogue window. The sequence will be inserted above the marked entry in the program list. If the marked and the new sequences are the same, the repetition counter of this sequence will be increased.

#### Copy and paste

By pushing the "copy" button the marked sequence will be copied to the clipboard. In the following paste process the sequence will be pasted above the marked entry. If the marked and the new sequence are the same, the repetition counter of this sequence will be increased.

### *Cutting*

By cutting a sequence this sequence will be copied into the clipboard and the repetition counter of the marked sequence will be decreased. If the repetition counter reaches "0", the sequence will be deleted from the list.

### *Exporting sequences out of a program list*

You can extract sequence data files via "export" and save the exported sequence as a \*.esf file.

## **Saving and reloading of programs**

A program can be saved and reloaded as a data file. Program data files have the ending \*.epf (Easy Program File). The data file name of the actual loaded program is shown in the program window head line.

## **Play settings**

### *Fading between the sequences*

Via the option "fade to black in" a dark phase can be inserted between the sequences. The cross fade time can be set from 0.1s up to 9.9 seconds.

### *Endless loop*

If this option is selected, the program is played endless.

### *Program cycles*

If "Endless loop" is not active, the number of program cycles can be set here.

### *End action*

At the end of a program the "End action" is performed. If the option "Endless loop" is chosen, the program will restart after the last sequence.

The "End action" is also performed after a manual stop.

### *Automatic program start and stop*

Based on the Windows clock a program can be started and stopped at a predefined time. To activate this function, set the desired time of the day and enable the corresponding check box.

## **Combine sequences**

If this option is selected, up to 4 sequences may be loaded block wise to the sequence layers A..D. By this the sequence playback does not need to be interrupted by reload processes. With this option a sequence with up to 64 scenes can be achieved.

The option "Combine sequences" is stored in the Easy control units. So it is possible to play combined sequences also without a connected PC by starting "Sequence A" with the Easy remote control or the Easy push button coupler. The selected number of "Program cycles" is also used in this mode. At the end of the program all channels are switched off automatically.

## **Play back of a program**

A program is started by the "play" button and begins with the marked entry. The buttons with the double and triple play-symbol cause a start with a 10- or 100-times faster speed rate. A running program can be paused by the "pause" button or stopped with the "stop" button. After pushing the "pause" button you can continue the sequence at the same point by pressing the "play" button. After stopping the sequence and pressing the "play" button again the sequence will restart with the actually marked entry.

By pressing the "stop" button twice, the program will reset to the beginning and the first entry will be marked.

In the mode "Combine sequences" the program always starts with the first sequence in the program window.

## **Note:**

*The duration of a non-stopped program play back depends on the computer performance and the stability of the installed Windows system.*

## 11 Expert functions

Beyond the basic functions in chapters 1 to 10 there are additional 'Expert' functions for sophisticated users available. These functions can be activated by the command line parameters.

### Command line options

To use the expert functions the corresponding command line option (see appendix) has to be entered at the desktop link of the EASY Color Control software.

It is recommended to generate a copy of the original desktop link. For that right click on the existing symbol and choose 'copy' from the menu. Now right click on the windows desktop and the select 'paste'. Then right click on the new symbol and choose 'properties', add the command line option in the 'target' field without deleting the exiting entry (e. g. "-SequenceB"). Command line option and existing entry are separated by a 'space'.

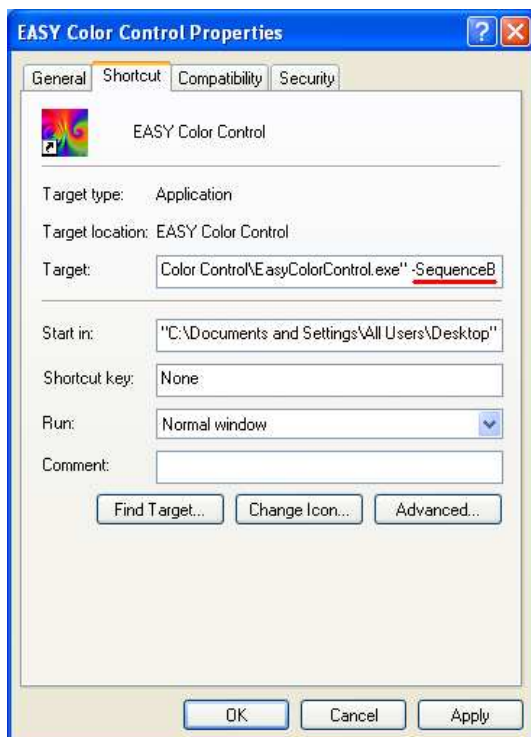


Figure 22: Command line entry

### Selection of a specific EASY USB adapter

If you connect several EASY USB adapters to the computer at the same time, every program start will set a connection to the next, not yet used adapter. This means that you can control several adapters at the same time by starting the program several times. By adding the serial number of the adapter via the command line parameter "-USBBoxNNNNNNNN" (N stands for the serial number) you can specify the connection between the EASY Color Control and an individual USB Adapter. To avoid a re entry of the serial number, it is recommended to copy the EASY Color Control Desktop link and generate a separate link for every adapter. Every link should contain the corresponding parameter information and should be labelled different. In front of the parameter you have to insert a blank as a separator.

### Automatic program operation after Windows start

Copy the EASY Color Control link into the "Autostart" folder of the Windows system and add the command line parameter "-Auto<Filename>". In front of the parameter you have to insert a blank as a separator.

## 12 Practical hints

### 1. Disconnection of the EASY control units

If a data transfer failure occurs (for example the USB connection is disconnected or the connection between USB adapter and the EASY system is interrupted), the EASY Color Control software will show an error message and will change from the online mode into the offline mode. Please close the EASY Color Control software and check the wiring. Afterwards start the software again. This is the only way to get into the online mode again.

### 2. Remote diagnostics for EASY Color Control installations

The data file types \*.esf and \*.epf are ASCII data files and can be displayed and edited in any text editor. In this way failed functions can be checked and may be corrected without the direct on site attendance.

### 3. Creating identical EASY systems

With the function "save" you can create an complete image of the system settings. Therefore it is possible to transfer all information with the \*.esf and \*.epf files and "duplicate" system configuration.

### 4. Change a sequence in an existing program

To change a sequence in a program you have to save the data file via "export". This data file can be reloaded, edited and saved via the tab sequence. The saved data file has to be inserted on the program tab instead of the original sequence into the program via "Insert".

## 13 Appendix

### EASY Color Control keyboard shortcuts:

- |                            |                  |
|----------------------------|------------------|
| • <Ctrl> + <Tab>           | Choose next tab  |
| • <Ctrl> + <Shift> + <Tab> | Choose last tab  |
| • <Ctrl> + <Q>             | Exit software    |
| • <Ctrl> + <I>             | Show information |
| • <Ctrl> + <Z>             | Undo changes     |
| • <Ctrl> + <Y>             | Redo changes     |
| • <Ctrl> + <C>             | Copy             |
| • <Ctrl> + <V>             | Paste            |

### EASY Color Control Commandline-Options (mind small and capital letters):

- |                          |  |
|--------------------------|--|
| • -Offline               | Software starts in the Offline-Mode                              |
| • -SequenceA             | Software controls sequence A                                     |
| • -SequenceB             | Software controls sequence B                                     |
| • -SequenceC             | Software controls sequence C                                     |
| • -SequenceD             | Software controls sequence D                                     |
| • -USBBox<Serial number> | Software connects with the correspondent USB Adapter             |
| • -Auto<Program name>    | Software starts with the corresponding program data file (*.epf) |