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1 Preliminary remarks

The handbook in hand is valid for both Net- and LightComposer. For simplification the functionality of a NetComposer is described here, the information is valid for both hardware components. The LightComposer works analogically, just some NetComposer features are not available at the LightComposer or in a smaller extent.

The differences between the two devices are summarised in the table below:

<table>
<thead>
<tr>
<th></th>
<th>NCR (Art.-Nr.: 98-404-0)</th>
<th>LCR (Art.-Nr.: 98-400-0)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controlling protocol</strong></td>
<td>2xDALI or 2xDMX or 1xDALI and 1xDMX</td>
<td>1xDALI or 1xDMX</td>
</tr>
<tr>
<td><strong>Communication interface</strong></td>
<td>Ethernet 10/100Mbit (RJ45)</td>
<td>Standard-USB 2.0-interface</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td>128 global/local light groups</td>
<td>16 local light groups</td>
</tr>
<tr>
<td><strong>Scenes</strong></td>
<td>128 global/local light scenes</td>
<td>16 local light scenes</td>
</tr>
<tr>
<td><strong>Sequences</strong></td>
<td>32 sequences with up to 128 steps</td>
<td>1 sequence with up to 128 steps</td>
</tr>
<tr>
<td><strong>Routing</strong></td>
<td>DMX-DALI-routing</td>
<td>-</td>
</tr>
<tr>
<td><strong>IP-Addressing (PC)</strong></td>
<td>IP-Address: 192:168:1:XXX</td>
<td>-</td>
</tr>
<tr>
<td><strong>Startup</strong></td>
<td>With storage at power blackout</td>
<td>-</td>
</tr>
<tr>
<td><strong>Operating software</strong></td>
<td>ComposerControl Software, LightingTabDesigner Software, LightingTab Software</td>
<td>ComposerControl Software</td>
</tr>
</tbody>
</table>
Preliminary remarks

This is the technical manual for the digital lighting controls system NetComposer. It gives you information about planning, installation and commissioning.

Chapter 3 gives you a first overview of applications and possibilities
Chapter 4 gives you information for system planning
Chapter 5 gives you information about configuration
Chapter 6 gives you information for further system changes and expansions.
Content

This manual refers to the following versions:

Manual version: 2.2.5
Date: 14.08.2012

The manual has been prepared under the supervision of the EUTRAC GmbH and published. All its technical details and product information is the most actual status before printing. The content of the operating the manual and the specifications of the system components are subject to change without notice.

EUTRAC GmbH reserves the right to make changes with respect to the technical data, information and software descriptions without prior notice.

Target group

This manual provides necessary information to all electricians, engineers and lighting designers who want to configure and start up a NetComposer – system.

It assumes basic knowledge and understanding of the involved people with the DALI / DMX / RDM handling.

Therefore this manual will not explain any basic knowledge about DALI / DMX and RDM. If you require more information please contact the EUTRAC sales staff.
2 Safety instructions

The following safety instructions make sure that you enjoy your NetComposer system for a long time. It protects you from general hazards during operation and eliminates possible dangers. Read these instructions carefully and observe all warnings. The operator must ensure that all system users have to follow these guidelines.

Device environment and climate conditions

All components
♦ are not for outdoor use, in wet areas, aggressive or explosive environment.
♦ must be protected against humidity (also condensation), direct sunlight, dust, smoke, fumes or strong vibrations
♦ are approved for ambient temperatures from 0°C (33°F) to max. 45°C (113°F)

Attention!
If the environmental conditions are not meet you will the complete warranty.

Do not open
There are no internal parts which require service, there is no reason to open any part of devices. If devices are opened you loose the warranty.

Danger!
Danger of electric shock if devices are opened!

Power supply with earth connection

Use EUTRAC power supplies with a PE connection for NetComposers V1.5. NetComposers V2.0 or higher have their own functional earth so you can use power supplies without PEs.

If you use DMX – never connect the PE with DMX GND

Working disconnected from the mains

Never add or disconnect any device, sensor or fixtures with the mains switched on. Make sure before you perform any kind of service work that electricity is switched off.

Attention!
If you do not pay attention to this, undefined malfunctions are possible. In worst case it can destroy the devices.

Danger!
Contact to electricity can be a risk to your life.
3 NetComposer System at a glance

Overview and proper use

The NetComposer-System is a digital lighting controls system for indoor use. Its main components are the NetComposer control device for the interconnection of the lighting fixtures and the Composer-Software for the configuration.

Suitable for:
Possible areas of use: administration buildings, museums, exhibitions, architecture, hotels, restaurants, shops and transport building such as airports, train stations and indoor parking garages.

Not suitable for:
The system is not suitable for emergency and security lighting; those have to be installed separately and according to the local regulations. It is also not suitable for outdoor use, damp spaces, aggressive or explosive environments. The NetComposer is also not designed for use in moving objects such as airplanes or boats which are crossing time zone during the operation.

Special features
NetComposer masters three digital control protocols: DALI, DMX und Wi-Fx (in preparation). Its special strength is the ability to configure lighting fixtures, groups or scenes continuous beyond the protocol limits using a unified program space. Up to each 128 groups and scenes are possible.

According to the system configuration up to 128 DALI-devices or 1024 DMX-channels are addressable per NetComposer. The system is expandable up to 254 NetComposer devices.

Device description
The NetComposer is a digital light control device with an integrated time program within a DIN rail housing for the sub-distribution board. Its operation and communication with/to the PC is carried out by a standard Ethernet 10/100Mbit net with RJ45 connector. The NetComposer is working with a 24VDC +/- 10% / 650mA voltage.

In an Ethernet net it is possible to control and command up to 254 NetComposer (Type 98-404-0) with or without a central PC as an operating device.

Each NetComposer controls (depending on the version) up to 2 communication connectors for lighting management. These are called „Port A“ and „Port B“. Each port operates at choice:

♦ one DALI line with up to 64 DALI participants like DALI fixture, LightMotionSensor, TrackLinkButtons and other devices according to the DALI-Standard (eDALI components are not compatible!).
♦ or: one DMX 512A system with complete 512-channel operation, in which the NetComposer works as master
♦ or: one DMX 512A system, in which the NetComposer works as slave and offers a possibility of routing to the on the other port connected DALI line.

Therefore it is possible to connect alternatively 1 x DALI or 1 x DMX or 2 x DALI or 2 x DMX or 1 x DALI + 1 x DMX on the NetComposer.
Software description

The Composer-Software is characterized by following features:

♦ Especially simple and intuitive operating field
♦ Operating modes: LIVE (only look), EDIT (editing with code key) and DMX-ROUTER
♦ Manual addressing of fixtures / New assignment of DALI addresses
♦ Each fixture / participant is individual connectable and / or dimmable
♦ Control colour graphically operable for standardized DALI ColourControl fixtures.
♦ Graphical operation for the movable DALI spotlights (OpticalControl)
♦ 128 global light groups (active on the total system), alternative: 128 local light groups each NetComposer
♦ 128 global light scenes (active on the total system), alternative: 128 local light scenes each NetComposer
♦ 32 sequences with up to 128 steps, of which 1 sequence could permanently be active
♦ Universal time program with up to 20 inputs by taking in count the geographical location
♦ Routing - table from DMX to DALI

DALI / DMX conformity

The NetComposer has been programmed according the present status of DALI and DMX standards.


Nevertheless incompatibilities between devices from different manufacturers can not be excluded. Therefore EUTRAC offers a service to check your electronic ballasts free of charge.

Advice

Components which work with an obsolete and not standardized eDali protocol are not compatible.

Compatibility with old DALI installations

When dimming by using the cross fading time („Fade time“) some perturbations like flicker or disconnecting could happen.

Corrective action: use new electronic ballasts according DALI standard status 06-2009 or avoid using the DALI cross fading time function.

Compatibility with EUTRAC DALI – LightComposer installations (up to 07/2010)

Standard fixtures, with LightDim and LightSwitch circuits, could be used without any restrictions.

All DALI accessories like LightMotionSensor, TrackLinkButton, TrackLink-Wireless and movable spotlights of Selux and RCL companies are to be replaced with new NetComposer accessories.

Disposal

Please dispose components which are out of use environmentally friendly and according to the guidelines in your country.
4 Design notes and installation guide

4.1 Working disconnected from the mains

This chapter provides information, required for the design and the installation of the NetComposer system hardware. The following topics will be discussed:

♦ Components of the NetComposer system
♦ Dimensioning of the power supply
♦ Number of maximum admissible devices connected to the lighting management system. While considering the characteristics of the DALI and DMX systems.
♦ Maximum cable lengths
♦ Safety rules for the cabling

It is recommended to work according following order.

Caution!

All steps described in this chapter must be done voltage free. Later modifications or expansions of the system are also to be executed voltage free. Only put the ready installed system under voltage when all necessary working steps are finished and in any case after having executed the system check according 4.6.

4.2 Build a system with one NetComposer

Overview
The NetComposer is the central device of the system, to which every thing is connected:

♦ The power supply for the whole system (s. page 10 „dimensioning and connection of the 24 V power supply“)
♦ Up to two lighting management systems of DALI and DMX type in any combination (s. page 10 „connect the lighting management system to the NC“). Wireless solution (Wi-Fx) in preparation.
♦ The PC for configuration, commissioning, survey and maintenance (s. page 12 „Connect NetComposer to a PC“)
24 V power supply dimensionning and connection

A power supply in the NetComposer system for a continuous voltage of $U_\text{c} = 24$ V is required to power the NetComposer and possible further devices such as switch actuators etc.

**Dimensioning**

How to dimension the power supply:
1. Add up the power consumption of all the devices which should be supplied with $U_\text{c} = 24$ V.
2. Choose a power supply which may deliver at least this intensity.

**Choosing a power supply**

Eutrac offers two different power supplies:
- Type 98-470-0 with max. 0.63 A for supplying one NetComposer
- Type 98-471-0 with max. 2.5 A for supplying up to 3 NetComposer.

**Caution!**

In case you use another manufacturer, pay attention to choose a power supply with an earth connection on the 230V side. A Power supply without earth connection is not allowed to be used.

**Connection**

How to connect the power supply:
1. Connect on the 24 V side the NetComposer(s) and possibly additional users with the power supply. The terminals on the NetComposer are marked „24VDC IN“. Take care to respect the polarity.
2. Connect the system to the 230 V side with N and PE; L is not allowed to be connected before all steps under 4.6 have not been executed successfully.

**Connect the lighting management system to the NC**

It is possible to connect two lighting management systems of DALI and DMX type in any combination to the NetComposer. Therefore there are two communication interfaces „Port A“ and „Port B“. Each one is due to different cable physics, carried out in double so that the NetComposer has 4 connectors „DMX A“, „DMX B“, „DALI A“ and „DALI B“ in total. In any case only one „A“ and one „B“ should be occupied.

**Possible connections**

Possible connections are:
1. „DALI A“ + „DALI B“
2. „DMX A“ + „DMX B“
3. „DMX A“ + „DALI B“ or „DALI A“ + „DMX B“

DALI devices should be only connected to „DALI A“ or „DALI B“, DMX devices to „DMX A“ or „DMX B“.
Option 1: NetComposer with two DALI lines

<table>
<thead>
<tr>
<th>NetComposer NCR</th>
<th>DALI Buswire 1</th>
<th>DALI Buswire 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2xDALI] [2xDMX]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[24 V] [LAN]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98-404-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Option 2: NetComposer with two DMX 512A universes

<table>
<thead>
<tr>
<th>NetComposer NCR</th>
<th>DMX Buswire 1</th>
<th>DMX Buswire 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2xDALI] [2xDMX]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[24 V] [LAN]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98-404-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Option 3: NetComposer with each one DALI line and one DMX 512A universe

<table>
<thead>
<tr>
<th>NetComposer NCR</th>
<th>DALI Buswire</th>
<th>DMX Buswire</th>
</tr>
</thead>
<tbody>
<tr>
<td>[2xDALI] [2xDMX]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[24 V] [LAN]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98-404-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Marking of the DALI connectors with „+“ and „-“ is only important when connecting polarity dependant DALI devices; there is no need to take care of these when connecting polarity independent DALI devices.

The polarity of the DMX connections need to be considered.

Non-authorized connections are:
♦ „DALI A“ + „DMX A“
♦ „DALI B“ + „DMX B“

Caution!
Never connect a DMX device to „DALI A“ or „DALI B“. This could cause a defect or even the destruction of the DMX device.

Installation examples and indications to DALI and DMX

Installation example 1 on page 10 shows a wiring with DALI; detailed indications for the installation of DALI lines s. 4.4.

Installation example 2 on page 10 shows a wiring with DMX; detailed indications for the installation of DMX systems s. 4.5.
Connect NetComposer to a PC

The connection between a PC and a NetComposer is essential for the system configuration, during the commissioning or for maintenance or survey purposes. There is no PC required during regular operation.

Crossover

The direct connection to the PC is done through an „Ethernet 10/100“ connector with a crossover cable, or alternatively with a patch cable with Crossover adaptor. The cable must have a RJ45 connector and according Cat-5.

1:1

As long as the PC net interface has an automatic detection and inversion of the terminal assignment (this is the case for the most of modern devices), it is possible to use 1:1 cable.

4.3 Building a system with multiple NetComposers

In larger systems it could be necessary to use several NetComposers. The two most important reasons are:

- It is possible to use more devices as with only one NetComposer.
- A function diversity is required, which could only be realized through the variation with local, global groups and scenes (see 5.13 and 5.14).

Max. 254 devices

It is possible to use up to 254 NetComposer devices in one system. Compared with a system with only one NetComposer, it has to be paid attention in particular to following things during the installation (please also see installation example 3 on page 11):

- Each NetComposer should be supplied with \( U_\text{ph} = 24 \text{ V} \). Use preferably in a net with several devices the EUTRAC power supply type 98-471-0 with max. 2,5 A for alimentation of up to 3 NetComposers in a sufficient quantity.
- The wiring of the NetComposers to the DALI and DMX systems has to be done as described in the previous chapter.
- The connection of the NetComposers between each other has to be realized exclusively on the Ethernet side with a hub or switch.
- The PC has to be connected to the hub/switch too.

All connections to the hub/switch have to done with a Patch cable Cat-5 or higher.

Caution!

Never connect DALI or DMX systems of several NetComposers between each other. Defect or even destruction of the devices could be the consequence.
Installation example 1:
NetComposer with EUTRAC DALI track, TrackLinkButton and LightMotionSensor

Installation example 2: NetComposer with DMX Moving Heads and Eventplayer
Installation example 3: System of several NetComposers

System with several NetComposers, simplified representation of the Ethernet side only, without power supply and connected DALI and DMX systems
4.4 **DALI set up**

**Maximum participant number**

The number of devices on a DALI line is limited through the following maximum values:

- 64 DALI addresses
- 200 mA total power consumption for all devices combined
- 16 TrackLinkButton TLB4/8 (each device: occupation of one DALI address, 10 mA power consumption)
- 16 LightMotionSensor (each 1 DALI address, 20 mA power consumption)

All maximum limits must not be exceeded. This should be made sure by calculation before set up, e.g. according following calculation example:

**Calculation example 1:**

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Number</th>
<th>Current (mA)</th>
<th>Total Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting fittings</td>
<td>50</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>TrackLinkButton</td>
<td>4</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>LightMotionSensor</td>
<td>2</td>
<td>20</td>
<td>40</td>
</tr>
</tbody>
</table>

Total: 56 DALI participants = 180 mA → OK / allowed

**Calculation example 2:**

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Number</th>
<th>Current (mA)</th>
<th>Total Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting fittings</td>
<td>60</td>
<td>2</td>
<td>120</td>
</tr>
<tr>
<td>TrackLinkButton</td>
<td>4</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>LightMotionSensor</td>
<td>1</td>
<td>20</td>
<td>20</td>
</tr>
</tbody>
</table>

Total: 65 DALI participants = 180 mA → Maximum number of DALI addresses exceeded!

**Calculation example 3:**

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Number</th>
<th>Current (mA)</th>
<th>Total Current (mA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lighting fittings</td>
<td>30</td>
<td>2</td>
<td>60</td>
</tr>
<tr>
<td>TrackLinkButton</td>
<td>2</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>LightMotionSensor</td>
<td>10</td>
<td>20</td>
<td>200</td>
</tr>
</tbody>
</table>

Total: 42 DALI participants = 280 mA → Max. intensity exceeded!

**Advice**

Please note that the DALI reaction time may be slowed down by data traffic when using many participants.

**Authorized cable materials and lengths**

**Cable material**

- The isolation of the signal leads must be the same as for mains voltage cable, because DALI is no SELV system.
- The conductor section (Cu) must be a minimum of 1.5 mm².
The signal conductors could be part of e.g. 5-core NYM mains cable: three cores are used for the mains voltage supply (L, N, PE) and the left two for the DALI signal.

Advice
It is recommended to use different isolation colours for the signal conductors. It will simplify the installation of polarity dependant devices (s. also “connect devices” in the next paragraph).

Danger!
Never use signal leads dimensioned for extra low voltage e.g. l-Y(St)Y or similar, because the DALI components are not according to the requirements for safety extra low voltage (SELV). Disregarding safety instructions such as touching live parts during a defect can result in danger for life.

Cable lengths
- The cable length between one participant and the NetComposer must not exceed 300m (ca. 1000ft).

This is determined by the authorized voltage drop, which cannot exceed 2 V on a DALI signal conductor. A wire section of 1.5 mm² and a maximum intensity of 200 mA equals the length of about 300m.

Caution!
Using insufficiently sized wire section and/or too big cable length could cause malfunctions or even lead to complete defect.

EUTRAC guarantees the function ability only for such DALI installations, which signal conductors are isolated from the mains voltage and carried out with a copper section of minimum 1.5 mm² and which have a maximal length of 300m to the furthest participant.

Connect devices
Many DALI devices can be connected at any polarity. In case you have to connect polarity dependant DALI devices (recognizable e.g. by the terminal marks “+” and “-“), you must conduct the signal conductors so terminals of the same polarity are always connected together. Observe to it also the marks on the NetComposers DALI terminals.
Connect TrackLinks

TrackLinks are push buttons interface which translate the action of usual push buttons in commands for the DALI system. Their power consumption from the DALI line is 10 mA. There are two versions:

- **TrackLinkButton TLB4** for assembly in flush mounted socket boxes with pre-assembled 0,25 m wiring for connection of up to four push buttons. It’s not allowed to extend the cables!

- **TrackLink-REG TLR8** in DIN rail housing for connection of up to eight push buttons (power consumption 10 mA).

  - The push button connection wires must not exceed 0,3m length, the wire section should be minimum 0,5 mm², and a shielded execution would be advantageous. A NYM cable with a 1,5 mm² wire section is recommended.
  - In an industrial environment the use of coupler relays is generally recommended to avoid or exclude EMC perturbations.

Location of the LightMotionSensors

Same as for all NetComposer system components, especially for the LightMotionSensors, is to note that they are designed for use in office environment. Therefore the sensors should not be used outdoors or in a dusty industrial environment.

LightMotionSensors offer **lighting management**, **automatic dimming** and **presence detection** functions. To allow their proper operation, following points should be taken care of during the installation process.

**Light sensor detection area**

The sensor must be placed so that the detection area of the day light sensor is free of perturbations:

- The measuring port of the day light cell must be directed towards the window surface.
- The detection area shouldn’t be covered through the shadow of furniture, support beams or pipes etc.
- Direct artificial light or direct sunshine should not fall on the sensor. Reflecting effects should be also avoided.

Direct the sensor towards another window in case all conditions above cannot be met. If this also is not possible malfunctions can occur.
To avoid perturbations in the detection area of the day light sensor

**Presence sensor detection area**

The presence sensor is directed towards the surface under the sensor. Movements in this area will be detected. It should be paid attention not to disturb the detection area by furniture or characteristics of the room geometry.

The parameterization of the LightMotionSensors will be explained under 5.19.

---

### 4.5 DMX system set up

**Maximum participants number**

A DMX system (also named DMX „universe”) has 512 addresses or channels at disposal. This is also the maximum number of participants.

The real number of participants could be much smaller. A single device can occupy several channels simultaneously in order to be able to address e.g. colour changes, spotlights movements or dimming functions independently from each other. You will have to find out by yourselves the details therefore to the channel assignments according to the manufacturer’s data.

**Wiring**

DMX requires the use of twisted and shielded two-wire cable with a characteristic impedance of 110 Ω. The shield has to be connected to DMX GND. Close the cable to each end (both ends) with a 120 Ω-resistor. The NetComposer has an end resistor already built in.

*Exception:* EUTRAC track system with data bus could be used for DMX operating up to max. 50m length. The track should be operated as a galvanically isolated universe. In this case the DMX GND will not be used. Only SELV devices should be used on the EUTRAC track system.

**Caution!**

DMX GND shall not be connected to the PE connection of a device housing or of a mains connection cable.

**Polarity**

The data transmission in a DMX system is polarity dependant. Pay attention to it during the installation and use a DMX cable tester to check the polarity.
4.6 System check before turning on

The following points have already been executed correctly if you have paid attention to the previous paragraphs. Still, for your safety and the safety of the devices check it one more time again.

Check all the cable connections to the NetComposer and especially to all devices; make sure that there is no connection between the mains and the other connections.

Caution!
DALI and DMX interfaces could be destroyed through an external voltage. Wrong connections could destroy the NetComposer as well as the devices! In case you are not sure contact qualified personnel.

♦ Make sure the PE-cable of the power supply is correctly connected.
♦ Make sure, when using polarity dependant devices, that the correct polarity has been kept.

4.7 First connection to mains voltage

Please prepare a multimeter for control measurements if you have installed a DALI line.

If the prescriptions of the previous paragraphs, especially 4.6, have been correctly carried out you can connect the system to the mains voltage.

If you have a DALI line, measure the voltage between both signal wires. It should be between $U_- = 16\, \text{V}$ and $U_- = 24\, \text{V}$. If this is not the case please disconnect immediately and eliminate the default.
5 System configuration with Composer

5.1 Overview

This chapter is about the NetComposer's system configuration with the „Composer“ set up program. The layout of this chapter follows the typical course of the configuration and discusses the following topics:

1 Proceed to the basic working steps, which have to be done before the proper configuration of lighting fittings, sensors, and operating elements (5.2 to 5.9):
   - Composer-software set up (5.2)
   - Ensuring the data exchange between NetComposer and PC (5.3)
   - Proceeding to the basic settings on the NetComposer (5.5)
   - Addressing the participants of the connected lighting management system (5.6 and 5.7)
   These steps are to be taken at the beginning of the system configuration. They are also required when the system structure is modified through device replacement or addition.

2 Set up the behaviour of a single or several lighting fittings together and try it at the PC (5.10 to 5.15):
   - Connection and dimming, colour control, adjusting the spotlights position (5.12)
   - Organizing lighting fittings into groups together (5.13)
   - Creating lighting scenes (5.14)
   - Running the scenes in sequences (5.15)

3 Specify the events which shall activate this fittings behaviour (5.16 to 5.19). Such events could be:
   - Manual operating of push buttons (5.17)
   - Switching time points (5.18)
   - Sensor signals (5.19)
5.2 Installation and first software start

Download
The Composer software works under Windows 7 and higher. The latest version is available for download under www.intelligentlighting.de. Alternatively please get in touch with the EUTRAC sales team or your Intelligent Lighting System Partner. Please use always the latest software to get the optimum efficiency of your EUTRAC NetComposer system. Therefore it is recommended to update the delivered software with the latest version on the internet first. Please always update your software in case there is a new version available.

Demonstration mode
It is possible to set up and start the software, regardless whether there is a NetComposer connected to your computer or not. In case there is no NetComposer connected, the software automatically starts the demonstration mode, where a lot of functionalities can be tested.

Setup and start
For the setup and the first program start please execute the following steps:

1. The software is delivered as a „setup.exe“ file. Download this file onto your computer in the directory at your choice.
2. Start the „setup.exe“ with a double click.
3. Follow the instructions.
4. Start the Composer software with a double click on „NetComposerControlSoftware.exe“
5. The „interface choice“ appears with all networks which are connected to the PC. Choose the network in where your NetComposer is located and „accept“ your choice. Choose „cancel“ if you are in the demonstration mode without NetComposer. A possible alarm from the program should be neglected with „next“.

„Step 1: search for Composer“

The dialogue box „Step 1 search for Composer“ appears on the screen: to search for available NetComposer:

![Image of the dialogue box](image)

This window always appears after the program start. The first line appears always even in demonstration mode. In the showed example a NetComposer named „any name“ is connected.

This dialogue box hides the program main window. This is only needed for the actual system configuration (s. 5.10).
Advice
„Step 1: search for Composer“ can be also opened later through „Composer“ > „settings“ if needed.
The first line is always available and shows e.g. the representation of NetComposer in this window.

♦ If the NetComposer is not connected,
the software runs automatically in demonstration mode. There are no further settings necessary.
1 Close the dialogue box.
2 Go on to 5.9 of this document.

♦ If at least one NetComposer is connected,
it will normally be detected and represented as a supplementary line in the window „Step 1“.
For this NetComposer and its connected devices you have to carry out further settings:
1 Enter an unequivocal „Address“ between 0 and 254.
2 Enter a „Name“. The further entries in this line are for information purposes and cannot be modified.
3 Work out the dialogue boxes you could open with the three buttons left down. These will be described in the following paragraphs.

5.3 IP-addressing for PC and NetComposer

To allow the data exchange between PC and NetComposer, it is necessary to assign matching IP-addresses on both side of each other.

Advice
If you have no or limited administrator rights on your Windows-PC, you may not be able to do the correct setting as described hereafter. Contact your system administrator.

IP-address setting on PC
The settings on PC depend on the way how the PC is connected with the NetComposer, see chapters 4.2 and 4.3.

♦ If NetComposer and PC are connected through a Crossover cable, you have to set a fixed value on the PC's IP-address.
♦ Open (could vary according to the Windows version, here represented for Win 7) „control panel“ > „network connections“ > „LAN-connections“ > „properties“ > „TCP/IP“. It appears
System configuration with Composer

1. Enter under „use following IP-address“ an appropriate IP-address.
2. Close the window with „Ok“.

♦ Is a DHCP-Server in the net
  (e.g. as Hub / Switch with this functionality between NetComposer and PC),
1. Choose the „get IP-address automatically“ option in the same window.
2. Close the window with „Ok“.

**IP-address setting on NetComposer**

To allow the communication between NetComposer and PC, you must assign an IP-address to the NetComposer, which match to the one of the PC.

1. The dialogue box „step 1: search for Composer“ is still open, if not open it with „Composer“ > „settings“.
   - Select in this window the line of the NC, which IP-address you want to set (in the picture on page 1 f. ex. the NC „any name“ is selected).
   - Click on „IP settings“.

The dialogue box shows up:

**Settings of IP-address on the NetComposer, the represented net contains only the NetComposer „any name“**

2. If the desired NetComposer do not show, „search for“ connected NetComposer. A line with following entries appears for each NetComposer found:
**IP**  Only as information: if an IP-address has already been assigned at a previous time to the NC, it will be represented here. This entry can't be modified.

**Name**  This is the name given in „step 1…“; it is possible to modified it.

**MAC**  Only as information: this is an unequivocal identifier given by the manufacturer and can't be modified by the user.

**New IP**  Give a new IP-address to the NC, which match with the one of the PC.

**Enter**  Enter the modifications.

3 Repeat the previous steps for each NetComposer in the net.

4 Close the dialogue box.

**Advice**
Unlike for the PC you must manually assign an IP-address for each NetComposer, an automatic IP-address delivery is not possible.
5.4 Network configuration with multiple NetComposers

The steps described in this chapter 5 are normally performed individually for each NetComposer of the network. To change from one NetComposer to the next during the configuration process, proceed like as follows:

1. Choose the NetComposer you want to configure out of the list from „step1…“,
2. Perform all configuration steps as described in this chapter.
3. Call again „step1…“ with „Composer“ >„settings“.
4. Choose the next NetComposer out of the list, which you want to configure.
5. Repeat these steps until the system is completely configured.

5.5 NetComposer settings

Open the dialogue box for settings:

1. The dialogue „step 1: search for Composer“ is still open if not, open it with „Composer“ >„settings“.
2. Click on the line of the NC, where you want to configure the settings.
3. Click on „settings“.

or

1. Choose with „Composer“ > (list of the connected NCs) the NC, where you want to modify the settings.
2. Click on „Composer“ > „settings“.

The following dialogue box should appear:
Settings for NetComposer

Grey highlighted fields are for information only and cannot be modified. Following settings can be performed in any order:

- **Name**
  This is the name given in „step 1…“; it is possible to modify it.

- **Firmware**
  If there is a more recent version available on [www.intelligentlighting.de](http://www.intelligentlighting.de) please download it onto your computer and update it with a click on „Update“. Alternatively you may send the device to EUTRAC for updating it.

- **Interfaces**
  Enter the information to which protocol systems the NetComposer is connected. In this example: Port A = DALI, Port B = DMX Master.

- **Return**
  - „Composer“ set the NetComposer back to its delivery status.
  - „DaliA“ or „DaliB“ set the connected DALI systems back to the delivery status.

- **Time**
  With a click on „synchronisation with PC clock“ the internal clock of the NetComposer takes over the time of the PC clock.

- **Localisation**
  Enter the geographical longitude and latitude of the NetComposer localisation. These data are necessary for entries in the time table. (s. 5.18).

- **Start-up**
  Define what the NetComposer has to do when the mains voltage comes back after supply interruption:
  - „Do nothing“ = everything stays disconnected
  - „Set level“ = turns all lighting fittings on the value entered under „Level“
  - „Last level“ = goes back to before interruption existing status
  - “Call scene“ = a pre-defined scene is called
  - “Sequence“ = a pre-defined sequence is called

- **Survey**
  Here are no settings necessary.
  - save all modifications with “apply” and close the dialogue box
  - discard with „cancel“ or by closing without „apply“.
5.6 DALI line addressing

Overview
All DALI line participants should be recognizable by an unequivocal address, these will be assigned during the setup. The address assignment with Composer is basically carried out by the following steps:

1. Composer automatically assigns an address to the connected DALI devices - regardless of their actual arrangement.
2. As far as the DALI participant shows its device type according to the standards, the Composer will recognize this type and display it.
3. The DALI addresses assignment to the real devices has to be manually retraced by the user. It is often possible simply with the showed devices types, if not the function „identify“ could help.
4. The automatically assigned addresses can be modified manually if necessary.

DALI addresses assignment
Open the dialogue box for DALI addressing:

1. The dialogue „step 1: search for Composer“ is still open, if not open it with „Composer“ > „settings“.
2. Click on „DALI addressing“.

or

♦ „Composer“ > „DALI addressing“.

The Following dialogue box appears:

![DALI addressing](image)

Address the DALI devices as follows:

1. „NetComposer“: choose the NetComposer or the DALI line which you want to address.
2. „Search for DALI devices“ delivers all already assigned DALI addresses after a short search and shows them in the matrix. Devices which still don’t have an address do not appear, this means that by the first configuration of a new system it probably don’t show any thing.
3. Choose with the options buttons, if „all DALI devices“ or „only DALI devices without address“ should be addressed.
Caution!
All functions relations in a DALI system („which push button affects which lighting fitting“ etc.) use the already assigned addresses. A new addressing with „all DALI devices“ of already addressed participants will most probably destroy the existing relations; in the worst case the DALI line should be configured again from the beginning. If in an existing system only new additional devices have to be addressed, then use in any case “only DALI devices without address“.

4 „start addressing“ assigns automatically addresses; the result will show up in the matrix right.

5 „enter devices in NC“ saves the address data in the NetComposer. Simultaneously the device types will be recognized. Then, when you move the cursor over an address the device type shows up:

Advice
the identification of the device type supposes that the concerned DALI participant deliver its type according to the DALI standard. This is the case of all DALI components of EUTRAC; for devices from other origin there could be different functionalities.

Advice
Using the X-DALI addressing several DALI-devices can be addressed to one single address.

Identify DALI participant
DALI addresses, which affiliation to real DALI devices is not clear, could be linked with the function „identify“:

1 Do in the matrix a right click on the address which you want to identify. It appears:

2 Click on „start identification“. The real device with this address reacts: lighting fittings e.g. turn on and off rhythmically; LightMotionSensors (from delivery date Nov. 2010) react with a blinking red signal LED.

Caution!
TrackLinks don’t react to „identify“, this means if several TrackLinks are used in a DALI line that it could be difficult to carry out the affiliation. In this case it is recommended to proceed as described on page 33.

3 End the „identify“ function with a double click on the address field in the matrix.

Advice
The mixing desk (s. page 37) does also offer the possibility to identify devices.
Delete or modify DALI addresses

The automatically assigned addresses could be deleted or modified later.

1. Do in the matrix a right click on the address which you want to delete or modify.

2. Click on „delete address“ or „modify address“ and choose the new address.

Advice

By address modification can’t appear address conflicts, as only addresses, which are not yet assigned, will be proposed.

Recommended installations steps for several TrackLinks on one DALI line

TrackLinks don’t react to „identify“. When several TrackLinks have to be installed in one DALI line, an unequivocal affiliation of addresses and devices will hardly be possible. An unequivocal affiliation will be nevertheless possible by following the steps hereafter:

1. Make sure that the, to be mounted, TrackLinks are not addressed. For devices ex-works this is the case; used devices with unclear addressing status must be reloaded to unaddressed status as follow:
   - Disconnect already on the DALI line installed devices from the NetComposer and connect only the devices which should be reloaded.
   - Execute in dialogue „settings“ (s. 5.5) „set back“ > „DaliA“ or „DaliB“.
   - Disconnect the now unaddressed devices again from the NetComposer.

2. Connect to the NetComposer only the DALI devices which react to „identify“ and execute if not already done addressing and identification as described on page 30.

3. Install one of the, to be mounted, TrackLinks.

4. Execute addressing with the option „only DALI devices without address“ as described. In the matrix appears a new address, which belongs unequivocally to the mounted TrackLink.

5. Repeat steps 2 till 4 for all other TrackLinks.
5.7 DMX addressing

All devices of a DMX system, which have been connected according to the assembly instructions, must be assigned an unequivocal address. DMX devices won’t be addressed by the Composer; their address should be normally adjusted on the device itself. For this please follow the respective manufacturer instructions.

RDM-addressing

RDM stands for Remote Device Management and allows a bidirectional communication between the device and the NetComposer. So failure and status signals of the controlled device can be sampled.

Connect the device to the NetComposer (see 4.5). When rebooting the system the RDM-channels should be identified and addressed automatically. The RDM-channels are indicated by the RDM sign. When pulling the mouse over a RDM-channel the manufacturer defined parameters are shown.

The RDM-channels can also be searched manually. Open the dialog window RDM addressing: “Composer” > “RDM-addressing”. Click the button “Search for DMX-RDM Devices” The following appears:
5.8 Finish settings

When all the dialogue boxes, which could be open under „step 1: search for Composer“ as described in 5.3 till 5.6, have been edited, you can finish the basically settings of the system by closing „step 1: search for Composer“.

You can now start with the proper configuration of the lighting management system according to 5.8.

5.9 Interrupt the system configuration and restart later

You can at any time interrupt the first system setting as well as all following described configuration steps of groups; scenes etc. and continue it at a later time.

It is not necessary to save the configuration status on the computer before interruption. All settings will be automatically saved in NetComposer internal memory. Only exception is the saving of the DALI devices information, that you have to carry out explicit as described in DALI address assignment paragraph 5 (page 32).

Interrupt settings/configuration

You can interrupt the configuration with following steps:

1. End Composer by closing the program window.
2. You can then disconnect the computer from the mains or turn it off.

Continue settings/configuration

You can continue the configuration with following steps:

1. Connect again the computer and the NetComposer together, as far as you had disconnected them earlier.
2. Start the Composer.
Advice
you can also continue the configuration on a different computer / or with another software as the one you had used before the interruption.

3 Click on „step 1: search for composer“,next”. It opens „step 2: choose reading mode “

4 Set in the list the check mark after the NC, which setting/configuration you want to continue.

5 Click on „next“. It opens „step 3: reading. Please wait“ and the memory of the selected NC will be read.

6 Click on „Ok“. All settings done before interruption are now available again; you can go on with the configuration.

5.10 Components of the user interface

The main window of the Composer look like follows:

Live, Edit, number formats

- In „Live“ mode you can control the fittings from the PC (s. 5.12). Activation with click on „Live“ in the menu bar; the activation will be showed by orange highlighting.
- In „Edit“ you can edit the groups and scenes, activation with password (s. 5.13 f). Here in the picture: active.
- Display number values at choice in the formats 0%…100% (,%“ automatically displayed), 00..FE, 0...254
5.11 Device types supported by Composer

Devices display in device window

In the Composer device window each address in the NetComposer system is represented individually. The type of the respective device is showed and possibly its present operating status. The number indicates always the address or the channel; the symbols will be explained hereafter.

DALI Leuchten

The address in this example is „62“. The dimming value (here: 37%) is showed as well as grey level in the circle as in the bar graph.

This type represents dimmable ballasts for fluorescent lamps.

DALI switch actuator

The representation form of switch actuators is the same as for „DALI fittings“. Here is however the entry or display of dimming value not significant: each from 0 different value is as turned on status to understand.

DALI ColourControl

Circle: display of light colour with consideration of light colour, saturation and brightness

Type = colour controlled fitting „ColourControl“

Bar graph: brightness display (here: 76%)

DALI OpticalControl

Circle: dimming value as grey level

Type = movable spotlight „Optical control“

Bar graph: dimming value display (here: 61%)

DALI TrackLink quadruple

Bar graph divided in 4 = the connection of 4 push buttons is possible; Type TrackLinkButton TLB4 (Type 98-420-0) for flush mounted socket boxes.

DALI TrackLink octuple

Bar graph divided in 8 = the connection of 8 push buttons is possible; Type TrackLink-REG TLR8 (Type 98-425-0) in DIN rail housing.

DALI presence sensor

Dalil light sensor

One channel DMX

The to the DMX channel sent values will be visualized in Composer as dimming values; but in depend on the concerned device how the values should be interpreted. Please see to this the respective manufacturer’s instructions.
5.12 Operating fixtures in „Live“ mode from the PC

You can operate each single device with Composer from the PC. This function is less conceived for the usual operating as for the parameterization during the set up, the function tests and configuration modifications.

♦ Activate the operation function with click on „Live“ in the menu bar, it is then highlighted in orange. Depending on the fixture type you can then execute following actions:

Connection and dimming of single fixture with the mixing desk

This function is available for all fixtures.

1. Open the mixing desk by following actions:
   - Do a right click in the device window on the symbol of the desired fixture, click then in popup on „mixing desk“:
     - Select the desired fixture with click of its symbol in device window and execute „functions“ > „mixing desk“.
     - Select the desired fixture with click of it’s symbol in device window and click in the left function bar on “mixing desk”

The mixing desk appears:
2 Set the connection/dimming status of the fixture as wished.
3 Close the mixing desk.

The modifications of the connection status / brightness will then be showed by the fixture symbol as described in 5.11.

Connection and dimming of several fixtures simultaneous with the mixing desk

For the setting of several fixtures together, open the mixing desk like this:

1 Select in the device window several fixture one after the other by click on them. The choice can extend to fixtures in the both to the NetComposer connected systems. If necessary change with the system choice display in the device window.
2 Call the „mixing desk“ up preferably with „functions“ > „mixing desk“ or with the left function bar > „mixing desk“.

or
1 Select a fixture and open the mixing desk as described in the previous paragraph
2 Add by mixing desk open supplementary fixtures

The mixing desk appears and looks for example like that:

Display of fixture name
preset is the information of system, port and address; in this example: DALI system on Port A, Address 62. The name can be modified.

Dimming
as far as the fixture is equipped for dimming; if not any value other than zero is considered as turned on.

On / Off
move between 100% and 0%

Advice
by DMX fixture the values could be possibly interpreted differently. Please see manufacturer instructions.

Identification
The fixture to be identified is blinking rhythmically. By DALI participants is this identical to the on page 26 presented function: fixtures turn on, LightMotion-Sensors blink with the red signal LED. For the identification of TrackLinks please see page 26.
System configuration with Composer

Mixing desk with several selected fixtures and supplementary „choice“ controller for the common connection and dimming all selected fixtures:

The mixing desk shows the single controller for all selected fixtures and on the left a supplementary controller which influences all fixtures in the same way:

3 Set with the left „choice“ controller the dimming value for all selected fixtures.
4 Modify if necessary the individual brightness with the single controllers.
5 Close the mixing desk.

Connection and dimming of groups with the mixing desk

If a selection of fixtures has been assembled to a group (5.13), it is possible to control them similar as in the previous paragraph:

1 Open the mixing desk for the group with one of the following actions:
   - Right click on the group number
   - Select the group and execute „functions“ > „mixing desk“.
   - Select the group and click on the left functions bar on “mixing desk”.

   The mixing desk appears.

2 Set with the left, now with „Group<Nr>“ designed, controller the same dimming value for all group members.

3 Modify if necessary the individual brightness with the single controllers.

4 Close the mixing desk.

Advice

a multiple selection of groups is not possible. To influence several groups, you’ll have to repeat the previous steps successively for each group.
Modify the light colour of single fixture with the colour control

This function is available for fixture type DALI ColourControl. The example shows the modification of the value known of 5.11:

1. Open the dialogue box for colour control with one of the following actions:
   - Right click on the fixture symbol in device window, the in popup click on „colour control“.
   - Select the fixture and carry out „functions“ > „colour control“.
   - Do a double click on the fixture symbol.

   ![Colour control dialogue box]

   - Select the fixture and carry out „functions“ > „colour control“.
   - Do a double click on the fixture symbol.

   The colour control appears:

   - **Cancel**
   - **Enter modifications**
   - **New colour on top, old colour on bottom**
   - **Colour selector**
   - **Colour saturation**
   - **Brightness**

2. Carry out all desired modifications.
3. Close the colour control.

The fixture symbol in device window takes the new values for colour, saturation and brightness over (here: new colour = orange, brightness 50%):
Modify simultaneously the light colour of several fixtures with the colour control

Occasionally it could be useful, to influence the colour of several fixtures simultaneously.

It gives reasonable results only when the colour control of all fixtures operates in the same way. Surprising results could occur e.g. when the colour of DALI and DMX fixtures should be controlled simultaneously. The reason is the different using of addresses for the colour control in the different systems. It is recommended to carry out the colour control for DALI and DMX fixtures separately.

1. Select several fixtures/channels one after the other by click on them.
2. Assign a suit colour to each chosen channel. It must be the same colours (in the example below all three channels are red).
3. Call the „colour control“ up preferably with „functions“ > „colour control“.

The colour control open with on the top part the display of supplementary elements for choice of fixtures / colour channels:

![Colour control with supplementary choice of fixtures / colour channels (extract)](image)

4. Make all further settings as described for a single fixture in the previous paragraph.
5. Close the colour control.

Should the fixtures, in doing so as above described, react in a strange way, so please carry out the colour control for each single fixture after the other as described in the previous paragraph.
Spatial orientation of a DALI spotlight with the optical control

This function is available for fixtures of type DALI OpticalControl.

Caution!
Before moving real fixtures with this function, make sure that the movement space of the fixture is free, to avoid collisions.

1 Open the dialogue box for optical control with one of the following actions:
   - Right click in device window on the fixture symbol, then in popup click on „optical control“.
   - Do a double click on the symbol of the desired fixture.

The optical control appears:

2 Carry out all desired modifications.
3 Close the optical control.

Unlike to the colour control the fixture symbol in device window doesn’t show the modifications of the spatial orientation.
5.13 Configure fixtures groups

A group is a set of fixtures, which will react together and simultaneously to connection and dimming orders. Application case is f. ex. an office, which should be uniformly lighted with a single press on a push button by several fixtures at the same brightness. In NetComposer system are possible 128 groups maximum. A group can contain at the same time DALI, DMX and WiFx fixtures in any combination. A fixture can simultaneously belong to any number of groups.

Advice
You can set in one group only fixtures but no TrackLinks or sensor. Which TrackLinks and sensors influence which fixtures groups will be define at another place see 5.17 for TrackLinks and 5.19 for sensors.

Activate Edit mode
The groups’ edition is a powerful function; careless configuration modifications could heavily limit the proper functioning of a lighting management installation or even make it totally useless. Therefore are the following described possibilities only accessible in edit mode.

1 Activate the edit mode by click on „Edit“ in the menu bar. A window to enter the password appears.

2 Enter following password: admin and close the entry with apply.

The edit mode is now activated, visible through the orange highlighting of „Edit“ in the menu bar.

It is recommended, when the configuration works have been completed, to deactivate the edit mode by click on „Edit“.

Create new groups
You can create a new group as follows:

1 Select successively all fixtures you want to set to a group. The choice of fixtures can be done within both to the NetComposer connected systems. If necessary change with the system choice display in the device window.

2 Click in the groups’ window the desired group number and hold the mouse-button down till the field under the cursor changes its colour.

The group is now adjusted; the group number is displayed in white. If you move the cursor over the group number a list of the group members will appear:
Display of group members by mouse over on the group number.

**Advice**

should you have assigned to several NetComposers groups the same group number, so could they react together under this group number as „global group“ see therefore the paragraph „Local“ and „Global“ on page 45.

**Work on the composition of an existing group**

You can work on the composition of an existing group as follows:

1. Click on the number of the group you want to work on. In the device window all group members appears selected.

2. Modify if necessary the fixture choice. You can as well select new fixtures as cancel already selected fixtures.

3. Enter the modifications by click and hold on down over the group number till the field under the cursor change its colour.

The modified setting is saved. If you move the cursor over the group number the modified list of the group members will appear.

**Cancel groups**

1. Make sure that all over the system no fixture is selected. The easiest way is to click on „none“ in the selection bar.

2. In the groups window click and hold on down over the group number you want to cancel till the field under the cursor change its colour.

The group is now cancelled. Its number will be displayed in grey again.

**Connection and dimming of groups**

Groups could be turn on / off and dimmed by following actions:

- Manual from PC with the mixing desk (s. 5.12)
- With TrackLinks (s. 5.17)
- With time table (s. 5.18)
- With sensors (s. 5.19)
Work with the groups table

The groups table is an alternative possibility to set groups and work on these. You can use it in any combination with the other working steps to group edition.

1. Open the groups table with one of the following actions:
   - Carry out „functions“ > „groups table“
   - Click in the right functions bar on „groups table“

A screen of tables appears which display the 128 groups in lines and all available devices in columns:

2. Assign a device to a group in the groups table, by click in the corresponding table field. For each completed assignment a „X“ appears in the table. If you click again the „X“ will be cancelled.
   - Groups which line contains at least one „X“, are automatically considered as adjusted
   - Groups which line contains no „X“, are automatically considered as not adjusted or cancelled

3. Enter or cancel the modifications.
   - When you are satisfied with the assignments or modifications you can save these with „apply“.  
   - If you are not satisfied you can cancel with „set back“. Herewith the last saved status will be restored. It is either the status after the last “apply” or if, nothing as been ever saved, the status in which the table has been open.

4. Close the table. As far as you haven’t yet with a click on „apply“ saved, a dialogue box will ask you for it.

In the groups window the number of all groups, which contains at least one fixture, appears in white. When you move the cursor over such a group number, a list of all groups’ members will be displayed.
5.14 **Configure light scenes**

A **scene** is a set of fixtures, which depending on the type could present all different dimming value, colour setting and spotlight position. Scenes serve to offer the to the situation appropriate lighting atmosphere in rooms with variable uses. In NetComposer system are possible maximum 128 scenes. One scene can at the same time contain DALI, DMX, later also Wi-Fx fixtures in any combination. A fixture could belong to any number of scenes.

**Advice**

You can set in one scene only fixtures but no TrackLinks or sensor. Which TrackLinks and sensors influence which scenes will be define at another place see 5.17 for TrackLinks and 5.19 for sensors.

**Activate edit mode**

All following described possibilities of scene edition are only accessible in edit mode. To activate the edit mode proceed as described on page 37.

**Configure a new scene**

1. Edit all fixtures, which should be adjusted to a scene, till their setting for brightness, colour or position correspond to your ideas. The working steps therefore are described in 5.12.
2. Make sure that all fixtures which should be adjusted to a scene are selected in the device window.
3. Click in the scene window on the desired scene number and hold the mouse button down till the field under the cursor changes its colour.

The scene is now adjusted; its number will be displayed in black in the scene window. When you move the cursor over the scene number, a list of all scene members with their dimming value will be displayed:

*Display of the scene members with their dimming value by mouseover on the scene number*
Advice

should you have assigned to several NetComposers scenes the same scene number, so could they react together under this scene number as „global scene“ see therefore the paragraph „Local“ and „Global“ on page 45.

Work on an existing scene

1  Click on the scene number, which should be edited. In the device window all scene members appears selected.

2  Make the modifications if necessary: you can modify the settings of the available scene members, you can by selecting or cancelling add or cancel fixtures.

3  Save the modifications by click on the scene number and hold the mouse button down till the field under the cursor changes its colour.

The scene is now adjusted; its number will be displayed in black in the scene window. When you move the cursor over the scene number, a list of all scene members with their dimming value will be displayed.

Cancel a scene

1  Make sure that all over the system no fixture is selected. The easiest way is to click on „none“ in the selection bar.

2  In the scenes window click and hold down over the scene number you want to cancel till the field under the cursor change its colour.

The scene is now cancelled. Its number will be displayed in grey again.

Call up scenes

You can call up scenes in the following way:

♦  Manual from PC: click in the scenes window on the scene number and the scene is adjusted.

♦  As part of sequences (s. 5.15)

♦  WithTrackLinks (s. 5.17)

♦  With a time table (s. 5.18)

♦  With sensors (s. 5.19)
The scenes table is an alternative possibility to work on the scene affiliation of fixtures and their dimming values. Colour and optical control are not possible in the scenes table; it works only as described in 5.12. You can combine the scenes table with any of the other steps of the scene edition.

1. Open the scenes table with one of the following actions:
   - Carry out „functions“ > „scenes table“.
   - Click in the right functions bar on „scenes table“

It appears a full screen table, which display 128 scenes in lines and all available devices in columns:

2. As far as you have already defined groups (s. 5.13), you can with „Filter“ limit the display to the members of groups you have chosen.

3. In the scenes table assign devices to scenes by filling the corresponding table fields. Admissible are whole numbers entries in the range of the adjusted number format (s. 5.10), any different value will be ignored.
   - Scenes, which line contains at least one entry (incl. zero) will be automatically considered as adjusted.
   - Scenes, which line contains no entry will be automatically considered as not adjusted or cancelled.

4. Enter or cancel the modifications.
   - When you are satisfied with the assignments or modifications you can save these with „apply“.
   - If you are not satisfied you can cancel with „set back“. Herewith the last saved status will be restored. It is either the status after the last “apply” or if, nothing as been ever saved, the status in which the table has been open.

5. Close the table. As far as you haven’t yet with a click on „apply“ saved, a dialogue box will ask you for it.
5.15 Configure sequences

A sequence is a chronological succession of scenes. The duration of the single scenes and the cross fading time between the scenes could be adjusted individually. The precondition, for the following work steps, is that at least one scene has been previously adjusted (s. 5.14).

Set a new sequence or work on an existing sequence

1. Open the „sequence“ dialogue box with one of the following actions:
   - Carry out „functions“ > „sequence“
   - Click in the right functions bar on „sequence“

It appears:

![The dialogue box „sequence“ (extract)](image)

2. Choose in the dropdown field „sequence“ the sequence you want to set or to edit.

3. Give if necessary a „name“ at free choice.

4. Push the button „Add“ and choose thesuiting action.

5. Set the sequence with the displayed actions. Indicate respective the „scene“ and possibly the „group“, enter under „duration“ how long the action shall last and choose the duration of the crossfading („Fade time“).
   - „global scene“ influence all over the system the scenes with the same number for all NetComposers,
   - „local scene“ only the scene on the same NetComposer on which the sequence has been adjusted, see also the paragraph „Local“ and „Global“ on page 45.

6. If you wish to repeat endless the sequence without interruption, set a check mark by „repeat“.

7. Save the modifications with "apply" and close or discard with „cancel“ (down right in window, not represented here).
Cancel a sequence partly or totally

You can cancel a sequence partly or totally this way:
1. Open the „sequence“ dialogue box as described in the previous paragraph.
2. Choose in the dropdown field „sequence“ the sequence you want to cancel partly or totally.
3. Cancel optionally one single step or the whole sequence:
   • You can cancel one single step of the sequence, by selecting it with a click in the left grey column and press on your PC the key “del”.
   • You can cancel a whole sequence, by click on “cancel”.
4. „enter“ the cancel action or decide to „cancel“ as described in the previous paragraph.

Let run a sequence

You can start or stop sequences that way:
♦ In dialogue box „sequence“ with „start“ or „stop“
♦ With TrackLinks (s. 5.17)
♦ With time table (s. 5.18)
♦ With sensors (s. 5.19)
5.16 Dropdown “action“ for TrackLinks, time table, sensors and LogicLinks

The operation of push buttons or the arrival to predefined switching times should initiate actions like fixtures connection or sequences start. The actions are proposed for choice in the same way for TrackLinks, time table, sensors or also for LogicLinks in the dropdown field „action“. When an action has been chosen and you have exited the dropdown field, the setting options are proposed right of the field.

The dropdown field „action“ with all setting possibilities. This form is identical for the dialogue boxes „TrackLinks“, „time table“, sensors („LMS“) and „LogicLinks“

Caution!
The Composer does not make a plausibility check of the entries for the following presented actions. It won’t be checked if the addressed devices, groups, scenes or DALI lines exist or are already adjusted. It will not be checked whether the device it is a fixture or something else and whether the desired actions could even be carried out. This check should be done manually by the user to avoid malfunctions.

„Local“ and „Global“

„Local“ or „global“ groups or scenes have been often mentioned. Below you will find a short explanation:

♦ Whether a TrackLink actuation, a switching time in a time table or a sensor signal initiate a local action, the action only influences devices which are connected to the same NetComposer as the triggering TrackLink, sensor or time table. Devices which are connected to another NetComposer do not react even if they have the same group or scene number.

♦ A global action always affects all devices all over the system, which belong to the called up group or scene.

The differentiation between „local“ and „global“ is not relevant if there is only one NetComposer in the system.
**System configuration with Composer**

**Defined actions**
Following actions are defined:

**Do nothing**

**Call a scene**
A certain / preprogrammed scene is called.
Chose the NetComposer (0 – 254) which shall be called. When choosing „255 – Broadcast” all connected NetComposer are chosen and called. The call of a scene can be limited to the members of a group. Chose the group (1 - 128). Also all devices (0 – all devices) can be chosen for the scene replay. Chose the scene to be played (1 - 128). The cross fading time (0 s - 90.5 s) allows you to configure the timing changeover from the last state and the called scene. When no cross fading time is desired please chose 0 s.

**Device level**
A desired level / dimming value is set to a certain device.
Chose the NetComposer (0 – 254, or 255 - Broadcast) to which the controllable device is connected to. Chose the controlling protocol and the port to which the device is set to (DALI A, DALI B, DMX A or DMX B). Chose the device address which shall be controlled. Set the desired level (0 - 100) and chose the cross fading time until this value is reached.

**Group level**
A group level works similar to the device level. The difference is that the desired level is set to a predefined group of devices. Setting the parameter works analogical. The group level enables you to set the desired level on all devices (0 – all devices).

**Dimm the device**
A fitting is dimmed.
Chose the NetComposer (0 – 254, or 255 - Broadcast), the controlling protocol and the port (DALI A, DALI B, DMX A or DMX B) as well as the address of the device to be dimmed (1 – 64 for DALI or 1 – 254 for DMX). Chose the dimming direction (do nothing, darker or brighter). The dimming tempo can be determined (min. Step 1 – slowly … max. Step 64 – fast).

**Dimm the group**
A group of fittings is dimmed.
Setting the parameter works analogical to “Dimm the device”. “Dimm the group” enables you to dim all devices simultaneously (0 – all devices).
**Dimm the Composer**

All channels of the NetComposer are dimmed simultaneously.
Chose the NetComposer (0 – 254, or 255 - Broadcast) and the dimming state (do nothing, darker or brighter). Chose the port to be dimmed (Port A, Port B or Port A+B).

**Sequence**

A certain sequence is called or stopped.
Insert the number of the NetComposer (0 – 254 or 255 - Broadcast) on which the sequence is stored as well as the sequence number (1 – 32). Chose an execution state (start/stop).

**LMS**

The LightMotionSensor is controlled.
Chose the NetComposer (0 – 254, or 255 - Broadcast) on which the sensor is located and chose the group which shall be controlled by LMS (1 – 128 or 0 – all devices). Insert the Dali address of the sensor (A1 – A64). Insert the detection state of the sensor (off, presence, light controlling, light & presence). Chose the action to be taken by the sensor (do nothing, call a scene, group level). Chose the scene or group which shall be activated by the sensor (scene 1 – 128 or group 1 – 128 or 0 – all devices). At the group level you also define the level (0 - 100).

**All on/off**

All existing channels are switched on or off.
Chose the NetComposer (0 – 254, or 255 - Broadcast) and the belonging action (on or off). Define the cross fading time (0 s – 90,5 s). When the luminaire is not dimmable it remains on or off. Until the cross fading time is over. This can be interpreted as a disfunction!

**Eco mode**

The relay connected to the NetComposer (and so the connected luminaire) are switched on or off.
Chose the NetComposer (0 – 254, or 255 - Broadcast) and the belonging action (on or off). With the Eco mode you bypass the stand-by mode of the devices connected to the relay. So electrical power can be saved.

**LMS settings**

LMS-settings refer only to the values of a constant light control.
The “Upper High”-value is dimmed down to the “Upper Low”-value and the “Lower Low”-value is dimmed up to the “Lower High”-value (see 5.19, constant light control). Chose the Dali address (A1 – A64 oder B1 – B64) of the sensor.
5.17 Manual operation with TrackLinks

The NetComposer system can be operated with conventional push buttons which have to be connected in the DALI line with TrackLinks. In the dialogue box „TrackLinks“ you define, how the press on the button will be transcribed in the actions described in 5.16:

1. Open the dialogue box „TrackLinks“ with one of the following actions:
   - Right click in the devices window on the TrackLink symbol, click then in popup on „TrackLink“.
   - Carry out a double click on the TrackLink symbol.

The dialogue box „TrackLinks“ appears:

![Dialogue box TrackLink for the settings of a TrackLink](image1.png)

Edit each working step - preferably in the following order:

2. For each push button input there is a tab, depending on the device type there are 4 or 8. Choose the input you want to configure by clicking on the corresponding tab.

3. Choose each one „type“:

![Type options for TrackLink](image2.png)

Depending on the type the possible states, to which the TrackLink react to a push button press, differ. The following options are possible:

**Single press**
- A press on the button initiates the „pressed“ status. The duration of the button press and the button release will not be evaluated and do not have any effect.
**Toggle**  
Same as „single press“, but two alternating statuses will be initiated.

**2xon, 1xoff**  
Same as „single press“, but three alternating statuses will be initiated.  
Unlike the name suggest, any action can be coupled to the three statuses, it does not need to be an extinction order.

**Edge alternation**  
In the instant of the button press the status „pressed“ will be initiated, and in the instant of the button release the status “released“. During the status “pressed” you can insert the repeating time (see below).

**Short/long press**  
There are four statuses „short pressed“, „short released“, „long pressed“ and „long released“, which could be coupled each with one action. The simultaneous allocation of „short pressed“ and „short released“ is not recommended, since only the instant of release „short pressed“ could be detected and as „short released“ understood so could „short pressed“ and „short released“ occur simultaneously.  
„Long pressed“ is especially appropriate for the dimming functions. In field „2nd delay time“ above the list you can define when a „short“ event becomes a „long“ one.

4 Choose for each status an action in the dropdown field aside as described in 5.16.

5 Repeat the previous steps if necessary for each connected push button.

6 „Apply“ the modifications or discard with „cancel“.

**Debounce time**  
Depending on the type the following time specification can be made:  
This is the preset time in which a push button needs to be hold so that the signal is identified by the NetComposer. The debounce time can be set between 0 and 0,255 seconds.

**Repeating time**  
The repeating time indicates the time between the single callings of the „action during long pressed“. (This is executed as long as the push button is hold, or the contact is closed.) The repeating time can be set between 0 and 65,535 seconds. Example: type: short/long pressed, repeating time 0.1 s, action during long pressed: dim device, brighter. The button is pushed, after every 0.1 second the luminaire gets brighter until 100% is reached. The repeating time in this case assigns the speed of dimming.

**Delay time**  
The delay time is valid for “short/long pushing“. It defines when a “short” becomes a “long” incident.
5.18 **Time controled actions**

In NetComposer system it is possible to enter in a time table which actions should be activated at which time. Besides fixed time points it is possible to enter times which are related to the current sunrise or sundown. Condition for this is that the correct and complete „settings“ of longitude and latitude have been done (see 5.5).

**Caution!**

If the location of the NetComposer system is mobile, f. ex. a boat, the switching time function should be waived. The location modification and especially the crossing of time zones won’t be automatically detected. The consequence could be to the current location non appropriate switching times.

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**Set and edit entries in the time table**

You can set a time table or edit it later that way:

1. Open the dialogue box „time table“ with one of the following actions:
   - Carry out „functions“ > „time table“.
   - Click in the right functions bar on „time table“.

The dialogue box „time table“ for all the defined switching times over the whole system appears:

![Time table](image)

*Time table (extract); the not represented part contains the action settings described in 5.16*

The time entries in „Time/Offset“ have always to be done in format hh:mm:ss. The hour entry is a must; the minutes and seconds are optional.
2 Push the button “Add” to choose between the following types of switching time:

- **Time**: Enter the time of the switching time in the aside field „Time/Offset“.
- **Sunrise**: Switching time is the current sunrise at the location of the NetComposer system.
- **Sundown**: Switching time is the current sundown at the location of the NetComposer system.
- **After sundown**: Switching time is at an adjustable time difference after the current sundown at the location of the NetComposer system. Enter the time difference in field „Time/Offset“.
- **After sunrise**: Switching time is at an adjustable time difference after the current sunrise at the location of the NetComposer system. Enter the time difference in field „Time/Offset“.
- **Before sundown**: Switching time is at an adjustable time difference before the current sundown at the location of the NetComposer system. Enter the time difference in field „Time/Offset“.
- **Before sunrise**: Switching time is at an adjustable time difference before the current sunrise at the location of the NetComposer system. Enter the time difference in field „Time/Offset“.

3 Tick in the boxes for M(onday) till S(unday) for the week days, at which the switching times should be carried out.

4 Choose to each switching time in the dropdown field aside one „action“. The actions and the right aside setting possibilities are described in 5.16.

5 „apply“ the modifications in time table or discard with „cancel“.

**Advice**

„type“ and „action“ to an entry could be modified any time later.

**Cancel an entry in time table**

1 Open the dialogue box „time table“ as described in the previous paragraph.

2 Select the switching time you want to cancel by click in the total left grey column and cancel with the „del“ key on your PC.

3 „enter“ the modifications in time table by click on „Ok“ or discard by click on „cancel“ by closing.
5.19 **LightMotionSensor (LMS)**

Please consider the installation instructions from page 14 on.

**Application ranges**
The LightMotionSensor is a combined light sensor and presence sensor to be connected in a DALI line. Its functioning depend on the correct setting numerous parameters.

**Relative lighting regulation**
With the LightMotionSensors a relative lighting regulation or a relative lighting dimming can be carried out. Lighting levels can be equalised relatively to the, during the setup adjusted, digital values with a luxmeter (not included in the delivery). For the parameterization of a lighting control the edition of the following described tabs „DALI devices“ or „DALI group“ and then „lighting regulation“, alternative „lighting dimming“ have to be done.

**Advice**
The possibilities of the lighting regulation functions in NetComposer system are very complex. Hereafter some number values will be given which are appropriate for many situations, but possibly not for your specific application. For professional applications (f. ex. museums, offices, etc.) we therefore do recommend, to let conceive the optimum configuration by a lighting designer. We also recommend having the installation be done by an Intelligent Lighting Partner company.

**Caution!**
If an installation has an unexpected behaviour it is probably the results of an inappropriate choose of parameters, whereby the relationship between behaviour and the choice of parameters may not be immediately visible. Especially in such cases we do recommend to let carry out the installation of the light and presence sensors by appropriate qualified personnel.

**Alternative sensor type**
The LightMotionSensor is not designed for precise, absolute and spectral differentiated lighting control (f. ex. for museums). Please use in such cases the EUTRAC LightSpectrum Sensor.

LightSpectrum Sensors will be individually adapted to your project with visualisation software.

When required please contact your sales partner or direct EUTRAC.
Open the dialogue box „LMS“ with one of the following actions:

- Right click in the device window on one sensor symbol, and then in popup on „LMS“.
- Carry out a double click on one sensor symbol.

The dialogue box „LMS“ appears. When all settings in this dialogue are finished „apply“ the modifications or discard with „cancel“.

**General settings**

On the tabs described in the following paragraphs are some of the general setting possibilities, which become completely visible when you tick „extended options“:

**Current status**

Choose the current operating mode of the LMS. Four modes are available: either no sensor, only presence sensor, only light sensor or both together in operation.

**Start status**

Choice of operating mode after connection or by mains voltage return. Also four modes are available.

**Measuring cycle**

Interval between two measures. Set f. ex. 100 ms; it is a typical value appropriate for normal office surrounding.

**Measuring values**

The light sensor obtains its measuring values of an average of single measures. Enter here the number of measures with which it will be calculate. A typical value is 16.

**Sensitivity**

Sensor sensitivity: Four steps of light sensitivity are available: 1, 4, 16 and 64, where 1 is not sensitive and 64 is very sensitive. Typical for office situation is the value 1.

**Measuring time**

Time of a single measure. Time of measure can be chosen between 12, 100 and 400 milliseconds.

**Advice**

Sensitivity and measuring time do have the biggest impact on the measurement values of the light sensitivity.
**DALI devices**  
Unlike the actions of the TrackLinks, time table or the presence function of LMS which are effective all over the system, the functions „lighting regulation“ and „light dimming“ affect only fixtures which are connected to the same DALI line as the LightMotionSensor. Thereby the DALI group number for the functions and the DALI fixtures has to correspond.

Therefore each DALI fixture, which has to be involved with a lighting regulation or a light dimming, should be affiliated to one of the 16 possible DALI groups. This should be done in the „DALI devices“ tab and/or in the hereafter described „DALI groups“ tab.

**Advice:**  
the „DALI groups“ according to the DALI standard should not be confounded with 128 cross-protocol “groups“ of the NetComposer system! „DALI groups“ in the sense of the standard will be always designed in this document that way and not differently.

The affiliation of DALI devices and DALI groups will be carried out as follows:

- Select a device and then the DALI group to which it should belong. The group affiliation will be displayed by the dark coloured group number. It is only possible to select one device at a time.
- If necessary it is possible to give a name to the DALI groups aside of the group number.
- Confirm the grouping by clicking “Apply” or discard the grouping by clicking “Cancel” or close the window.

**Caution!**  
Fixtures can always belong to only one DALI group. Multiple affiliations might lead a fixture to react to possibly contrary signals of more than one Light-Sensor. Malfunctions would be the consequence.
**DALI groups**

The „DALI groups“ tab proposes the inverse affiliation possibilities as those of „DALI devices“; the entry fields for DALI devices and groups switch the location therefore.

- Select a DALI group, the already affiliated group members will be displayed by dark coloured number. If required adapt the group set with click on the number of the concerned DALI devices.
- To unselect a DALI device click on it again.
- Confirm the grouping by clicking “Apply” or discard the grouping by clicking “Cancel” or close the window.
**Presence**

This tab contains all settings for the parameterization of the presence detector. To make the possibilities completely visible please tick right on the top “extended functions”.

- **Activated**
  With a tick define that all following settings would be immediately passed to the presence sensor.

- **Duty cycle**
  Define how long after the last detected movement the status „turn on“ should be maintained.

- **Detection time**
  Minimum duration of a movement, so that it is detected as such by the sensor.

- **Repetition cycle**
  When active the repetition cycle defines in which interval the action for the switch-on-behaviour shall be recalled as long as the sensor indicates presence.

For the turn on and off you can define in the actions list below what should happen. For choice are the actions described in 5.16.
Lighting control

The lighting control registers the crossing over or below of the brightness values you have defined and set then the dimming values of a DALI fixtures group. The condition is that the DALI fixtures which should be affected have been affiliated to “DALI devices” and / or “DALI groups”.

„lighting control“ tab in the dialogue box LMS (extract)

DALI Group Control

A selected DALI group is addressed by the sensor and is dimmed. The requirement is that this DALI luminaires were assigned to a DALI group in “DALI devices” and/or “DALI groups”.

Activated

With a tick define that all following settings would be immediately passed to the light sensor.

DALI group

Enter the DALI group, which should be affected.

Caution!

To each DALI group can be affiliated maximum one light sensor. If several sensors affect one DALI group, could malfunctions be the consequence of possible contrary sensor signals.

Upper threshold

„Brightness“ is the measured value, at which over crossing the fixtures of the above defined DALI group will be dimmed to „Level“ > percent value.

Lower threshold

„Brightness“ is the measured value, at which under crossing the fixtures of the above defined DALI group will be dimmed to „Level“ > percent value.

The brightness value can be set between 0 and 65,535. The level / dimming value is between 0% and 100%.

NC Action Control

When over- or underrunning the upper or lower threshold a predefined action is taken by the NetComposer (see 5.16).
Lighting dimming

The lighting dimming reacts to the over or under crossing of measured values and tries to keep the brightness within a, also through light sensor measured values defined, tolerance range. The condition is also here that the DALI fixtures which should be affected have been affiliated to “DALI devices” and / or “DALI groups”.

To make the setting possibilities completely visible please tick right on the top „extended functions“.

- **Activated**: With a tick define that all following settings would be immediately passed to the light sensor.
- **DALI group**: Enter the DALI group, which should be affected.

**Caution!**

To each DALI group can be affiliated maximum one light sensor. If several sensors affect one DALI group, could malfunctions be the consequence of possible contrary sensor signals.

**Number values on the right**

Please enter five number values in rising order:

- The upper value is the maximum value of the sensor signal (here: 500)
- The two following values limit the upper tolerance range (here: between 250 and 350): if the measured value cross over the upper limit/Upper High (350), the regulation tries to press the measured value under the lower limit/Upper Low (250) of the range.
- The two last values limit the lower tolerance range (here: between 50 and 150): if the measured value cross under the lower limit/Lower Low (50), the regulation tries to lift the measured value over the upper limit/Lower High (150) of this range.
Repetition cycle (high) / (lower)  
You set here how quick the regulation shall react. Too quick reactions may irritate the user, too slow reactions may let loose the saving potential. The repetition cycle can be set between 0 and 60 seconds.

Up&On (Down&Off)  
Up&On (Down&Off) means that the light can be switch on or off by the sensor. When Up&On (Down&Off) is activated the light is switch off and on. This is useful for systems to be switched when there is too much or too less sunlight. If both are deactivated then switch off luminaires will remain untouched. This is important for systems which shall be switched on and off and which are constantly controlled in the switched on mode.
5.20 LogicLinks

The NetComposer possesses numerous logic links.

- Open the dialogue box „LogicLinks“ with one of the following actions:
  - Carry out „Functions“ > „LogicLinks“.
  - Click in the right functions bar on „LogicLinks“.

It appears a user surface for logic links. Push “Add”.

It appears:

![LogicLinks dialogue box]

For logic links the following settings can be done:

**TrackLink**

Chose the address of the TrackLink. The choice shows the TrackLink addresses which are available in the system. Choose the port and the activation condition of the TrackLink (being pushed or being released). Then chose the suiting action (see 5.16).

**Scene selection**

Chose a scene. The choice shows the scenes which are available. Chose the suiting action (see 5.16).

**Scene + Group**

Chose a scene and a group. Available are saved scenes and groups. Chose the suiting action (see 5.16).

**Presence**

Chose the address of the presence sensor. The presence sensor addresses which are available in the system appear. Chose the condition of the sensor and the suitable action (see 5.16).

Optional there can be defined an additional constraint to the above constraints. Two connections are possible:

- **And**: When both constraints are fulfilled a predefined action happens.
- **And not**: When the first constraint is fulfilled and the second is not a predefined action happens.
Confirm the grouping by clicking “Apply” or discard the grouping by clicking “Cancel” or close the window.

The setup logic links can be deleted individually. Mark the LogicLink you want to delete (LogicLink becomes orange). Push the “Delete” button and “Apply”.
5.21 DMX-DALI-Routing

If the NetComposer is configured as „DMX-Slave“ (see 5.5), it can accept DMX commands and therewith initiate actions in a DALI system.

- Open the dialogue box „DMX-DALI routing“ with one of the following actions:
  - Carry out „functions“ > „DMX-DALI routing“.
  - Click in the right functions bar on „DMX-DALI routing“.

It appears:

![Dialogue box DMX-DALI routing (extract)](image)

Push the “Add” button to add a DMX address for routing.

Following has to be adjusted:

- **DMX-Address**
  - The DMX address to which it should be react. As there is in DMX systems no automatically address check, you have to take care by yourself during the configuration that there are no address conflict.

- **Composer**
  - Chose the NetComposer for the DMX-DALI routing. You can chose one specific NetComposer (0 – 254) or all existing NetComposers (255 Broadcast).

- **Type**
  - Here you can chose between inactive, device and group.

- **Line**

- **Target Address**
  - Insert the DALI target address (1-64).

„Apply“ the modifications or discard with „cancel“
5.22 Check DALI failures

In DALI systems is a bidirectional communication possible, especially the DALI participants are able to inform about their occurring failures. With the function „check DALI failures“ such failure messages could be called up and represented.

5.23 Save / call up configuration / set a backup function

Saving place for the configuration settings of the system is the NC. All settings will be automatically saved there, so that it is not necessary to create supplementary saving files for the normal operation. Nevertheless it makes sense in following cases:

♦ Should a NC be defect, the replacement device can take over seamlessly by reloading of the saving file.
♦ If in a bigger installation several NCs should have the same configuration the saving file can be used to clone the settings.

In the current version only a part of the settings could be exported, this means that these mentioned functions are currently only limited representable. A complete Backup function is in preparation.
6 Modifying an existing system

6.1 New computer / new software installation

The totality of the, for the operation of a NetComposer system, necessary data and settings are located on the NetComposer. The PC is only the tool for the data configuration not their saving location. It means that you can during the operating life of a NetComposer system change at discretion the PC and / or the software installation. The only limitation is, that the version status of the Composer-PC-Software and of the NetComposer firmware match together. You can get anytime information thereon on www.intelligentlighting.de.

6.2 Supplement / modify a DALI line

Justified by the technical particularities of the DALI system a NetComposer have to read the current status of the, him connected, DALI line(s). By each exchange or each supplement of DALI devices all under “DALI line addressing” (5.6) described steps must be carried out.

6.3 Supplement / modify a DMX system

By changing DMX devices care must be taken to ensure only that the new device could take over the functions range of the old one and that on the device the same address is adjusted. If these conditions are fulfilled it is not necessary to carry out on the NetComposer any further setting or modification.

If new DMX devices should be added you have to pay attention to the points described in 5.7.

6.4 Exchange / clone a NC

The possibility to exchange or clone NetComposers with the help of export-files is in preparation.
7 Disclaimer

EUTRAC Stromschienen GmbH accepts no liability for damages, arising out of errors or omissions in the content of this manual. (Some countries or other jurisdictions do not allow the exclusion or limitation of liability for incidental or consequential damages, so the above limitations and exclusions may not apply.

EUTRAC Stromschienen GmbH accepts no liability for damages, arising out of the non-observance especially of the installation instructions in chapter 4.

EUTRAC Stromschienen GmbH accepts no liability for damages, arising out of data loss during updates with new devices firmware. Normally the last saved status before a firmware update can be reloaded and used – however there is no legal claim that the data could be used 1:1. Reprogramming at the expense of EUTRAC is excluded.

EUTRAC Stromschienen GmbH accepts no liability for damages arising out of malfunctions of DALI or DMX terminals. You will find a list of tested devices in annexe A or on the internet under www.intelligentlighting.de. In addition and as a service free of charge, we offer to pre-check the compatibility of electronic ballasts planned to use in a project.

Please also pay attention to the conditions listed in the software user agreement of EUTRAC Stromschienen GmbH.

8 Conformity declaration (for Europe)

All components of the EUTRAC - NetComposer system are CE – conform. They comply with all respective standards and regulations, are designed according to VDE/ENEC, interference-suppressed and EMC tested.

Eutrac Stromschienen GmbH herewith declares that the components of the EUTRAC - NetComposer system are in accordance with the prescriptions of following European directives:

- Low-voltage directive 2006/95/EG
- EMV - directive 2004/108/EG
- EN 55015 / EN 61000-3-2
- EN 60598
- EN 60570

Although the NetComposer system complies with the current applicable directives and standards regarding the requirements for the electromagnetically compatibility (EMC), possible perturbations and affectations of other devices can’t be totally excluded by the manufacturer.
9 Conditions of Software User Agreement

These terms and conditions shall govern the granting and the use of Composer - Software (hereinafter referred to as the “software”). The software is protected by copyright. Acquiring the software you obtain the rights of use subject to the following terms and conditions:

I. Extent of use

1. EUTRAC grants you a simple, non-exclusive and non-transferable right in perpetuity to install the software and to use the software on one single PC or Laptop.

2. You are authorised to reproduce the software as far as the use of the programme makes a reproduction necessary. Installing the software as well as loading the software onto the main memory is considered to constitute a necessary reproduction particularly. Additionally you are authorised to make your own backup copy of the software. You are not authorised to make any further copies, including the output of the programme code on a printer.

3. In order to install and use the software on another PC and/or another computer system, it is necessary to conclude a further user agreement. Multiple and concurrent use of the software on a terminal server or on any other multiple station computer system is not permitted, as far as such use would create the possibility of a multiple concurrent use of the software.

4. Retranslation of the programme code into different forms of codes (decompilation) as well as any sort of revertive development of the various making stages (Reverse-Engineering) is not permitted. It is possible to request such interface data needed in order to establish interoperability of an independently created computer programme.

5. Programme editing other than regulated under I.4, in particular editing intended to eradicate errors or to extend the scope of operation is only permitted if the modified programme is going to be employed for own use solely. Own use for the purpose of this provision particularly comprises the private use of the user. Own use additionally captures any use for professional or operations side means, as long as it is restricted to the user and his employees and provided that no outward commercial exploitation of any kind is intended. The programme editing may be left to commercially working third parties being potential competitors of ours, only if we ourselves do not wish to carry out the editing in return for acceptable consideration; you have to allow us an adequate period of time so we can check whether we would like to accept such offer. Under no circumstances must any copyright note, serial number or other feature that serves the identification of the programme be removed or altered; the same applies to the suppression of corresponding features of the display.

6. You may assign the software to a third party if the assignee agrees to the continuous validity of this user agreement accordingly. You are asked to store this user agreement carefully and present it to the assignee before passing on the software. In case you are no longer in possession of this user agreement, you have to ask EUTRAC for a new copy first, at your own expense. In case of an assignment you must pass on all copies of the software or else wise destroy the copies you do not hand over. As a result of and during the assignment your own right to use the software ceases to exist. Transferring the software to third parties is not permitted if there is reasonable suspicion that the assignee is going to violate the user agreement, particularly if there is reasonable suspicion that the assignee is going to produce unauthorised copies.

7. You may assign the software temporarily only if it is not by means of profit-seeking renting or by leasing and only if the lessee agrees to the continuous validity of this user agreement accordingly. In case of such an assignment you must pass on all copies of the software or else wise destroy the copies you do not hand over. For the time of the temporary assignment you are not entitled to use the software yourself. Profit-seeking rental and leasing are not permitted. Temporary assignment of the software is not permitted if there is reasonable suspicion that the lessee is going to violate the user agreement, particularly if there is reasonable suspicion that the lessee is going to produce unauthorised copies.
suspicion that the lessee is going to produce unauthorised copies.

II. Non-Warranty Clause

EUTRAC does not guarantee that the software is free of any defect. EUTRAC points out that for status-of-the-art technology it is not possible to design software to run impeccably under all applications and all combinations at all times. If the software should suffer from a defect, you will not have any warranty claims against EUTRAC.

III. Liability

EUTRAC is only liable for damages that EUTRAC (or his representatives and vicarious agents) caused willfully or by gross negligence, for damages provided for under the Product Liability Act (Produkthaftungsgesetz), and in case EUTRAC fraudulently concealed a defect.

IV. Software Maintenance

Software maintenance is exclusively subject to the terms of a separate Service Agreement.

V. Export Control Regulations

The products delivered may contain technologies and software that are subject to the export control regulations of the Federal Republic of Germany, of the European Union, to export control regulations of the United States of America or of those countries to which the products are delivered or in which they are being used, respectively. You hereby obligate yourself to comply with these regulations.

VI. Software licences by third parties

The software possibly makes use of third-party software, so that third-party software licenses might apply to parts of the software notwithstanding the foregoing paragraphs.

VII. Final Provisions

This user agreement shall be governed by and construed in accordance with German law excluding the UN Convention on Contracts for the International Sale of Goods and international private law.

Venue for all disputes arising out of and in connection with the performance of this agreement shall be Hilden, provided you as a user are a merchant in terms of the Commercial Code (HGB), a legal person under public law or a separate fund under public law.