DALI Cockpit

Startup Guide V5

DALI Configuration Tool

Commissioning of DALIcomponents and DALI-line Traffic Monitoring

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1 Software Installation

1.1 Requirements

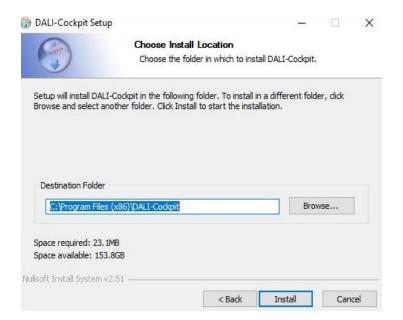
For the connection from your PC to a DALI-line an interface is required. Lunatone has different interfaces available that are supported by the DALI Cockpit software. These are the DALI USB, the DALI RS232 SCI (Art Nr.: 22176438-HS), the DALI 4Net, DALI-2 Display, DALI-2 IoT und DALI-2 WLAN. Please check the products on our website if you do not already have one in use. The latest DALI Cockpit software is supported by Windows 7 and Windows 10 (a version for Windows XP can be provided on request).

1.2 Installation

The DALI Cockpit software package consists of three parts: the DALI-Cockpit, the DALI Monitor and the DALI Bus Server. We recommend the installation of all components for full functionality. The DALI Bus Server is required for the communication between PC and interface (DALI USB, DALI RS232 SCI2 or DALI 4Net, ...). The DALI Cockpit is the configuration tool, while the DALI monitor is used for bus diagnostics and monitoring of bus traffic.

To install, unpack the ZIP-File and then run the DALI_Cockpit_Vxxx.exe. After choosing the components and the destination folder the installation process can be started by pressing the "Install"-Button.

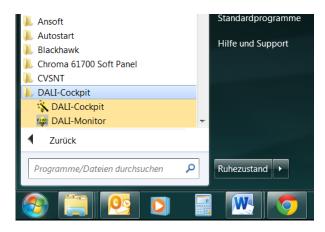
DALI-Cockpit Setup		and the second second	
8	Choose Components Choose which features of DALI-Co	ockpit you want f	to install.
Check the components yo	u want to install and uncheck the com nue.	ponents you don	i't want to
Select components to inst	all: DALIBusServer and DLL DALI-Cockpit DALI-Monitor Start Menu Entries	Description Position your over a comp see its descri	onent to
Space required: 23. 1MB			
illsoft Install System v2.51			
		Next >	Cancel



Once the installation is complete the final window has to be closed manually.

DALI-Cockpit Setup	Installation Complete Setup was completed successfully.			×
Completed				
Show details				
Nullas Shita shall Cashana a 20 Ct				
Nullsoft Install System v2,51		Close	Canc	el

After the installation is finished you will find a DALI-Cockpit folder in the start menu entries.



2 Registration

When the DALI Cockpit is opened for the first time after installation a window pops up where you can register for free by requesting a registration key.

Product reg	istration	×
Luna	tone	5
DALI	-Cockpit	25
	cochpit	v 4
Lunatone	DALI Cockpit will run for 30 r	nore davs.
DALI-Cock	n will be required to continue u bit after the evaluation period. tion is free. Request key	ising
DALI-Cock	bit after the evaluation period.	Ising
DALI-Cockı The registra	oit after the evaluation period. tion is free.	Ising
DALI-Cock; The registra	oit after the evaluation period. Ition is free. Request key	ising
DALI-Cock; The registra	oit after the evaluation period. Ition is free. Request key	Ising

Select the request key button to get to the registration form.

Product registration	×		
lunatone	0		
Registration data	×	Product registration	×
User registration data Name:		Registration data	×
Max Mustermann		User registration data DALI-Cockpit	
Company: Mustermann AG		The registration is successful. Please check Your eMail for DALI C	ocknit Activation Cr
Email:			occpic Activition of
Email: mm@mustermann.com			ОК
	Cancel	Request key 0	ок

All three fields have to be filled to successfully request a key. You will get your registration key via email, if it does not arrive in your inbox be sure to also check the spam folder.

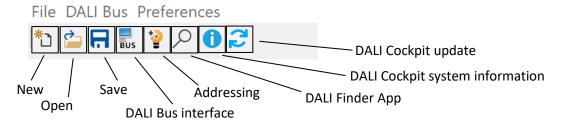
After input of the key and pressing the activate button a message box will appear and the DALI Cockpit is successfully registered.

DALI-Cockpit		×
	l Cockpit is registered.	
	ОК	

3 DALI- Cockpit Overview

3.1 Toolbar





3.2 Menu – File

💐 DALINetwork - DALI-Cockpit

File	DALI Bus Preferer	nces	
<u>1</u> C*	New	Ctrl+N	New file (empty device list)
2	Open	Ctrl+O	Open / load a previously saved Cockpit file (.dnc)
R 9	Save	Ctrl+S	Save the current device list as Cockpit file (.dnc)
S	Save As		Save the current Cockpit file with a different name
E	Export Networks	Ctrl+E	Save a database file of the devices (for DALI4Net)
L	Last Files	•	List of the last used files
(<u>C</u> lose		Close the program

3.3 Menu – DALI Bus

💐 DALINetwork - DALI-Cockpit

File	DA	ALI Bus Preferences		
*כ	BUS	Bus Interface	Ctrl+B	Selection of the DALI Bus interface – section 4.1, page 7
		Add Virtual DALI Bus		Add a virtual DALI Bus – section 6.2, page 29
		Work Offline		Toggle between online and offline mode – section 6 , page 27
-		Add Offline Devices		Add virtual devices - section 6.2, page 29
	12	Addressing	F3	DALI Bus device addressing – section 4.3, page 10
	-	DALI Commands	F9	Send DALI Commands – section 4.9.1, page 23
		Memory Bank Tool	F10	Device memory bank information
		Read all		Read configuration from all devices – section 4.6, page 19
		Configure scenes		Broadcast scene configuration tool – section 4.8.2, page 22
		Physical Selection List		Physical selection list – section 4.4.2, page 14
	Q	Spatial assignment of lumin	aires	DALI - Finder App – section 4.4.3, page 15

3.4 Menu – Preferences

	Options		×
File DALI Bus Preferences	Interface language: English • The program has to be closed and started again, to activate the new language.	Read devices on selection Auto open the last network file Show help hints OK Cance	I

Menu: Preferences – Options: In addition to the language settings (selection: English or German), the options offer the following settings:

Read devices on Se- lection	When a device is selected in the device tree, it is read out again each time (this is advantageous to ensure that incorrect configura- tions are not assumed) However, this can be time-consuming with frequent readings - in this case the automatic reading can be deac- tivated – device reading is only carried out if this is triggered manu- ally via Proof - or if the device has never been read before.
Auto Open the last network file.	When opening the DALI Cockpit, the last edited Cockpit file should be opened automatically.
Show help hints	When selected, these symbols are shown <i>i</i> and provide additional information on device functions.

4 First steps - system configuration

4.1 Build connection to the DALI-System

Connect the PC to the DALI-line via a suited interface (DALI USB, DALI SCI RS232, DALI 4Net, DALI-2 Display, DALI-2 IoT, DALI-2 WLAN).

Using a DALI USB: after having started the DALI Cockpit DALI USB interfaces are found and shown automatically in the component tree. The next steps are explained in the next section 4.2, page 10.

Using a different interface (DALI SCI, DALI 4Net, DALI-2 Display, DALI-2 IoT, DALI-2 WLAN): the following window will appear:



To connect to an interface, select the option: "Select Bus Interface".

For information on the "Work Offline" option - i.e. continue without an interface, see section 6 Offline Mode, page 27

Using a DALI SCI RS232: select the option "COM" and the respective port

Using a DALI 4Net: select the option "Network" and "DALI4Net" and specify the device's IP address. If the IP address is not known, the network can be searched for DALI4Net devices using the button next to the IP address input field.

Using a DALI-2 Display, DALI-2 IOT or DALI-2 WLAN: select the option "Network" and "DALI-2 Display, DALI-2 IOT, DALI-2 WLAN" and specify the device's IP address. If the IP address is not known, the network can be searched for devices using the button next to the IP address input field. (DALI-2 Display, DALI-2 IOT, DALI-2 WLAN are available as interfaces from Cockpit Version 1.38 on)

DALI SCI R	S232 (Art. Nr.:)		DALI 4Net	
DALI Bus Interf	ace:	×	DALI Bus Interface:	×
Please choose a	COM port, USB or Network:		Please choose a COM port, USB or Network:	
	ill be opened, checked and the result will be OK to use the selected DALI interface.		The interface will be opened, checked and the result will be displayed. Click OK to use the selected DALI interface.	
• сом	COM 1 ~		О сом СОМ 1 у	
⊖ USB	Port not available	~	Ouse	\sim
O Network:		~	Network: DALI 4Net	\sim
IP Add	ress: 192.168.0.127		IP Address: 192.168.0.127	
Version Inf.:	DaliBusAccess.dll: V3.7.3 DALI BusServer: V3.7.3		Version Inf.: DaliBusAccess.dll: V3.7.3 DALI BusServer: V3.7.3	
0	K Cancel		OK Cancel	

DALI-2 Disp	lay, DALI-2 IoT, DALI-2 W	LAN
DALI Bus Interface	::	×
Please choose a CO	M port, USB or Network:	
	e opened, checked and the result will be to use the selected DALI interface.	
ОСОМ	COM 1 V	
USB		\sim
Network:	DALI-2 Display/DALI-2 IoT/DALI-2 WLAN	~
URL(IP Address)): 192.168.0.37	
	DaliBusAccess.dll: V3.7.3 DALI BusServer: V3.7.3	
ОК	Cancel	

Troubleshooting: If there is no interface found, check out the connection between your PC and the DALI interface. If you use a DALI USB or DALI 4Net the interface should be detected even in the case of no DALI-line connected. In case you use a DALI SCI2 you have to connect the DALI-line before the DALI Cockpit can recognise the interface.

For Further details on the interfaces check the datasheets of the interfaces on the Lunatone website.

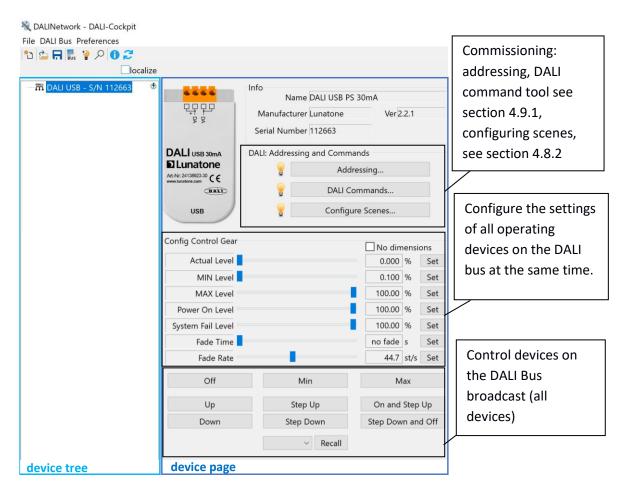
If your DALI Interface will not connect to your PC you can try to close the DALI Bus Server (the application that is running in the background while the DALI Cockpit or DALI Monitor is open). Close the DALI Cockpit and DALI Monitor and right click the DALI Bus Server symbol in the Windows taskbar and select "Exit DALIBusServer".



4.2 Test Communication

Before starting commissioning, the DALI communication should be tested. On the device page of the connected DALI interface the DALI communication can be tested easily by sending commands broadcast (=to all devices) on the DALI-line.

To do so select the interface in the device tree on the left (e.g. DALI USB), press RECALL MAX and OFF button at the bottom of the device page and check the reaction of DALI control gear (optical feedback). Furthermore you can check the traffic on the DALI-line with the help of the DALI monitor (check chapter 5, page 26 for details).



4.3 DALI Addressing Procedure

The addressing procedure can be started by pressing the "Addressing"- button on the DALI interface device page. Alternatively it can also be started via the Menu : "DALI-Bus" - "Addressing..." or der following Button in the tool bar:

In the DALI Addressing Wizard are two options: system extension and new installation. Furthermore the physical selection mode for luminaries and an optical feedback for detected devices can be selected.

New Installation: Performing a complete new installation will delete all existing DALI-addresses and already defined group dependencies.

System Extension: the system extension keeps already defined DALI addresses and group dependencies, only unaddressed devices will get an address. In the system extension mode you can select which kind of devices the DALI Cockpit should search for: Control Gear, Control Devices using Random Addressing Method and/or Input Devices using Addressing Method with physical selection.

DALI Addressing Wizard	- start X	DALI Addressing Wizard - start
	This wizard will guide you through the steps of initializing and addressing devices on the DALI bus. System Extension (search unaddressed devices) Control Gears Control Devices (Random Addressing) Dinput Devices (Physical Selection) DALI24 bit Devices Complete new installation (current device list will be discarded) The addressing will be done automatically or by means of "physical selection" addressing method for luminaires The search for devices may be done "invisible" or with optical	This wizard will guide you through the steps of initializing and addressing devices on the DALI bus. System Extension (search unaddressed devices) Control Gears Control Devices (Random Addressing) Control Devices (Physical Selection) DALI24 bit Devices © complete new installation (current device list will be discarded) The addressing will be done automatically or by means of "physical selection" method: use "physical selection" addressing method for luminaires The search for devices may be done "invisible" or with optical
	feedback from the found devices invisible of with optical feedback from the found devices Click "Next" to proceed Back Next Abot	The search for devices may be done invisible or with optical feedback from the found devices:

Select "Next" to confirm your selection and start the according addressing process

Physical Selection: if "use physical selection" was set, the following popup request will open after the automatic process has finished. Now control devices can be added manually by pressing the buttons on the control device (Like DALI-Switch, DALI MC or DALI Touch Panel). Pressing the finish button will close the popup and end the physical selection.

K DALINetwork - DALI-Cockpit		-	×
🗈 🖻 🖶 💺 🔎 🔕 🞜	localize		
DALI <u>USB</u> S/N 9022 DALI <u>USB</u> S/N 9022 DALI BTB CW-WW CC 2* 35 DALI RGBV-PWM (A1) GRITIMER (A2) DALI CDC (A3) @ DALI CS (eA0) DALI Bluetooth 4.0 (eA0)	SomA (A SomA (A SomA (A SomA (A) SomA (A)		
	DALUSE - S/N 902 DALUSE (NWW CC 2* 350mA (A0) DALUSE (NWW CC 2* 350mA (A0) DALUE (S (AC) DALUE (S (
	Back Next Abort		

Example - physical Selection: adding a DALI switch and a wDALI Remote. When detected correctly the components will be added in the DALI device list as shown below.

Status DALINetwork - DALI-Cockpit File: DALI Bus Preferences I Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status Image: Status <	slize		- D X
CALI USB - S/N 9032 DALI USB - S/N 9032 DALI DT8 CW-WW CC 2* 350mA DALI CALI KOBW-PWM (A1) CF RTC Timer (A2) DALI CC (A3) DALI CC (A3) DALI CS (AA0)	A GA Second Second Sec	Addressing User action required Searching for input de Double press button o dentification and alloc WW (CC 2° 350mA (A0) VM (A1) 14.0 (cA0) A1)	n device for

The "Next"-Button finishes the Addressing procedure. For leaving the DALI Addressing Wizard press "Done".

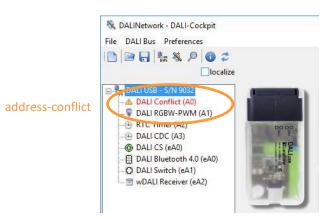
DALI Addressing Wiz	ara - nnish	,
	Search for devices finished!	
-3	Click "Finish" to continue	
1		
	Done Abort	

After leaving the DALI Addressing Wizard you will find an overview of all addressed DALIcomponents in your system in the device tree on the left. All Lunatone devices will be shown with a symbol, name and DALI address. All other devices will show up according to their DALI device type and with DALI address.

e DALI Bus Preferences						
) 🖻 🖥 🐜 🔎 🕕 🗢						
DALI USB - S/N 9032		DALI: Addr	essing and Comm	ands		
		8	Add	ressing		
RTC Timer (A2)	00 00		DALI Co	mmands		
	1188	6	Configu	re Scenes		
🗄 DALI Bluetooth 4.0 (eA0)	Line and Line	u	coningu	re occincom		-
DALI Switch (eA1)	Io	Firmware U	pdate for DALI de	vices on the	bus	
WDALI RECEIVER (EA2)			Firmwar	e Update		
	-					
	Config Control Gear			No din	nensio	ons
	Actual Level			0.000	%	Set
	MIN Level			0.100	8	Set
	MAX Level			100.00	%	Set
	Power On Level			100.00	%	Set
	System Fail Level			100.00	%	Set
	Fade Time			no fade	s	Set
	Fade Rate			44.7	st/s	Set
	Off		Min	M	lax	
	Up		Step Up	On and	Step	Up
	Down	SI	te <mark>p D</mark> own	Step Dow	n and	d Off
			✓ Recall			

Address Conflict: it can happen that a DALI Conflict is shown in DALI Cockpit, if addressed devices are added to an existing DALI system. To resolve this, delete the conflicting DALI address and do a new addressing procedure – type: system extension).

Conflicts can be avoided by always deleting the address of devices you previously addressed before adding them to the DALI system.



HINT: For a better overview devices can be renamed by right click on the device in the device tree \rightarrow "rename". The DALI address is not changed.

Troubleshooting: If you receive an er message "DALI Bus Error!" during addressing, please check the bus supply.



13

Next Steps:

- Spatial allocation of devices: section 4.4, page 14
- Configure device settings: section 4.5, page 15
- Group devices: section 4.7, page 20
- Configure device scenes: section 4.8, page21

4.4 DALI Device Localisation

4.4.1 Localize Checkbox

For easier localisation of your lamps and some control devices you can select the specific device or group and use the localize checkbox to switch between two states.



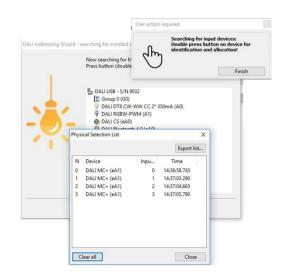
Control gear (e.g LED Dimmer DT6/8, PD): Switches between Max and Min Level. Checking sends RECALL MAX and unchecking sends RECALL MIN.

• DALI CS / Touchpanel (BT):

Switches between LED blinks and LED does not blink. Checking enables blinking and unchecking disables it.

4.4.2 Physical Selection List

The "Physical Selection List" can be used for the devices DALI MC, DALI MC+, DALI Switch and DALI Touchpanel and contains the order in which the inputs/buttons are triggered. This should make locating of control devices after addressing easier. To create a "Physical Selection List" you have to trigger inputs/button at the end of the addressing routine when the "User action required" window appears. The device inputs will show up according the order you physically trigger them. This list can also be exported as a *.csv table.



4.4.3 DALI Finder App

The DALI Finder app can be used for special allocation – the app is available for Apple and Android devices. The process needs to be started in the app and in the DALI Cockpit - via Menu: DALI Bus – "Spatial assignment of luminaries" or the following button in the toolbar:

4.5 Configuration of devices

By choosing a DALI-device in the device tree on the left the device page with the configuration options of this component opens on the right.:

	File DALI Bus Preferences	olbar General	Device toolbar		
		💡 式 💻 read 🛛 💻 式 💡 save			
Selection -		DALI CV DTS RGBW LED Dimmer SA Di Lunatone Art-Nr: 88459509 CE	Device Info Name DALI RGBW LED Dimmer Manufacturer Lunatone Device Type 6.8 DALI Ver V0.1 Device Parameters Groups 0 1 2 3 4 5 DALI Parameter MIN Level MAX Level Parameter Long	Article Number 86458509 Serial Number 19578 Type Control Gear Short Address (A1) DALI RGBW LED Dimm	GTIN FW 4.6.6 er CV 8A ~ [13] [14] [00] [10] [10] [10] [10] [10] [10] [10
	device tree	device page			

Device toolbar

💡 🔂 💻 read	With the "Read" button the current device settings are read from the device.
Bus 💡 save	With the "Save" button, any changes made to the device configuration are writ- ten to the device. Warning: if you do not save the changes you made to the device when switching to a different devices, they will be discarded.
localize	Help for localizing of the device, see section 4.4.1 page 14

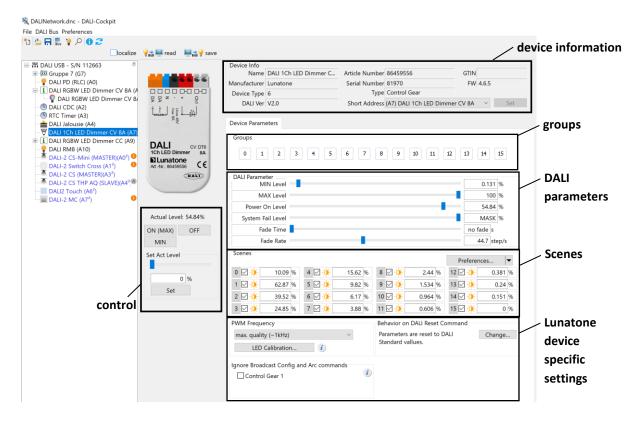
The device pages differ depending on the device type - a basic structure of the device pages for Lunatone operating devices (Gears) and Lunatone control devices (Control devices) is described below, for details please check the data sheet of the respective device.

4.5.1 DALI Gears – device page

In general the DALI gear site is separated in the following sections:

Device information	Information on the device: name, manufacturer, article number, version, DALI address,
Groups	Assignment of DALI groups see section 4.7, page 20
Scenes	Configuration of the device's scene values see section 4.8, page 21
DALI Parameters	Configuration of the DALI parameters: Max Level, Min Level, Power On Level, System Failure Level,
Control	Buttons for simple control of the device: max, min, off

Additionally, Lunatone devices offer other helpful Lunatone specific parameters and for other device types (especially DT4, DT5 and DT7) even further settings may be available. They can be entered by additional tabs on the device page (the device specific parameters are described in the respective device's data sheet).

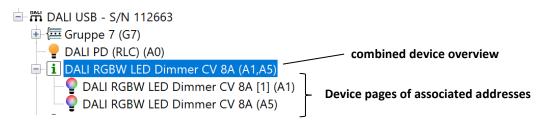


Applying Changes: all changes to the configuration need to be saved to the device via the save

button save

To refresh/display the current configuration of the device select the read button: 💡 💼 💻 read

Some devices (e.g. multi-channel dimmers) are combined in the device tree, as shown in the image below. Devices that can have multiple addresses are displayed like this in the DALI Cockpit.



This device overview page contains settings for all addresses of the device (e.g. change operating mode).

Right Click Menu in the device tree:

₩ DALI ´	1Ch LED Dimmer CV 8A (A7) Rename	F2	Rename: change the device's displayed name in the device tree (stored in the Cockpit dnc file not the device)
	Hide Delete address	DEL	Hide: Hide the device in the device tree (the device can only be made visible again by addressing - system extension)
	Reset Reset and delete address		Delete address : Delete the DALI address of the device (device can only be reached via broadcast)
	Delete device from group Set Offline		Reset: Reset the device (For device behaviour on Reset see the data sheet of the respective device)
			Delete device from group: Remove device from assigned group
			Set Offline: set device and its configuration to offline

4.5.2 DALI Controls – device page

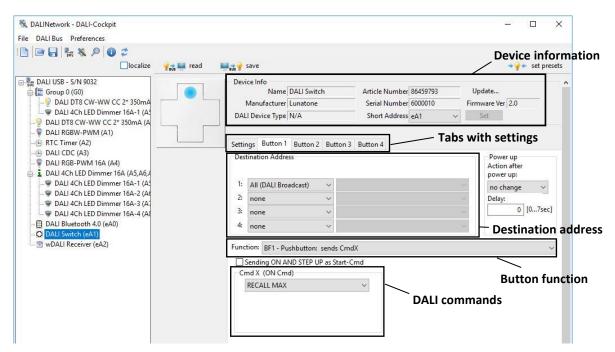
Lunatone DALI controls (e.g.DALI Switch Cross, DALI ROT, DALI CS, etc.) configuration sites are divided in a device info block and a device setting block. The device setting block often consists of several tabs, in most cases a general settings tab and a tab for each input or sensor (depending on device).

For most DALI control devices the following parameters can be defined

Destination address	Which DALI gears should be controlled
Button functions	Behaviour if the button/switch is pressed (e.g. long/short press)
DALI command(s)	DALI Command(s)/action to send to the destination address

For more detailed information on the configurable parameters, see the data sheet of the respective device

Example DALI Switch – settings of button/input 1:



Each button of a control device can be configured by defining a button function. A certain DALI command is sent when the button is pressed in a certain way (e.g. different functions such as a long press, short press, toggle,...) In the image above, Button 1 is configured to send the RECALL MAX command to all devices when the button is pressed. (In addition to standard DALI commands, macros are also available with many control devices - for creating a macro see section: 4.9.2 page 24).

Applying Changes: all changes to the configuration need to be saved to the device via the save

button

To refresh/display the current configuration of the device select the read button: 😪 💭 read

Right Click Menu in the device tree: open via right click on the control device

- DALI	-2 MC (A7 ²) Rename	F2	Rename: change the device's displayed name in the device tree (stored in the Cockpit dnc file not the device)
	Hide Delete address Reset Reset and delete address	DEL	Hide: Hide the device in the device tree (the device) Hide: Hide the device in the device tree (the device can only be made visible again by addressing - system extension) Delete Address: Delete the eDALI/DALI-2 address of the device
	Restore Delivery State Delete device from group Set Offline		Reset : Reset the device (For device behaviour on Reset see the data sheet of the respective device)
	Export device settings		Restore Delivery state: only available for certain devices
	Import device settings		Delete device from group: not available for control devices
			Set Offline: set device and its configuration to offline
			Export device settings: Exports the device configuration to an *.xds file
			Import-device settings: imports the device configuration from an *.xds file

DALI-2 control devices: DALI-2 control devices can be in instance mode and/or application controller mode. The icon in the device tree shows which mode is active

A	The device has an application controller – but it is disabled
A	The device does not have an application controller
1	Instance event messages are activated

4.6 Read all Devices

	ALINetwork.dnc - DALI-Cockpit DALI Bus Preferences	
*o = i	Bus Interface Ctrl+B Add Virtual DALI Bus Work Offline Add Offline Devices	Click to "Start", to read devices on DALI Bus.
	Addressing F3 DALI Commands F9 Memory Bank Tool F10	Refresh already read devices
	Read all	
1	Configure scenes Physical Selection List	Start Cancel
	Spatial assignment of luminaires	Start Cancer

With the Option "Read all..." (available in DALI Cockpit V1.38 and higher) all devices on the DALI Bus can be read, one after the other. Depending on the size of the installation this option can take some time.

Info: If you choose to read all devices at once – the Option "read on selection" can be deactivated to reduce waiting time once all devices have been read.

Warning - for both options manual or automatic read: please always make sure all devices have been read out when saving the Cockpit file (.dnc) – data that has not been read from a device will lead to an incomplete Cockpit file.

4.7 Group Handling

Devices can be assigned to a group on the respective device page:

 Selected groups for this device

 0
 1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14

Wher	h the group is selected	d, this group is created in the device tree.	



Alternatively the group can be created with a right click on the interface device in the device tree:

□ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □ □		
DALI USB - S, Add new group	DALI: Addres	sing and Commands
DALI DT8 Close		Addressing
RTC Timer (A2)		DALI Commands
DALI CDC (A3) DALI CS (eA0)	DAL	Configure Scenes
DALI Bluetooth 4.0 (eA0)	Firmware Up	date for DALI devices on the bus
· 🔄 wDALI Receiver (eA2)		Firmware Update

For adding group members: drag and drop the devices in the device tree into the created group.

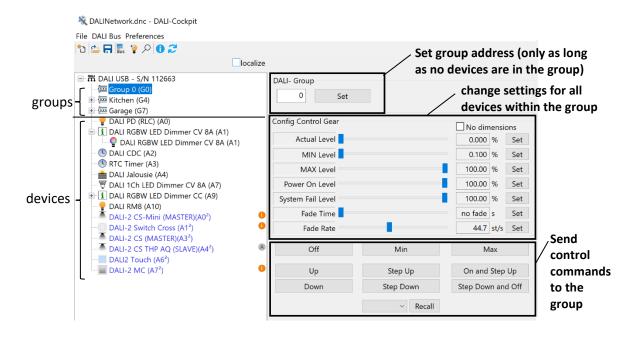
Device tree: Groups are always displayed at the top of the device tree, below all addressed devices are listed.

Right Click Menu: by right-clicking on the group in the device tree, the group name can be changed and the group can be deleted.

🖃 🎬 DALI USB - S/N	112	663	
— (豆 Group 0 (G0)			
🖽 🔚 Kitchen (G4)		Rename	F2
🗈 / 🔤 Garage (G7)		Delete	DEL
ום) חמ דואח 🥚	<u> </u>	(0)	

Group Page: Selecting the group in the device tree opens the group page. On this page, configuration and control commands can be sent to all devices within the group. Also as long as there are no devices in the group, the group number can be changed.

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Attention: adding and removing devices from groups is not possible in Offline Mode!

4.8 Scene Configuration

4.8.1 Single device

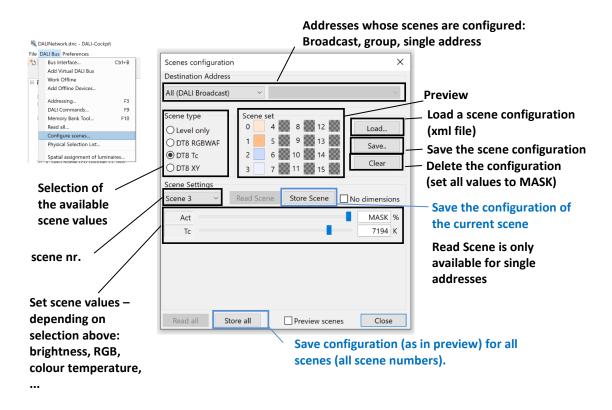
Scene values can be configured on the respective device page, see the image below. To configure scenes of several devices at the same time see next section, section 4.8.2.

Example: Lunatone RGBW dimmer

Scenes	211,0,42		Preferences Import from file Export to file All Scenes 52,101 Scene preset selection	×
1 MASK % RGB: W:	0 169,0,84 0 9	W: MASK % RGB: 0,2 W:	0 Scene set: Default Lunatone Color 0 MASK%	ur set 🗸 🗸
2 MASK % RGB: W: MASK % RGB:	127,0,127 0 84,0,169 11	W:	0,254,0 1 MASK% 0 2 MASK% 0,127,0 4 MASK%	9 MASK% 10 MASK% 11 MASK%
3 W: 4 MASK % RGB: W:	0 42,0,211 0 12	W: MASK % RGB: W:	127 5 MASK % 0,0,0 6 MASK % 254 7 MASK %	13 MASK % 14 MASK % 15 MASK %
5 MASK % RGB: W: 6 MASK % RGB:	0,0,254 13 13 0,50,203 14 13	W:	2,101,0	OK Cancel
W:	0 14 0,101,152 15 15 15 15 15 15 15 15 15 15 15 15 15	W: MASK % RGB: 2 W:	0 RGB Colour Selection	×
the scene – disable	t click: Set the bright	Sat tha c	olour	
	r value	via R,G,B (for DT8 device sp	RGBW)	OK Cancel

4.8.2 Broadcast – Scene Configuration

For fast scene configuration (or broadcast and group configuration) the Scene configurator is helpful. It can be opened via the menu: "DALI bus" - "Scene configuration...". The scene configurator is useful for configuring multiple devices at once.



In the configurator the effective range to configure can be selected, as well as the type of scene (level only or special DT8 color scene type), the scene number and the values.

Pressing "Store Scene" will store the parameters of the currently selected scene (e.g. nr 3 in the example above) to the devices affected by the selected address range. Pressing "Store All" will store all set parameters of all 16 scenes to the devices affected by the selected address range.

4.9 Macro Usage – Individualize your Application

4.9.1 DALI Commands

It is possible to send DALI Commands from the DALI Cockpit on the DALI Bus. The DALI Command dialogue can be opened from the device page of the connected DALI interface device or via the Menu "DALI Bus" – "DALI Commands". (If multiple interfaces are open in the DALI Cockpit and the DALI Commands is entered via the Menu – the DALI commands will be sent on the interface which is currently selected in the device tree)

Hint: If the DALI Cockpit is used without any DALI interface (i.e. in offline mode) – there needs to be a Virtual Bus Interface (see section 6.2, page 29) to access the DALI Commands window

			Send DALI Comma	nds - DAL	I USB - S/N 112663			
			Bus Commands (Commands	Over Time			
			DALI	eDALI	O DALI 24-bit	O DALI 32-bit		Send Command(s)
			Addres	s: All (DA	LI Broadcast)	~	\sim	
			Device Typ	e: 0 - Flue	orescent Lamps	\sim		
D	ALINetwork.dnc - DALI-Cockpit		ommand (dee	:): 999	DIRECT ARC POWER		~	
e C	ALI Bus Preferences		Dat	a: FE	hex	send co	ommand twice	
C	Bus Interface Add Virtual DALI Bus Work Offline Add Offline Devices	Ctrl+B		u. <u> </u>	100%	Jene C		
1	Addressing	F3				Frame (hex):	FEFE	
1	DALI Commands	F9						
-	Memory Bank Tool Read all Configure scenes	F10	Answer:				command every 500ms nmand to list	for testing purposes
	Physical Selection List Spatial assignment of lumina	ires						Cancel

The type of command: DALI, eDALI, DALI-2,.. needs to be selected- the options in the command list will be filtered accordingly.

The address / effective range: defines to which devices the command is sent to: broadcast, a DALI group or a single DALI address.

The DALI Device Type: DT0-DT8 needs to be selected – the options in the command list will be filtered accordingly.

Command (dec): The needed command can be selected from the drop down. (Some commands have additional input data such as Direct Arc Power (DAP) – for brightness value)

Send Command:- select to send the specified command to the selected address on the DALI Bus.

Hint: The commands sent and answers received on the DALI Bus can be monitored with the DALI Monitor, see section 5 page 26

4.9.2 Makros – Commands Over Time

A user-defined command list is an individual list of DALI commands, each consisting of a command, a destination address and a delay.

A user defined command list can be generated using the "DALI-command" menu (DALI Bus -> DALI Commands...) on the Tab: "Commands Over Time".

							>
3us Comr	mands C	commands Over Time					
Туре	Addr	Command		Data	Delay	Answer	Open File
DALI	BCast	DIRECT ARC POWER 254	(100%)	254	1000		Save File
DALI	BCast	DIRECT ARC POWER 230		230	1000		
DALI	BCast	DIRECT ARC POWER 194		194	1000		Add Command
DALI DALI	BCast G0	DIRECT ARC POWER 104		104 252	1000 2000		Edit Command
	A0	DIRECT ARC POWER 252 DIRECT ARC POWER 253		252	2000		Delete Command
	710	DIRECTARCTOWEREDS	.51.570)	200	2000		Delete All
							Delete All
							Up Down
							START
							RUN Step
							STOP
							5101
							_
							🗌 Loop
							Loop Cancel
dit Com	ımand)					×	
dit Com) eDALI 🔿 DALI 24-bit	O DALI 32-h	pit	O DSI	×	
DAL	.I C	eDALI O DALI 24-bit Single Address		bit A0)	() DSI	×	
DAL	.I C				O DSI		
● DAL	.I C Address:				O DSI		
DAL	.I C Address:	Single Address 0 - Fluorescent Lamps	~ ((O DSI		
DAL	Address: ice Type: ind (dec):	Single Address 0 - Fluorescent Lamps 999 DIRECT ARC POWE	~ ((A0)		~	
DAL Dev	I C Address: ice Type:	Single Address 0 - Fluorescent Lamps 999 DIRECT ARC POWE	~ ((A0)	O DSI	~	
Dev	Address: ice Type: ind (dec):	Single Address 0 - Fluorescent Lamps 999 DIRECT ARC POWE FD hex	~ (~	A0)	nmand twic	~	

With the help of this editor a command list can be generated by adding several commands of your choice: For each command in the list a destination address and the DALI command can be configured. Furthermore the delay time (in ms) after the command until the next is sent can be defined. The example above shows several Direct Act Power (Brightness) commands for different brightness and different destinations.

Most Lunatone control devices also provide the possibility to use these predefined macros or user-defined command lists instead of sending a single DALI command. After saving this list to a file (*.cot) it can be loaded on the device page of the DALI control device. In this case the destination-address defined on the top of the page for the button has no effect because the addresses are already defined in the command list – for each individual command.

	ngs Button 1 Button tination Address					Power up Action after power up:
1:	All (DALI Broadcast)	~			×	no change 🛛 🗸
2:	none	~			×	Delay:
3:	none	~			×	0 [07sec
4:	none	~			~	
] Cr	Sending ON AND STEP nd X (ON Cmd) Macro M5: User Define					
Cr	Sending ON AND STEP nd X (ON Cmd)	UP as Start-Cmr	~			

The user defined command-lists are a powerful feature. They offer a wide spectrum of additional functions that are not supported by the embedded functions of the device itself. As an example it is possible to send commands to different destinations on short and long button press (whereas in the standard setup there is always the same destination valid for the function defined for the button) or to send several commands to different destinations on a button press. Furthermore a command-list can be used to reconfigure devices (using configuration commands), which can be used to change the function of a control device or to realize dynamic groups and scenes.

HINT: Please note that user defined commands lists offer high flexibility. Due to this reason each entry in the command list contains information about the destination address. Hence each user defined macro is unique and the list has to be adapted if its function should be applied to another address range!

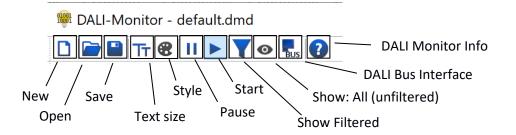
5 DALI-Line Monitoring

With the DALI monitor the traffic on the DALI-line can be visualised. This may be helpful to analyse if your controls are configured correctly and send the correct commands to control gear on specific events.

Example:

[+ 000						
Туре	Hex Data	Address	Command	Time	Date	Delta (mS)
DALI16 IAP	0105	A0	RECALL MAX LEVEL	16:17:05.463	27.09.2017	
DALI16 IAP	0106	AO	RECALL MIN LEVEL	16:17:11.713	27.09.2017	6250
DALI16 IAP	8105	G0	RECALL MAX LEVEL	16:17:19.416	27.09.2017	7703
DALI16 IAP	8100	G0	OFF	16:17:26.374	27.09.2017	6958

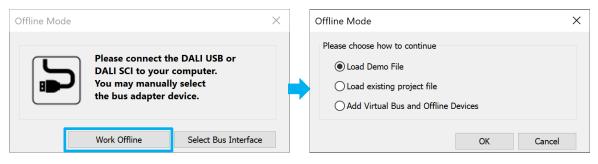
The monitor log can be saved to a file. This can be an important help for various analysis.



The instructions for the DALI monitor can be found under the icon 👔

🏶 DALI-Monitor - defa	ault.dmd	
🗋 🗁 🔛 Tr 😢 II		About DALI-Monitor X
find Hex:	find Addr:	DALI-Monitor V3.7.0 OK
Туре	Hex Data	Lunatone GmbH, 2021
DALI16 Query	03 B9	
DALI8 Answer	FF	User Guide: (click on link below to open pdf file)
DALI16 Query	03 BA	DALI-Monitor.pdf
DALI8 Answer	FF	<u>DALI Montoi pu</u>
DALI16 Query	03 BB	
DALI8 Answer	FF	Currently 2000 entries 2000 filtered (visible)
DALI16 Query	03 BC	Currently 2069 entries, 2069 filtered (visible).
DALLO A		

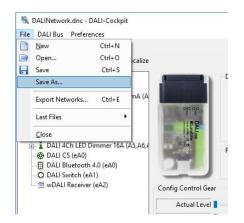
6 Offline Mode



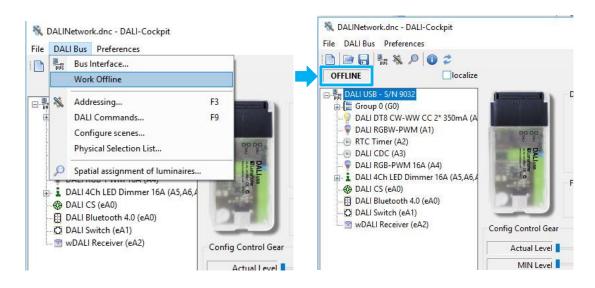
6.1 Load existing Project - Save and open network files

With "File \rightarrow Save As" a *.dnc File is created and stores the current configuration you have in your Cockpit. This file includes all parameters from all your devices.

Note: The Parameters from the devices must be read out once.



After the file is saved, it can be opened without connection to the DALI line. To look into the configuration of the devices, Offline Mode has to be activated (DALI Bus \rightarrow Work Offline).



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When OFFLINE appears above the component tree the devices can be accessed without loading data from the bus.

HINT: With this file it is possible to change all parameters without directly changing the device settings. When connecting to the DALI USB / Application, the default configuration is that parameters are read out from the devices and overwrite the settings from the file. If you want to apply the changes to the actual DALI lines follow the instructions in section 6.1.2

6.1.1 Using the project file with a different interface

When saving a project, the currently used DALI interface (serial number) is also saved in the project file. If the project file needs to be used with a different DALI interface, the old interface needs to be replaced with the new interface in the cockpit:

- Select the old interface in the component tree on the left (example see picture below S/N 138508, N/A indicates that this device is not connected)
- Right-click on the device to open the device menu and select "Change bus ...".
- Select the new interface in the opened dialog window (only the currently connected devices are displayed, S/N 112663 in the example below)

💐 DALINetwork.dnc - DALI-Cockpit		
File DALI Bus Preferences		
📄 🖻 🔒 🎭 🔌 🔎 🗿 🗢		
DALI USB - S/N 112663		o 1
Add new group Add Offline Device		
Change bus	DALLus Blumato	L Change DALI Interface ×
Close		Please select a DALI interface.
		Connected DALI Interfaces:
	Config Control Gear	DALI USB - S/N 112663 ~
	Actual Level MIN Level	Change Cancel

6.1.2 Edit network files and apply changes to DALI lines

First you have to load a *.dnc File (Creation of a *.dnc File is described in section 6.1) via "File \rightarrow Open". After the devices are shown in the component tree you have to activate the offline mode (DALI Bus \rightarrow Work Offline).

Then you click on the devices you want to configure, change the settings to your needs and click "save" (above the device configuration) and afterwards on "File \rightarrow Save".

State DALINetwork.dnc - DALI-Cockpit File DA Preferences Image: State		1	
OFFLINE localize	💡 🚉 🛄 read	save 🗸	
→ →		1	Name DALI DT turer Lunator

Now if you are again connected to the DALI-line you go into Settings \rightarrow Options and disable the "Read devices on selection" checkbox and click OK.

Options			>
Interface languag	je:		
English	~	Read devices on selection	
 The program has to started again, to activ language. 			
		OK Cancel	1

Load the *.dnc File using "File \rightarrow Open". Afterwards click on the device you changed settings and press on "save". The configuration is now stored into the device.

Attention: groups can not be assigned in offline mode!

6.2 Virtual Bus and Offline Devices

In addition to editing your own files offline, the offline mode is also used to demonstrate device settings. If no DALI interface is available, a virtual bus can be opened and offline devices can be added. To do this, select "Virtual Bus" at the beginning or in the menu – "DALI Bus" > "Add virtual Bus". Offline devices can be added to both a real and a virtual DALI bus - select "DALI Bus" > "Add Offline Device".

-							
💸 DALINetwork - DALI-Cockpit		Offline Mode	Offline Mode				
File	DA	LI Bus Preferences					
נ*	BUS	Bus Interface	Ctrl+B	Please choose how to	continue		
		Add Virtual DALI Bus		🔵 Load Demo File			
				O Load existing pr	roiect file		
					0,000		
				Add Virtual Bus	and Offline Devi	ces	
						ОК	Cancel

E- 🛱 DALI Virtual Bus						
💐 DALINetwork - DALI-Cockpit						
File DALI Bus Preferences						
📸 Bus Interface	Ctrl+B					
Add Virtual DALI Bus						
Work Offline						
Add Offline Devices						
Add Offline Devices		×	Add Offline Devices			×
DALI Gears	O Control Device	25		O DALI Gears	Control Devices	
Device: DALI 1-Channel LED Dimme	r	~	Device:	DALI-2 MC		~
Output Type: Constant Current		~	Model:	NFC		~
DALI Device Type: 6	Current: 350	mA ~	FW Version:	1.0.9 ~		
	Common: gen	n+ ~				
Generation: G2 ~	Power Supply: DC	12V-48V ~				
FW Version: 4.6.5						
	Address: A0	~			Address: A0 ²	~
	Add	Close			Add	Close

6.3 Load a Demo File

Available from Cockpit Version 1.38: To view device settings of older devices that are not available as virtual offline devices, the DALI Cockpit offers demo files that can be selected and opened with the "load demo files" option.

Offline Mode						
Please choose how to continue						
Load Demo File						
O Load existing project file						
○ Add Virtual Bus and Offline Devices						
OK Can	cel					

7 Firmware Update of Lunatone devices

Firmware updates of devices should only be carried out if a device is behaving incorrectly and in consultation with our support. Please contact our support and describe the problem you have with the device. If necessary, you will receive an activation key and instructions on how to proceed.

Additional Information

DALI-Cockpit Download – <u>https://www.lunatone.com/produkt-kategorie/software/dali-cockpit/</u>

Lunatone products – <u>https://www.lunatone.com/</u>

Lunatone Datasheets and Manuals - https://www.lunatone.com/downloads-a-z/

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Subject to changes. All statements without guarantee.