

MDT DALI gateways and the use of time control for HCL.

Info:

The MDT DALI gateways' time control function can be used to map a wide variety of scenarios. In this solution proposal we explain the possibility of HCL control. We assume that the DCA is installed and that the gateway including ECGs has already been commissioned.

Note:	A prerequisite for using time control is the linking of time and date with the DALI Control Gateway.					
Devices used:	MDT DALI Control Gateway SCN-DA641P.04S / SCN-DA641.04 / SCN-DA642.04					

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Example configuration for HCL

Human Centric Light - HCL for short - is a type of lighting that takes into account the non-visual effect of light. The illuminance and colour temperature of the light are continuously adapted to the natural course of daylight. Dimmed, warmer light in the morning and evening hours, brighter and cooler light at midday.



The DCA for the MDT DALI Control Gateways comes with a template for HCL. In the still empty time control window, we right-click and select "Import Template".

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Topology Backbone 🔻	DALI Control Pro6	4 Gateway								
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▲ 🗄 1.1 New line	Template 1 🗸 🔹	Description		Mode Temp	olate enabled	Manual override	🗹 👤 Downloa			
1.1.1 DALI Control Pro64 Gateway	Function	Value	Hour Minut	e Fade Time M T N	N T F S S					
			Import Temp	olate						
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In the following window, select the file "MDT HCL.xml" and open it.

Import										×
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The default path to the file is C:\ProgramData\KNX\ETS5\Apps\AddIns\M0083-A0148\Templates



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Solution Proposal



In the right-hand column, the DALI groups that are to use time control are first activated with a tick. The following two functions are used for HCL:

[Set Max On Value] and [Colour Temperature]

[Set Max On Value]:

The brightness value valid from a certain time is set here. In the template, for example, a switch-on value of 15 % brightness applies from 00:00. The next switch-on value of 50 % applies from 06:00 and so on. If the light is switched on at 05:00, for example, it is dimmed to 15 % brightness. However, if the light is already switched on and the time reaches the next [Set Max On Value], it is automatically dimmed to this new brightness value. The [Fade time] set in the table specifies how quickly the brightness changes. The higher the value, the smoother the transition. (Os = direct)

[Colour Temperature]:

The colour temperature valid from a certain time is set here. In the template, for example, a colour temperature of 2700 K applies from 00:00. The next colour temperature of 3075 K applies from 06:30 and so on. For example, if the light is switched on at 05:00, the colour temperature is set to 2700 K. However, if the light is already switched on and the time reaches the next [Colour Temperature], the system automatically switches to this new colour temperature. The [Fade time] set in the table specifies how quickly the colour change takes place. The higher the value, the smoother the transition. (0s = direct)

Note:

For the parameterised values to become active, the time of the function must be run through. If programming is carried out at 7:05 a.m., for example, or the bus is reset, the 7:00 a.m. setting is not yet active. In the example below, the **[Set Max On Value]** is only set to 75% at 7:15.

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Template 1 🗸 🔹	Description MDT HCL		Mode Temp	late enabled	 Manual override United to the second se	
Function	Value	Hour Minute Fa	de Time M T V	VTFSS		Groups
et Max On Value	15	00 00	0s 🗸 🗸			▲ Group01
olour Temperature	CT: 2700°K	00 00	90s 🗸 🗸			Group02
et Max On Value	50	06 00	0s 🗸 🗸 🕻	/ / / / /		
Colour Temperature	CT: 2700°K	06 00	90s 🗸 🗸 🕻	/ / / / /		
et Max On Value	55	06 15	0s 🗸 🗸	/ / / / /		
et Max On Value	60	06 30	0s 🗸 🗸			Group05
olour Temperature	CT: 3075°K	06 30	90s 🗸 🗸 🕻	/ / / / /		Group06
et Max On Value	65	06 45	0s 🗸 🗸 🕻			Group07
et Max On Value	70	07 00	0s 🗸 🗸			🗆 弄 Group08
olour Temperature	CT: 3450°K	07 00	90s 🗸 🗸	/ / / / /		🗆 🚠 Group09
et Max On Value	75	07 15	0s 🗸 🗸			🗆 🕂 Group10
et Max On Value	85	07 30	0s 🗸 🗸			🗆 🕂 Group11
Colour Temperature	CT: 3825°K	07 30	90s 🗸 🗸 🕻	/ / / / /		🗆 📇 Group12
et Max On Value	95	0745	0s 🗸 🗸	/ / / / /		Group13
et Max On Value	100	08 00	0s 🗸 🗸	/ / / / /		Group14
olour Temperature	CT: 4200°K	08 00	90s 🗸 🗸 🕻	/ / / / /		Group15
Colour Temperature	CT: 4850°K	09 00	90s 🗸 🗸	/ / / / /		
et Max On Value	100	10 00	0s 🗸 🗸			
Colour Temperature	CT: 5500°K	10 00	90s 🗸 🗸	/ / / / /		ECGs
olour Temperature	CT: 5625°K	10 30	905 2 2			LL ECG01
Colour Temperature	CT: 5750°K	11 00	905 2 2			Li ECG02
et May On Value	100	12 00				ECG03
Colour Temperature	CT: 6000°K	12 00				ECG04
at Max On Value	100	14.00				ECG05
olour Temperature	CT COODEN	14 00				ECG06

DALI Control Pro64 Gateway



Solution Proposal



The template is completely editable, so the clock times, brightness and colour values, as well as the Fade Time and the desired days of the week can be adapted to your own requirements.

Important:

The Time Control and all changes to it are programmed at the top right <u>of the DCA</u>! The Download button must be pressed separately for each area (Scenes, Effects, etc.)!

DALI Control Pro6	4 Gateway					
O Commissioning	Motion Detecto	1111 Effects	📅 Time Control	Report	e Ext	as i
Template 1 🗸 🔹	Description MDT HCL	Mode	Template enabled	Manual override		ownload

Additional functions

Behaviour of the template

The behaviour of the template can be set via a drop-down menu in the DCA. The template can be permanently deactivated, activated or controlled by an object.

DALI Control Pro64	4 Gateway					
O Commissioning	Motion Detecto	Scenes	1111 Effects	Time Control	Report 🤌 Extras	i About
Template 1 🗸 🔹	Description MDT HCL		Mode	Template controlled by KNX-Object	Manual override 🗌 👤 Di	ownload
Function	Value	Hour Minute	Fade Time M	Template disabled		🔺 📩 Groups
Set Max On Value	15	00 00	0s 🗸	Template enabled		▲ Group01
Colour Temperature	CT: 2700°K	00 00	90s 🗸			
Set Max On Value	50	06 00	0s 🗸	v v v v v		

[Template controlled by KNX-Object] activates the associated 1-bit object. Here using the example of template 1. Each template can be activated/deactivated by a separate object.

■≵ 2095	Schedule 1, Activation	Activate/Stop	1 bit	с -	w -	-	start/stop

Manual override

If [Manual override] is activated, manual dimming of brightness or colour temperature stops the time control. It is reactivated daily at the change of day or when the group/ ECG is switched ON again.

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Template 1 🗸 🔹	Description MDT H	CL	Mode	Template controlled by KNX-Ob	oject 🔹 Manual overric	ie 🔽	👤 Download

