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.

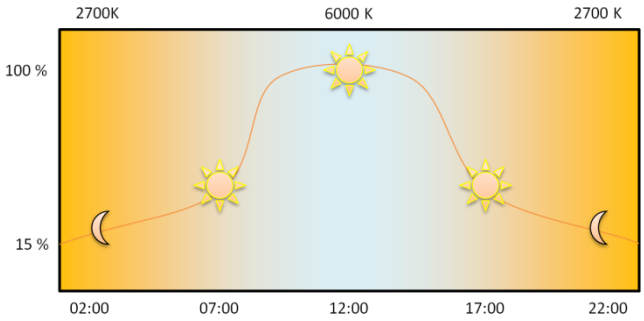
Note: A prerequisite for using time control is the linking of time and date with the DALI Control Gateway.

Devices used: MDT DALI Control Gateway
SCN-DA641P.04S / SCN-DA641.04 / SCN-DA642.04

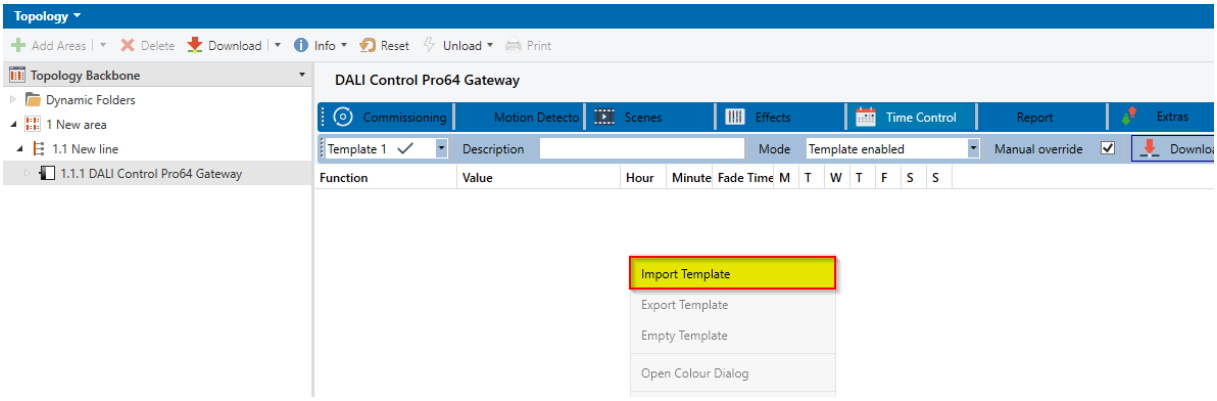
Contents

Example configuration for HCL

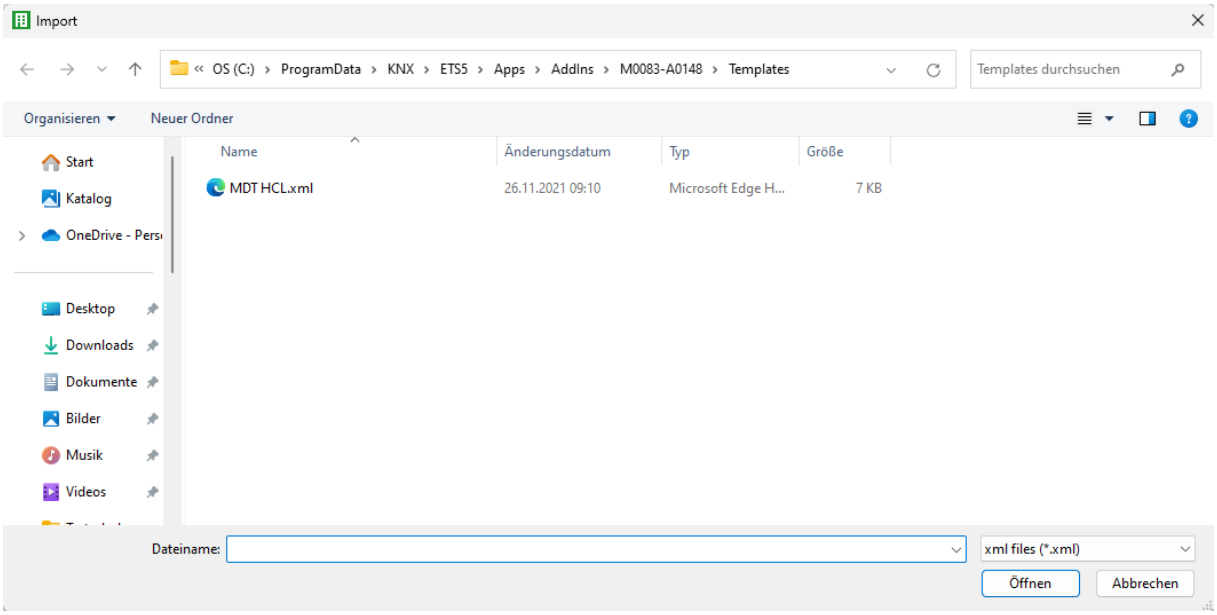
Human Centric Light - HCL for short - is a type of lighting that takes into account the non-visual effect of light. The illuminance and colour temperature of the light are continuously adapted to the natural course of daylight. Dimmed, warmer light in the morning and evening hours, brighter and cooler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



In the following window, select the file "MDT HCL.xml" and open it.



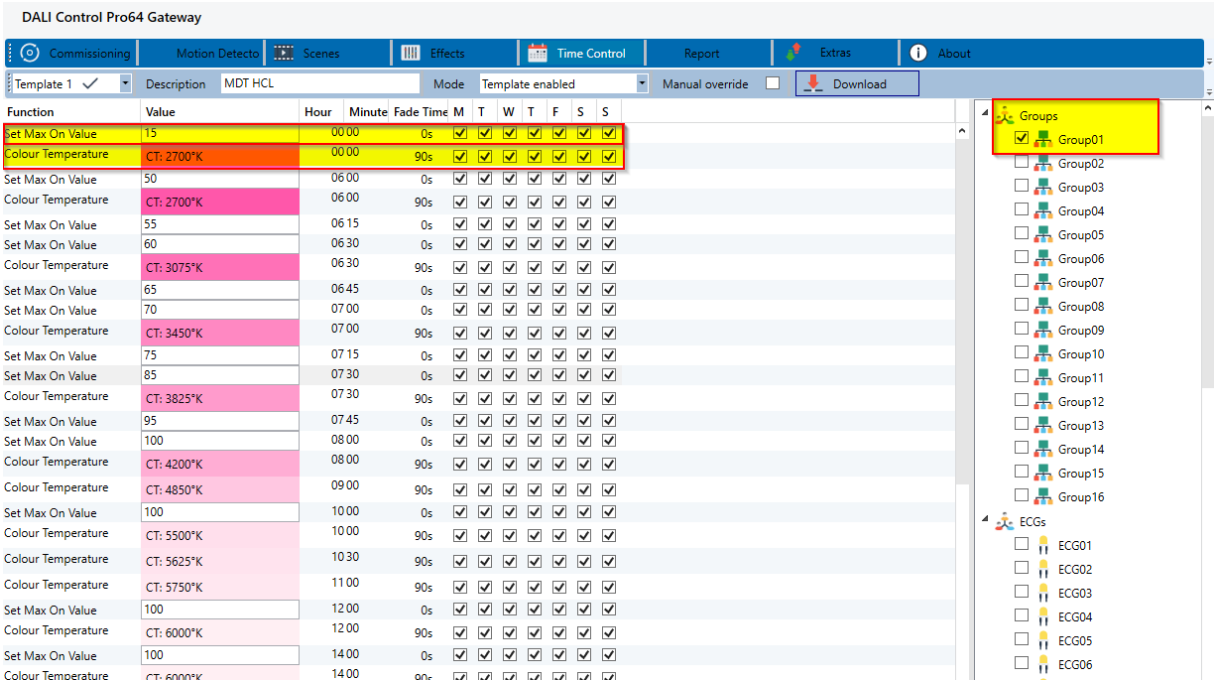
The default path to the file is *C:\ProgramData\KNX\ETS5\Apps\AddIns\M0083-A0148\Templates*

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. (0s = direct)

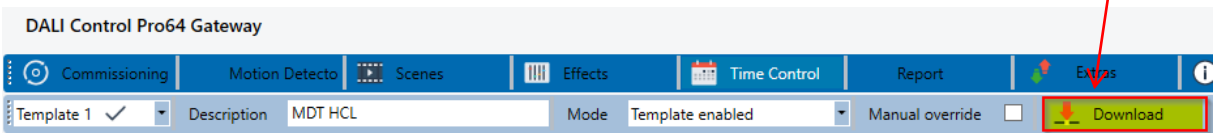
[Colour Temperature]:
The colour temperature valid from a certain time is set here. In the template, for example, a colour temperature of 2700 K applies from 00:00. The next colour temperature of 3075 K applies from 06:30 and so on. For example, if the light is switched on at 05:00, the colour temperature 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.



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.

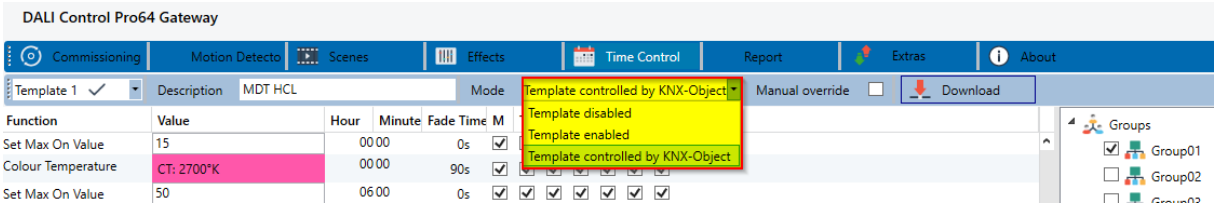
Important:
The Time Control and all changes to it are programmed at the top right of the DCA! The Download button must be pressed separately for each area (Scenes, Effects, etc.)!



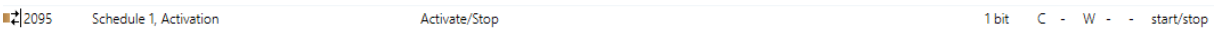
Additional functions

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.



[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.



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.