

VIRTUAL OBJECT – SCHEDULER MANUAL

Object Manager Configuration

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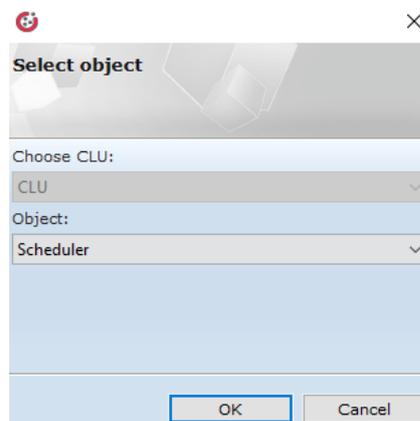
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1. ADDING VIRTUAL OBJECT TO THE CONFIGURATION

1. Open Object Manager configuration software
2. Create a new project and carry out / Open an existing project and communicate with CLU
3. From the main menu select the option *Add CLU Virtual Object*



4. Select object Scheduler
5. Confirm with OK button



6. Enter the schedule name and confirm with OK button

ATTENTION! Names of virtual objects cannot contain spaces

7. After creating an object a configuration window of virtual object Scheduler will appear on the screen- it contains 4 tabs
8. The window may be closed and the configuration may be sent at the stage of created virtual object not steering any device or one may proceed to the step related to Configuration of Virtual Object

2. VIRTUAL OBJECT CONFIGURATION

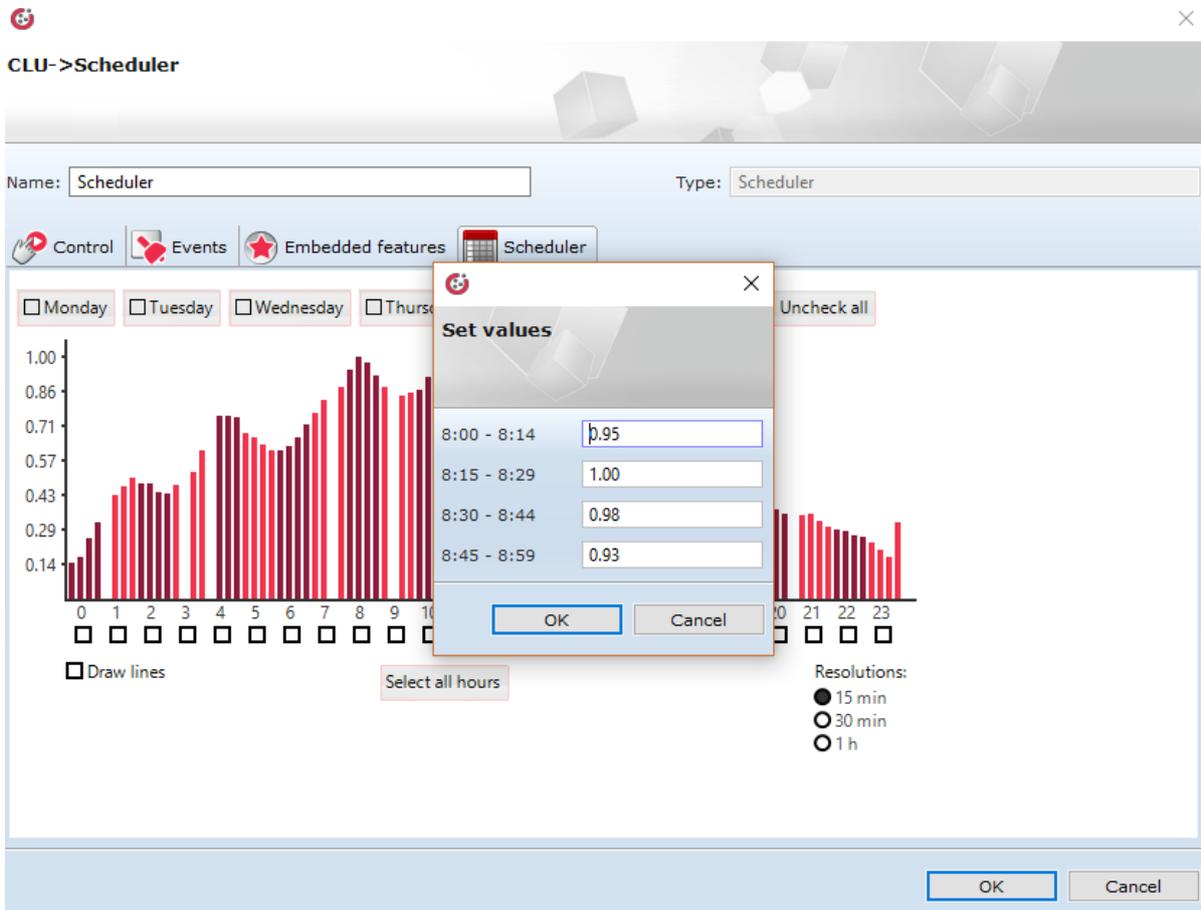
1. Basic Configuration

- a. Virtual Object Schedule enables setting with a resolution of every 15 minutes, changing the value in any scope, which may be used for controlling devices such as Dimmer, AnalogOut or even Relay outputs
- b. Go to *Events* tab and within event *OnHarmonogram* set up an action (i.e. by means of method *SetValue* of Dimmer module - see: point 4b)
- c. Go to *Schedule* tab and depending on your needs, set up the values depending on the time- in the used example these will involve values of light bulb intensity connected to the Dimmer module (see: point 2)
- d. Send configuration to CLU (in order to carry out more detailed configuration you may use the below instructions)
- e. Having configuration sent, make sure that the schedule is in operational mode (feature *State* is set for value 1- see: point 7)

2. Scheduler Tab

- a. This tab enables setting of the requested values depending on the hour and day of week. These values may be passed on to other modules Dimmer - see: point 3b) or for example user features
- b. Change of lower or upper border of the area of schedule values is possible (see: point 2e)
- c. This tab enables indicating the resolutions we are interested in, which reflects the time interval set for a given value- 15, 30 or 60 minutes
- d. On the top beam we should indicate which days we wish to set up. Having set up the schedule for a specific day it is possible to switch between different days-there is no need to close the object with an OK button and submit configuration-this may be done once we have finished configuring the entire object. It is possible to use the option *Select/ Deselect all*
- e. For specifically selected days it is possible also to indicate several different hours for which we wish to perform the setting. If you select several hours, after right-clicking with a mouse in the area of the schedule, the value will change for the selected hours. It is possible to use options *Select all hours*

- f. Apart from setting up the schedule by dragging with the mouse around the area of settings, it is possible to enter specific values manually. To do so, click with the mouse on the hour you are interested in, enter the values and confirm with OK button.



3. Embedded Features Tab

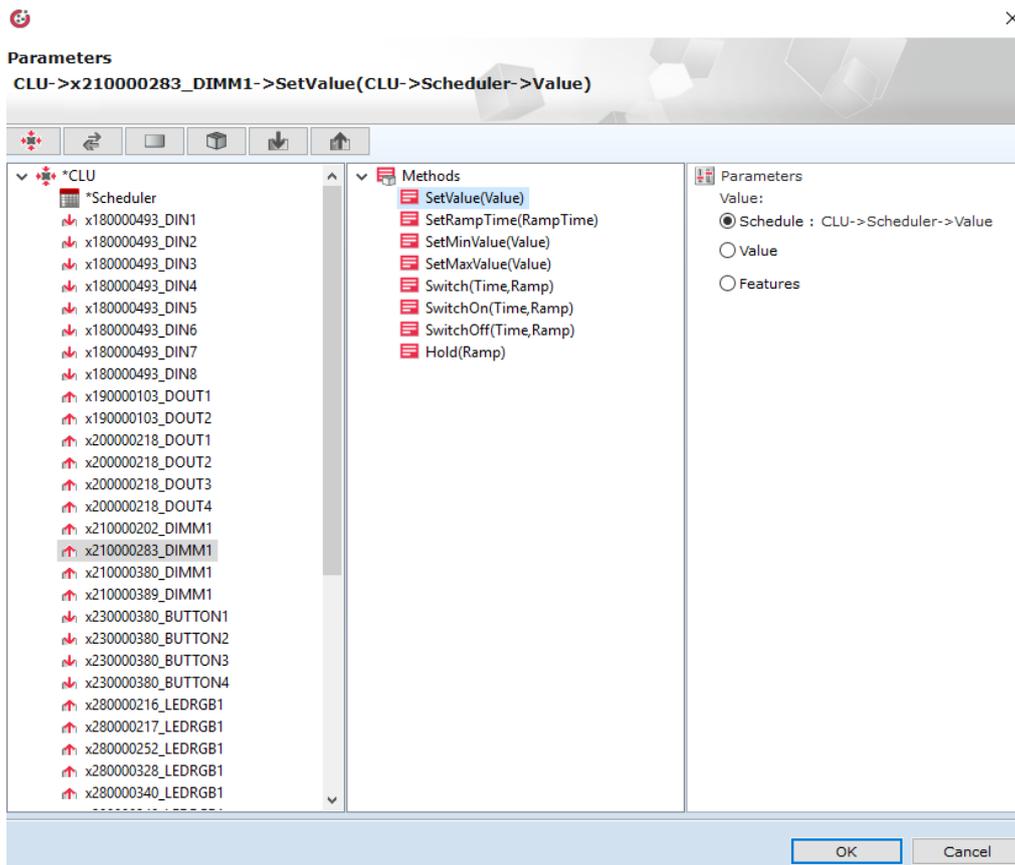
- a. This tab enables a preview of values specifying the virtual object
- b. Feature Data is a sequence of signs defining the schedule entered in the Schedule tab-it may be copied and pasted to the method *SetData* so that after making changes it was easy to return to the previous settings.

ATTENTION! If, having performed the method, CLU is reset, the feature Data will be set as at the initial performance and submission of configuration to CLU

- c. Feature *State* specifies the status of virtual object. Status with the value of 1 means that the object is analyzing, operating and rescheduling the set schedule in order to steer it (see: point 3b). Value 0 means that even if the schedule is set (feature *Data* and the Scheduler tab) the event *OnHarmonogram* is not evoked
- d. Feature *Value* contains the value set in the Schedule tab for the given 15 minutes. It may be passed on to another module/user feature. This value refreshes every 15 minutes
- e. Features *Min* and *Max* specify the limits of settings for the Schedule tab. Change in features does not require configuring, after switching to the Schedule tab the limits are automatically changed

4. Events Tab

- a. Virtual Object reacts to 3 events to which specific actions may be assigned which are to be carried out after the occurrence of events
- b. Event *OnHarmonogram* is evoked every 15 minutes from a full hour at the time of Reading of the value as per the schedule. The event may be assigned the method *SetValue* within the module Dimmer, in order to control the intensity of lights depending on the time of day and day of week.



- c. Event *OnStart* is triggered at the time of changing the feature *State* from 0 to 1 - launching the action of the schedule
- d. Event *OnStop* is triggered at the time of changing the feature *State* from 1 to 0 - stopping the action of the schedule

5. Methods Tab

- a. This tab contains 3 methods which may be set as actions for occurrence of specific events or they may be evoked by clicking the  button upon a given method
- b. Method *Start* is designated for launching the operations of virtual object. Evoking the method sets up feature *State* of the object at value 1
- c. Method *Stop* is designated to stop the operations of virtual object. Method sets the value of feature *State* to 0

- d. Method *SetData* is designated to set up the schedule by means of a sequence of alphanumeric signs-it may be used for instance when we create configuration in Schedule tab (feature *Data* will contain the current sequence defining data entered into the schedule). The sequence of signs created on its basis may be copied and pasted to the evoked method *SetData*, in case of carrying out changes and an intention to re-use the initial settings without the necessity to set up the poles in the tab *Harmonogram*

6. After finishing making the configuration, remember about sending it to the CLU



7. Make sure that feature *State* of all the created schedules are equal to 1. In order to check, double-click on the virtual object Schedule on the list of modules and proceed to tab Features. Otherwise, launch it by means of the method *Start* in each schedule (see: point 5b)

CLU->Scheduler

Name: Scheduler Type: Scheduler

Control Events Embedded features Scheduler

| Feature name | Current value | Initial value | Unit | Range |
|--------------|---|---------------|------|-------|
| Data | d^g6mJs^00D9GsJ0HzHzEgDVG= d^g6mJs^00D9GsJ0HzHzEgDVG= | | | |
| State | 1 | | | |
| Value | 0 | | | |
| Min | 0 | 0 | | |
| Max | 1 | 1 | | |

Auto refresh Refresh

OK Cancel