

Operating instructions – “*myPILED*” PC Application

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## 1. System Requirements

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- USB stick driver or DALI Cockpit installed
- PC application installed
- Zigbee or DALI network created and light groups configured
- USB stick or DALI USB inserted
- PC application started

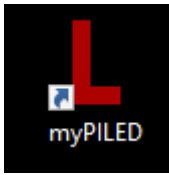
## 2. General

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The myPILED application is a PC application designed to control Lumitech PI-LED lights. The following functions can be performed with the application:

- controlling the brightness and colour temperature of lights (also possible using the keyboard)
- controlling the lights in RGB mode
- controlling the lights in CIE x/y mode
- retrieving predefined scenes
- retrieving predefined sequences
- starting the daylight sequence depending on the geographical latitude
- selecting the groups to be controlled
- loading images into the application and calculating an optimal colour temperature
- recording images from web cams

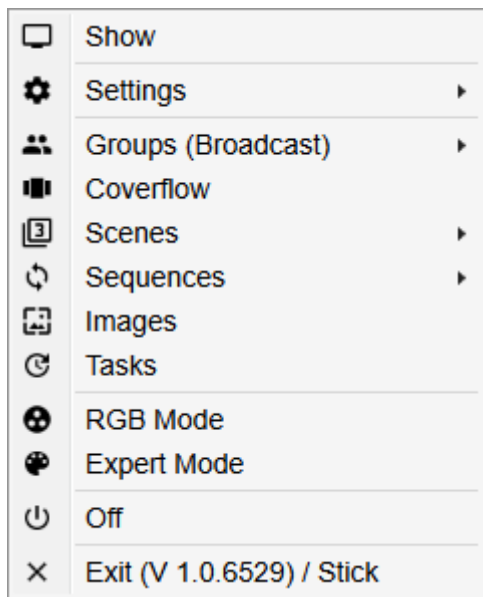
### 3. Starting / Stopping the application



The myPILED PC application is started by clicking on the icon. If “Autostart” is selected, the application will launch automatically when the computer starts.



The application does not have a main window but is displayed as an icon in the notification area (next to the date and time).



Application functions can be called up via the (main) context menu.

This menu is accessed by right-clicking on the application icon.

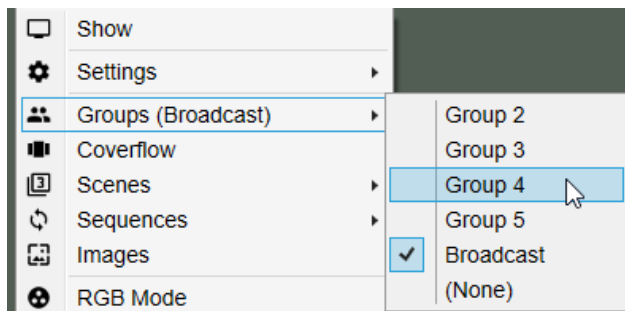
Several groups can be selected simultaneously under the <<Groups>> menu item.

Clicking on <<Off>> terminates all sequences and sets the brightness of the selected groups to “0%”.

Clicking on <<Exit>> closes the application.

Alongside the <<Close>> command, the display shows the current program version and whether the application is associated with a Zigbee USB stick (“stick”) or a DALI USB mouse (“mouse”).

## 4. Selecting Groups



The groups to be controlled are selected under the <<Groups>> menu item. These are indicated by a check mark.

Groups are configured under the menu item “Settings → Network Setup”

All other colour temperature, brightness, etc. commands are then sent to the selected groups.

The “Broadcast” group is a special group. It includes all groups available in the current network.

The group “None” means that no group has been selected. Therefore, no commands are sent.

## 5. Control

### 5.1. Colour temperature/brightness using keyboard



The following hotkeys are defined in the application:

- <<Ctrl + Up>> → Increase brightness
- <<Ctrl + Down>> → Decrease brightness
- <<Alt + Up >> → Increase colour temperature
- <<Alt + Down>> → Decrease colour temperature

If the brightness and/or colour temperature are changed using the hotkeys, a text balloon above the application icon will show the current setting.

If “automatic daytime cycle” is active, the colour temperature cannot be changed using the keyboard, but the brightness can.

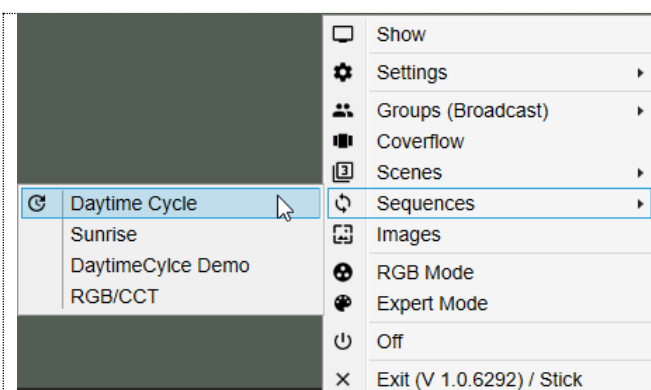
### 5.2. Controlling the colour temperature/brightness with the mouse wheel

The colour temperature and brightness can also be changed using the mouse wheel by pressing a “modifier button”:

- <<Ctrl + mouse wheel>> → Increase/decrease brightness
- <<Alt + mouse wheel>> → Increase/decrease colour temperature

### 5.3. Automatic daytime cycle

The automatic daytime cycle changes the colour temperature of the selected lights to create as natural a daylight cycle as possible that supports human biorhythm. The brightness of the lights is not changed by the automatic daytime cycle. This can be modified manually by the user.



The automatic daytime cycle can be initiated under the menu “Sequences” → Daytime cycle or will start automatically when the application is launched, if that has been chosen in the settings.

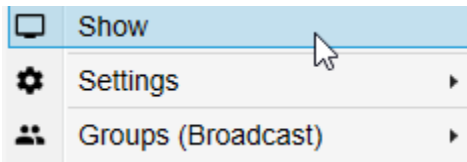
Daytime cycle will be sent to the selected groups.

## 5.4. Colour temperature mode

The application has 3 modes for controlling the lights:

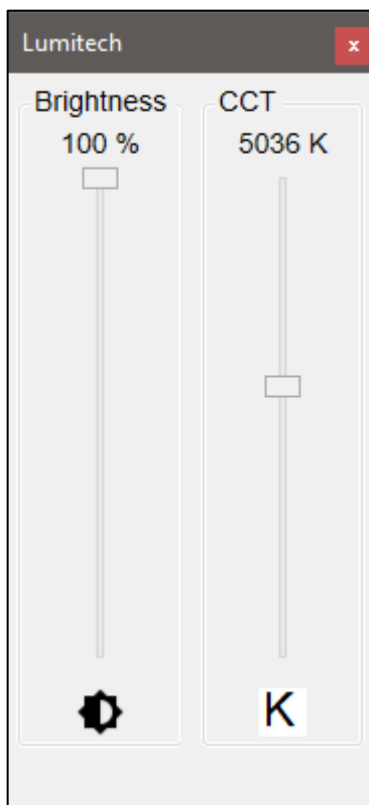
- Colour temperature mode (default)
- RGB mode
- CIE xy mode

The brightness can also be controlled in each mode.



The colour temperature mode is the default mode. The dialogue for controlling the colour temperature and brightness is called up by clicking on the <<Display>> menu item.

The dialogue can also be called up by clicking on the application icon in the notification area.



Dialogue for controlling the colour temperature and brightness.

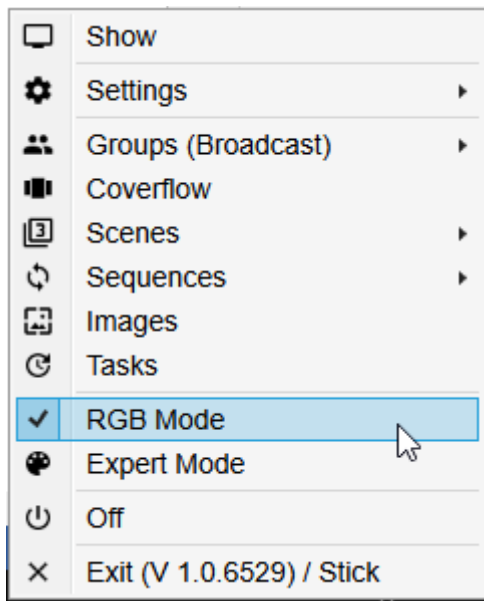
The controls are changed using the mouse button.

If the "Automatic daytime cycle" is active, only the brightness can be changed, not the colour temperature. The sequence must be cancelled in order to change the colour temperature.

The brightness and colour temperature can also be controlled using the keyboard:

- <<Ctrl + Up>> → Increase brightness
- <<Ctrl + Down>> → Decrease brightness
- <<Alt + Up>> → Increase colour temperature
- <<Alt + Down>> → Decrease colour temperature

## 5.5. RGB mode



Click on <<RGB mode>> command in the menu to select RGB mode. A check mark appears instead of the icon to indicate that RGB mode has been selected.

Next, select the <<Display>> command in the menu to display the dialogue.

The dialogue can also be called up by clicking on the application icon in the notification area.



Dialogue for changing the RGB colours

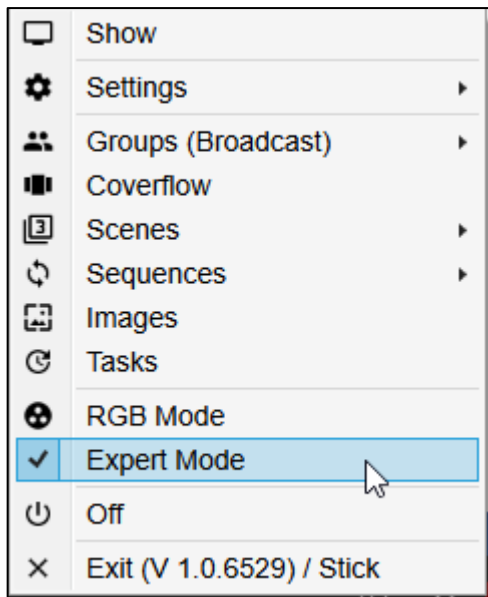
The controls are changed using the mouse button.

Note!

The controls for red/green/blue change the ratio of the corresponding channel to the other channels. The control for brightness changes the total brightness.



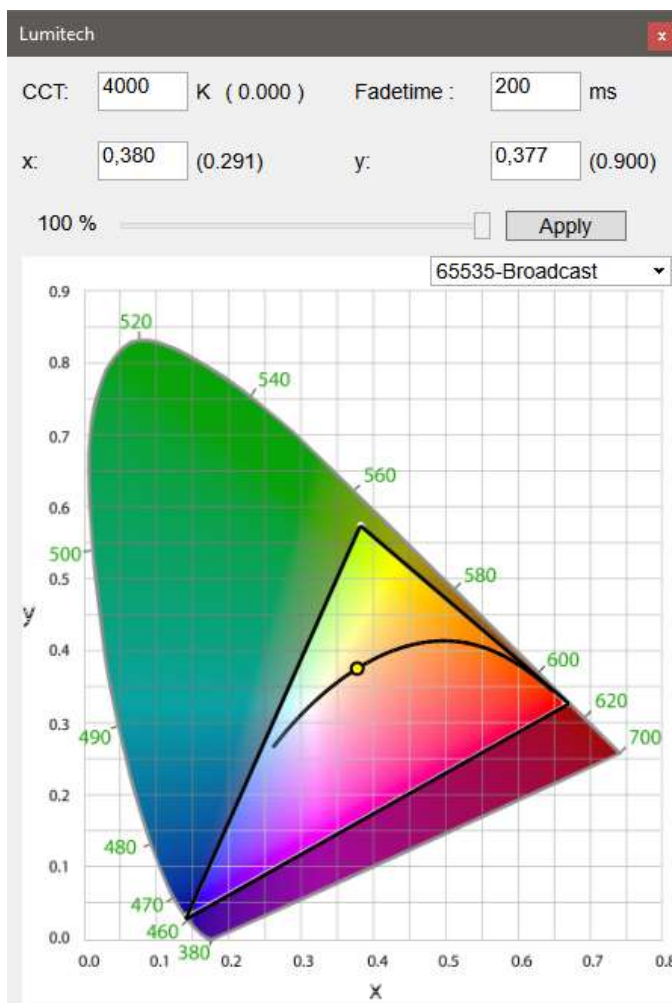
## 5.6. Expert mode



Click on the <<Expert mode>> command in the menu to select Expert mode. A check mark appears instead of the icon to indicate that RGB mode has been selected.

Next, select the <<Display>> command in the menu to display the dialogue.

The dialogue can also be called up by clicking on the application icon in the notification



The following functions can be performed using this dialogue:

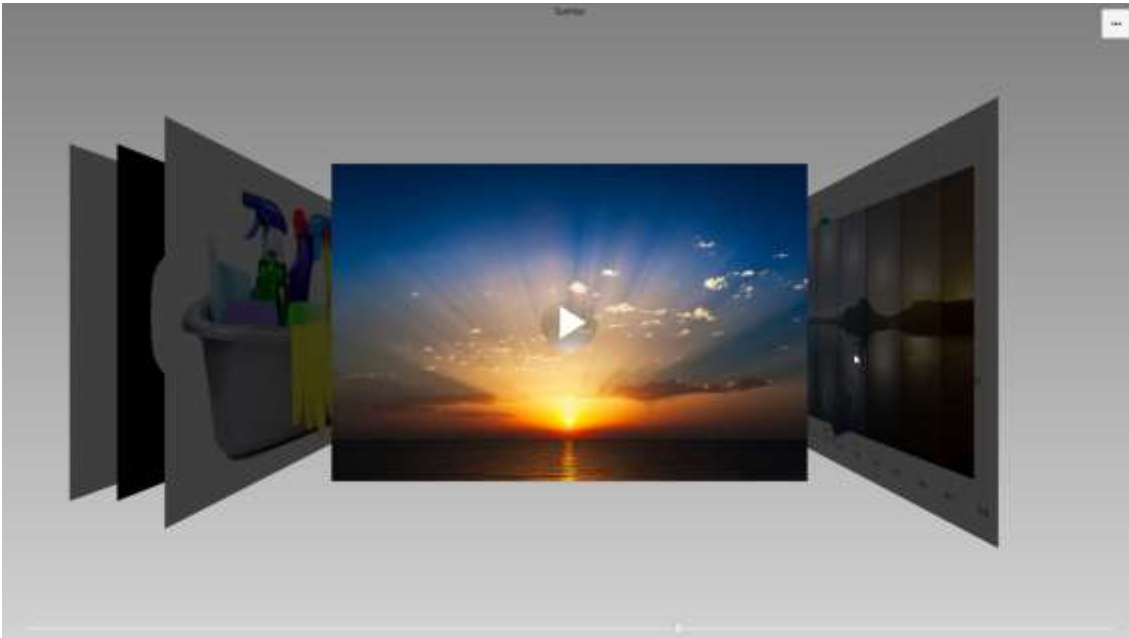
- Manual input of the colour temperature in the "CCT" text box
- Manual input of x/y coordinates in the "x" and "y" text boxes
- Manual input of the fading time
- Changing the brightness using controls
- Change the x/y coordinates by clicking in the CIE chart.

When clicking <<Apply>> or leaving the input boxes the settings will be accepted and sent to the lights.

Actual groups can be selected directly in this dialog.

## 6. Coverflow

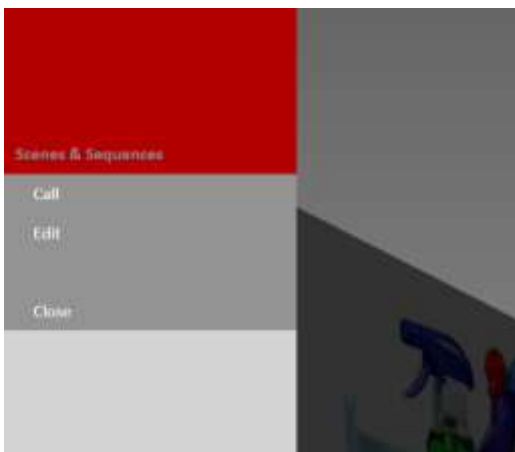
In the case of the “Coverflow” display of scenes and sequences, the image assigned to the scenes and sequences is displayed in a slide carousel in a similar way to iTunes CD covers. The image from the next scene can be brought to the front by swiping. Double-clicking on the image calls up the corresponding scene or sequence.



The slide carousel is called up from the main menu via the “Coverflow” menu item. The display is in full-screen mode. In the case of sequences, a button is displayed in the centre of the image, depending on whether the sequence is stopped or started.

The following functions are available:

- **Single-click** on the image → Call XML scene or start / stop the sequence
- <<Start>> button for sequence → Start sequence
- <<Stop>> button for sequence → Stop sequence
- <<ESC>> → To exit the “Coverflow” dialogue
- <<Menu>> button → Call the “side menu”

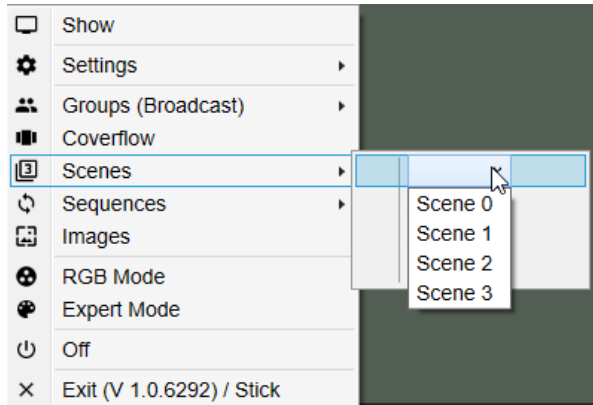


Pressing the “Menu” button at the top right of the Coverflow dialogue displays a menu with the following options:

- <<Call>> → Call XML scene or start / stop the sequence
- <<Edit>> → Call the Set-up dialogue for XML scenes and sequences
- <<Close>> → Close the “Coverflow” dialogue

## 7. Recall Scenes

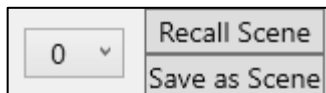
### 7.1. Luminaire scenes



The predefined scenes can be set by selecting the “Scenes → Scene 0 to scene 15 from drop-down menu” menu item.

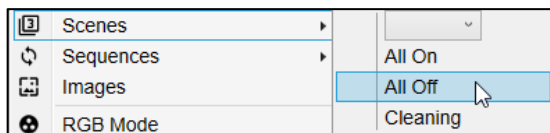
#### Caution!

The choice in the drop-down menu is predefined with 0 to 3, but that does not mean that 4 scenes are stored in each light. Up to 16 scenes can be stored per light. Luminaire scenes can be enabled from “Settings→Setup Scenes” menu item.



Scenes can also be retrieved and stored in each colour setting dialogue (CCT mode, RGB mode, Expert mode) by calling up the context menu (right mouse button, see image on left).

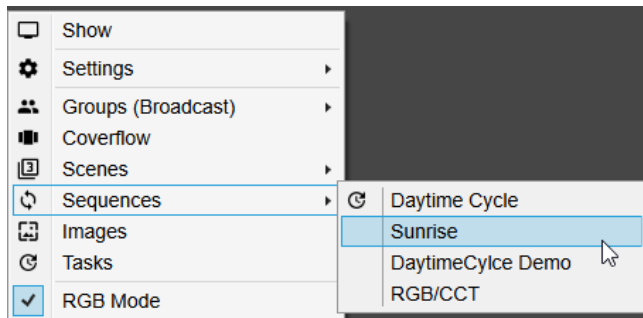
### 7.2. XML Scenes



The myPILED application can also be used to create and retrieve scenes using an XML file (see also “Setup dialogue”). This has the advantage that a random number of scenes and sequences can be input.

The scenes are retrieved using the “Scenes→ Scene name” menu item. The commands are then sent from the application to the groups entered in the XML file.

## 8. Run Sequences



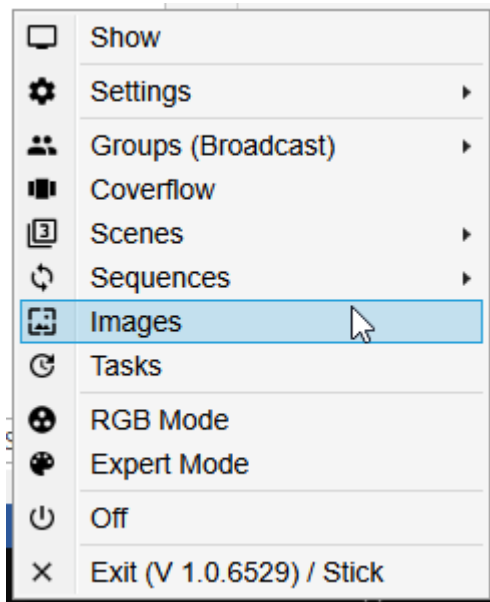
To start a sequence, click on the relevant sequence under the <<Sequences>> menu item.

The selected sequence is started and the sequence name is displayed in brackets in the main context menu. The icon in the <<Sequences>> menu item changes and the selected sequence is assigned a check mark in the sub-menu.

Several scenes can be started at the same time because each scene can affect other groups.

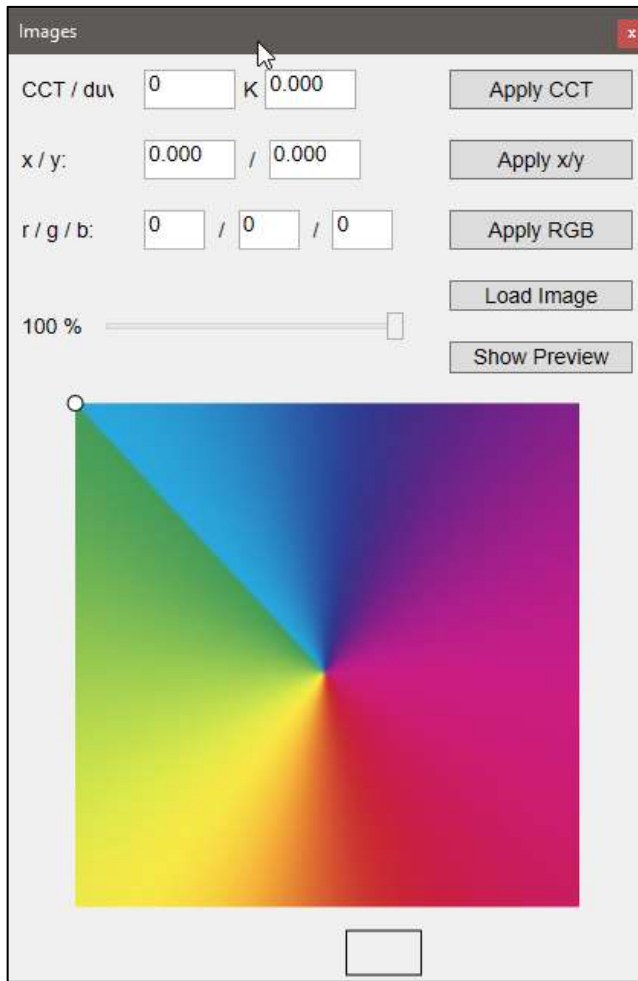
## 9. Images Dialog

This function can be used to read in an image from a hard disc or directly from a web cam, select a point or area in the image and then calculate the colour temperature and x/y values of the image. These values can then be assigned to the lights to ensure optimal illumination of the presented products.



The dialogue for “Calculating the optimal colour temperature for the illumination” is displayed by selecting the <<Images>> menu item.

## 9.1. Loading Images, Drag & Drop



Operation is as follows.

1. The "Load image" button is used to select an image from the hard disc.
2. Clicking on a point in the image reads the RGB coordinates and converts them into x/y values and CCT/duv.
3. Setting the brightness slider
4. Setting the values:
  - a. Using CCT
  - b. Using x/y
  - c. Using RGB

Re a.) Using CCT

The calculated colour temperature on the Planck curve is set, i.e. duv is set to 0.0.

Re b.) Using x/y

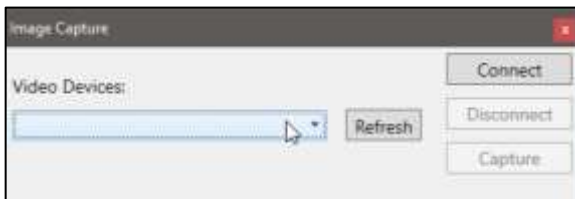
The calculated x/y coordinates which "enable" the PI-LED triangle are set. This means that when a colour temperature is calculated, it and the duv value (= variance from the Planck curve) are set.

Re c.) Using RGB

The RGB values read from the image are set directly.

An image can also be moved into the window from Windows Explorer using Drag & Drop

## 9.2. Select Webcam



The "Show Preview" button is first used to display a selection dialogue for the available Video Devices.

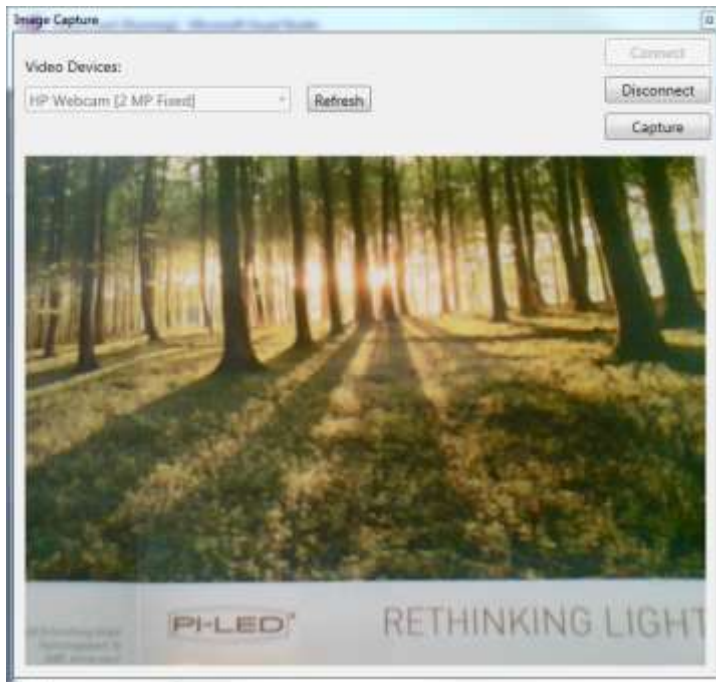
Local webcams and the IP webcams (only In-star are used at present) are displayed directly, on the laptop, for example.

IP webcams are found by scanning the local network. This can take about 10 seconds. Pressing the "Refresh" button then displays these IP webcams in the selection dialogue.

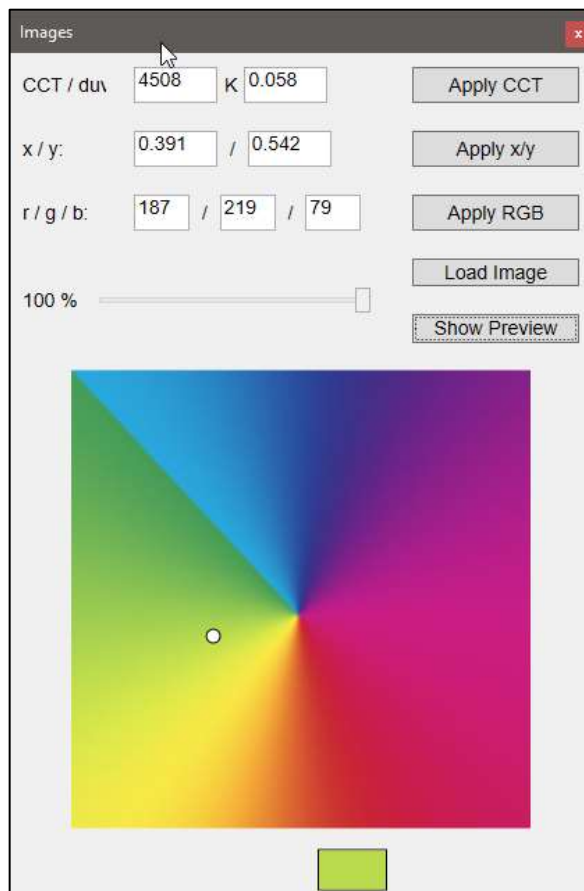
The "Connect" button then opens a dialogue in which the image of the selected webcam is displayed.

The "Disconnect" button stops the capture of webcam images.

## 9.3. Capture Image



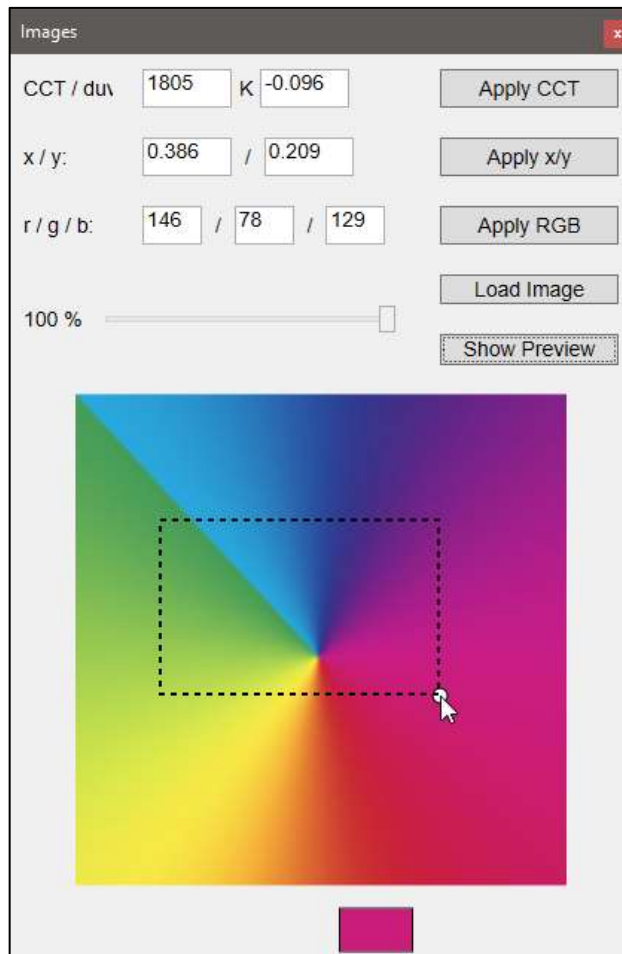
“Capture” is pressed to transfer the current image to the “Images” dialogue. The colours can be taken from points in the image.



The captured image is shown in the “Images” dialogue.



## 9.4. Defining Selection Range



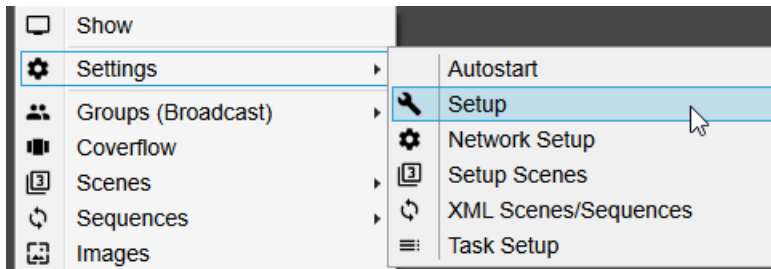
An area in the image can be defined by **dragging with the mouse** and used to calculate the colour.

An average value for all colour pixels in the area is calculated and the corresponding colour temperature and x/y values derived from the result.

## 10. Tasks

With the menu option „Tasks“ you can start/stop the tasks which have been set-up within the „Task-Setup Dialog“ (see separate documentation)

## 11. Setup

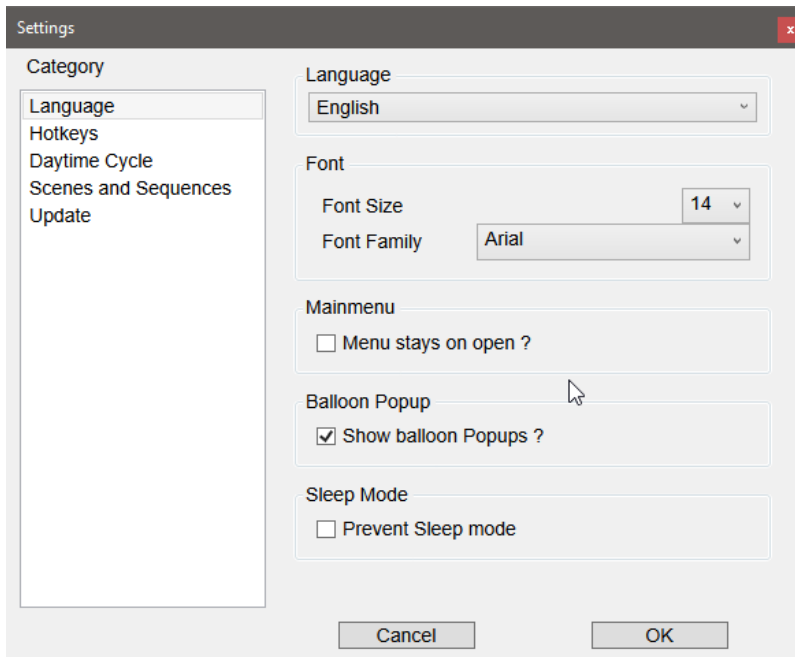


To configure the application go to Settings→Setup.

<<Autostart> option is used to automatically start the application when the computer is booted and a user logs in.

In the Setup Dialog you can define the following categories of features:

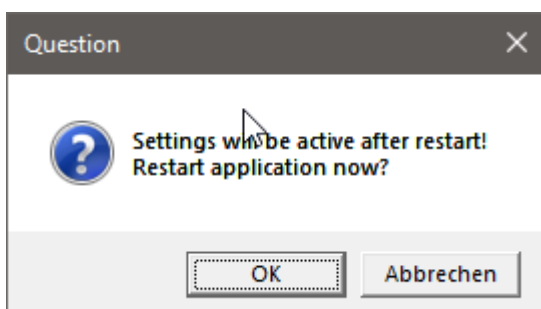
- Language
- Hotkeys
- Daytimecycle
- Scenes and Sequences
- Update

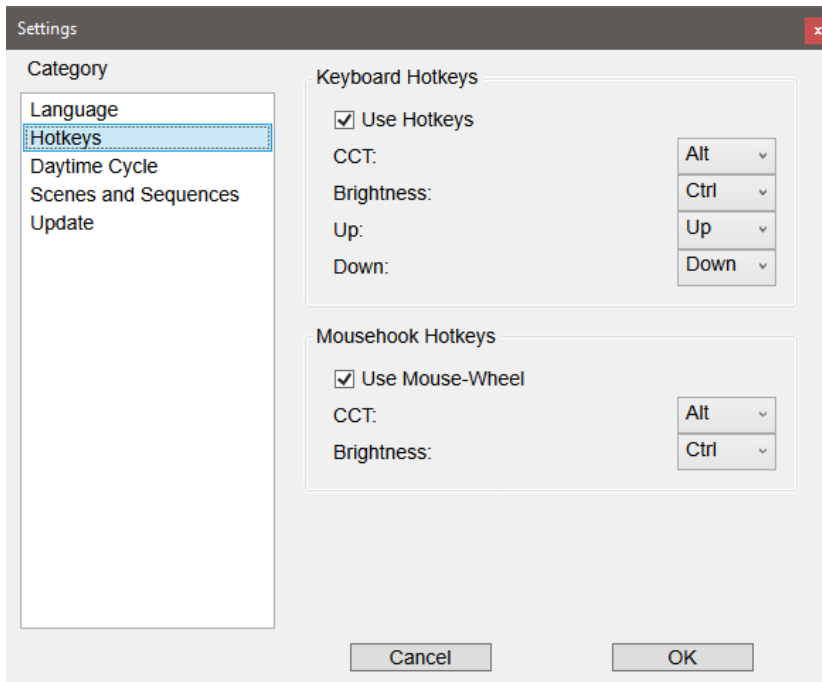


- Language (Deutsch, English, Francais)
- Font and Font size
- „Menu stays open“ can be used to allow easier usage of the application e.g. on tablets (where a right mouse click can only be executed through longer press on the display)
- „Show balloon popups“ displays newly applied light settings with popups in the lower right corner above the application logo.
- „Prevent Sleep Mode“ shall prevent the computer from going into this mode e.g. when running sequences in the background

### Hint!

The new settings will be applied after the application is restarted.

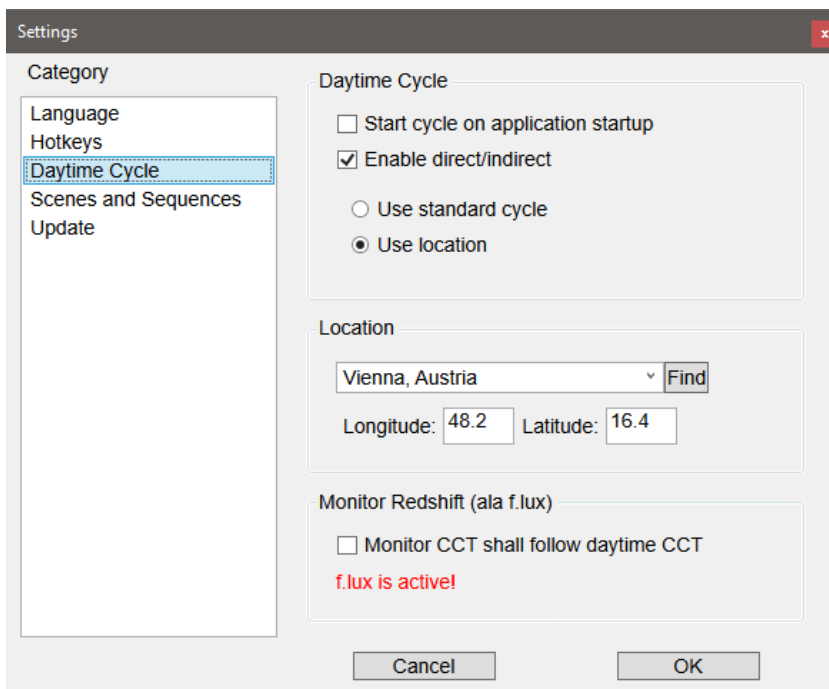




- Keyboard Hotkeys for changing brightness and colour temperature
- Modifier key for control of brightness and colour temperature with the mouse wheel

**Hint!**

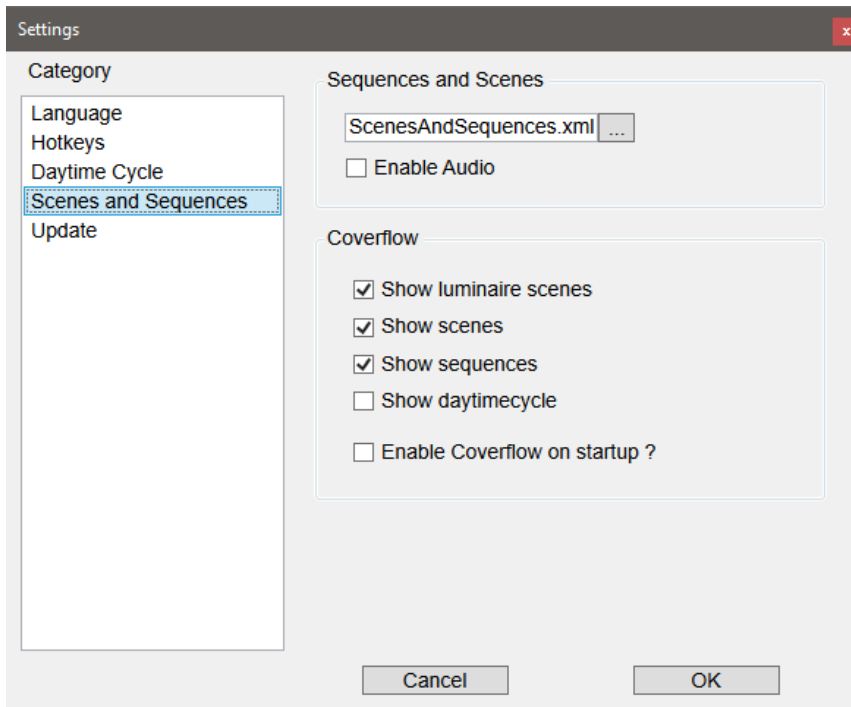
The new settings will be applied after the application is restarted.



- Start Daytimecycle automatically when application is started
- Use a standard Daytimecycle or a location based one
- Daytimecycle for direct/indirect lights (only available on Zigbee)
- GPS coordinates for location based Daytimecycle
- Monitor colour follows Daytimecycle

If the Daytimecycle is active every 30 seconds a new command will be send to the lights.

To search for a location enter the name of the city into the textbox and press <<Find>>. A Google service is queried for the actual GPS coordinates. To use this you need an active Internet connection



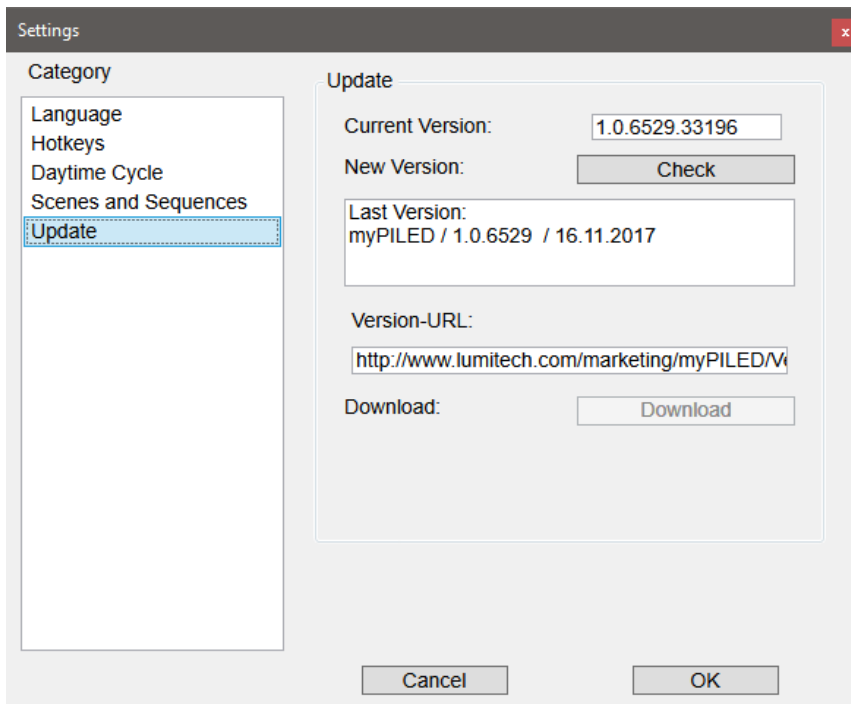
- Choose the active XML file which is used for scenes and sequences.

Coverflow settings:

- Show scenes stored on luminaires itself
- Show scenes from XML file
- Show sequences from XML file
- Show picture for Daytimecycle

and

- Enable Coverflow on application start-up



The actual application version is displayed.

With <<Check>> you can look for a new application version on the Lumitech server.

In the textbox „Version-URL“ the actual URL where the application looks for a new version can be changed e.g. when a new  $\beta$ -Version is available

If there is a new version available the <<Download>> button will be active and you can download and install the new version.

### Attention!

The application settings will be retained throughout application updates

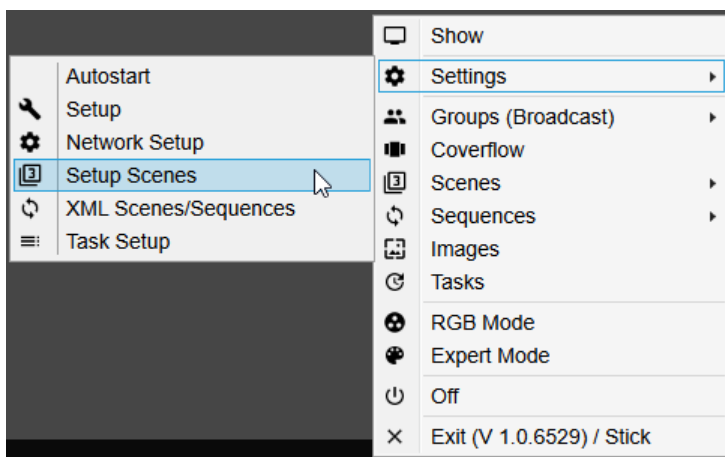
## 12. Defining Scenes

### 12.1. Luminaire Scenes

The scenes defined with this dialogue are stored directly in the lights (unlike XML scenes, which are stored in the ScenesAndSequences.xml file on the PC).

The advantage of this is that these scenes are stored in the lights themselves and can be called up from any control because only the command “Recall scene x” is called.

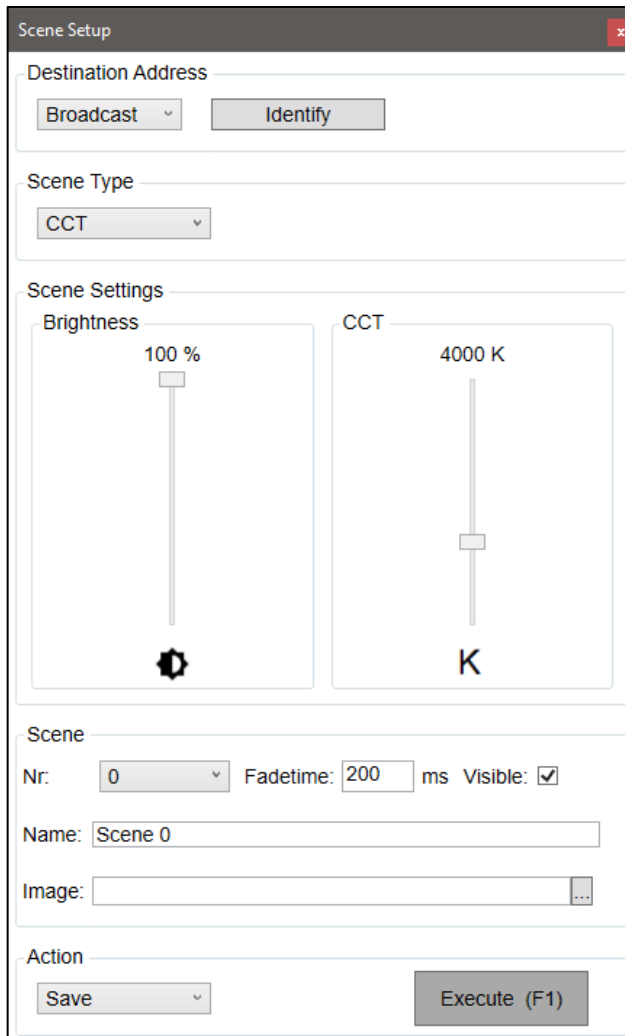
The disadvantage is that only a maximum of 16 scenes (scene 0 to scene 15) can be stored in each light.



The predefined scenes can be set by selecting the “Settings → Define scenes” menu item in the dialogue for defining scenes which can then be stored directly in the lights.

The menu item is disabled if you do not have Administrator rights on the PC or in the application.

## 12.2. General



The dialogue consists of 4 areas:

- Selection of target address (broadcast, group, address)
- Selection of scene type (CCT, x/y, RGB)
- Choose scene properties
- Selection and execution of selected action

Re 1): Selection of target address

**Broadcast:** The selected command is sent to ALL connected and switched-on lights.

**Group:** Command is sent to selected group.

**Address:** Command is sent to single selected address.

Re 2) Selection of scene type/scene settings

**CCT:** The colour temperature (CCT) and brightness of the scene can be selected in the scene settings.

**x/y:** An x/y value and the brightness can be set.

**RGB:** The brightness and relative channel values for RGB can be set.

**Caution!** The lights do not follow the setting immediately. The scene is sent to the lights and set only after you click on <<Save>> and <<Execute>>.

Re 3) Choose scene properties

- Scene number
- Fadetime
- Visible in "Mainmenu → Scenes"
- Scene name
- Scene image

Re 4) Select/execute action

- The scene (0-15) can be selected.
- The fade time can be set.
- The action (Save, Recall, View, Remove and Remove All) can be selected.

Pressing the "Execute" or "F1" button executes the selected command.

Actions:

- <<Save>> → saves selected settings in selected target addresses as Scene x.
- <<Recall>> → recalls saved scene number in selected target addresses.
- <<Remove>> → deletes selected scene number in selected target addresses.
- <<Remove All>> → deletes ALL scenes in selected target addresses after prior security prompt

## 12.3.CCT Scenes

Scene Setup

Destination Address  
Broadcast Identify

Scene Type  
CCT

Scene Settings

Brightness 100 %

CCT 4000 K

Scene  
Nr: 0 Fadetime: 200 ms Visible:

Name: Scene CCT

Image: C:\ProgramData\PILEDClient\images\Cleaning.jpg ...

Action  
Save Execute (F1)

Scene settings for CCT scene:

- E.g. selection of broadcast
- Selection of scene type CCT
- Settings: brightness, CCT value
- Selection of scene number
- Fade time adjustment
- Selection of action
- <<Execute>>

Scenes can also be called up and stored in each colour setting dialogue (CCT mode, RGB mode, Expert mode) by calling up the context menu (right mouse button).

## 12.4.X/Y Scenes

Scene Setup

Destination Address  
Broadcast Identify

Scene Type  
x/y

Scene Settings

Brightness 100 %

xy  
x: 0,380  
y: 0,377

Scene  
Nr: 0 Fadetime: 200 ms Visible:

Name: Scene RGB

Image: C:\ProgramData\PILEDClient\images\RGBCCT.png ...

Action  
Save Execute (F1)

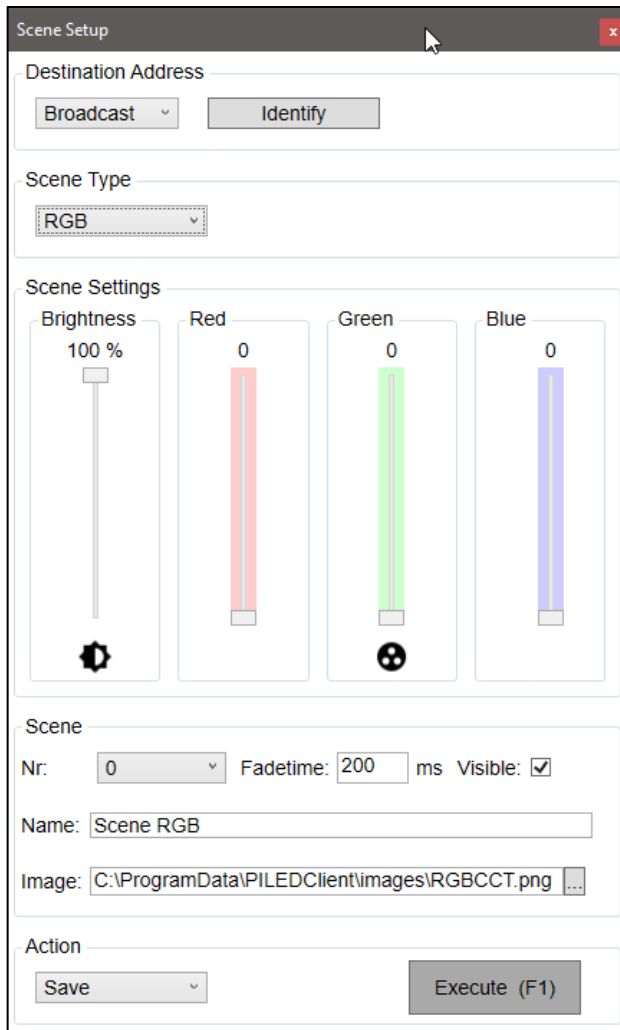
Scene settings for x/y scene:

E.g. selection of group  
 Selection of scene type x/y  
 Settings: brightness, x/y values  
 Selection of scene number  
 Fade time adjustment  
 Selection of action  
 "Execute"

Scenes can also be called up and stored in each colour setting dialogue (CCT mode, RGB mode, Expert mode) by calling up the context menu (right mouse button).



## 12.5. RGB Scenes



Scene settings for RGB scene:

- E.g. selection of address
- Selection of scene type RGB
- Settings: brightness, RGB values
- Selection of scene number
- Fade time adjustment
- Selection of action
- “Execute”

Scenes can also be called up and stored in each colour setting dialogue (CCT mode, RGB mode, Expert mode) by calling up the context menu (right mouse button).


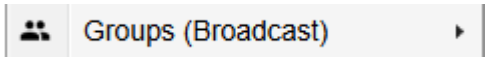
## 13. Define XML Scenes

To configure XML scenes please contact the Support.

## 14. Setup Tasks

To configure Tasks see separate documentation.

## 15. Troubleshooting

Problem	Action
Lighting units cannot be controlled.	<ol style="list-style-type: none"> <li>1. Check whether the USB stick has been inserted.</li> <li>2. Check whether the application is connected.</li> </ol>  <p>This is confirmed if &lt;&lt;Stick&gt;&gt; is shown behind the &lt;&lt;Close&gt;&gt; command and the version number.</p> <ol style="list-style-type: none"> <li>3. Restart application if necessary.</li> </ol>
Lighting units cannot be controlled.	<ul style="list-style-type: none"> <li>• Check whether the correct group has been selected.</li> </ul> 
There are no scenes and sequences visible in the main menu.	<ul style="list-style-type: none"> <li>• Check whether the correct file and path have been entered in the settings.</li> <li>•</li> </ul> <p>Settings→Setup→Scenes and Sequences</p> <ul style="list-style-type: none"> <li>• Check whether the file has the correct structure and whether an error occurs during parsing. This will be displayed when the file is selected.</li> </ul>
The network device cannot be called up.	<ul style="list-style-type: none"> <li>• Start program as “Administrator”.</li> </ul>

## 16. Contact

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