



Event Scheduler

RTI XP Series Controllers

For iPad Displays

User Manual

Updated September 19, 2013

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1 Overview

The screenshot displays the iPad interface for the Active Surroundings app. At the top, the status bar shows 'iPad', signal strength, '10:47 AM', and '63%' battery. The app header includes the 'Active Surroundings' logo and two tabs: 'Devices' and 'Event Table'. The 'Devices' list on the left includes: '+ All House', 'Floor 2', 'Floor 1', 'Basement', 'Front Garden', 'Rear Garden', 'Pool', 'Pool Deck', 'Floor 1', and 'Basement'. The 'Event Table' section shows two events: 'Off, Daily, 8:30, Sun Wed Thurs Fri Sat, Enabled' and '> Off, Daily, 6:45, Everyday, Enabled'. Below the event table is a category bar with 'Lights' selected, and buttons for 'New' and 'Delete'. System information shows 'System Time: 10:47:42', 'GMT: -4', and 'System Date: Wed Aug 21 2013'. The main 'Schedule' section features 'Action' settings (Once, Daily, Weekly) and 'Time' settings (06:28:00 sunrise, 20:13:00 sunset). It includes a 24-hour timeline with a slider set to 06:45. Below are 'Sunrise Offset' [-30m] and 'Sunset Offset' [-1h] sliders. The 'Days Of Week' section shows 'Everyday' with checkboxes for Sun, Mon, Tue, Wed, Thur, Fri, and Sat, all of which are checked. A blue refresh arrow is located at the bottom right.

This driver was designed for the RTI programmer to be able to present the end user with an easy to use, yet powerful and flexible mechanism to schedule pre-defined events. These events are defined at project design time in the form of a standard RTI macro (or series of macros) containing programmer defined functionality, or a KNX textual telegram which may be sent to the KNXIP/net driver product also available at activesurroundings.com. The end user may then use the GUI to select from the event options and create a point in time event at which the programmed event will occur. The time selection may include the astrologic events of sunrise and sunset, with the option of providing an offset in either direction of these events. There is a limit of 64 event definitions with a limit of 16 events per device for a total of 1024 defined events.

2 DEMO Mode

This driver will work for 1 hour in full function mode. After 1 hour is over, the driver will stop accepting user input.

3 RTI Programmers Section

This section covers the configuration parameters of the driver. Special attention should be paid to the “Event Options” parameter format.

This driver relies on the XP controller system clock and associated settings. Special attention should be paid to the XP device settings;

3.1 XP Device settings in Integration Designer

3.1.1 Location

The location tab in the device settings contains references to Country and City. These should be set correctly.

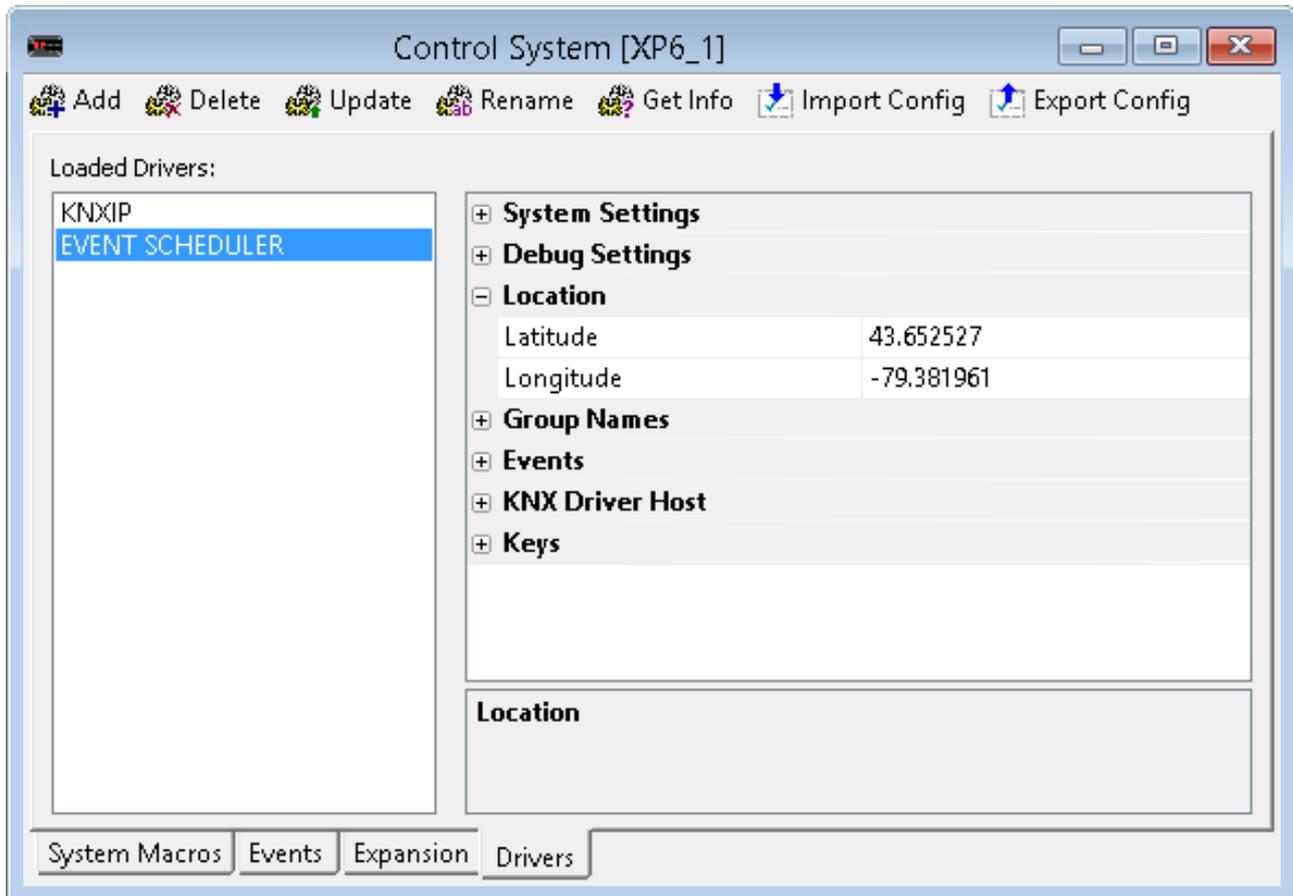
The Clock tab contains references to the time settings, the correct local time should be set and the NPT sync **MUST** be checked so that a correct time is maintained.

The correct time zone should also be set as should the auto daylight savings.

Any errors setting up the above items will result in errors with the astrological calculations.

3.2 Configuration

3.2.1 Location



The geographic location where the device will operate is required information when calculating the astrological events such as sunrise, sunset, and twilight information. The driver does its own astrological calculations and does not use the internal XP device functionality due to the requirements for extended functionality. In order to calculate these astrological events, one must determine where and when we are (location, date and time).

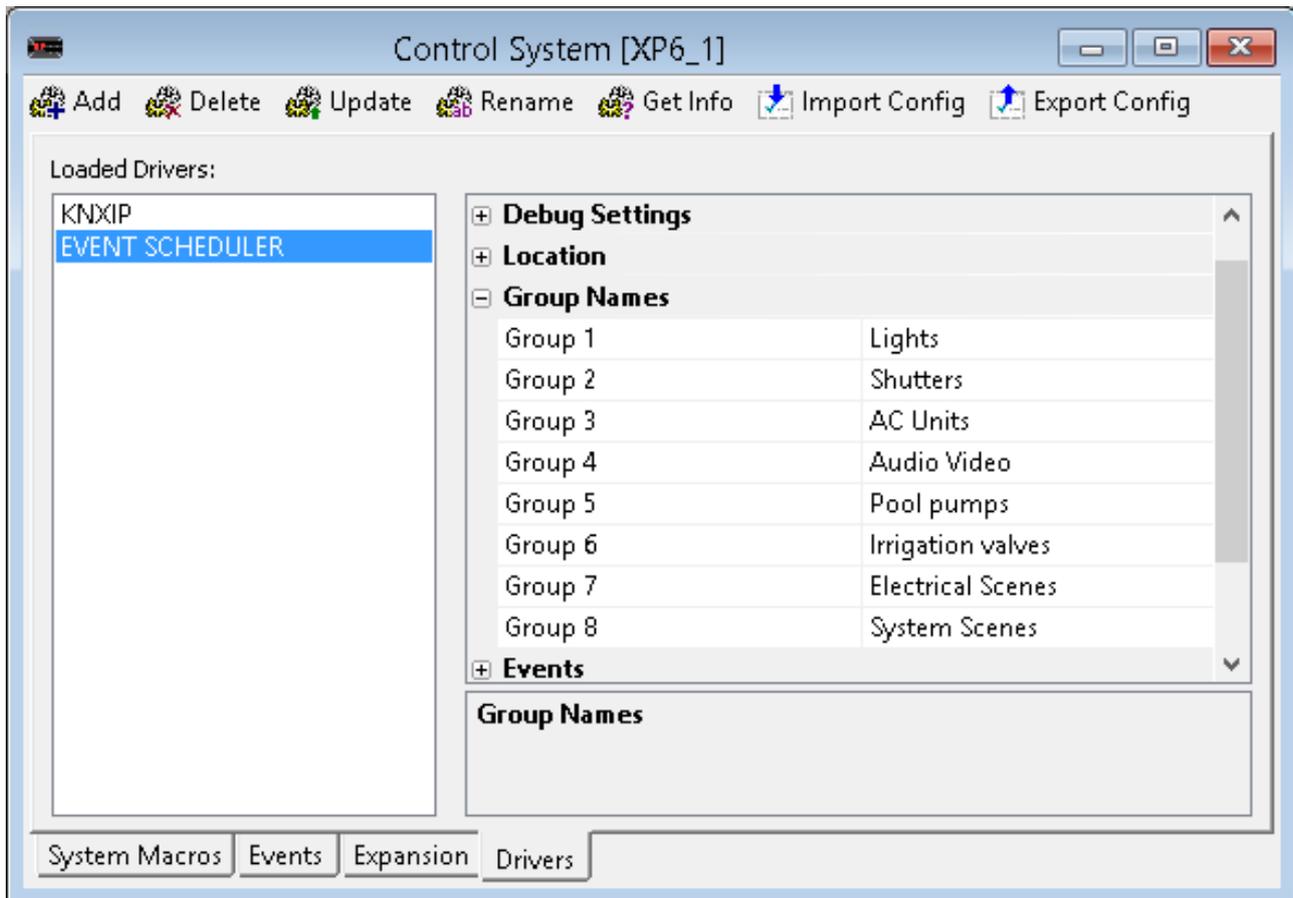
The location section contains 2 properties;

Latitude: Set to the end users North South location expressed as a floating point number

Longitude: Set to the end users East West location expressed as a floating point number

We recommend reading this link for more information on latitude and longitude [Google Maps FAQ](#)

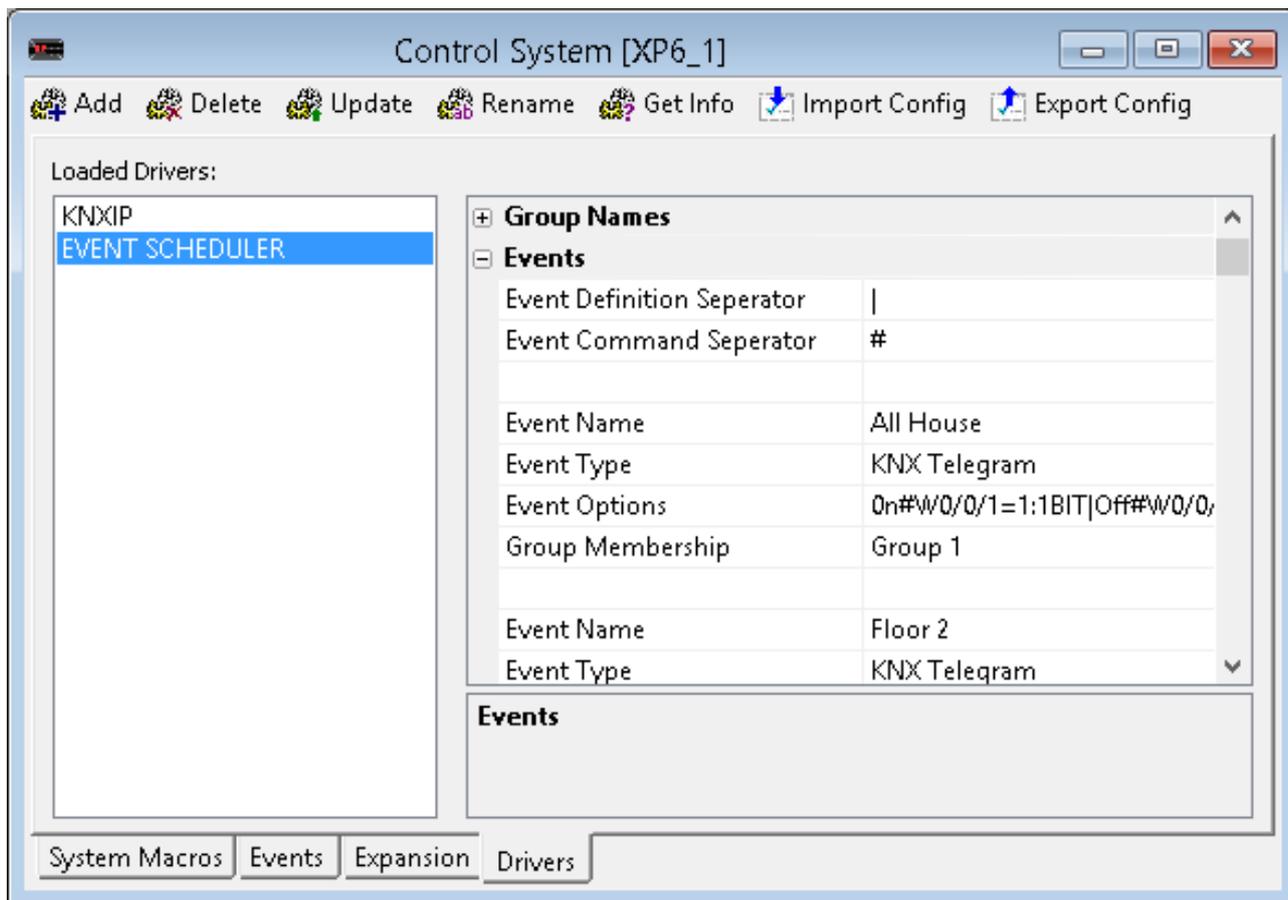
3.2.2 Group Names



Groups allow devices to be grouped into logical groups such as lights, shutters and AC units. The user interface allows the end user to select the groups for display.

The group names are simply entered as text and will be displayed as entered.

3.2.3 Events



This section deals with the definition of the events themselves.

Event Definition Separator: Defines what character is used to mark the separation between commands (see **Event Options** below).

Event Command Separator: Defines what character is used to mark the separation between items within a single event definition (see **Event Options** below).

Event Name: Display name of the event.

Event Type: Drop down list with options for “KNX Telegram” or “Call Macro”.

Event Options: Defines the event information. An example macro type definition with **2 options** would look like this (the colours are for explanation only);

“My Macro1#1|My Marcro2#2”

Where the blue item is the event display option and the red item is the macro ID to call

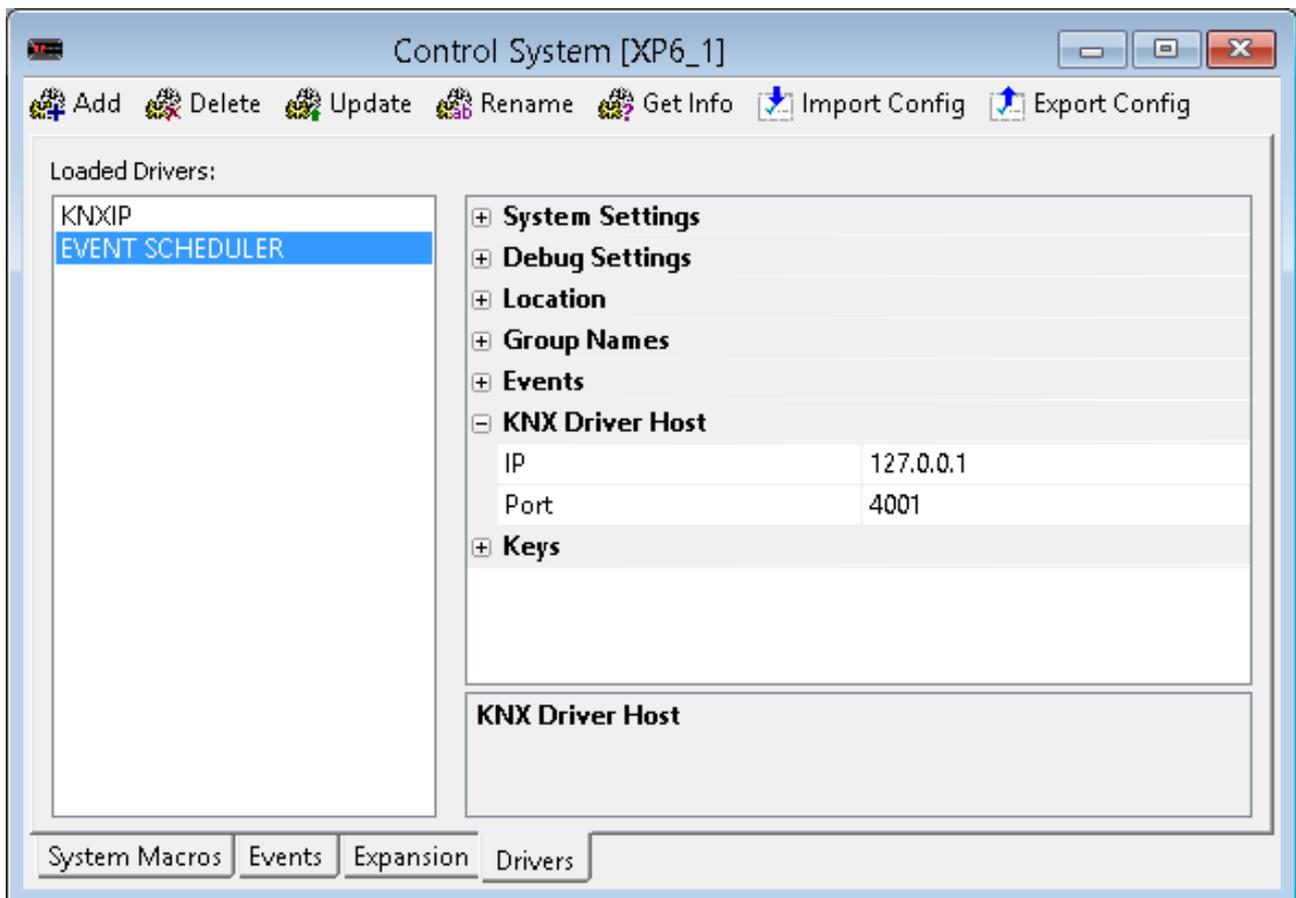
In this example, when the user selects the item specified in “Event Name”, 2 options will display in the available actions for the event, these action will be displayed as “My Macro1” and “My Macro2”. My Macro1 calls system macro 1.

A KNX example might look like this;

On#W0/0/1=1:1BIT|Off#W0/0/1=0:1BIT

Note: You will need to use the KNXIP/net driver in order to use the KNX commands from the scheduler.

3.2.4 KNX Driver Host



When using KNX event types, it will be necessary to define the IP address and port number of the KNX driver (the default is 127.0.0.1 and will not need to be changed unless the KNX driver is running on a different controller.)

4 End user section

4.1 Understanding the user interface

4.1.1 How to select a "Device"

The list of devices is available in the Devices list box. The list box will be set to show only those devices that were defined in the group that is currently selected, as shown in the group selector which is located below the devices list box. Simply touching the device item in the list will select it.

4.1.2 Understanding the device list items

When a device is selected, the character ">" will be displayed on the left side of the device display caption.

When a device has associated events attached to it, a "+" will be displayed next to the device name.

When a device is selected, its associated events (if defined) will appear in the Event Table List on the right side of the display.

4.1.3 Changing the device groups



The device grouping slider is located under the devices list. Simply slide the slider to the required group. The appropriate devices will appear in the devices list.

4.1.4 How to create a new item



When a device is selected, the “New” button will be enabled. Push the “New” button and a new event will be auto created with default values, these values may now be modified to the required values. The event will auto save.

4.1.5 How to edit or change the details of an event

Selected device

A screenshot of a dark blue rectangular button with rounded corners. The text '> + All House' is displayed in yellow, with the greater-than sign being larger and positioned to the left of the rest of the text.

Selected Event

A screenshot of a dark blue rectangular button with rounded corners. The text '> 'Off', Daily, 6:45, Everyday, Enabled' is displayed in yellow, with the greater-than sign being larger and positioned to the left of the rest of the text.

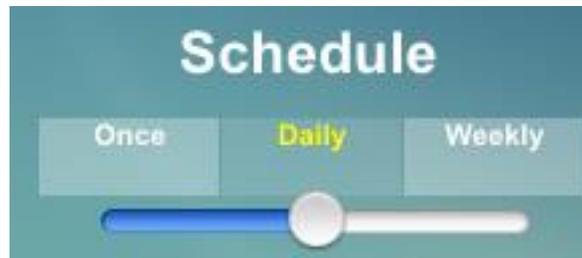
First select the appropriate device and then select the event. The event will have a “>” next to it when selected. Now you may change any of the event parameters. The event will auto save.

4.1.6 How to delete an item



First select the appropriate device and then select the event to be deleted. When the event is selected, the “Delete” button will enable. Push the “Delete” button to delete the event.

4.1.7 What is the schedule type?



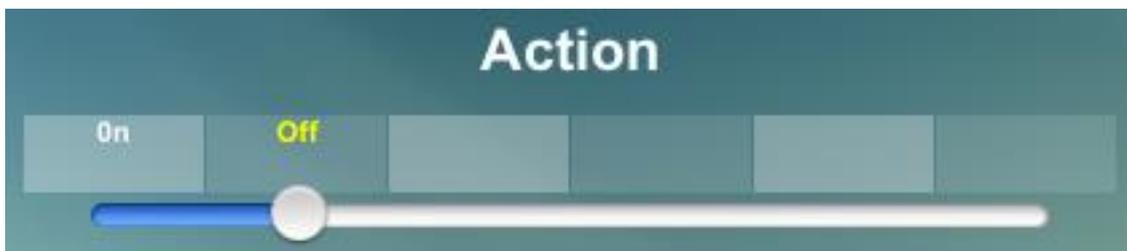
The “Schedule” slider has 3 options

Once: When selected the event will occur once for each day specified. For example, when Monday and Tuesday are specified and 16:00 selected. On the next Monday that occurs, the event will occur on time at 16:00 and Monday will be removed from the schedule. On the next Tuesday at 16:00 the event will occur and Tuesday will be removed from the schedule. As there are no more days selected, the event will be marked as “Expired” and no more events will occur.

Daily: When selected, the days selection area will be removed from the user interface as the event will occur every day at the specified hour.

Weekly: When selected, the event will occur every week at the specified day and time.

4.1.8 How do the “Actions” work?



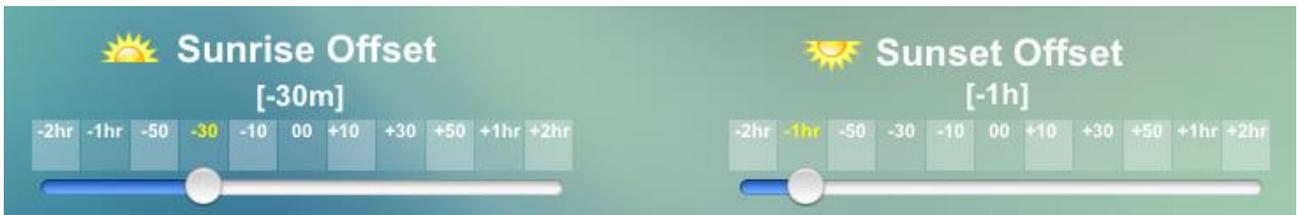
The Actions define what the event will do when it occurs. The actions were defined by the RTI programmer and reflect the nature of the device such as a light which will normally have “On”, “Off” with possible “Dim” to one or more different percentage values.

4.1.9 All about the “Time” selector



The time selector can be moved left to right allowing the time to be changed in 15 minute increments. The selected time may be seen under the “Time” title. Moving the slider to the full left will select the time as “Sunrise”, the time of which is internally calculated and may be seen on the left side under the sunrise icon. Moving the slider to the full right will select the time as “Sunset”, the time of which is internally calculated and may be seen on the left side under the sunset icon. These times will change according to time, date and location.

4.1.10 How do Sunset and Sunrise work?



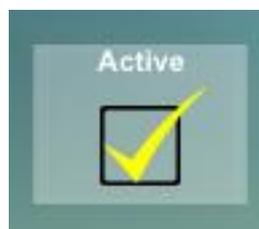
The “Sunrise Offset” and “Sunset Offset” provide the way to set events up to 2 hours either side of a sunrise or sunset event. These setting only come into effect if sunrise or sunset is selected in the “Time” selector.

4.1.11 Days of Week



When using schedule modes “Once” or “Weekly”, the above selector becomes visible. The selector is not visible when “Daily” mode is selected as the daily events are every day.

4.1.12 Temporary disabling of an event



Should events need to be temporarily disabled simply uncheck the “Active” checkbox.