



Contents

- Introduction2
- Special Features of nuanco.....2
- HomeKit2
- Views3
- Grouping Accessories.....4
- Symbols and Displays.....6
- The Multi-Button9
 - The Layout of the Functions on the Multi-Button9
- Group Control 10
- Scenes10
 - Switching Scenes Off.....10
 - Default Scenes.....10
 - Creating Scenes.....11
 - Duplicating Scenes11
 - Organizing Scenes in Custom Groups.....11
- Display Configuration13
- Automation14
 - Organizing Triggers in Custom Groups14
 - Date-and-Time-Based Triggers14
 - Defining a Date-and-Time-Based Trigger14
 - Event-Based Triggers.....16
 - Defining an Event-Based Trigger16
 - Specifying the Trigger Events17
 - Geographic Location Event18
 - iBeacon Region Event18
 - Presence Event19
 - Time Event19
 - Characteristic Value Event20
 - Specifying the Trigger Conditions21
 - Time Condition22
 - Presence Condition23
 - Characteristic Value Condition24
- The nuanco Widget26

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Introduction

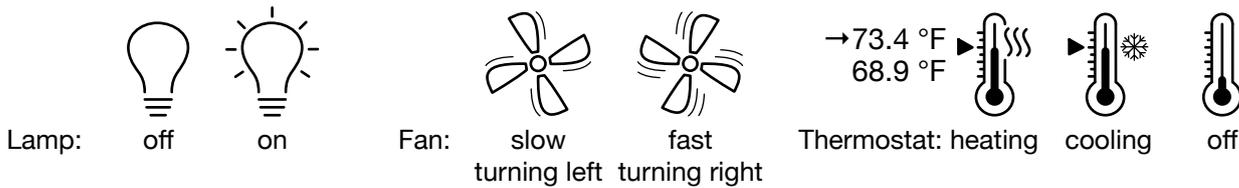
Thank you for purchasing nuanco.

The app nuanco allows you to comfortably control and organize your HomeKit enabled devices. It supports the whole functionality provided by HomeKit.

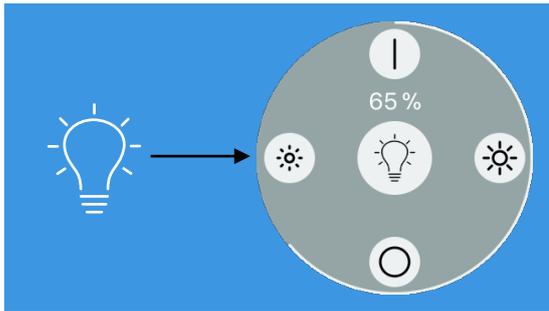
Special Features of nuanco

The nuanco app offers some specialities which makes it unique to other HomeKit based Apps.

With **Symbols and Displays** the current state of a HomeKit accessory or a group of accessories can be read and set already in the main view of the App. Some examples are given below.



An important feature is the so-called **Multi-Button**, which allows you to control and switch the main characteristics of an accessory.



With a long-press on one of the symbols the Multi-Button appears instead of the symbol.

It has four functions arranged in four directions. In the case of a lamp or a group of lamps these are:

- up:** switch on the lamps
- down:** switch off the lamps
- left:** decrease the brightness
- right:** increase the brightness

An consistent **color scheme** for the different HomeKit elements like accessories, services, rooms, zones etc. allows you to navigate easily.

Additionally, the order of this elements can be changed according to your preferences.

Color Codes:

	Accessories
	Services of accessories
	Characteristics of services
	Scenes (action sets)
	Rooms
	Zones
	Service groups
	Trigger (automation)
	Homes

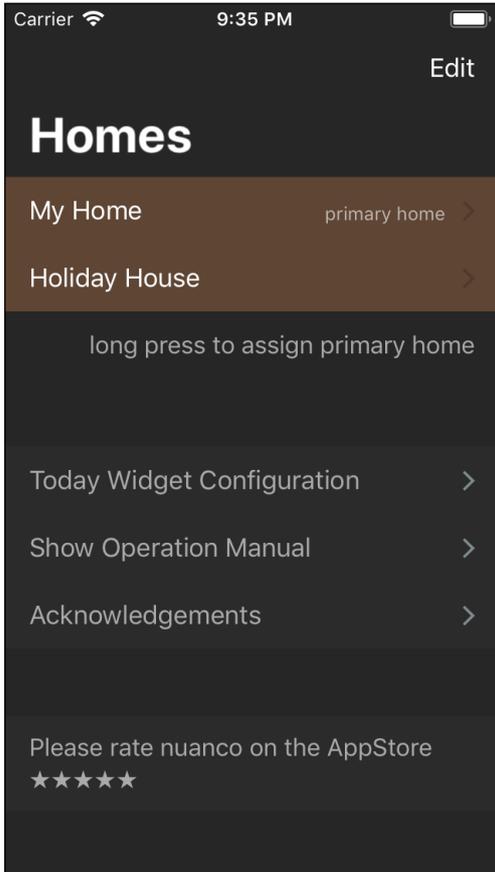
HomeKit

HomeKit is the iOS framework for home automation provided by Apple. The nuanco app is based on this technology and can thus access only HomeKit-enabled accessories.

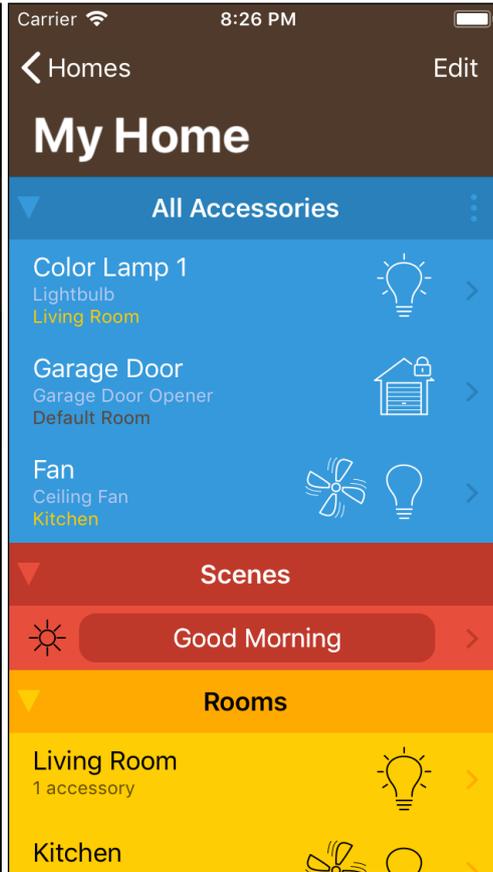
Please note that all accessories, rooms, scenes and triggers are shared by all other HomeKit apps associated with your AppleID including the “Home” app provided by Apple. By using a shared data base, all operations like adding, removing or reorganizing your HomeKit devices are synchronized between all HomeKit based apps.

Views

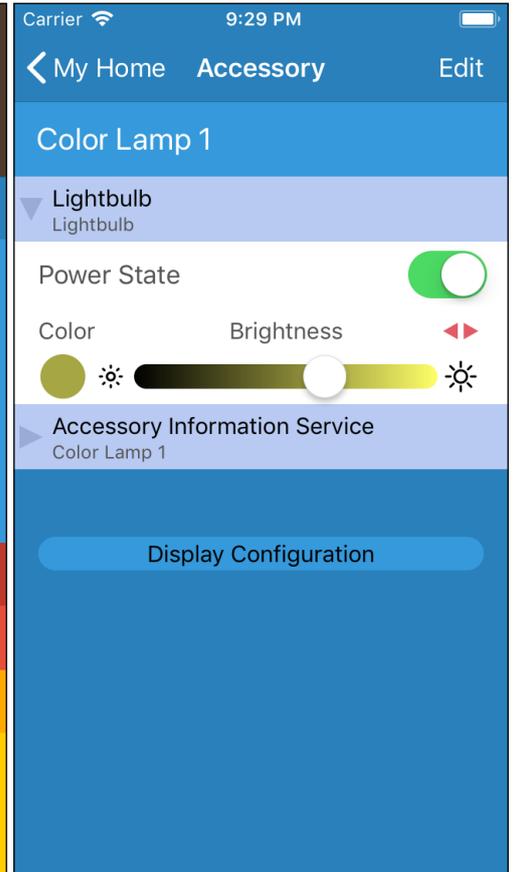
The nuanco app has multiple views that are organized in a hierarchical relation to each other. The top view shows all managed Homes where one Home is declared as the primary home. When newly starting nuanco it switches automatically to the primary home to show the accessories, scenes, rooms, service groups etc. that are part of this home; this view is the main view of the home. Here, all operations can be carried out, either directly or via detail views.



Homes View (top view)



Main view of the home "My Home"



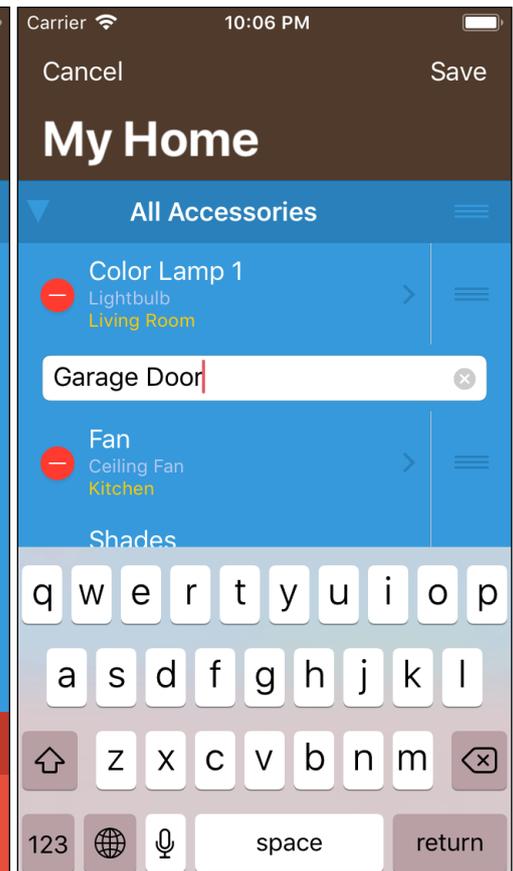
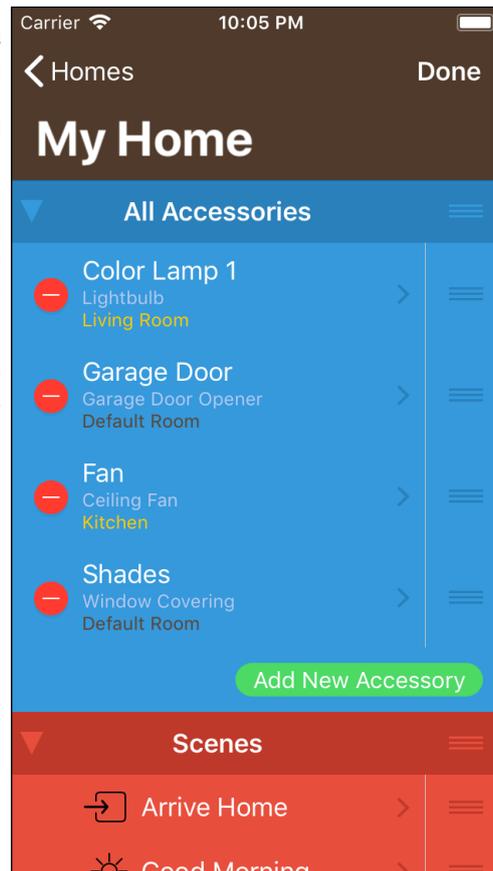
Detail view of "Color Lamp 1"

By tapping "Edit" in the header of a view, the view switches into editing mode, where you can organize the entries by changing their order and delete or add entries.

To add a new accessory to a home, switch the main view into editing mode and then tap the green button **Add New Accessory**. Now follow the steps shown on the screen.

The name of an entry can be changed by tapping the name while the view is in editing mode.

To leave the editing mode press "Done" in the header of the view.



Grouping Accessories

HomeKit accessories can be organized in rooms, zones and service groups. By grouping them together the state of multiple characteristics is displayed by a single symbol. Moreover, they can be switched together via the Multi-Button, e.g. all lamps of a room can be turned off at once.

Rooms: If you organize all accessories of a physical room into a room in nuanco, you can control them together; for example with your voice: (“Hey Siri, switch on the lights in the living room”). Every accessory can be assigned to only one room at same time. Accessories not assigned to a specific room are assigned to the virtual “Default Room” of the Home. The “Default Room” is not displayed in the “Rooms” section.

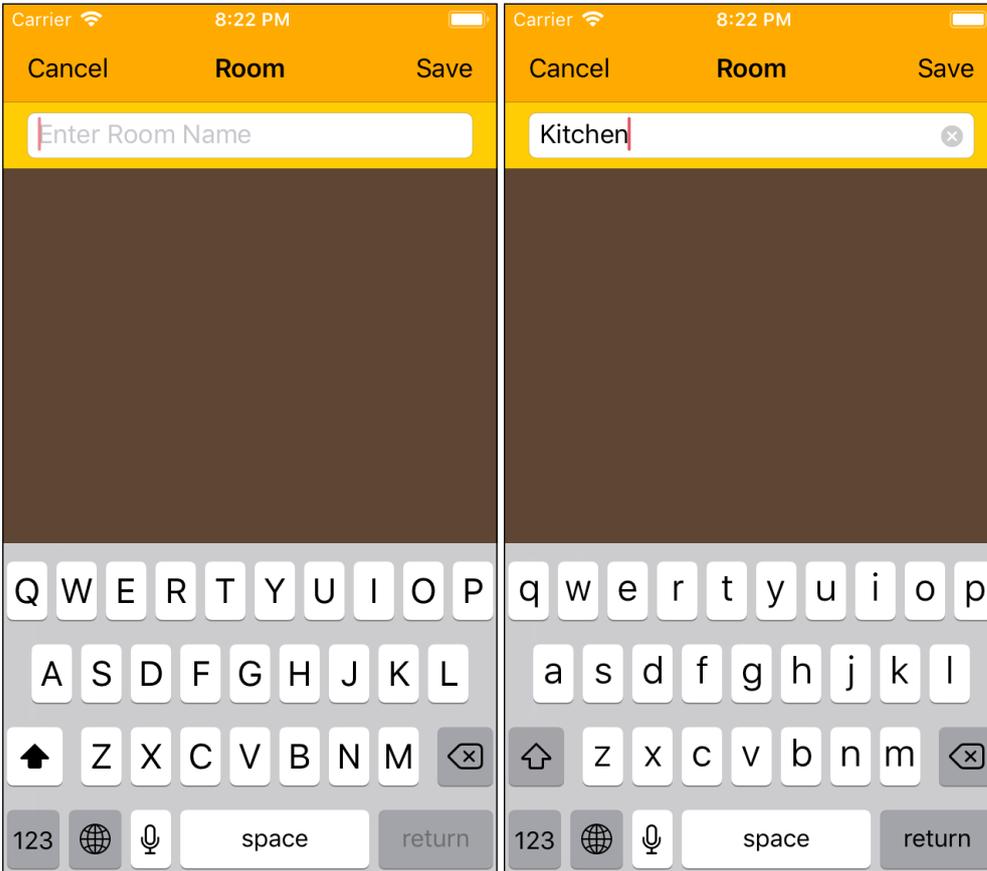
Zones: Rooms can be grouped into zones, e.g. “Upstairs” and “Downstairs”. A room can be assigned to more than one zone. You can control these zones via Siri – e.g. “Turn off the downstairs lights”.

Service Groups: Characteristics of multiple accessories can be organized into service groups to display and control them together via the Multi-Button or Siri. Different service types will be represented by different symbols like light bulbs or fans. Example: You can use a service group to address the characteristics “Power State” and “Brightness” of all light bulbs of you ceiling lamps together, excluding your desk lamp and effect lamps, which are located in the same room. This gives you common control over all ceiling lamps but excluding the other lamps.

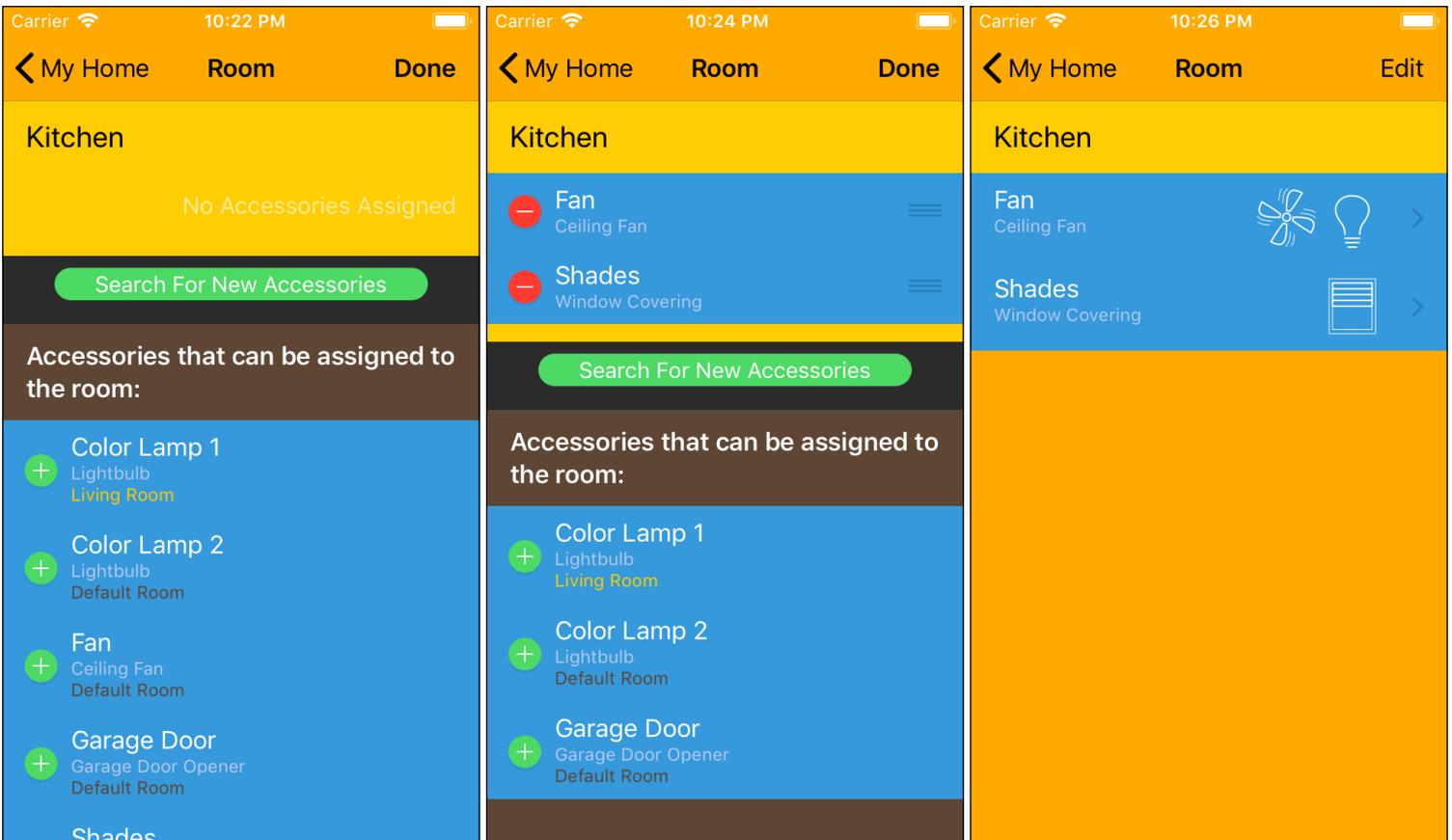
Tap “Edit” in the header of the main view of a home to create new rooms, zones, service groups, scenes and triggers, or to rename or remove existing ones.



To create a new room tap the green button **New Room**. The detail view for the new room will be shown where the name of the room has to be entered.



In the next step accessories can be assigned to the room by tapping **+**. By tapping **-** an accessory can be removed from the room.



Zones and service groups can be created and managed analogous to rooms. Zones are used to group multiple rooms. Service groups are very helpful to control characteristics of specific accessories together.

Symbols and Displays

The symbols and displays show the current state of accessories, services and characteristics.

Low Battery: This symbol is only displayed if the battery state of an accessory gets low.



Low battery

Flood Detected: This symbol is only displayed if a leak is detected.

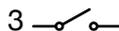


Flood detected

Contact Sensor: Multiple contact sensors in one room, zone, and service group are combined into a single symbol if they have the same state. A number preceding the symbol gives the number of contact sensors with this state.



One contact closed



Three contacts open

Current Air Quality, Temperature and Humidity: This information is displayed for each service individually.

Good
73 °F
43 %

Light Bulbs: Multiple light bulbs in one accessory, room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all bulbs are off



all bulbs are on



some bulbs are on and
some are off

Fans: Multiple fans in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



off



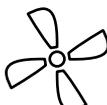
rotation speed slow
clockwise



rotation speed medium
clockwise



rotation speed fast
clockwise



off



rotation speed slow
counter clockwise



rotation speed medium
counter clockwise



rotation speed fast
counter clockwise



multiple fans have
different states

Outlet: Multiple outlets in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all outlets are off



all outlets are on

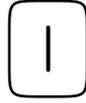


some outlets are
on, some are off

Switch: Multiple switches in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all switches are off

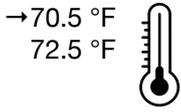


all switches are on

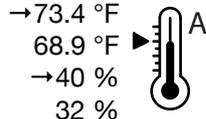


some switches are on and some are off

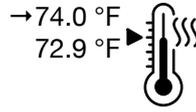
Thermostat and Air Condition: The following information is displayed for each service individually: target temperature, current temperature and, if available, also the target humidity and current humidity. The target values are indicated by a preceding arrow (→). For this symbol a Multi-Button is available.



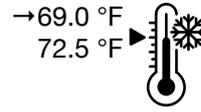
off



auto



target heating



target cooling

Garage Door Opener: This information is displayed for each service individually. For this symbol a Multi-Button is available.



closed



open



stopped



closed, secured



closed, unsecured



open, unsecured



stopped, unsecured

Door Lock: Multiple door locks in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all are secured



all are unsecured

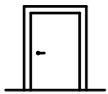


some secured, some unsecured



jammed

Door: Multiple doors in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all are closed
(0% open)

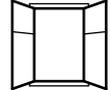


some or all are open

Window: Multiple windows in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all are closed
(0% open)

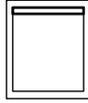


some or all are open

Window Coverings, Blinds, Shades etc.: Multiple window coverings in one room, zone and service group are combined into a single symbol. For this symbol a Multi-Button is available.



all are closed
(0% open)



all are full open
(100% open)



intermediate position or
multiple have
different positions

Cameras: Multiple cameras in one room, zone and service group are combined into a single symbol. When you tap on the camera symbol, snapshot images of all cameras will be shown.



Camera off



Camera on

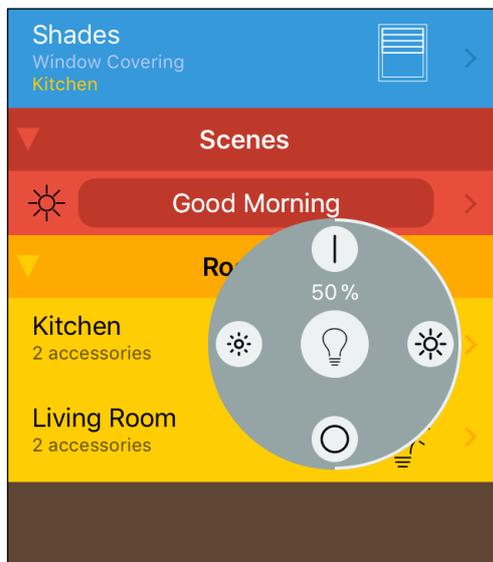
The Multi-Button

With the Multi-Button you can quickly and easily control the main characteristics of an accessory or a group of similar accessories.

Tap and hold the symbol until the Multi-Button appears. The Multi-Button has four directions (up, down, left and right) that are assigned to different functions.

Now you have two possibilities to activate this functions:

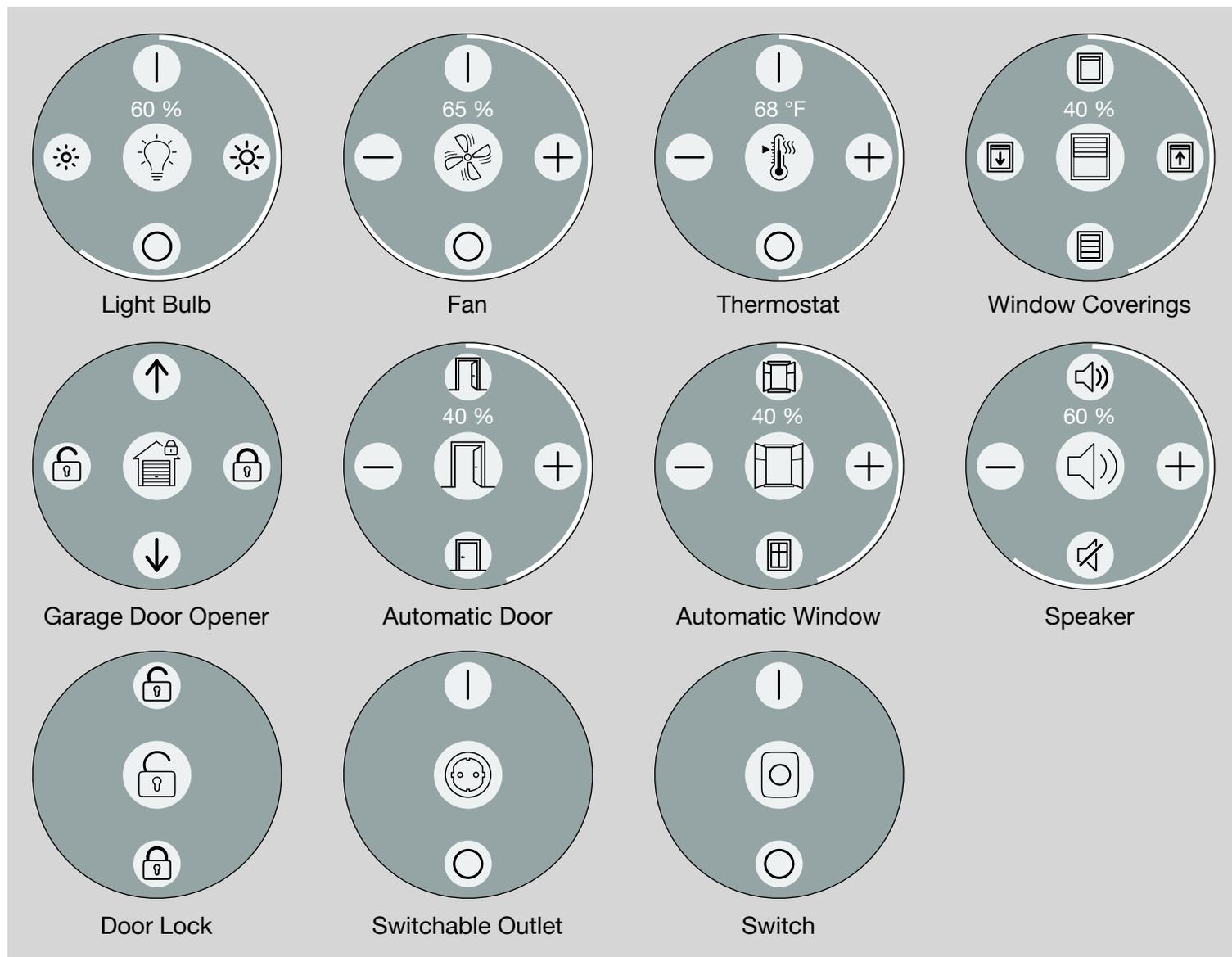
1. Keep the button pressed and move your finger to the appropriate direction of the desired function, then lift your finger. The corresponding function will be performed and the Multi-Button disappears automatically.
2. Lift your finger while it is in the center of the Multi-Button. The Multi-Button stays visible and you can activate a function by tapping the corresponding function symbol. To hide the Multi-Button, tap on its center or outside the Multi-Button.



The Layout of the Functions on the Multi-Button

The functions, which are offered by the Multi-Button, depend on the services of the accessory:

For services with a power state that can be switched on and off like light bulbs, switchable outlets or fans etc. this function is placed on the Multi-Button in the following way: up for switching it on and down for switching it off.



For services where an intensity can be controlled like the brightness of light bulbs, the rotation speed of fans or the target temperature of thermostats there are additional functions arranged on the Multi-Button. The function on the left side is for decreasing and the one on the right side for increasing the intensity. On each tap the intensity

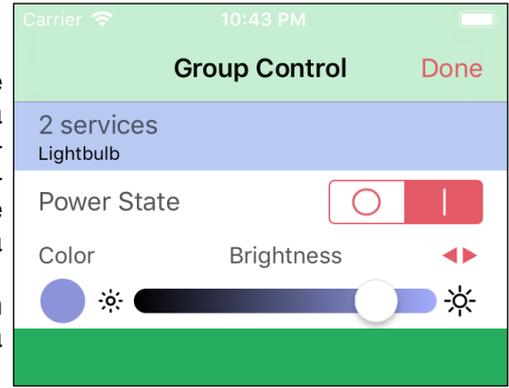
will be decreased or increased stepwise by a given amount. To repeatedly change the intensity tap and hold the appropriate function symbol on the Multi-Button.

The current intensity will be shown in the Multi-Button as numeric value and additional with a surrounding white arc as a percentage value.

Group Control

The group control can be opened like the Multi-Button from one of the symbols. For this only a short tap is applied to the symbol (in contrast to a tap-and-hold for the Multi-Button). A page with the controllable characteristics will be displayed. The group control allows you to modify the characteristics of more than one accessory at once if the symbol represents more than one accessory. For example if there are multiple lamps placed into a room, all of this lamps will be controlled together.

Read in the chapter [“Display Configuration”](#) if you want to modify which characteristics are represented by a symbol and therefore controllable via the Multi-Button and group control.



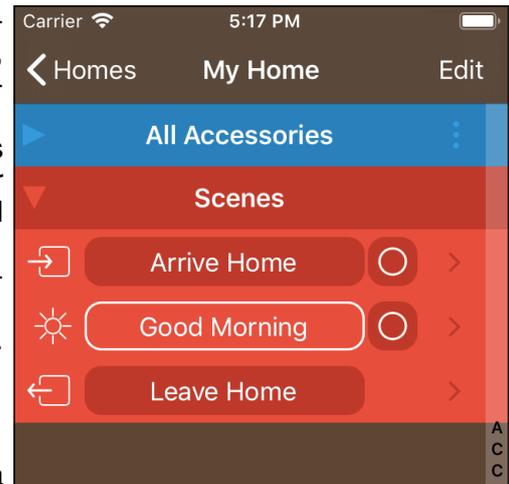
Scenes

Via scenes (also called action sets) you can activate a set of predefined actions with a single tip of your finger or a Siri voice command. For example, you can define a scene “Good morning”, which opens the window coverings and switches on a lamp to a pre-defined color and brightness.

By activating the scene, all actions defined in it will be executed. This sets the corresponding characteristics to the specified target values. All other characteristics are not affected. The order in which the actions are executed is not defined.

A currently active scene will be shown with a bright border around the button.

Please note that scenes are also used in combination with automations. See chapter [“Automation”](#) for more details.



Switching Scenes Off

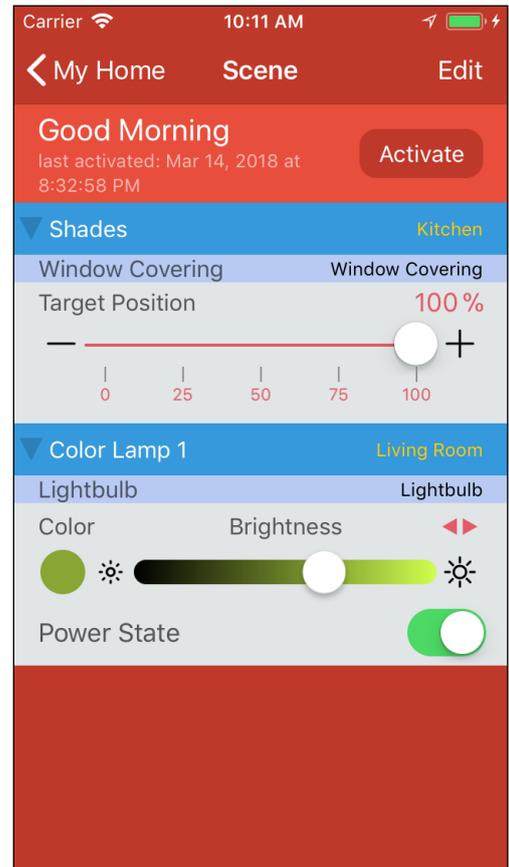
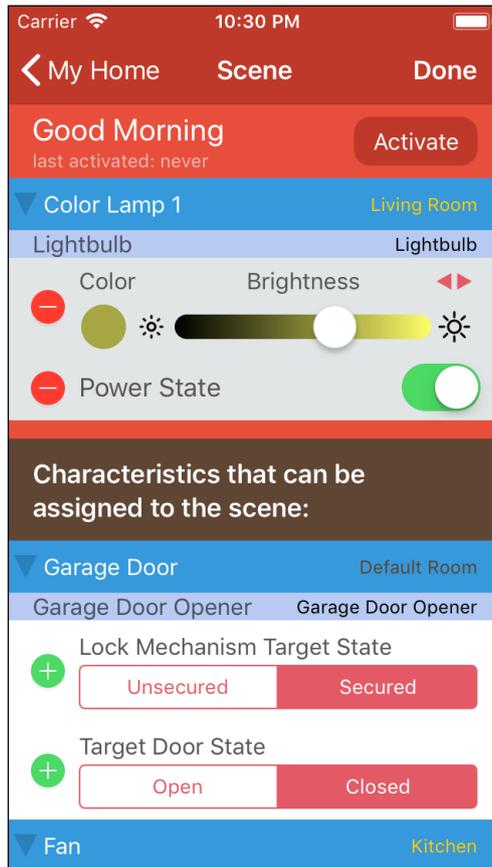
Some scenes can be switched off. If a scene contains an action to set a “Power State” characteristic to “On”, then this scene can be switched off by tapping the “o” button. This will turn off the “Power State” of all the characteristics that are turned on by the scene.

Default Scenes

HomeKit offers four default scenes, that always exist:

-  Good Morning
-  Good Night
-  Arriving Home
-  Leaving Home

nuanco shows this scenes usually only if they have actions assigned. But in the editing mode of the main view, the four HomeKit default scenes are always shown so that actions can be assigned to this scenes. Although these four default scenes can not be deleted they can be defined, renamed and used like all other scenes.



Creating Scenes

A new scene can be created by tapping “Edit” in the header of the main view of a home. In the section “Scenes” tap the green button **New Scene**. This opens the detail view of the new scene. Each scene has to be given a unique name. This name is also used to activate the scene via Siri by saying: “Set *Scene-name* scene.” or by simply saying the name of the scene.

When activating a scene, the actions defined in the scene will be executed. Each action of a scene sets a characteristic to a specified value, the target value. To define the actions of a scene, add the desired characteristics to your scene by tapping **+**. The target values of the added actions are by default set to the current characteristic value but can be adjusted as soon as the action is part of the scene.

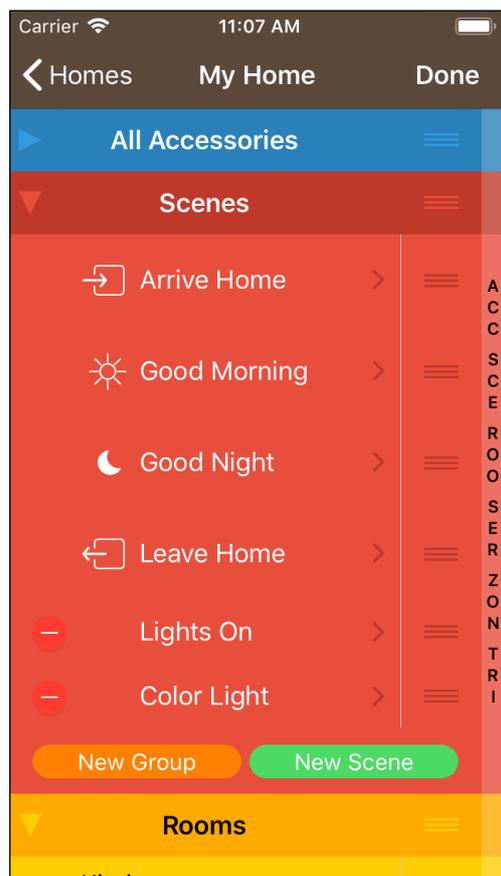
Duplicating Scenes

If you want to create a scene which is similar to an already existing one, you can simply duplicate the existing scene. Therefore the editing mode in the main view is entered and the desired scene is tapped until the menu “Duplicate” appears. By confirming “Duplicate”, a copy of the scene is created, which you can modify like any other scene.

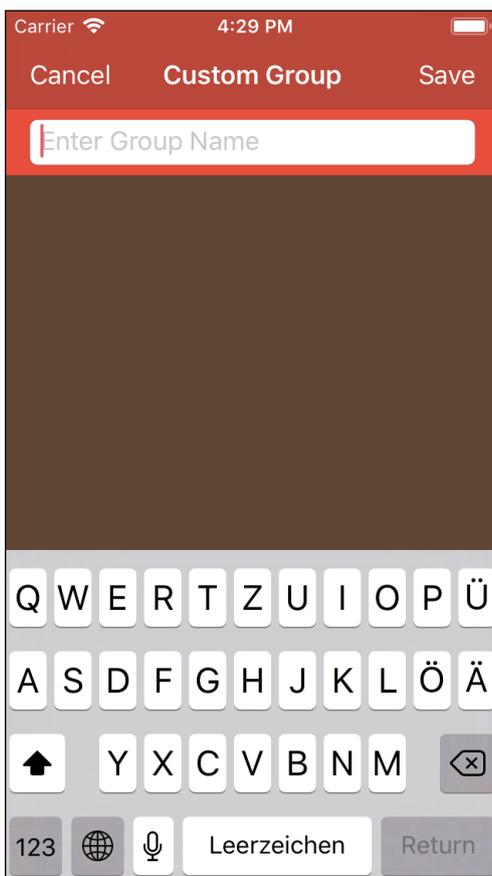
Organizing Scenes in Custom Groups

Scenes can be organized with the help of custom groups. The custom groups are shown in the Scenes section of the main view and represent the scenes they contain. This means as soon as scene is added to a custom group it will be hidden from the Scenes section of the main view and instead be part of a custom group. The same scene can be added to multiple custom groups. This allows one to group scenes together for various aspects and also can be used to reduce the number of scenes shown directly in the Scenes section of the main view.

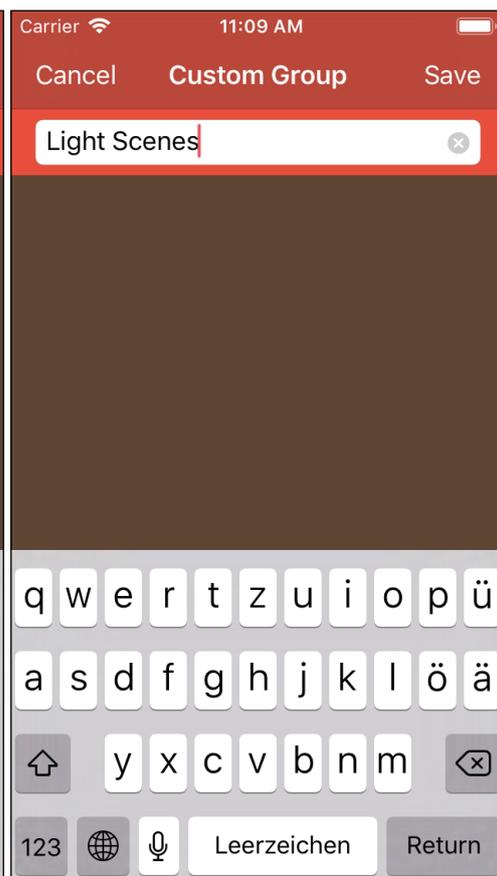
A new Scenes custom group can be created by tapping “Edit” in the header of the main view of a home. In the section “Scenes” tap the orange button **New Group**. This opens the detail view of a new custom group. Each custom group has to be given a name.



Main view in edit mode

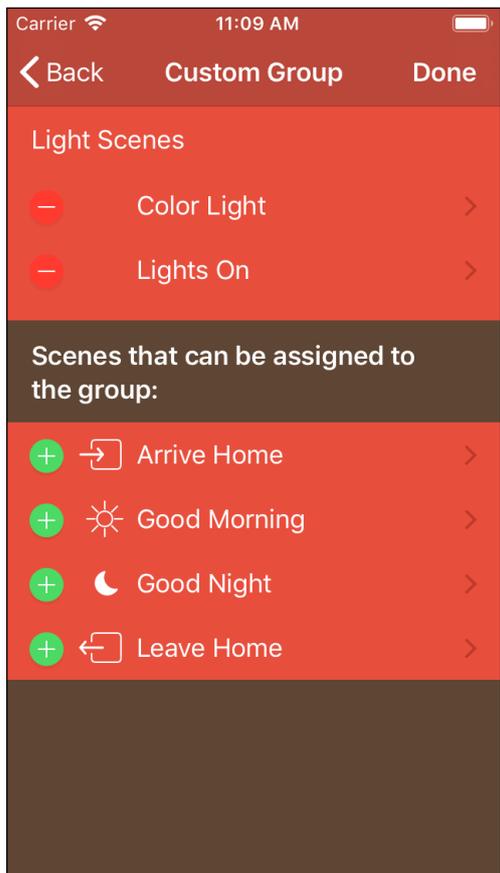


Detail view of a new custom group

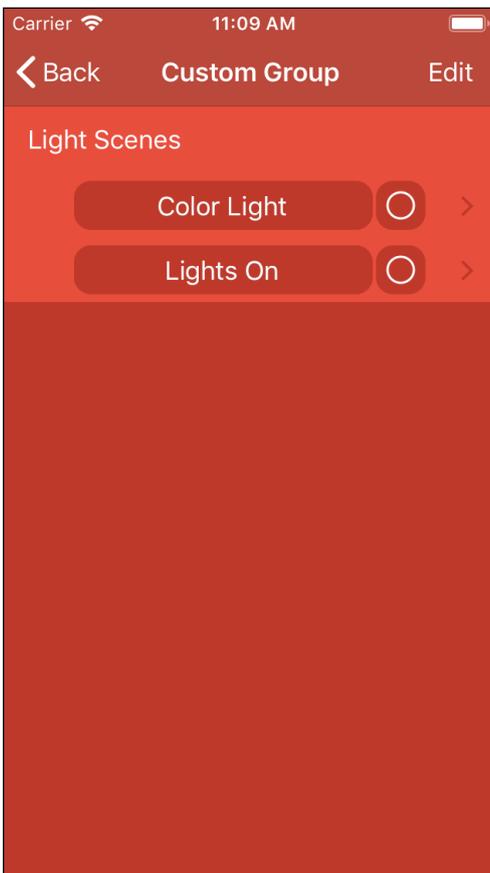


Naming the scene custom group

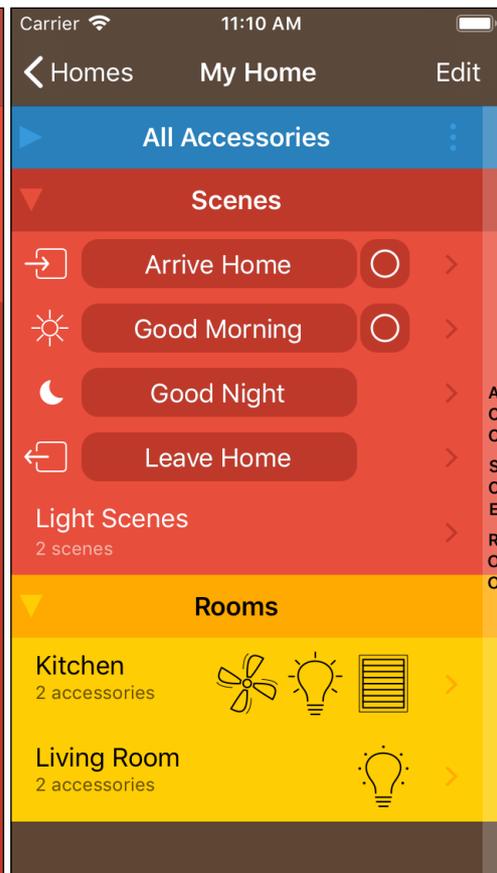
To add a scene to the group tap **+** in the list of not assigned scenes. By tapping **-** a scene can be removed from the group, this will not delete the scene itself.



Defining the scene custom group



Detail view of a scene custom group



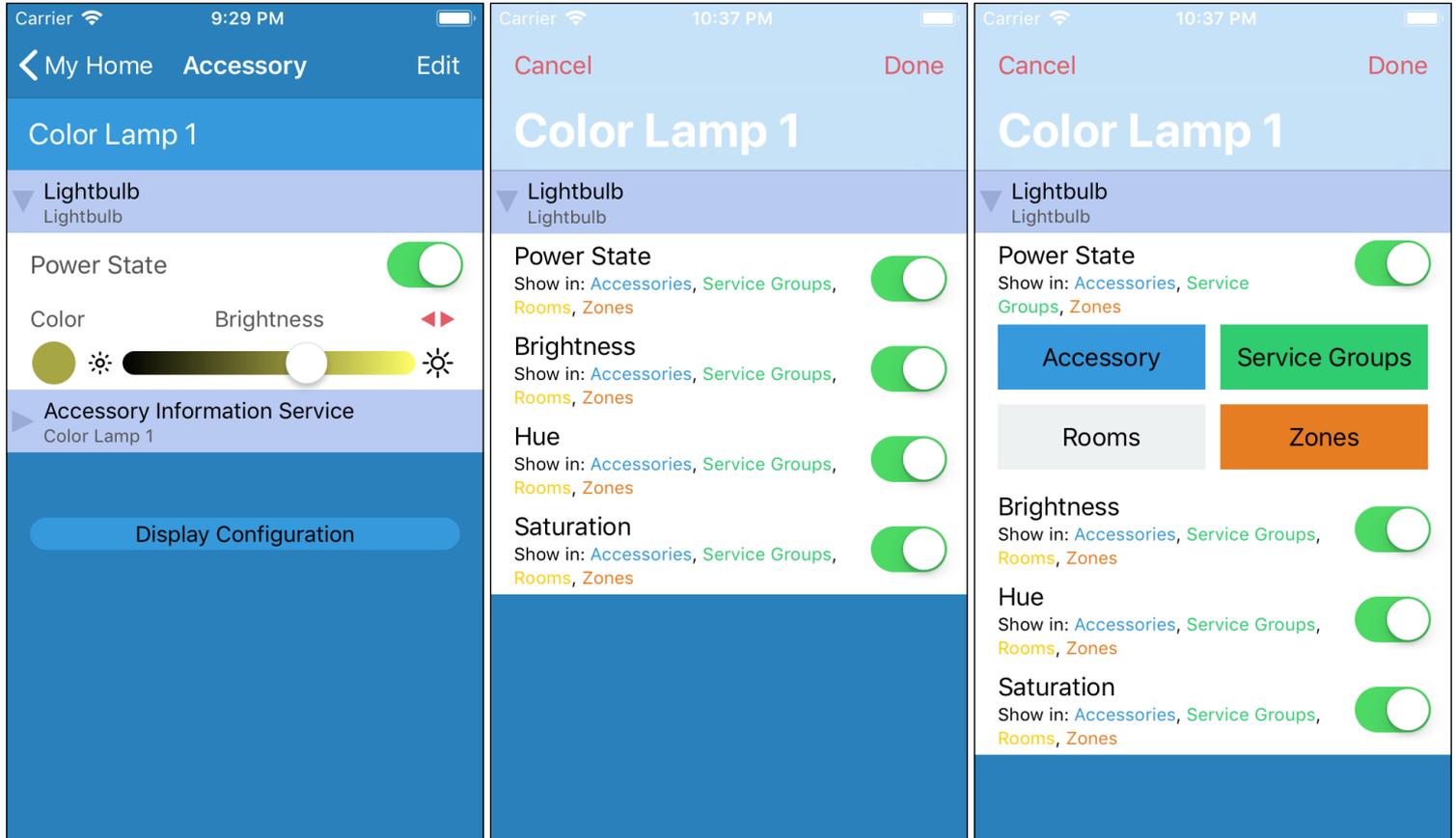
A scene custom group in the main view

To completely delete a scene, the scene has first to be removed from all custom groups, so that it will be visible in the section „Scenes“ of the main view. In the main view the scene can then be deleted.

Custom groups can only be deleted in the main view. Deleting a custom group does not delete the contained scenes.

Display Configuration

The “Display Configuration” for an accessory is entered via the detail view of the respective accessory. It allows you to select the properties, which are visible as a symbol or display, and thus controllable. Example: In your “Room” called “Office” are two ceiling lamps and a desk lamp. They are all controlled via the lamp symbol in the room “Office” and thus by the Multi-Button and the group control. If you want to exclude the desk lamp from being controlled (and displayed) in this room you can adjust the “Display Configuration” accordingly. Therefore, the detail view of the desk lamp is entered and the “Display Configuration” is opened.



If you want to remove the desk lamp completely from the room, i.e., both the “power state” and the “brightness” should not be included in the symbol, Multi-Button and group control any more, both properties, “power state” and “brightness”, have to be deactivated from being displayed in rooms.

The “Display configuration” is particularly useful for accessories with unwanted properties. For example, many HomeKit accessories are equipped with a temperature sensor, in addition to their main function such as motion detection, fan etc. To avoid having several temperature displays in one room or zone, the property “current temperature” of these accessories can be disabled from display.

Automation

Triggers allow you to automate your home by automatically activating scenes. They can be activated at a certain date or by events.

Organizing Triggers in Custom Groups

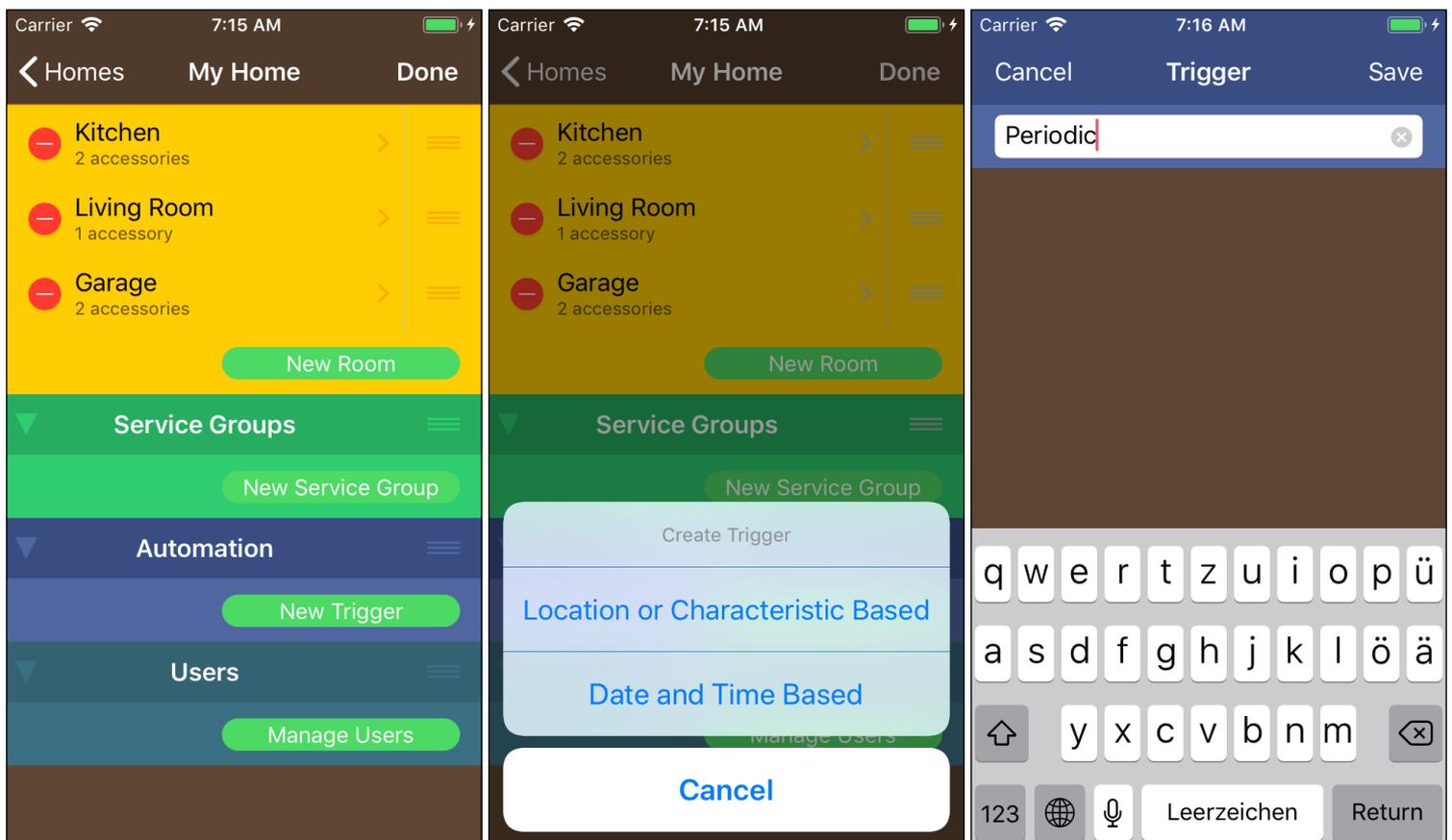
Triggers can like Scenes be organized within custom groups. This works the same way as described in the chapter „[Organizing Scenes in Custom Groups](#)“.

Date-and-Time-Based Triggers

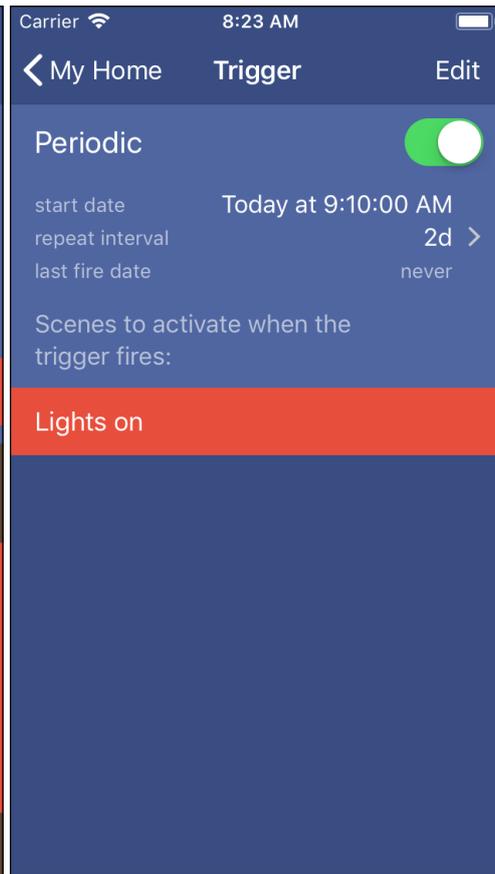
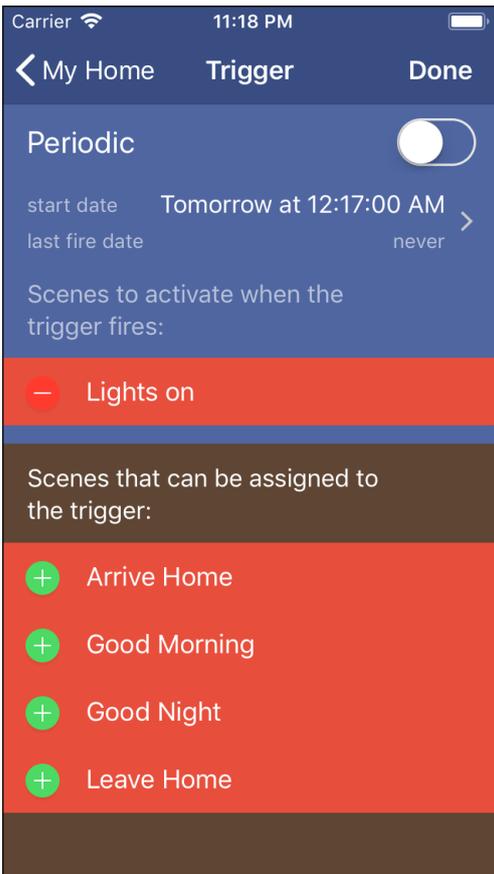
The time-based trigger is activated at a specified day and time, either once, repeatedly, e.g. every 10 minutes after the initial activation, or on selected days of the week.

Defining a Date-and-Time-Based Trigger

To create a new date-and-time-based trigger for a home, switch the main view into editing mode by tapping “Edit” in the header of a view. Locate the **New Trigger** button in the Automation section and tap the button. Now select “Date and Time Based”. The Trigger detail view will be shown where you enter a name for the new trigger.



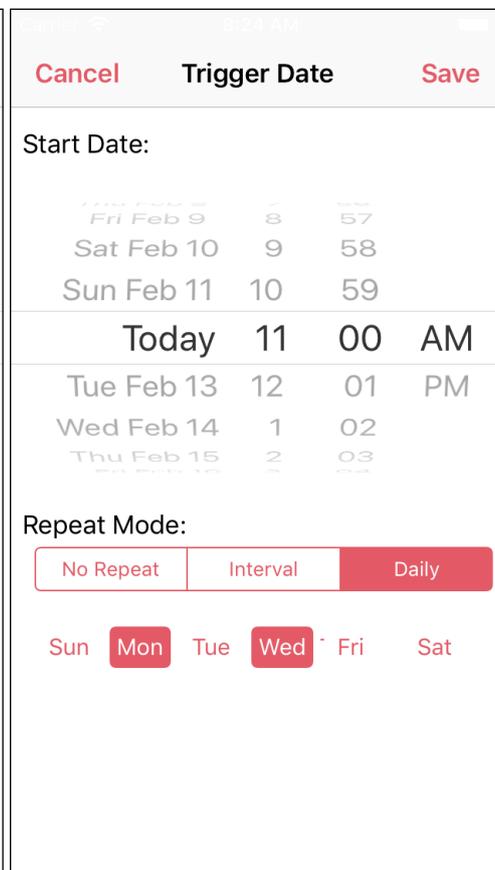
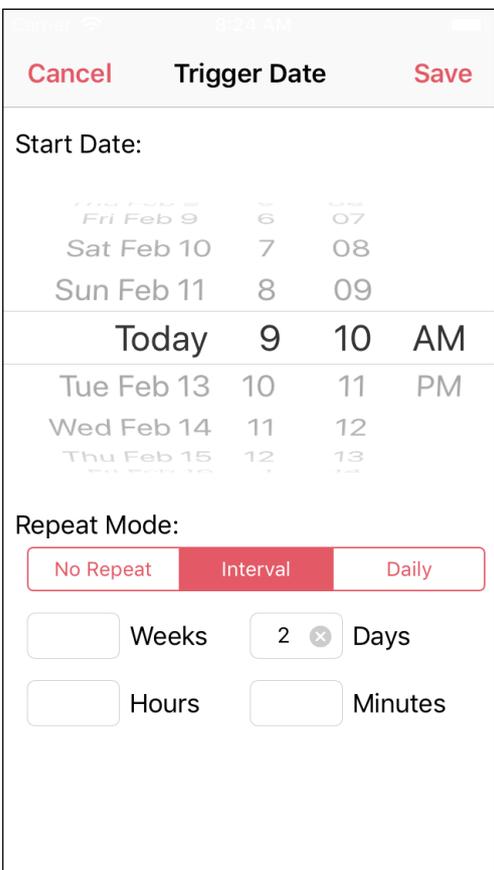
Assign the scenes that should be executed when the trigger fires by tapping **+** at the appropriate scenes. Next to the name of the trigger there is a switch to enable or disable the trigger. The same switch is also accessible in the main view of the home. A trigger that is disabled will never fire.



Disabled date-and-time-based trigger; adding scenes.

Enabled date-and-time-based trigger that fires every second day at 9:10 AM

Tap the field “start date” to specify the date, time and interval when the trigger should fire. The “Trigger Date” view will be shown:



Starts today at 9:10 AM and then fires every second day at 9:10 AM.

Starts today at 11 AM and then fires every Monday and Wednesday at 11 AM.

Event-Based Triggers

The trigger fires and activates scenes if a specified event occurs:

- **Location:** A change in location of your iOS device is detected by observing the entry or exit of a defined region. There are two different types of regions: Geographical regions that are defined by a circle around a specified location on the earth and beacon regions that are defined by the iOS device's proximity to Bluetooth low-energy beacons.
- **Presence:** Someone enters or leaves the home. The presence detection provided by HomeKit requires a Home Hub such as Apple TV etc.
- **Time:** A specified time of the day or the significant time "sunrise" or "sunset". The time events requires a Home Hub such as Apple TV etc.
- **Value:** The value of a characteristic of a HomeKit accessory changes or reaches a specific value. The characteristics can be e.g. a motion-detection, the pressing of a switch, a change in temperature or a change in power state of an accessory.

It is possible to add multiple events to a single event-based trigger, and the trigger will be fired if one of them occurs.

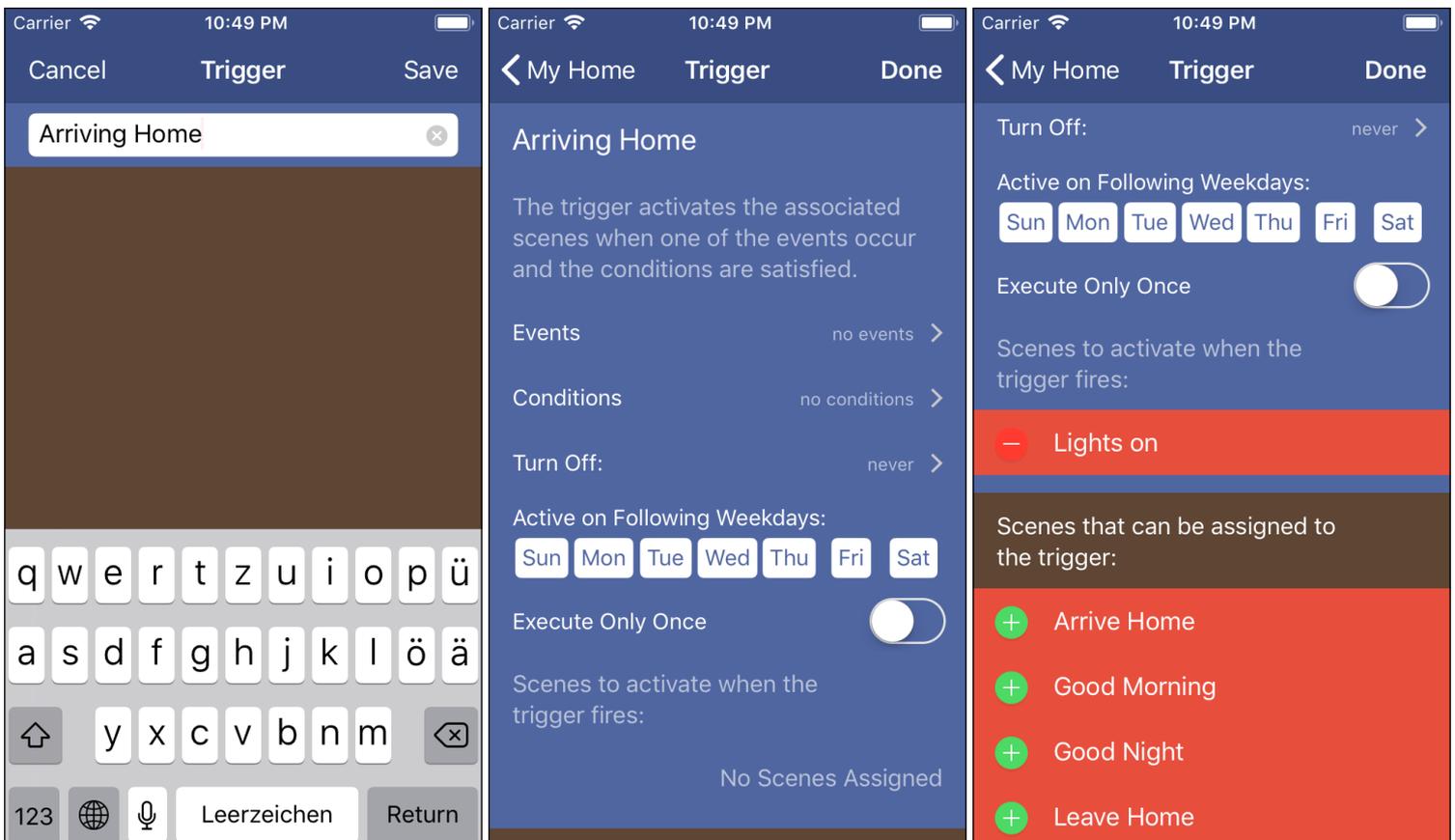
Additionally, conditions can be set and the trigger will only fire if one of the events occurs and all conditions are met. The conditions include:

- **Time Condition:** It has to be before or after a specific time, sunrise or sunset.
- **Presence Condition:** The Presence or absence of people (iOS devices) in your home is required.
- **Characteristic Value Condition:** A value of a characteristic of a HomeKit accessory has to be in a certain range or a specific value

Multiple conditions are combined via the boolean operators AND and OR, which allows to create complex conditions.

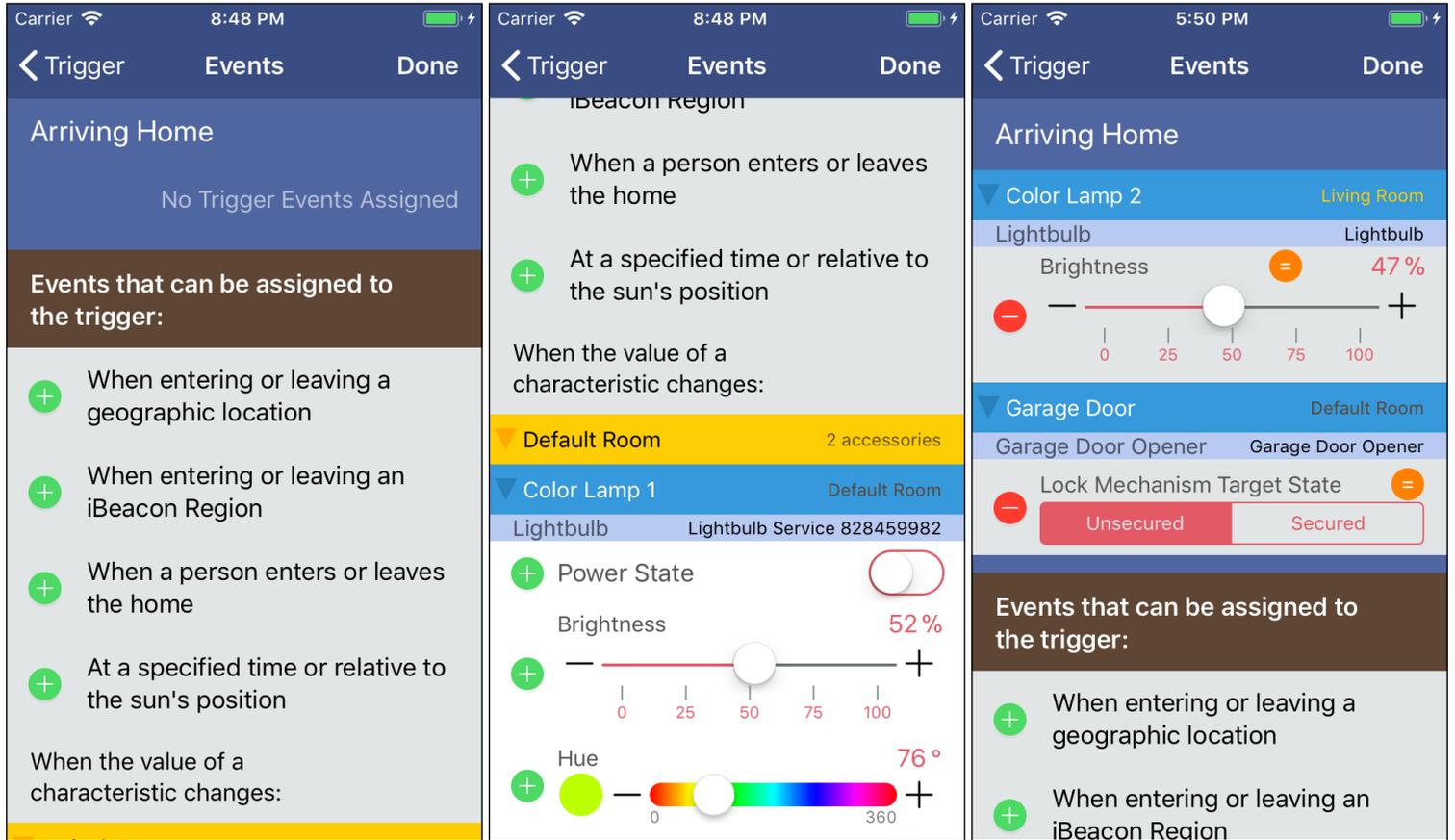
Defining an Event-Based Trigger

To create a new event-based trigger for a home, switch the main view into editing mode by tapping "Edit" in the header of a view. Locate the **New Trigger** button in the Automation section and tap the button. Now select "Location or Characteristic Based". The Trigger detail view will be shown where you enter a name for the new trigger.



Specifying the Trigger Events

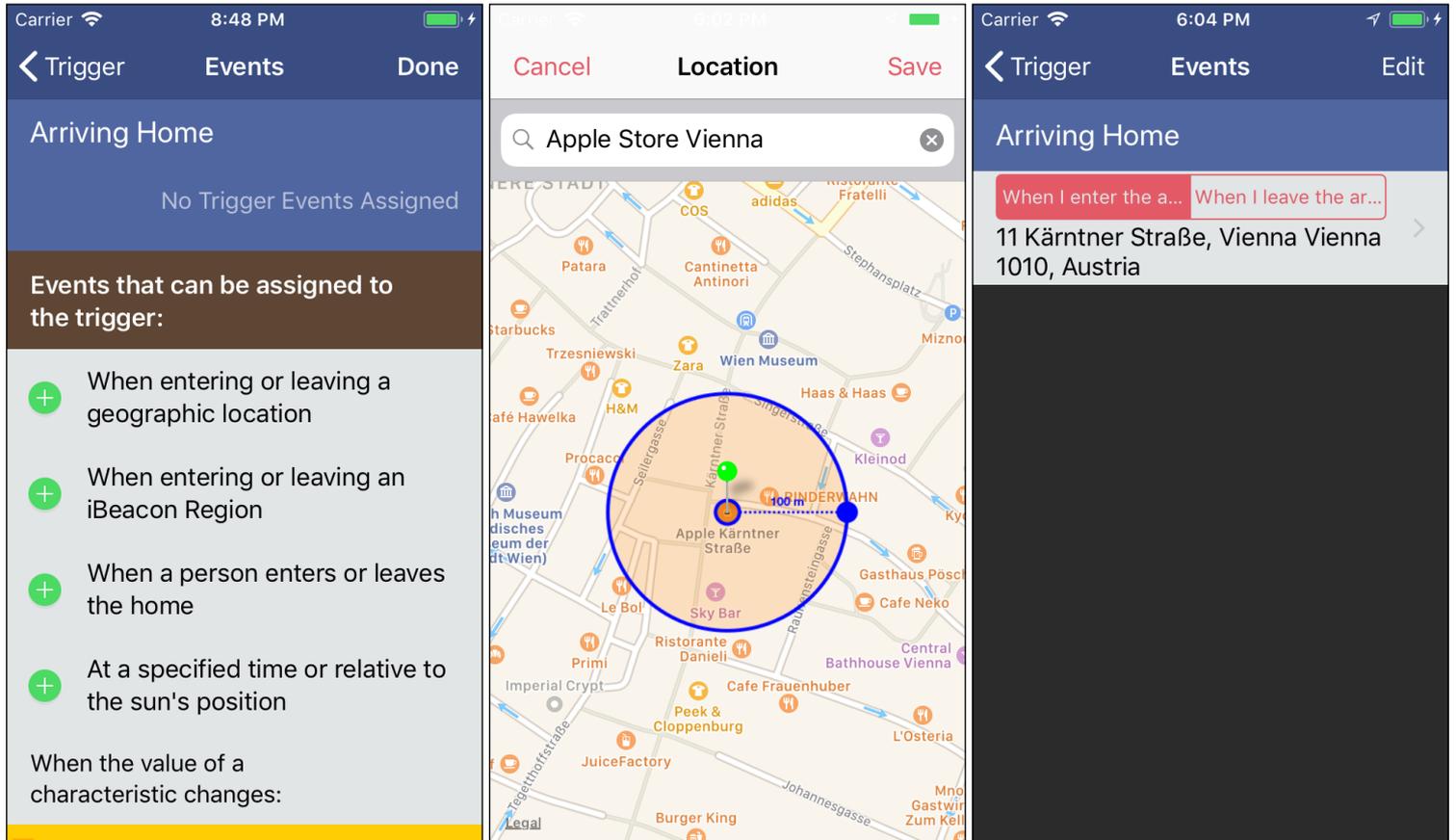
To let a trigger fire, one or more events have to be specified for the trigger. Tap “Events” in the trigger definition view to show the events definition view of this trigger. Here you can specify the events for the trigger:



Add one or more events by tapping  .

Geographic Location Event

Press **+** on “When entering or leaving a geographic location” to add a geographic location event. This event triggers when an iOS device enters or leaves an area defined as a circle with a specified radius around a location on earth:



Specifying a geographic location

Trigger when entering or leaving the area

iBeacon Region Event

A iBeacon region event can trigger when a iOS device enters or leaves a region defined by an iBeacon.

Presence Event

A presence event can trigger when the iOS device of a person enters or leaves the home:

Cancel Presence Event Save

Anyone Arrives
Anyone Leaves

I Arrive

I Leave
The First Person Arrives
The Last Person Leaves

Time Event

A time event can trigger at a specified time or relative to the sun's position:

Cancel Time Event Save

At 10:30

Sunrise Sunset **Time**

7 27
8 28
9 29
10 30 AM
11 31 PM
12 32
1 33

Cancel Time Event Save

At sunrise.

Sunrise **Sunset** Time

Shift Time

Cancel Time Event Save

1 hour, 30 minutes Before Sunset.

Sunrise **Sunset** Time

Shift Time

15
20
0 25
1 hour 30 min
2 35
3 40
4 45

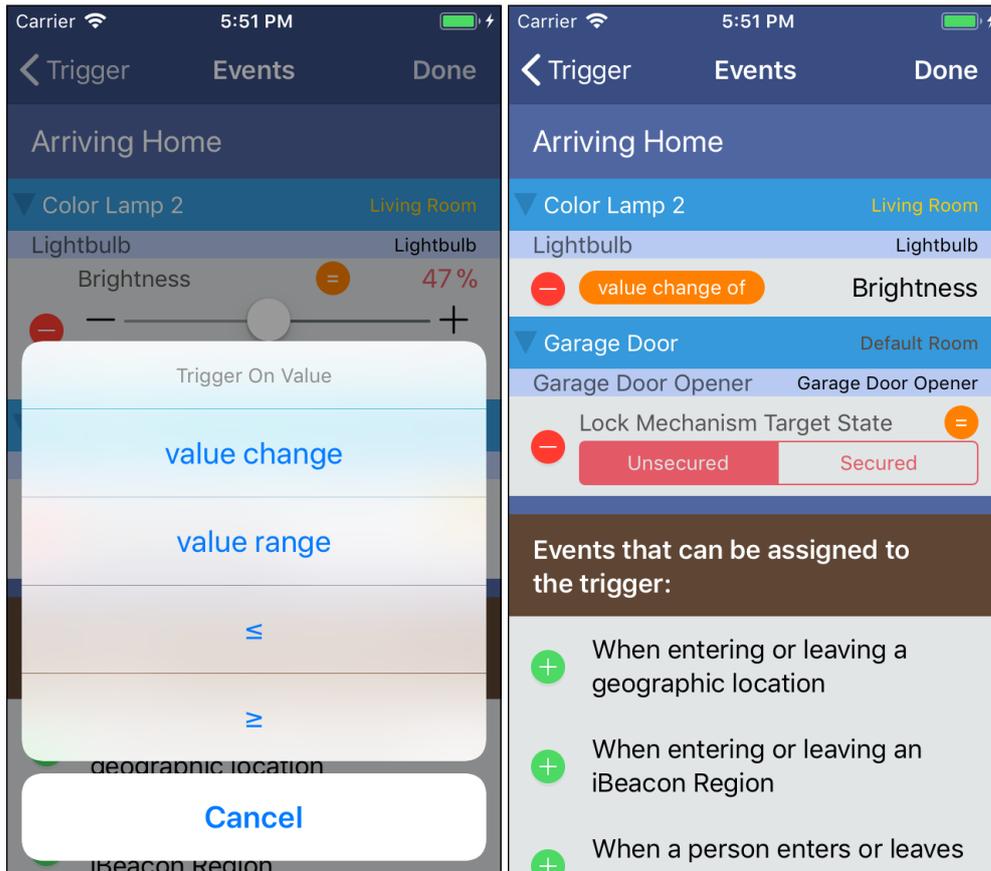
Earlier **Later**

Characteristic Value Event

For characteristic value events, you can specify how characteristic value changes can result in an event:

-  Equal: The event occurs when the characteristic value changes to exact the specified value.
 - value change of** The event occurs on every change of the characteristic value.
-  Less than or equal: The event occurs when the characteristic value changes from a value greater than the specified value to a value lower or equal as the specified value.
-  Greater than or equal: The event occurs when the characteristic value changes from a value lower than the specified value to a value equal or higher as the specified value.
-  Value range: The event occurs when the characteristic value changes from a value outside the specified range to a value within the specified range.

Tap the orange field to change the way the characteristic value should be monitored:



With the exception of **value change of** and  all other modes require a home hub such as Apple TV etc.

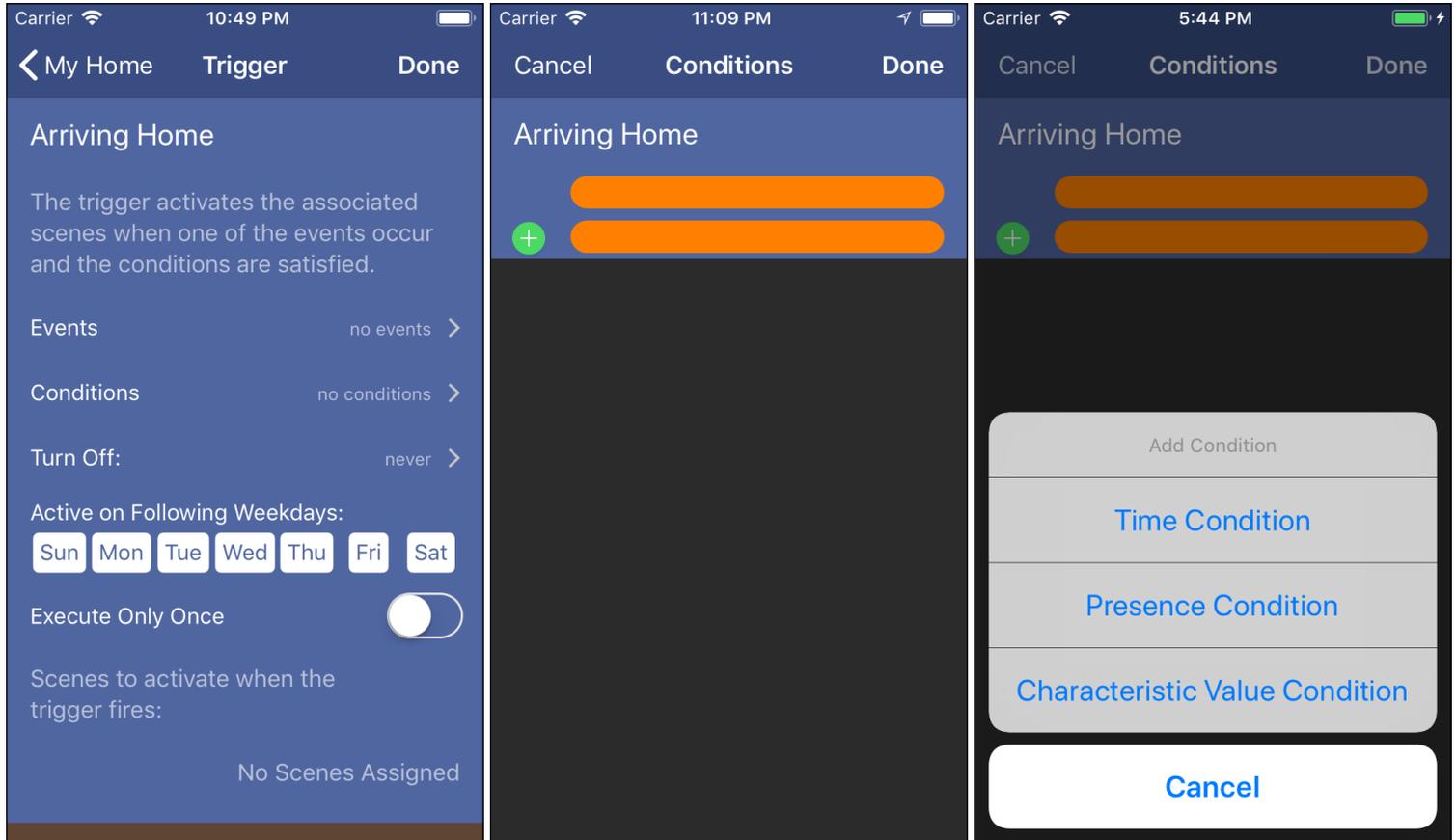
If you specify more than one event, only one event needs to occur to fire the trigger. You can specify the same events for multiple triggers. By also specifying different conditions for the triggers you can selectively control which triggers will activate their assigned scenes.

Specifying the Trigger Conditions

If an event occurs that would fire a trigger then the conditions of that trigger are evaluated. The trigger activate its assigned scenes only if the conditions are true. If no conditions are defined the trigger always fires if one of its events occurs.

Tap “Conditions” in the trigger definition view to show the condition definition view of this trigger. Here you can specify the conditions for the trigger.

Add one or more conditions to the expression by tapping . This opens a menu to select which kind of condition should be added:



Trigger definition view

Condition definition view in edit mode

Condition type selection menu

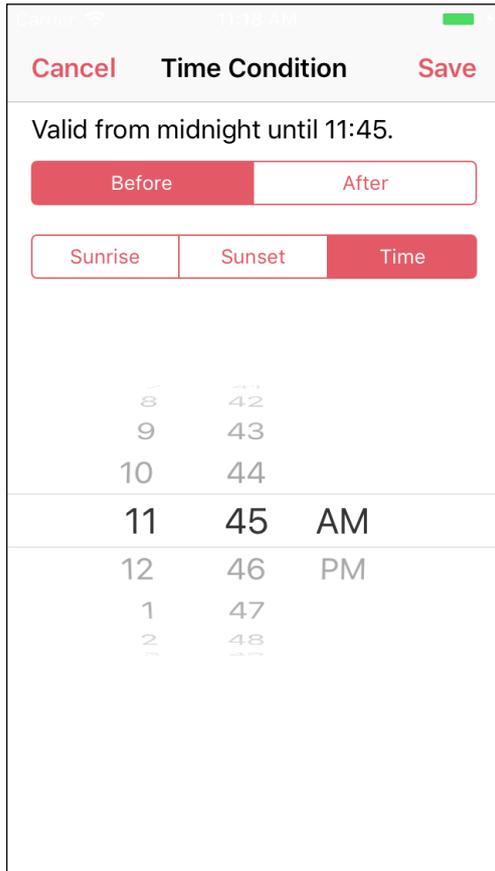
Conditions of various types can be combined to a logical expression by using the boolean operators AND and OR. Only if the complete expression evaluates to TRUE, the trigger will activate its assigned scenes. The AND operation has presence over the OR operation. To change the order of operation you can explicitly set parentheses. Operations within parenthesis will be executed first.

Time Condition

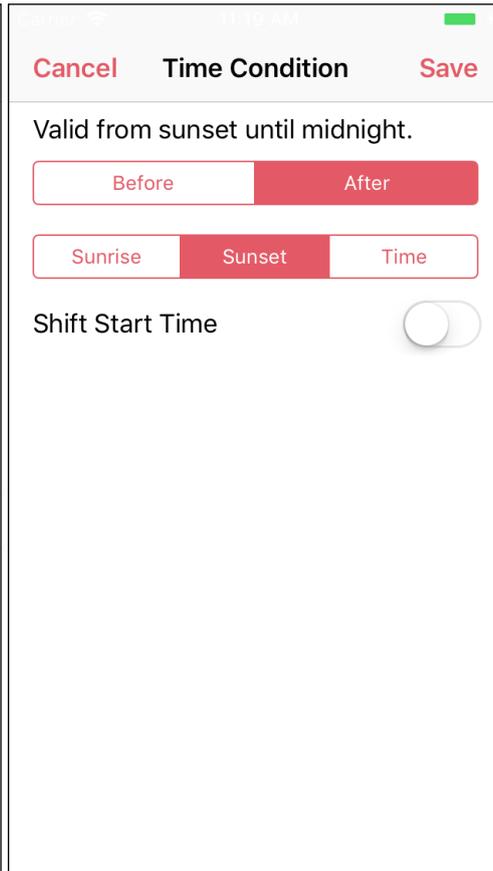
A time condition always specifies a time range:

When selecting “Before” the time range starts at midnight and ends at the specified time.

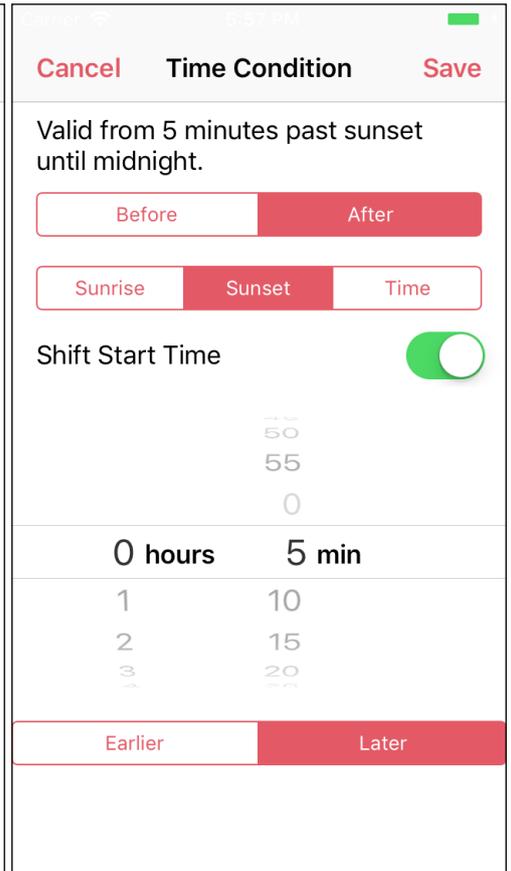
When selecting “After” the time range starts at the specified time and ends at midnight.



Before a specific time



After sunset

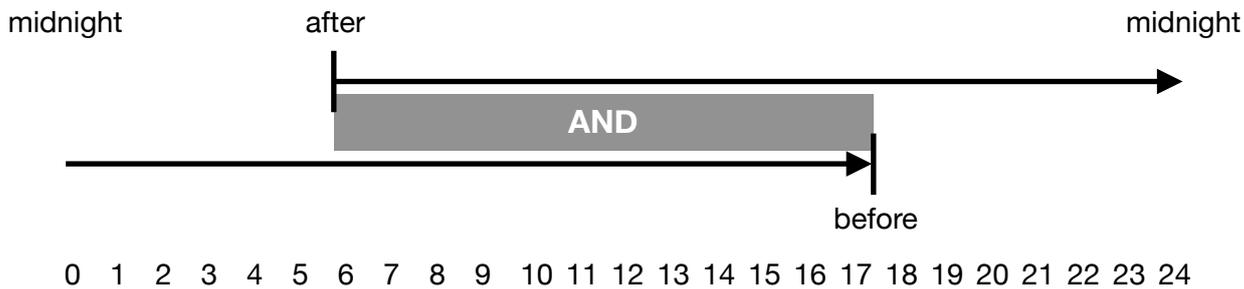


After sunset with 5 min offset

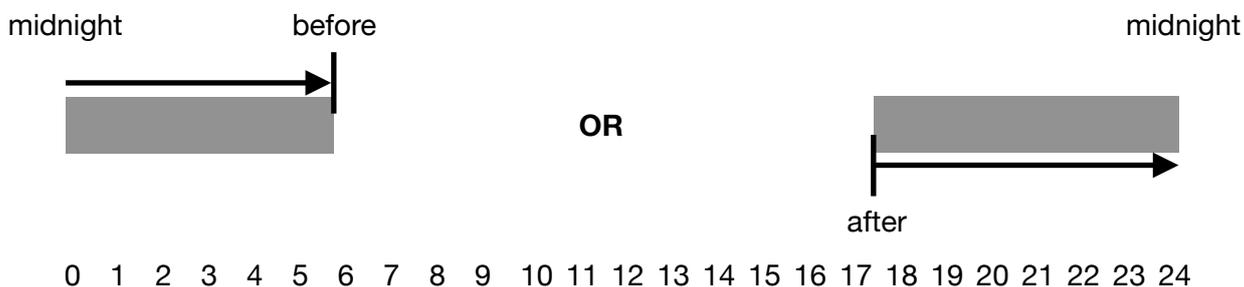
The specified time can be a relative time like sunrise and sunset or a specific time. When you specify “Sunrise” or “Sunset” you can additionally specify an offset to this time by shifting it to an earlier or later point in time. For example 1 hour earlier than sunset. The condition is only true within the specified time range.

If you want to specify a time range condition with a specified start and end time then use two time conditions that are combined with an AND or OR operator:

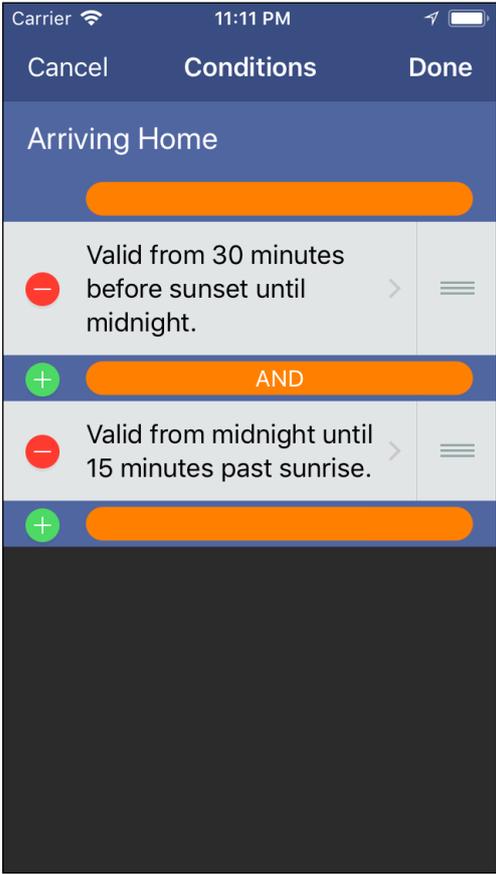
During daytime:



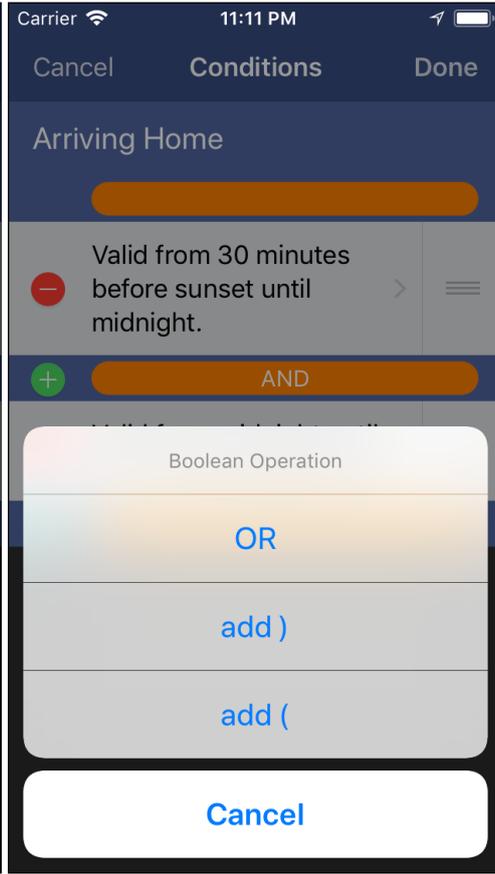
Over night:



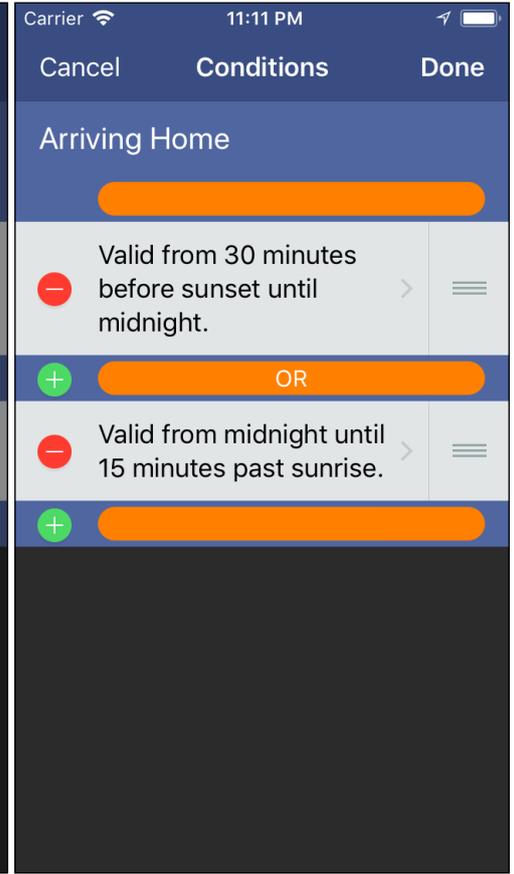
If you add a condition to an already existing one, then by default the new condition will be combined with an AND operation. To change this, tap on the orange **AND** button. This opens the “Boolean Operation” selection menu where you can change the operation and also add or remove parenthesis.



By default combined with AND



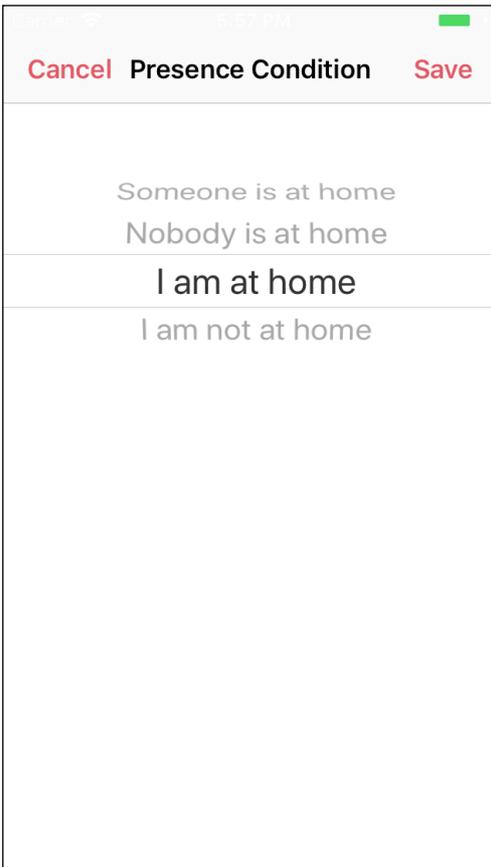
Select desired operation



Changed to OR operation

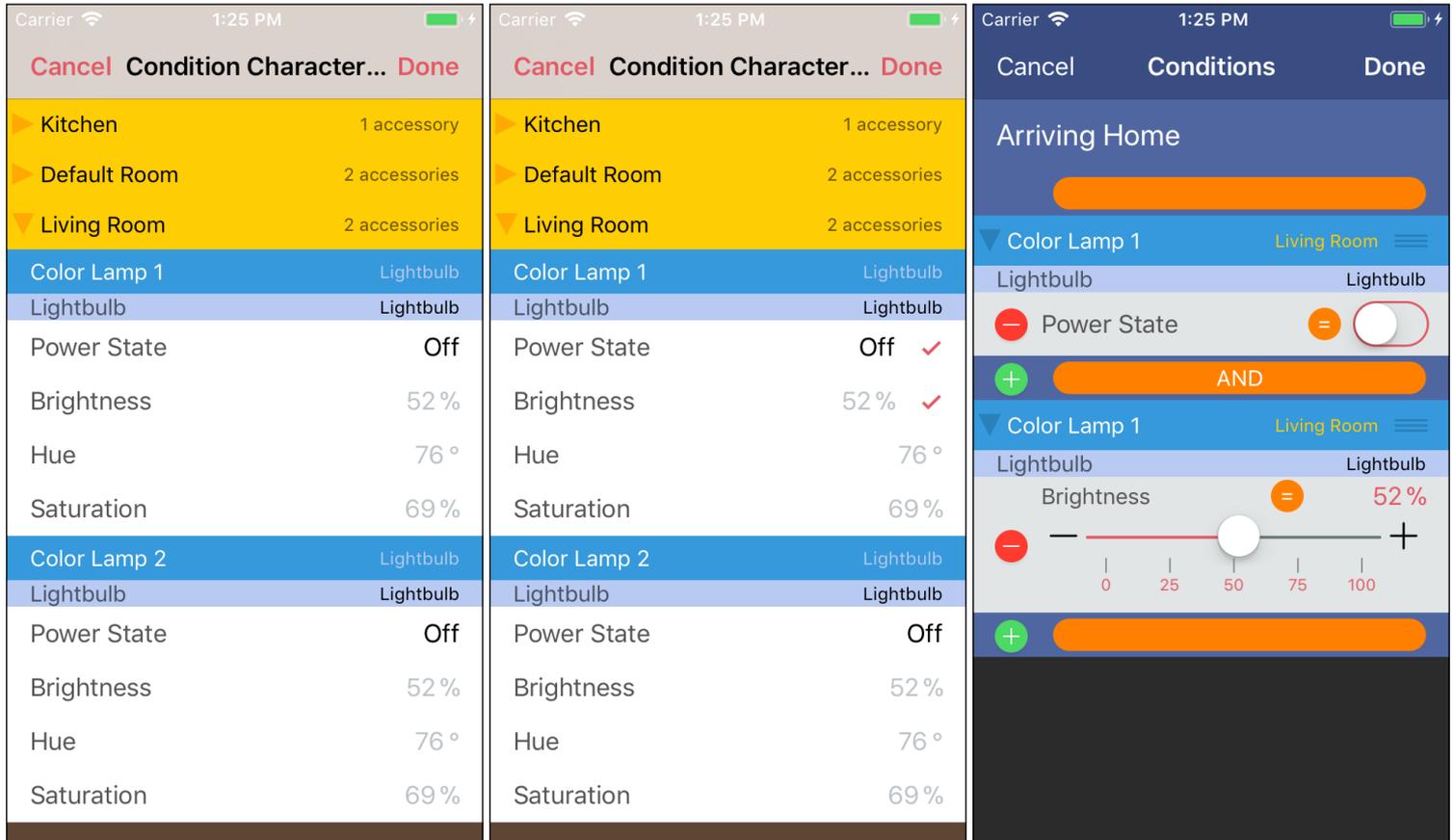
Presence Condition

A presence condition monitors if a person or more precisely a specific iOS device belonging to a person is near to the home or not.



Characteristic Value Condition

A characteristic value condition specifies constraints related to the value of a specific characteristic of an accessory. Add one or more characteristic value conditions to the expression by tapping **+**. In the appearing condition characteristics selection list select the characteristics you want to add to the expression and tap “Done”.

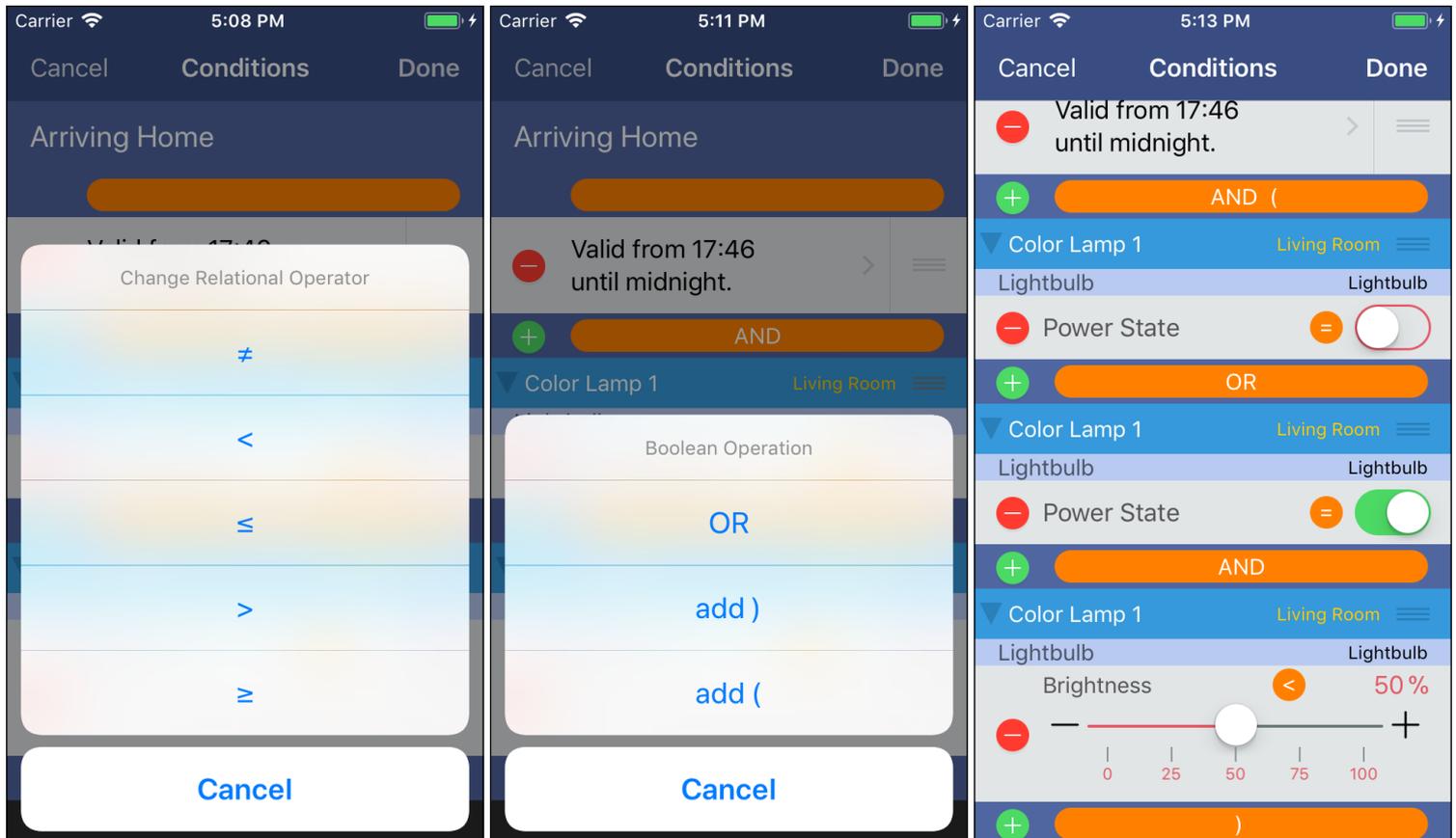


Condition characteristic selection

Select desired characteristics

Resulting expression

The new conditions are inserted into the expression and combined with an AND operation. Now you can reorder the conditions in the expression and modify the values and operators to form the expression you need.

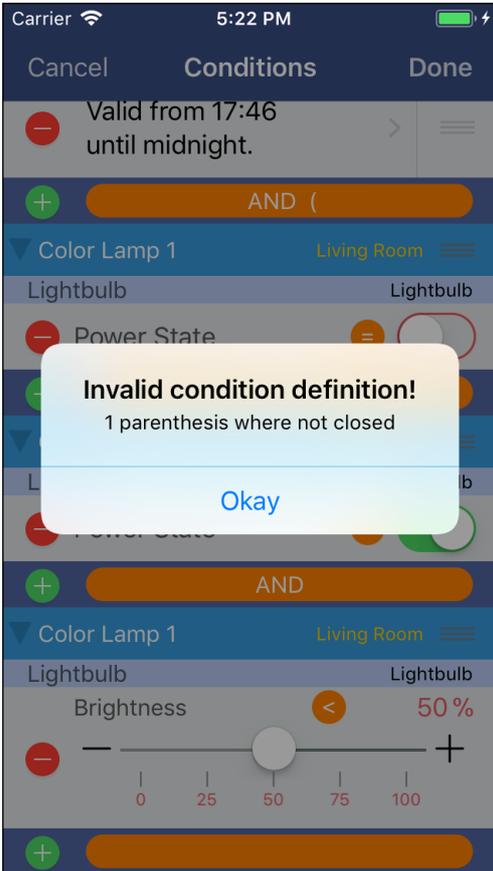


Select comparison operator

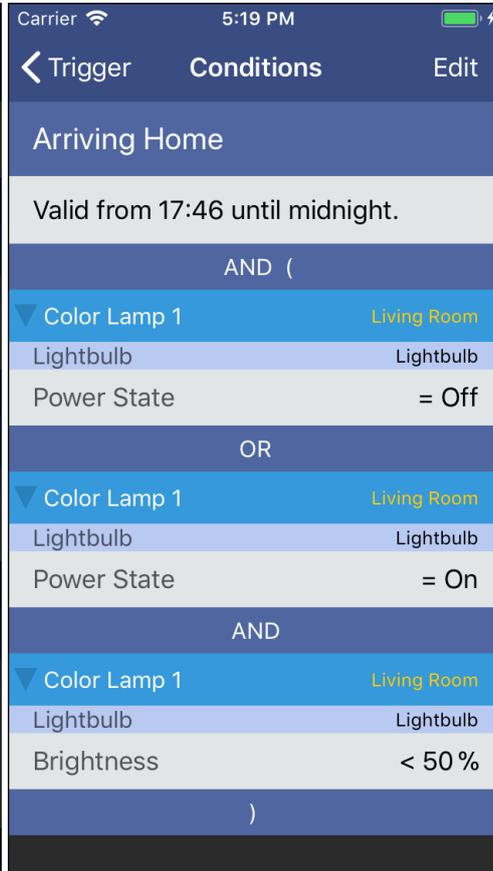
Select desired boolean operator

Reorganized expression

When you have created the expression you want, tap “Done” to save the expression. At this time the expression will be checked, if it is valid, and an error will be reported if not.



Invalid condition expression

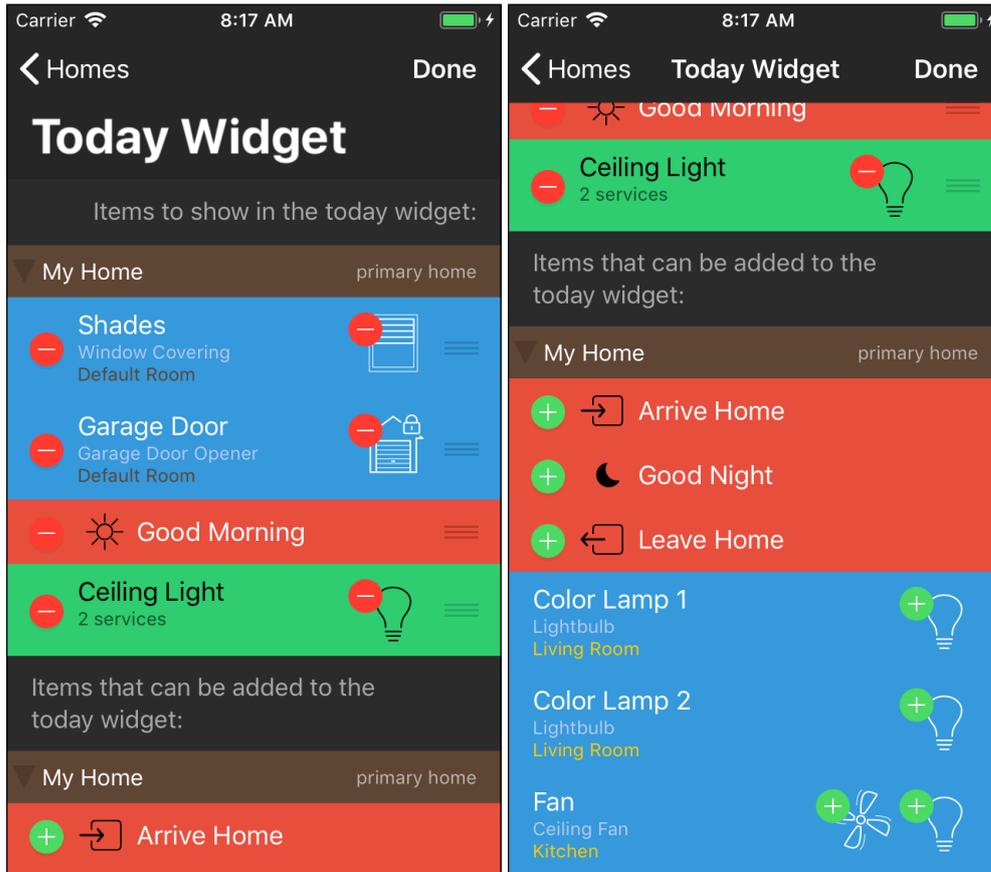


Final condition expression

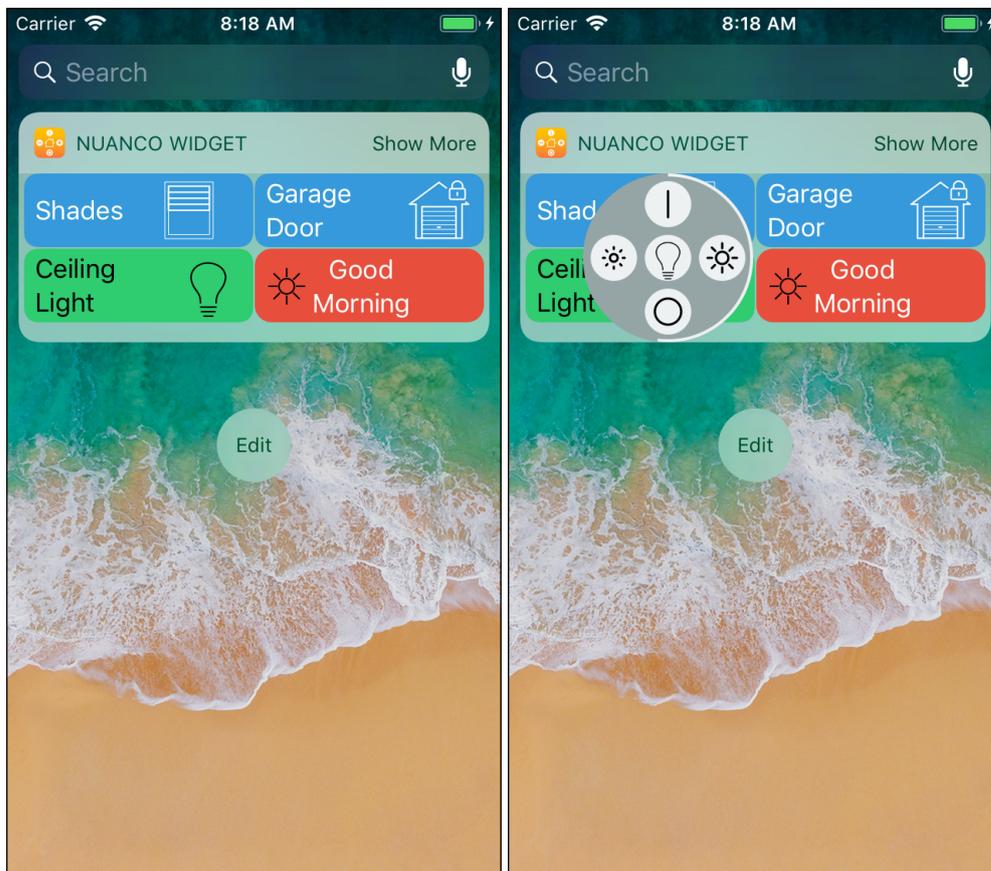
You can modify the expression at any time by pressing “Edit” in the condition definition view.

The nuanco Widget

You can create a nuanco widget to control/access the most important properties, scenes and service groups of your home quickly and comfortably in the today view. The nuanco widget is defined and modified in the “Today Widget Configuration”, which is located in the homes view (the top view).



The nuanco widget allows 8 entries per home and each accessory, service group or scene counts as a single entry. In the today view the entries of only one home are displayed at once but it is possible to switch easily between multiple homes.



By simply pressing one of the symbols in the widget the corresponding accessory will be switched on or off. By a long press on one of the symbols the Multi Button will be displayed, which offers additional control possibilities.

The nuanco widget uses the same color scheme, symbols and displays as in the main view of the nuanco app.