



User Guide

v. 1.3

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Introduction

What Is Casambi Pro and what is it used for?

Casambi Pro is a planning and commissioning tool designed to simplify the process of configuring lighting controls. It's been designed for professionals who are familiar with the lengthy technical configuration processes that can apply to large lighting projects. It speeds up project configuration by allowing most of the programming to be done offsite. Settings are then uploaded via Bluetooth to the Casambi enabled physical devices onsite.

Casambi Pro offers a new way of creating Casambi-enabled lighting systems and is mostly targeted at large, automated lighting systems for which it is now possible to create configurations offline with a PC application. Networks and control structures are configured offline with the PC tool (Windows 10 or newer). Commissioning is completed on Apple iPad.

What Is needed to use the application?

For using the Casambi Pro, you will need a Windows PC running either Windows 10 or newer, and an Apple iPad. Please note that the complete Casambi Pro workflow requires both a Windows PC and an iPad.

Casambi Pro does not run on Android devices or on a MacOS computer.

How does Casambi Pro differ from the Casambi App?

Casambi Pro is based on principle where lighting systems configurations can be prepared in advance, offsite. It uses floor plans to visualize the site and a map where the lighting groupings and controller devices can be drawn.

Overview to the differences between the Casambi App and Casambi Pro:

Casambi App

- Platforms: iOS, Android
- Supports Classic and Evolution firmware.
- Very extensive set of features for configuring and controlling lighting systems.
- Configuration of networks and devices must be done on-site, when the Casambi enabled devices are available.
- App is used both by professionals for configuring networks and end users for controlling the lighting installations. All Casambi ecosystem devices and configurations are supported.
- Localized for 18 languages.
- Themed for many different brands.
- No PC tool available.
- Does not use floorplans.

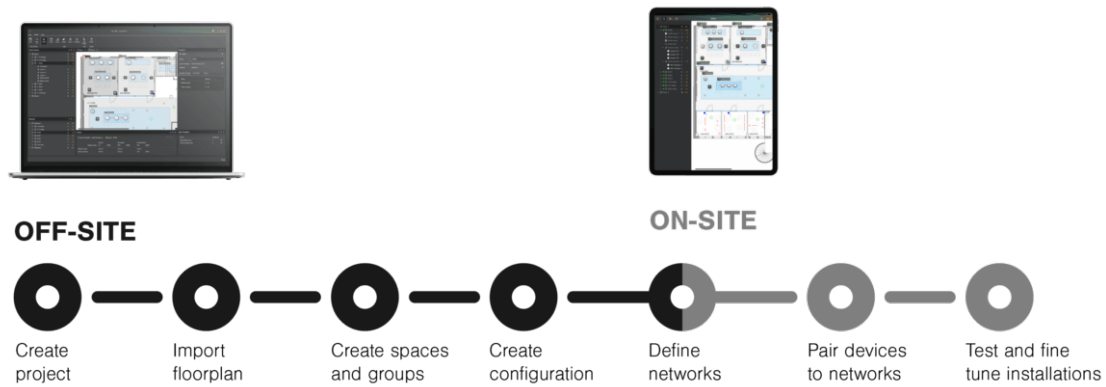
Casambi Pro

- Platforms: Windows PC, iOS
- Supports Evolution firmware
- Includes limited feature set of the Casambi App. Features are added on-need basis in regular update cycles.
- Targeted primarily for medium to large projects with mainly automated controls
- Planning and configuration of Casambi networks and devices can be done with PC tool in advance when no real devices are available.
- Supports dimming, colour temperature and basic RGB controlling of Casambi ecosystem luminaires
- Uses floorplans as layouts for making and managing the networks.
- Luminaires are controlled as groupings, not individually.
- Commissioning of Pro networks requires internet connection.
- No separate end user app available
- No localization, initially English only
- No branded versions available
- Cannot open or modify networks created with the Casambi App.

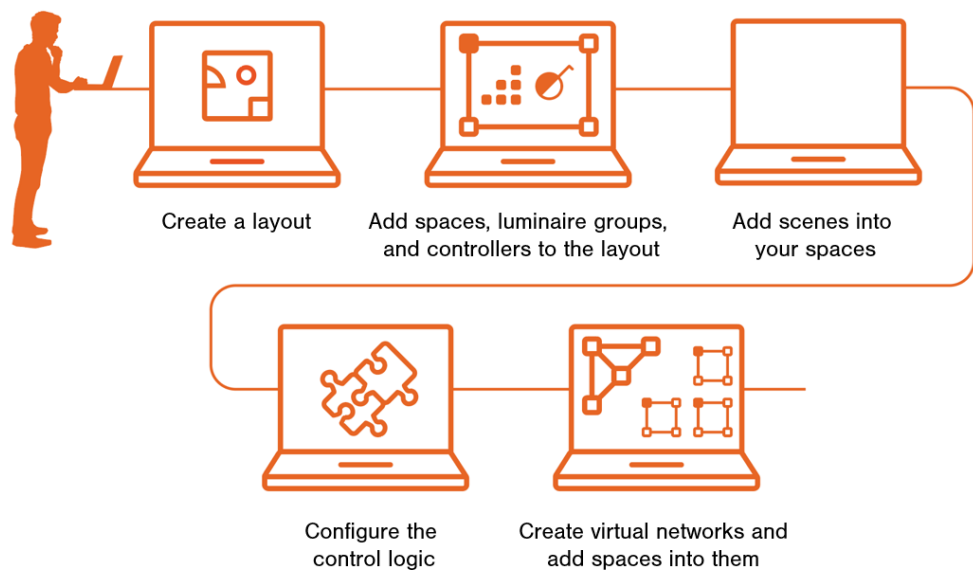
Main features in Casambi Pro for Windows and for iOS

| | Casambi Pro for Windows | Casambi Pro for iOS |
|---|-------------------------|---------------------|
| Creating projects | ✓ | |
| Managing project metadata | ✓ | |
| Sharing a project | ✓ | |
| Deleting a project | ✓ | |
| Exporting project documentation | ✓ | |
| Adding and managing layouts | ✓ | |
| Adding spaces, groups, controllers and cloud gateways | ✓ | |
| Adding and editing scenes in spaces | ✓ | ✓ |
| Creating networks to the project | ✓ | |
| Creating and editing space templates | ✓ | |
| Editing spaces and groups in the layout | ✓ | |
| Editing spaces' and groups' properties | ✓ | ✓ |
| Editing controller in the layout | ✓ | ✓ |
| Editing controller configurations | ✓ | ✓ |
| Editing network properties | ✓ | ✓ |
| Adding and editing notes to elements | ✓ | ✓ |
| Pairing Casambi enabled devices to projects | | ✓ |
| Pairing EnOcean devices to projects | | ✓ (iPhone) |
| Uploading new configuration to networks | | ✓ |

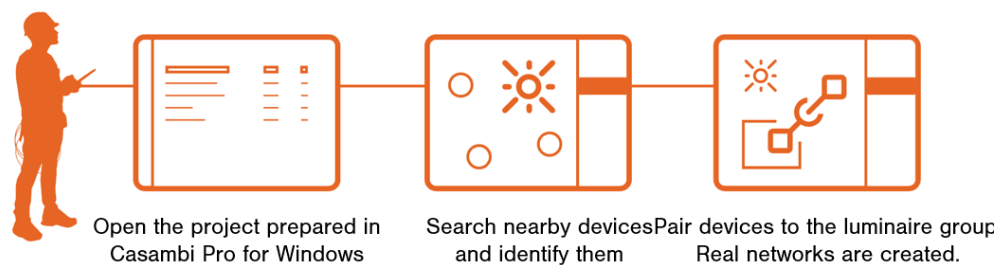
Casambi Pro workflow



1. Designing and configuring project offsite with Casambi Pro for Windows



2. Commissioning the project with Casambi Pro for iOS



Installation

Microsoft Windows PC

System requirements

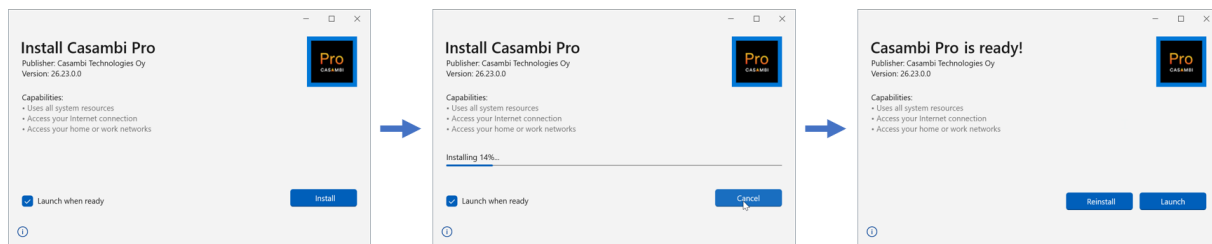
Casambi Pro can be run on Windows PC computer running Windows 10 or newer Windows operating system. MacOS or Linux computers are not supported.

- Windows 11 or newer is recommended.
- The minimum supported Windows 10 version is 20H2, build 10.0.19042.

Installation on a PC

Follow these steps to install Casambi Pro on your Windows 10 or newer device:

1. Download the Casambi Pro setup file from the Casambi Pro web page (casambi.com/pro).
2. Once download is finished, run the Casambi Pro setup file → The setup wizard opens.
3. Click "Install" to continue. Installation starts and its progress is indicated on the screen.



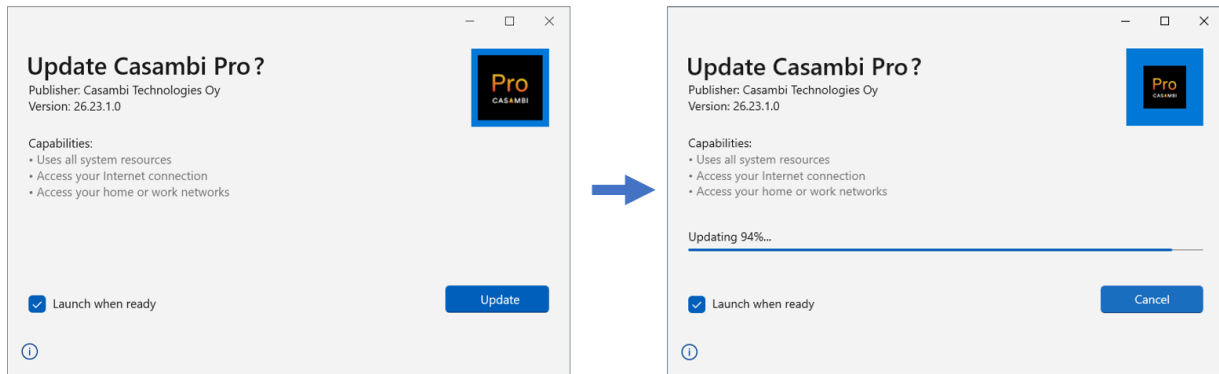
4. When the installation is finished, click on "Launch" to open the Casambi Pro application.
5. When Casambi Pro is opened for the first time, you will need to tap the Sign In button to start the sign-up process.

If you already have a Casambi Pro account, you can use your existing credentials to sign in.

Updating Casambi Pro for Windows

On every startup, the application checks automatically if there are any updates available. If there is a newer version available, the application provides the user an opportunity to run the update. It is also possible to continue with the current version.

Note: It is not possible to downgrade the currently installed version to an older version.



Apple iOS devices

System requirements

Casambi Pro can be installed on any iOS device running iPadOS or iOS version 16.0 or newer. Older OS versions are not supported.

Please note, that in iOS devices, the Casambi Pro user interface is optimized to be used with an iPad rather than with an iPhone. This is due to the nature of contents in Pro projects (large floorplans etc.), thus user experience will be better on a large screen device. Main difference between iPad and iPhone versions of Casambi Pro is that the iPhone version includes option to pair EnOcean devices. This is because the iPhones has a 2-way NFC capability while the iPad does not.

Installation on an iOS device

1. Before starting the installation of Casambi Pro, make sure your iPad's or iPhone's operating system version is 16.0 or higher. If not, please update the OS version first before proceeding with the installation.
2. On your iOS device, go to the Apple App Store
3. Search for Casambi Pro app
4. Click the install button in the App Store
5. After Casambi Pro has been installed and opened for the first time, you will need to tap the "Sign In" button to start the sign-up process.

If you already have a Casambi Pro account, you can use your existing credentials to sign in.

Updates

Users can decide themselves how the App Store updates apps in their device, including Casambi Pro. In an iOS device, the App Update settings can be found by navigating to *Settings > App Store > Automatic downloads*.

Depending on the selected App Updates setting, updates are installed either manually or automatically:

- Setting is OFF: User needs to check if there are updates and launch update installation manually in the App Store.
- Setting is ON: App Store pushes the update to user's device automatically, without asking for permission.

Note: It is not possible to downgrade the current installed version.

Uninstalling Casambi Pro

On both Windows and iOS devices, Casambi Pro can be uninstalled following the Operating System's uninstallation tools and conventions.

Uninstalling the application from a device does not affect existing projects or user accounts.

Getting started with Casambi Pro

Consent for data collection

When Casambi Pro is started for the first time it asks for consent for collecting usage and error data. This data is used for helping the development of the applications and for fixing problems and errors in the application.

Consent for collecting error and usage data

The Casambi Pro application can record and send information to Casambi about how the application is used and how it performs. This is done for helping the development of future versions of the application and for finding and fixing problems in application stability or other potential problems.

☐ I allow collecting all data

☐ I allow collecting only error data

☐ I don't allow collecting any data

This setting can be changed in the Settings view in Casambi Pro.

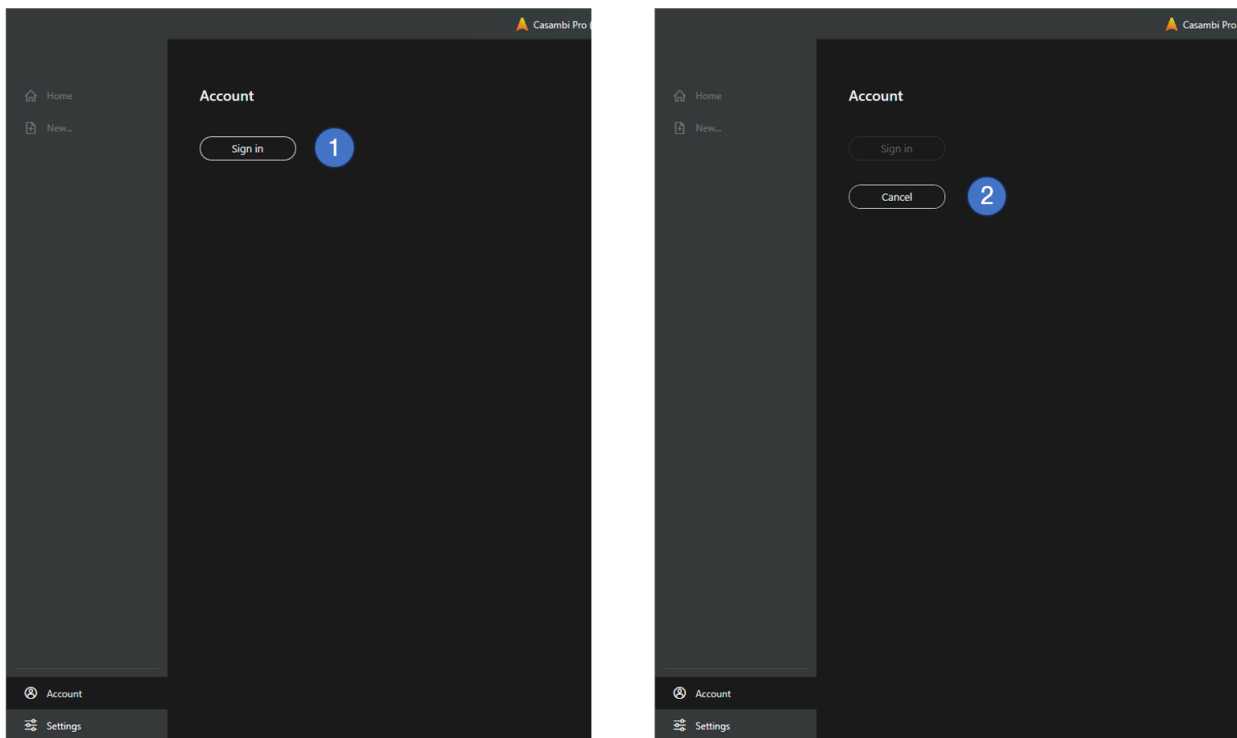
Continue

Casambi Pro Account

First time sign in

Every Casambi Pro user must have a Casambi Pro account. When the application is started for the first time, the user must identify him/herself and create a Casambi Pro account.

Account view in Casambi Pro for Windows



Starting and cancelling the sign in process:

1. Sign in/up and account creation can be started by clicking the Sign In button. A browser window is opened, guiding the user in next steps.
2. When the Sign In process is ongoing in the browser, Casambi Pro application's account view displays a Cancel button, which can be used for cancelling the sign in operation.

Account view in Casambi Pro for iPad

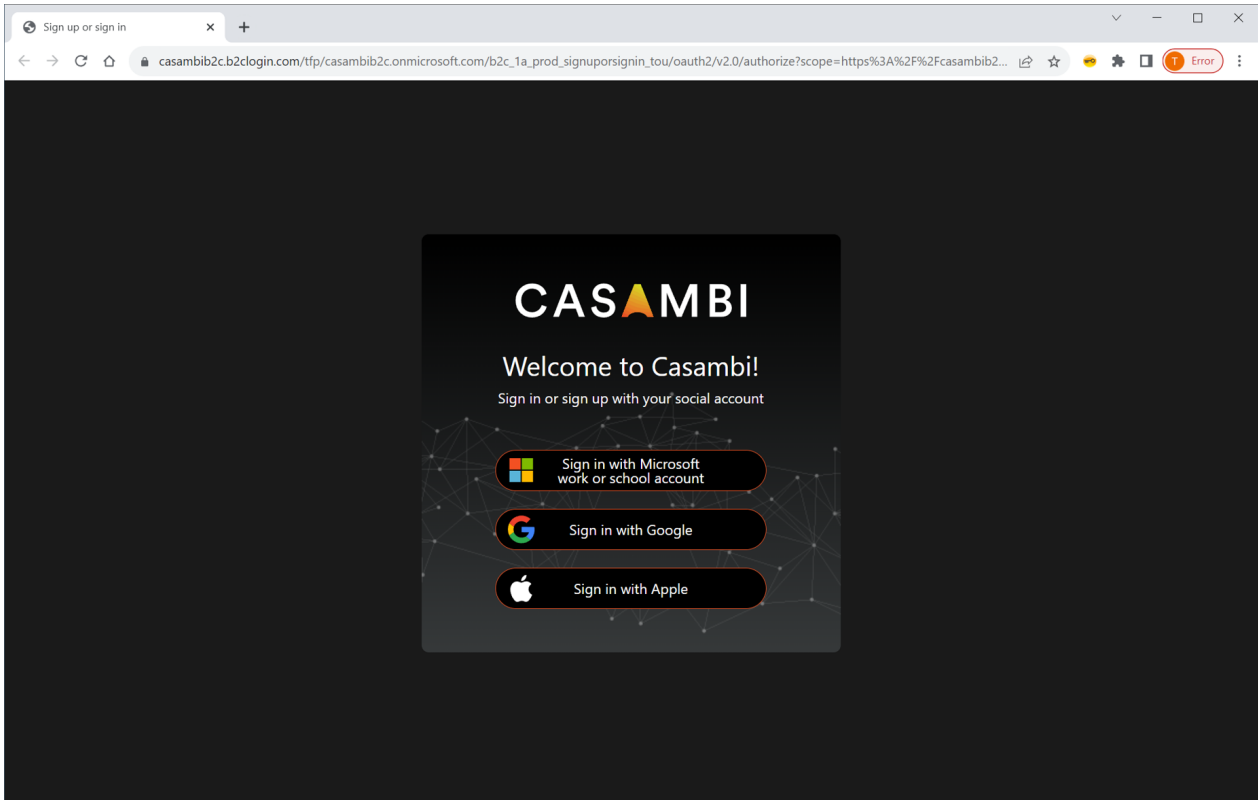


Identification of the user

For identification of the user, Casambi Pro uses three most common work and social identification services:

- Microsoft Azure AD (common work account provider)
- Google Account
- Apple ID

After user has clicked the Sign In button in the Casambi Pro account view, a browser is opened where user can select his/her preferred identification provider:



When user selects one of the three account providers, the selected provider displays its own views to enter user's credential and password.

Note, that the selected identification provider's services are also used if there is a need to change or reset password. Casambi Pro does not directly ask that password nor provide any tools for changing the work/social account password.

Creating Casambi Pro account

After successful identification, a Sign Up screen is displayed if

- The user is using Casambi Pro for the first time or
- The user chooses to use a new work/social account for signing in (one that has not yet been used with Casambi Pro).

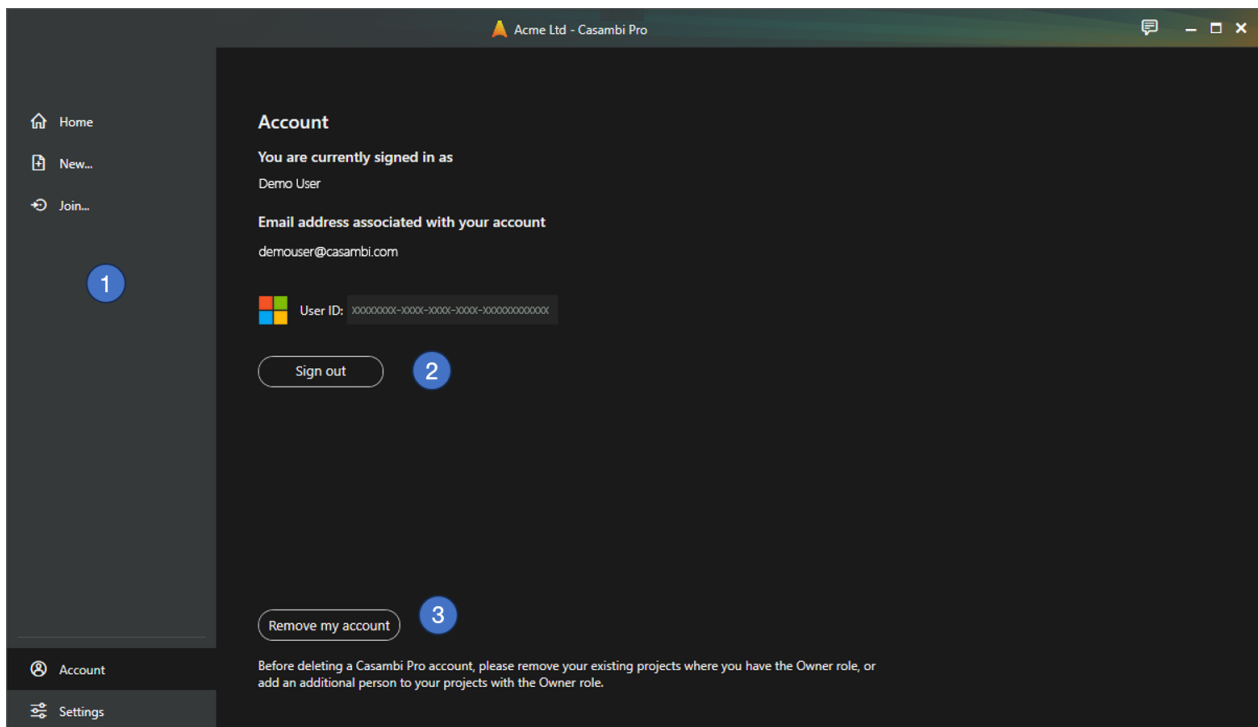
The screenshot shows a web browser window with the URL `casambib2c.b2clogin.com/casambib2c.onmicrosoft.com/oauth2/authresp?state=StateProperties%3DeyJTSUQjOjU4LW1zLWNwaW0tcM6MzA0MzJINjE...`. The main content area is a dark gray box with the Casambi logo and the text 'Welcome to Casambi! Please provide the following details.' Below this, there are five numbered steps: 1. Display name (Tanya Paddock), 2. Given name (Tanya), 3. Surname (Paddock), 4. Agreement to terms and privacy policy (checkbox checked), and 5. Create button.

In this view, user fills in the information that will be displayed inside the Casambi Pro application. The fields are pre-filled with information provided in the preceding identification phase. All fields are editable and mandatory.

1. Display name
2. Given name
3. Surname
4. Agreement to Casambi terms of use and Privacy policy. Acceptance is mandatory before a Casambi Pro account can be created.
5. When the Create button is clicked, a Casambi Pro account is created and linked to user's email given in the identification phase.

When the sign in/up process has been successfully finished, a notification screen is displayed. User can now close the browser window and continue in Casambi Pro.

Signing Out from Casambi Pro



Account view after user has been signed in:

1. All side tabs are now available, and user can start working with projects.
2. User can sign out by using the Sign Out button. Casambi Pro stays open even if user signs out.
3. Remove my account button

Removing Casambi Pro account

If user wants to have his/her Casambi Pro account removed, it is done by clicking the Remove my account button (number 3 in the picture above).

Note: It is important that before the account is deleted, user's projects are removed or passed to another person. Due to security and server related processes, finalizing the account removal may last 48 hours.

After user has requested for the account removal:

- The user account can still be used for signing in to Casambi Pro until the account removal process is finished.
- It is not anymore possible to create new projects with the account.
- Other users cannot share projects anymore with the removed account.

User interface overview

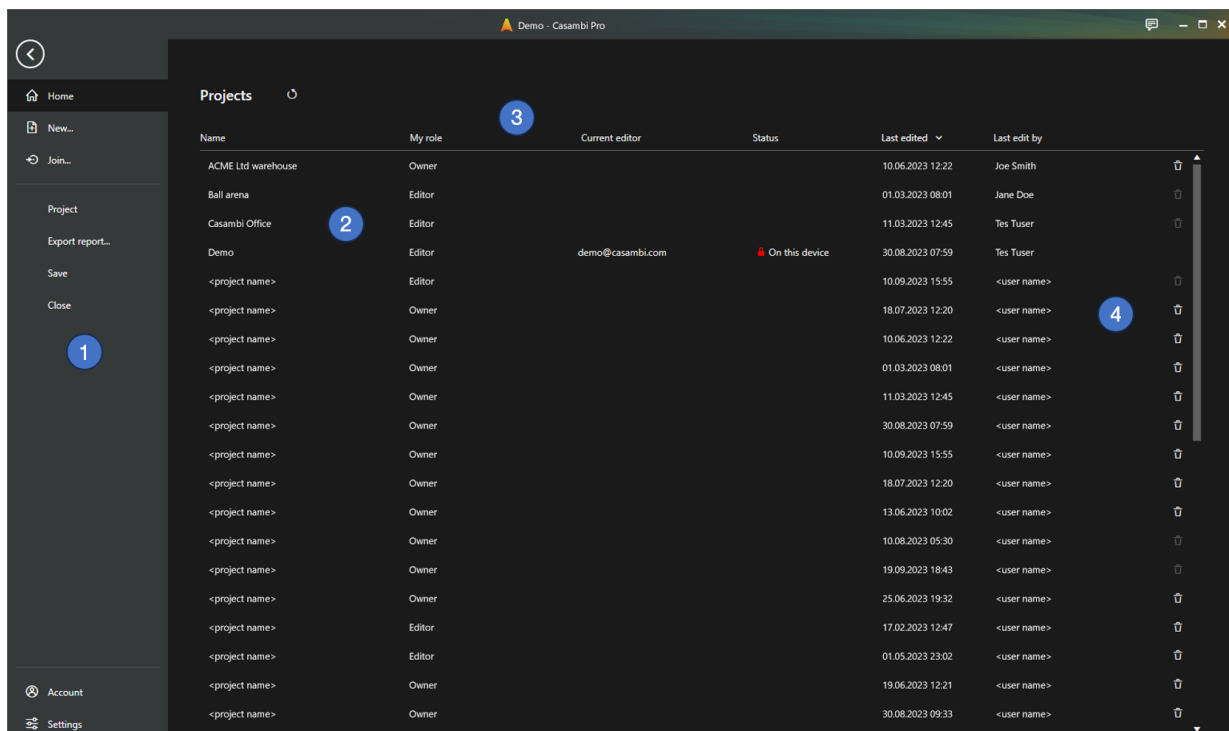
The Casambi Pro user interface consists of two main views:

- **Backstage** where projects are listed, and project and application-level settings can be accessed.
 - In Pro for Windows, it is possible to navigate between the Backstage and Main Workspace views when a project is open.
 - In Pro for iPad/iPhone, project is closed when user navigates from Main Workspace to Backstage, or from Casambi Pro to another iOS application.
- **Main workspace** where the project contents is created and edited.

Backstage

Home tab

Windows



1. Side ribbon, with options

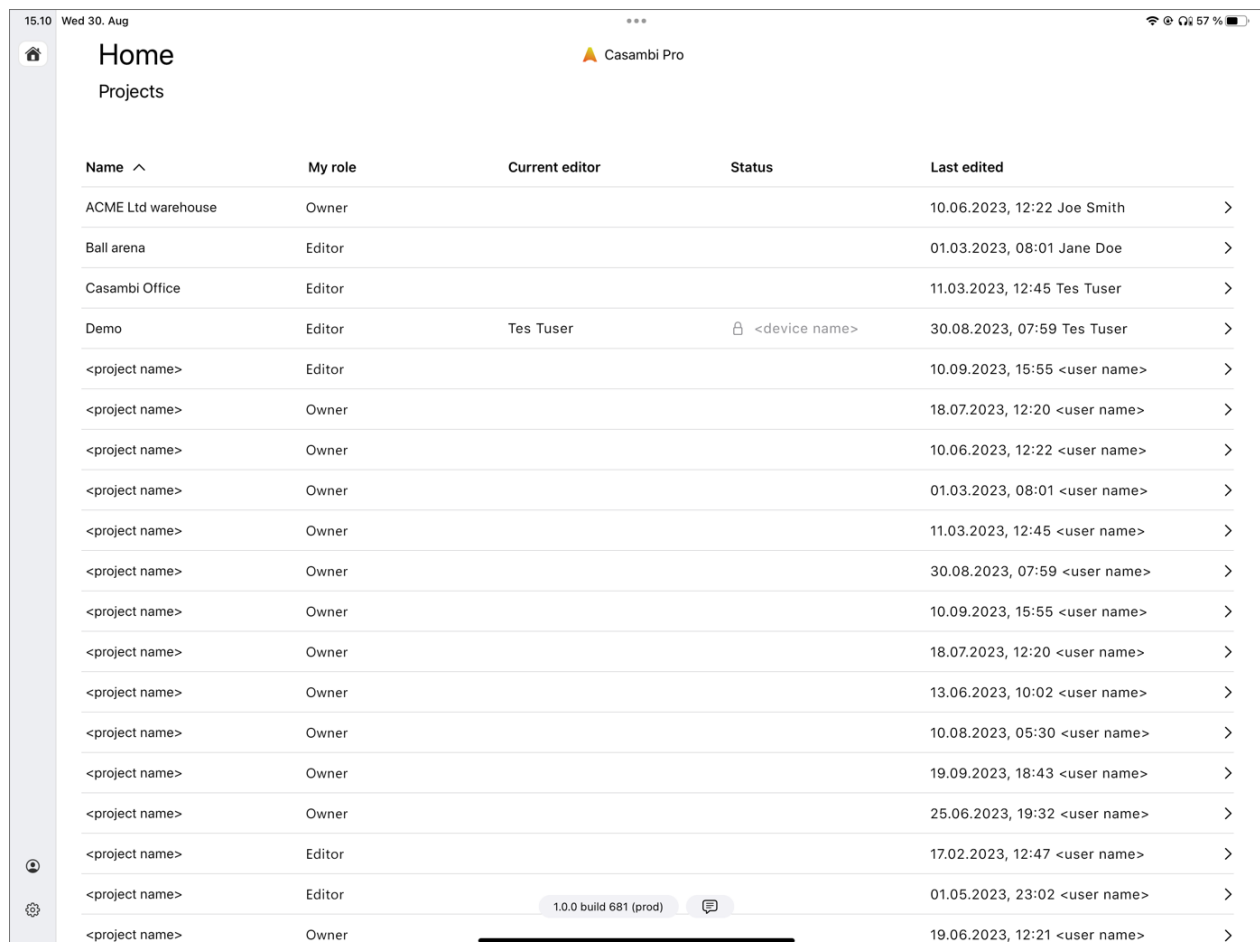
- Home: List of projects
- New: Create new project
- Join: Insert invitation code to join a project
- Visible if a project is open:
 - Project: Details for currently open project
 - Export report...: Export project documentation
 - Save: Saving the currently open project
 - Close: Closing the currently open project
- Account: Sign In/Out from Casambi Pro
- Settings: Application level settings and information about Casambi Pro

2. List of projects user has created, or which have been shared with him/her.

- Project list can be updated with the Refresh button.

- Project list can be sorted by clicking the column titles.
- 3. Project list columns:
 - Name: Name of project
 - My role: User's role in project (in first version: Owner or Editor)
 - Current editor: Shows if a project is currently open and who is editing it.
 - Status: Shows the lock status and the device name in which the project is locked. Status columns is empty if project is not edited by anyone.
 - Last edited: Date and time when the project was last saved
 - Last edit by: Name of the latest editor
- 4. Project can be deleted by using the trash can icon if
 - User has the Owner role
 - The project is not currently open

iPad



The screenshot shows the iPad interface for Casambi Pro. At the top, the status bar displays the time (15:10), date (Wed 30. Aug), and battery level (57%). The app header shows a home icon, the title 'Home', and the 'Casambi Pro' logo. Below the header, the word 'Projects' is displayed. A table lists various projects with columns for Name, My role, Current editor, Status, and Last edited. The table includes real project names like 'ACME Ltd warehouse' and 'Ball arena', as well as placeholder text '<project name>'. The bottom of the screen shows a home indicator bar and a version/build number (1.0.0 build 681 (prod)).

| Name ^ | My role | Current editor | Status | Last edited |
|--------------------|---------|----------------|-----------------|-------------------------------|
| ACME Ltd warehouse | Owner | | | 10.06.2023, 12:22 Joe Smith |
| Ball arena | Editor | | | 01.03.2023, 08:01 Jane Doe |
| Casambi Office | Editor | | | 11.03.2023, 12:45 Tes Tuser |
| Demo | Editor | Tes Tuser | 🔒 <device name> | 30.08.2023, 07:59 Tes Tuser |
| <project name> | Editor | | | 10.09.2023, 15:55 <user name> |
| <project name> | Owner | | | 18.07.2023, 12:20 <user name> |
| <project name> | Owner | | | 10.06.2023, 12:22 <user name> |
| <project name> | Owner | | | 01.03.2023, 08:01 <user name> |
| <project name> | Owner | | | 11.03.2023, 12:45 <user name> |
| <project name> | Owner | | | 30.08.2023, 07:59 <user name> |
| <project name> | Owner | | | 10.09.2023, 15:55 <user name> |
| <project name> | Owner | | | 18.07.2023, 12:20 <user name> |
| <project name> | Owner | | | 13.06.2023, 10:02 <user name> |
| <project name> | Owner | | | 10.08.2023, 05:30 <user name> |
| <project name> | Owner | | | 19.09.2023, 18:43 <user name> |
| <project name> | Owner | | | 25.06.2023, 19:32 <user name> |
| <project name> | Editor | | | 17.02.2023, 12:47 <user name> |
| <project name> | Editor | | | 01.05.2023, 23:02 <user name> |
| <project name> | Owner | | | 19.06.2023, 12:21 <user name> |

The Backstage view in iOS is arranged in the same way as in Casambi Pro for Windows, with some exceptions:

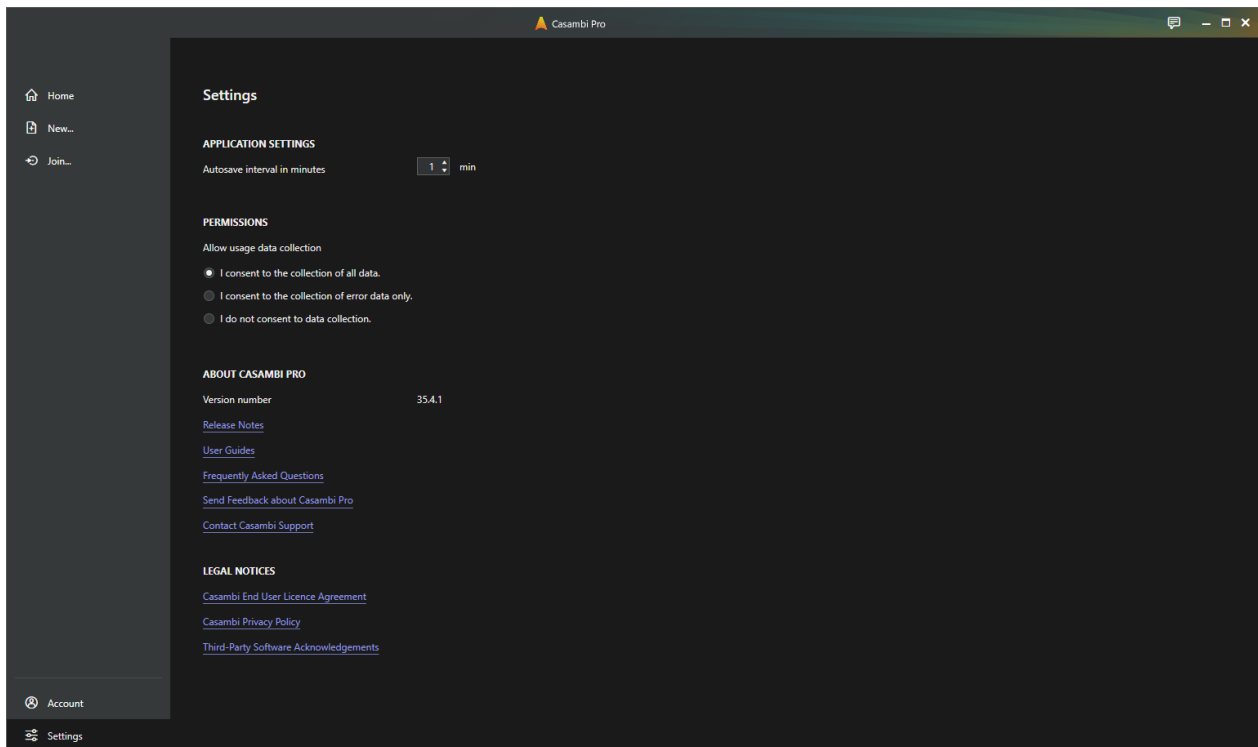
- Home tab:
 - Project list is updated by dragging the list downwards with finger (there is no separate refresh button in iOS)
 - Projects cannot be deleted with iOS
- When user navigates from Main Workspace to Backstage view, current project is closed.
- Project level properties (project name, location etc.) cannot be browsed or edited (feature coming later)
- Projects cannot be shared in iOS

Account tab

The Account tab is used for signing in and out of Casambi Pro.

Settings tab

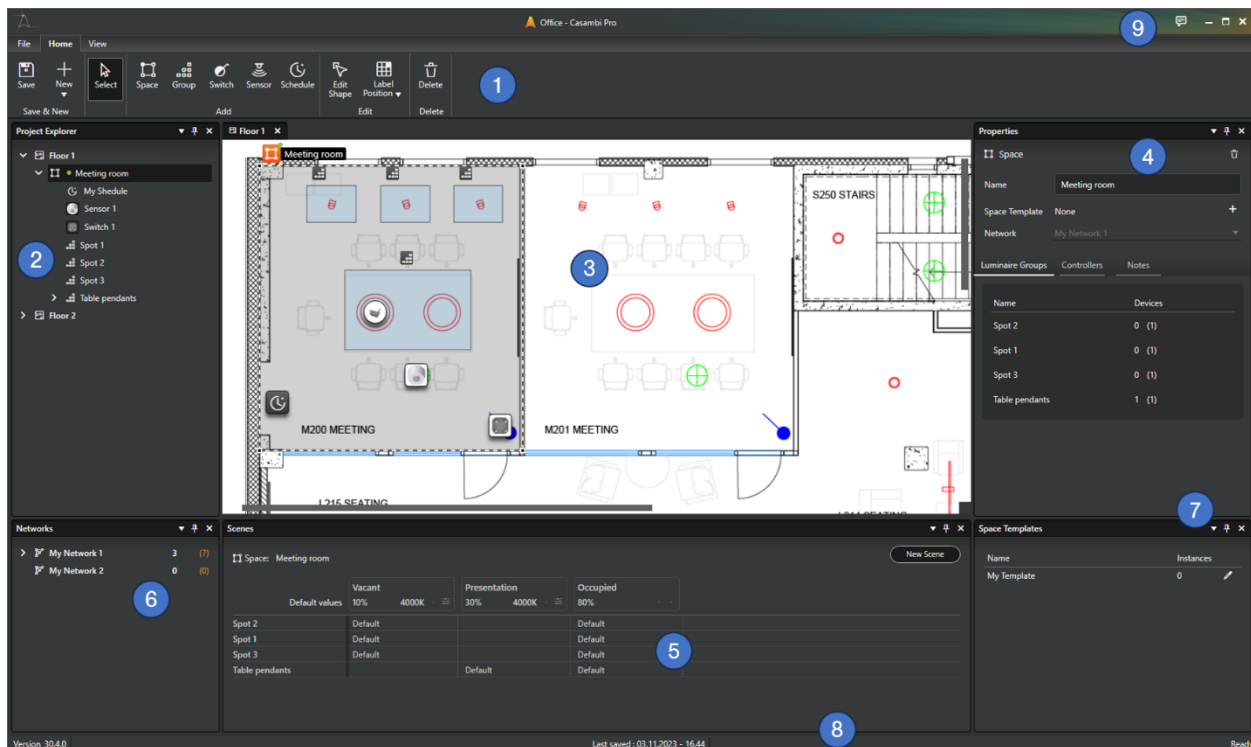
All application level settings are collected into the Settings view. Here is also a collection of links to Casambi Pro online resources.



Main workspace

The main workspace is quite similar in both Windows and iOS.

Windows



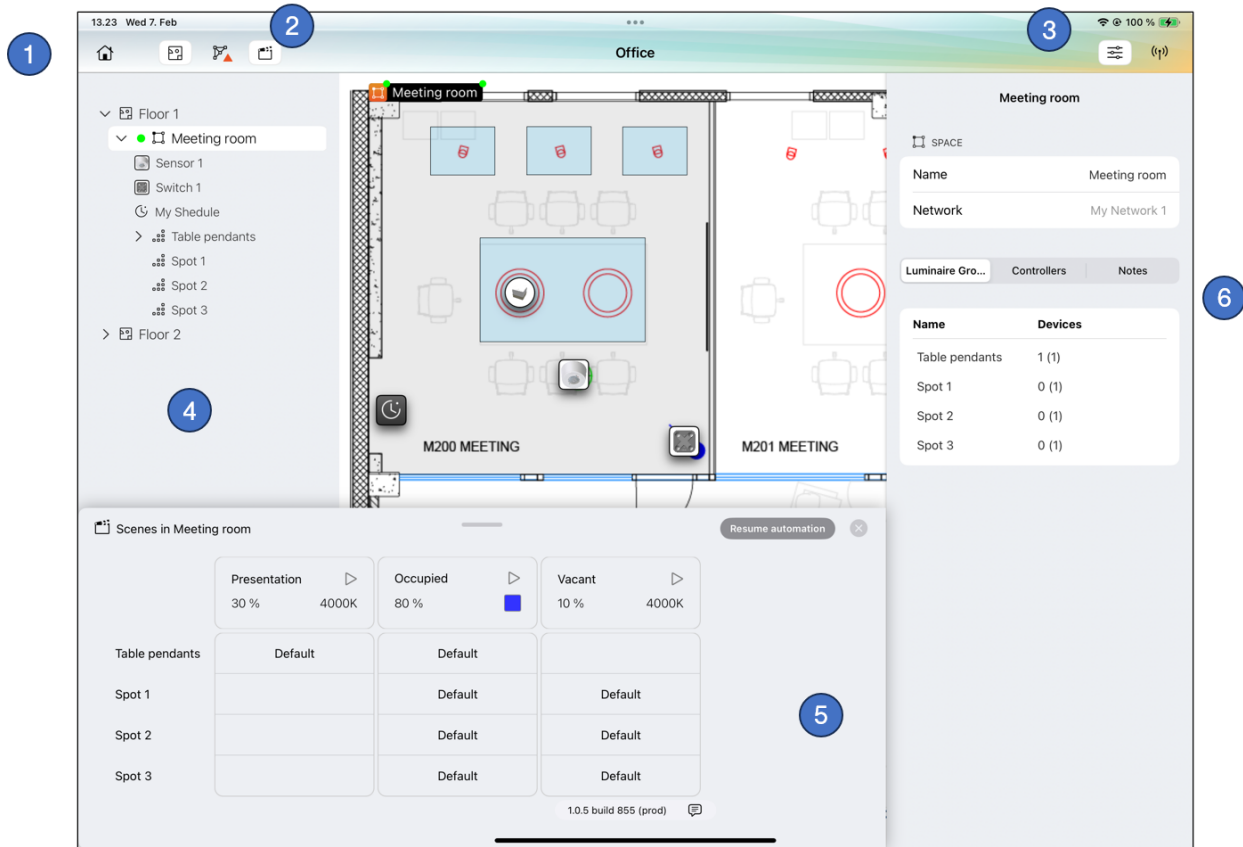
1. **Top ribbon**, with options
 - File: Navigation to the Backstage view.
 - Home: Tools for creating and managing project contents.
 - View: Tools for managing the workspace user interface and its colour theme.
2. **Project Explorer** pane, which lists the layouts and elements placed in them.
3. **Layout view**, where the floorplans and their overlay elements (spaces, luminaire groups, controllers and luminaires) are created and managed. Note, that luminaires appear in projects only after they are paired to the Pro networks on site.
4. **Properties** pane, displays properties for the currently selected object.
5. **Scenes** pane, displays scenes for the currently selected space. This pane appears empty if no space or any element in it is selected.
6. **Network list**, shows networks which have been created for the current project.
7. **Space templates** pane, shows space templates created in the project.
8. **Bottom bar**, displays the app version number, last save time and transient status information e.g. while saving the project
9. **Feedback button**, for sending feedback to Casambi Pro development team.

Each pane can be

- Closed and reopened
- Moved around the window
- Resized
- Stacked together with other panes
- Pinned to the sides of the window
- Detached to float outside the Casambi Pro window

The default arrangement of panes can be restored with the Reset Views option in the View ribbon. If the workspace layout is changed by the user, it will be remembered the next time the app is opened.

iPad



1. An arrow button for navigating to Backstage
2. Buttons for toggling visibility of the Project Explorer, Networks list and Scenes panes.
3. Buttons for toggling visibility of the Property Pane and Nearby Devices list panes.
4. Left side pane shows either the Project Explorer or the Network list
5. Scenes for the currently selected space
6. Properties for the currently selected element

Notes related to Casambi Pro for iOS user interface

- The app works in both landscape and portrait orientations
- The app follows the system colour theme (light/dark)
- In iOS, the app does not have a pane for Space Templates, it is only in the Windows version
- On iPad, the Casambi Pro can be used with a mouse and a keyboard if those are available
- The user interface has not yet been optimized for the iPhone (Feb 2024)

General notes about the user interface

Following notes are valid during the time of the release in February 2024. Casambi Pro is evolving constantly with regular updates, and it is highly recommended to read the Release Notes of each release to check the latest changes in the applications.

- Free text notes can be added to any element in the project: layout, network, space, luminaire group, controller, scene and cloud gateway. This can be done in both Windows and iOS. The notes are part of exportable project documentation.
- Deleting objects can be done with several methods. First, select an object and then
 - Click the trash can icon in selected object's property pane
 - Click the trash can icon in the Home ribbon (Windows only)
 - Right-click object and select Delete in the context menu (Windows only)
 - Click Delete key in the keyboard

When deleting an object, a confirmation message will be displayed (except if user is deleting an empty space).

Note, that objects which contain real paired devices cannot be deleted before the paired devices have been unpaired from the network.

- In Casambi Pro for Windows, most objects have a context menu behind mouse right-click.
- In iOS, only paired luminaires have a context menu, providing the Identify command.
- Limitations in initial versions of Casambi Pro:
 - No keyboard shortcuts for the ribbon tools (except Esc always returns to the basic selection tool).
 - No Undo feature.
 - Projects cannot be reverted to previously saved version.
- iOS version's user interface has not been optimized for the iPhone, thus the user experience on the phone is not optimal.

Projects

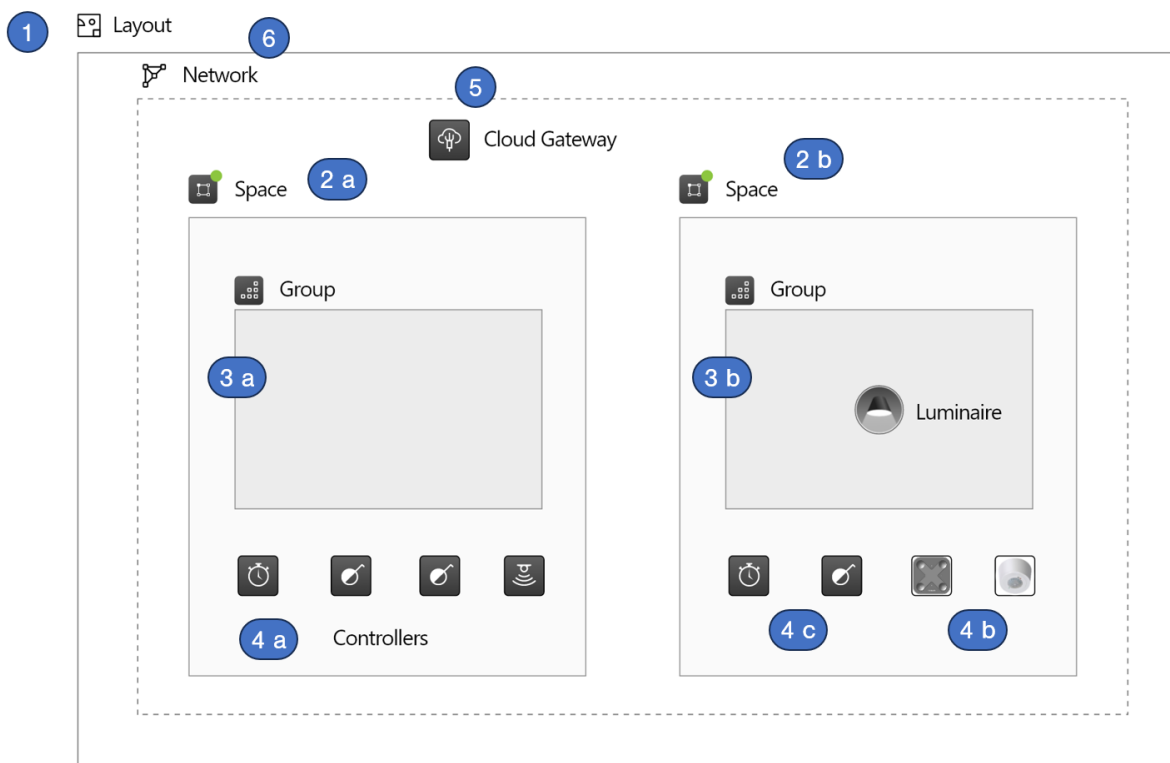
Overview to Casambi Pro projects

In Casambi Pro, lighting system configurations are designed and maintained inside a project.

A project contains

- General project information
- Layouts
- Spaces, which contains
 - Luminaire groups,
 - Controllers and schedules
 - Scenes
- Networks which can have Casambi Cloud Gateways

Elements and their hierarchical relations in Casambi Pro:



1. Layout
2. Space
 - a. Space 1 is attached to a network but it has only virtual elements in it (one group, three controllers).
 - b. Space 2 is attached to the same network but it has one real luminaire and two controllers paired to it.
3. Luminaire groups inside spaces.
 - a. A virtual group which does not yet have any luminaires paired to it.
 - b. A group where one real luminaire has been paired.
4. Controllers
 - a. Virtual controllers (schedule, switch, sensor) which can be configured in advance.
 - b. Controller after it has been paired.
 - c. A controller that is still unpaired (virtual)
5. Casambi Cloud Gateway

- There can be one gateway in a network. Cloud gateways can be placed anywhere in project's layouts, they do not need to reside inside spaces.

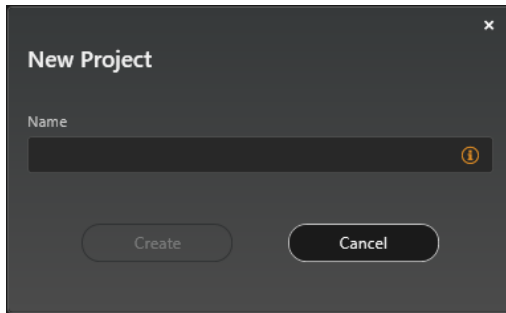
6. Network

- A project can have one or many networks.
- Virtual networks must be created before real devices can be paired.
- When the first real device is paired, the virtual network changes to real Casambi Pro network.
- A network is not restricted to items in a certain layout. Spaces in different layouts can belong to any network.
- Note: Networks are not drawn in the layout views.

Creating a new project

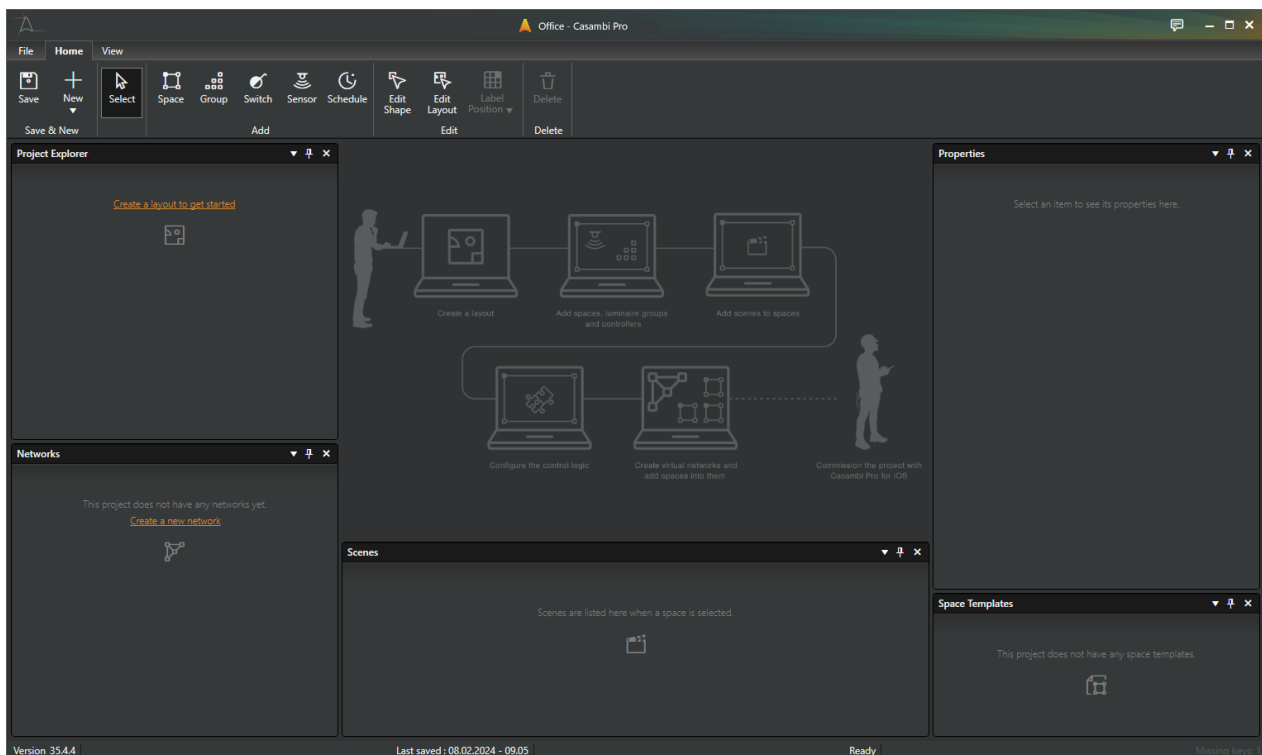
New projects are created with Casambi Pro for Windows, at the Backstage view. A project cannot be created with Pro for iOS.

When the **New...** tab in the Backstage is clicked, a dialog is displayed for entering a name for the project. The project name can be changed later in the project details view.



NOTE: Projects can be created only with the Windows version of Casambi Pro.

After a project is created, the main workspace is displayed. A new project does not have any contents, so the user interface has some help texts to guide user to get started.



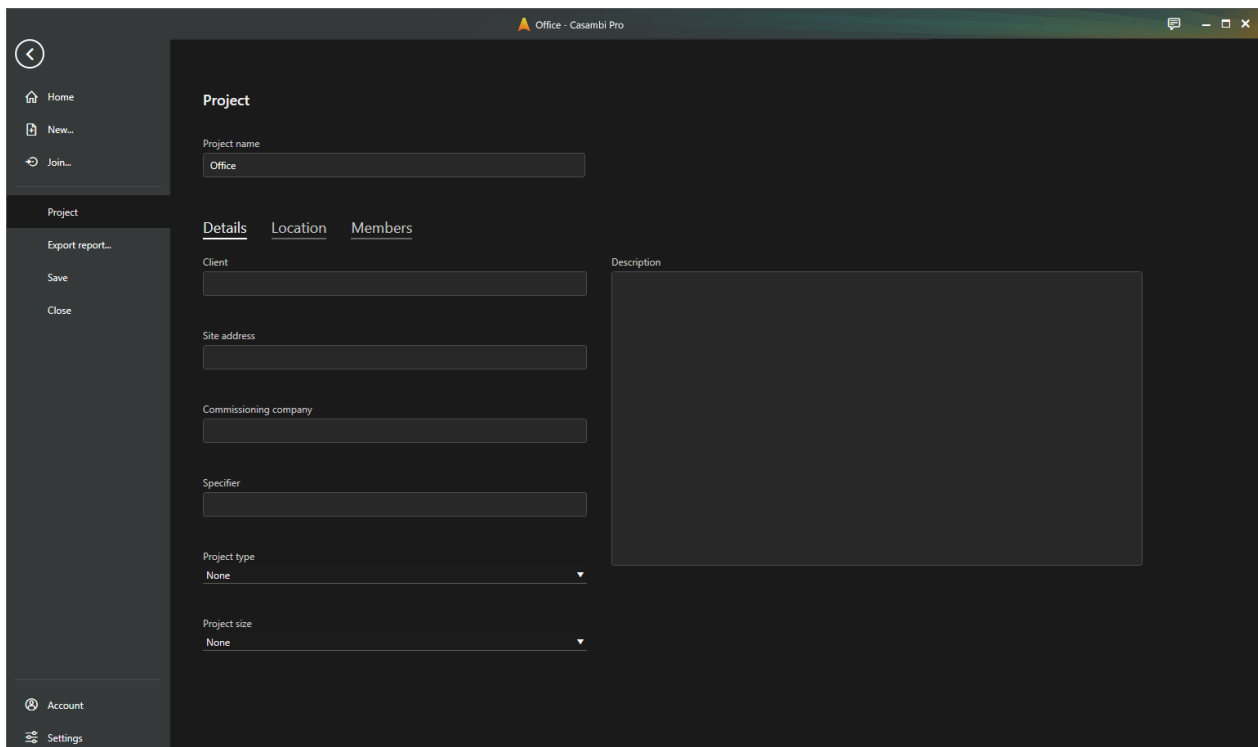
Project information

When a project is open, its detailed information can be accessed from the Backstage view, by clicking the Project tab. The project information view has three sub-tabs: Details, Location and Members. Note: The project information is not yet available in Pro for iOS.

Project name is mandatory, and it can be changed in the Project Information view.

The project information is included in exported project documentation.

Details

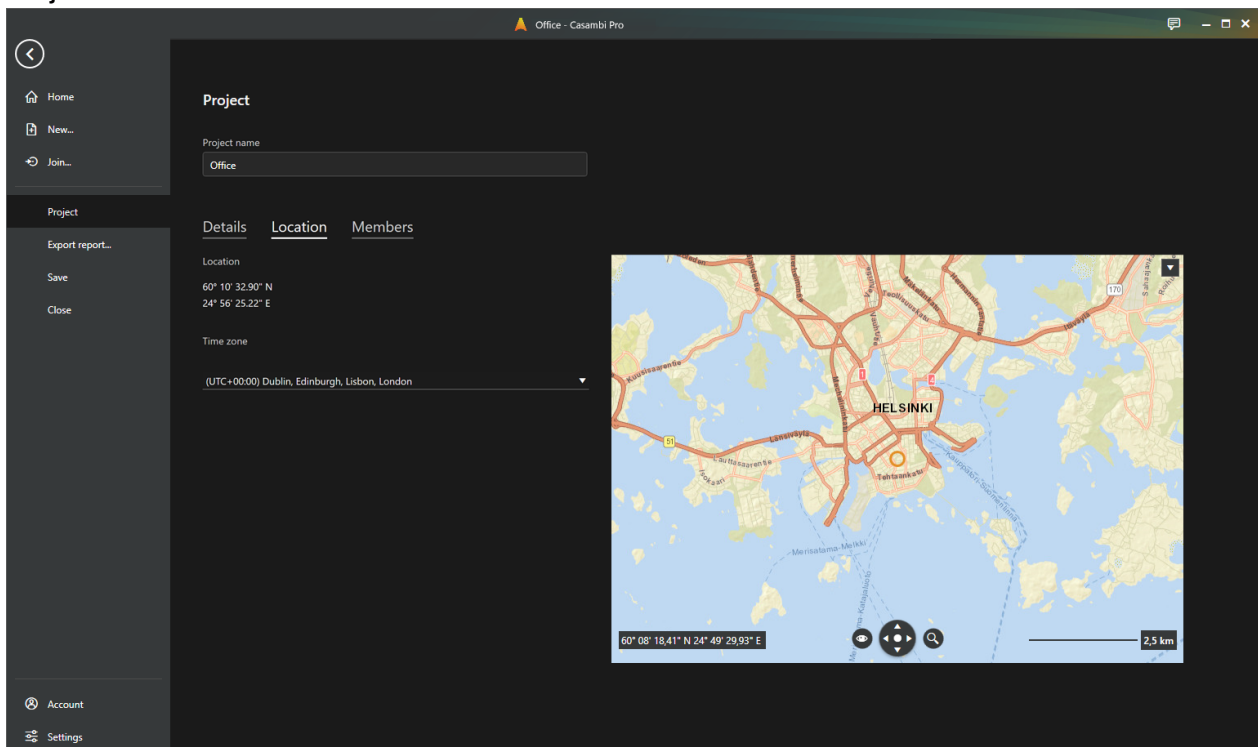


The details tab provides a collection of general metadata items.

- Client
- Site address
- Commissioning company
- Specifier
- Project type
- Project size
- Description (free text)

Location

Project location and time zone can be set in the Location tab.



- Location is set by finding the correct place in the map and clicking at the right coordinate.
- Time zone can be selected from the drop-down list.

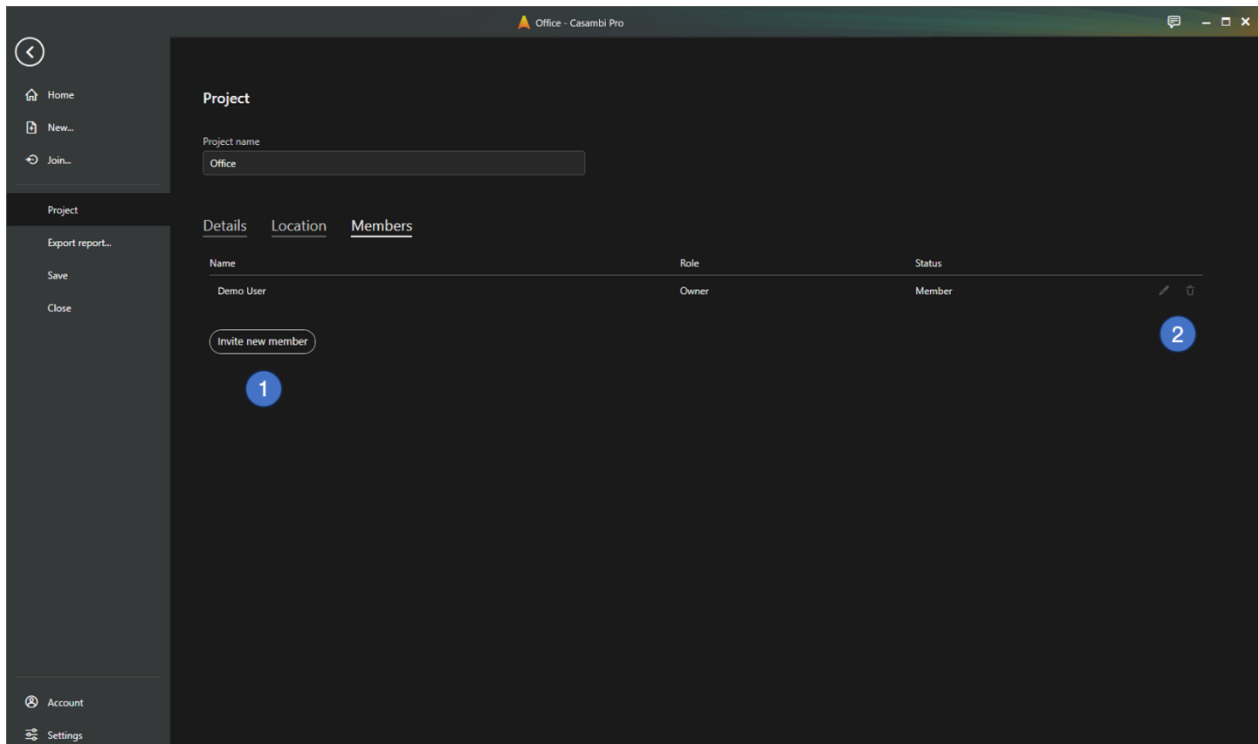
Members

Casambi project can be shared with others. This is done in the Members tab in Project information view.

When a project is created, the creator automatically gets an Owner role in a project. In the initial version of Casambi Pro, there are two user role options:

- **Owner:** Has all rights to the project
 - There must always be at least one user with Owner role in a project. Thus, if a project is handed over to e.g. another stakeholder, the receiving party must have at least one user with Owner rights to be able to fully manage the project.
 - Only an Owner can delete a project. Thus, it is strongly recommended that the Owner role is given to only those persons who really need it and understand what they can do with the Owner rights.
 - Only Owner can add or remove users to a project. Owners can remove also other owners.
- **Editor:** Can do everything else in a project except
 - Cannot delete the project and
 - Cannot add new members to a project.

There is no limit on the number of members in a project.



1. The Invite new member button is used for adding new members to a project. The button is visible only to users with Owner role.
2. The Edit and Delete buttons (pen and trash can icons) are used for changing member's user role and for removing members from a project. The button is visible only to users with Owner role.

Opening a project

Casambi Pro projects are opened by clicking a project row in the project list view in the Backstage. If a project is open, it is indicated in the project row.

An internet connection is always required for opening, editing, and saving a Casambi Pro project. There is no offline edit capability in Pro. Casambi Pro is continuously saving all edits to the cloud storage, so the internet connection is needed.

To avoid conflicts in configuration changes made simultaneously in multiple devices, a project can be opened only on one device at a time for editing. If you want to open and edit it in another device, it must be first closed on the device where it is currently open.

However, if a project is open and edited in Casambi Pro for Windows, it can be opened on Pro for iOS in read-only mode. In read-only mode, user can browse the project but cannot make any changes in it.

| Projects | | | | | |
|----------|---------|--------------------|----------------|------------------|----------------|
| Name | My role | Current editor | Status | Last edited | Last edit by |
| Office | Owner | tester@casambi.com | On this device | 01.09.2023 11:28 | Casambi Tester |

Saving a project

Saving the project can be done both manually and automatically. When saved, the project is saved to the Casambi Pro cloud service, keeping the project always up to date.

Automatic saving

On both Windows and iOS versions of Casambi Pro, projects are automatically saved.

Windows

- If some changes are made to a project and it has not been saved manually, the application will automatically save the project after the set time interval value set in the Settings.
- Saving interval can be set in the Settings view. Default interval is 1 minute.
- The bottom bar shows the saving status when it is in progress.
- Automatic saving cannot be turned off.

iOS

- Project is always saved automatically when there are new changes to be saved.

Manual saving

In Casambi Pro for Windows, a project can be saved manually at all times by clicking the Save button at the Home ribbon of the main workspace.

There is no manual save option in the iOS version, changes are changed always automatically.

Closing a project

A project can be closed both manually and automatically.

Manual closing of project

Windows

Project is closed by navigating to the Backstage view and pressing the Close button in the left ribbon.

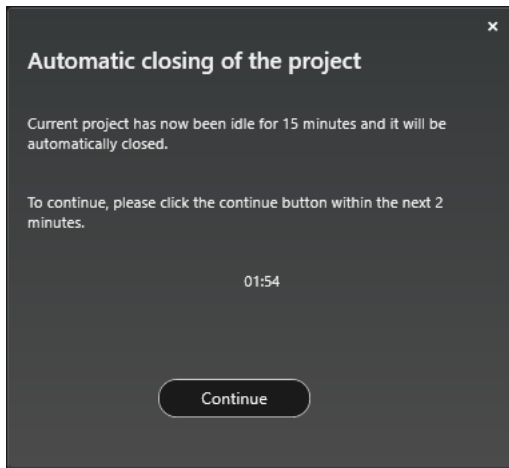
iOS

Project is closed by navigating to the Backstage by pressing the arrow button in the top left corner in the main workspace top toolbar. In iOS, project is also closed if user navigates away from the Casambi Pro (= switches to another application or navigates to the operating system's home screen).

Automatic closing of project

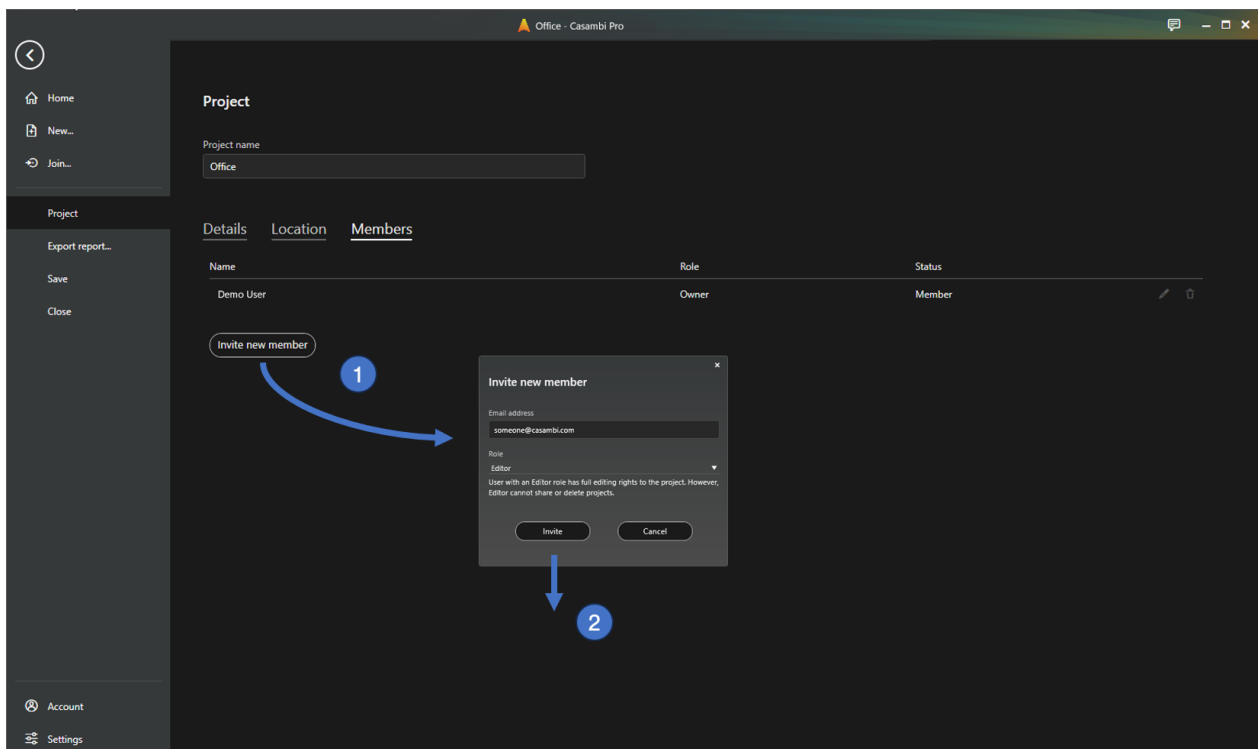
The auto-close feature works on both Windows and iOS versions of the application.

If user leaves the project idle for 15 minutes (= there are no changes made to the project), the project will be automatically closed. After 15 minutes of idle time, the "Automatic closing of the project" dialog will pop up and display a message about the auto-close. To continue working on the project, the "Continue" button must be clicked within two minutes. If the button is not clicked, the project will be closed, and the project is unlocked.



Sharing a project

Casambi Pro projects can be shared between multiple users. A project owner can invite new project members by sending them an invitation email from the Members tab in the Project view.

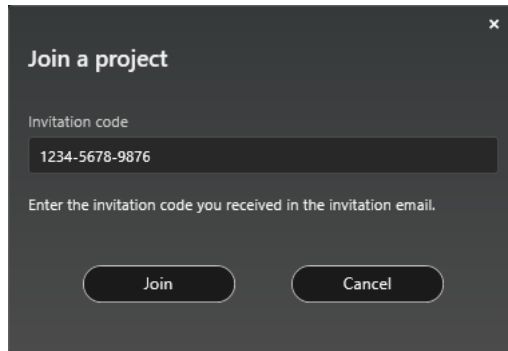


Inviting a new member

1. As a project owner, navigate to the Members view and click the Invite new member button.
2. In the opened dialog, enter the invitee's email address and click the Invite button.
An invitation email was sent to the entered email address. The email contains an invitation code together with instructions of how to access and install Casambi Pro.

Using the invitation code to join a project

1. If the invitee does not yet have Casambi Pro, they need to install it first to a Microsoft Windows PC. Link to the installation file can be found in the project invitation email.
2. After installing Casambi Pro for Windows, the invitee must sign in to Casambi Pro. If they don't yet have a Pro account, they need to sign up first and then sign in.
3. Finally, after signing successfully in, the invitee can join a project by pressing the **Join...** link at the Backstage and enter the invitation code into the opened dialog.



Deleting a project

Projects can be deleted only in Casambi Pro for Windows, and only by a user with the Owner rights. If a project has any paired devices in it, it cannot be deleted before the paired devices are unpaired from the project.

A project can be deleted by clicking the Delete button (trash can icon) in the project list. The button is disabled if user does not have rights to delete the project.

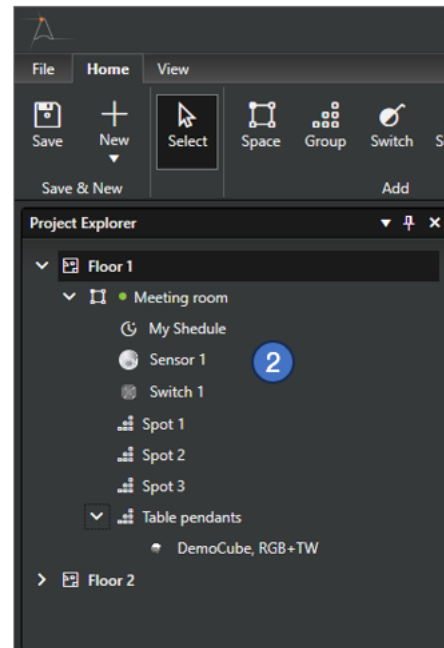
It is not possible to delete a project in Pro for iOS.

Project Explorer pane in main workspace

In the main workspace, the contents of the layouts in the project is collected into the Project Explorer pane.

1. The pane lists all layouts, spaces, controllers and luminaire groups and paired luminaires. Each section can be expanded and collapsed.
2. When a virtual controller is replaced by a real device, the device icon is displayed in the list.

1



The Project Explorer works similarly in both Windows and iOS versions of Casambi Pro.

Notes about projects

- Casambi Pro projects cannot be duplicated or copied.
- Project items cannot be copied from project to another project.
- Existing Casambi networks created with the Casambi App cannot be opened or imported to Casambi Pro.

Layouts

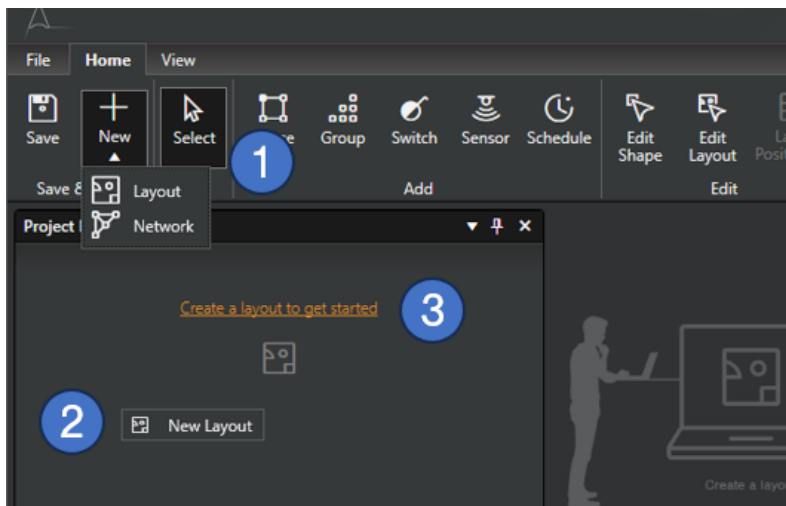
Layouts are canvases where all spaces, luminaire groups and controllers are placed in. Every project must have at least one layout. There is no absolute limit to the number of layouts in a project, but it is good to note that a large number of layouts may make the application slower especially if the floor plan images used in layouts are big.

Usually, a floor plan image is used at the background of the layout, on top of which the elements are placed. Note, that the images used in layouts can be any bitmap pictures if their format is either PNG, JPG or BMP. Using an image is not mandatory, a layout can be created also without a background image.

Vector image formats like DWG, DXF, PDF or SVG are not supported.

Creating a new layout

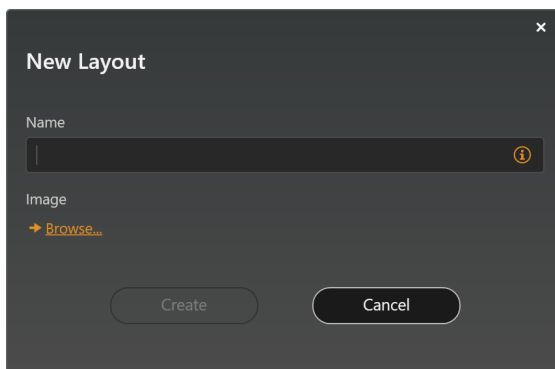
New layouts can be created only with Casambi Pro for Windows.



To create a new layout,

1. Click on the **New** icon button in the Home ribbon and select Layout, or
2. Right-click in the Project Explorer pane and select **New Layout** command, or
3. If the project does not yet have any layouts, click the orange link in the Project Explorer.

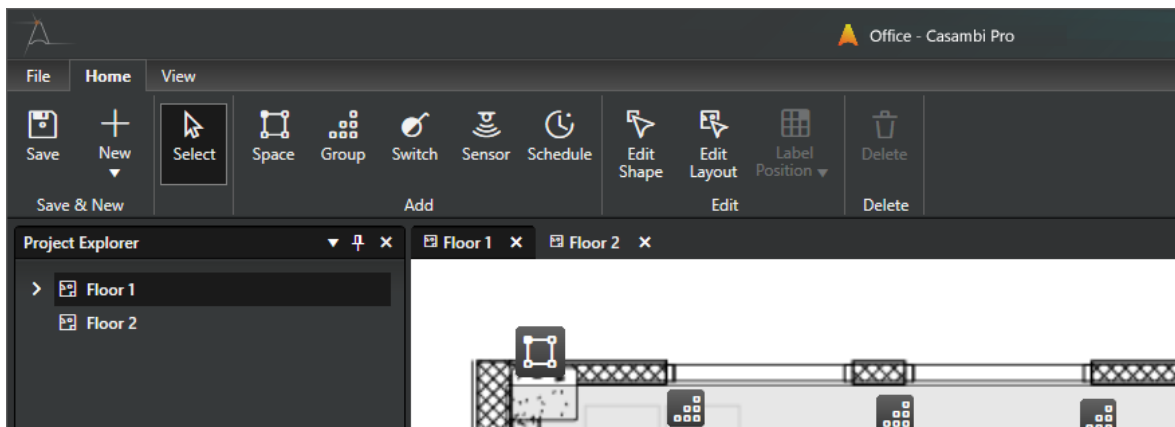
A New layout dialog is opened:

A dark-themed dialog box titled "New Layout" with a close button (X) in the top right corner. It contains two input fields: "Name" and "Image". The "Name" field is a text input with a small information icon (i) on the right. The "Image" field is a text input with a small orange arrow icon and the text "Browse..." next to it. At the bottom of the dialog, there are two buttons: "Create" and "Cancel".

Layout name can be entered in the Name field (mandatory).

The background image can be added by clicking the Browse... link.

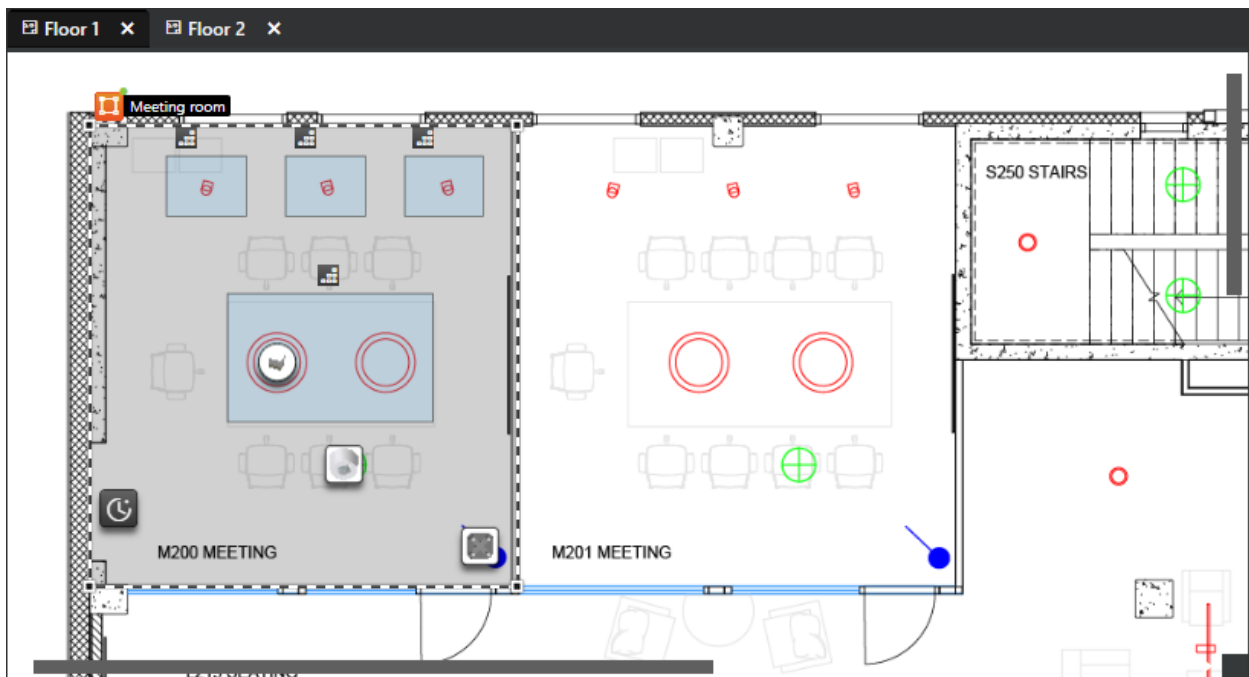
Opening and closing a layout



Layouts are listed in the Project Explorer pane on both Windows and iOS apps. To open a layout, click layout's name in the layout list.

Layout viewport

Layouts are shown at the centre of the Casambi Pro screen, in the main viewport/work area.

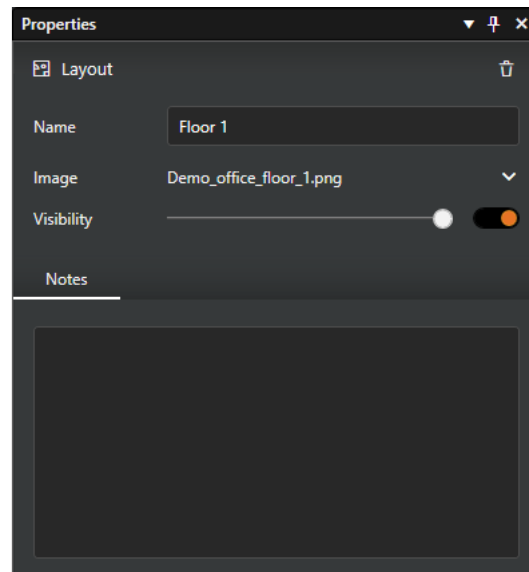


- The view can be zoomed in and out with the mouse wheel (Windows) or finger pinch gesture (iOS).
- The view can be panned horizontally and vertically by mouse click + drag (Windows) or finger drag (iOS).
- In Casambi Pro for Windows, several layouts can be open at the same time. Opened layouts are displayed as tabs on top of the layout viewport. A layout can be closed by pressing the X icon in the layout label tab.
- In Casambi Pro for iOS, only one layout can be open at a time. Layouts can be changed by tapping layout names in the Project Explorer pane.

Layout properties

When layout is selected, its properties are displayed in the Properties pane.

- Layout name
- Background image file.
The image can be changed or removed by using the commands in the drop-down menu. When replacing the image, it is recommended to use same size and scale in old and new images.
- Visibility of the background image.
The visibility slider controls the opacity of the image. The switch control can be used for hiding the image.
- The Notes field can be used for entering text comments for the layout.



Deleting a layout

Layout can be deleted only in Casambi Pro for Windows by clicking the Delete button (trash can icon) in the layout properties.

Note, that if there are any real paired devices in the layout, it cannot be deleted before the paired devices are unpaired.

Notes about layouts

- Layouts can be added to projects only in Casambi Pro for Windows.
- Supported file formats are PNG, JPG and BMP.
- PNG is the recommended format for line drawings.
- Vector file formats like DWG, DXF, SVG or PDF are not supported.
- It is recommended not to import huge images to the layouts, as it may affect the application performance and stability.
- When replacing the original layout image with new one, it is recommended to use same size and scaling than in the original image file. If the new image has different size, the overlay elements (spaces etc.) will be in incorrect locations. In this case, the background image can be scaled by using the **Edit Layout** button in the top ribbon.
- Networks are not shown in the layout views.
- Objects on a layout can be selected by clicking them. Multi-selection is possible with Ctrl + click. When multiple elements are selected, they can be moved in the layout but their properties cannot be edited.
- Keyboard arrow keys can be used for moving selected objects on the layout. One arrow key press moves the element 1 unit to the desired direction, Shift + arrow key press moves it 10 units.

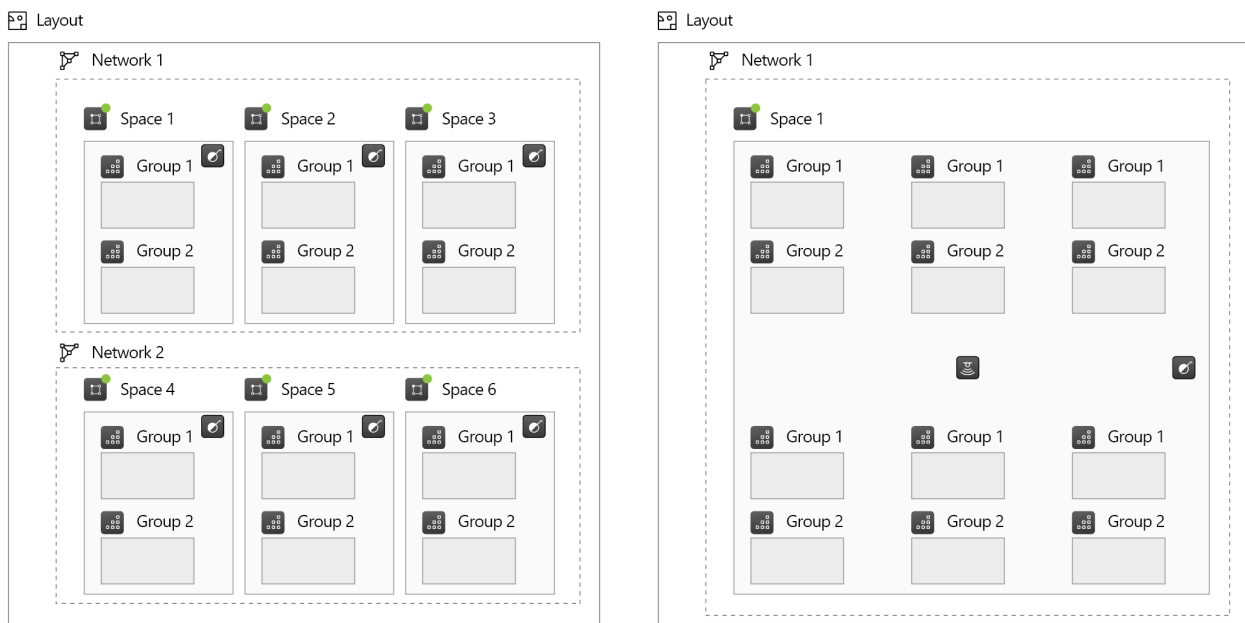
Spaces

Overview to spaces

In Casambi Pro, a space is a room-like container for luminaire groups and controllers. The user can freely create spaces on top of the layout, marking the different rooms or areas within it. Each space must be joined into a network before controller can be paired to it or luminaires into luminaire groups within the space.

Spaces are containers which include luminaire groups and switches, sensors and schedules which are used for controlling them. A space can contain 1-250 Casambi enabled devices (luminaires, switches or sensors)

When designing the installation, it is recommended to stop and think about what is the preferred way the light installation will be controlled, and what would be the best way to organize the spaces in this particular case. Depending on the case, there may be many separate room spaces where a room based space structure would be best. On the other hand, in big open spaces, just one or few big spaces would be the best solution. The example below illustrates how same area could be organized in different ways.



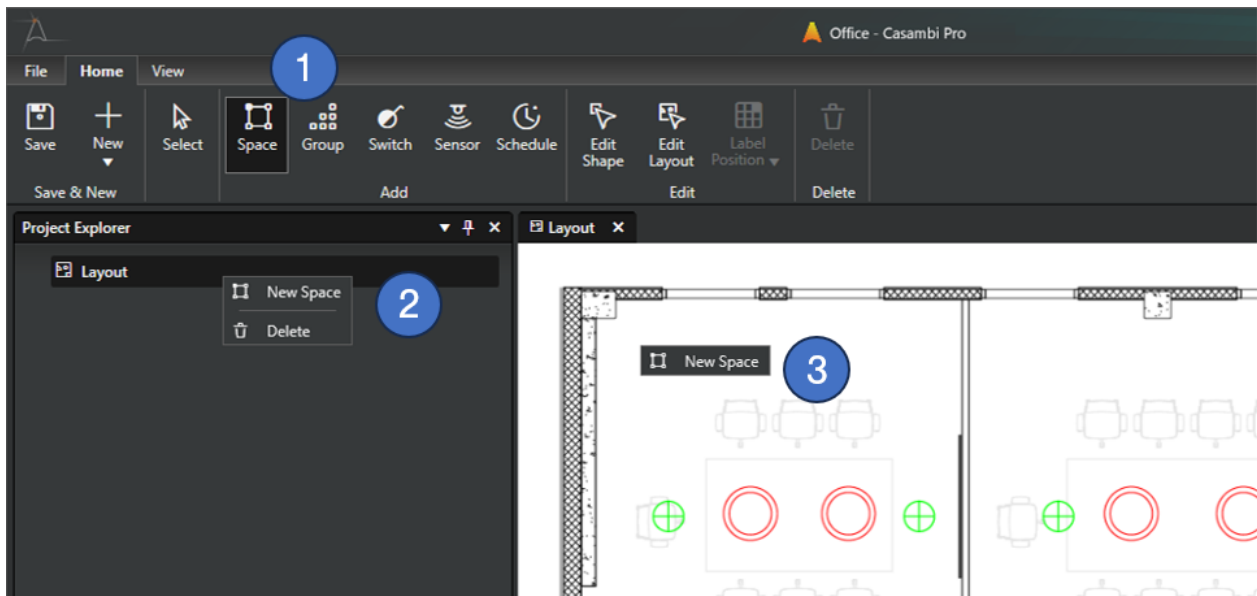
Space principles:

- Space resides always on one layout, it cannot extend from layout to another.
- Spaces can overlap visually.
- Spaces cannot be nested = A space cannot contain other spaces in it.
- Controllers (switches, sensors and schedules) only reside inside a space.
- Controllers and luminaire groups can only be part of one space at a time.
- Controllers cannot trigger events outside of its own space.
- A space must be joined to a network before real devices can be paired into it.
- A space and all of its contents belong always to one network.
- If a space contains any real paired devices, it cannot be deleted.

- A space, together with its contents and configurations, can be saved as a Space Template. Space templates enable easy reuse of similar space structures all over the project. See details in the [Space Templates](#) section in this document.

Creating a space

Spaces can be created or modified only in Casambi pro for Windows.

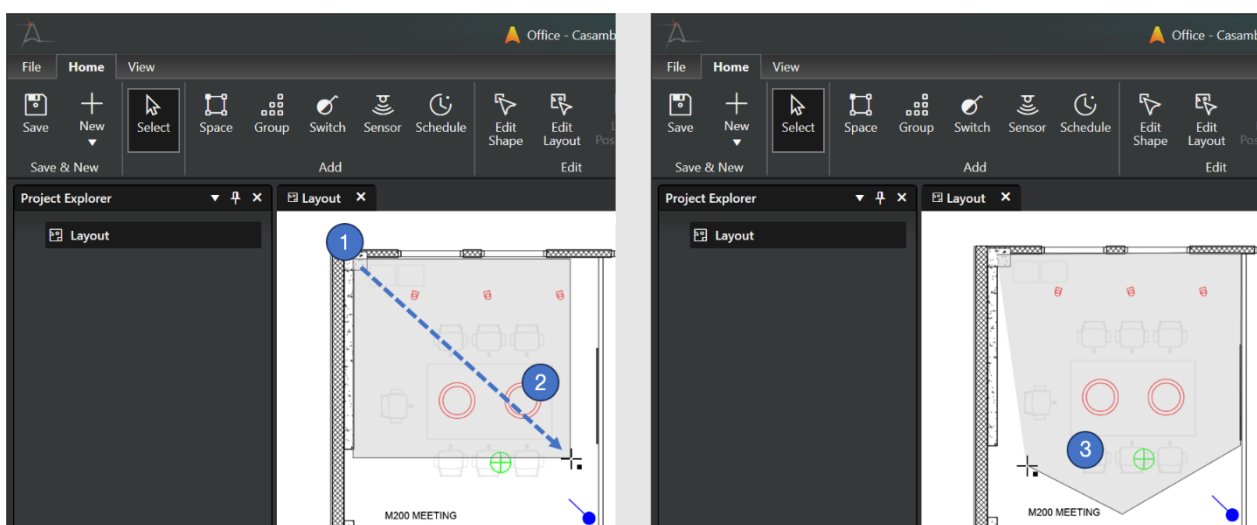


Methods for creating a new space

1. Click on the **Space** tool icon button in the Home ribbon and use it to draw a space in canvas, or
2. Right-click the layout row in Project Explorer pane and select **New Space** command, or
3. Right-click over the layout in the layout view and select **New Space** command.

When spaces are created using the context menu commands, spaces will be created with default shape and size.

The Space Tool



The space tool can be used for drawing spaces on the layout in three ways:

1. Click somewhere on the layout
 - Space is created with default size
 - Space naming dialog is shown (New Space popup, see below)

2. Press down the left mouse button and drag
 - Space is created as a rectangle, user can adjust its size and shape
 - When the left mouse button is released, the space naming dialog is shown
3. Keep CTRL button pressed and click in space's corner points
 - Each click creates a new corner point.
 - A space must have at least three corner points.
 - After clicking the first corner point, the CTRL key can be released.
 - If the CTRL button is pressed during creation of the corner points, the guides are not shown.
 - If the CTRL button is released after first corner point click, the tool provides guidelines to help creating 45 and 90 degree corners between the sides of the polygon.
 - The created polygon will be closed and completed when the starting point is clicked again. The space naming dialog will be displayed.

Note: The space tool can be changed back to the standard Select tool by pressing the **Esc** key in the keyboard.

New Space Dialog

This dialog is displayed when a new space is added.

1. Name for the space
 - The name is mandatory.
 - A space name must have at least one character. Other than that, there are no specific naming rules.
 - Name does not have to be unique. However, some kind of systematic naming convention is recommended.
2. Space template selection
 - If the project has space templates, they are all listed here.
 - If a template is selected, the new space will inherit its contents from the template.
 - Template selection is not mandatory.
 - If user wants to create spaces based on a template, the template selection must be done at the time the space is created. A space cannot be linked to a template afterwards.
3. Network selection
 - Each space must be connected to a network before any real devices can be paired to it.

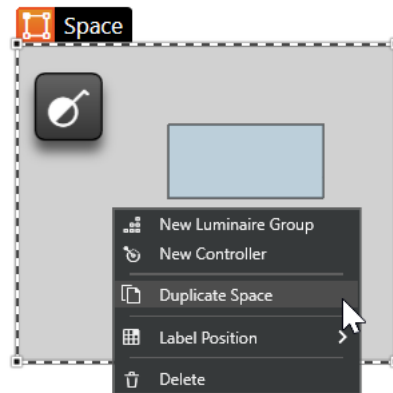
- Network selection is not mandatory at the time space is created.
- Network selection can be changed in space's properties if there are no real devices paired in it.

Duplicating a space

A space together with all of its contents can be duplicated by using the Duplicate Space command in space's context menu.

The context menu also allows user to add luminaire groups and controllers into the space, or to delete the space.

Spaces can be duplicated only in Pro for Windows.



Editing spaces in the layout

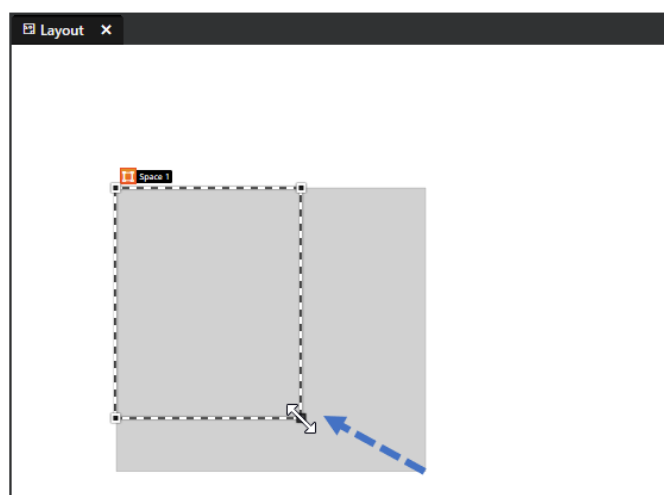
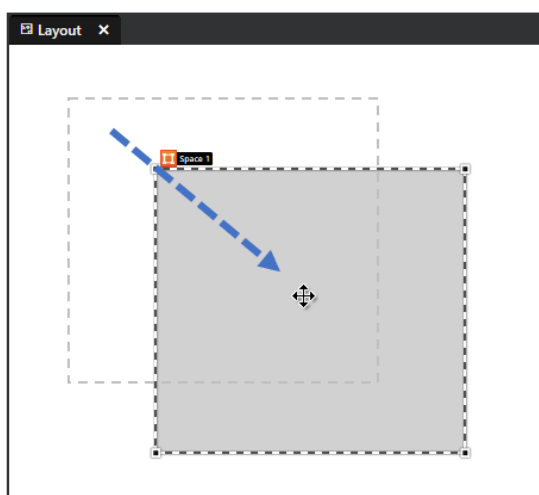
In Casambi Pro for Windows, the space shapes can be edited in the layout. Adding or editing spaces or luminaire groups is not possible in the iOS version.

Moving a space

- Select the space you want to move
- Press left mouse button down and drag the space to new location.
- With Ctrl + click you can select multiple spaces
- Spaces can be moved also with keyboard arrow keys. One key press moves the element 1 unit, Shift+press 10 units.

Resizing a space

- Select the space you want to resize
- Move the mouse cursor over space's corner point or side → Mouse cursor changes to two-headed arrow.
- Drag the corner point or shape side to resize the space.



Deleting a space

Options for deleting a space:

- In the Project Explorer list, right-click the space name and select Delete from the space context menu
- In the layout, right-click a space and select Delete from the space context menu
- In the layout, select a space and click Delete button in Home ribbon
- When a space is selected, click the Delete (trash can) button in space's properties in the Properties pane.
- When a space is selected, hit the Delete button on your keyboard.

Notes

- Spaces can be deleted only with Casambi Pro for Windows.
- A space cannot be deleted if it has any real devices paired to it.
- If a space has any contents, a deletion confirmation message is displayed to prevent accidental removal of spaces.
- Deletion of space cannot be undone.

The Edit Shape Tool

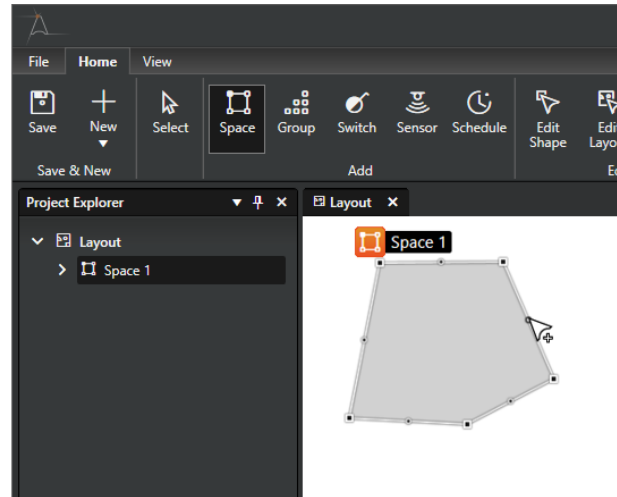
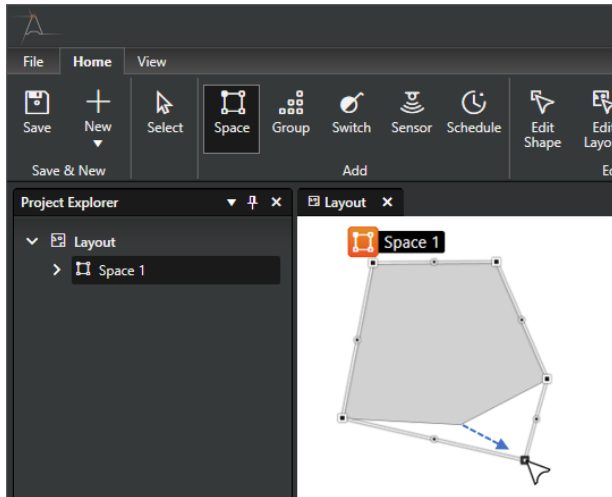
The Edit Shape tool in the Home ribbon can be used to edit space and luminaire group shapes in the layout.

Moving a corner point

- Select the space you want to edit
- Select the Edit Shape tool
- Click and drag a corner point

Creating a new corner point

- Select the space you want to edit
- Select the Edit Shape tool
- Click and drag the middle point of a shape



Deleting a corner point

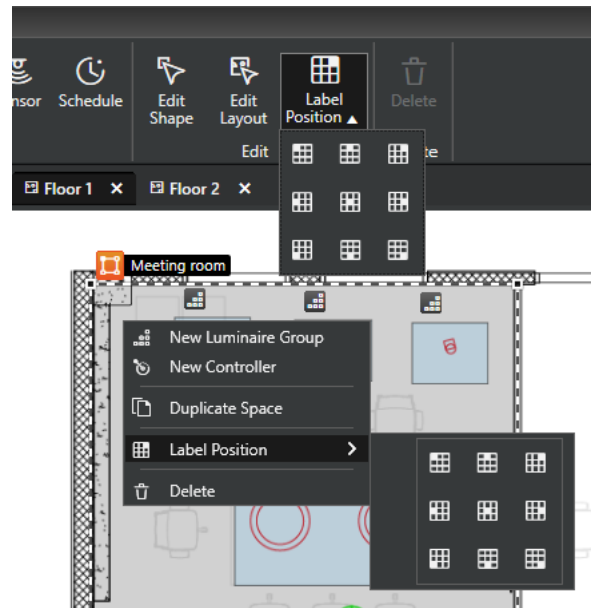
1. With the Edit Shape tool, click a corner point to select it.
2. Delete the corner point by
 - Clicking the Delete button in the Home ribbon or
 - Hit the Delete key on your keyboard

The Label Position tool

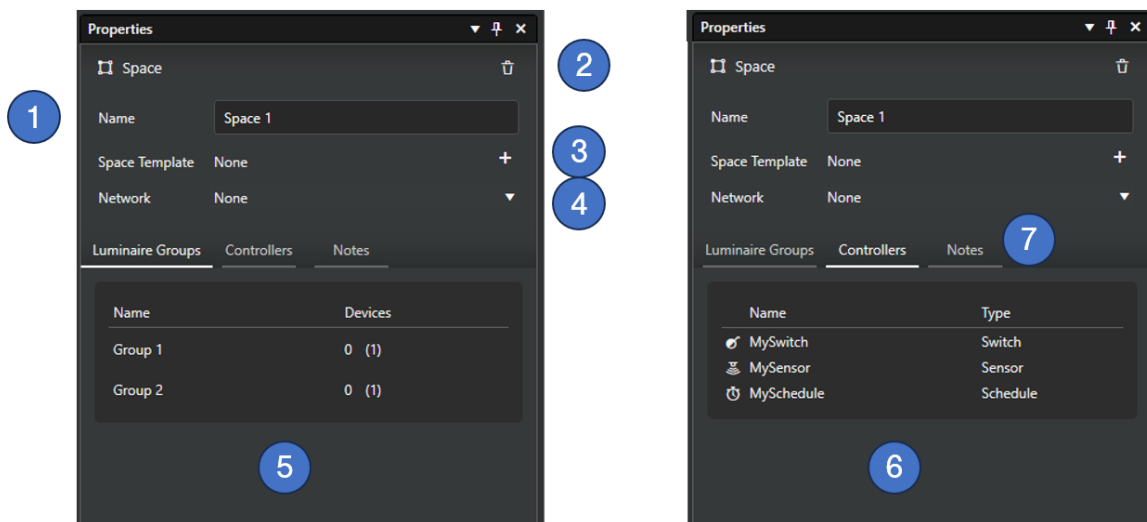
By default, space and group labels are positioned at top left corner of the area.

The label position can be changed by using the Label Position tool which can be accessed either from the Home ribbon or in the space right click context menu.

Label positions can be set only in Casambi Pro for Windows.



Space properties



When a space is selected, its properties are displayed in the Properties pane.

1. Name of the space
 - Can be edited in both Windows and iOS apps
 - The name is mandatory
2. Delete button
 - A space can be deleted if it does not contain any paired devices.
3. Space template
 - Name of the space template if it has been used.
 - The Add button (plus icon) can be used to create a new space template from the current space.
4. Network where the space is attached to
 - The drop-down selection lists all available networks.
 - Spaces need to be attached to a network before they can contain any real devices.
 - One space can belong to only one network.

- Network linkage can be changed if the space does not contain any real devices
- 5. Luminaire Groups tab
 - Lists all luminaire groups in current space.
 - The Devices column shows the real and estimated numbers of luminaires for each luminaire group.
 - Clicking on a group row selects the group and displays its properties.
- 6. Controllers tab
 - Lists all controllers in current space
 - Clicking on a controller row selects the group and displays its properties.
- 7. Notes tab
 - A text input field for adding notes to the current space.

Notes about spaces

- Space shapes can visually overlap.
- Spaces cannot be hierarchically nested = A space cannot contain other spaces in it.
- Spaces cannot extend from one layout to another.
- Individual spaces cannot be moved or copied between layouts. However, similar spaces can be created in different layouts by using space templates.
- Creating, editing and removing spaces can be done only in Casambi Pro for Windows.
- In Casambi Pro for iOS, it is possible to edit
 - Space name
 - Network where the space is attached to (if the space does not contain any real devices)
 - Notes
 - Values in scenes in the space.
- In the initial Pro version, there is no alignment tool for aligning spaces or other items.

Luminaire groups

Overview to luminaire groups

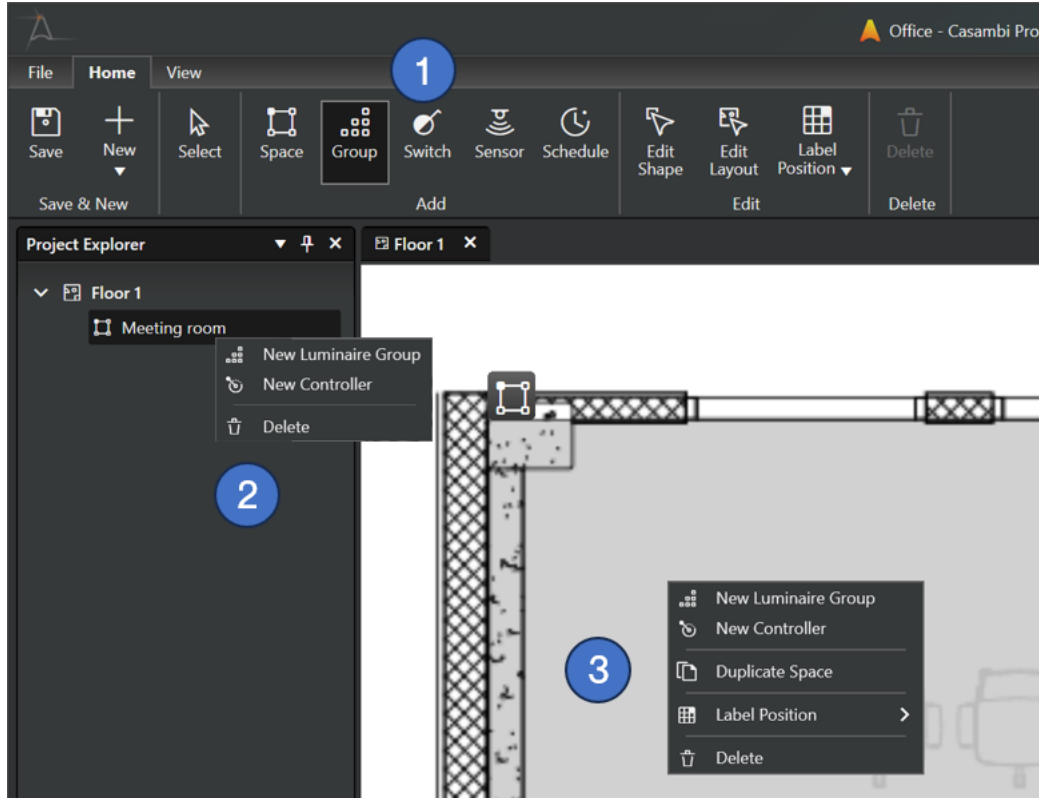
in Casambi Pro, a luminaire group is a container inside a space, for housing luminaires after they have been paired to networks. The user can freely create groups inside spaces, marking the places where luminaires will be paired to. Each luminaire group is joined in the same network as its parent space.

Group principles:

- A luminaire group resides always inside one space, and it cannot extend from space to another space, or extend beyond the borders of its parent space.
- Groups can overlap visually.
- Groups cannot be nested = A luminaire group cannot have other luminaire groups in it.
- Controllers (switches, sensors and schedules) can reside only inside a space. Thus, even if a controller is visually placed inside a group on the layout, its parent element is the space, not the group.
- A luminaire group with all of its contents belong always to one network, which is defined by group's parent space.
- If a luminaire group contains any real paired luminaires, it or its parent space cannot be deleted.

Creating a luminaire group

Groups can be created or modified only in Casambi pro for Windows.



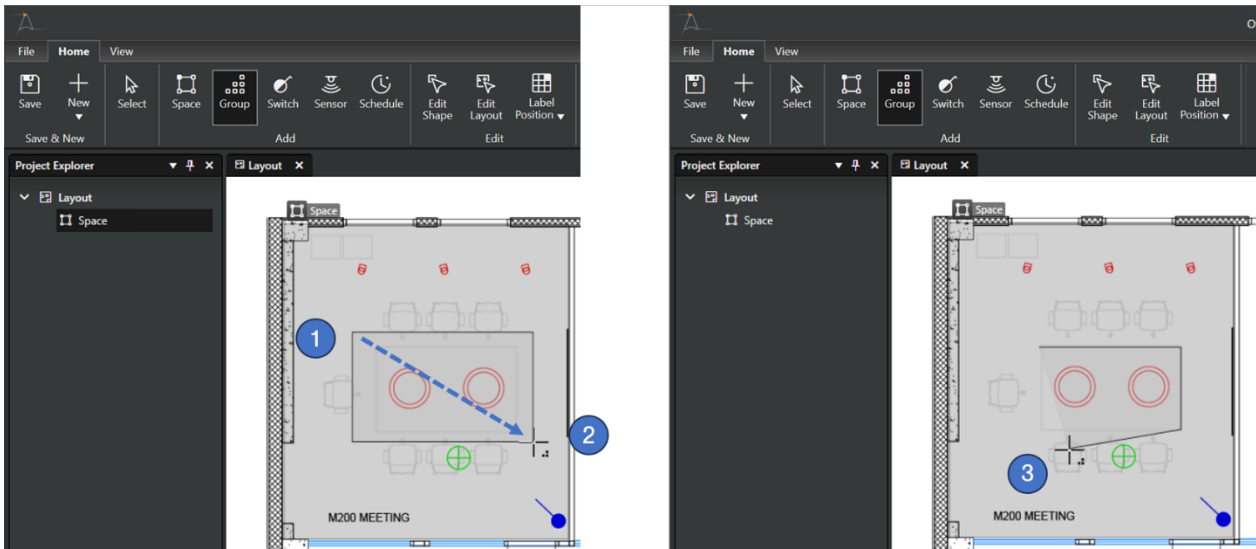
Methods for creating a new space

1. Click on the **Group** tool icon button in the Home ribbon and use it to draw a group inside a space, or

2. Right-click a space row in Project Explorer pane and select **New Luminaire Group** command, or
3. Right-click over the layout over a space in the layout view and select **New Luminaire group** command.

When groups are created using the context menu commands, groups will be created with default shape and size.

The Group Tool



The group tool can be used for drawing luminaire groups on the layout in three ways:

1. Click somewhere inside a space on the layout
 - Group is created with default size and name
 - Group naming dialog is not shown, the name can be edited in the properties pane
2. Inside a space, press down the left mouse button and drag
 - A group is created as a rectangle, user can adjust its size and shape while dragging the shape.
 - When the left mouse button is released, the group is created with default name. The name can be edited in the properties pane.
3. Keep CTRL button pressed and click in group's corner points
 - Each click creates a new corner point.
 - A group must have at least three corner points.
 - After clicking the first corner point, the CTRL key can be released.
 - If the CTRL button is pressed during creation of the corner points, the guides are not shown.
 - If the CTRL button is released after first corner point click, the tool provides guidelines to help creating 45 and 90 degree corners between the sides of the polygon.
 - The created polygon will be closed and completed when the starting point is clicked again. The group is now created with default name.

Note: The group tool can be changed back to the standard Select tool by pressing the **Esc** key in the keyboard.

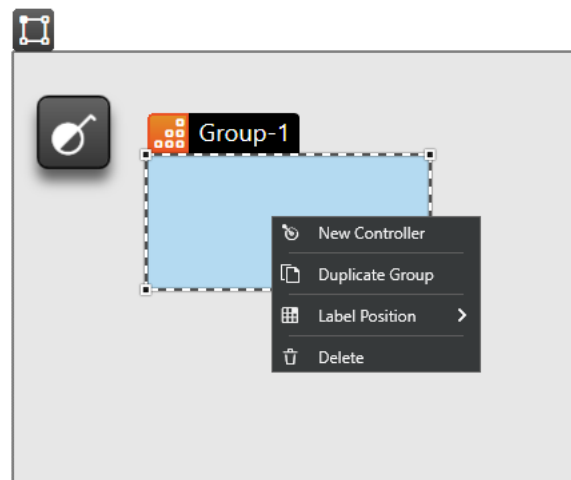
Duplicating a group

A group can be duplicated by using the Duplicate Group command in group's context menu.

If the duplicated group already has some luminaires, only the group element is duplicated. Thus, the new copy of the group is empty.

The context menu also allows user to delete the group and add controllers into the parent space.

Luminaire groups can be duplicated only in Pro for Windows.

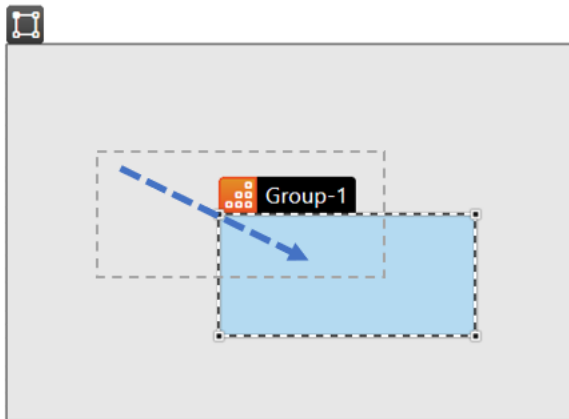


Editing groups in the layout

In Casambi Pro for Windows, the group shapes can be edited in the layout. Adding or editing spaces or luminaire groups is not possible in the iOS version.

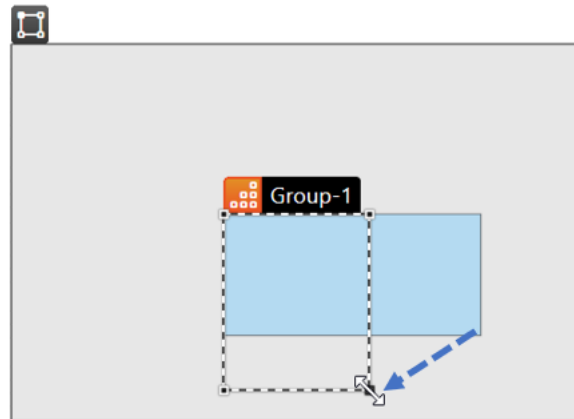
Moving a group

- Select the group you want to move
- Press left mouse button down and drag the group to new location.
- With Ctrl + click you can select multiple groups in the focused space
- Groups can be moved also with keyboard arrow keys. One key press moves the element 1 unit, Shift+press 10 units.



Resizing a group

- Select the group you want to resize
- Move the mouse cursor over group's corner point or side → Mouse cursor changes to two-headed arrow.
- Drag the corner point or shape side to resize the group.



Deleting a group

Options for deleting a group:

- In the Project Explorer list, right-click the group name and select Delete from the luminaire group context menu
- In the layout, right-click a group and select Delete from the luminaire group context menu
- In the layout, select a group and click Delete button in Home ribbon
- When a group is selected, click the Delete (trash can) button in group's properties in the Properties pane.
- When a group is selected, hit the Delete button on your keyboard.

Notes

- Luminaire groups can be deleted only with Casambi Pro for Windows.
- A luminaire group cannot be deleted if it has any real devices paired to it.
- If a group has any contents, a deletion confirmation message is displayed to prevent accidental removal of groups.
- Deletion of groups cannot be undone.

The Edit Shape tool

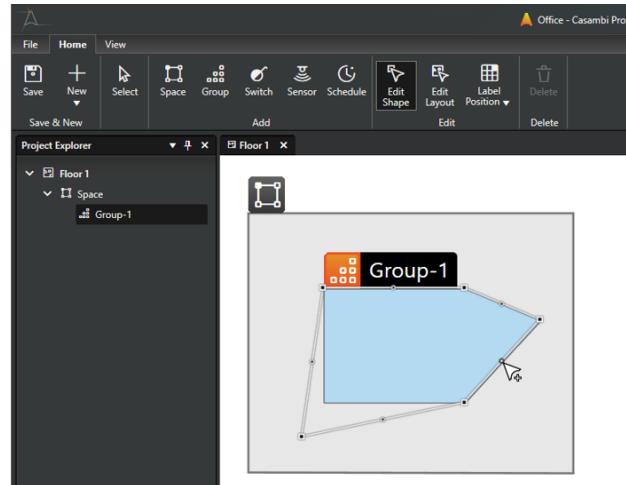
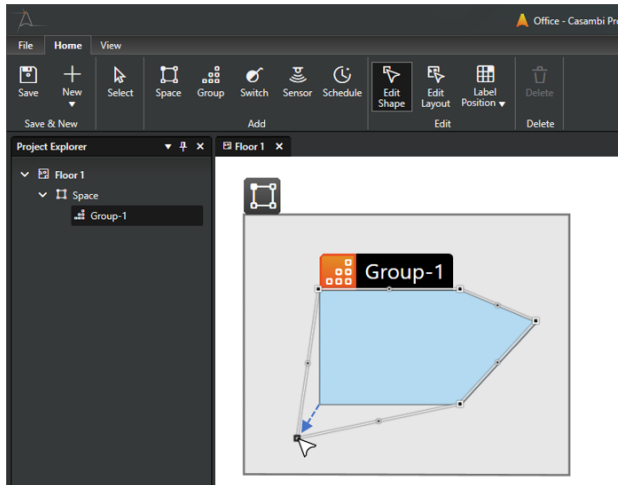
The Edit Shape tool in the Home ribbon can be used to edit space and luminaire group shapes in the layout.

Moving a corner point

- Select the group you want to edit
- Select the Edit Shape tool
- Click and drag a corner point

Creating a new corner point

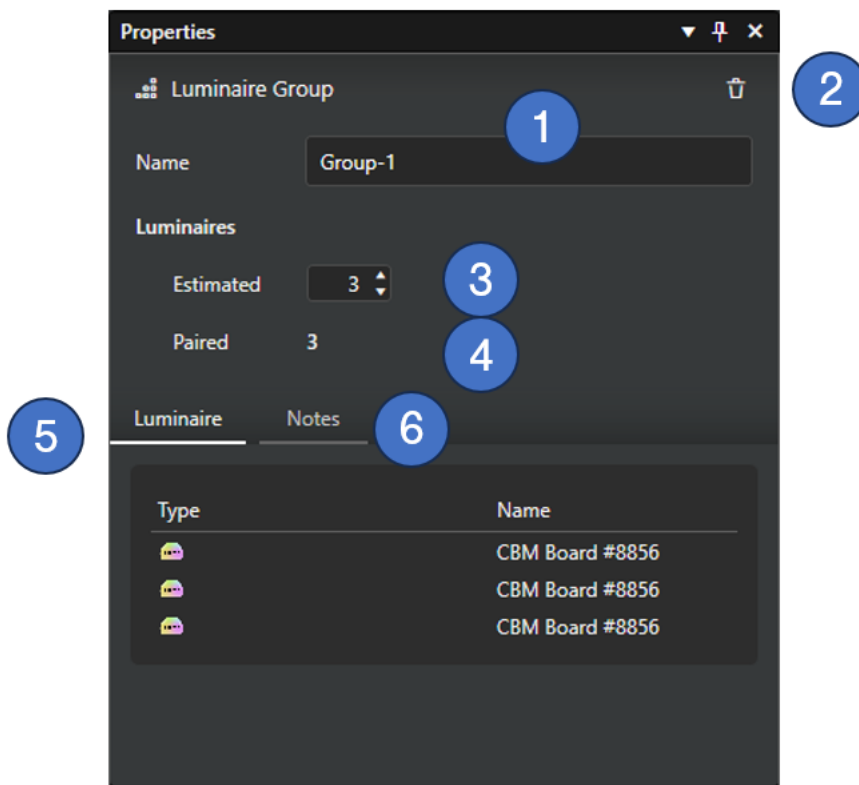
- Select the group you want to edit
- Select the Edit Shape tool
- Click and drag the middle point of a shape



Deleting a corner point

1. With the Edit Shape tool, click a corner point to select it.
2. Delete the corner point by
 - Clicking the Delete button in the Home ribbon or
 - Hit the Delete key on your keyboard

Luminaire group properties



When a luminaire group is selected, its properties are displayed in the Properties pane.

1. Name of the group
 - Can be edited in both Windows and iOS apps
 - The name is mandatory
2. Delete button
 - A group can be deleted if it does not contain any paired devices.
3. Estimated number of luminaires
 - Number of luminaires which will be paired to this group.
 - The values are used for planning of networks. They have no other function.
4. Number of paired luminaires
 - Number of real paired luminaires.
 - Values are automatically updated when a luminaire is paired to the group or unpaired from it.
5. Luminaires tab
 - Lists all paired luminaires in current group.
 - Clicking a luminaire row in the list selects the luminaire and property pane shows its properties
 - Clicking on a group row selects the group and displays its properties.
6. Notes tab
 - A text input field for adding notes to the current group.

Notes about luminaire groups

- One luminaire group belongs to only one space
- Luminaire group shapes can visually overlap.

- Luminaire groups cannot be hierarchically nested = A luminaire group cannot contain other groups inside it.
- Luminaire groups cannot extend from one space to another space.
- Individual luminaire groups cannot be moved or copied between spaces.
- Creating, editing and removing luminaire groups can be done only in Casambi Pro for Windows.
- In Casambi Pro for iOS, it is possible to edit
 - Luminaire group name
 - Estimated number of devices
 - Notes
- Pairing real luminaires to luminaire groups is possible only with Casambi Pro for iOS.
- Unpairing luminaires is possible only with Casambi Pro for iOS.
- In the initial Pro version, there is no alignment tool for aligning groups or luminaires in it.
- With iPad, it is possible to change the fixture profile for luminaires or other Casambi Enabled devices. Also the Casambi App can be used for this purpose.
- Casambi Pro supports initially dimming, colour temperature and basic type of RGB light features.

Controllers

Overview to controllers

There are three types of controllers in Casambi Pro:

- Switches
- Sensors
- Schedules

In Casambi Pro, controllers are first created as virtual placeholders in Casambi Pro for Windows. These placeholders can be configured already in the configuration design phase. At the commissioning phase, the virtual controllers are replaced by the real devices.

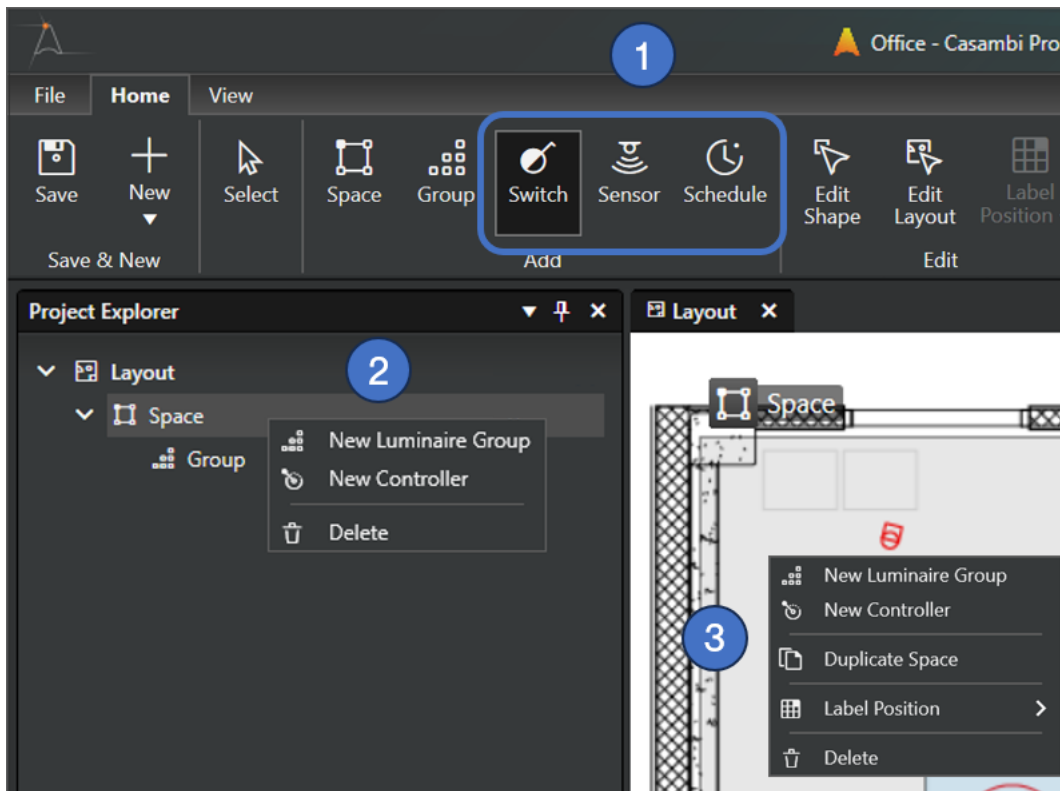
Switches and sensors can also be paired into Pro networks as new controller devices (= not replacing a virtual controller placeholder). In this case, they will not have a pre-configuration and need to be programmed afterwards manually in either Pro for Windows or iOS.

Controller configuration workflow:

1. Add a virtual controller element into a space (switch, sensor or schedule) in Casambi Pro for Windows.
2. Configure the virtual controller (Pro for Windows or iOS)
3. In Pro for iOS, replace the virtual controller by pairing a real controller device on top of it. The real device's image appears on the layout.
4. Test that the controller works.
5. Fine tune the configuration (Pro for iOS or Windows)

Creating a virtual controller in Casambi Pro for Windows

Virtual controller placeholders can be created only in Casambi pro for Windows.

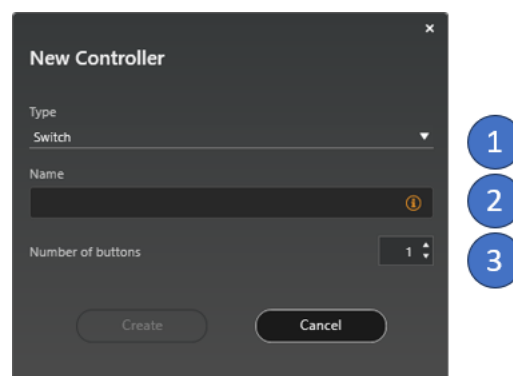


Methods for creating a new space

1. Click on one of the controller tool icon buttons in the Home ribbon and use it to place a controller inside a space, or
2. Right-click a space row in Project Explorer pane and select **New Controller** command, or
3. Right-click over the layout over a space in the layout view and select **New Controller** command.

When a controller is created using a context menu command, a New Controller dialog is displayed:

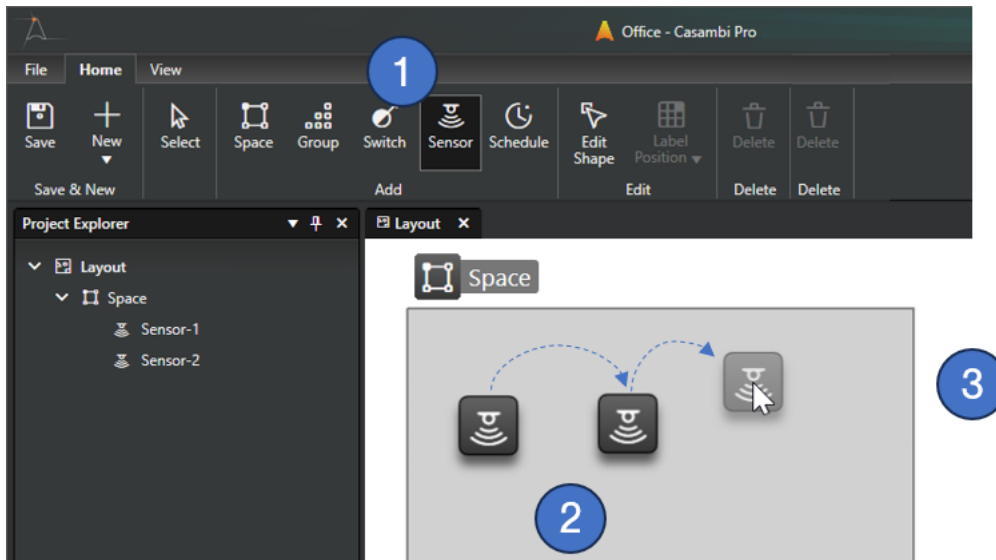
1. Controller type selection.
2. Name of the controller (mandatory).
3. If the switch controller type is selected, number of switch button can be set here. By default, a switch has one button.



Controller tools in the Home ribbon

The three controller icon buttons in the Home ribbon can be used for quickly adding many controllers into spaces. The New Controller dialog is not displayed when using these tools for creating controller placeholders. All three tools work the same way.

Controllers can be created only with Casambi Pro for Windows, but they can be edited also with the iOS version of Casambi Pro.

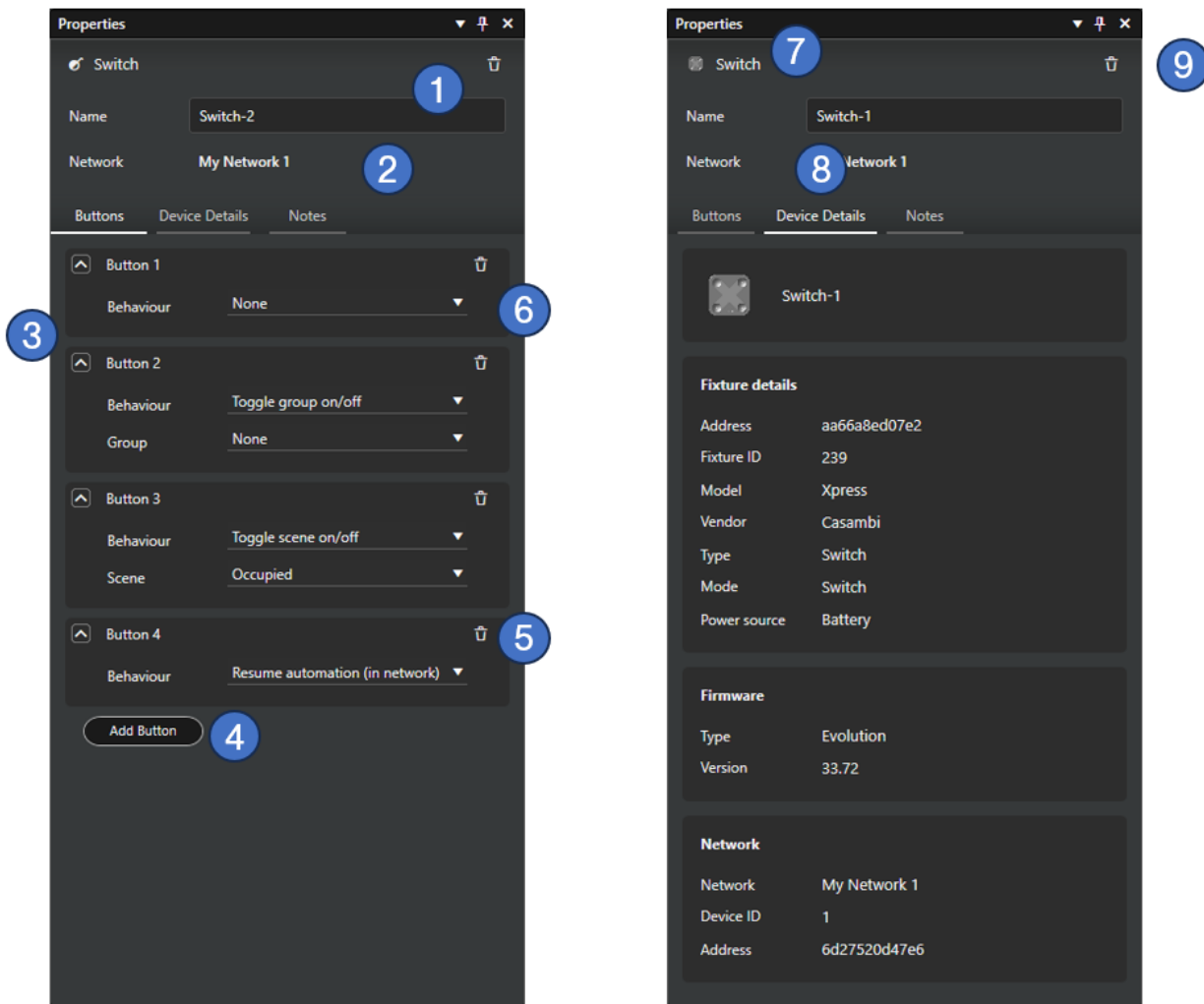


Using the controller tools:

1. Select one of the three controller tools from the Home ribbon
2. Click inside any space to create a virtual controller. A new controller placeholder is created with every mouse click. New controllers will be named automatically.
3. The Controller tool can be changed back to the Select tool by
 - Hitting the ESC key on your keyboard, or by
 - Clicking the Select tool in the Home ribbon.

Also, selecting another tool from the ribbon dismisses the currently used tool.

Switch properties



1. Name of the switch (mandatory)
2. Network where the switch belongs to. A switch belongs always to the same network than its parent space.
3. List of switch buttons. A switch can have 1 to 8 buttons.
4. A new button can be added with the “Add button” button.
5. A button can be deleted by clicking the trash can icon in the button row. A switch must always have at least one button.
6. Each button is programmed by selecting a behaviour for it.
7. After a real switch is paired (replacing a virtual switch), real device’s picture is displayed instead of the standard switch icon.
8. After pairing, the Device Details tab shows details of the real switch device.
9. The switch can be deleted by clicking the Delete button (trash can icon) at the top right corner of the property pane.

Note: A real paired switch should always be unpaired first before it can be deleted from a project. Otherwise, the network still thinks that the controller is part of the network.

Switch button behaviours

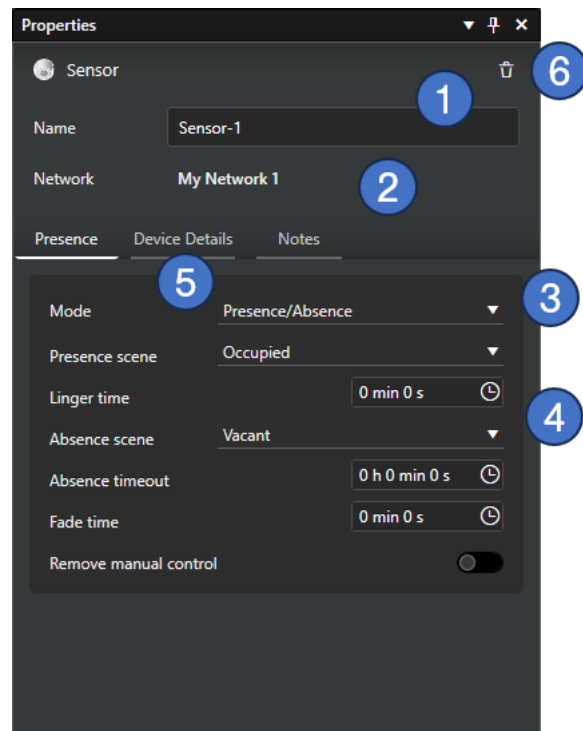
Each switch button is configured by selecting one of the behaviour options. Available behaviours with their additional options are:

- None
 - When a button is clicked, nothing happens
- Toggle group on/off
 - One group in the same space is toggled on/off.
 - The “Group” selection list in switch properties lists all groups in current space.
- Toggle scene on/off
 - One scene in the same space is toggled on/off.
 - The “Scene” selection list in switch properties lists all scenes in current space.
- Toggle network on/off
 - The entire network is toggled on/off.
- Resume automation in network
 - When clicked, the manual control layer is removed from the current control hierarchy.

Sensor properties

In the first version of Casambi Pro, only presence/motion sensors are supported. Thus, the properties do not yet display settings for daylight sensors. Daylight sensing related functionality will be added in future iterations of Casambi Pro.

1. Name of the sensor (mandatory).
 2. Network where the sensor belongs to. A sensor belongs always to the same network than its parent space.
 3. Presence sensor mode selection.
 - Presence
 - Presence/Absence
 - Absence
 4. Parameters for the selected presence sensor mode.
 5. After pairing, the Device Details tab shows details of the real switch device.
 6. The sensor can be deleted by clicking the Delete button (trash can icon) at the top right corner of the property pane.
- Note:** A real paired sensor should always be unpaired first before it is deleted from a project. Otherwise, the network still thinks that the controller is part of the network.



Presence sensor mode options

Presence

When in Presence mode, the presence sensor activates a scene after detecting a presence. When the presence is no longer detected and the linger time has passed, it will be faded out.

| Property | Values |
|-----------------------|---|
| Presence scene | Selection list of all scenes in the current space. One can be selected. |
| Linger time | Time setting, value range: 0 s – 59 min 59 s. |
| Fade time | Time setting, value range: 0 s – 59 min 59 s. |
| Remove manual control | On / Off |

Presence/Absence

When in Presence/Absence mode, the presence sensor activates a scene after detecting a presence. When the presence is no longer detected and the linger time has passed, the absence scene will be faded in.

| Property | Values |
|-----------------------|---|
| Presence scene | Selection list of all scenes in the current space. One can be selected. |
| Linger time | Time setting, value range: 0 s – 59 min 59 s. |
| Absence scene | Selection list of all scenes in the current space. One can be selected. |
| Absence timeout | Time setting, value range: 0 s – 23 h 59 min 59 s. |
| Fade time | Time setting, value range: 0 s – 59 min 59 s. |
| Remove manual control | On / Off |

Absence

The Absence mode is not a direct control. It will time out the manual control on affected luminaires after the presence is no longer detected and the linger time has passed.

| Property | Values |
|-----------------------|---|
| Linger time | Time setting, value range: 0 s – 59 min 59 s. |
| Absence scene | Selection list of all scenes in the current space. One can be selected. |
| Absence timeout | Time setting, value range: 0 s – 23 h 59 min 59 s. |
| Fade time | Time setting, value range: 0 s – 59 min 59 s. |
| Remove manual control | On / Off |

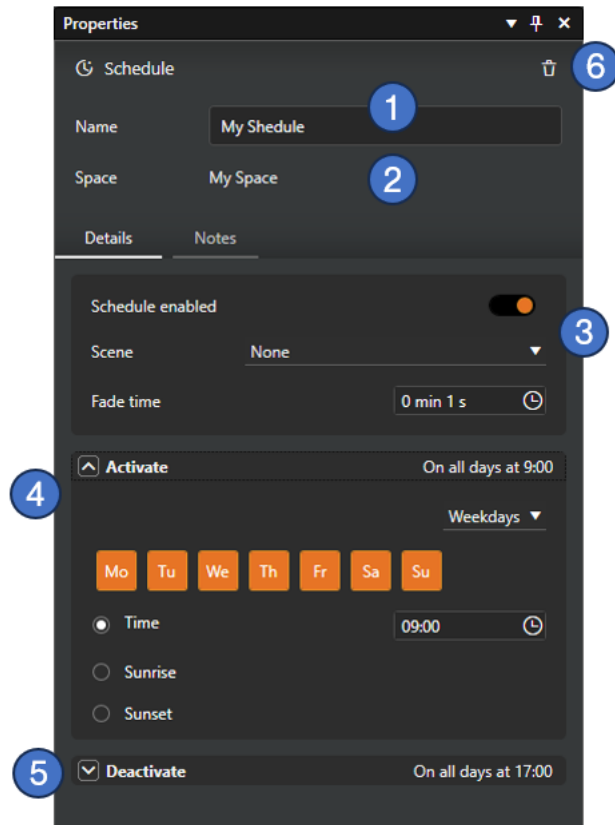
Schedule properties

The Schedule controller (also sometimes referred as a “Timer”) is used to create schedules in spaces which can be configured to turn scenes on and off based on the time or date or sunrise/sunset times.

A schedule is created the same way as the other controllers, as described in previous chapters in this document. Although a schedule object has no exact physical location, it is represented in the layout with a selectable schedule symbol.



1. Name of the schedule (mandatory).
2. Space where the schedule belongs to.
3. General settings for the schedule:
 - Schedule enable/disable selection
 - Scene selection for the schedule
 - Fade time for the schedule activation/deactivation
4. Schedule activation parameters. This section can be collapsed and expanded.
5. Schedule deactivation parameters. This section can be collapsed and expanded.
6. The schedule can be deleted by clicking the Delete button (trash can icon) at the top right corner of the property pane. Deleting is possible only with Casambi Pro for Windows.



Schedule properties are similar both in Casambi Pro for Windows and for iOS.

Schedule activation and deactivation settings

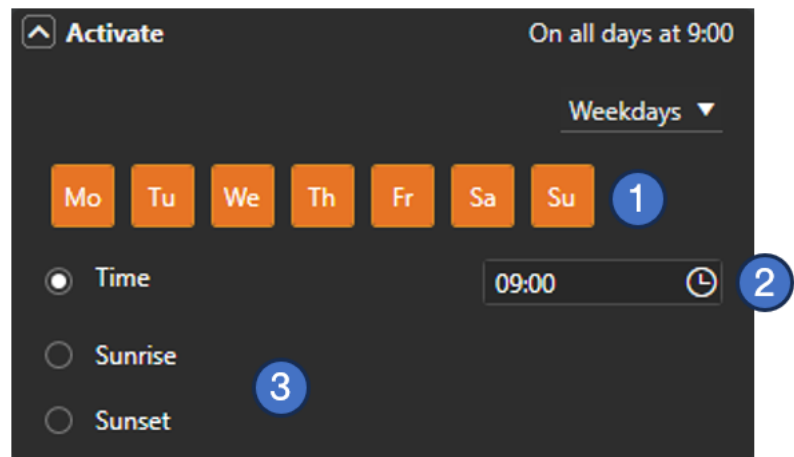
For schedule activation and deactivation timing, user can select between three options:

- Weekdays
- Date
- After (Deactivation only)

The “Weekdays” and “Date” timing options are similar both in Activate and Deactivate sections.

Weekdays

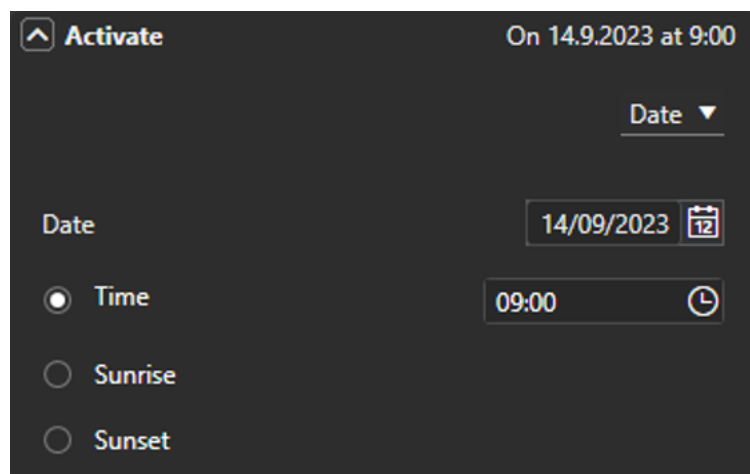
1. On/Off selection of weekdays when the schedule should be activated/deactivated.
2. Setting for the exact time of day for the schedule activation/deactivation.
3. As an option for the day of time, activation/deactivation can take place at sunrise or sunset. To use these options, the network location needs to be set in project settings. The location setting is initially available only on Casambi Pro for Windows (coming later to iOS version).



Date

If the Date timing option is selected, the Date setting is displayed instead of weekdays.

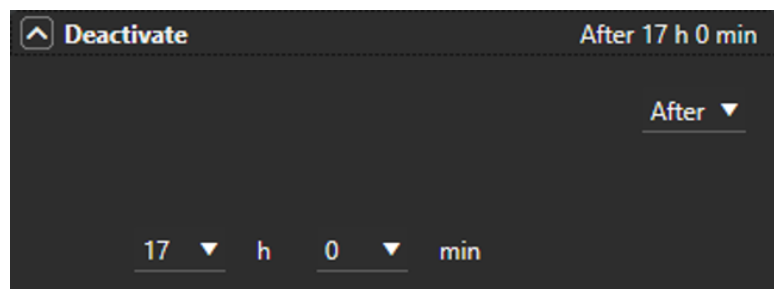
The Time, Sunrise and Sunset settings are similar than in the Weekdays option.



After

The After timing option is available only in the Deactivate settings.

When After is selected, a time setting is available with a time range 0 h 0 min – 23 h 59 min.



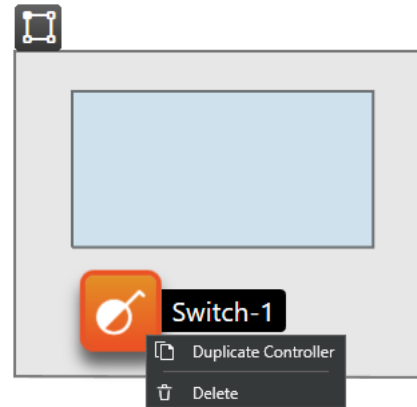
Duplicating a controller

A controller can be duplicated within its parent space by using the Duplicate Controller command in controller's context menu.

If the duplicated controller already is a real paired device, only the controller object and its configuration is duplicated. Thus, the new copy of the controller is a virtual placeholder.

The context menu also allows user to delete the controller.

Controllers can be duplicated only in Pro or Windows.



Notes about controllers

- New virtual controllers can be added only in Casambi Pro for Windows.
- On Casambi Pro for iOS, a controller can be paired either on top of a virtual controller or as a new unit, without using a virtual placeholder.
- One controller belongs always to only one space.
- A controller cannot be moved or copied between spaces. However, they can be duplicated inside one space.
- It is possible to edit all switch and sensor properties in Pro for Windows and Pro for iOS. For the schedule, Pro for iOS provides initially only the option to change the schedule name.
- Pairing real controller devices over the controller placeholders is possible only with Casambi Pro for iOS.
- In the initial Pro versions, the schedule controller has some functional limitations:
 - Project (site) wide schedule cannot be created. Schedule's functional scope is limited to the space where the schedule resides.
 - No Override Presence feature.
 - It is not possible to leave the Deactivation time unset (empty).

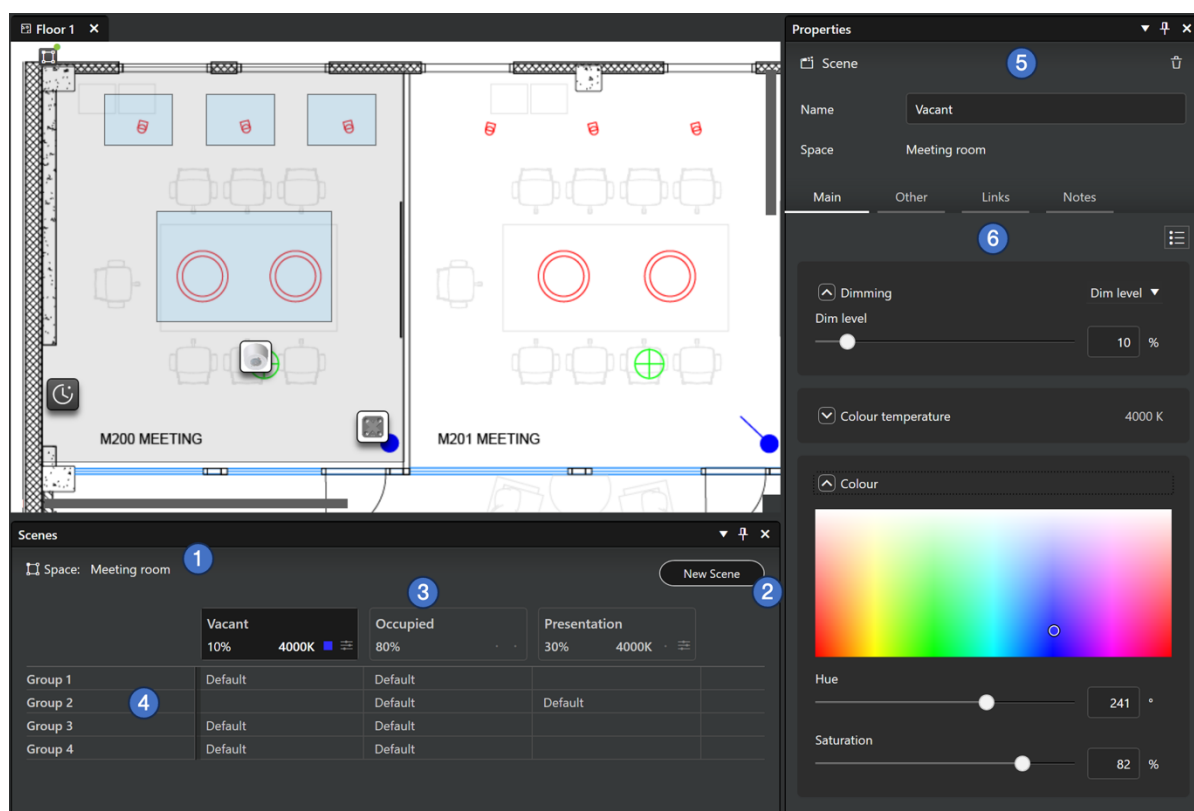
Scenes

Overview to Scenes in Casambi Pro

in Casambi Pro, scenes are created separately for each space. The Scenes table lists scenes in a selected space as columns and all luminaire groups in the space as rows.

Scene principles in Casambi Pro:

- A scene is always part of one space.
- Scene's functional scope is its own parent space.
- Scenes are triggered by controllers (sensors, switches and schedules).
- By default, every scene controls the dimming level of each luminaire group in the parent space. User can use the scene properties to add other lighting parameters to the scene (e.g. Colour Temperature)
- By default, every luminaire group is included in the scene, following scene's default values. The default values can be overridden in the scene properties.
- The Scenes table displays contents only when a space or an item inside it is selected.
- New scenes can be created only in Casambi Pro for Windows, but they can be adjusted also with the Pro for iOS version.



Overview to the Scenes table and property pane:

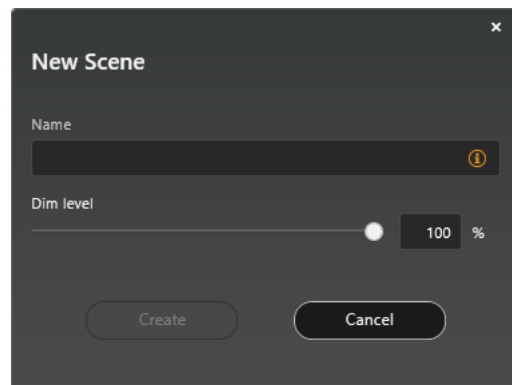
1. Selected space's name is shown at top left corner of the Scenes pane. If the space is based on a space template, also the template name is shown here.
2. New Scene button for creating new scenes. When the button is clicked, a dialog is opened where the scene name can be entered, and the default dimming level can be set.
3. Scenes as columns
 - Scenes are listed in columns. There is no limit how many scenes can be added. However, it is good to keep in mind that in one network, maximum total number of scenes is 250.

- The header row of each column shows the name of the scene and the default dimming level. If other parameters have been set, the colour temperature is displayed as Kelvin value and other parameters as icons.
 - Each cell in the table can be selected by clicking it. Thus, if the top cell in a scene column is selected, the scene default values are displayed in the properties pane.
4. Luminaire groups as rows
 - All luminaire groups in selected space are listed in the leftmost column of the table.
 - Each row represents one luminaire group.
 - Each cell in a row shows how the luminaire group responds when a scene is activated.
 - Each cell in the table can be selected by clicking it. Single group's behaviour in each scene can be edited by first activating a cell in the table, and then editing the parameters in the properties pane.
 5. Property pane's top part displays general information for the selected cell in the Scenes table.
 - If the topmost cell in a scene column is selected, the properties pane shows the default values for the scene.
 - If a cell in a luminaire group row is selected, the properties pane shows the used values for the selected luminaire group in that scene.
 6. The Main, Other, Links and Notes tabs display the parameters and values for the item that is selected in the Scenes table.

Creating a scene

New scenes can be created only with Casambi Pro for Windows. Editing scene values is possible also with Casambi Pro for iOS.

1. Select a space by clicking one in the layout or in the Project Explorer pane → The scenes for the selected space appear in the Scenes pane. Initially, the scenes table has no scenes (columns). If the selected space has groups, they are listed in the table as rows.
2. To create a scene, click on the “New Scene” button → The New Scene Dialog opens.
3. Enter a name for your new scene and click “Create”. You can also set the default dimming level for the scene. The default value is 100%.
4. The new scene will be created, and it appears as a new column in the Scenes table. The scene is highlighted, and its properties can be adjusted in the Properties pane.

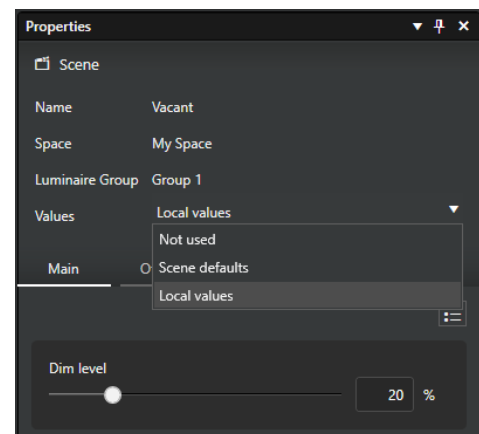


Values in the Scenes table

The Scenes table displays both default and customized settings for scenes.

| | Default values | Vacant | Occupied | Presentation |
|---------|----------------|-----------|----------|--------------|
| | | 10% 4000K | 80% | 30% |
| Group 1 | 20% | 5500K | Default | Default |
| Group 2 | Default | Default | Default | Default |
| Group 3 | Default | Default | Default | Default |
| Group 4 | Default | Default | Default | Default |

- The topmost cell in a scene column shows the default values set for the scene:
 - Dimming level (mandatory). Dimming method can be selected from the property pane.
 - Colour Temperature value in Kelvin. The colour temperature is an optional scene parameter that can be set in the properties pane.
 - Other optional special parameters set in the properties pane are indicated with icons in the table. In the initial versions of Casambi Pro, the only special parameter is Up/Down light ratio setting. More will be added in future versions of Casambi Pro.
- By default, all groups in the space will participate in the scene with the scene's default values. Each Luminaire group's relation to the scene can be managed with these options in the properties pane:
 - Scene defaults:** Follow the default scene values for dimming, colour temperature etc., or
 - Local values:** Set customized values for the luminaire group, or
 - Not used:** Luminaire group does not react to the scene when the scene is activated.
- If the user has selected the "Local values" option for a certain group, the customized values are displayed in the group row. In this case, the local values override the scene's default values when the scene is activated.
- If the user has selected the "Not used" option for a certain group, the group cell is displayed empty for that scene.



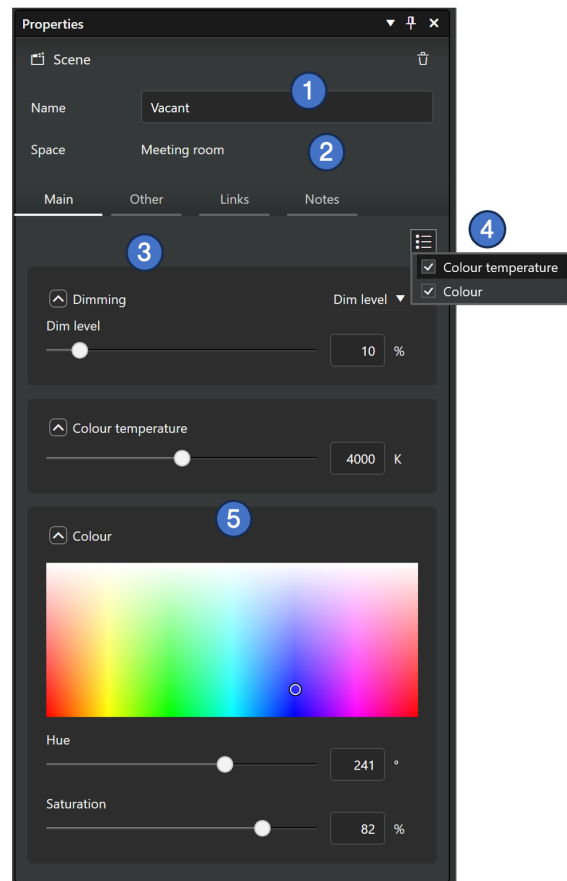
Scene properties

Dimming level is the only mandatory parameter for a scene in Casambi Pro. When needed, additional parameters can be activated in the Mains and Other tabs. In the initial Casambi Pro versions, there are three additional parameters: Colour Temperature, Colour and Up/Down light ratio. More parameters will be added in future releases.

Scene defaults

The default values of a scene will be inherited automatically by all luminaire groups in the same space.

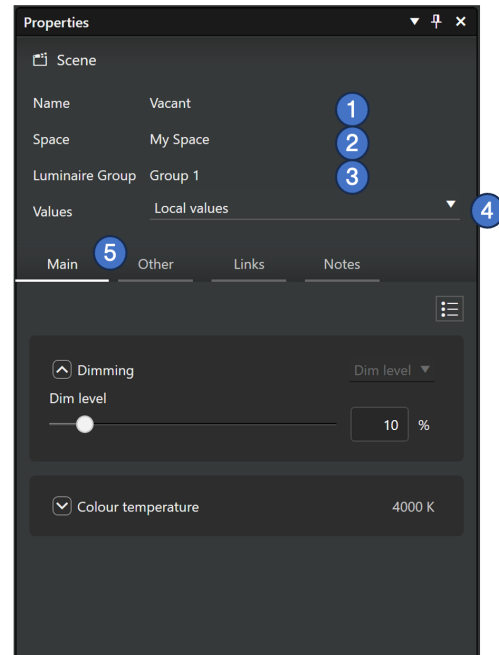
1. Scene name (mandatory).
2. Space where the scene belongs to.
3. Tabs for scene options:
 - Main
 - Dimming level (mandatory)
 - Colour temperature (optional)
 - Colour (optional)
 - Other
 - All other optional scene parameters.
 - Initially the Other tab contains only Up/Down light ratio setting.
 - Links
 - List of controllers which are linked to use this scene.
 - Notes
 - Area for adding free text notes.
4. Add optional parameters button.
5. Each parameter can be adjusted either with a slider or by entering a numeric value directly to the text field.



Group specific scene values

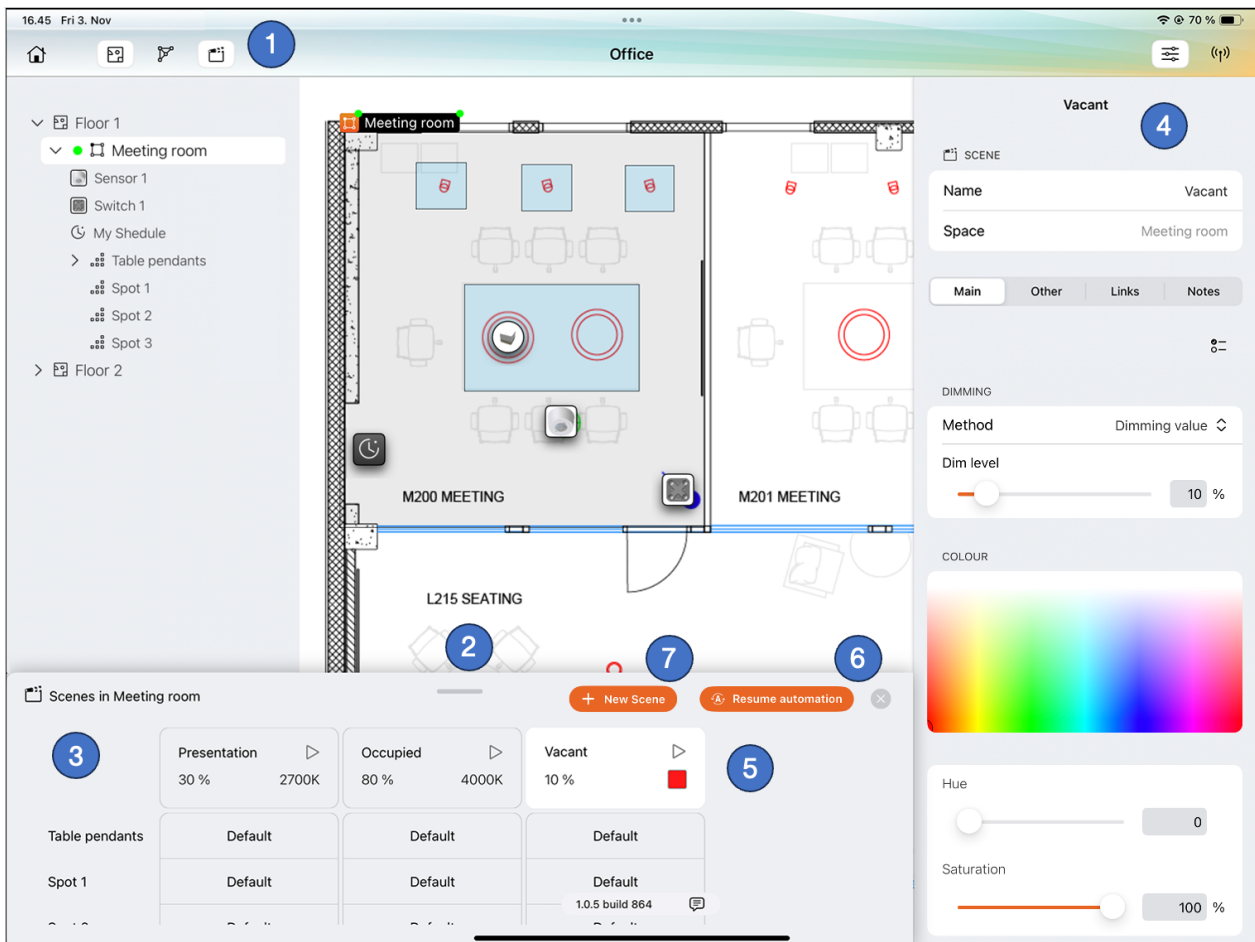
If user wants to customize scene values for a certain group instead of using the default scene settings, he/she can select a single cell in the Scenes table and set the custom values in the Properties pane.

1. Scene name. Not editable when a group cell is selected from the scenes table.
2. Space where the scene belongs to.
3. Luminaire group's name.
4. Values selection. Defines how this luminaire group reacts when the scene is activated:
 - **Scene defaults:** The group follows the default scene values for the parameters. If this option is selected, the parameters are not editable.
 - **Local values:** Use customized values for the luminaire group, instead of the scene defaults.
 - **Not used:** Luminaire group does not react to the scene when the scene is activated.
5. Tabs for scene options. These are the same as in the scene defaults case.



Scene table in Casambi Pro for iOS

The scenes are displayed as a table also in the iOS version of Casambi Pro.



1. The Scenes pane is opened/closed from the top toolbar.
2. The pane can be resized by dragging the top part of the pane up and down.
3. Structure of the scenes pane is same as in Pro for Windows.
4. Each cell in the table can be selected to see their details in the properties pane.
5. In Pro for iOS, it is possible to run scenes directly from the scenes pane by tapping the Play buttons. The buttons are disabled if there is not connection to the network.
6. The Resume automation button can be used to remove the manual control from the network, e.g. when the scenes have been tested with the iPad.
7. New scenes can be created with the New Scene button.

Deleting a scene

A scene can be deleted in Casambi Pro for Windows by selecting the topmost cell in the Scenes table, and then tapping the delete button in scene properties (trash can icon). Deleting is not yet possible with Casambi Pro for iOS.

Notes about scenes

- Scenes can be deleted only in Casambi Pro for Windows.
- When a space is created by using a space template, the scene values can only be edited in the space template editor in Casambi Pro for Windows.

- In the initial versions of Casambi Pro there it is not possible to create scenes with larger scope than one space.

Dimming control in a scene

The dimming control is always part of a scene. There are two methods to control dimming:

1. Dim level (default)
2. Daylight control

Dim level

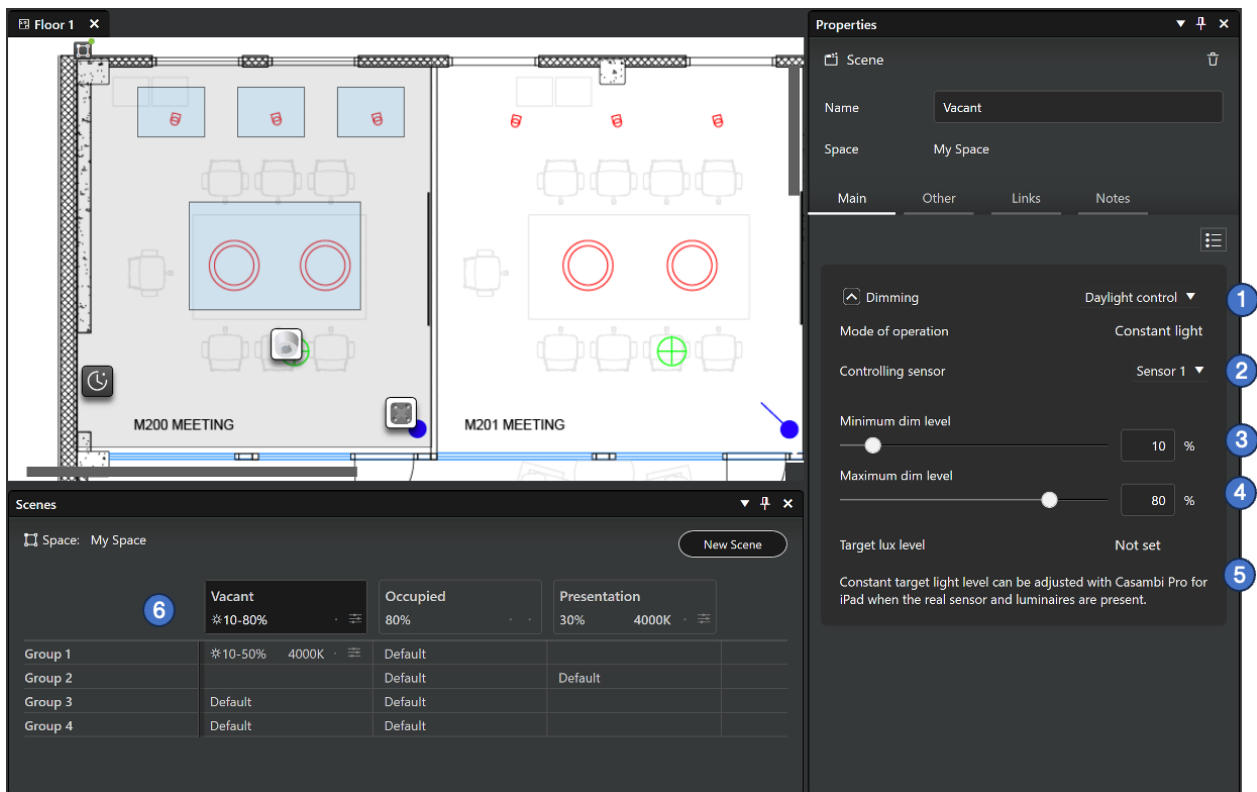
By default, every scene has a static dim level control. The default value for dimming is 100%.

Daylight control

In addition to a static dimming level, the dimming can be controlled by a daylight sensor. Daylight controlled scenes utilise information provided by a lux sensor, to automatically adjust the scene lighting level based on the amount of light available.

In the initial version of daylight control in Casambi Pro, the available mode of operation for the daylight control is Constant Light (in the Casambi App this is called “Closed loop”). In Constant Light, the selected lux sensor actively adjusts the luminaires in the active scene to try to reach and maintain the set luminance level via a feedback loop, by observing its own changes. The sensor is affected by both the light from the luminaires in the scene, and by natural light in the area.

Daylight control in Casambi Pro for Windows



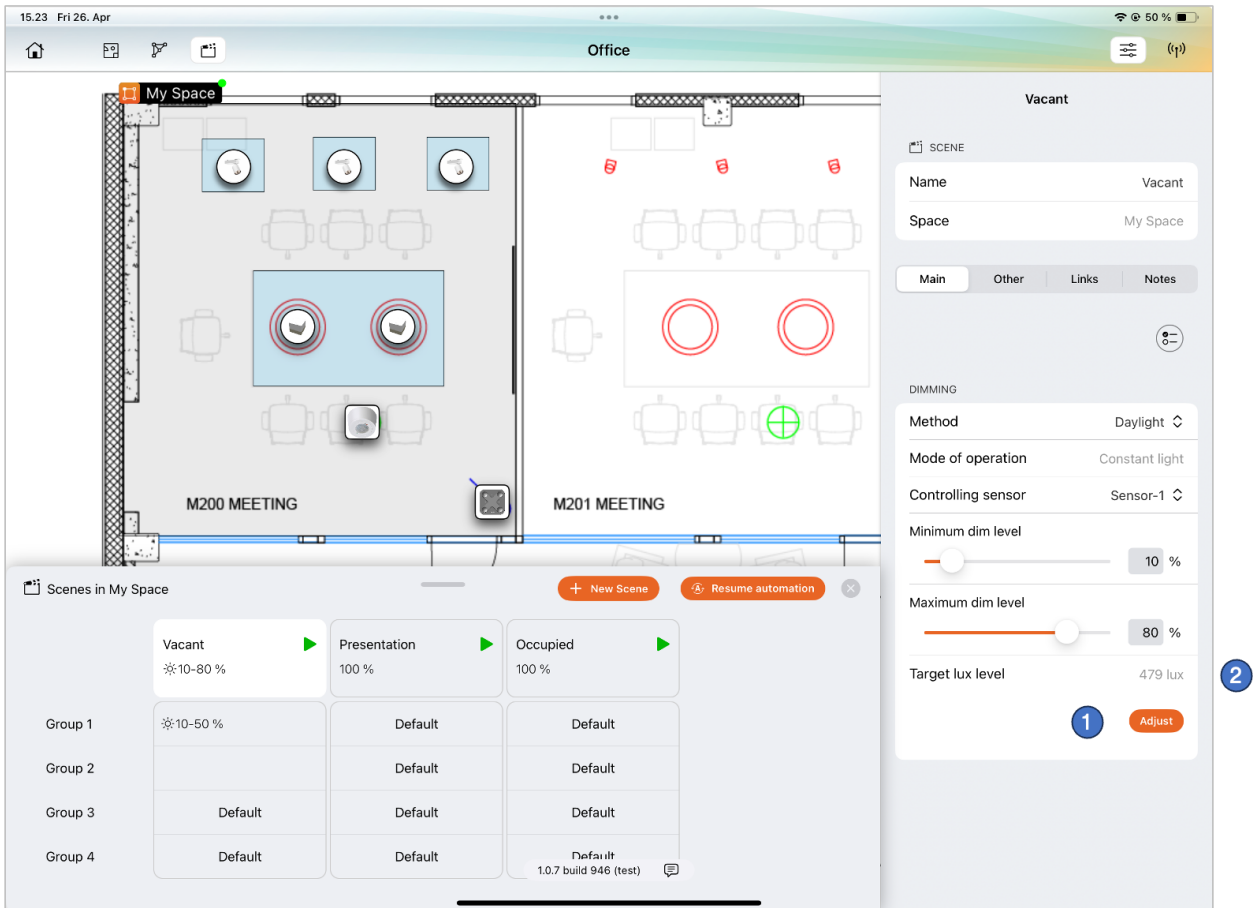
1. Dimming method selection (Dim value or Daylight control)
2. Selection of lux sensor which is used for daylight controlling. Note, that in Casambi Pro, only one sensor can be selected.
3. Minimum dimming level setting.
4. Maximum dimming level setting.
5. Target lux level. This value is set with the Casambi Pro for iPad when the real lux sensor and luminaires are present.
6. When a scene is daylight controlled, the max-min range is displayed in the scene table.

Notes about daylight control:

- Only one sensor can be selected for controlling the dimming in a scene
- Casambi Pro does not support reading values only from luminaires with integrated or dedicated sensors.
- In Casambi Pro, some parameters familiar from the Casambi App are using static values:
 - Change rate: 2,5 seconds
 - Tolerance: 15%
- Initially there is no Activation Level graph available in Casambi Pro.

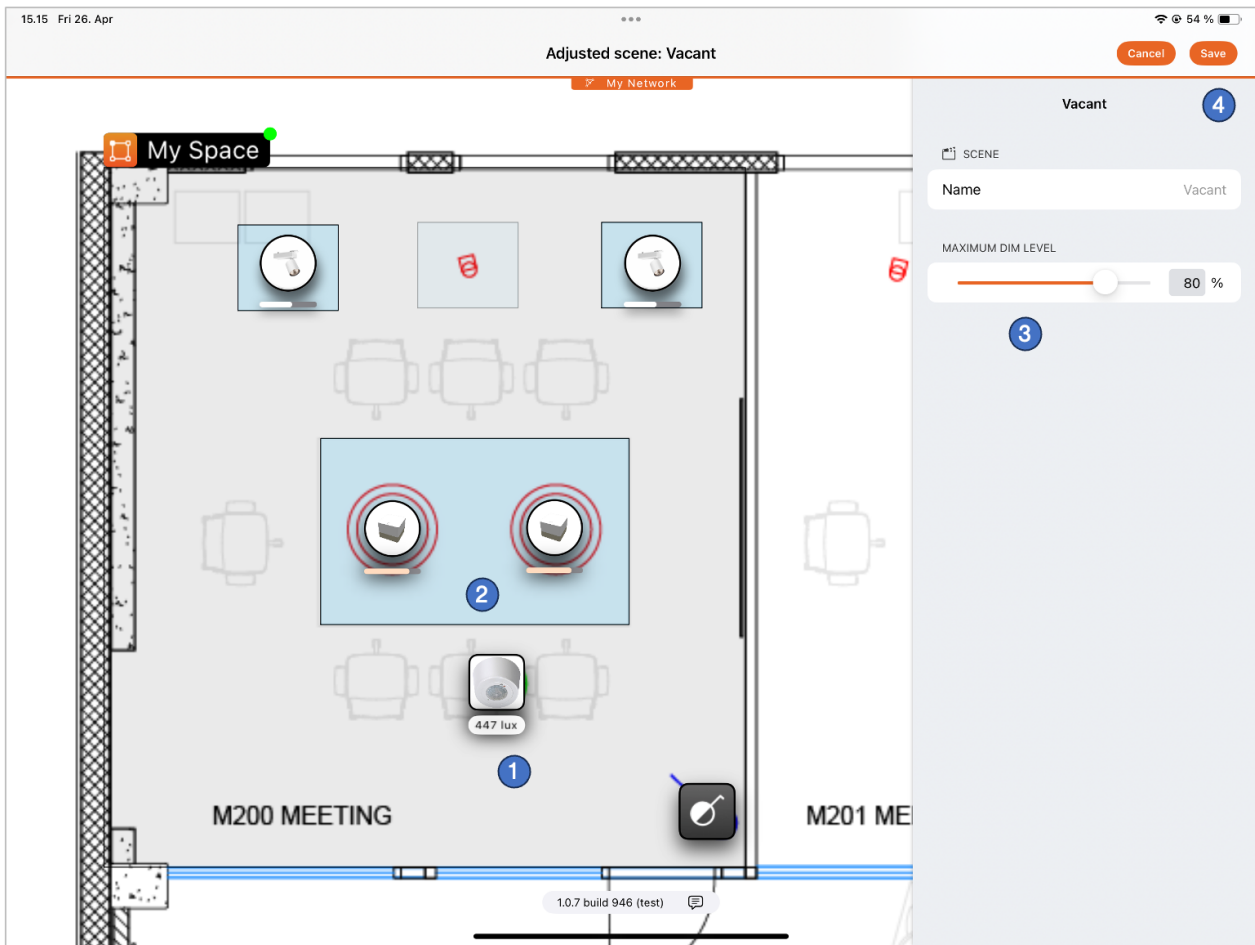
Daylight control in Casambi Pro for iOS

The daylight control dimming levels can be set on iOS in a separate mode, where the luminaires' dimming level can be first set in real time to the desired value and then those values are saved to the configuration.



1. The Adjust button opens the Adjustment view where the luminance levels of the luminaires can be set to desired level in real time.
2. After the targeted luminance level has been adjusted, the target lux level is shown in the properties.

In the daylight scene adjustment view, the iPad is connected to the network and sensor's and luminaires' statuses are displayed in real time. Here each group's dimming level can be adjusted to the desired luminance level.



1. Sensor's lux levels are displayed in real time.
2. Luminaire's dimming level is shown with indicator bars under the luminaire elements in each group.
3. Scene's default maximum dimming level can be adjusted when the space is selected. By selecting a single group, its dimming levels in the scene can be adjusted individually.
4. When the desired dimming levels have been adjusted, the settings can be saved by tapping the Save button. When this is done, the scene adjustment view is closed and user is returned to the main edit view.

Space templates

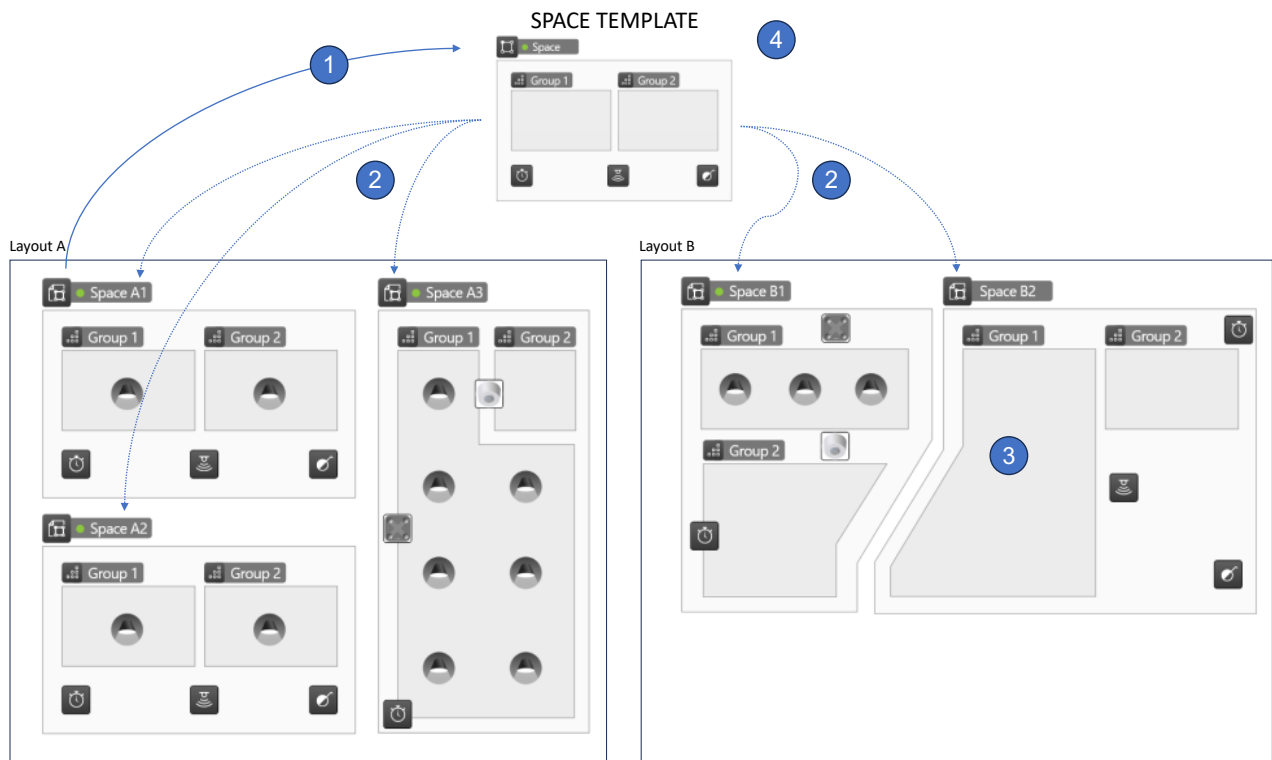
Space templates can be used for creating and managing similar spaces with same kind of group and control structures. For example, if a building has many repetitive spaces like meeting rooms, corridors, or storage rooms, they could be created using a space template. Spaces created with a template will be updated if their master template is edited.

Space templates can be created and modified only in Casambi Pro for Windows.

Overview to space templates

- Any space can be saved as a template. When this is done, the original space will be an instance of the new template.
- When a space is saved as template, all of the original space's contents is included in the template.
- When a new space is created by using a template,
 - It will inherit all template's elements and configuration values.
 - Its geometry can be freely changed, but the lighting configuration must be edited by editing the template itself.
- Same template can be used for creating spaces on any of the layouts in the project.
- Templated space instances can belong to any network in the project.
- Space instances can be detached from the template. After the link to the template is broken, the space instance will become an independent space which can be freely edited.
 - Note: If space's link to the space template is deleted, it is not possible to link it again to a template.
- When a space template is edited, the changes will be propagated to all of its child instances.
- If template's geometry is changed, the existing child instances sizes, shapes or item locations are not changed.
- There are limitations for deleting of space templates if any of the spaces created from the template has paired devices in them.

Principle for using space templates



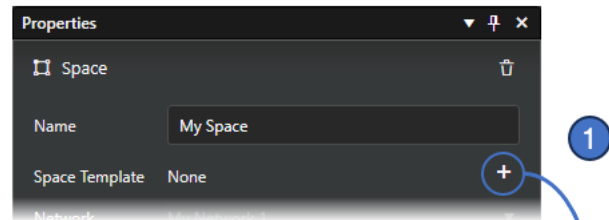
1. A space is constructed with needed contents (spaces, luminaire groups, controllers and scenes). Then the space is saved as a space template.
2. The space template is used when creating new space instances.
 - Space instances can be created on any layout in a project, using the same template.
 - Space instances can belong to any network, regardless of if a template is used or not.
3. The created space instances have the same control structure and control logic as the space template. However,
 - their geometry (shape and positioning) can be freely adjusted, and
 - any number of luminaires can be paired into the luminaire groups (the template does not limit contents of luminaire groups).
4. If there is a need to change configuration of the space instances following a space template, it is done by editing the template itself.
When changes are saved, they are applied automatically to all space instances following the template.

Creating a space template

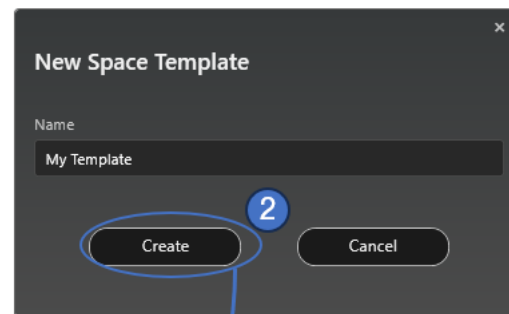
Any space can be saved as a space template (even an empty space). When a template is created, the original space is converted to an instance of the new template. Space templates can be created only with Casambi Pro for Windows.

1. Select a space (usually it has groups, controllers and scenes with configuration).

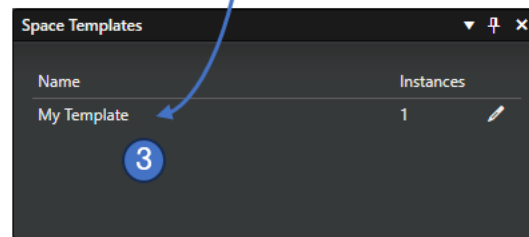
Save the space as a new template by clicking the plus (+) button in the space property pane.



2. Enter a name for the template in the New Space Template dialog and click Create.



3. The new space template is created, and it appears in the Space templates pane, and it can be used when creating new spaces.



Using the space template

When a space is created using a space template, it will inherit its composition and control logic from the template used. The positioning of elements and shapes of the space and its group areas are fully editable, but the control logic is still following the setup in the template.

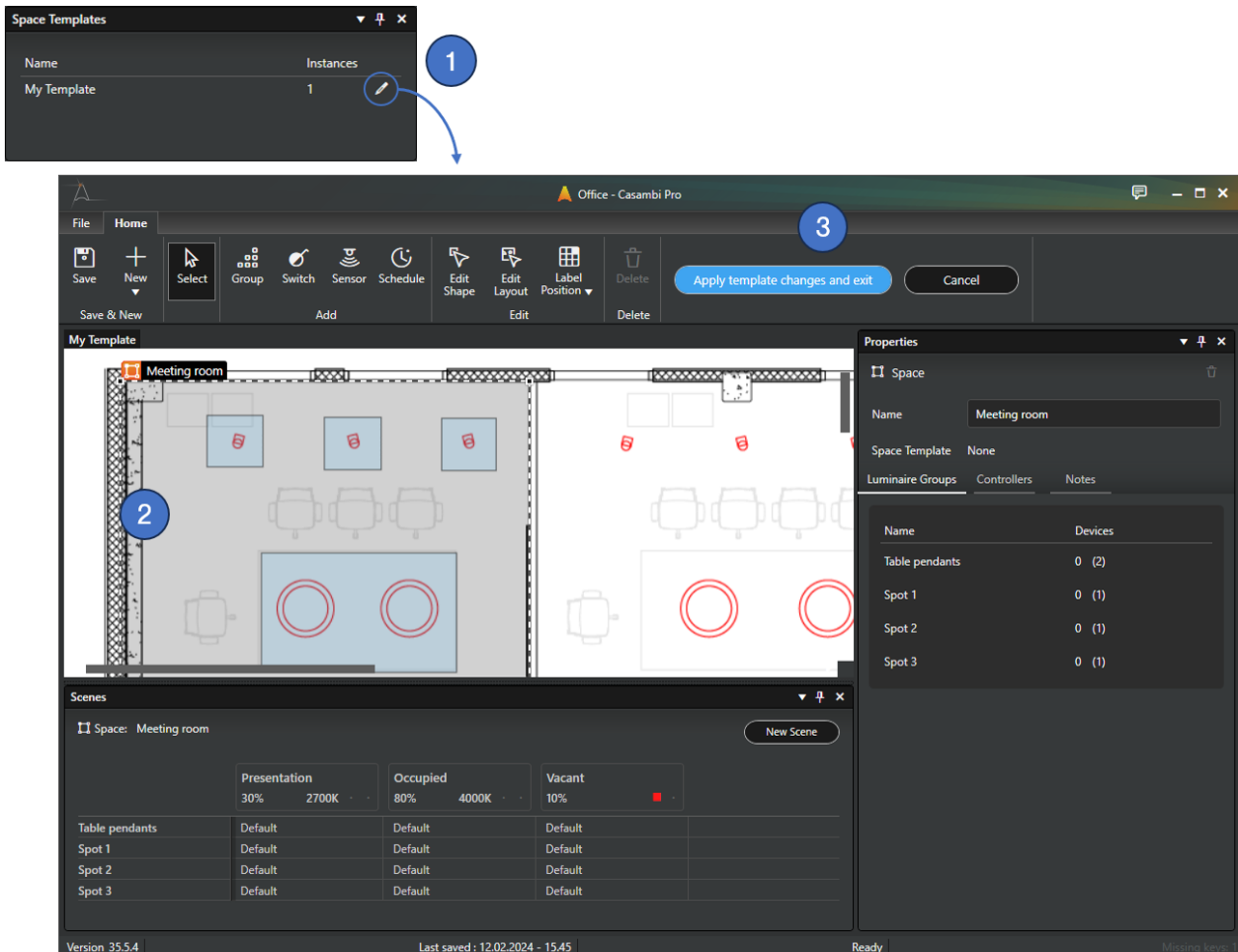
Creating a space based on a template:

1. Create a space by using the context menu command or by drawing the space shape.
2. In the New Space dialog, you can select a template you want to use for the new space.
3. After clicking the Create button, the new space is created based on the selected template. It will appear on the layout following the size, shape, and contents of the template.

After the space is created, it is possible to move or resize it and edit its element positioning. In case you want to change the element structure or control logic of a space which is linked to a template, you need to edit the logic of the template, in template editor (see next page in this guide). It is also possible to detach a space from its template, by using the Unlink button in the space properties.

Editing space templates

When there is a need to edit the control logic or add or remove elements in spaces created by using a space template, it needs to be done by editing the template itself. When a template is modified and saved, the changes are applied to all space instances created with that template. Template editing can be done with Casambi Pro for Windows only.



Editing a space template:

1. Enter the space template editor by clicking the pen icon at the space template list in the main workspace
2. In the space editor view, the original space is shown with its content. Luminaire groups, controllers and scenes can now be added, removed or edited.
3. Modified template can be saved and applied to all space instances by clicking the “Apply template changes and exit” button. When this is done, the template editor is closed and all space instances in the project are updated.
 - Clicking the Cancel button discards all changes in the template, and the child space instances are not updated.

Please note that

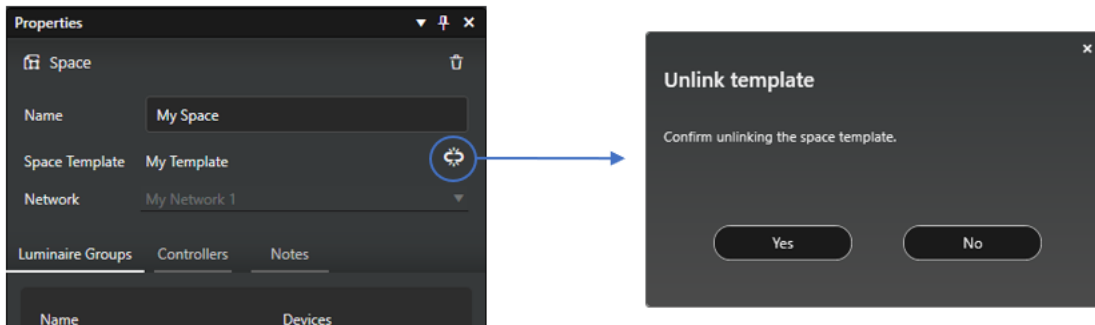
- If something is added or removed, it will affect all child space instances.
- Luminaire groups or controllers cannot be removed from the template if there are real devices added to the related controller placeholders or luminaire groups in any of the spaces created with the template.
- Editing the geometry or positioning of the elements in the template do not affect the appearance of the already existing space instances created with the template. Geometry changes will be visible next time a new space instance is created.

Detaching a space from a space template

Detaching a space from a template may be needed if there is a need to do some customisation in single space's configuration.

Linkage between a space instance and its parent template can be removed. When this is done, the space is detached from the template, and it becomes a fully independent object which can be freely edited.

To unlink a space from its parent template, click the Unlink button in space properties. Unlinking cannot be undone.



Deleting a space template

Space template can be deleted by selecting it in the Space Templates pane in Pro for Windows and pressing the Delete button in the property pane.

A space template cannot be deleted if there are space instances linked to the template. Thus, the child instances created with the template must first be removed before the template can be deleted.

Notes about space templates

- A template can be used anywhere in a project, regardless on which layout it was first created.
- In the initial Casambi Pro for iOS versions, it is not possible to edit parameters of spaces or its contents if the space uses a space template. Space template editing needs to be done using the Windows PC version of Casambi Pro.
- Space template properties do not yet list child space instance's luminaire groups or controllers.

Networks

To enable both pre-configuration (pre-commissioning) and easy commissioning of Casambi networks, the Casambi Pro is based on the idea where not only the control configuration but also networks are first created as virtual objects. These virtual networks become normal Casambi mesh networks in the commissioning phase where real devices are paired to them with Casambi Pro for iOS.

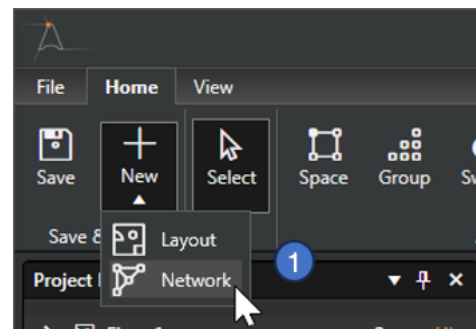
Overview to Casambi Pro networks

- Virtual placeholder networks can be created only with Casambi Pro for Windows (in initial version of Casambi Pro).
- There is no limit to number of networks in a project. However, like with the traditional Casambi networks, a single network created with Casambi Pro can have maximum of 250 devices.
- Pairing devices to networks can be done only with Casambi Pro for iOS.
- Networks created with both the Casambi App and the Casambi Pro use the same Casambi Evolution firmware and devices. The Classic firmware is not supported.
- A virtual network is changed to a real Casambi mesh network when the first device (luminaire or controller) is paired to it.
- To be able to pair devices to spaces and groups, each space must be linked to a network before pairing. Linking to a network can be done in space's properties in both Pro for Windows and Pro for iOS.

Creating a virtual network

Virtual (placeholder) networks can be created only with Casambi Pro for Windows. In Casambi Pro, a placeholder network can be configured like a traditional Casambi network already before the real mesh network with devices exists.

1. Start by selecting the Network option behind the New button in the ribbon. Other option is to right-click in the Networks pane and use the New Network option in the context menu.



2. Enter name for the new network.
3. Select network visibility option.
 - **Password protected:** Only Administrators can control the network with the Casambi App. Password is set with Casambi Pro for iOS (see the Network properties section below).
 - **Open:** All users can control the network with the Casambi App.

Note: Users cannot make configuration changes to Casambi Pro networks with the Casambi App.

4. Select mode for the network. The network mode and network frequencies can only be configured when creating a network for the first time and cannot be changed after a network has been taken into use.
 - **Better performance**
 - Optimized for larger indoor networks with increased data traffic.
 - Better performance mode has reduced communication range compared to Balanced network mode.
 - **Balanced**
 - Optimised for small mid-size indoor networks with moderate data traffic.
 - Balanced mode is recommended for max. 125 nodes in one network.
 - **Long Range**
 - Optimized for small to mid-size outdoor networks with low data traffic.
 - Long range mode is recommended for max. 60 nodes in one network.
 - Long range mode has increased communication range compared to Balanced network mode.
 - This mode is for long range capable devices only.

5. Adjust frequencies the new network uses. Each parameter can be adjusted either with a slider or by entering a numeric value to directly to the text field.

Network properties

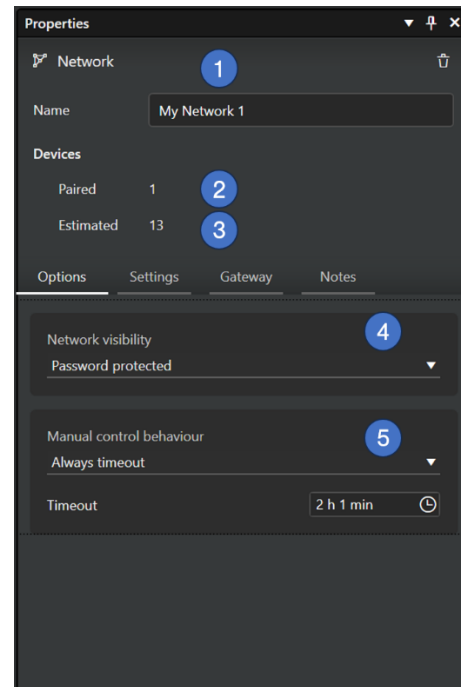
Network properties are displayed in the Properties pane when a network is selected from the Networks pane.

General properties

1. Name of the network
2. Number of paired devices in the network.
3. Estimated number of devices in the network.

Options tab

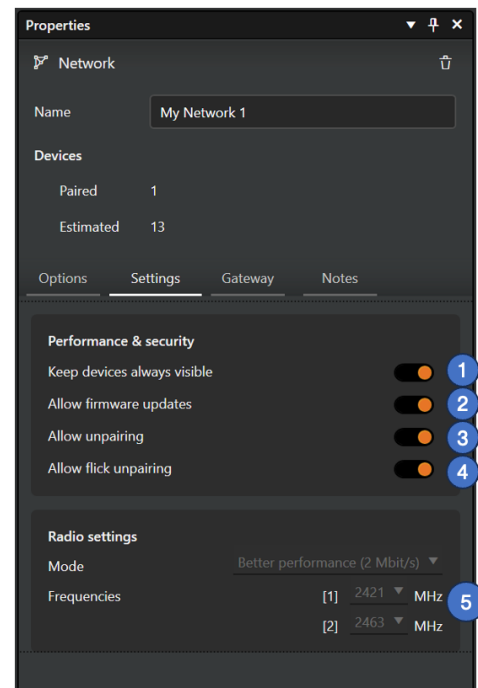
4. Network visibility settings
 - Password protected: Only administrators with the password can control the networks (but not configure). Password is set in Casambi Pro for iOS.
 - Open: Everyone can control the network (but not configure)
5. Manual control behaviour options
 - Always timeout + Timeout setting
 - Timeout if automation waiting + Timeout setting
 - Do not timeout



Settings tab

Performance & security settings

- Keep devices always visible
 - Hides or displays devices within the Nearby Devices list.
- Allow firmware updates
 - Allows or prevents firmware update, even if a new firmware version is available.
- Allow unpairing
 - Allows devices to be unpaired from a network using the Unpair device option within a device's own settings in the property pane.
- Allow flick unpairing
 - Allows devices to be unpaired by using the power cycling process (usually by flicking a wall switch off and on) to unpair a device with the Casambi App. This process is used when you need to unpair a device belonging to a network to which you do not have access.

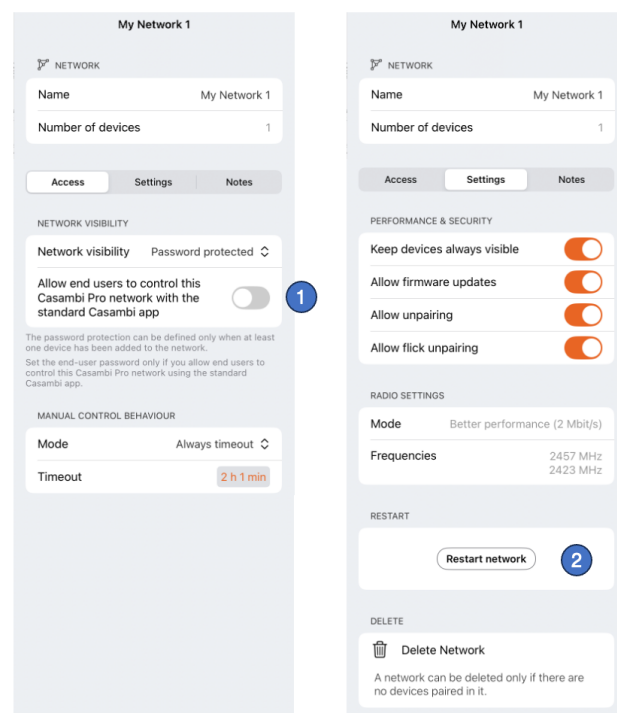


Radio settings

- Mode and Frequencies settings. These can be changed if there are no paired devices in the network.

Special network settings only in Pro for iOS

- Password setting for networks with visibility set to "Password protected".
- The Restart Network command can be used to restart the control hierarchy and mesh network.

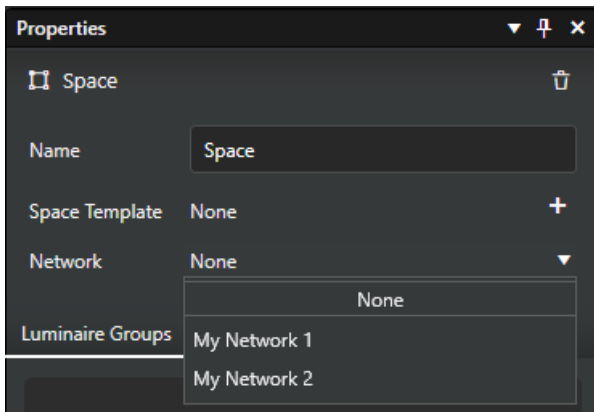


Linking spaces to networks

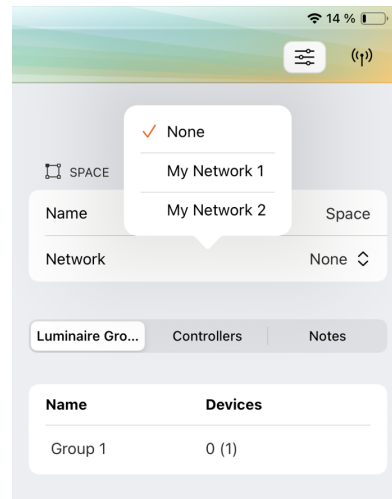
Before devices can be paired into a space (controllers) or groups (luminaires), the space must belong to a network. A space can be added to a virtual network either already on the configuration design (pre-commissioning) phase or later into a real network with real devices.

To add a space to a network, select a space and select a network for it in space's property pane:

Casambi Pro for Windows



Casambi Pro for iOS



Notes about networks

- Networks created with Casambi Pro can be opened with the Casambi App for controlling only.
 - Note, that when opening a Casambi Pro network with the Casambi App, the user experience is not optimal as the standard Casambi App is not built for displaying Pro networks. Its user interface does not support layouts (floor plans) or usage of spaces and space templates. Due to this, the user interface may be filled with numerous similar objects and navigation may be difficult.
- Configurations of networks created with Casambi Pro cannot be changed with the standard Casambi App.
- Pairing devices to networks can be done only with Casambi Pro for iOS.
- Unpairing devices from networks can be done with Casambi Pro for iOS.
 - Technically it is possible use the Casambi App for unpairing a device from a network created with Casambi Pro, but this is not recommended. If a device is unpaired with the standard Casambi App, the project in Casambi Pro does not get information that the unpaired device does not belong to the network anymore. Thus, Casambi Pro will still show the device as part of the network.
- Casambi Pro for Windows cannot be used for pairing or unpairing devices to/from Casambi networks.

Casambi Cloud Gateway

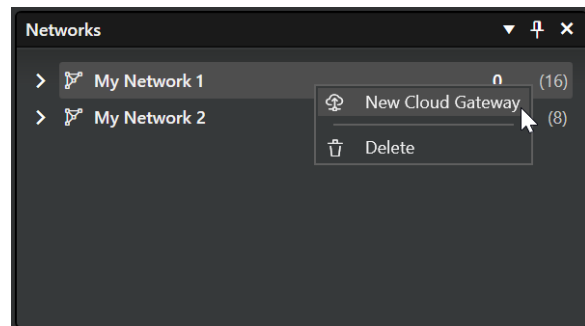
Casambi Pro supports having a Casambi Cloud Gateway to enable remote access to networks created with the Casambi Pro.

The network to be controlled must have been shared as Admin only or Password protected to enable gateway use. It is not possible to use a gateway on an Open or Not shared network

Creating a Cloud Gateway placeholder

There can be one Cloud Gateway in each network. Like the controllers, a gateway can be created in advance as a placeholder which is later replaced by the real gateway unit.

To create a gateway placeholder, right-click on top of the network name in the Networks pane and click **New Cloud Gateway**.



When a gateway placeholder is created, a dialog is shown for entering

- **Name**
- **Serial number** (this is optional and can be entered if you already have the actual Cloud Gateway unit to be used here)
- **Location** (layout where the placeholder should reside)

A screenshot of the 'New Cloud Gateway' dialog box. It has three input fields: 'Name' (with a help icon), 'Serial number', and 'Location' (a dropdown menu currently showing 'Floor 1'). At the bottom are 'Create' and 'Cancel' buttons.

After clicking the **Create** button in the dialog, the gateway placeholder element is displayed in the top left corner of the selected layout.

The placeholder can be freely moved into correct location in the layout. It can also be moved to another layout by selecting new location in the gateway properties.



Gateway's properties are in the Network's property pane.

Cloud Gateway properties

Device

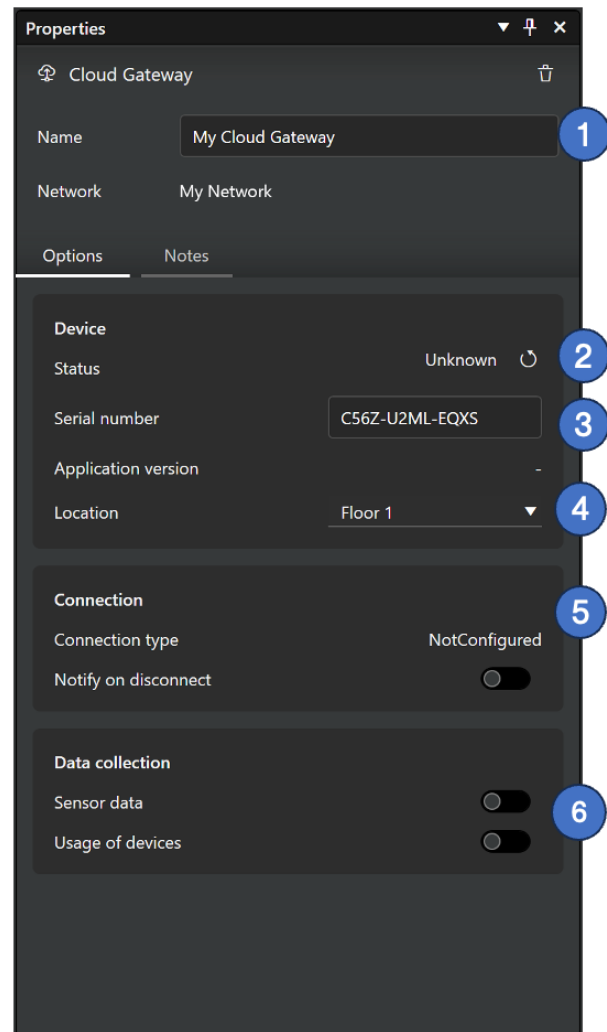
1. Name of the Casambi Cloud Gateway device
1. Current status of the gateway. Status can be manually refreshed with the Refresh button.
2. Gateway device's serial number.
3. Gateway element's location in Casambi Pro project's layouts. If the gateway object is moved from a layout to another, it will be shown in a default location in the target layout where it is moved to.

Connection

4. Setting for displaying a notification if connection is lost with the gateway.

Data collection

5. Settings for allowing data collection from the network the gateway is connected to.



Connecting to the actual cloud gateway device

When the actual cloud gateway device is available, it can be connected to the network with Casambi Pro for iOS.

For detailed pairing and connecting instructions, see next chapter in this document.

Pairing devices to networks

In Casambi Pro, networks are first created as virtual placeholders as explained in previous chapter. To convert the virtual networks to real physical Casambi mesh networks in the commissioning phase, real Casambi enabled devices must be added (paired) to them.

To add real devices to the virtual networks, user must use an Apple iOS device (iPad is recommended) with the Casambi Pro for iOS application.

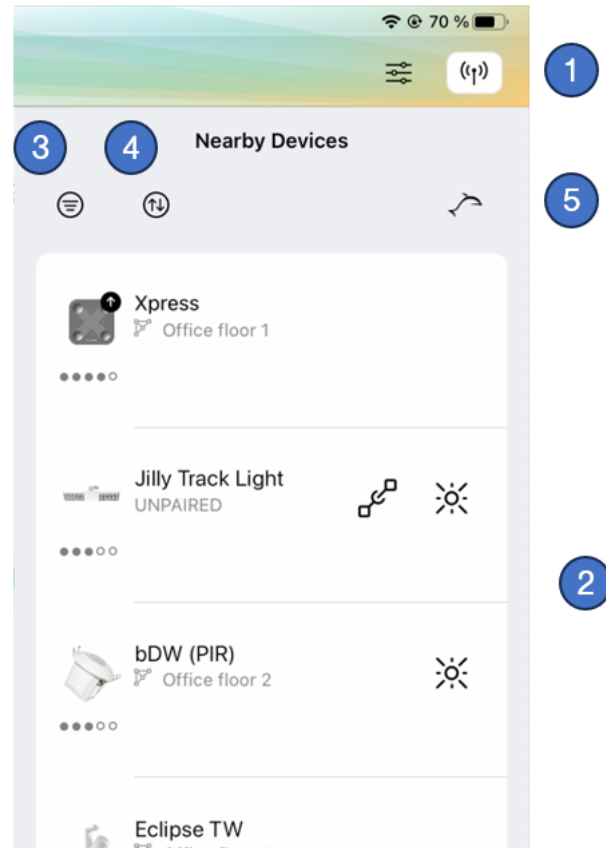
Overview to pairing

- What does “Pairing” mean?
 - Pairing = To make Casambi enabled devices part of a network, they need to be added to networks prepared with Casambi Pro. This is referred to as Pairing.
- What does “Paired” and “Unpaired” mean?
 - **Paired** = A Casambi enabled device is already a part of an existing Casambi wireless network. If a device is in a "paired" state it means that it has been added to a network. If you want to add an already paired device to a different network then it first needs to be unpaired from the network it is currently part of.
 - **Unpaired** = A Casambi enabled device is not part of a Casambi network. It must be added to a network in order for it to be controlled/programmed. When a Casambi enabled device shows as unpaired it means that it has not been added to a Casambi network and cannot be controlled with Casambi app. When powering a Casambi enabled device for the first time it will appear as unpaired in the app.
- The paired/unpaired status of any nearby Casambi enabled device can be seen in the Casambi Pro for iOS app in the 'Nearby devices' screen. This screen shows a list of all Casambi enabled devices that are powered on and are close to the mobile device (i.e. Within Bluetooth signal range).
- Casambi Pro lighting systems must be commissioned with the Casambi Pro for iOS. Pairing/unpairing of Casambi enabled devices cannot be done with Casambi Pro for Windows.
- When creating the networks, an essential requirement is that the real devices in a single network must all be in radio communication range with each other. You can't include devices into one network if they are physically too far away from each other to be able to communicate.
- Limitations:
 - It is not possible to use the standard Casambi App to pair devices to Casambi Pro networks.
 - It is not possible to use Casambi Pro for Windows to pair real devices to networks.

Nearby devices list

Casambi Pro for iOS can detect and list Casambi enabled devices which are near to the iOS device where the user is running the Pro application. The devices are listed in the Nearby Devices pane. This list is not available on Pro for Windows.

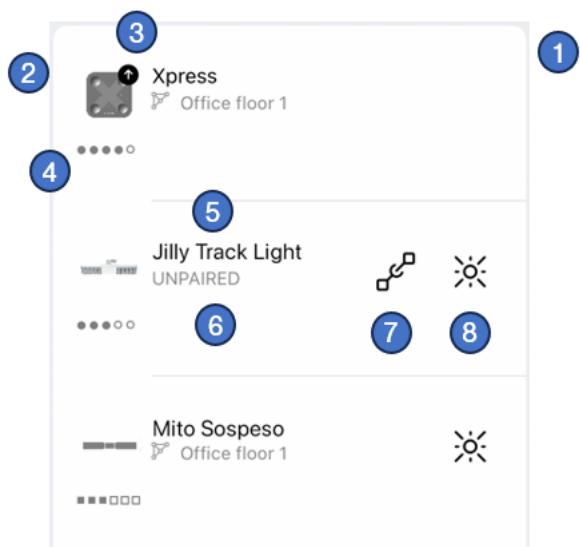
1. Nearby devices list can be toggled open/close using the button at the right end of the top toolbar
2. When the list is opened, Casambi Pro scans the nearby environment, and then lists all detected Casambi enabled devices in the view. The list can be updated by dragging it down with finger.
3. Filter button to set up filtering criteria to narrow down the displayed items in the list. The list can be filtered based on network, device manufacturer and fixture type.
4. Sort button to sort the list by the name of the device, by its signal strength or by network.
5. EnOcean button for pairing EnOcean devices. **This button is available only on iPhone.**



Note: Battery powered devices (e.g. the Casambi Xpress switch) must be activated first before they can be detected and listed in Casambi Pro nearby device list.

Information in the nearby device list

1. Each device is presented as a list row. Detailed device details can be accessed by tapping a device row.
2. Device icon set in its fixture profile by the manufacturer/vendor.
3. A round arrow badge indicates that there is a firmware update available for the device.
4. Signal strength indicator. Circles are used for standard Casambi enabled devices, squares for the long range versions.



5. Device name.
6. Network information. Here is either the network name where the device belongs to, or text “UNPAIRED” if the device is not in a network.
7. Pair button. Visible only for unpaired devices.
8. Identify button. Pressing this makes the luminaire blink so it can be identified. This button is available only for luminaires.

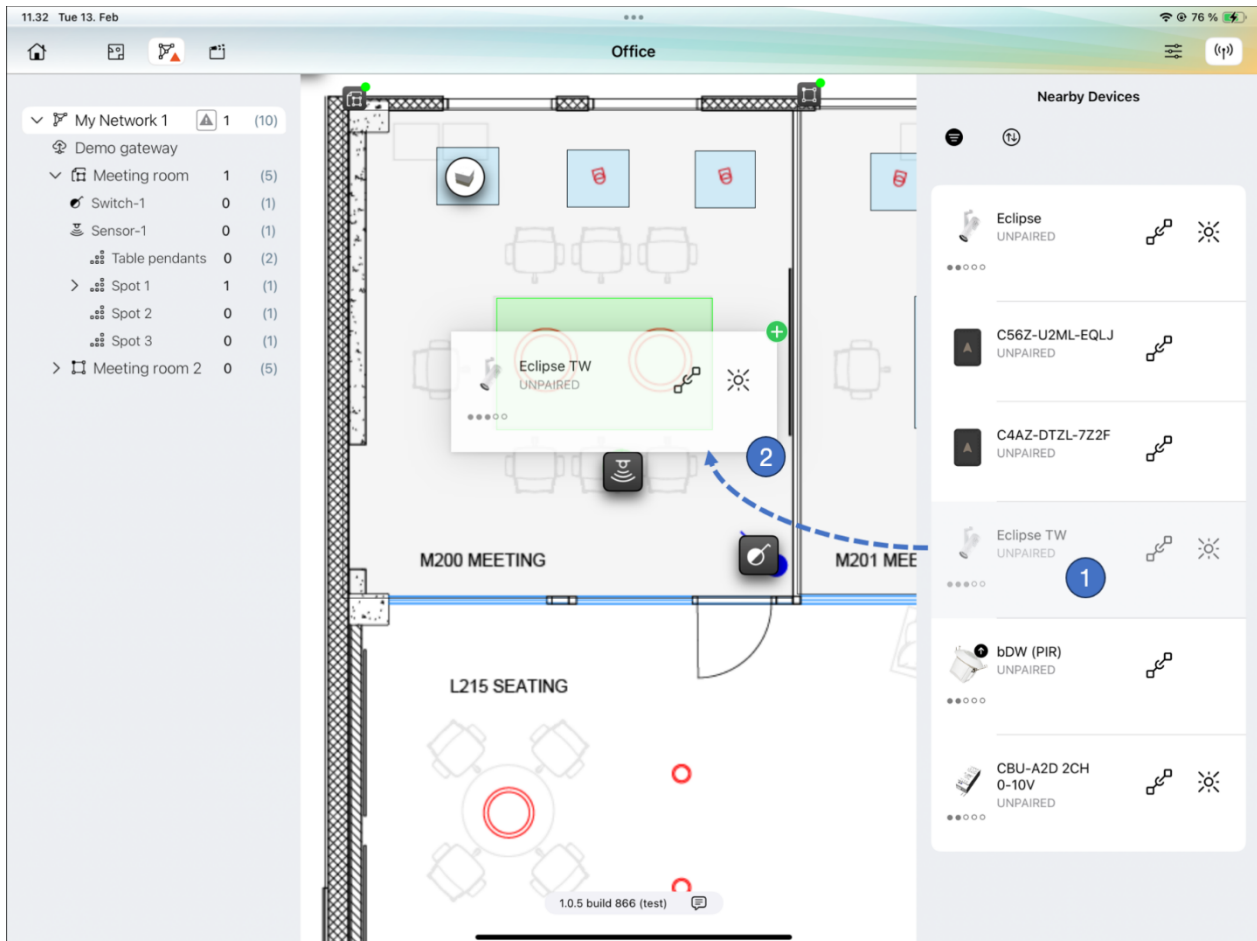
Adding devices to networks

Casambi enabled devices can be added to networks only with Casambi Pro for iOS.

Project prerequisites for pairing devices:

1. The project must have at least one layout with one space and one luminaire group.
2. There must be a placeholder network (created in Casambi Pro for Windows) or an existing Pro network.
3. The space to which you want to pair the device must be linked to a placeholder or real network.

Controllers are paired to spaces, and luminaires are paired to luminaire groups in spaces. Cloud Gateways are paired directly into networks, and they can be placed anywhere in the layout.

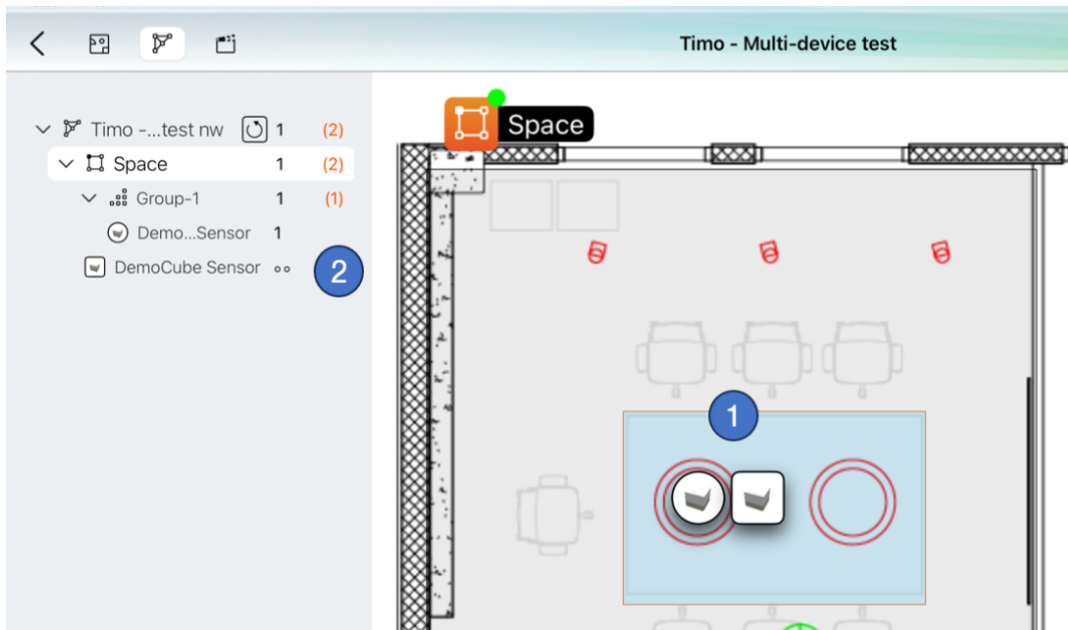


Devices can be paired in two ways:

1. Select the target object (for controllers) or target group (for luminaires) from the layout and press the Pair button in the device list.
2. Long-press on the device row in the nearby devices list and drag-and-drop it into desired target (space, placeholder or group, depending on if the item is a controller or a luminaire).
 - When an item is dragged, an icon (plus or deny) on the top right corner of the dragged item indicates if the item can be dropped on the underlying place.
 - If the target where the item is dropped does not belong to a network, the application gives an error explaining why the pairing is not possible.

Multi-functional devices

Devices which have more than one functionality in one physical fixture unit (e.g. a luminaire and a sensor in same device) can also be paired the same way as single-function devices. When this is done, each different part of the fixture will have their own elements in the layout, Project Explorer list and Network list.



UI after pairing a device with two functions (in this case, a luminaire + sensor):

1. The device appears as two elements attached together.
 - The luminaire part is circular and controller part is a rectangle.
 - A device like this must be paired to a luminaire group.
 - When moved, both fixture parts move together.
2. In the Project Explorer list and Network list, each part of the multi-functional fixture is listed in its own row. However, as the Casambi mesh network sees the combi-device as one unit, they are counted only as one device. Thus, the controller part(s) of the fixture is represented with dots in the lists.

Luminaire + controller device's controller part can be paired either as a new device or on top of existing controller placeholder. However, it will always appear next to its sibling luminaire.

Casambi Cloud Gateways

The actual Cloud Gateway units can be added to networks in two ways:

- On top of a gateway placeholder (like pairing a sensor or switch), or
- As a new device without a placeholder.

If there is a gateway placeholder and its serial number was entered

If the gateway serial number was entered already when the placeholder was created in the Pro for Windows, user does not need to add it manually on the iPad. The network finds the device automatically if it is present. In this case, the device information is updated in the project.

If the real device's serial number matches the predefined serial number in the gateway placeholder, the device is paired without any prompts. A prompt is displayed if a gateway device is automatically detected but the serial numbers do not match.

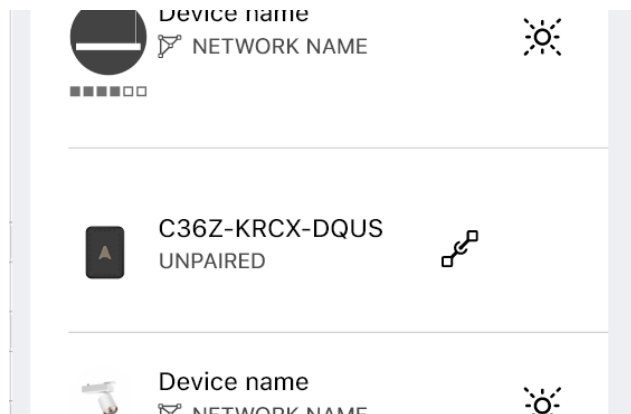
Pairing as a new device

To be detectable by Casambi Pro and visible on the nearby devices list, the gateway unit must be powered up.

The unpaired gateway devices are shown in the list with its serial number.

Pairing can be done the same way as any other device.

Note: The already paired cloud gateway devices cannot be shown in the device list.



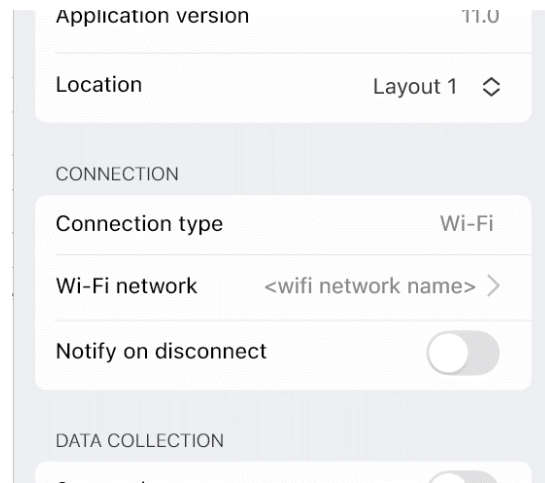
After a successful pairing, the cloud gateway device is removed from the nearby device list and the placeholder icons on the layout, Project Explorer and Network list are replaced by the Casambi Cloud Gateway icon. Gateway's properties can be accessed by clicking the gateway element.

Connecting the Cloud Gateway to Internet

The final step in connecting a gateway is to select how it is connected to the Internet.

In cloud gateway's properties, the Internet connection can be set in the Connection section.

- If an Ethernet cable with Internet connection is attached to the device, the connection is ready for use without any actions.
- If there is no Ethernet cable, you need to select a Wi-Fi connection. In this case, select a Wi-Fi network manually.
- The connection method can be changed afterwards if needed.



Changing Internet connection method

When changing the internet connection method from WiFi to Ethernet, you only need to

- Connect an Ethernet cable to the Cloud Gateway device. The connection type is changed automatically.

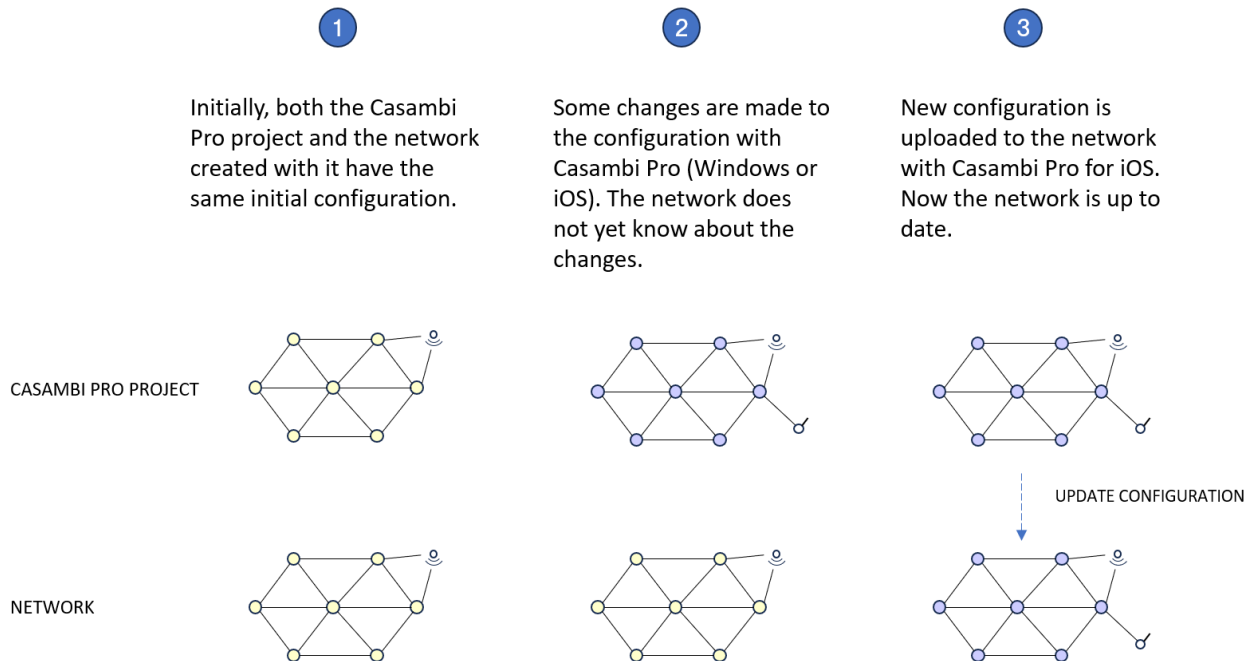
When changing the internet method from a WiFi network to another Wifi network, you need to

- First unpair the Cloud Gateway gateway device,
- Pair the gateway again and
- Select the preferred WiFi network.

Updating configuration to networks

If new configuration changes have been made in a Casambi Pro project, they need to be uploaded to the network(s) using the iPad. Please note that the configuration changes can be made both with the Windows and the iPad versions of Casambi Pro. However, only the iPad version can be used for uploading the new configurations to the networks.

Principle for changing and updating configurations of existing networks



Update configuration UI in Pro for iOS

New configuration changes which are not yet uploaded to networks are indicated in the Pro for iOS UI by red and grey triangular icons. The circular arrow button allows the user to reload the configuration to the network.

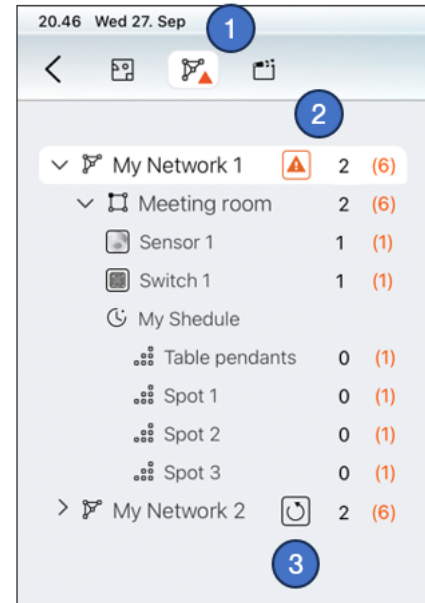
1. The Networks toggle button in the top toolbar shows an animated triangle if there have been any new configuration changes made, and those have not yet been uploaded to the networks in this project.

2. In the Network list, there is a red or grey triangular icon next to the network name if there are some pending changes that have not yet been uploaded to this network.

When you are within Bluetooth range of a network and want to upload new configurations to it, tap the red triangle next to the network name to upload the latest configuration to the network.

If the icons are grey, there are configuration changes pending for upload, but the network cannot be reached at that moment.

3. The button with a circular arrow can be used to **reload** the configuration to the network.



Managing networks and paired devices

Device details

Properties for a paired device can be accessed

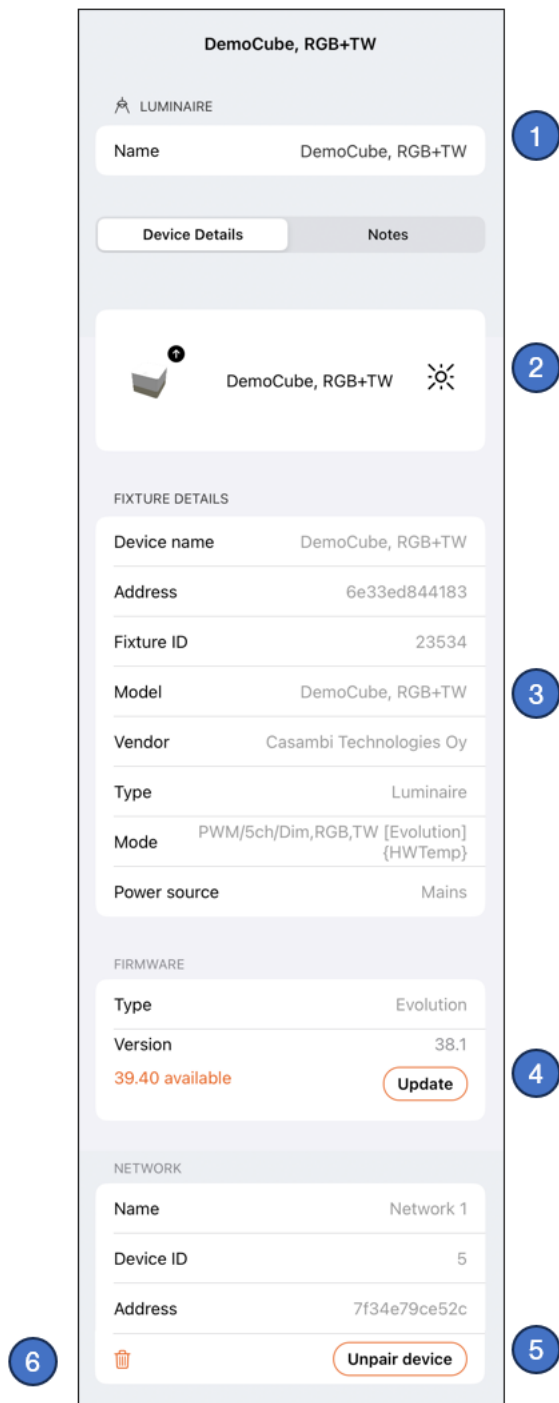
- By selecting the device on the layout or from the Project Explorer pane (both in Pro for Windows or iOS), or
- By finding the device in the nearby device list and tapping the device details row (Pro for iOS only).

The device details on iOS:

1. Name of the device.
2. Identify button to make a luminaire device blink. Visible only for luminaires.
3. Fixture details from its fixture profile in Casambi database.
4. If there is a new firmware version available, it can be updated by tapping the Update button (Pro for iOS only).
5. Device can be unpaired with the Unpair Device button in the Network section (Pro for iOS only)
6. Remove device button.
This feature should be used with caution and only if there is a situation where a device must be removed from the project but unpairing cannot be done (for example when the device is broken and does not respond).

If a device is removed without unpairing, the network still thinks it is present in the network.

See next chapters for more information.

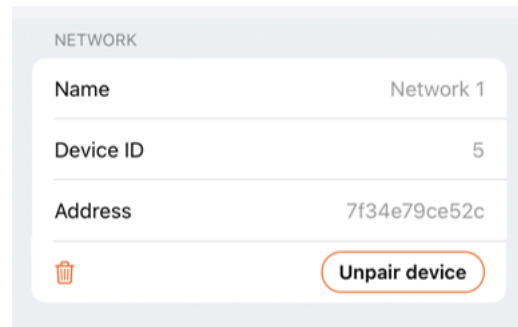


Unpairing a device from a network

When there is a need to remove a device from a network, it is done by unpairing it. In Casambi Pro for iOS, this is done by accessing device's details and then pressing the Unpair device button in the Network section of the device details pane.

The Unpair device button is available only if

- The user has radio connection to the network where the device is and
- The user has rights to unpair the device.



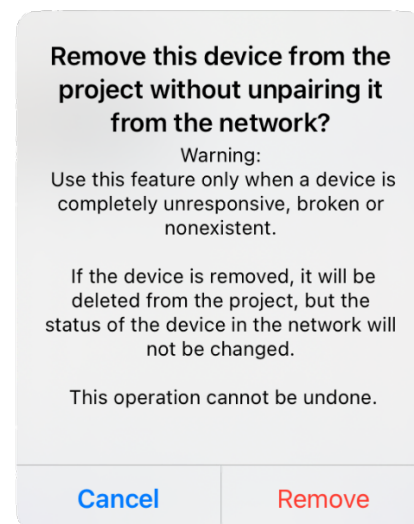
Notes about unpairing:

- Devices cannot be unpaired from networks with Casambi Pro for Windows, as it does not use Bluetooth connections.
- Unpairing can be done with the standard Casambi App, but this should be done with extreme caution. If a device is unpaired from a network created with Casambi Pro, the Casambi Pro project will not know about it. Thus, the Casambi Pro applications will still show the device as part of the project and as part of the network.

Removing a device without unpairing

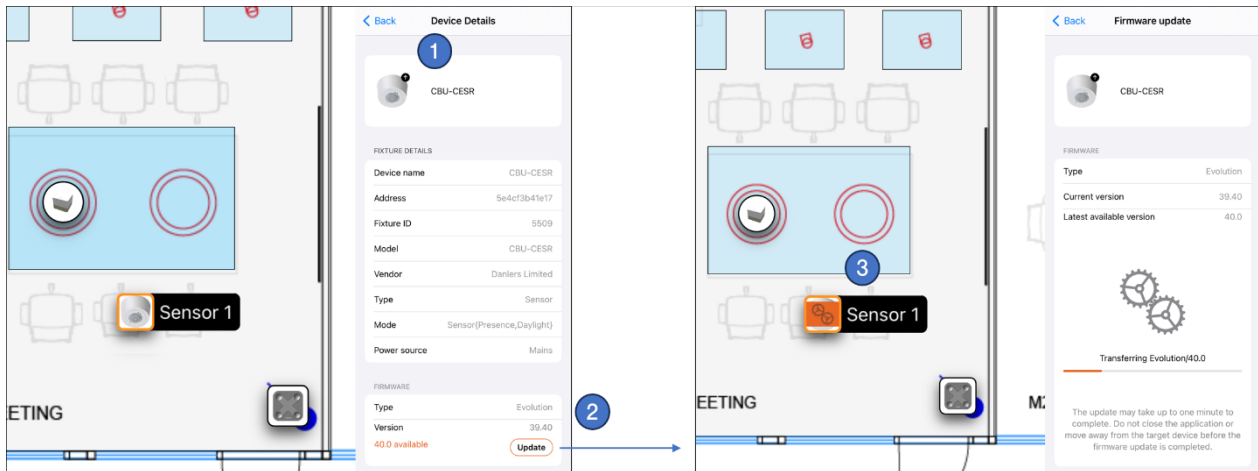
In some rare cases, a device cannot be unpaired from the network. For example, the device may have been physically from the site, or it is broken and does not respond anymore. In this kind of cases, a device can be removed from the project without unpairing.

When the Remove button (trash can icon) is tapped, Casambi Pro will warn the user that removal will delete the device from Casambi Pro project but not from the network.



Firmware update

Casambi Pro for iOS indicates if there is a new firmware available for devices. The firmware can be updated from device's properties.



Updating the firmware for a device:

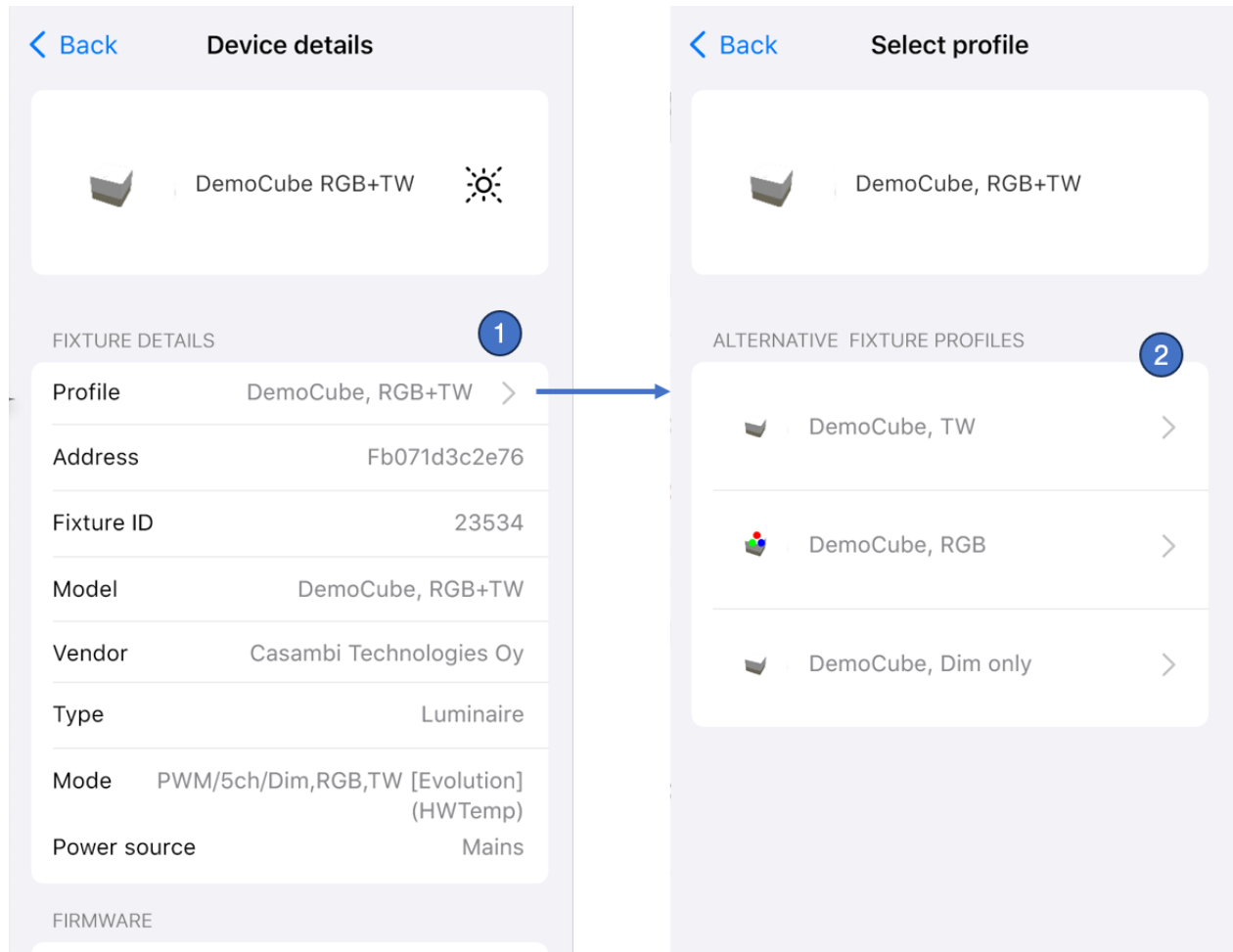
1. Select a device from the project and look at its properties.
2. The current firmware type and version are displayed in the Firmware section. If there is a new firmware version available and the device is within the Bluetooth range of the iOS device, the new version number and the Update button are visible.
Firmware update is started by tapping the Update button.
3. When the firmware update is in progress, it is indicated in the details pane and on the icon in the layout.

After updating one device in a network, the new firmware will then automatically flood the update to any other devices in the same network. All updated devices will indicate the process in the layout. The network is still usable during this time.

Changing the fixture profile

For unpaired devices, it is possible to change the fixture profile. This can be done only with Casambi Pro for iOS.

To change the profile, tap a device first in the Nearby Devices list to see device's detail information.

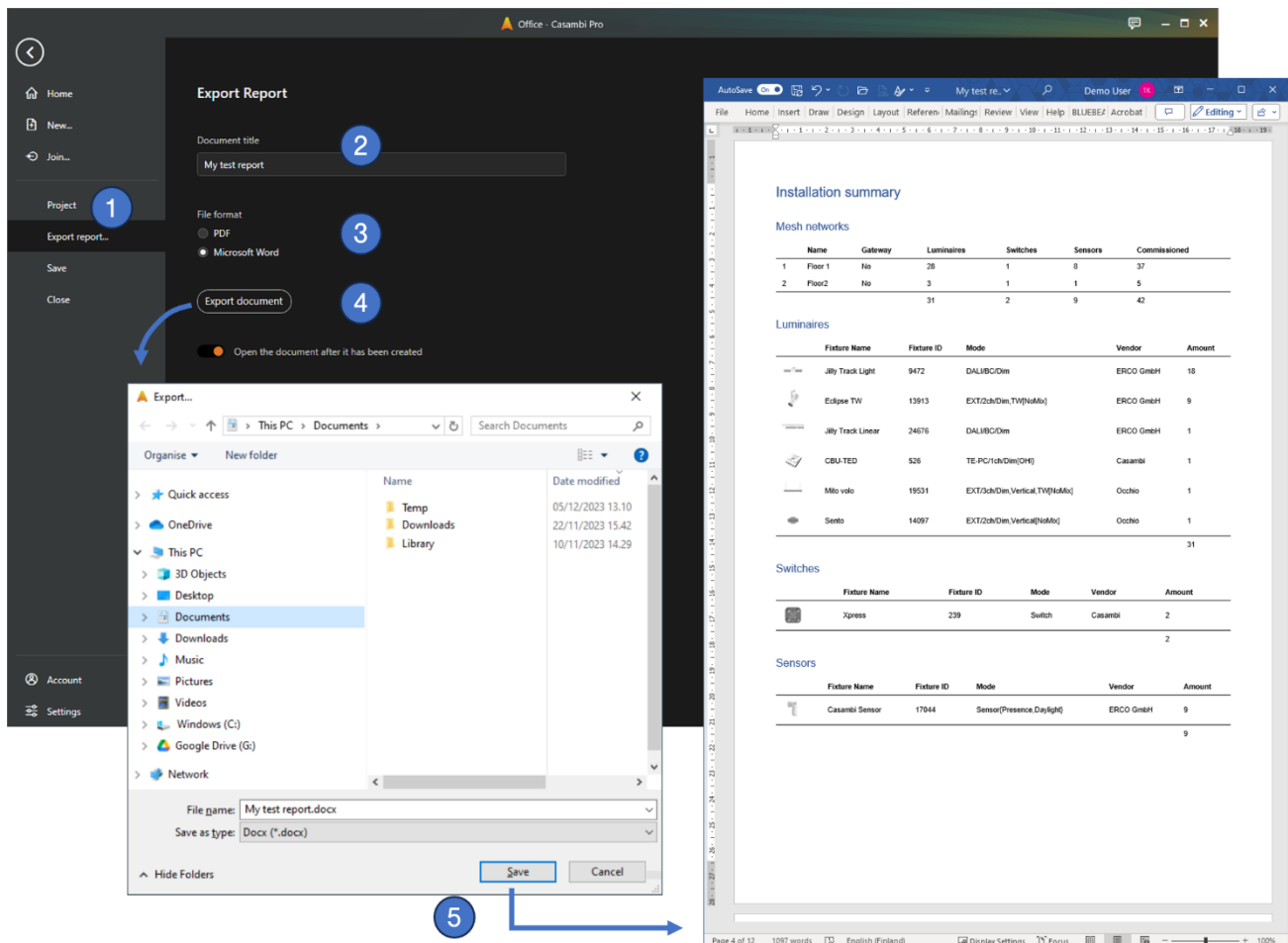


When the device details are visible,

1. Tap the Profile row in the Fixture Details section. If the device has alternative profiles, a selection view is opened.
2. In the selection view, all alternative fixture profiles are listed. To start fixture profile update, tap the preferred profile row. The user interface will guide you through the profile installation.

Exporting a report

In Casambi Pro for Windows, it is possible to export summary of the project's networks, their elements and configurations to a PDF or DOCX (MS Word) document formats.



To export a project report:

1. Open a project. Navigate to the Backstage view and select the Export report... tab to open the export view.
2. Enter a title for your document
3. Select your preferred document format. You can also select if you want to include layout images in the document, and if the document should automatically open after saving or not.
4. Click the export document button.
5. Enter file name for your document. After clicking Save, the document opens into the system's default viewer/editor application.

More information and support resources

Casambi Pro web page

<https://casambi.com/pro/>

Release notes

<https://support.casambi.com/a/solutions/categories/12000005191/folders/12000020613?view=all>

Frequently Asked Questions

<https://support.casambi.com/a/solutions/categories/12000005191/folders/12000020612?view=all>

Getting Started Guide

<https://support.casambi.com/a/solutions/articles/12000096071>

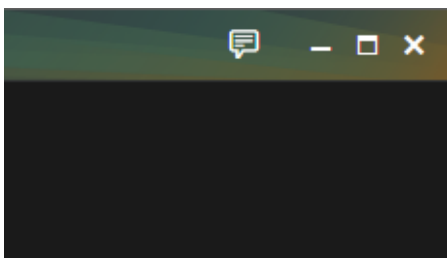
Casambi Pro support

Email to: pro.support@casambi.com

Providing feedback to the Casambi Pro development team

Feedback about Casambi Pro can be given easily by using the built-in feedback feature in both Windows and iOS versions of Casambi Pro. In the apps, pressing the Feedback button will open user's email application and insert the Casambi Pro's feedback email address (pro.feedback@casambi.com) into the address field.

Feedback button in Pro for Windows



Feedback button in Pro for iOS

