

KRAMER



USER MANUAL

| KRAMER NETWORK V-2.0

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1 Introduction

Welcome to Kramer Electronics! Since 1981, Kramer Electronics has been providing a world of unique, creative, and affordable solutions to the vast range of problems that confront video, audio, presentation, and broadcasting professionals on a daily basis. In recent years, we have redesigned and upgraded most of our line, making the best even better!

Our 1,000-plus different models now appear in 15 groups that are clearly defined by function: GROUP 1: Distribution Amplifiers; GROUP 2: Switchers and Routers; GROUP 3: Control Systems; GROUP 4: Format & Standards Converters; GROUP 5: Range Extenders & Repeaters; GROUP 6: Specialty AV Products; GROUP 7: Scalers; GROUP 8: Cables and Connectors; GROUP 9: Room Connectivity; GROUP 10: Mounting and Rack Adapters; GROUP 11: Sierra Video; GROUP 12: Digital Signage; GROUP 13: Audio; GROUP 14: Collaboration; and GROUP 15: KM & KVM Switches.

KRAMER NETWORK is a powerful, all-encompassing Enterprise software platform that lets you easily operate, manage and maintain all your Pro AV, IT, IP streaming, and control in one simple single-point web-based interface.

This online user manual accompanies the **KRAMER NETWORK** application software. Download up-to-date Kramer user manuals and Installation guides from the Internet at this URL: www.kramerav.com/manual/Kramer_Network.

1.1 New Features in Kramer Network Version 2.0

- Enhanced device management, including remote operation, FW upgrade and auto-discovery of modular matrices.
- Integrated Maestro room automation for use with any device or location.
- Email & SNMP trap notification.
- Increased security with LDAP authentication.
- Comprehensive integrated room scheduling.
- Fully customizable user scripts for endless applications & actions.
- Completely new look & feel.
- Multi-language support & online help.

1.2 New Features in Kramer Network Version 1.0.6

- Added video over IP device support (**KDS-EN4/KDS-DEC4**).
- Added video over IP device support (**KDS-EN6/KDS-DEC6**).
- Support for Dante devices and Pro AV matrix devices.
- Added Pro AV Master room controllers physical and virtual control panels for real-time control.
- Support for device firmware upgrade.
- Added report log for control, events, activity, users and device status.

1.3 New features in Kramer Network version 1.0.4

- Added Kramer Network Administrator Utility.
- Fully supports install, uninstall, repair and update processes.
- Server runs in the background, the console window was removed.
- Improved room controller project presentation support.
- Fixed various bugs.

1.4 Backward Compatibility

When upgrading **KRAMER NETWORK** version 1.0.4 to a higher version, you need to reload the virtual room controller **krnt** projects (in Room View), using Kramer **K-Config 3**.

2 Getting to Know KRAMER NETWORK

KRAMER NETWORK is an IP-based enterprise management software platform for AV networks. Using any laptop, PC or tablet, **KRAMER NETWORK** lets AV/IT Administrators easily configure, route, control, and manage Kramer Pro AV devices, room environments, and IP streaming devices from a single point in the network via a user-friendly web-based interface.

KRAMER NETWORK's scalability is unique in the world of AV/IT convergence with its flexible architecture and smart GUI, making managing a network of hundreds of ports as easy as handling a sports bar or retail facility.

KRAMER NETWORK can be installed on standard, enterprise, virtual or cloud servers for easy management and control of the entire AV and IP product range, as well as legacy AV, Dante™ and other devices.

The platform features enhanced security with intuitive user-access management of specific audio or video sources, rooms and predefined scenarios as well as LDAP authentication. IT and AV managers can also easily monitor the system's health status and track the connection between a source and a destination.

KRAMER NETWORK features:

- User-friendly web-based GUI – easily access and use from anywhere, anytime.
- Automated device detection – reduce configuration time with instant and automated device detection in the network.
- User-access management – delegate user access to specific audio or video sources, rooms and predefined scenarios.
- Topological AV system mapping – easily drill down to visualize a specific network, site, building, or room to start managing AV devices.
- View system status at a glance – quickly identify critical issues in the Network, including at the source-destination connection level.
- Enhanced security – With LDAP user authentication and advanced user management, enabling you to create different levels of access for different users.
- Powerful built-in room automation – enhance any device or location with built in Kramer Maestro room and device automation, configuration and management.
- Detailed site topology – easily drill down to visually examine a specific location.
- Live alert and response – proactive notifications such as email and SNMP traps keep you informed of issues in your system.
- Fully customizable scripts – increase the functionality of your system by creating custom scripts in almost any language to provide for the specific needs of a project.
- Integrated room scheduling and management – synchronized with your Outlook.
- Multi-lingual Support.
- Online Help.
- Remote maintenance – save time and budget with no need for on-site visits.
- Control over IP – control a virtually unlimited number of devices with access to a rich, dynamic library of 3rd-party device drivers.
- Software-based solution – **KRAMER NETWORK** installs on standard or virtual IT servers, reducing your total cost of ownership — no need for a dedicated server.
- Easy installation and use – simply install and start using the platform in minutes with no need for programming.
- Scalability to any size of installation – support hundreds of devices simultaneously.
- Easy Click & Connect system – make connections remotely between inputs and outputs on a physical matrix from anywhere on the network.

- Easy devices firmware upgrade – update device firmware remotely from a centralized location with a single click.
- Reports – show device activity logs, user status and administrative logs for user activities.
- Search filters – find devices easily and quickly with search filters such as Device Name, User Name and Device Activities (based on time periods or specific dates).

2.1 Registration

To install **KRAMER NETWORK** open the installation wizard and follow the directions online:



Figure 1: KRAMER NETWORK Installation Wizard

Check **Upgrade** or **Uninstall**



Figure 2: Upgrading KRAMER NETWORK

The list of devices to upgrade appears to the left:

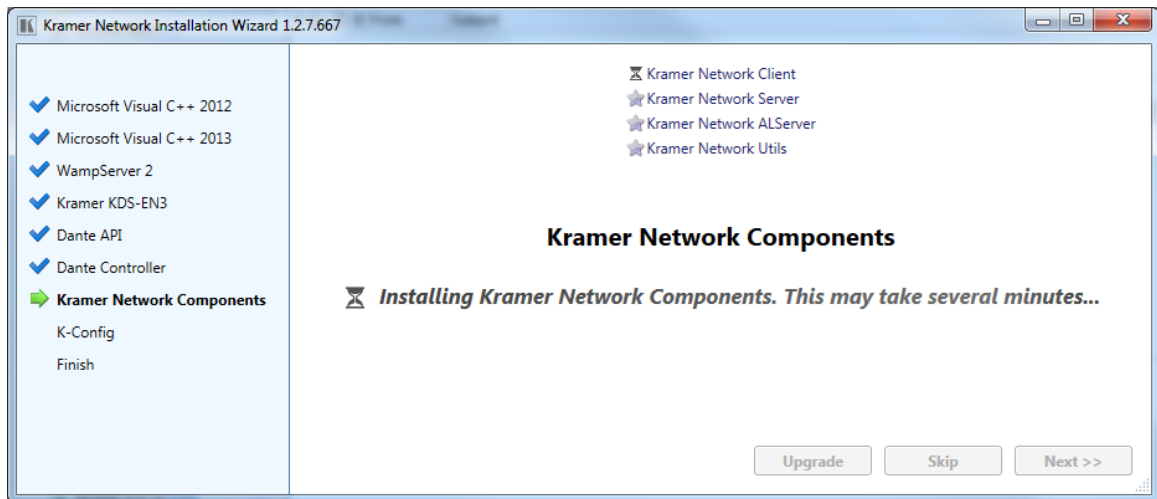


Figure 3: Upgrading KRAMER NETWORK Components

After the installation of Kramer Network Components and while **K-Config** is installed, **KRAMER NETWORK** database is created (or updated) and the following info message appears:

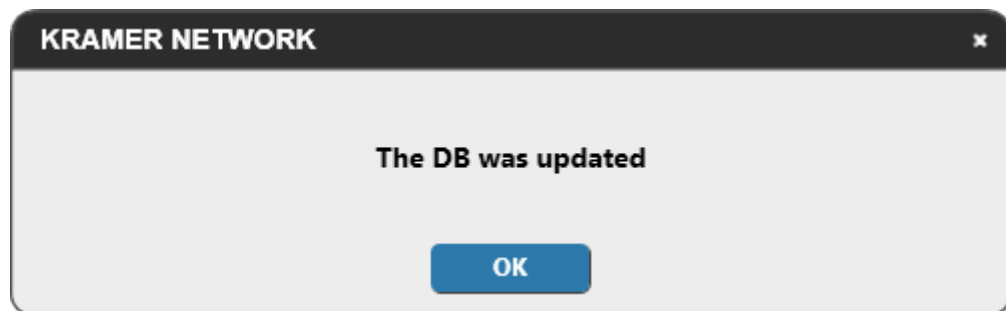


Figure 4: Data Base Updated

Click **OK** and wait for completion of the installation process.

The **KRAMER NETWORK** Administrator Utilities program appears:

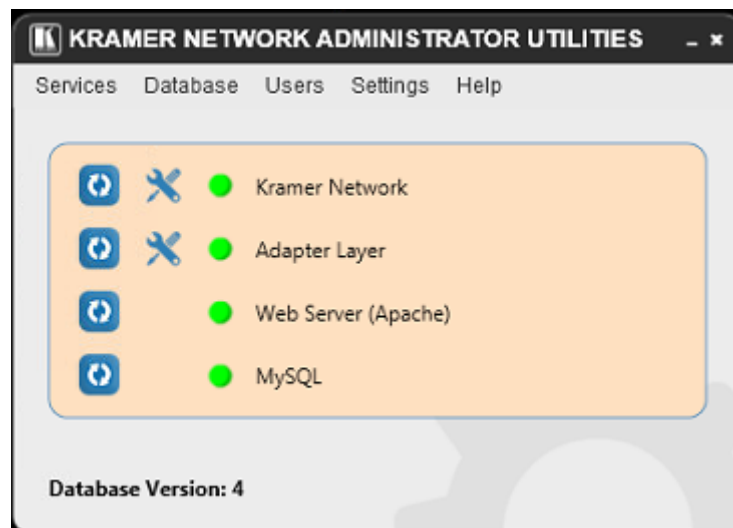


Figure 5: Kramer Network Administrator Utilities Window

The following message appears:

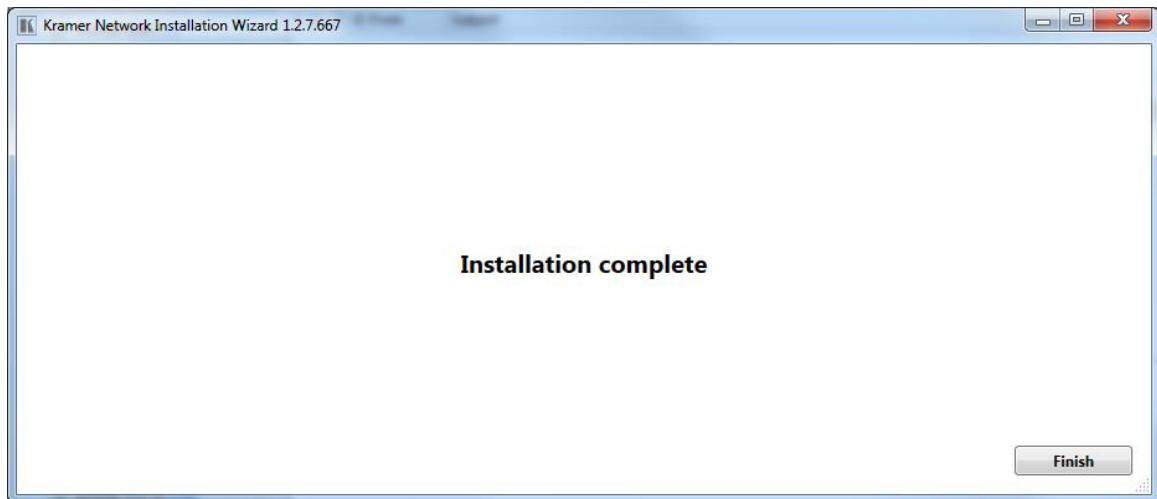


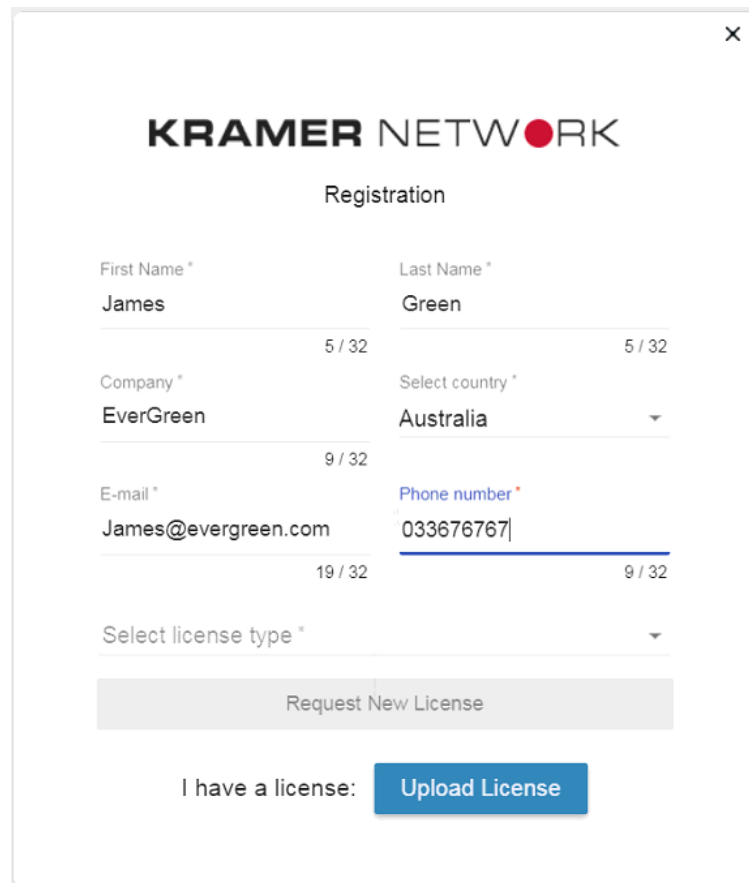
Figure 6: Installation is Complete

Upon installation, the Super user (which is the built-in user and the only user that can login for the first time) should register the copy of the software in order to be able to use it. When first logging in (as the Super user), a registration pop-up window appears:

A screenshot of a registration pop-up window titled "KRAMER NETWORK Registration". The window has a light gray background and a close button (X) in the top right corner. The "KRAMER NETWORK" logo is at the top, with the "O" in "NETWORK" being a red circle. Below the logo, the word "Registration" is centered. The form contains several input fields: "First Name *" (4 / 32), "Last Name *" (7 / 32), "Company *" (6 / 32), "E-mail *" (21 / 32), "Select country *" (a dropdown menu), "Phone number *" (0 / 32), and "Select license type *" (a dropdown menu). Below these fields is a large gray button labeled "Request New License". At the bottom, there is a label "I have a license:" followed by a blue button labeled "Upload License".

Figure 7: Registration Window

Fill in the details (name, company, country and so on).



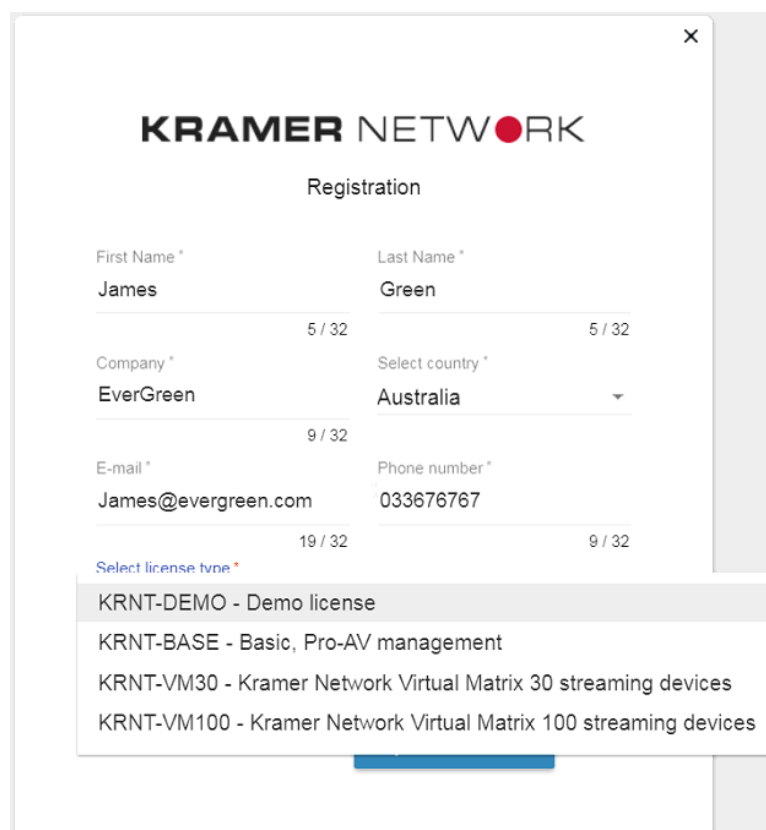
The registration form for KRAMER NETWORK is displayed in a modal window. It contains the following fields and options:

- First Name ***: James (5 / 32)
- Last Name ***: Green (5 / 32)
- Company ***: EverGreen (9 / 32)
- Select country ***: Australia (dropdown menu)
- E-mail ***: James@evergreen.com (19 / 32)
- Phone number ***: 033676767 (9 / 32)
- Select license type ***: (dropdown menu)

Below the fields is a button labeled "Request New License". At the bottom, there is a link "I have a license:" followed by a blue button labeled "Upload License".

Figure 8: The Registration Form

Select the license type:



The registration form is shown with the "Select license type *" dropdown menu open, displaying the following options:

- KRNT-DEMO - Demo license
- KRNT-BASE - Basic, Pro-AV management
- KRNT-VM30 - Kramer Network Virtual Matrix 30 streaming devices
- KRNT-VM100 - Kramer Network Virtual Matrix 100 streaming devices

The form fields and other elements are the same as in Figure 8.

Figure 9: License types

Four types of licenses are available:

- KRNT-DEMO: the Demo license which is limited in time.
- KRNT-BASE: the basic license which enables Pro AV remote management.
- KRNT-VM30: licensing package for up to 30 streaming devices.
- KRNT-VM100: licensing package for up to 100 streaming devices.

Select the required license type and click **Request New License**. The license request window appears:

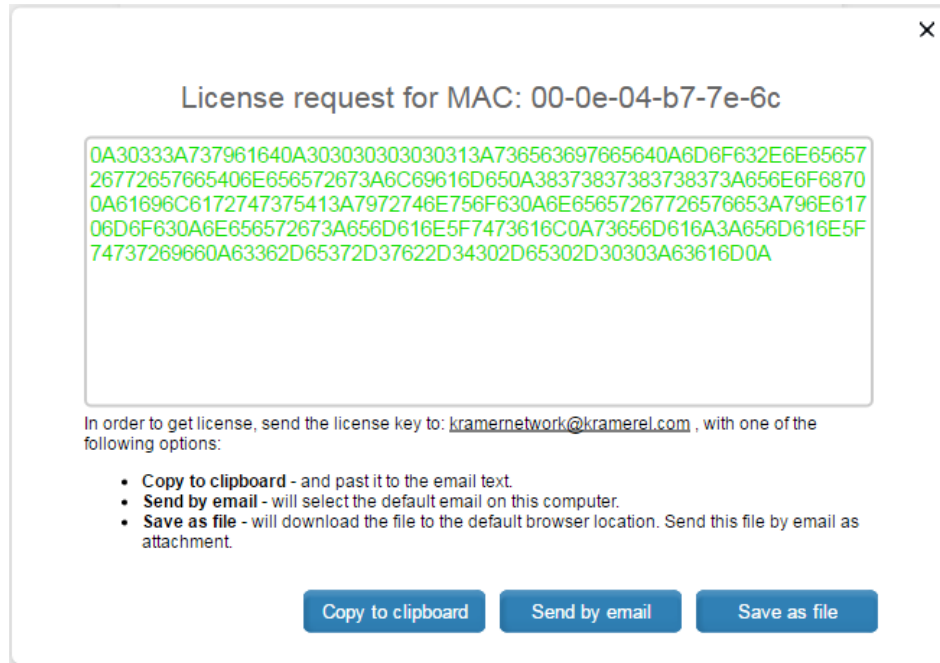


Figure 10: License Request Window

Select one of the three license-handling options:

- Copy the license key and paste it to the email text.
- Send it to the default email on your computer.
- Download the file and send as an attachment.

For example, when clicking **Send by email**, the email is ready to be sent:

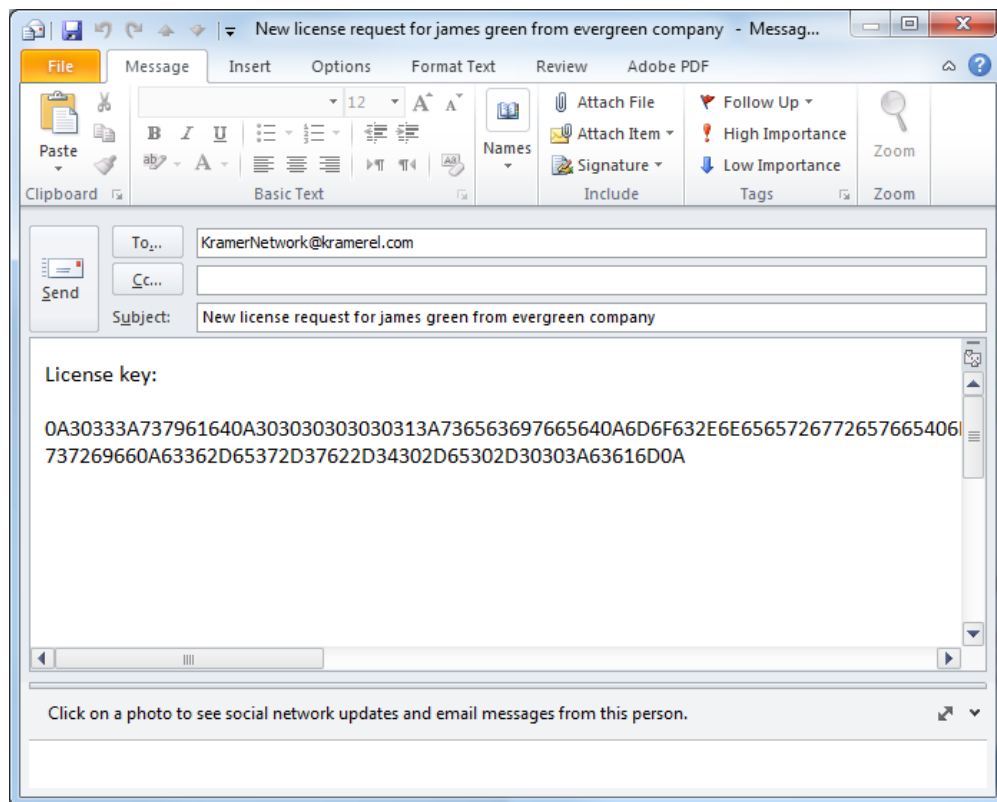


Figure 11: Send License Request by Email

Once you get the license file click **Upload License** and download the license you received (KNL file):

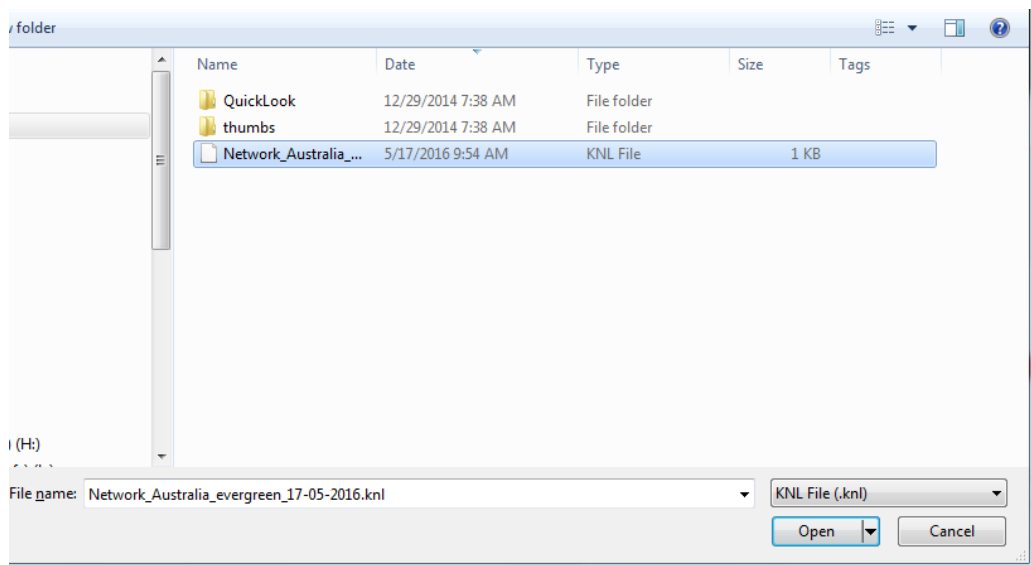


Figure 12: The License Key File

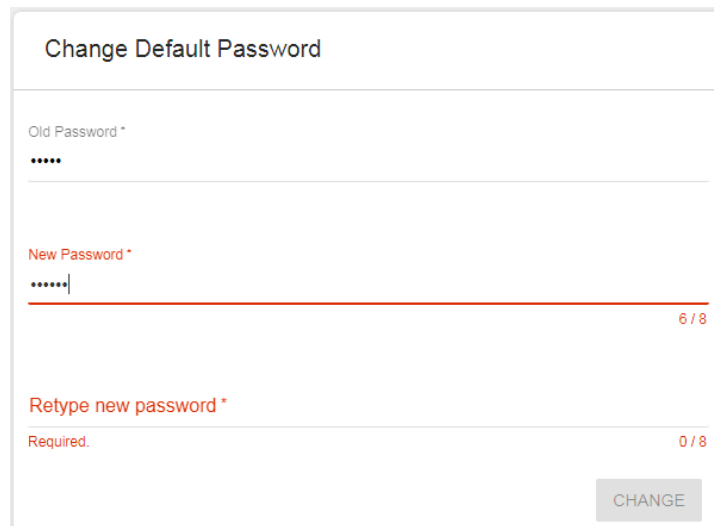
Wait until the license is uploaded. The web page will reload and you will see the login page.

KRAMER NETWORK is managed in three permission levels: Super, Admin and User (see [Section 6.1](#)). When you first open the **KRAMER NETWORK** enter the default login for Super user:

User: super

Pass: 12345

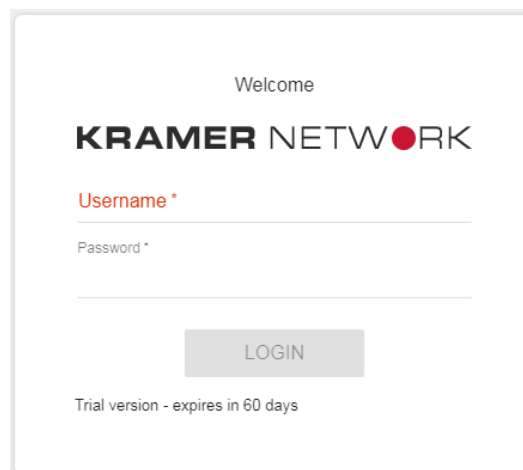
Change the default password and click **CHANGE**:



The form is titled "Change Default Password". It contains three input fields: "Old Password *" with masked characters "*****", "New Password *" with masked characters "*****" and a character count "6 / 8", and "Retype new password *" with a character count "0 / 8" and a red "Required." label. A "CHANGE" button is located at the bottom right.

Figure 13: KRAMER NETWORK – Changing the Password

To login, type your username and the new password and click **LOGIN**:



The login form is titled "Welcome" and features the "KRAMER NETWORK" logo. It includes fields for "Username *" and "Password *". A "LOGIN" button is centered below the fields. At the bottom, it states "Trial version - expires in 60 days".

Figure 14: KRAMER NETWORK Login

The following page appears when opening for the first time:

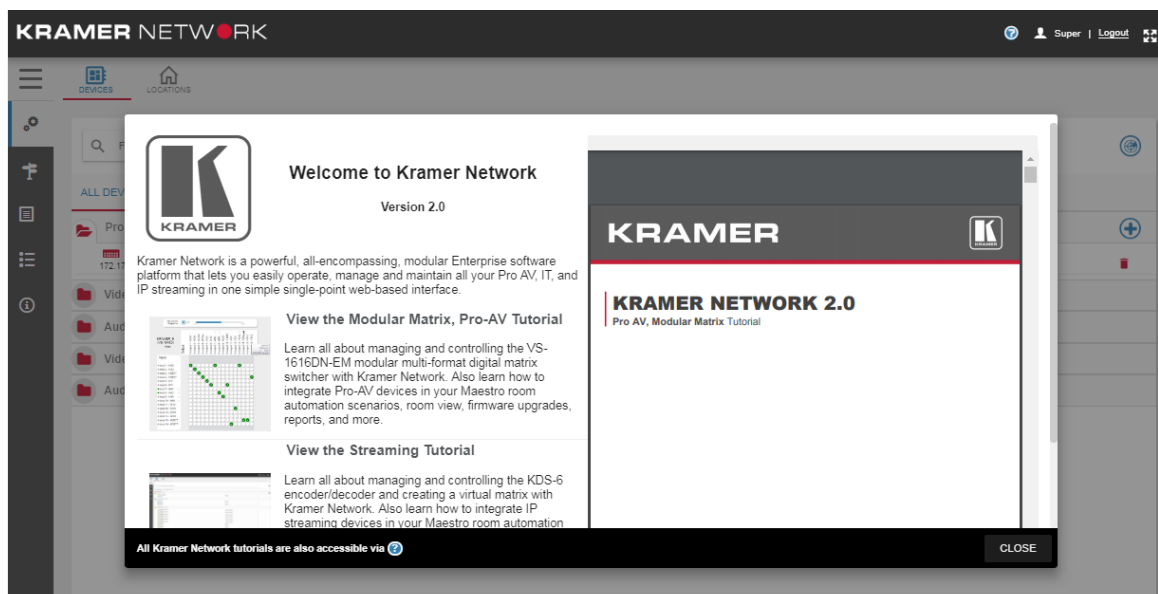




Figure 15: KRAMER NETWORK Main Page – Opening for the First Time

You can use the tutorial as a quick reference guide for setting a streaming system or a modular matrix Pro AV matrix system.

Click **CLOSE** to close the tutorial.

 Click  on the top right at any time to access the tutorial documents and other help issues.

The first web page appears:

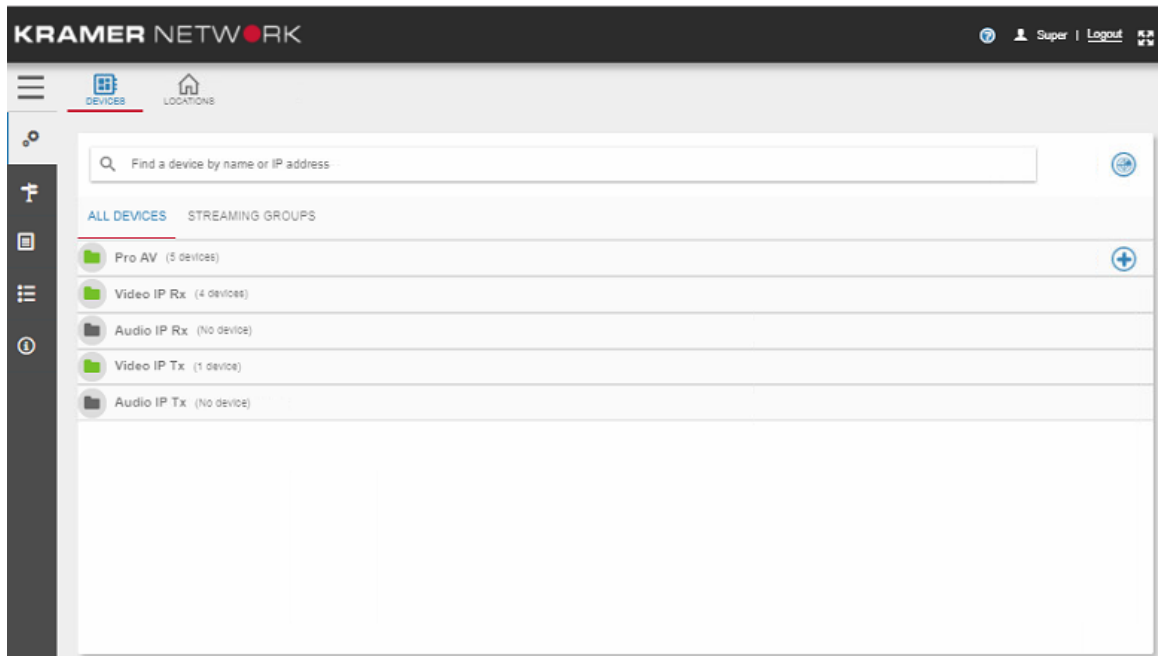






Figure 16: KRAMER NETWORK Main Page

You can:

- Click  to search for help topics.
- Verify the current user.
- Click **Logout** to exit KRAMER NETWORK.
- Click  to enter/exit full screen mode.

Below the title bar, click  to view the full name of each page and click  to view icons only:

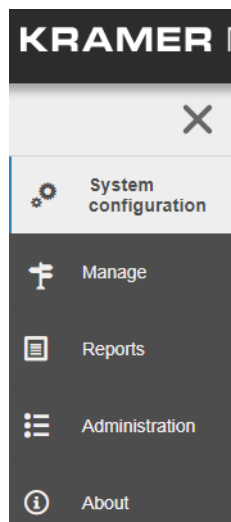


Figure 17: KRAMER NETWORK – Full Menu Names



3 System Configuration Page

The **System Configuration** page includes the:

- **ALL DEVICES** tab (see [Section 3.1](#)).
- **LOCATIONS** tab (see [Section 3.2](#)).

3.1 ALL DEVICES Tab

Once the **KRAMER NETWORK** main window (**System configuration** page) opens for the first time, the **ALL DEVICES** subtab in the **DEVICES** tab appears, and an automatic scan finds all the connected devices in the system.

 Click  (scan) any time to add the latest devices that were connected to your system (Super only).

For each discovered device, you can go to the Supported Device list (see [Section 6.2.3](#)) to check which features are supported by **KRAMER NETWORK** for this device. For example, a device may be detected by the system, but routing via MATRIX VIEW is not supported.

The discovered devices are included within 5 built-in folders:

- Pro AV – Lists all the AV devices such as room controllers, control gateways, matrices and so on.
- Video IP Rx – Lists all the devices receiving video over IP.
- Audio IP Rx – Lists all the devices receiving audio over IP.
- Video IP Tx – lists all the devices transmitting video over IP.
- Audio IP Tx – Lists all the devices transmitting video over IP.

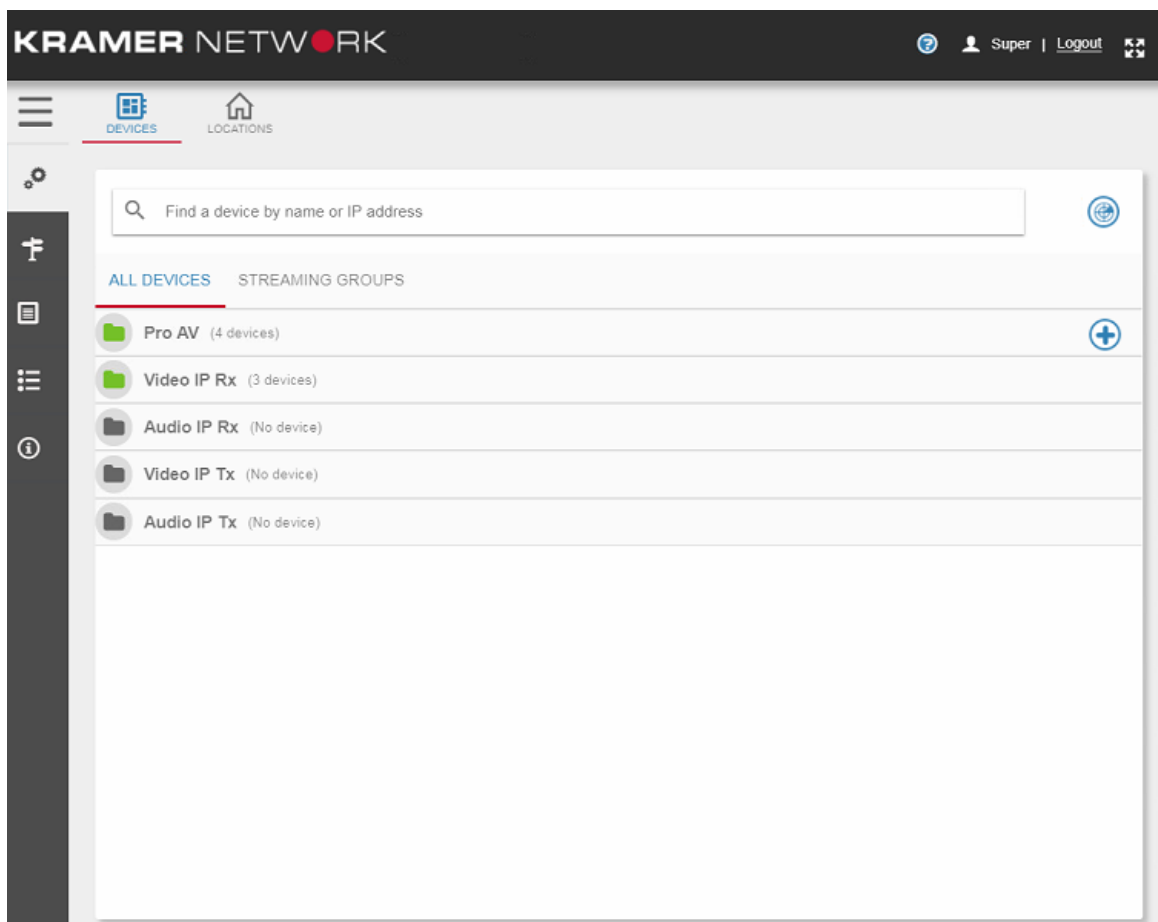



Figure 18: System Configuration Page

Use the ALL DEVICES subtab to:

- Filter out a device by typing its name or part of its name in the search text box.
- Click  to delete a disconnected device.
- Add a device manually (see [Section 3.1.1](#)).
- Manage the devices in the system (see [Section 3.1.2](#)).




The source devices include Kramer encoder/decoder systems (such as the **KDS-EN4**, **KDS-EN6** and so on) and Dante™ encoder devices which are integrated into **KRAMER NETWORK**.

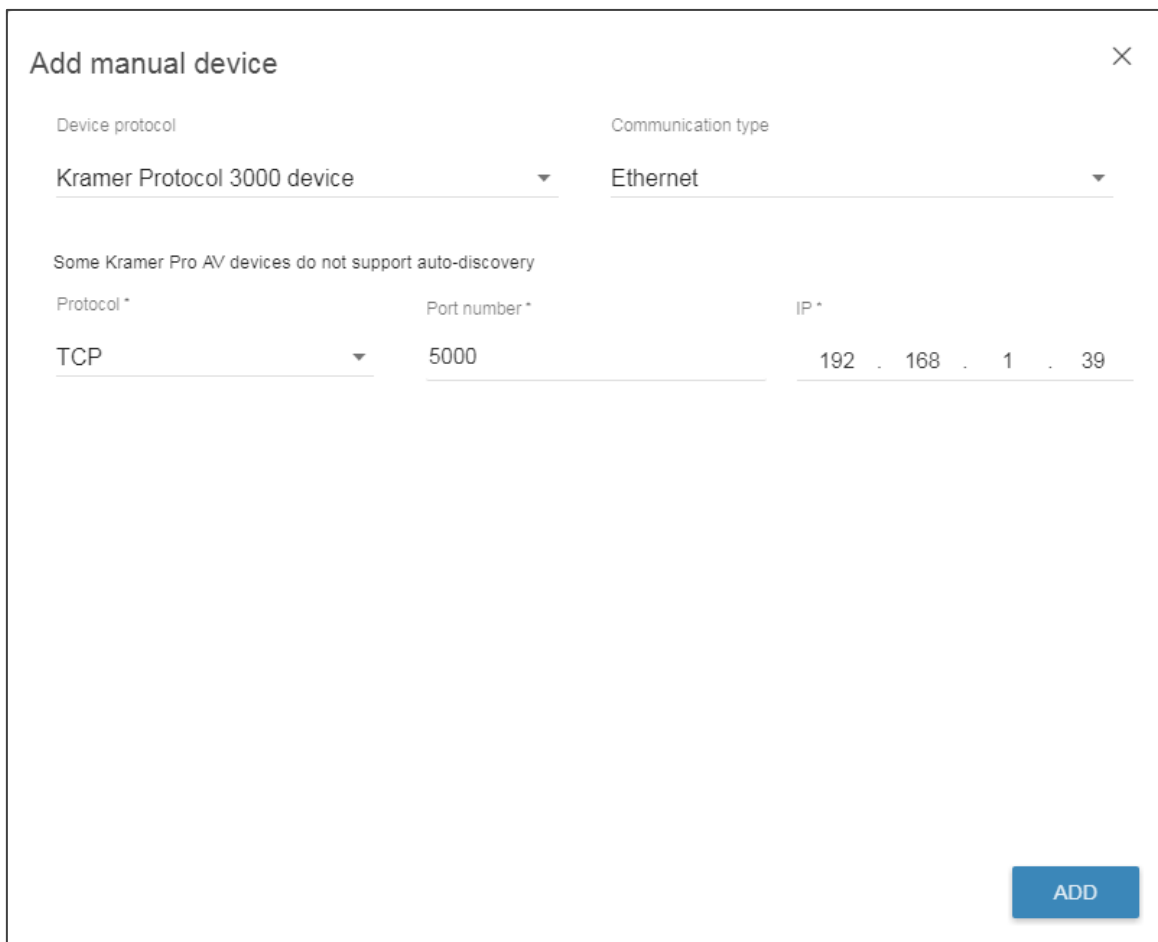
3.1.1 Adding a Device Manually

The following device types cannot be discovered via system scan and can be added manually:

- IP Kramer devices that do not support broadcast.
- Pro AV devices that are connected to I/O gateways.
- Non-IP devices (serial or IR).
- Certain non-Kramer devices.

To add a Kramer device manually:

1. Click  (Add device manually).
2. For Kramer devices that support protocol 3000, select the communication type: Ethernet, Serial or IR:
 - **ETHERNET:** select the Protocol (TCP or UDP), enter the port number and the IP address.



Add manual device ✕

Device protocol: Kramer Protocol 3000 device ▼

Communication type: Ethernet ▼

Some Kramer Pro AV devices do not support auto-discovery

Protocol *: TCP ▼ Port number *: 5000 IP *: 192 . 168 . 1 . 39

ADD

Figure 19: Add a Kramer Device Manually – Ethernet Communication

- **SERIAL:** select the I/O gateway for the serial communication (discovered automatically) and the serial port in this I/O gateway which you are using.

Add manual device

Device protocol

Kramer Protocol 3000 device

Communication type

Serial

Choose an I/O gateway to use for Serial communication

Kramer Network will automatically discover the device

IO-gateway devices *

FC-26 (FC-26-0034)

☒ Serial port #1

☐ Serial port #2

ADD


Figure 20: Add a Kramer Device Manually – RS-232 Communication

- **IR:** check **Use device driver information** if you want to use the devices' control commands. Type the name of the device; select the **Device type**, **Device vendor** and **Device model**. Choose the I/O gateway from the list and then select the IR port to which the device is connected.

Figure 21: Adding a Kramer Device Manually – IR Communication

3. Click **ADD**.

To add a non-Kramer device manually:

1. Click  (Add device manually).
2. Set the Device protocol to **Generic device**.
3. Select the communication type: Ethernet, Serial or IR:
 - **ETHERNET:** select the Protocol (TCP or UDP), type the port number and the IP address.
 - **SERIAL:** select the I/O gateway for the serial communication (discovered automatically) and the serial port in this I/O gateway which you are using.
 - **IR:** check **Use device driver information** if you want to use the devices' control commands. Choose the I/O gateway from the list and then select the IR port to which the device is connected.



For each communication type:

- Check **Use device driver information** if you want to use the devices' control commands.
- Type the name of the device; select the **Device type**, **Device vendor** and **Device model**.




4. Click **ADD**.

3.1.2 Managing the Devices

You can perform the following:

- For IP devices, click the IP address to access the web page of that device (see [Section 3.1.2.1](#)).
- View the status of the device.

The following table defines the device status color key (same for audio and video devices):

Icon Color	Status Definition
	Ready (for example, the audio device is ready).
	Awaiting Connection (for example, the video device is awaiting connection).
	Disconnected from the Network (for example the audio device was disconnected from the network).

- View and edit the device parameters (see [Section 3.1.2.2](#)).
- Select the device location (after defining the locations, see [Section 3.1.2.3](#))

3.1.2.1 Viewing the Device Web Page

You can view IP devices that have an embedded web page.

To view the device web page for example, for FC-26):

1. Select **System configuration > DEVICES** tab > **ALL DEVICES** subtab.

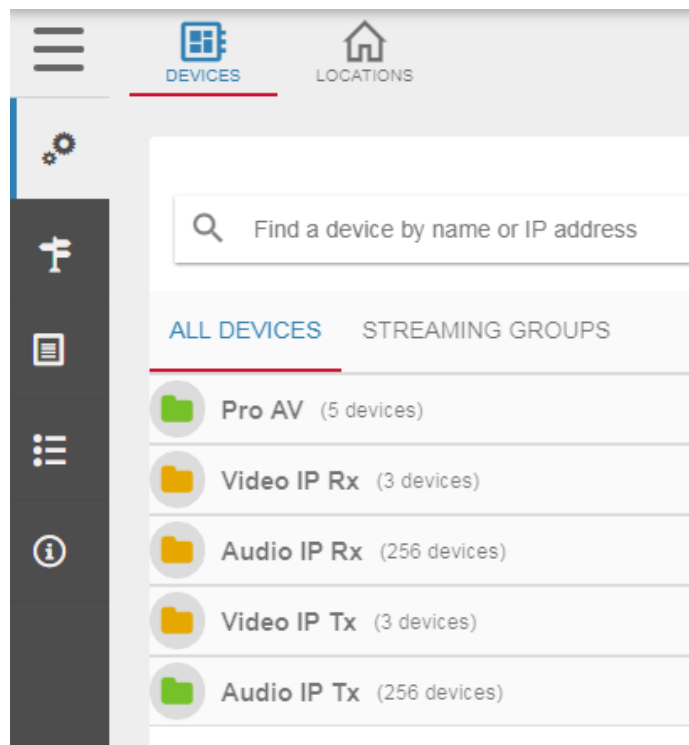


Figure 22: Viewing the Device Web Page – The ALL DEVICES Tab

2. Click the **Pro AV** folder.

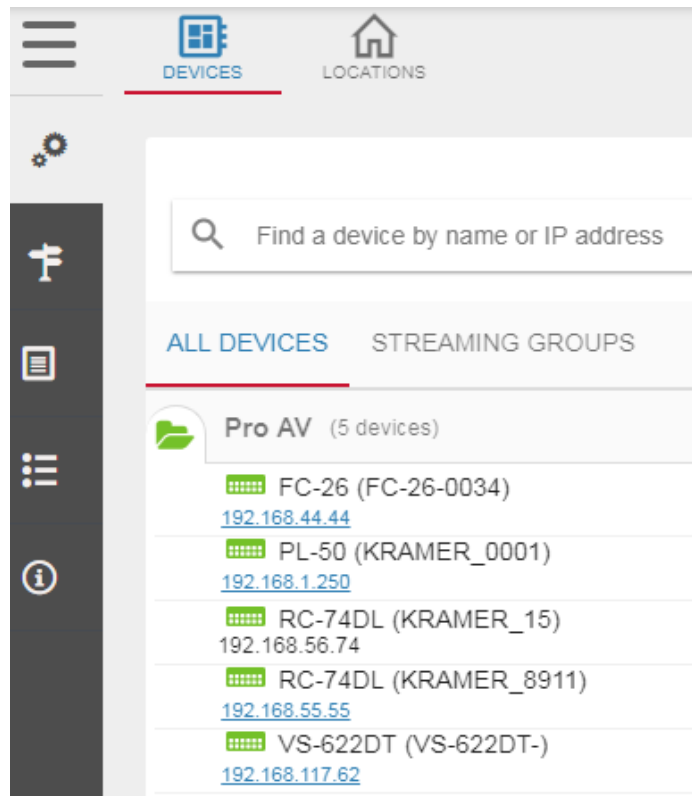


Figure 23: Viewing the Device Web Page – Selecting Pro AV

3. Click the IP address below FC-26. The **FC-26** web pages appear:

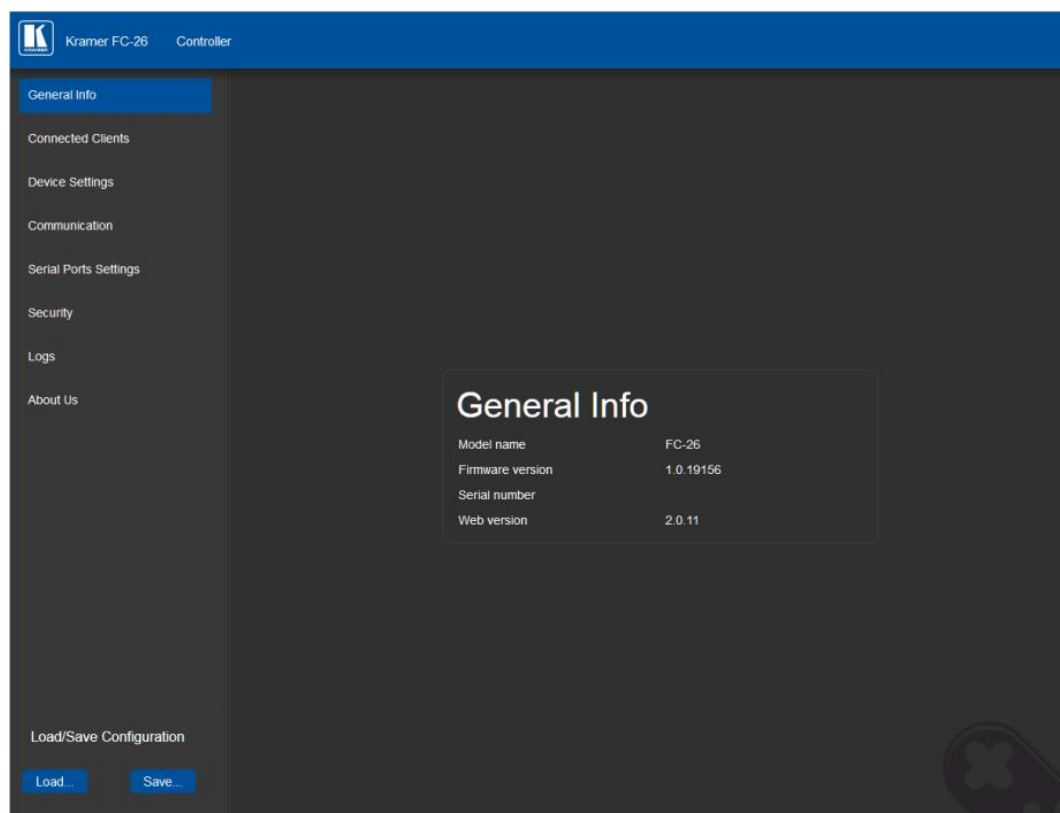


Figure 24: Viewing the Device Web Page – FC-26 Embedded Web Pages

4. Perform any desired operations via the web pages.

3.1.2.2 Viewing and Editing Device Parameters

To view and edit the device parameters (for example, the FC-26):

1. Select **System navigation** > **DEVICES** tab > **ALL DEVICES** subtab.
2. Click the device name (FC-26). The parameter page opens:

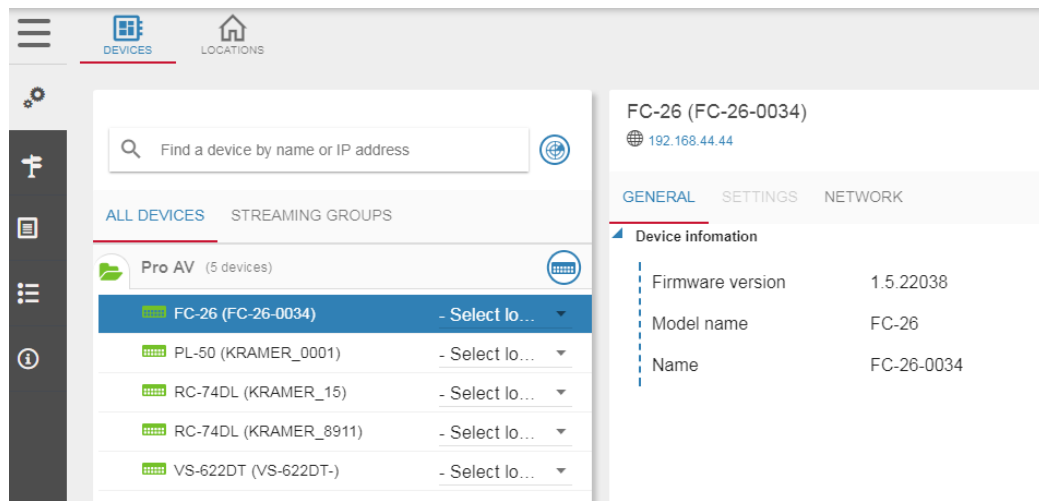


Figure 25: Device Parameters

3. Perform the following operations (optional):
 - Click the IP address to connect web pages.
 - Change the device name: click the device name (for example FC-26 (FC-26-0034)) and type the new name.
 - In **GENERAL** tab view Device information; in **SETTINGS** tab view and change parameters in **NETWORKS** tab view and change network parameters.



The **GENERAL**, **SETTINGS** and **NETWORKS** tabs are specific per device.

3.1.2.3 Select Location

Before selecting the physical location of the device, you need to define the locations via the **LOCATIONS** tab in the **System configuration** page (see [Section 3.2](#)).

Once the list of locations is prepared, click the drop-down box next to the device name and select the correct location.

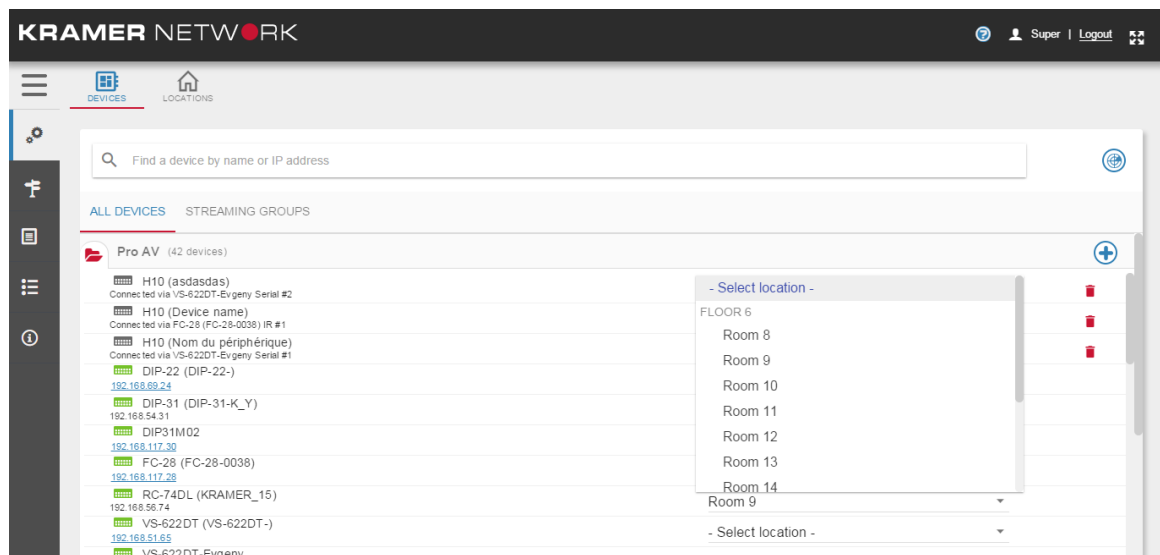


Figure 26: Selecting Device Location

3.1.3 STREAMING GROUP Subtab

The streaming group includes all the streaming devices. Initially the STREAMING GROUP subtab displays the following message:

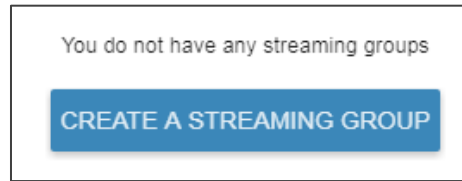



Figure 27: Streaming Group Message

To create a streaming group:

1. Select **DEVICES** tab > **STREAMING GROUPS** subtab.
2. Click  (Add streaming group). The following window appears:

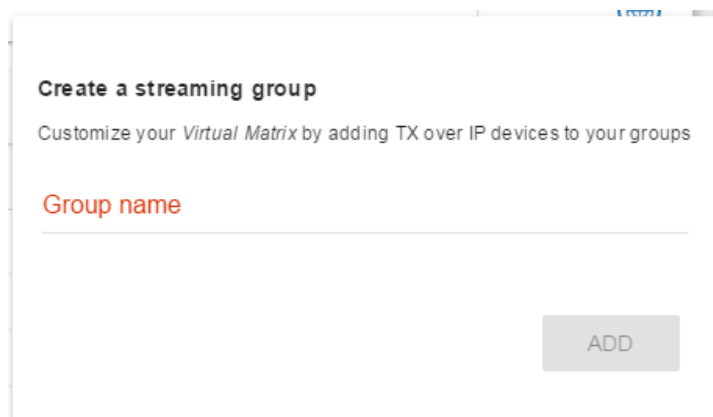


Figure 28: Adding Streaming Group

3. Type the streaming group name.

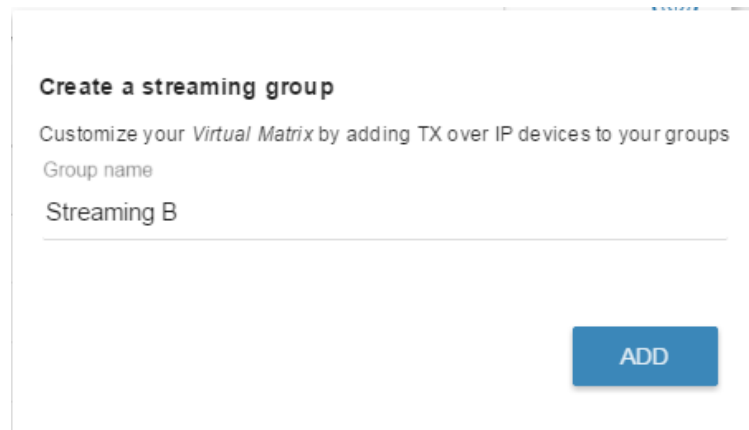


Figure 29: Adding Streaming Group – Entering Streaming Group Name

- Click **ADD**. The streaming group appears in the left column:

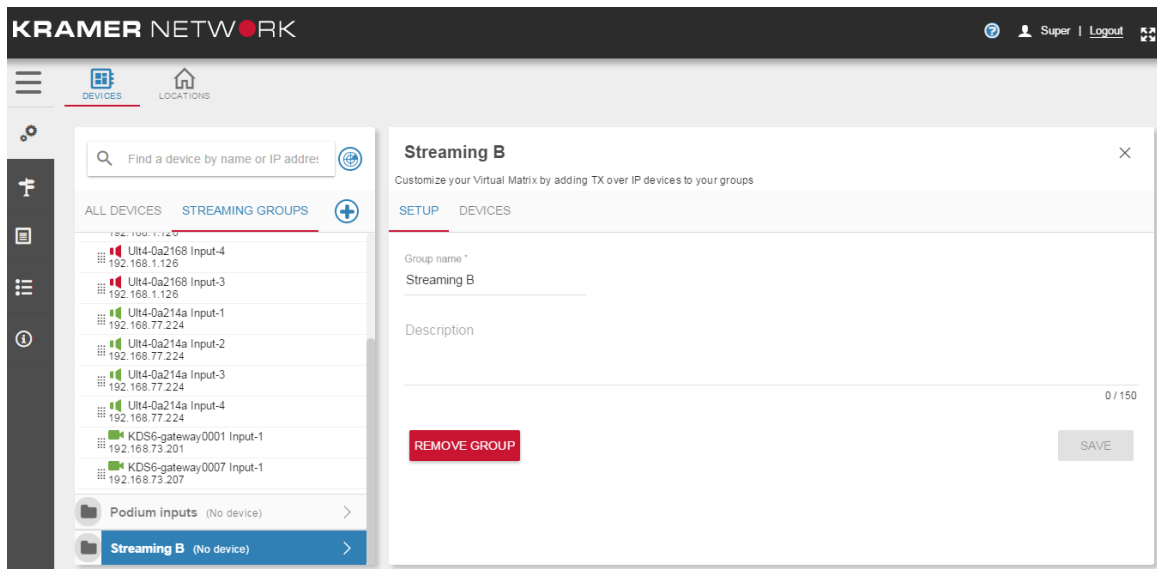



Figure 30: Adding Streaming Group – Streaming Group Added

- Add a Description to the new streaming group.
-  Click **REMOVE GROUP** to remove a group from the list.
- Select the **DEVICES** tab within the Streaming B Group.

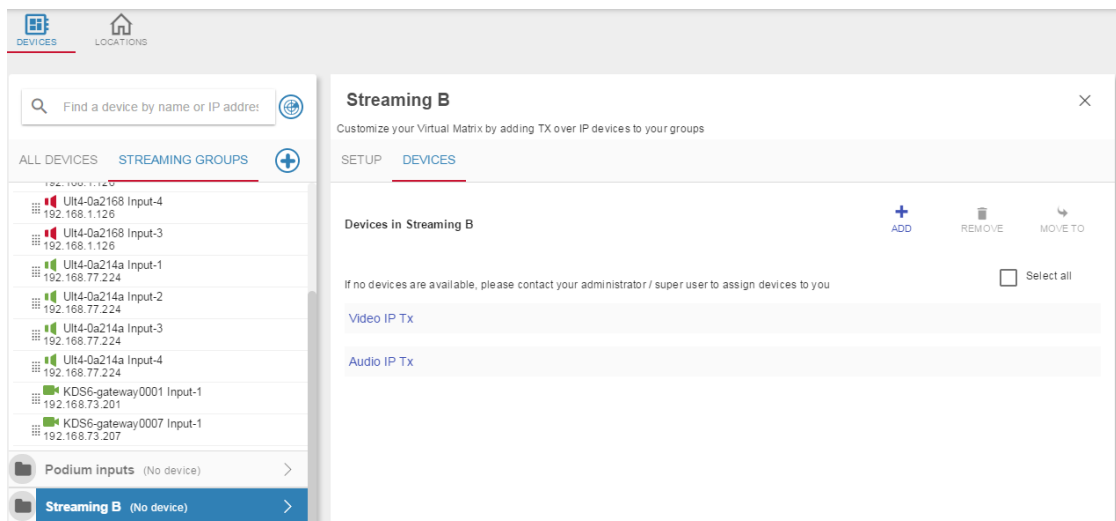


Figure 31: Streaming Group – Devices

- Click **ADD** to open the list of devices.

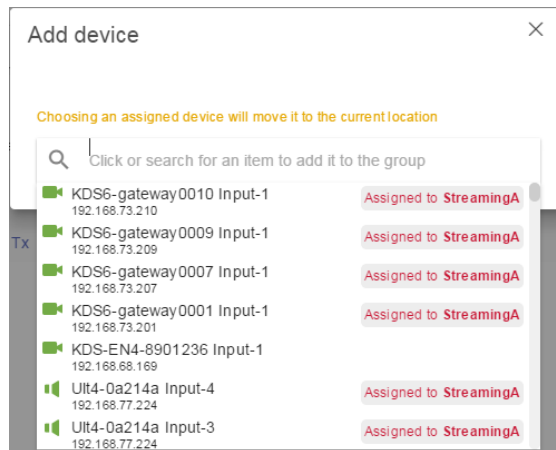


Figure 32: Streaming Group – Adding Devices to the Group

- Click a device or several devices to add them to the streaming group (the audio/video devices go automatically to their designated group and audio devices go to the audio group).

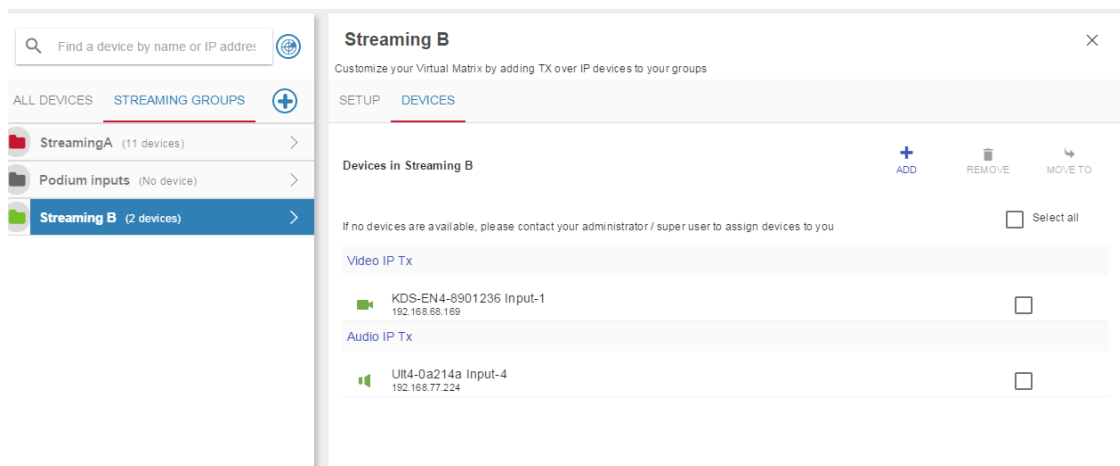


Figure 33: Streaming Group – Device List

You can use the search text box to search for a specific device (by name or IP address). Remove a device from a list by checking the box to the right of the device and clicking **REMOVE**.

3.2 LOCATIONS Tab

Before you assign a location to each device, you need to create the locations in **KRAMER NETWORK**.

- Select **LOCATIONS** tab.

When setting locations for the first time, the following message appears:

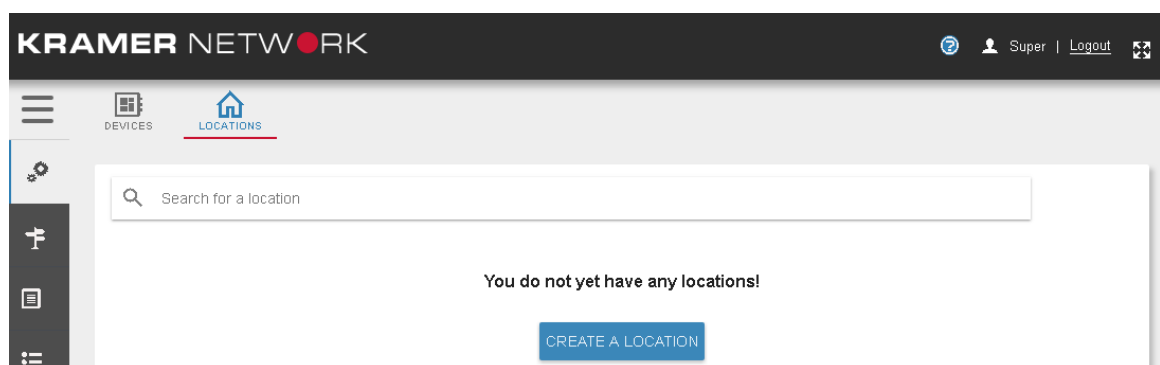


Figure 34: Creating a Location for the First Time

2. Click **CREATE A LOCATION**.

The screenshot shows the 'My first location' setup form. The left sidebar has a search bar and a list item 'My first location (No room)'. The main form has two tabs: 'SETUP' (active) and 'ROOMS'. The 'SETUP' tab contains the following fields:

- Location parent: None
- Location name: My first location (character count: 17 / 30)
- Location type: Floor (dropdown menu)
- Description: (character count: 0 / 250)

At the bottom of the form are two buttons: 'REMOVE LOCATION' (red) and 'SAVE' (grey).

Figure 35: Setting the First Location

3. Under **Location name** enter the location (Floor 6) and Description.

The screenshot shows the 'My first location' setup form with updated values. The left sidebar is the same. The main form has the same tabs: 'SETUP' (active) and 'ROOMS'. The 'SETUP' tab contains the following fields:

- Location parent: None
- Location name: Floor 6 (character count: 7 / 30)
- Location type: Floor (dropdown menu)
- Description: Rooms 8 to 14 (character count: 13 / 250)

At the bottom of the form are two buttons: 'REMOVE LOCATION' (red) and 'SAVE' (blue).

Figure 36: Renaming the First Location

4. Click **SAVE**.

DEVICES LOCATIONS

Search for a location

Floor 6 (No room)

Floor 6

SETUP ROOMS

Location parent
None

Location name
Floor 6 7 / 30

Location type
Floor

Description
Rooms 8 to 14 13 / 250

REMOVE LOCATION SAVE

Success
Settings have been updated successfully

Figure 37: Location Defined

5. Select the **ROOMS** tab (in Floor 6).

DEVICES LOCATIONS

Search for a location

Floor 6 (No room)

Floor 6

SETUP ROOMS

Add/Remove or move rooms from current location. + REMOVE MOVE TO
In order to see the devices in a room, select a room in the left pane

Rooms in Floor 6

Figure 38: Defining Rooms

6. Click **ADD** to add a new room in Floor 6 and type the new room name:

Create New Room

Room name *

Required.

ADD

Create New Room

Room name *

Room 8

ADD

Figure 39: Creating a New Room

- Click **ADD**. The room is added under floor 6.

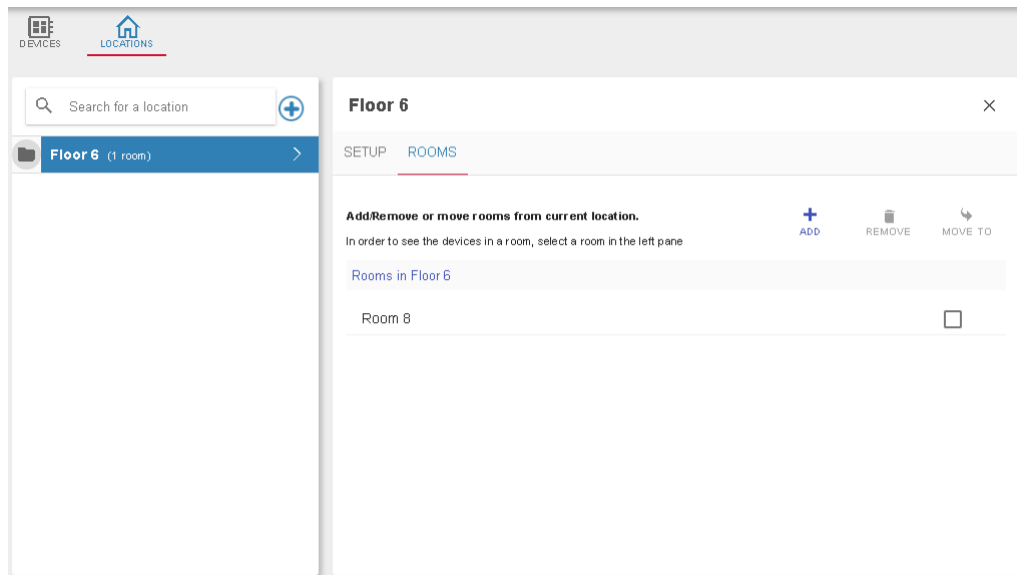


Figure 40: Adding Rooms to the Location

- Add the remaining rooms to Floor 6:

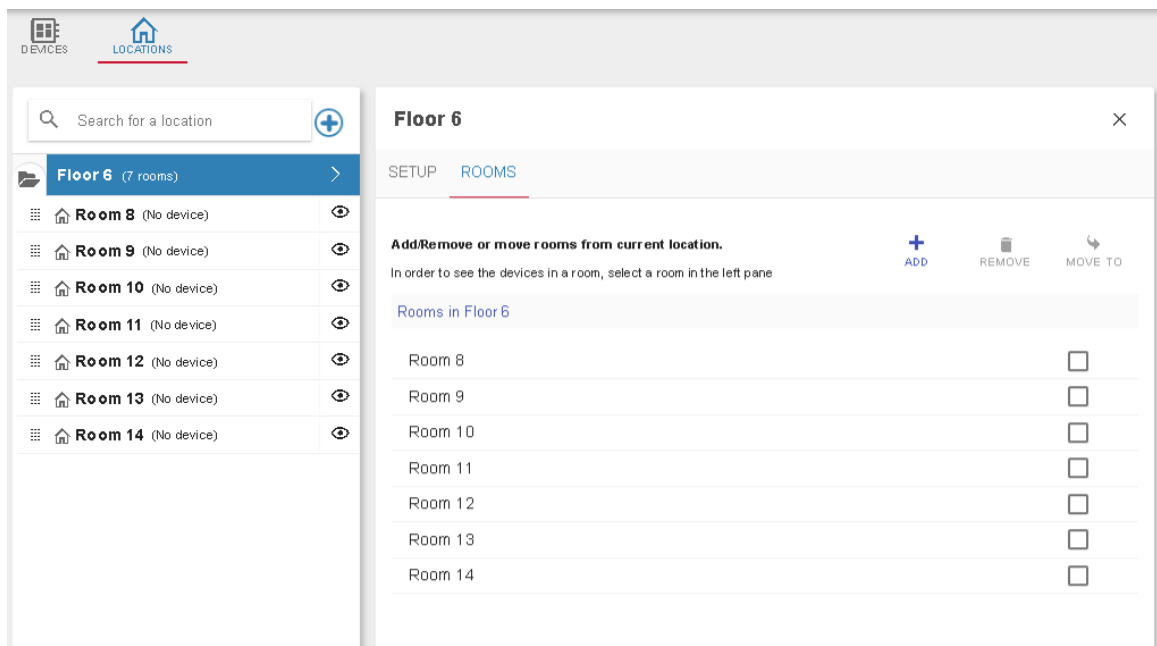


Figure 41: Adding Rooms 8 to 14

Once the rooms are added, you can:

- Check a room and click **REMOVE** to remove it from the list.

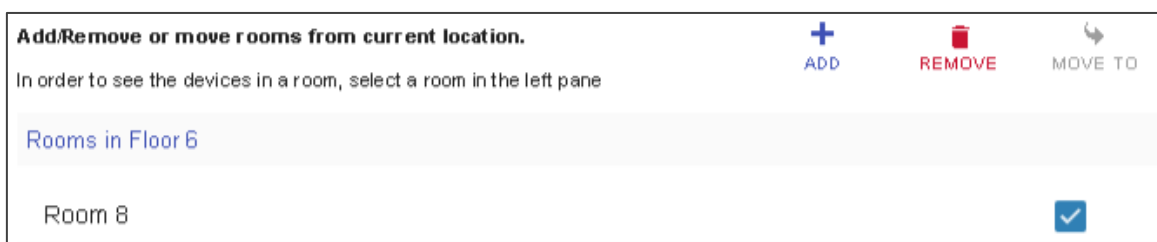



Figure 42: Removing a Room

- Click to access the room view (see [Section 4.1](#)).
- Click to add a floor.

- Click  to drag a room to a different floor (location).

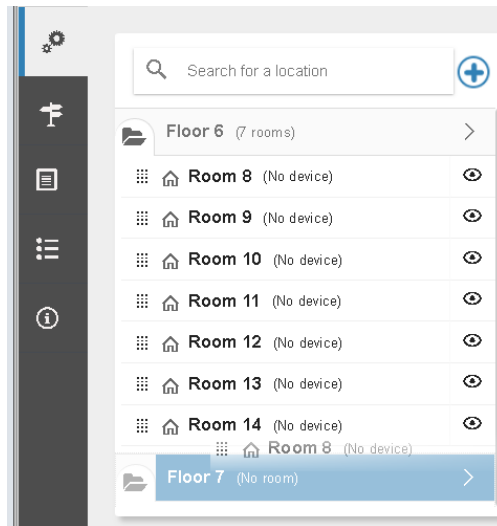


Figure 43: Moving Rooms to a Different Location

- Click **REMOVE LOCATION** to remove it from the location list. The following message appears:

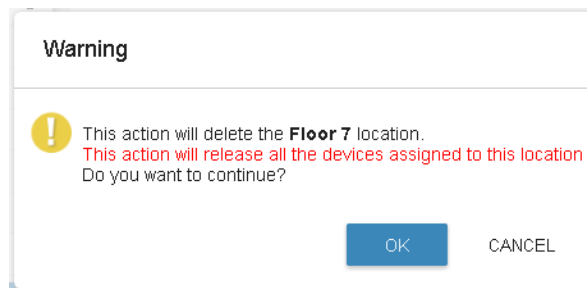


Figure 44: Remove Location Warning

- Choose a room (Room 8) and select **DEVICES** to add (move or remove) streaming or Pro AV devices to this room.

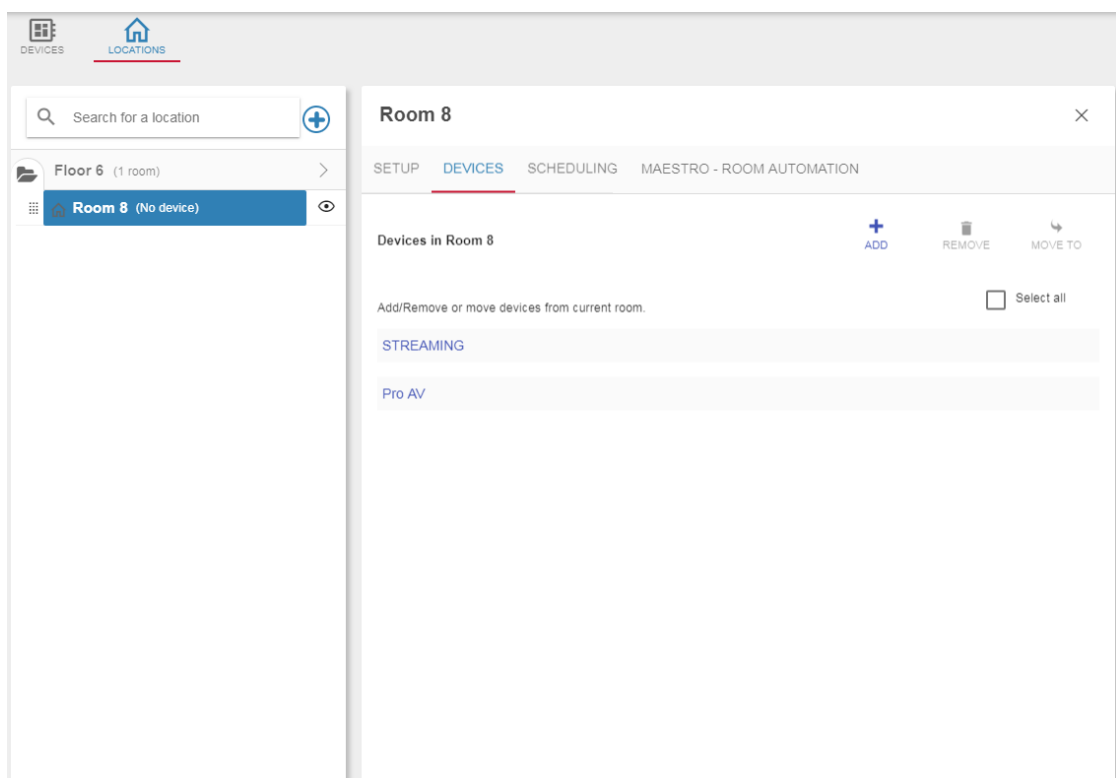


Figure 45: Adding Devices to a Room

10. Click **+**. The list of devices in your Network appears.

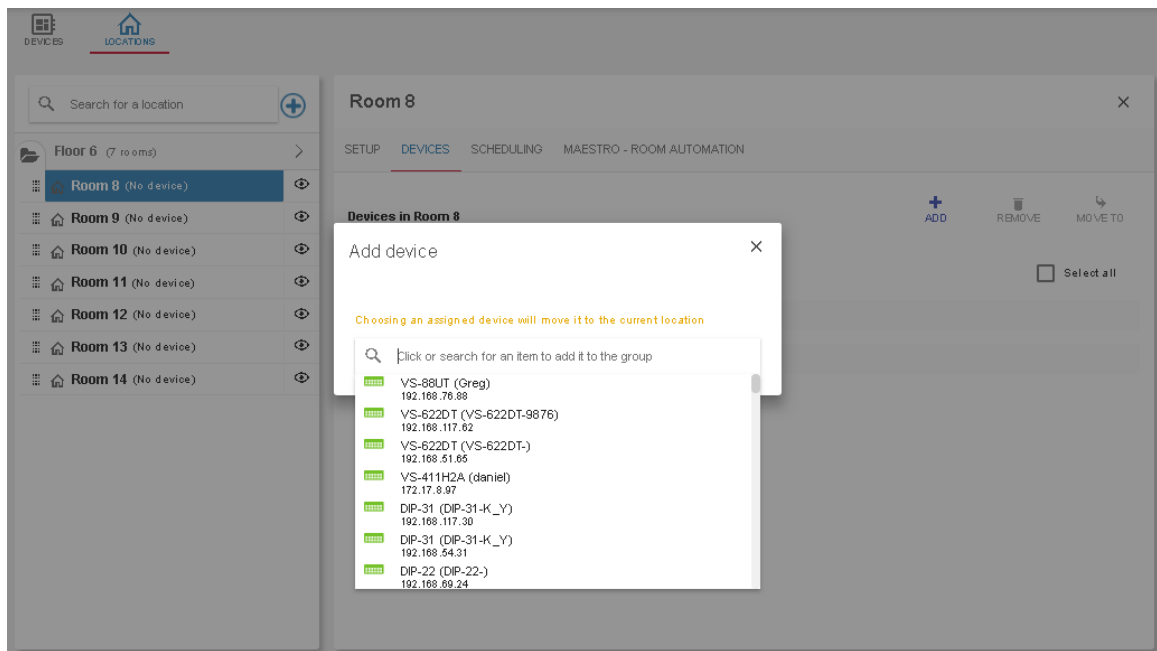


Figure 46: Adding devices to a Room – Device List

11. Select the devices that are assigned to Room 8.

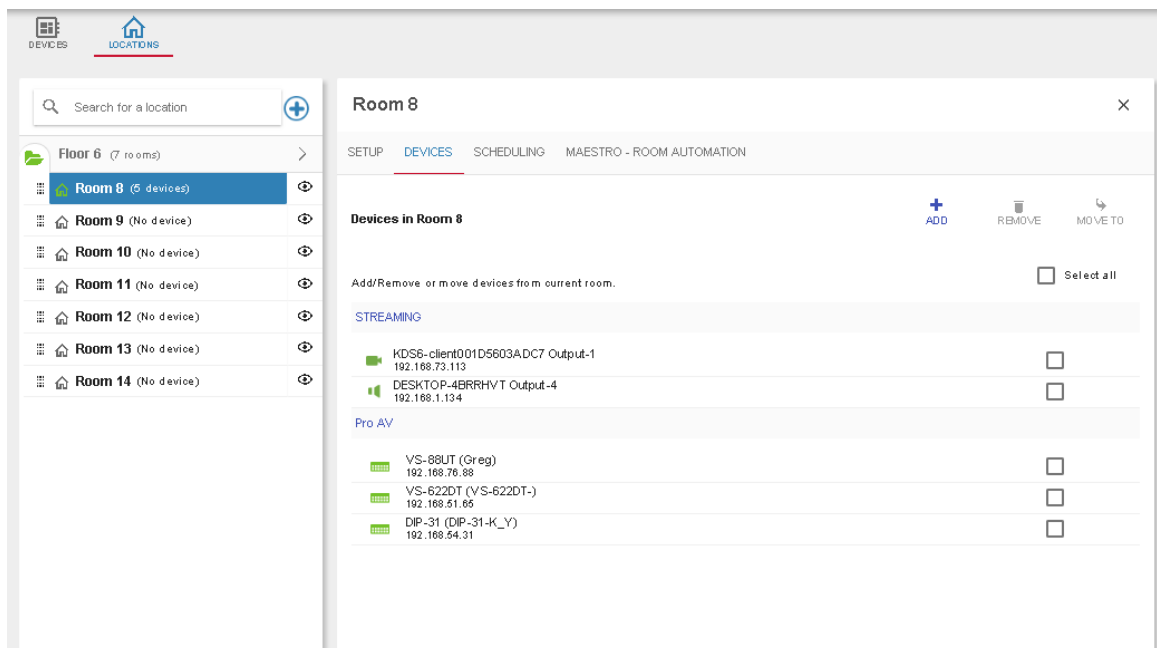



Figure 47: Adding devices to a Room – Devices Assigned to a Room

Three Pro AV devices (**VS-88UT**, **VS-622DT** and **DP-31**) and two streaming devices (**KDS-DEC6**, and an audio device) are selected.



The color of the  icon next to the room name indicates the status of the devices in the room (orange indicates that at least 1 device is awaiting connection and red means that at least one device was disconnected from the Network).

12. In the same way you can add devices to each of the meeting rooms on floor 6.



Devices that are already assigned to a room are indicated with a note (for example, Assigned to **Room 8**). You can assign them to a different room thus removing them from their original location. You can also move devices to different rooms by checking the box to the right of the device in a room and clicking **MOVE TO**.

3.3 Meeting Room Scheduling

Each meeting room can be associated to a selectable scheduler. Before doing so, you need to define your LDAP (Lightweight Directory Access Protocol) connection See [Section 0](#).

Once LDAP is defined, set the SCHEDULING:

1. In the navigation pane click **System configuration** and then select the **LOCATIONS** tab.
2. Select the SCHEDULING subtab. The following window appears.

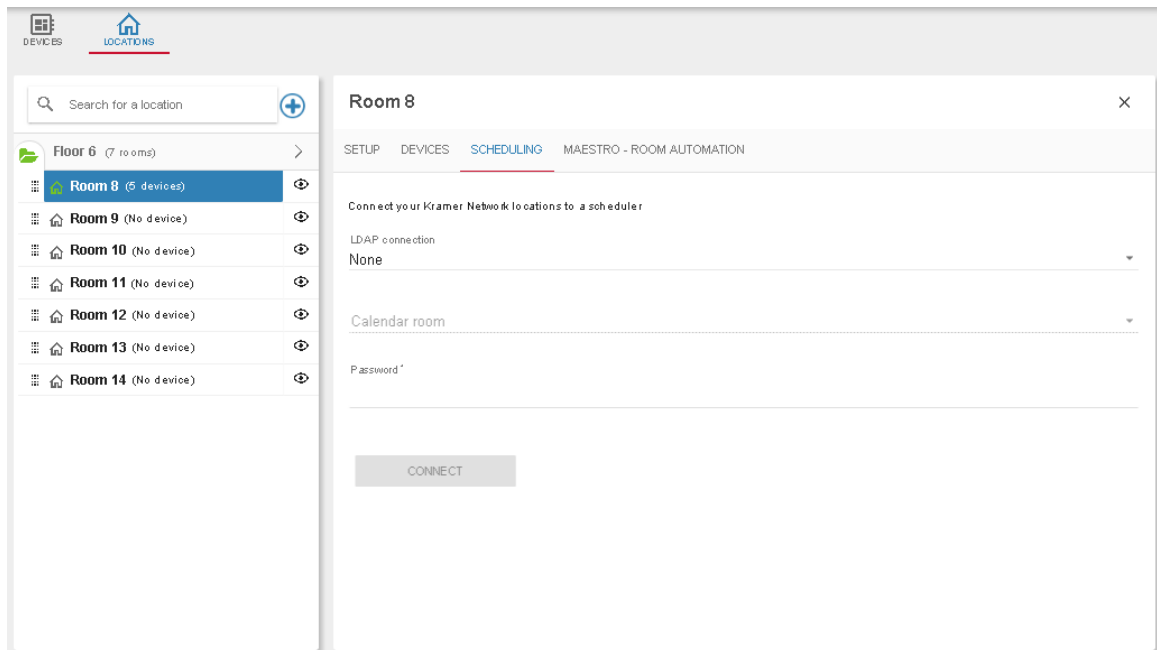


Figure 48: Room Scheduling

3. Select the LDAP connection ("Kramer LDAP" in this example) and wait for the calendar room list to be uploaded:

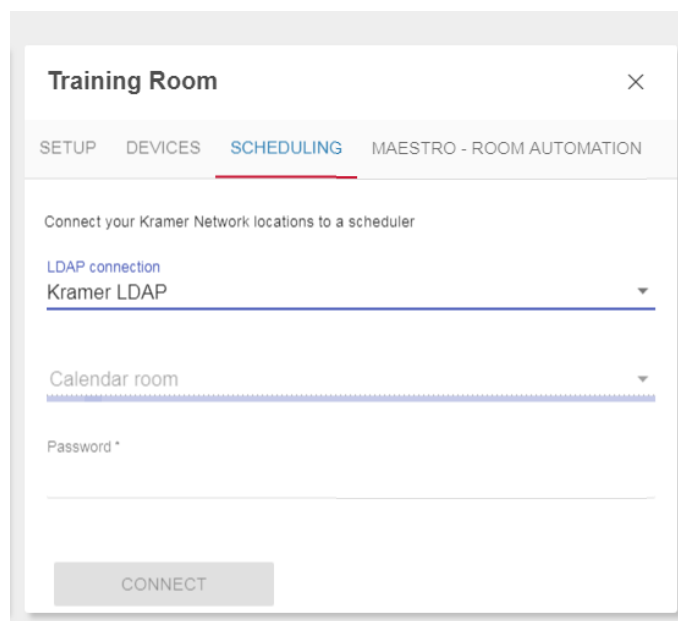
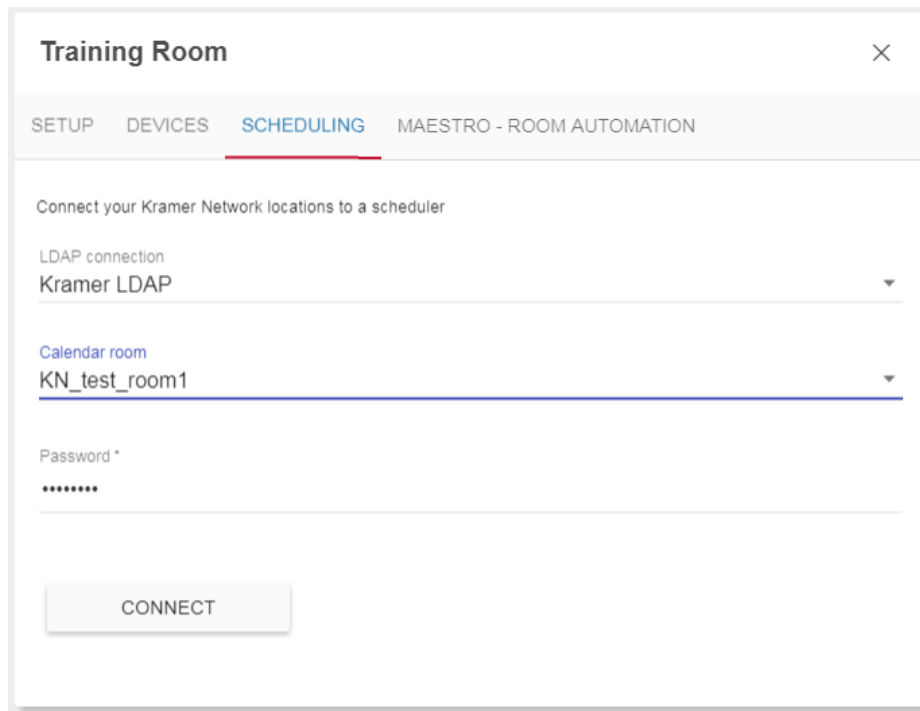


Figure 49: Room Scheduling Selecting LDAP Connection

4. Select a room to associate to your room (KN_test_room1 in this example).

5. Enter the room password.



The screenshot shows a web interface titled "Training Room" with a close button (X) in the top right corner. Below the title is a navigation bar with four tabs: "SETUP", "DEVICES", "SCHEDULING" (which is highlighted with a red underline), and "MAESTRO - ROOM AUTOMATION". The main content area under the "SCHEDULING" tab contains the following elements:

- A heading: "Connect your Kramer Network locations to a scheduler"
- A dropdown menu labeled "LDAP connection" with the selected value "Kramer LDAP".
- A dropdown menu labeled "Calendar room" with the selected value "KN_test_room1".
- A password field labeled "Password *" with masked characters "*****".
- A "CONNECT" button at the bottom.

Figure 50: Room Scheduling Details Added

6. Click **CONNECT**.

3.4 Applying Room Automation via Maestro

Room automation involves creating a trigger (such as a certain day of the week) which enables the carrying out of a script that includes a sequence of actions. Actions may include device commands (such as turning on a projector), sending an email, activating DSP over IP and so on.

To trigger scripts:

- Enter actions through MAESTRO – ROOM AUTOMATION (see [Section 3.4.1](#)).
- Add a sequence of actions to a script (see [Section 3.4.2](#)).
- Create a trigger to initialize a script or a list of scripts (see [Section 3.4.3](#)).

3.4.1 Actions

You can create several different types of actions to be activated by your room automation. Each action can be edited, tested or deleted at any stage.

The following action types are available: Device command, DSP-Over-IP, Email, Scenario, SNMP Trap, Upload Maestro Device Configuration, User script and WOL.

To add an action:

1. Select a room in a floor.
2. Select **MAESTRO – ROOM AUTOMATION**.
3. Check that **Maestro active** slider is enabled or slide to enable it.

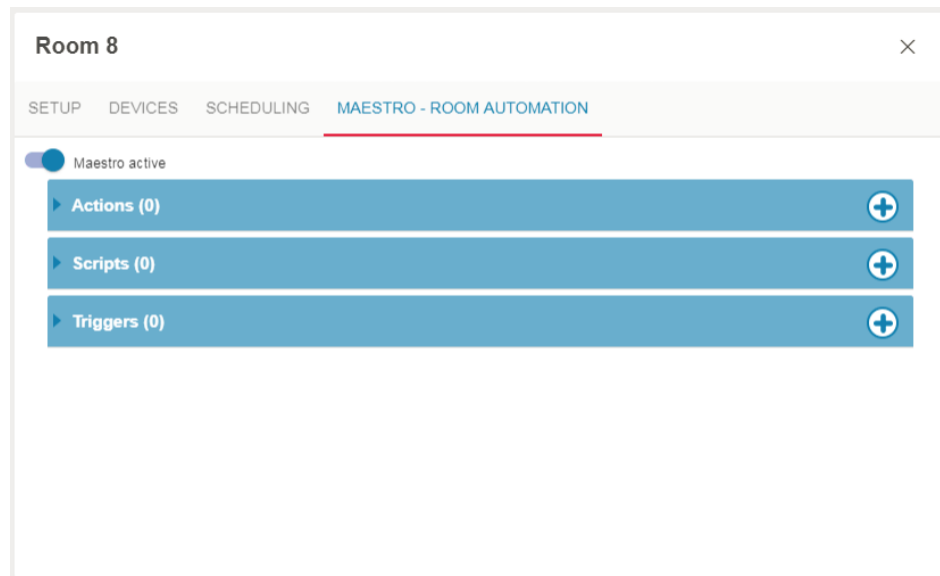


Figure 51: Maestro Room Automation Sub-tab

4. Click  next to **Actions** to add a new action.

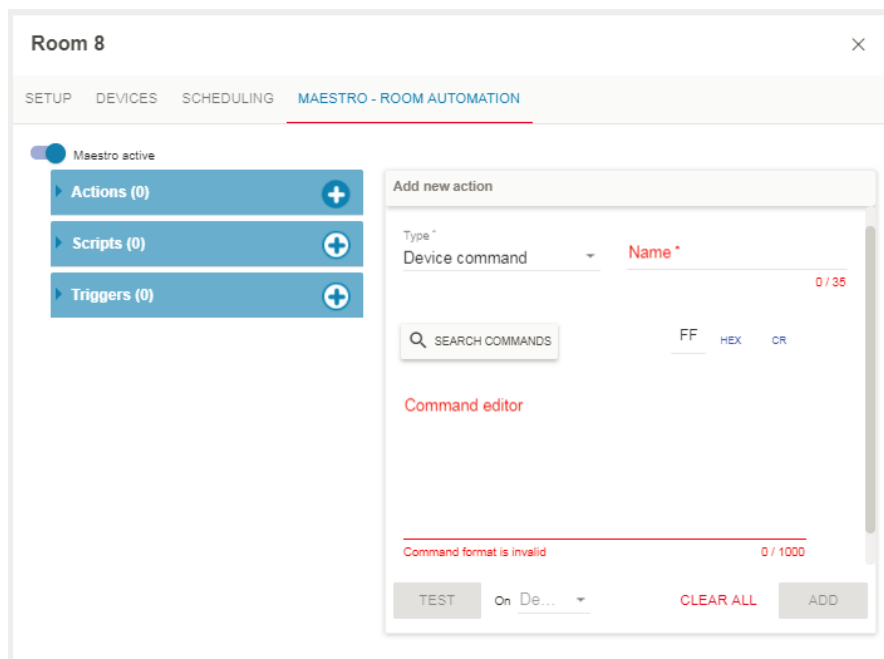


Figure 52: Maestro Room Automation Sub-tab – Actions Window

5. Select the new action **Type** (for example, a Device command).

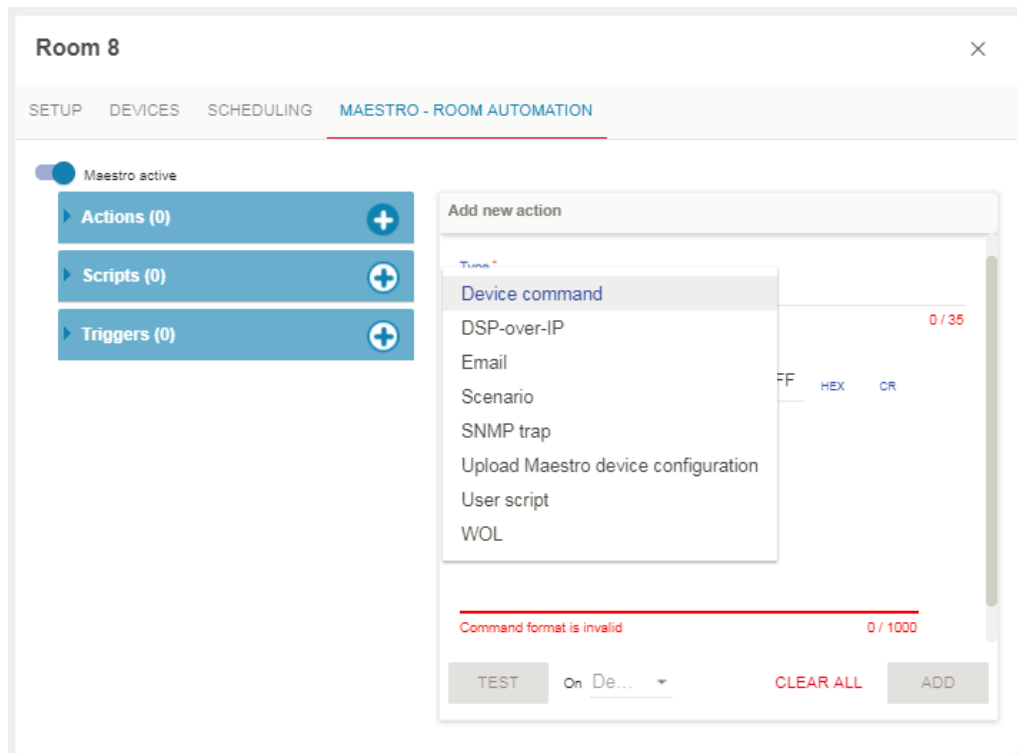


Figure 53: Maestro Room Automation Sub-tab – Adding a Device Command

6. Enter the command Name and then either search a command or type the command (you can click FF, HEX or CR to add common characters).

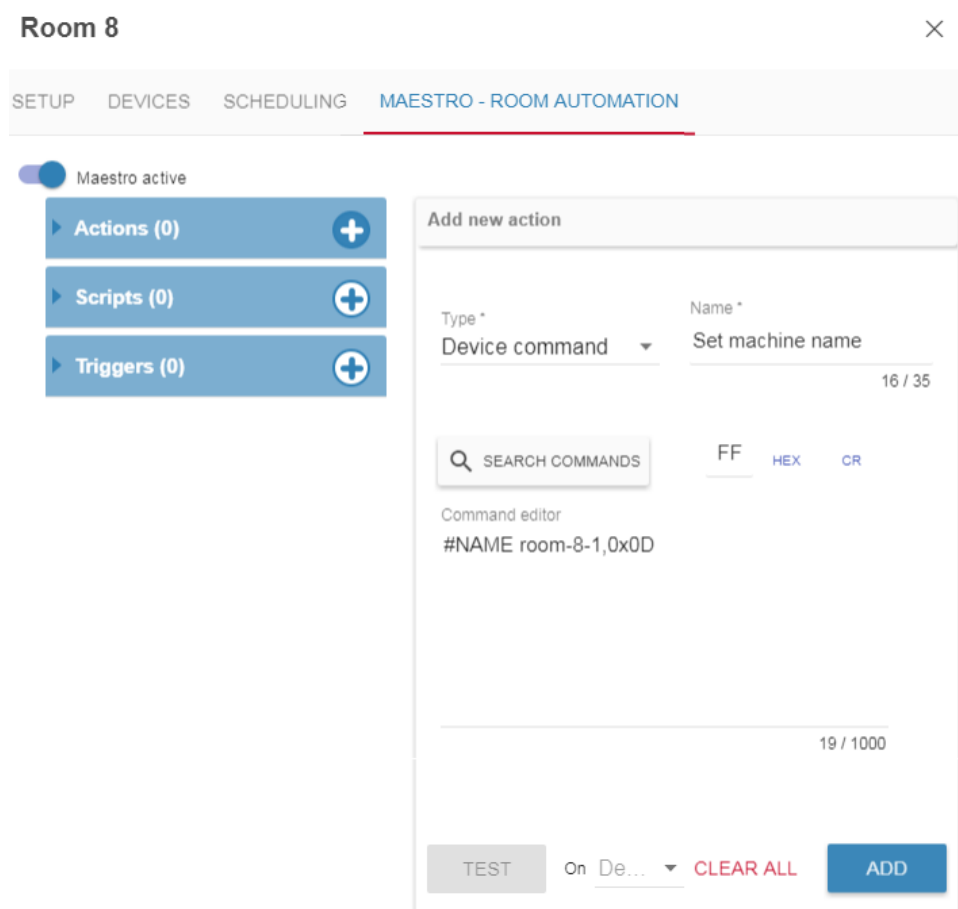


Figure 54: Maestro Room Automation Sub-tab – Entering a Command

- Click **ADD**.
The Action is added:

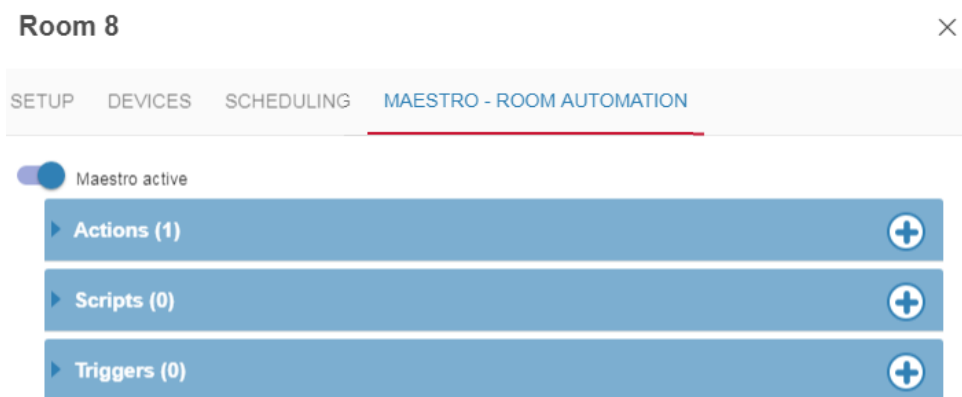



Figure 9: Maestro Room Automation Sub-tab – Action Added

To search a command:

- Click .
- Click **SEARCH COMMANDS**.
The Search commands table appears:

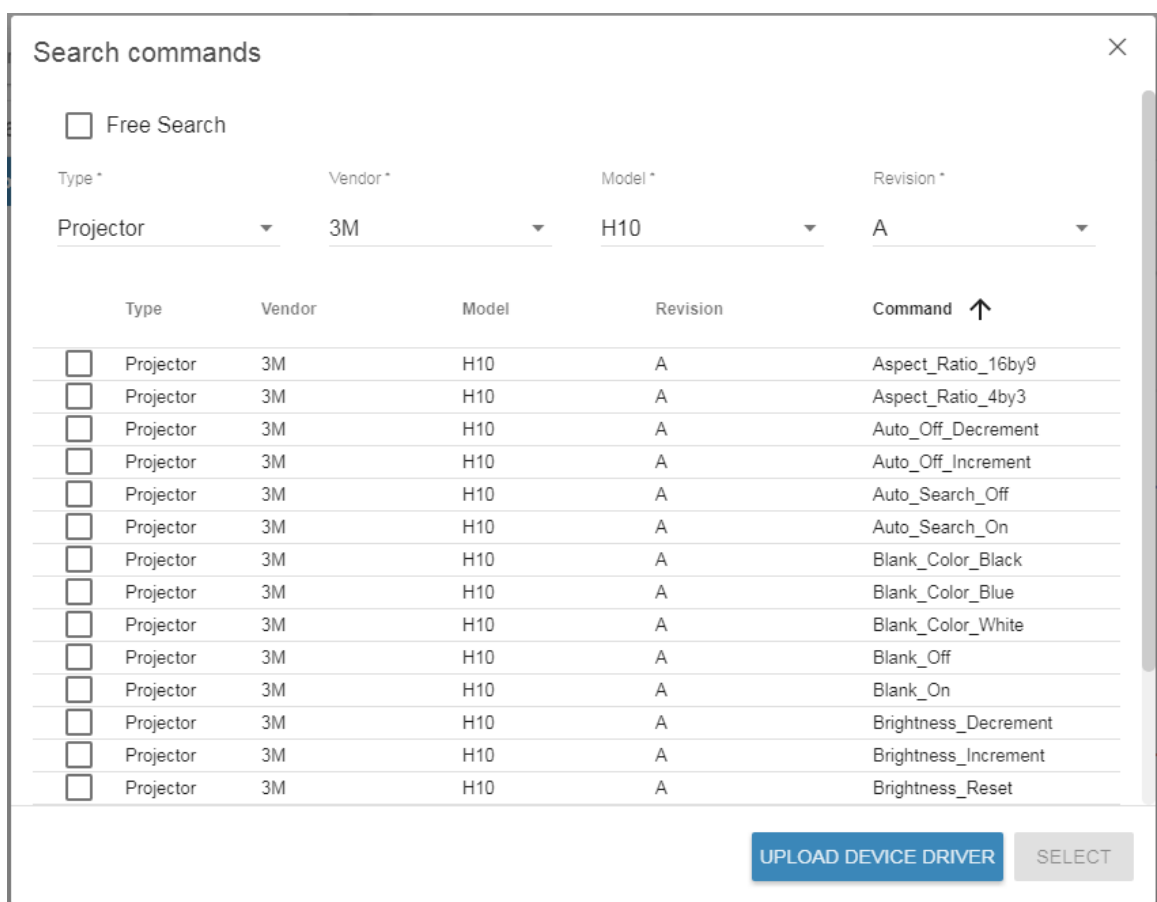


Figure 55: Maestro Room Automation Sub-tab – Searching a Command

3. Select the Type, Vendor, Model and Revision. For example, select Routing, Kramer, DIP-20 and Revision A:

Search commands

☐ Free Search

Type *

Routing

Vendor *

Kramer

Model *

DIP-20

Revision *

A

	Type	Vendor	Model	Revision	Command ↑
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_Computer_1
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_HDMI_1
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_HDMI_2
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Mute_Off
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Mute_On
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	NO_OUTPUT
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	NO_VIDEO_AUDIO_FOLLOWS_BOTH_OUTPUTS
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	VIDEO_AND_AUDIO_FOLLOW_BOTH_OUTPUTS

UPLOAD DEVICE DRIVER

SELECT

Figure 56: Maestro Room Automation Sub-tab – Selecting a Command



You can also:

- Check **Free Search** to perform a free search.
- Click **UPLOAD DEVICE DRIVER** and follow the instructions to add a new device driver.

4. Select a command

Search commands

☐ Free Search

Type * Vendor * Model * Revision *

Routing Kramer DIP-20 A

	Type	Vendor	Model	Revision	Command ↑
<input checked="" type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_Computer_1
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_HDMI_1
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Input_Source_HDMI_2
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Mute_Off
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	Mute_On
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	NO_OUTPUT
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	NO_VIDEO_AUDIO_FOLLOWS_BOTH_OUTPUTS
<input type="checkbox"/>	Routing	Kramer	DIP-20	A	VIDEO_AND_AUDIO_FOLLOW_BOTH_OUTPUTS

UPLOAD DEVICE DRIVER SELECT

Figure 57: Maestro Room Automation Sub-tab – Selecting an Action

5. Click **SELECT**.

6. The new action (Select computer input) is added to the command editor.

7. Enter the command name:

Room 8

SETUP DEVICES SCHEDULING MAESTRO - ROOM AUTOMATION

Maestro active

Actions (1) Scripts (0) Triggers (0)

Add new action

Type * Name *

Device command Select PC input 15 / 35

SEARCH COMMANDS FF HEX CR

Command editor

#ROUTE 1,1,3x0D

16 / 1000

TEST On De... CLEAR ALL ADD

Figure 58: Maestro Room Automation Sub-tab – Action Name

8. Click **ADD**.

In the same way add all the commands to the action list.

The number of commands in the Actions list appears next to **Actions**. Click the arrow next to Actions to view the list of commands:

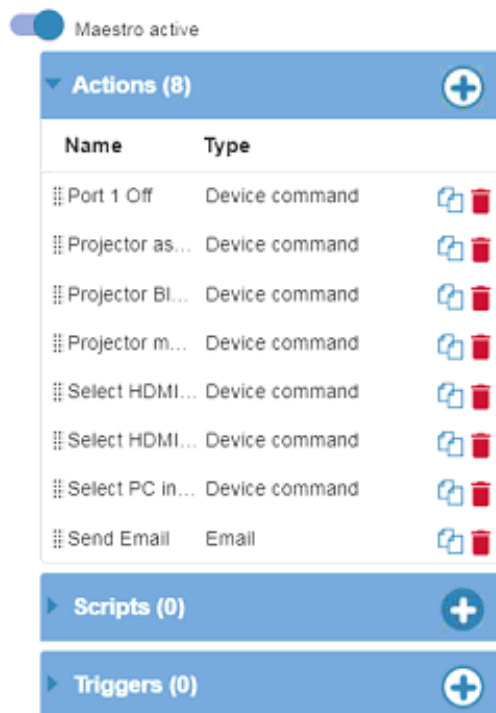


Figure 59: Maestro Room Automation Sub-tab – Actions List



You can drag-and-drop an action from the Action list to the Scripts action list.

Other types of actions require the following data:

Action Type	Enter the following Data
DSP-over-IP	Name, audio channel, DSP action (enable or disable).
Email	Name, Send to and cc.
Scenario	Name, Run scenario (select a scenario).
SNMP Trap	Name, select SNMP trap name, select Alert level, Message. You need to configure SNMP settings first.
Upload Maestro device configuration	Name, Select Maestro device; select Maestro configurations for the selected device.
User script	Name, click LOAD SCRIPT.
WOL	Name, add the MAC address of the device, select the port.

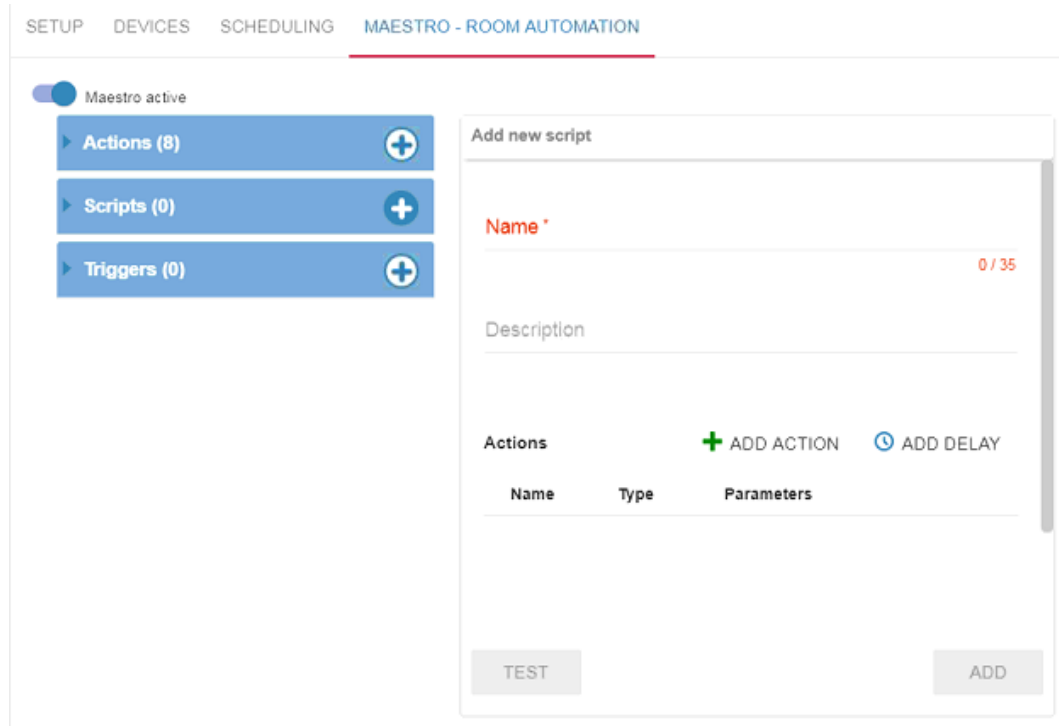
3.4.2 Scripts

A script includes a sequence of actions.

To create a script:


1. Click  next to **Scripts**.

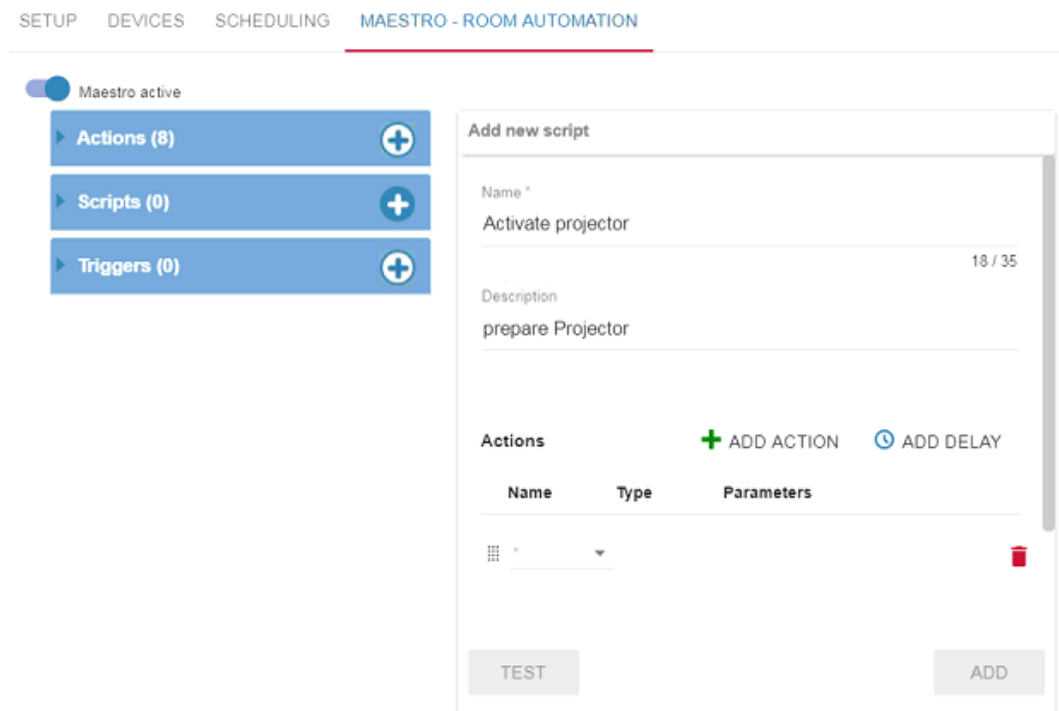
The Scripts window appears:



The screenshot shows the 'MAESTRO - ROOM AUTOMATION' sub-tab. On the left, there's a sidebar with 'Maestro active' toggle and three expandable sections: 'Actions (8)', 'Scripts (0)', and 'Triggers (0)', each with a plus icon. The main area is titled 'Add new script'. It contains a 'Name *' field with a character count '0 / 35', a 'Description' field, and an 'Actions' section. The 'Actions' section has a table with columns 'Name', 'Type', and 'Parameters'. Above the table are buttons for '+ ADD ACTION' and 'ADD DELAY'. At the bottom are 'TEST' and 'ADD' buttons.

Figure 60: Maestro Room Automation Sub-tab – Scripts Window

2. Enter the Script Name and Description and click  **ADD ACTION** (an Action line appears).



This screenshot shows the same 'Add new script' window as Figure 60, but with data entered. The 'Name *' field now contains 'Activate projector' (character count '18 / 35') and the 'Description' field contains 'prepare Projector'. In the 'Actions' section, a new row has been added to the table with a dropdown menu in the 'Name' column, a red trash icon in the 'Parameters' column, and an empty 'Type' column. The '+ ADD ACTION' and 'ADD DELAY' buttons are still present above the table.

Figure 61: Maestro Room Automation Sub-tab – Adding an Action Line

- Click the **Name** drop-down-box to select an action (the action type appears).


The screenshot shows the 'MAESTRO - ROOM AUTOMATION' sub-tab. On the left, there's a sidebar with 'Maestro active' toggle and three expandable sections: 'Actions (8)', 'Scripts (0)', and 'Triggers (0)'. The main area is titled 'Add new script'. It has a 'Name *' field with 'Activate projector' and a character count '18 / 35'. Below it is a 'Description' field with 'prepare Projector'. A dropdown menu for 'Actions' is open, showing options: 'Send Email', 'Select PC input', 'Select HDMI 1 input', 'Select HDMI 2 input', 'Port 1 Off', 'Projector aspect ratio', 'Projector Blank off', and 'Projector mute off'. To the right of the dropdown are '+ ADD ACTION' and '⌚ ADD DELAY' buttons. Below the dropdown is a 'Parameters' section with a red trash icon and an 'ADD' button.

Figure 62: Maestro Room Automation Sub-tab – Selecting an Action

- Select **Parameters**.


The screenshot shows the 'MAESTRO - ROOM AUTOMATION' sub-tab. On the left, there's a sidebar with 'Maestro active' toggle and three expandable sections: 'Actions (8)', 'Scripts (0)', and 'Triggers (0)'. The main area is titled 'Add new script'. It has a 'Name *' field with 'Activate projector' and a character count '18 / 35'. Below it is a 'Description' field with 'prepare Projector'. The 'Actions' dropdown is closed. Below the description are '+ ADD ACTION' and '⌚ ADD DELAY' buttons. A table with columns 'Name', 'Type', and 'Parameters' is visible. The first row shows 'Projector...' in the Name column, 'Device command' in the Type column, and 'VS-88UT (VS-88UT-1)' in the Parameters column. There is a red trash icon to the right of the Parameters column. At the bottom, there are 'TEST' and 'ADD' buttons.


Figure 63: Maestro Room Automation Sub-tab – Selecting the Parameter


5. Add any number of Actions and delays to the script. If required, click  to move the order of the lines or delete lines.

SETUP DEVICES SCHEDULING **MAESTRO - ROOM AUTOMATION**

☒ Maestro active

▶ **Actions (8)** 

▶ **Scripts (0)** 







▶ **Triggers (0)** 

Add new script

Activate projector 18 / 35

Description
prepare Projector

Actions + ADD ACTION ⌚ ADD DELAY

Name	Type	Parameters	
 Projector...	Device command	VS-88UT (VS-88UT-1)	
 Delay		5 sec	
 Select H...	Device command	FC-26 (FC-26-0027)	

TEST **ADD**

Figure 64: Maestro Room Automation Sub-tab – Actions Added to the Script





You can open the Action list and then drag-and-drop an action from the list to the Scripts action list.



6. Click **ADD**.
You can edit a script by standing on the script line.

SETUP DEVICES SCHEDULING **MAESTRO - ROOM AUTOMATION**

☒ Maestro active

▶ **Actions (8)** 

▼ **Scripts (2)** 

Name	Description	# Actions	
Activate projector	Projector operation	3	
select sources	routing signals	4	



▶ **Triggers (0)** 

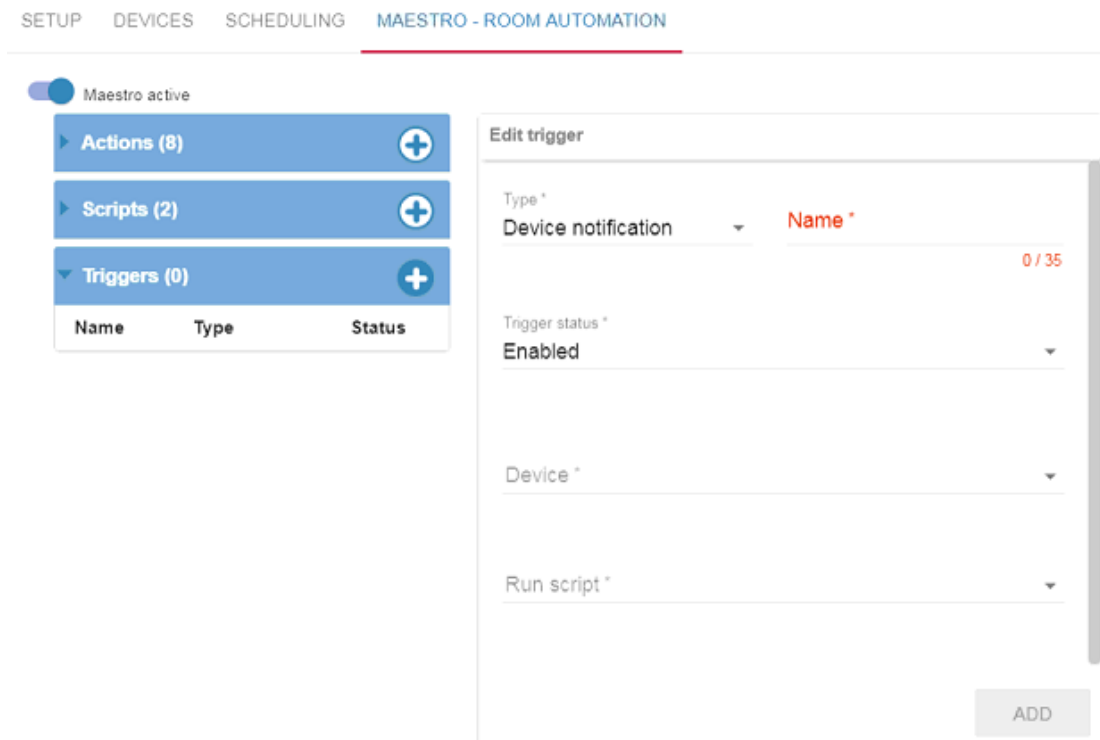
Figure 65: Scripts List

3.4.3 Triggers

A script is carried out by a trigger.

To create a trigger:

1. Click  next to **Triggers**.
The Triggers window appears:



SETUP DEVICES SCHEDULING MAESTRO - ROOM AUTOMATION

Maestro active

Actions (8) +

Scripts (2) +

Triggers (0) +

Name	Type	Status
------	------	--------

Edit trigger

Type *
Device notification ▼

Name *
0 / 35

Trigger status *
Enabled ▼

Device *
▼

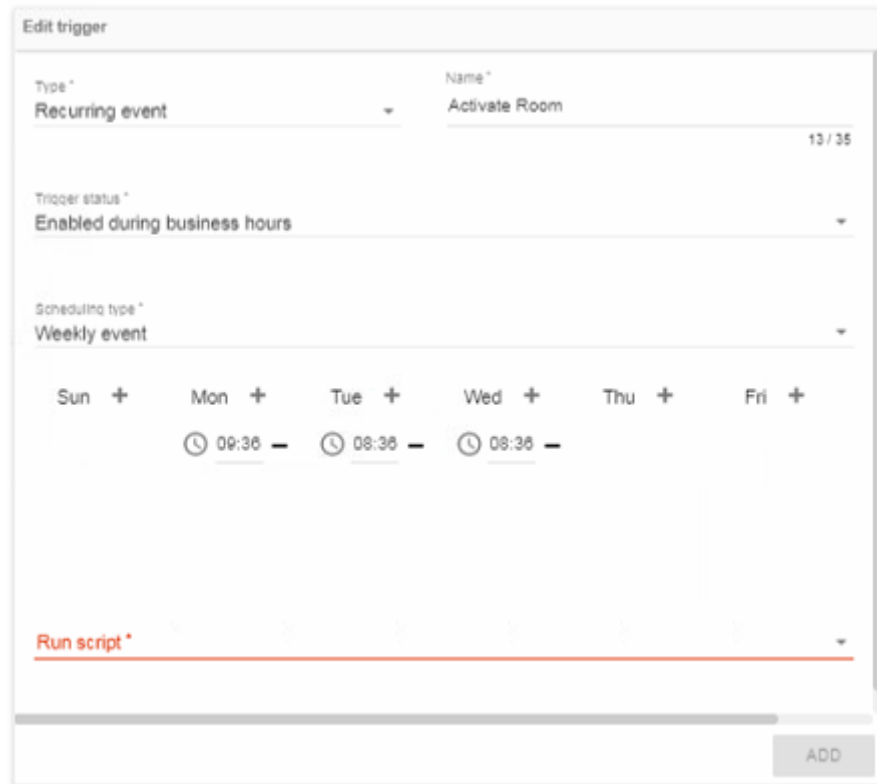
Run script *
▼

ADD

Figure 66: Maestro Room Automation Sub-tab – Triggers Window

2. Select the trigger Type from the list, enter the trigger Name and select the Trigger status.

- Set the scheduling type to weekly (select the days and time) or a one-time event (select the date and time).



The 'Edit trigger' window shows the configuration for a recurring event. The 'Type' is set to 'Recurring event' and the 'Name' is 'Activate Room'. The 'Trigger status' is 'Enabled during business hours'. The 'Scheduling type' is 'Weekly event'. The days of the week are listed with plus signs, and the times are set to 09:36, 08:36, and 08:36. The 'Run script' field is highlighted in red.

Type *	Name *
Recurring event	Activate Room

13 / 35

Trigger status *

Enabled during business hours

Scheduling type *

Weekly event

Sun + Mon + Tue + Wed + Thu + Fri +

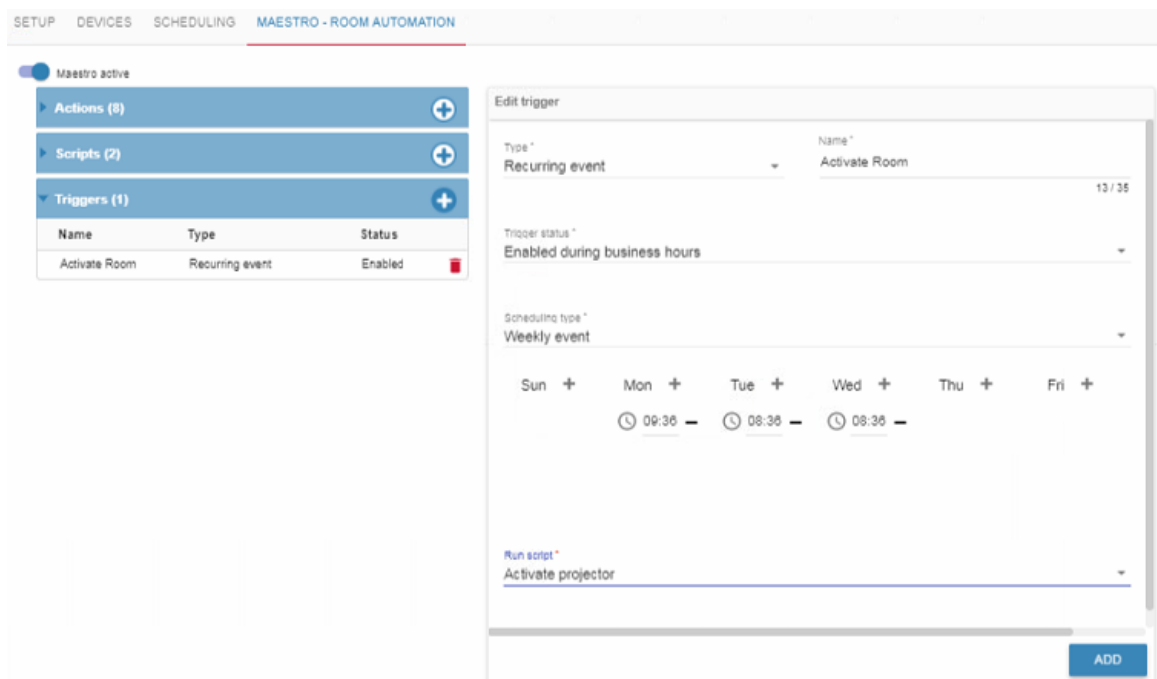
09:36 - 08:36 - 08:36 -

Run script *

ADD

Figure 12: Maestro Room Automation Sub-tab – Creating a Trigger

- Select the script from the list.



The 'Edit trigger' window shows the configuration for a recurring event. The 'Type' is set to 'Recurring event' and the 'Name' is 'Activate Room'. The 'Trigger status' is 'Enabled during business hours'. The 'Scheduling type' is 'Weekly event'. The days of the week are listed with plus signs, and the times are set to 09:36, 08:36, and 08:36. The 'Run script' field is highlighted in blue.

Type *	Name *
Recurring event	Activate Room

13 / 35

Trigger status *

Enabled during business hours

Scheduling type *

Weekly event

Sun + Mon + Tue + Wed + Thu + Fri +

09:36 - 08:36 - 08:36 -

Run script *

Activate projector

ADD

Figure 67: Maestro Room Automation Sub-tab – Adding the Run Script

- Click **ADD**.

In the same way, add as many triggers as required.

4 Manage Page

The **Manage** page includes the

- **ROOM VIEW** tab (see [Section 4.1](#)).
- **MATRIX VIEW** tab (see [Section 4.2](#)).

4.1 ROOM VIEW Tab

The Room View tab lets you arrange and design the room view as you need.

Admins can then be granted permission to access a group of rooms from the Super. Users can then be granted permission to access specific rooms from Admins.

In the ROOM VIEW you can:

- Select rooms (to edit) and Pro AV devices (to add to a room) from the left-side column.
- Create or edit the room view within the center window.
- Associate scenarios (created in the **MATRIX VIEW** tab, see [Section 4.2](#)) via the **Scenarios** column to the right.

To access the ROOM VIEW:

1. In the navigation pane click **Manage** and then select the **ROOM VIEW** tab. The following window appears.

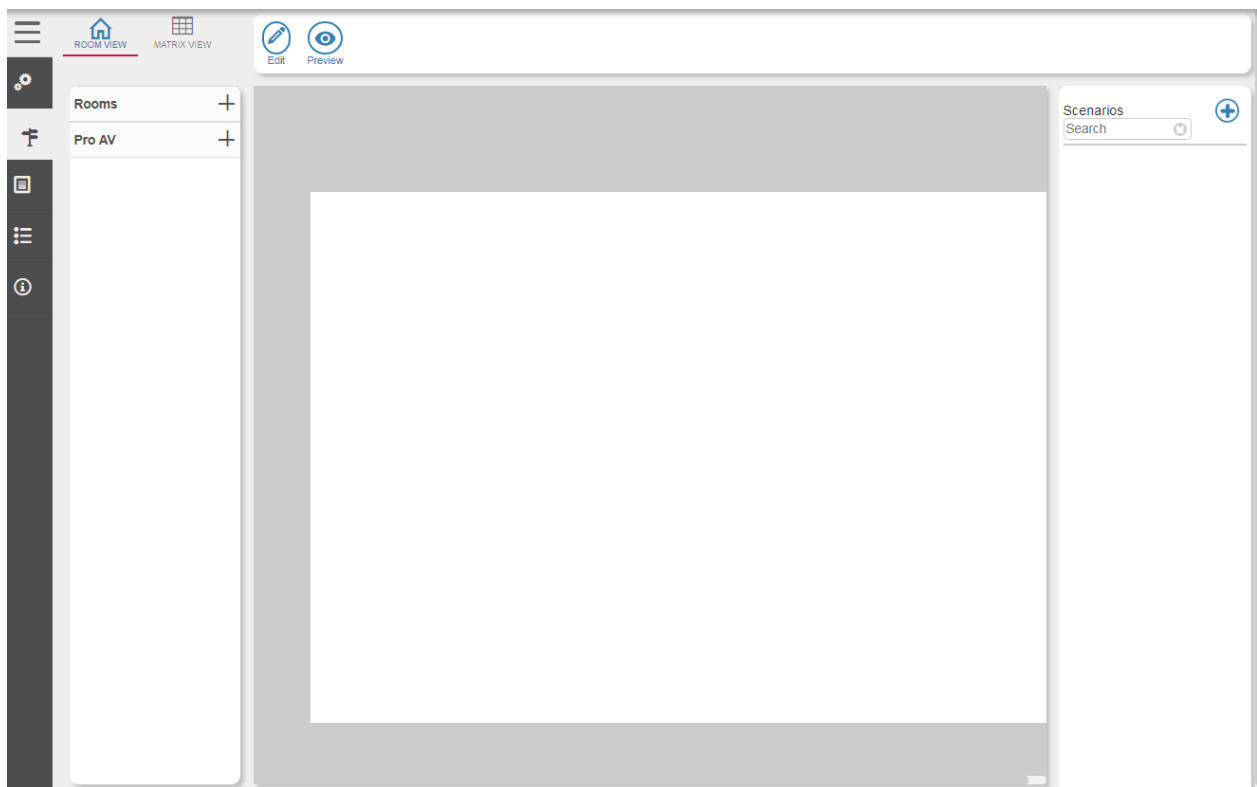


Figure 68: Room View

4.1.1 Creating Room View Design Elements

To create the room view design elements:



1. In the navigation pane click **Manage** and then select the **ROOM VIEW** tab.
2. Click  to open the ROOM VIEW editing options. All the editing options are displayed:



Figure 69: Room View Edit Bar

3. Click  to download the images that you will use. The manage images window appears:

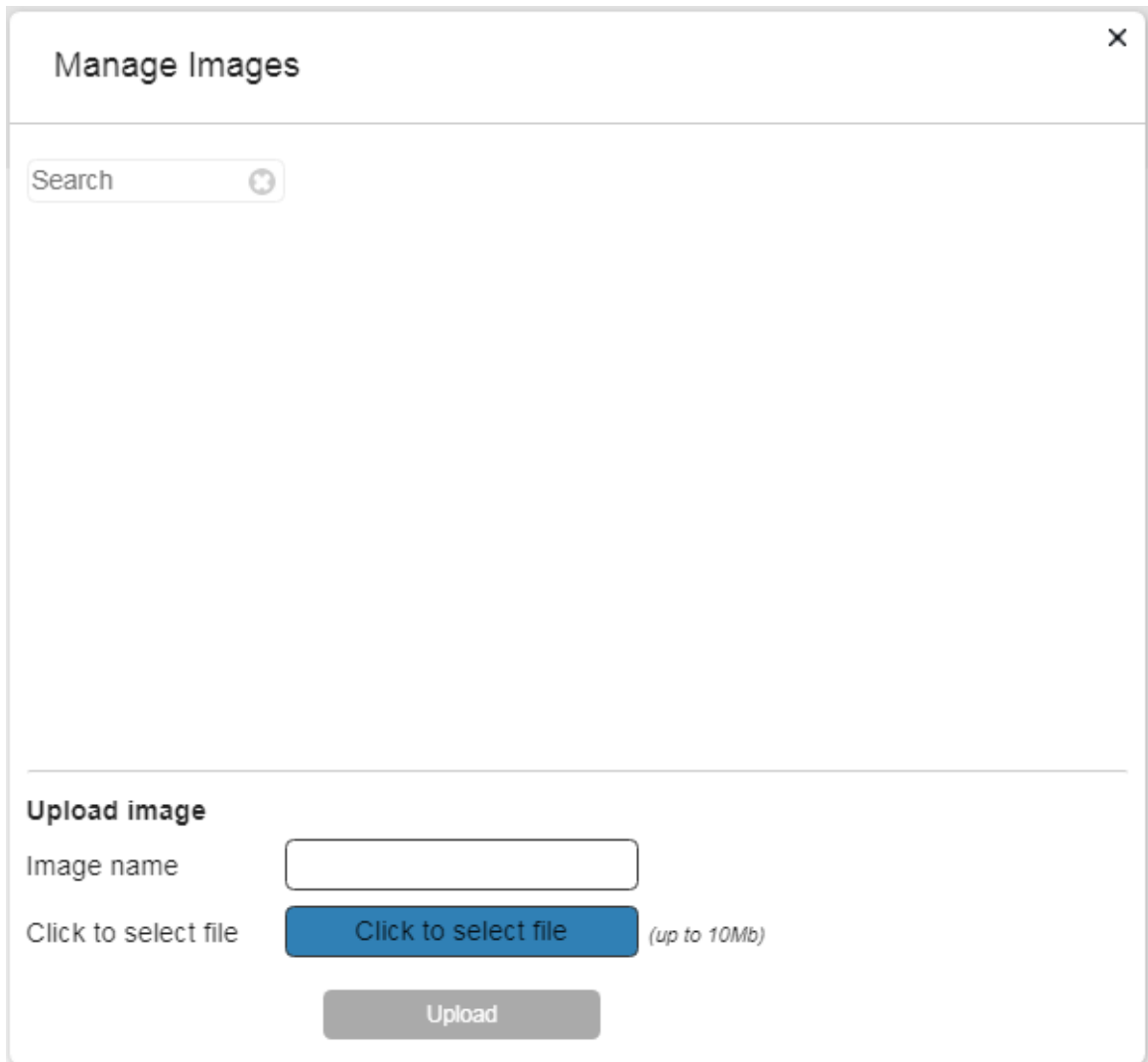


Figure 70: Downloading Images

4. Click **Click to select file**:
5. Select a background and click **Open**.

6. In the **Image name** text box, type its name and click **Upload**.
In the same way select all the backgrounds you need.

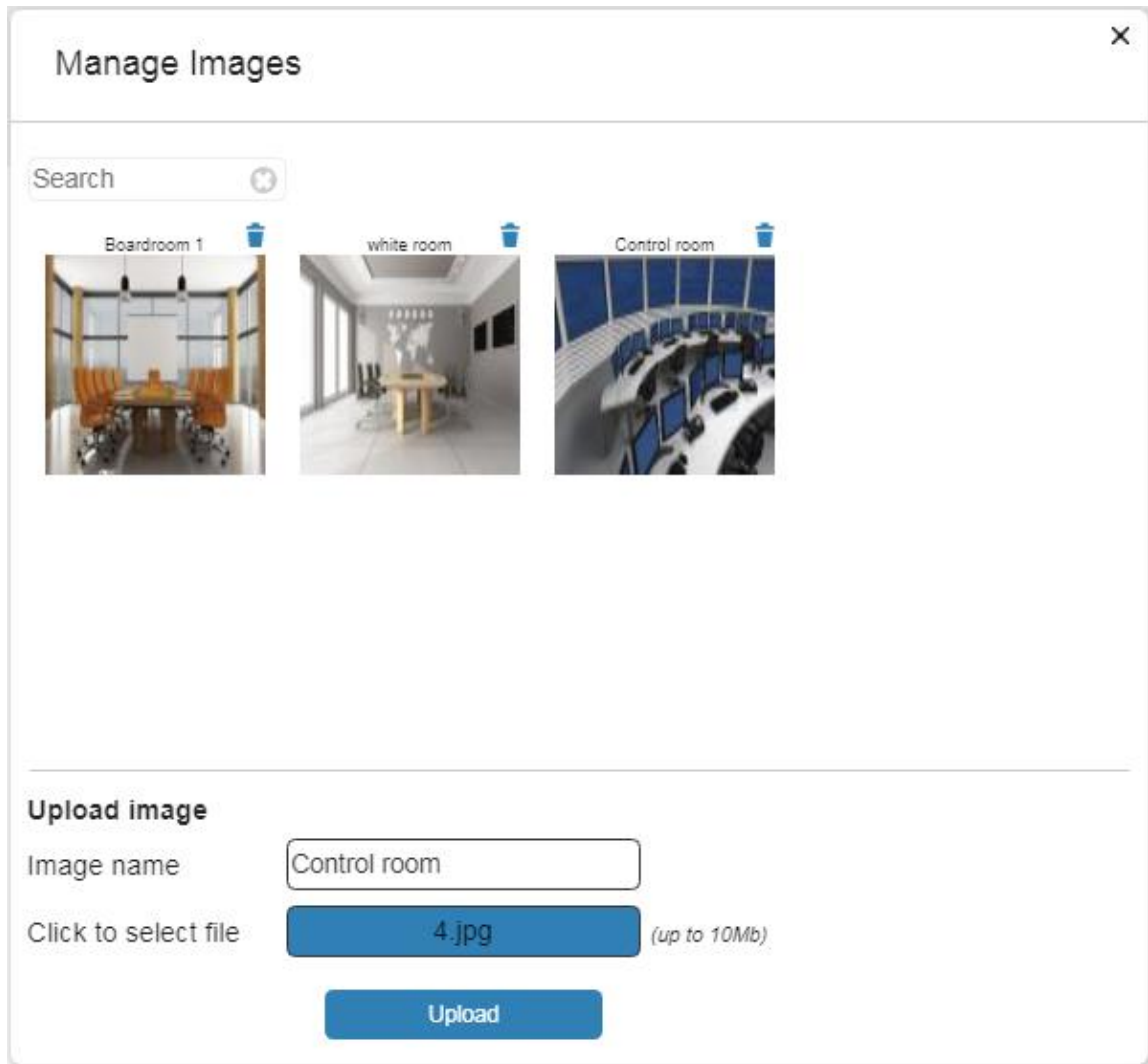


Figure 71: Uploaded Images

7. Click **x** at the top right to exit the **Manage Image** window.

4.1.2 Designing the Room View

To design the room view (Room 8 on Floor 6 in this example):

1. In the navigation pane click **Manage** and then select the **ROOM VIEW** tab.
2. Click **+** to view the list of available rooms on floor 6.



Figure 72: Floor 6 Room List

3. Select room 8. Room 8 appears and displays the associated devices.

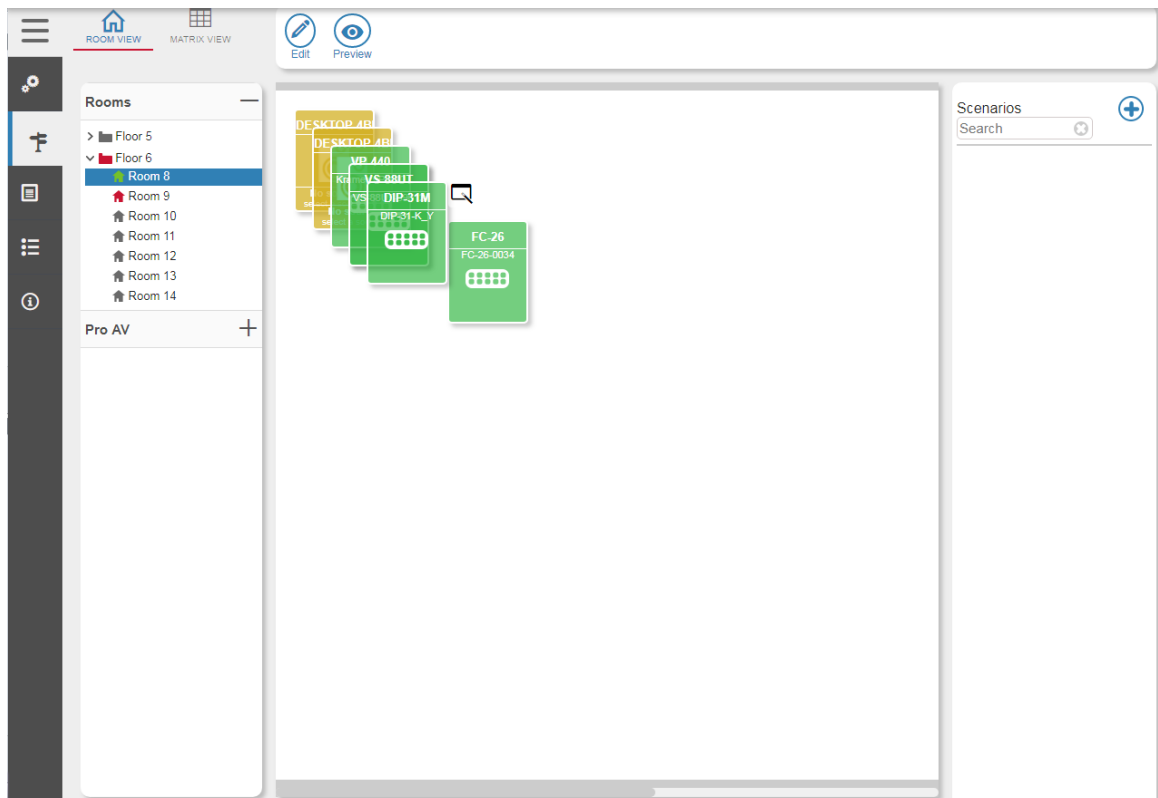
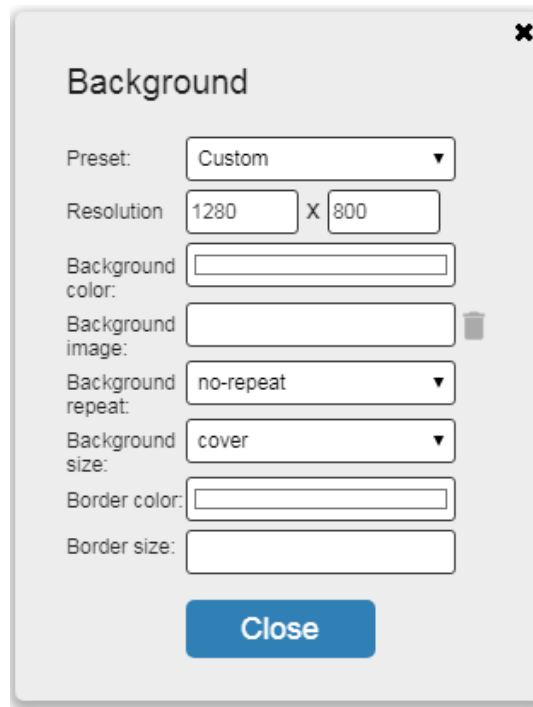


Figure 73: Devices in a Room

4. Click  .

5. Right-click the room-view window. The background dialog box appears:

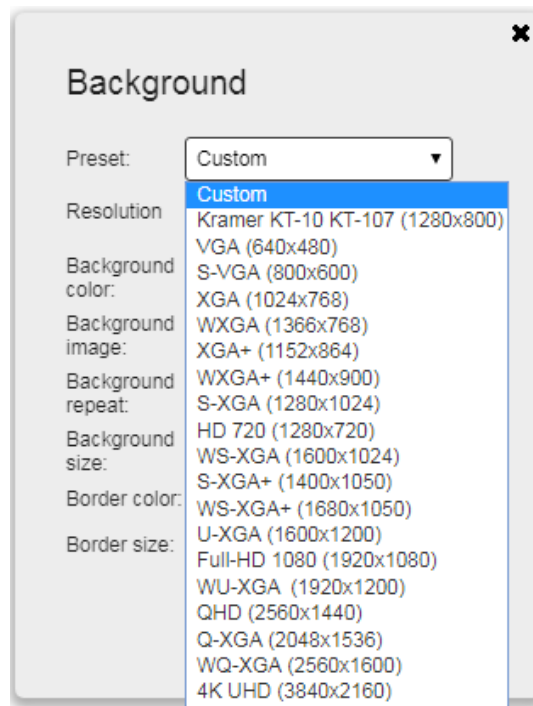


The 'Background' dialog box is a light gray window with a close button (X) in the top right corner. It contains the following fields and controls:

- Preset:** A dropdown menu currently showing 'Custom'.
- Resolution:** Two input fields showing '1280' and '800' separated by an 'X'.
- Background color:** A color selection box.
- Background image:** A text input field with a trash icon to its right.
- Background repeat:** A dropdown menu showing 'no-repeat'.
- Background size:** A dropdown menu showing 'cover'.
- Border color:** A color selection box.
- Border size:** A text input field.
- Close:** A blue button at the bottom center.

Figure 74: Creating a Background

6. Set the following:
- The resolution: either a custom resolution, or a pre-defined resolution:



The 'Background' dialog box is shown with the 'Resolution' dropdown menu open. The list of resolutions includes:

- Custom
- Kramer KT-10 KT-107 (1280x800)
- VGA (640x480)
- S-VGA (800x600)
- XGA (1024x768)
- WXGA (1366x768)
- XGA+ (1152x864)
- WXGA+ (1440x900)
- S-XGA (1280x1024)
- HD 720 (1280x720)
- WS-XGA (1600x1024)
- S-XGA+ (1400x1050)
- WS-XGA+ (1680x1050)
- U-XGA (1600x1200)
- Full-HD 1080 (1920x1080)
- WU-XGA (1920x1200)
- QHD (2560x1440)
- Q-XGA (2048x1536)
- WQ-XGA (2560x1600)
- 4K UHD (3840x2160)

Figure 75: Setting the Resolution

- Click **Background color** to select the background color.

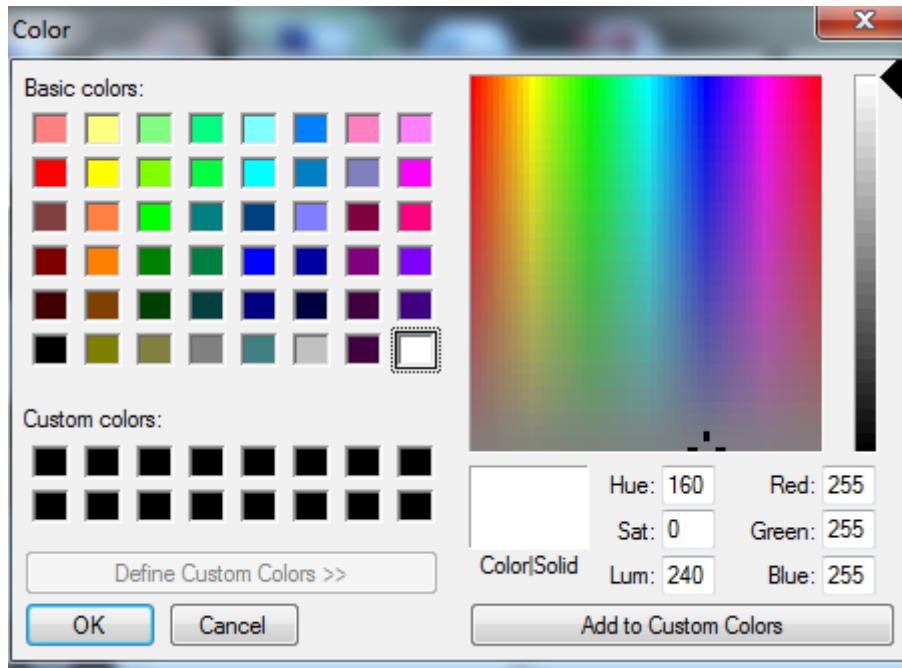


Figure 76: Setting Background Color

- Click **Background image** to insert a background image and also other images that you can use later (such as on/off buttons).

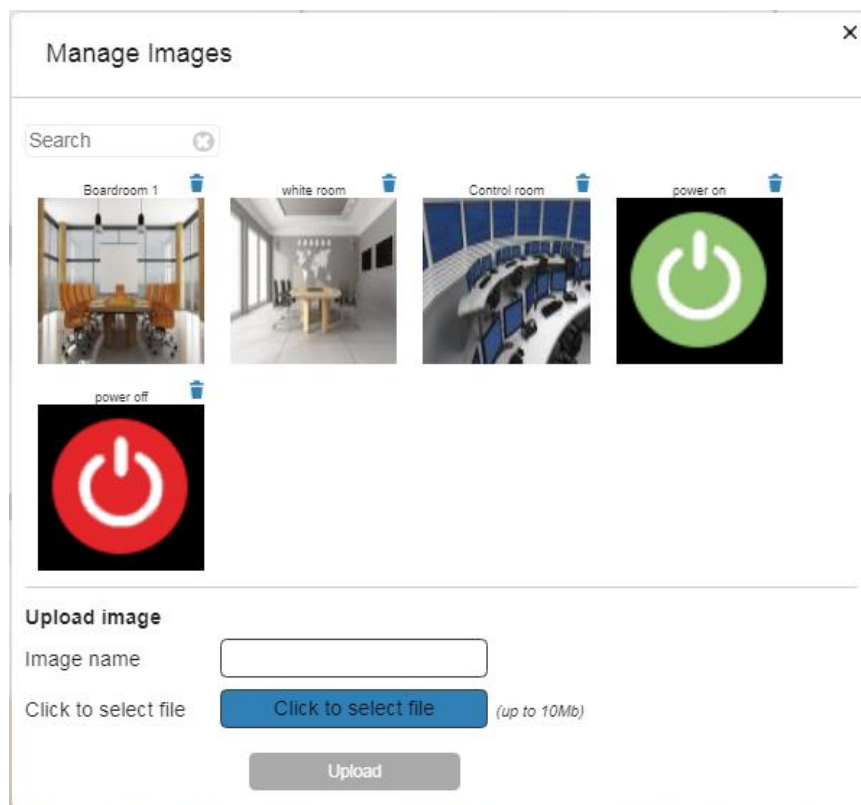


Figure 77: Selecting an Image

- Click **Background repeat** to select **no repeat**, **repeat**, **repeat-x** or **repeat-y**.

Background Repeat Options	Definition
No repeat (or empty)	The background-image will not be repeated.
Repeat	The background image will be repeated both vertically and horizontally.
Repeat-X	The background image will be repeated only horizontally.
Repeat-Y	The background image will be repeated only vertically.

- Click **Background size** to select **Initial**, **contain** or **cover**.

Background Size Options	Definition
Initial (or empty)	Leave the image at its initial size and crop it.
Contain	Scale the image so that both its width and its height can fit inside the content area.
Cover	Scale the background image to be as large as possible so that the background area is completely covered by the background image. Some parts of the background image may not be in view within the background positioning area.

- Click **Border color** and **Border size**.
7. Click **Close** after setting the background.

Figure 78: Background Setup Complete

The room view appears accordingly:

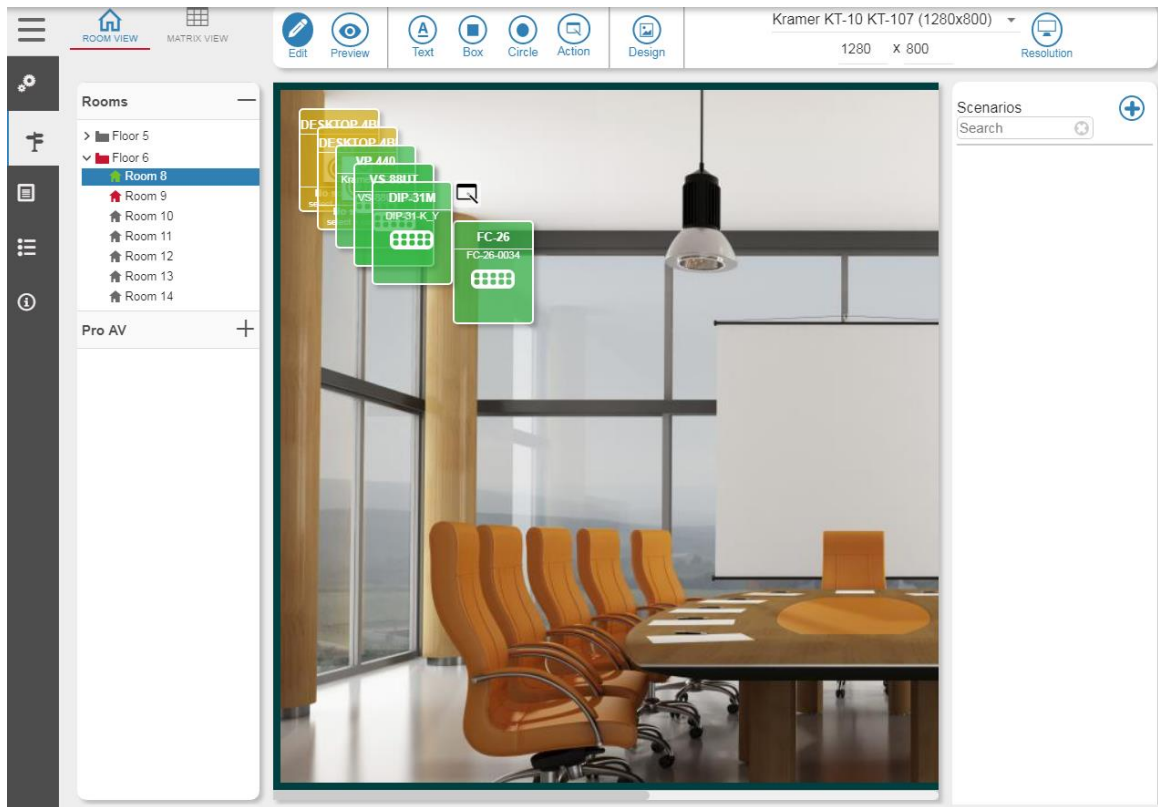


Figure 79: Designed Room View


8. If required, click  to open the Pro AV list and add a device to the room.
9. Move the devices to place them next to their physical location (or any other convenient location).
10. Right-click a device to open its location parameters (left and top), and change the numbers to align the devices.
11. Hover over a device to see its details and double-click the icon to open its web page.




Figure 80: Device Details in Room View

12. If required, add the following elements to the room view:


- Text, see [Section 4.1.2.1](#).
- Box and/or Circle, see [Section 4.1.2.2](#).
- Action, see [Section 4.1.2.3](#).

13. Click  to view the designed room.

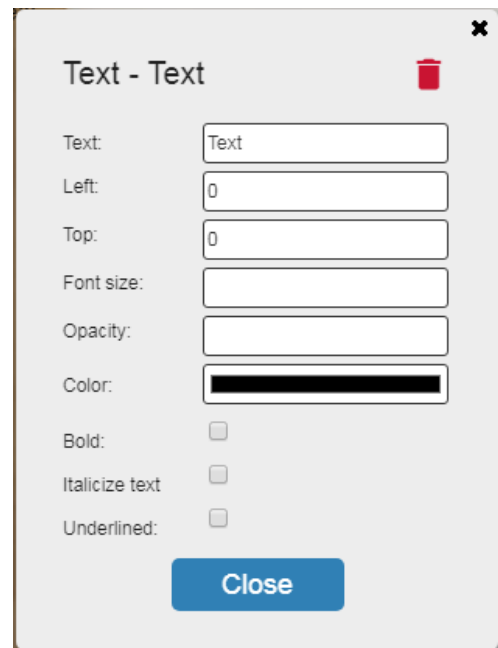
4.1.2.1 Adding Text

Click  to add text to the room view and then right-click the word **Text** that appears in the room view. The following window opens:

Type the text, select its location (distance from **Left** and **Top**), the font size, **Opacity** (0 is transparent and 100 opaque) the font **Color** and appearance (**Bold**, **Italic** or **Underline**).

Click  to remove the text from the room view.



You can drag-and-drop the text anywhere in the room view.



The image shows a dialog box titled "Text - Text" with a close button (X) in the top right corner. The dialog contains several input fields and checkboxes for configuring text. The fields are: "Text" (containing "Text"), "Left" (containing "0"), "Top" (containing "0"), "Font size:" (empty), "Opacity:" (empty), and "Color:" (a black color bar). Below these are three checkboxes: "Bold:", "Italicize text", and "Underlined:", all of which are currently unchecked. A blue "Close" button is located at the bottom right of the dialog.


Figure 81: Adding Text

4.1.2.2 Adding a Box or a Circle

Click   . A box/circle appears in the room view. To edit the circle right-click the box area (this example shows a circle, but the same applies to a box).

You can:

- Type the **Title**.
- Set the distance of the title from the **Top** and **Left**.
- Select the **Title color**.
- Link **Destination**.
Set a link in the page to any of the other rooms in the system, letting you go from one room to another by clicking the link in the box.
- Set **Opacity** (0 is transparent and 100 opaque).
- Define the **Width** and the **Height** of the circle.
- Set the location of the circle (distance from **Left** and **Top**).
- Set the circle's Background color or Background image.
- Choose **Background repeat** (no repeat, repeat-x, repeat-y) and **Background size** (initial, contain, cover).
- Choose the **Border color** and type the **Border size**.

Click  to remove the circle from the room view.

You can drag-and-drop the circle anywhere in the room view.



Circle - New circle

Title:

Title top:

Title left:

Title color:

Destination:

Opacity:

Width:

Height:

Left:

Top:

Background color:

Background image:

Background repeat:

Background size:

Border color:

Border size:

Close

Figure 82: Adding a Circle/Box

4.1.2.3 Adding an Action

The action button can activate a script (see [Section 3.4](#)) and/or a scenario.

Before adding a scenario, click  to open the Scenario selection window:

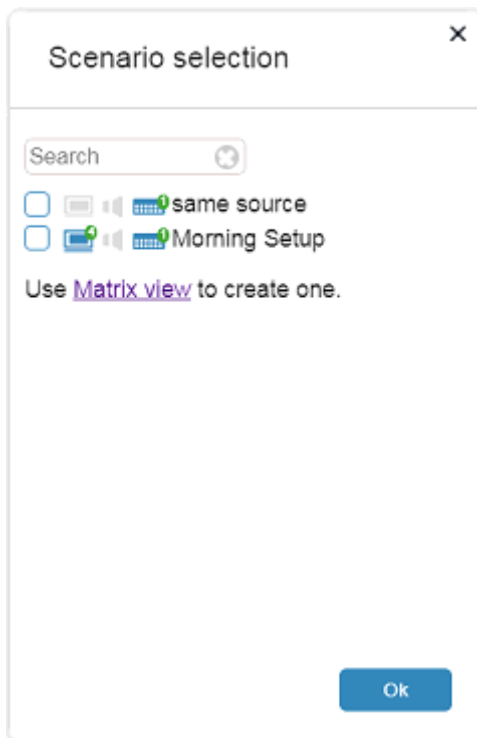


Figure 56: Scenario Selection Window

Check the scenarios to add to the room view and click **OK**. The selected scenarios appear under the scenario list.

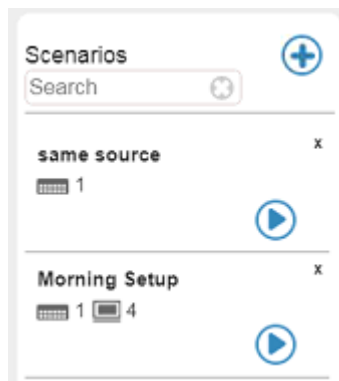



Figure 56: Room View Scenario List


You can run the scenarios or add them to an action button.

To add an action button (to run a script and/or a scenario), click . An Action circle appears in the room view. Right-click the Action button to edit it.


- Select a **Scenario** type from the drop-down list.
- Select a Script type from the drop-down list.

Scenario:	Morning Setup ▼
Maestro script:	select sources ▼

- Type the **Title**.
- Set the distance of the title from the **Top** and **Left**.
- Select the **Title color**.
- Link **Destination**.
Set a link in the page to any of the other rooms in the system, letting you go from one room to another by clicking the link in the box.
- Set **Opacity** (0 is transparent and 100 opaque).
- Define the **Width** and the **Height** of the circle.
- Set the location of the circle (distance from **Left** and **Top**).
- Set the circle's Background color or Background image.
- Choose **Background repeat** (no repeat, repeat-x, repeat-y) and **Background size** (initial, contain, cover).
- Choose the **Border color** and type the **Border size**.
- Type the Border radius.

Click  to remove the circle from the room view.

You can drag-and-drop the circle anywhere in the room view.

Script/Scenario - 

Scenario: No scenario ▼

Script: No script ▼

Title:

Title top:

Title left:

Title color:

Destination: No linked destination ▼

Opacity:

Width:

Height:

Left:

Top:

Background color:

Background image:

Background repeat: no-repeat ▼

Background size: cover ▼

Border color:

Border size:

Border radius:

Close

Figure 83: Add a Circle/Box

4.1.3 Device Operations in the Room View

Right click a device to set its exact location in the room view. You can load projects such as virtual panels to room controllers

To control via a Room Controller (for example, the RC-74DL):

1. Select Manage > **ROOM VIEW**.
2. From the Pro AV area, Drag-&-Drop the **RC-74DL** room controller device.

3. Fill-in the IP address, port type and number.
4. Right-click the device.

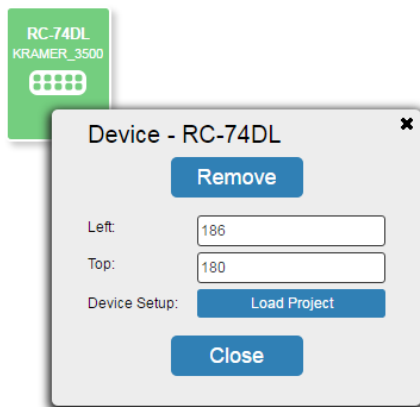



Figure 84: Loading a Room Controller Project

5. Click **Load Project**.
After a few seconds, the list of panels (as configured in the **K-Config 3** project) is uploaded to the device.

 The panels loaded include the physical Master panel, the auxiliary physical device panels and the virtual-panel (id: 11).

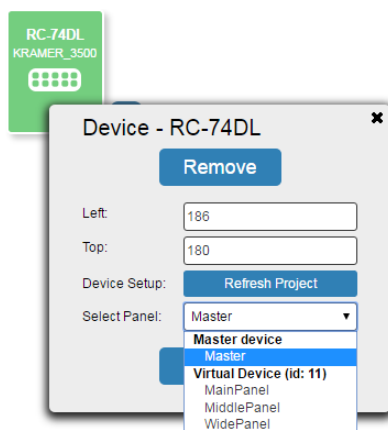


Figure 85: Loading Room Controller Panels

6. Select a panel and close the Device pop-up window.
A control Icon appears next to the **RC-74DL** device.
7. Click the control icon.
The device control panel appears.



Figure 86: RC-74DL Control Panel

4.1.4 Room Schedule

When LDAP is defined (see [Section 0](#)) and the room scheduling is configured (see [Section 3.3](#)), you can check the room availability and schedule a meeting in a room via ROOM VIEW.

To schedule a meeting:

1. In the navigation pane, click **Manage > ROOM VIEW**.
2. Access the room.
3. On the top right side, the room status icon appears with the room schedule on its right:



Figure 87: Room Availability and Schedule

4. Click **Room schedule**. The following message appears:

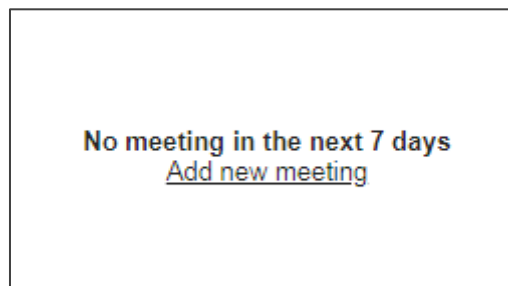


Figure 88: Scheduling Message

5. Click **Add new meeting**. The following window appears:

A form titled 'Create a new event'. It has three main sections: 'Event title' with the text 'Reserved meeting', 'Date' with the text 'Today', and 'TIME' with a time range '15:00 - 15:30' indicated by clock icons. Below these is a horizontal timeline from 11:00 to 19:00 in 30-minute increments. The 15:00-15:30 slot is highlighted with a dark grey bar. At the bottom right are two buttons: 'CANCEL' and 'CREATE'.

Figure 89: Creating a New Event

6. Type the meeting title, set the date and the time.

Create a new event

Event title
weekly meeting

Date
Thu, Apr 12, 2018

TIME

🕒 14:30 - 🕒 16:00

00
11:30
12:00
12:30
13:00
13:30
14:00
14:30
15:00
15:30
16:00
16:30
17:00
17:30
18:00
18:30
19:00

CANCEL
CREATE

Figure 12: Meeting Details

7. Click **CREATE**. The event is created and a notification appears.

The room schedule for the current day appears as follows:



<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  <p>Reserved meeting 15:30 - 16:00</p> </div> <div style="text-align: center;">  <p>Room schedule 11-04-2018 ▼</p> </div> </div>	
11/4/2018	Today +
15:30 - 16:00	Reserved meeting
16:00 - 16:30	Free
16:30 - 18:00	Reserved meeting
18:00 - 14:30	Free

Figure 90: Room Schedule for the Day

4.2 MATRIX VIEW Tab

Use **MATRIX VIEW** to manage PRO AV and AV streaming devices.

You can:

- Route **PRO AV** devices or **AV streaming** from the lists in the left-side column and switch the selected device's audio or video inputs to outputs within the selected matrix, see [Section 4.2.1](#).
- Create scenarios via the **Scenarios** column on the right side, see [Section 4.2.2](#).

4.2.1 Routing Inputs to Outputs

You can route PRO AV devices or streaming devices to the outputs in various rooms. In the following example, **VS-88UT** is assigned to P Matrix Room.

To route VS-88UT video signals:

1. In the navigation pane click **Manage > MATRIX VIEW**.
2. Click **+** to open the Pro AV device list.



If you cannot find a device in the list, go to the Supported Device list (see [Section 6.2.3](#)) to check which features are supported by **KRAMER NETWORK** for this device.

3. Select **VS-88UT** from the list.

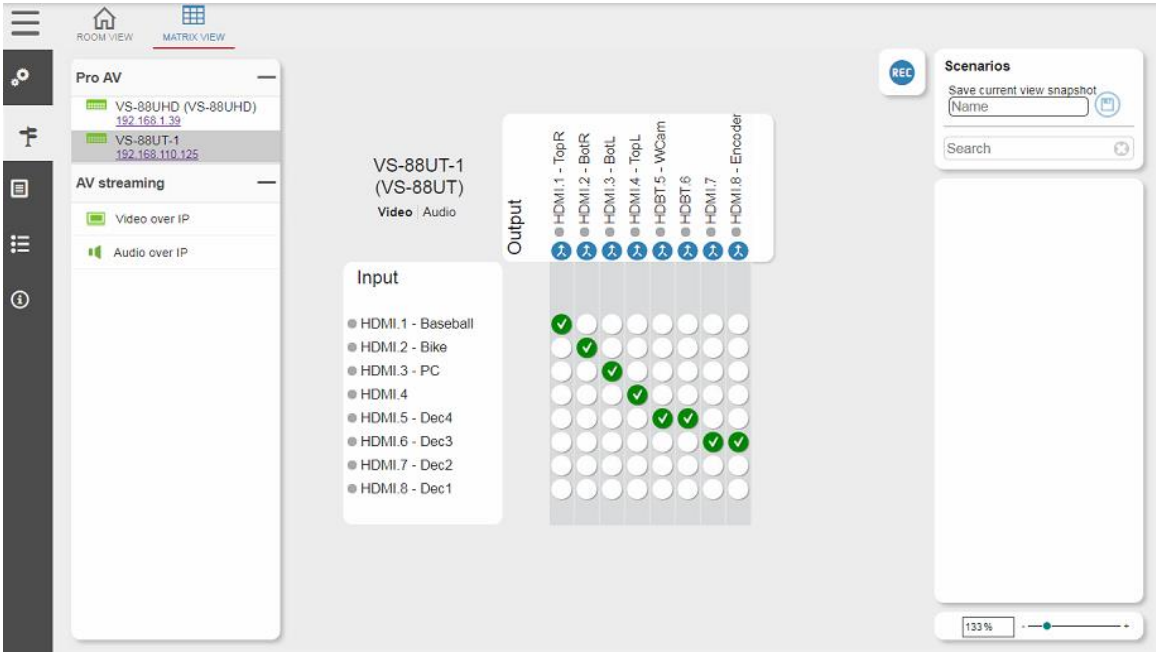







Figure 91: Matrix View – Pro AV Video Routing

4. Click an empty cross-point  to connect an input to an output (for example, in [Figure 91](#) HDMI 1 input is routed to HDMI 1 output but not to HDMI 2 output).

Cross-point Icons	Description
	Signal is detected and routed (Pro AV and AV Streaming).
	The device is disconnected from the network, therefore routing is not possible (AV Streaming).
	Warning. Routing is disabled. (AV Streaming).
	Cross-point is not selected (Pro AV and AV Streaming).



Each selected matrix displays its special characteristics. For example, for **VS-88UT** you can set audio-follow-video or breakaway mode per output.

To route VS-88UT audio signals:

1. In the navigation pane, click **Manage > MATRIX VIEW**.
2. Click **+** to open the Pro AV device list.
3. Select **VS-88UT** from the Pro AV list.

- In the Matrix view, select **Audio**.
- Route the audio inputs to the outputs.
Specifically for **VS-88UT**, you can set audio-follow-video or breakaway mode and set the volume for certain inputs and outputs. Other devices may show different characteristics.

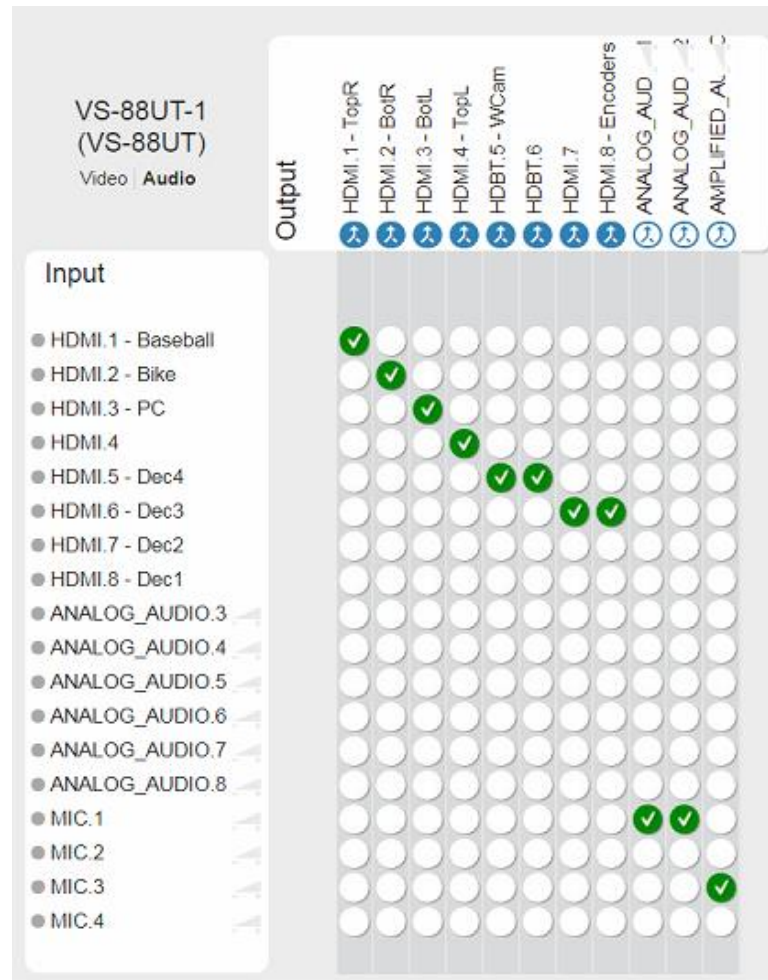



Figure 92: Matrix View – Pro AV Audio Routing

To route streaming devices (for example, Video over IP):

- In the navigation pane, click **Manage > MATRIX VIEW**.
- Click **+** to open the AV streaming list.
- Select **Video over IP** from the Pro AV list.
- Click an empty cross-point  to connect an input to an output.

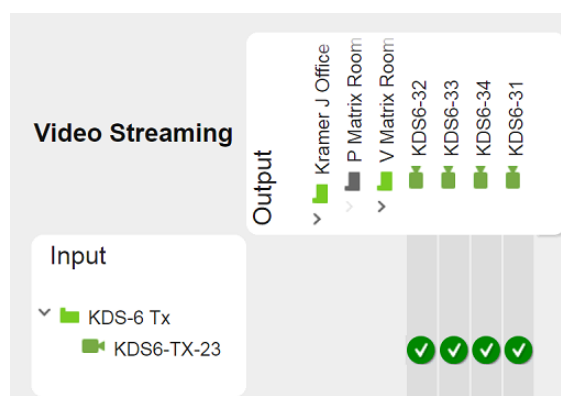


Figure 93: Matrix View – Video Streaming Routing

4.2.2 Creating and Using Scenarios

Scenarios are routing setups that can be saved and then loaded whenever needed. You can create scenarios in two different methods:

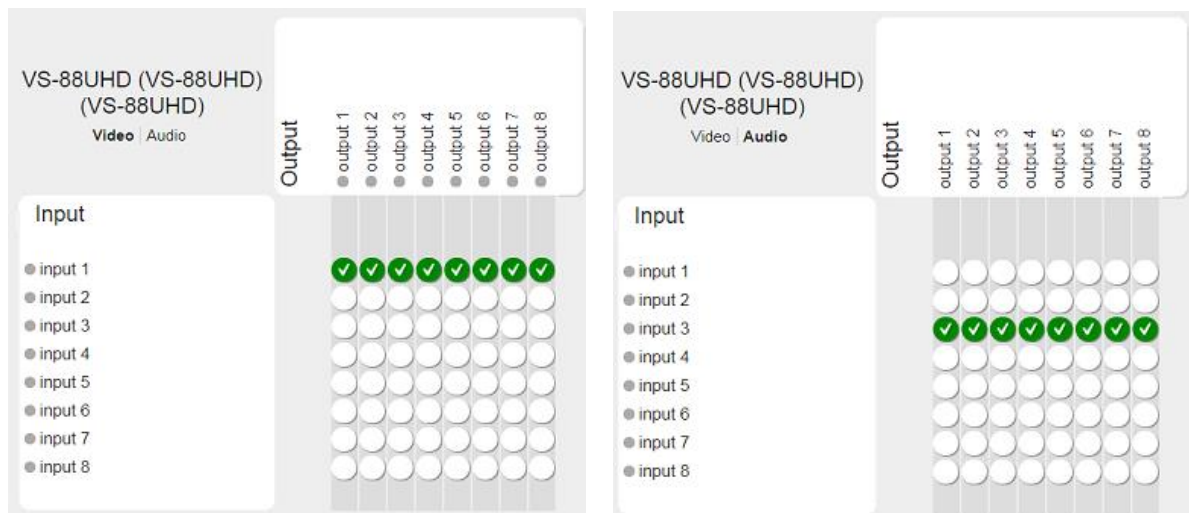
- Snapshot, to save the current setup as a scenario.
- Recording, to create a setup offline (without affecting the current setup).

Scenarios can be used as actions in scripts, added to the room view as part of an action button or used in MATRIX VIEW to quickly apply a setup.

4.2.2.1 Snapshot Scenario

To create a snapshot scenario:

1. In the navigation pane click **Manage > MATRIX VIEW**.
2. Click **+** to open the Pro AV device list.
3. Select **VS-88UHD** from the Pro AV list.



Current Video and Audio Setup

4. In the **Scenarios** box, enter the Scenario name to the text box under **Save current view snapshot**.

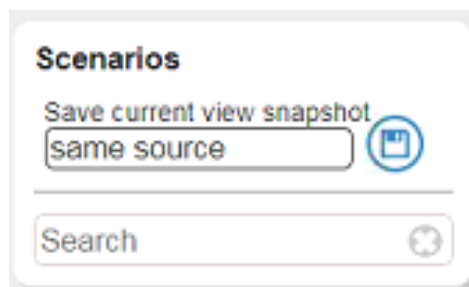



Figure 94: Snapshot Scenario

- Click . The scenario is saved in the scenario list.

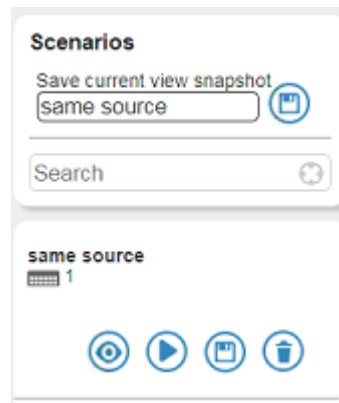






Figure 56: A Scenario Saved to the List


You can click:

-  to change the scenario details offline (switch to the recording method).
-  to upload the scenario.
-  to save updates to the scenario.
-  to delete the scenario.

4.2.2.2 Recorded Scenario

The recorded scenario is created offline and can include multiple Pro AV and streaming devices in one setup. Once saved, an entire configuration can be uploaded with one press of a button.

To record a setup:

- In the navigation pane click **Manage > MATRIX VIEW**.
- Click **+** to open the Pro AV device list and **+** to open the AV streaming list.
- Click . The matrix turns offline.

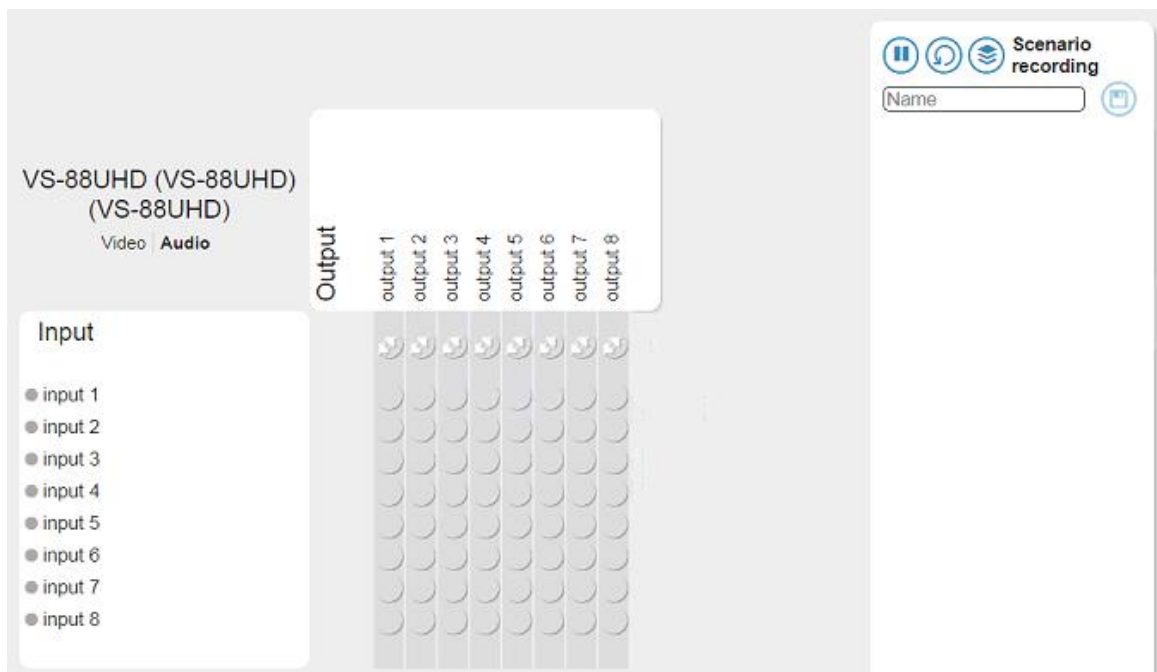


Figure 56: Recording a Scenario

- Set the device (for example, **VS-88UHD**).

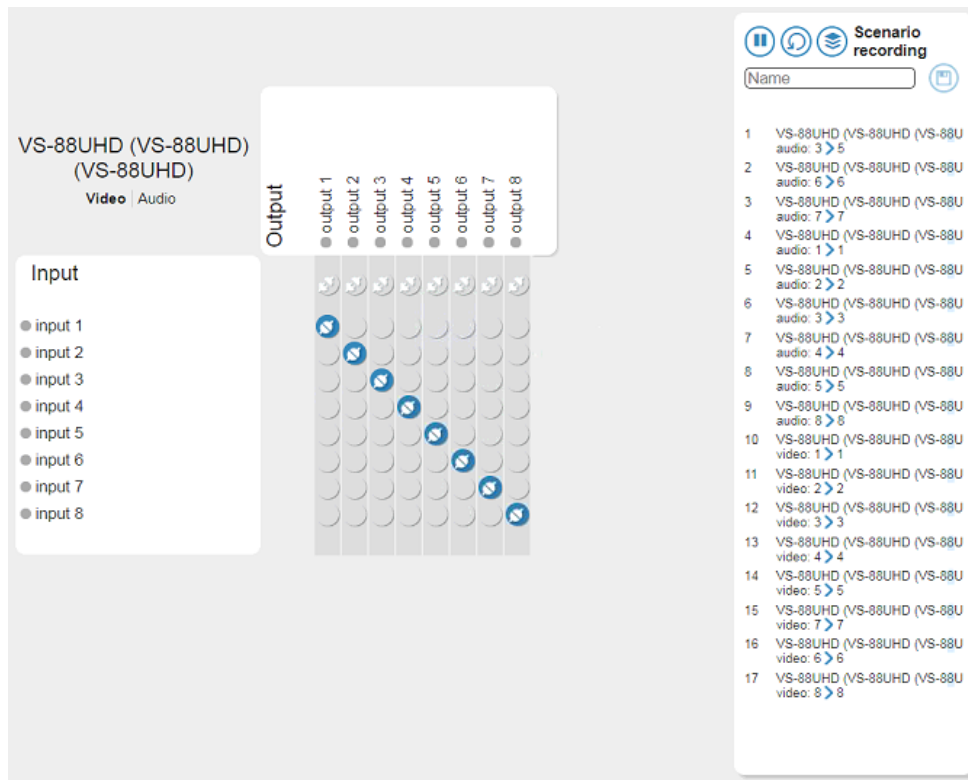


Figure 56: Recording Process (Pro AV)

The matrix shows the setup and the specific setups are list under Scenario recording on the right.

- Select another Pro AV device from the list and set its configuration and/or open AV streaming devices (for example, under Video over IP) and configure them too.

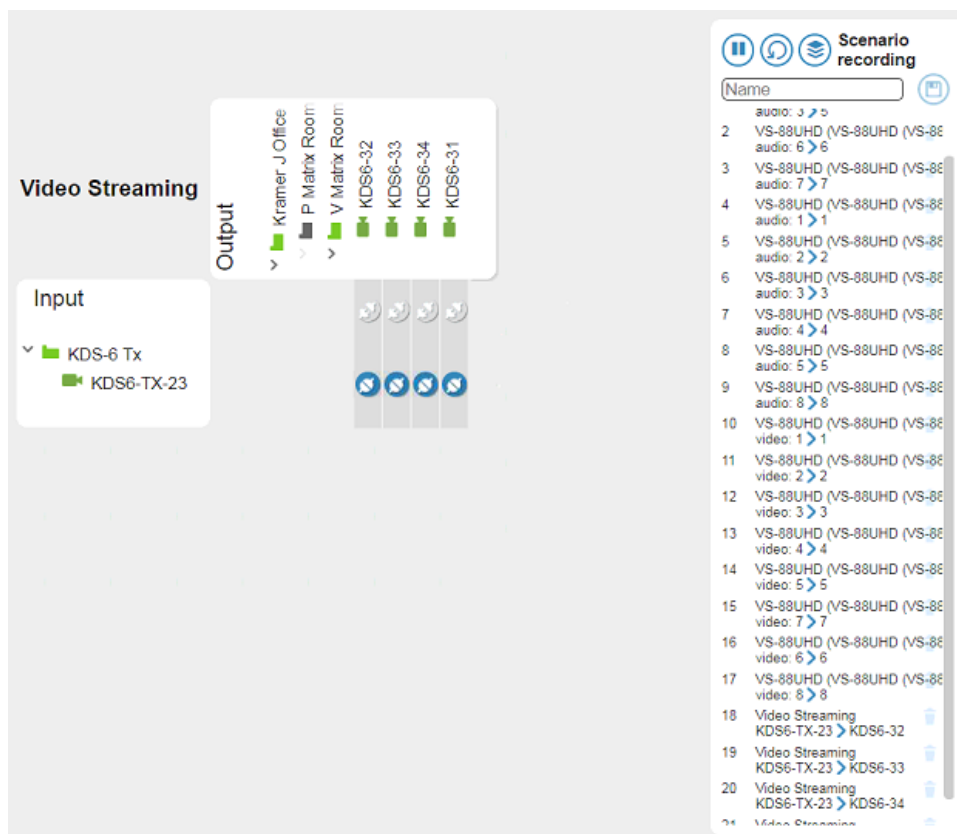



Figure 56: Recording a Scenario (Pro AV and Streaming)

6. Once the recording is complete, enter the Scenario name.

7. Click . The recorded scenario is saved and added to the scenario list.

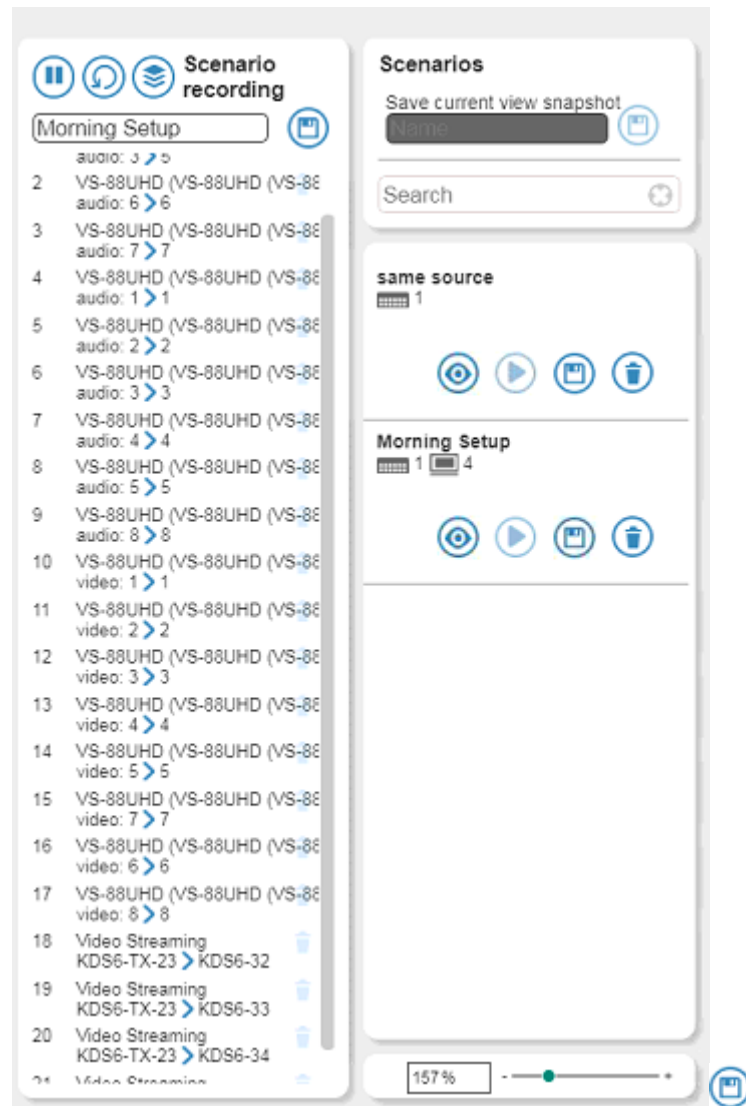






Figure 56: Recording a Scenario

While recording or after saving a scenario, you can click:

-  to exit recording.
-  to delete recording.
-  to remove duplicate lines.
-  to save/save updates to the scenario.

5 Reports Page

The Reports page includes three types of reports:

- **DEVICE STATUS** report, see [Section 5.1](#).
- **ACTIVITY LOG** report, see [Section 5.2](#).
- **CONTROL LOG** report, see [Section 5.3](#).

5.1 DEVICE STATUS Report

The **DEVICE STATUS** report displays the current device (associated to a room or not) status and firmware version. The device status is indicated by the color of the icon: a green IP device icon indicates that it is connected; orange indicates a connection problem; and red indicates a disconnected device.

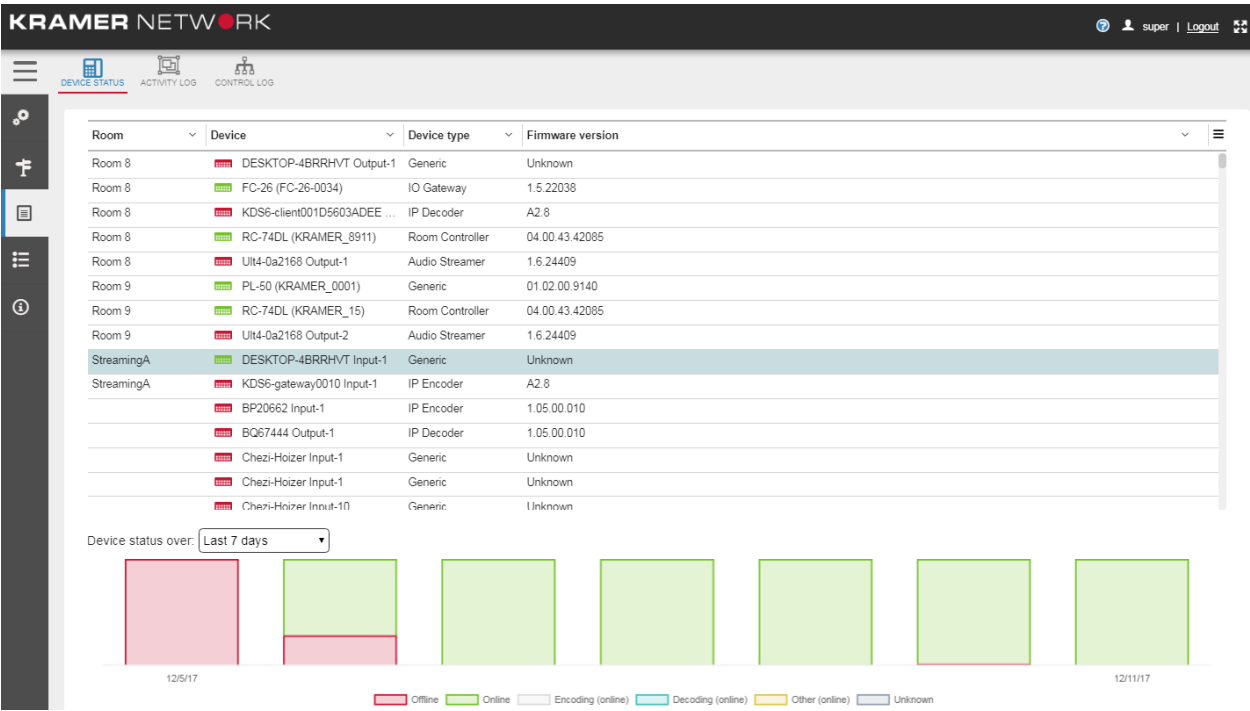


Figure 95: Device Status Report

You can sort each column in ascending or descending order or remove it from the table.

Click ☰ to open the menu:

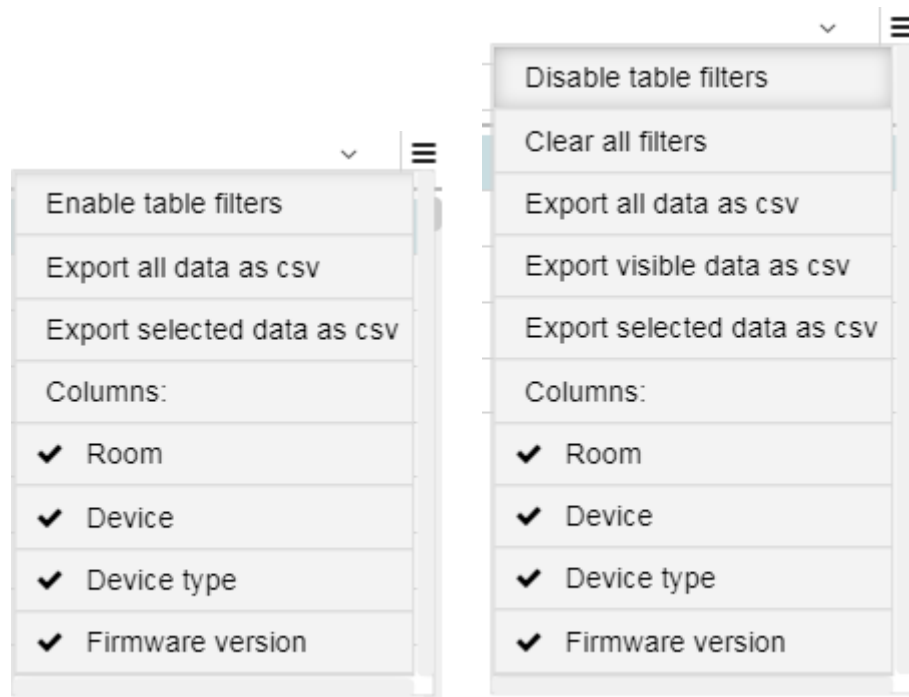


Figure 96: Device Status Menu

You can:

- Enable/disable table filters to filter data.
- Export all data as CSV (Comma Separated Values).
- Export selected data as CSV.
- Export filtered data (visible data).
- Select the columns in the table.

The lower part of the page lets you monitor the activity of a selected device by showing its activity over different periods of time. By default, the last 7 days are displayed:

- Open the drop-down box to select the **Last 60 minutes** or **Last 24 hours**.
- Hover over a bar to see the statistics:



Figure 97: Device Activity – 7 Days

- Click a bar to see the status per hour on a certain day.



Figure 98: Device Activity – 1 Day

- Click an hour in a day to see changes per minute:



Figure 99: Device Activity – 1 Hour

5.2 ACTIVITY LOG Report

The **ACTIVITY LOG** displays all Kramer Network activities in your network that are not related to the control of the room-assigned devices. For example:

- Adding / removing a user.
- Creating / removing / changing groups.
- Adding / removing devices.
- Device configuration changes (connection, switching).
- Device connectivity.

Event time	Source	User	Device name	Device type	Event
2017-12-08 13:52:58	Device notification		DESKTOP-4BRRH...	Generic	DESKTOP-4BRRHVT Output-6 Warning unknown state reported: 6
2017-12-08 13:52:58	Device notification		DESKTOP-4BRRH...	Generic	DESKTOP-4BRRHVT Output-7 disconnected from input
2017-12-08 13:52:48	Device notification		DESKTOP-4BRRH...	Generic	DESKTOP-4BRRHVT Output-21 Connection restored
2017-12-08 04:05:42	Device notification		VS-622DT- Output-1	Generic	VS-622DT- Output-1 Video routing set: output 1 to input 3
2017-12-08 04:05:42	Device notification		VS-622DT-	ProAV/Matrix	VS-622DT- Connection restored
2017-12-08 04:05:42	Device notification		VS-622DT-	ProAV/Matrix	VS-622DT- Video routing set: output 2 to input 2
2017-12-08 04:03:46	Device notification		VS-622DT-	ProAV/Matrix	VS-622DT- Connection lost
2017-12-07 23:12:00	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Connection restored
2017-12-07 23:10:36	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Connection lost
2017-12-07 23:07:04	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Connection restored
2017-12-07 23:06:08	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Connection lost
2017-12-07 22:53:44	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Start decoding
2017-12-07 22:53:20	Device notification		ShmuelKoen-PC O...	Generic	ShmuelKoen-PC Output-1 Connection restored
2017-12-07 15:42:21	Administration	super			User super logged off Session Timeout
2017-12-07 15:19:19	Device notification		KDS6-gateway0010...	Generic	KDS6-gateway0010 Input-1 Connection lost
2017-12-07 15:19:19	Device notification		KDS6-client001D56...	Generic	KDS6-client001D5603ADEE Output-1 Connection lost
2017-12-07 15:19:19	Device notification		KDS6-gateway0009...	Generic	KDS6-gateway0009 Input-1 Connection lost

Total Items: 980

Figure 100: Activity Log Report

You can:

- Check the **Predefined** radio button to set the back log time period or filter out certain dates to view. By default, the back-log time is set to 7 days but you can set the back-log time from today to last month (last 31 days). Click **FILTER** to apply and click **CLEAR** to clear the filter.
- Check the period radio button below **Predefined** to set a time period (by setting **From** and **To** dates). Click **FILTER** to apply and click **CLEAR** to clear the filter.

- Open the **User** drop-down box to select a user and then filter logs by user. Click **FILTER** to apply and click **CLEAR** to clear the filter.

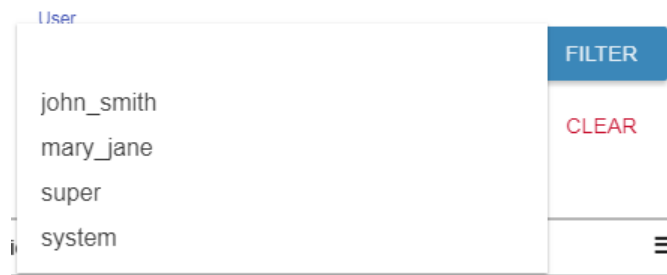


Figure 101: Activity Log Report – Filtering by User

- Click **SELECT EVENTS** button to view selected events (see [Section 5.2.1](#)).
- Enable/disable table filters to filter data.
- Export all data as CSV (Comma Separated Values).
- Select the columns in the table.

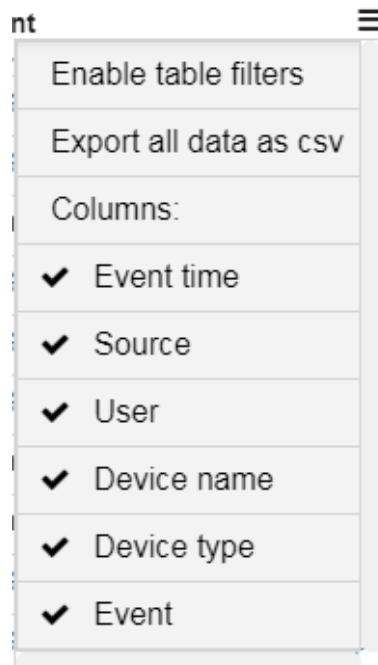


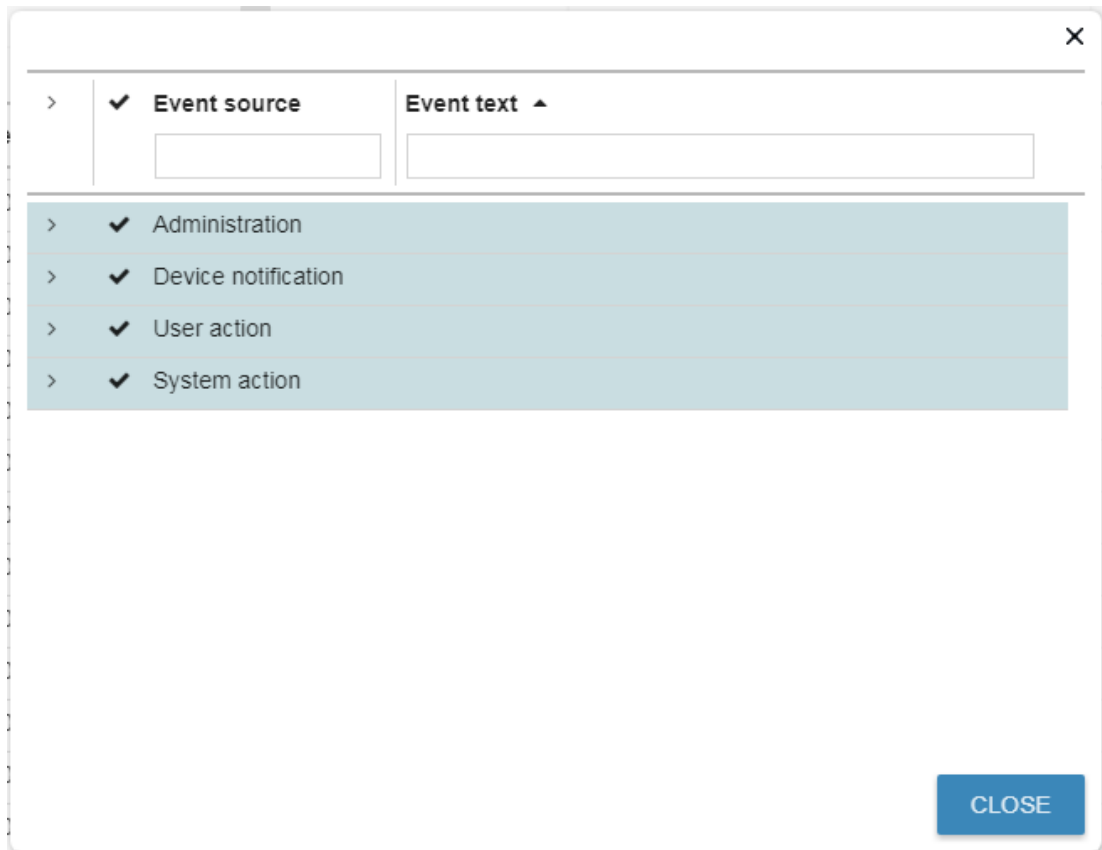
Figure 102: Activity Log Report – Selecting Columns

5.2.1 SELECT EVENTS Window

You can filter out events from the event list via the **SELECT EVENT** window.

To use the **SELECT EVENTS** window:

1. In the navigation pane, click **Reports** and then select the **ACTIVITY LOG** tab.
2. Click **SELECT EVENTS**.



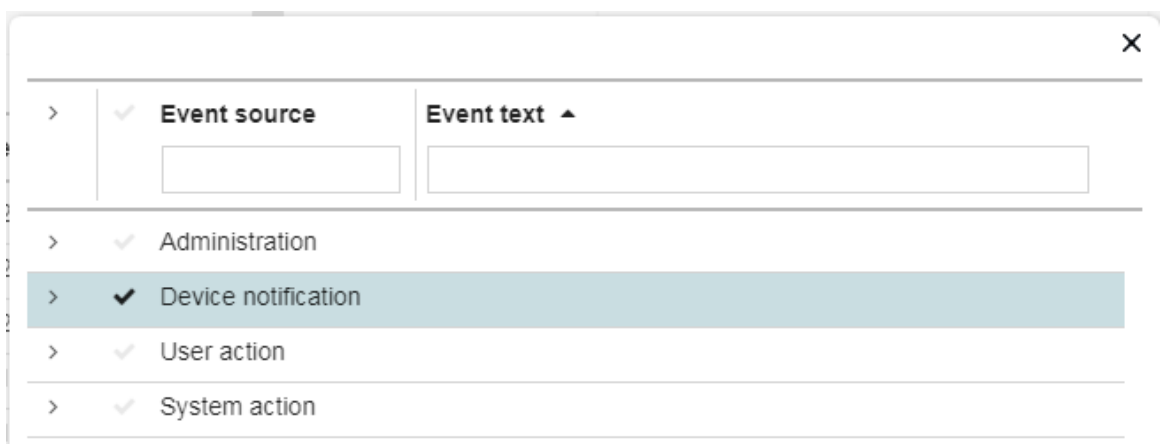
The screenshot shows a window titled "SELECT EVENTS" with a close button (X) in the top right corner. The window contains two input fields at the top: "Event source" and "Event text". Below these fields is a list of event categories, each with a checkmark and a right-pointing arrow:

- > ✓ Administration
- > ✓ Device notification
- > ✓ User action
- > ✓ System action

A blue "CLOSE" button is located in the bottom right corner of the window.


Figure 103: Activity Log Report – Selecting Events

3. Perform any of the following:
 - Uncheck ☒ next to an Event category (**Administration**, **Device notification**, **User action** and **System action**) to filter out a specific category.



The screenshot shows the same "SELECT EVENTS" window as Figure 103. In this view, the "Device notification" category is highlighted with a blue background, and its checkmark is checked. The other categories (Administration, User action, System action) are not highlighted and their checkmarks are unchecked.

Figure 104: Filtering Out an Event Category

- Click  next to an Event category to expand it and select specific events

>	✓ Event source	Event text ▲
	<input type="text"/>	<input type="text"/>
▼	✓ Device notification	
	✓	Audio routing set: output to input
	✓	Connected to
	✓	Connection lost
	✓	Connection removed
	✓	Connection restored
	✓	Set encoding mode to
	✓	Set streaming method to
	✓	Set streaming protocol to
	✓	Start decoding

Figure 105: Expanding an Event

- Use the **Event source** and **Event text** text boxes to filter specific events.

			✕
>	✓ Event source	Event text ▲	
	<input type="text"/>	<input type="text"/>	

Figure 106: Filtering Specific Events

4. Click **CLOSE** to exit the window.
5. Click **FILTER** to apply the selection of events on the list and click **CLEAR** to clear the filter.

5.3 CONTROL LOG Report

The **CONTROL LOG** presents all the events related to the **KRAMER NETWORK** control module which includes K-Config virtual control and monitoring of devices. Once a room is assigned with Virtual Master configuration, the logging begins.

1. In the navigation pane click **Reports** and then select the **CONTROL LOG** tab.

The screenshot displays the KRAMER NETWORK CONTROL LOG interface. The top navigation bar includes the KRAMER NETWORK logo and user information (super | Logout). The sidebar contains navigation icons for Device Status, Activity Log, and Control Log. The main content area shows the Control Log configuration. The 'Period' section has a 'Predefined' radio button selected, with a dropdown menu showing 'Last 7 days'. Below this are 'From' and 'To' date range selectors. Filter fields for 'Source', 'User', 'Room', 'Device type', 'Device name', and 'Event' are available, along with a 'FILTER' button and a 'CLEAR' button. A table header is visible with columns: Event Time, Source, Room, User, Device Type, and Device. The table body is empty, and a progress bar at the bottom indicates 'Total Items: 0'.

Figure 107: Control Log Report

You can set the LOG **Period**:

- Check the **Predefined** radio button to set the back log time period or filter out certain dates to view. By default, the back-log time is set to 7 days but you can set the back-log time from today to last month (last 31 days). Click **FILTER** to apply and click **CLEAR** to clear the filter.
- Check the period radio button below **Predefined** to set a time period (by setting **From** and **To** dates). Click **FILTER** to apply and click **CLEAR** to clear the filter.

5.3.1 Filtering Control Events

You can filter **CONTROL LOG** data by using one or a combination of filters that are available (**Source**, **User**, **Room**, **Device type**, **Device name** and/or **Event**) and then click **FILTER** to apply or click **CLEAR** to clear the filter.

The system reports:

- Panel button activity.
- The resulting events of this activity.
- Devices connectivity status.



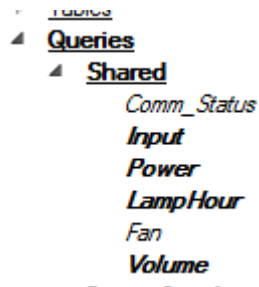
IMPORTANT: If Comm_Status query has been defined by the **K-Config** device driver, **KRAMER NETWORK** checks the status of the device every 30 seconds when connected, and 3 times when disconnected, every 5 seconds. **KRAMER NETWORK** then sends the connect/disconnect message to the control log (the query is built into the krnt project).

5.3.1.1 Detecting Alerts

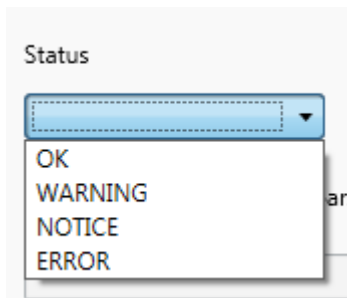
The system can detect alert messages coming from Room-controller devices (such as the **RC-74DL**) and add them to the control log.

Alerts from virtual room controller projects are recorded in the control log, using the following logic:

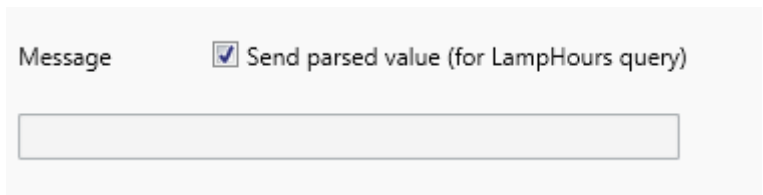
An alert of a known query (shared):



Status Value is:

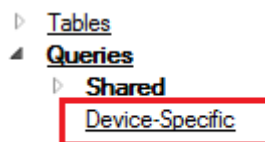


Status Message is:



The DisplayName is the name of the query name but in a readable format, for example: "LampHour" = Lamp Hour

An alert of an unknown query (device-specific)



- StatusValue –the same as above
- StatusMessage– the same as above
- DisplayName: the name of the query name

An alert that does not belong to a query

- StatusValue –the same as above
- StatusMessage– the same as above
- DisplayName: "Alert"

You can set the back log for which you wish to view the log, or filter out certain dates to view. You can set the source, user, room, device type, device Name and/or an event to view.

At this point, StatusValue will not be present, only the StatusMessage. For example: in the **Event** column will display: "Lamp Hour: 33.33% [1000/3000 h]".

The following is an example of a Control Log page:

✓ Event Time	Source	Room	Device Type	Device Name	Event	≡
✓ 2016-11-16 15:11:37	Room controller	KDS-3	Projector	NEC: NP-PA500U	Power: Is stand by	
✓ 2016-11-16 15:09:31	Room controller	KDS-3	Projector	NEC: NP-PA500U	Power: Is power on!!!	
✓ 2016-11-16 15:06:56	Room controller	KDS-3	Projector	NEC: NP-PA500U	Power: Is stand by	
✓ 2016-11-16 15:06:55	Room controller	KDS-3	Projector	NEC: NP-PA500U	Lamp Hour: 25.52% [49/192 h]	
✓ 2016-11-16 15:05:47	Room controller	KDS-3	Generic	PJLink: PJLink	Lamp Hour: 25.80% [903/3500 h]	
✓ 2016-11-16 15:05:23	Room controller	KDS-3	Generic	PJLink: PJLink	Lamp Hour: 0.00% [0/3500 h]	
✓ 2016-11-16 15:04:45	Room controller	KDS-3	Generic	PJLink: PJLink	Lamp Hour: 25.80% [903/3500 h]	
✓ 2016-11-16 15:04:21	Room controller	KDS-3	Generic	PJLink: PJLink	Lamp Hour: 0.00% [0/3500 h]	

Figure 108: Control Log Example

Click the menu to:

- Enable/disable table filters to filter data.
- Export all data as CSV (Comma Separated Values).
- Export filtered data (visible data) as CSV.
- Select the columns in the table.

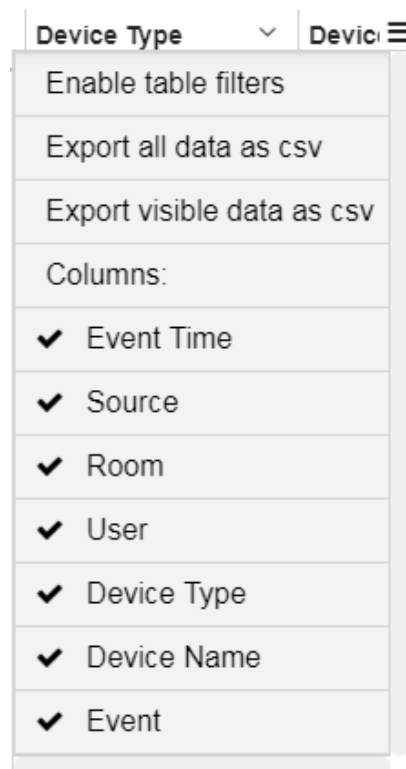


Figure 109: Control Log Menu

6 Administration Page

The Administration Page manages system USERS, DEVCIES and other system settings.

6.1 Users Management

Three types of users can control and operate the system with different access permissions:

Users	Permissions	Menu Access																					
Super	System Administrator/Network Manager: <ul style="list-style-type: none">▪ Defines the topology.▪ Manages devices.▪ Adds users and credentials (Admin/Users).▪ Grants Admin access to groups.▪ Creates Maestro room automation.▪ Grants scheduling permissions.▪ Creates the Room View, scenarios the video and the audio matrix.▪ Manages rights to room view, matrix view, configuring of locations, all logs and device statuses.	All the menu items																					
Admin	The Site Administrator (once granted access by the Super) can: <ul style="list-style-type: none">▪ Access/manage the Room View.▪ Access/manage the matrix, routing of physical/virtual matrix.▪ Access/export control/activity logs.▪ View/Manage devices.▪ Generate and manage scenarios.▪ Add users.▪ Grant users (operators) access to room scenarios.	<div>Permissions</div> <table><tr><td><input checked="" type="checkbox"/></td><td>Room view</td><td>Access Room View Menu</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Matrix view</td><td>Access Matrix View Menu</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Config Locations</td><td>Access to locations in configure system</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Control log</td><td>View log of control events</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Activity log</td><td>View log of system activity</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Device status</td><td>View status of all devices</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Users</td><td>Manage users and permissions</td></tr></table>	<input checked="" type="checkbox"/>	Room view	Access Room View Menu	<input checked="" type="checkbox"/>	Matrix view	Access Matrix View Menu	<input checked="" type="checkbox"/>	Config Locations	Access to locations in configure system	<input checked="" type="checkbox"/>	Control log	View log of control events	<input checked="" type="checkbox"/>	Activity log	View log of system activity	<input checked="" type="checkbox"/>	Device status	View status of all devices	<input checked="" type="checkbox"/>	Users	Manage users and permissions
<input checked="" type="checkbox"/>	Room view	Access Room View Menu																					
<input checked="" type="checkbox"/>	Matrix view	Access Matrix View Menu																					
<input checked="" type="checkbox"/>	Config Locations	Access to locations in configure system																					
<input checked="" type="checkbox"/>	Control log	View log of control events																					
<input checked="" type="checkbox"/>	Activity log	View log of system activity																					
<input checked="" type="checkbox"/>	Device status	View status of all devices																					
<input checked="" type="checkbox"/>	Users	Manage users and permissions																					
User	The Operator (once granted access by the Super/Administrator) can: <ul style="list-style-type: none">▪ Log in to granted rooms.▪ Manage room view.▪ Use the scenarios.▪ Manage room routing (physical or virtual).	<div>Permissions</div> <table><tr><td><input checked="" type="checkbox"/></td><td>Room view</td><td>Access Room View Menu</td></tr></table>	<input checked="" type="checkbox"/>	Room view	Access Room View Menu																		
<input checked="" type="checkbox"/>	Room view	Access Room View Menu																					

The Super user has full access to all of **KRAMER NETWORK** features.

The Super can give permissions and set access limits separately for each Admin that is added to the system and similarly, the Admin can set permissions for different Users.

For example, the Super can be the company IT manager, the Admins can be managers of different offices and the users can manage a room or a set of rooms.

Select the Permissions page:

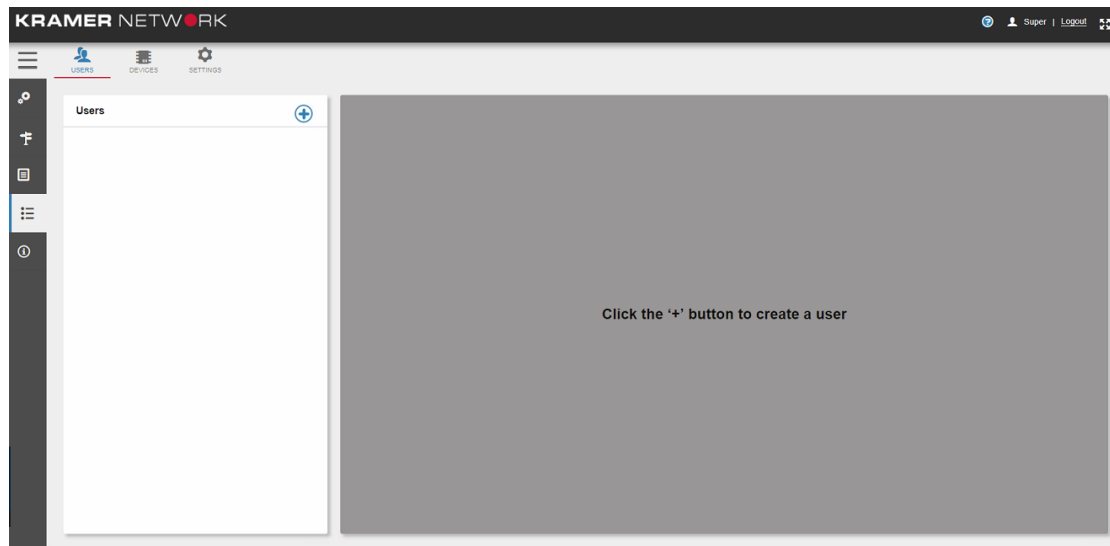


Figure 110: The Permissions Page

6.1.1 Creating Users


Click . The following window appears:

Figure 111: Creating a New Admin User



Auth mode can be set to internal or to LDAP Connection (see [Section 0](#)).

Click **CREATE**. The new Admin is added to the list:

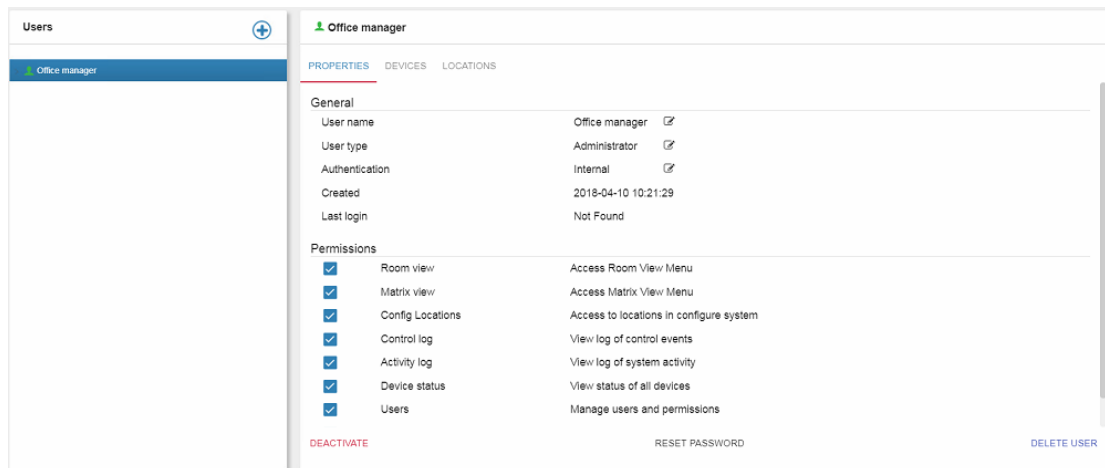



Figure 112: Adding an Administrator User

The new user properties tab appears, indicating the date the user was created and the last login.

You can:

- Click  to change the user's name, type and authentication.
- Deactivate or delete the user.
- Change the user's password.
- Change the User's permission to access Room View and Matrix View menus, view the different logs and devices status, access the locations and manage users and permissions.


To create additional Admins and Users, click :

The screenshot shows a 'Create a new user' dialog box. It has a title bar with a close button. The form contains the following fields: 'Share Kramer Network and manage permissions' (User type *), 'User' (dropdown menu), 'User name *' (text input field with a character count '0 / 20'), 'Auth mode *' (dropdown menu with 'Internal' selected), and 'Assign to administrator *' (dropdown menu). A 'CREATE' button is located at the bottom right.

Figure 113: Creating a New User or Admin (by the Super)

You can create additional administrators and users.

To create a new user:

1. In the Administration page, select an administrator.
2. Click .

3. Type the User name and select the new user's administrator.

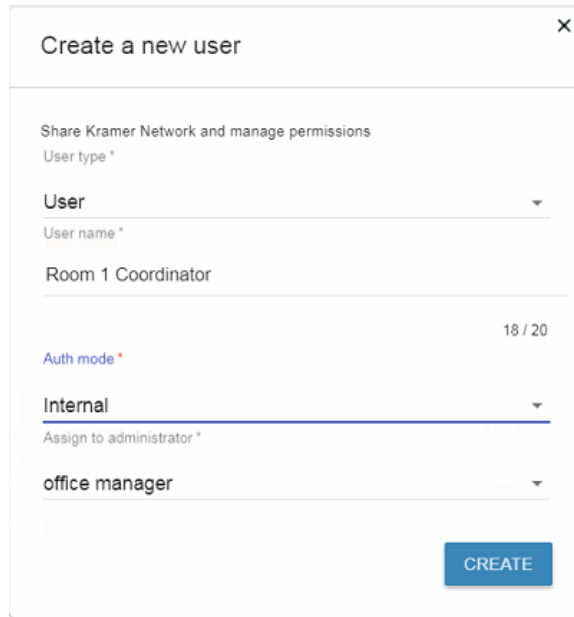


Figure 114: Creating a New User (by the Super or Admin)

4. Click **CREATE**.
The new User is now under the administrator:

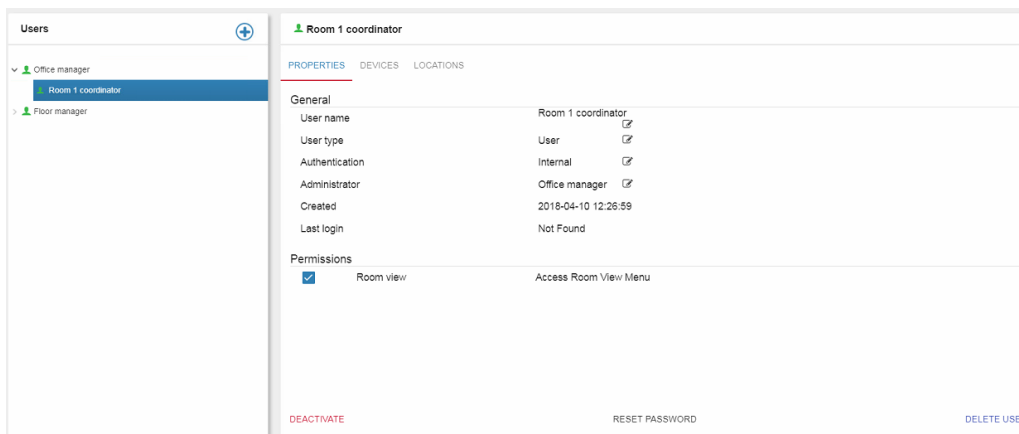



Figure 115: New User Properties

The new user properties tab appears, indicating the date the user was created and the last login.

You can:

- Click  to change the user's name, type and authentication.
- Deactivate or delete the use.
- Change the user's password.
- Change the User's permission to access Room View.



The Admin can create his/her own Users but cannot create other Admins.

6.1.2 Assigning Devices

To assign devices to an administrator or a user:

1. In the Administration page, select an administrator or user.
2. Click the **DEVICES** tab. The following window appears:

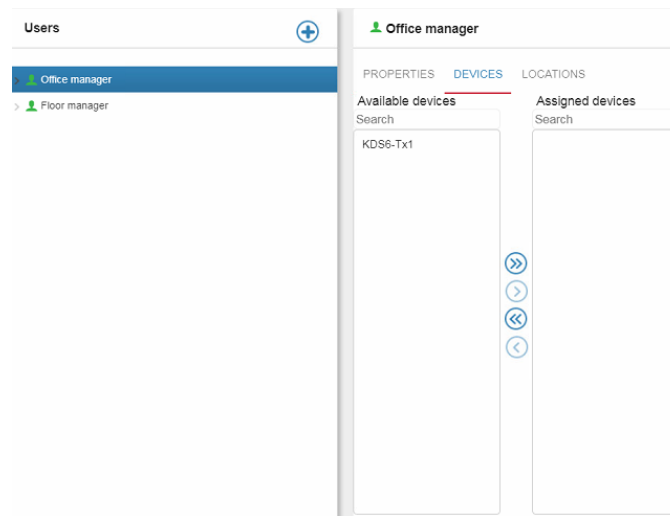


Figure 116: Assigning Devices to a User

3. Use the arrows to assign devices from the Available devices list.

6.1.3 Assigning Locations

To assign locations to an administrator or a user:

1. In the Administration page, select an administrator or user.
2. Click the **LOCATIONS** tab. The following window appears:

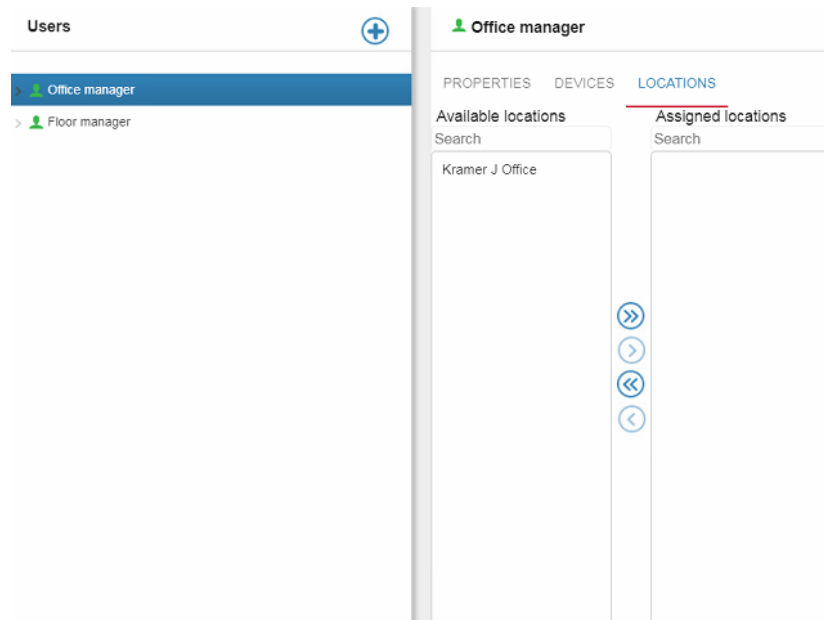


Figure 117: Assigning Locations to a User



A floor is assigned to an Administrator and a room to a user.

After the Super has assigned the floor to the administrator, the administrator has access to all the rooms on that floor and can then assign a room to his/her users.

3. Use the arrows to assign locations from the Available locations list.

6.2 Devices Management

Use DEVICES to manage **Firmware Upgrade**, **Versions** and view the **Supported devices**.

6.2.1 Firmware Upgrade Tab

The **Firmware upgrade** tab lists the Pro AV devices, their current firmware version, other available versions, status and Log (firmware upgrade history).

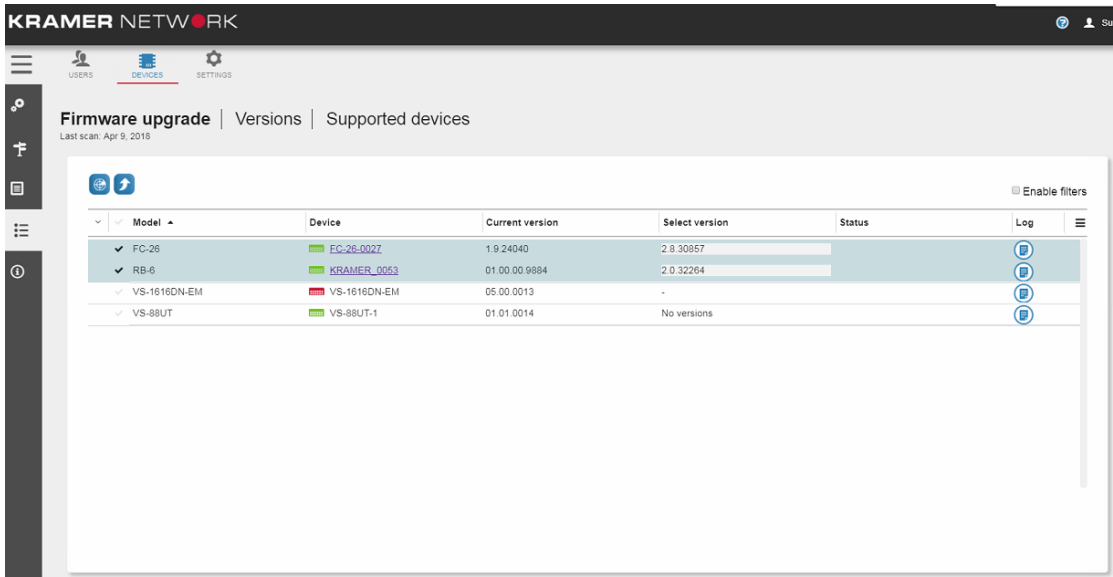


Figure 118: Device Firmware Upgrade

You can:

- Check **Enable filters** to filter out models, devices, versions and so on.

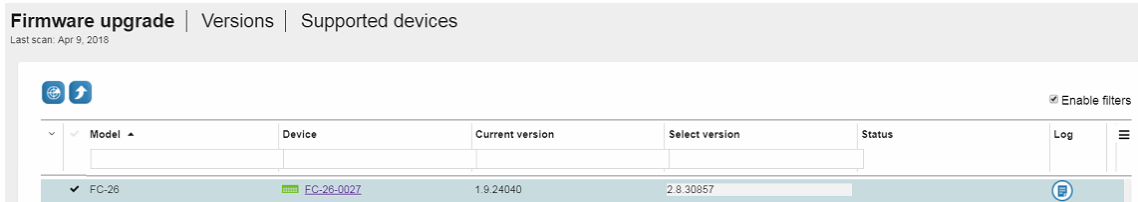


Figure 119: Enabling Filters

- Click to select the columns in the table and clear filters if **Enable filters** box is checked.

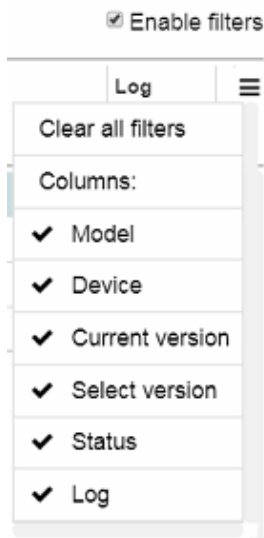



Figure 120: Device Firmware Upgrade Menu

- Click any column to change the alphabetical order of the list.
- Click the hyperlinked name of a **Device** to open its embedded web pages.
- Click  to update the table, The system is scanning for new devices and new firmware updates.

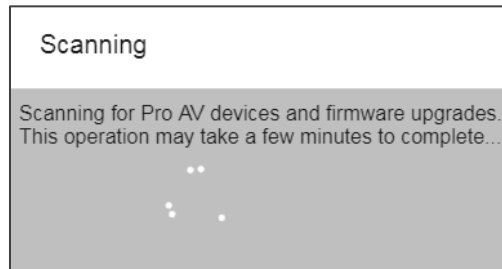





Figure 121: Scanning for Pro AV Devices Message

- View the current firmware version (**Current version**) of a device.
- Check for available firmware versions and select the desired one (**Select version**) and then upgrade the firmware (see [Section 6.2.1.1](#)).
- Click  in the device row to check the device firmware upgrade history in the Log.

6.2.1.1 Upgrading the Firmware

To upgrade the firmware:

1. In the navigation pane click **Administration** and then select the **DEVICES** tab.
2. In **DEVICES** select **Firmware upgrade**.
3. Check the models for which you want to perform a firmware upgrade (**PL-50** in this example). You can upgrade the firmware of a single or multiple devices simultaneously.

☐ Enable filters



















✓	Model ▲	Device	Current version	Select version	Status	Log	
<input checked="" type="checkbox"/>	FC-26	 FC-26-0034	1.5.22038	2.8.30857			
<input checked="" type="checkbox"/>	FC-404NET	 Ult4-0a214a	1.6.24409	No versions			
<input checked="" type="checkbox"/>	FC-404NET	 Ult4-0a2168	1.6.24409	No versions			
<input checked="" type="checkbox"/>	FC-404NET	 Kmr-0a21a01	1.6.24409	No versions			
<input checked="" type="checkbox"/>	PL-50	 KRAMER_00...	01.02.00.9140	1.2.0.9140			
<input checked="" type="checkbox"/>	RC-74DL	 KRAMER_15	04.00.43.42085	4.0.37.31563			
<input checked="" type="checkbox"/>	RC-74DL	 KRAMER_8911	04.00.43.42085	4.0.37.31563			
<input checked="" type="checkbox"/>	VP-31KSI	 KRAMER_00...	00.09.00.5921	No versions			
<input checked="" type="checkbox"/>	VS-622DT	 VS-622DT-	2.0.42095	-			

Figure 122: Selecting Devices for Firmware Upgrade

4. Select the new firmware version (**Select version**).

- Click .

The following message appears:

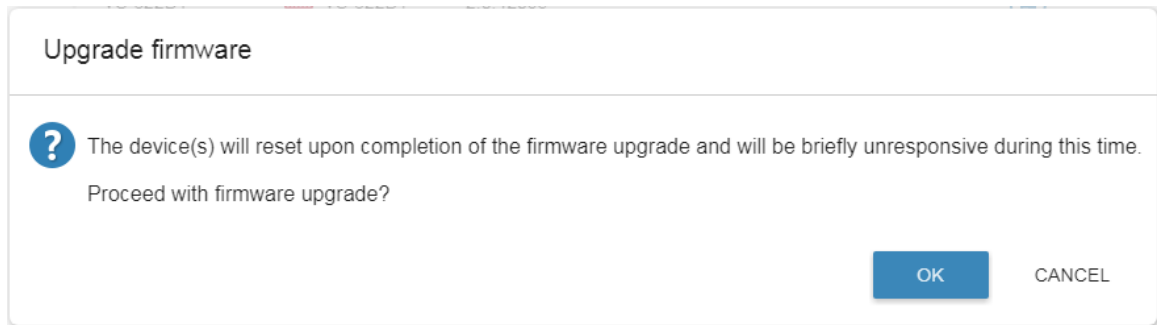


Figure 123: Firmware Upgrade Message


- Click **OK**.
Firmware upgrade process is initialized.

☐ Enable filters

▼	Model	Device	Current version	Select version	Status ▼	Log	≡
✓	FC-404NET	Kmr-0a21a01	1.6.24409	No versions			
✓	FC-404NET	Ult4-0a2168	1.6.24409	No versions			
✓	FC-404NET	Ult4-0a214a	1.6.24409	No versions			
✓	VS-622DT	VS-622DT-	2.0.42095	-			
✓	FC-26	FC-26-0034	1.5.22038	2.8.30857			
✓	RC-74DL	KRAMER_15	04.00.43.42085	4.0.37.31563			
✓	PL-50	KRAMER_00...	01.02.00.9140	1.2.0.9140	Uploading firmwar...		
✓	RC-74DL	KRAMER_8911	04.00.43.42085	4.0.37.31563			

Figure 124: Firmware Uploaded

- Wait for completion of the process.



Enable filters











▼	Model ▲	Device	Current version	Select version	Status	Log	☰
✓	FC-26	 FC-26-0034	1.5.22038	<div>2.8.30857</div>			
✓	FC-404NET	 Ult4-0a214a	1.6.24409	No versions			
✓	FC-404NET	 Ult4-0a2168	1.6.24409	No versions			
✓	FC-404NET	 Kmr-0a21a01	1.6.24409	No versions			
	PL-50	 KRAMER_00...	01.02.00.9140	<div>1.2.0.9140</div>	Upgrade completed		
✓	RC-74DL	 KRAMER_15	04.00.43.42085	<div>4.0.37.31563</div>			
✓	RC-74DL	 KRAMER_8911	04.00.43.42085	<div>4.0.37.31563</div>			
✓	VS-622DT	 VS-622DT-	2.0.42095	-			

Figure 125: Firmware Upgrade Complete



Some devices may need power recycling following firmware upgrade.



8. If required, click  to check the history **Log**.

Time	Event	User	Version	Additional information
2017-12-05 13:27:24	Upgrade initiated	super	1.2.0.9140	
2017-12-05 13:27:47	Upgrade failed			Upload Error: TCP Response Ti...
2017-12-05 13:27:47	Upgrade ended			
2017-12-05 13:28:44	Upgrade initiated	super	1.2.0.9140	
2017-12-05 13:29:46	Upgrade failed			Upload Error: TCP Response Ti...
2017-12-05 13:29:46	Upgrade ended			
2017-12-05 13:30:59	Upgrade initiated	super	1.2.0.9140	
2017-12-05 13:34:38	Upgrade succeeded			
2017-12-05 13:34:38	Upgrade ended			

Figure 126: Firmware Upgrade Log

9. Click **OK** to exit the log.

6.2.2 Managing Firmware Versions

The Versions management tab shows the firmware versions kept for each Pro AV device model. These firmware versions enter the system either through automatic download  or by manual upload .

If the **KRAMER NETWORK** server has access to the public Internet it automatically downloads the latest firmware for every device it discovers (from the Kramer service).














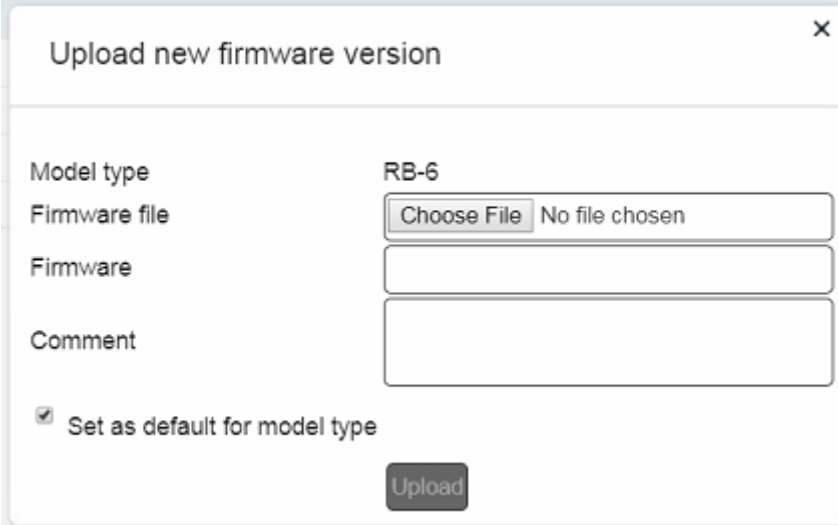
>	Model	Version	Default	Registered	Source	Comment ▾	Action	≡
>	RC-74DL (1)	4.0.37.31563						
	VS-622DT							
▾	PL-50 (2)	1.2.0.9140						
		1.2.0.9123	<input type="radio"/>	2017-12-05 15:0...				
		1.2.0.9140	<input checked="" type="radio"/>	2017-11-30 18:4...				
	VP-31KSI							
	FC-404NET							
>	FC-26 (1)	2.8.30857						

Figure 127: Versions Tab

You can:

- Click  to search for new firmware versions. The latest downloaded version for a given device model is marked as the default  version for devices of that model.
- Click  to upload a new firmware file manually:



Upload new firmware version

Model type RB-6

Firmware file Choose File No file chosen

Firmware

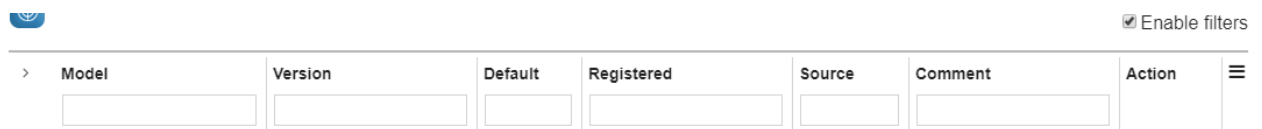
Comment

☒ Set as default for model type

Upload

Figure 128: Uploading New Firmware Manually


- Check **Enable filters** to filter out models, devices, versions and so on.

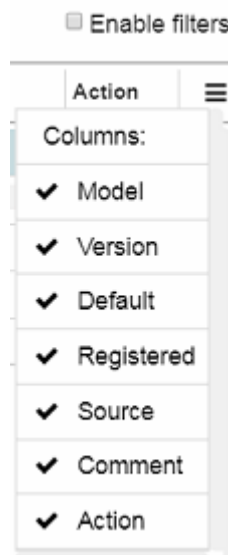


☒ Enable filters

>	Model	Version	Default	Registered	Source	Comment	Action	≡
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>		

Figure 129: Filtering Devices

- Click  to select the columns in the table.



☐ Enable filters

Action ≡

Columns:

- ☒ Model
- ☒ Version
- ☒ Default
- ☒ Registered
- ☒ Source
- ☒ Comment
- ☒ Action


Figure 130: Versions Menu

- Type a comment under the **Comment** column.

6.2.3 Supported Devices List


The **Supported devices** tab lists all Kramer devices supported by **KRAMER NETWORK**.

Firmware upgrade | Versions | **Supported devices**
Descriptor version: 4

 Enable filters

Model ▲	Type	Matrix view	FW upgrade	
691	Range Extender	No	Yes	
692	Range Extender	No	Yes	
908	Routing	Yes	Yes	
DGKat-IN8-F64	Module Board	No	Yes	
DGKat-OUT8-F64	Module Board	No	Yes	
DGKatA-IN2-F16	Module Board	No	Yes	
DGKatA-OUT2-F16	Module Board	No	Yes	
DIP-20	Routing	Yes	Yes	
DIP-20M	Routing	Yes	Yes	
DIP-22	Routing	Yes	Yes	
DIP-30	Routing	Yes	Yes	
DIP-30M	Routing	Yes	Yes	

Figure 131: Supported Devices List

Click  to upload the descriptor (issued by Kramer) to upload new devices.

Upload Device Descriptors ×

Descriptor File

Click to select file

Upload

Figure 132: Uploading Device Descriptors

KRAMER NETWORK only allows uploading of a list with a higher version number than the current one.

6.3 Managing Settings

The **SYSTEM CONFIGURATION** tab (in the **Administration** page) lets you includes the following administration subtabs:

- **GENERAL** – Setting the network interface and language, see [Section 6.3.1](#).
- **EMAIL** – Configure the mailing system, see [Section 6.3.2](#).
- **LDAP** – Create LDAP connections, see [Section 0](#).
- **SNMP** – Define the SNMP server and port, see [Section 6.3.4](#),
- **BUSINESS HOURS** – Set business hours, see [Section 6.3.5](#).

6.3.1 GENERAL Subtab

Use the **GENERAL** subtab to:

- Select **KRAMER NETWORK** language, see [Section 6.3.1.1](#).
- Select **KRAMER NETWORK** server Dante network.
Identify the network interface through which The **KRAMER NETWORK** system communicates with Dante devices, see [Section 6.3.1.2](#).
- Add a device driver

6.3.1.1 Select a Language

To change **KRAMER NETWORK** language:

1. In the navigation pane click **Administration** and then select **SETTINGS**.
2. Select **GENERAL**.

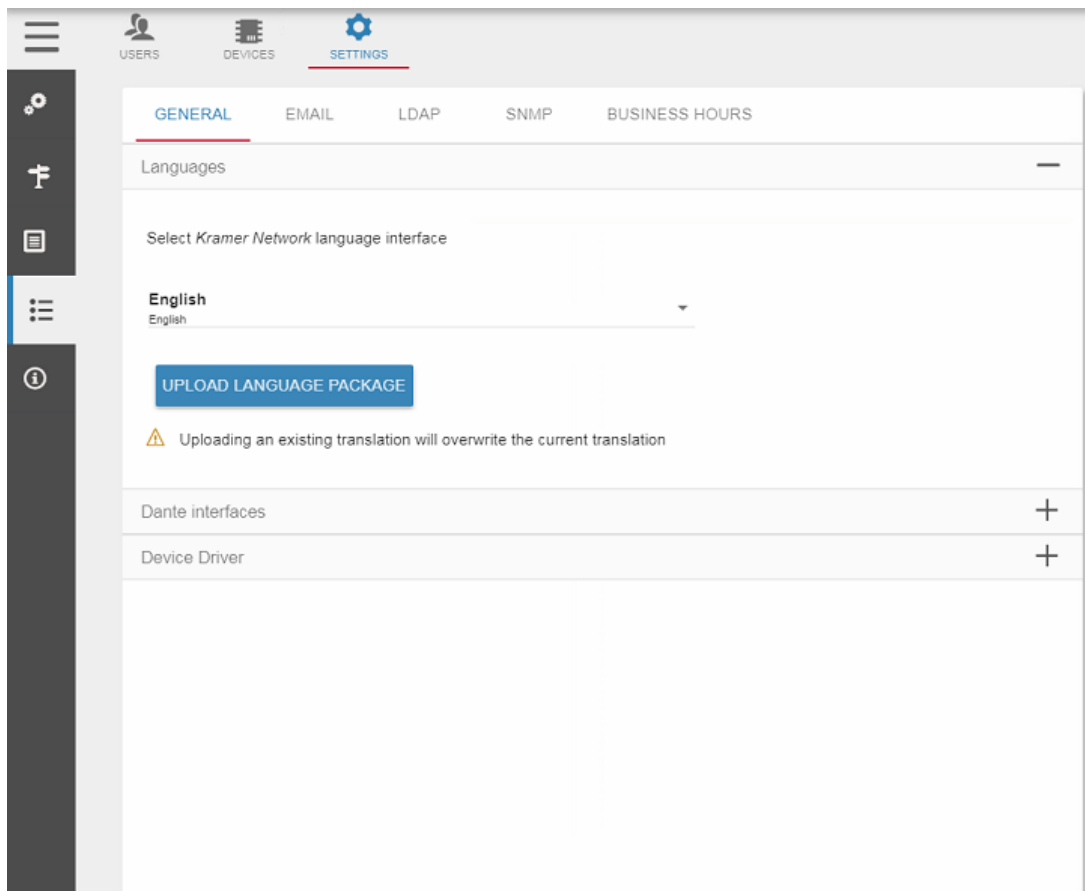


Figure 133: Uploading a Language Package

3. Open the **Language** drop-down box and select the language.



Figure 134: Selecting a Language

4. Select the Language (for example French). **KRAMER NETWORK** reloads automatically in the French version:

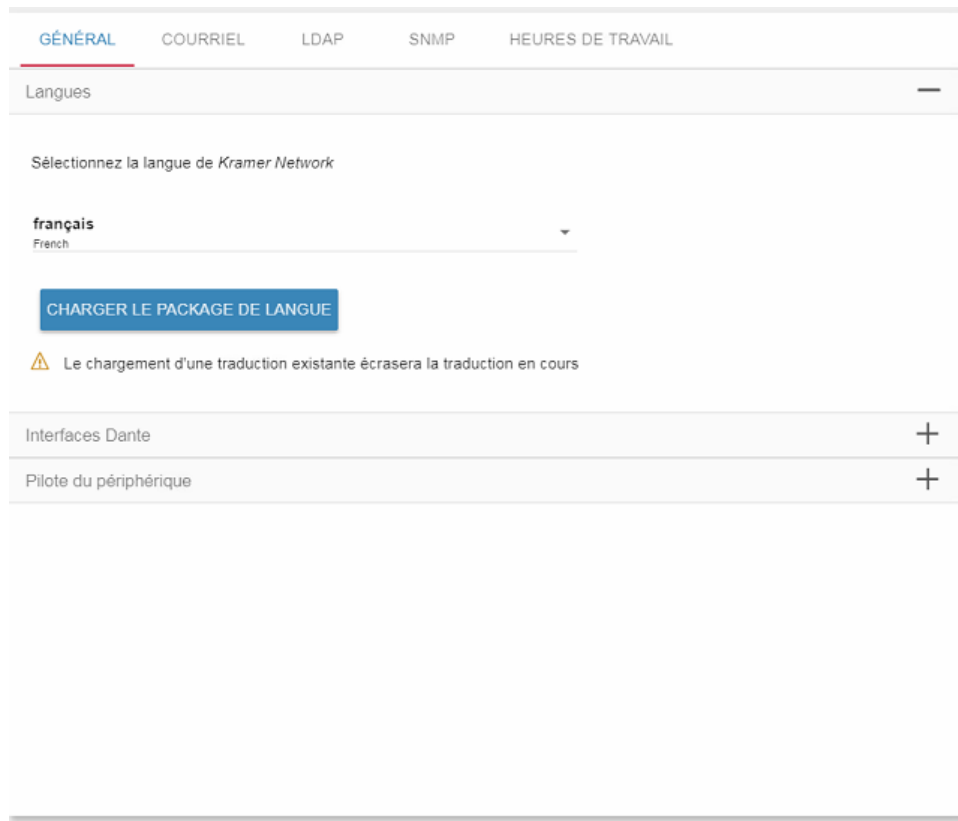


Figure 135: KRAMER NETWORK in French

If the desired language does not appear in the **Language** drop-down box, contact your local Kramer office to request a translation.

To upload the new translation:

1. Download that file to your system.
2. Click **UPLOAD LANGUAGE PACKAGE** to upload this file to **KRAMER NETWORK**.
3. Open the Language drop-down box and select your language.

6.3.1.2 Define Dante Interfaces

To identify the network for communicating with other Dante devices, click **+** beside **Dante interfaces** and select Dante networks from the drop-down list.

6.3.1.3 Add a Device Driver

To add a device driver that will be controlled by Maestro room automation:

1. In the navigation pane click **Administration** and then select **SETTINGS**.
2. Select **GENERAL**.

3. Click **+** beside **Device Driver**.

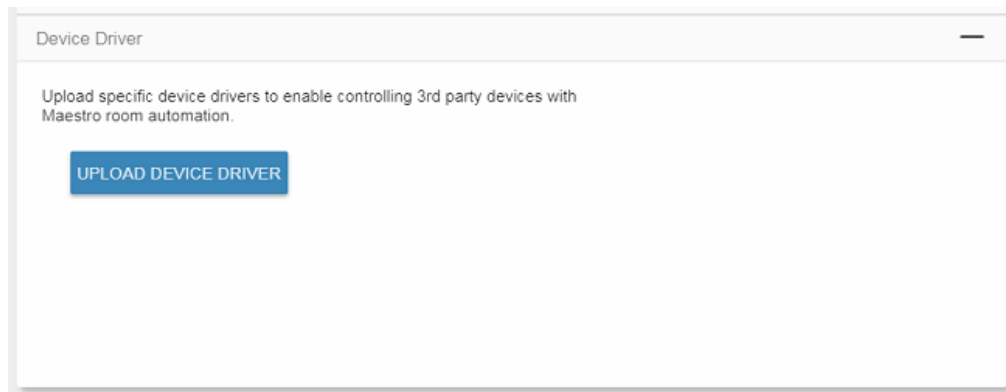


Figure 136: Adding a Device Driver

4. Click **UPLOAD DEVICE DRIVER**.
5. Select the device driver and follow the instructions on-screen.

6.3.2 EMAIL Subtab

Use the **EMAIL** subtab, to set an email address from which you receive **KRAMER NETWORK** notifications via Maestro. You can use one of the two available options:

- **sendmail** – email notifications are sent without the need to configure a specific SMTP.
- **SMTP** – emails are sent by using your company mail server.

To set the notification email via sendmail:

1. In the navigation pane click **Administration** and then select **SETTINGS>EMAIL**.
2. Open the **Mailing method** drop-down box and select the **sendmail** mailing method.

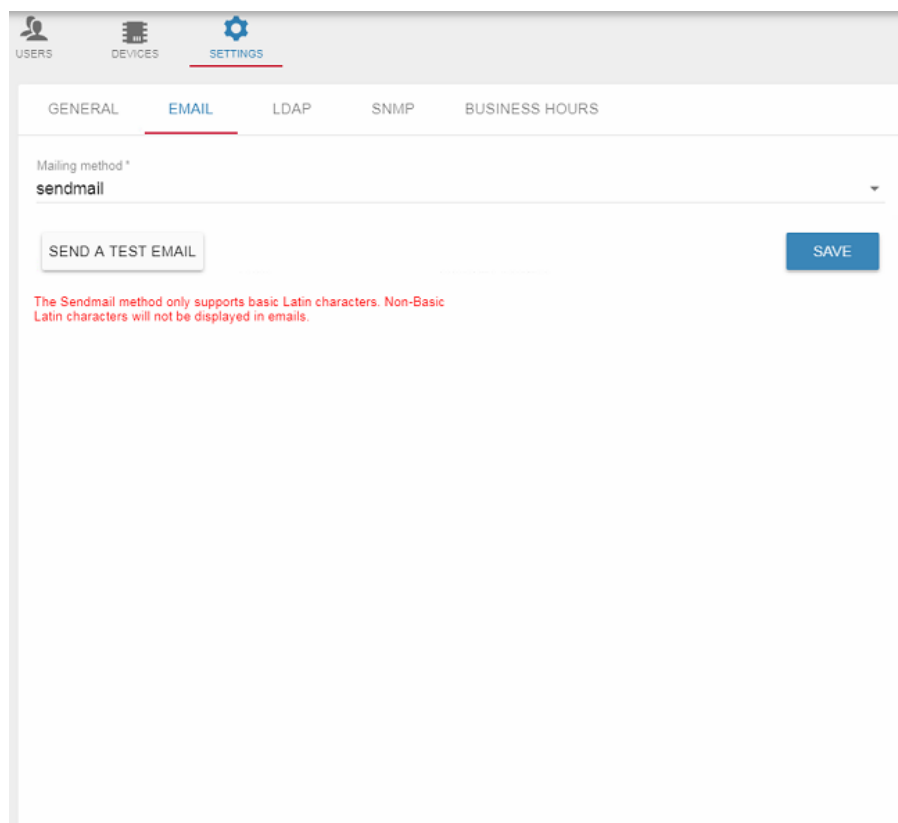


Figure 137: Sending Mail Notifications via Sendmail

3. Click **SAVE**. The following message appears:

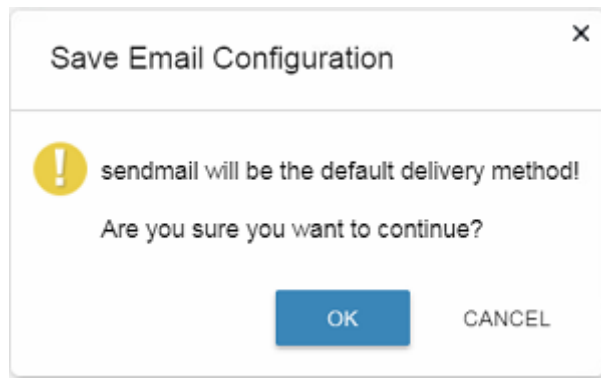


Figure 138: Saving Sendmail as the Default Configuration

4. Click **OK**.
5. Click **SEND A TEST MAIL** if required, and type your email address.

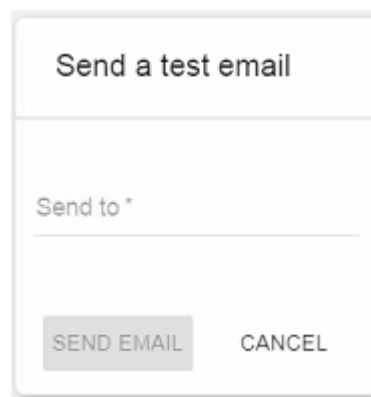


Figure 139: Sending a Test Email

Wait for the test email from: noreply@kramernetwork.com.
Any email notifications will be sent from this address.

To set the notification email via SMTP:

1. In the navigation pane click **Administration** and then select **SETTINGS>EMAIL**.
2. Open the **Mailing method** drop-down box and select the **SMTP** mailing method.
3. Fill in all the details (Server, Port and HELO Domain).
4. Select the Authentication method.

5. Add the email Username and Password.

USERS DEVICES **SETTINGS**

GENERAL **EMAIL** LDAP SNMP WORKING HOURS

Mailing method *
SMTP

Server * Port * HELO Domain *
mail.evergreen.com 588 evergreen.com

Authentication *
LOGIN

Username * Password *
James *****

SEND A TEST EMAIL In order to send a test email you need to save the current email configuration SAVE

Figure 140: Sending Mail Notifications via SMTP

6. Click **SAVE**.

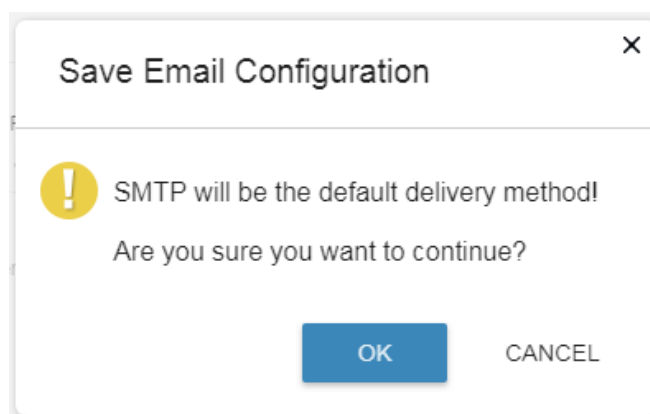


Figure 141: Saving SMTP as the Default Configuration

7. If required, click **SEND A TEST EMAIL**.

6.3.3 LDAP Subtab

Configure your LDAP authentication connection via the **LDAP** subtab so that you can add users from your LDAP without the need to manage additional users and passwords. In addition, you can associate your LDAP locations to your **KRAMER NETWORK** locations, manage and view the location's schedule.



More than one connection can be added to **KRAMER NETWORK**.

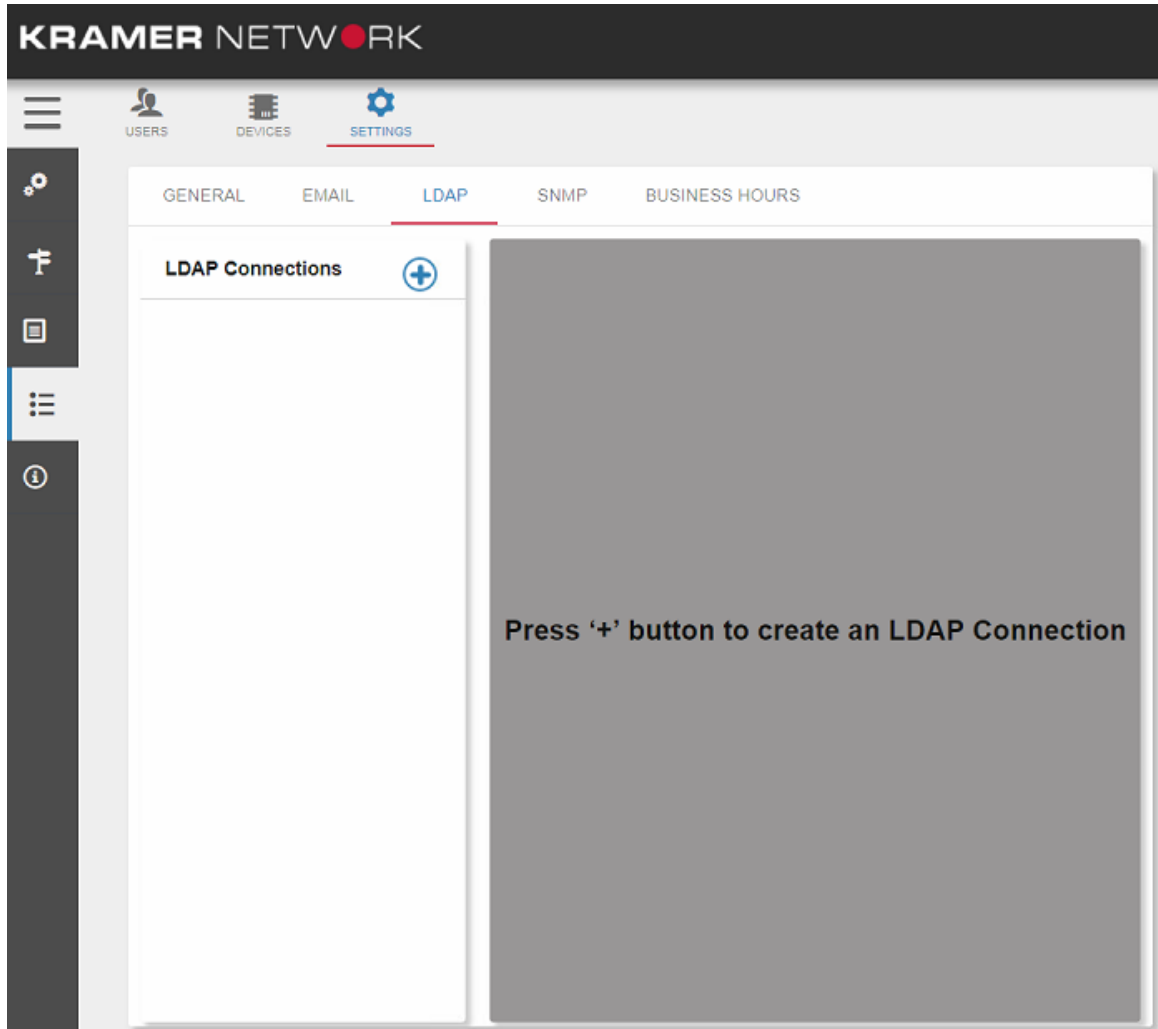
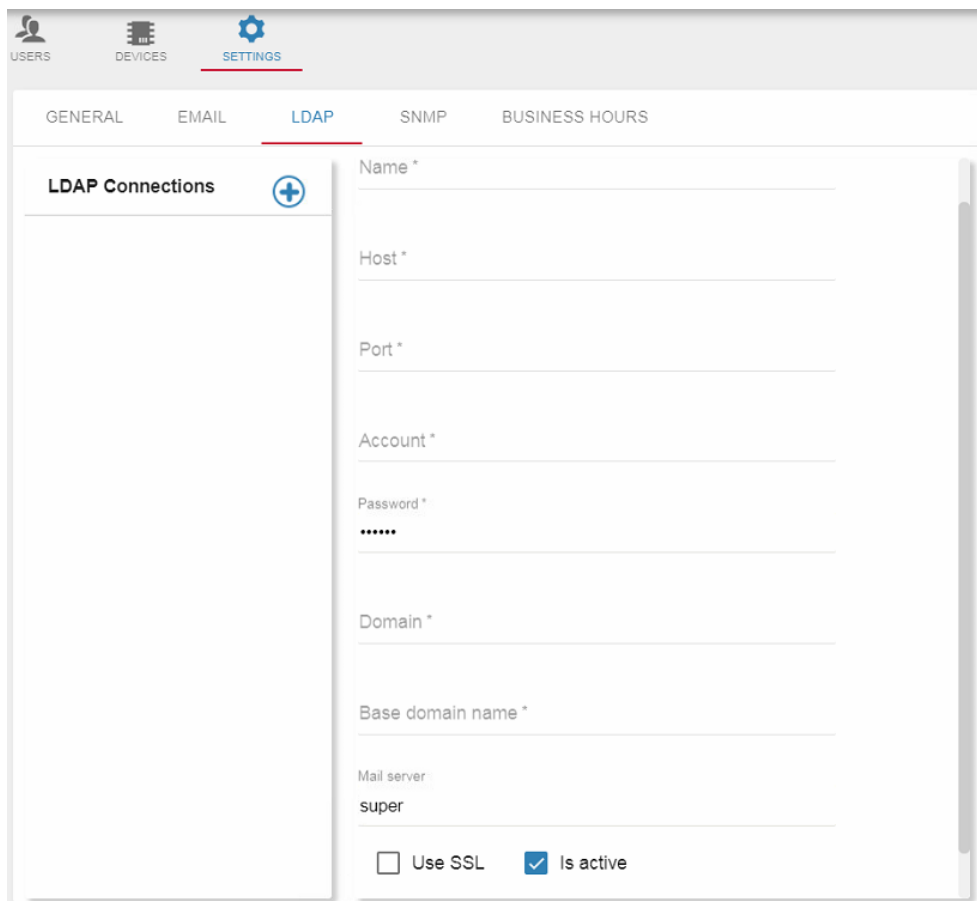


Figure 142: LDAP Connections Subtab

To select LDAP connections:

1. In the navigation pane click **Administration** and then select the **SYSTEM CONFIGURATION** tab.
2. In **SYSTEM CONFIGURATION** select **LDAP**.

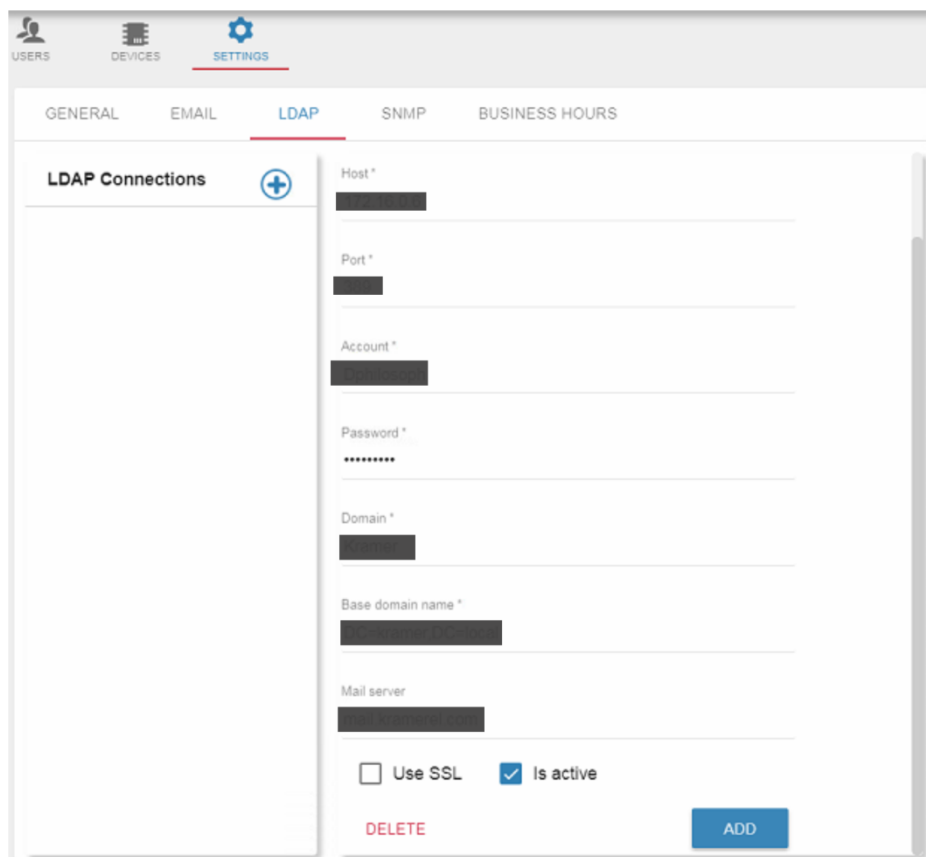
3. Click .



The screenshot shows the 'SETTINGS' page with the 'LDAP' tab selected. On the left, there is a list titled 'LDAP Connections' with a plus icon to add a new connection. On the right, the form for adding a new LDAP connection is displayed. The fields are: Name *, Host *, Port *, Account *, Password * (masked with dots), Domain *, Base domain name *, Mail server (with 'super' entered), and checkboxes for 'Use SSL' (unchecked) and 'Is active' (checked).

Figure 143: LDAP Connections

4. Fill in the details.



The screenshot shows the same 'LDAP Connections' page, but now the form fields are filled with details. The fields are: Host *, Port *, Account *, Password * (masked with dots), Domain *, Base domain name *, Mail server, and checkboxes for 'Use SSL' (unchecked) and 'Is active' (checked). At the bottom right, there is a blue 'ADD' button. At the bottom left of the form, there is a red 'DELETE' button.

Figure 144: LDAP Connections – Adding LDAP Details

5. Click **ADD**.

The screenshot shows the 'SETTINGS' page with the 'LDAP' tab selected. On the left, under 'LDAP Connections', there is a list with 'CompanyLDAP' highlighted. On the right, the configuration form for 'CompanyLDAP' is displayed. The form includes the following fields:

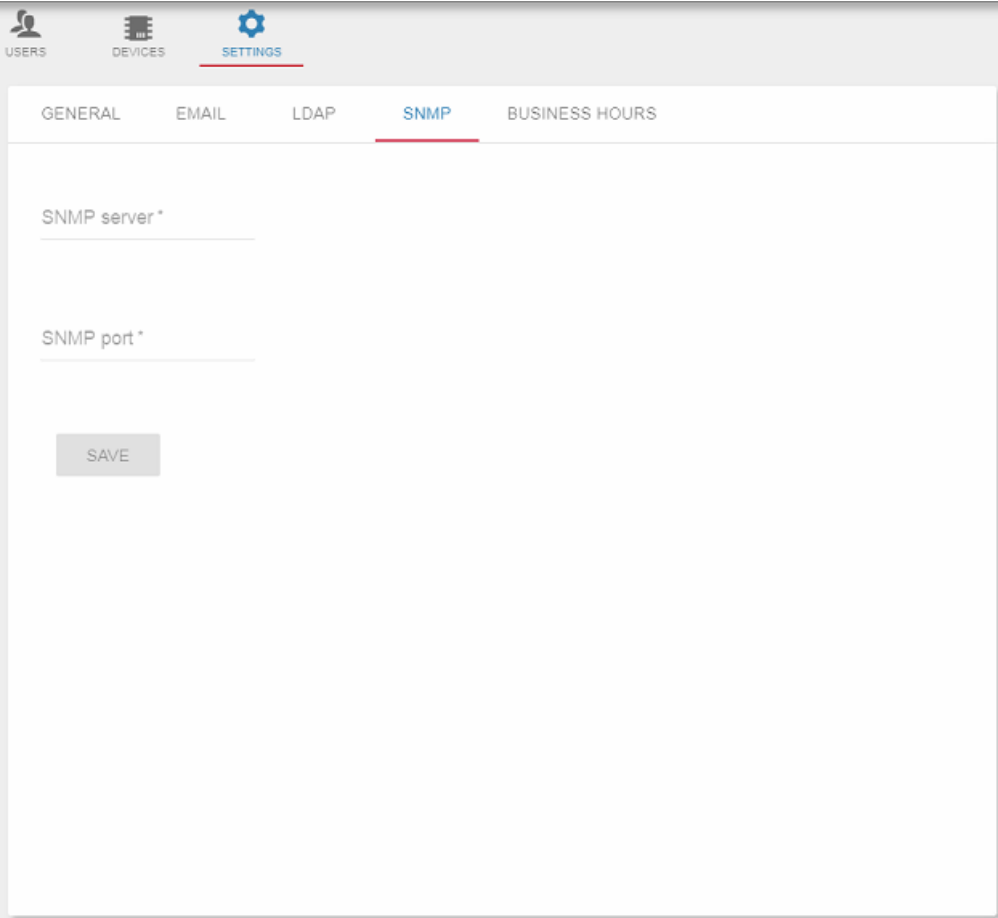
- Name *: CompanyLDAP
- Host *: [Redacted]
- Port *: [Redacted]
- Account *: [Redacted]
- Password *: [Redacted]
- Domain *: [Redacted]
- Base domain name *: [Redacted]
- Mail server: [Redacted]

Figure 145: LDAP Connections – LDAP Added

6.3.4 SNMP Subtab

Configure the SNMP server. The SNMP connection allows you to create SNMP trap actions in your Room automation.

1. In the navigation pane click **Administration** and then select the **SETTINGS**.
2. Select **SNMP**:



The screenshot shows the 'SETTINGS' subtab selected in the navigation pane. The 'SNMP' subtab is active, displaying two input fields: 'SNMP server *' and 'SNMP port *'. A 'SAVE' button is located below the input fields. The navigation pane includes icons for 'USERS', 'DEVICES', and 'SETTINGS' (selected). The subtab headers are 'GENERAL', 'EMAIL', 'LDAP', 'SNMP' (selected), and 'BUSINESS HOURS'.

Figure 146: SNMP Settings

3. Set SNMP server and port and click **SAVE**.

6.3.5 BUSINESS HOURS Subtab

Configure your organization's business hours. Setting the business hours can assist you in your Maestro room automation.

To set business hours:

1. In the navigation pane click **Administration** and then select **SETTINGS**.
2. Select **BUSINESS HOURS**.

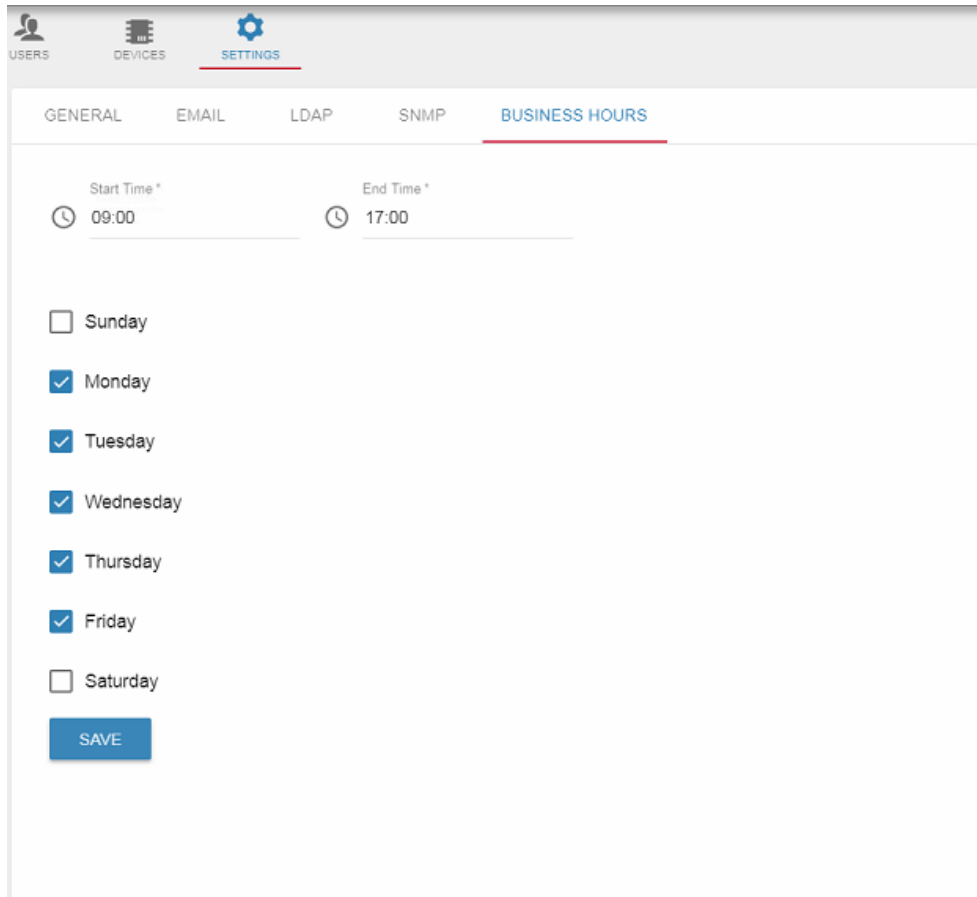



Figure 147: Business Hours Settings

3. Check the relevant business days.
4. Type the **Start Time/End Time** the working hours or click  to set working hours:

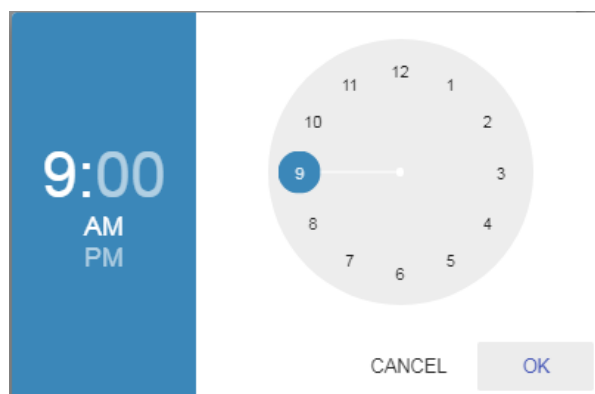


Figure 148: Setting Working Hours

5. Click **OK**.
Business hours are updated.

The screenshot shows a web interface with a top navigation bar containing 'USERS', 'DEVICES', and 'SETTINGS' (highlighted with a red underline). Below this is a sub-navigation bar with 'GENERAL', 'EMAIL', 'LDAP', 'SNMP', and 'BUSINESS HOURS' (highlighted with a red underline). The main content area has two time pickers: 'Start Time *' set to '09:00' and 'End Time *' set to '17:30'. Below these are seven days of the week, each with a checkbox: Sunday (unchecked), Monday (checked), Tuesday (checked), Wednesday (checked), Thursday (checked), Friday (checked), and Saturday (unchecked). At the bottom of the form is a blue 'SAVE' button.

Figure 149: Working Days and Hours Settings Updated

7 About Page

The About page displays the web page, server and software versions, as well as Kramer Electronics Ltd details:



Figure 150: The About Page

Click **Update License** to access the registration screen (see [Section 2.1](#)).

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Version 2, June 1991

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