

Room Scheduling


Room Scheduling System


Room Agent™ Room Booking Software and TouchLink® Scheduling Panels



Safety Instructions


Safety Instructions • English


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ATTENTION: This symbol, , when used on the product, is intended to alert the user of important operating and maintenance (servicing) instructions in the literature provided with the equipment.

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Instrucciones de seguridad • Español


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ATTENTION : Ce pictogramme, , lorsqu'il est utilisé sur le produit, signale à l'utilisateur des instructions d'utilisation ou de maintenance importantes qui se trouvent dans la documentation fournie avec l'équipement.

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Istruzioni di sicurezza • Italiano


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Instrukcje bezpieczeństwa • Polska


OSTRZEŻENIE: Ten symbol, , gdy używany na produkt, ma na celu poinformować użytkownika o obecności izolowanego i niebezpiecznego napięcia wewnątrz obudowy produktu, który może stanowić zagrożenie porażenia prądem elektrycznym.

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안전 지침 • 한국어

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주의: 이 기호 ⚠️ 가 제품에 사용될 경우, 장비와 함께 제공된 책자에 나와 있는 주요 운영 및 유지보수(정비) 지침을 경고합니다.

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Conventions Used in this Guide

Notifications

The following notifications are used:

ATTENTION:

- Risk of property damage.
- Risque de dommages matériels.

NOTE: A note draws attention to important information.**TIP:** A tip provides a suggestion to make working with the application easier.

Software Commands

Commands are written in the fonts shown here:

```
^ARMerge Scene,,Op1 scene 1,1 ^B 51 ^W^C
```

```
[01] R000400300004000080000600 [02] 35 [17] [03]
```

NOTE: For commands and examples of computer or device responses mentioned in this guide, the character “0” is used for the number zero and “O” represents the capital letter “o.”

Computer responses and directory paths that do not have variables are written in the font shown here:

```
Reply from 208.132.180.48: bytes=32 times=2ms TTL=32
```

```
C:\Program Files\Extron
```

Variables are written in slanted form as shown here:

```
ping xxx.xxx.xxx.xxx -t
```

```
SOH R Data STX Command ETB ETX
```

Selectable items, such as menu names, menu options, buttons, tabs, and field names are written in the font shown here:

From the **File** menu, select **New**.

Click the **OK** button.

Extron Glossary of Terms

A glossary of terms is available at <http://www.extron.com/technology/glossary.aspx>.

Contents

Introduction..... 1

About this Guide.....	1
About the Room Scheduling System	1
Calendar Servers	2
Compatible Panels	2
System Benefits.....	3
Security Overview.....	4
Network Traffic	4
Application Diagram	5
Features	6
Room Agent	6
TLS	7
TLSI.....	8

Software Overview..... 9

Using the Room Agent Software (Overview).....	9
Before You Start	9
Using Room Agent	10
Downloading Software.....	15
Updating Firmware	18

Menu Button..... 19

Manage Tab..... 21

Discover Panels.....	21
Add Panels Manually	22
Remove Panels	23
Manage Tab	24
Check Box	24
Panel Status	24
Search Box.....	24
Device Type Filter.....	24
Manage Tab Menu Bar	24
Status Link	25
Actions Drop-down List	26
Actions	26
Edit Settings	26
Install Firmware.....	33

Reboot	34
Reset.....	34

Configure Tab..... 35

View a List of Touchpanels or Wayfinding Devices and Their Properties	35
Touchpanels	35
Wayfinding Devices.....	37
Create or Edit Configuration Files.....	37
Set up a Proxy Server.....	38
Before Starting	38
Setting Up the Proxy Server.....	38
Troubleshooting.....	39
Ad Astra	41
CollegeneT 25Live	44
EMS	45
Prerequisites.....	45
Creating a Web Administrator for EMS.....	46
EMS Setup	47
Google Calendar	52
Google Calendar Overview	54
Microsoft Exchange.....	67
Set Up a Service Account.....	69
Delete a Service Account.....	72
Edit a Service Account.....	73
Verify the Exchange User ID is the UPN	73
Microsoft Office 365	76
OAuth for Microsoft Office 365.....	77
NFS.....	86
Configure Individual TLS Panels.....	89
Sending and Retrieving Configurations	89
Rebuilding a System Configuration File from Individual Records	90
Retrieve and Clear the Activity File	90
Retrieve a template.....	92
Configure Wayfinding Devices.....	92
List Format	96
Map Format.....	96
Associating TLS Panels with a Wayfinding Device	97

Design Tab 98

Design Tab for Rooms	99
Templates Pane	100
Layout Tab	100
Options Tab	102
Background Tab	105
Date & Time Tab	107
Panel Message Tab	109
Room Occupancy Tab	109
Preview Panel	111
Design Tab for Wayfinding (List Format)	113
Layout tab	114
Options.....	115
Background.....	115
Date & Time.....	116
Error Message	117
Permissions	117
Preview Pane.....	118
Design Tab for Wayfinding (Map).....	121
Layout	122
Map.....	124
Options.....	126
Background.....	127
Date & Time.....	128
Errors	129
Permissions	130
Preview Panel	130

Hardware 133

TLS Panels	133
Setup Checklist	134
Mounting	135
Front Panel Features.....	138

Rear Panel Features	139
Reset Modes	141
Setup Menu.....	141
TLSI Panels	142
Setup Checklist	142
Rear Panel Connectors and Features.....	143
Front Panel Features.....	145
Reset Modes	146
Setup Menu.....	147
TLSI 201 Web Page	148

Reference Information 149

Network Port Requirements and Licensed Third-Party Software.....	149
Supported Languages	149
Room Scheduling Analytics	150
Downloading the Microsoft Power BI Template.....	150
Exporting the Activity File as the Data Source from Room Agent	150
Importing an Activity File as the Data Source	151
Retrieving an Activity File via SFTP.....	152
Secure Sockets Layer (SSL) Certificates	153
IEEE 802.1X Certificates	154
Certificate File Requirements.....	154
Private Key File Requirements.....	155
SNMP	155

Introduction

- [About this Guide](#)
- [About the Room Scheduling System](#)
- [Application Diagram](#)
- [Features](#)

About this Guide

This guide provides information about the hardware and software required to install, configure, and operate the Extron Room Scheduling System.

The topics include:

- TouchLink Scheduling panels (TLS)
- Wayfinding panels (TLSI)
- Room Agent Software

About the Room Scheduling System

The Extron Room Agent system consists of the software (Room Agent) and the hardware on which it runs (TLS and TLSI panels). A list of [Compatible Panels](#) is on the following page.

When the system is running, conference rooms are booked in advance through any of the available calendar systems. A list of available [Calendar Servers](#) is on the following page.

The touchpanel outside the conference room displays the schedule for that conference room for the next three hours. If the conference room is not booked at any point during the next three hours, users can schedule a “walk-up” ad hoc meeting during the free time.

The Room Agent configuration program is available for download from the Extron website (see [Downloading Software](#) on page 15 for more information). The program allows a system administrator to integrate and configure all the touchpanels in the system, which can vary in size from one to thousands of panels. The system configurations can be saved and the individual configuration file for each touchpanel can be saved on that touchpanel. If required, the configuration files from all the individual touchpanels can be pulled back to the control PC to rebuild the system configuration file.

Wayfinding devices collate information from all the TLS panels in the system. This allows room availability to be viewed and rooms to be booked from a single centralized location. It is ideal for use in high traffic areas, including building lobbies, meeting room hallways, and corridors.

Calendar Servers

The Room Agent software interfaces with the following calendar servers to provide scheduling capabilities for all the conference rooms in the system.

- Ad Astra
- CollegeNET 25Live®
- EMS Software™
- Google™ Calendar™
- Microsoft® Exchange™
- Microsoft Office 365™
- Rendezvous by NFS (NFS)

Compatible Panels

As of June 2021, Extron recommends the following TLS panels for use with the Room Agent software. These models ship with the latest firmware for the scheduling system. No firmware update is required.

Check with www.extron.com to see a list of the latest recommended TLS panels.

- **TLS 525M** — A 5-inch (measured diagonally), wall-mounted panel with an 800x480 capacitive glass touchscreen. See the *TLP Pro 525, 725, and 1025 Series User Guide* for complete information about the product, including mounting options.
- **TLS 725M** — A 7-inch, wall-mounted panel with an 1024x600 capacitive glass touchscreen. See the *TLP Pro 525, 725, and 1025 Series User Guide* for complete information about the product, including mounting options.
- **TLS 1025M** — A 7-inch (measured diagonally), wall-mounted panel with a 1280x800 capacitive touchscreen. See the *TLP Pro 525, 725, and 1025 Series User Guide* for complete information about the product, including mounting options.
- **TLSI 201** — An Interactive Wayfinding Interface that collates information from all the TLS panels in the system. This information is displayed on a large third-party display screen, which allows room availability to be viewed and rooms to be booked from a single centralized location. The interface supports resolutions up to 4K. See the *TLSI 201 User Guide* for complete information about the product.

The following panels are retired but still supported by the Room Agent software.

- TLS 520M
- TLP Pro 520M
- TLP Pro 720M
- TLP Pro 720T
- TLS 1022T
- TLS 1022M

For information about mounting and basic setup for these panels see [Hardware](#) on page 133. More detailed information is available in the User Guide for the corresponding touchpanel.

Unlike other applications that use Extron touchpanels, there are no controllers to be configured.

The panels do not require complicated setup or programming. Users can book a room from any device connected to the room calendar, including their mobile devices, a connected panel, or a Wayfinding device.

All panels can receive power and communication over a single Ethernet cable. Power over Ethernet (PoE) eliminates the need for a local power supply. PoE requires a PoE injector, which is sold separately.

Room Agent software, installed on a computer with network access, allows system administrators to set up the Extron TouchLink Scheduling panels as room scheduling appliances by filling in the required fields that correspond with areas of the user interface. Customization options allow a variety of fields to be shown or hidden, depending on user preference.

Booking a room from the panel is as easy as tapping the **Reserve** button on the panel. The intuitive interface also provides at-a-glance room availability and a timeline view of the status of the room for half a day (1). In addition to the customizable panel interface, bright LEDs within the bezel provide at-a-glance room availability status from a distance.

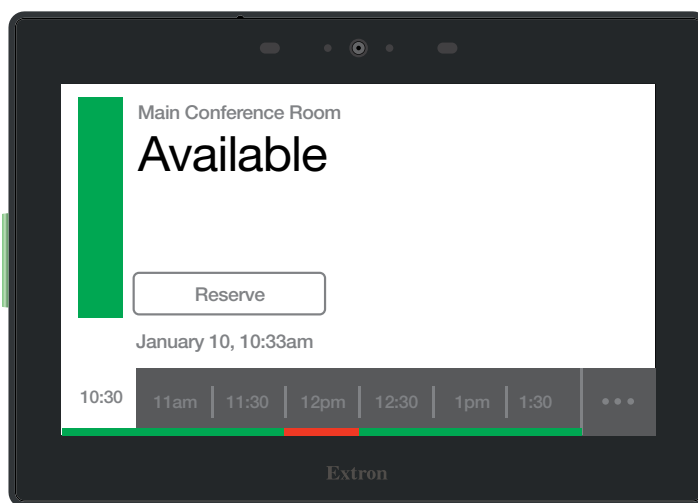


Figure 1. Typical Room Display on a TLS 725M Scheduling Panel

System Benefits

The Room Scheduling System can be integrated into any network and requires minimal network bandwidth for communication between each panel and the room calendar server. Benefits of being room calendar server clients, communicating directly with the room calendar server, include:

- **Ensures the security of information** — Each panel maintains a separate connection to a dedicated resource calendar that is assigned to the room associated with the panel through 25Live, EMS, Google Calendar, Microsoft Exchange, Office 365, and Rendezvous by NFS. Each resource calendar has a unique username and password that the panel uses to connect to the server. Administrators can manage the information of each room scheduling panel using tools, accounts, and privileges provided by their scheduling calendar console.
- **Simplifies system management** — This direct communication simplifies user access management for the administrator, and does not require any middleware or additional products to be placed on the network.
- **Eliminates a single point of failure** — The Room Scheduling System requires no middleware or intermediate server between the panels and the calendar server, eliminating the possibility of a single point of failure.

Security Overview

- All communications between the Room Agent software and the panels, between the Wayfinding devices and the TLS panels, and between the panels and the calendar room server are encrypted.
- When you are using the Room Agent Software to configure the panels, all communications between the software and the touchpanels are encrypted.
- Each conference room is assigned a unique room mailbox. This mailbox is restricted so that it cannot be used for interactive log-ons (the ability to send or receive e-mail).
- As part of the Room Agent software configuration process, the administrator enters the authentication information for each room. These values are sent as part of the configuration file to the panel. No other user ids or passwords are used.
- The software encrypts the account data. If a password is displayed on the user interface it is obscured, and any sensitive information is encrypted when stored on the administrator PC.
- Administrators can choose to save the panel configurations, including the account credentials, on their PCs in a password-protected file.

NOTE: The protected configuration files include the authentication data for each account. Use discretion when allowing access to these files.

- All panels are password protected. The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords are case sensitive.

NOTE: If the device is reset to default settings, the password is the default password configuration. The default password is **extron** (for either **admin** or **user**).

- During configuration, there is an opportunity to change the password and **Extron strongly recommends that you do.**

Network Traffic

The traffic generated on the network consists of requests for data and responses from the room calendar server. Communications occur at regular intervals, such as when requesting meetings, sending meeting invitations, or when administrators retrieve an activity file for a room from the panel. Panel configuration, typically completed once during the initial setup of the system, also produces traffic on the network. The panel provides options to create an ad hoc meeting, extend a meeting, end a meeting, and confirm a meeting using the **Check-In** button, provided that these options were made available to the user when the administrator configured the panel.

Application Diagram

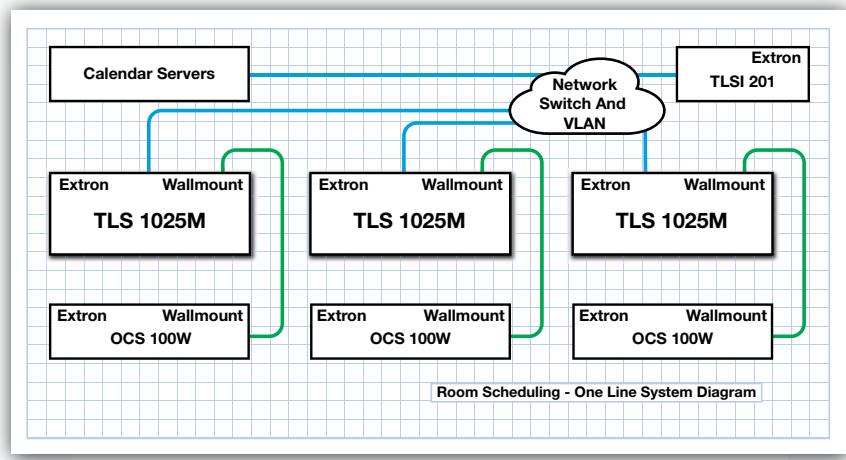
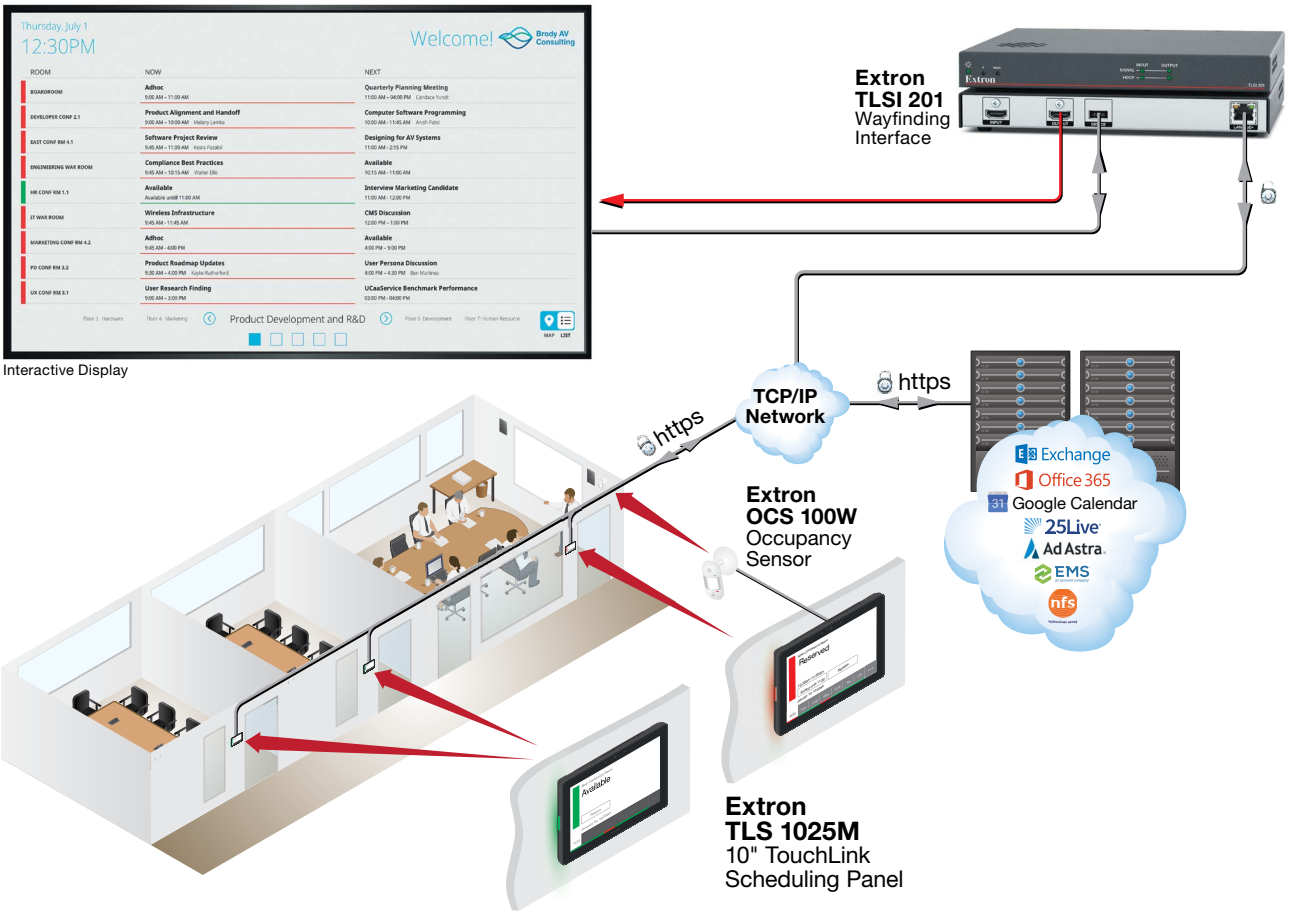


Figure 2. Typical Extron Room Scheduling System Application

Features

Room Agent

- Make on-demand reservations from the touchpanel, computer, or any smartphone or tablet that connects to Microsoft® Exchange and 365®, Google Calendar™, 25Live®, EMS, NFS, and Ad Astra®.
- Provides easy integration with Microsoft Exchange 2007, 2010, 2013, 2016, 2019, and 365 for convenient scheduling right from Outlook.
- Supports TLSI 201 Interactive Wayfinding Interface to provide real-time meeting space availability, status, and location information using a centralized display.
- Ability to view meeting attendees for panels configured with Microsoft 365, Exchange, and Google.
- **Ability to set or view room capacity via TLS panel** — Users can now set/view the room capacity via the TLS panel user interface.
- PIN access for TLS panels configured with Microsoft 365, Exchange, Google, and 25Live, enabling users to reserve, book, check-in and extend a meeting via a PIN (English Only).
- **Supports 27 languages** — Multi-language support now allows TLS panel and TLSI Interactive Wayfinding users the option to:
 - Display up to 2 languages simultaneously (for example display both English and Canadian French translations on the TLS panel user interface).
 - Display multiple languages, one at a time.
 - Room Agent software fully translated into Simplified Chinese.(For a list of supported languages, see [Supported Languages](#) on page 149.)
- **Ability to download a room Activity File without using Room Agent** — Users can now retrieve the activity file without the need of Room Agent by connecting to the TLS using an SFTP client.
- **Room usage data provides insight into trends and activity** — Each touchpanel includes a downloadable Scheduling Activity file that enables you to generate analytics on usage, activity patterns, and trends using data from across the enterprise or organization.
- Supports two factor authentication (OAuth) required for Microsoft 365.
- **Ability to search domains via communication settings for TLS and TLSI devices** — Users can now search for a specific domain in Room Agent software.
- All panel updates are conveniently handled through Room Agent. Ability to push firmware to a single panel or multiple panels, simultaneously. Deploy a single touchpanel, or multiple touchpanels with similar settings very easily.
- **Provides service account and impersonation support** — Touchpanels can be configured using a service account with Microsoft Exchange or 365, simplifying administrative tasks.
- Support for 802.1X certification on TLS panels, which can be managed via Extron Toolbelt software.
- Make meeting rooms available as soon as a scheduled meeting ends.
- Microsoft Exchange and 365 auto-discovery streamlines system setup.

TLS

- TLS panels have capacitive edge-to-edge glass touchscreen and come in three sizes:
 - 5" touchscreen with 800x480 resolution.
 - 7" touchscreen with 1024x600 resolution.
 - 10" touchscreen with 1280x800 resolution.
- **Gorilla Glass® screen is tough, scratch, and smudge-resistant** — Corning Gorilla Glass is stronger and more scratch-resistant than standard glass, while maintaining touch sensitivity, color saturation, and brightness.
- **Ability to set or view room capacity via TLS panel** — Users can now view the next upcoming meeting via the TLS panel user interface.
- All communication between the touchpanel and calendar server is encrypted and secure.
- Digital input allows connection to an occupancy sensor, such as the Extron OCS 100.
- Check-In Button confirms attendance for the scheduled meeting and retains the reserved status of the room, even if the start of the meeting is delayed.
- Two color themes, custom loaded background images, and transparency controls provide personalized branding options
- Customizable date and time formats with a preview showing how the UI will look on the touchpanel.
- **Customizable room availability hours** — Allows one to select the start and end times for the availability of a room.
- View details of the meetings scheduled for the day.
- **View/edit network adaptor information in Room Agent** — Users can now view network adaptor information via the **Manage** tab in Room Agent software.
- No annual subscription or maintenance fees.
- Meetings scheduled as private will by default have the meeting details hidden for meetings scheduled with Microsoft Exchange, 365, and Google Calendar.
- **Display up to 50 characters from the meeting body details for panels configured with Microsoft Exchange and 365** — The TLS can display up to 50 characters from the meeting body for any selected custom dropdown.
- Meeting Subject Line accommodates up to 2 lines of text.
- Two bright LED lights make it easy to see if a room is occupied or available even from down the hall.
- Rear-facing light bars reflect off the mounting surface providing enhanced visibility of room status (TLS 725 and 1025 only).
- **Power over Ethernet** — PoE allows the TLS panel to receive power and communication over a single Ethernet cable, eliminating the need for a local power supply.
- Can be mounted in a one-gang (TLS 525M) or two-gang (TLS 725M and 1025M) junction box, or on a wall, lectern, or any flat surface, including glass.
- (TLS 525M only) Supports the optional RWM 1 Recessed Wall Mount and SMK 1 Surface Mount Kit.
- (TLS 725M only) Supports the optional RWM 2 Recessed Wall Mount and SMK 2 Surface Mount Kit.

TLSI

- Find and book a meeting space for current day or week from a centralized location.
- Easily navigate real-time information on a landscape or portrait display using a dual view list layout and customer-provided map.
- Connects directly with TouchLink scheduling panels.
- Configurable with free Room Agent software.
- Ideal for use with third-party screens 40 inches or larger and up to 4K resolution.
- **Set screen transition times** — Users of the Wayfinding Interface can specify screen transition durations via Room Agent.
- Ability to view meeting attendees via Wayfinding (TLSI) device for rooms configured with Microsoft 365, Exchange, and Google.
- Ability to view room capacity via Wayfinding (TLSI) device.
- Requires no additional programming or external processors.
- **PoE+ compatible** — Product is powered directly by a PoE+ switch or injector, eliminating the need for bulky local power supplies.
- One high speed USB 2.0 port for third-party touchscreens or HID support.
- Simple customization options including logo, personalized message, and color themes.
- Flexible meeting information fields can be turned on or off as needed.
- Compact 1" high, half rack width low profile metal enclosure allows discreet installation behind a flat panel display.

Software Overview

This section provides an overview of how to use the Room Agent software and describes how to download software and firmware.

- [Using the Room Agent Software \(Overview\)](#)
- [Downloading Software](#)
- [Updating Firmware](#)

Using the Room Agent Software (Overview)

Before You Start

TLS and TLSI devices should be mounted and connected to the network.

Obtain the following network information for all your devices:

- **DHCP status** — (on or off). If DHCP is off, you must also obtain:
 - **IP address**
 - **Subnet mask**
 - **Gateway**
- **User name** — This can be either `admin` or `user`.
- **Password** — The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. Passwords are case sensitive.

NOTE: If the device is reset to default settings, the password is the default password configuration. The default password is `extron` (for both `admin` or `user`).

- Make a note of the Touchpanel MAC address, which can be found on a rear-panel label.
- Download and install Room Agent and Toolbelt on the control PC (see [Downloading Software](#) on page 15).

SSL security certificates and IEEE 802.1X authentication — TLS panels come with a factory-installed Secure Sockets Layer (SSL) security certificate. IEEE 802.1X authentication is also supported once enabled. See [Secure Sockets Layer \(SSL\) Certificates](#) on page 153 or see [IEEE 802.1X Certificates](#) on page 154 for more information.

Minimum system requirements

To configure the system, you must download the Room Agent software onto a PC that has the following minimum requirements:

- **CPU** — Intel® Core 2 Duo or equivalent processor
- **Operating System** — Windows® 7, Windows 8.1, or Windows 10
- **Memory** — 4 GB of RAM
- **Hard disk space** — 500 MB of available hard disk space
- **Display Resolution** — 1280 x 768 minimum
- **Network connection** — A data transfer rate of 10 Mbps. **Recommended:** 100 Mbps.
- **Microsoft .NET Framework 4.5.1**

Using Room Agent

Application Licensing

When Room Agent is started, or after log-out from a previous session, the **Application Licensing** dialog box opens.

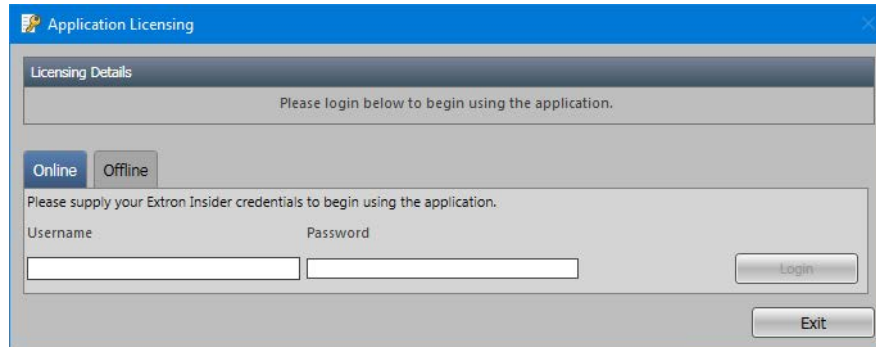


Figure 3. Log in to Room Agent

To attain full functionality, enter your Extron Insider login and password in the appropriate fields. When verified, the application can be run with full functionality.

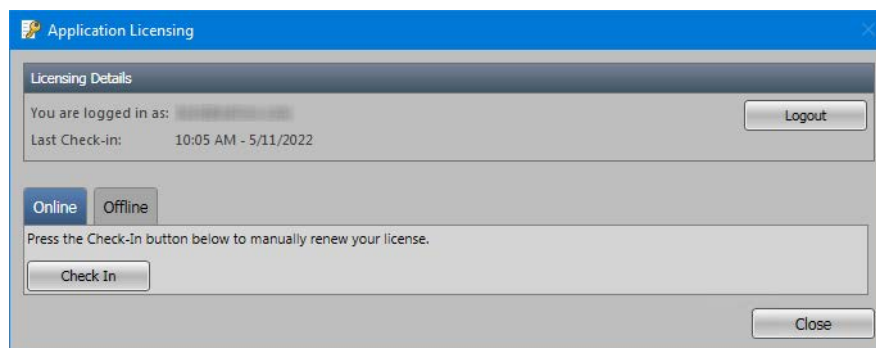


Figure 4. Check in to Room Agent

When a user is logged in, the **Licensing Details** shown are:

- User Name (blurred out in figure 4)
- Date of last check-in

Click **Check In** to renew the license.

Click **Close** to close the dialog and start working with Room Agent.

Alternatively, if you are not online, and are unable to link directly to a network, click on the **Offline** tab.

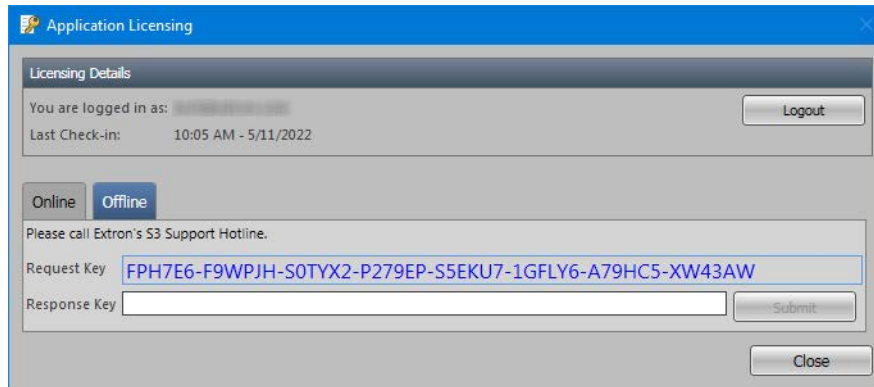
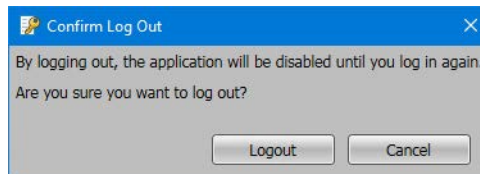


Figure 5. Application Licensing Offline

An auto generated request key is given. Follow the instructions given in the dialog box to obtain a response key to activate to full functionality.

Click **Close** to close the window and begin using Room Agent.

The user can log out from the session, which removes the saved credentials (Username and Password). If a user logs out a confirmation dialog box opens.



To log out and exit the application, click **Log Out** in the Confirm Log Out dialog box.

Click **Cancel** to keep the session open.

Discovering devices

1. Open Room Agent. By default, the program opens with the Manage tab selected. If required, select the **Manage** tab. For complete information, see **Manage Tab** on page 21.

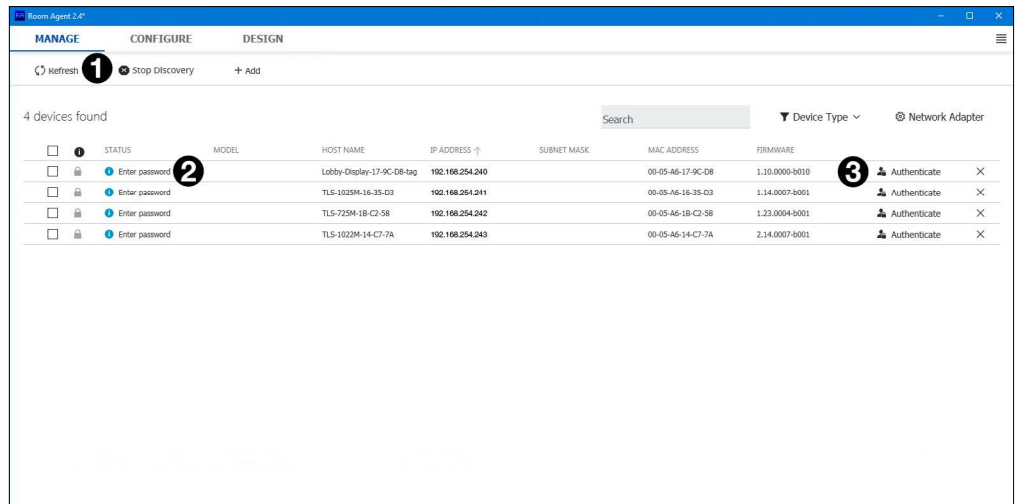


Figure 6. Manage Tab

2. Click **Discover**. The button text changes to **Stop Discovery**. A list of devices that are available on the same subnet as the PC is shown.

NOTES:

- After clicking **Discover**, the discovery process continues until you click **Stop Discovery**.
- The discovery process find all devices on the subnet that could be used by Room Agent, even if they have another function.

3. If required, click **Network Adapter** to search a different sub-network. Any new devices that have been discovered are added to the list.
4. Step 4 can be repeated with additional sub-networks as required.
5. Click **Authenticate** for one of the devices.
6. Enter the password for that device. Once the device has been authenticated, the **Authenticate** button is replaced by an **Actions** menu and the **Enter Password** status is replaced by the message **Ready**.
7. Repeat steps 5 and 6 to authenticate all required devices.

Device configuration

1. Once all the touchpanels are set up, click **Configure** to open the Configure tab.

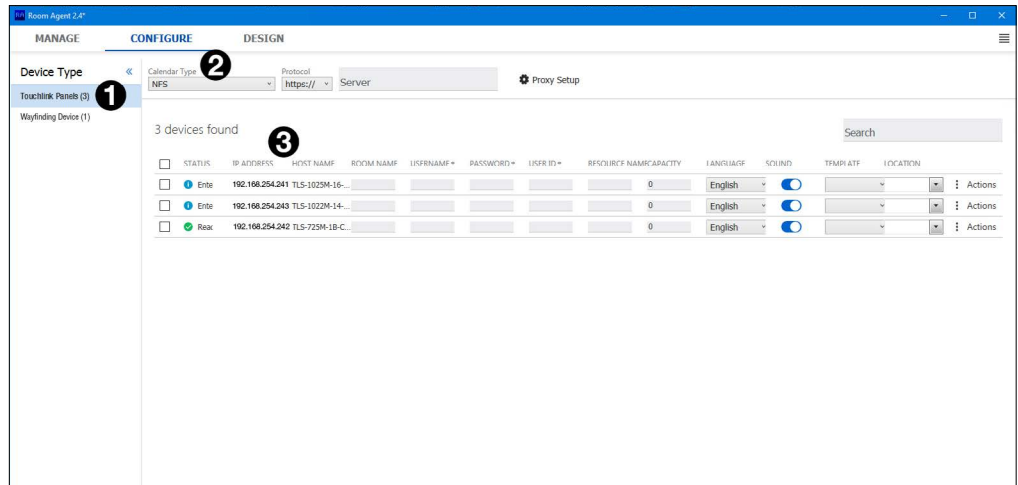


Figure 7. Configure Tab (TouchLink Panels)

2. Select **TouchLink Panels** or **Wayfinding Device** (1). Figure 7 shows **TouchLink Panels** selected.
3. Select the **Status** checkbox for one or more TLS panels.
4. Select a **Calendar Type** (2).
The column headings (3) change, depending on the calendar type selected. Figure 7 shows the **NFS** calendar selected.
5. Assign a location to the TLS panel. This allows the touchpanel to be linked to a wayfinding device.
6. If required, repeat steps 4 and 5 to select a new group of panels and associate them with a different calendar server.
7. Select the **Wayfinding Devices** button in the top left corner of the screen.

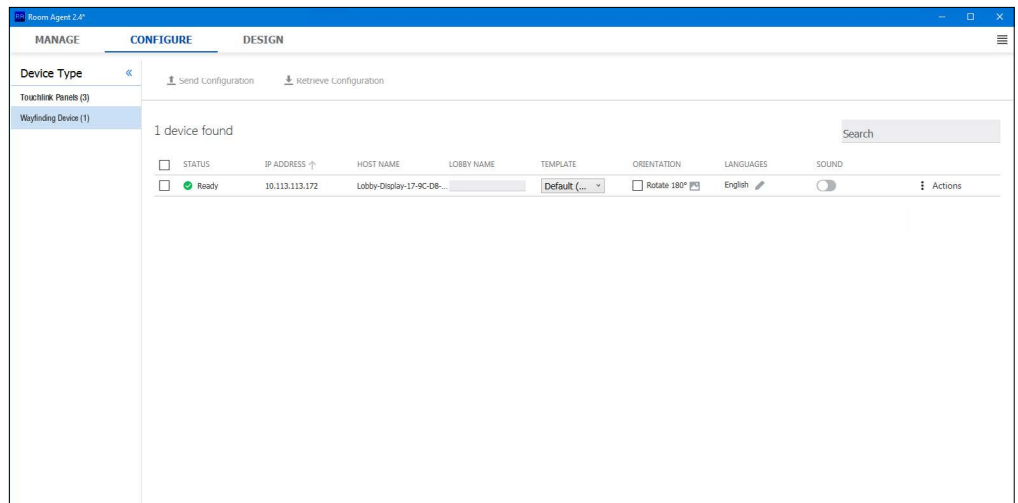


Figure 8. Configure Tab (Wayfinding Devices)

For detailed instructions about configuring touchpanels and wayfinding devices, and saving the configurations, see **Configure Tab** on page 35.

Designing the interface

Click **Design**.

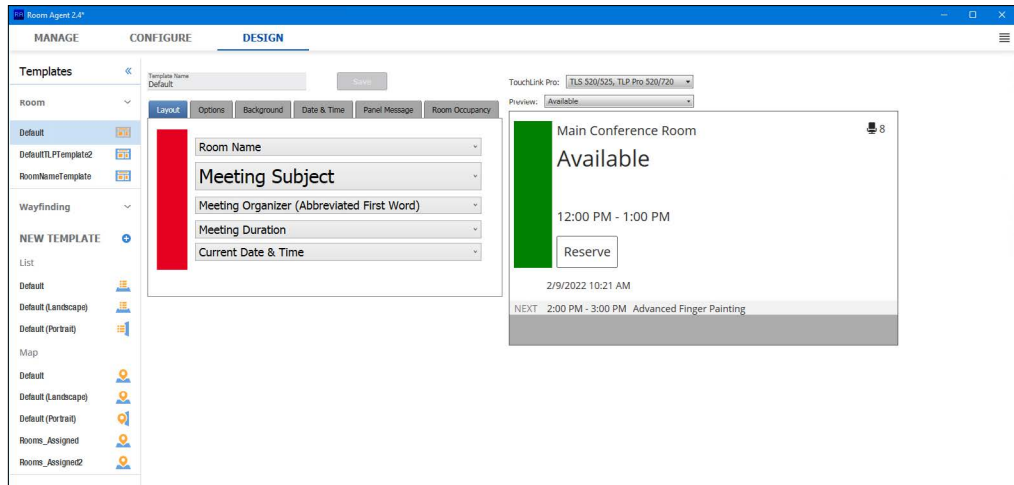


Figure 9. Design Tab

The **Design** tab is used to determine how information is presented on the TLS panels and on the Wayfinding devices. Figure 9 shows the **Design** tab for the TLS panels.

The information shown on Wayfinding devices can be presented as a list or as a map. Choose the template that meets your need from the menu on the left side of the screen.

After modifying the design, you can overwrite an existing template or save the template with a new name.

For more detailed instructions about using the **Design** tab, see [Design Tab](#) on page 98.

Downloading Software

The Extron Room Scheduling System requires you to install both the Room Agent software and Toolbelt software on a control PC.

This software must be downloaded from the Extron website (www.extron.com). You need an Extron Insider account to download either program. If you need to set up an account, contact your Extron sales representative.

To download Room Agent or Toolbelt, follow these instructions:

1. Open the Extron website in your browser.
2. Click the **Download** tab in the top menu bar (1).

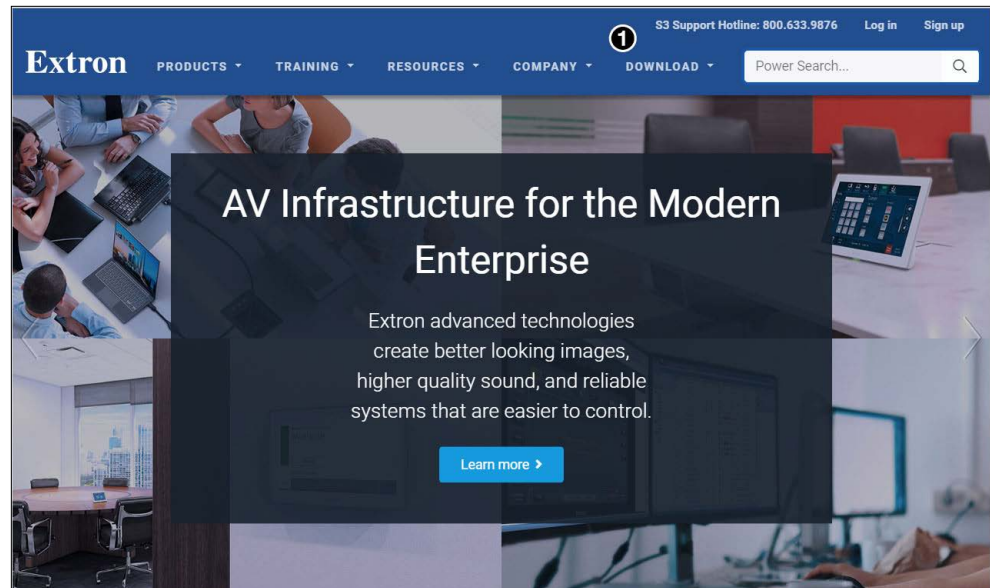


Figure 10. Download from the Extron Page

3. Click **Software** (2).

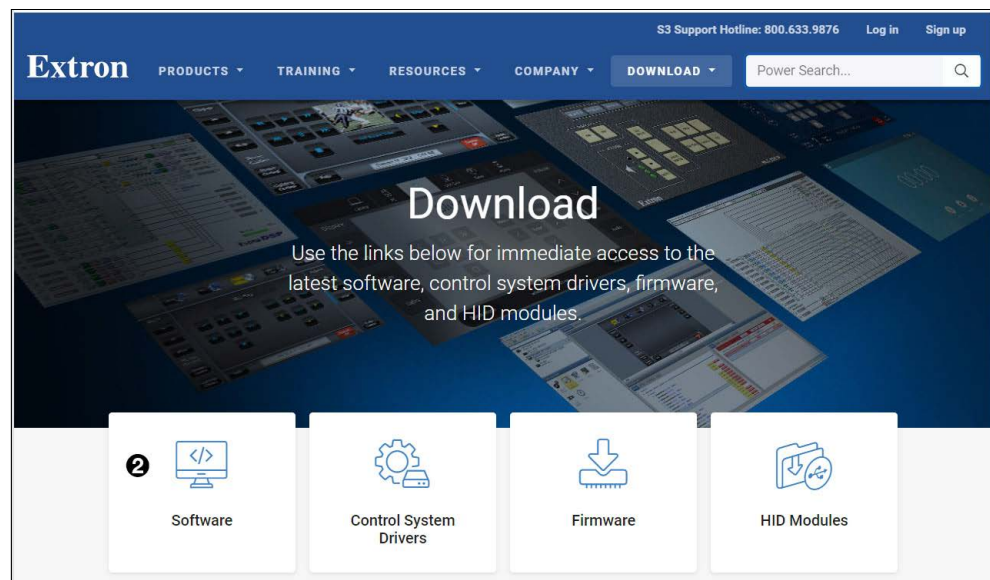


Figure 11. Download Software

- Use the left and right scroll arrows (1) to find the software. If it is not shown at the top of the page, click the letter **R** in the alphabet menu (2) for Room Agent.

All Extron Software products with names beginning with the letter R are listed below. Alternatively, click the letter **T** for Toolbelt.

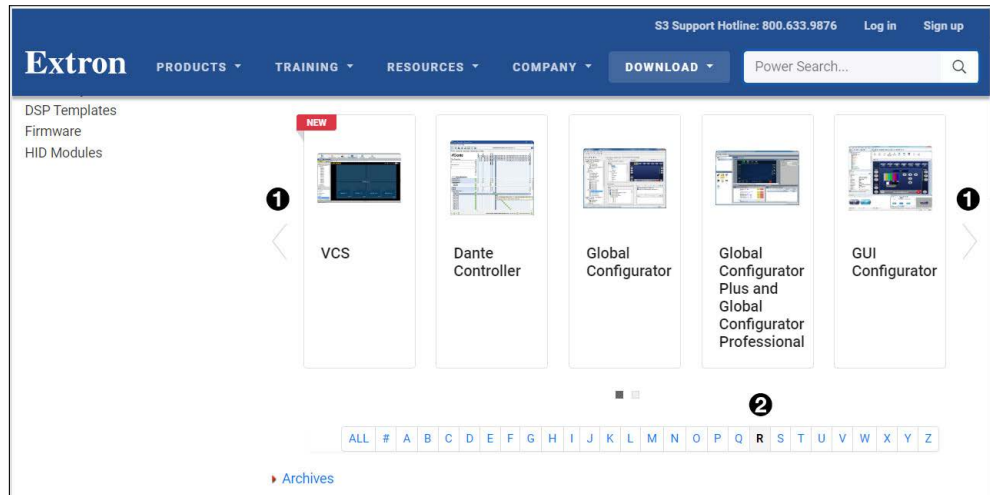


Figure 12. Find Room Agent for Download

- Scroll down to Room Agent and click the **Download** link next to Room Agent (1).



Figure 13. Room Agent Download

- Provide the information requested and follow the instructions on the screen.
- Navigate to the folder where the downloaded file was stored and click the **Install** icon. The Install Wizard opens at the **Welcome** page.

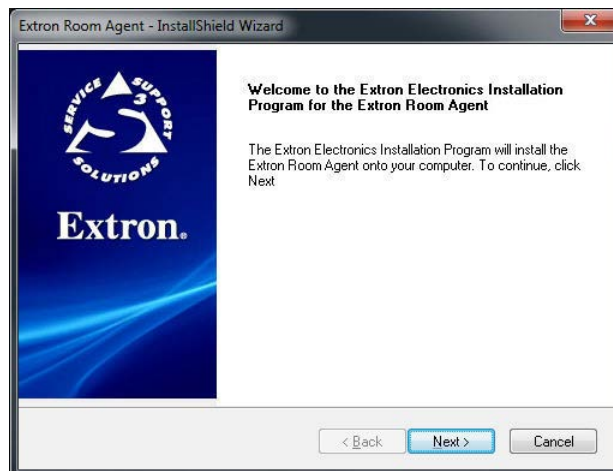


Figure 14. Start Room Agent Download

- Click **Next**.

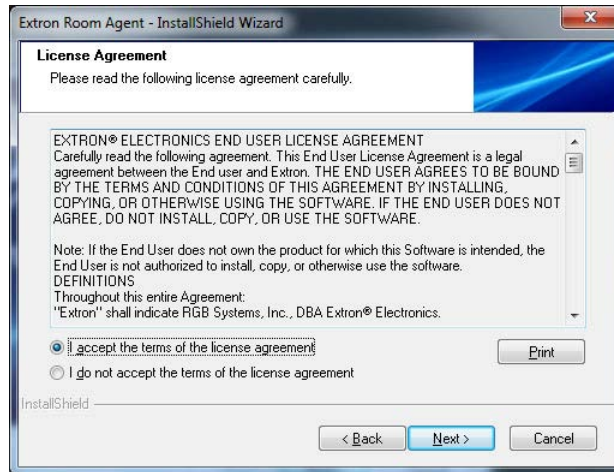


Figure 15. Accept license Agreement

9. Read the license agreement and print it (if desired).
10. Select the **I accept the terms of the license agreement** button.
11. Click **Next**. You are prompted to save the software in the default folder. The default folder for Room Agent is C:\Program Files (x86)\Extron\Extron Room Agent.
If you want to install the program at another location, click **Browse** and select a different destination folder.
12. Click **Next**.

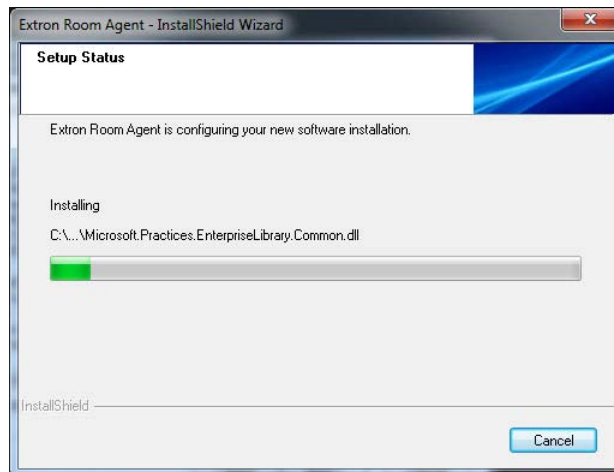


Figure 16. Download in Progress

The program is downloaded and installed. A green bar on the Setup Status screen shows the progress of the installation.

13. When the installation is completed, the final screen appears. Leave the box checked to add a desktop shortcut.

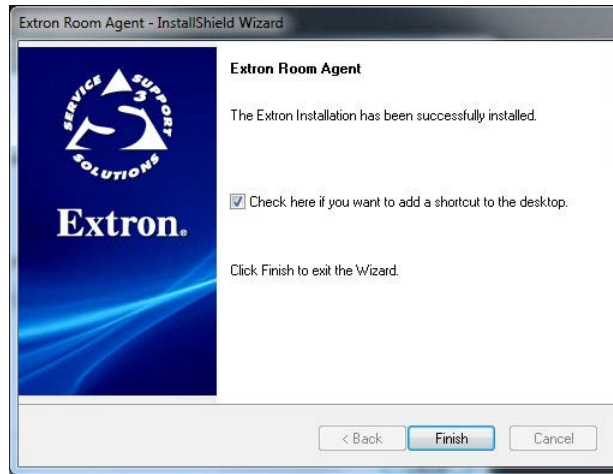


Figure 17. Download Complete

14. Click **Finish**. The program is now installed and ready for use.

Updating Firmware

Extron TLS and TLSI panels have the latest firmware version when they are shipped from the factory. Over time, as new features are added, newer versions of the Room Agent software become available. In order to run the newer software versions, you may need to update the firmware on your panels.

The latest version of the firmware is packaged with the new software. Copy the firmware file to a computer on the same network as the touchpanel.

By default, when you download Room Agent to your PC, the firmware can be found at:
C:\ProgramData\Extron\TLPScheduler\firmware\.

NOTE: The TLSI 201 and the TLS panels use different firmware. Ensure you obtain the correct firmware for your product.

Use one of the following options to upload and install the firmware on a TLSI 201 or TLS panel:

- Toolbelt (see *Toolbelt Help File*)
- Room Agent Manage tab (see [Install Firmware](#) on page 33)
- [TLSI 201 Web Page](#) (see page 148).

Menu Button

Click the **Menu** button in the top right corner of the screen to open a drop-down menu that allows you to create new configurations, open existing configurations, and save configurations.

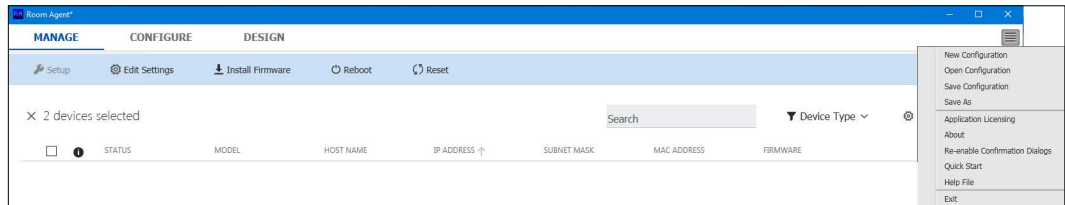


Figure 18. Menu Button

It also provides access to the **About** screen. The following options are available:

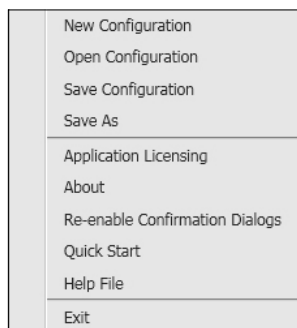


Figure 19. Menu Button Options

NOTES:

- Each touchpanel has an individual configuration file that describes how that touchpanel is set up. The system configuration file contains the individual records for every touchpanel in the system.
 - The individual records are uploaded to the corresponding touchpanel, where they are saved and used to configure the touchpanel. If the system configuration file is lost or corrupted, it can be regenerated by pulling the individual records from all the individual touchpanels in the system.
- **New Configuration** — Opens a new (unnamed) system configuration file (see [Notes](#), above).
 - **Open Configuration** — Allows you to open and modify an existing system configuration file (see [Notes](#), above).
Navigate to the location where the configuration file was saved, then select a file. You are prompted to enter the password that you provided when you saved the file.
 - **Save Configuration** — Saves changes to an existing system configuration file (see [Notes](#), above).

- **Save As . . .** — Saves changes to a new (unnamed) configuration or allows you to save a copy of an existing configuration file (see [Notes](#) on page 19).

When you click this option, you are prompted to enter and reenter a password to protect the configuration file.

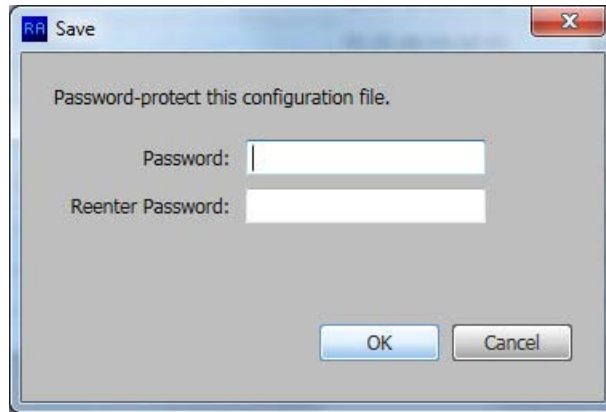


Figure 20. Save Configuration

1. Enter and reenter a password and Extron recommends that you use a strong password to protect the configuration file.
 2. Click **OK**. A **Save As** dialog box opens.
 3. Name the file and navigate to the folder where the file is to be saved.
 4. Click **Save**.
- **Application Licensing** — See [Application Licensing](#) on page 10.
 - **About** — Opens a splash screen that provides basic information about the program.



Figure 21. About Room Agent

Click **Details** or **Licenses** for more information.

Click **OK** to close the screen.

- **Re-enable Confirmation Dialogs** — Re-enables all dialogs that had previously been disabled by the user.
- **Quick Start** — Opens the *Extron Quick Start Guide to Room Agent Software* (PDF).
- **Help File** — Opens the *Extron Room Agent Help file*.
- **Exit** — Closes the program. You are prompted to save changes to the system configuration file before you close the program.

Manage Tab

- [Discover Panels](#)
- [Add Panels Manually](#)
- [Remove Panels](#)
- [Manage Tab](#)
- [Actions Drop-down List](#)
- [Actions](#)

Extron Room Agent opens to the Manage tab:

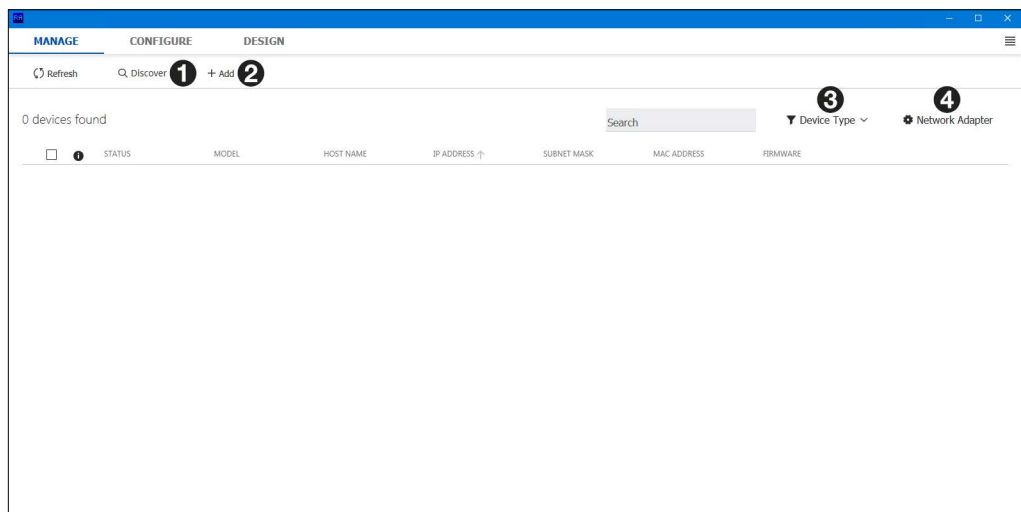


Figure 22. Room Agent Manage Tab

Discover Panels

Press **Discover** (1) to list all the devices (panels and Wayfinding Devices) that Room Agent is able to find automatically. Only panels that are on the same subnet as the control PC are auto discovered.

When the Discover process begins, the text on the button changes to **Stop Discovery**. The discover process may take several minutes. Even after all the available panels have been discovered, the process remains active until you click **Stop Discovery**.

NOTE: The discover process finds all touchpanels in the subnet that could be used by the Room Agent system, even if they have another function.

If the control PC has access to more than one subnetwork, click **Network Adapter** (see [figure 22](#), 4, on page 21) to connect to other available subnetworks.

The Available Network Adapters dialog box opens:

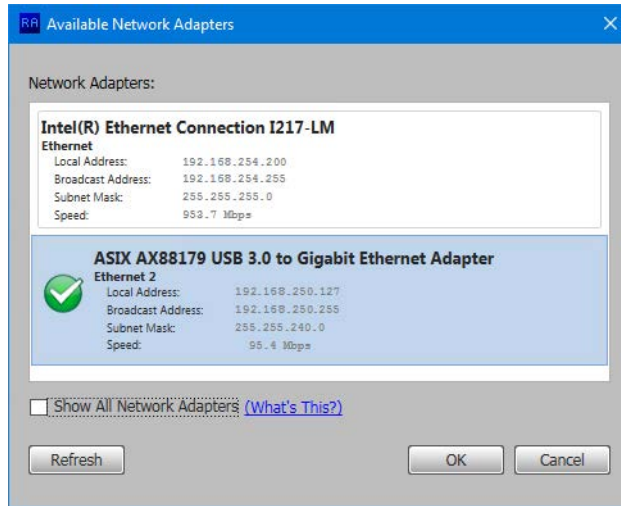


Figure 23. Network Adapter

1. Click on one of the available networks and then click **OK**.
2. The dialog box closes. Click **Discover** in the **Manage** tab to find panels that are available on the new network.

Add Panels Manually

TLS panels that are not available on any of the subnets accessed by the network adapter must be added manually.

1. Click **+ Add** (see [figure 22](#), 2).

The Add Device dialog box opens.

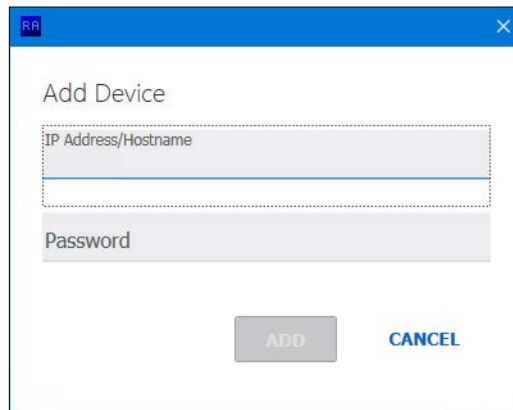


Figure 24. Add Device Dialog Box

2. Enter the IP Address/Hostname and Password in the corresponding fields.

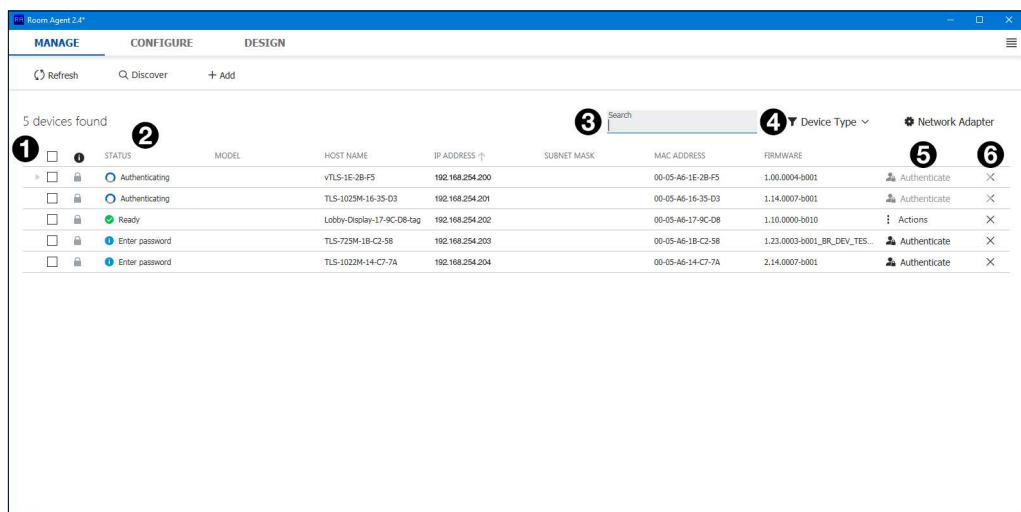
NOTES:

- All panels are password protected. The factory configured passwords for all accounts on each device have been set to the device serial number. Passwords are case sensitive.
- Passwords can be changed during panel setup and Extron strongly recommends that you do this.
- If the device is reset to default settings, the password is reset to the default password configuration, which is **extron** (for either **admin** or **user**).

3. Click **Add**. The new TLS panel is added to the Panels list.
4. Repeat steps 1-3 to add more panels manually. If you have several touchpanels to enter, it is good practice to save the configuration periodically (see **Menu Button** on page 19).

Once the panels have been discovered or added manually, they are listed in the **Manage** tab.

NOTE: TLS panels and Wayfinding devices are all listed together.



	1	2	MODEL	HOST NAME	IP ADDRESS ↑	SUBNET MASK	MAC ADDRESS	FIRMWARE	5	6
5 devices found	<input type="checkbox"/>	Authenticating	vTLS-16-2B-F5		192.168.254.200		00-05-46-16-2B-F5	1.00.0004-b001	Authenticate	×
	<input type="checkbox"/>	Authenticating	TLS-1023M-16-35-D3		192.168.254.201		00-05-46-16-35-D3	1.14.0007-b001	Authenticate	×
	<input type="checkbox"/>	Ready	Lobby-Display-17-9C-D8-tag		192.168.254.202		00-05-46-17-9C-D8	1.10.0009-b010	⋮	×
	<input type="checkbox"/>	Enter password	TLS-723M-1B-C2-5B		192.168.254.203		00-05-46-1B-C2-5B	1.23.0003-b001_BR_DEV_TES...	Authenticate	×
	<input type="checkbox"/>	Enter password	TLS-1022M-14-C7-7A		192.168.254.204		00-05-46-14-C7-7A	2.14.0007-b001	Authenticate	×

Figure 25. Panels Listed in the Manage Tab

The Manage tab has the following features:

- **Check Box**
- **Search Box**
- **Status Link**
- **Panel Status**
- **Device Type Filter**
- **Remove Panels**

Remove Panels

To delete an unwanted panel:

1. Click **Stop Discovery**.
2. Click the **X** at the end of the row for the touchpanel to be removed (see **figure 25, 6**). The touchpanel is deleted from the list.

Manage Tab

Check Box

The check boxes (see [figure 25](#), **1**, on page 23) allow you to select and configure one or more panels. When one or more panels are selected the "Manage Tab Menu Bar" (see below) appears at the top of the screen.

Panel Status

The **Panel Status** column (**2**) shows the current status of each panel. When the panel is first discovered, it shows **Enter Password**. While the password is being authenticated, it shows **Authenticating**. Once the password is authenticated, it shows **Ready**. Other messages can appear, depending on the status of the panel.

Search Box

The **Search box** (**3**) allows you to search the list for a single panel or for a group of panels that share a common characteristic. You can search by:

- Status
- Host Name
- IP address (any octet that is unique to the panel)
- Firmware version

Device Type Filter

The **Device Type filter** (**4**) allows you to select all the devices in either of these categories:

- Panels
- Wayfinding Devices

Manage Tab Menu Bar

Use the check boxes at the left of the screen (**1**) to select one or more panels.

When one or more panels are selected, a new menu bar appears at the top of the page:

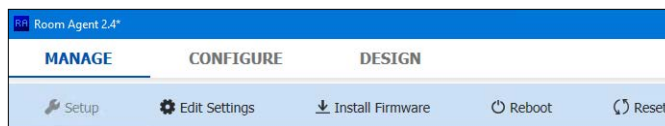


Figure 26. Manage Tab Menu Bar

The menu bar allows you to:

- Setup
- **Reboot**
- **Edit Settings**
- **Reset**
- **Install Firmware**

These options are also available from the **Actions Drop-down List** (see page 26). However, the **Actions** drop-down list does not have the **Setup** option.

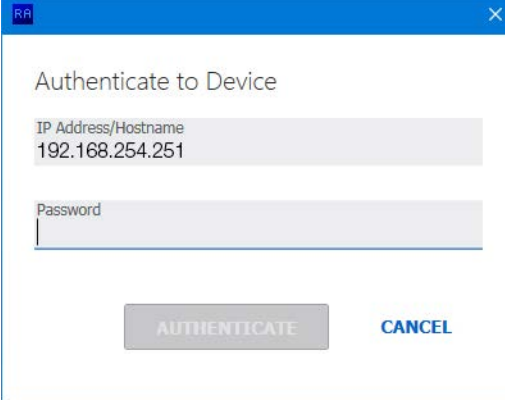
The **Manage** tab menu bar allows you to carry out these actions on multiple panels in a batch. The actions shown in the **Actions** drop-down list are carried out on only the single panel selected.

Status Link

The **Status** link (see **figure 25**, **5**, on page 23) shows the status of each panel and allows the user to carry out actions on the panel:

1. Initially all the panels show **Authenticate**.
2. Click **Authenticate**.

The **Authenticate to Device** dialog opens:



The screenshot shows a dialog box titled "Authenticate to Device". It has a blue header bar with "RA" on the left and a close button on the right. The main content area contains the following elements:

- Title: "Authenticate to Device"
- Text field: "IP Address/Hostname" with the value "192.168.254.251"
- Text field: "Password" (empty)
- Buttons: "AUTHENTICATE" (disabled) and "CANCEL" (active)

Figure 27. Authenticate to Device Dialog

Enter the password and click **Authenticate**.

The dialog box closes and the panel status changes to **Authenticating**.

3. Once the password is authenticated, the panel status changes to **Ready**.

The status link changes to **Actions**.

Click **Actions** to see a list of actions that can be carried out on that device.

Actions Drop-down List

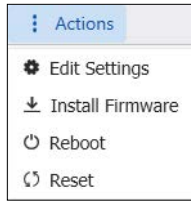


Figure 28. Actions Drop-down Menu

The **Actions** drop-down list allows you to:

- **Edit Settings**
- **Install Firmware**
- **Reboot**
- **Reset**

The **Actions** drop-down list allows you to carry out the same functions as the **Manage** tab menu bar. However, these actions are carried out on a single panel instead of a batch.

The **Actions** drop-down list does not have the **Setup** option.

Actions

Edit Settings

To edit settings for one or more panels simultaneously, use the check boxes to select one or more panels and, in the top menu bar that appears, click **Edit Settings** (see [figure 34](#) on page 29).

To edit settings for a single panel, click **Actions** in the line for that panel and, in the drop-down list that appears, click **Edit Settings** (similar to [figure 37](#) but shows the current IP address and MAC address).

The Edit Settings window opens, showing two tabs:

- **General**
- **Network**

General

By default, the **Edit Settings** window opens with the **GENERAL** tab selected. The options available are different for **TLS Panels** and **Wayfinding Devices**.

TLS Panels

The **GENERAL** tab for TLS panels has four sections: **Display**, **Audio**, **Date and Time**, and **Passwords**. Click on any of the headings to expand that section.

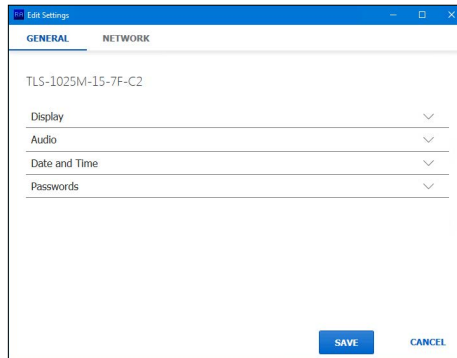


Figure 29. General Settings (TLS Panels)

Display

By default, the **Display** section is already open when the **GENERAL** tab is selected.

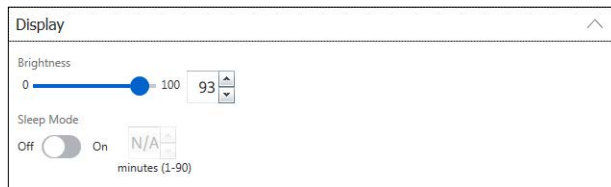


Figure 30. Display Settings

Use the **Brightness** slider or multibox to set the screen brightness. This setting needs to be higher when the ambient light is brighter.

Sleep Mode is an energy saving feature. When no activity is detected near the touchpanel for a user-defined period of time, the screen goes dark. When activity is detected near the touchpanel, the screen is activated again. Set sleep mode by toggling the On or Off switch. If sleep mode is on, set how long the period of inactivity should be before the touchpanel enters sleep mode.

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see figure 31).

Audio

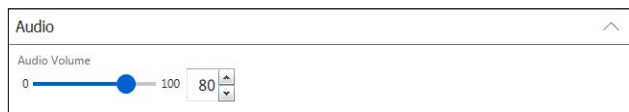
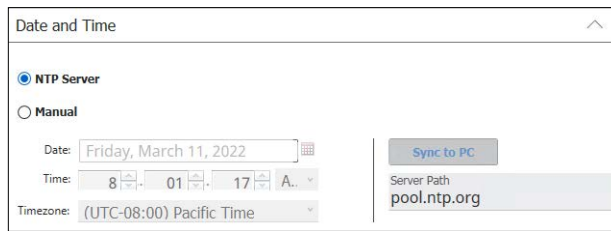


Figure 31. Audio Settings

Use the **Audio Volume** fader or the multibox to set the audio volume. This determines the volume of the audible feedback from the touchpanel (for example, from button clicks).

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see figure 29).

Date and Time



The screenshot shows a 'Date and Time' configuration window. At the top, there are two radio buttons: 'NTP Server' (selected) and 'Manual'. Below the 'NTP Server' option, there is a 'Date' field with a calendar icon, showing 'Friday, March 11, 2022'. To the right of the date is a 'Sync to PC' button. Below the date is a 'Time' field with spinners for hours (8), minutes (01), and seconds (17), and a dropdown for AM/PM (A.). Below the time is a 'Timezone' dropdown menu showing '(UTC-08:00) Pacific Time'. To the right of the time and timezone fields is a 'Server Path' field containing 'pool.ntp.org'.

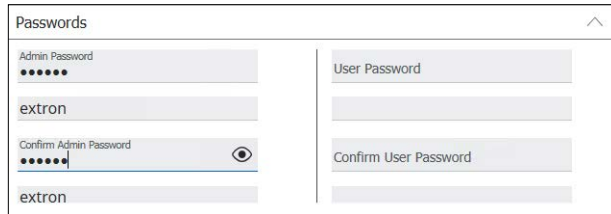
Figure 32. Date and Time Settings

Decide how to set the time on the panel. The options are:

- **Synchronize with an NTP server** — Select the **NTP server** radio button and enter the **Server path**. You can use an IP address or a Fully Qualified Domain Name (FQDN). When this option is selected, all other options (except **Server Path**) are grayed out and unavailable.
- **Set the time manually** — Select the **Manual** radio button. **Server Path** is grayed out and unavailable but all other options are now available.
 - Select the **Timezone** from the drop-down list. By default, this is **(UTC-08:00) Pacific Time**.
 - Click **Sync to PC** to sync the panel with the control PC or set the time and date manually.

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see [figure 29](#) on page 27).

Passwords



The screenshot shows a 'Passwords' configuration window. On the left side, there are four text input fields: 'Admin Password' (masked with dots), 'User Password', 'Confirm Admin Password' (masked with dots and has an eye icon), and another field (likely for confirmation) containing 'extron'. On the right side, there are two text input fields: 'User Password' and 'Confirm User Password'.

Figure 33. Password Settings

This panel allows you to reset the passwords for the TLS panel. The panel can have an Admin Password and a User Password.

NOTES:

- You cannot set a **User Password** until an **Admin Password** has been set.
- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords are case sensitive.
- If the device is reset to default settings, the passwords are reset to the default password, which are **extron** (for either **admin** or **user**).

Enter the new password in the **Admin Password** text box. By default, the new password is masked. To see the new password, click the "eye" icon.

Enter the new password again in the **Confirm Admin Password** text box.

The old password is displayed in the textbox underneath each text box.

Once the Admin password is saved, repeat the process to set the user password.

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see [figure 29](#) on the previous page).

If you select multiple devices by clicking two or more check boxes (see [figure 25, 1](#), on page 23), you can configure all of the selected devices as a batch.

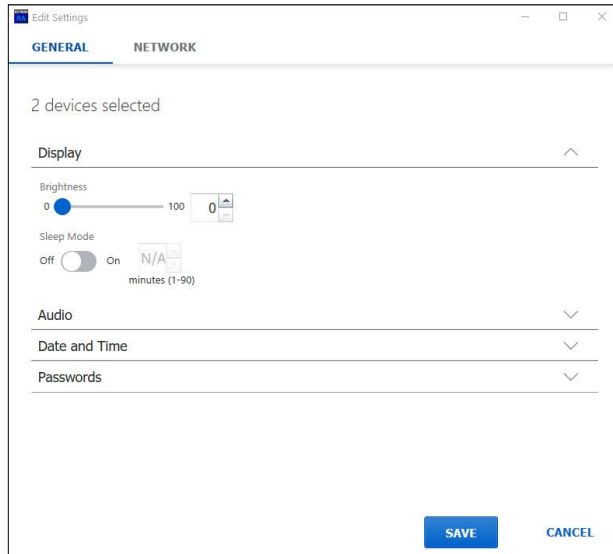


Figure 34. General Settings for Multiple Devices

The **Display**, **Audio**, **Date and Time**, and **Passwords** settings that are configured with the **GENERAL** tab are applied to all the selected devices.

You can also configure the network settings for multiple devices in a batch.

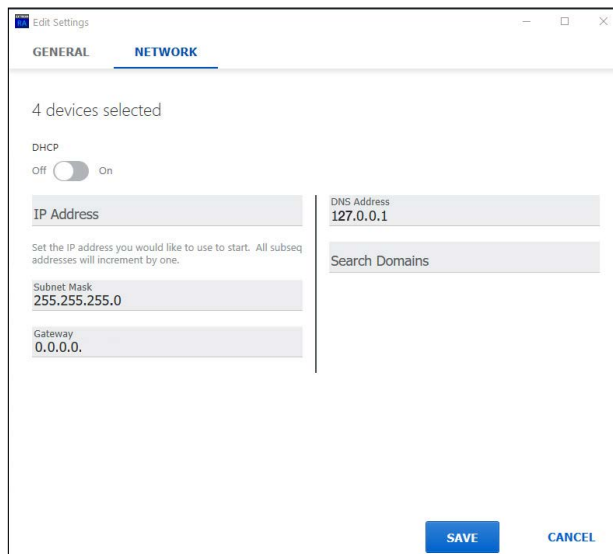


Figure 35. Network Settings for Multiple Devices

The **Subnet Mask**, **Gateway** address, and **DNS Address** that you set are applied to all devices.

The **IP Address** that you set is applied to the first device in the list of selected devices. The first IP Address is incremented by one and applied to the second device and so forth. For example, if the first IP address is set to **192.168.254.200**, the second device is assigned the IP address **192.168.254.201**, and the third device is assigned **192.168.254.202**.

If an address is already assigned to another device, that address is skipped and the next available address is used. For example, in the example above, if the address **192.168.254.202** was not available, the third device is assigned **192.168.254.203**.

Wayfinding Devices

The **GENERAL** tab for Wayfinding devices (see figure 36) is different from the TLS panels.

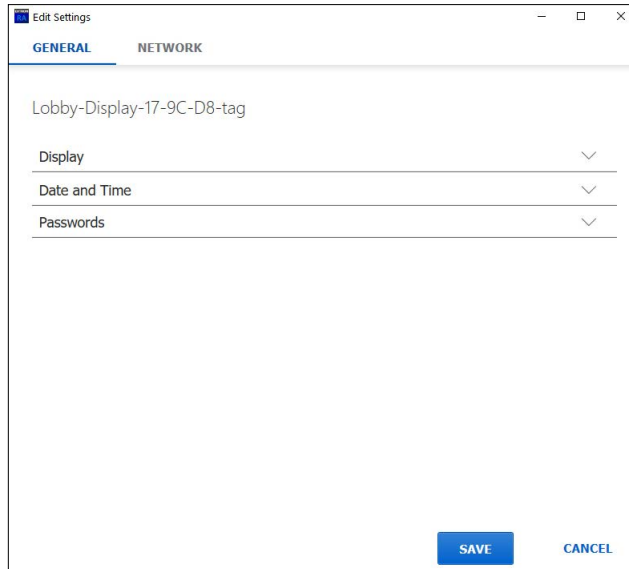


Figure 36. General Settings (Wayfinding Devices)

There are no controls to set audio.

Display

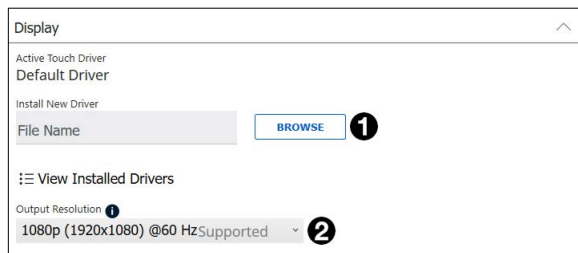


Figure 37. Display Settings (Wayfinding Devices)

Room Agent provides a default driver for use with the display device connected to the Wayfinding device. You can replace it with your own driver:

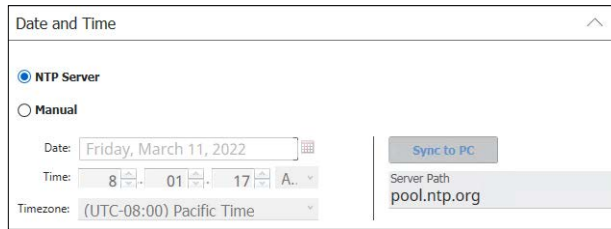
1. Upload the driver to the control PC.
2. Click **BROWSE** (see figure 37, ①) and navigate to the folder where the driver was stored.
3. Upload the driver to the TLSI.

You can also select the resolution and frequency for the connected display (②).

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see figure 36, above).

Date and Time

The **Date and Time** settings for the TLSI panel are the same as those for the TLS panels.



The screenshot shows the 'Date and Time' configuration window. It has two radio buttons: 'NTP Server' (selected) and 'Manual'. Under 'NTP Server', there is a 'Date' field with a calendar icon, a 'Time' field with spinners for hours, minutes, seconds, and AM/PM, and a 'Timezone' dropdown menu. A 'Server Path' field is present, and a 'Sync to PC' button is located to the right of the 'Date' and 'Time' fields.

Figure 38. Date and Time Settings

Decide how to set the time on the panel. The options are:

- **Synchronize with an NTP server** — Select the **NTP server** radio button and enter the **Server path**. You can use an IP address or a Fully Qualified Domain Name (FQDN). When this option is selected, all other options (except **Server Path**) are grayed out and unavailable.
- **Set the time manually** — Select the **Manual** radio button. **Server Path** is grayed out and unavailable but all other options are now available.
 - Select the **Timezone** from the drop-down list. By default, this is **(UTC-08:00) Pacific Time**.
 - Click **Sync to PC** to sync the panel with the control PC or set the time and date manually.

When all the changes have been made, click **SAVE** or **CANCEL** at the bottom of the page (see [figure 36](#) on page 30).

Passwords



The screenshot shows the 'Passwords' configuration window. It has two text input fields: 'Admin Password' and 'Confirm Admin Password'. Both fields are currently masked with dots. Below the 'Admin Password' field, the text 'extron' is displayed. Below the 'Confirm Admin Password' field, the text 'extron' is displayed. An 'eye' icon is located to the right of the 'Confirm Admin Password' field.

Figure 39. Password Settings

This panel is the similar to the Passwords panel for the TLS panels. However, the TLSI can have an Admin Password only. There is no User Password.

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords are case sensitive.
- If the device is reset to default settings, the passwords are reset to the default passwords, which are **extron** (for either **admin** or **user**).

Enter the new password in the **Admin Password** text box. By default, the new password is hidden. To see the new password, click the "eye" icon.

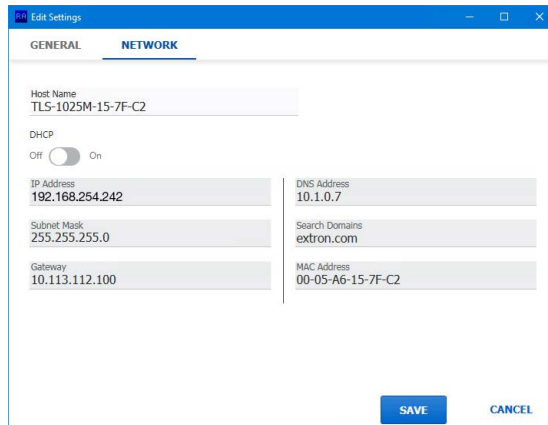
Enter the new password again in the **Confirm Admin Password** text box.

The old password is displayed in the textbox underneath each text box.

Click **SAVE** or **CANCEL** at the bottom of the page (see [figure 36](#) on page 30).

Network

The Network tab for both TLS panels and Wayfinding devices is similar:



The screenshot shows a window titled "Edit Settings" with a "NETWORK" tab selected. The "Host Name" field contains "TLS-1025M-15-7F-C2". The "DHCP" section has a toggle switch set to "On". The "IP Address" field contains "192.168.254.242", "Subnet Mask" contains "255.255.255.0", and "Gateway" contains "10.113.112.100". The "DNS Address" field contains "10.1.0.7" and "Search Domains" contains "extron.com". The "MAC Address" field contains "00-05-A6-15-7F-C2". At the bottom, there are "SAVE" and "CANCEL" buttons.

Figure 40. Edit Settings Dialog Box

1. Set DHCP to **Off** or **On**, as required.

If DHCP is **On**, the network addresses cannot be edited.

2. If DHCP is **Off**, you can edit the network addresses.

You can edit a single panel or multiple panels.

If you selected a single panel, enter the IP address for that panel.

If you selected multiple panels, enter the IP address that is to be assigned to the first panel. The next available IP address is assigned to the second panel and so forth.

For example, if you assign **192.168.254.200** to the first panel, Room Agent assigns **192.168.254.201** to the second panel unless **192.168.254.201** is already in use. In that case the second panel is assigned **192.168.254.202**.

3. Edit the **IP Address**, **Subnet Mask**, **Gateway**, or **DNS Address**, as required. You can also enter the network address of a domain you wish to search.

If more than one panel was selected, the **Subnet Mask**, **Gateway**, and **DNS Address** that you enter is assigned to all the selected panels.

4. When all the changes are made, click **SAVE** or **CANCEL** at the bottom of the page (see [figure 36](#) on page 30).

Install Firmware

Ensure at least the minimum recommended version of the firmware is installed on all panels.

TIP: Check the firmware release notes (at www.extron.com). If the latest firmware version adds features that are not needed in your system, updating is optional.

1. If you have not already done so, copy the firmware from the Room Agent software package to a PC on the same subnet as the panel that you are updating (see [Updating Firmware](#) on page 18).

Some devices use the same firmware. For example, the TLS 525, TLS 725, and TLS 1025 all use the same firmware.

However, other devices use different firmware. For example, the TLSI 201 and the TLS 525 use different firmware. You must download the correct firmware file for each device.

2. To update firmware for one or more panels simultaneously, select one or more panels and, in the top menu bar that appears, click **Install Firmware**.

To edit settings for a single panel, click **Actions** in the line for that panel and, in the drop-down list that appears, click **Install Firmware**.

3. The **Install Firmware** dialog box opens:

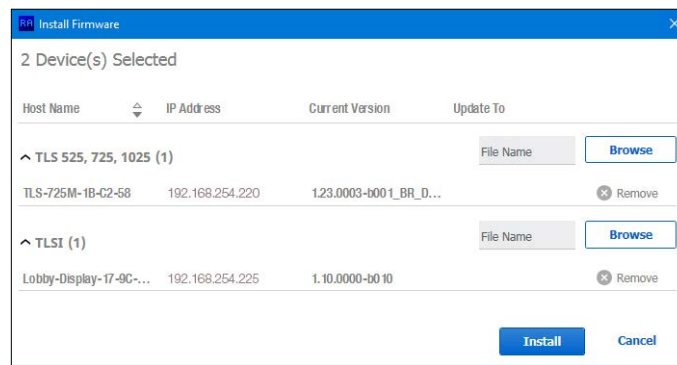


Figure 41. Install Firmware dialog box

If you are updating multiple panels simultaneously, they are listed by firmware group. For example, all TLS 525M, 725M, and 1025M panels use the same firmware and all of those panels are listed under the **TLS 525, 725, 1025** heading. In the example above, only one panel in this group was selected.

If you are updating a single panel, only that panel is shown.

The Wayfinding devices are listed under the **TLSI** heading. In the example above, only one TLSI was selected.

4. Click **Browse** and navigate to the folder where the firmware file for that group of panels was saved in step 1.
5. Select the firmware file.
6. Click **Install**. This procedure updates all the panels in a single group.
7. To update the firmware for another group of panels repeat steps 3-6.

Reboot

The device goes through a power cycle. No settings are changed.

1. In the top menu bar, click **Reboot**.
2. A dialog box opens asking you to confirm that you wish to reboot the device.
3. A power cycle is performed on all the selected devices.

While the reboot is taking place, the text in the **Status** column changes to **Connecting...**

Once the reboot is complete, the text changes to **Reboot Complete**.

Reset

Reset removes any config files uploaded to the device. All other settings (network, firmware, and so forth) are unchanged.

1. In the top menu bar, click **Reset**.
2. A reset is performed on all the selected devices. While the reset is taking place, the text in the **Status** column changes to **Connecting...**

Once the reset is complete, the text changes to **Reset Complete**.

Configure Tab

This section provides the following information about the **Configure** tab:

- [View a List of Touchpanels or Wayfinding Devices and Their Properties](#)
- [Create or Edit Configuration Files](#)
- [Set up a Proxy Server](#)
- [Ad Astra](#)
- [CollegeNET 25Live](#)
- [EMS](#)
- [Google Calendar](#)
- [Microsoft Exchange](#)
- [Microsoft Office 365](#)
- [NFS](#)
- [Configure Individual TLS Panels](#)
- [Configure Wayfinding Devices](#)

View a List of Touchpanels or Wayfinding Devices and Their Properties

Touchpanels

By default, the **Configure** tab opens with TLS Panels (❶) selected, to show a list of all the panels that were auto-discovered or manually added.

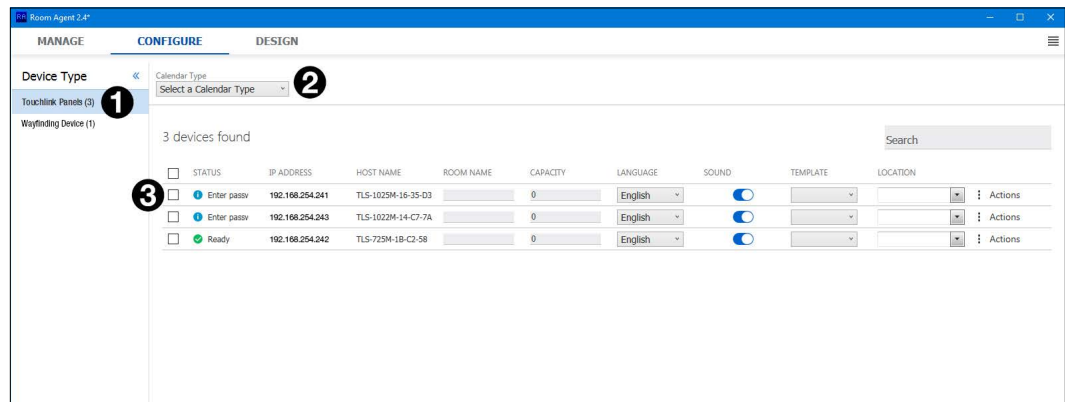


Figure 42. Configure Tab – TLS Panels

Use the check boxes (❸) at the start of each row to select individual panels or select the check box in the column heading to select all panels.

Use the drop-down list (❷) to select the calendar associated with the TLS panels.

The options in the top menu bar (❷) also change for different calendar types.

See the descriptions for each calendar type to find which options are available with each calendar.

Information about the panels is organized under column headings. By default, the column headings are STATUS, IP ADDRESS, HOST NAME, ROOM NAME, CAPACITY, LANGUAGE, SOUND, TEMPLATE, and LOCATION. These headings may change depending on which Calendar Type is selected from the drop-down list (see [figure 42](#), [3](#), on page 35). For example, [figure 43](#) shows the headings with Ad Astra® selected ([1](#)).

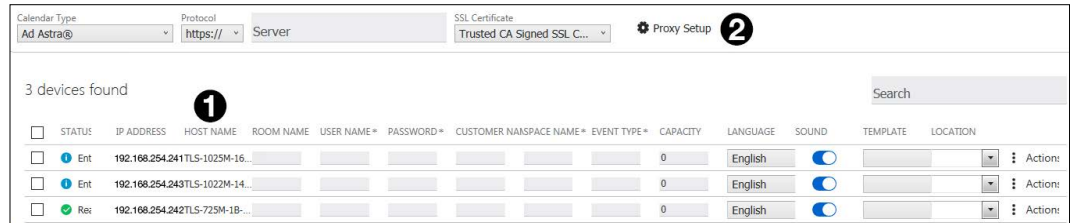


Figure 43. Configure Tab with Ad Astra Calendar

When you check the status box to select a device, a new menu bar appears at the top of the page:

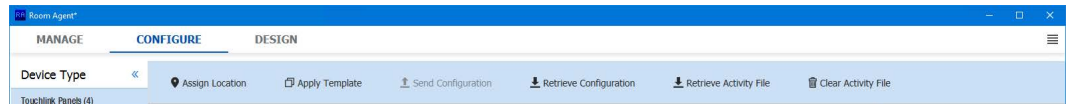


Figure 44. Configure Tab — Top Menu Bar

- **Assign Location** — Allows you to assign a location tag to the selected TLS panel. The location tag allows nearby rooms to be grouped, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.
- **Apply Template** — The layout of the panel can be configured using the Design Tab. You can select one of the saved panel design files from this drop-down list.
- **Send Configuration** and **Retrieve Configuration** — See [Sending and Retrieving Configurations](#) on page 89.
- **Retrieve Activity File** and **Clear Activity File** — See [Retrieve and Clear the Activity File](#) on page 90

Wayfinding Devices

The options for Wayfinding devices are also different.

Click **Wayfinding Devices** (1) to view a list of Wayfinding devices.

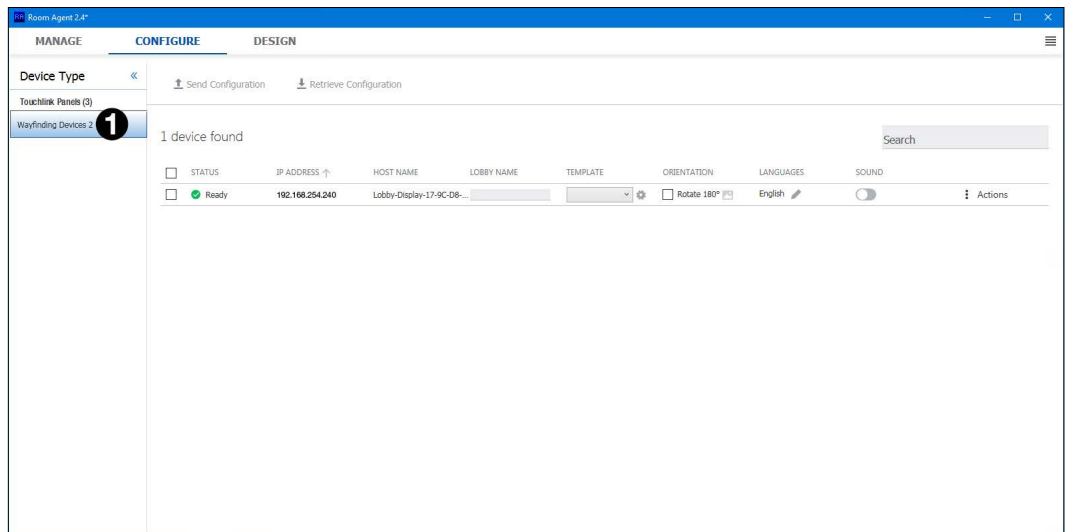


Figure 45. Configure Tab – Wayfinding Devices

For information about configuring Wayfinding devices, see [Configure Wayfinding Devices](#) on page 92.

Create or Edit Configuration Files

You can create a configuration file and upload it to the TLS panel, where it is saved and used to configure that panel. Alternatively, you can download a previously created configuration file for editing by clicking Retrieve Configuration. After editing, the configuration file is uploaded back to the TLS panel for the changes to take effect by clicking Send Configuration.

NOTE: Saving each individual configuration file on the corresponding TLS panel is a useful feature: if the system configuration file on the control PC is accidentally deleted or becomes corrupted, rebuild it by pulling the individual records from all the touchpanels.

To configure a TLS panel:

1. Click the Panel Configuration button at the top of the page.
2. Select a calendar type using the Select a Calendar Type drop-down list. The options are:
 - Ad Astra
 - CollegeNET 25Live
 - EMS
 - Google Calendar
 - Microsoft Exchange
 - Microsoft Office 365
 - NFS

NOTES:

- Depending on the version of Room Agent, you may not see all the calendar types listed.
- When you select a calendar type, different options appear on the page for connecting to the server and for configuring the TLS panels. The next sections describe how to configure TLS panels for each calendar type.

After selecting the calendar see [Configure Individual TLS Panels](#) on page 89.

Set up a Proxy Server

If you use the `https://` protocol to connect a TLS panel to the calendar server, the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate.

Before Starting

Your proxy server administrator must provide you with the following information:

Proxy Server IP Address/Hostname – This tells the TLS how to find the proxy server.

Proxy Server IP Port – This tells the TLS how to connect to the proxy server.

Protocol(s) (`http://` or `https://`) – This tells the TLS what kind of traffic to send through the proxy server.

Proxy Username – The username needed to be allowed through the proxy server.

Proxy Password – The password needed to be allowed through the proxy server.

Setting Up the Proxy Server

1. Click the **Proxy Setup** button (⚙️ Proxy Setup). It does not appear until you have selected a Calendar Type.



The screenshot shows a configuration interface with the following elements:

- Calendar Type:** A dropdown menu with "Microsoft Exchange™" selected.
- Protocol:** A dropdown menu with "https://" selected.
- Server:** A text input field containing "Server".
- SSL Certificate:** A dropdown menu with "Trusted CA Signed SSL C..." selected.
- Discover Server:** A button with a magnifying glass icon and the text "Discover Server".
- Proxy Setup:** A button with a gear icon and the text "Proxy Setup".
- Enable Service Account:** A checkbox with the text "Enable Service Account" below it.

Figure 46. Proxy Setup Button

The Proxy Settings dialog box opens:

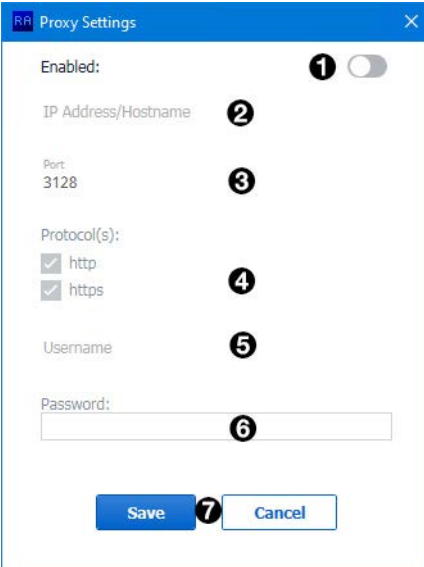


Figure 47. Proxy Settings Dialog

2. Ensure the Proxy Server switch is enabled (1).
3. Enter the IP Address/Hostname, Port, Protocols, Username, and Password (see **Before Starting** on page 38). These are only available if the Proxy Server switch is enabled.
4. Click **Save** to save any changes and close the Proxy Settings dialog box or click **Cancel** to exit the dialog box without saving changes.

Troubleshooting

If your TouchLink screen cannot communicate to the calendar server through the proxy server, check the following:

- **Can the TouchLink Screen Communicate with the Proxy Server?**
- **Are your proxy credentials correct?**

Can the TouchLink Screen Communicate with the Proxy Server?

Toolbelt is an Extron software product that provides device discovery, device information, firmware updates, and configuration of network settings, system utilities, and user management for TouchLink Pro devices. For further information, see the *Toolbelt Help File*.

1. Use Toolbelt to test the connection between the TLS and the Proxy server.

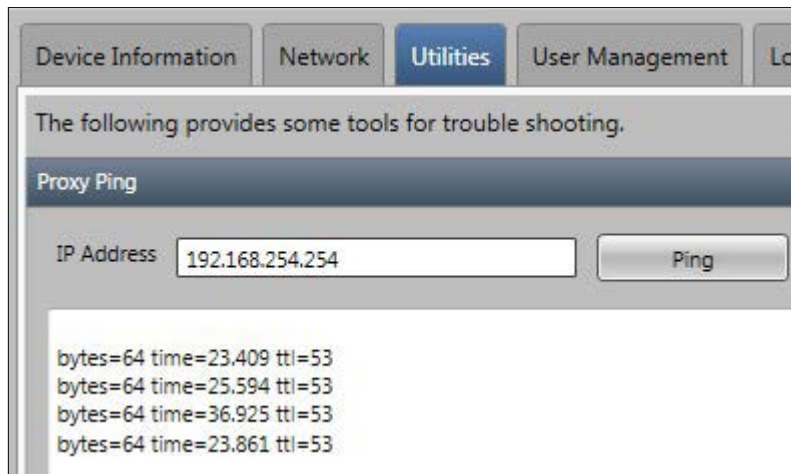


Figure 48. Toolbelt Utilities – Ping

2. Go to **Utilities > Proxy Ping**.
3. Enter the IP Address or Hostname of the proxy server.
4. Press **Ping**.

You should see 4 successful pings as shown above. If you see any error messages, your TLS cannot connect to the proxy server. You should check with your network administrator.

Are your proxy credentials correct?

1. Open the Windows **Start** menu but do not click any of the icons.
2. Type **Proxy**.

The **Start** menu provides a manual **Proxy** setup dialog:

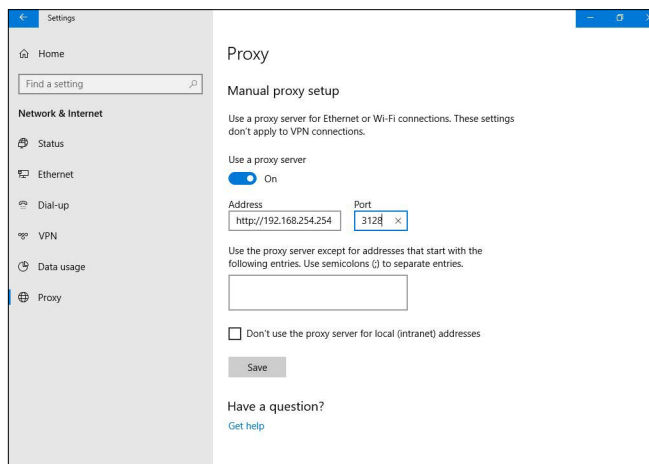


Figure 49. Manual Proxy Setup Dialog

NOTE: If you are not an administrator on your PC, or if your PC is managed by an IT group, the proxy setting may be locked out. Contact your administrator for assistance.

3. Enter your proxy information into the **Manual proxy setup** section.
4. Click **Save**.
5. Open a web browser and try to access any external web page (for example, <https://www.extron.com>).
You should be prompted to enter your **username** and **password**.
6. If the **username** or **password** is NOT correct, you receive an error message.
If this happens, confirm your username and password with the proxy administrator.
7. If your username and password are correct, you are allowed to access the site.
You may also receive a message like **This site is blocked by the proxy**. This means your username and password are correct, but you have tried to access a site that is explicitly blocked by the proxy server.
8. Once you have confirmed your username and password are correct, you should try to access the domain for the calendar server used by the TLS. For example, if you are using Microsoft's Office 365, then use your web browser to open <https://outlook.office365.com>.
If you get a message that this site is blocked, you should contact your proxy administrator.

Ad Astra

NOTE: To run the Ad Astra calendar type, the TLS touchpanels must have firmware version 1.12.0001-b001 (or later) installed.

If you select **Ad Astra**, you must use the top menu bar **(2)** to:

1. Select a protocol (**http://** or **https://**).
If you use **https://** the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate (see [Set up a Proxy Server](#) on page 38).
2. Enter the name of the Ad Astra Server.
3. Select the SSL Certificate preference (**Trusted CA Signed SSL Certificate** (Default) or **No Verification of SSL Certificate**).

Calendar Type	Protocol	Server	SSL Certificate	Proxy Setup
Ad Astra®	https://		Trusted CA Signed SSL C...	2

3 devices found													Search	
1	STATUS	IP ADDRESS	HOST NAME	ROOM NAME	USER NAME*	PASSWORD*	CUSTOMER NAMESPACE NAME*	EVENT TYPE*	CAPACITY	LANGUAGE	SOUND	TEMPLATE	LOCATION	Actions
<input type="checkbox"/>	Ent	192.168.254.241	TLS-1025M-16...						0	English	<input checked="" type="checkbox"/>			Actions
<input type="checkbox"/>	Ent	192.168.254.243	TLS-1022M-14...						0	English	<input checked="" type="checkbox"/>			Actions
<input type="checkbox"/>	Rbk	192.168.254.242	TLS-725M-1B...						0	English	<input checked="" type="checkbox"/>			Actions

Figure 50. Ad Astra Column Headings

The following column headings **(1)** are available:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.

- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.
- **USER NAME** — This is the user name that is used to log into the Ad Astra web interface.
- **PASSWORD** — This is the password that is used to log into the Ad Astra web interface.
- **CUSTOMER NAME** — This is listed on the Ad Astra web page. In the Main menu bar, select **Settings > People**. From the **People List (1)**, select the required name. This is the **Customer Name** and should be copied and pasted to ensure it is an exact match.

Name *1	Primary Responsibility
Aaby, Ty	Instructor
Aasness, Albert	Customer Contact
Abanto, Wes	Instructor
Abaya, Dana	Instructor
Abdelsayed, Dennis	Customer Contact
Abdoo, Janae	Customer Contact
Abduirahem, Milton	Instructor
Abebe, Lise	Instructor
Abrahamian, Thurman	Instructor
Abson, Leatrice	Customer Contact

Figure 51. Ad Astra Customer Name

- **SPACE NAME** — This is listed on the Ad Astra web page. In the Main menu bar, select **Settings > Rooms**. From the **Room List (1)**, select the required name. This is the **Room Name** and should be copied and pasted to ensure it is an exact match.

Room *1	Building Code	Campus	Type	Capacity
Polk 114	POLK	Main	Conference Room	5000
Polk 115	POLK	Main	Conference Room	5000
Polk 116	POLK	Main	Conference Room	5000
Polk 117	POLK	Main	Conference Room	5000
Science GM3333 - Grants Desk	SCIENCE	Main	Tables & Chairs, Movable	0
Sherwood 101	SHERWOOD	Main	Lab	24
Sherwood 102	SHERWOOD	Main	Lab	24
Sherwood 103	SHERWOOD	Main	Lab	24
Sherwood 104	SHERWOOD	Main	Lab	12

Figure 52. Ad Astra Space Name

- **EVENT TYPE** — This is listed on the Ad Astra web page. In the Main menu bar, select **Events > Event Types**. From the Master List (1), select the required name. This is the Event Type and should be copied and pasted to ensure it is an exact match.

Name ^1	Description	Active
Administrative	Administrative	Yes
Adult/Professional Ed	Adult/Professional Ed	Yes
Advising	Advising	Yes
Alumni	Alumni	Yes
Athletic	Athletic	Yes
Blood Drive	Blood Drive	Yes
Celebration	Celebration	Yes
Club Event	Club Event	Yes
Coffeehouse	Coffeehouse	Yes

Figure 53. Ad Astra Event Type

- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
- **TEMPLATE** — The layout of the panel can be configured using the Design Tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an Actions menu for each touchpanel:

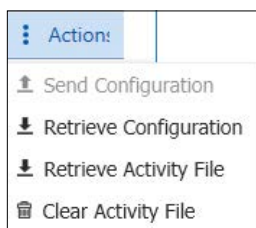


Figure 54. Configure Tab — Actions Menu

After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC. Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150).

CollegeNET 25Live

If you select **CollegeNET 25Live**, you must use the top menu bar (2) to:

Enter the name of the 25Live server in the Server field. This value is the full URL of the address you use to log in to your regular CollegeNET 25Live account and has the format: `https://25live.collegenet.com/<college-name>`.

Set up the Proxy Server (see [Set up a Proxy Server](#) on page 38).

The screenshot shows a configuration page for CollegeNET 25Live. At the top, there is a 'Calendar Type' dropdown set to 'CollegeNET 25Live' and a 'Server' field. A 'Proxy Setup' button with a circled '2' is also visible. Below this, it says '3 devices found' with a circled '1' next to it. A search bar is on the right. The main part of the page is a table with the following column headings: STATUS, IP ADDRESS, HOST NAME, ROOM NAME, USER ID*, PASSWORD*, SPACE NAME*, EVENT TYPE*, CAPACITY, LANGUAGE, SOUND, TEMPLATE, and LOCATION. There are three rows of data, each with a checkbox, a status icon (blue, blue, green), an IP address, a host name, and several empty fields, followed by '0' for capacity, 'English' for language, a sound icon, a template dropdown, a location dropdown, and an 'Actions' link.

Figure 55. CollegeNET 25Live Column Headings

The following column headings appear in the lists of panels:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.
- **USER ID** — enter the ID for an account that has access to the CollegeNET server. This is typically an administrator account.
- **USER PASSWORD** — enter the password for an account that has access to the CollegeNET server. This is typically an administrator account.
- **SPACE NAME** — provides the meeting information on the touchpanel. It must match exactly the Space Name setup up on the 25Live server. Check the name by searching for the Formal Name (1) in the Locations section of 25Live.

	Name	Formal Name 1	Categories
 	ARTS103	Daly Center Practice Rm.3	Key Card Access Only, S25 Rooms, West Campus, Wheelchair Accessible

Figure 56. CollegeNET 25Live Space Name

- **EVENT TYPE** — enter the appropriate name for the event type to be used by the touchpanel. These are created by the 25Live administrator. Different event types have different requirements, such as head counts, features, or registrations, when creating bookings.

These requirements are not applicable to ad hoc events.

The requirements for these events are not recognized by Room Agent. For an **Event Type** to correctly coordinate with Room Agent, it cannot have any requirements other than the **Space Name** and **Event Type**.

Extron recommends using *Ad Hoc* as an Event Type, but you can create your own Event Type on the 25Live server.

Verify the options in the 25Live webpage.

1. Select the **Events** tab (1).
2. Select the **Types EDIT** link (2).

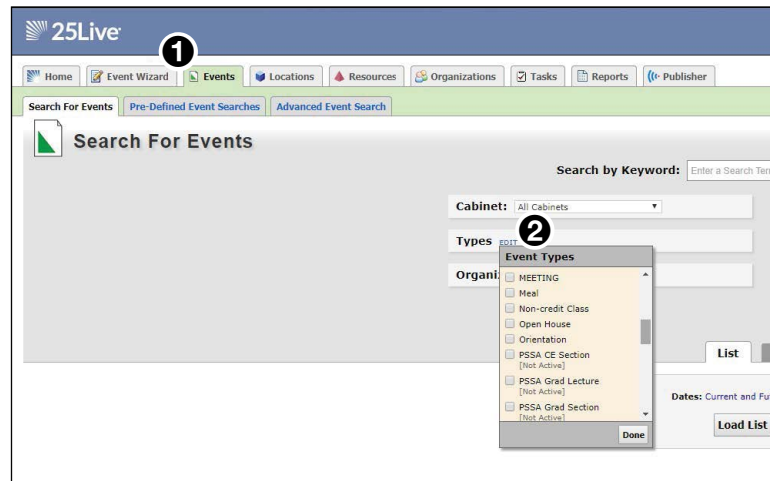


Figure 57. CollegeNET 25Live Event Type

- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or On. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
- **TEMPLATE**— The layout of the panel can be configured using the Design Tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see [figure 54](#) on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150).

EMS

Prerequisites

NOTE: Extron recommends the Google Chrome browser for all EMS Web operations.

- The EMS Version must be version 44 or higher.
The EMS version can be confirmed by accessing the EMS platform (typically http://<your_server_name>/EmsPlatform)
- The EMS Platform Services API must be installed.
- The EMS Web Administrator must be able to obtain client application information (see "Creating a Web Administrator for EMS", below).
- The EMS Desktop installer must have Administrator privileges.

Creating a Web Administrator for EMS

A Web administrator role is required to log into the EMS administrator portal to create client IDs. Create a Web Administrator as follows:

1. Open the EMS Desktop application and log in as an administrator, with the appropriate permissions. The application opens to the **Main Menu** (see figure 58, ❶).

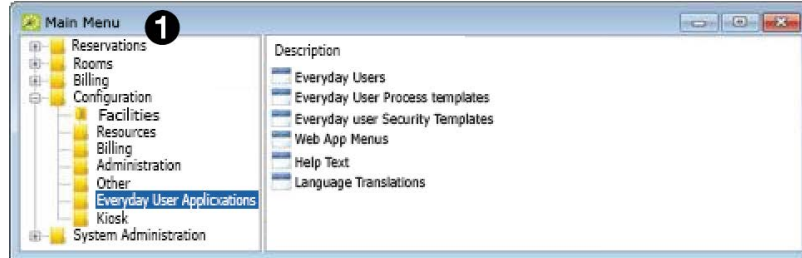


Figure 58. Main Menu

2. Click **Configuration > Everyday User Applications > Everyday Security Templates**.

The Everyday User Security Templates dialog box opens (see figure 59).

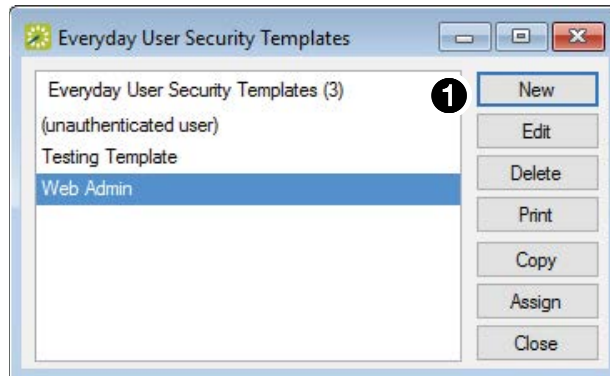


Figure 59. Everyday User Security Templates Dialog Box

3. Click **New** (❶).

A new security template dialog box opens.

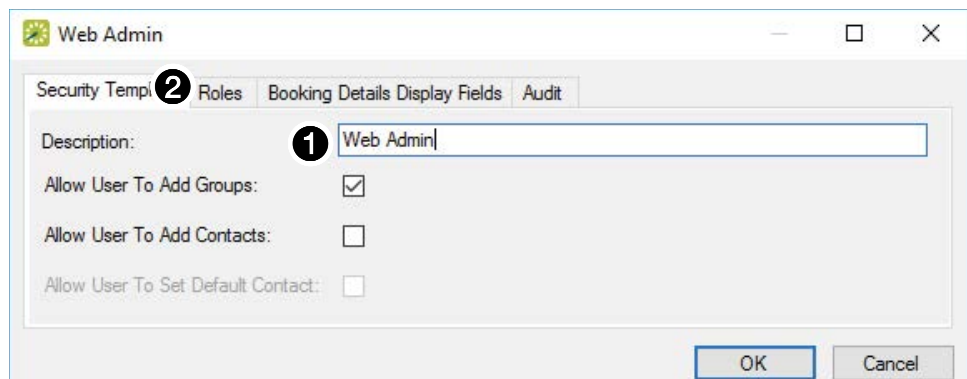


Figure 60. Security Template Dialog Box

4. Enter a description for the security template (see figure 60, ❶).
5. Click the **Roles** tab (❷).

The new security role dialog box opens.

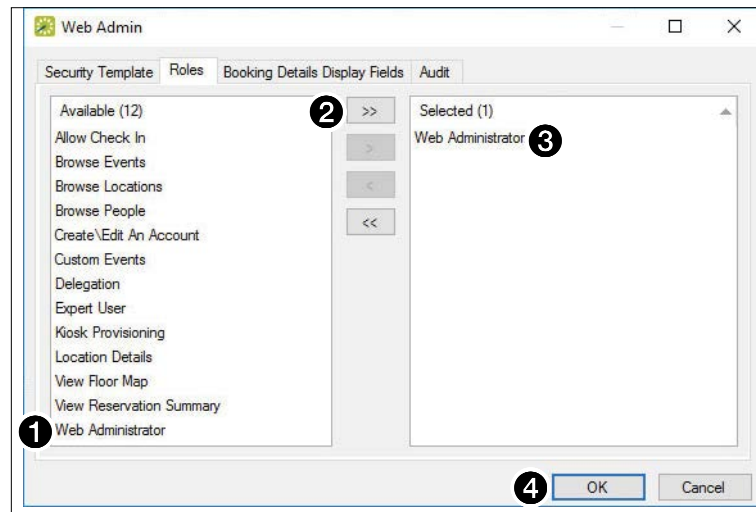


Figure 61. New Template Dialog Box

6. Click to highlight and select **Web Administrator** in the left field (see figure 61, 1) and click the **Move Right** button (>>, 2) to transfer it into the right field.
7. Move any other necessary roles to the right field (3).
8. Click **OK** (4).

EMS Setup

If you select **EMS** (see figure 62, 1), you must select a protocol (**http://** or **https://**) (2), and enter the name of the EMS server in the Server field (3). Typically this is **https://<your_server_name>/EmsPlatform**.

If you use **https://** the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate (see [Set up a Proxy Server](#) on page 38).

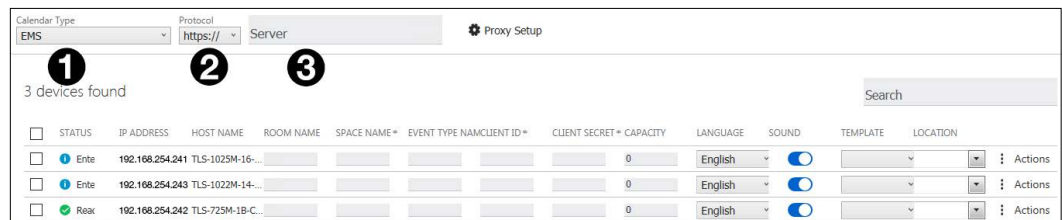


Figure 62. EMS Column Headings

The following column headings appear in the lists of panels:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.

- **SPACE NAME** — This must be the same as the space listed in the EMS server. The exact space name can be found using the EMS Desktop Client.

NOTE: The list of rooms must be created by the EMS administrator prior to appearing in the EMS Desktop Client. If there are any issues getting a Room Name, please contact your EMS administrator.

To find the Space Name:

1. Open the EMS Desktop Client.
2. Select **Configuration**.
3. Select **Facilities**.
4. Click **Rooms**.
5. In the **Rooms** popup, enter filter options (for example the building name) to shorten the list of room names.

The correct Space Name should appear in the Room Name column (see figure 63, ①).

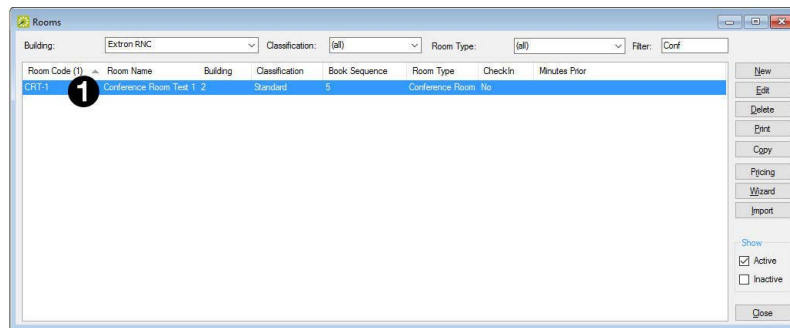


Figure 63. EMS Space Name

- **EVENT TYPE NAME** — This is the event type to be used for ad hoc meetings booked on behalf of the scheduling panel. The EMS server requires a template name or **Event Type**, when a new meeting is booked. This information can be obtained from the EMS Desktop Client.

NOTE: The list of Event Types must be created by the EMS administrator prior to appearing in the EMS Desktop Client. If there are any issues getting a Room Name, please contact your EMS administrator.

1. Open the EMS Desktop Client.
2. Select **Configuration**.

3. Select **Other**.
4. Click **Event Types**.

The **Event Types** popup lists the event types that can be used on the server. In this example, ad hoc is the appropriate Event Type name (see figure 64, ❶).

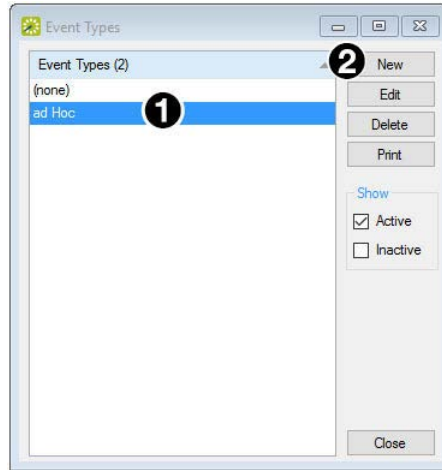


Figure 64. EMS Event Types Dialog

5. If no event types are listed or you wish to create a new event type, click **New** (❷).

The Event Type dialog box opens:

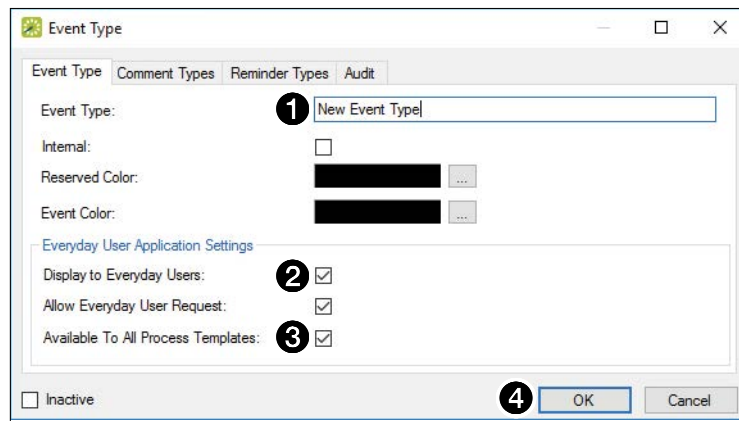


Figure 65. Event Type Dialog Box

6. Enter a name in the Event Type field (see figure 65, ❶).
7. Check **Display to Everyday Users** (❷) and **Available to All Process Templates** (❸).
8. Click **OK** (❹).

The dialog box closes and the display returns to the Event Type page.

NOTE: Enter this name in the Event Type Name field of the Pane1 Configuration tab. The name is case sensitive.

- **CLIENT ID** — This is a unique client ID generated by EMS to use the API. It grants a secure point for the panels to communicate with the server. Before third-party clients can access the EMS API, a valid Client ID must be generated.

NOTES:

- You may use the default EMS Web Application ID or a new client can be created in the administrator console. The new client must be created by an EMS administrator.
- You can use a single client for all touchpanels or create multiple clients that are each associated with a subset of panels.

1. Log in to the administrator console.
2. Select **Integrations** (see figure 66, ❶).

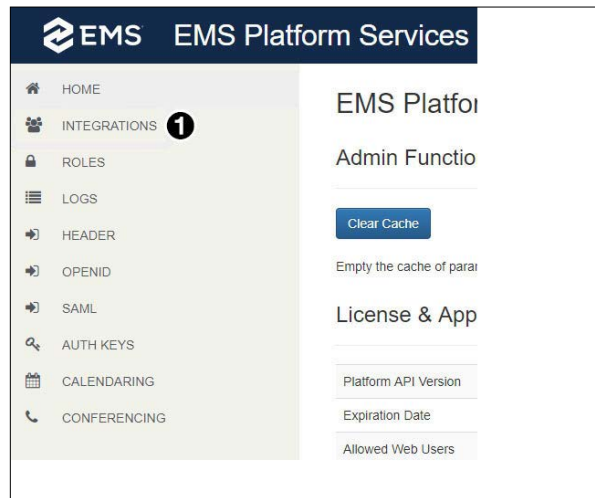


Figure 66. EMS Administrator Console Home

3. Select the appropriate web client. In this example, the default is shown (see figure 67, ❶).



Figure 67. EMS Clients

4. To use a new client, click **New Integration Client** (❷).

The Clients/New page opens:

Figure 68. EMS Clients/New Page

5. Configure the new client as recommended by your EMS representative.
6. How the client is configured depends on your requirements and is beyond the scope of this guide. However, to allow touchpanels to make ad hoc bookings, you must select **Allow this client to book without Everyday User Templates and ignore Booking Rules** (see figure 68, ❶).
7. Click **Save Client** (❷).
8. The **Clients/New** page closes and the EMS Web Clients page opens with the new client listed.
9. Click the new client.

Whether you clicked on a new or existing client, the **Clients/EMS Web Application** page opens.

The client ID listed (see figure 69, ❶) is the one required by Room Agent.

Figure 69. EMS Client ID

- **CLIENT SECRET** — This is a number generated by the EMS web site, which is required for secure communication between the touchpanels and the EMS calendar server.

Click **Reset Secret** (❷).

A pop-up opens, warning **This action is permanent. Would you like to continue?** Click **OK**.

The Client Secret is displayed (it is blurred out in the image below).

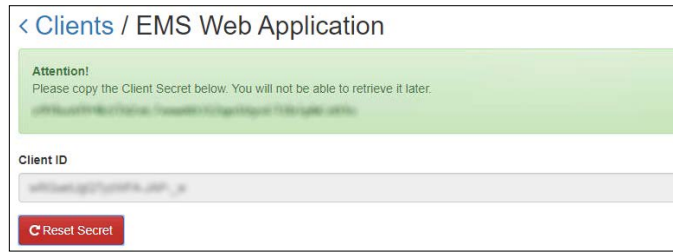


Figure 70. EMS Client Secret

Copy the Client Secret into the Room Agent CONFIGURE page.

NOTE: This is the only time this code is displayed. You must copy it now and store it in a safe location to continue using it.

- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
- **TEMPLATE** — The layout of the panel can be configured using the Design Tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see [figure 54](#) on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150).

Google Calendar

If you select **Google Calendar™**, you can have multiple devices using the same calendar or multiple calendars.

When you use Google, Microsoft Exchange, or Office 365 calendars, you can create private meetings. For these meetings, the subject title defaults to Private Meeting and the meeting organizer is hidden.

Select a touchpanel and click **Authenticate a Device** to connect to the calendar that is to be associated with that touchpanel. You must have downloaded a JSON file (see [Google Calendar Overview](#) on page 54 or [Step 3: Authenticate a Device to Google](#) on page 62).

You may also click **View all available accounts**, which shows all the Google accounts providing the calendars.

Calendar Type												
Google Calendar™												
Authenticate a Device View Accounts Proxy Setup												
3 devices found												
Search												
<input type="checkbox"/>	STATUS	IP ADDRESS	HOST NAME	ROOM NAME	CREDENTIALS*	CALENDAR*	CAPACITY	LANGUAGE	SOUND	TEMPLATE	LOCATION	
<input type="checkbox"/>	Enter p	192.168.254.241	TLS-1025M-16-35-				0	English	<input checked="" type="checkbox"/>			Actions
<input type="checkbox"/>	Enter p	192.168.254.243	TLS-1022M-14-C7-				0	English	<input checked="" type="checkbox"/>			Actions
<input type="checkbox"/>	Ready	192.168.254.242	TLS-725M-18-C2-58				0	English	<input checked="" type="checkbox"/>			Actions

The following column headings appear in the lists of panels:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.
- **CREDENTIALS** — Google Calendar allows you to use multiple calendars. Select the account that is being used for that touchpanel (see [Google Calendar Overview](#) on page 54).
- **CALENDAR** — Select the calendar for the account that is being used (see [Google Calendar Overview](#)).
- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
- **TEMPLATE** — The layout of the panel can be configured using the Design tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see [figure 54](#) on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150).

Google Calendar Overview

To use the **https://** protocol to connect to Google Calendar, the Proxy Server must be setup as TLS Pass Through. This is required for the TLS to validate the calendar server's SSL certificate (see **Set up a Proxy Server** on page 38).

To authenticate a Room Agent touchpanel to Google, a Google account and a credential JSON file are required.

Step 1: Creating Resource Accounts

NOTE: This section is required if you wish to use Google Calendar resources with the Room Scheduling system. If you are using existing user or personal Gmail account calendars, go to **Step 2: Creating Access Credentials** on page 56.

1. Log in to the Google Admin Console at <https://admin.google.com/>.
2. From the Console, select **Apps** (see figure 71, ❶).

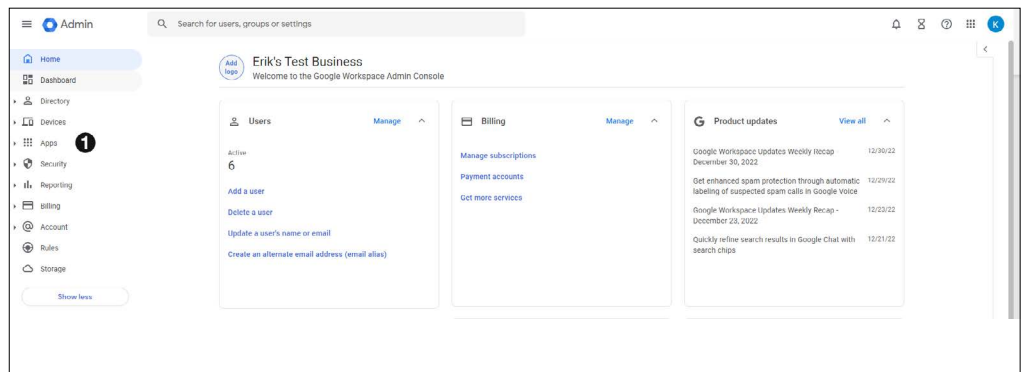


Figure 71. Google Admin Console

3. The Apps menu expands. Click **Google Workspace** (see figure 72, ❶).

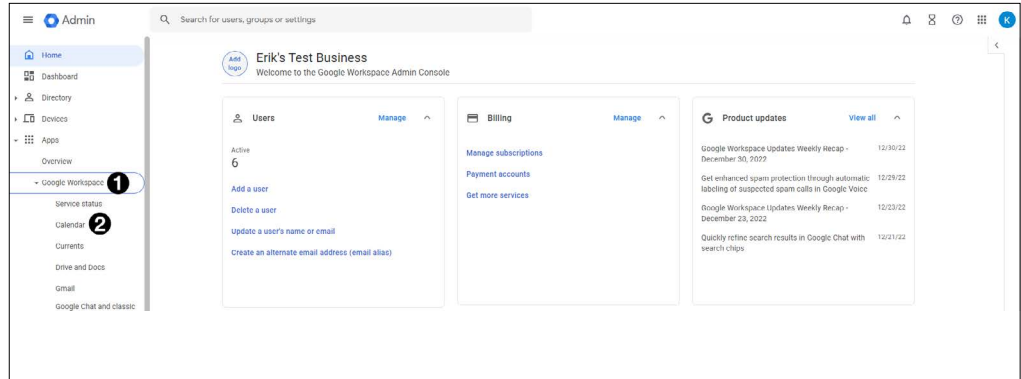


Figure 72. Apps Window

4. Double-click **Calendar** (see figure 73, ❶).

NOTES:

- Double-click an app name to configure the service in a new window.
- Select or deselect a checkbox to turn the corresponding service off or on.
- If **Calendar** is not available, you need to click **Add Service**.

- The Calendar window opens. Click **Resources** (see figure 73, ❶).

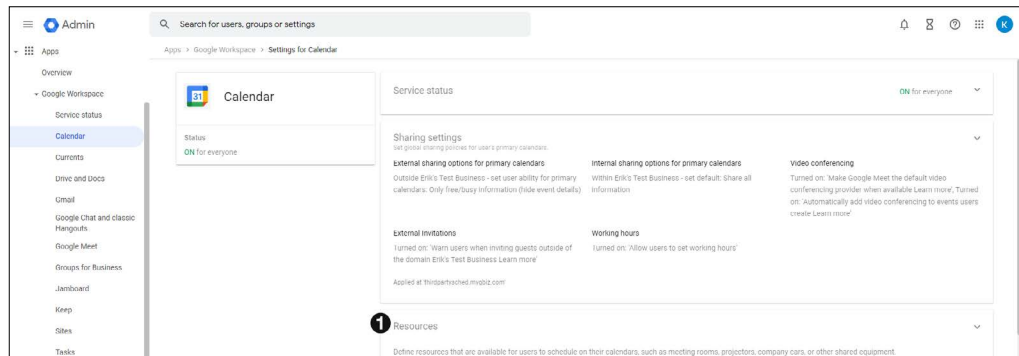


Figure 73. Calendar Window

- The Resources window opens. Click **+** to add a new resource (see figure 74, ❶).

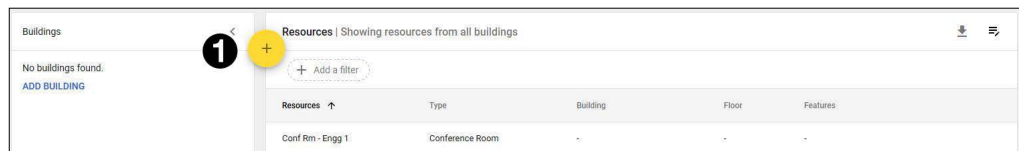


Figure 74. Resources Window

- The Add resource window opens with a newly created resource. The Auto-generated resource name (see figure 75, ❶) initially shows as *-123456789.contoso.com*. The Resource name field (❸) is initially empty but is a required field.

As the user enters more information, it is concatenated to the auto-generated resource name.

For example, if the user enters *room-1* in the Resource name field, the Auto-generated resource name shows *room-1-123456789.contoso.com*.

If the user now enters *20* in the optional capacity field, the Auto-generated resource name shows *room-1-123456789.contoso.com (20)*.

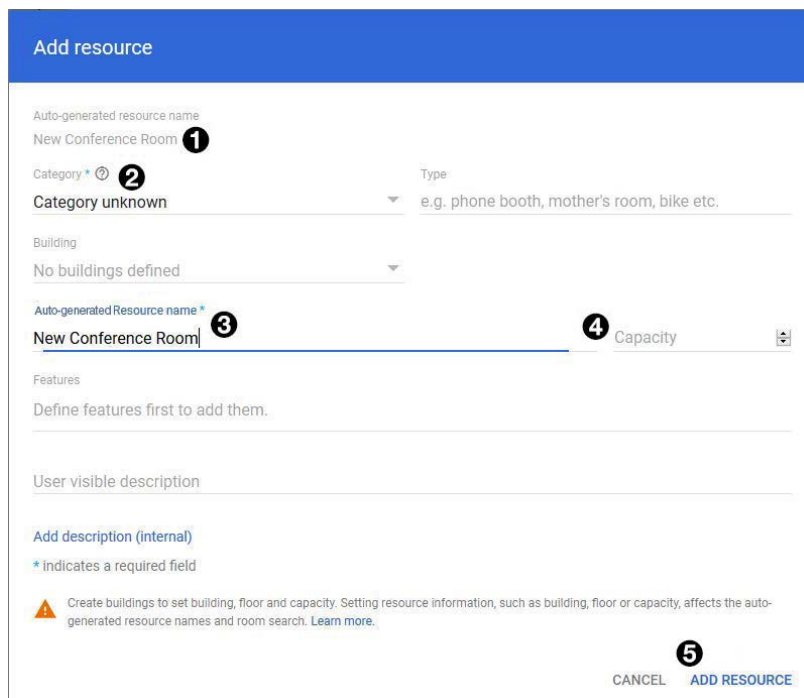


Figure 75. Add resource Window

NOTES:

- Resources created before or during October 2017 may not have the **Category** set (see [figure 75](#), [2](#), on the previous page).
- In some environments, **Auto-generated Resource name** ([1](#)) may appear as **Resource name + <Domain> + <Capacity>**, if **Capacity** ([4](#)) is entered.

8. After adding the information, click **ADD RESOURCE** ([5](#)).

The Add resource window closes. The Resources window (see [figure 74](#) on page 55) now lists the new resource that has been added.

NOTE: Make a note of the resource name **exactly** as it appears here. The name is required when you set up Room Agent.

Step 2: Creating Access Credentials

NOTE: As of December 2021 this information is correct. However, this site is not controlled by Extron and may change.

1. Open the Google Cloud Platform Dashboard.

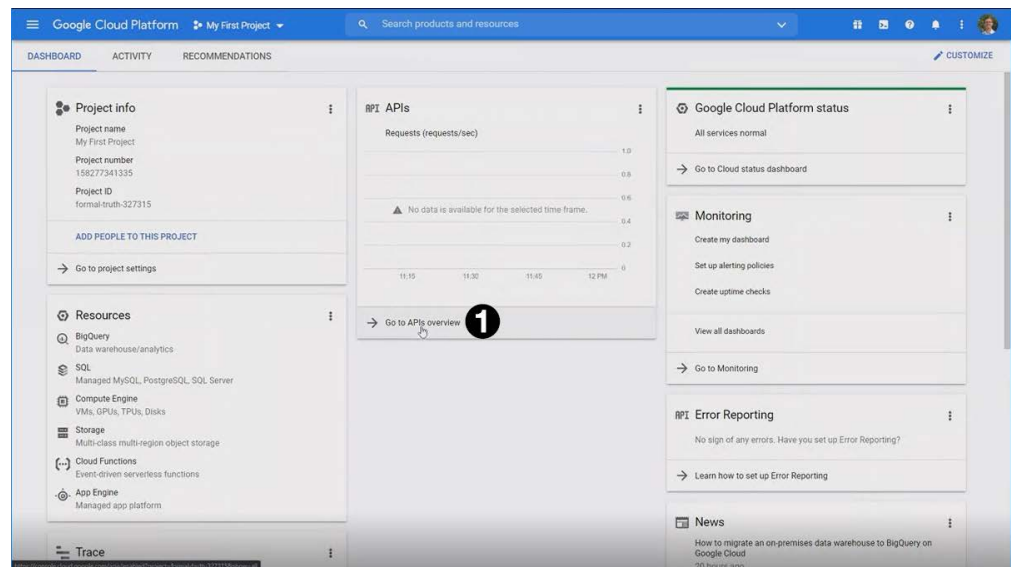


Figure 76. Google Cloud Platform Dashboard

2. Click **Go to APIs overview** (see [figure 76](#), [1](#)).

The APIs & Services page opens.

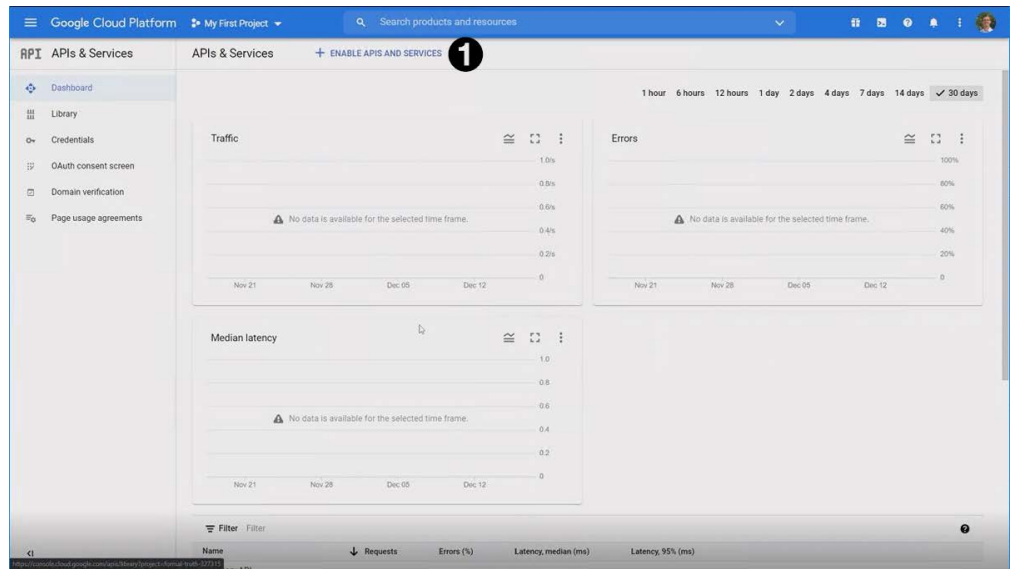


Figure 77. APIs & Services page

3. Click **ENABLE APIS AND SERVICES** (see figure 77, **1**).

The API Library page opens.

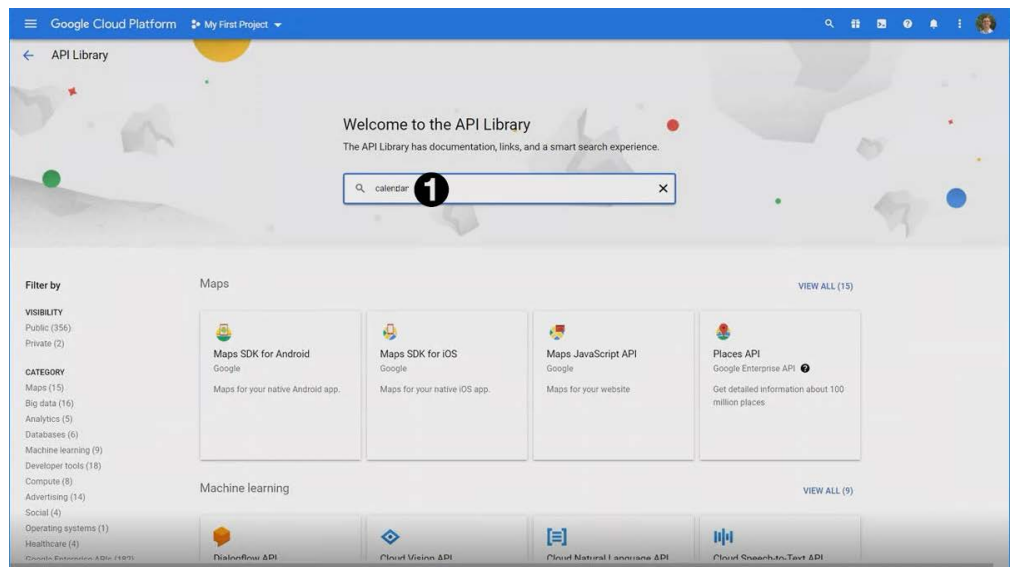


Figure 78. API Library

4. Enter **Calendar** in the search window (see figure 78, **1**).

A list of available calendars is shown.

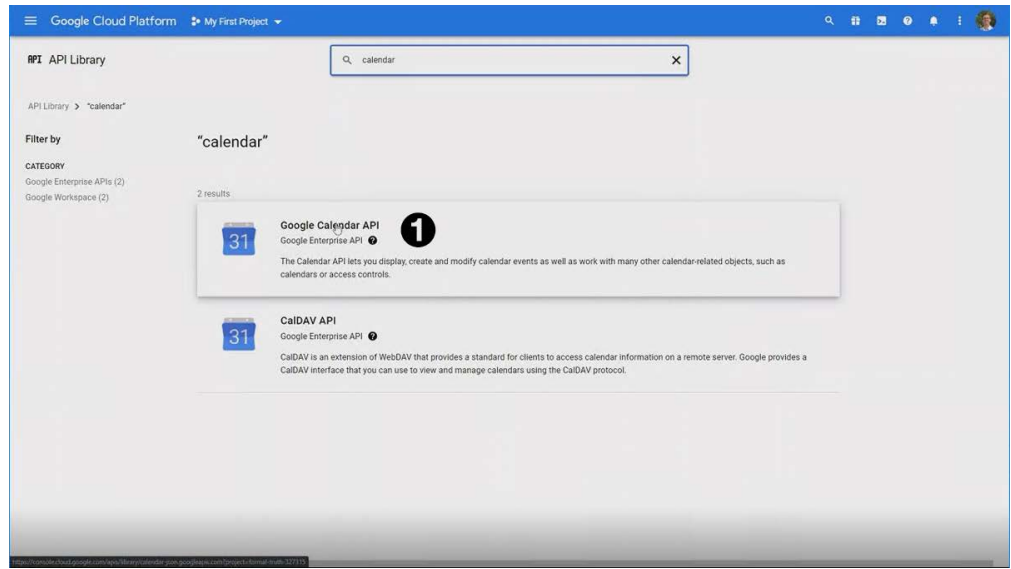


Figure 79. Search Results for “Calendar”

- From the search results, select **Google Calendar API** (see figure 79, ①).
The Google Calendar API page opens.

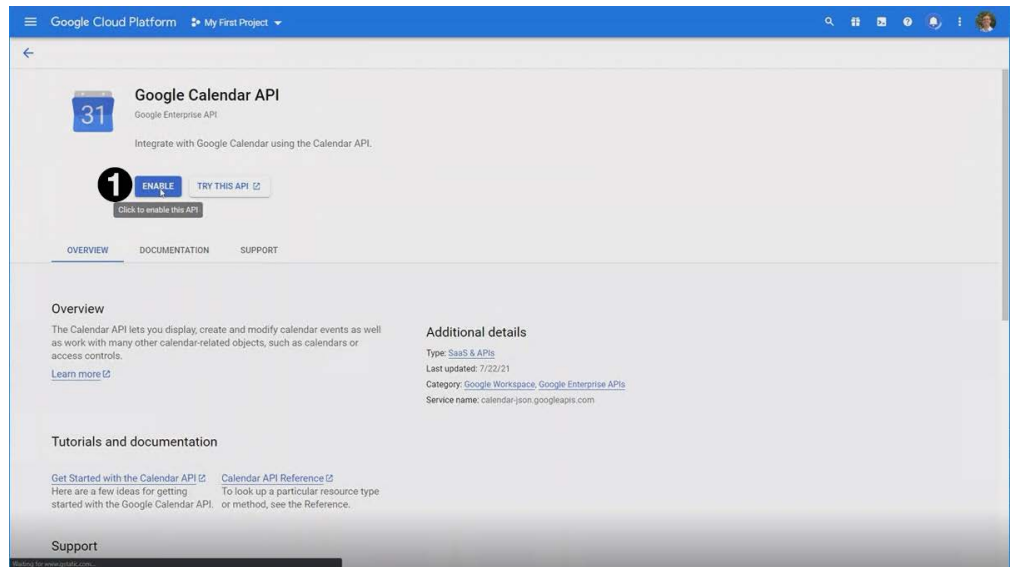


Figure 80. Google Calendar API Page

- Click **ENABLE** (see figure 80, ①).

The Overview page opens.

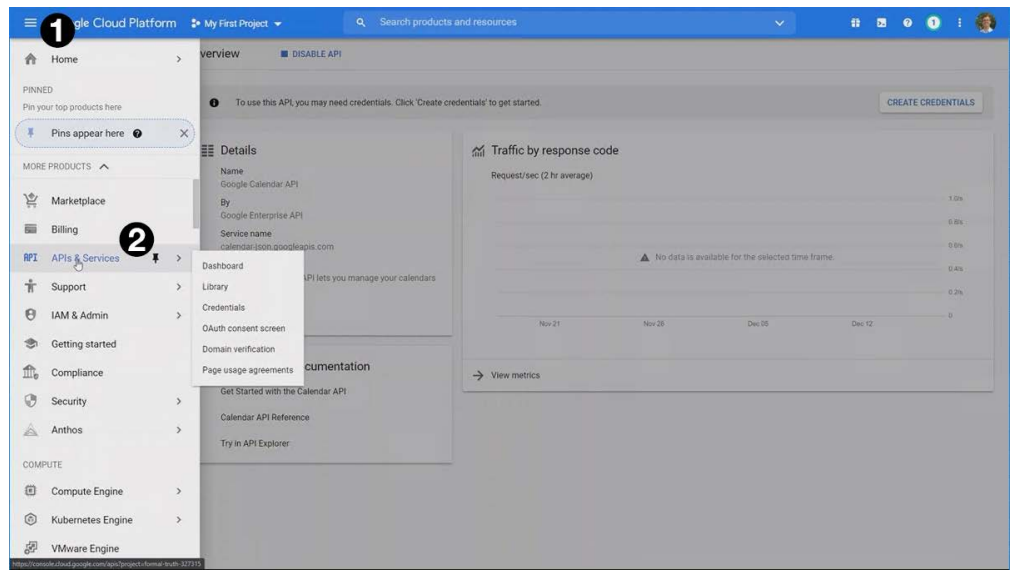


Figure 81. Overview Page

7. Click the menu icon in the top left corner (see figure 81, **1**).
8. From the drop-down list, click **APIs & Services** (**2**).

The APIs & Services page opens.

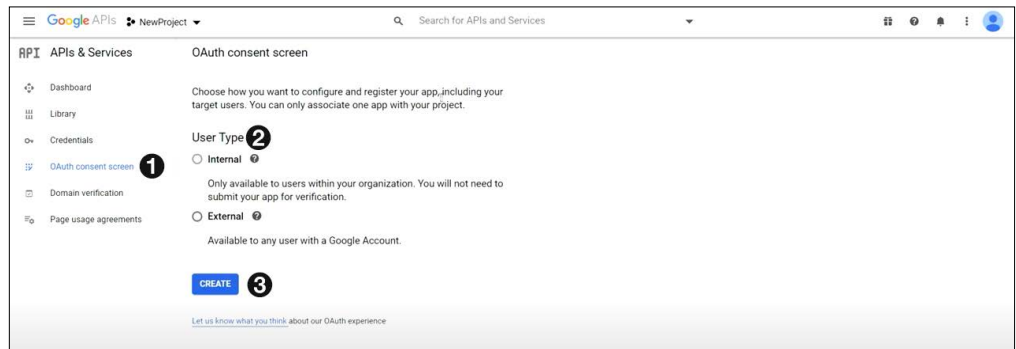


Figure 82. APIs & Services page

9. Click **OAuth consent screen** (figure 82, **1**).
10. Select the User Type for your app (**2**), then click **Create** (**3**).
11. Complete the app registration form, then click **Save and Continue**.
12. If you're creating an app for use outside of your Google Workspace organization, click **Add or Remove Scopes**. Add and verify the authorization scopes required by your app, then click **Save and Continue**.
13. If you selected **External** for user type, add test users:
 - a. Under Test users, click **Add users**.
 - b. Enter your email address and any other authorized test users, then click **Save and Continue**.
14. Review your app registration summary. To make changes, click **Edit**. If the app registration looks OK, click **Back to Dashboard**.

15. In the menu at the left of the screen, click **Credentials** (see figure 83, ❶).

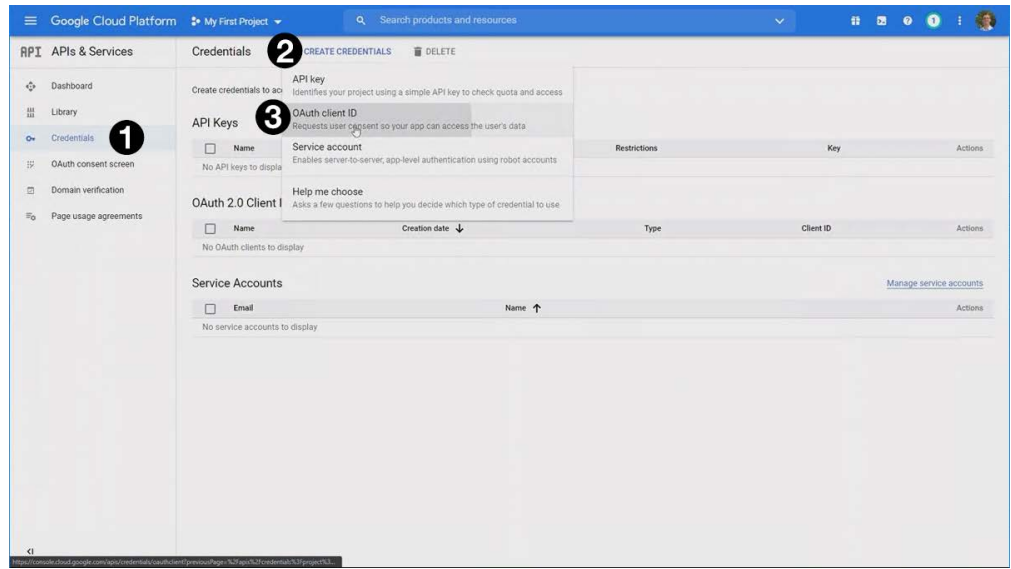


Figure 83. APIs & Services Page

16. On the page that opens next, click **CREATE CREDENTIALS** (see figure 83, ❷).
17. From the drop-down list, click **OAuth client ID** (❸).

The Create OAuth client ID page opens.

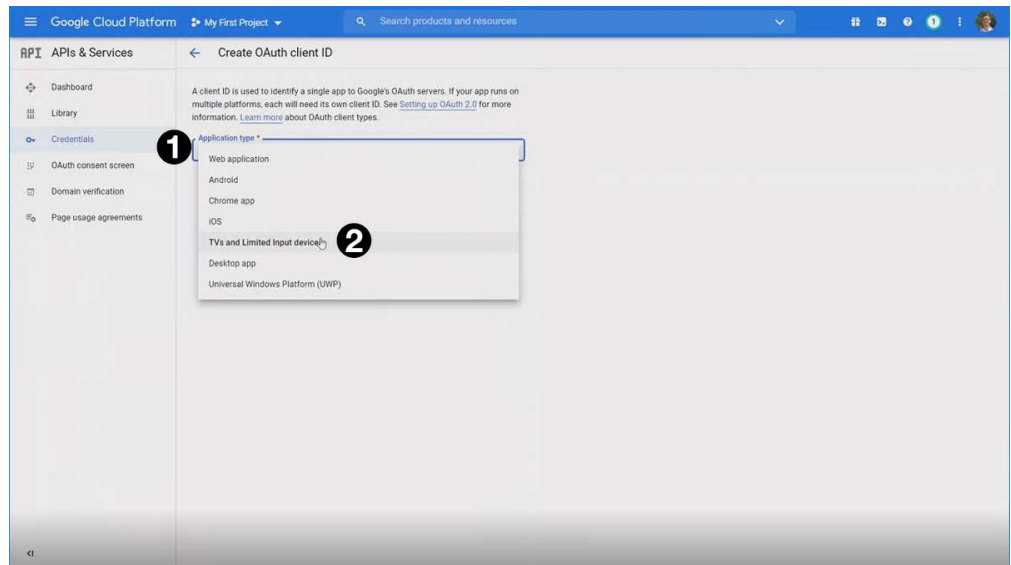


Figure 84. Create OAuth client ID Page

18. Click **Application type** (see figure 84, ❶).
- The Application type drop-down list opens.
19. Click **TVs and Limited Input devices** (❷).

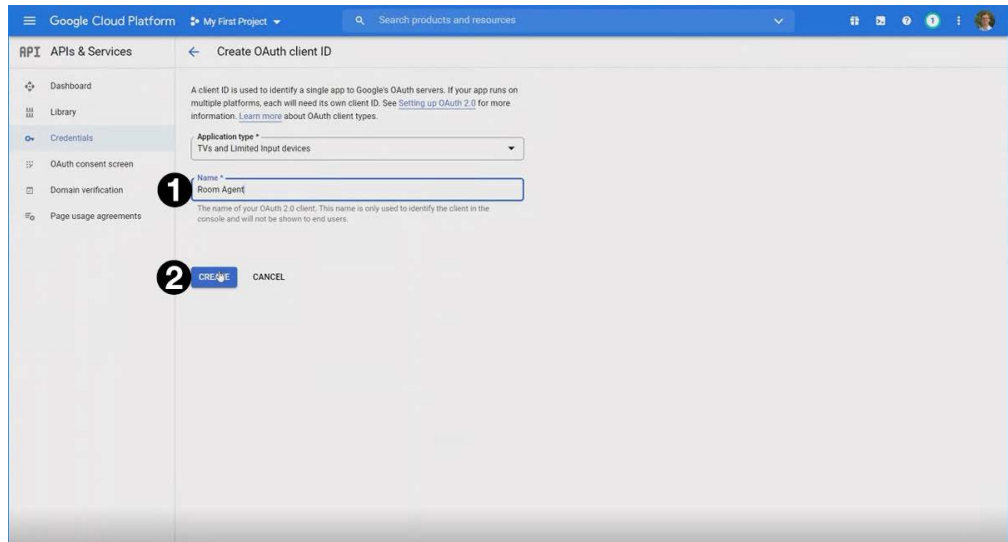


Figure 85. Create OAuth client ID Page

20. Enter a name in the Name field (see figure 85, ❶).
21. Click **CREATE** (❷).

The OAuth client created dialog box opens.

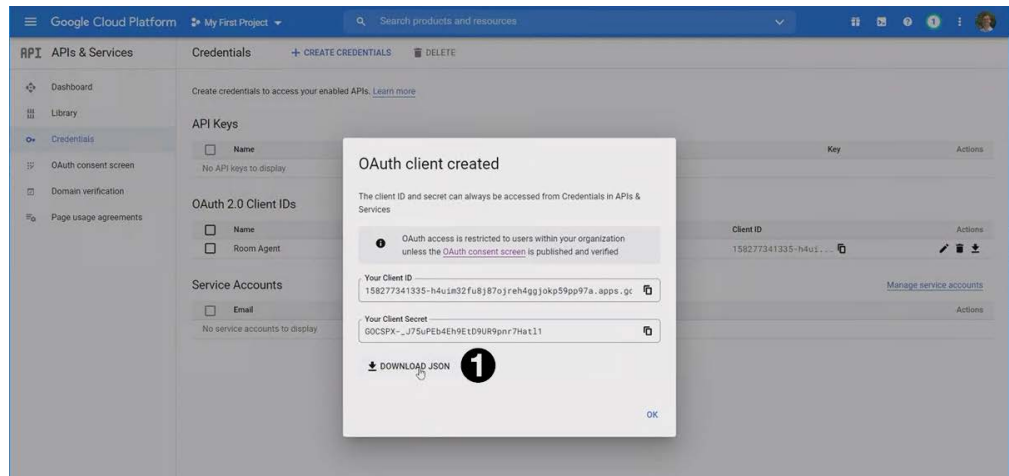


Figure 86. OAuth Client Created Dialog Box

22. Click **DOWNLOAD JSON** (see figure 89, ❶).
23. Save the json file and make a note of where it was saved.

Step 3: Authenticate a Device to Google

1. Open Room Agent.

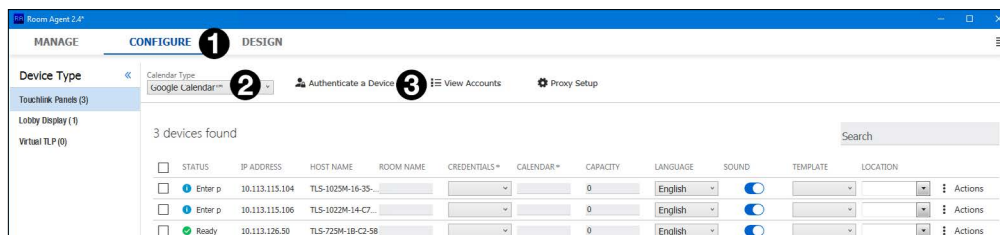


Figure 87. Room Agent CONFIGURE Tab

2. If necessary, click the **CONFIGURE** tab (see figure 87, ①).
3. Select **Google Calendar™** from the Calendar Type drop-down list (②).
4. Click **Authenticate a Device** (③).

The Authenticate a Device to Google dialog box opens.

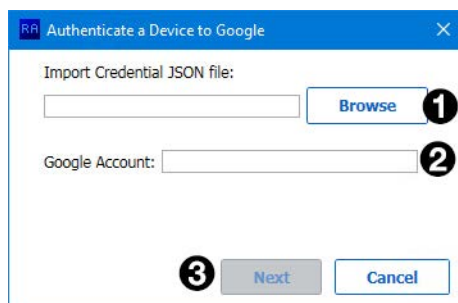


Figure 88. Authenticate a Device to Google dialog box

5. Click **Browse** (see figure 88, ①) and navigate to the location of the JSON file saved in **step 23** on the previous page.
6. Enter the **Google Account** name (②). This can be any character string that allows you to identify the account.
7. Click **Next** (③).



Figure 89. User Code

The Authenticate a Device to Google dialog box displays the User Code (see figure 89). This code is valid for 30 minutes.

8. Click the **<https://www.google.com/device>** link.

The Connect a Device dialog box opens.



Figure 90. Connect a Device dialog box

9. Enter the user code from [step 7](#) on page 62.
10. Click **Next** (see figure 90, **1**).

The Sign in with Google dialog box opens:

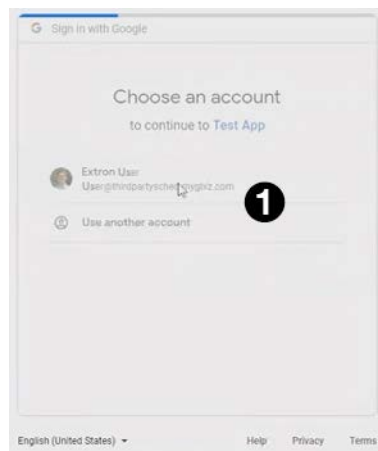


Figure 91. Choose an Account

11. Select an account (see figure 91, **1**).

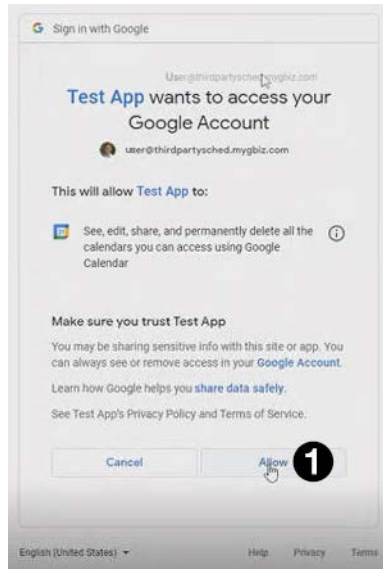


Figure 92. Allow Google to Access your Account

12. Click **Allow** to permit Google to access your Google account (see figure 92, ❶).

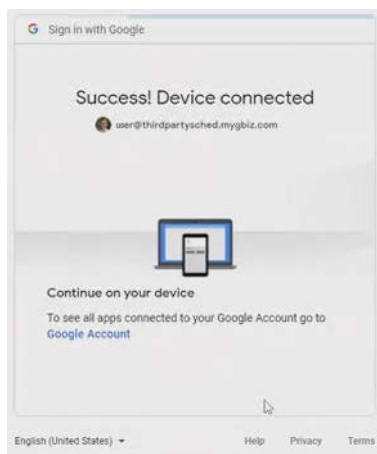


Figure 93. Device Connected

When Google is able to connect to your account, the **Success!** message is shown. The **Sign In with Google** window closes and you return to Room Agent.

13. Click **Check Authentication Status**.

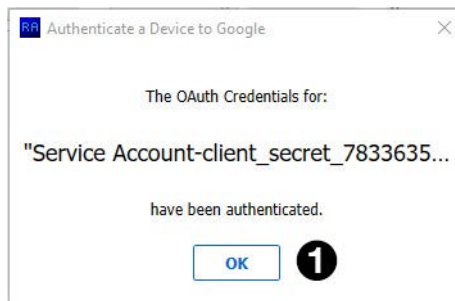


Figure 94. Authentication Complete

Room Agent shows **The OAuth Credentials... have been authenticated.**

14. Click **OK** (see figure 94, ❶).

The new account is added to the list of available accounts and can be viewed by either of the following methods:

- By clicking **View accounts** at the top of the **CONFIGURE** tab (see figure 95).

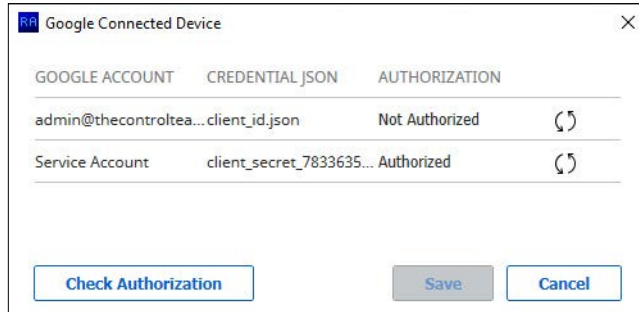


Figure 95. View all available accounts

- By clicking on the **CREDENTIALS** cell of any of the panels listed on the **CONFIGURE** tab. A drop-down list shows the available accounts (see figure 96).

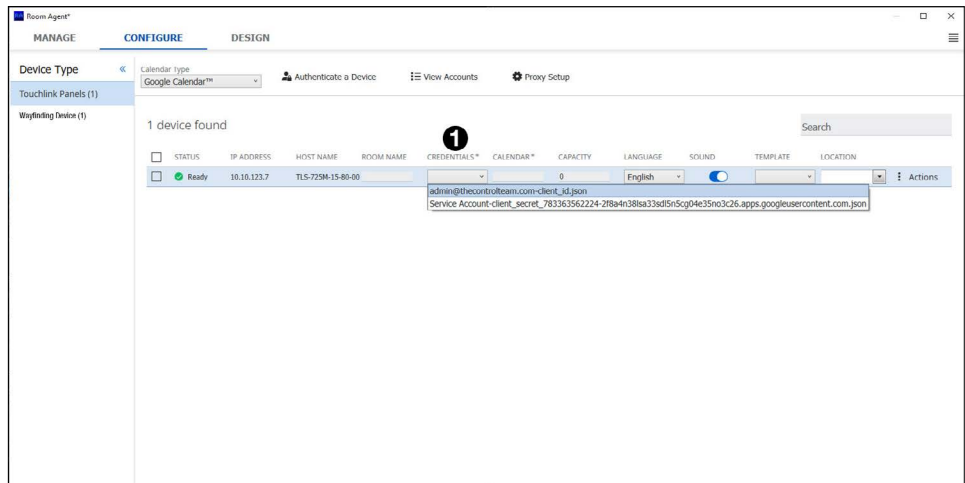


Figure 96. Google Account Cell

Troubleshooting

If a Room Agent configuration has been loaded onto the TouchLink Scheduling Panel but the touchpanel is showing that the panel is disconnected (red ellipses in the lower right corner of the panel), verify the following items:

- Make sure that the Google Account in the Room Agent software and the account that approved the User Code in your browser are the same.
- Go to <https://console.developers.google.com/> and verify that you can see traffic from the panel. This updates periodically and shows the requests made to the project that was created when setting up the JSON file.



Figure 97. Google Dashboard Showing Traffic from the Panel

If you are using **Calendar Resources** but only the **Google Service Account** calendar is showing, make sure the “Account Calendar” in Room Agent matches exactly the Calendar Resource name as it appears in the Google Admin Console (including special character for numbers and occupancy if added when creating the panel).

In order for the TouchLink Scheduling Panel to read the calendar, the Admin account must be subscribed to the Room Account Calendar as follows:

1. While logged in with the Admin account, go to calendar.google.com



Figure 98. Open Other Calendars

2. Click the + icon next to the Other Calendars section.

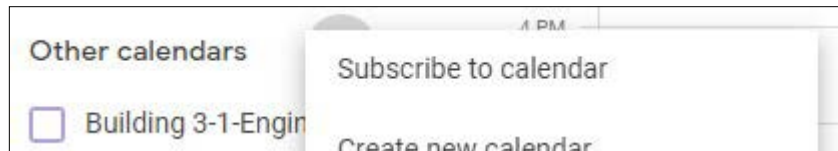


Figure 99. Select Subscribe to Calendar

3. Click on the **Subscribe to calendar** option.

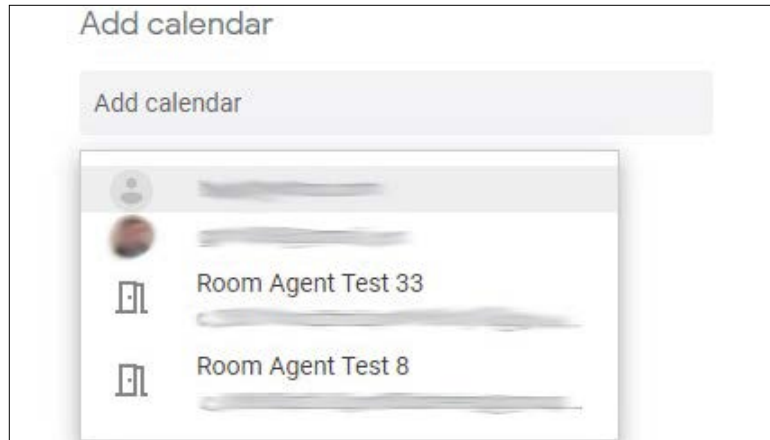


Figure 100. Select Calendar

4. Select a calendar from the dropdown list.

Microsoft Exchange

The Extron Room Scheduling System works with the following Microsoft Exchange versions:

- Exchange 2007, Service Pack 1
- Exchange 2010
- Exchange 2013
- Exchange 2016

In Exchange servers, the Room Scheduling System uses the Exchange Web Services (EWS) protocol to tie in to the server room mailboxes; no plugins or additional software are required on the server.

The Room Scheduling System subscribes to the room mailboxes. The EWS protocol includes push notifications. The server pushes change notifications to the Room Scheduling System whenever calendar changes occur.

NOTES:

- Room Agent provides an additional feature when you use the Microsoft Exchange or Microsoft Office 365 calendars. In the Design Layout Tab, the drop-down lists contain an additional Custom Field option, which displays up to 50 characters from the body of the meeting invitation.
- When you use Google, Microsoft Exchange, or Office 365 calendars, you can create private meetings. For these meetings, the subject title defaults to Private Meeting and the meeting organizer is hidden.
- With Microsoft Exchange, each conference room is assigned a unique Room Mailbox. This is a special type of mailbox that is restricted so that it cannot be used for interactive logons (the ability to send or receive emails).
- The fully qualified domain name (name@domain.com) must be entered as the user ID.
- As part of the Room Agent configuration process, the Microsoft Exchange user ID and password for each room are entered by the administrator and sent as part of the configuration file to the panel. No other user IDs or passwords are used.
- The software encrypts the password; when displayed on the user interface it is obscured, and it is encrypted when stored on the administrator PC.
- The administrator can choose to save the panel configurations, including the panel passwords, on their PC. This file is password protected.

1. If you select **Microsoft® Exchange™**, additional options appear.
2. Click **Discover Server** (see figure 101, ⑤) to search for the Microsoft Exchange server.



Figure 101. Selecting Microsoft Exchange Calendar

If you click **Discover Server** but Room Agent cannot discover the server automatically, a dialog box opens. Enter your email credentials and click **Discover**.

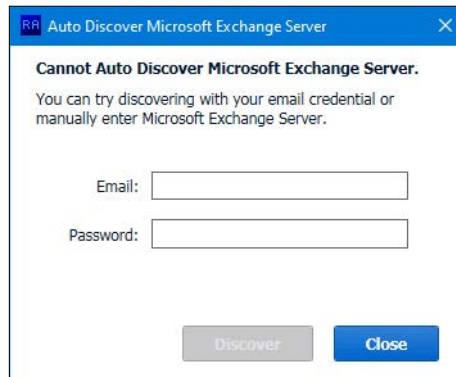


Figure 102. Auto Discover Microsoft Exchange Server Dialog

3. Click **Protocol** (see figure 102, ②) and select **http://** or **https://**.

To use the **https://** protocol to connect to the Microsoft Exchange Calendar, the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate (see **Set up a Proxy Server** on page 38).

4. Click **Server** (③) and enter the address of the server.
5. Select whether the SSL Certificate is verified (④).

Room Agent validates certificates that are signed by trusted Certificate Authorities. If the Exchange server is using self-signed SSL certificates, selecting **No Verification of SSL Certificate** bypasses this option. This option should normally left at the default selection. If you are unsure, consult the Exchange administrator for the connecting server.

6. Select the checkbox to **Enable Service Account** (①) (see **Set Up a Service Account** on page 69).

NOTE: The Enable Service Account checkbox allows one or more service accounts to be used to configure the panels.

The following column headings appear in the lists of panels:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The host name is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.

- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.

NOTE: If you select the **Enable Service Account** checkbox (see [figure 101](#), [1](#), on the previous page), the **Room User ID** column heading changes to **Service Account**, and the **Room User Password** column heading changes to **Room Resource Account**.

- **ROOM USER ID** — enter the ID for an account that has access to the Microsoft server. This is typically an administrator account.

User ID requires the User Principal Name (UPN, the name of a Windows network user in an SMTP e-mail address format) for the room resource user ID. The UPN must have an SMTP e-mail address assigned to it. Abbreviated Exchange User IDs (aliases) do not work. (See [Verify the Exchange User ID is the UPN](#) on page 73.)

- **ROOM USER PASSWORD** — enter the password for an account that has access to the Microsoft server. This is typically an administrator account.

NOTES:

- If service accounts are enabled, the **Room User ID** and **Room User Password** column headings change to **Service Account** and **Room Resource Account**.
- The Exchange User ID requires the User Principal Name (UPN: the name of a Windows network user in an e-mail address format) for the room resource user ID. The UPN must have an SMTP e-mail address assigned to it.

- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
- **TEMPLATE** — The layout of the panel can be configured using the Design Tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see [figure 54](#) on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150).

Set Up a Service Account

Service accounts, using Impersonation, allow the user to manage multiple touchpanels from a single account. When passwords are updated, only the service account password needs to be changed, not the passwords for all the individual touchpanels in the account.

NOTE: The service account requires the UPN, the name of a Windows network user in an e-mail address format. The UPN must have an SMTP e-mail address assigned to it.

To set up a service account:

1. Select the Status check boxes of the touchpanels to be configured.
2. Check the **Enable Service Account** checkbox (see figure 103, ①).
When the checkbox is enabled, a new **Service Account Manager** button (②) appears.
3. The Room User ID (③) column heading changes to **Service Account**.
4. The Room User Password column heading (④) changes to **Room Resource**.
5. Click **Service Account Manager**.

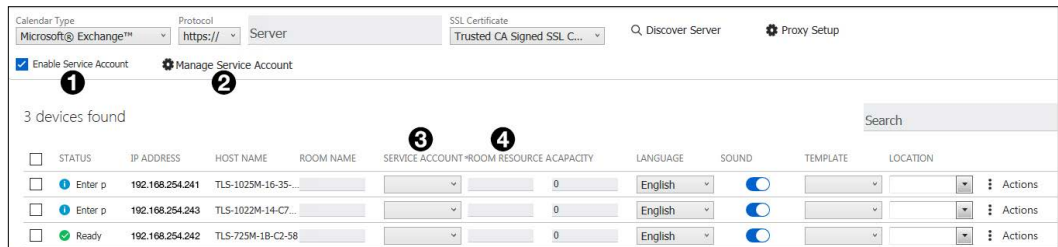


Figure 103. Microsoft Exchange Service Account

The Service Account Manager dialog opens with the **Assign Service Account** tab selected.

6. Enter a Service Account Email (see figure 104, ①).
7. Enter a Service Account Password (②).

If you select the **Show Password** checkbox (③), the characters of the password are visible. If you do not select the checkbox, the characters are masked by filled circles.

8. Click **Add** (④).

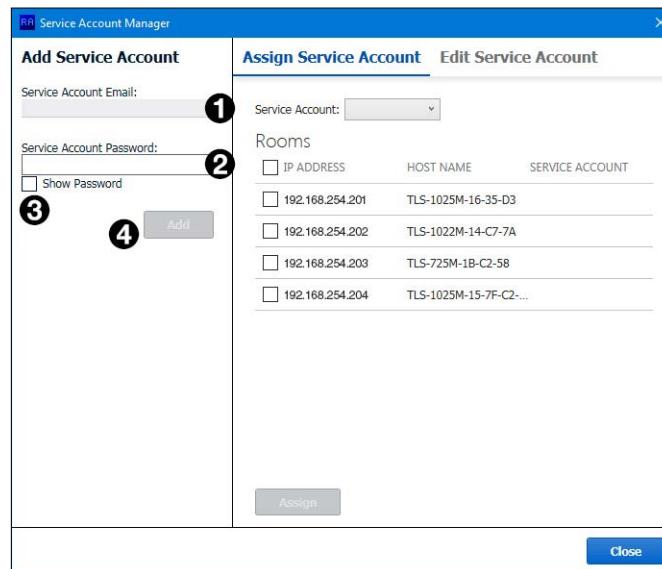


Figure 104. Service Account Manager — Assign Service Account

The Service Account Email is added to the **Service Account** dropdown list (see figure 105, ❶).

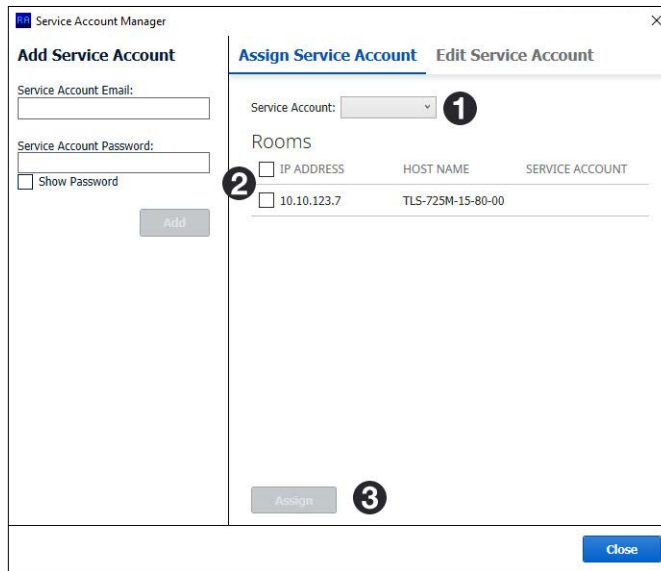


Figure 105. Service Account Email Added to Service Account List

If required, additional service accounts can be created and added to the **Service Account** list.

To assign one or more touchpanels to a service account:

1. Select the checkbox next to each of those touchpanels (❷).
2. Ensure that the correct service account is selected from dropdown menu.
3. Click **Assign** (❸).

The service account name appears next to the selected TLS panels (see figure 106, ❶).

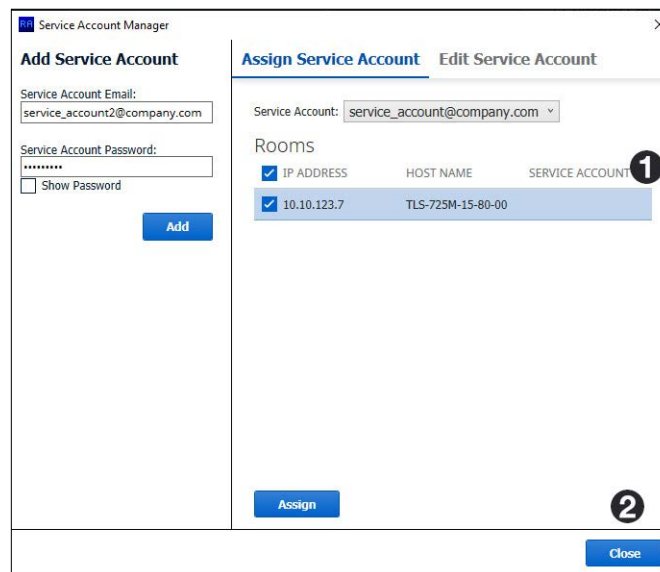


Figure 106. Service Account Assigned to TLS Panels

4. If you wish to assign other touchpanels to another service account, repeat steps 1-3.
5. Once all the touchpanels are assigned as required, click **Close** (❷).

In the main **CONFIGURE** tab, the service account associated with the panel is now shown.

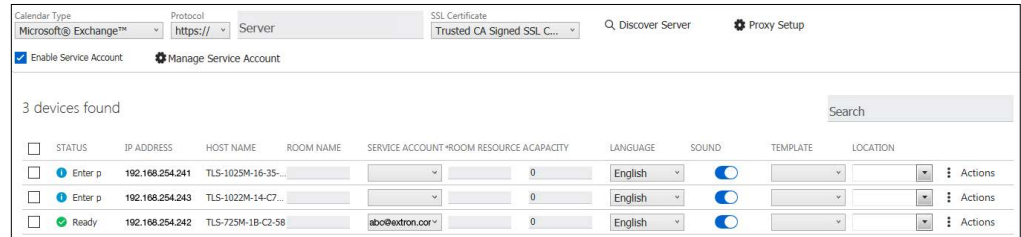


Figure 107. Configure Tab with Service Accounts Added

- Once one or more service accounts have been added, using **Manage Service Account**, you can add that service account from the main **CONFIGURE** tab. Click on the Service Account cell for the appropriate touchpanel. A dropdown menu is now accessible, listing all the available Service Accounts.

NOTE: In the main **Configure** tab you can add only one touchpanel at a time to a specific service account. With **Manage Service Account**, you can select multiple touchpanels and add them all to a service account simultaneously.

- Enter the room email address in the Room Resource Account column.

NOTE: You can assign some TLS panels in your system to service accounts and other TLS panels can be individually configured. However, Extron recommends that the system configurations used to save TLS panels associated with service accounts should be separate from those used to save individually configured TLS panels.

Delete a Service Account

- In the **Configure** tab, click **Manage Service Account**.
- Click the **Edit Service Account** tab.

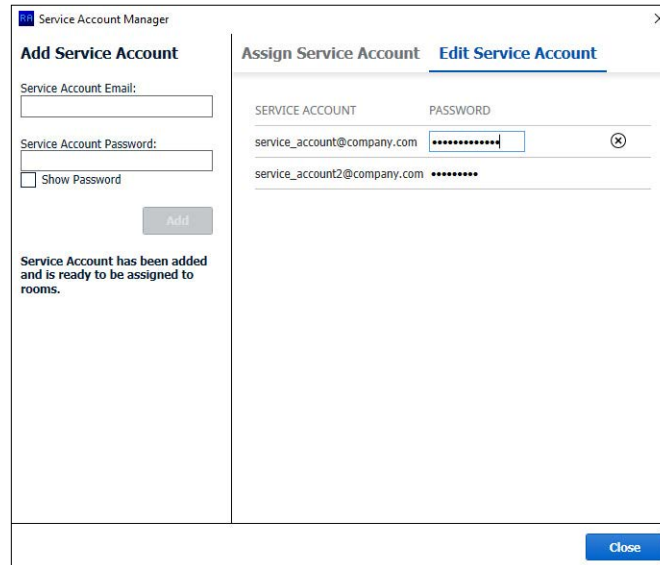


Figure 108. Service Account Manager — Edit Service Account

All the available service accounts are listed.

- To delete an account, click on the account. Click the delete (X) button for that row.

Edit a Service Account

1. Double-click in the **Password** field for the service account to be edited (see [figure 108](#) on the previous page).
2. Highlight the password and type a new value.
3. Press <Enter> on the keyboard.

TIP: The Password field is normally masked (•••). When the existing password is deleted, the **Show** option activated. Click **Show** to toggle between viewing or masking the password characters as you type.

4. Click **Close** to save the changes and exit the Service Account Manager dialog.

Verify the Exchange User ID is the UPN

Verify the UPN as follows:

1. Access the Exchange server Active Directory Users and Computers window.



Figure 109. Active Directory

2. Click the **Find object** (🔍) icon (see [figure 109](#), ①).

The Find Users, Contacts, and Groups dialog box opens.

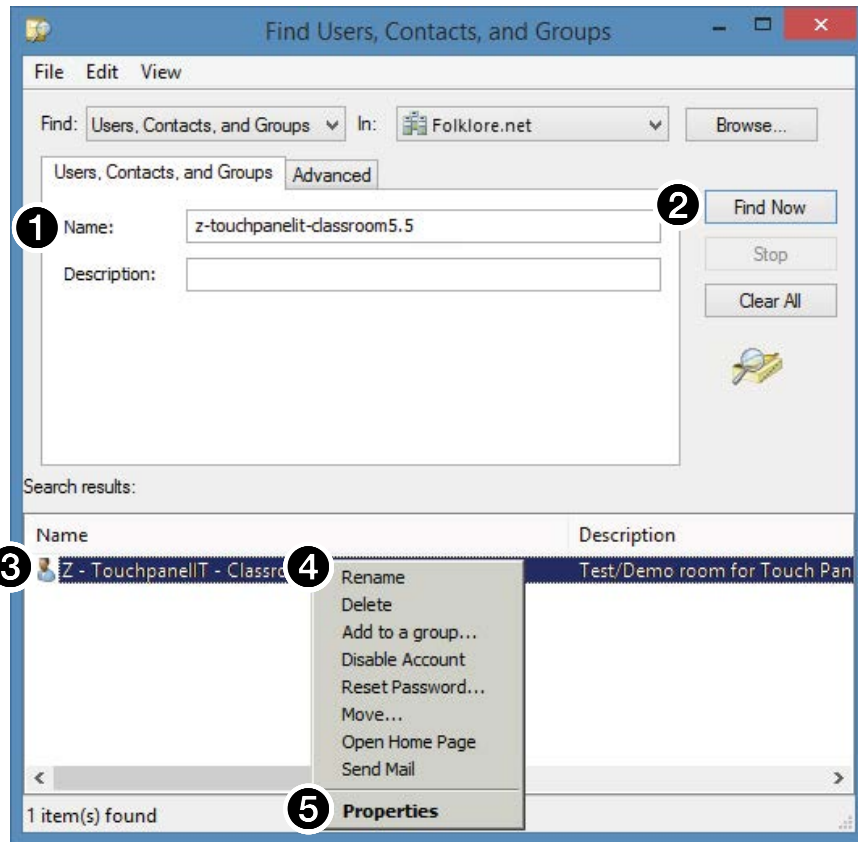


Figure 110. Find Users, Contacts, and Groups Dialog Box

3. Enter the name of the room to be verified in the Name field (see figure 110, 1).
4. Click **Find Now** (2).
The Search results: pane displays the room (3).
5. <Right-click> the room in the Search results: pane (4) and click **Properties** (5).

The Properties dialog box opens.

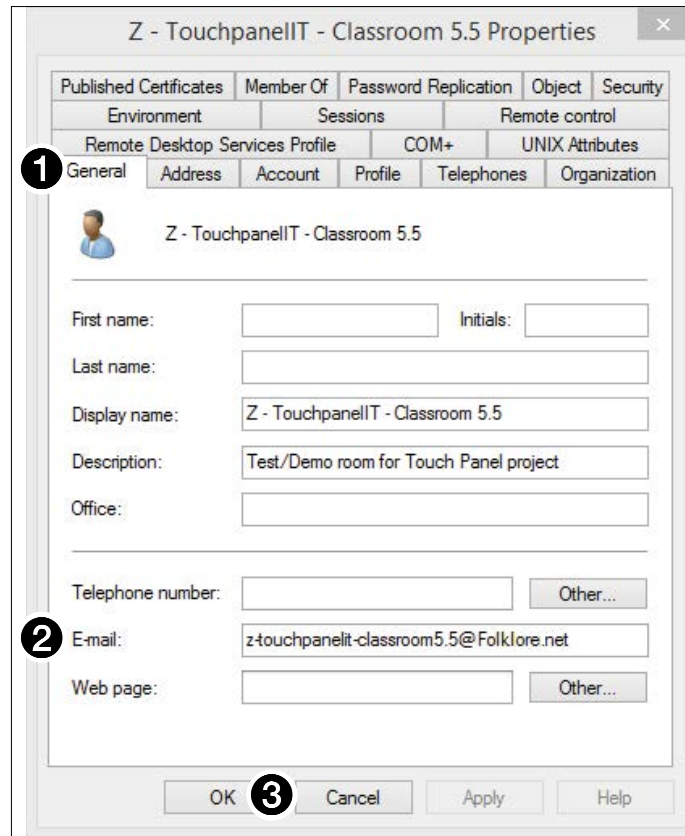


Figure 111. E-mail Address Displayed on the General Tab

6. If necessary, click the **General** tab (see figure 111, ❶). The general properties for the room are displayed.
7. Note the room e-mail address shown (❷). This value is the UPN, the value used as the only valid Exchange User ID for this room in the Room Scheduling System.
8. Click **Cancel** to exit the display (❸).
9. Repeat steps 3 through 8 for each desired room.

TIP: Write down the UPNs of all rooms for setting up the Room Scheduling System.

Microsoft Office 365

NOTES:

- Room Agent provides an additional feature when you use the Microsoft Office 365 calendar. In the **DESIGN** Tab, the drop-down lists contain an additional **Custom Field** option, which displays up to 50 characters from the body of the meeting invitation.
- When you use Google, Microsoft Exchange, or Office 365 calendars, you can create private meetings. For these meetings, the subject title defaults to **Private Meeting** and the meeting organizer is hidden.
- Microsoft is planning to end single-factor authorization in Oct 2020 and has moved to 2-factor authorization (OAuth).

To use Room Agent with Office 365 and OAuth, you must obtain the **Tenant ID** and **Client ID** for your Azure AD App Registration (see [OAuth for Microsoft Office 365](#) on page 77).

After obtaining OAuth credentials from Microsoft, you can assign them to the touchpanels (see [Assigning OAuth Credentials to Touchpanels](#) on page 86).

If you choose, **Microsoft® Office 365™**, the address of the server is discovered automatically. The server address and protocol (<https://>) cannot be altered.

To use the <https://> protocol to connect to the Microsoft Office 365, the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate (see [Set up a Proxy Server](#) on page 38).



Figure 112. Microsoft Office 365 Calendar Server Selected

With Microsoft Office 365, you get the following column headings:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.
- **CREDENTIALS** — This is the name that was used when the device was authenticated to Office365 (see [Assigning OAuth Credentials to Touchpanels](#)).
- **CALENDAR** — This is the account that provides authorization for Room Agent to access the calendar (see [Assigning OAuth Credentials to Touchpanels](#)).
- **CAPACITY** — Set the maximum number of people allowed in the room in this column.
- **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.

- **TEMPLATE**— The layout of the panel can be configured using the **Design** Tab. You can select one of the saved panel design files from this drop-down list.
- **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

After verifying that the information is correct, select one or more panels and click **Send Configuration**.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see **figure 54** on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see **Room Scheduling Analytics** on page 150).

OAuth for Microsoft Office 365

There are three steps to this process:

- **Obtaining OAuth Credentials**
- **Assigning OAuth Credentials to Room Agent**
- **Assigning OAuth Credentials to Touchpanels**

Obtaining OAuth Credentials

NOTE: Microsoft is planning to end single-factor authorization in Oct 2020 and has moved to two-factor authorization (OAuth). To obtain OAuth credentials by two-factor authorization, follow the steps below.

1. Go to <https://portal.azure.com/>.
2. Click **Azure Active Directory** (see figure 113. ❶).

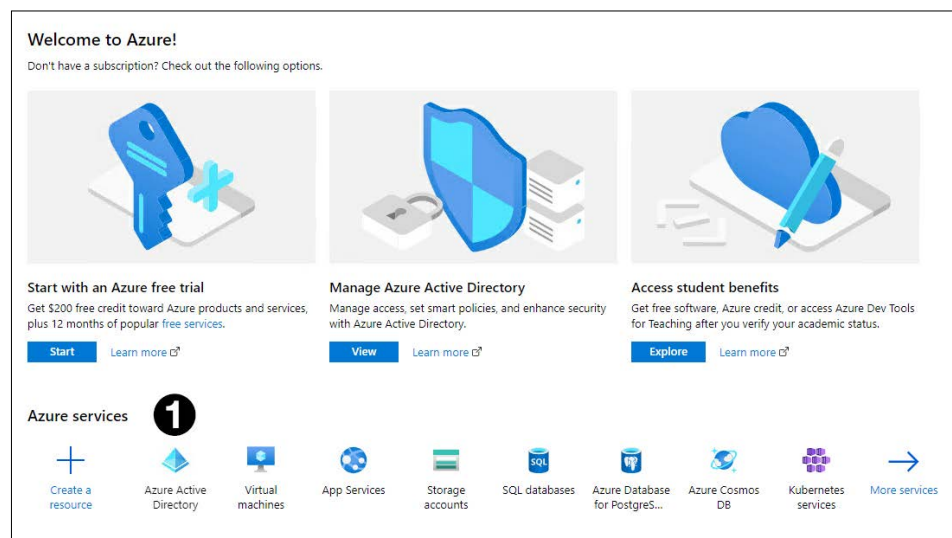


Figure 113. Azure Active Directory Portal

The Overview page for your organization opens:

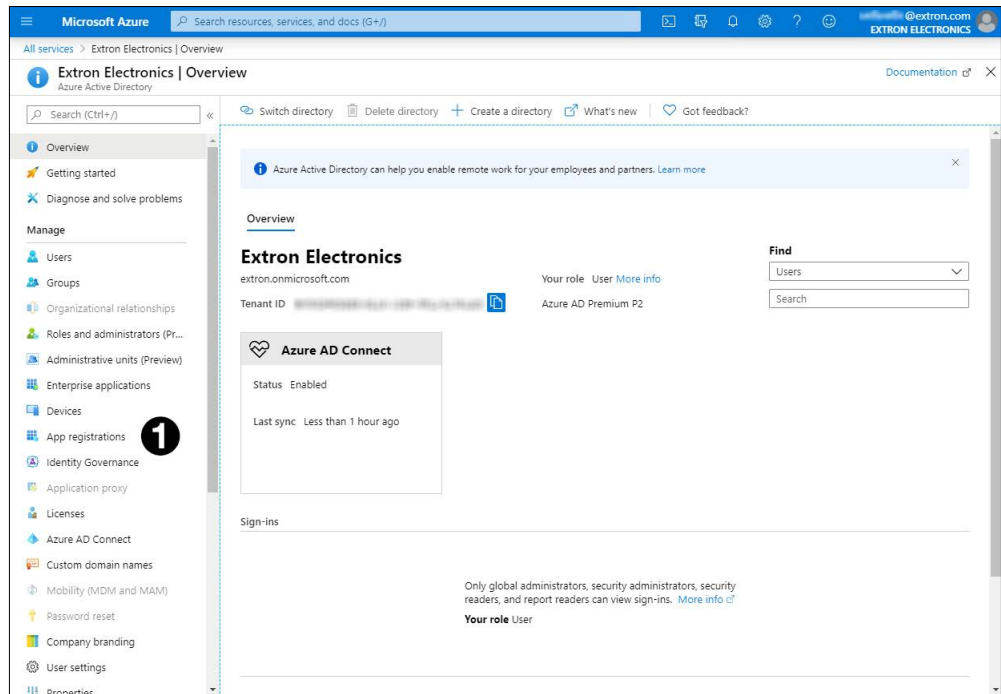


Figure 114. Organization Overview Page

3. Click **App registrations** (see figure 114 1).

The App registrations page opens.

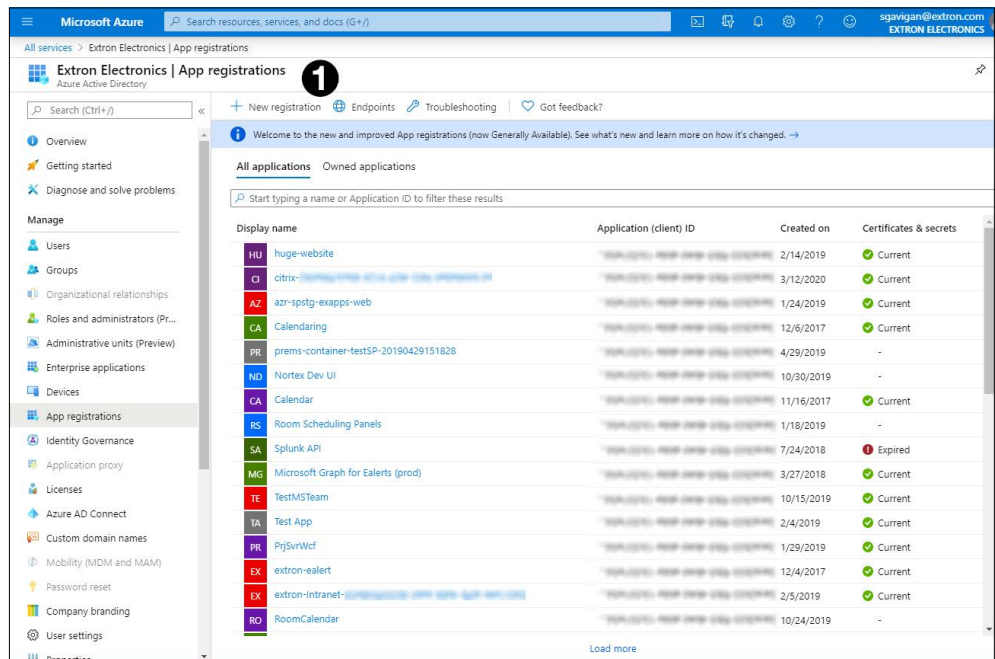


Figure 115. App Registrations

4. Click **New registration** (see figure 115 1).

The Register an application page opens.

Figure 116. Register an Application Page

5. Provide a **Name** for the App (see figure 116 ①). This can be edited later.
6. Check the radio button to select from the **Supported account types** (②). This determines who can use the app or access the API.
7. You must enter a reply address such as `http://localhost` (③). This is required for Room Agent to work.
8. Click **Register** (④).

The page for your new app opens.

Figure 117. New App Page

9. Make a note of the **Application (client) ID** (see figure 117, ①) and the **Directory (tenant) ID** (②). You need these to access the calendar from Room Agent. The values have been blurred out in this image.

10. Click **Authentication** (see **figure 117**, **3**, on the previous page).

The Authentication page for your app opens.

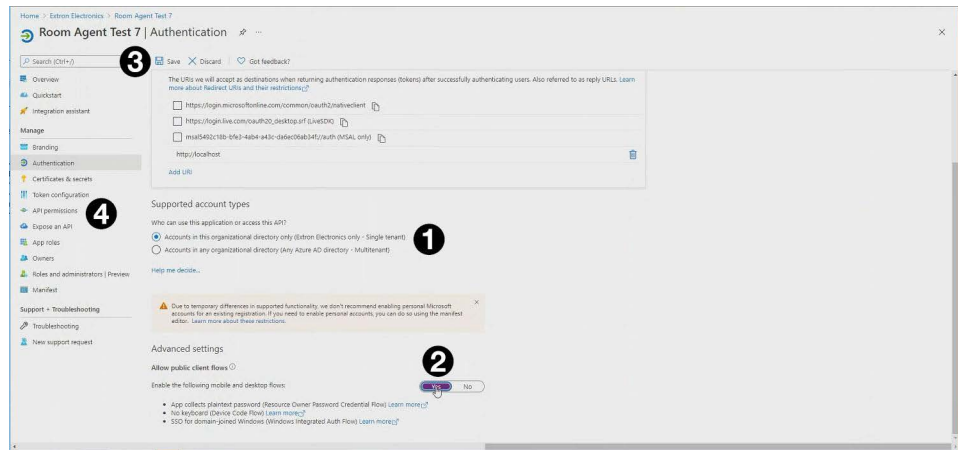


Figure 118. Authentication Page

11. Select **Accounts in this organizational directory** (see figure 118, **1**).

12. In the Advanced Settings, click **Yes** (**2**).

13. Click **Save** (**3**).

14. Click **API permissions** (**4**).

The Request API Permissions page opens.

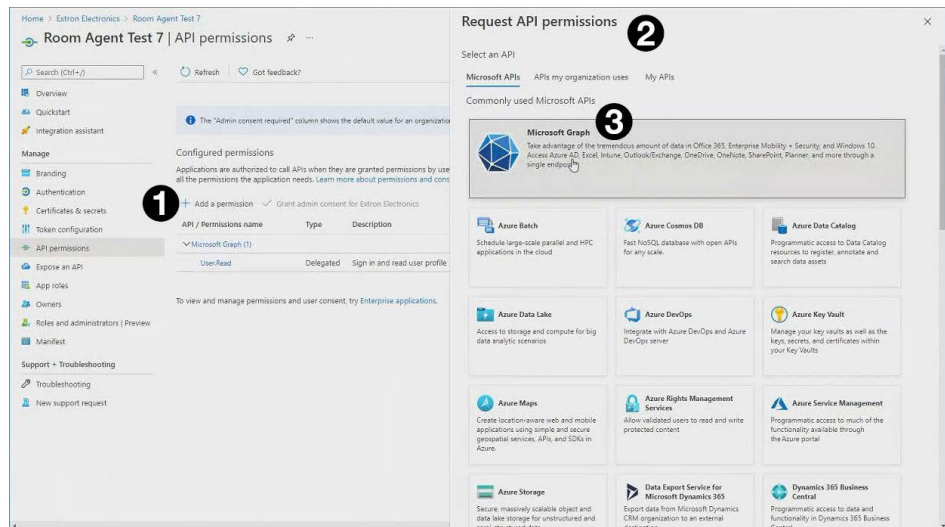


Figure 119. Request API Permissions Page

15. Click **Add a permission** (see figure 119, **1**).

The Request API permissions panel opens (**2**).

16. Click **Microsoft Graph** (**3**).

The Request API permissions panel opens.

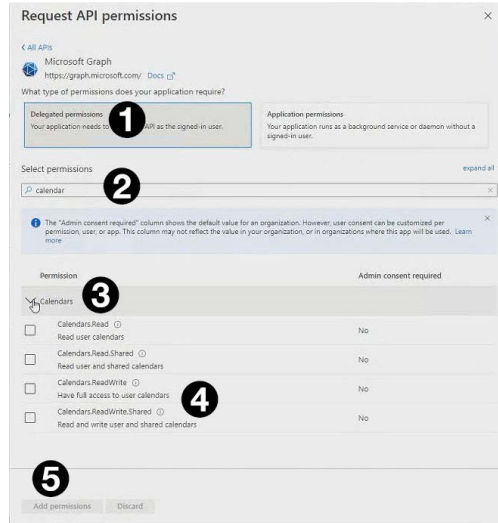


Figure 120. Request API Permissions

17. Click **Delegated permissions** (see figure 120, ①).

A list of permission categories opens.

18. (Optional) Enter **Calendars** in the **Select permissions** text box (②). This narrows the number of options listed.

19. Click **Calendars** (③) to expand the list of calendar options.

20. Select the **Calendars.ReadWrite** and **Calendars.ReadWrite Shared** check boxes (④).

21. Click **Add Permissions** (⑤).

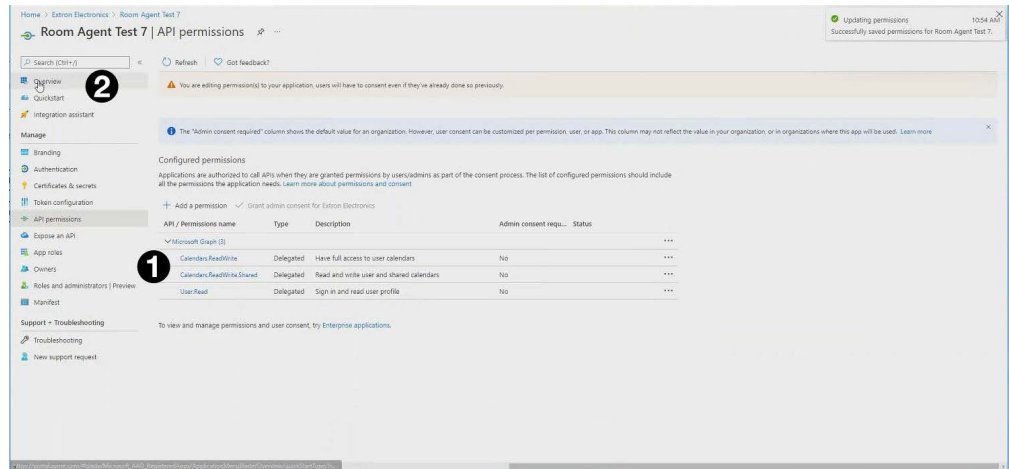


Figure 121. Added Permissions Listed

The added permissions are listed (see figure 121, ①).

22. Click **Overview** (②).

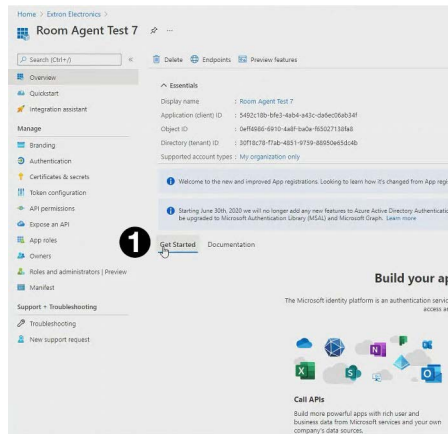


Figure 122. Get Started

23. Click **Get Started** (see figure 123, ❶).

Assigning OAuth Credentials to Room Agent

NOTE: Microsoft is planning to end single-factor authorization in Oct 2020 and has moved to two-factor authorization (OAuth). To obtain OAuth credentials by two-factor authorization, follow the steps below.

1. Open Room Agent and select the **CONFIGURE** tab.



Figure 123. Microsoft Office 365 Calendar Server Selected

2. From the drop-down list of calendars, select **Microsoft® Office 365™**.
3. Enter the calendar server URL path. Usually this is `outlook.office365.com`, but it is not shown in the user interface.
4. Click **+ Add Credentials**.

The **Authenticate a device to Office 365** dialog box opens.

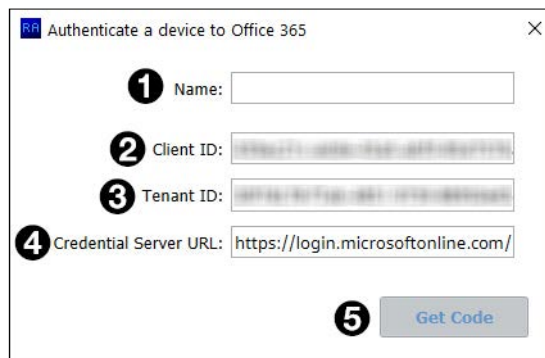


Figure 124. Authenticate a device to Office 365 Dialog

5. If necessary, change the credential server URL (see figure 124, ❷). The default URL, which appears in the user interface is `https://login.microsoftonline.com/`.
6. Provide a **Name** for the Credentials (❶).
7. Enter the **Client ID** (❷) and **Tenant ID** (❸), which were obtained in **step 9** (see page 79) in the previous section.

8. Click **Get Code** (see [figure 124](#), **5**, on the previous page).
The dialog displays a QR and a code (see [figure 125](#)).



Figure 125. Authenticate a Device to Office 365 – QR Code

9. Scan the code or enter [www.microsoft.com/devicelogin](https://microsoft.com/devicelogin) into a browser.
The Microsoft website opens:

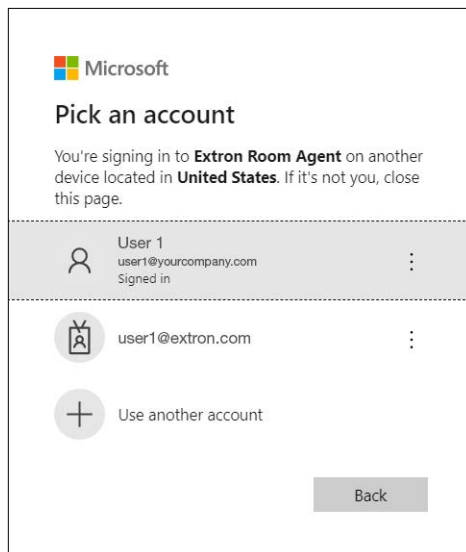


Figure 126. Select an Account

10. Select an account (see [figure 127](#)).

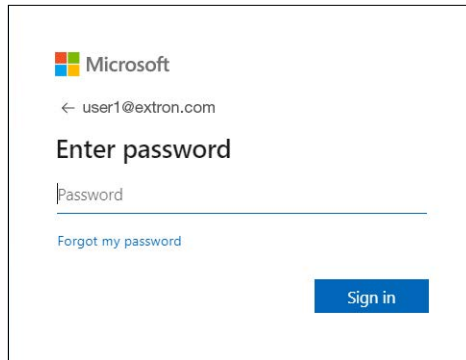


Figure 127. Enter Account Password

11. Sign in to that account (see figure 127).

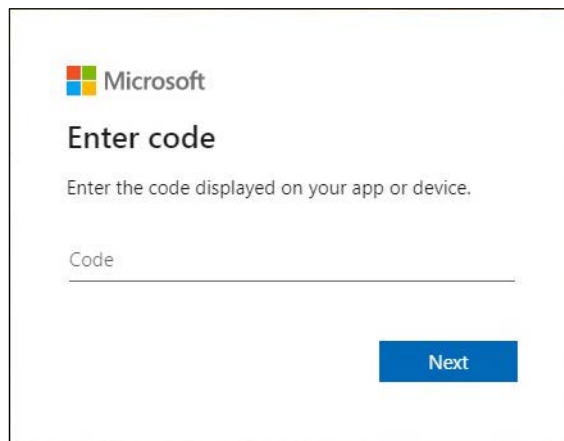


Figure 128. Enter Code

12. Enter the code for that account (see [step 8](#), on the previous page).
13. Click **Next** (see figure 128).
14. Microsoft requests verification that you are signing in to Room Agent.

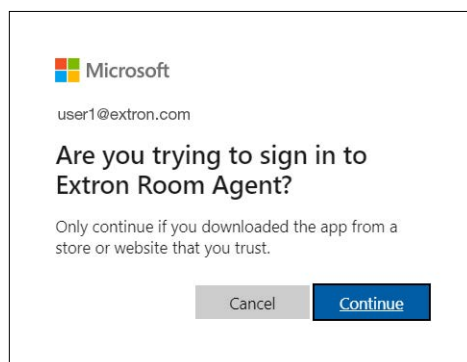


Figure 129. Verify Room Agent Sign-in

15. Click **Continue** (see figure 129).



Figure 130. Microsoft Confirms OAuth Process is Complete

The Microsoft website confirms that the OAuth process is complete (see figure 130).

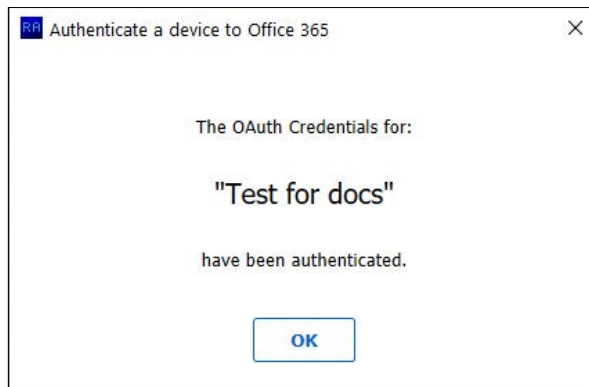


Figure 131. Room Agent Confirms OAuth Process is Complete

The Room Agent Authenticate a device to Office 365 dialog box also confirms that the credentials have been authenticated (see figure 131).

16. Click **OK**.

Assigning OAuth Credentials to Touchpanels

In the **Configure** tab, use the Credentials drop down list for a touchpanel to ensure that the **OAuth Credentials** match the name given when you authenticated the device to Office 365 in **step 8** (see page 83) of the previous section. Make sure the **Account Calendar** was the one selected in **step 10** on page 83.

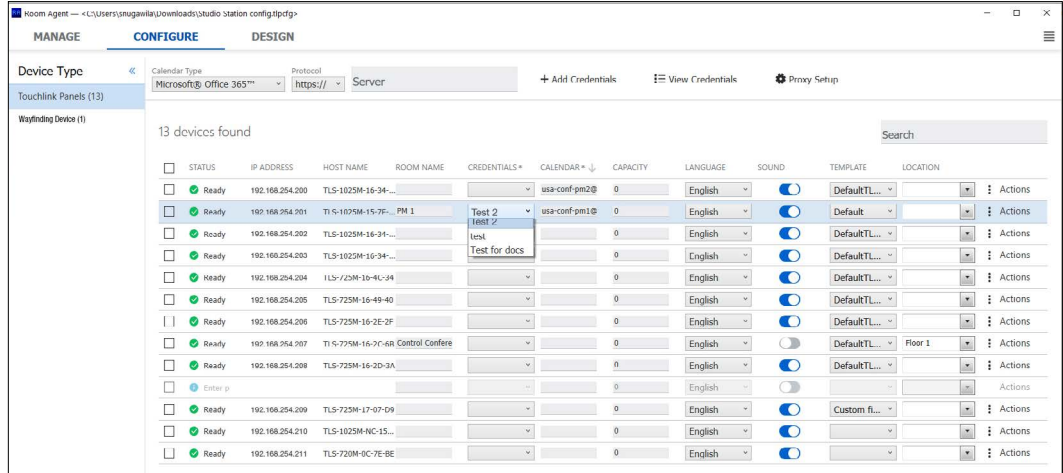


Figure 132. Assigning OAuth Credentials to Touchpanels

NFS

If you select **NFS** (see figure 134, ❶), you must select a protocol (**http://** or **https://**) (❷), and enter the name of the NFS server in the **Server** field (❸).

If you use the **https://** protocol to connect to the calendar server, the Proxy Server must be setup as **TLS Pass Through**. This is required for the TLS to validate the calendar server's SSL certificate (see **Set up a Proxy Server** on page 38).

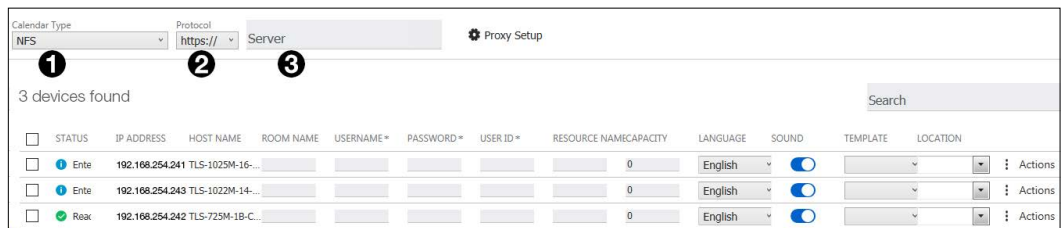


Figure 133. Select NFS Calendar Server

The following column headings appear in the lists of panels:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TouchLink panel.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **ROOM NAME** — This is the name that appears on the touchscreen, once it is configured.

- **USERNAME** — this is the user name for an account with access to the NFS server. It is typically an administrator account.

NOTE: The password and User ID are both provided by an NFS administrator. These are API credentials that may be the same as the web page login credentials but this is not required.

- **PASSWORD** — this is the password for the account with access to the NFS server.
- **USER ID** — this is a field assigned to the user by NFS and required for booking events from a panel. The User ID can be a name, such as “Extron User” or it can be an email address.

Log on to the NFS server. The User ID is shown in the top right corner (see figure 134, ④).

NOTE: You need an administrator account to log in to the NFS server.

- **RESOURCE NAME** — this field must match exactly the name set up on the NFS server. Check the name by searching for the resource in the NFS server setup.
 - a. Log on to the NFS server.

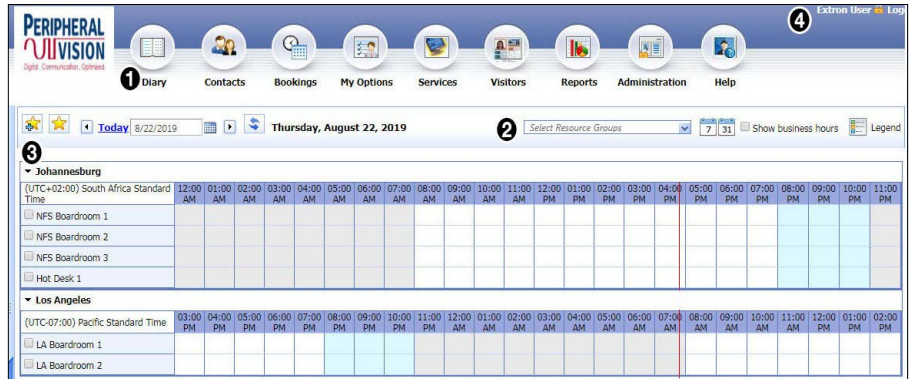


Figure 134. NFS Home Page

- b. Click **Diary** (①).
- c. Choose a resource group from the drop-down list (②). A list of resources in the selected group or groups is shown (③).

To add a new resource:

- a. Click **Administration** (see figure 135, ①).

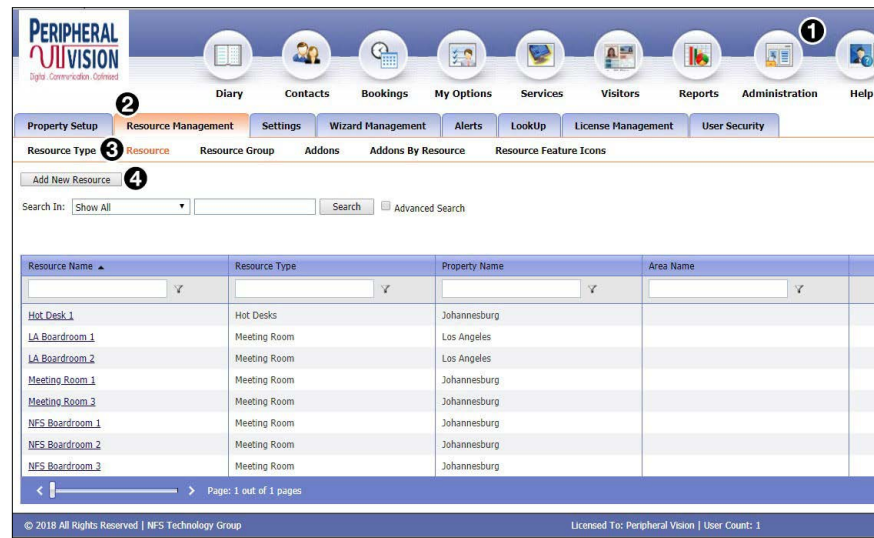


Figure 135. NFS — Add a New Resource

- b. Select the **Resource Management** tab (②).
- c. Select **Resource** (③).
- d. Click **Add New Resource** (④) and provide the required information.
 - **CAPACITY** — Set the maximum number of people allowed in the room in this column.
 - **LANGUAGE** — Select an option from the Language drop-down list. By default, the language is English.
 - **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.
 - **TEMPLATE**— The layout of the panel can be configured using the Panel Design tab. You can select one of the saved panel design files from this drop-down list.
 - **LOCATION** — Use a location tag to group nearby rooms, for example "Floor 1". This is displayed as the room location in the Wayfinding Device. When rooms are shown as a list on the Wayfinding Device, they are grouped by their location tag.

There is also an **Actions** menu for each touchpanel. After verifying that the information is correct for all TLS panels, select one or more panels and click **Send Configuration** to save the configuration on the control PC (see [figure 54](#) on page 43). Alternatively, click **Retrieve Configuration** to retrieve a previously saved configuration and apply it to the selected panel.

You can also retrieve or clear the activity file associated with that panel (see [Room Scheduling Analytics](#) on page 150)

Configure Individual TLS Panels

Figure 137 shows the **Configure** tab headings for Microsoft Office 365. A few of the column headings depend on the calendar server that was selected. For Microsoft Office 365, these are **Room Name** (❶), **Credentials** (❷), and **Calendar** (❸). The other headings (**STATUS**, **IP ADDRESS**, **HOSTNAME**, **CAPACITY**, **LANGUAGE**, **SOUND**, **TEMPLATE**, and **LOCATION**) are common for all calendar servers.

Refer to the section about your calendar server for the specific information required for each column when configuring the TLS panels for that calendar server.

STATUS	IP ADDRESS	HOST NAME	ROOM NAME	CREDENTIALS *	CALENDAR *	CAPACITY	LANGUAGE	SOUND	TEMPLATE	LOCATION	Actions
Enter p	192.168.254.241	TLS-1025M-16-35...				0	English	🔊			⋮ Actions
Enter p	192.168.254.243	TLS-1022M-14-C7...				0	English	🔊			⋮ Actions
Ready	192.168.254.242	TLS-725M-18-C2-58				0	English	🔊			⋮ Actions

Figure 136. Select Microsoft® Office 365™ Calendar Server

1. Select **TLS Panels** from the menu on the right.
2. Select the **Status** check box for the TLS panel you wish to configure.
3. Enter the correct information in each field. All fields are required. The **IP ADDRESS** and **HOSTNAME** are usually filled automatically.
4. After you have configured one or more panels, you can upload the configuration file to the panel and save it there.
 - To upload the configuration to the touchpanel, click **Send Configuration** (for more information, see [Saving Individual Configuration Files to the Appropriate Touchpanels](#) on page 89).
 - If you have previously configured one or more panels and saved your configuration to the panel, you can retrieve that configuration file by clicking **Retrieve Configuration** (for more information, see [Retrieving a Configuration](#) on page 90).
 - If you have previously configured the entire system and uploaded the individual configuration files to the appropriate touchpanels, you can retrieve all the individual records from the touchpanels to rebuild the system configuration file.

Sending and Retrieving Configurations

Saving Individual Configuration Files to the Appropriate Touchpanels

Once you have edited one or more configuration files, you can upload the individual files to the corresponding touchpanels. That information is used to configure that panel. You can retrieve the most recently sent configuration from the panel and save it to the system configuration file if the system configuration file gets deleted or becomes corrupted.

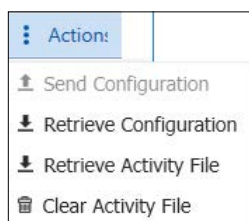


Figure 137. Sending and Retrieving Configurations

1. Click the **Actions** menu on the line for the touchpanel you have configured.
2. Click **Send Configuration**.

NOTE: The Send Configuration button may be unavailable for either of these reasons:

- The device has not been set up.
- All fields must all contain valid values. If one or more of those values is missing, the configuration file is incomplete and cannot be sent.

The individual configuration files are uploaded and saved on the touchpanels they apply to. Alternatively, you can select a touchpanel by selecting the check box at the start of the line. From the menu that appears at the top of the page, click **Send Configuration**.

Retrieving a Configuration

If you have previously configured one or more panels and saved the individual configuration files on the corresponding touchpanel, you can retrieve the configuration and save it into the system configuration file.

To retrieve a configuration:

1. Click the **Actions** menu on the line for the touchpanel you have configured.
2. Click **Retrieve Configuration**.

Alternatively, you can select a touchpanel by selecting the check box at the start of the line. From the menu that appears at the top of the page, click **Retrieve Configuration**.

Retrieving Multiple Configurations Simultaneously

To download the complete configuration information from multiple touchpanels at once:

1. Select the check boxes next to all the appropriate panels.
2. From the menu that appears at the top of the page, click **Retrieve Configuration**. All the individual records are downloaded from the touchpanels to the control PC.

Rebuilding a System Configuration File from Individual Records

If the system configuration file on the control PC is accidentally deleted or becomes corrupted, it can be rebuilt by pulling the individual records from some or all the touchpanels.

1. Select the **Status** checkboxes for the required touchpanels.
2. Click **Retrieve Configuration**.

The individual records for each touchpanel are pulled back to the control PC.

3. Click the **Menu** button and select **Save Configuration**.

Retrieve and Clear the Activity File

Each TLS panel maintains an activity file and a log of scheduling information (such as the meeting subject, meeting organizer, booking date, meeting date and starting time and duration) among other data for the assigned room. The activity file can be retrieved and written to the PC running the Room Agent software as an Microsoft Excel spreadsheet or cleared (erased) from the panel. You can use data analytics tools to transform this activity data to create usage reports.

NOTE: The panel has 4 Mb of activity file memory. The number of entries varies depending on the size of each entry, but may number in the hundreds. When the memory becomes full, the newest entries overwrite the oldest. There is no notification when the memory becomes full.

Retrieve one or more activity files as follows:

1. Select one or more **Status** checkboxes.
2. Click the **Retrieve Activity File** menu option (see [figure 137](#), on the previous page) to fetch the schedule log and from one or more panels and save it in a spreadsheet. The Room Agent software opens the **Panel Activity File** dialog box.
3. If required, navigate to the folder where the file is to be saved.
4. Enter a name for the retrieved activity file (see [figure 138](#), ①).
5. Click **Save** (②).

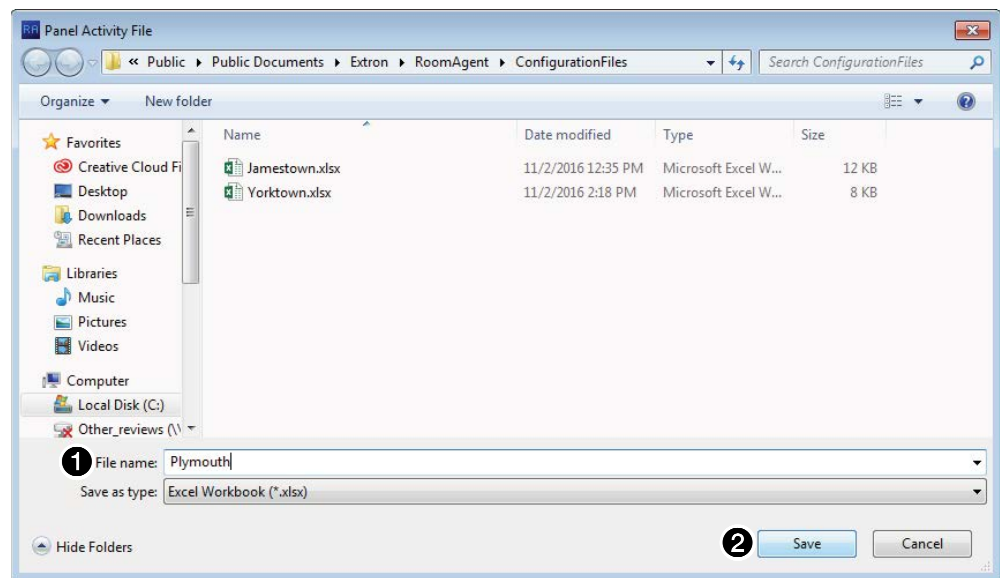


Figure 138. Panel Activity File

The Room Agent software saves the file. It reports that the **Status** is in progress (🌀) and then reports **Activity retrieved**. and **All activities have been retrieved successfully**.

Clear one or more activity files as follows:

1. Click the **Clear Activity File** menu option (see [figure 137](#) on page 89) to erase the schedule log from one or more panels.

For the clear operation, the Room Agent software reports that the **Status** is in progress (🌀) and then reports **Cleared**. and **All panel activity logs have been cleared successfully**.

2. Click **OK** to exit the clear operation.

For more information, see [Room Scheduling Analytics](#) on page 150.

Retrieve a template

Templates allow you to create a number of customized panel appearances.

Templates can be designed and saved, using the **Configure** tab. Once they are saved, they are available in the **Templates** pane.

You can retrieve the template assigned to a panel, for example to use as a starting point for designing a new panel layout, as follows:

1. Right-click the panel in the **Status** column.
2. Click the pop-up **Retrieve Template for Design** button. The Retrieve Template dialog box opens:

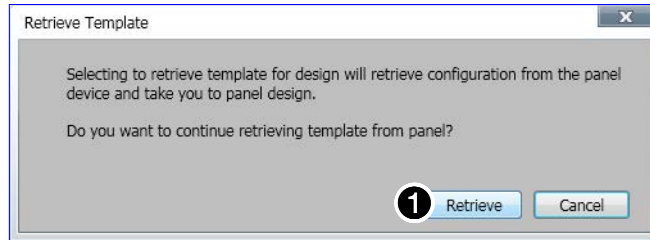


Figure 139. Retrieve Template Dialog Box

3. Click **Retrieve** (see figure 140, ❶). Room Agent software displays the **Retrieving Template ...** activity indicator while it loads the template and then automatically jumps to the **Design** tab (see **Design Tab** on page 98).

Configure Wayfinding Devices

1. Open Room Agent.
2. Click **CONFIGURE**.
3. Select the **Wayfinding Devices** button in the menu on the left side of the page.

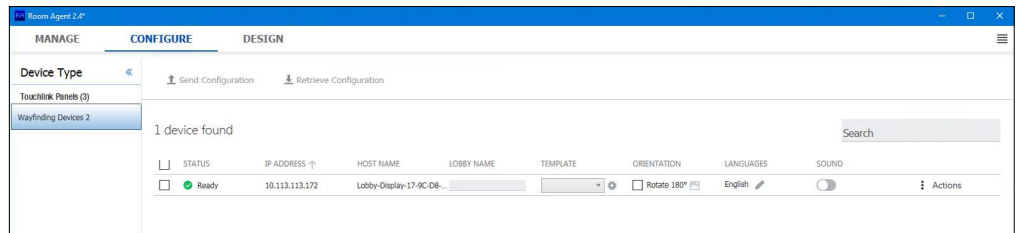


Figure 140. Configure Wayfinding Devices

4. Click in the cell in the **TEMPLATE** column for the device you wish to configure.
5. You can choose to display in **List** or **Map** format and in landscape or portrait orientations. If you have saved other configurations, these are also listed.

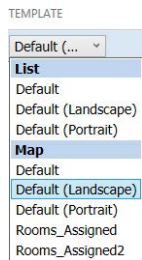


Figure 141. Wayfinding Device – Design Options

6. (Optional) Select the **ORIENTATION** check box (see [figure 140](#) on page 92). This flips the screen from top to bottom (in landscape orientation) or from right to left (in portrait orientation). This is useful if the display devices have been pre-installed in an unsuitable orientation.
7. Click on the **Select Rooms** link to assign TLS panels to a specific Wayfinding device (see [Associating TLS Panels with a Wayfinding Device](#) on page 97).

There are seven column headings. These are not affected by the calendar setting:

- **STATUS** — Use this check box to select individual panels for configuration.
- **IP ADDRESS** — This cell contains the IP address of the TLSI 201 Interface.
- **HOST NAME** — The hostname is a fully qualified domain name that uniquely identifies the computer. It is required for the computer to communicate with other devices on the network.
- **LOBBY NAME** — This is the name that appears on the Wayfinding Device, once it is configured.
- **TEMPLATE** — Click on this box to open a drop-down list that allows you to select one of the saved panel design templates. You can choose one of the List templates or one of the Map templates. The templates must have been created in advance (see [Design Tab for Wayfinding \(List Format\)](#) on page 113 or [Design Tab for Wayfinding \(Map\)](#) on page 121).

This column may also contain a hyperlink, allowing you to organize the room panels associated with the Wayfinding Device (see [Associating TLS Panels with a Wayfinding Device](#)).

- **Language** — The TLSI can be configured to show
 - A single language.
 - Two languages side by side.
 - Multiple languages, one after another.

The default is English as a single language.

1. Click the link to open the Language Settings dialog box.

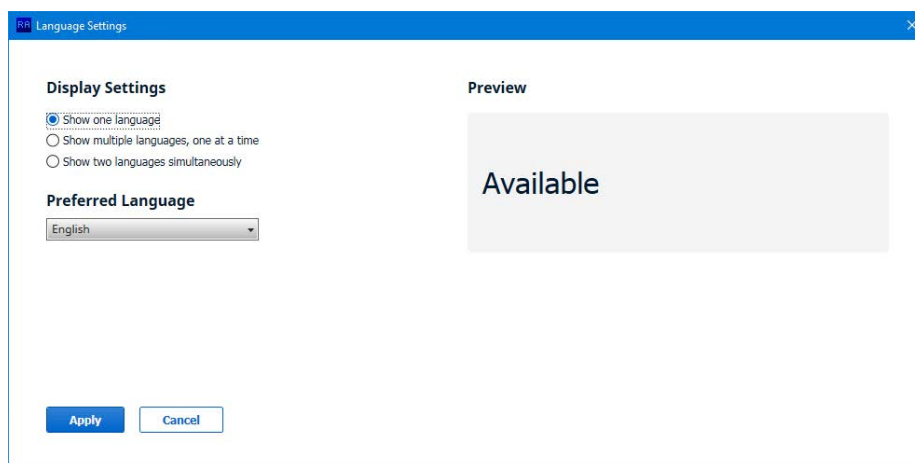


Figure 142. Language Settings — Show One Language

2. Select an option by clicking the appropriate radio button.
 - **Show one language** — Select a language from the Preferred Language drop-down list and click **Apply**.
 - **Show multiple languages, one at a time**

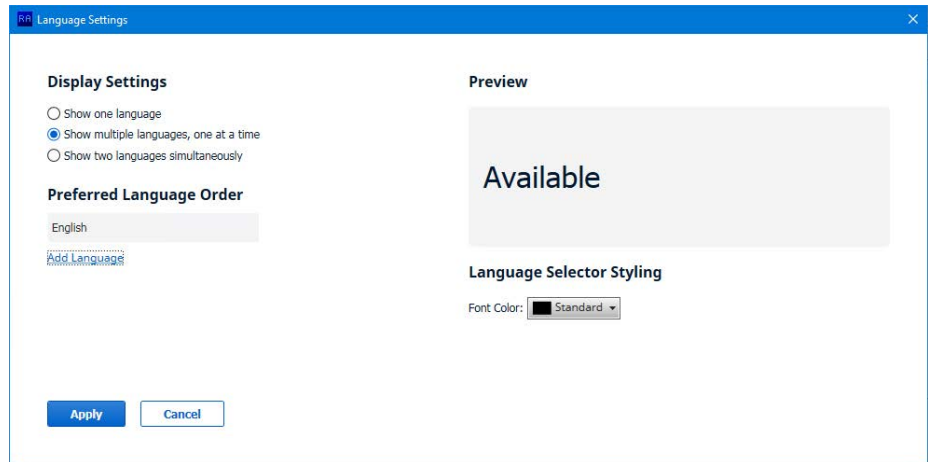


Figure 143. Language Settings — Multiple Languages

- a. Click **Add Language**.
- b. The Add Language dialog box opens.
By default **English** is selected. You can remove English by deselecting the box and selecting other languages.
- c. Click **Add**.

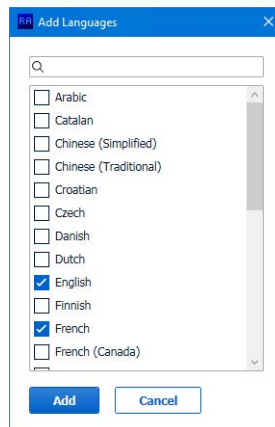
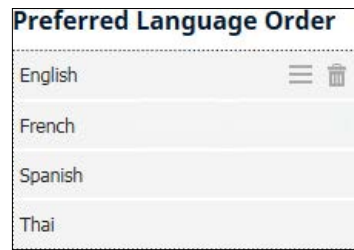


Figure 144. Add Language Dialog Box

The **Add Language** dialog closes and a list of the selected languages is shown.



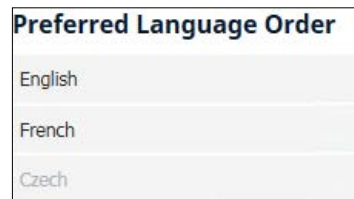
When you hover the mouse over one of your choices, you see the list and trash icons. You can click on the trash icon to remove the language from the list or click and drag the language to a different position in the list.

You can also show the language in Standard (black) font or Highlight color.

In the above example, the Wayfinding device displays information in **English**, then in **French**, then in **Spanish**, and finally in **Thai**, before beginning the cycle again.

- **Show two languages simultaneously**

If you select this radio button, the options are the same as **Show multiple languages, one at a time** but only the first two languages in the **Preferred Language Order** table are available. Any other languages added to the table are grayed out and unavailable unless they are moved into the top two.



In this example **English** and **French** are shown at the same time and **Czech** is not shown.

- **SOUND** — Set the Sound switch to **Off** or **On**. When it is set to on, pressing a button provides audible feedback. If it is set to off, there is no sound.

Select the check box next to the Wayfinding Device that you have just configured.

The top menu becomes available.

Click **Send Configuration**.

List Format

1. Design the Wayfinding display layout (see [Design Tab for Wayfinding \(List Format\)](#) on page 113).
2. Save the template.
3. Assign rooms to the required locations (see [Associating TLS Panels with a Wayfinding Device](#) on page 97).
4. In the **Configure** tab, select the check box in the **Status** column that is next to the Wayfinding Device that you are configuring.
5. Click in the **TEMPLATE** column for that Wayfinding Device.

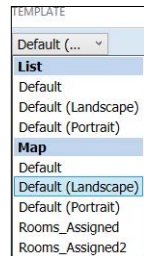


Figure 145. Wayfinding Device — Template Options

6. Select one of the templates shown under the **List** heading.
7. Click **Send Configuration**.

Map Format

1. Design the Wayfinding Device layout (see [Design Tab for Wayfinding \(Map\)](#) on page 121).
2. If required, create multiple maps to show multiple locations.
3. Assign rooms to the map (see [Add rooms to the map](#) on page 125).
4. Save the template.
5. In the **Configure** tab, select the check box in the **Status** column that is next to the Wayfinding Device that you are configuring.
6. Click in the **TEMPLATE** column for that Wayfinding Device.
7. Select one of the templates shown under the **Map** heading.
8. Click **Send Configuration**.

Associating TLS Panels with a Wayfinding Device

1. Click the hyperlink in the **TEMPLATE** column.

The **Select Rooms** dialog box opens:

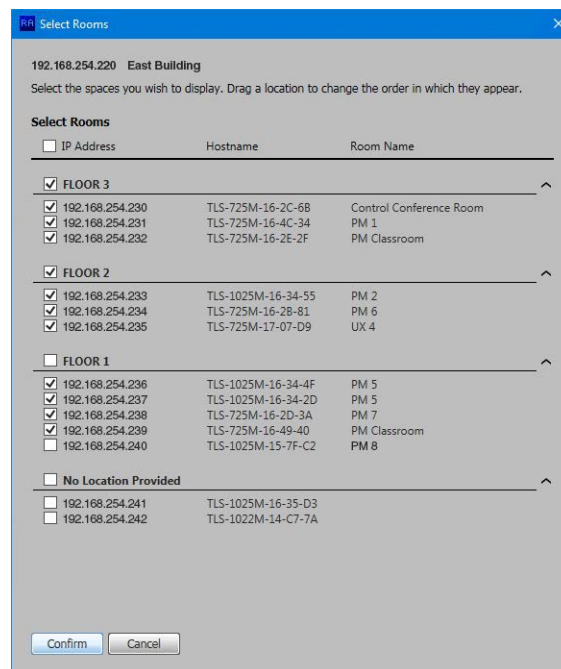


Figure 146. Select Rooms Dialog Box

The rooms are grouped by the location selected in the location column when configuring the individual rooms.

All the rooms from a single location are shown by the Wayfinding Device as a single group. For example the three rooms shown for the **FLOOR 3** location are listed together by the Wayfinding Device.

2. Select the rooms that are to be displayed by selecting the checkbox next to that room.
The first four rooms shown for the **FLOOR 1** location are listed together by the Wayfinding Device. The fifth room is not listed because the checkbox was not selected.
3. Click and drag the locations into the desired order.
The rooms for the first location in this list are shown on the first screen of the Wayfinding Device.
The rooms for the second location are shown on the second screen and so on.
4. Click **Confirm** to save the selection.

The TLSI 201 interface uses Room Agent software to obtain and collate scheduling information from individual touchscreens in the system and display that information on a large third-party touchscreen.

This provides a centralized display of real-time information about meeting space availability, status, and location. Users can locate and book meeting spaces for the day or week on an interactive grid or map with ease.

For more information about the TLSI 201, see the *TLSI 201 User Guide*, at www.extron.com.

Design Tab

The controls in the Design tab allow you to design and configure the appearance and function of the TLS panels and Wayfinding devices.

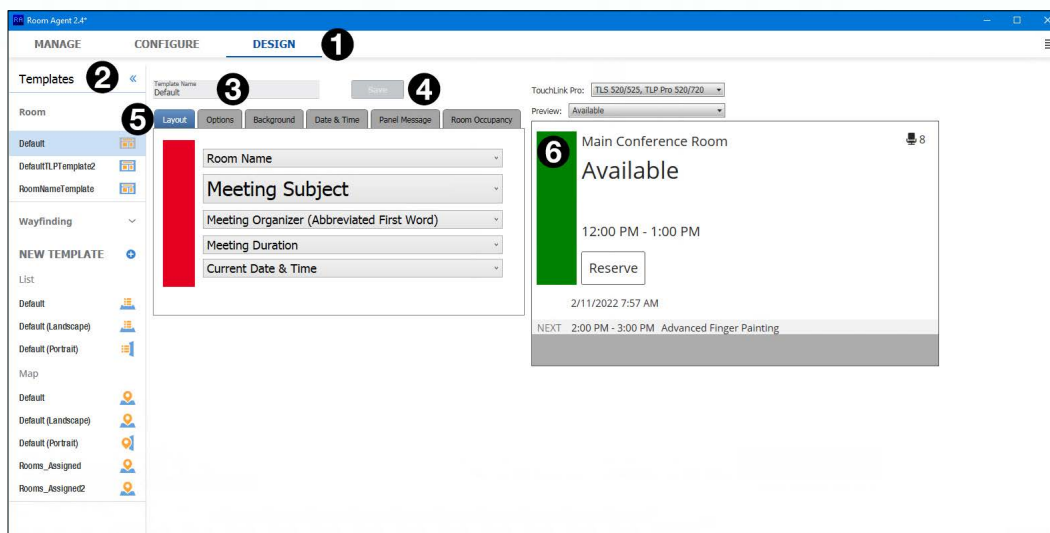


Figure 147. Design tab for TLS Panels

To configure the GUI for a touchpanel or Wayfinding Device:

1. Open Room Agent and click **Design** (see figure 147, **1**).
2. Use the **Templates** side bar (**2**) to find available templates for rooms and Wayfinding Devices. By default the **Design** tab opens with **Room** Templates selected.
The **Templates** side bar can be collapsed into the side of the window.
3. For more information about the **Design** tab go to the following sections:
 - [Design Tab for Rooms](#) on page 99
 - [Design Tab for Wayfinding \(List Format\)](#) on page 113
 - [Design Tab for Wayfinding \(Map\)](#) on page 121

Design Tab for Rooms

The controls in the **Design** tab (see figure 148, ❶) allow you to design and configure the graphical user interface (GUI) for each touchpanel.

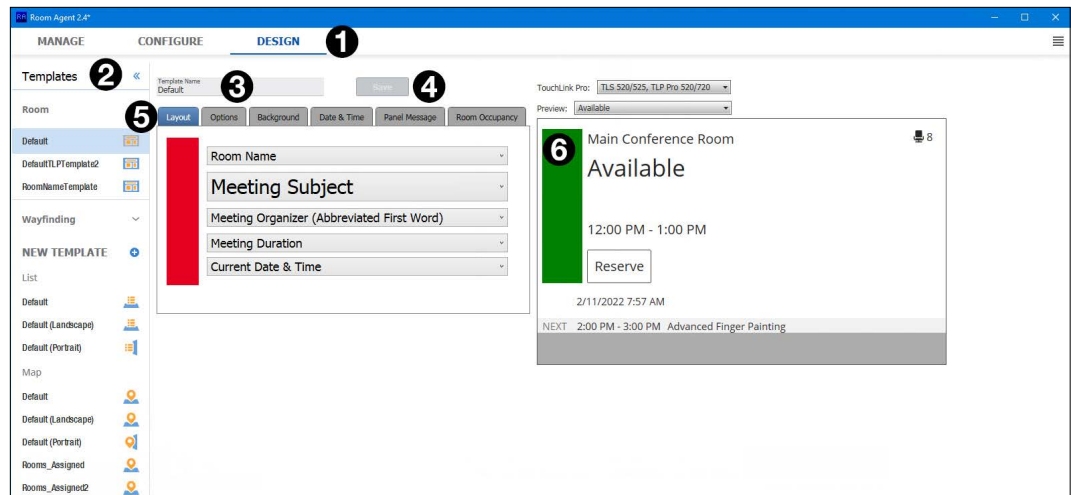


Figure 148. Design tab for TLS Panels

1. If required, select the **Design** tab.
2. Select **Templates** > **Room** in the sidebar on the left side of the screen (❷).

A list of available room templates opens. Initially there is only one template available, called DefaultTLPTemplate. As you create and save your own templates, they are added to this menu.
3. Select a template from the list. The name of the template that you selected appears in the **Template Name** text box (❸).
4. Save the template:
 - If you make changes to the existing template that you wish to save, click **Save** (❹). The template is saved with the same name, but incorporating the changes you made.
 - If you make changes to the template that you wish to save as a new template, type the new template name into the **Panel Template** text box and click **Save**. The new template is saved and the original template, without changes, is still available.
 - If you have retrieved a template, the name shown in the text box is grayed out (not selectable). Click **Save**. The name is shown in normal text and is listed in the **Templates** panel on the left of the screen.
5. Use the controls in any of the following **Design** tabs (❺) to configure the GUI appearance:
 - **Layout Tab**
 - **Options Tab**
 - **Background Tab**
 - **Date & Time Tab**
 - **Panel Message Tab**
 - **Room Occupancy Tab**
 - The **Preview Panel** allows you to see how the configuration affects the appearance of the different touchpanel screens.

Templates Pane

Templates allow you to create a number of customized panel appearances. Each panel in a system can have its own template, assigned on the **CONFIGURE** window. Select the templates on the **Templates** pane.

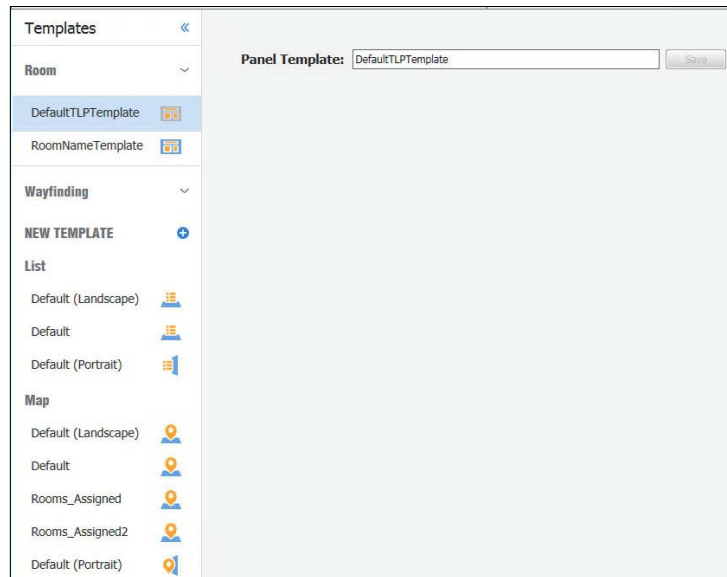


Figure 149. Templates Pane and Drop-down list

- To add a new template or rename an existing template:
 - Type a name in the **Panel Template:** field.
 - Click the **Save** button.
- To delete a template, move the mouse over the icon next to the template name in the Template list. The icon changes to a trash can. Click on the trash can and confirm that you wish to delete the template.
- To assign a saved template to a TLS panel, open the **Configure** tab and select the TLS panel. Click in the **Design** cell for that panel and select a template from the list.

Layout Tab

After you have chosen the Room template, use the **Layout** tab to assign values to the text boxes. Changes to the template are shown in the **Preview** pane (figure 150, 4, on page 101).

NOTES:

- When you select **Retrieve Template for Design** in the **Configure** tab (see **Sending and Retrieving Configurations** on page 89), the **Layout** tab opens to show the template that has been retrieved.
- When the tab opens, the name in the **Panel Template** text box (1) is unavailable, even if the name is in the Templates list in the panel on the left side of the window (2). Click **Save**. If a template of the same name is already available, you are asked if you want to overwrite the existing version with the downloaded version. If the template was not already available, it is added to the list. The name of the template in the **Panel Template** text box (1) is now available.

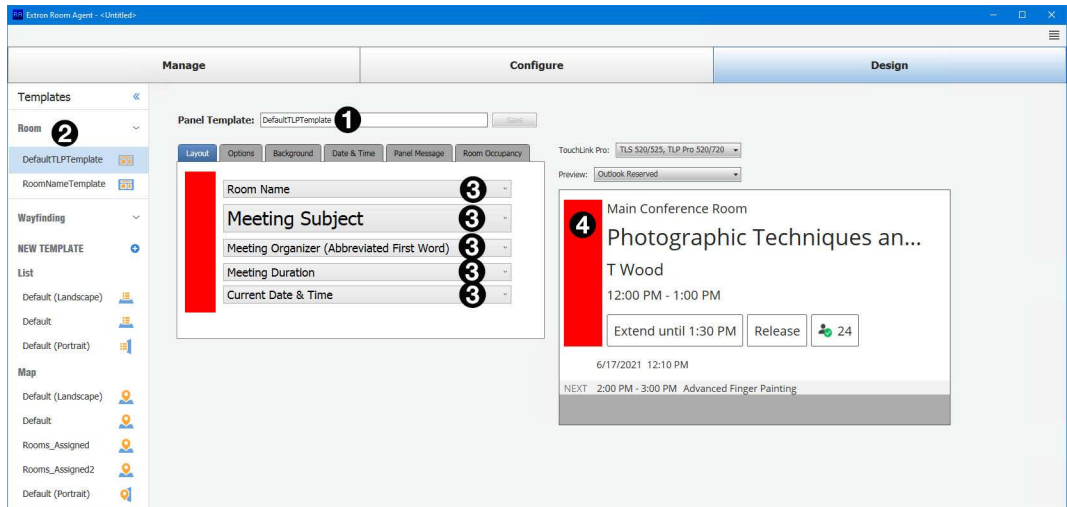


Figure 150. TLS Layout Tab

Several drop-down lists (3) allow you to select the text that the user sees in the corresponding box of the live screen.

The menu for each box offers the following options:

- **Room Name**
- **Meeting Organizer (Display Full Name)**
- **Organization**
- **Current Date & Time**
- **Current Time**
- ***Custom Field**
- **Meeting Subject**
- **Meeting Organizer (Abbreviated First Word)**
- **Meeting Duration**
- **Current Date**
- **Blank**

* This option is available only when Microsoft Exchange or Microsoft Office 365 is selected as the calendar type. It displays up to 50 characters from the body of the meeting invitation.

NOTES:

- Any line can be set to any of the values listed above. For example, you can switch **Meeting Subject** and **Room Name** so that **Meeting Subject** is in the first box and **Room Name** is underneath it.
- If no meeting has been booked, the **Meeting Subject** field is set to **Available** and the **Organizer** and **Duration** fields are blank.
- When you use Google, Microsoft Exchange, or Office 365 calendars, you can create private meetings. For these meetings, the subject title defaults to **Private Meeting** and the meeting organizer is hidden.

Options Tab

The **Options** tab (see figure 151, ❶) allows users to set options for:

- **Reserving and extending meetings**
- **Scheduling ad hoc meetings**
- **Enabling the calendar API**
- **Allow room release** if meeting called off or ends early
- **Show room capacity and attendees**
- **Enable PIN**
- **Allow check in to meeting**

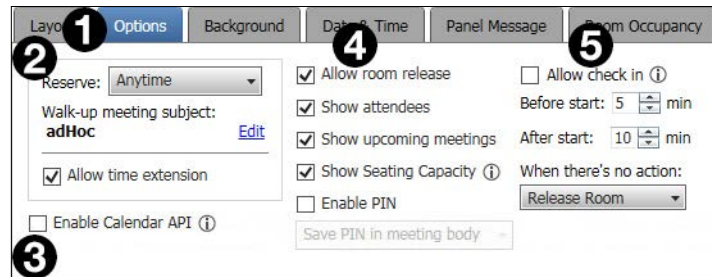


Figure 151. TLS Options Tab

1. Use the Reserve drop-down list (❷) to configure how the user can make reservations:

- **Anytime** – Any visible time slot that is open can be reserved by the walk-up user.

NOTE: Meeting notices cannot be sent for meetings booked by a walk-up user.

- **Current time only** – Only the currently available time slot can be reserved by the walk-up user.
- **Never** – No walk-up reservations are permitted.

2. Click **Edit** to open the **Walk-up meeting subject** dialog box.

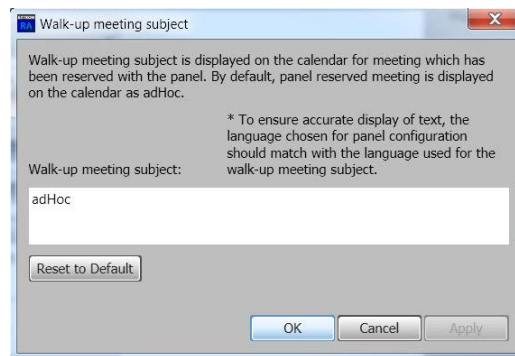


Figure 152. Walk-up Meeting Subject Dialog Box

3. Enter a **Walk-up meeting subject** and click **OK**. This is the text that appears in the **Meeting Subject** text box when a walk-up meeting is scheduled. It also appears as the **Meeting Subject** on the Wayfinding device.
4. Check the **Allow time extension** box (see figure 151) to allow the room reservation to be extended if the meeting goes beyond its scheduled time and the room is free. If this box is checked, the **Extend until** button appears on the panel. **Extend until** extends the reservation of a room in half-hour increments the room is free. The **Extend until** button does not appear if there is a conflict.

5. Check or uncheck the **Enable Calendar API checkbox** (see [figure 151](#), ③, on page 102). When the checkbox is selected, other Extron devices, such as IP Link Pro xi control processors, can access the Room Calendar information. The user password can be updated from the device **MANAGE** tab.

NOTE: This feature may require a firmware update. Please talk to your Extron Representative.

6. Several other options can be activated by selecting the appropriate check box (④). Check the **Allow room release** box to allow the user to release the room if the meeting is canceled or finishes early.
7. Check the **Show Attendees** box to allow meeting attendees to be seen. This feature is available with Google, Microsoft Exchange, and Microsoft Office 365 calendars. When the box is selected the **Show Attendees** icon is shown in the preview panel. When the touchpanel is configured, pressing the icon displays a list of all the participants in the meeting.
8. Check the **Show Upcoming Meetings** box to allow meetings following the current meeting to be seen.
9. Check the **Show Seating Capacity** box to display the seating capacity for the room. Click the information icon for additional information.
10. Check the **Enable PIN** box. When this feature is enabled, the TLS includes a 5-digit PIN in the meeting body. This PIN is used for checking in to meetings, releasing meetings, and creating ad hoc meetings.

From the drop-down menu, select either:

- **Save PIN in meeting body**
- **Save PIN in panel**

Save PIN in meeting body

This feature is only available when using Microsoft Office365, Microsoft Exchange, or Google Calendar.

When enabled, the user is prompted for a five-digit PIN anytime they attempt to Reserve, Extend, Check In, or Release the room.



The image shows a dialog box titled "Confirm Check In" with a close button (X) in the top right corner. Below the title is the instruction "Enter PIN". A numeric keypad is displayed with four rows of buttons: the first row contains 1, 2, and 3; the second row contains 4, 5, and 6; the third row contains 7, 8, and 9; and the fourth row contains an 'x' button, 0, and a right-pointing arrow (>).

Figure 153. Enter PIN

When creating an adhoc reservation, the user is prompted to create their PIN. This PIN is saved to the meeting body as shown in the figures below.

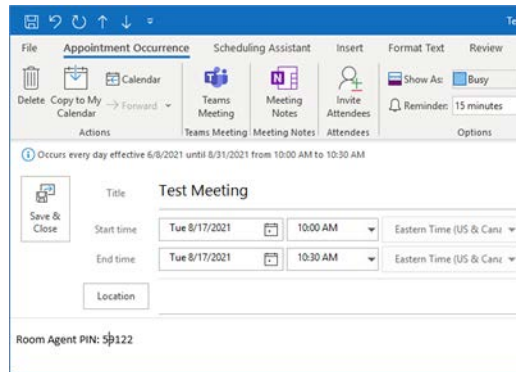


Figure 154. PIN saved for Office 365

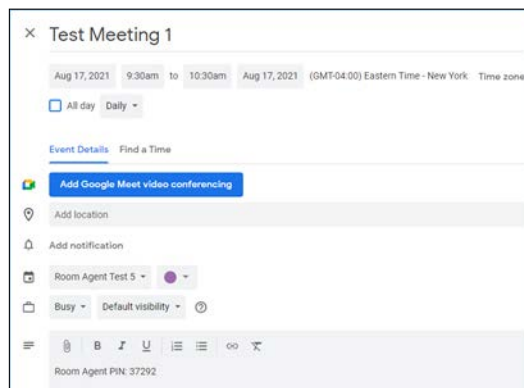


Figure 155. PIN saved for Google Calendar

If a meeting is created on the calendar server, the TLS inserts a random PIN into the first line of the meeting body.

Any existing content remains intact, below the first line. If the user forgets the PIN or wants to change the PIN, they view or change it inside the calendar server interface.

Save PIN in panel

This feature works the same as “Save PIN in Meeting Body” but it does not modify the meeting body. The PIN is stored in the TLS memory only.

11. Check the **Allow check in** box (see [figure 151](#), [5](#), on page 102) to allow meetings that have been booked in advance to be confirmed and to release the room if nobody confirms within a certain time of the scheduled meeting start.

If this box is checked, a **Check in** button appears on the panel for a scheduled meeting. The button disappears from a panel once it is pressed.

Click the information icon for additional information.

By allowing check in, a check in button will display on the panel for scheduled meeting. Check in button will disappear from panel once it has been pressed.

Before start represents how many minutes check in button will display before the scheduled start of the meeting.

After start represents how many minutes the check in button will display after the scheduled start of the meeting.

When no action has been taken on check in button within scheduled display time:

- Releasing room** will release the room
- Hide check in** will hide the check in button
- Do not hide check in** will continue to display the check in button until it is pressed

Figure 156. Check In Information Box

Background Tab

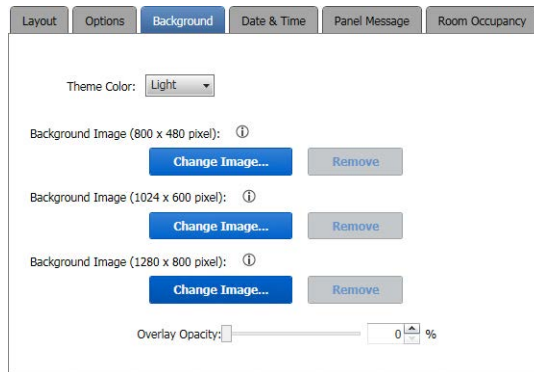


Figure 157. Background Tab – Light Theme

The **Background** tab allows you to configure the background of the touchpanel GUI.

1. Select the theme color from the Theme Color drop-down menu. The options are:

- **Light**
 - Buttons are white.
 - Fonts are black.
 - Background is white.
 - When the background image is loaded, the opacity overlay is white.
- **Dark**
 - Buttons are dark gray with a white border.
 - Fonts are white.
 - Background is dark gray.
 - When the background image is loaded, the opacity overlay is dark gray.

2. Click the **Change Image** button that corresponds to the resolution of your touchscreen, to select a background image, or remove the image if one has been previously selected. Click on the information symbol (i) to open a popup box with information about the images that can be used. The exact information depends on which touchpanel is being used:

- Group A (TLS 1025)

Room Agent supports 1280 x 800 JPEG and PNG background images for the following TouchLink Pro Touchpanels:
- TLS 1025

Background image will be displayed in 8-bit color.

Figure 158. Background Image Information for 1280x800 TLS Panels

- Group B (TLS 725 and TLS 1022)

Room Agent supports 1024 x 600 JPEG and PNG background images for the following TouchLink Pro Touchpanels:
- TLS 725
- TLS 1022

Background image will be displayed in 8-bit color.

Figure 159. Background Image Information for 1024x600 TLS Panels

- Group C (TLS 520, TLS 525, TLP Pro 520, and TLP Pro 720)

Room Agent supports 800 x 480 JPEG and PNG background images for the following TouchLink Pro Touchpanels:
- TLS 520
- TLS 525
- TLP Pro 520
- TLP Pro 720

Background image will be displayed in 8-bit color.

Figure 160. Background Image Information for 800x480 TLS Panels

3. Set the overlay opacity with the **OverLay Opacity** slider or text box see **figure 157** on page 105).

NOTE: Take great care in selecting and configuring the background image. Using an unsuitable image can make the text placed over the image difficult to read. For a complete guide to configuring the background image, see *Extron Room Agent Background Images Hints and Tips*, which is available at www.extron.com. Some of the key points are listed here:

- Images must be correct resolution for the touchpanel being configured.
- Images must be in JPEG, JPG, PNG, or SVG format, with 8 bit colors.
- Avoid using images that have vertical or horizontal lines.
- Avoid using images that have a great variety of colors.
- Avoid using images that have areas of sharp contrast between light and dark
- Extron recommends setting the overlay opacity higher than 70% (to make the image lighter, if theme color was set to Light, or darker, if theme color was set to Dark).

Date & Time Tab

The **Date & Time** tab (1) allows you to configure the date and time displayed in the TLS panels.

Layout Options Background **Date & Time** Panel Message Room Occupancy

1

2 Time Format
Time: 12-Hour

3 Room Availability Format
Start time: 6:00 AM
End time: 9:00 PM (15 hours)

4 Date Format
 Short date: M/d/yyyy
 Long date: dd MMMM, yyyy

What the notations mean:
d, dd = day; ddd, dddd = day of week; M = month; y = year

Figure 161. TLS Panels – Date & Time Tab

1. Select the **Time** format (2). The options are **12-Hour**, **24-Hour US**, or **24-Hour International**.
2. Select the **Room Availability** formats from the **Start time** and **End time** menus (3).
3. Select either the **Short date** or **Long date** radio button (4) and then select an option from the drop-down menus.

NOTE: The abbreviations used below have the following meanings:

- d is a single or double digit representation of the day of the month: 1, 2, 3... 31
- dd is a double digit representation of the day of the month: 01, 02, 03... 31
- dddd is the day of the week: Sunday, Monday, Tuesday... Saturday
- M is a single or double digit representation of the month: 1, 2, 3... 12
- MM is a double digit representation of the month: 01, 02, 03... 12
- MMM is a three-character abbreviation for the month: Jan, Feb, Mar... Dec
- MMMM is the complete name of the month: January, February, March... December
- yy abbreviates the year to two digits: 2015 is shown as 15
- yyyy shows the year in four digits: 2015 is shown as 2015

The options are shown below along with how they display Friday, January 02, 2015:

If **Short** date is selected, the options are:

- M/d/yyyy (1/2/2015)
- M/d/yy (1/2/15)
- MM/dd/yy (01/02/15)
- MM/dd/yyyy (01/02/2015)
- yy/MM/dd (15/01/02)
- yyyy-MM-dd (2015-01-02)
- dd-MMM-yy (02-Jan-15)

If **Long** date is selected, the options are:

- dddd, MMMM dd, yyyy (Friday, January 02, 2015)
- MMMM dd, yyyy (January 02, 2015)
- dddd, dd MMMM, yyyy (Friday, 02 January, 2015)
- dd MMMM, yyyy (02 January, 2015)

Panel Message Tab

By default, if the panel is not connected to a calendar server, the **Today's Availability** screen displays a message stating **This panel device currently has no connection with the calendar server**.

The **Panel Message** tab (❶) allows the user to edit the message (❷), which can be viewed in the **Preview** panel.

You can also return to the default message by pressing **Reset to Default** (❸), or remove the message by pressing **Clear All** (❹).

The screenshot shows the 'Panel Message' tab selected in a configuration menu. The menu includes 'Layout', 'Options', 'Background', 'Date & Time', 'Panel Message' (highlighted with a circled 1), and 'Room Occupancy'. The main content area contains a text box with the default message: 'This panel device currently has no connection with the calendar server.' Above the text box is a note: '* To ensure accurate display of text, the language chosen for panel configuration should match with the language used for the message.' Below the text box are two buttons: 'Reset to Default' (marked with a circled 3) and 'Clear All' (marked with a circled 4). A circled 2 is placed over the text box to indicate where the message can be edited.

Figure 162. TLS Panels — Panel Message Tab

Room Occupancy Tab

The screenshot shows the 'Room Occupancy' tab selected in a configuration menu. The menu includes 'Layout', 'Options', 'Background', 'Date & Time', 'Panel Message', and 'Room Occupancy' (highlighted with a circled 1). The main content area contains several settings: a checkbox for 'Allow room occupancy sensor for meeting' (marked with a circled 2), a 'Disable sensor for meetings over' field set to 'N/A' hours, a 'When room is inactive for' field set to 'N/A' minutes, and a dropdown menu for 'Take no action'. Below these is a 'Sensor Output Type' section (marked with a circled 3) with three radio button options: 'Control' (selected), 'Relay - NC (Normally Closed)', and 'Relay - NO (Normally Open)'.

Figure 163. TLS Panels — Room Occupancy Tab

Use the **Room Occupancy** tab (❶) to:

- **Allow room occupancy sensor for meeting** (❷). If this option is selected, other options become available:

You can disable the sensor for meetings lasting longer than a user-defined period.

When the room is inactive for a user-defined period, you can select **Take no action** or **Release room**.

- Choose a **Sensor Output Type** (❸).

NOTE: At present, this feature works only with the TLS 520M series, TLS 525M series, TLS 725M series, and TLS 1025M series TLS panels as other TLS panels do not have the digital I/O connectors needed to connect the OCS 100 Occupancy Sensors

To wire the occupancy sensor, see the diagram on the following page and select the corresponding radio button in the **Room Occupancy** tab.

NOTE: The diagrams below show only the configuration of the control connections. They do not show power to the sensors or the touchpanels.

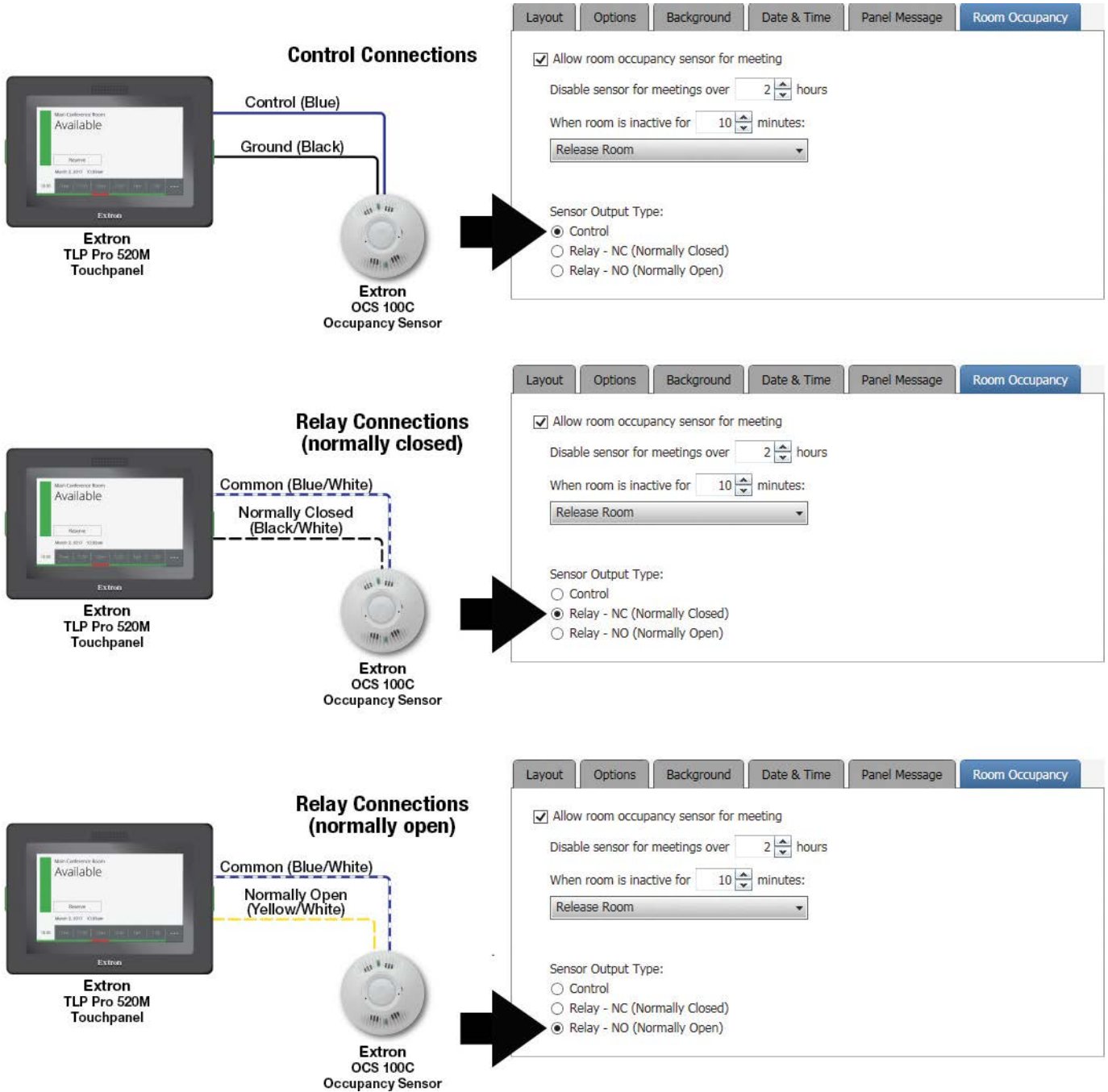


Figure 164. Connecting Room Sensor to TLS Panel

NOTE: Wire colors may be different, depending on the occupancy sensor model.

Preview Panel

The Preview panel allows you to preview how the user screens appear after configuration.

NOTE: The preview pane contains hardcoded, **sample**, entries. The layout and appearance of this pane change to reflect changes in the design pane, but, other than the date and time, the contents, such as “Main Conference Room”, do not change.

Select the touchpanel model from the TouchLink Pro menu (1), to preview at the correct resolution.

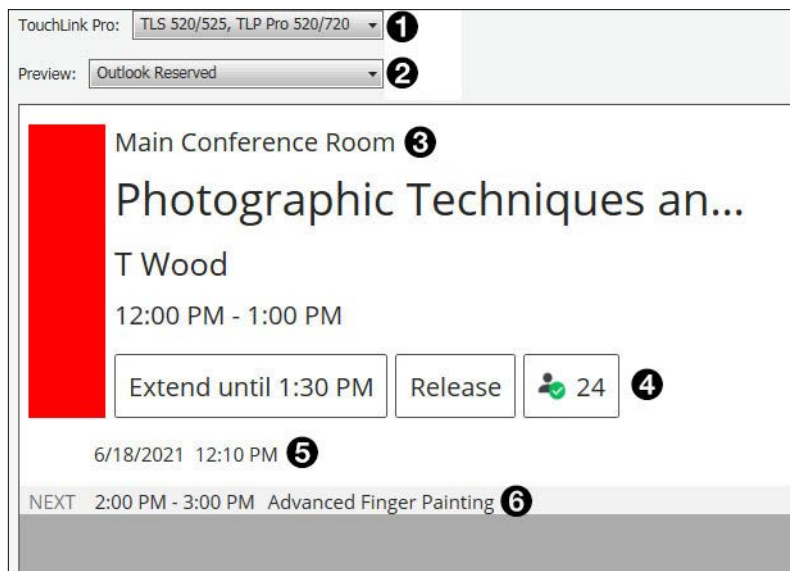


Figure 165. TLS Panels – Preview Panel

Use the Preview drop-down list (2) to select which of the seven user screens to preview. The choices are:

- Available
- Outlook Reserved
- Confirm Release
- Future Reservation
- Future Availability
- Today’s Availability (No Connection)
- Walk Up Reserved

The Preview screen shows the information selected in the **Layout** tab (3), **Options** tab (4), **Date & Time** tab (5), and a preview of the next meeting (6).

NOTES:

- If **Anytime** or **Current** is selected in the **Layout** tab (see figure 166, ❶), the **Walk Up Reserved** screen is available for preview (❷).
- If **Never** is selected in the **Layout** tab (❸), the **Walk Up Reserved** screen is not available for preview (❹).
- If the **Allow room release** checkbox is not checked, then the **Confirm Release** screen is not available for preview.

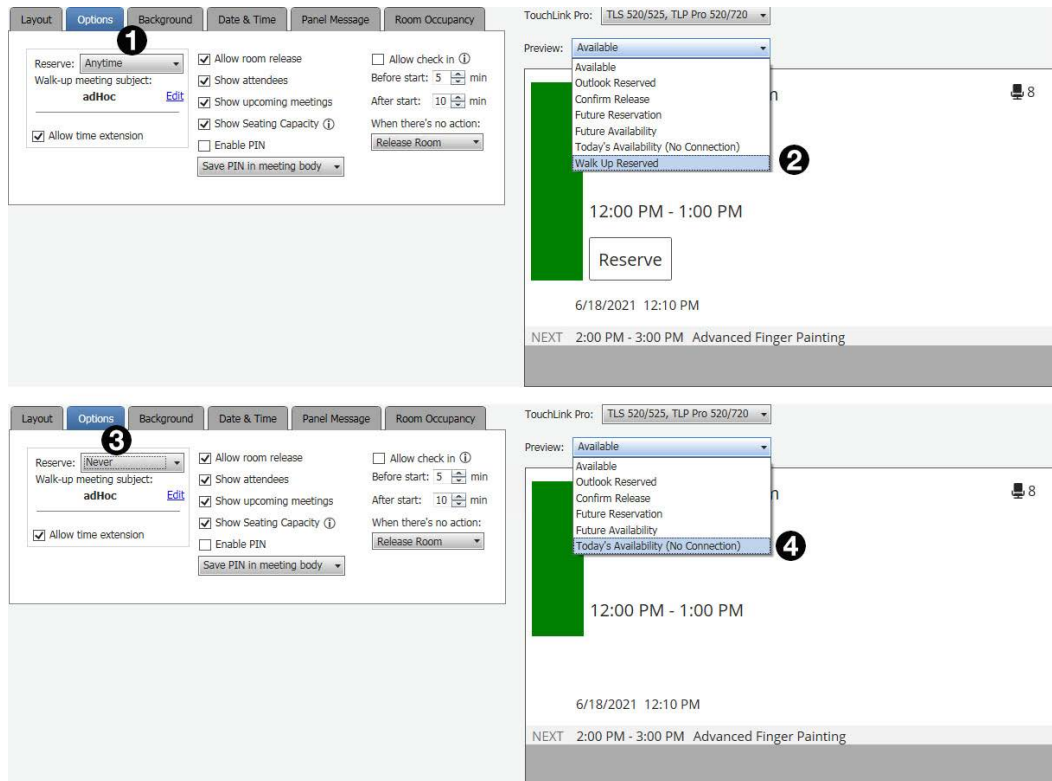


Figure 166. TLS Panels Preview Screen Options — Reserve Anytime or Never

The screen above shows the **Room Available** screen using the configuration options shown in the screen captures of the **Layout**, **Options**, **Background**, and **Date & Time** tabs.

Design Tab for Wayfinding (List Format)

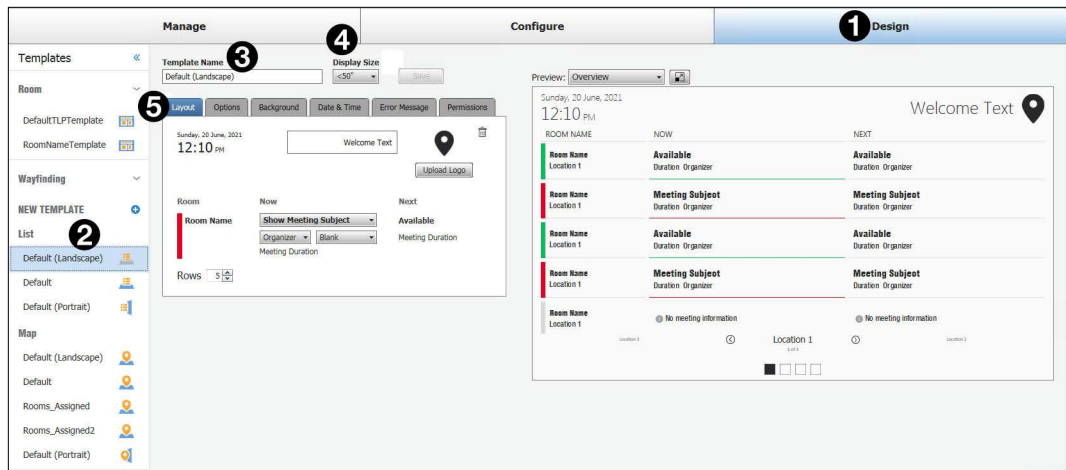


Figure 167. Design Tab – Wayfinding Device (List Format)

1. Click **Design** (1).
2. Click **Default (Landscape)** (2) in the templates list. The template opens with the **Layout** tab (5) shown.
 There are four default templates for the Wayfinding devices. Information is presented as a List, in portrait or landscape orientation, or as a map (see [Design Tab for Wayfinding \(Map\)](#) on page 121), in portrait or landscape orientation.
3. If you modify the default template you can save it with the same name to overwrite the default template. Or you can save it with a new name by entering the new name in the Template Name textbox (3) and clicking **Save**.
 Once it is saved, the new template becomes available in the **Wayfinding > List** templates.
4. Select the **Display Size** (4). The options are **<50"**, **50"-59"**, and **>59"**. This option is available with all the tabs in all the Wayfinding templates.
5. Use the pane on the left of the screen to modify the display. Preview the modifications in the pane on the right of the screen.

There are six tabs available to modify the appearance of the Wayfinding List:

- **Layout tab**
- **Options**
- **Background**
- **Date & Time**
- **Error Message**
- **Permissions**
- There is also a **Preview Pane** to show the effect of the modifications.

Layout tab

Figure 168. Wayfinding Devices – Layout Tab

1. Click the Layout tab.
The time and date (1) are read only.
2. Enter **Welcome Text** (2), which is displayed on the Wayfinding Device screen.
3. Click **Upload Logo** (3) to place the logo of your organization on the Wayfinding Device screen.
4. Navigate to the folder where your logo is stored and upload it. The logo must be in .bmp, .jpeg, .jpg, .png, or .svg format. The maximum size is 112 pixels (H) x 258 pixels (W).
5. The **Room Name** (4) is the name of the individual panel that was provided during room configuration.
6. The current status of each room can be configured to show:
 - **Meeting subject** — select **Show Meeting Subject** to display the **Meeting subject** retrieved from the individual panel. Select **Hide Meeting Subject** to leave the field blank.
 - **Organizer** — select **Organizer** to display the **Meeting Organizer** retrieved from the individual panel. Select **Blank** to leave the field blank.
 - **Organization** — select **Organization** to display the **organization** retrieved from the individual panel. **Select** Blank to leave the field blank.
 - The status of the room during 30-minute period immediately after the current session is also shown.
7. Adjust the number of rows displayed on each screen (5). The default number depends on the screen resolution and whether the screen is in landscape or portrait orientation. If the number of rows exceeds the number recommended by the Americans with Disabilities Act (ADA), a warning message appears (6), although you are still able to adjust the setting.

Changes in the layout can be seen in the **Preview Pane** (see page 118).

Options

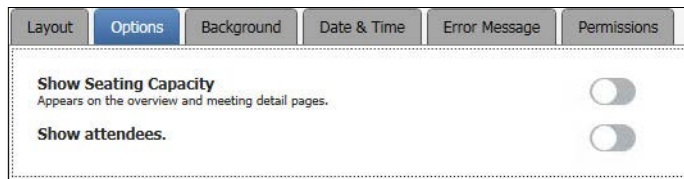


Figure 169. Wayfinding Devices – Options Tab

The **Options** tab allows you to toggle between:

- **Show** or **Hide** room Seating Capacity.
- **Show** or **Hide** a list of Attendees.

Background

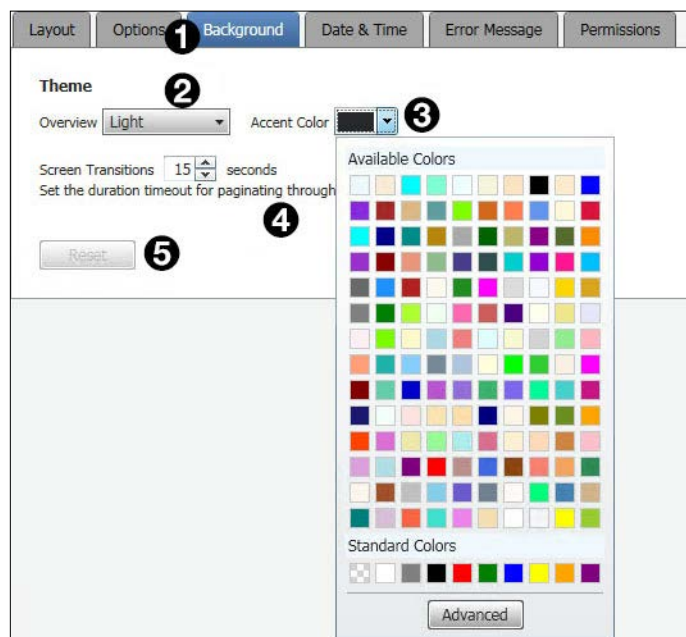


Figure 170. Wayfinding Devices – Background Tab

1. Click **Background** (1).
2. Select the **Overview** theme color (2). The choices are **Light** or **Dark**.
3. Select the **Accent Color** (3).
You can choose from the **Available Colors** or click **Advanced** to create your own color.
4. Set the **Screen Transitions** time (4). When multiple pages are displayed as a slide show, this determines how long each screen is displayed.
5. If changes are made, the **Reset** button (5) becomes available to restore the settings to the previously saved version.

Changes in the layout can be seen in the **Preview Pane** (see page 118).

Date & Time

The screenshot shows a configuration window with several tabs: Layout, Options, Background, Date & Time (selected), Error Message, and Permissions. The 'Date & Time' tab contains the following elements:

- Time Format:** A dropdown menu currently set to '12-Hour'.
- Date Format:** A section with a legend 'd, dd = day; ddd, dddd = day of week; M = month; y = year' and two radio buttons: 'Short Date' (selected) and 'Long Date'.
- Header:** A dropdown menu showing 'MM/dd/yy'.
- Room:** A dropdown menu showing 'MM/dd/yy'.
- Calendar:** A section with the text 'The device will display up to 7 days of information'.

Figure 171. Wayfinding Devices – Date & Time Tab

1. Click **Date & Time** tab (❶).
2. Select the **Time Format** (❷). The choices are
 - **12-Hour**
 - **24-Hour US**
 - **24-Hour International**
3. Select either the **Short Date** or **Long Date** radio button for the time format used in the Wayfinding Device Header (❸). The time format associated with the individual rooms must be in one of the **Short Date** formats (❹). The options for each drop-down list are:

Header Short Date

- M/d/yyyy — for example: 5/20/2020
- M/d/yy — for example: 5/20/20
- MM/dd/yy — for example: 05/20/20
- MM/dd/yyyy — for example: 05/20/2020
- yy/MM/dd — for example: 20/05/20
- yyyy-MM-dd — for example: 2020-05-20
- dd-MMM-yy — for example: 20-May-20

Header Long Date

- dd MMM, yyyy — for example: 20 May, 2020
- dddd, dd MMM, yyyy — for example: Wednesday, 20 May, 2020
- dddd, MMM dd, yyyy — for example: Wednesday, May 20, 2020
- MMM dd, yyyy — for example: May 20, 2020

Room Short Date

- M/d/yyyy — for example: 5/20/2020
- M/d/yy — for example: 5/20/20
- MM/dd/yy — for example: 05/20/20
- MM/dd/yyyy — for example: 05/20/2020
- yy/MM/dd — for example: 20/05/20
- yyyy-MM-dd — for example: 2020-05-20
- dd-MMM-yy — for example: 20-May-20

Changes in the layout can be seen in the [Preview Pane](#) (see page 118).

Error Message

Layout Options Background Date & Time **Error Message** Permissions

Panel Disconnected
If a panel goes offline, this message will appear in place of the meeting's subject.
No meeting information

Wayfinding Device Disconnected
This error message is displayed when there is no connection to the Wayfinding Device
We are unable to connect to this device

Reset to Default

Figure 172. Wayfinding Devices — Error Message Tab

You can customize the messages that are displayed when one of the individual room panels goes offline (**Panel Disconnected** message) or when the Wayfinding Device is disconnected (**Wayfinding Device Disconnected** message).

The default messages are shown in the image above. When you make changes to either message, the **Reset to Default** button becomes available, allowing you to discard any changes you have made.

Changes in the layout can be seen in the [Preview Pane](#) (see page 118).

Permissions

Layout Options Background Date & Time Error Message **Permissions**

Permissions

Enable Touch Interactions

Allow Room Management
Uses TLS permissions for Reserving, Releasing, Check-In and Extending meetings.

Reset to Default

Figure 173. Wayfinding Devices — Permissions Tab

This tab allows you to **Enable Touch Interactions** and **Allow Room Management**.

By default, both options are enabled.

NOTE: Room management requires to touch interactions to be enabled. If **Enable Touch Interactions** is not selected, **Allow Room Management** is unavailable for selection.

Preview Pane

The right pane shows previews of various screens that are available. Use the drop-down list to select the preview you wish to view. The options are:

- **Overview**
- **Available Space**
- **Reserved Space**
- **Weekly view**
- **Device Offline**

Overview

This view lists all the rooms, in order. If there are too many rooms to be seen on a single screen, you can move between screens by pressing the right and left arrows at the bottom of the screen.

The rooms can be listed in landscape or portrait orientations.

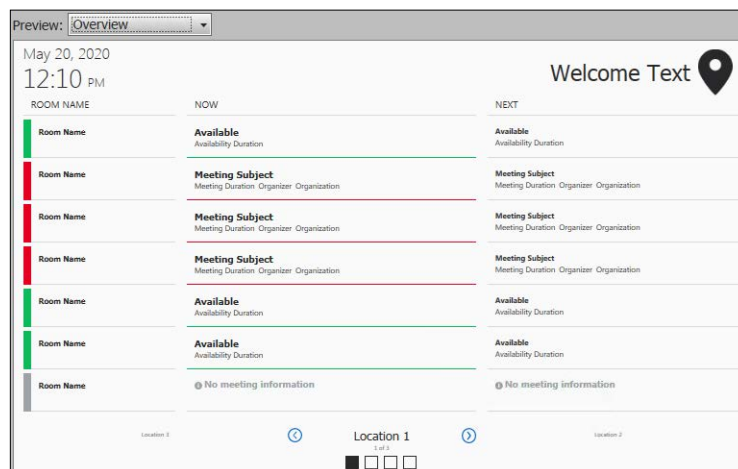


Figure 174. Wayfinding Device List – Landscape View

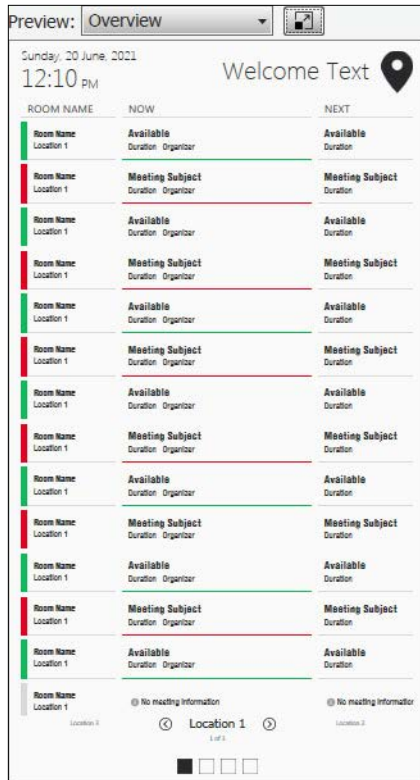


Figure 175. Wayfinding Device List – Portrait View

- A green bar indicates the room is currently available. Information about the next meeting is also shown.
- A red bar indicates the room is currently occupied. Information about the next meeting is also shown.
- A gray bar indicates the room is offline and information is not available.

Available Space

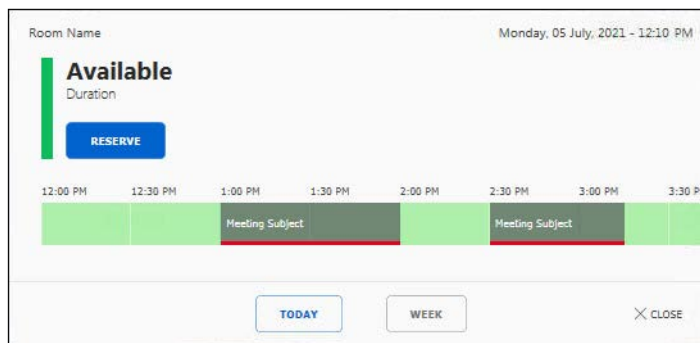


Figure 176. Wayfinding Device List – Available Space

Press one of the available rooms listed in the overview screen.

The time-line for that room shows when it is available (green bar) or occupied (red bar).

The default view shows the meetings for that day for four hours from the current time. To see the room availability for the entire week, press **Week**.

To reserve the room, press one of the buttons with a green bar to select a period when the room is free and then press **Reserve**.

Reserved Space

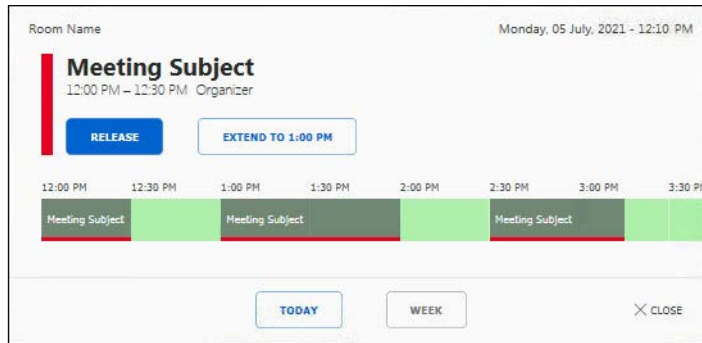


Figure 177. Wayfinding Device List – Reserved Space

In the overview, press the room that has been reserved for the meeting.

The time-line shows when the room is available (green bar) or occupied (red bar).

The default view shows the meetings for that day for four hours from the current time. To see the room availability for the entire week, press **Week**.

If the **Check In** feature has been configured in advance, a **Check In** button is available.

Press **Check In**. The room is prepared automatically for the meeting: blinds can be closed, lights can be dimmed, as required, computers and projectors can be turned on.

The meeting shown in the figure above is scheduled to finish at 12:30 pm. If the meeting is running later than expected and the room is available during the next time slot (12:30 to 1:00 pm), press **Extend to 1:00 PM** to reserve the room for an additional 30 minutes.

If the meeting finished early, press **Release**. This makes the room available for other users.

NOTE: These options require the individual room panels to have the Allow check in, Allow time extension, and Allow room release options selected in the Rooms Layout Tab.

Weekly view

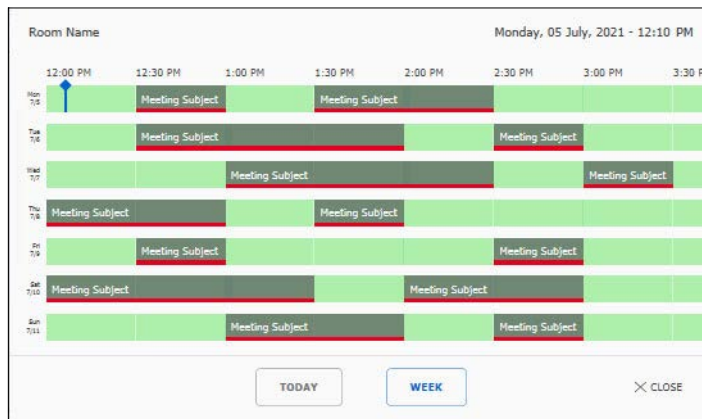


Figure 178. Wayfinding Device List – Weekly View

The Weekly view shows room availability, 24 hours each day, for the next seven days, starting with the current day.

Device Offline

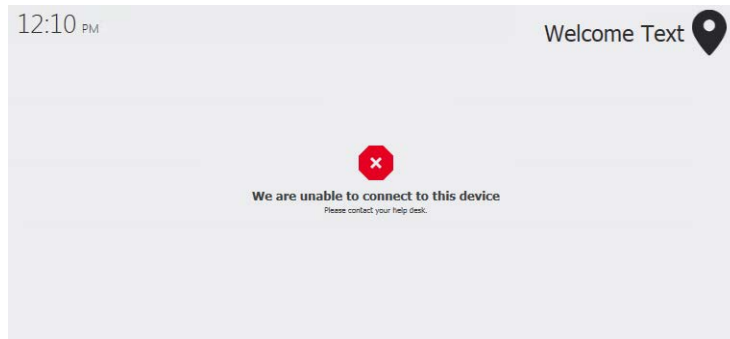


Figure 179. Wayfinding Device List – Device Offline Preview

This message is displayed if the Wayfinding device is offline.

The message above is the default message. It can be changed in the **Error Message** tab on page 117.

Design Tab for Wayfinding (Map)

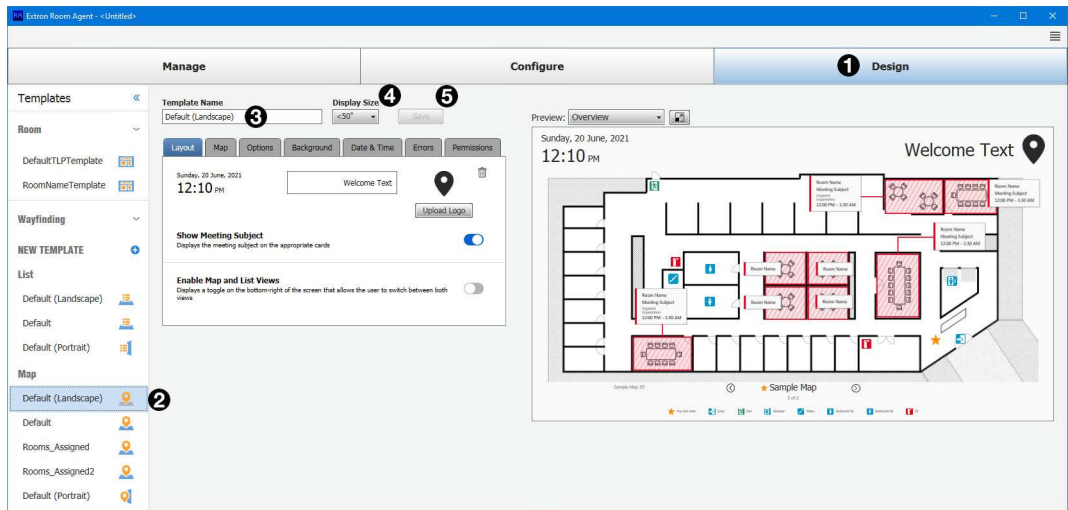


Figure 180. Design Tab – Wayfinding Device (Map Format)

1. Select the **Design** tab (1).
2. Select one of the **Wayfinding > Map** templates (2). The map can be displayed in landscape or portrait orientation, depending on which template you choose.
3. Select the display size (4). The options are <50", 50"-59", and >59".
4. Use the pane on the left of the screen to modify the display and see a preview of the modifications in the pane on the right of the screen.

If you modify the default template you can save it with the same name to overwrite the default template. Or you can save it with a new name by entering a new name in the **Template Name** text box (3) and clicking **Save** (5). Once it is saved, the new template becomes available in the **Wayfinding > Map** templates.

5. Use the pane on the left of the screen to modify the display. The **Design** tab has seven subsections that are accessed by tabs:

- **Layout**
- **Map**
- **Options**
- **Background**
- **Date & Time**
- **Errors**
- **Permissions**

Any changes to the screens can be previewed in the **Preview Panel** (see page 130) on the right side of the screen.

Layout

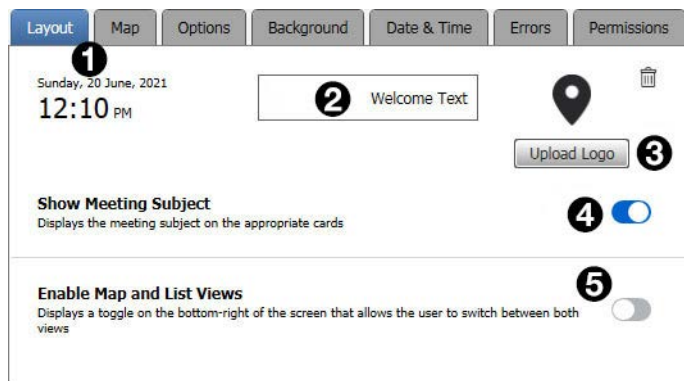


Figure 181. Wayfinding Devices – Layout Tab

1. Click the **Layout** tab (1).
The date and time are read-only.
2. Enter **Welcome Text** (2), which is displayed on the Wayfinding Device screen.
3. Click **Upload Logo** (3) to place the logo of your organization on the Wayfinding Device screen.
4. Navigate to the folder where your logo is stored and upload it. The logo must be in .bmp, .jpeg, .jpg, .png, or .svg format. The maximum size is 112 pixels (H) x 258 pixels (W).
5. To display the meeting subject with a room, toggle the **Show Meeting Subject** (4) switch to the **on** position. In the map format, the space available for each room can be quite small and omitting the meeting subject can save space.
6. To enable the Wayfinder display to be toggled between map and list views, set **Enable Map and List Views** (5) to the **on** position.

When this is set to **on**, the panel expands, allowing you to provide meeting details for the list view.

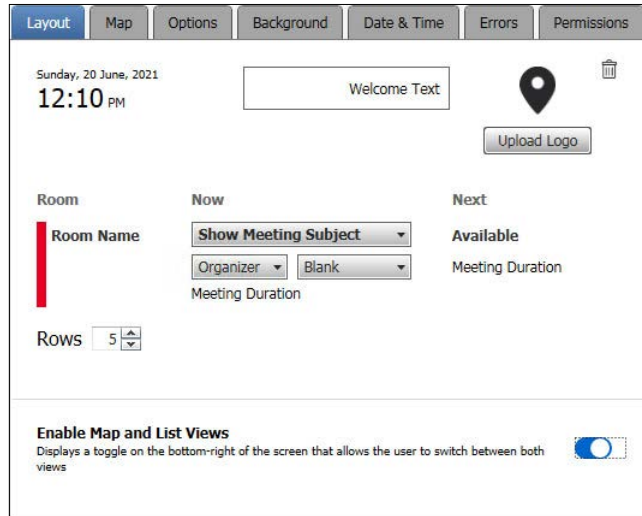


Figure 182. Wayfinding Devices — Layout Tab expanded

When **Enable Map and List Views** is set to **on**, a toggle switch is shown in the bottom right corner of the map and list views, allowing the viewer to toggle between the two views.

7. Adjust the number of rows displayed on each screen. The default number depends on the screen resolution and whether the screen is in landscape or portrait orientation. If the number of rows exceeds the number recommended by the Americans with Disabilities Act (ADA), a warning message appears, although you are still able to adjust the setting.

Changes in the layout can be seen in the [Preview Panel](#) (see page 130).

Map

Room Agent provides two sample maps (2) that you can practice on. There is a standard 2D view:



Figure 183. Default Map – 2D

There is also a 3D view:

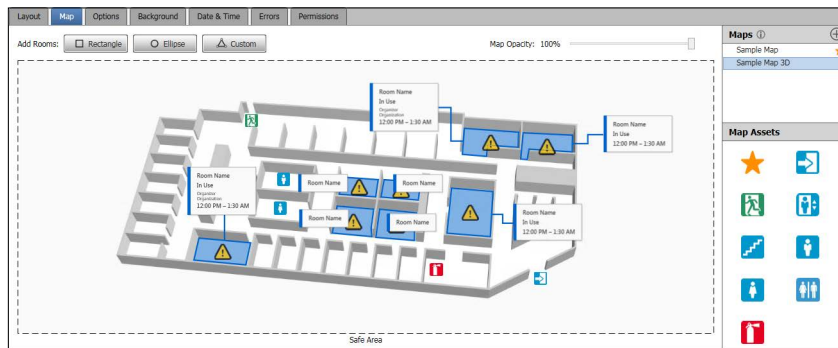


Figure 184. Default Map – 3D

1. To upload your own map, click the + symbol in the top right corner of the Maps panel.

The Add New Map dialog box opens:

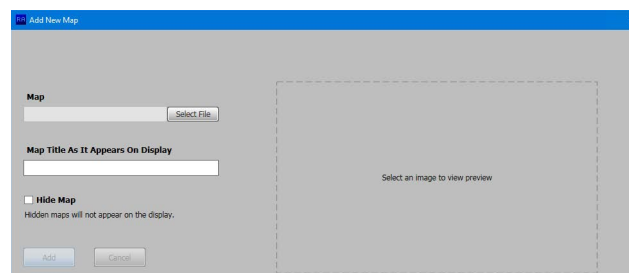


Figure 185. Add New Map Dialog Box

2. Click **Select File** and browse to the location where the map is stored. The map must be .jpeg, .png, .bmp, or .svg format.
3. Enter a Map Title.
4. If required, select the **Hide Map** check box. This can be used if your map is still a work in progress and not ready to be displayed on the screen.
5. Click **Add** to make the map available to Room Agent. The map is now added to the list of available maps.

NOTE: When you select **Hide Map**, and then **Add**, the map is available for you to work on but is not shown until the **Hide Map** check box is no longer selected.

Add rooms to the map

1. Select a shape from the **Add rooms** choices (see [figure 183](#), ❶, on page 124). The choices are **Rectangle**, **Ellipse**, and **Custom**.
2. Click and drag on a space on the map to create an outline to your room (rectangle or ellipse).
3. To create a custom room, move the mouse and click on each corner. Complete the shape by clicking on the first corner again.

When the shape is complete (rectangle, ellipse, or custom) the **Room Properties** dialog box opens, showing the new room:

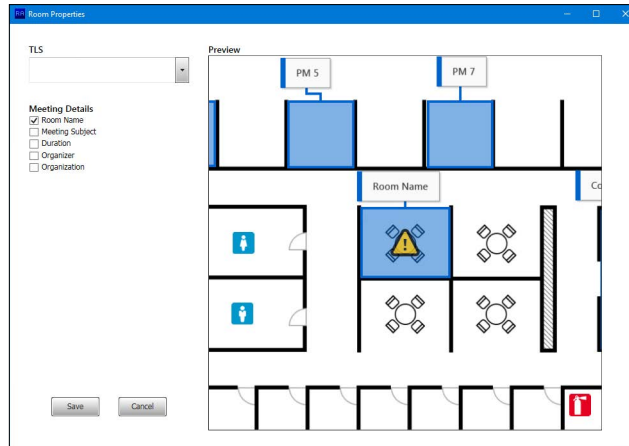


Figure 186. Room Properties Dialog Box

4. Until a room has been assigned to the shape, the associated information box is labelled **Room Name** and the shape has the yellow and black warning sign. Once you assign a room, that name appears in the information box and the warning sign disappears.

NOTE: When you select a room, it is not removed from the TLS list. Be careful not to assign the same room to two different locations.

5. Click the TLS dropdown list. This contains a list of all the room panels that have not been associated with a room on the map.
6. Select a room from this list.
7. Check the meeting details that you want to appear on the room label. The options are:
 - Room Name
 - Meeting Subject
 - Duration
 - Organizer
 - Organization
8. Click **Save** to save the room properties.
The room still appears on the map if you click **Cancel**.
9. To remove the room, right click on the shape and select **Delete** from the pop-up menu.
If you save a touchpanel room to the new map room, the name of the touchpanel room and any information you selected in steps 5-8 are shown on the map.

10. Add map assets as required by clicking on an icon in the **Map Assets** pane and dragging it to its place on the map. The assets are:
 - You are here (yellow star). This is also the position of the Wayfinding Device.
 - Building entrance and exit
 - Fire escape
 - Fire extinguisher
 - Elevator
 - Stairs
 - Rest rooms
11. To save your changes, enter a name in the **Template Name** text box and click **Save**.
12. After saving the template, you must return to **Configure** tab to save the configuration.

Duplicate Maps

If you have two or more floors of the same building with the same room layout, you can duplicate a map and assign the appropriate rooms to each version.

For example, each version of the map can be used for a separate location: Floor 1, Floor 2, etc. The Wayfinding Device allows you to scroll through the different maps to find the location of your room on the correct floor.

To duplicate a map, right click on the file listed in the **Maps** pane in the top right corner of the screen and select **Duplicate** from the drop-down menu. The file is automatically saved with a new name.

To edit the name assigned to the new map, right click the file name and select **Edit**. The **Edit Map** dialog box is identical to the **Add New Map** dialog box.

Edit the **Map Title** text box and click **Save**.

Options

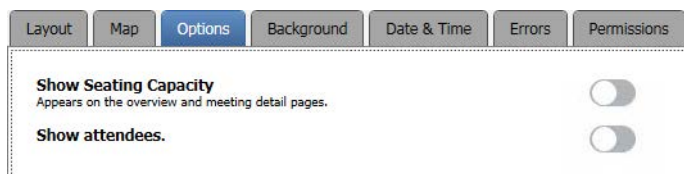


Figure 187. Wayfinding Devices – Options Tab

The **Options** tab allows you to toggle between:

Show or **Hide** room Seating Capacity.

Show or **Hide** a list of Attendees.

Background

The background tab allows you to set:

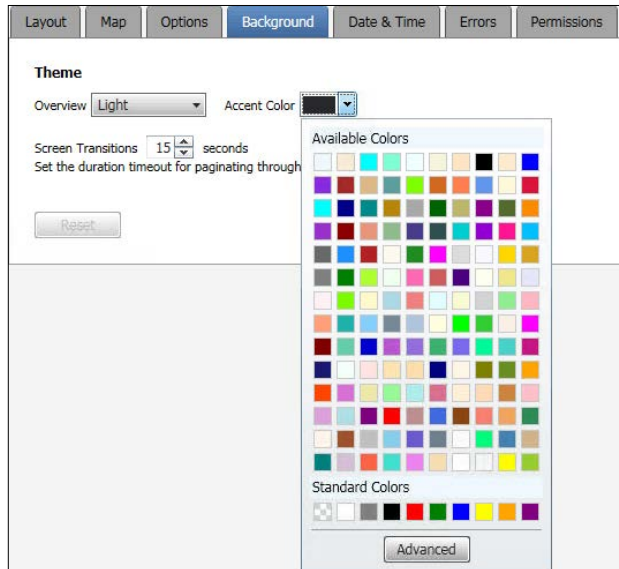


Figure 188. Wayfinding Devices — Background Tab

Theme Overview:

- **light**



Figure 189. Wayfinding Devices — Theme Overview (light)

- **dark**



Figure 190. Wayfinding Devices — Theme Overview (dark)

Accent Color – You can choose from the **Available Colors** or click **Advanced** to create your own color.

Screen Transitions time – When multiple pages are displayed as a slide show, this determines how long each screen is displayed.

Changes in the layout can be seen in the **Preview Panel** (see page 130).

Date & Time

The screenshot shows the 'Date & Time' configuration tab. At the top, there are several tabs: 'Layout', 'Map', 'Options', 'Background', 'Date & Time' (which is selected), 'Errors', and 'Permissions'. Below the tabs, the 'Time Format' section has a dropdown menu set to '12-Hour'. The 'Date Format' section includes a legend: 'd, dd = day; ddd, dddd = day of week; M = month; y = year'. There are two columns: 'Header' and 'Card'. Under 'Header', there are two radio buttons: 'Short Date:' with a dropdown menu showing 'MM/dd/yy' and 'Long Date:' with a dropdown menu showing 'dddd, dd MMMM, ...'. The 'Long Date' radio button is selected. Under 'Card', there is a 'Short Date:' dropdown menu showing 'MM/dd/yy'.

Figure 191. Wayfinding Devices – Date & Time Tab

1. Click **Date & Time**.
2. Select the **Time Format**. The choices are:
 - **12-Hour**
 - **24-Hour US**
 - **24-Hour International**
3. Select either the **Short Date** or **Long Date** radio button for the time format used in the Wayfinding device **Header**. The time format associated with the individual rooms must be in one of the **Short Date** formats. The options for each drop-down list are:

Header Short Date

- M/d/yyyy – for example: 5/20/2020
- M/d/yy – for example: 5/20/20
- MM/dd/yy – for example: 05/20/20
- MM/dd/yyyy – for example: 05/20/2020
- yy/MM/dd – for example: 20/05/20
- yyyy-MM-dd – for example: 2020-05-20
- dd-MMM-yy – for example: 20-May-20

Header Long Date

- dd MMMM, yyyy – for example: 20 May, 2020
- dddd, dd MMMM, yyyy – for example: Wednesday, 20 May, 2020
- dddd, MMMM dd, yyyy – for example: Wednesday, May 20, 2020
- MMMM dd, yyyy – for example: May 20, 2020

Room Short Date

- M/d/yyyy — for example: 5/20/2020
- M/d/yy — for example: 5/20/20
- MM/dd/yy — for example: 05/20/20
- MM/dd/yyyy — for example: 05/20/2020
- yy/MM/dd — for example: 20/05/20
- yyyy-MM-dd — for example: 2020-05-20
- dd-MMM-yy — for example: 20-May-20

Errors

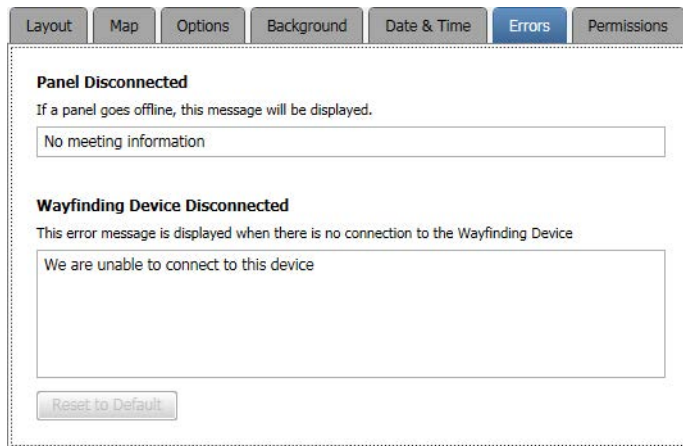


Figure 192. Wayfinding Devices — Errors Tab

You can customize the messages that are displayed when one of the individual room panels goes offline (**Panel Disconnected** message) or when the Lobby panel is disconnected (**Lobby Panel Disconnected** message).

The default messages are shown in the image above. When you make changes to either message, the **Reset to Default** button becomes available, allowing you to discard any changes you have made.

Changes in the layout can be seen in the [Preview Panel](#) (see page 130).

Permissions

Layout	Map	Options	Background	Date & Time	Errors	Permissions
Permissions						
Enable Touch Interactions						<input checked="" type="checkbox"/>
Allow Room Management <small>Uses TLS permissions for Reserving, Releasing, Check-In and Extending meetings.</small>						<input checked="" type="checkbox"/>
<button>Reset to Default</button>						

Figure 193. Wayfinding Devices – Permissions Tab

This tab allows you to **Enable Touch Interactions** and **Allow Room Management**. By default, both options are checked.

NOTE: Room management requires touch interactions to be enabled. If **Enable Touch Interactions** is not selected, **Allow Room Management** is unavailable for selection.

Preview Panel

The right pane shows previews of various screens that are available. Use the drop-down list to select the preview you wish to view. The options are:

- **Map**
- **Available Space**
- **Reserved Space**
- **Weekly view**
- **Device Offline**

Map

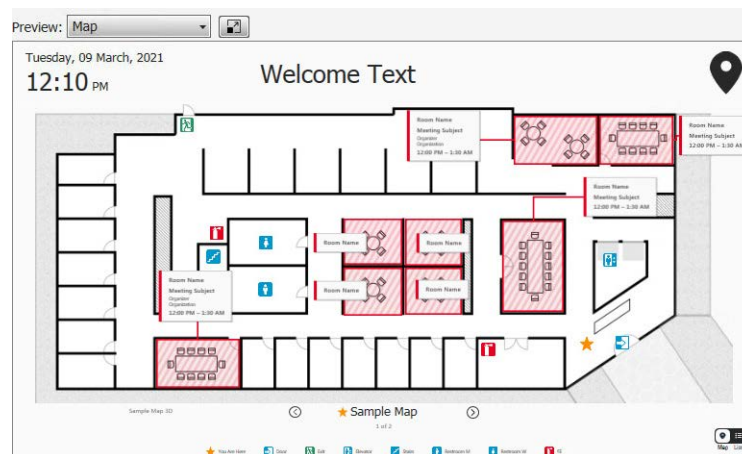


Figure 194. Wayfinding Device Map – Map Preview

The map preview shows the current version of a saved map. It can be the sample map that was used for practice or a map that accurately reflects your workspace. If **Enable Map and List Views** is **on**, a toggle switch is seen in the bottom right corner. This allows viewers using the Wayfinder screen to toggle between the map view and list view.

Available Space

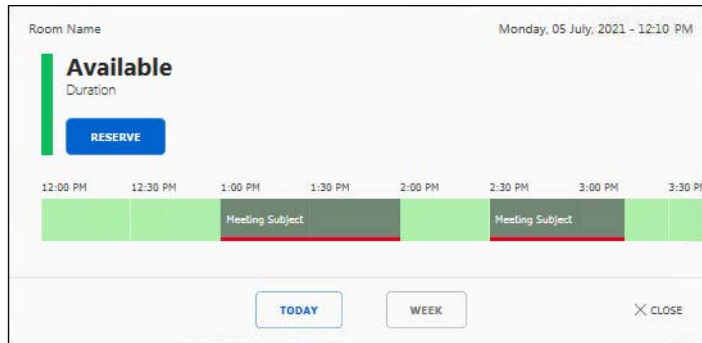


Figure 195. Wayfinding Device Map – Available Space

Press one of the available rooms listed in the overview screen.

The timeline for that room shows when it is available (green bar) or occupied (red bar).

The default view shows the meetings for that day for four hours from the current time. To see the room availability for the entire week, press **Week**.

To reserve the room, press one of the buttons with a green bar to select a period when the room is free and then press **Reserve**.

Reserved Space

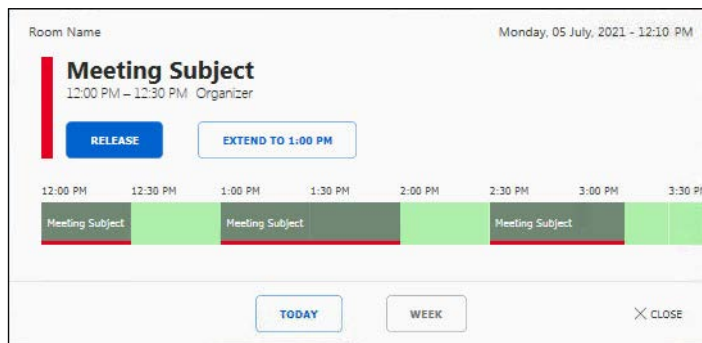


Figure 196. Wayfinding Device Map – Reserved Space

In the overview, press the room that has been reserved for the meeting.

The timeline shows when the room is available (green bar) or occupied (red bar).

The default view shows the meetings for that day for four hours from the current time. To see the room availability for the entire week, press **Week**.

If the Check In feature has been configured in advance, a **Check In** button is available.

Press **Check In**. The room is prepared automatically for the meeting: blinds can be closed, lights can be dimmed, as required, computers and projectors can be turned on.

The meeting shown in the figure above is scheduled to finish at 12:30 pm. If the meeting is running later than expected and the room is available during the next time slot (12:30 to 1:00 pm), press **Extend to 1:00 PM** to reserve the room for an additional 30 minutes.

If the meeting finished early, press **Release**. This makes the room available for other users.

NOTE: These options require the individual room panels to have the **Allow check in**, **Allow time extension**, and **Allow room release** options selected in the **Rooms Layout** tab.

Weekly view

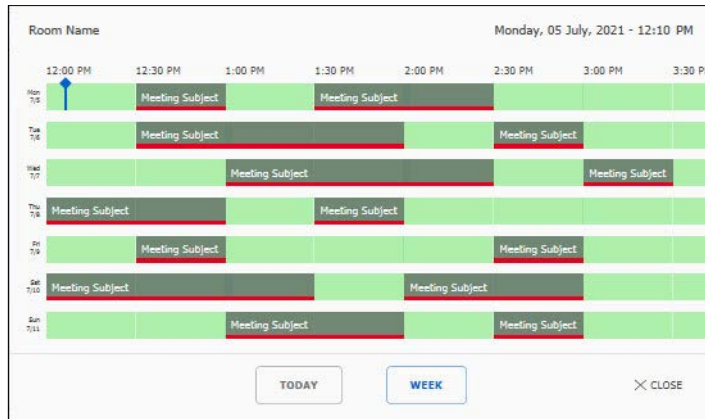


Figure 197. Wayfinding Device Map – Weekly View

The Weekly view shows room availability, 24 hours each day, for the next seven days, starting with the current day.

Device Offline

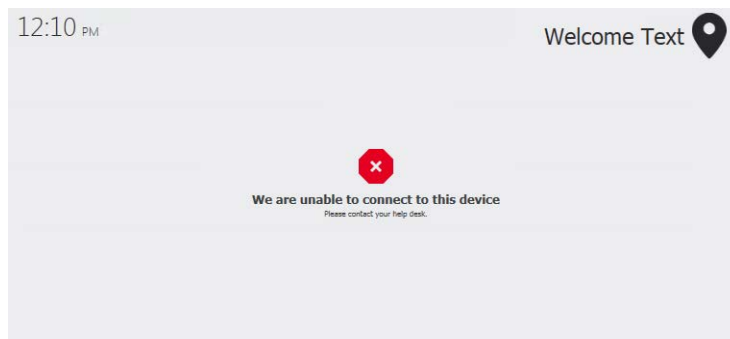


Figure 198. Wayfinding Device Map – Device Offline Preview

This message is displayed if the Wayfinding device is offline.

The message above is the default message. It can be changed in the **Errors** tab on page 129.

Hardware

This section provides an overview for installing the hardware. For more information, see the user guide for that product, which is available at www.extron.com. The topics covered in this section are:

- [TLS Panels](#)
- [TLSI Panels](#)

As of January 2022, Extron recommends the following TLS panels for use with the Room Agent software:

- TLS 525M and TLS 525M NC
- TLS 725M and TLS 725M NC
- TLS 1025M and TLS 1025M NC

Check with www.extron.com to see a list of the latest recommended TLS panels.

Room agent also supports the TLSI 201 Wayfinding device.

TLS Panels

The Extron TLS 525M, 725M, and 1025M are wall mounted, capacitive touchpanels with TFT active matrix color LCD screens with 24-bit color depth.

- **TLS 525M** — A 5-inch (measured diagonally) panel with an 800x480 capacitive glass touchscreen.
- **TLS 725M** — A 7-inch, panel with an 1024x600 capacitive glass touchscreen.
- **TLS 1025M** — A 10-inch panel with a 1280x800 capacitive touchscreen.

NOTE: For use in a high-security environment, the camera, Bluetooth, and microphone have been removed from the TLS 525M NC, 725M NC, and 1025M NC models. In all other respects, they are identical to the standard models.

Information about mounting and basic setup for these panels is shown on the following pages. For complete information, see the *TLP Pro 525, 725, and 1025 Series User Guide* at www.extron.com.

These models ship with the latest firmware for the scheduling system. No firmware update is required.

The following panels are retired but still supported by the Room Agent software.

- TLS 520M (see *TLP Pro 520, 720, and 1020 Series User Guide* at www.extron.com)
- TLP Pro 520M (see *TLP Pro 520, 720, and 1020 Series User Guide*)
- TLP Pro 720M (see *TLP Pro 520, 720, and 1020 Series User Guide*)
- TLP Pro 720T (see *TLP Pro 520, 720, and 1020 Series User Guide*)
- TLS 1022M (see *TLP Pro 1022 Series User Guide*)
- TLS 1022T (see *TLP Pro 1022 Series User Guide*)

Setup Checklist

Get Ready

- Download and install the latest version of the following software onto the PC being used to configure the TouchLink panel:
 - **Toolbelt** — Provides device discovery, device information, firmware updates, and configuration of network settings, system utilities, and user management for TouchLink Pro devices and scheduling panels.
 - **Room Agent** — Free room booking software for configuring the panels for room scheduling.

NOTE: Both these software programs and supporting documentation are available from www.extron.com.

- Obtain the following network information from your network administrator:
 - **DHCP status** — (on or off). If DHCP is off, you must also obtain:
 - **IP address**
 - **Subnet mask**
 - **Gateway**
 - **User name** — This can be either **admin** or **user**.
 - **Password** — The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. Passwords are case sensitive.

NOTE: If the device is reset to default settings, the password is the default password configuration. The default password is **extron** (for both **admin** or **user**).

- Make a note of the Touchpanel MAC address, which can be found on a rear-panel label.
- **SSL security certificates and IEEE 802.1X authentication** — TLS panels come with a factory-installed Secure Sockets Layer (SSL) security certificate. IEEE 802.1X authentication is also supported once enabled. See [Secure Sockets Layer \(SSL\) Certificates](#) on page 153 or see [IEEE 802.1X Certificates](#) on page 154 for more information.

Mount and Cable All Devices

ATTENTION:

- Do not power on the TouchLink panels until you have read the Attention in the “Rear Panel Features” section of the *TLP Pro 525, 725, and 1025 Series User Guide*.
- Ne branchez pas les écrans tactiles avant d’avoir lu la mise en garde dans la section « Rear Panel Features » du *TLP Pro 525, 725, and 1025 Series User Guide*.

- Mount the units. There are several mounting options for TouchLink panels (see [Mounting](#) on page 135).
- Connect the TouchLink panel to a Power over Ethernet injector.
- Connect the power injector to the LAN and power it on.

Set up the TouchLink Panels for Network Communication

- Connect the PC that you are using for setup, the control processor, and the touchpanel **to the same Ethernet subnetwork**.
- Use Room Agent **Network** settings (see page 32), the touchpanel **Setup Menu** (see page 141), or Toolbelt (see the *Toolbelt Help File*) to set the DHCP status and, if required, network addresses for the TouchLink panel.

Configure the TouchLink Panels

The Room Agent **Manage Tab** (see page 21) and *Toolbelt Help File* provide information about configuring these panels.

Mounting

All these panels can be wall-mounted, either using a UL-listed junction box, an external wall box, or directly into drywall or furniture. Suitable mounting accessories can be found at www.extron.com.

ATTENTION:

- Do not install TouchLink panels in a fire resistant rated wall or partition assembly.
- Veuillez ne pas installer les écrans TouchLink dans un mur protégé par un dispositif coupe-feu ou dans une cloison.
- All structural steps and electrical installation must be performed by qualified personnel in accordance with local and national building codes and electrical codes.
- Toute étape structurelle et installation électrique, doit être effectuée par un personnel qualifié, conformément aux codes du bâtiment, aux codes incendie et sécurité, et aux codes électriques, locaux et nationaux.

With a Wall Box or Junction Box

Some local building codes require the TouchLink panel to be mounted in a junction box. Junction boxes or wall boxes must be purchased separately. In **figure 199**, on page 136, mounting the TLS 725M to a wall box is shown. Installation for the other panels is very similar.

NOTES:

- The 5 inch models mount to a 1-gang junction box. The US 1-gang junction box should be installed so that the long side is horizontal. EU or MK 1-gang junction boxes should be installed in the standard orientation.
- The 7 and 10 inch models mount to a 2-gang junction box.
- Extron provides four 3/4" #6-32 Philips pan head screws for mounting to US junction boxes.
- Extron provides two 16 mm M 3.5 Philips pan head screws for mounting to MK junction boxes.
- EU junction boxes are usually provided with their own screws.

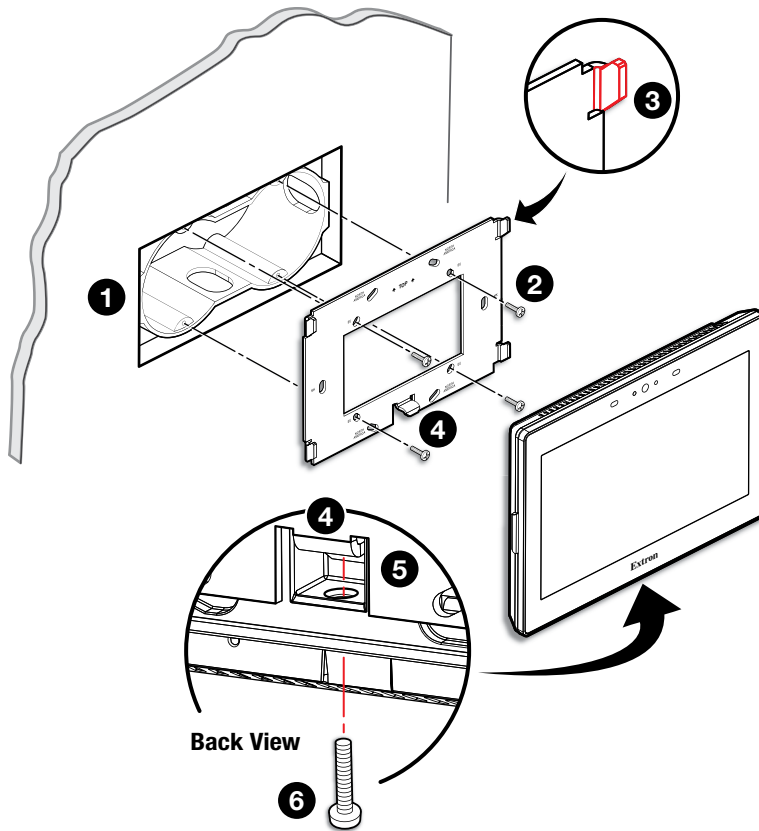


Figure 199. Mounting the TLS 725M with a wall box

Mounting the TLS panels with a wall box

1. Install a junction box or wall box (see figure 200, **1**), following the instructions provided by the manufacturer.
2. Fasten the mounting plate to the wallbox (**2**) with the provided screws. Use the mounting holes that are appropriate to the junction box you are using (see [figure 200](#) on page 137).
3. Run and connect cables to the back of the touchpanel (see [Rear Panel Features](#) on page 139).
The mounting plate for the 5 inch touchpanel has two hooks (one in each top corner). The mounting plate for the 7 and 10 inch panels has four hooks (**3**), one in each corner (see [figure 200](#)).
4. Position the touch panel so that the mounting slots (see [figure 202](#), **D**, on page 139) in the rear of the TouchLink panel align with these hooks.
5. Move the TouchLink panel inward and downward so that the panel sits securely on the hooks, and the tongue at the bottom of the mounting plate (see figure 200, **4**) sits in the groove in the bottom of the panel (see inset, **5**).
6. Fasten the TouchLink panel to the mounting plate with the lock screw (**6**).

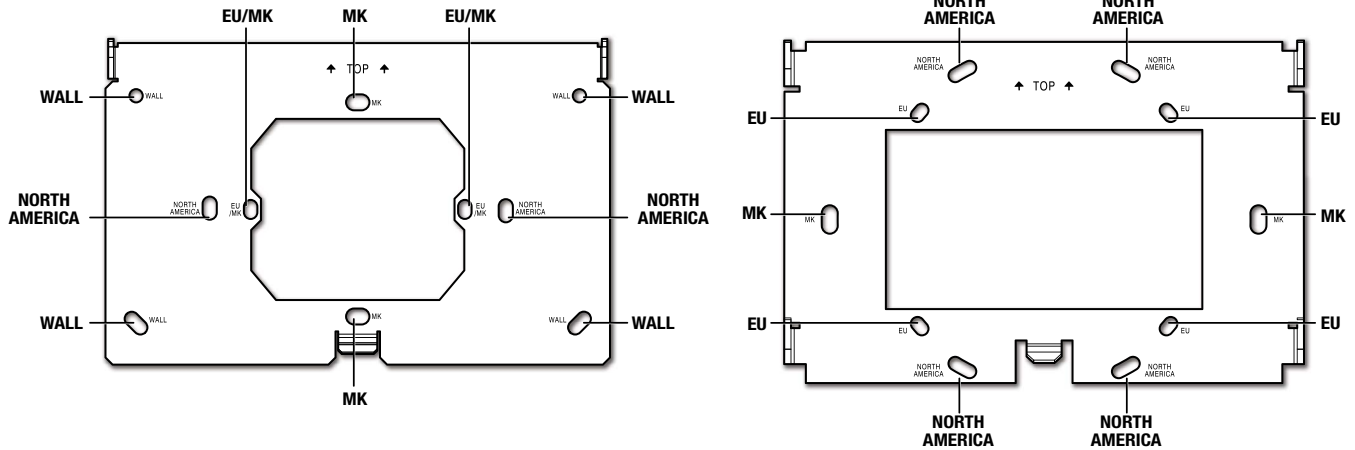


Figure 200. Mounting Plates for 5 inch models (left) and 7 or 10 inch models (right)

NOTE: The TLS 725M and TLS 1025M TouchLink panels use the same mounting plate.

Mounting the TLS panels without a wall box

If the wall box is not required by local building codes, you can mount the touchpanel directly into drywall.

1. Use the mounting plate as a template to mark the wall or download the cut-out template for your product from www.extron.com. Place the template or mounting plate against the wall or furniture in a suitable location and ensure that it is level.
2. Mark the position of the hole and cut the wall.
 - For the TLS 525, this hole is 2.4 inches (61 mm) wide x 2.1 inches (53 mm) high.
 - For the TLS 725 or 1025, this hole is 3.5 inches (89 mm) wide x 2.0 inches (51 mm) high.
3. Mark the slots labeled **WALL** (5 inch models) or **MK** (7 or 10 inch models) (see figure 4) and drill the pilot holes. Extron recommends using Molly bolts or SnapToggle bolts.
4. Secure the mounting plate to the wall (see [figure 199](#), [2](#), on page 136).
5. Complete the installation as described in [steps 3 through 6](#) on page 136.

Front Panel Features

NOTE: Figure 204 shows the front panel of the TLP Pro 725M. The front panels of all the TouchLink panels have the same features and are almost identical apart from the size.

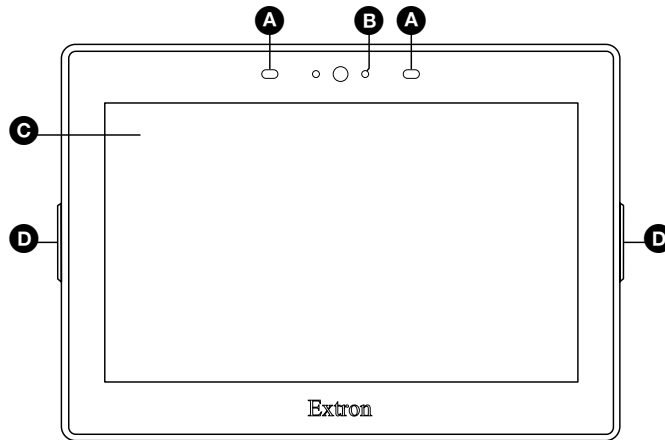


Figure 201. TLP Pro 725M Front Panel

- A Motion sensor** — Detects motion between three to five feet from the TouchLink panel, and at least 15° from the center axis.

If the sleep timer has been set (see [Setup Menu](#) on page 141), and no motion has been detected for a user-defined period of time, the TouchLink panel enters sleep mode.

If Wake on Motion has been set (see [Setup Menu](#)), and motion is detected by the sensor while the screen is in sleep mode, the screen display is restored and active.

- B Light sensor** — Monitors ambient light level and adjusts screen brightness.
- C Capacitive touchscreen**

The TLS 525M has a 5 inch screen with a 800x480 resolution.

The TLS 725M has a 7 inch screen with a 1024x600 resolution.

The TLS 1025M has a 10.1 inch screen with a 1280x800 resolution

- D Status lights** — Two LED light bars, one on either side of the screen. The LEDs light green when the room is currently available and red when the room is currently booked. They cannot be programmed.

Rear Panel Features

NOTE: The panels shown in figure 203 are for illustration only and are not to the same scale.

For more information, follow the links on the right to the next page.

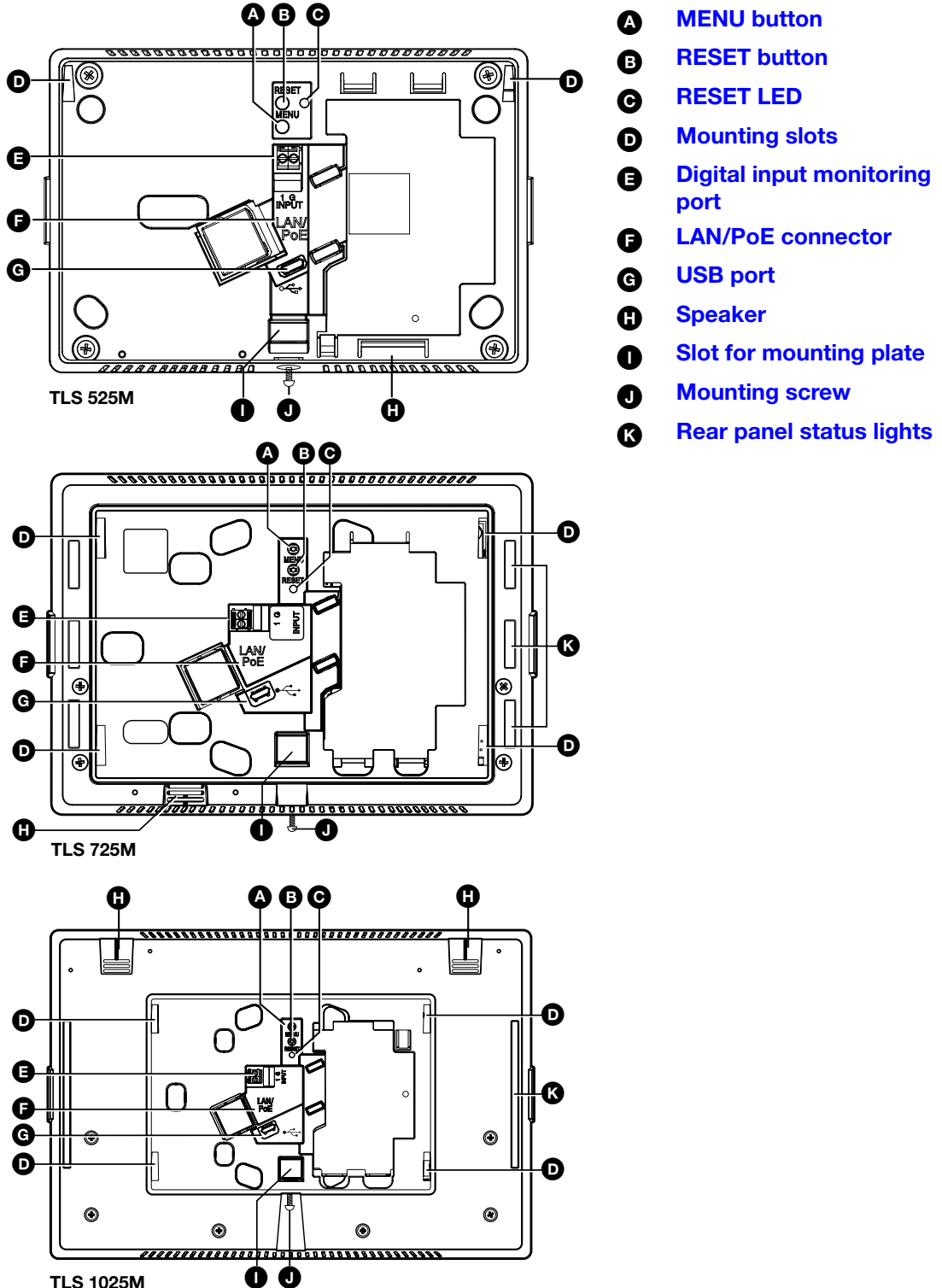


Figure 202. TLS 525M, 725M, and 1025M Rear Panels

- A MENU button** (see [figure 202](#) on page 139)— Activates the setup menu (see [Setup Menu](#) on page 141).
- B RESET button** — Pressing the **RESET** button allows the unit to be reset in any of three different modes (for an overview, see [Reset Modes](#) on page 141).
- C RESET LED** — Provides feedback about the reset status when the user presses the **RESET** button (see [Reset Modes](#)).
- D Mounting slots** — The TLS 725M and TLS 1025M have four, one in each corner. The TLS 525M has two, one in each top corner. The hooks on the corners of the mounting plate (see [figure 199](#), [3](#) on page 136) fit into these slots for wall mounting.
- E Digital input monitoring port** — This two-pole captive screw port (1 = signal and G = ground) monitors digital input with or without a +5 VDC pull-up.
- F LAN/PoE connector** — Connect the TouchLink panel to a PoE power injector (not provided) using a twisted pair cable, terminated with an RJ-45 connector. Connect the power injector to the LAN through a network switch.

ATTENTION:

- The TouchLink panels are Power over Ethernet (PoE 802.3af, class 3) compliant. Do not power on the touchpanels until you have read the Attention in the “Rear Panel Features” section of the *TLP Pro 525, 725, and 1025 Series User Guide*.
- Les écrans TouchLink supportent l’alimentation via Ethernet (PoE 802.3af, classe 3). Veuillez lire la partie « Attention » dans la section « Rear Panel Features » du *TLP Pro 525, 725, and 1025 Series User Guide*, avant de mettre sous tension les écrans tactiles.

NOTE: The TLS panels ship without a power injector. The power injector must be purchased separately. Extron recommends the Extron XTP PI 100 power injector (see [figure 206](#)). Your power injector may look different.

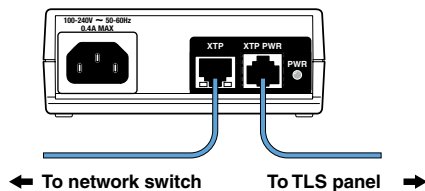


Figure 203. XTP PI 100 Power Injector

- G USB port** — Compatible with USB 2.0.
- H Speaker** — Provides audible feedback for the user. The TLS 525M and 725M each have a single speaker. The TLS 1025M has two (dual mono) speakers
- I Slot for mounting Plate** — The tongue at the bottom of the mounting plate (see [figure 199](#), [4](#)) fits into this slot, for wall mounting.
- J Mounting screw** — Tightens against the tongue of the mounting plate to secure the touchpanel.
- K Rear panel status lights** — These lights can be disabled for glass mount applications.
 - TLS 525M — no lights
 - TLS 725M — Six lights, three on each side of the panel
 - TLS 1025M — Two lights, one on each side of the panel

The LEDs light green when the room is currently available and red when the room is currently booked. They cannot be programmed.

Reset Modes

These touchpanels provide the following reset modes (see the *TLP Pro 525, 725, and 1025 Series User Guide* for complete information):

Use Factory Firmware — With the unit powered off, press and hold the **RESET** button (see [figure 202, B](#) on page 139) while reapplying power to the unit. Use this mode with Toolbelt software to replace firmware in the event of conflicts arising from uploading a firmware update.

Reset All IP Settings — Press and hold the **RESET** button for 6 seconds. After the **RESET** LED ([C](#)) blinks twice, release and momentarily press the **RESET** button. Use this mode to reset all network settings without affecting user-loaded files.

Reset to Factory Defaults — Press and hold the **RESET** button for 9 seconds. After the **RESET** LED blinks three times, release and momentarily press the **RESET** button. Use this mode to return the TouchLink panel to factory default settings.

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords are case sensitive.
- If the device is reset to default settings, the password is the default password configuration. The default password is **extron** (for either admin or user).

Enable or Disable the DHCP Client — This mode toggles between DHCP enabled and DHCP disabled. Press the **RESET** button five times, consecutively. After the fifth press, do not press the button again within 3 seconds. If DHCP was enabled, it is now disabled and the **Power** LED blinks three times. If DHCP was disabled, it is now enabled and the **Power** LED blinks six times.

Setup Menu

Figure 207 shows the **Status** screen for the TLS 725M. The screens for the TLS 525M, TLS 1025M are similar.

Press the **MENU** button (see [figure 202, A](#)) to open the setup menu. Select any of the five available screens (**Status**, **Network**, **Display**, **Audio**, and **Advanced**) by pressing the appropriate button in the navigation bar at the top of the screen (for more information, see the *TLP Pro 525, 725, and 1025 Series User Guide*).

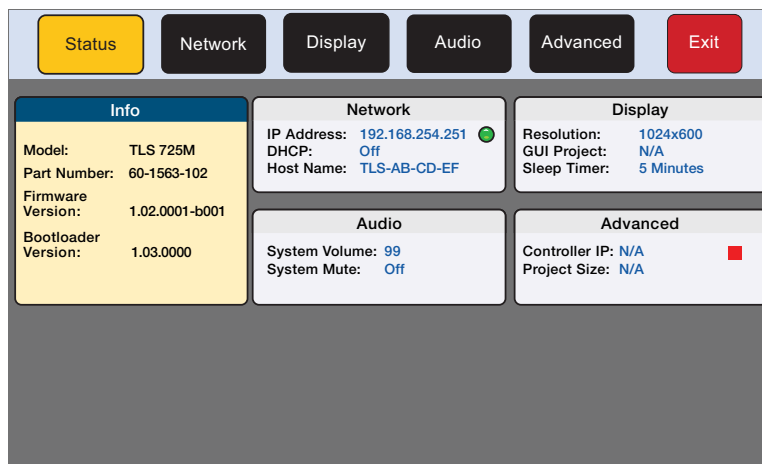


Figure 204. Setup Menu: Status Screen for TLS 725M

TLSI Panels

The Extron TLSI 201 Interactive Wayfinding Interface provides real-time meeting space availability, status, and location information using a centralized display. The TLSI 201 communicates over the Ethernet network directly with Extron TLS room scheduling panels and shows information about the TouchLink scheduler system on third-party touch and non-touch displays. The interface supports resolutions up to 4K.

Users can locate and book meeting spaces for the day or week on an interactive grid or map with ease. No additional programming or external processors are required.

This guide provides instructions for experienced installers to mount the TLSI 201 and to create a basic configuration. For more complete instructions, see the *TLSI 201 User Guide*, at www.extron.com.

Setup Checklist

Get Ready

- Download and install the latest version of the following software:
 - **Room Agent** — Room booking software for configuring the TLSI 201 for room scheduling. Room Agent can be downloaded (free of charge) from www.extron.com.
- Obtain the following network information from your network administrator:
 - **DHCP status** — (on or off). If DHCP is off, you must also obtain:
 - **IP address** • **Subnet mask** • **Gateway**
 - **Username** — This can be either admin or user.
 - **Password** — The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. They are case sensitive.

NOTE: If the device is reset to default settings, the passwords are reset to the default password, which is **extron** (for either admin or user).

- Make a note of the MAC address for the TLSI 201.
- **SSL security certificates and IEEE 802.1X authentication** — TLSI 201 comes with a factory-installed Secure Sockets Layer (SSL) security certificate. IEEE 802.1X authentication is also supported once enabled. See [Secure Sockets Layer \(SSL\) Certificates](#) on page 153 or see [IEEE 802.1X Certificates](#) on page 154 for more information.

Mount and Cable All Devices

- Mount the units. The TLSI 201 can be discretely mounted behind a flat panel display. For available mounting options see the TLSI 201 product page at www.extron.com.
To mount the third-party touchpanel follow the instructions provided by the manufacturer.
- Connect cables to the TLSI 201 (see [Rear Panel Connectors and Features](#) on page 143).
- Connect the HDMI output from the TLSI 201 to the third-party touchpanel.
- Connect the USB port from the TLSI 201 to the third-party touchpanel.

NOTE: The USB connection passes information to the TLSI 201 about where on the screen the third-party touch display was pressed. If using a non-touch display, connect a USB mouse to the USB port on the TLSI 201 to click screen icons.

- Connect the Ethernet cable. The TLSI 201 must be powered by PoE+.

ATTENTION:

- Do not power on the TLSI 201 until you have read the Attention in the Rear Panel Features section of the *TLSI 201 User Guide*.
- Ne branchez pas le TLSI 201 avant d'avoir lu la mise en garde dans la section « Rear Panel Features » du TLSI 201 User Guide.

Set up the TLSI 201 for Network Communication

- Connect the PC used for setup on the same Ethernet subnetwork as the TLSI 201.
- Use the **Setup Menu** (see page 147) to set the DHCP status and, if necessary, the IP address, subnet mask, gateway, and related settings for the network interface. You can also configure these settings in Room Agent.
- Configure the User Interface, using the Room Agent software.
- Configure the TLSI 201, using the Room Agent software.

Rear Panel Connectors and Features

For complete information about the rear panel connectors and features, see the *TLSI 201 User Guide*.

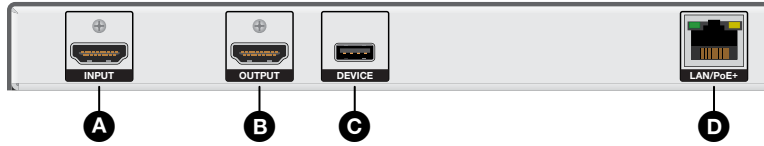


Figure 205. TLSI 201 Rear Panel

- A** HDMI input
- B** **HDMI output**
- C** **DEVICE port**
- D** **LAN/PoE+ port**

ATTENTION:

- The TLSI 201 is Power over Ethernet (PoE 803.3at, class 4) compliant. Do not connect the power supply before reading the "Attention" in the "Rear Panel Features" section of the *TLSI 201 User Guide*.
- Le TLSI 201 support l'alimentation via Ethernet (PoE 803.3at, classe 4). Veuillez lire la partie « Attention » dans la section « Rear Panel Features » du *TLSI 201 User Guide*, avant de mettre sous tension les écrans tactiles.

- A** **HDMI input** — At present, this port is not used by the TLSI 201.

- B HDMI output** (see [figure 206](#) on page 143) — Connect this HDMI type A port to a third-party display. The TLSI 201 supports output resolutions up to 4K.

Use the provided LockIt HDMI lacing bracket to secure the HDMI connector:

1. Plug the HDMI cable into the TLSI 201 HDMI output port (see [figure 207](#), **1**).
2. Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it (**2**). The screw does not have to be removed.
3. Place the LockIt lacing bracket on the screw and against the HDMI connector (**3**), then tighten the screw to secure the bracket.

ATTENTION:

- Do not overtighten the HDMI connection mounting screw. The shield it fastens to is very thin and can easily be stripped.
- Ne serrez pas trop la vis de montage du connecteur HDMI. Le blindage auquel elle est attachée est très fin et peut facilement être dénudé.

4. Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown (**4**).
5. While holding the connector securely against the lacing bracket, tighten the tie wrap, then remove any excess length (**5**).

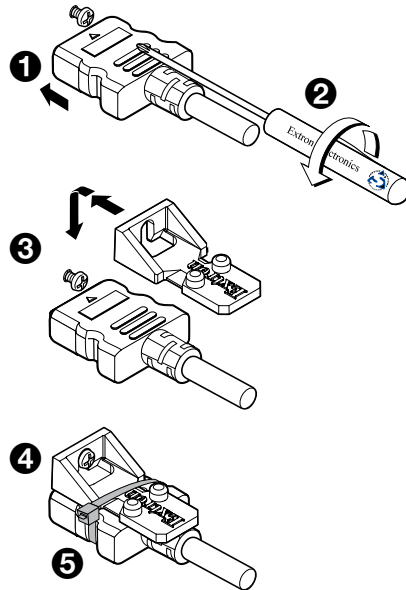


Figure 206. Securing the HDMI Connector

- C DEVICE port** — supports High-speed USB 2.0 control. Plug a Type-A USB cable from the third-party touchpanel into this port.

NOTE: If using a non-touch display, connect a USB mouse to the USB port on the TLSI 201 to click screen icons.

- D LAN/PoE+ port** — Use an Ethernet cable to connect this port to the network via a PoE+ power sourcing equipment (PSE, not provided). This can be a power injector (see [figure 207](#) on page 145) or PoE+ switch.

NOTE: The TLSI 201 does not include any PoE+ power sourcing equipment. This must be purchased separately.

Extron recommends the Extron PI 140 power injector (see figure 208). Your power injector may look different.

1. Use an Ethernet cable to connect the LAN/PoE+ port of the TLSI 201 to the power output of the 803.3at, class 4 compliant PoE+ power injector.
2. Connect the network input of the power injector to a network switch or router.
Alternatively, use an Ethernet cable to connect the LAN/PoE+ port of the TLSI 201 to a PoE+ switch.

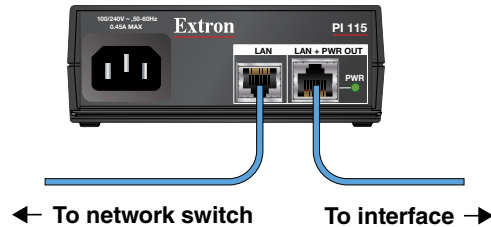


Figure 207. PI 115 Power Injector

Front Panel Features

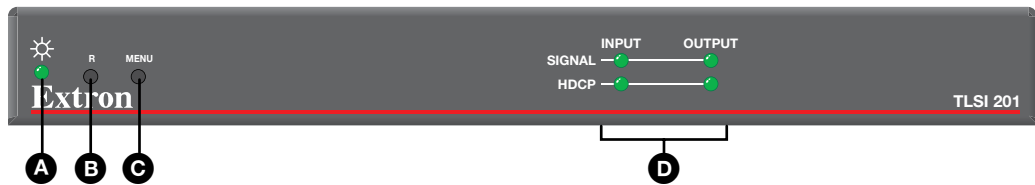


Figure 208. TLSI 201 Front Panel

- A Power LED** — Indicates the power status and the reset status of the unit.
- B Reset button** (recessed) — Allows the unit to be reset in any of three different modes. It also allows the user to toggle between enabling and disabling the DHCP client. A brief summary of the reset modes is given below. For more information see the TLSI 201 User Guide.
- C MENU button** (recessed) — Opens the **Setup Menu** (see page 147) and Calibration screen for the TLSI 201:

Setup Menu

1. Press the button briefly (less than 3 seconds) to open the internal menu screens.
2. Press the button briefly for a second time to exit the setup menu.

Calibration Screen

1. Press and hold the button (3 seconds or more) to open the Calibration screen. Follow the on-screen instructions to calibrate the touchpanel.
2. Complete the calibration process or press the button briefly (less than 2 seconds) for a second time to exit the Calibration screen.

- D Status LEDs** — The Signal LEDs light green when a video signal is detected and are unlit when no signal is detected.

The HDCP LEDs light green when HDCP content is detected and are unlit when HDCP content is not detected.

Reset Modes


The TLSI 201 offers the following reset modes:

- **Use Factory Firmware** — Press and hold the **Reset** button (see [figure 208](#), **B**, on page 145) while applying power to the unit. Use this mode to replace firmware in the event of firmware failure.
- **Reset All IP Settings** — Press and hold the **Reset** button for 6 seconds. After the Power LED (**A**) flashes twice, release and momentarily press the **Reset** button. Use this mode to reset all network settings without affecting user-loaded files.
- **Reset to Factory Defaults** — Press and hold the **Reset** button for 9 seconds. After the Power LED flashes three times, release and momentarily press the **Reset** button. Use this mode to return the device to factory default settings.

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. They are case sensitive.
 - If the device is reset to default settings, the passwords are reset to the default password, which is **extron** (for either **admin** or **user**).
- **Enable or Disable the DHCP Client** — This mode toggles between DHCP enabled and DHCP disabled. Press the Reset button five times, consecutively. After the fifth press, do not press the button again within 3 seconds. If DHCP was enabled, it is now disabled and the Power LED blinks three times. If DHCP was disabled, it is now enabled and the Power LED blinks six times.

Setup Menu

Press the **MENU** button (see [figure 208](#), , on page 145) to open the setup menu (see [figure 212](#)). There are five available screens that are selected by pressing the appropriate button in the navigation bar on the left side of the screen.

- The **STATUS** screen is read-only and provides a summary of the other screens.
- The **NETWORK** screen is used to edit the network settings (DHCP setting, IP, subnet mask, gateway, and DNS Primary addresses).
- The **OUTPUT** screen is used to configure the image shown by the third-party display, using built-in test patterns and EDID.
- The **AUDIO** screen is used to set audio levels.
- The **ADVANCED** screen provides information about the system and the memory. It also allows you to add or reset a PIN.

Press the **EXIT** button to close the setup menu.

For more information about the setup menu, see the *TLSI 201 User Guide* at www.extron.com.

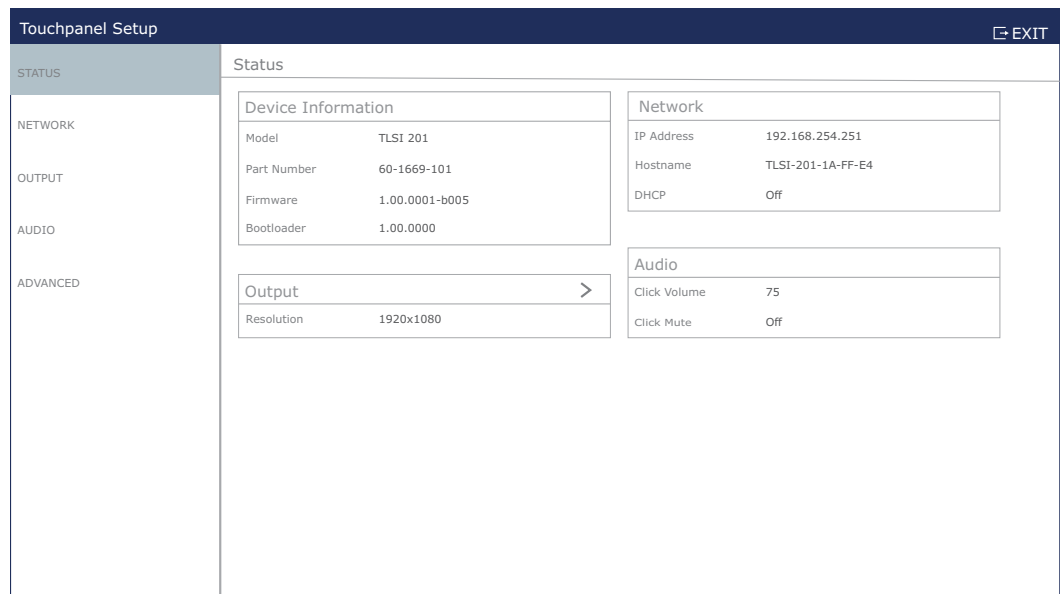


Figure 209. Setup Menu

TLSI 201 Web Page

1. To access the TLSI 201 default web page, enter the IP address of the unit into the web browser of a PC connected to the same subnet.

A dialog opens asking for the device **username** and **password**.

NOTES:

- The factory configured passwords for all accounts on this device have been set to the device serial number. Passwords can be changed during configuration. They are case sensitive.
- If the device is reset to default settings, the passwords are reset to the default password, which is **extron** (for either **admin** or **user**).

The single page (see figure 211) provides general and network information about the unit.

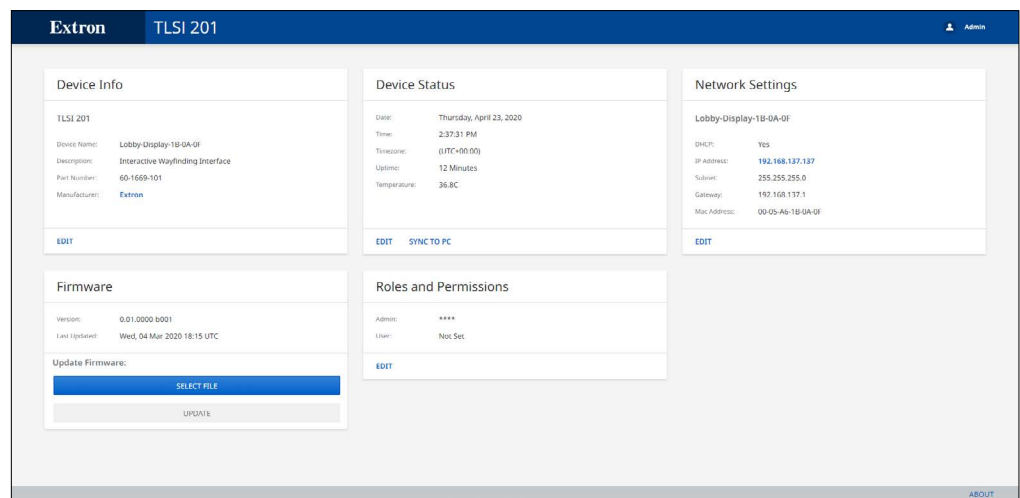


Figure 210. TLSI 201 Web Page

2. Click the various **EDIT** buttons to change the associated TLSI 201 settings.
3. Use the **Network Settings EDIT** button to configure the TLSI 201 network settings. You can also configure the network settings of the TLSI 201 by using the **Setup Menu** (see page 147) or **Toolbelt** (see the *Toolbelt Help File*).

To update the device firmware:

1. If necessary, download the firmware file to the control PC.
2. On the TLSI web page, click **Select File** and navigate to a firmware file saved on the PC.
3. Click **Update**.

The new firmware is installed on the TLSI 201.

Reference Information

This section provides a central location for additional Room Scheduling System information, including:

- [Network Port Requirements and Licensed Third-Party Software](#)
- [Supported Languages](#)
- [Secure Sockets Layer \(SSL\) Certificates](#)
- [IEEE 802.1X Certificates](#)
- [SNMP](#)

Network Port Requirements and Licensed Third-Party Software

For information about network port requirements and licensed third-party software for the touchpanels described in this guide, please refer to the *Extron TouchLink Scheduling Panels Network Ports and Licenses Guide*, which is available at www.extron.com.

Supported Languages

Room Agent software supports scheduling panel displays in the following languages:

- English
- Arabic
- Catalan
- Chinese (simplified)
- Chinese (traditional)
- Croatian
- Czech
- Danish
- Dutch
- Finnish
- French
- German
- Hebrew
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese
- Russian
- Serbian
- Slovenian
- Spanish
- Swedish
- Thai
- Turkish
- Vietnamese

Room Scheduling Analytics

Room scheduling touchpanels provide the information needed to analyze room usage, activity patterns, and occupancy trends across the organization. A Scheduling Activity file with room usage and meeting data can be downloaded concurrently from multiple touchpanels. You can transform this readily-available information with data analytics tools to create powerful reports.

Extron provides a *Microsoft Power BI Usage Template* that can be used to visualize activity data.

Downloading the Microsoft Power BI Template

1. Download the template from the Room Agent page on the [Extron website](#).
2. Unzip the *Extron Conference Room Scheduling Usage Template.zip* file. This contains the Power BI template.

Exporting the Activity File as the Data Source from Room Agent

1. To export your data from your panels, navigate to **Panel Configuration** (❶).
2. Select the **Status** checkboxes for all the panels for which you wish Room Agent to download the activity file (❷).
3. Click **Retrieve Activity File** (❸).

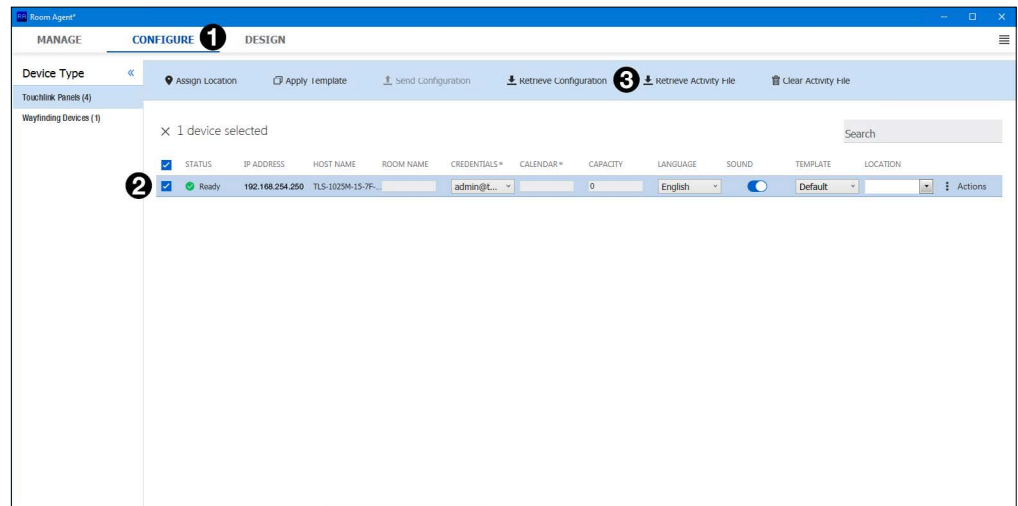


Figure 211. Retrieve Activity File

4. You are prompted to save the file. Make a note of where the file is saved so that it can be retrieved later.

Importing an Activity File as the Data Source

1. Double click **Extron Conference Room Scheduling Usage Template.pbix**.
2. Power BI launches with a prompt regarding a missing data. Close this dialog to see the skeleton view of the visual shown earlier.

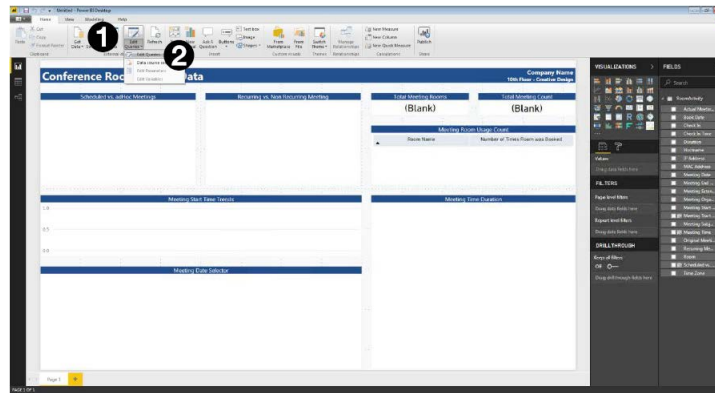


Figure 212. Power BI Selecting Edit Queries

3. From the **Edit Queries** drop-down list (1), select **Edit Queries** (2).
4. The Edit Queries page opens.

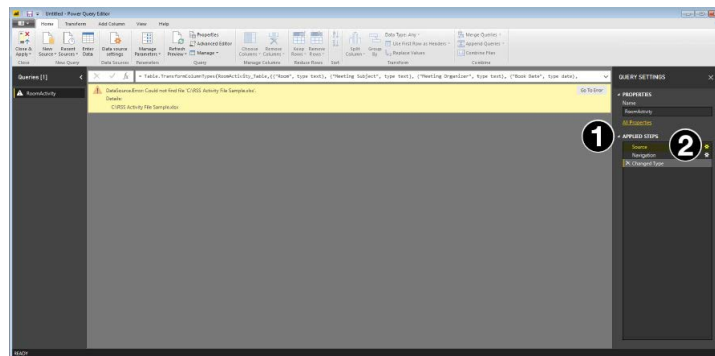


Figure 213. Power BI Edit Queries

5. In the Applied Steps section (1) of the Query Settings panel, click the **Gear** icon next to Source (2).
6. Browse to the Room Activity file saved in **step 4** of the previous section and open it.

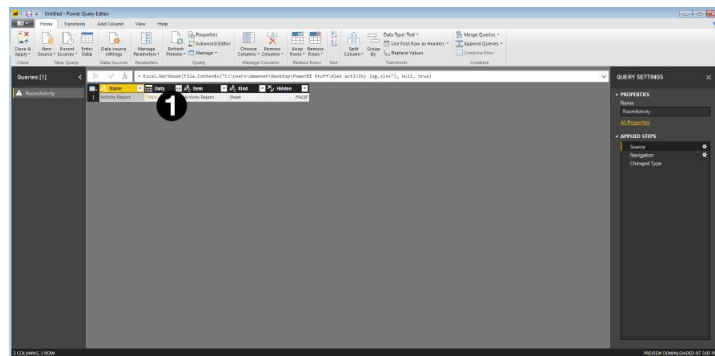


Figure 214. Select Table

7. Click **Table** (1).

- The Navigation Step dialog box opens:



Figure 215. Navigation Step Dialog

- Click **Continue** (1).
- Your data is displayed in the Power BI Editor.

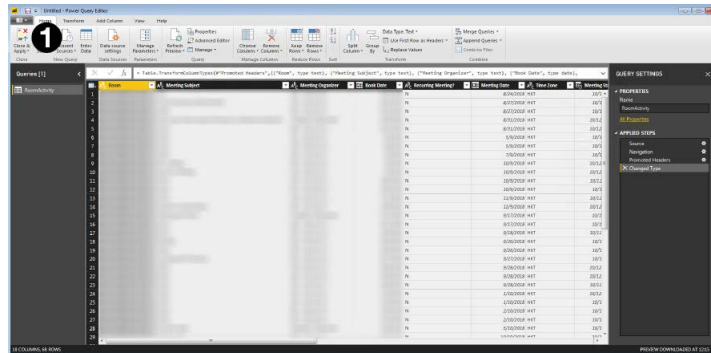


Figure 216. Data Displayed in Power BI Editor

- Click **Close & Apply** (1). The dashboard displays your data.

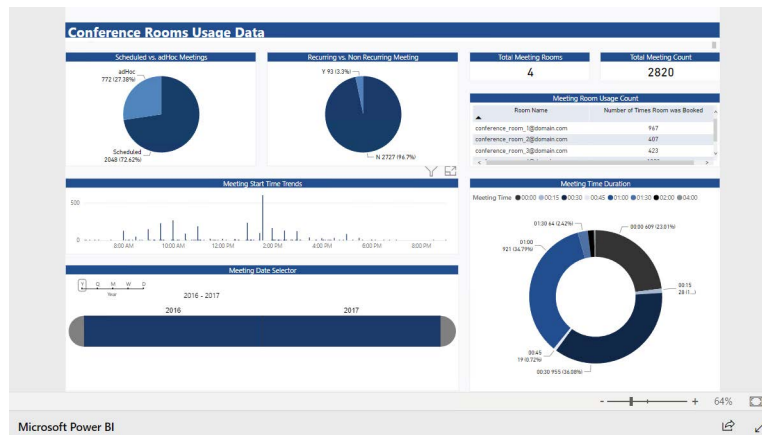


Figure 217. Power BI Dashboard with Data

Retrieving an Activity File via SFTP

This feature allows the user to obtain the raw activity log data over the network without using Room Agent software.

- Connect to the TLS using an SFTP Client.
- Enter the admin credentials on port 22022. By default, the user name is `admin` and the password is `extron`.
- Navigate to the admin directory (`/var/uf/admin`) and locate the activity file (`activity.csv`). This contains all the activity information (including headers) in CSV format.

Secure Sockets Layer (SSL) Certificates

Extron TouchLink Pro control system products ship with factory-installed SSL certificates created by Extron. The factory default SSL Certificate is a self-signed SSL Certificate, seen on products in the factory default state. If you want or are required to use a different SSL certificate at your installation site, please contact your IT department to obtain a valid signed SSL Certificate. You can use system utilities in the Extron Toolbelt software to upload your new SSL certificate to the TouchLink Pro panel. The *Toolbelt Help File* provides instructions on how to apply an SSL certificate to a control system product.

NOTES:

- You must run Toolbelt as an administrator.
- Some certificates require a passphrase that is created when the certificate is created. If a passphrase is required, you must enter that passphrase before uploading and applying the certificate.

These devices support standard OpenSSL certificate encodings such as .pem (Privacy-enhanced Electronic Mail) and .der (Distinguished Encoding Rules) file types. PEM file types are ASCII encoded and are the required format for uploading to the Extron control product. DER file types are binary encoded and can typically have several file extension variations, such as .crt and .cer. There are many standard tools that can convert from DER to PEM file encodings if needed.

NOTE: A DER format file must be converted to PEM encoding before uploading it to the button panel, control processor, or collaboration receiver.

To properly create the certificate for uploading to Extron control devices, ensure that the certificate file meets the following requirements:

- contains X.509 certificate information
- contains public and private keys
- uses PEM encoding

NOTE: ITU-T standard X.509 covers aspects of public key encryption, digital cryptography, certificates, and validation.

Contact your IT administrator for more information on what tools and policies are required to obtain or create the SSL certificate and, if necessary, the corresponding passphrase.

IEEE 802.1X Certificates

IEEE 802.1X is a standard that enables port-based network access control via an authentication server. The protocol requires that all devices must be authenticated before gaining privileges to access the secure part of the network.

The Extron implementation of 802.1X supports PEAP - MSCHAPV2 and EAP - TLS methods of authentication. This section of the guide details the [Certificate File Requirements](#) and the [Private Key File Requirements](#) (see the next page) to be used in the system.

Extron provides resources for learning about 802.1X implementation:

- The Extron 802.1X Technology Reference Guide, available from www.extron.com, is the primary resource for background information, system planning, topology, and how to set up these systems.
- The Toolbelt Help file provides detailed step-by-step information on using the software to set up 802.1X for TouchLink scheduling (TLS) panels and on troubleshooting.
- The 802.1X Primer white paper, also available from www.extron.com, provides a general overview of the protocol and its use within a control system.

NOTES:

- You must run Toolbelt as an administrator.
- Machine certificates require a private key file, which can be encrypted.

Certificate File Requirements

PEM (Privacy-enhanced Electronic Mail) file types are ASCII encoded, and they are the required format for 802.1X authentication for TLS panels. DER (Distinguished Encoding Rules) file types are binary encoded and can typically have several file extension variations, such as `.crt` and `.cer`.

NOTE: DER encoded files (files with `.der`, `.crt`, or `.cer` extensions that are encoded in DER binary format) must be converted to a PEM encoded file type (`.pem`) before being used for authentication.

DER encoded certificates must be converted to PEM encoding using a third-party tool. Contact your IT administrator for more information on required tools.

To create the 802.1X security certificate for uploading to Extron TLS panels, ensure that the certificate file meets the following requirements:

- It contains X.509 certificate information.
- It contains a private key (for machine certificates only).
- It is PEM encoded.
- It has a file extension that is `.crt` or `.pem`
- Its file name consists of the following types of valid characters:
 - Alphanumerical (A-Z, a-z, 0-9) characters
 - Some special characters (colon [:], underscore [_], and hyphen [-])

NOTE: Spaces are not permitted anywhere in the name.

Private Key File Requirements

Private key files are required only when employing machine certificates. Follow these requirements for creating a private key:

- Its file name consists of the following types of valid characters:
 - Alphanumerical (A-Z, a-z, 0-9) characters
 - Some special characters (colon [:], underscore [_], and hyphen [-])
- It has a file extension that is .key or .pem.
- It can have optional encryption (via password or passphrase).

SNMP

Extron control products support Simple Network Management Protocol (SNMP). SNMP facilitates the exchange of basic network management information between network devices. It helps in the monitoring of operations and factors such as packet usage, memory usage, remote password resets, and collection of error information. An information technology administrator can use common IT tools to monitor those factors, as well as look up device location and the name of the contact person for the device.

The SNMP controls within Toolbelt provide a way to enable or disable SNMP. They also allow you to specify related information such as the name of a contact person, the physical location of the unit, and a community name. The text that is specified in these fields is seen by the network community when the unit is queried.

Extron control products support the following security levels:

- Management Information Base 2 (MIB-II)
- SNMPv2c.

NOTE: By default, SNMP is disabled for the TLSI 201. Select the **Enable SNMP** checkbox in the Toolbelt **Utilities** tab (see figure 219, 1) to enable it.

The screenshot shows the Extron Toolbelt interface. The main window displays a table of devices with columns for IP Address, MAC Address, Model Name, Device Type, and Firmware Version. The device '192.168.254.211' is selected, and the 'Utilities' tab is active. In the 'Utilities' tab, the 'Enable SNMP' checkbox is checked and highlighted with a red circle and the number 1. Other fields in the 'Utilities' tab include 'Public Community Name', 'SNMP Port', 'Name', 'Contact', and 'Location'.

IP Address	MAC Address	Model Name	Device Type	Firmware Version	Actions
192.168.254.200	00-05-A6-0E-04-09	DMP 128 Plus C V AT	Audio DSP	1.05.0000-b009-ENG_DEV	
192.168.254.201	00-05-A6-10-5D-56	DMP 128 Plus C V	Audio DSP	1.05.0000-b009-FNCI_DEV	
192.168.254.202	00-05-A6-0F-93-63	DMP 128 Plus C V	Audio DSP	1.06.0003-b005	
192.168.254.203	00-05-A6-0E-05-76	DMP 128 Plus C V	Audio DSP	1.07.0000-b001-ENG_DEV	
192.168.254.204	00-05-A6-17-9C-CF	TLSI 201	Interactive Wayfinding Interface	1.10.0000-b011-dev	
192.168.254.205	00-05-A6-15-C1-71	IPL Pro S1	Control Processor	3.13.0000-b006	
192.168.254.207	00-05-A6-17-01-30	TLS 725M	TouchLink Scheduling Panel	1.23.0001-b001	
192.168.254.208	00-05-A6-1C-D6-88	TLS 525M	TouchLink Scheduling Panel	1.23.0001-b001	
192.168.254.209	00-05-A6-17-01-33	TLS 725M	TouchLink Scheduling Panel	1.23.0001-b001	
192.168.254.210	00-05-A6-18-00-A0	TLSI 201	Interactive Wayfinding Interface	1.10.0000-b011-dev-ENG_DEV	
192.168.254.211	00-05-A6-17-9C-DE	TLSI 201	Interactive Wayfinding Interface	1.10.0000-b011-dev	
192.168.254.212	00-05-A6-16-34-0E	IPL Pro S1	Control Processor	3.13.0000-b006	
192.168.254.213	00-05-A6-15-DB-78	TLP Pro /Z51	TouchLink Panel	3.05.0002-b001_BRL_DEV-ENG_DEV	
192.168.254.214	00-05-A6-18-0A-10	TLSI 201	Interactive Wayfinding Interface	1.10.0000-b011-dev	
192.168.254.215	00-05-A6-1C-D6-8C	TLS 525M	TouchLink Scheduling Panel	1.22.0003-b001	

Figure 219. Enable SNMP

Extron Warranty

Extron warrants this product against defects in materials and workmanship for a period of three years from the date of purchase. In the event of malfunction during the warranty period attributable directly to faulty workmanship and/or materials, Extron will, at its option, repair or replace said products or components, to whatever extent it shall deem necessary to restore said product to proper operating condition, provided that it is returned within the warranty period, with proof of purchase and description of malfunction to:

**USA, Canada, South America,
and Central America:**

Extron
1230 South Lewis Street
Anaheim, CA 92805
U.S.A.

Asia:

Extron Asia Pte Ltd
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Japan:

Extron Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

Europe:

Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

China:

Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

Africa and Middle East:

Extron Middle East
Dubai Airport Free Zone
F13, PO Box 293666
United Arab Emirates, Dubai

This Limited Warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, abnormal operating conditions, or if modifications were made to the product that were not authorized by Extron.

NOTE: If a product is defective, please call Extron and ask for an Application Engineer to receive an RA (Return Authorization) number. This will begin the repair process.

USA: 714.491.1500 or 800.633.9876

Asia: 65.6383.4400

Europe: 31.33.453.4040 or 800.3987.6673

Japan: 81.3.3511.7655

Africa and Middle East: 971.4.299.1800

Units must be returned insured, with shipping charges prepaid. If not insured, you assume the risk of loss or damage during shipment. Returned units must include the serial number and a description of the problem, as well as the name of the person to contact in case there are any questions.

Extron Electronics makes no further warranties either expressed or implied with respect to the product and its quality, performance, merchantability, or fitness for any particular use. In no event will Extron Electronics be liable for direct, indirect, or consequential damages resulting from any defect in this product even if Extron Electronics has been advised of such damage.

Please note that laws vary from state to state and country to country, and that some provisions of this warranty may not apply to you.