User Guide

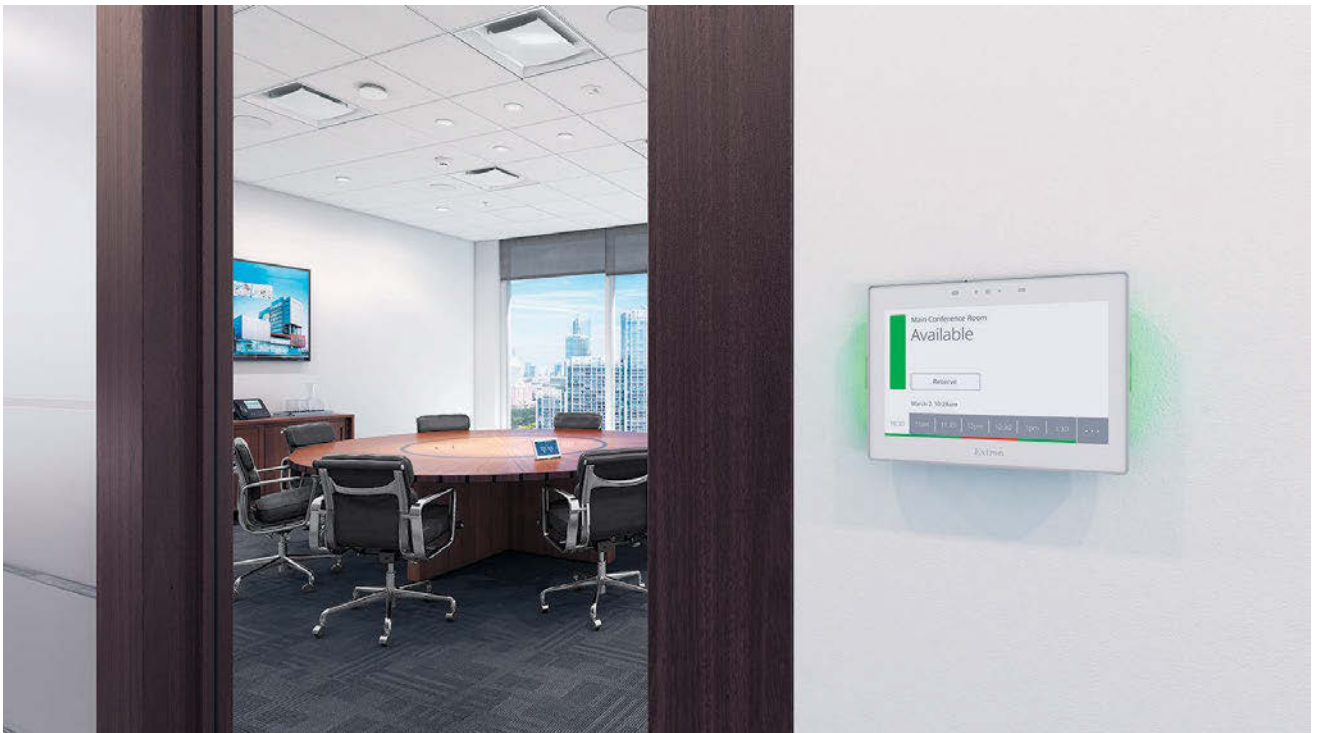**Room Scheduling**

Room Scheduling System
Room Agent™ Room Booking Software and TouchLink® Scheduling Panels

Extron

# Safety Instructions

Safety Instructions • English

WARNING: This symbol, ⚡, when used on the product, is intended to alert the user of the presence of uninsulated dangerous voltage within the product's enclosure that may present a risk of electric shock.

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.

For information on safety guidelines, regulatory compliances, EMI/EMF compatibility, accessibility, and related topics, see the Extron Safety and Regulatory Compliance Guide, part number 68-290-01, on the Extron website, **www.extron.com.**

Sicherheitsanweisungen • Deutsch

WARNUNG: Dieses Symbol ⚠ auf dem Produkt soll den Benutzer darauf aufmerksam machen, dass im Inneren des Gehäuses dieses Produktes gefährliche Spannungen herrschen, die nicht isoliert sind und die einen elektrischen Schlag verursachen können.

VORSICHT: Dieses Symbol ⚠ auf dem Produkt soll dem Benutzer in der im Lieferumfang enthaltenen Dokumentation besonders wichtige Hinweise zur Bedienung und Wartung (Instandhaltung) geben.

Weitere Informationen über die Sicherheitsrichtlinien, Produkthandhabung, EMI/EMF-Kompatibilität, Zugänglichkeit und verwandte Themen finden Sie in den Extron-Richtlinien für Sicherheit und Handhabung (Artikelnummer 68-290-01) auf der Extron-Website, **www.extron.com**.

Instrucciones de seguridad • Español

ADVERTENCIA: Este símbolo, ⚠, cuando se utiliza en el producto, avisa al usuario de la presencia de voltaje peligroso sin aislar dentro del producto, lo que puede representar un riesgo de descarga eléctrica.

ATENCIÓN: Este símbolo, ⚠, cuando se utiliza en el producto, avisa al usuario de la presencia de importantes instrucciones de uso y mantenimiento recogidas en la documentación proporcionada con el equipo.

Para obtener información sobre directrices de seguridad, cumplimiento de normativas, compatibilidad electromagnética, accesibilidad y temas relacionados, consulte la Guía de cumplimiento de normativas y seguridad de Extron, referencia 68-290-01, en el sitio Web de Extron, **www.extron.com**.

### Instructions de sécurité • Français

AVERTISSEMENT : Ce pictogramme, ⚠, lorsqu'il est utilisé sur le produit, signale à l'utilisateur la présence à l'intérieur du boîtier du produit d'une tension électrique dangereuse susceptible de provoquer un choc électrique.

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 le matériel.

Pour en savoir plus sur les règles de sécurité, la conformité à la réglementation, la compatibilité EMI/EMF, l'accessibilité, et autres sujets connexes, lisez les informations de sécurité et de conformité Extron, réf. 68-290-01, sur le site Extron, **www.extron.com**.

Istruzioni di sicurezza • Italiano

AVVERTENZA: Il simbolo, ⚠, se usato sul prodotto, serve ad avvertire l'utente della presenza di tensione non isolata pericolosa all'interno del contenitore del prodotto che può costituire un rischio di scosse elettriche.

ATTENTZIONE: Il simbolo, ⚠, se usato sul prodotto, serve ad avvertire l'utente della presenza di importanti istruzioni di funzionamento e manutenzione nella documentazione fornita con l'apparecchio.

Per informazioni su parametri di sicurezza, conformità alle normative, compatibilità EMI/EMF, accessibilità e argomenti simili, fare riferimento alla Guida alla conformità normativa e di sicurezza di Extron, cod. articolo 68-290-01, sul sito web di Extron, **www.extron.com**.

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.

UWAGI: Ten symbol, ⚠, gdy używany na produkt, jest przeznaczony do ostrzegania użytkownika ważne operacyjne oraz instrukcje konserwacji (obsługi) w literaturze, wyposażone w sprzęt.

Informacji na temat wytycznych w sprawie bezpieczeństwa, regulacji wzajemnej zgodności, zgodność EMI/EMF, dostępności i Tematy pokrewne, zobacz Extron bezpieczeństwa i regulacyjnego zgodności przewodnik, część numer 68-290-01, na stronie internetowej Extron, **www.extron.com**.

Инструкция по технике безопасности • Русский

ПРЕДУПРЕЖДЕНИЕ: Данный символ, ⚠, если указан на продукте, предупреждает пользователя о наличии неизолированного опасного напряжения внутри корпуса продукта, которое может привести к поражению электрическим током.

ВНИМАНИЕ: Данный символ, ⚠, если указан на продукте, предупреждает пользователя о наличии важных инструкций по эксплуатации и обслуживанию в руководстве, прилагаемом к данному оборудованию.

Для получения информации о правилах техники безопасности, соблюдении нормативных требований, электромагнитной совместимости (ЭМП/ЭДС), возможности доступа и других вопросах см. руководство по безопасности и соблюдению нормативных требований Extron на сайте Extron: , **www.extron.com**, номер по каталогу - 68-290-01.

安全说明 • 简体中文

警告：⚠产品上的这个标志意在警告用户该产品机壳内有暴露的危险 电压，有触电危险。

注意：⚠产品上的这个标志意在提示用户设备随附的用户手册中有重要的操作和维护(维修) 说明。

关于我们产品的安全指南、遵循的规范、EMI/EMF 的兼容性、无障碍使用的特性等相关内容，敬请访问 Extron 网站，**www.extron.com**，参见 Extron 安全规范指南，产品编号 68-290-01。

安全記事 • 繁體中文

警告：⚠️若產品上使用此符號，是為了提醒使用者，產品機殼內存在著可能會導致觸電之風險的未絕緣危險電壓。

注意 ⚠️ 若產品上使用此符號，是為了提醒使用者，設備隨附的用戶手冊中有重要的操作和維護（維修）說明。

有關安全性指導方針、法規遵守、EMI/EMF 相容性、存取範圍和相關主題的詳細資訊，請瀏覽 Extron 網站：**www.extron.com**，然後參閱《Extron 安全性與法規遵守手冊》，準則編號 68-290-01。

安全上のご注意 • 日本語

警告: この記号⚠️が製品上に表示されている場合は、筐体内に絶縁されていない高電圧が流れ、感電の危険があることを示しています。

注意: この記号 ⚠️ が製品上に表示されている場合は、本機の取扱説明書に記載されている重要な操作と保守(整備)の指示についてユーザーの注意を喚起するものです。

安全上のご注意、法規厳守、EMI/EMF適合性、その他の関連項目については、エクストロンのウェブサイト **www.extron.com** より『Extron Safety and Regulatory Compliance Guide』(P/N 68-290-01) をご覧ください。

안전 지침 • 한국어

경고: 이 기호 ⚠️ 가 제품에 사용될 경우, 제품의 인클로저 내에 있는 접지되지 않은 위험한 전류로 인해 사용자가 감전될 위험이 있음을 경고합니다.

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

안전 가이드라인, 규제 준수, EMI/EMF 호환성, 접근성, 그리고 관련 항목에 대한 자세한 내용은 Extron 웹 사이트(**www.extron.com**)의 Extron 안전 및 규제 준수 안내서, 68-290-01 조항을 참조하십시오.

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:

```
^AR Merge Scene,,Op1 scene 1,1 ^B 51 ^W^C
```

```
[Ø1] R ØØØ4 ØØ3ØØ ØØ4ØØ ØØ8ØØ ØØ6ØØ [Ø2] 35 [17] [Ø3]
```

> **NOTE:** For commands and examples of computer or device responses mentioned in this guide, the character "Ø" 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 2Ø8.132.18Ø.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

- **About this Guide**
- **About the Room Scheduling System**
- **Features**

About this Guide

This guide contains installation, configuration, and operating information for the Extron Room Scheduling System, consisting of the Room Agent Room Booking Software and compatible Extron TouchLink Scheduling panels and Touchlink Pro touchpanels. The guide also provides guidelines for configuring supported calendar servers, Microsoft® Exchange™, Microsoft Office 365™, Google™ Calendar™, and CollegeNET 25Live® to work with Room Agent software.

About the Room Scheduling System

Room Agent software uses Extron TouchLink Scheduling Panels and compatible Touchlink Pro touchpanel as full-feature room booking appliances that conveniently display meeting information and availability for rooms (see figure 1).
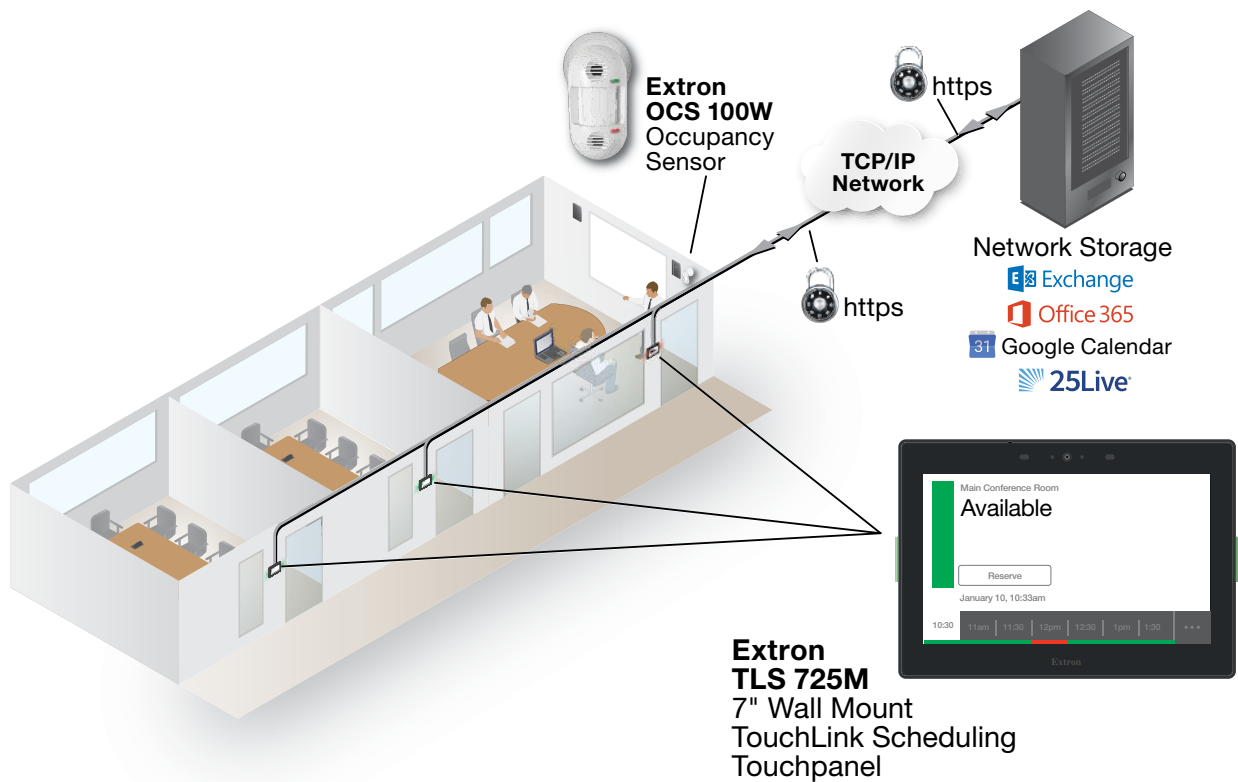
Figure 1.   **Typical Extron Room Scheduling System Application**

Compatible panels include the following models:

- TLS 520M
- TLS 525M
- TLS 525M NC
- TLS 725M
- TLS 725M NC
- TLS 1022M

- TLS 1022T
- TLS 1025M
- TLS 1025M NC
- TLP Pro 520M
- TLP Pro 720M
- TLP Pro 720T

NOTES:

- The TLS models shown above ship with the latest firmware for the scheduling system; no firmware update is required.
- The TLP Pro models shown above are included for legacy completeness only. Existing panels in your system can be updated with scheduling firmware but are no longer recommended as dedicated scheduling units.

With Room Agent, one or more panels can be connected directly to and become clients of Microsoft Exchange, Office 365, Google Calendar, and CollegeNET 25Live. The network traffic generated by panel and server communication is minimal.

As clients, the panels require no special programming. Users can book a room from any device connected to the room calendar, including their mobile devices or a connected panel.

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 (see figure 2). In addition to the customizable panel interface, bright LEDs within the bezel provide at-a-glance room availability status from down the hall.
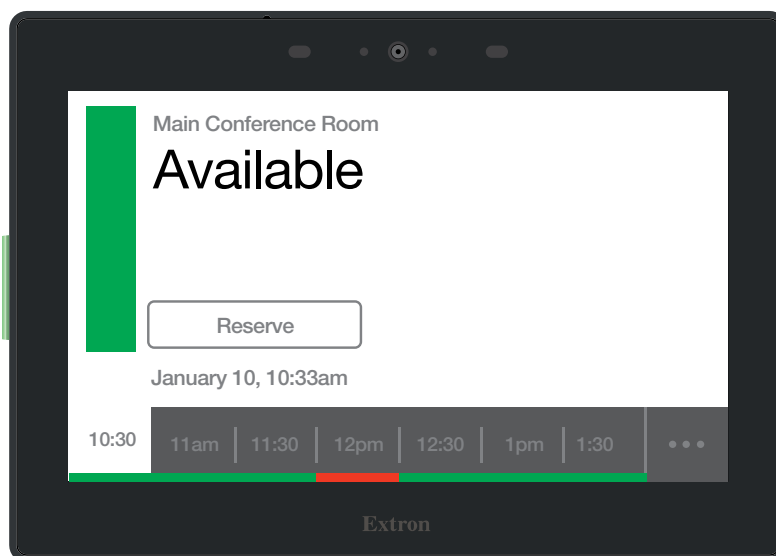
Figure 2.   **Typical Room Display on a TLS 725M Scheduling Panel**

Extron TouchLink Schedulers seamlessly tie to a Microsoft Exchange server, Office 365, Google Calendar, or CollegeNET 25Live without complicated setup or programming. Simply connect the panel to your computer, open the free Room Agent software, and fill in the required user interface fields. You can then make on-demand reservations from the panel, computer, or any smartphone or tablet that connects to Microsoft Exchange, Office 365, Google Calendar, or CollegeNET 25Live . Customization options allow fields to be shown or hidden, depending on user preference.

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 Exchange, Office 365, Google Calendar, or CollegeNET 25Live. 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 Exchange, Office 365, Google Calendar, or CollegeNET 25Live 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, and between the panels and the calendar room server 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 (see **Communications Settings Window** on page 19). 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 system administrator can change the panel password from the configuration software.

  NOTE: All panels ship with the default, case-sensitive, password "`extron`." Extron strongly recommends that you change the password for each panel during the configuration process.

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.

Compatible Panels

The following Extron panel models are compatible with the Room Agent software:

- **TLS 520M and TLP Pro 520M Panels** — A 5-inch (measured diagonally), wall-mounted panel with an 800x480 capacitive glass touchscreen.

  - **Dimensions** — Enclosure: 5.43" W x 3.74" H x 1.64" D
    (13.8 cm W x 9.5 cm H x 4.2 cm D)
    Faceplate: 6.31" W x 4.61" H (16.0 cm W x 11.7 cm H)

  - **Mounting options** —

    - The panel can be mounted in a wall.

    - The panel can be mounted on a non-porous surface, such as a conference room window with the optional Extron SMB 1 Low Profile Surface Mount Box and GMK 1 Glass Mount Kit.

- **TLS 525M Scheduling Panel** — A 5-inch (measured diagonally), wall-mounted panel with an 800x480 capacitive glass touchscreen.

  - **Dimensions** — Enclosure: 6.08" W x 4.03" H x 1.22" D
    (15.4 cm W x 10.2 cm H x 3.1 cm D)

  - **Mounting options** —

    - The panel can be mounted in a wall with an optional RWM 1 Recessed Wall Mount Kit.

    - The panel can be mounted on a non-porous surface, such as a conference room window with the optional Extron SMK 1 Surface Mount Kit.

- **TLS 725M Scheduling Panel** — A 7-inch (measured diagonally), wall-mounted panel with a 1024x600 capacitive touchscreen.

  - **Dimensions** — 7.24" W x 5.05" H x 1.20" D
    18.39 cm H x 12.83 cm H x 3.05 cm D

  - **Mounting options** — The panel can be mounted on a non-porous surface, such as a conference room window with the optional Extron SMK 2 Low Profile Surface Mount Kit. It can be mounted to a wall with the optional RWM 2 Recessed Wall Mount Kit.

- **TLS 1022M Scheduling Panel** — A 10.1-inch (measured diagonally), wall-mounted panel with a 1024x600 capacitive touchscreen.

  - **Dimensions** — 7.58" H x 10.51" W x 0.80" D
    (193 mm H x 267 mm W x 20 mm D)

  - **Mounting** — The panel can be mounted in a wall.

- **TLS 1022T Scheduling Panel** — A 10.1-inch (measured diagonally), wall-mounted panel with a1024x600 capacitive touchscreen.
    - **Dimensions** — 7.58" H x 10.51" W x 0.80" D
        (193 mm H x 267 mm W x 20 mm D)
    - **Mounting** — The panel can be mounted outside a conference room by removing the base and using an optional Extron LPVM-1 Low Profile VESA Mount.
- **TLS 1025M Scheduling Panel** — A 10.1-inch (measured diagonally) wall mounted panel with a 1280x800 capacitive touchscreen.
    - **Dimensions** — 6.84" H x 10.13" W x 1.26" D
        (174 mm H x 257 mm W x 32 mm D)
    - **Mounting** — The panel can be mounted on a non-porous surface, such as a conference room window with the optional Extron SMK 3 Low Profile Surface Mount Kit. It can be mounted to a wall with the optional RWM 2 Recessed Wall Mount Kit.
- **TLP Pro 720M Touchpanel** — A 7-inch (measured diagonally), wall-mounted panel with an 800x480 resistive glass touchscreen.
    - **Dimensions** — 6.9" H x 8.7" W x 0.5" D
        (17.5 cm H x 22.1 cm W x 1.3 cm D)
    - **Mounting** — The panel can be mounted in a wall.
- **TLP Pro 720T Touchpane**l — A 7-inch (measured diagonally) panel with an 800x480 resistive glass touchscreen.
    - **Dimensions** — 6.1" H* x 7.5" W x 7.3" D
        (15.5 cm H* x 19.0 cm W x 18.6 cm D)
        (*Maximum height includes the base, which is discarded for optional rack mounting.)
    - **Mounting** — The panel can be mounted outside a conference room by removing the base and using an optional Extron LPVM-1 Low Profile VESA Mount.

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.

Features

- Make on-demand reservations from the panel, computer, or any smartphone or tablet that connects to Microsoft Exchange, Office 365, Google Calendar, and CollegeNET 25Live.
- Make meeting rooms available as soon as a scheduled meeting ends.
- Deploy a single panel, or multiple panels with similar settings very easily.
- Room Agent software provides easy integration with Microsoft Exchange 2007, 2010, 2013, and 2016, as well as Office 365 for convenient scheduling right from Outlook.
- No annual subscription or maintenance fees.
- Each TouchLink panel model communicates directly with Microsoft Exchange, Office 365, Google Calendar, and CollegeNET 25Live.
- All communication between the panel and Microsoft Exchange, Office 365, Google Calendar, or CollegeNET 25Live is encrypted and secure.

- Two bright LED indicators make it easy to see if a room is occupied or available even from down the hall.

- Two color themes, custom loaded background images, and transparency controls provide personalized branding options.

- Power over Ethernet - PoE allows the room scheduling panel to receive power and communication over a single Ethernet cable, eliminating the need for a local power supply.

- Multi-language support – Extron Room Scheduling supports a number of different languages. See **Supported Languages** on page 62 for a complete list.

- `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.

- Optimize meeting room usage by automatically releasing an inactive room using occupancy sensors with TLS 520M, TLS 525M, TLS 725M, TLP Pro 520M, and TLS 1025M panels

- Customizable date and time formats with a preview showing how the user interface will look on the panel.

- Customizable room availability hours allow you to select the start and end times for the availability of a room.

- View details of the meetings scheduled for the day.

- Each panel now captures and retains a downloadable scheduling activity file that provides Exchange information as well as information input directly on the panel.

- Exchange auto-discovery streamlines system setup.

- Room Agent software can handle all panel firmware updates.

Panel Overview

This section describes operating the scheduling system from the distributed scheduling panels. Topics include:

- **Overview**

This section presumes that you have installed and configured the Extron Room Agent software and the desired calendar server. See the following sections if necessary:

- **Room Agent Installation and Configuration**, beginning on page 11
- **Microsoft Environment Setup**, beginning on page 50
- **Google Calendar Environment Setup**, beginning on page 57

Overview

Once the system is installed and configured, you can use a scheduling panel (see figure 3) to check the availability of the associated room and to reserve a room now or in the future. The display is highly customizable with the Room Agent software (see **Layout tab** on page 37), so your panels may not exactly resemble the sample displays shown below.

Room Available Display   Room Unavailable Display
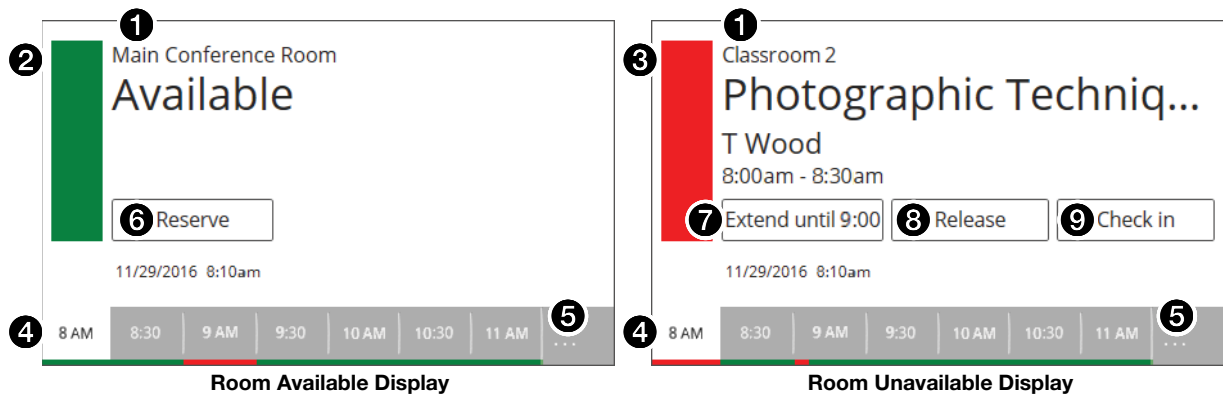
Figure 3.   **Typical Room Scheduling System Panel Displays**

- ❶ **Data fields** (see the **next page**)
- ❷ **Room available (green) flag** (see the **next page**)
- ❸ **Room unavailable (red) flag** (see the **next page**)
- ❹ **Timeline** (see the **next page**)
- ❺ **Full day (· · ·) button** (see **page 9**)
- ❻ **Reserve button** (see **page 9**)
- ❼ **Extend button** (see **page 9**)
- ❽ **Release button** (see **page 10**)
- ❾ **Check in button** (see **page 10**)

➊ **Data fields** (see **figure 3** on the previous page) — Five fields, of various type sizes, each of which can display a variety of informational messages, defined using the Room Agent software (see **Layout tab** on page 37. Four fields are above and one is below the position of the **Reserve** button (**6**, the **Room Available** display shown in figure 3) or **Extend** button (**7**, the **Room Unavailable** display) on the panel. Each field can be left blank or can display any one of the following:

- The room name

- The meeting subject

- The meeting organizer (full name or first initial and last name)

- The meeting duration

- The current date, time, or both, displayed in a variety of formats (such as 12-hour or 24-hour time)

➋ **Room available (green) flag** (see **figure 3**) — Indicates the room is free for the selected block of time (see the Timeline [**4**]). When the room is free, the **Reserve** (**6**) button may also be displayed (if it is programmed to appear using the Room Agent software, see **Layout tab**.

Green LEDs on the panel bezels provide at-a-glance room availability status from down the hall.

➌ **Room unavailable (red) flag** (see **figure 3**) — Indicates the room is reserved for the selected block of time (see the Timeline [**4**]). When the room is reserved, the **Extend** (**7**), **Release** (**8**), and **Check in** (**9**) buttons may also be displayed (if they are programmed to appear using the Room Agent software, see **Layout tab**).

Red LEDs on the panel bezels provide at-a-glance room availability status from down the hall.

> **NOTE:** These indicators reflect the reservation only, not if the actual scheduled meeting has taken place.

➍ **Timeline** (see **figure 3**) — Indicates a 4-hour span of time, in half-hour increments, starting from the current half hour. The panel displays the controls and indicators for a selected half-hour block. Unless you have selected a different block, the current half hour is the time block displayed. The bottom edge displays the availability of the room for the entire 4 hours; green is free, red is reserved.

The block selected (white) is usually the current half-hour. To select a different block of time for a proximately 5 seconds, touch the desired half-hour increment. The other panel controls, such as **Reserve** (**6**) and **Release** (**8**), are displayed for the selected block of time, whether the current or future half hour block.

> **NOTE:** The timeline increments are half-hour blocks, but the display of availability and unavailability along the bottom edge is not limited to half hours. See the brief meeting in the 9:00 block on the **Room Unavailable** display in **figure 3**.

❺ Full day (· · ·) button (see **figure 3** on page 7) — Touch this button to display a timeline of the full day availability for approximately 5 seconds (see figure 4). You can set the starting and end time of the timeline.

Figure 4. **Today's Availability Display**

Touch on the **Today's Availability** timeline (figure 4, ❶) to temporarily pop up an inset (figure 5, **Ⓐ**) showing just the availability of a block of time. This inset has no controls within it, but the scroll left (◀) and scroll right (▶) buttons (**Ⓑ**) on either side of the inset allow you to step the time that is displayed in the inset backward and forward.
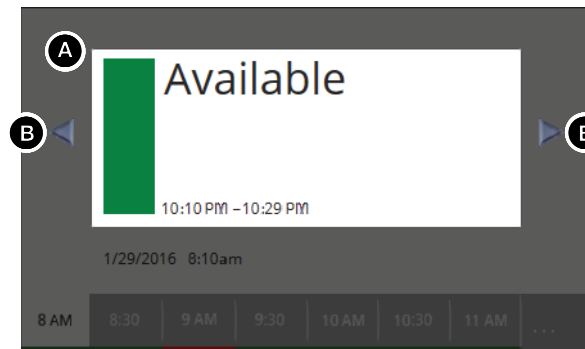

Figure 5. **Today's Availability Inset Display and Scroll Buttons**

> **NOTE:** If the panel has no connection with the calendar server, the **Full day** button is displayed in red (· · ·) and the timeline that pops up displays no meaningful data.

❻ Reserve button (see **figure 3**) — This button appears on the room available display when two conditions are met:

- The room is available in the selected 30-minute block on the timeline (see **❹** on the previous page).

- The button is programmed to appear using the Room Agent software (see **Layout tab** on page 37).

Touch the button to reserve the room for the selected 30-minute block. The panel displays the red `Room unavailable` flag (**❸**) for the selected 30-minute block and the meeting subject field, if enabled (see **Layout tab**) displays the walk-up `Subject` message. The default message is "`adHoc`," but this can be changed.

❼ Extend button (see **figure 3**) — This button appears on the room unavailable display when two conditions are met:

- The room is available directly after the unavailability selected on the timeline (**❹**). The available block can be:
  - The selected 30-minute block if the unavailability is less than 30 minutes.
  - The 30-minute block directly after the selected block if the unavailability is in a full 30-minute block.

- The button is programmed to appear using the Room Agent software (see **Layout tab**).

Touch the button to extend the reservation until the next top or bottom of the hour (*X*:00 or *X*:30) for the selected 30-minute block.

8 **Release button** (see **figure 3** on page 7) — This button appears on the room unavailable display when two conditions are met:

- The room is unavailable in the selected 30-minute block on the timeline (see **4** on page 8).
- The button is programmed to appear using the Room Agent software (see **Layout tab** on page 37).

Touch the button to release the reservation. The panel displays the green `Room available` flag (**2**) for the selected 30-minute block and the meeting subject field, if enabled (see **Layout tab**) displays the message `Available`.

9 **Check in button** (see **figure 3**) — This button appears on the room unavailable display when two conditions are met:

- The room is unavailable in the selected 30-minute block on the timeline (**4**).
- The button is programmed to appear using the Room Agent software (see **Layout tab**).

How long `Check in` can be displayed, before and after the scheduled start of the meeting, can be programmed using the Room Agent software.

Touch the button to confirm that the room is taken.

If the button is **not** touched, and depending on the programming, the panel:

- Automatically releases the room
- Hides the `Check in` button
- Does nothing

Room Agent Installation and Configuration

> **NOTES:** This manual assumes that one or more panels are already installed, cabled, and ready to serve as room booking appliances.

- **Installation**
- **Configuration**
- **Show Available Network Adapters**
- **Update Firmware**

Installation

The Room Agent software is available at no charge at **www.extron.com**.

Minimum System 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

Install the Software

The Room Agent software, version 1.5 or newer, is available on the Extron website. Download and install the program as follows:

> **NOTES:**
> - Steps 1 through 6 are also used to download a firmware update package.
> - This procedure was written using Microsoft® Internet Explorer®. Depending on the browser you use, some steps or indications may be different.

1. Visit the website **www.extron.com** and momentarily rest the cursor over the **Download** tab (see figure 6, ❶). The `Find Software & Downloads` links appear.
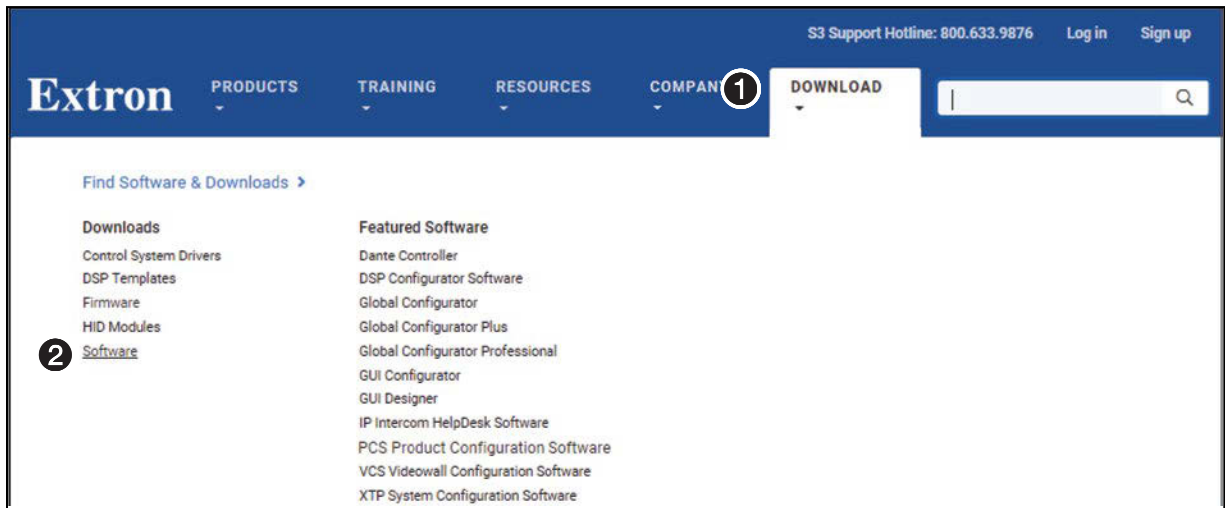

Figure 6. **Downloading a Software Package**

2. Click the **Software** link (❷). The main download page opens (see figure 7).
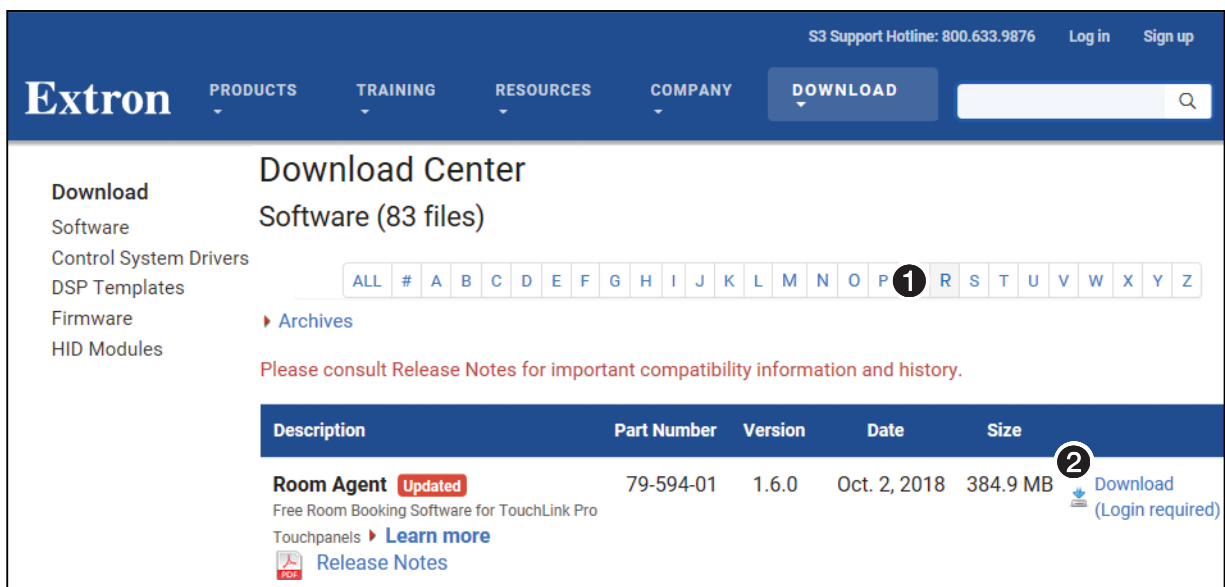

Figure 7. **Downloading from the Main Download Page**

3. Click the **R** filtering letter (see figure 7, ❶) to jump to the nearest page of downloads.

4. Click **Download** for `Room Agent` to download (see **figure 7**, ❷ on the previous page). The `Log in` dialog box appears (see figure 8).

Figure 8. Log in Dialog Box

5. Enter the **E-Mail address** and **Password** associated with your Extron website account (❶).

> **TIPS:**
> - Click **Sign up** (❷) to obtain website credentials.
> - Click **Keep me logged in** (❸) to eliminate steps 5 and 6 in future downloads.
> - Enter your registered email address and click **Retrieve Password** (❹) if you have forgotten your credentials.

6. Click **Log in** to copy the software to the computer (❺).

7. If your browser asks you to confirm that you want to continue, click **Run** or make a similar confirmation (see figure 9, ❶).

Figure 9. Download Warning and Confirmation

> **NOTE:** Figure 9 may appear different or may not appear at all, depending on your Web browser choice and its security settings.

8. Follow the on-screen instructions. By default, the installation creates the following folder and group folder. It places the entries shown below into correct group folders and on the PC desktop:

- **Folder** — `C:\Program Files\Extron\Extron Room Agent`

  > **NOTE:** `C:\Program Files(x86)\`... for 64-bit Windows OS.

- **Group folder** — `Extron Electronics\Extron Room Agent`
  - **`Room Agent Help`**
  - **`Room Agent Quick Help`**
  - **`Room Agent`**
  - **`Uninstall Room Agent`**

Configuration

Before you start the Room Agent software:

1. Ensure all the panels have been mounted and are connected to the network.

2. Ensure you know whether Microsoft Exchange, Office 365, Google Calendar, or CollegeNET 25Live is to be the calendar server and the network location of the server.

3. Ensure that you know the IP addresses of all the panels in the system (especially those that are not on the same subnet as the control PC).

4. Ensure that you know the passwords for all the panels. By default, the password is "`extron`". If the passwords have not already been changed, you should do so during configuration.

Start the Program

Start the Extron Room Agent software by double-clicking the desktop icon or as follows:

1. Click **Start > All Programs > Extron Electronics > Extron Room Agent > Extron Room Agent**.

   The Room Agent software opens in the Panel Management view (the **Panel Management** tab selected) (see figure 10).
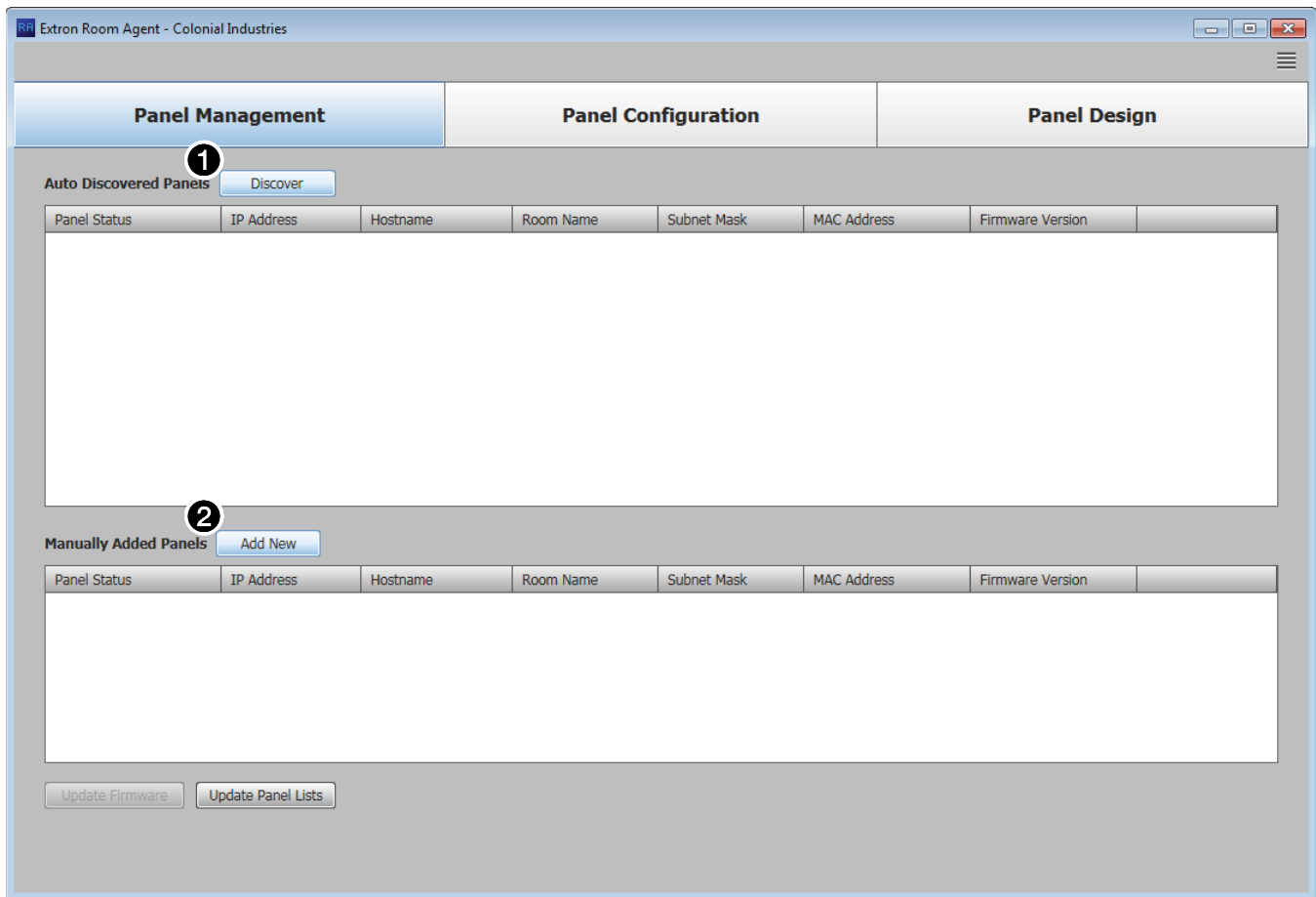

Figure 10. Room Agent Startup — Panel Management View

Automatically Discover Panels

Automatically discover panels that are on the same subnet as the computer running the Room Agent software as follows:

> **NOTE:** Any panels not on the same subnet as the computer running Room Agent must be added using the `Manually` Add Panels pane (see "Manually Add Panels").

1. If Panel Management view is not currently displayed, click the **Panel Management** tab.

2. Click the **Discover** button above the `Auto Discovered Panels` pane (see **figure 10**, ❶ on the previous page).

   The **Discover** button becomes the **Stop Discovery** button. Panels that are located on the same subnet are automatically discovered and displayed (see figure 11).

Panel Status	IP Address	Hostname	Room Name	Subnet Mask	MAC Address	Firmware Version	
	192.168.254.252	TLS-725M-0B-CD-C ...			00-05-A6-0B-CD-CF	2.00.0000-b002	Setup
	192.168.254.251	TLS-725M-0C-96-D ...			00-05-A6-0C-96-D1	2.01.0000-b007	Setup

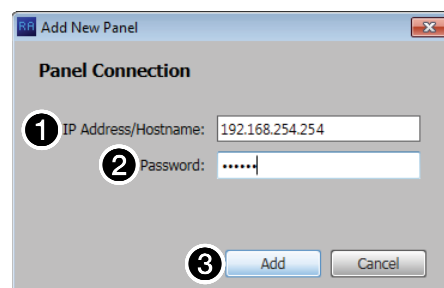**Figure 11.** Auto Discovered Panels Pane

> **NOTES:**
> - **TLS scheduling panels** ship with scheduling firmware installed. All except the TLS 525M, TLS 725M, or TLS 1025M require firmware version 2.01.0010-b001 or higher to connect to them. TLS 525M, TLS 725M, or TLS 1025M requires version 1.00.0004-b001.
> - **TLP Pro touchpanels** ship with control firmware installed. Room Agent requires that scheduling panels run different, scheduling, firmware, version 2.01.0010-b001 or higher to connect to them.
> - **For either family of panel models**, if you receive the message `Cannot connect to this device`, click **OK** in the message dialog box, **STOP HERE** and update the panel firmware (see **Update Firmware** on page 46, beginning at step 5).

3. When all of the panels are displayed, click the **Stop Discovery** button to end the search (see figure 11, ❶).

Manually Add Panels

Manually add panels that are on a different subnet than the computer running the Room Agent software as follows:

1. If Panel Management view is not currently displayed, click the **Panel Management** tab.

2. Click the **Add New** button above the `Manually Added Panels` pane (see **figure 10**, ❷). The `Add New Panel` dialog box opens (see figure 12).

Figure 12. Add New Panel Dialog Box

3. Enter the IP address of the desired panel in the `IP Address/Hostname:` field (see **figure 12**, ❶ on the previous page).

4. If the panel is password protected, enter the password in the `Password:` field (❷).

> **NOTE:** All panels ship with the default, case-sensitive, password "`extron`".

5. Click the **Add** button (❸). Room Agent searches for the requested panel and, if found, adds it to the `Manually Added Panels` pane (see figure 13).

> **NOTES:**
>
> - **TLS scheduling panels** ship with scheduling firmware installed. All except the TLS 525M, TLS 725M, or TLS 1025M require firmware version 2.01.0010-b001 or higher to connect to them. TLS 525M, TLS 725M, or TLS 1025M requires version 1.00.0004-b001.
>
> - **TLP Pro touchpanels** ship with control firmware installed. Room Agent requires that scheduling panels run different, scheduling, firmware, version 2.01.0010-b001 or higher to connect to them.
>
> - **For either family of panel models**, if you receive the message `Cannot connect to this device`, click **OK** in the message dialog box, **STOP HERE** and update the panel firmware (see **Update Firmware** on page 46, beginning at step 5).

Panel Management View

Auto Discovered Panels — Discover

Panel Status	IP Address	Hostname	Room Name	Subnet Mask	MAC Address	Firmware Version	
	192.168.254.252	TLS-725M-0B-CD-C ...			00-05-A6-0B-CD-CF	2.00.0000-b002	Setup
	192.168.254.251	TLS-725M-0C-96-D ...			00-05-A6-0C-96-D1	2.01.0000-b007	Setup

Manually Added Panels — Add New

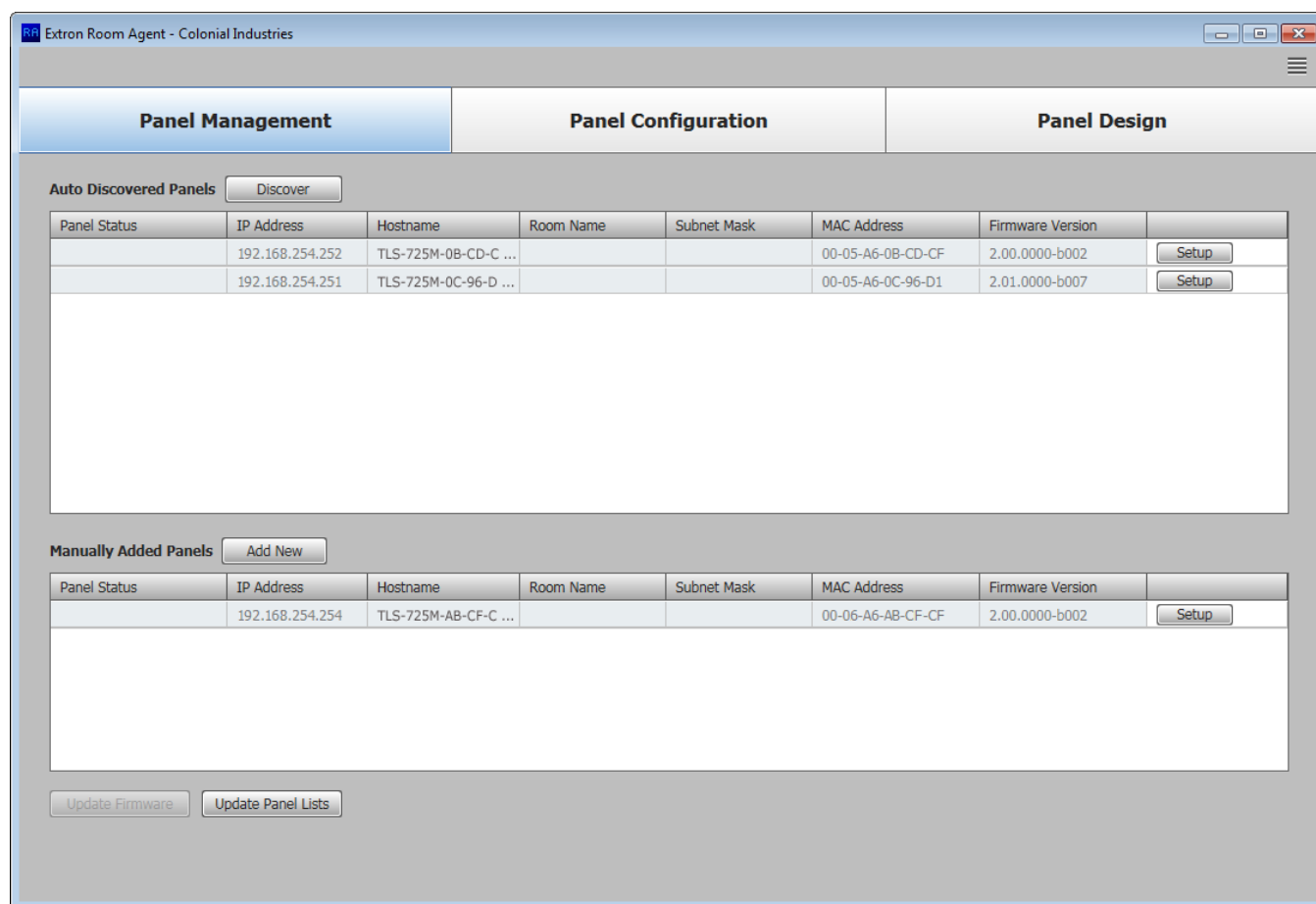| Panel Status	IP Address	Hostname	Room Name	Subnet Mask	MAC Address	Firmware Version	
	192.168.254.254	TLS-725M-AB-CF-C ...			00-06-A6-AB-CF-CF	2.00.0000-b002	Setup

Update Firmware   Update Panel Lists

Figure 13. Panel Management View with Panels Assigned

Panel Management Tab

Connect to the panel

Each panel requires setup as follows:

1. Click the **Setup** button for the panel to be set up.

    > **NOTE:** The ☒ button deletes a panel from the list.

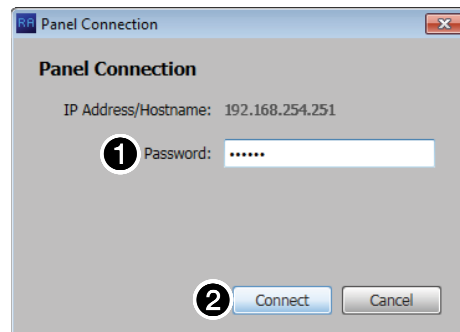   The `Panel Connection` dialog box opens (see figure 14).

    Figure 14.   Panel Connection Dialog Box

2. If applicable, enter a password in `Password` block (see figure 14, ❶).

    > **NOTE:** All panels ship with the default, case-sensitive, password "`extron`".

3. Click the **Connect** button (❷).

    The Room Agent connects to and synchronizes with the panel. Once synced, Room Agent displays the `Device Management` window with either the `Communication Settings` tab (see **figure 15** on the next page) or `General Settings` tab (see **figure 16** on page 20) selected.

Communication Settings window

The **Communication Settings** tab on the `Device Management` window (see figure 15) provides a set of tools for managing the following internet settings of the connected panel:

Figure 15.   Device Management Window, Communications Settings

❶ MAC Address (displayed only)   ❺ Default Gateway

❷ IP Address   ❻ DNS (Domain Name System) server

❸ Subnet Mask   ❼ DHCP (Dynamic Host Configuration Protocol)

❹ Hostname

When the **DHCP** checkbox (see figure 15, ❼) is selected, only the **Hostname** can be edited. All other settings (other than DHCP itself) are displayed only and unavailable for editing. To edit all settings (other than the `MAC address`), **DHCP** must be deselected (unchecked).

> **NOTE:**   If you configure the panels with a static IP address and you use a host name for the exchange server, ensure that you provide the DNS server address.

The **Communication Settings** tab also allows users to change the password of the panel.

> **NOTE:**   All panels ship with the default, case-sensitive, password "`extron`". Extron recommends that you change the password.

Change the password as follows:

1.   Click (select) the **Change Touch Panel Password** checkbox (❽).

2.   Enter the new password in the **Password** (❾) and **Confirm Password** (❿) fields.

Once you have made all desired changes available from the **Communication Settings** tab, click either the **OK** button (⓫, the `Device Management` window closes) or the **General Settings** tab (⓬, then general settings are displayed, see **figure 16** on the next page).

General Settings window

The `General Settings` tab on the `Device Management` window (see figure 16) provides a set of tools for managing display, time, and audio settings of the connected panel.
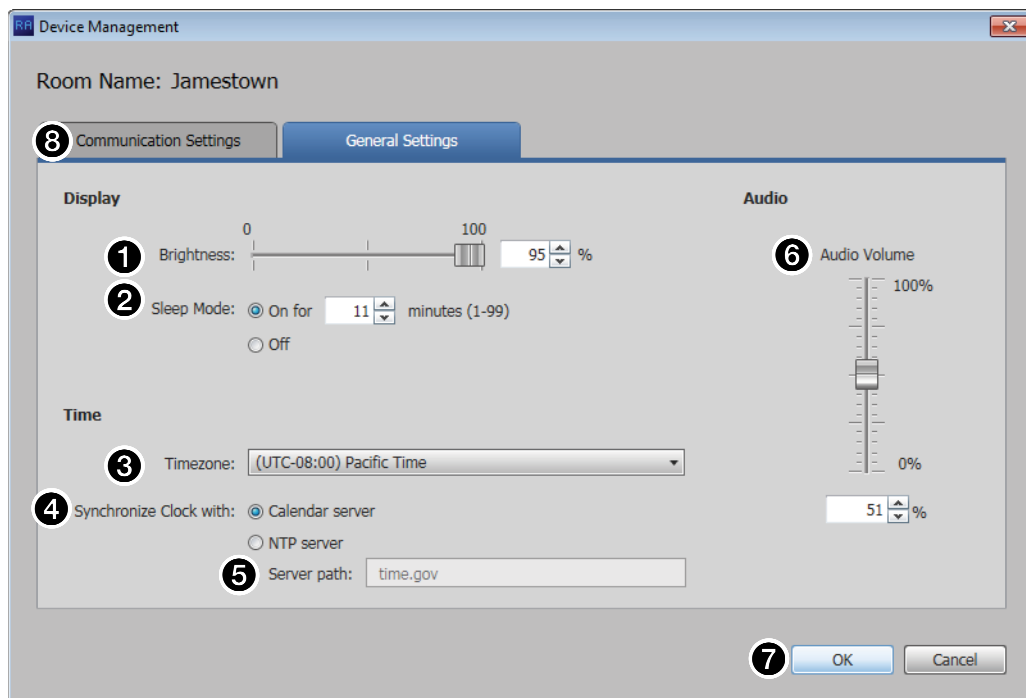

Figure 16.   Device Management Window, General Settings

❶ **Display Brightness** — Set the panel illumination brightness, from `0` to `100` (percent) using this fader control.

❷ **Display Sleep Mode** — Toggle Sleep mode `On` and `Off` by selecting the appropriate radio button. If Sleep mode is `On`, use the `Minutes` field to specify between `1` and `99` minutes.

❸ **Timezone** — Use the drop-down list to select the appropriate time zone.

❹ **Synchronize Clock with** — Toggle the clock synchronization source between the `Calendar server` and `NTP` (Network Time Protocol — a networking protocol for clock synchronization between computer systems) by selecting the appropriate radio button.

> **NOTE:**   If you select `NTP`, specify the path to the NTP server in the `Server path:` field (❺).

❺ **Server path:** (available only if NTP is selected in ❹) — Specify a path for the NTP server.

❻ **Audio Volume** — Set the panel audio volume, from `0` to `100` (percent) using this fader control.

Once you have made all desired changes available from the **General Settings** tab, click either the **OK** button (❼, the `Device Management` window closes) or the **Communication Settings** tab (❽, then communication settings are displayed, see **figure 15** on the previous page).

Panel Configuration Tab

The `Panel Configuration` window (see figure 17) provides a set of tools for selecting among the supported calendar servers and managing the settings of the selected server.

> **NOTE:** Until you designate the calendar server for your system, only the **`Select a Calendar Type`** drop-down list (❶) is available for selection.

Figure 17. Panel Configuration Window, Initial View

Click the **`Select a Calendar Type`** drop-down list (❶) and select among the choices shown in figure 17. The appearance and available selections of the `Panel Configuration` tab vary depending on the selection:

The function of the **`Configuration`** and **`Activity`** buttons (❷) is common to all Calendar Type selections. See **Common Panel Configuration tab functions** on page 35. For all other functions on these windows:

• If you selected **`Microsoft® Exchange™`**, see **Exchange configuration** on the next page.

• If you selected **`Microsoft® Office 365™`**, see **Office 365 configuration** on page 28.

• If you selected **`Google Calendar™`**, see **Google Calendar configuration** on page 29.

• If you selected **`CollegeNET 25Live`**, see **CollegeNET 25Live configuration** on page 33.

Exchange configuration

When you select **Microsoft® Exchange™** (see **figure 17**, ❶ on the previous page), the `Panel Configuration` window displays the settings necessary to connect to the panels and configure them for Microsoft Exchange (you may also commonly hear this referred to as "Exchange On Premises" or "on Prem") (see figure 18).
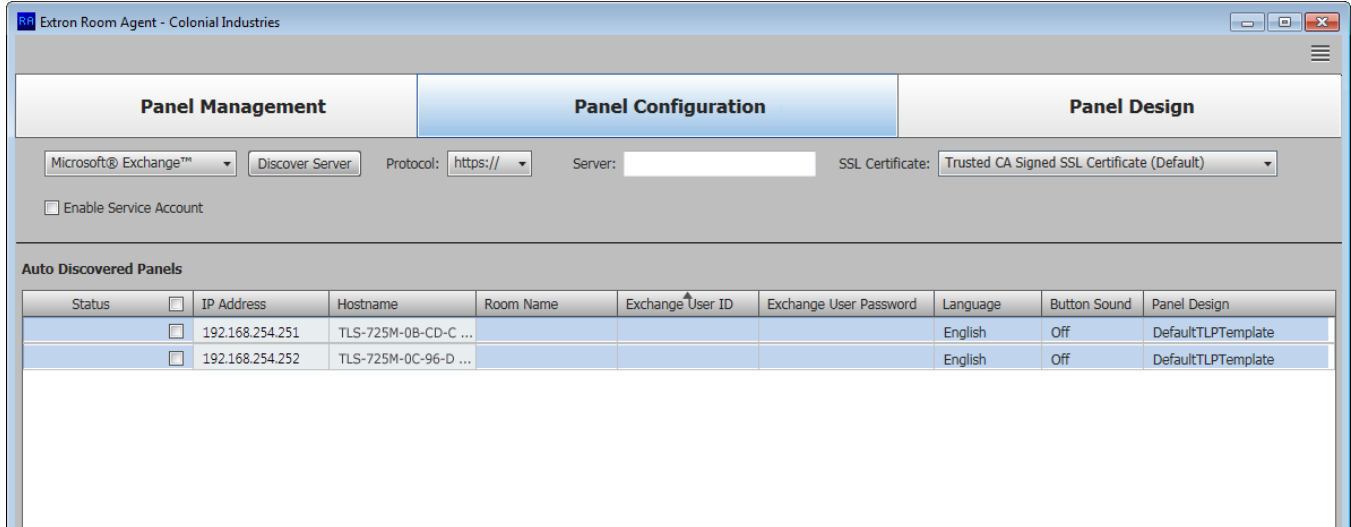
Figure 18.   Panel Configuration Window, Exchange View

Connect to the server

Connect to the Microsoft Exchange server as follows (see figure 19):
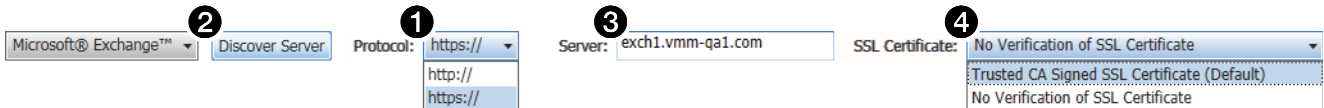
Figure 19.   Establishing a Connection the Microsoft Exchange Server

1. If necessary, click the **Protocol** drop-down list and select between **https://** and **http://** (see figure 19, ❶).

    > **NOTE:** **https://** is the correct selection for virtually all applications.

2. Click the **Discover Server** button (❷). The `Auto Discover Microsoft Exchange Server` dialog box opens (see figure 20).

Figure 20.   Auto Discover Dialog Box

3. Enter your **Email** credentials (see **figure 20**, ❶ on the previous page) and the **Password** (❷).

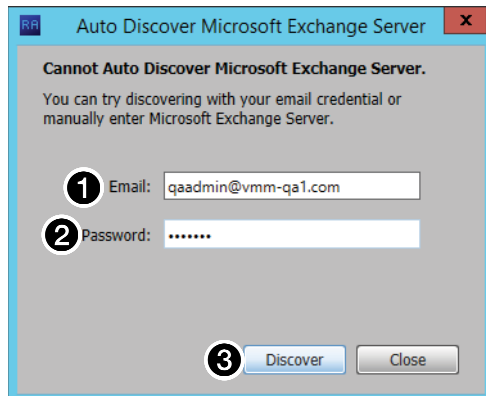4. Click the **Discover** button (**figure 20**, ❸). Room Agent finds the calendar server and fills in the **Server** field (see **figure 19**, ❸ on the previous page). Room Agent is connected to the server.

5. **If necessary**, change the **SSL Certificate** drop-down list selection (**figure 19**, ❹):

   • **Trusted CA Signed SSL Certificate** — Directs Room Agent to validate that certificates are signed by one or more trusted Certificate Authorities. **This is the correct selection for most applications.**

   • **No Verification of SSL Certificate** — Bypasses the validation. Use this selection if the connecting Exchange server is using self-signed SSL certificates.

   NOTE: Consult the Exchange administrator for the connecting server if you are unsure about which is the correct selection.

Configure panels

Configure the panels for Exchange as follows (see figure 21):

Figure 21. Panel Configuration

NOTE: The **Enable Service Account** checkbox (see figure 21, ❶) allows one or more service accounts to be used to configure the panels. See **Use service accounts** beginning on the next page to configure and use service accounts.

1. Select (check) one or more **Status** checkboxes (❷).

2. For the direct entry settings, **Room Name** (❸), **Exchange User ID** (Exchange credentials, ❹), and **Exchange User Password** (❺):

   NOTES:
   • If service accounts are enabled, the **Exchange User ID** and **Exchange User Password** columns are titled **Service Account** and **Room Resource Account** (see **figure 22** on the next page).
   • 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.
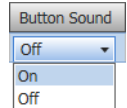
   a. Click in the desired field.

   b. Type the desired value.

   c. Type the keyboard <**Tab**> key to exit the field.

3. For the drop-down lists, `Language` (see **figure 21**, ❻ on the previous page), `Button Sound` (❼), and `Panel Design` (❽):

> **NOTES:**
> - The `Language` menu includes a number of different languages. See **Supported Languages** on page 62 for a complete list.
> - The `Button Sound` menu consists of `On` and `Off`.
> - The `Panel Design` menu includes the `DefaultTLPTemplate`, which is the default that is installed as part of the Room Agent software, as well as any templates that you have created and saved (see **Templates pane** on page 44).

    a. Click in the desired field.

    b. Click the drop-down list button (▼).

    c. Click the desired setting.

Use service accounts

The Room Agent software can use the service account functions of the Exchange and Office 365 "impersonation" feature as a single point to manage the configuration of multiple panels. One example of this application is a facility where passwords are changed every few months; rather than change the password on multiple panels, an administrator can change the password of one service account tied to multiple panels.

Enable and add service accounts —

1. If necessary, access the Exchange server `Active Directory Users and Computers` window or the Office 365 `Admin center` page and create one or more service accounts with valid e-mail addresses.

> **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.

2. On the Room Agent software `Panel Configuration` page, select the **Enable Service Account** checkbox (see figure 22, ❶). The **Service Account Manager** button appears (❷). The **Exchange User ID** and **Exchange User Password** columns become **Service Account** (❸) and **Room Resource Account** (❹).
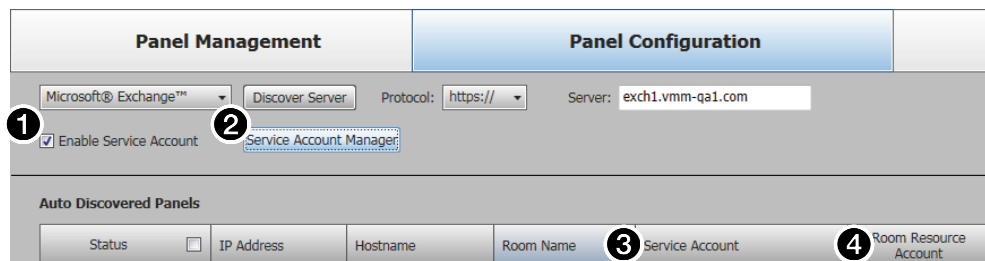
Figure 22. **Enable Service Accounts**

> **NOTE:** Figure 22 shows `Microsoft® Exchange™` selected. With the exception of the selection, the appearance is identical when `Microsoft® Office 365™` is selected.

3. Click the **Service Account Manager** button (see **figure 22**, ❷ on the previous page). The Service Account Manager dialog box opens with the **Assign Service Account** tab selected (see figure 23, ❶).

Figure 23. Add Service Accounts

4. Enter a valid **Service Account Email** address (❷).

5. Enter the **Service Account Password** (❸).

> **TIP:** The **Service Account Password** field is normally masked (•••). Select the **Show Password** checkbox (❹) to see the password characters as you type.

6. Click **Add** (❺). The Add Service Account area displays the message Service Account has been added and is ready to be assigned to panels. The account is added to the **Service Account** drop-down list (❻).

7. Repeat steps 4 through 6 for each service account.

Assign service accounts —

1. If necessary, click the `Assign Service Account` tab (see figure 24, ❶).
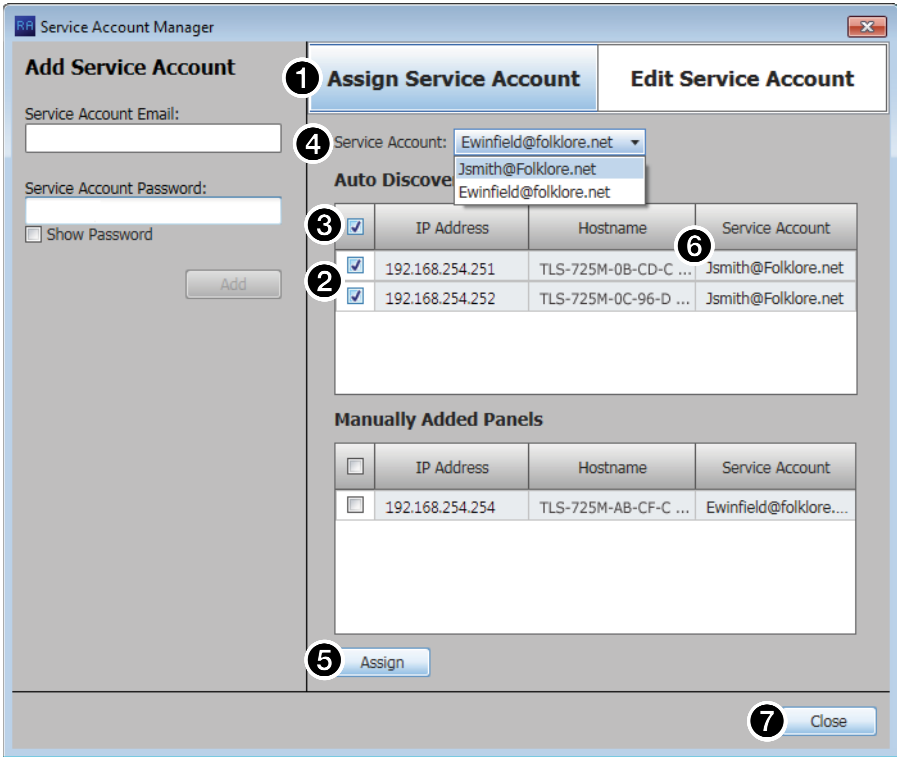
Figure 24.   Assign Service Accounts

2. Select (check) one or more panel `IP Address` checkboxes (❷).

> **TIP:**   Select either the `Auto Discovered Panels` or `Manually Entered Panels` checkbox (❸) to select all panels in that pane.

3. Select the desired service account among the entries in the `Service Account` drop-down list (❹).

4. Click `Assign` (❺). The selected Service Account is assigned to the designated panels (❻).

5. Repeat steps 2 through 4 to assign other service accounts to other panels.

6. Click `Close` (❼). The `Service Account Manager` dialog box closes and the Room Agent software returns to the `Panel Configuration Window` displayed. For the panels with service accounts that are enabled, the normal `Exchange User ID` and `Exchange User Password` columns are titled `Service Account` and `Room Resource Account` (see figure 25).

Figure 25.   Display With Service Accounts Enabled and Not Enabled

7. For each panel, enter the e-mail address used as the fully qualified room resource in the `Room Resource Account` column (see figure 25, ❶).

Edit a service account password —

1. If necessary, open the `Service Account Manager` dialog box (see **Enable and add service accounts**, steps 2 and 3, beginning on page 24).

2. Click the `Edit Service Account` tab (see figure 26, ❶).
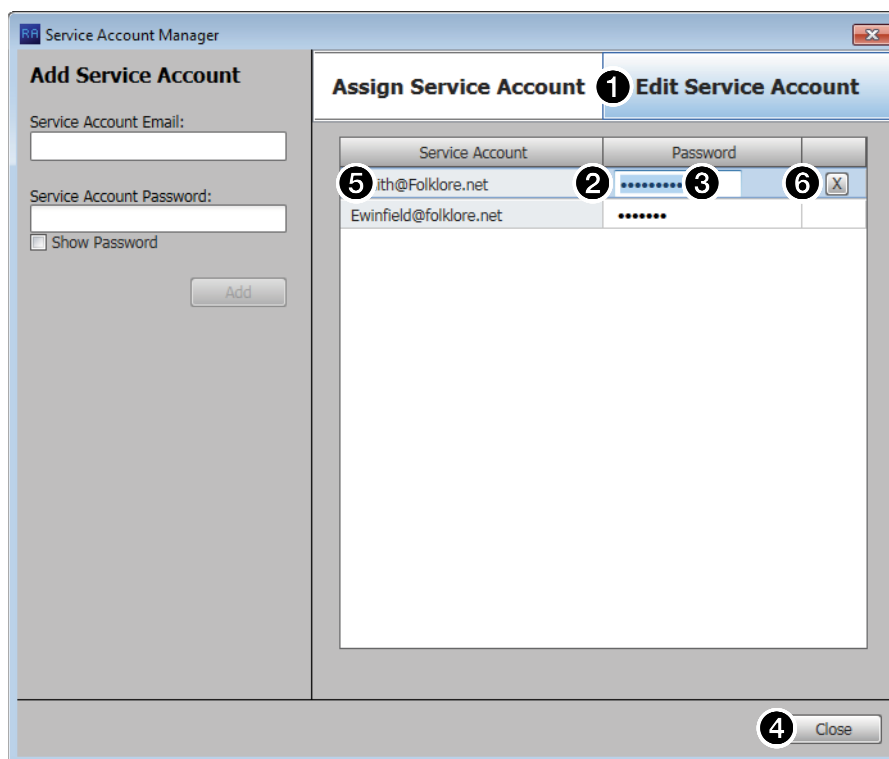
Figure 26.   Edit Passwords

3. Double-click in the `Password` field for the service account to be edited (❷).

4. Highlight the password and type a new value (❸).

5. Type the keyboard <`Enter`> key.

> **TIPS:**
> - The `Password` field is normally masked (•••). Delete the existing password to activate the `Show` feature to see the password characters as you type.
> - Click `Show` to toggle between `Show` and `Hide`.
> - After you type <`Enter`>, the `Password` field is again masked.

6. Click `Close` (❹).

Delete a service account password —

1. If necessary, open the `Service Account Manager` dialog box (see **Enable and add service accounts**, steps 2 and 3, beginning on page 24).

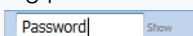2. Click the `Edit Service Account` tab (see figure 26, ❶).

3. Double-click in the `Password` field for the service account to be deleted (❷).

4. Select (click) a service account (❺).

5. Click `Delete` (⊗) button (❻).

6. Click `Close` (❹).

Office 365 configuration

When you select **Microsoft® Office 365™** (see **figure 17**, ❶ on page 21), the `Panel Configuration` window displays the settings necessary to configure the panels for Microsoft Office 365 (see figure 27).

Figure 27. Panel Configuration Window, Office 365 View

> **NOTE:** The **Enable Service Account** checkbox (see figure 27, ❶) allows one or more service accounts to be used to configure the panels. See **Use service accounts** beginning on page 24 to configure and use service accounts.

Connect to the server

Connection to the panels is made automatically, through the Office 365 server.

Configure panels

Configure the panels for Office 365 as follows:

1. Select (check) one or more **Status** checkboxes (see figure 27, ❷).

2. For the direct entry settings, **Room Name** (❸), **Exchange User ID** (Exchange credentials, ❹), and **Exchange User Password** (❺):

> **NOTES:**
> • If service accounts are enabled, the **Exchange User ID** and **Exchange User Password** columns are titled **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.

   a. Click in the desired field.

   b. Type the desired value.

   c. Type the keyboard <**Tab**> key to exit the field.

3. For the drop-down lists, **Language** (see **figure 27**, ❻ on the previous page), **Button Sound** (❼), and **Panel Design** (❽):

> **NOTES:**
> - The **Language** menu includes a number of different languages. See **Supported Languages** on page 62 for a complete list.
> - The **Button Sound** menu consists of **On** and **Off**.
> - The **Panel Design** menu includes the **DefaultTLPTemplate**, which is the default that is installed as part of the Room Agent installation, as well as any templates that you have created and saved (see **Templates pane** on page 44).

a. Click in the desired field.

b. Click the drop-down list button (▼).

c. Click the desired setting.

Google Calendar configuration

When you select **Google Calendar™** (see **figure 17**, ❶ on page 21), the `Panel Configuration` window displays the settings necessary to configure the panels for Google Calendar (see figure 28). If you select Google Calendar, you can have multiple devices using the same calendar or multiple calendars.

Figure 28. Panel Configuration Window, Google Calendar View

Configure panels

> **NOTE:** You must have downloaded a JSON file to configure panels for Google Calendar (see **Download the JSON File** on page 57.

Configure the panels for Google Calendar as follows:

1. Select (check) one or more **Status** checkboxes (see figure 28, ❶).

2. Click **Authenticate a Device** (❷) to connect to the calendar that will be associated with that panel. The `Authenticate a Device to Google` dialog box opens (see **figure 29** on the next page).
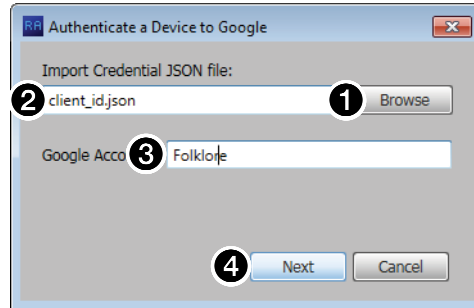
Figure 29.   Authenticate a Device to Google Dialog Box

3. Click **Browse** (❶). The `Open` dialog box opens (see figure 30).
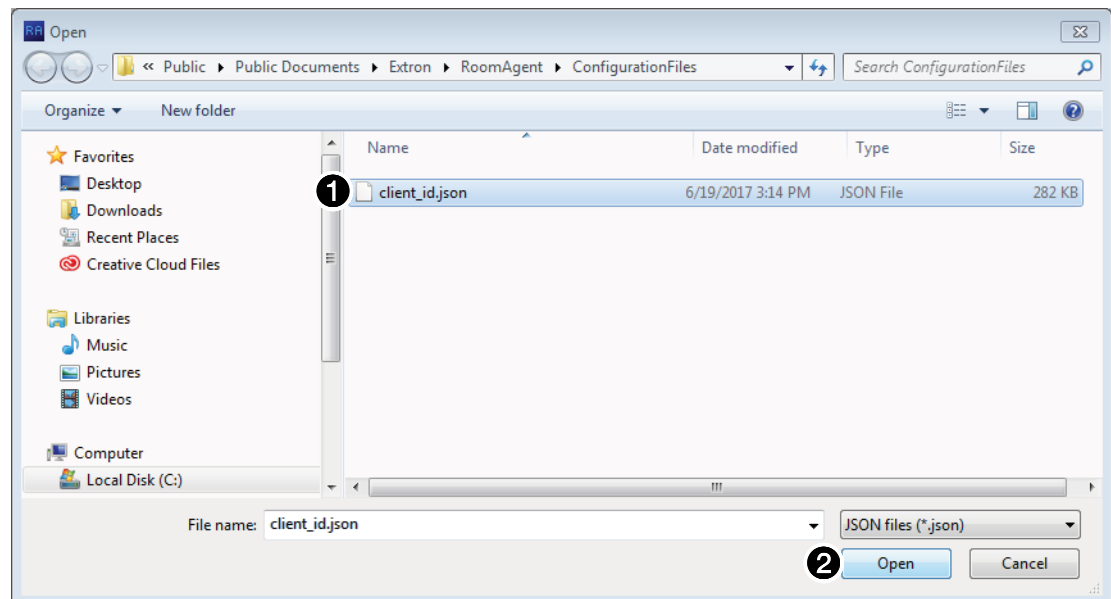
Figure 30.   Open Dialog Box

4. Navigate to the folder where you saved the JSON file. Select the file (❶).

5. Click **Open** (❷). The `Authenticate a Device to Google` dialog box returns to the top with the JSON file entered in the **Import Credential JSON File** field (see figure 29, ❷).

6. Enter a value in the **Google Account** field (❸).

> **NOTE:**   You can enter anything for the **Google Account**, such as an e-mail address or a meaningful name. The software uses this value as an identifier to keep track of Google accounts.

7. Click **Next** (❹). The `Authenticate a Device to Google` dialog box closes.

The Room Agent software retrieves a user code and prompts you to enter the code on a Google Web page (see figure 31).
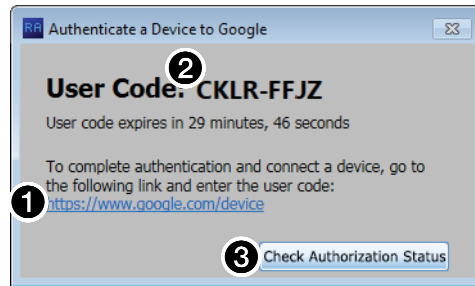
Figure 31.   User Code Dialog Box

> **NOTE:**   The **Check Authorization Status** button (❸) is not available for selection until after you have authenticated the device in step 9.

8. Click on the link (❶). Room Agent opens a separate browser to the Google `Device` page.

9. Follow the steps on the Google `Device` page to authenticate the device. When the Google Device page prompts for it, enter the **User Code** provided (❷).

> **NOTE:**   The **Product Name** that you enter during Google calendar environment setup (see **step 12** on page 59) is the name that appears on the Google `Device` page.

When you are finished, the **Check Authorization Status** button in the Room Agent `User Code` dialog box is enabled (❸).

10. Click **Check Authorization Status** (❸).

The Room Agent software checks the authorization status. Assuming no errors, it reports `Complete!` (see figure 32).
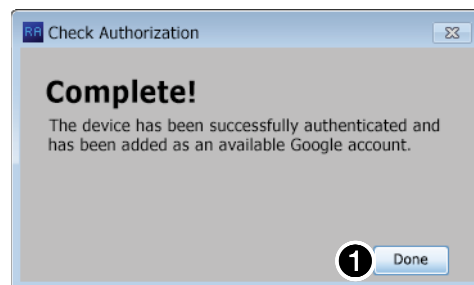
Figure 32.   Completion Dialog Box

11. Click **Done**.

The Room Agent software appends the name of the **Import Credential JSON File**, entered in step 5, to the end of the **Google Account**, entered in step 6, and displays the new value in the `Google Account` field of the `Panel Configuration` window (see **figure 33**, ❶, on the next page).

The `Panel Configuration Window` displays other fields appropriate for Google Calendar configuration.

12. For the direct entry **Room Name** (❷) setting:

    a. Click in the field.

    b. Type the desired value.

    c. Type the keyboard <**Tab**> key to exit the field.
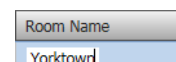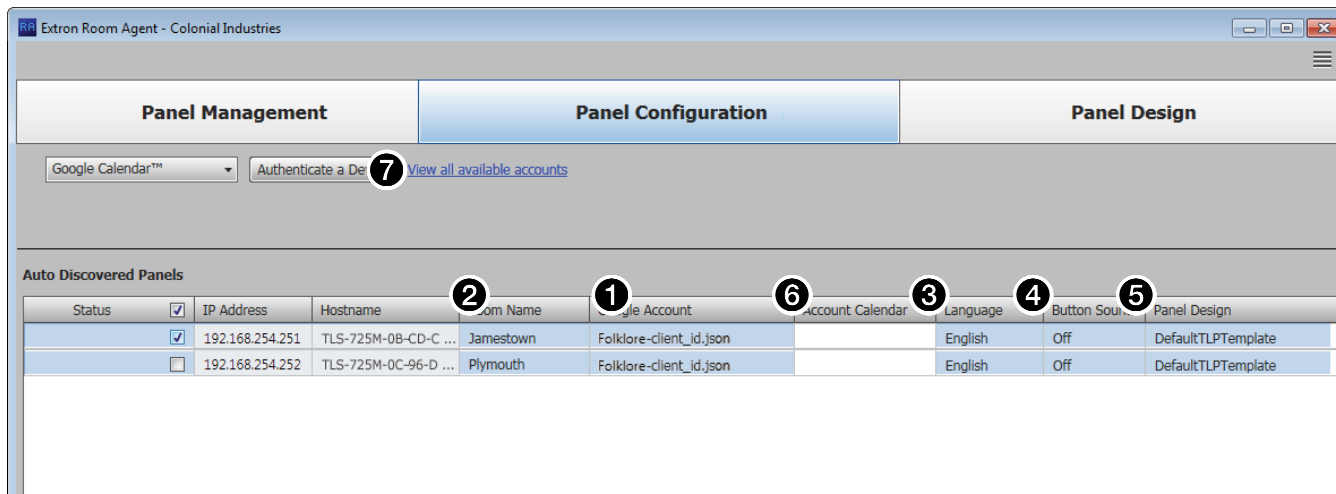
Figure 33.   Panel Configuration Window, Google Calendar View, Continuation

13. For the drop-down lists in figure 33, `Language` (❸), `Button Sound` (❹), and `Panel Design` (❺):

> **NOTES:**
> - The `Language` menu includes a number of different languages. See **Supported Languages** on page 62 for a complete list.
> - The `Button Sound` menu consists of `On` and `Off`.
> - The `Panel Design` menu includes the `DefaultTLPTemplate`, which is the default that is installed as part of the Room Agent installation, as well as any templates that you have created and saved (see **Templates pane** on page 44).

a. Click in the desired field.

b. Click the drop-down list button (▼).

c. Click the desired setting.
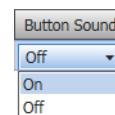
14. Observe the `Account Calendar` field (❻). The field shows the individual calendar from the Google account. For GSuite Resource calendars, this should be the Resource Name. If this field is left empty, Room Agent defaults to the calendar owner address.

> **NOTES:**
> - The Google Administrator typically assigns each room a calendar and opens access to all users that are allowed to book the rooms.
> - For GSuite User Accounts, the "Meeting Organizer" name corresponds to the Google+ profile name. If the Google+ profile has not been set up, only the organizer e-mail is displayed.

You can also click **View all available accounts** (❼) to show the status of all of the Google accounts that provide calendars (see figure 34).
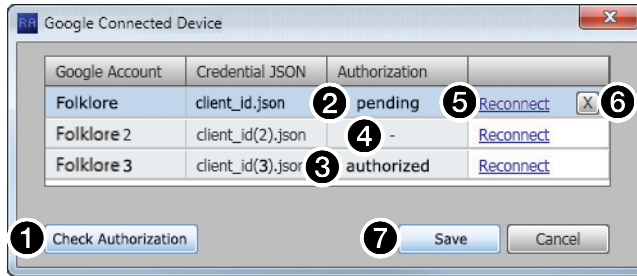
Figure 34. View All Accounts Dialog Box

> **NOTE:** The **Google Account** field is the value entered in **step 6** on page 30.

Click **Check Authorization** to poll the authorization status for all Google accounts (see figure 35, ❶). The possible authorization status are:

- **pending** (❷)— The Google authorization for this account has been started but not yet approved.

- **authorized** (❸)— This account is authorized for Google Calendar.

> **NOTE:** Before you start the authorization process, the indicated status is -(❹).

Click **Reconnect** (❺) to retrieve the user code and verification. This is similar to the device authentication procedure, **step 7** through step 10, beginning on page 30.

Click ⊗ (❻) to delete a selected account. **Save** (❼) becomes available when an account is deleted, click it to save the list of Google accounts.

CollegeNET 25Live configuration

When you select **CollegeNET 25Live** (see **figure 17**, ❶ on page 21), the **Panel Configuration** window displays the settings necessary to configure the panels for 25Live (see figure 35).
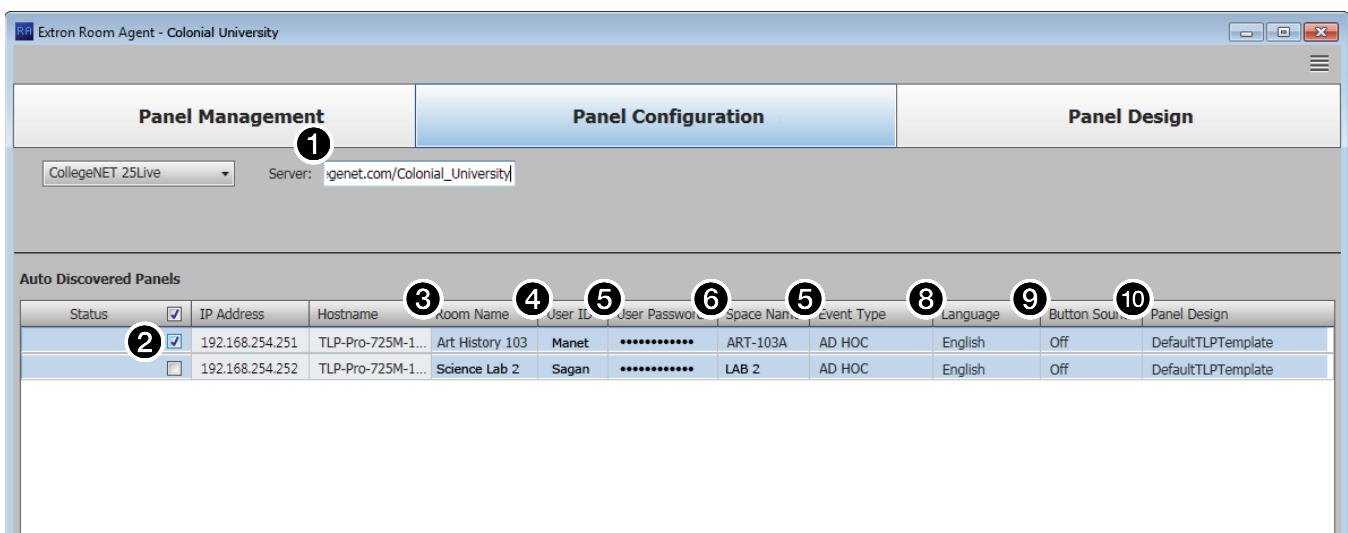
Figure 35. Panel Configuration Window, CollegeNET 25Live View

Connect to the server

Connect to the server by entering your 25Live server name in the **Server** field (see **figure 35**, ❶ on the previous page).

> **NOTE:** 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>`.

Configure panels

Configure the panels for 25Live as follows:
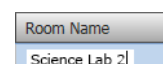
1. Select (check) one or more **Status** checkboxes (see **figure 35**, ❷).

2. For the direct entry settings, **Room Name** (❸), **User ID** (❹), **User Password** (❺), **Space Name**, (❻), and **Event Type** (❼):

   > **NOTES:**
   > - The **User ID** and **User Password** entries must be for a user account that has access to the desired space.
   > - The **Room Name** is what is displayed on the front panel. The **Space Name** is a specific space that has been set up on the 25Live server in advance of Room Agent setup. They may or may not match.
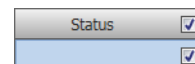   > - Enter the **Space Name** exactly as it appears on the 25Live server.
   > - Enter an **Event Type** to be used for ad hoc events from the server.
   >   - **Event Types** are created in the 25Live server. Certain **Event Types** in 25Live can have requirements, such as catering or facilities, that are not applicable to ad hoc events. The requirements for these events are not recognized by Room Agent.
   >   - An **Event Type** that properly coordinates with Room Agent, cannot have any requirements beyond the **Space Name** and an organizer.
   >   - **Ad hoc** is a suggested default **Event Type**, but you can create your own on the 25Live server.
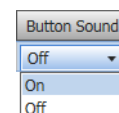
   a. Click in the desired field.

   b. Type the desired value.

   c. Type the keyboard <**Tab**> key to exit the field.

3. For the drop-down lists, **Language** (see **figure 35**, ❽ on the previous page), **Button Sound** (❾), and **Panel Design** (❿):

   > **NOTES:**
   > - The **Language** menu includes a number of different languages. See **Supported Languages** on page 62 for a complete list.
   > - The **Button Sound** menu consists of **On** and **Off**.
   > - The **Panel Design** menu includes the **DefaultTLPTemplate**, which is the default that is installed as part of the Room Agent installation, as well as any templates that you have created and saved (see **Templates pane** on page 44).

   a. Click in the desired field.

   b. Click the drop-down list button (▼).

   c. Click the desired setting.

Common Panel Configuration tab functions

Send and retrieve the configuration

The send and receive configuration functions push and pull configurable settings between the Room Agent software and one or more panels.

Send or receive one or more configurations as follows:

1. Select (check) one or more **Status** checkboxes.

2. Click the **Send Configuration** button to send the Room Agent settings to the panels and implement them in the panels.

   — or —

   Click the **Retrieve Configuration** button to fetch configurable settings from one or more panels and embed them in the Room Agent settings and fields.

   > **TIP:** Or, easily retrieve the configuration for a single panel by right-clicking the panel in the **Status** column and then clicking the pop-up **Retrieve Configuration** button.

   The Room Agent software reports that the **Status** is in progress (⟳) and then reports either **Config Sent.** or **Config Retrieved**.

Retrieve and clear the activity file

Each panel maintains an activity file, 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 or clear one or more activity files as follows:

1. Select (check) one or more **Status** checkboxes.

2. Click the **Retrieve Activity File** button 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 (see figure 36). **Proceed to step 4**.

   — or —

   Click the **Clear Activity File** button 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 successfuly.**

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

4. Enter a name for the retrieved activity file (see figure 36, ❶).
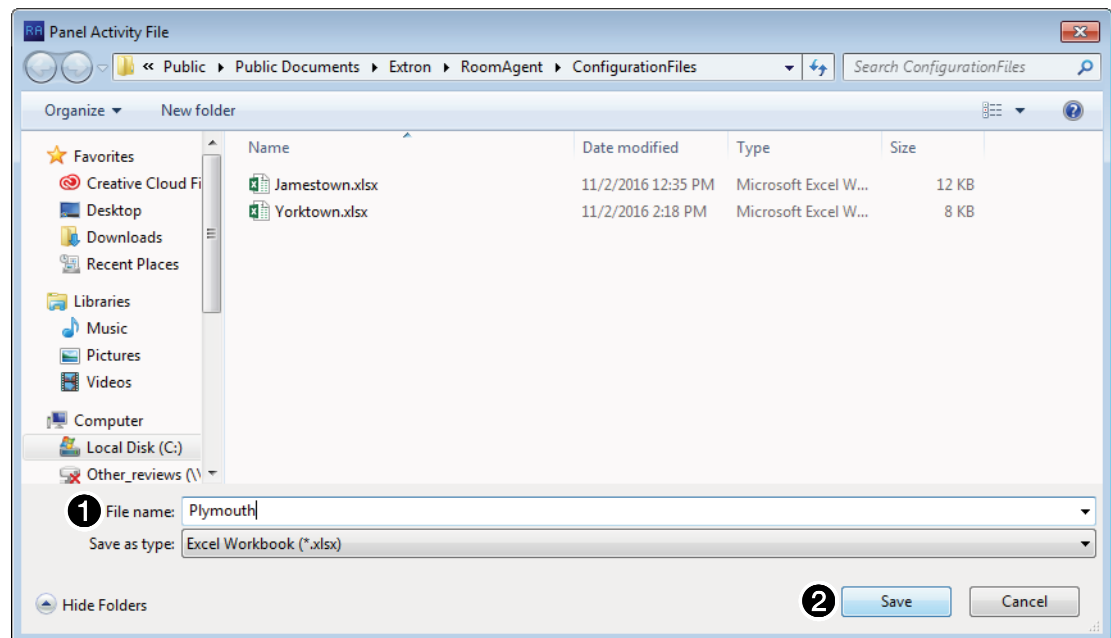
Figure 36.   Panel Activity File

5. Click **Save** (❷). 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.`

Retrieve a template

Templates allow you to create a number of customized panel appearances. Templates are selectable using the **Panel Design** menu in the `Panel Configuration` window (see **figure 21**, ❼ on page 22 for an example). Templates can be created using a variety of tools in the `Panel Design` window (see **Panel Configuration Tab** on page 21) and saved in the template pane (see **Templates pane** on page 44).

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 see ❶, at right).

2. Click the pop-up **Retrieve Template for Design** button (❷). The `Retrieve Template` dialog box opens (see figure 37).
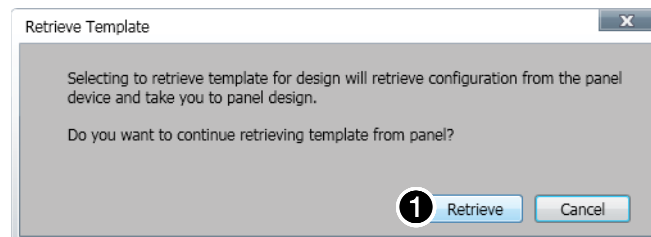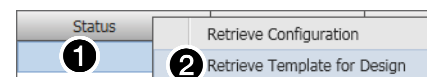
Figure 37.   Retrieve Template Dialog Box

3. Click **Retrieve** (see figure 37, ❶). Room Agent software displays the `Retrieving Template …` activity indicator while it loads the template and then automatically jumps to the `Panel Design` window (see **Panel Configuration Tab** on page 21).

Panel Design Tab

The `Panel Design` window (see figure 38) provides tools for customizing the appearance and function of the connected panels. The window consists of the design pane (❶, see "Design pane"), the preview pane (❷, see **Preview pane** on page 44), and the `Templates` pane (❸, see **Templates pane** on page 44).

> **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.
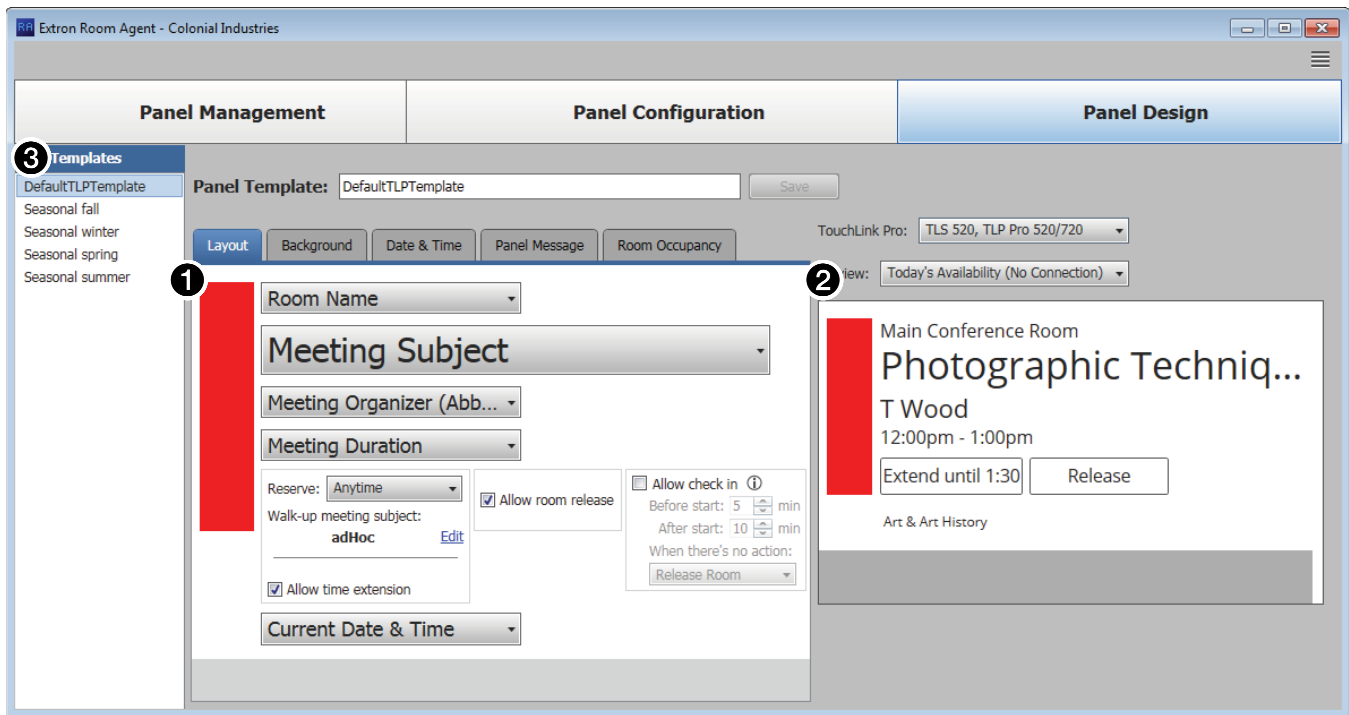
Figure 38. Panel Design Window, Layout Tab Selected

Design pane

Layout tab

If necessary, click the `Layout` tab (see **figure 39**, ❶ on the next page) to make changes to the following:

- The arrangement of the fields on the display
- Whether or not you can locally (on the panel):
  - Reserve the room
  - Release the room
  - Extend the meeting time
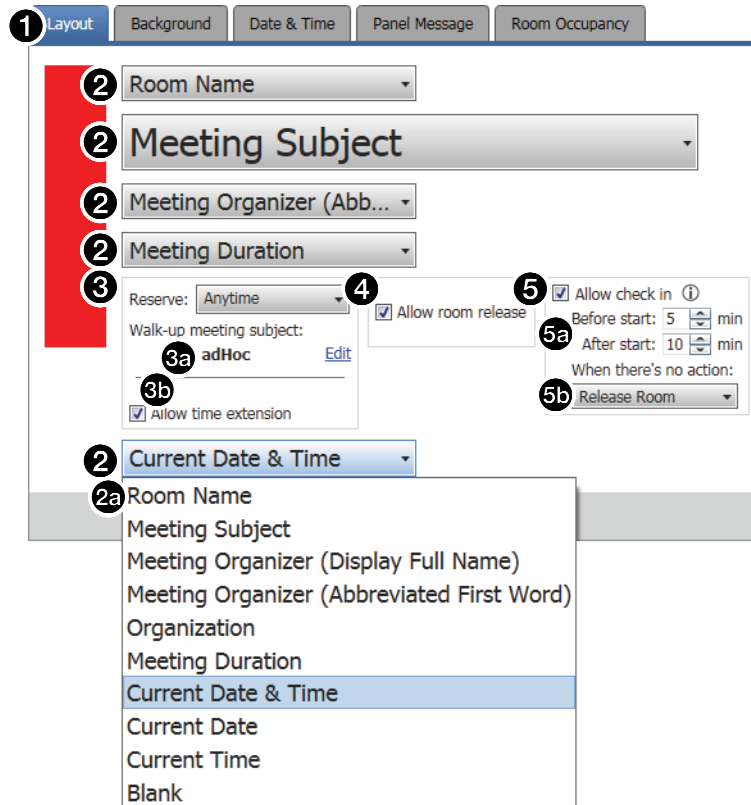
Figure 39.   Panel Design Pane, Layout Tab

❷ **Data field drop-down lists** — These five menus are positioned within the pane to correspond to data positions on the panels and in the preview pane (see **figure 38**, ❷ on the previous page). All menus contain the same options (see figure 39, ❷ₐ). Select among the options to choose the data displayed in the corresponding position. Watch the preview pane to see how your selections affect the appearance of a panel. Selecting **Blank** causes no data in the associated position.

> **NOTE:** **Organization** is available for selection only when you have selected **CollegeNET 25Live** on the **Panel Management** page (see **figure 17**, ❶ on page 21). **Organization** causes the panel to display the organization associated with the booked meeting, such as **Arts & Art History** in the preview pane.

❸ **Reserve: drop-down list** — Use this drop-down list to select whether the **Reserve** button appears on the panel and how it functions. The **Reserve** button allows user to book the room locally, on the panel itself. **Anytime** allows you to reserve any half-hour segment displayed on the panel.

❸ₐ **Subject field** (see figure 39) — This field shows the meeting subject displayed on the panel when a room is reserved from the panel. "**adHoc**" is the default subject. Change the meeting subject as follows:

1. Click the **Edit** link (see figure 40, **❶**).
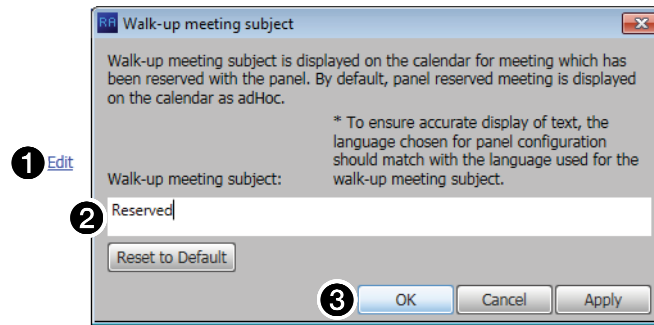
Figure 40. **Walk-up Meeting Subject Dialog Box**

2. Type the new subject name in the `Walk-up meeting subject:` field (**❷**).

3. Click **OK** (**❸**).

3b **Allow time extension checkbox** — Check and uncheck this box to select whether the **Extend until** button appears on the panel. **Extend until** extends the reservation of a room in half-hour increments **IF** no previously scheduled reservation exists in the extension period. The **Extend until** button does not appear if there is a conflict.

☑ Allow time extension

4 **Allow room release checkbox** — Check and uncheck this box to select whether the **Release** button appears on the panel. **Release** frees up a room, for example if the meeting ends early.

☑ Allow room release

5 **Allow check in checkbox** — Check and uncheck this box to select whether the **Check in** button appears on the panel for a scheduled meeting. **Check in** disappears from a panel once it is pressed.

☑ Allow check in

If checked, additional controls (**5a** and **5b**) appear on the panel to control how the **Check in** button functions.

5a **Before start and After start fields** — Use the scroll buttons or type a value into these fields to define how long the **Check in** button appears.

Before start: 5 min
After start: 10 min

- **Before start:** controls how many minutes the **Check in** button displays before the scheduled start of a meeting.

- **After start:** controls how many minutes the **Check in** button appears after the scheduled start of the meeting.

5b **When there's no action drop-down list** — Select among the options to choose how the **Check in** button and room reservation behave when no action is taken.

When there's no action:
Release Room
Release Room
Hide check in
Do not hide check in
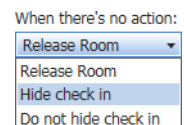
- **Release room** — The scheduling software releases the room when the **After start:** time has expired.

- **Hide check in** — The scheduling software hides the **Check in** button on the panel and releases the room when the **After start:** time has expired.

- **Do not hide check in** — The panel continues to display the **Check in** button until it is pressed.

Background tab

If necessary, click the **Background** tab (see figure 41, ❶) to make changes to the following:

* The color theme (dark or light) of the panel display:

* Any background image

* The opacity of any background image
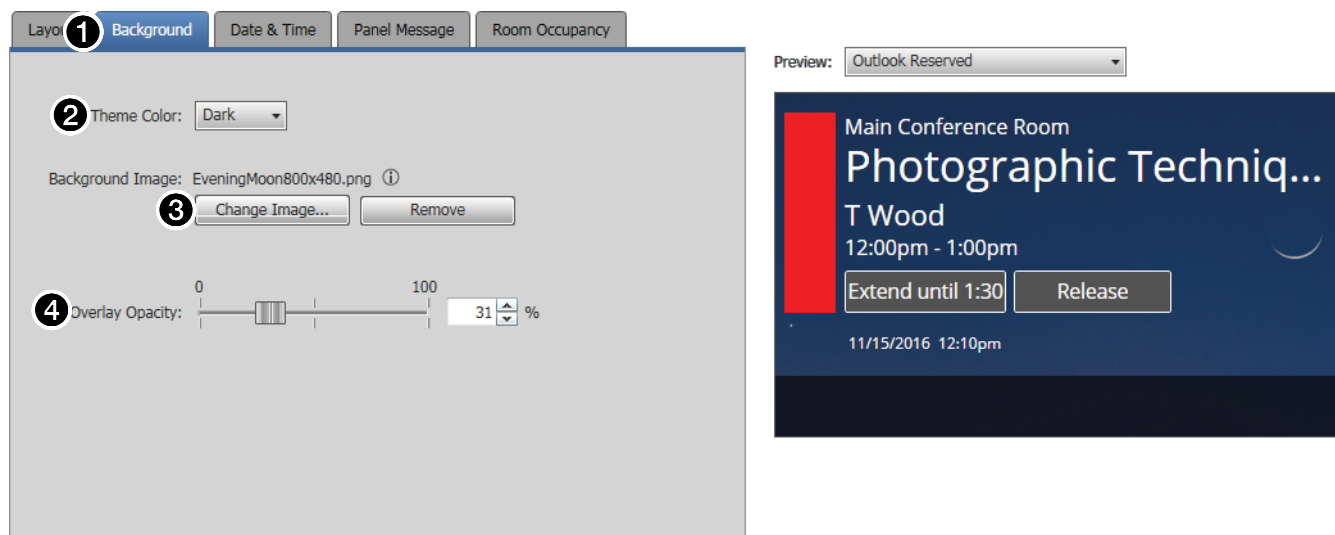
Figure 41.   Panel Design Pane, Background Tab and Preview Pane

❷ **Theme color: drop-down list** — Use this drop-down list to select either **Light** (black text on a light background) or **Dark** (white text on a dark background).
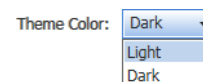
❸ **Background image:** —

* **Change Image... button** — Click to open a dialog box to assign a background image (see figure 42 and the following procedure).

* **Remove button** — Click to clear any assigned background image.
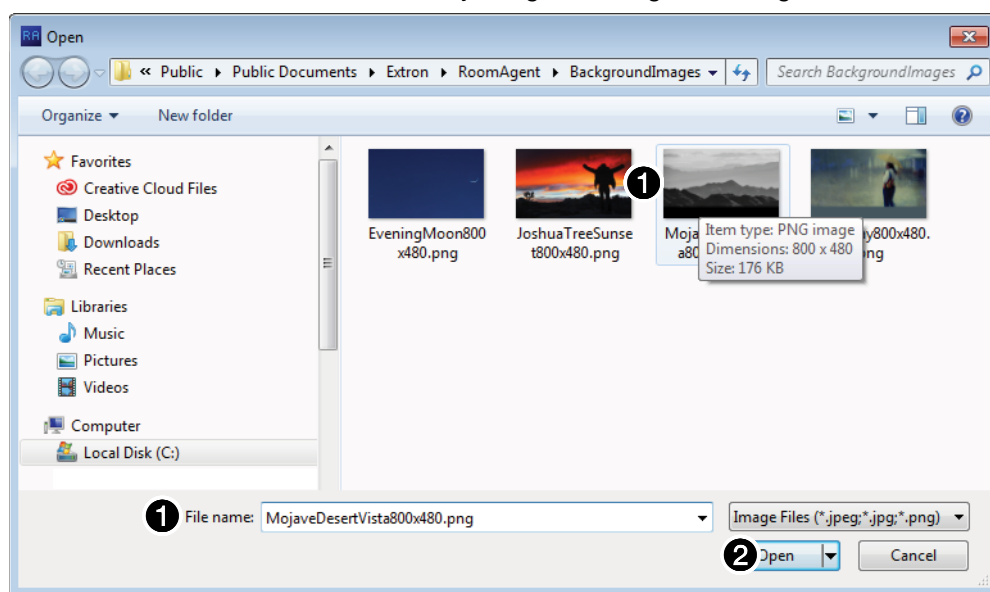
Figure 42.   Open Dialog Box and Assign a Background Image

Assign or change a background image as follows:

> **NOTE:** Room Agent software and the scheduling system support image files with the following traits only:
> - JPEG or PNG format
> - 800x480 resolution
> - 8-bit color

1. Click the `Change Image…` button (see **figure 41**, ❸ on the previous page). The `Open` dialog box opens.

2. Navigate to the folder where you saved the background image file. Select the file (see **figure 42**, ❶ on the previous page).

3. Click `Open` (❷). The `Open` dialog box closes and the newly assigned background image is displayed in the preview pane (see **figure 41**).

❹ **Overlay Opacity** (see **figure 41**) —Click and drag this fader control or type a value directly in the field to set the opacity of any displayed background image.

Date & Time tab

If necessary, click the `Date & Time` tab (see figure 43, ❶) to make changes to the date and time format.

Figure 43.   Panel Design Pane, Date & Time Tab

❷ **Time Format, Time: drop-down list** — Use this drop-down list to select among `12-Hour` (1:3Ø PM, for example), `24-Hour US` (13:3Ø),and `24-Hour International` (13.3Ø).

❸ **Room Availability Format, Start time: drop-down list** — Use this drop-down list to select the start time of room availability display, in half-hour increments.

❹ **Room Availability Format, End time: drop-down list** — Use this drop-down list to select the end time of room availability display, in half-hour increments. The menu also shows the quantity of time the room availability is displayed.

❺ **Date Format radio buttons** — Use these radio buttons to select the format to display on the panel. After you select either `Short date` or `Long date`, the associated drop-down list (see ❻ and ❼ on the next page) becomes available for selection.

⑥ Short date: drop-down list — Use this drop-down list, available when the `Short date` radio button is selected, to select among short date (in which the month is represented by a numeral) display formats.

⑦ Long date: drop-down list — Use this drop-down list, available when the `Long date` radio button is selected, to select among long date (in which the month is spelled out) display formats, such as day month year or month day year and whether to include the day of the week.

Panel Message tab

If necessary, click the `Panel Message` tab (see figure 44, ❶) to make changes to the message displayed when the panel has no connection to the calendar server.

| Layout | Background | Date & Time ❶ Panel Message | Room Occupancy |

Panel message is displayed on Today's Availability view. This message appears when panel device has no connection with the calendar server.

Panel message:
* To ensure accurate display of text, the language chosen for panel configuration should match with the language used for the message.

❷ This panel device currently has no connection with the calendar server.

❸ Reset to Default ❹ Clear All

Figure 44.   Panel Design Pane, Panel Message Tab

❷ Panel message: field — Type in the panel message to be displayed.

❸ Reset to Default button — Click to return the default panel message (displayed in figure 44).

❹ Clear All button — Click to clear the panel message.

Room Occupancy tab

> **NOTES:**
> - This screen is always selectable and behaves as described, but only TLS 520M, TLS 725M, and TLS 1025M scheduling panels, and TLP Pro 520M touchpanels have the digital I/O connectors necessary to connect the OCS 100 Occupancy Sensors.
> - See **Occupancy Sensor Configuration** on page 63 for an overview of connecting the occupancy sensors to compatible panels.

If necessary, click the `Room Occupancy` tab (see figure 45, ❶) to access the settings for rooms equipped with occupancy sensors.

Figure 45.   Panel Design Pane, Room Occupancy Tab

❷ **Allow room occupancy sensor for meeting checkbox** — Check and uncheck this box to enable and disable the use of room occupancy sensors to determine if a meeting has started.

If checked, additional controls (see ❷ⓐ through ❷ⓒ) become available to control how the sensors function.

   ❷ⓐ **Disable sensor field** — Use the scroll buttons or type a value into this field to disable the sensors for longer meetings.

   ❷ⓑ **When room is inactive field** — Use the scroll buttons or type a value into this field to set a time of room inactivity after the scheduled start time, after which the room **may** be released for another meeting (as defined in ❷ⓒ). This field may not contain Ø minutes.

   > **NOTE:**   This counter begins after the sensor has changed state to indicate the room is unoccupied.

   ❷ⓒ **When room is inactive drop-down list** — Use this drop-down list to select between `Take no action` (leave the room reserved) and `Release room` (make the room available for other users).

❸ **Sensor Output Type radio button** (see **figure 45** on the previous page) — Select one of these radio buttons to denote how the occupancy sensor is wired to the TLS 520M, TLS 725M, or TLS 1025M scheduling panel or TLP Pro 520M touchpanel:

- `Control`
- `Relay - NC (Normally Closed)`
- `Relay - NO (Normally Open)`

Preview pane

The preview pane (see figure 46, ❶) shows the effects of changes that you make using the controls within the panel design pane.

> **NOTE:** The preview pane contains hardcoded, **sample**, entries. The layout and appearance of this pane change to reflect your changes in the design pane, but, other than the date and time, the content, such as "`Main Conference Room`", do not change.
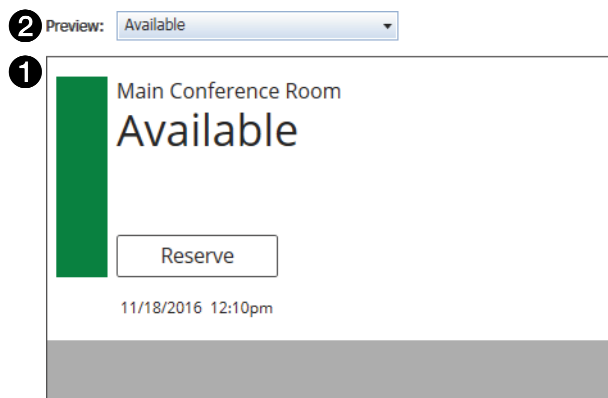
Figure 46.   Preview Pane and Drop-down list

❷ **Preview: drop-down list** — The `Preview:` drop-down list lets you select among various display possibilities so that you can further refine the appearance of panels in all of these circumstances.
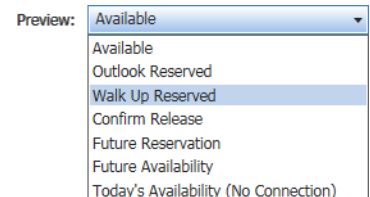
Templates pane

Templates, such as the default `DefaultTLPTemplate`, which is the default that is installed as part of the Room Agent installation, allow you to create a number of customized panel appearances. Each panel in a system can have its own template, assigned on the `Panel Configuration` window (see **figure 21**, ❼ on page 22 for an example). Select the templates on the `Templates` pane (see figure 47).
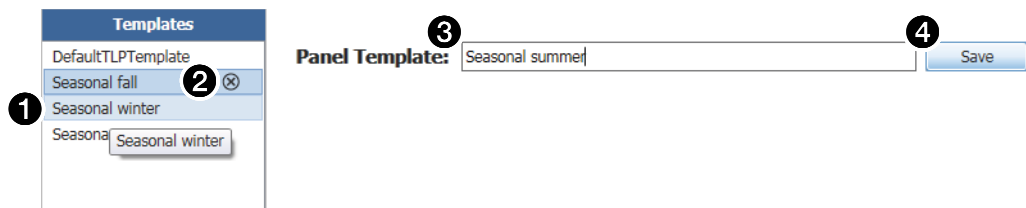
Figure 47.   Templates Pane and Drop-down list

- To assign the appearance of a displayed template to the panels, double-click a displayed template (❶).

- To delete a template, click the ⊗ (❷).

- To add a new template:

  - Type a name in the `Panel Template:` field (❸).

  - Click the **`Save`** button (❹).

Show Available Network Adapters

Room Agent can show you all of the network interfaces available on the computer for you to use in communications and allow you to select the active one. Type <**Ctrl**>+<**Shift**>+<**F2**> to open a dialog box displaying the available controllers (see figure 48).
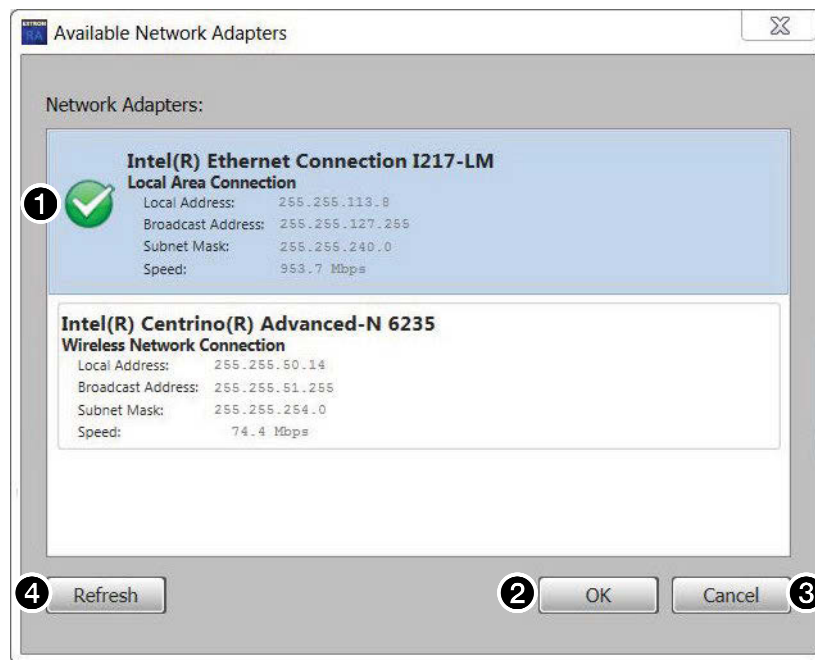
Figure 48.   Available Network Controllers Dialog Box

Select a network controller as follows:

1.   Click the desired controller (❶).

2.   Click `OK` (❷).

To close the dialog box without selecting the controller, click **`Cancel`** (❸). To refresh the view, click **`Refresh`** (❹).

Update Firmware

Room Agent reports `Cannot connect to this device` if the panel firmware version is:

- Older than 2.01.0000-b008
- **TLP Pro touchpanel models only** — Is the shipped-from-the-factory firmware (firmware for the panels as part of control systems.

> **NOTE:** The latest firmware for all compatible panels is automatically downloaded onto your PC when you install the Room Agent software. New versions of Room Agent software may have new firmware that supports new features.

Update panel firmware for any reason as follows:

> **NOTE:** Whenever you download a new version of Room Agent software, you should update firmware to take advantage of the any new features the software provides.

1. Click the `Setup` button for a panel to be updated.
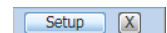
> **NOTE:** The ⊠ button deletes a panel from the list.

The `Panel Connection` dialog box opens (see figure 49).
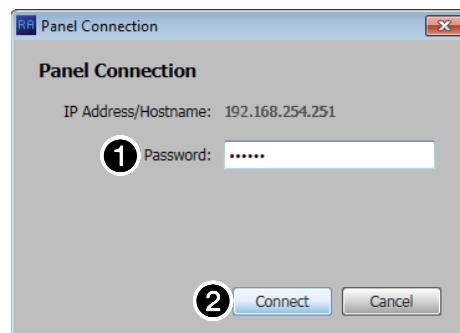
Figure 49. Panel Connection Dialog Box

2. If applicable, enter a password in `Password` field (❶).

> **NOTE:** All panels ship with the default, case-sensitive, password "`extron`".

3. Click the `Connect` button (❷).

> **NOTE:** This step and this connection are necessary to send a firmware file to the panel.

The Room Agent software connects to and synchronizes with the panel. Once synced, Room Agent displays the `Device Management` window with either the `Communication Settings` tab (see **figure 15** on page 19) or `General Settings` tab (see **figure 16** on page 20) selected.

4. Click **OK**. The `Device Management` window closes and the `Panel Configuration` window is displayed (see figure 50).
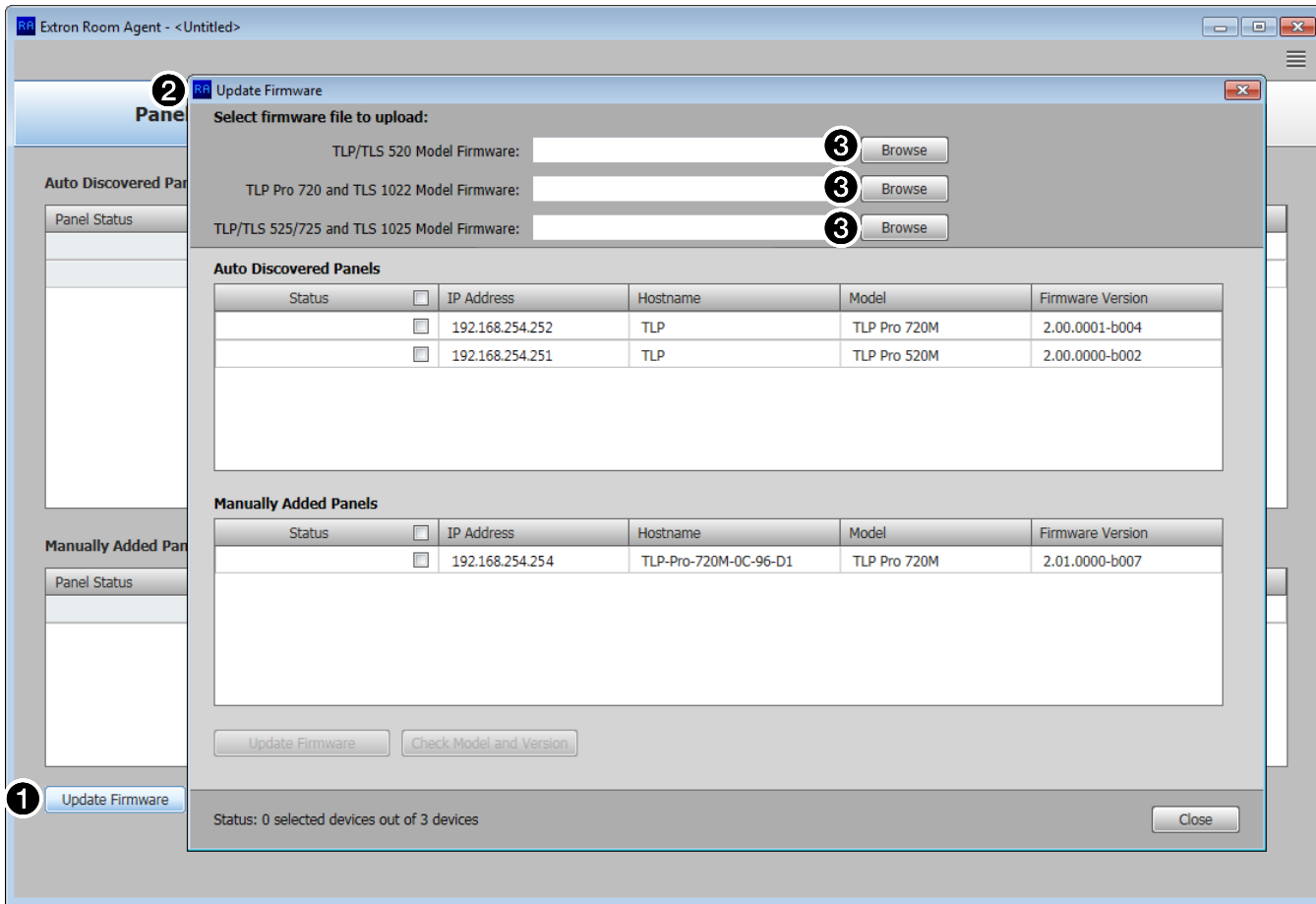
Figure 50.   Firmware Update

5. Click the **Update Firmware** button (see figure 50, ❶). The `Update Firmware` window opens (❷).

6. Click the **Browse** button for the desired model (❸):

   • **TLP/TLS 52Ø Model Firmware**

   • **TLP Pro 72Ø and TLS 1Ø22 Model Firmware**

   • **TLP/TLS 525/725 and TLS 1Ø25 Model Firmware**

   The `Open Firmware File` dialog box opens in the appropriate folder for the firmware (see **figure 51** on the next page).
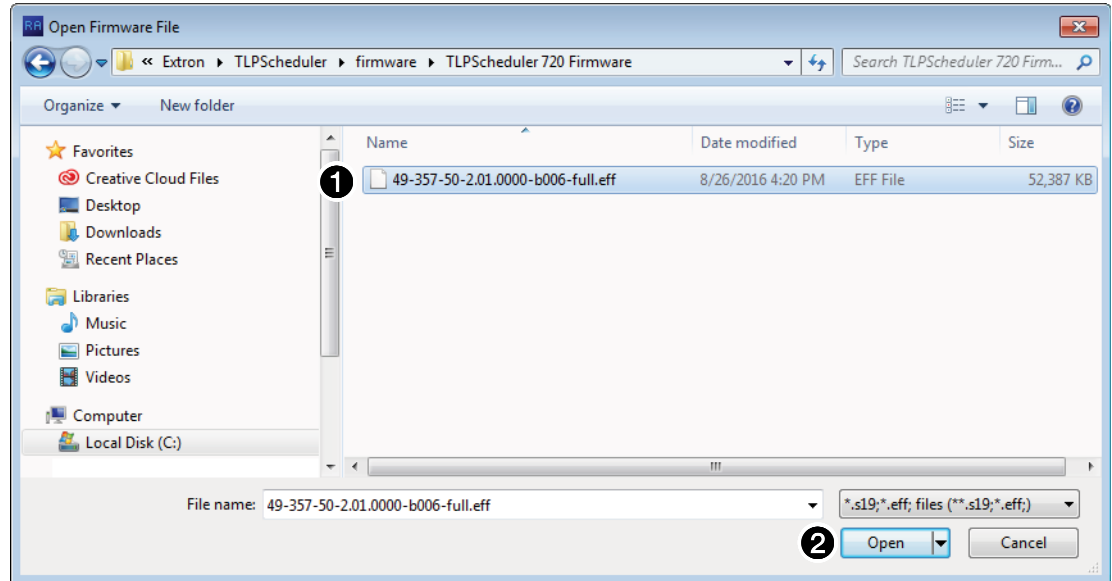
Figure 51.   Firmware File Selection

7. Select the file (see figure 51, ❶).

8. Click **Open** (❷). The Update Firmware window returns to the top with the firmware file selected (see figure 52, ❶).
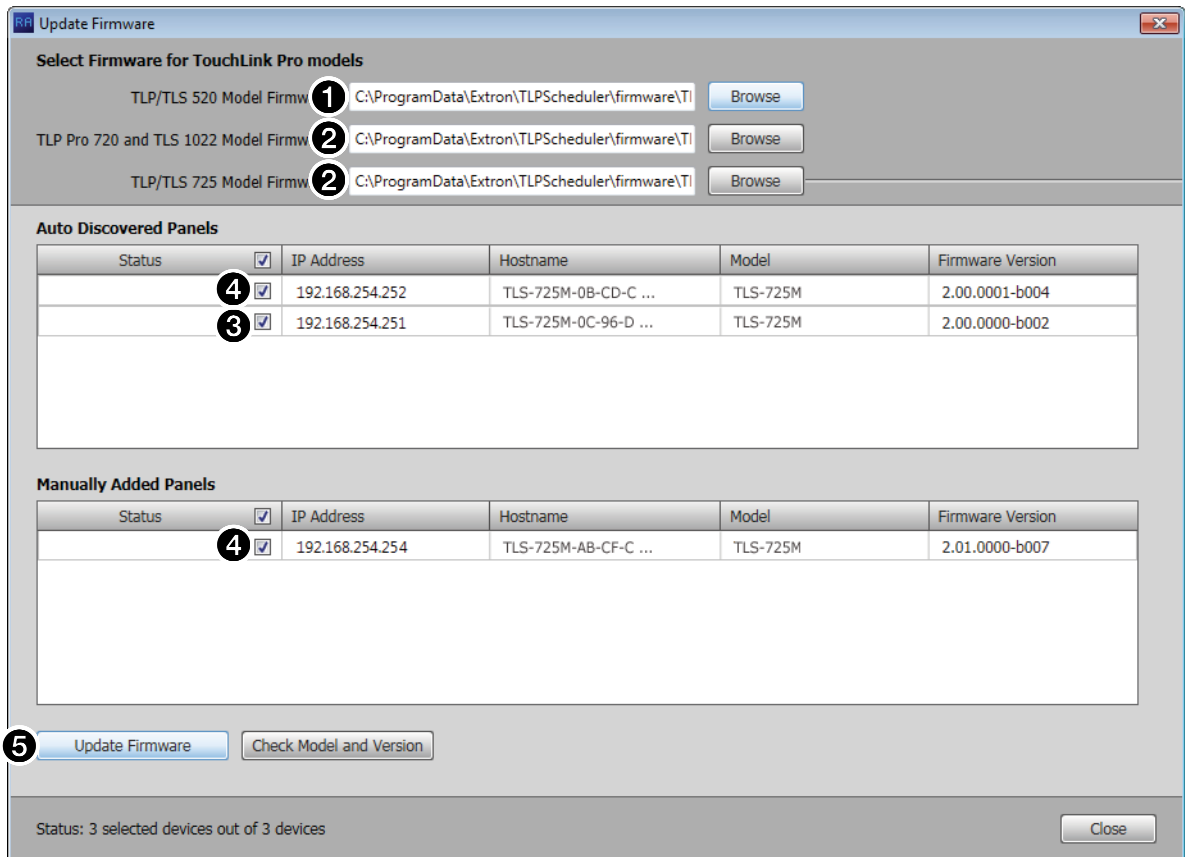
Figure 52.   Selecting Firmware Files and Panels

9. If desired, repeat **steps 2 through 4**, beginning on page 46 for other panel types. The Update Firmware window returns to the top with the firmware file selected (❷).

10. Select (click) one or more checkboxes for the panels that you want to update (see **figure 52**, ❸ and ❹ on the previous page). Ensure that you have the correct firmware file selected for the panels you select.

Once firmware files and panels are selected, the **Update Firmware** button becomes available for selection (❺).

11. Click the **Update Firmware** button (❺). The `Status` column reports the status of the update (see figure 53). When the `Status` is `Updated`, the update is complete.

Status	☑
Connecting to Device	☑
Connecting to Device	☑

→ | Status | ☑ |
|---|---|
| Uploading Firmware | ☑ |
| Uploading Firmware | ☑ |

→ | Status | ☑ |
|---|---|
| Updating Firmware 3% | ☑ |
| Updating Firmware 4% | ☑ |

→ | Status | ☑ |
|---|---|
| Updating Firmware 96% | ☑ |
| Rebooting Device | ☑ |

→ | Status | ☐ |
|---|---|
| ✔ Updated | ☐ |
| ✔ Updated | ☐ |
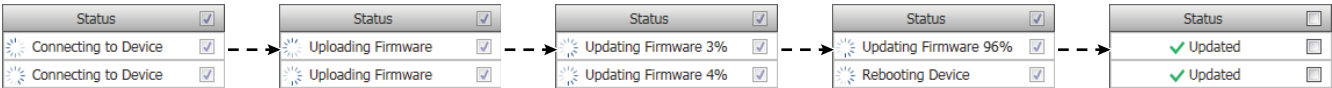
Figure 53.   Firmware Update Status Flow

12. Click the **Close** button to return to the Panel Management view (see **figure 13** on page 17). Room Agent reports `Panel Info Updated` in the `Panel Status` column.

Panel Status
Panel Info Updated
Panel Info Updated

Microsoft Environment Setup

This section provides guidance for an experienced IT person to set up the Room Scheduling System in a Microsoft environment (Office 365 and Exchange). Topics include:

- **Platform Versions**
- **Before You Begin**
- **Set up the Room Scheduling System in the Microsoft Environment**

The Extron Room Scheduling System works within the Microsoft environment (Exchange and Office 365) by tying compatible panels to room mailboxes. This tie allows Microsoft Outlook users to view the availability of a room and reserve it. This section guides system administrators through linking the Scheduling System to the Rooms.

Platform Versions

The Extron Room Scheduling System works with cloud-based Microsoft Office 365 as well as the following Microsoft Exchange versions maintained on the premises of your facility:

- 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.

Before You Begin

Complete all of the following steps before starting to set up the Room Scheduling System:

☐ Ensure all of the desired panels are installed in the appropriate locations (see **Panel Installation Overview**, beginning on page 64).

☐ Ensure that all rooms are listed in the Exchange server (Exchange on premises) or Exchange online (Office 365).

☐ Compile a list of the following for all panels designated as room scheduling devices and all rooms.

    ☐ **Panel IP addresses** — Each panel in the system requires a unique IP address. The default address for all compatible panels is 192.168.254.251.
Visit **www.extron.com** and see the applicable panel user guides, to assign unique IP addresses to each panel.

    ☐ **Panel passwords** — All panels ship with the default, case-sensitive, password "`extron`." See the applicable manuals listed above to assign different passwords.

    ☐ **Exchange User IDs** — The Exchange 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) will not work.

        • See **Verify the Exchange User ID is the UPN (Exchange)** on page 52 or **Verify the Exchange User ID is the UPN (Office 365)** on page 54 if you are not certain that your Exchange User IDs are UPNs.

☐ **Room passwords**

Verify the Exchange User ID is the UPN (Exchange)

> **NOTE:** The guidelines in this section are intended for IT professionals only. Installers or integrators attempting to follow these guidelines should do so only in close coordination with the IT department of the organization where the Room Scheduling System is to be installed.

Verify the UPN as follows:

1. Access the Exchange server `Active Directory Users and Computers` window (see figure 54).
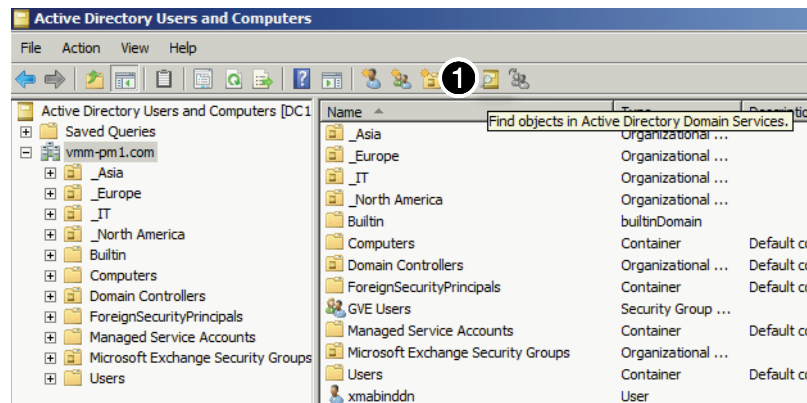
Figure 54.   Active Directory

2. Click the `Find object` (▣) icon (see figure 54, ❶). The `Find Users, Contacts, and Groups` dialog box opens (see figure 55).
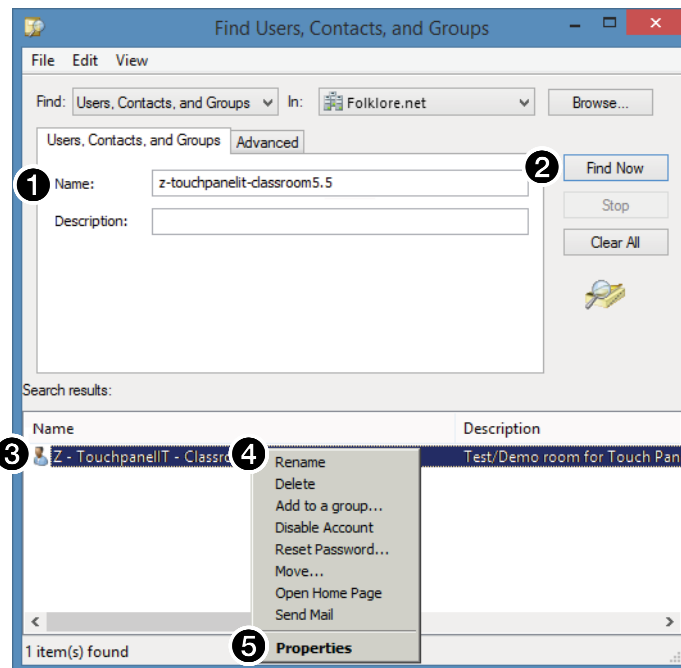
Figure 55.   Find Users, Contacts, and Groups Dialog Box

3. Enter the name of the room to be verified in the `User, Contacts, and Groups` **Name** field (❶).

4. Click `Find Now` (❷). The `Search results:` pane displays the room (❸).

5. <Right-click> the room in the `Search results:` pane (❹) and click `Properties` (❺).

The `Properties` dialog box opens (see figure 56).

Figure 56.   E-mail Address Displayed on the General Tab

6. If necessary, click the **`General`** tab (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.

Verify the Exchange User ID is the UPN (Office 365)

> **NOTES:**
> - The guidelines in this section are intended for IT professionals only. Installers or integrators attempting to follow these guidelines should do so only in close coordination with the IT department of the organization where the Room Scheduling System is to be installed.
> - This information is correct as of June 2017. However, this site is not controlled by Extron and may change.

Verify the UPN as follows:

1. Access the Office 365 `Admin center` page (see figure 57).
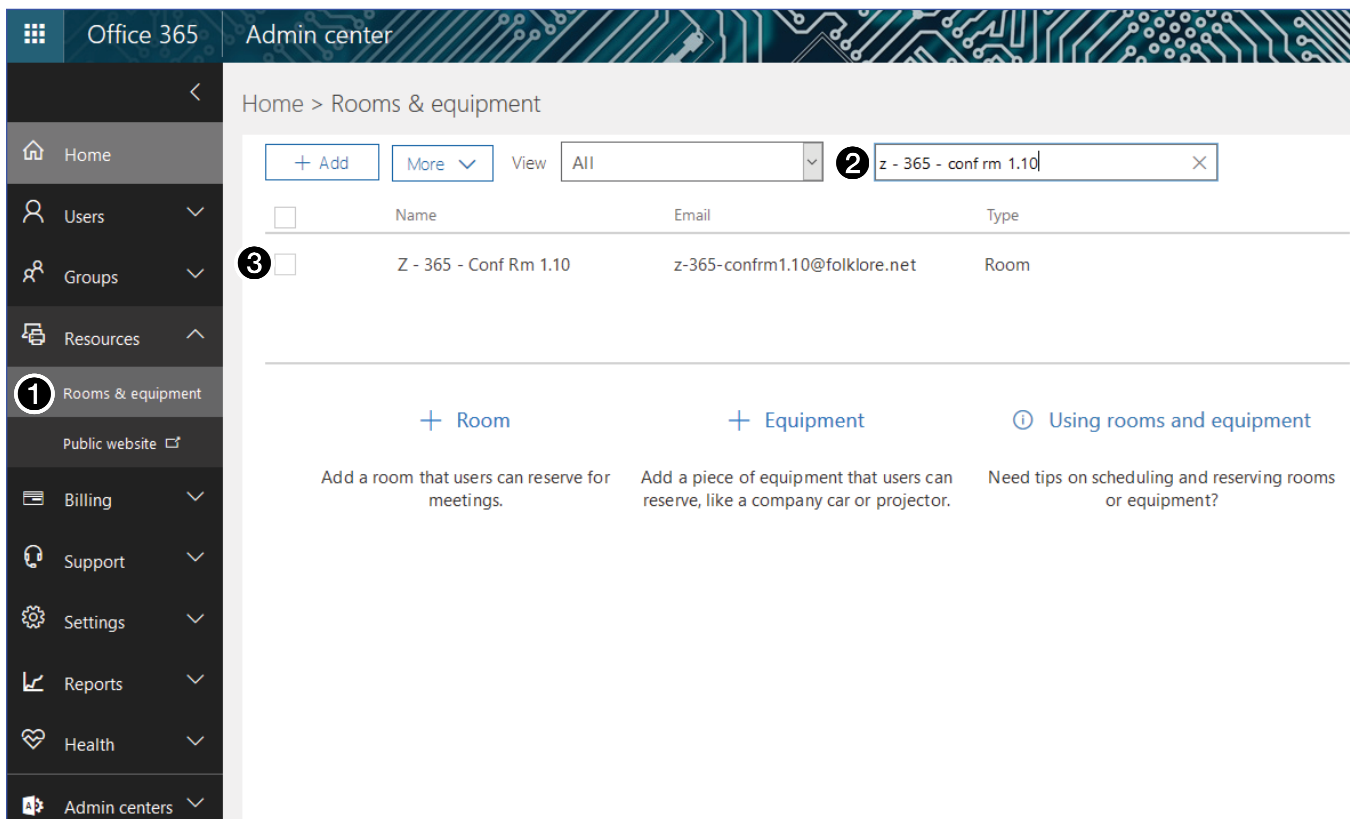
Figure 57. Active Directory

2. Click `Resources > Rooms & equipment` (see figure 57, ❶). The `Home > Rooms & Equipment` pane displays.

3. Enter the room name in the `Room` field (❷) and type `<Enter>` on the keyboard. The room information appears (❸).

4. Click on the room information (❸). The dialog box for the selected room opens (see **figure 58** on the next page).

Figure 58.   Room Information Dialog Box

5. Note the room e-mail address shown (see figure 58, ❶). This value is the UPN, the value used as the **only** valid Exchange User ID for this room in the Room Scheduling System.

6. Click **Close** to exit the display (❷).

7. Repeat steps 2 through 6 for each desired room.

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

Set up the Room Scheduling System in the Microsoft Environment

Perform the following operations to set up the Room Scheduling System:

☐ Start the Room Agent software as an administrator (see **Start the Program** on page 15).

☐ Discover any panels that are on the same subnet as the computer running Room Agent software (see **Automatically Discover Panels** on page 16).

☐ Manually add any panels from a different subnet than the computer that is running Room Agent software (see **Manually Add Panels** beginning on page 16).

☐ Perform the following for **each** panel in the system:

☐ Connect to the panel (see **Connect to the panel** on page 18).

☐ Verify or change settings (internet variables and password) on the **Communication Settings** tab (see **Communication Settings window** on page 19).

> **NOTE:**   If you change any settings but the **Hostname**, the panel disconnects and you must rediscover or manually find it again. A better approach is to set these values ahead of time using the on-screen menus of the panel (visit **www.extron.com** and see the applicable panel user guides).

☐ Verify or change settings (panel appearance, time, and audio clicks) on the **General Settings** tab (see **General Settings window** on page 20).

☐ Customize the appearance of your panels as desired. See the following:

- **Layout tab** on page 37
- **Background tab** on page 40
- **Date and Time tab** on page 41
- **Panel Message tab** on page 42

☐ Select the calendar server, Microsoft Exchange or Microsoft Office 365 (see **Panel Configuration Tab** on page 21.

☐ **If you selected Microsoft Exchange above**, configure the Room Agent software to connect with the panels through the Exchange server (see **Exchange configuration** on page 22).

> **NOTE:** **For Microsoft Office 365**, connection is made automatically through the Office 365 server.

☐ Configure one or more panels (see **Configure panels** on page 23 [for Microsoft Exchange] or **Configure panels** on page 28 [for Microsoft Office 365]).

> **NOTES:**
> - The two "Configure panels" procedures linked above are identical; you can refer to either.
> - The IP Address and Hostname variables are set when you discover or manually add panels.
> - The only values that you must enter are the Exchange User ID and the Exchange User Password.
> - The **Panel Design** menu includes the **DefaultTLPTemplate**, which is the default that is installed as part of the Room Agent software, as well as any templates that you have created and saved (see **Templates pane** on page 44).

☐ Send the configuration to selected panels (see **Send and retrieve the configuration** on page 35).

Google Calendar Environment Setup

This section provides guidance for an experienced IT person to set up the Room Scheduling System in a Google Calendar environment. Topics include:

- **Download the JSON File**
- **Set up the Room Scheduling System in the Google Environment**

Download the JSON File

> **NOTE:** The guidelines in this section are intended for IT professionals only. Installers or integrators attempting to follow these guidelines should do so only in close coordination with the IT department of the organization where the Room Scheduling System is to be installed.

The Room Scheduling System integrates the Google Calendar of your organization into the Room Scheduling System. To do this, you need to download the JSON file as follows:

> **NOTES:**
> - The following procedure assumes that you already have a Google account with the necessary administrative rights.
> - The screen images in this procedure were created using the Google Chrome™ browser. Your screen images may appear different.
> - This information is correct as of June 2017; however, this site is not controlled by Extron and may change.

1. Open a browser on the computer where Room Agent is installed.
2. Log into your Google account.
3. Access the Google Developers Console for a Google Calendar API (**https://console. developers.google.com/flows/enableapi?apiid=calendar**).
4. From the drop-down list , select `Create a Project` and click `Continue`. `Go to credentials`
   The Google Calendar API show the `Go to Credentials` button.
5. Click `Go to Credentials`. The `Credentials` page opens (see **figure 59** on the next page).

Figure 59. Determine Credentials Needed

6. From the `Which API are you using?` drop-down list, select **Calendar API** (❶).

7. From the `Where will you be calling the API from?` drop-down list, select **Other UI (e.g. Windows, CLI tool)** (❷).

8. From the `What data will you be accessing?` drop-down list, select **User data** (❸).

9. Click **What Credentials do I need** (❹). The `Add Credentials` page opens (see figure 60).

Figure 60. Add Credentials

10. Enter a name and click `Create Client ID` (see **figure 60**, ❶, on the previous page). The `OAuth 2.0 Consent` fields open (see figure 61).

✓ Create an OAuth 2.0 client ID
Created OAuth client 'GVE Test'

3   Set up the OAuth 2.0 consent screen

Email address ⓘ
❶   new-service-account-test@ap|

Product name shown to users ⓘ
❷   Product name

⌄ More customization options

❸ Continue

Figure 61.   **Set up OAuth fields**

11. Enter the `Email address` used to access the Google Calendar (❶).

12. Enter a `Product Name shown to users` (❷). This name appears on the Google `Device` page during the Google Calendar setup (see **step 9** on page 31).

13. Click `Continue` (❸). Your `Client ID` is shown in the `Download credentials` area (see figure 62, ❶).

4   Download credentials

❶   Client ID   88238291948-nvq3epdrqpthqi71eadt4h9k1f5h212k.apps.googleusercontent.com

Download this credential information in JSON format. This is always available for you on the credentials page.

❷ Download   I'll do this later

❸ Done   Cancel

Figure 62.   **Download JSON file**

14. Click `Download` (❷) to save the JSON file. This file is required to authenticate the device during configuration (see **Google Calendar configuration** on page 29).

15. Click `Done` (❸).

Set up the Room Scheduling System in the Google Environment

Perform the following operations to set up the Room Scheduling System:

☐ Start the Room Agent software as an administrator (see **Start the Program** on page 15).

☐ Discover any panels that are on the same subnet as the computer running Room Agent software (see **Automatically Discover Panels** on page 16).

☐ Manually add any panels from a different subnet than the computer that is running Room Agent software (see **Manually Add Panels** beginning on page 16).

☐ Perform the following for **each** panel in the system:

   ☐ Connect to the panel (see **Connect to the panel** on page 18).

   ☐ Verify or change settings (internet variables and password) on the `Communication Settings` tab (see **Communication Settings window** on page 19).

   > **NOTE:** If you change any settings but the `Hostname`, the panel disconnects and you must rediscover or manually find it again. A better approach is to set these values ahead of time using the on-screen menus of the panel (visit **www.extron.com** and see the applicable panel user guides).

   ☐ Verify or change settings (panel appearance, time, and audio clicks) on the `General Settings` tab (see **General Settings window** on page 20).

☐ Customize the appearance of your panels as desired. See the following:

   • **Layout tab** on page 37

   • **Background tab** on page 40

   • **Date and Time tab** on page 41

   • **Panel Message tab** on page 42

☐ Select the Google Calendar server, (see **Panel Configuration Tab** on page 21).

   ☐ Configure the Room Agent software to connect with the panels through the Calendar server (see **Google Calendar configuration** on page 29).

☐ Configure one or more panels (see **Configure panels** on page 29).

   ☐ Authenticate the device to Google (identify the JSON credentials).

   ☐ Enter a valid Google account name.

   > **NOTES:**
   > • The IP Address and Hostname variables are set when you discover or manually add panels.
   > • The Room Agent software appends the name of the `Import Credential JSON File` to the end of the `Google Account` and displays the new value in the `Google Account` field
   > • The `Panel Design` menu includes the `DefaultTLPTemplate`, which is the default that is installed as part of the Room Agent software, as well as any templates that you have created and saved (see **Templates pane** on page 44).

☐ Send the configuration to selected panels (see **Send and retrieve the configuration** on page 35).

Reference Information

This section provides a central location for additional Room Scheduling System information, including:

- **System Communications Overview**
- **Supported Languages**
- **Occupancy Sensor Configuration**
- **Panel Installation Overview**

System Communications Overview

The following table is a summary of ports and protocols used by the Extron Room Scheduling System.

Port	Protocol	Service	Description
80	TCP	HTTP	Used by panel and redirects to TCP port 443
123	UDP	NTP	Used by panel for NTP Service
443	TCP	HTTPS	Bidirectional communication between the panel and the calendar server
4502	UDP	Discovery	Used by Room Agent software to discover panels on the local subnet
4503	TCP	SSH	Internal system messaging between the panel and the Room Agent software
4522	TCP	SFTP	Initiated from the Room Agent software; used when retrieving an activity file from the panel and upgrading firmware
5353	UDP	mDNS	Multicast DNS

Figure 63 diagrams the general communications flow for the Extron Room Scheduling System.
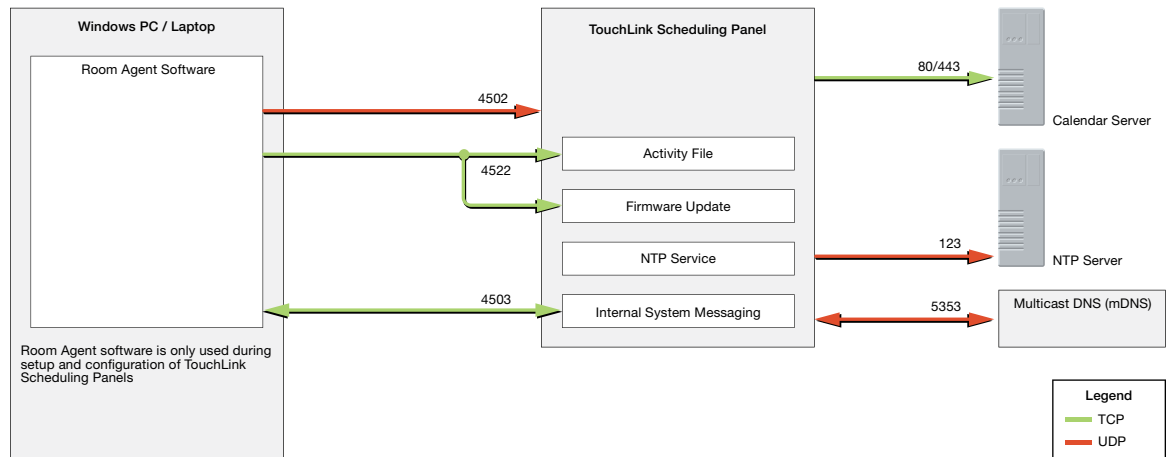
Figure 63. **Room Scheduling Communication Flow Diagram**

Supported Languages

As of Room Agent software release 1.3.0, the software supports scheduling panel displays in the following languages:

• English	• Arabic	• 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				

Occupancy Sensor Configuration

TLS 520M, TLS 525M, TLP Pro 520M, TLS 725M, and TLS 1025M panels have digital I/O connectors necessary to connect room occupancy sensors. Figure 64 shows how to wire the sensors to the panels and configure the panels.

> **NOTES:**
> - Figure 64 shows the Extron OCS 100C (ceiling) Occupancy Sensors. OCS 100W (wall) sensors are wired identically. If you use other sensors, check the connections and wiring in the documentation for your sensors.
> - Figure 64 is a configuration drawing only and does not show power to the sensors.

Figure 64. Occupancy Sensor Connection and Panel Configuration

Panel Installation Overview

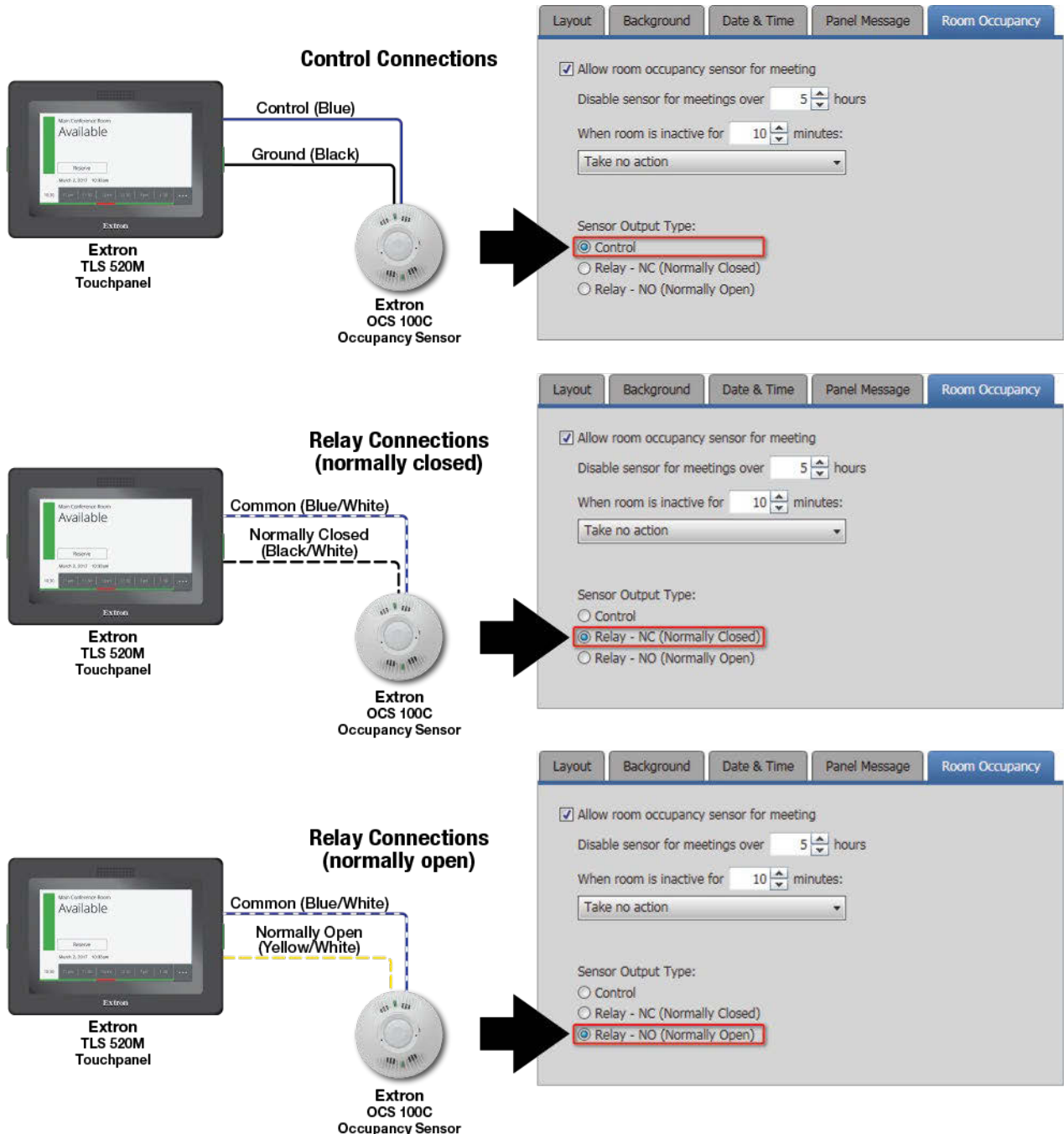The Extron panel models have the following mounting capabilities:

- **TLS 520M and TLP Pro 520M Panels** —
  - Mountable in a wall
  - Mountable on a non-porous surface, such as a conference room window with the optional Extron SMB 1 Low Profile Surface Mount Box and GMK 1 Glass Mount Kit
- **TLS 525M Scheduling Panel** —
  - Mountable in a wall with an optional RWM 1 Recessed Wall Mount Kit
  - Mountable on a non-porous surface, such as a conference room window with the optional Extron SMK 1 Surface Mount Kit
- **TLS 725M Scheduling Panel** —
  - Mountable in a wall with the optional RWM 2 Recessed Wall Mount Kit.
  - Mounted on a non-porous surface, such as a conference room window with the optional Extron SMK 2 Low Profile Surface Mount Kit
- **TLS 1022M AND TLP Pro 720M Panels** — Mountable in a wall
- **TLS 1022T AND TLP Pro 720T Panels** — Mountable to a two-gang, UL-certified junction box; a two-gang mud ring; or directly into or onto any solid surface, such as brick, wood, masonry, or drywall (with an optional Extron LPVM-1 Low Profile VESA Mount)
- **TLS 1025M Scheduling Panel** —
  - Mountable in a wall with the optional RWM 2 Recessed Wall Mount Kit.
  - Mounted on a non-porous surface, such as a conference room window with the optional Extron SMK 3 Low Profile Surface Mount Kit

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.

> **ATTENTION:**
> - The following guidelines are overviews only. For complete panel installation instructions and safety guidelines, visit **www.extron.com** and see the applicable panel user guides.
> - Les consignes suivantes n'offrent qu'une description succincte. Pour accéder aux consignes complètes d'installation et de sécurité des écrans tactiles, consultez les manuels d'installation pertinents sur **www.extron.com.**

Wall Mounting

Mount the panel directly into drywall as follows:

> **ATTENTION:**
> - Do not install the panel in a fire resistant rated wall or partition assembly.
> - Veuillez ne pas installer les écrans tactiles 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.

☐ **(TLS 525M)** Obtain an optional Extron RWM 1 Recessed Wall Mount Kit.

☐ **(TLS 725M)** Obtain an optional Extron RWM 2 Recessed Wall Mount Kit.

☐ Use the cut-out template (available from **www.extron.com**) to mark the wall at a suitable location.

☐ Use a drywall saw or jigsaw to cut away the hole.

☐ Route the cables, leaving enough slack to connect them to the back of the panel.

☐ Plug the cables into the rear panel connectors.

☐ Install the panel.

Window Mounting (TLS 520M, TLS 525M, TLS 725M, TLP Pro 520M, and TLS 1025M)

Mount the panel to a conference room window or other non-porous surface as follows:

☐ **(TLS 520M, TLP Pro 520M)** Obtain an optional Extron SMB 1 Low Profile Surface Mount Box and a GMK 1 Glass Mount Kit.

☐ **(TLS 525M)** Obtain an optional Extron SMK 1 Low Profile Surface Mount Kit.

☐ **(TLS 725M)** Obtain an optional Extron SMK 2 Low Profile Surface Mount Kit.

☐ **(TLS 1025M)** Obtain an optional Extron SMK 3 Low Profile Surface Mount Kit.

☐ Decide where to place the panel and clean the glass surface.

☐ Affix the adhesive patch included with the glass mount kit.

☐ Affix the glass mount kit plate to the adhesive patch.

☐ Mount the surface mount box to the glass mount kit.

> **NOTE:** If required, drill a hole in the side of the surface mount box to run cables and raceway from the side of the mounting kit.

☐ **(TLS 520M, TLP Pro 520M)** Secure the surface mount box to the glass mount kit.

☐ Secure the wallplate adapter to the surface mount kit.

☐ Run cables through the cable cutout and connect them to the back panel of the panel.

> **NOTE:** If required, mount an adhesive raceway (not provided) to run the cables.

☐ Press the panel onto the wallplate adapter. Four catches hold it in place.

VESA Mounting (TLS 1022T, TLP Pro 720T)

☐ Remove the back and base covers from the panel.

☐ If necessary, cut the zip tie holding the twisted pair cables to the panel base and remove the cables.

☐ Remove the four spanner drive security screws holding the hinges to the panel.

☐ Lift the panel away from the base.

☐ If necessary, connect the cables and use a zip tie to secure them to the back of the panel.

☐ Secure a VESA D 75 mm mount kit to the back of the panel. Follow the instructions provided with the mounting kit.

Extron Warranty

Extron Electronics 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 Electronics 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 Electronics
1230 South Lewis Street
Anaheim, CA 92805
U.S.A.

Europe and Africa:
Extron Europe
Hanzeboulevard 10
3825 PH Amersfoort
The Netherlands

Asia:
Extron Asia Pte Ltd
135 Joo Seng Road, #04-01
PM Industrial Bldg.
Singapore 368363
Singapore

Japan:
Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan

China:
Extron China
686 Ronghua Road
Songjiang District
Shanghai 201611
China

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   **Europe:** 31.33.453.4040
> **Asia:** 65.6383.4400   **Japan:** 81.3.3511.7655

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.