



RoomWizard Administrative Console 1.7

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Welcome

Administer your RoomWizards from one location

The RoomWizard Administrative Console allows the User to administer all the RoomWizards in your enterprise from one location. It's a PC based application that enables the User to:

Find all the RoomWizards on your network (Though all versions of RoomWizards can be found, Firmware Version 4.1 or newer is required on the RoomWizards to enable the full features of the Console).

Logically group your RoomWizards together – no limits on the number of groups or the number of RoomWizards in a group.

Perform administrative operations on multiple RoomWizards at the same time such as:

Select a master (already configured RoomWizard) and replicate its configuration out to all other selected RoomWizards with one operation.

Intelligently upgrade the firmware and/or apply patches to all selected RoomWizards (even if starting from different initial Firmware Versions) with one operation.

Get status information on all your RoomWizards such as:

See what units are currently offline or experiencing problems.

Notification of security concerns and firmware upgrades.

See CPU Loading, Disk Usage and other information on any selected RoomWizard.

View and capture log files from RoomWizards.

Notice Regarding Personally Identifiable Information

This tool may expose personally identifiable information located in your calendaring system with RoomWizard devices. You are solely responsible for ensuring that anyone who processes that information is authorized to do so.

About This Manual

This Manual describes how to use the RoomWizard Administrative Console to allow the user to monitor and configure RoomWizards.

Setup of the Administrative Console

Installation

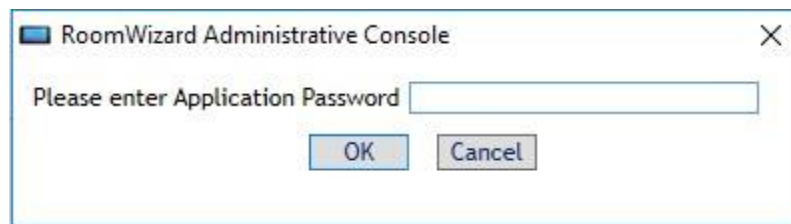
RWAC needs to be installed on a PC compatible computer, running Windows 7 or higher. System Hardware requirements are minimal, less than 50MB of disk space and 100MB of RAM.

RWAC uses .NET and under some circumstances the user may need to provide .NET 4.5 installation on their own.

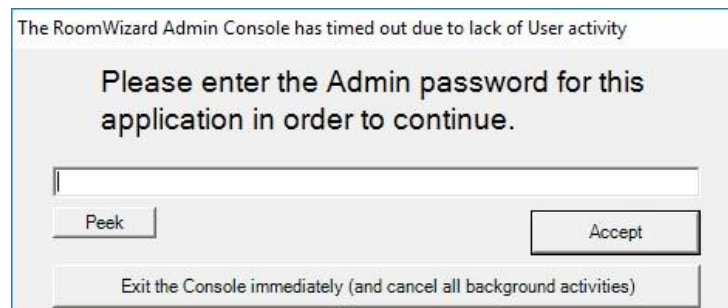
Simply run RWAdminSetup.exe on your PC to install the software.

Starting the Console

When starting RWAC, please be sure you are running with admin privileges. On initial startup, the user will be presented with this dialog to enter a password. The default password is “roomwizard” and, after entering this, the user will be forced to enter a more secure password in order to proceed. See “Initializing Application Password” below.



If the Console is idle for an extended period, the user will be required to re-enter the application password with this dialog. 10 failed attempts will close the Console and all its background activities. The user may also choose to exit immediately using the shown exit button.



Initializing Console Password

To ensure the security of RWAC the password to access the Console must be changed from the default. This new password must adhere to the standard RoomWizard complexity requirements (12-64 chars and at least one each: capital, lowercase, number, and special character).



Initialize New Console App Password

Due to security concerns with use of default Console App Password, you must change it before you can enter the Console.

New Password must ...

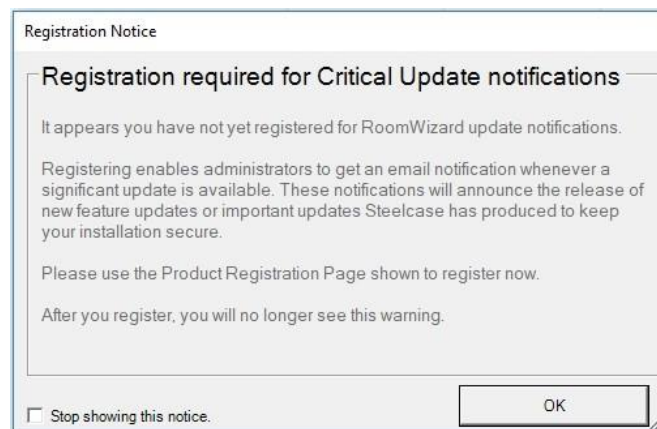
- o be between 12 and 64 characters long
- o contain at least one Capital Letter and at least one Lowercase Letter
- o contain at least one Number 0123456789
- o contain at least one Special Character ~!@#\$%^&*~+~|<>?-=
- o NOT contain any of the following ""(){}[]\

Enter a new Console App Password

Retype the New Password (and remember it)

Registration

As security and feature changes are rolling out very quickly in today's world, we at Steelcase feel it is imperative that we be able to quickly inform our customers of updates as they become available. Toward that end, each time the user starts the Console app it will now prompt to enter your contact information in our customer database. This will take the form of a dialog as shown below and navigation to our registration website in the browser area of the Console window. Once registered, this dialog will no longer be shown when starting the Console.



Registration Notice

Registration required for Critical Update notifications

It appears you have not yet registered for RoomWizard update notifications.

Registering enables administrators to get an email notification whenever a significant update is available. These notifications will announce the release of new feature updates or important updates Steelcase has produced to keep your installation secure.

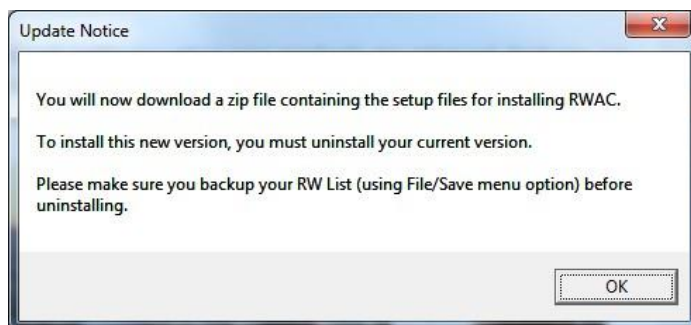
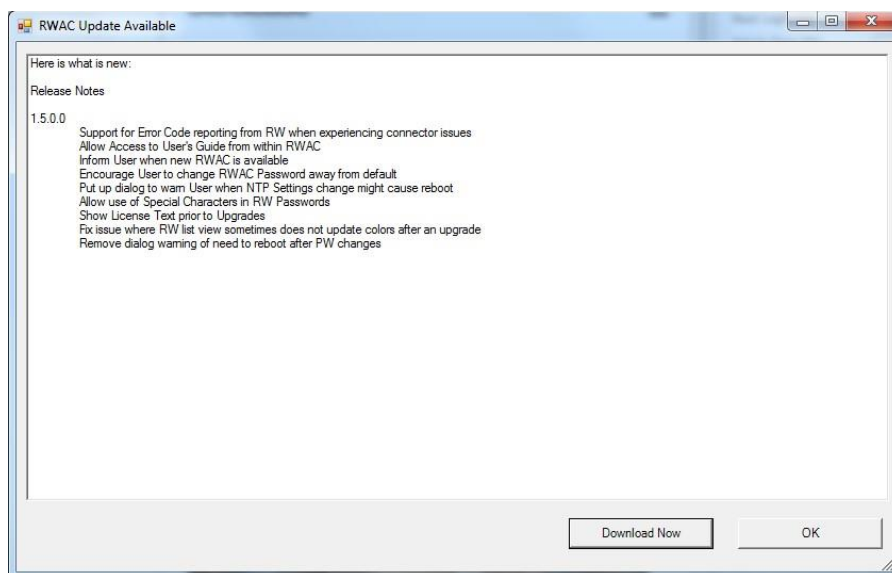
Please use the Product Registration Page shown to register now.

After you register, you will no longer see this warning.

☐ Stop showing this notice.

Updating RoomWizard Administrative Console

If a newer version of RWAC becomes available, version 1.5 and newer will inform users about changes made in the most recent version. If the user wants these updated features, they may choose to update by using the “Download Now” button and install the newest version.



Refreshing Previously Saved RoomWizard List

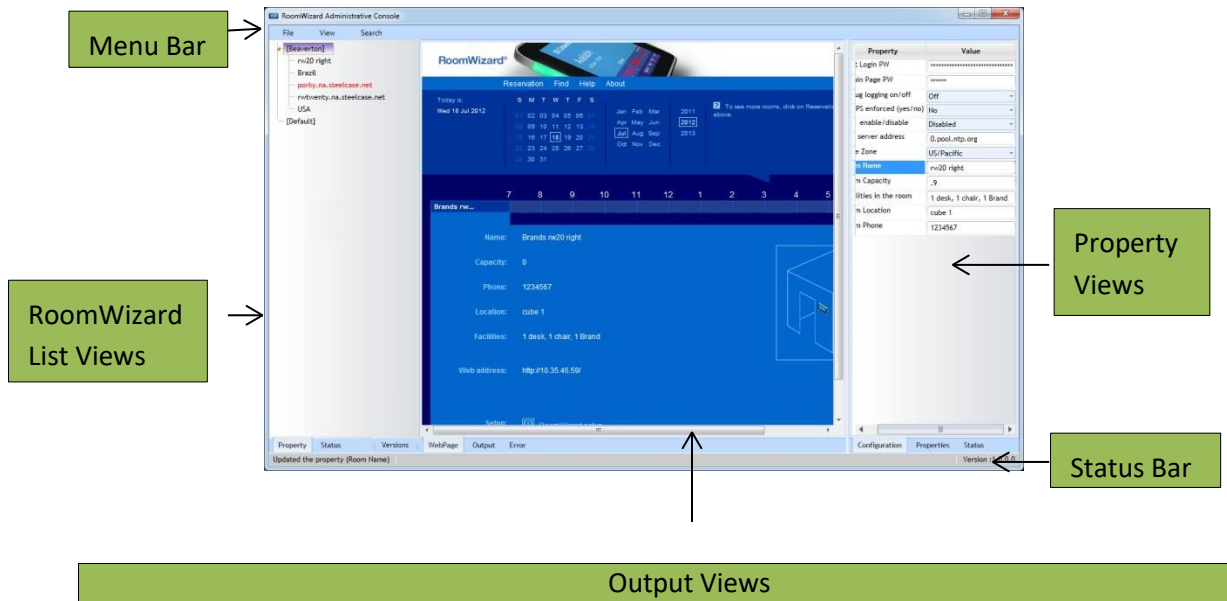
During startup of the RWAC the existing RoomWizard list, if any, will be read. Under most circumstances the user will want to refresh the current status of these RoomWizards. However, as this can take a long time for large lists, sometimes the user may want to access individual RoomWizards without bothering to update the entire list. To facilitate this, RWAC will prompt the user with an option to skip the initial startup status refresh process. This will only occur if the list is longer than 30 RoomWizards. The dialog will be like the example shown here.



The Console Window

Each time RWAdmin.exe is started, the User is prompted for a password. The default password is “roomwizard” and can be changed in the Options dialog.

Enter the password and the console window appears.



There are 5 areas of RWAC. These are the Menu Bar, RoomWizard List Views, Output Views, Property Views, and Status Bar.

Screen Area	Purpose
Menu Bar	<p>Provides basic access to core setup features</p> <p>File Menu</p> <ul style="list-style-type: none">Save lists of RoomWizards (and associated credentials and subnet list)Restore lists of RoomWizards (and associated credentials and subnet list) <p>View Menu</p> <ul style="list-style-type: none">Set application optionsOpen User Guide <p>Search Menu</p> <ul style="list-style-type: none">Search the network for all RoomWizardsSearch the network for new RoomWizardsSearch a previously saved list of subnets for any new RoomWizardsCancel the current search operation <p>About</p> <ul style="list-style-type: none">Shows legal information on the software

<p>RoomWizard List Views</p>	<p>This area provides two ways to view the RoomWizards:</p> <p>Groups tab view Shows the alphabetized list of groups and group members.</p> <p>Status tab view Shows the same information sorted with RoomWizards with issues at the top of the groups to make it easy to find which RoomWizards are having problems.</p> <p>Versions tab view Shows the same information sorted with RoomWizards with the highest Firmware versions at the top of the groups to make it easy to find which RoomWizards are up to date and which are not.</p> <p>Right clicking on a group or selected RoomWizard brings up a right click menu with all the options available for administrating the RoomWizards.</p>
<p>Output Views</p>	<p>Shows the various output from the Console.</p> <p>Web Page view Displays the home page of the RoomWizard currently selected.</p> <p>Output tab view Shows information on what the Console is doing and any issues that may have occurred.</p> <p>Error tab view Shows only errors that have occurred during operations, to quickly locate problem units.</p>

Property Views	<p>Shows information about a specific selected RoomWizard.</p> <p>Configuration tab view Contains information about the RoomWizard that can be edited directly in the tab such as the Room Capacity, Time Zone, NTP server information, etc.</p> <p>Properties tab view Contains static information about the RoomWizards network connection, Serial Number, and installed Firmware & Patch version.</p> <p>Status tab view Contains static information pulled from the RoomWizard such as the CPU, Memory and Drive status.</p> <p>Additionally, there is information about the status of the RoomWizard Synchronization which includes the name of the active Connector as well as error conditions and codes (only if applicable).</p>
Status Bar	Shows the current count of RoomWizards known to the Console, information on what the Console is currently doing, Progress Bar if a long operation is in progress, and the Console version number.
Hover box	Hovering the mouse over a RoomWizard entry in the list view will bring up information about the RoomWizard. This information will include IP address, Firmware version, and various status information.

Configuration of the Console

On the first time use of the Console, the main options need to be set, and the RoomWizard List needs to be setup.

To configure the main options, on the menu bar, select View->Options to bring up the options dialog for the Console.

Font Settings

The font used in the application, and the font size may be selected here.

SSH Command Settings

The Console will open a telnet session and log you in automatically via the menus. Enter the path to your favorite telnet client, and the default timeout used for the telnet client. The default command timeout is 15 minutes.

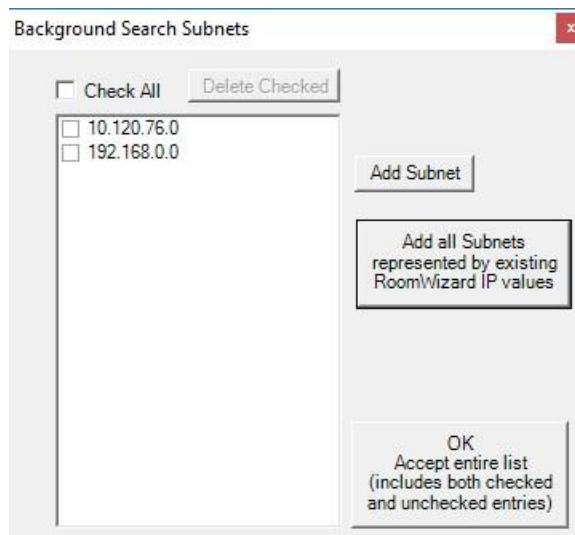
Background Activities Settings

Status Refresh Interval, The Console will periodically check and update the status of the RoomWizards in its current list.

Idle Time Check Interval, you can specify the number of idle minutes until The Console will prompt the user to re-enter the Admin password.

Background search for new RoomWizards, Additionally, you have an option to set up a list of subnets which the Console can search periodically for newly added RoomWizards. This is designed to attempt a full scan of all subnets within a 2-hour period. This period might be longer for sites with an exceptionally large number of subnets to search.

Checking the box will enable this feature using the subnets configured in the following dialog (which will appear if “configure” button is clicked).



The checkbox control allows for individual deletion of Subnets already in the list. It is not an indication of which Subnets will be active or not in the search.

Add Subnet button allows the user to specifically add individual Subnets to the list. All Subnets are assumed to be in 255.255.255.0 form.

Add all Subnets button will review all RoomWizards currently known to the Console and add any subnets represented by the RoomWizard IP addresses.

OK will accept the entire shown list (regardless of the checkbox status). Note, the list will not be saved permanently unless the Options page OK button is also clicked on exit.

Email Server Settings

The Console will send an email to the specified account when there are problems on a RoomWizard. Use the controls here to setup email access for the Console.

Update Application Password

To maintain security of access to RWAC, the password to access the application can be changed here. The user will be required to enter the current password and then to enter the new proposed password twice to avoid possible mistakes. Please make a note of the new password and do not forget it!

Setup of RoomWizard Lists

Once the options have been set, the RoomWizard list needs to be configured.

Search for all RoomWizards

If running RoomWizard20 with FW 4.1 or newer, or RoomWizard10 with FW 3.5.1.2 update, you can automatically search your network for all RoomWizards via the Search->**Search for all RoomWizards** menu.

The Console will prompt for the subnet to search and look at each IP on the subnet for RoomWizards. The RoomWizard List will be automatically populated with all the RoomWizards under a “**Default**” group. Unless unchecked, this process will initialize a set of subnets which can be optionally searched for new RoomWizards as they are later added to the network.

Note that the “**Default**” group name cannot be changed, and all RoomWizards found in this search are automatically added to the “**Default**” Group.

Search for new RoomWizards

With the same version constraints mentioned above, you can automatically search your network for additional RoomWizards via the Search->**Search for new RoomWizards** menu.

The Console will prompt for the subnet to search and look at each IP on the subnet for RoomWizards. The RoomWizard List will be automatically

populated with all the RoomWizards under a “**New Group**” group. Unless unchecked, this process will add the specified subnet to a set of subnets which can be optionally searched for new RoomWizards as they are later added to the network.

All RoomWizards found in this search are automatically added to the “**New Group**” Group.

Search for new RoomWizards in any saved Subnet

With the same version constraints mentioned above, you can automatically search a previously saved set of subnets on your network for additional RoomWizards via the Search->**Search for new RoomWizards in any Subnet in saved list** menu.

The Console will step through all IPs in all subnets in the saved list. For larger networks, this can take a long time. There is also an option to turn on this search to occur in the background as to not interfere with the flow of normal RWAC operations. Selecting this menu option will do the search immediately (even if the background search option is disabled).

All RoomWizards found in this search are automatically added to the “**New Group**” Group.

Manual List Setup

To add a new RoomWizard to the list or add a RoomWizard that is not new enough to respond properly to Console search, you can manually add a RoomWizard.

To manually add a RoomWizard, right click on any group name in the List View, and select “**List Maintenance**” | “**Add RoomWizard**”. Fill out the dialog box that comes up, press OK and the RoomWizard is added to the selected group.

Using the Console

Once the RoomWizards are in RWAC, you can begin administering them.

All operations are selected/initiated from the Property Tab or Status Tab via selecting the RoomWizards to operate on, and right clicking.

These menu items available via the Right Click menu:

- Access...
- Certificates...
- Configure Multiple (Replicate)...
- Firmware...
- List Maintenance...
- Logfiles...
- Set as "Master" Device
- Set Root Password

Note: You must run FW 4.1 or newer with RoomWizard20s, and FW 3.5.2 with RoomWizard10s to unlock all the features of the Console, including searching and property retrieval. However, you can update firmware on RoomWizards with older firmware directly from the Console.

Note: FTP or SFTP, and SSH, are required for full functionality of the Console.

Access

Access menu items allow you to do the following on the selected RoomWizard:

- Refresh the Configuration, Properties, and Status View tabs for the selected RoomWizard(s).
- Refresh the Operational Status of the selected RoomWizard(s).
- Restore from backup file (Appendix 17)
- Set manual clock (Appendix 15)
- Start your web browser on the RoomWizard home page.
- Start your telnet client on the RoomWizard. Putty is an excellent free SSH client that operates well with the Console and RoomWizard.
- Sync the RoomWizard clock to your PC's clock.
- Set the RoomWizard to sync its clock via NTP.

Certificates

The Certificates menu items allow you to install new custom certificates into your RoomWizard.

- Add Certificate prompts you for the Alias Name and the certificate itself to load into the RoomWizard.
- Generate and Upload Certificate Signing Request (CSR) (Appendix 16)
- Upload PKCS #12 Certificate (Appendix 16)

Configure Multiple (Replicate)

The Configure Multiple (Replicate) menu provides access to dialogs which will allow complex configuration for the selected RoomWizards. The configuration sets which are accessible in this way are listed below. More in-depth discussion of the associated dialogs can be found in the Appendices.

- **Configure 802.1x** (Appendix 2)
- **Configure Backup** (Appendix 9)
- **Configure Front Panel Appearance** (Appendix 14)
- **Configure ID Lookup feature** (Appendix 3)
- **Configure Proxy** (Appendix 8)
- **Configure Room Specific Reservation Form(s)** (Appendix 13)
- **Configure Room Specific Settings** (Appendix 12)
- **Configure sending WD Logs via FTP/SFTP** (Appendix 4)
- **Configure SMTP** (Appendix 10)
- **Configure SNMP** (Appendix 5)
- **Configure Usage Reports** (Appendix 18)
- **Customize Front Panel Display** (Appendix 6)
- **Configure Connector Synchronization** (Appendix 7)
- **Update Partial Configurations**
 - Sets the NTP server address (if provided), the admin password (if provided), admin password expiration duration (if set), and new certificate information (if provided) to all selected RoomWizards. If a field is left blank in the dialog, that field is not replicated to other units.

One additional option is intended to be used in conjunction with “**Set as Master Device**” below and allow you to use that master RoomWizard as a template that configuration values are harvested from, and then replicated out to all selected RoomWizards.

- **Push Configuration** reads the configuration of the Master Device and duplicates it out to every selected RoomWizard. Note that Network configuration and specific room configuration such as facilities and room names are not replicated, so RoomWizards preserve the unique information.

Firmware

The Firmware menu allows you to upgrade the firmware on, reboot, or rebuild the selected RoomWizards..

- **Reboot RoomWizard(s)** instructs the selected RoomWizard(s) to reboot.
- **Rebuild RoomWizard(s)** instructs the selected RoomWizard(s) to restore its original firmware – this is the same as reinstalling the last full firmware update on the unit. This should be used only when units are exhibiting issues that aren't related to the configuration.
- **Upgrade Firmware** upgrades the firmware via one of three methods:
 - **Automatic**
 - Select the desired resulting Version (Target Version) from the dropdown list. There may be a delimiter in the list “--- Optional” which separates the Required or Recommended Versions (above the delimiter) from those that are Customer Specific and/or optional to install.
 - Clicking the “Check Server for Latest Update” button will cause the Console to ask the Steelcase HTTP site for an updated list of available versions to choose from.
 - An option is provided to “Enter password(s) to reveal Custom Release(s)” which allows the User to enter Passwords associated with releases not normally offered in the dropdown list. These Passwords would only be available through special communication with Steelcase. More than one Password can be specified and should be entered with a space between. Passwords are case sensitive.
 - When you click “OK” the Console will evaluate each RoomWizard individually and group them logically by current Version Number. The Console will then step each group toward the Target Version. All Rebooting and Required intermediate Upgrade steps will be handled automatically by the Console until all RoomWizards are brought up to the Target Version.

- **Upgrade from Local File**

- Enter the path to the firmware file, the User as “root”, and the root password for the indicated RoomWizard which will serve as main distribution hub for the upgrade process.
- The Console will “SFTP” into the RoomWizard(s) and upload the firmware and cause the upgrade to proceed.

- **Upgrade from SFTP Server**

- Enter the SFTP path to the firmware file, and SFTP credentials to log into the sftp server that contains the firmware are entered. A sample sftp path is <sftp://sftp.steelcase.com/firmwarefile.cpio.tar.gz>.

Note this is not a working path, but only an example.

- Enter the SFTP Credentials to the site directly to download and install the update.

Once the firmware upgrade is complete, details show in the dialog for each RoomWizard that was upgraded including if it was successful or not. Note that the Console requires the firmware to be in cpio.tar.gz format. If the firmware file ends in cpio.tar.gz, it is the correct format of firmware file.

List Maintenance

These menu items allow for customization of the List of RoomWizards.

The options are:

- **Add Group**
A new high-level Group is added to the List.
- **Add SubGroup**
A SubGroup is added to the selected Group.
- **Add RoomWizard**
A new RoomWizard is added to the indicated Group or SubGroup.
- **Delete**

The selected Group, SubGroup, or RoomWizard(s) are removed from the list.

- **Resolve Duplicate RoomWizard**

Helps to locate and merge any condition where the same RoomWizard is listed in multiple locations in the RoomWizard List.

Note: drag and drop RoomWizards and Group/SubGroups to rearrange the lists as required.

Note: the “Default” group is fixed and cannot be renamed or removed. All other Groups or SubGroups can be arranged and renamed as desired.

LogFiles

The LogFiles menu allows you to both download all the log files from the selected units, as well as viewing individual logs directly from units.

- **Download All Logs** will collect all the log files on the selected units and save them locally. These log files can be provided to Steelcase Technical Support when issues arise.

The rest of the menu items allow you to directly view in a window the following log files:

- **Admin Log**
- **Concurrent Log**
- **EndUser log**
- **Epiphany log**
- **Firmware Patches log**
- **Front Panel Log**
- **Jettystart Log**
- **LocalHost log**
- **Message log**
- **Upgrade log**

Set as Master Device

Set as Master Device makes the currently selected RoomWizard the master RoomWizard. Its configuration can be pushed out to other RoomWizards via the **Push Configuration** option found under the **Replicate** menu.

Set Root Password

This option will allow you to change the root password on all selected RoomWizards. The default root password should be changed to reduce security risks as the default value may be known to the public at large.



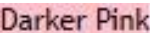

Interpreting List Colors and Icons

The list of RoomWizards in the left side panel may have colors associated with both the foreground and background for each entry.



Foreground Text Coloration




- Black => This RoomWizard is running with no issues.
- Blue => This RoomWizard needs to be rebooted.
- Red => This RoomWizard is not responding on the network.
- Orange => This RoomWizard currently has an error condition or warning.
- Grey => This RoomWizard is running a version which is below 4.1.

Background Coloration

- White => Indicates that the Console considers this RoomWizard to have the currently Recommended Firmware/Patch. This can also occur if the Console cannot make HTTP contact with the Steelcase Firmware site and so has no way to know what the current recommended version is.
-  => Indicates that the Console considers this RoomWizard to have a Patch only difference from the currently recommended Firmware/Patch. (Only differs in 3rd or 4th digit of Version)
-  => Indicates that the Console considers this RoomWizard to be somewhat out of date. (More than a Patch difference, but only one major version behind current production version)
-  => Indicates that the Console considers this RoomWizard to be significantly out of date. (At least two major releases behind current production version)
-  => Indicates that the Console considers this RoomWizard to have a Version or Patch that is in advance of the currently recommended Firmware/Patch. (This can occur when a customer specific patch is installed and has a higher version than the currently recommended Firmware/Patch)

Icons related to configuration or status of RoomWizard

-  => Indicates a RoomWizard with default appearance.
-  => Indicates a RoomWizard which has had some customization of the Front Panel appearance. This can take the form of an added badge (logo) image or a change in the color scheme for the display.

-  => ! added to the Icon indicates that the RoomWizard may have any number of security conditions which should be considered by the user. The Hover Box will give more detail as to the existing condition(s).
-  => Indicates that the RoomWizard data has not been successfully initialized yet so no indication of “root” password or customization status can be displayed.
-  [Default] => ! added to a Group or SubGroup indicates that one or more RoomWizards contained below the Group/SubGroup in the List has a condition which should be considered by the user. The Hover Box will give more detail as to the type and number of existing conditions.

How To: Configure a new RoomWizard installation.

To setup a new installation of RoomWizards with the Console, perform the following steps.

- 1) Install the RoomWizards and power them up.
- 2) Search for RoomWizards via the Search->Search for All RoomWizards menu item.
- 3) All the RoomWizards will appear in the RoomWizard List property tab.
- 4) Select one RoomWizard.
- 5) Individually configure this RoomWizard either using the Console Configuration View tab or the RoomWizard Web Interface Admin Pages.
- 6) Right click on the configured RoomWizard and select “Set as Master Device”.
- 7) Select the remaining RoomWizard(s).
- 8) Right click and select Replicate->Push Configuration.

All the units are now configured, and unique configuration can be added individually.

How to: Configure an individual RoomWizard using Configuration tab view

When the Configuration tab view is selected, clicking an individual entry will allow you to make changes directly to that value for the currently selected individual RoomWizard. For most of these entries, the value can be changed directly. However, there are some that indicate a logical group of related configuration values and will bring up a dialog to allow setting of any of the values for this logical group. These logical groups can be found at the bottom of the list as shown below:

Property	Value
Root Login PW	*****
Admin Page PW	*****
Debug logging	Off
HTTPS/HTTP	HTTP
NTP enable/disable	Disabled
NTP Server Address	0.pool.ntp.org
Time Zone	(GMT-05:00) Cen
Room Name	Room 47 (Latest FW)
Room Capacity	5
Room Facilities	
Room Location	xy
Room Phone	1234567
FTP Protocol	SFTP
Start Button	Disabled
Start Early Button	Disabled
Reservation Length	30 min
Device Language	English
Time Format	12 Hour
Device Customized	No
Send Logs via FTP/SFTP	No
SNMP Active	No
802.1x Active	Yes
Lookup Host by ID	No

When one of these logical groups is selected, the User will be presented with a Yes, No or Adjust option that will then bring up a further dialog that allows for adjustment of the values in the logical group. These dialogs are discussed in depth in the Appendices 2-7.

Device Customized	No
Send Logs via FTP/SFTP	Yes
SNMP Active	No
802.1x Active	Adjust

There is one additional logical group customization option which appears slightly different from the others. It is “Connector Sync Mode”

802.1x Active	No
Connector Sync Mode	Classic
Lookup Host by ID	No

And it has the options of “Classic” (stand-alone), “Sync” (synchronized with an external connector), or “Adjust” which again will bring up a further dialog that allows for adjustment of the values in the logical group. This dialog is discussed in depth in the Appendix 7.

Starting with Version 4.10, a new logical grouping can be found, which is different from the rest, and only has an Adjust button. Pressing this button, will open a dialog for that entry where the user can make changes. These dialogs are discussed in depth in the Appendices 11-14.

Network Settings	Adjust
Room Management Settings	Adjust
Room Reservation Settings	Adjust
Front Panel Appearance	Adjust

Appendix 1

Best Practices

Upgrade Firmware

Upgrading firmware requires sending a new firmware file, which can be 150MB in size, to every RoomWizard in an organization.

To optimize firmware upgrades and minimize the amount of time each upgrade takes, it is recommended to break the RoomWizards into groups, such as a group per building or facility. This both reduces the load on the network and reduces the possibility of failed downloads through network retries.

With smaller groups being updated, the time required to perform the updates on the group is reduced, and the overall load is broken up for both the IT administrator and the network.

Note: If SFTP/FTP is disabled on the RoomWizard units, firmware upgrades will not work. SFTP/FTP is required for firmware upgrades and patches.

Grouping RoomWizards by type

It is recommended to group similar RoomWizards together, i.e., keep RoomWizard10s in one group and RoomWizard20s in another group. This will allow upgrading firmware on all RoomWizard20s and all RoomWizard10s with only two operations (one for each group), without having validated which units were updated and which need different firmware loads.

How to Configure RoomWizard to reduce Security Risk / increase the level of Security for PII processed by RoomWizard

The Console facilitates access to RoomWizard configuration, logs and other data which might include PII. Therefore, it is recommended that the following minimal steps be taken to reduce Security and PII risks.

- 1) Change the Application password for the Console. (This will restrict access to the Console which is the best place to begin adding Security).
- 2) Change the root password on all RoomWizards on your network. (This will ensure access to most functions and information on the RoomWizards is restricted only to those who know the PW or have access to the Console).
- 3) Change the admin password (used to access Admin Pages on RoomWizards) on all RoomWizards on your network. (This will ensure only appropriate access can be gained via the RoomWizard Web interface (and Front Panel)).

RoomWizard lists

The File Menu option to save or reload different groupings of your RoomWizards can be used to maintain different “views” of your network. You may want one list setup with a single group to watch for trouble units, and another list with logical groupings to easily perform firmware upgrades, and yet a third with physical location groupings.

External Internet Access

The Console requires access to a pre-established HTTP site for retrieval of Firmware Images and Instructions. If Firmware Image files and Instructions have already been installed on the local file system, then the Console can make use of these and work “offline”.

Warranty

This software is provided as-is, with no warranty of any kind. Steelcase shall not be liable for consequential or incidental damages arising from any product defect including without limitation any liability for products not being available for use or for lost data or software.

Appendix 2

Configure 802.1x

Starting with version 4.7, RoomWizard supports the use of the 802.1x security option for communication with the attached network. There are three main security options (PEAP, TLS, and TTLS) with additional sub options for each. The User is expected to have previous knowledge of how to set up these options and settings. The dialogs for adjusting these settings are shown below.

Protected EAP (PEAP)

Configuring 802.1x support on Device(s)

802.1x Security Features

Enable 802.1x Secure Connection ☒

Authentication Type: Protected EAP (PEAP)

TLS Version: 1.2

Anonymous Identity:

CA Certificate: ...

For Example: ftp.steelcase.com/log/wizards

Only PEM or DER format certificate is supported.
Warning: Not using CA Certificate can result in insecure connection!

Security Options

PEAP Version: Ver 0

Inner Authentication: MSCHAPV2

Username:

Password:

Proceed

Note that in each of these dialogs, one or more certificate/keys may be requested. There is an option to include a multiple CA Certificate chain in which case the User can select multiple certificates using the Ctrl-Click selection method in the browse dialog. The User is required to specify new certificate(s) by entering the full local path and filename of the new certificate(s) to place on RoomWizard anytime that a configuration change is made and saved on an individual or set of RoomWizards.

TLS

Configuring 802.1x support on Device(s)

802.1x Security Features

Enable 802.1x Secure Connection ☒

Authentication Type **TLS**

TLS Version **1.2**

Identity

CA Certificate ...
Only PEM or DER format certificate is supported.
Warning: Not using CA Certificate can result in unsecure connection!

Security Options

User Certificate ...
Only PEM or DER format certificate is supported.

Private Key ...
Only PEM/DER/P12/PFX formats are supported.

Private Key PW
Only required for password protected P12/PFX format private key.

Proceed

Tunneling TLS

Configuring 802.1x support on Device(s)

802.1x Security Features

Enable 802.1x Secure Connection ☒

Authentication Type **Tunneling TLS**

TLS Version **1.2**

Anonymous Identity

CA Certificate ...
Only PEM or DER format certificate is supported.
Warning: Not using CA Certificate can result in unsecure connection!

Security Options

Inner Authentication **PAP**

Username

Password

Proceed

Appendix 3

Configure ID Lookup feature

Starting with version 4.7, RoomWizard supports the ability to allow lookup of a User ID in order to fill in the name data on a Use Now meeting. The dialog for adjusting these settings is shown below.

Configuring ID lookup option on Device(s)

General ID lookup via LDAP

Enable ID lookup via LDAP ☒

LDAP Server
For Example: ldap.steelcase.com

LDAP Username

LDAP Password

Search Options

LDAP Search Attributes
For Example: ou=users,dc=steelcase,dc=com

Domain Name
The domain name to be considered for generalized authentication.

Search on Common Name ☒

Search on First/Last Name ☐

Proceed

Appendix 4

Configure sending WD Logs via FTP/SFTP

Starting with version 4.7, RoomWizard supports the ability to upload logs resulting from a Watchdog Timer event to a User specified FTP/SFTP site. The dialog for adjusting these settings is shown below.

Configuring Logging to FTP site option on Device(s) X

Enabling this option will cause the RoomWizard to upload watchdog related logs to the account specified. Watchdog logs are generated when a prolonged unresponsive state is encountered.

Watchdog Log Uploading Options

Enable Watchdog Log Uploads ☒

FTP/SFTP Location
For Example: ftp.steelcase.com/log/wizards

Username

Password

Proceed

Appendix 5

Configure SNMP

Starting with version 4.6 and greatly expanded in 4.7, RoomWizard supports use of SNMP. SNMP has two main security version options; v1/v2c and v3. The dialogs for adjusting these settings are shown below.

SNMP v1/v2c

Configuring SNMP Support on Device(s)

SNMP

Enable SNMP ☒

RW Location
Optional indication of physical location of RW

Local RW Contact
Optional Contact name/info responsible for this RW

Manager (Approved IP) List Click to add more IPs to Manager list.
For Example: 192.168.0.101 (At least one value is required for SNMP to function)

SNMP Security options

Enable Level 3 (L3) Security ☐
Default is Level 1/2. Level 3 requires additional credentials.

Community String
String used to validate participants in SNMP communications

Proceed

- RoomWizard Location is optional information shared between both security versions and is simply a description of the physical location of the RoomWizard.
- Local RoomWizard Contact is optional information shared between both security versions and is simply a description of any contact information the user wishes to associate with this specific RoomWizard.
- Manager (Approved IP) List is a list of IPs which represents SNMP Manager devices (up to a max of 5) where an SNMP Application is potentially run and can query and receive traps from the RoomWizard SNMP interface. The RoomWizard will limit contact to ONLY the IPs on this list and not accept commands from nor send traps to any other IPs. At least one IP should be present on this list.
- Community String is specific to v1/v2c and represents something like a password which must be presented when issuing commands to the RoomWizard SNMP interface.

SNMP v3

When SNMP v3 option is selected, some additional information is required to complete the security configuration. The User is expected to already be familiar with the required information and options.

Configuring SNMP Support on Device(s)

SNMP

Enable SNMP

☒

RoomWizard Location

Optional indication of physical location of RoomWizard

Local RoomWizard Contact

Optional Contact name/Info responsible for this RoomWizard

Manager (Approved IP) List

192.168.0.75

+

Click to add more IPs to Manager list

For Example: 192.168.0.101 (At least one value is required for SNMP to function)

10.35.76.100

-

SNMP Security options

Enable Level 3 (L3) Security

☒

Default is Level 1/2. Level 3 requires additional credentials.

Authentication Protocol

MD5

Protocol to use for authentication

Privacy Protocol

DES

Protocol to use for encrypting

Privacy Key

Key String to use as input to the encryption

Security Name

test

Authentication Key

Proceed

- Authentication Protocol
- Privacy Protocol
- Privacy Key
- Security Name
- Authentication Key

Appendix 6

Customize Front Panel Display

Starting with version 4.7, RoomWizard supports the ability to customize the color, gradient effect, and badging (also known as a logo) on the front panel. The dialog for adjusting these settings is shown below.

Customize Front Panel of Device(s)

Set Background

☒ No Change

Flat

Gradient

Custom Gradient

#FF0000

Enter hex code for Custom Color
(fade to black)

Set Badge

☒ No Change

Upload Badge File

...

Badge image should preserve transparency (.png format is typically best)

☒ No Change

Click URL

http://www.steelcase.com

URL must start with either http:// or https://

This is line 1.

This is line 2, can you still read line 1 above?
(If not, then please choose a darker color)

View

☒ Available ☐ Reserved

When space is available, the badge is shown. When space is reserved, the badge will not be shown.

Set RoomHomePage Picture

☒ No Change

Upload Picture File

...

Picture to be shown on RoomHomePage

Proceed

Steelcase

32 | Page

The fields associated with this dialog are listed below. The checkboxes labeled “No Change” allow for the User to adjust some aspects of the customization while leaving others unchanged.

Set Background

The setting allows the User to set the background color for the RoomWizard front panel display. There are several predetermined colors and the option to specify a custom color is also provided. Any selection made will also result in a gradient (fading) background. The two exceptions are the default Steelcase blue and the flat black options at the top of the section.

Set Badge

This setting has two components, the Badge/Logo itself and the ability to specify a URL which will be navigated to if the User clicks on the badge while viewing the RoomWizard from its Web interface.

- Upload Badge File allows the user to specify an image file (max size 5MB) to be displayed in the upper right corner of the RoomWizard front panel. For best effect, the image should have a transparent background.
- Click URL allows the User to specify a link to navigate to if the badge image is clicked while viewing the RoomWizard front panel via the Web Interface.

View

The view is informational only and gives the User an idea of what the customized front panel will look like. The Available/Reserved condition refers to the sizing of the badge; full size when available, reduced when RoomWizard is in use.

Set RoomHomePage Picture

Starting with version 4.10, RoomWizard supports the ability to add a home page picture (max size 5MB) for a room, which will appear on the admin page.

Appendix 7

Configure Connector Synchronization

Starting with version 4.8, RoomWizard supports the ability to configure the Synchronization of the device with an external Calendaring System by means of a “Connector”. The dialog for adjusting these settings is shown below.

Configuring Connector Synchronization on Device(s)

Enabling this option will cause the RoomWizard to synchronize its calendar with an external Calendaring Server

Synchronization Options

Enable Synchronization ☒

Connector URL

Authentication Mode **Basic**

Username

Password

Poll Interval **1 minute**

Get time from Sync Server **No**

Update Room Resources Only ☐

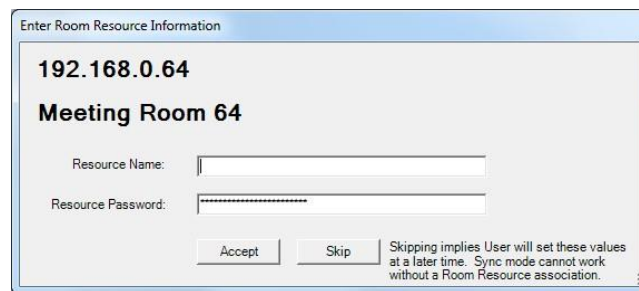
Room Specific Info entry method **Prompt User individually for each RW**

Proceed

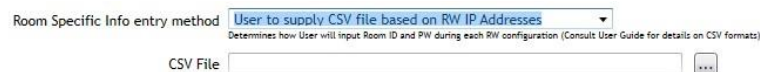
- Connector URL the RoomWizard must communicate with the connector via a public URL. This should be entered here.
- Authentication Mode is dependent on the Connector.
 - Depending on the Authentication Mode, a Username might be required to access the Connector URL.
 - Depending on the Authentication Mode, a Password might be required to access the Connector URL.
- Poll Interval allows User to suggest a minimum polling interval which the RoomWizard can use to regulate communications with the Connector to assess changes in status.
- Get time from Sync Server allows User to specify that RoomWizard will get its understanding of the current time from the same server used for the Connector.

- **Update Room Resources Only** In some circumstances, the credentials for the rooms using a particular connector might need to be set (as they are unique to each room) while the remaining Connector details do not require changes (as they are public and the same for all RoomWizards using the Connector). In this case, the user can check this box so that only the room specific information will be adjusted.
- **Room Specific Info entry method** The room Resources for each RoomWizard will be unique to that RoomWizard and so must be entered independently even if all other settings will be the same for all the RoomWizards being configured. There are two options for doing this:

The User can choose to enter, manually, the Room ID and password for each RoomWizard as it is processed and, if they choose this option, they will be presented with the following dialog for each RoomWizard...



Alternatively, the User can create a CSV file and will be prompted to enter the file location as shown here.

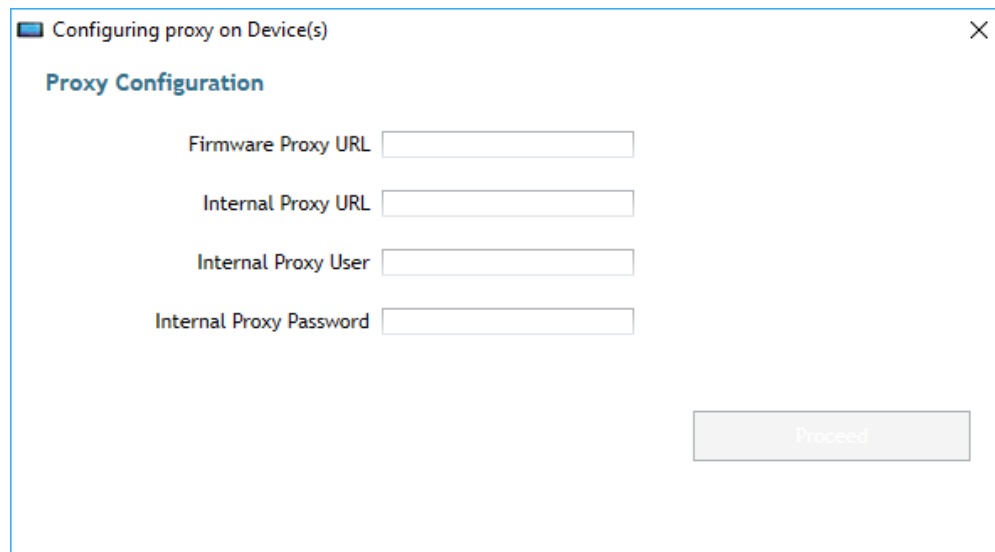


The file should have entries in the form: RoomWizard IP,RoomWizard ID, RoomWizard PW where the RoomWizard IP is the first entry, then a comma, and the desired RoomWizard Room ID is next, then a comma, and finally the RoomWizard Room password which ends the line. Each RoomWizard should have its own line in the file. If the RoomWizard is not found in the given CSV file, the Console will fall back to prompting the user to enter the information manually for that specific RoomWizard.

Appendix 8

Configure Proxy

Starting with version 4.10, RoomWizard Admin Console supports the ability to configure use of a proxy. The dialog for adjusting these settings is shown below.



The screenshot shows a dialog box titled "Configuring proxy on Device(s)" with a close button (X) in the top right corner. Below the title bar, the section is labeled "Proxy Configuration". There are four input fields stacked vertically, each with a label to its left: "Firmware Proxy URL", "Internal Proxy URL", "Internal Proxy User", and "Internal Proxy Password". A "Proceed" button is located at the bottom right of the dialog.

Field Label	Input Type
Firmware Proxy URL	Text
Internal Proxy URL	Text
Internal Proxy User	Text
Internal Proxy Password	Text

Proceed

Appendix 9

Configure Backup

Starting with version 4.10, RoomWizard Admin Console supports the ability to configure the location and frequency of automatic backups, and to manually trigger a backup. The dialog for adjusting these settings is shown below.

Configuring Backup Support on Device(s)

Backup Configuration

Backup Server

Backup Username

Backup Password

Run Backup

Right Now!

at

12 am

:

00

Overwrite old backup files

Proceed

Appendix 10

Configure SMTP

Starting with version 4.10, RoomWizard Admin Console supports the ability to configure an SMTP server as well as admin emails. The dialog for adjusting these settings is shown below.

Configuring SMTP Support on Device(s)

SMTP Configuration

SMTP Server

SMTP Username

SMTP Password

Room Admin Email

Display Name

Return Email

System Admin Email

Send Alert

☒

Proceed

Appendix 11

Configure Network

Starting with version 4.10, RoomWizard Admin Console supports the ability to configure the network settings of a device, such as the use of DHCP or a static IP as well as the use of reverse DNS. The dialog for adjusting these settings is shown below.

Configuring network on Device(s) X

Network Settings

Use DHCP for network settings ☐

IP Address

Subnet Mask

Gateway

DNS

Domain

Hostname Settings

Use RDNS for hostname ☐

Hostname

Proceed

Appendix 12

Configure Room Management Settings

Starting with version 4.10, RoomWizard Admin Console supports the ability to change room management settings. The dialog for adjusting these settings is shown below.

Configuring Room Management Settings on Device(s)

Define Room Management Settings

	Description	Enable	Additional Data
Users may protect their reservations with a password <small>Permits users to optionally protect each of their reservations with a password of their own choice</small>		<input type="checkbox"/>	
Users must enter this password to make or modify reservations <small>Requires that all users quote this password to access reservations for this room</small>		<input type="checkbox"/>	*****
Make the meetings for this room confidential (by default) <small>Meetings booked to this room will be confidential by default</small>		<input type="checkbox"/>	
Send details of reservation to attendees (by default) <small>Email with details of reservation is sent to attendees by default</small>		<input type="checkbox"/>	
Send reminder Email <small>The reserver will be sent a remind Email for the meeting</small>		<input checked="" type="checkbox"/>	
Make the Advanced Form the default reservation from <small>Creating a new reservation will use the Advanced Form by default</small>		<input type="checkbox"/>	
Send whiteboard images only at end of meeting (by default) <small>If not enabled, whiteboard images are sent immediately when captured (Override available in Classic mode option only)</small>		<input checked="" type="checkbox"/>	
Display only first name on front panel when a meeting is in progress <small>Front Panel will display on the first name of the Host (as opposed to the full name)</small>		<input checked="" type="checkbox"/>	
Disable Front Panel access from browser		<input type="checkbox"/>	
This room is a private room		<input checked="" type="checkbox"/>	
Show customer private room message on front panel		<input type="checkbox"/>	this is a private message
This RoomWizard is always in use		<input type="checkbox"/>	

Proceed

Appendix 13

Configure Room Reservation Settings

Starting with version 4.10, RoomWizard Admin Console supports the ability to change room reservation settings. The dialog for adjusting these settings is shown below.

Configuring Room Reservation Form(s) on Device(s)

Define Room Reservation Forms

Field Name	Simple Form	Advanced Form	Required (User must enter to proceed)
Host The person responsible for the reservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Purpose The purpose of the reservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Host E-mail Host or reserver's E-mail address	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Confidential Option to hide details of the reservation from public view	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Invite People Option to enter list of E-mail addresses to receive reservation details	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Send Details of Reservation to Attendees Option to send reservation details to Invite list	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Send Captured Whiteboard Notes to Attendee Option to send white board notes, captured during the meeting, to Invite list	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cost Center Cost Center for the reservation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Phone Host's or reserver's phone number	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Notes Option to enter other information which will appear in E-mails to Invitees and appear on Front Panel	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Repeating Reservations Option to repeat reservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Proceed

Appendix 14

Configure Front Panel Appearance Settings

Starting with version 4.10, RoomWizard Admin Console supports the ability to change the appearance of the front panel. The dialog for adjusting these settings is shown below.

Configuring Front Panel Appearance on Device(s)

Front Panel Appearance

Backlight is off every day between ☐ 12 am and 12 am

Show reservations on timeline between 7 am and 7 pm

Backlight is off all day Saturday and Sunday ☐

You can control what information users must enter when they schedule a meeting from the Front Panel.

To prevent users from scheduling impromptu meetings from the Front Panel, hide the 'Use Now' button on the Front Panel. ☐

To prevent users from ending meetings from the Front Panel, hide the "End" button on the Front Panel. ☐


To prevent users from changing a scheduled meeting time or duration from the Front Panel, hide the "Adjust" button on the Front Panel. ☐

Display the "Start" button on the Front Panel. ☒
To enable automatic cancellation of an unattended meeting, display the 'Start' button on the Front Panel.

If a user does not press the "Start" button on the Front Panel within the selected amount of minutes of the scheduled meeting start time, cancel the meeting and release the room.
You can enter the duration that the 'Start' button remains displayed on the Front Panel before an unattended meeting is automatically cancelled and the room is released.

Display the "Start Early" button on the Front Panel. ☒
To enable users to occupy a meeting space prior to the scheduled start time, display the 'Start Early' button on the Front Panel.

Display the "Start Early" button on the Front Panel by the selected amount of minutes prior to a scheduled meeting start time.
You can control when the 'Start Early' button appears on the Front Panel prior to a scheduled meeting start


Configuring Front Panel Appearance on Device(s)

If the "Start" or "Start Early" button is displayed on the Front Panel but a user does not press them within minutes of the scheduled meeting start time, do not cancel the meeting.
☐

You can control whether or not use of the 'Start' and 'Start Early' buttons on the Front Panel send notification of the meeting cancellation to the server. Some email systems deal with this remotely and do not need the RoomWizard to send a meeting cancellation notice.

You can limit the duration of reservations made by users when they schedule a meeting from the Front Panel.
No Limit

Allow reservation up to
3 Weeks

Do not prompt for "Subject" when "Use Now" is selected
☐

Do not prompt for "Organizer" when "Use Now" is selected
☐

Use defaults to create impromptu meetings in one touch with Use Now.
☐

You can configure the fields on the Front Panel to optimize the information for your needs.

Display "Purpose" field larger than "Host" field
☐

In Synchronized mode, hide the meeting "Host" name on the Front Panel.
☒

Display only the meeting "Host" name on the Front Panel. Hide meeting details.
☐

Increase font size of Room Name
☐

Disable the ability to schedule meetings using the RoomWizards touchscreen timeline.
☐

Hide the Web Address details on the Front Panel.
☐

Audio volume
Controls the volume of the sound effects RoomWizard emits

20

Display Brightness.
Controls the brightness level of the front panel

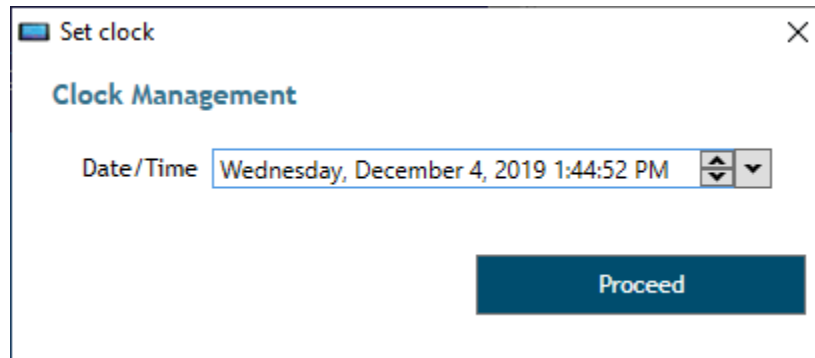
100

Proceed

Appendix 15

Configure Device Date/Time

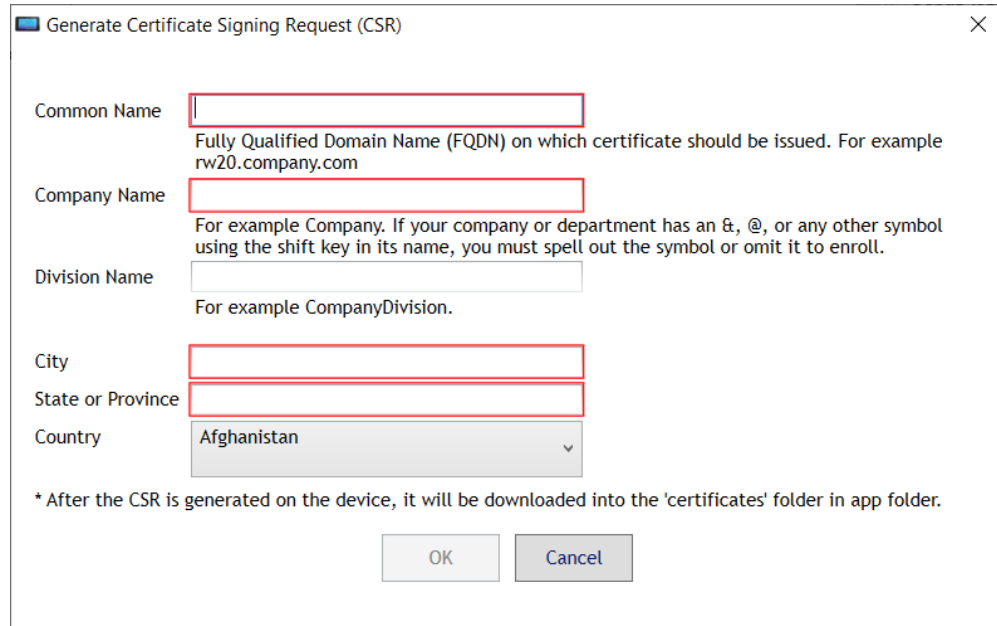
Starting with version 4.10, RoomWizard Admin Console supports the ability to configure a custom date/time to the device. The dialog for adjusting these settings is shown below.

A screenshot of a 'Set clock' dialog box. The dialog has a title bar with a blue icon and the text 'Set clock', and a close button (X) in the top right corner. Inside the dialog, the text 'Clock Management' is displayed in blue. Below this, there is a 'Date/Time' label followed by a text input field containing 'Wednesday, December 4, 2019 1:44:52 PM'. To the right of the input field is a small control with up/down arrows and a dropdown arrow. At the bottom right of the dialog is a dark blue button with the white text 'Proceed'.

Appendix 16

Generate and Upload Certificate Signing Request (CSR)

Starting with version 4.11, RoomWizard Admin Console supports the ability to generate a certificate signing request (CSR) and then upload the certificate to the device. The two dialogs for adjusting these settings are shown below.



Generate Certificate Signing Request (CSR)

Common Name
Fully Qualified Domain Name (FQDN) on which certificate should be issued. For example rw20.company.com

Company Name
For example Company. If your company or department has an &, @, or any other symbol using the shift key in its name, you must spell out the symbol or omit it to enroll.

Division Name
For example CompanyDivision.

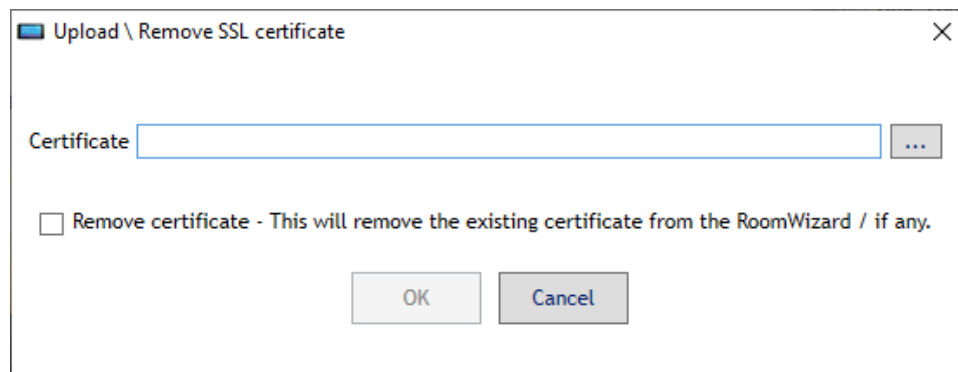
City

State or Province

Country

* After the CSR is generated on the device, it will be downloaded into the 'certificates' folder in app folder.

OK Cancel



Upload \ Remove SSL certificate

Certificate ...

☐ Remove certificate - This will remove the existing certificate from the RoomWizard / if any.

OK Cancel

Appendix 17

Configure Restore

Starting with version 4.10, RoomWizard Admin Console supports the ability to restore the device from a backup file located on an ftp/sftp server. The user can insert the name of the file or get a list of available backup files from the specified ftp server. The dialog for adjusting these settings is shown below.

Restore Device [X]

Restore

Backup Server URL
For example: ftp.steelcase.com/backup/wizards

Username

Password

Filename

Appendix 18

Configure Usage Report

Starting with version 4.11, RoomWizard Admin Console supports the ability to set the ftp location and notification email for the usage report to be sent monthly. The dialog for adjusting these settings is shown below.

Configuring usage reports

Usage Report Settings

Use usage reporting ☐

FTP URL

For Example: ftp.steelcase.com/backup/wizards

FTP User

FTP Password

Notification Email

Email address to notify when a new report is available on your FTP site.

Proceed