



OPERATOR • DISPLAY • INTEGRATED • NETWORK

# User Manual

ODIN Building Automation Systems  
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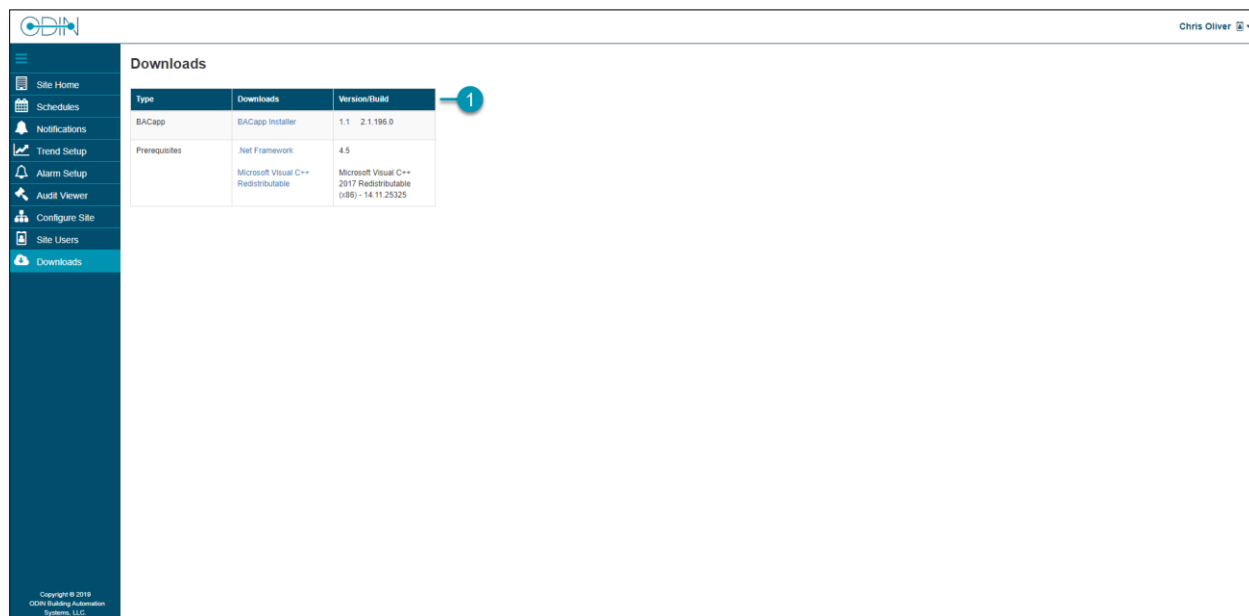
## 1 The ODIN BACapp

The ODIN BACapp will be installed on a Windows computer that resides on the same network as your building automation system and communicates with other BACnet devices. Once the ODIN BACapp is installed and licensed, the ODIN site is quickly configured and ready for access.

*Note: Site Admin level access is required for the downloading and configuration of ODIN.*

### 1.1 Downloads

The Downloads page is accessed by clicking Downloads in the left menu bar as shown in the figure below. Use this page to download the ODIN BACapp and any prerequisites you may need.

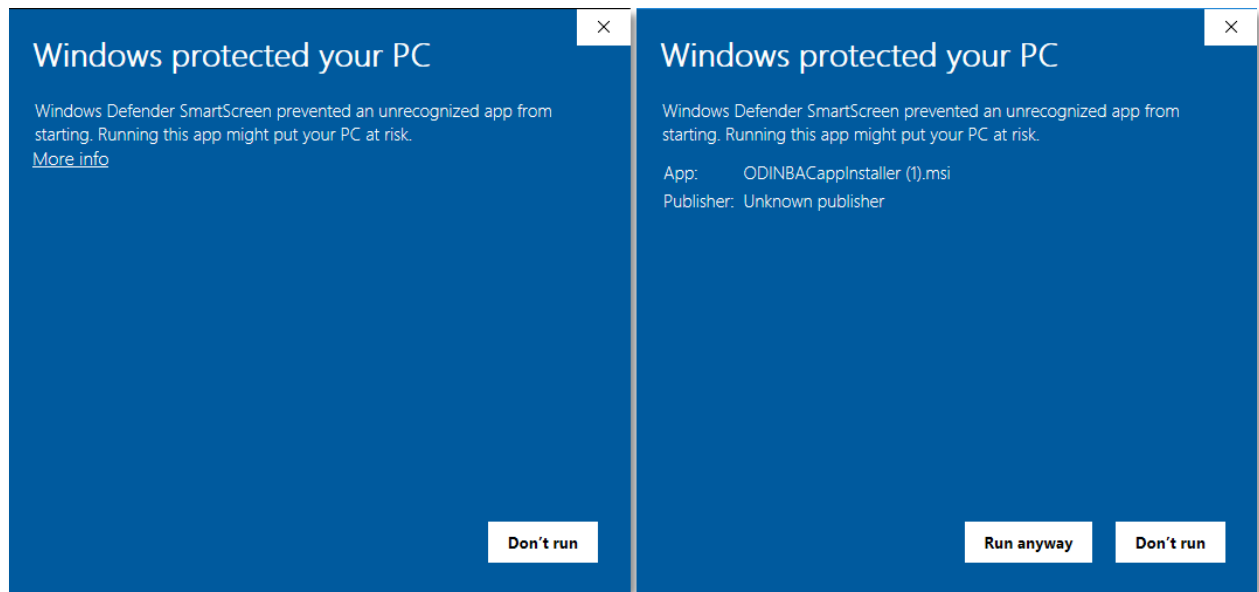


Download the BACapp installer and prerequisites like .Net Framework and Microsoft Visual C++ Redistributable.

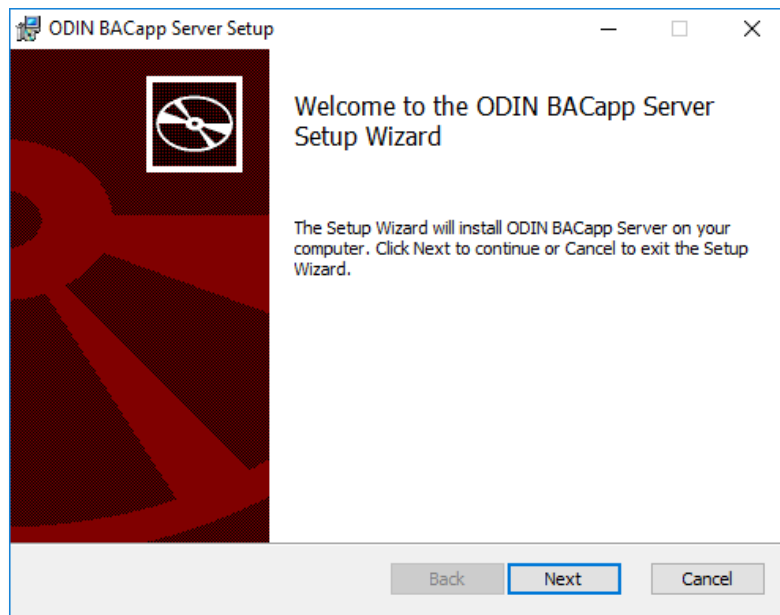
1. Table of available downloads with the following parameters:
  - a. **Type:** The category of the type of download.
  - b. **Downloads:** Click on the hyperlink to download the installer for the software.
  - c. **Version/Build:** Displays the version/build number of the installer for the software.

### 1.2 Installing the ODIN BACapp

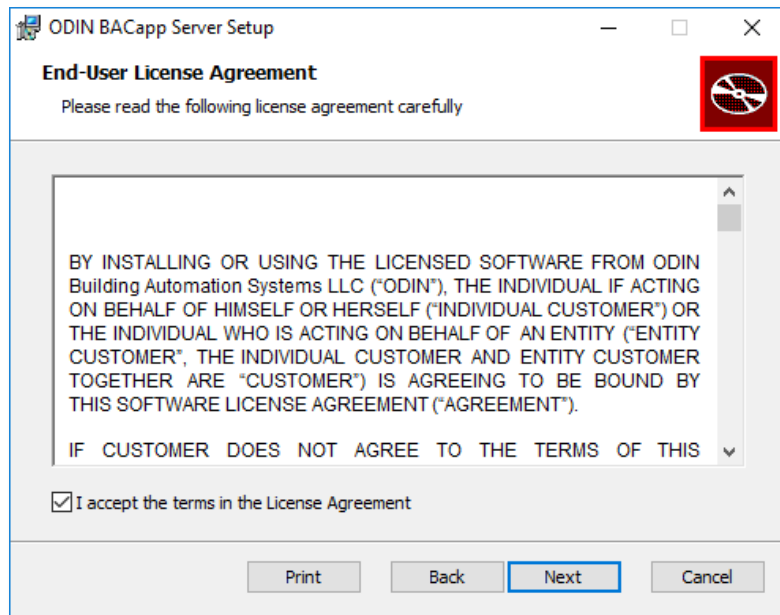
Click the BACapp Installer hyperlink to download and run the installer. If you receive a popup telling you that Windows protected your PC, click More info and then Run anyway as shown below.



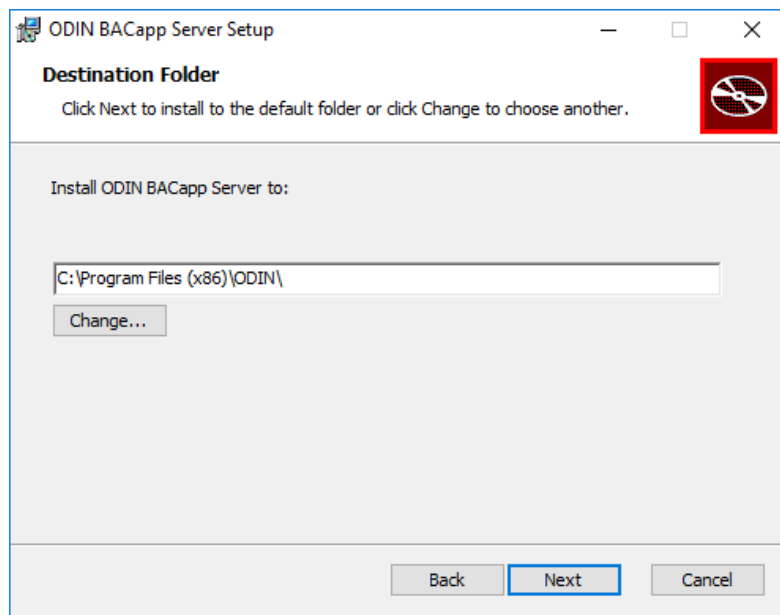
When the installer runs, click Next.



Read through the terms of the End-User License Agreement and check the box to accept. Click Next.



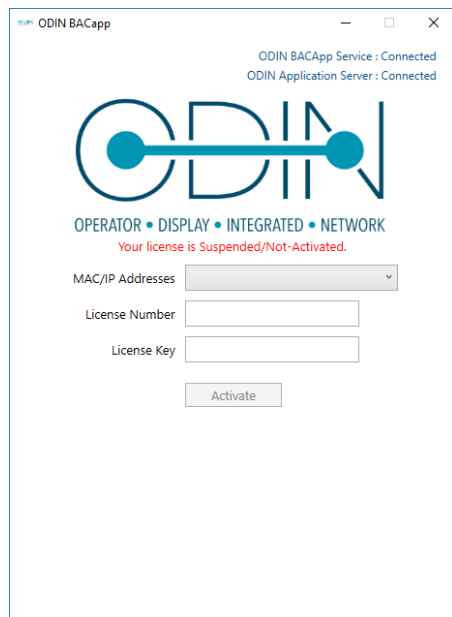
The default installation is on your C:\ drive. If you would like to install it on another drive, click Change, and then click Next.



Click Install on the last page and the program will begin installing. When it is complete you can click Finish and the ODIN BACapp shortcut will appear on your desktop.

### 1.3 Licensing a BACapp Site

Once the ODIN BACapp is installed on the PC, double click on the shortcut created on your desktop to open the BACapp UI and license your site.

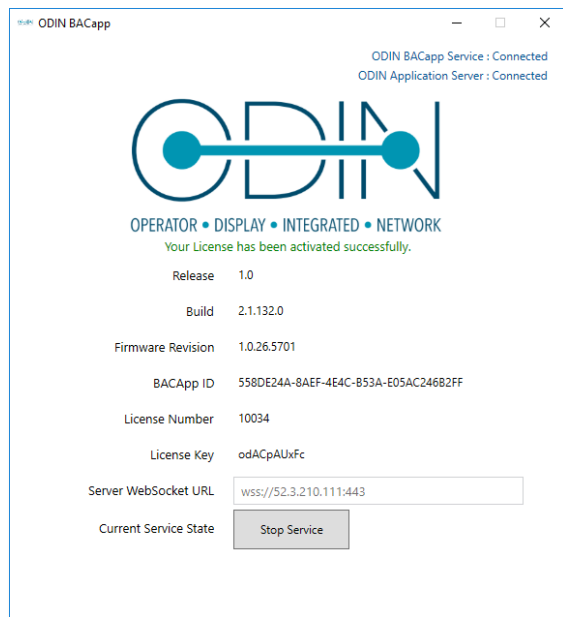


1. **MAC/IP Addresses:** Use the pulldown to select the network's MAC address – IP address. If there is more than one option in the pulldown, you will need to choose the network your BACnet devices are on. If another BACnet device is already using this IP address and default BACnet port, you will need to add a second IP address on this machine.

*Note: You may need to work with an IT professional for this step.*

2. **License Number:** Enter the license number of your site. Your License Number and Key can be found on the License Information popup from the Configure Site page. See [Configuring Sites](#) for more details.
3. **License Key:** Enter the License Key from the same license.
4. **Activate:** Click to activate the ODIN BACapp. The status of the BACapp will change from “**Your license is Suspended/Not-Activated**” to “**Your License has been activated successfully.**” as shown in the figure below.





### 1.3.1 Changing the IP address of the BACapp

If you need to change the IP address of the ODIN BACapp because your machine has more than one NIC card, open the BACapp and click Change IP Address. Select another MAC – IP address from the pull down and click Set BACapp IP. To return to the previous page without making changes, click Go to Details.

## 1.4 Changing the BACapp PC

If at any time the PC on which the ODIN BACapp resides needs to be changed due to failure or upgrade, follow the steps below to save the site configuration and move it to the new ODIN BACapp PC.

1. From the Configure Site page, click the Manage Site hyperlink.
2. Choose Suspend Site from the popup and click Next.

*Note: Suspending the site will save its current configuration in the database, disconnect the site from the cloud, and preserve the attached license. The Suspend option can be used on a "Connected" or "Disconnected" site. If the site is disconnected due to a failure of the PC, use the Suspend option to save the last known configuration before failure.*

3. Install the ODIN BACapp on the new PC and license the BACapp using the License Number and License Key from the same license that was used for the site previously.
4. Once the site is licensed, go to the BACnet Settings page and confirm your settings by clicking Save.
5. Click the Manage Site hyperlink from the Configure Site page. Choose Sync BACapp Data from the popup and click Next.

*Note: Syncing the BACapp data will send the last known configuration to the ODIN BACapp.*

## 2 ODIN Users

There are two user roles within ODIN to choose from when creating new users.

1. **Site Admin:** This user will have access to all pages within ODIN. If they are assigned Write access to a site, they will have full access. If they are assigned Read access to a site, they will have read only access to objects in groups, schedules, trends, and alarms but no access to configuration settings. A Site Admin can create, edit, and configure other Site Admins and Site Users.
2. **Site User:** This user will have access to the Site Home and Schedule page only. If assigned Write access to the site they will be able to make changes to objects in groups, schedules, trends, and alarms. If they are assigned Read access to a site, they will have read only access to objects in groups, schedules, trends, and alarms. A Site User cannot create, edit, or configure other users.

### 2.1 Site Users

The Site Users page is accessed by clicking on Site Users in the left menu bar as shown in the figure below. Use this page to view, create, edit, and remove Site Admins or Site Users. You can also configure specific group, object, and schedule access for Site Admins and Site Users.

The screenshot displays the ODIN interface for the 'Site Users' page. The left sidebar contains navigation links: Site Home, Schedules, Notifications, Trend Setup, Alarm Setup, Audit Viewer, Configure Site, Site Users (highlighted), and Downloads. The main content area shows the 'Site Users' page for 'Cape Cod Spa and Resort'. The status is 'Connected'. The page includes a search bar with 'Total: 5' users. A table lists the users with columns for Role, Name, Email, Edit, Object Access, and Remove. The table contains five rows of user data. Numbered callouts 1 through 8 highlight specific features: 1. Site status, 2. Location and weather, 3. Add User button, 4. Search bar and total count, 5. Table header, 6. Edit button, 7. Object Access dropdown, 8. Remove button.

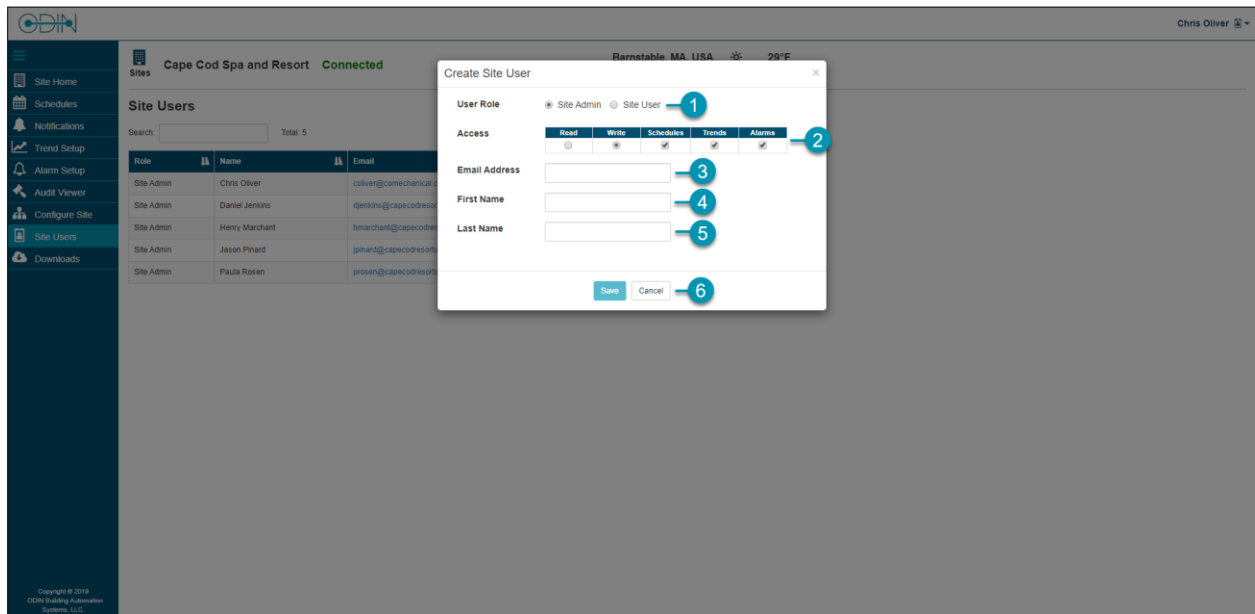
Role	Name	Email	Edit	Object Access	Remove
Site Admin	Chris Oliver	coliver@camechanical.com	Edit	Configure	Remove
Site Admin	Daniel Jenkins	djenkins@capecodesorts.com	Edit	Configure	Remove
Site Admin	Henry Marchant	hmarchant@capecodesorts.com	Edit	Configure	Remove
Site Admin	Jason Pinard	jpinard@capecodesorts.com	Edit	Configure	Remove
Site Admin	Paula Rosen	prosen@capecodesorts.com	Edit	Configure	Remove

1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **Add User:** Click to add a new user. See [Add Site User](#) for details.
4. **Search:** Search for users using keywords. The total will show you the number of users listed below or the number of filtered results from the search. Clear the search bar to see all users again.

5. Table of users including:
  - a. **Role:** The user role is displayed as Site Admin or Site User.
  - b. **Name:** The name of the user.
  - c. **Email:** The email address of the user.
6. **Edit:** Edit the user's User Role for this site, their access level, or name.
7. **Configure:** Configure the user's access to groups and their objects or schedules for the selected site. Please note that Site Admins have full site access and can configure their own access to see what is most important to them.
8. **Remove:** Click the Remove link to change that user's access level to No Access. This will remove the user from the user list for this site and they will no longer see the site in their site selection list.

### 2.1.1 Adding a Site Admin/Site User

When you click the Add User button from the Site Users page, you will get a Create Site User popup as shown in the figure below.



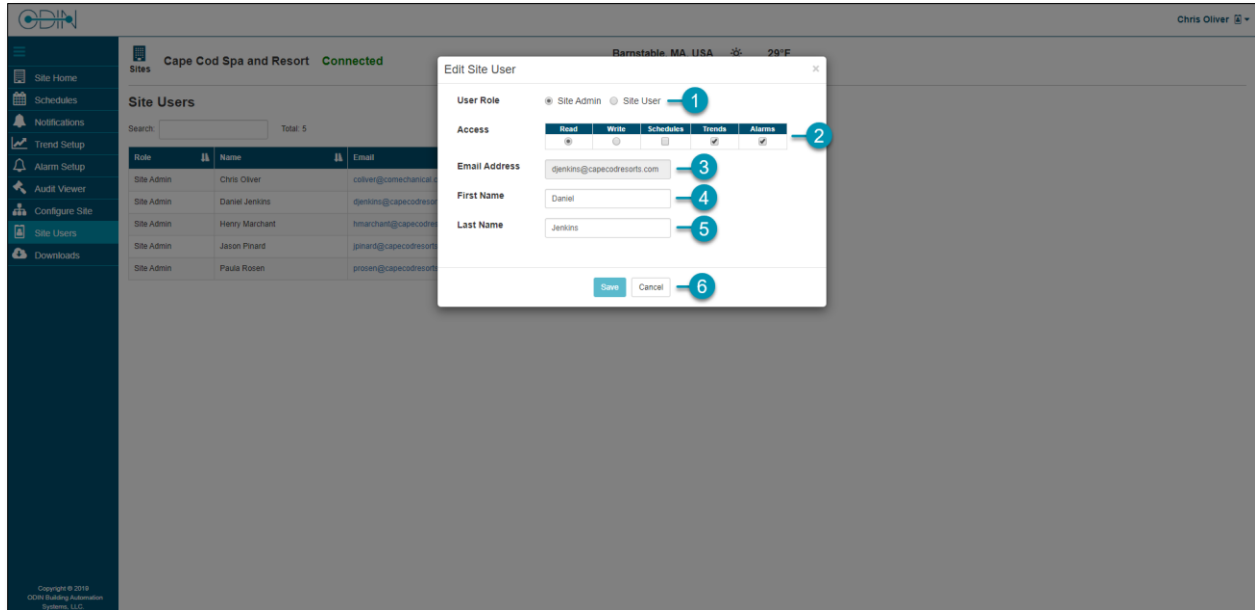
1. **User Role:** Choose from Site Admin or Site User for the new user. Site Admins will have access to all pages within ODIN while Site Users will have access to only the Site Home and Schedules page.
2. **Access:** Choose the level of access to give the user. Read will give them read only rights without the ability to make changes in the system. Write will give the user full rights to the pages they have access to based on their user role. You can also check or uncheck the features they will have access to.
3. **Email Address:** Enter the email address to be used as their username. If the email address belongs to an existing ODIN user, the first and last name will populate for you. You can then click Save to add this existing user to your ODIN site.
4. **First Name:** Enter the first name of the user to be created.

5. **Last Name:** Enter the last name of the user to be created.
6. **Save and Cancel:** Click to save or cancel your configuration. Saving will send the new user an email with an activation link and temporary password.

*Note: If the user does not receive their activation email, please check the spam folder.*

### 2.1.2 Editing Site Admins/Site Users

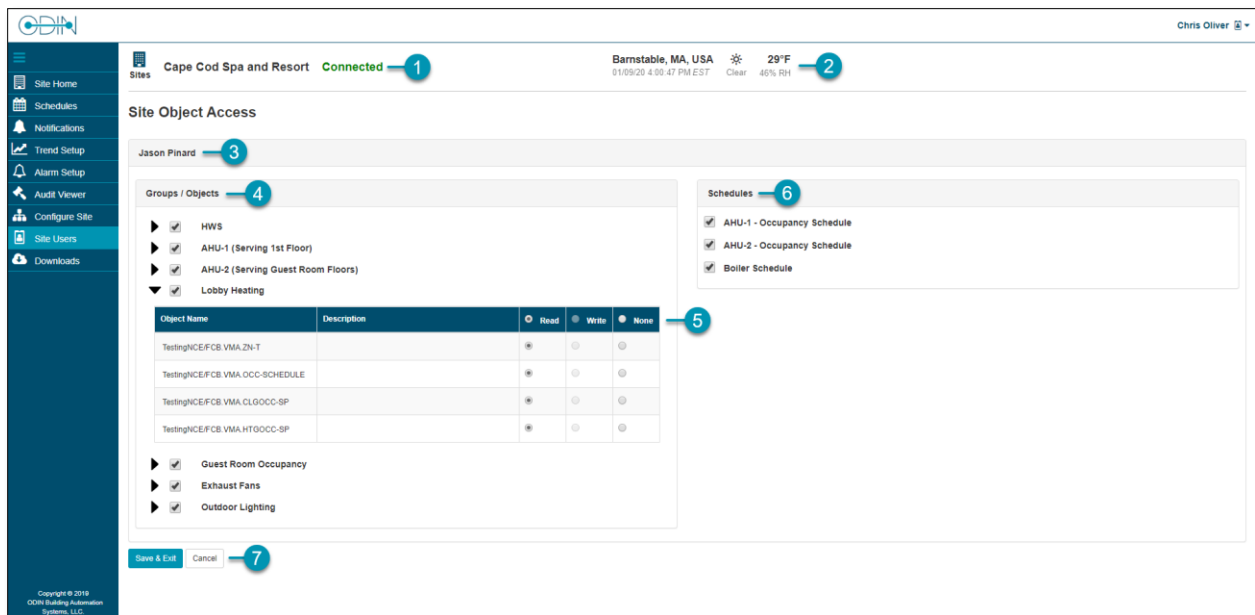
Click to edit the information of an existing user. User information will be pre-populated and can be edited.




1. **User Role:** The user can be promoted to a Site Admin or demoted to a Site User based on their current role.
2. **Access:** Make changes to their access level based on Read or Write access as well as access to features within the ODIN software.
3. **Email:** The email address of a user cannot be edited. If there has been a mistake, or a change in email address, a new user will need to be created.
4. **First Name:** The first name of the user can be edited.
5. **Last Name:** The last name of the user can be edited.
6. **Save or Cancel:** Click to save or cancel your changes.

### 2.1.3 Site Object Access

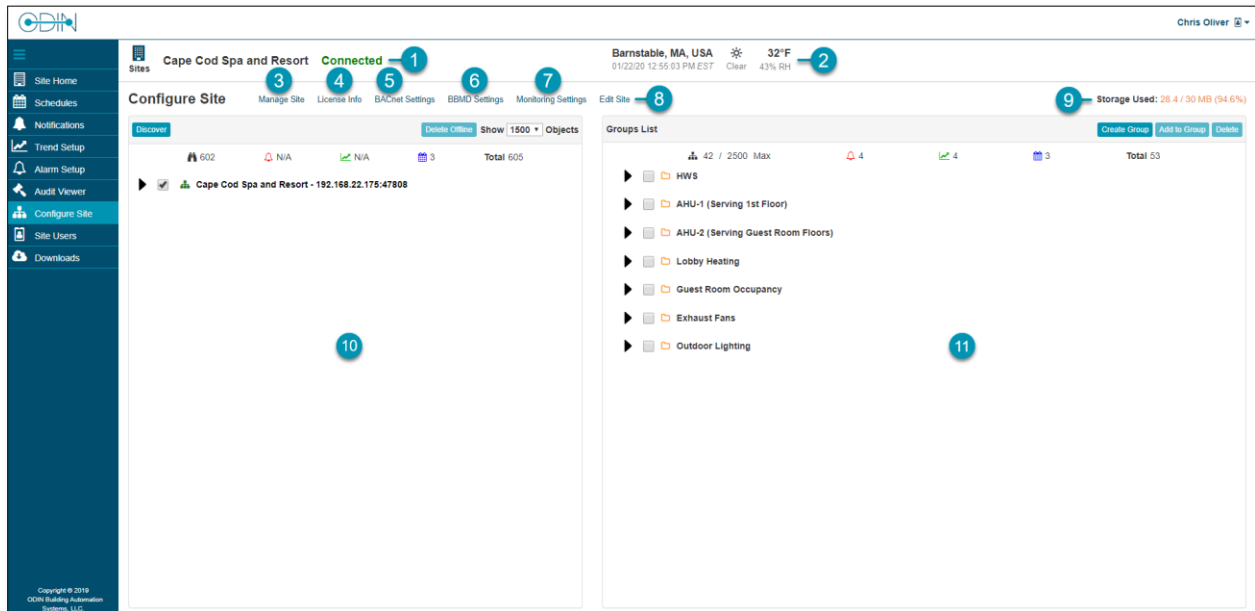
From the Site Users page, click the Configure hyperlink for the user to configure object access for.




1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **User:** The user whom object access is being configured for.
4. **Groups/Objects:** The list of configured groups for your site. The checked groups are groups the user can see from the Site Home page. If a group is unchecked, the user will not see the group from the Site Home page and will not have access to the objects in that group or any trends, schedules, or alarms associated with those objects.
5. **Table of objects within group:** Expand a group to see the objects within the group. You can customize the access the user has to the objects by selecting Read, Write, or None for individual objects. A user with read access to the site cannot be given write access to an object.
6. **Schedules:** The selected schedules can be seen by the user from the Schedules page. Uncheck a schedule to hide that schedule from the user.
7. **Save & Exit or Cancel:** Click to save or discard your changes and return to the Site Users page.

### 3 Configuring Sites

The Configure Site page is accessed by clicking on Configure Site in the left menu bar as shown in the figure below. Use this page to discover BACnet devices on your network and create groups to manage your building and its equipment quickly and easily.




1. **Site:** The selected site will be displayed, and the status of the site will show as either “**Connected**” or “**Disconnected**”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **Manage Site:** Click the Manage Site hyperlink to open a popup with the following options:
  - a. **Restart BACapp:** Send a signal to the BACapp to quickly shutdown and restart.
  - b. **Upgrade BACapp:** Upgrade the site’s BACapp if a newer version is available. If your BACapp is up to date, this option will not be displayed.
  - c. **Reactivate Expired License:** Sends a license reactivation to the site if the site was not online at the time that its expired license was renewed.
  - d. **Sync BACapp Data:** Sends the last known configuration to a site that is connected and active.
  - e. **Suspend Site:** Saves the current configuration and disconnects the site from the cloud. Present values will not be shown, alarms will not be sent, and data will not be collected for a trend. The license will stay attached to the site. A suspend can also be used on a disconnected site to save the last configuration.
4. **License Info:** Click the License Info hyperlink to open the License Information popup. Here you will find the information needed to license the site on the installed BACapp as well as more details about the license size, expiration date, and license history.

5. **BACnet Settings:** The first time you attempt a site discovery, you are brought to the BACnet Settings page to confirm your network connection and other BACnet Settings. See [BACnet Settings](#) for more details.
6. **BBMD Settings:** Use this page to configure BBMD to allow devices across different subnets to communicate with the ODIN BACapp. See [BACnet Broadcast Management Device](#) for more details.
7. **Monitoring Settings:** Adjust monitoring settings for your ODIN BACapp.
8. **Edit Site:** Click the Edit Site hyperlink to edit your site details such as Site Name, Location, or Time Zone. You will also see a Site Users list of all users with access to this site.
9. **Storage Used:** Storage used will be displayed in megabytes along with the percent of storage used. When your site reaches 90% of its limit an email will be generated to alert users. Storage can be managed or more storage space can be purchased.
10. **Discovery:** Discovery of your network's devices will be done on this side of the page. See [Discovering Devices](#) for more details.
11. **Groups:** Grouping of objects from discovered devices will be done on this side of the page. See [Creating Groups](#) for more details.

### 3.1 BACnet Settings

The BACnet Settings page is accessed from the hyperlink on the Configure Site page. Before your first discovery can be done, you will need to visit this page in order to confirm settings.

The screenshot displays the ODIN BACnet Settings page. The interface includes a sidebar with navigation options like Site Home, Schedules, Notifications, Trend Setup, Alarm Setup, Audit Viewer, Configure Site, Site Users, and Downloads. The main content area is titled 'BACnet Settings' and contains a table of network interfaces, a form for site configuration, and a status bar at the bottom. Numbered callouts (1-12) identify key UI elements: 1. Site status (Connected), 2. Location and weather, 3. Interface table, 4. Site Name field, 5. Port Number field, 6. Device Instance Number field, 7. APDU Time-out field, 8. Number of APDU Retries field, 9. Expose Trends, Alarms, Schedules to BACnet network checkbox, 10. Instance Number Discovery High Limit field, 11. Instance Number Discovery Low Limit field, and 12. Save/Cancel buttons.

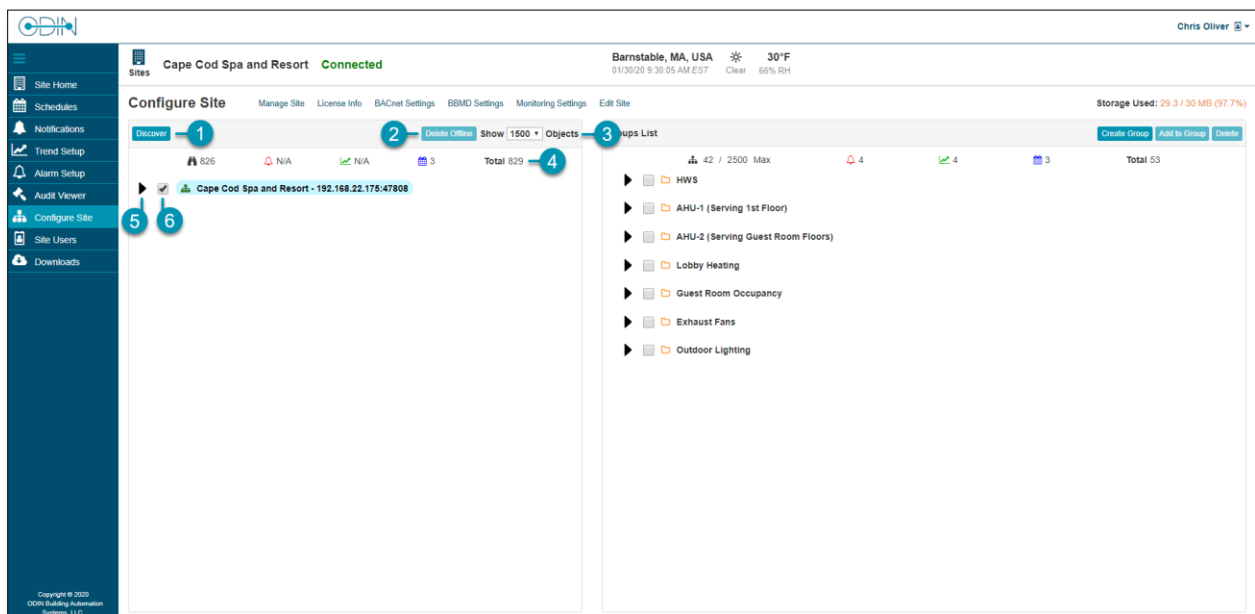
1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.

3. BACapp network details.
4. **Site Name:** The BACapp site name. This field cannot be edited in this screen.
5. **Port Number:** The port your network uses for BACnet communication.
6. **Device Instance Number:** Set a unique instance number for the BACapp device.
7. **APDU Time-Out:** The length of time, in seconds, before the BACapp will time-out when trying to get a response from a device. The default is 6,000 seconds.
8. **Number of APDU Retries:** The number of times it will retry before quitting. The default entry is 3.
9. **Expose Trends, Alarms, Schedules to BACnet network:** Click Yes to expose those objects created within Odin to other BACnet devices. Click no to not expose.
10. **Instance Number Discovery High Limit:** The maximum device instance number the BACapp will look for during site discovery.
11. **Instance Number Discovery Low Limit:** The minimum device instance number the BACapp will look for during site discovery.

*Note: If you enter a limit in one field, you must enter a limit in the other field as well.*







12. **Save or Cancel:** Click to save or discard your changes and return to the Configure Site page.

## 3.2 Discovering Devices

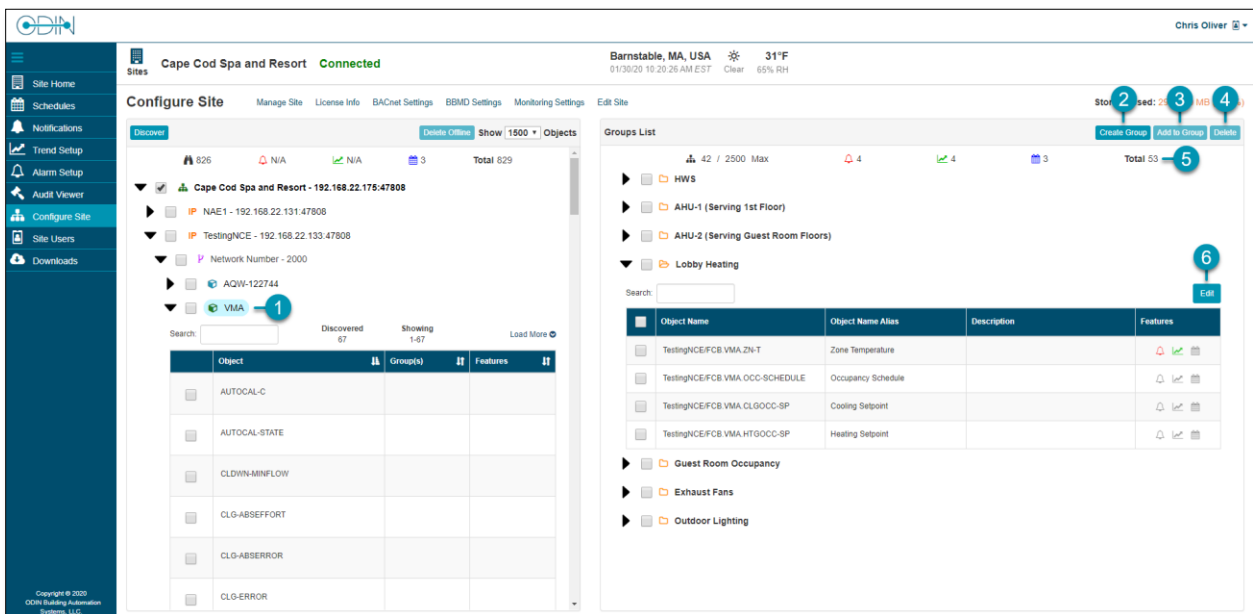


1. **Discover:** Select the checkbox next to the site name and click Discover to search the BACapp network for BACnet devices and objects.
2. **Delete Offline:** Select an offline device and click to remove the selected device from your discovery.
3. **Show Objects:** Select the maximum number of objects displayed.
4. BACapp Object counts:





- a.  : Total Objects Discovered.
  - b.  : Total Alarms Discovered.
  - c.  : Total Trends Discovered.
  - d.  : Total Schedules Discovered.
5.  **Icon:** Click to discover BACnet devices on the BACapp network.
  6.  **Icon:** Check to select all devices and/or objects under that tier.



### 3.3 Creating Groups



The screenshot displays the ODIN web interface for 'Cape Cod Spa and Resort'. The left sidebar contains navigation links. The main content area is divided into two panels. The left panel, 'Configure Site', shows a tree view of discovered objects under the 'Discover' tab. The right panel, 'Groups List', shows a table of groups and their associated objects. Numbered callouts indicate the following features:

- 1. Discover button (top left of the object tree)
- 2. Create Group button (top right of the Groups List)
- 3. Add to Group button (top right of the Groups List)
- 4. Delete button (top right of the Groups List)
- 5. Grouped Object counts with Total (top right of the Groups List)
- 6. Edit button (bottom right of the Groups List)

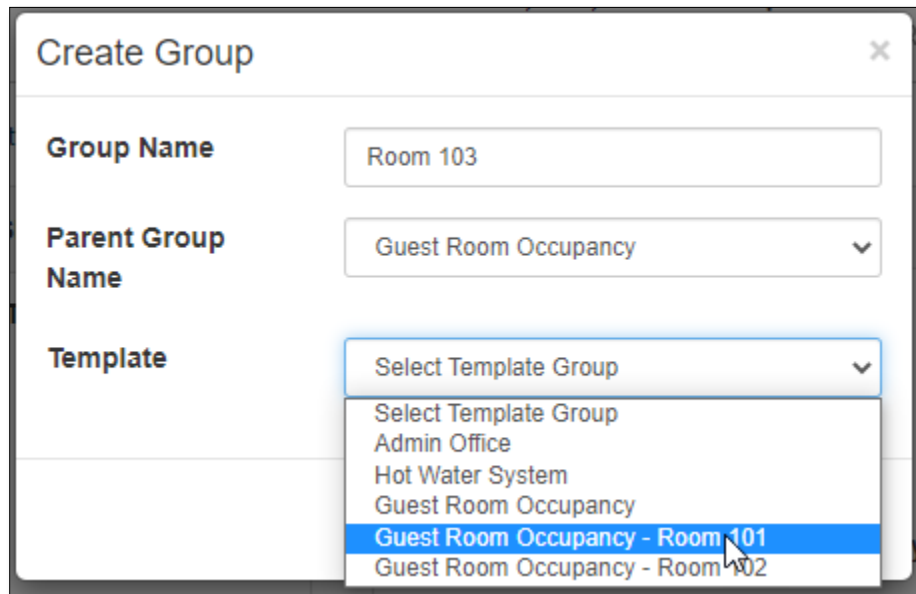
1. To create a quick group from a device, click on the device name and select Create Group from Device from the popup window. See [Using Template to Create Groups](#) for more details.
2. **Create Group:** Click to create an empty group in which to place objects in.
3. **Add to Group:** When you have selected all your objects for a group, check the box next to the group you would like to place the selected objects in and click Add to Group.
4. **Delete:** Select groups or objects and press Delete to remove them from the Groups List. You will get a popup asking to confirm before deleting.
5. Grouped Object counts with Total:
  - a.  **Icon:** Number of grouped objects and the max based on the license size.
  - b.  **Icon:** Number of Alarms referenced by grouped objects. (Does not count towards the object limit set by the license size.)

- c.  **Icon:** Number of Trends referenced by grouped objects. (Does not count towards the object limit set by the license size.)
- d.  **Icon:** Number of Schedules referenced by grouped objects. (Does not count towards the object limit set by the license size.)

6. **Edit:** Click to edit the group. See [Editing Objects in a Group](#) for details.

### 3.3.1 Using Template to Create Groups

When clicking on a BACnet device and selecting 'Create Group from Device', the Create Group window is displayed.



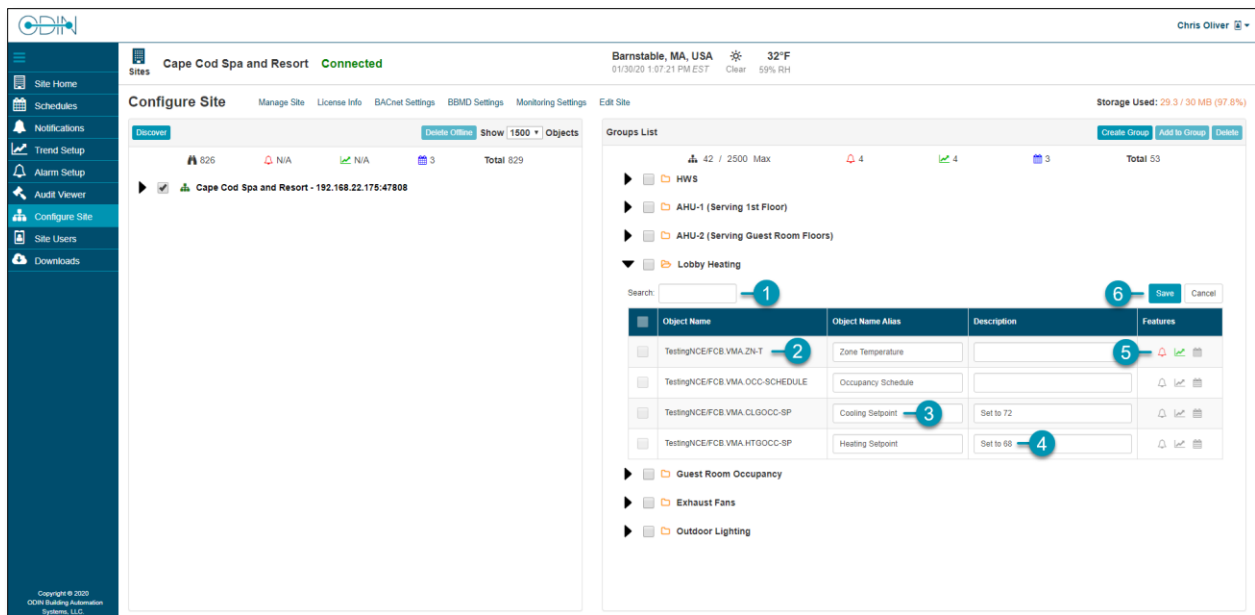
The 'Create Group' dialog box is shown. It has a title bar with a close button (X). The dialog contains three main sections: 'Group Name' with a text input field containing 'Room 103'; 'Parent Group Name' with a dropdown menu showing 'Guest Room Occupancy'; and 'Template' with a dropdown menu. The 'Template' dropdown is open, showing a list of options: 'Select Template Group', 'Admin Office', 'Hot Water System', 'Guest Room Occupancy', 'Guest Room Occupancy - Room 101' (highlighted), and 'Guest Room Occupancy - Room 102'.

The Group Name will auto-populate with the name of the device and can be changed. If the group you are creating is to be a subgroup of another, use the Parent Group Name dropdown to select the group that will be the top tier.

To create a new group based on a group that has already been configured, click on the new device and select 'Create Group from Device'. Use the Template dropdown to select the group that you want to mirror your new group after. Any objects from the Template group, that are also in the device you are creating a group from, will be put into the new group. They will also be in the same order and use the same alias names and descriptions, if any were used in the first group. At this time, template cannot be used to copy the trends or alarms from an existing group.

### 3.3.2 Editing Objects in a Group

Click Edit above a group to display the options as shown in the figure below.

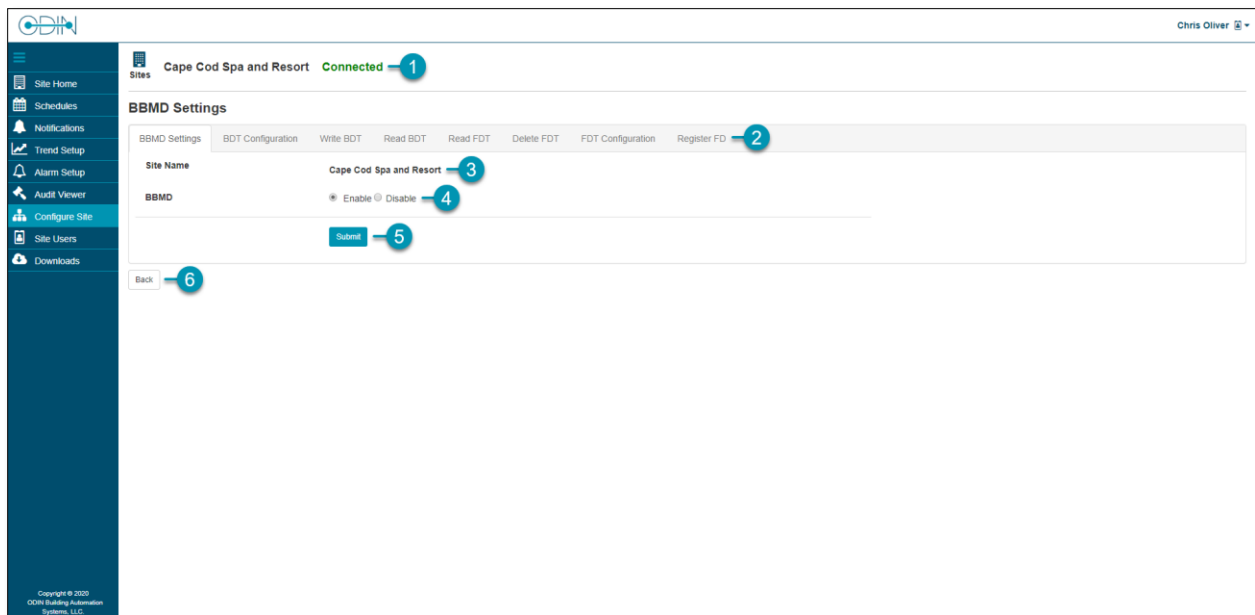



1. **Search:** Search the group for objects using keywords.
2. **Object Name:** The name of the object coming from the device.
3. **Object Name Alias:** Create a more user-friendly name for your object if needed. The Object Name Alias is what will be shown in the group from the Site Home page instead of the object name if one was entered.
4. **Description:** Add a description to the object if needed. This will be shown below the Object Name/Object Name Alias on the Site Home page.
5. **Features Icons:** Click the corresponding icon to create an Alarm (see [Add Alarm](#)), Trend (see [Add Trend Log](#)), or Schedule (see [Add Schedule](#)) for the object.
6. **Save or Cancel:** Click to save or discard your changes.

### 3.4 BACnet Broadcast Management Device (BBMD)

The BBMD Settings page is accessed by clicking the BBMD Settings hyperlink from the Configure Site page. A BBMD device receives broadcast messages on one subnet and forwards them to another subnet.

*Note: You may need to work with an IT professional to configure the following settings.*



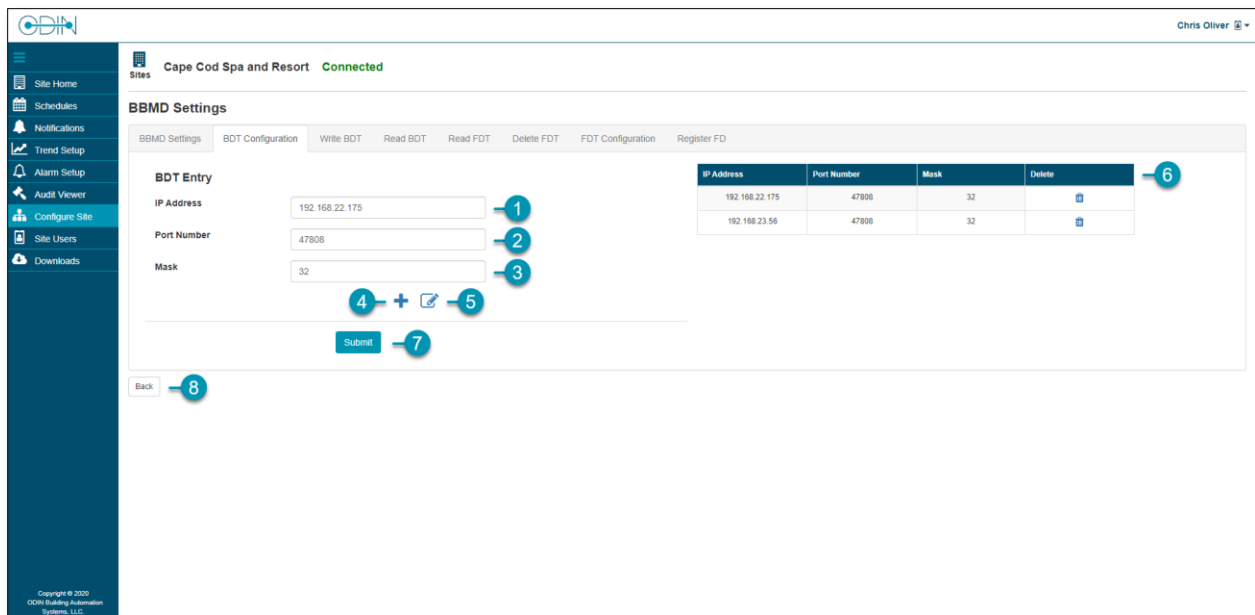
1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **BBMD Page Tabs:**
  - a. **BBMD Settings:** Enable or Disable BBMD of ODIN BACapp.
  - b. **BDT Configuration:** Configure BDT (Broadcast Distribution Table) settings.
  - c. **Write BDT:** Write BDT to other devices present on the network.
  - d. **Read BDT:** Read BDT of other devices present on the network.
  - e. **Read FDT:** Read FDT (Foreign Device Table) of other devices present on the network.
  - f. **Delete FDT:** Delete FDT of other devices present on the network.
  - g. **FDT Configuration:** Configure FDT of BACapp.
  - h. **Register FD:** Register FDT to other devices present on the network.
3. **Site Name:** Selected site name is displayed.
4. Select to enable or disable BBMD in the BACapp device.
5. **Submit:** Click to apply the settings to the BACapp.
6. **Back:** Click to return to the Configure Site page.

### 3.4.1 BBMD Settings

To enable BBMD function in the BACapp device, select the Enable radio button and click Submit. The other tabs in the BBMD Settings will then be enabled. To disable BBMD function in the BACapp device, select the Disable radio button and click Submit.

### 3.4.2 BDT Configuration

This table is used to store information of BBMDs. The information contains IP address, port number and subnet mask of all BBMDs in this table.



1. **IP Address:** Enter the IP address of BACnet device to be configured.
2. **Port Number:** Enter the port number the network uses for BACnet communication. The default value is 47808.
3. **Mask:** Enter a value between 1 and 32 for the mask. The default value is 32.

4. Click the button to add BDT entries in the table.
5. When you click on an entry in the table the icon appears. Edit the entry and then click to make the change in the table.
6. The BDT configuration table showing the user created entries with the option to delete.

*Note: This table must have the following:*

- a. One entry of BBMD for local IP subnet
- b. At least one entry of BBMD for remote IP subnet
- c. There can be more than one remote IP subnets having BBMDs
- d. There must be minimum two entries in the BDT table

*This table acts as a reference to identify all the remote IP subnets with whom we are connected in this broadcast network.*

7. **Submit:** Click on "Submit" to apply the entries from the BDT table to the BACapp.
8. **Back:** Click to return to the Configure Site page.

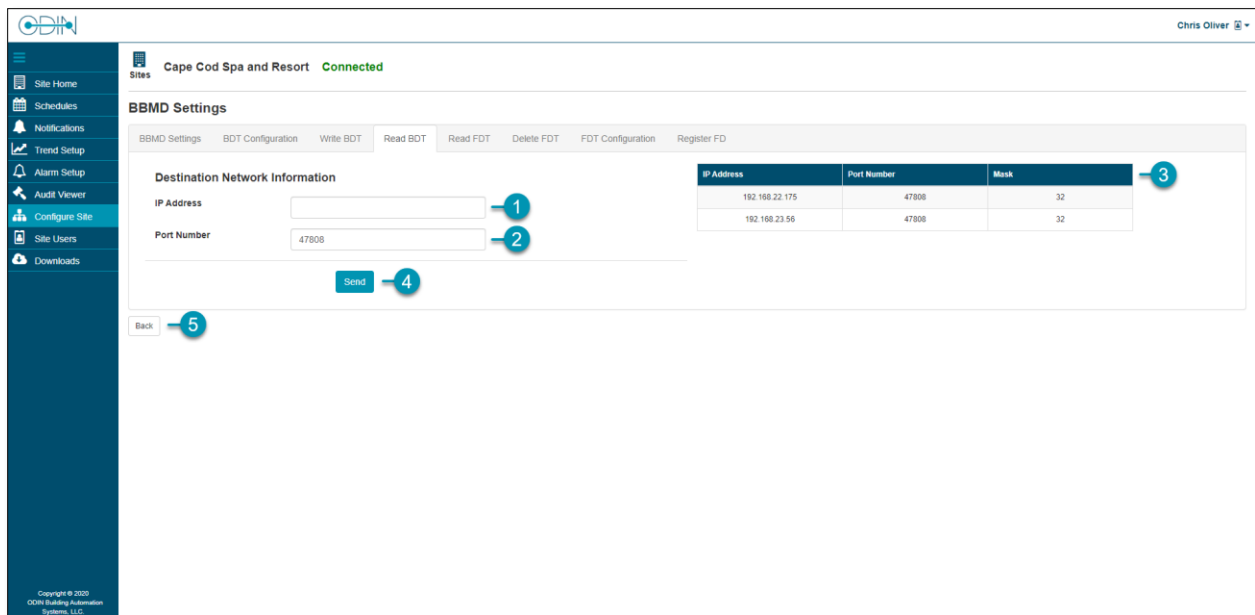
### 3.4.3 Write BDT

This message provides a mechanism for initializing or updating a Broadcast Distribution Table (BDT) in a BACnet Broadcast Management Device (BBMD).

1. **IP Address:** Enter the destination device IP address.
2. **Port Number:** Enter the port number the network uses for BACnet communication.
3. **IP Address:** Enter the IP address of the device to add as a BDT entry in the destination device.
4. **Port Number:** Enter the port number the network uses for BACnet communication.
5. **Mask:** Enter a value between 1 and 32 for the mask. The default value is 32.
6. Click the button to add BDT entries in the table.
7. Click the button to update entries from the table.
8. **Send:** Click to configure the BDT entries to the destination device.
9. The BDT configuration table showing the user created entries with the option to delete.
10. **Back:** Click to return to the Configure Site page.

### 3.4.4 Read BDT

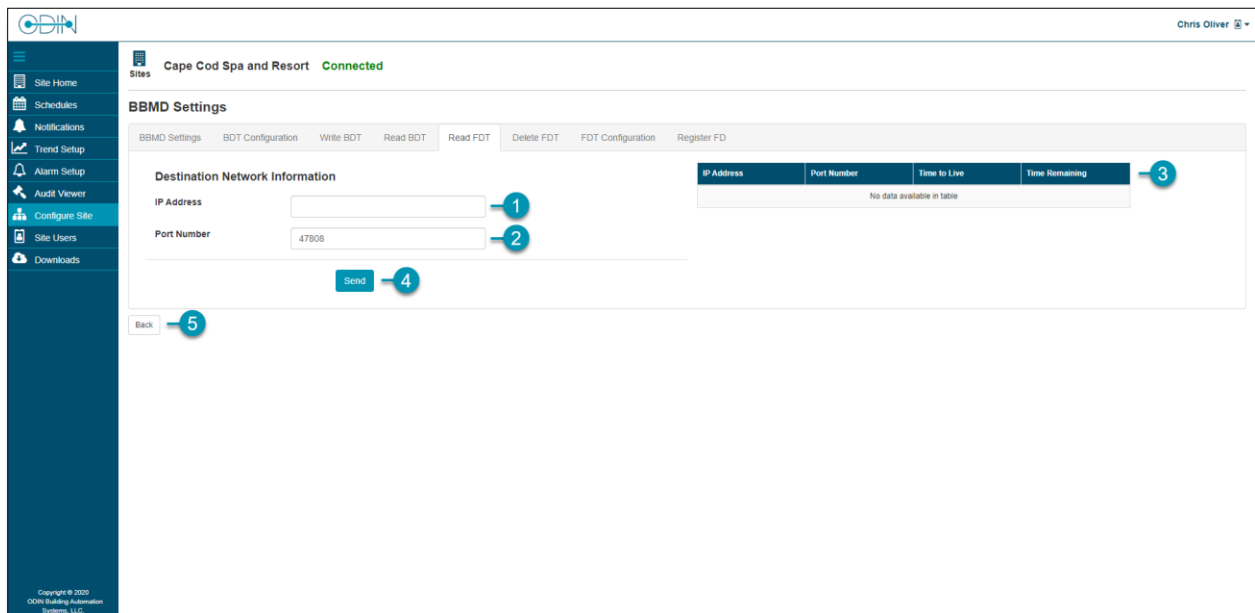
The message provides a mechanism for retrieving the contents of a BBMD's BDT. This can also be used to check whether the write BDT is written correctly in the BBMDs.



1. **IP Address:** Enter the IP address of the destination device to read BDT entries.
2. **Port Number:** Enter the port number the network uses for BACnet communication.
3. The BDT configuration table showing the user created entries with the option to delete.
4. **Send:** Click Send to add BDT entries from the destination to the table.
5. **Back:** Click to return to the Configure Site page.

### 3.4.5 Read FDT

Read FDT allows you to read foreign device entries of the other BBMD device.



1. **IP Address:** Enter the IP address of the destination device to read FDT entries.
2. **Port Number:** Enter the port number the network uses for BACnet communication.
3. **Send:** After clicking on send button FDT entries from destination device will get appear in the table on the right side as follows
4. The FDT configuration table with Time to Live and Time Remaining parameters.
  - a. **Time to Live:** Shows the total time for which any device is registered as a foreign device in the destination device.
  - b. **Time Remaining:** Shows the remaining time for which any device is registered as a foreign device in the destination device.
5. **Back:** Click to return to the Configure Site page.

### 3.4.6 Delete FDT

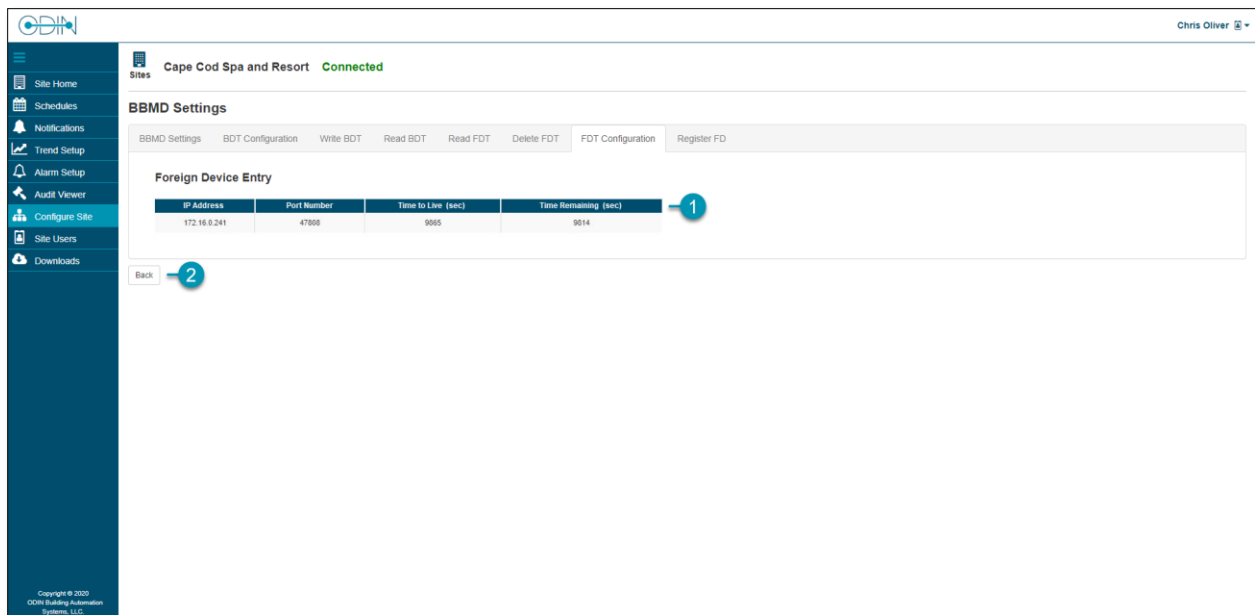
Delete FDT allows you to delete FDT entries of the other BBMD device.

1. **IP Address:** Enter the IP address of the destination device to delete FDT entry.
2. **Port Number:** Enter the port number the network uses for BACnet communication.
3. **IP Address:** Enter the IP address of FDT entry that needs to be deleted.
4. **Port Number:** Enter the port number the network uses for BACnet communication.
5. **Send:** After clicking on Send button FDT entry will be deleted from the destination device.
6. **Back:** Click to return to the Configure Site page.

### 3.4.7 FDT Configuration

When the BACapp is configured as a BBMD device on the network, other BBMD/Non-BBMD devices can register as a foreign device in the BACapp device.



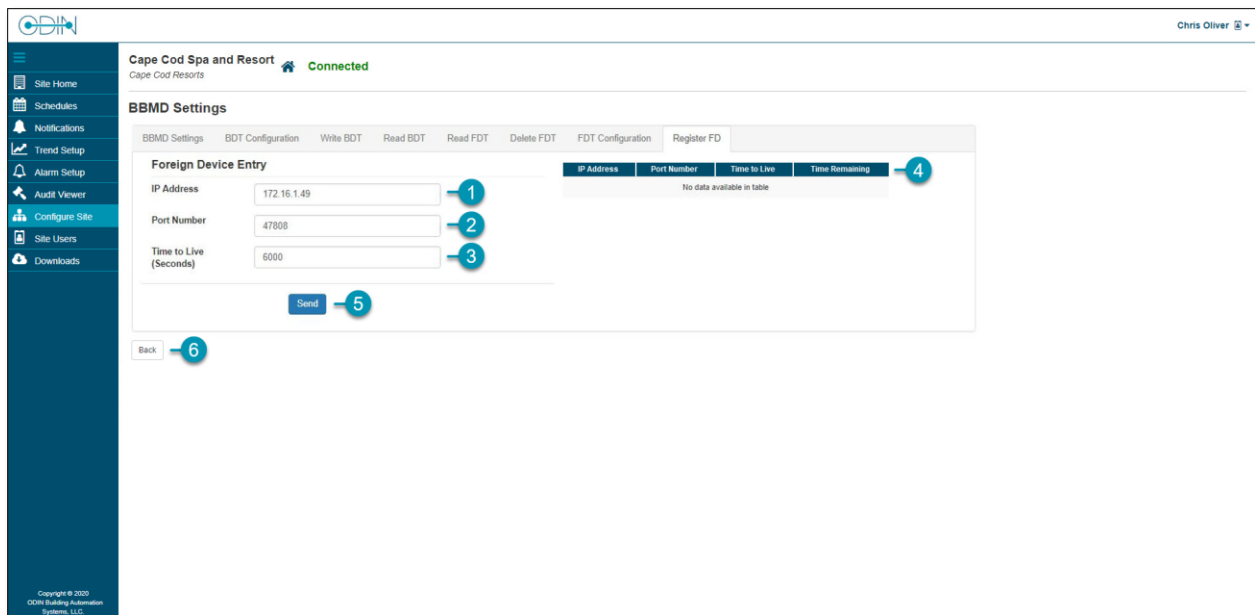


1. Table of the Foreign Device Entry including:
  - a. IP Address
  - b. Port Number
  - c. Time to Live
  - d. Time Remaining
2. **Back:** Click to return to the Configure Site page.

*Note: Time Remaining parameters are updated with the latest time after clicking on the FDT Configuration tab.*

### 3.4.8 Register FD

If a device is not a BBMD and there are not any BBMDs in the local subnet and still the device wants to be the part of broadcast network. In this case the device can register as a foreign device in a BBMD which is in remote subnet and be a part of that network.



1. **IP Address:** Enter the IP address of the device in which the ODIN device wants to register as a foreign device.
2. **Port Number:** Enter the port number the network uses for BACnet communication.
3. **Time-to-Live (Seconds):** Shows the total time for which the ODIN device is registered as a foreign device in the destination device.
4. The table provides information about the destination device in which ODIN device is registered as a foreign device.
5. **Send:** Click to register the ODIN device as a foreign device.
6. **Back:** Click to return to the Configure Site page.

*Note: Time Remaining parameters are updated with the latest time after clicking on Register FD tab.*


### 3.5 Monitoring Settings

The Monitoring Settings page is accessed by clicking Configure Site in the left menu bar and then the Monitoring Settings hyperlink in the Configure Site title bar. Use this page to change the frequency in which the ODIN BACapp and BACnet devices communicate.

The screenshot displays the 'Monitoring Settings' page for the 'Cape Cod Spa and Resort' site, which is currently 'Connected'. The left sidebar contains navigation links: Site Home, Schedules, Notifications, Trend Setup, Alarm Setup, Audit Viewer, Configure Site (highlighted), Site Users, and Downloads. The main content area includes the following settings:

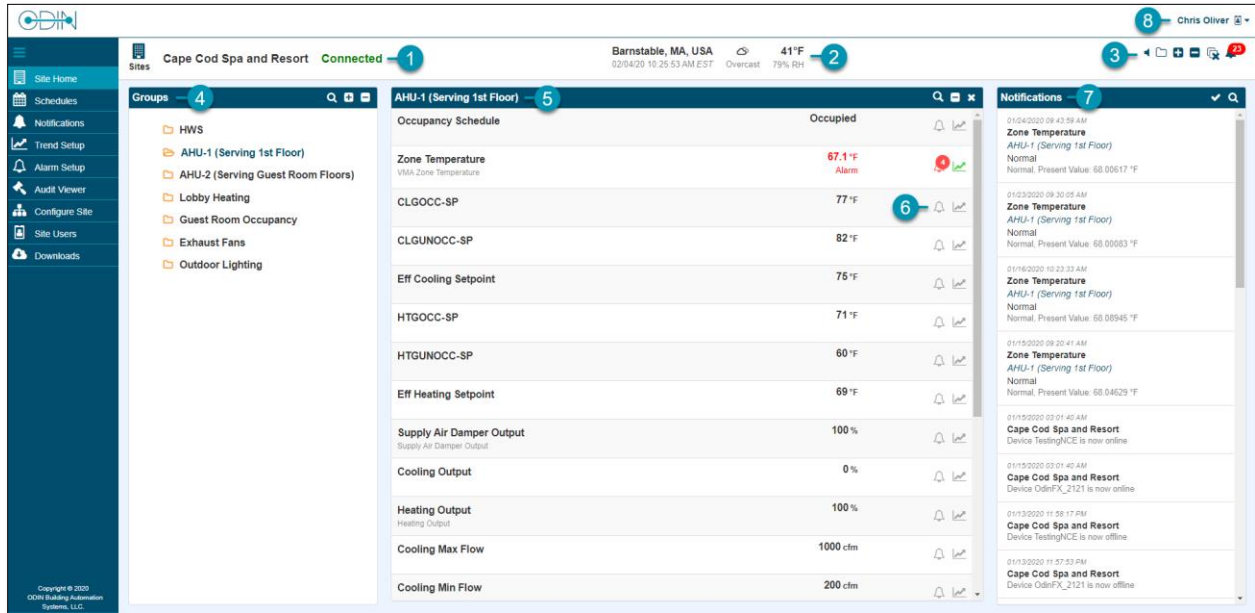
- Trend Monitoring Frequency (seconds):** 60 (Callout 2)
- Present Value Monitoring Frequency (seconds):** 60 (Callout 3)
- COV Lifetime (Hours):** 8 (Callout 4)
- Alarm Limit (Max 1000):** 450 (Callout 5)
- Max Audit Log Query Count (Max 10000):** 10000 (Callout 6)
- Max Events Query Count (Max 450):** 450 (Callout 7)











At the bottom of the settings are 'Save' (Callout 8) and 'Cancel' (Callout 9) buttons. The top right corner shows the user 'Chris Oliver'.








1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
  2. **Trend Monitoring Frequency (seconds):** BACapp monitors trending data at this frequency.
  3. **Present Value Monitoring Frequency (seconds):** BACapp monitors the present value at this frequency.
  4. **COV Lifetime (Hours):** User can define the time period for which the object needs to be subscribed for monitoring.
  5. **Alarm Limit:** The number of alarms that will be stored in the site’s database.
  6. **Max Audit Log Query Count:** The number of records shown on the Audit Viewer page.
  7. **Max Events Query Count:** The number of records shown on the Event Viewer page.
- Note: If the number in the Alarm Limit field is lower than the Max Events Query Count, then the records shown on the Event Viewer page will be limited by the Alarm Limit.*
8. **Save:** Click to save the configuration.
  9. **Cancel:** Click to discard the configuration.

## 4 Site Home

The Site Home page is accessed by clicking Site Home in the left menu bar as shown in the figure below. Use this page to control and monitor your sites.

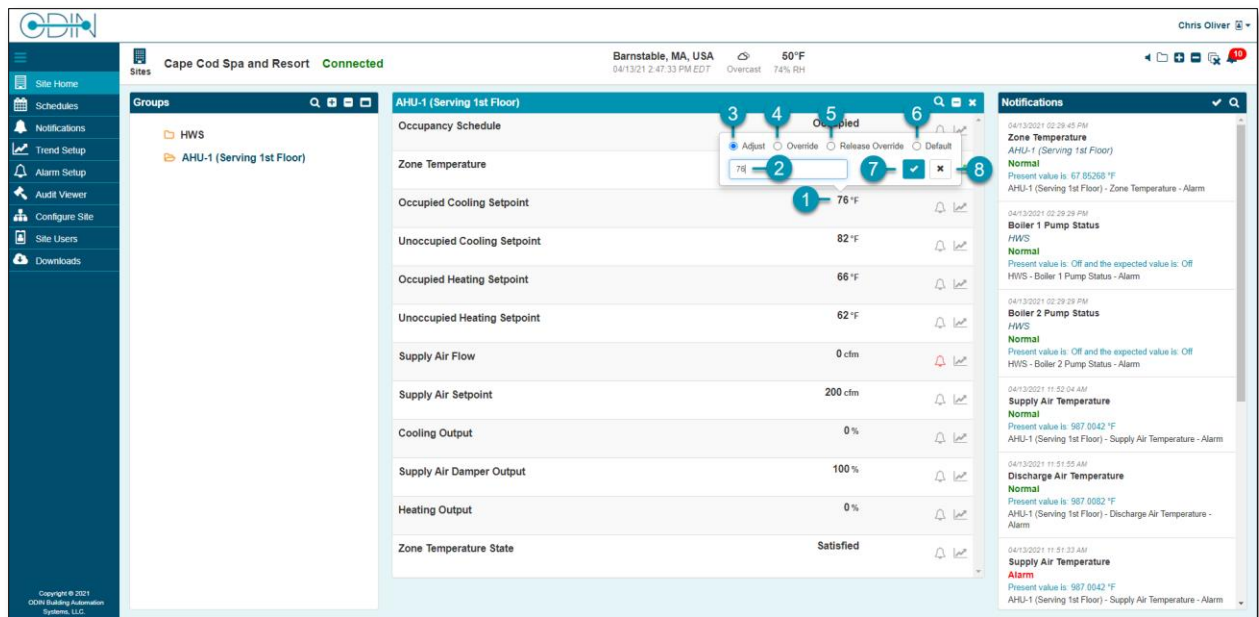


1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **Action Buttons:**
  - a.  **Toggle Alert Sounds:** Click to mute/unmute audible alerts for alarms.
  - b.  **Toggle Groups list:** Click to hide/unhide Groups list.
  - c.  **Expand all Groups:** Click to expand the groups currently displayed.
  - d.  **Collapse all Groups:** Click to collapse the groups currently displayed.
  - e.  **Close all groups:** Click to close all groups from the center pane.
  - f.  **Toggle site events:** Click to hide/unhide Active Alarms list. The number over the icon is representative of the number of alarms in the Notifications list.
4. **Groups:** Groups and subgroups created under the selected site are displayed in this section.
  - a.  **Click to show subgroups created under the main group.**
  - b.  **Indicates that the group is closed.**
  - c.  **Indicates that the group is open.**

5. This section displays the name of the group, sub-groups, and action icons.
  - a.  Toggle search: Click to hide/unhide the search feature.
  - b.  Minimize group: Click to minimize an expanded group.
  - c.  Close group: Click to close the group from the right side of the screen.
6. This section displays the object name, present value, and feature icons. Alarm and Trend icon is highlighted if any alarm or trend is configured for that object.
  - a.  Add Alarm popup is opened by clicking on this icon. See [Add Alarm](#) for details. If the icon is red, an alarm already exists, and you can click the icon to view alarm details. If there is a red icon with a number, there are active alarm events.
  - b.  Add Trend popup is opened by clicking on this icon. See [Add Trend Log](#) for details. If the icon is green, there is already a trend on this object, and you can click the icon to view the trend in a new window.
7. **Notifications:** A list of alarm event notifications for the selected site. Click on a notification to open more details on the alarm event.
  - a.  Click to acknowledge all alarm events.
  - b.  Click to search for alarm events.
8. This section displays the logged in user's first and last name. Click for a dropdown menu containing:
  - a. Update Profile
  - b. Change Password
  - c. Knowledge Base
  - d. Logout
  - e. About

## 4.1 Commanding Objects

Your building is controlled from the Site Home page. To make changes within your devices, open any group from the Groups list on the left and you will see the associated BACnet objects and their present values.



1. The present value of the BACnet object to the left. Click on the present value to bring up the command dialogue and make a change.
2. The current value. This is where you will input your new value. Objects with states texts will have a dropdown here for you to select a new value.
3. Select Adjust if you want to change your value at a priority 16.
4. Select Override if you want to change your value at a priority 8. Overridden objects will say Overridden below the preset value and both the present value and overridden text will be displayed in **orange**.
5. Select Release Override to release the priority 8 on the object and return it back to its normal operation.
6. Select Default to change the default value of the object.
7. Click ☒ to send your changes to the device. Changes take place instantly.
8. Click ☐ to cancel your changes and close the command dialogue.

## 5 Notifications

The Notifications page is accessed by clicking Notifications in the left menu bar as shown in the figure below. Use this page to view, acknowledge, export events, or configure alarm distribution.

The screenshot shows the ODIN Notifications page. The sidebar on the left contains navigation links: Site Home, Schedules, Notifications, Trend Setup, Alarm Setup, Audit Viewer, Configure Site, Site Users, and Downloads. The main content area is titled 'Notifications' and shows data for 'Cape Cod Spa and Resort' in 'Barnstable, MA, USA'. The status is 'Connected'. A search bar is present with 'Total: 19' results. A table lists various alarm events with columns: Object Name, Group(s), Message, State, Time Stamp, Email Group, Status, Device Name, Type, and Acknowledge. Numbered callouts 1 through 7 point to specific UI elements: 1. Site selection, 2. Location and weather, 3. Export button, 4. Acknowledge All button, 5. Alarm Distribution button, 6. Search bar and total count, and 7. Acknowledge button in the table.

Object Name	Group(s)	Message	State	Time Stamp	Email Group	Status	Device Name	Type	Acknowledge
Supply Air Flow	AHU-1 (Serving 1st Floor)	Present value is: 200 cfm	Normal	04/13/2021 11:52:14 AM	Default	Active	VMA	Alarm	Acknowledge
Supply Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 98.7 °F	Normal	04/13/2021 11:52:04 AM	Default	Active	VMA	Alarm	Acknowledge
Discharge Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 91.6 °F	Normal	04/13/2021 11:51:55 AM	Default	Active	VMA	Alarm	Acknowledge
Supply Air Flow	AHU-1 (Serving 1st Floor)	Present value is: 0 cfm	Alarm	04/13/2021 07:02:48 AM	Default	Active	VMA	Alarm	Acknowledge
Supply Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 101.3 °F	Alarm	04/13/2021 04:34:19 AM	Default	Active	VMA	Alarm	Acknowledge
Discharge Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 100.8 °F	Alarm	04/13/2021 04:33:39 AM	Default	Active	VMA	Alarm	Acknowledge
Boiler 2 Pump Status	HWS	Present value is: Off and the expected value is: On	Alarm	04/11/2021 04:47:21 PM	Default	Active	N-1A-004	Alarm	Acknowledge
Boiler 1 Pump Status	HWS	Present value is: Off and the expected value is: On	Alarm	04/11/2021 04:47:21 PM	Default	Active	N-1A-004	Alarm	Acknowledge
Zone Temperature	AHU-1 (Serving 1st Floor)	Present value is: 67.4247 °F	Low Limit	04/09/2021 05:55:09 PM	Default	Active	VMA	Alarm	Acknowledge
Boiler 2 Pump Status	HWS	Present value is: Off and the expected value is: Off	Normal	04/09/2021 04:01:31 PM	Default	Acknowledged	N-1A-004	Alarm	
Boiler 1 Pump Status	HWS	Present value is: Off and the expected value is: Off	Normal	04/09/2021 04:01:31 PM	Default	Acknowledged	N-1A-004	Alarm	
Supply Air Flow	AHU-1 (Serving 1st Floor)	Present value is: 120 cfm	Normal	04/02/2021 11:17:17 PM	Default	Acknowledged	VMA	Alarm	
Supply Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 95.4 °F	Normal	04/01/2021 04:17:02 PM	Default	Acknowledged	VMA	Alarm	
Discharge Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 97.7 °F	Normal	04/01/2021 04:16:16 PM	Default	Acknowledged	VMA	Alarm	
Discharge Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 100.3 °F	Alarm	04/01/2021 04:14:48 PM	Default	Acknowledged	VMA	Alarm	
Supply Air Temperature	AHU-1 (Serving 1st Floor)	Present value is: 102.8 °F	Alarm	04/01/2021 04:14:24 PM	Default	Acknowledged	VMA	Alarm	
Supply Air Flow	AHU-1 (Serving 1st Floor)	Present value is: 0 cfm	Alarm	04/01/2021 12:48:41 PM	Default	Acknowledged	VMA	Alarm	

- Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites icon and select the site from the list. Any changes made on this page will be for the selected site only.
- Location, time, date, and weather:** Click location to see details including a map with directions to the site.
- Export:** Opens a window of events that can be sorted and then exported to Excel or printed to a local printer.
- Acknowledge All:** Click to acknowledge all events and change the status from “Active” to “Acknowledged”.
- Alarm Distribution:** Click to go to the Alarm Distribution page where you can configure who receives alarms generated by ODIN. See [Alarm Distribution](#) for details.
- Search:** Search for events using keywords. The total will show you the number of events listed below or the number of filtered results from the search. Clear the search bar to see all events again.
- Table of alarm events including:**
- Object Name:** The name of the object in alarm.
  - Group(s):** The group the object in alarm resides in.
  - Message:** Information on the present value of the object in alarm.
  - State:** The state of the object when the event was triggered such as normal, alarm, high limit, and low limit.
  - Timestamp:** The date and time that the alarm was generated.
  - Email Group:** The group that events will be emailed to.

**f. Status:**

**Active:** Alarm is in an active state

**Inactive:** Alarm is in an inactive state

**Acknowledged:** User can acknowledge the alarm if user has seen the alarm

**g. Device Name:** The device of the object in alarm.

**h. Type:** Alarm type gets displayed either alarm, event, or ack notification.

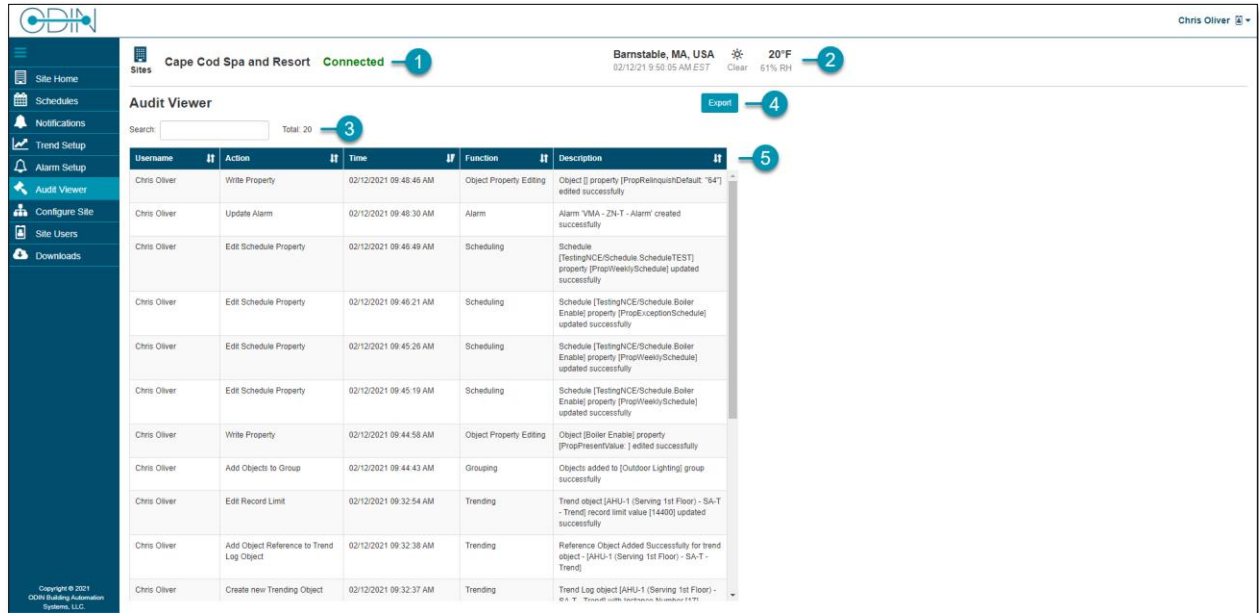
**i. Acknowledge:** Click the hyperlink to acknowledge the event. Acknowledged events will not show the hyperlink.

*Note: N/A Object and device name gets displayed for site connection/disconnection alarms.*




## 6 Audit Viewer

The Audit Viewer page is accessed by clicking Audit Viewer in the left menu bar as shown in the figure below. Use this page to track changes in the system and to each site.

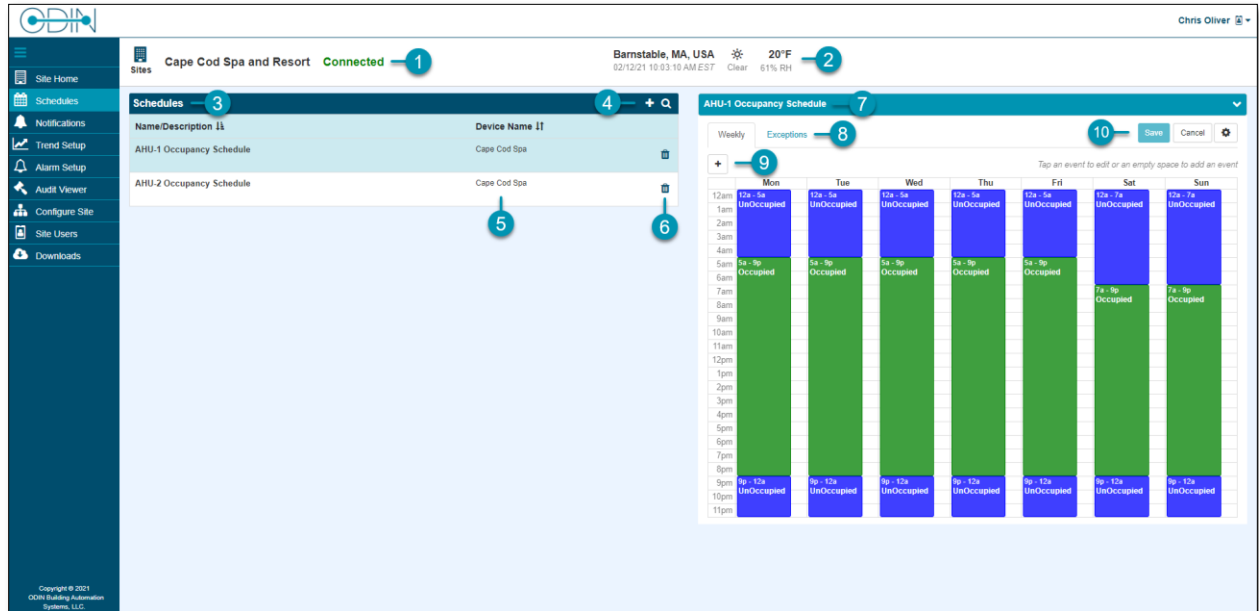







View information about the actions performed by users within a selected site.


- Site:** The selected site will be displayed, and the status of the site will show as either **"Connected"** or **"Disconnected"**. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
- Location, time, date, and weather:** Click location to see details including a map with directions to the site.
- Search:** Search for user actions using keywords. The total will show you the number of user actions listed below or the number of filtered results from the search. Clear the search bar to see all user actions again.
- Export:** Opens a window of events that can be sorted and then exported to Excel or printed to a local printer.
- A table of actions performed by users including:
  - Username**
  - Action**
  - Time**
  - Function**
  - Description**

## 7 Schedules

The Schedules page is accessed by clicking on Schedules in the left menu bar as shown in the figure below. Use this page to create schedules for the equipment on sites.

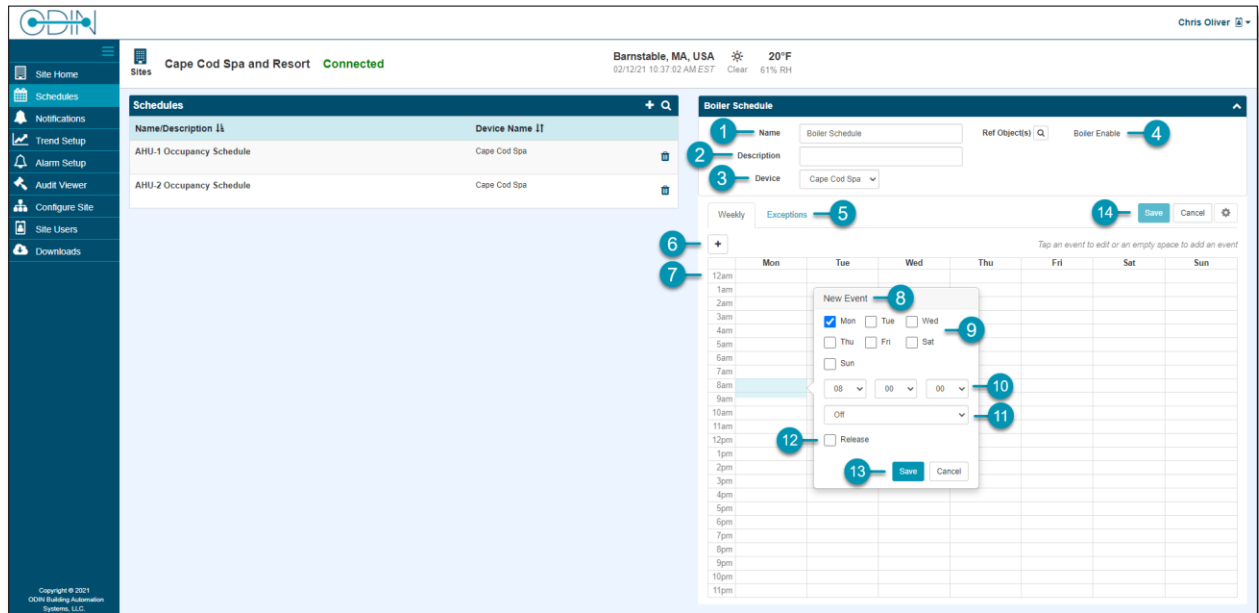




6. Site: The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
7. Location, time, date, and weather: Click location to see details including a map with directions to the site.
8. Schedules: Table showing configured schedules that have either been discovered from the BACnet devices or created within ODIN.
9. Schedule Icons: Click  to create a new schedule object. Refer to Add Schedule for details. Use  to search for schedules using keywords in the table.
10. The device in which the schedule resides. The site name will be shown if the schedule was created in ODIN.
11. Trash Icon: Click  to delete any scheduled object. If the schedule resides in a device other than ODIN, the schedule will be deleted in ODIN and not from that device.
12. Current selected Schedule. Use the dropdown arrow to see the schedule details.
13. Weekly and Exceptions tabs. Click the tab for the type of schedule you would like to view.
14. Add Event Icon: Click  to add a new event to the schedule or click anywhere in the calendar.


15. **Save, Cancel, and Edit Properties:** Click to save or cancel any changes to the schedule or use the  icon to edit the schedule's properties once the schedule has been saved. See Edit Properties for details.

## 7.1 Add Schedule

Click the Add Schedule button to create a new schedule.

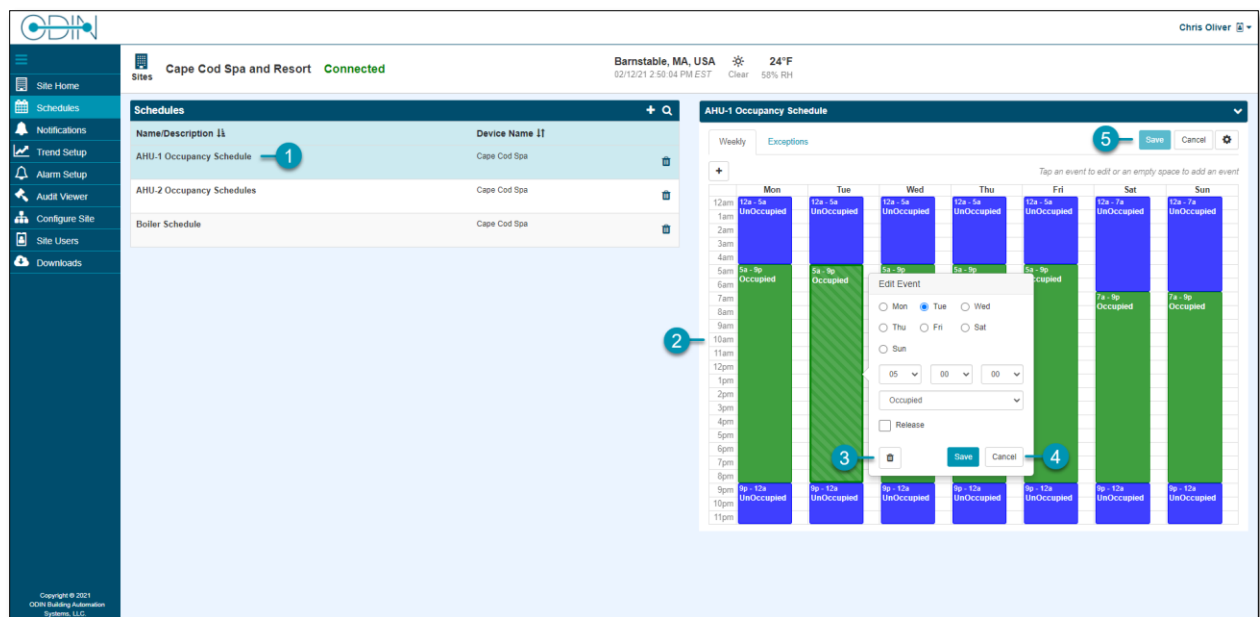




1. **Name:** Enter a name for the schedule or use the name generated when you choose the Reference Object.
2. **Description:** Add a description to the schedule to be created.
3. **Device:** The BACapp device in which the schedule will reside.
4. **Ref Object(s):** Click  to see a list of grouped objects. Select an object to create a schedule for.
5. **Weekly/Exception:** Click the tab of the schedule type to be created.
6. **Add Event Icon:** Click  to create a new event or click any time slot in the schedule table.
7. **Schedule:** Shows scheduled events on the weekly calendar as they are created.
8. **New Event:** The popup displayed when creating an event.
9. **Days checkbox:** Select any day for which the event will be applied to.
10. **Time selection drop-down:** Select any time from hours, minutes, and seconds drop-down. This will be the time the scheduled event begins.

11. **Value:** The state the object will be set to at the scheduled time.
12. **Release:** Check to release the value to default at the scheduled time.
13. **Save or Cancel:** Click to save the new event or to cancel the event creation.
14. **Save, Cancel, and Edit Properties:** Click to save or cancel any changes to the schedule or use the  icon to edit the schedule's properties once the schedule has been saved. See [Edit Properties](#) for details.

## 7.2 Editing a Schedule

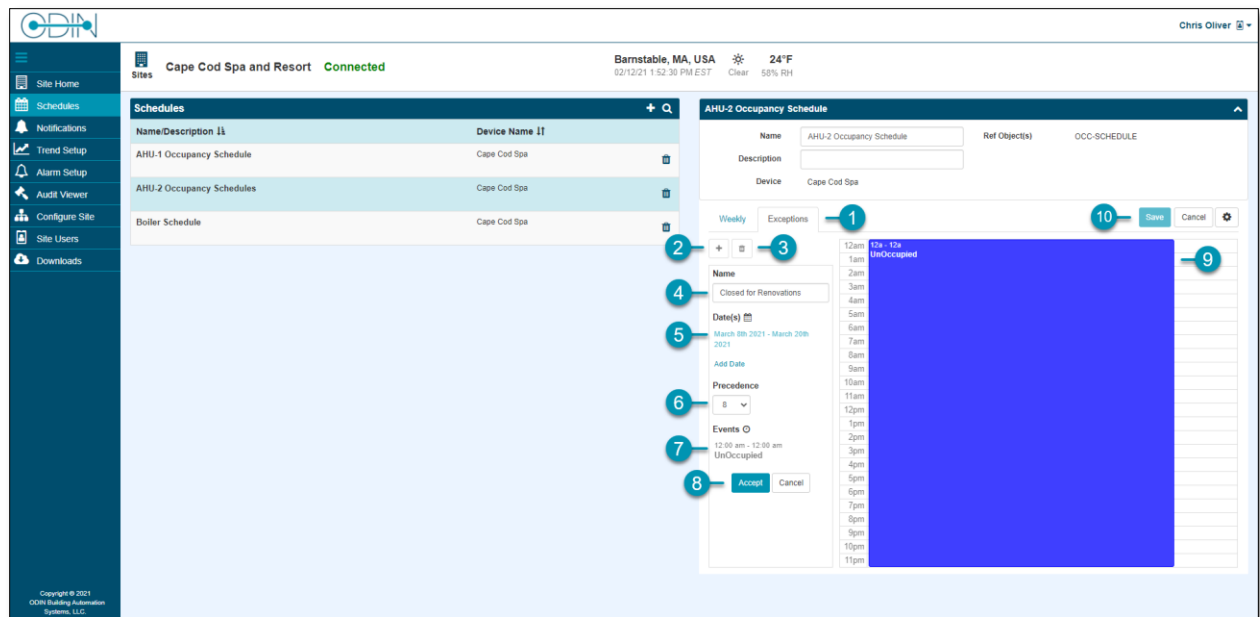
After configuring a schedule, click on an existing event to edit it as show in the figure below.




1. Click an existing schedule to bring it up on the right.
2. Click any existing event to make changes.
3. Click  to delete the event.
4. **Save or Cancel:** Click to save or cancel any changes made to the event.
5. **Save, Cancel, and Edit Properties:** Click to save or cancel any changes to the schedule or use the  icon to edit the schedule's properties once the schedule has been saved. See [Edit Properties](#) for details.


## 7.3 Exceptions Schedule

Using the Exceptions tab in a schedule will set exceptions to a normal schedule.



1. Exception schedule tab.

2.  **icon:** Click to create an exception for the schedule.

3.  **icon:** Click to delete an existing exception schedule selected from the list.

4. **Name:** Enter a name for the exception schedule.

5. **Date(s):** Click Add Date to select a date, date range, or Week N Day for the exception.

6. **Precedence:** Set an order of importance for the exception schedule. If there is more than 1 exception schedule for a single date, the highest precedence will apply.


*Note: Priority ranges from 1 to 16. 1 stands for highest priority and 16 stands for lowest priority.*

7. **Events:** Use the time slots on the right to create events for the exception.


8. **Accept or Cancel:** Click to accept or cancel the exception schedule.

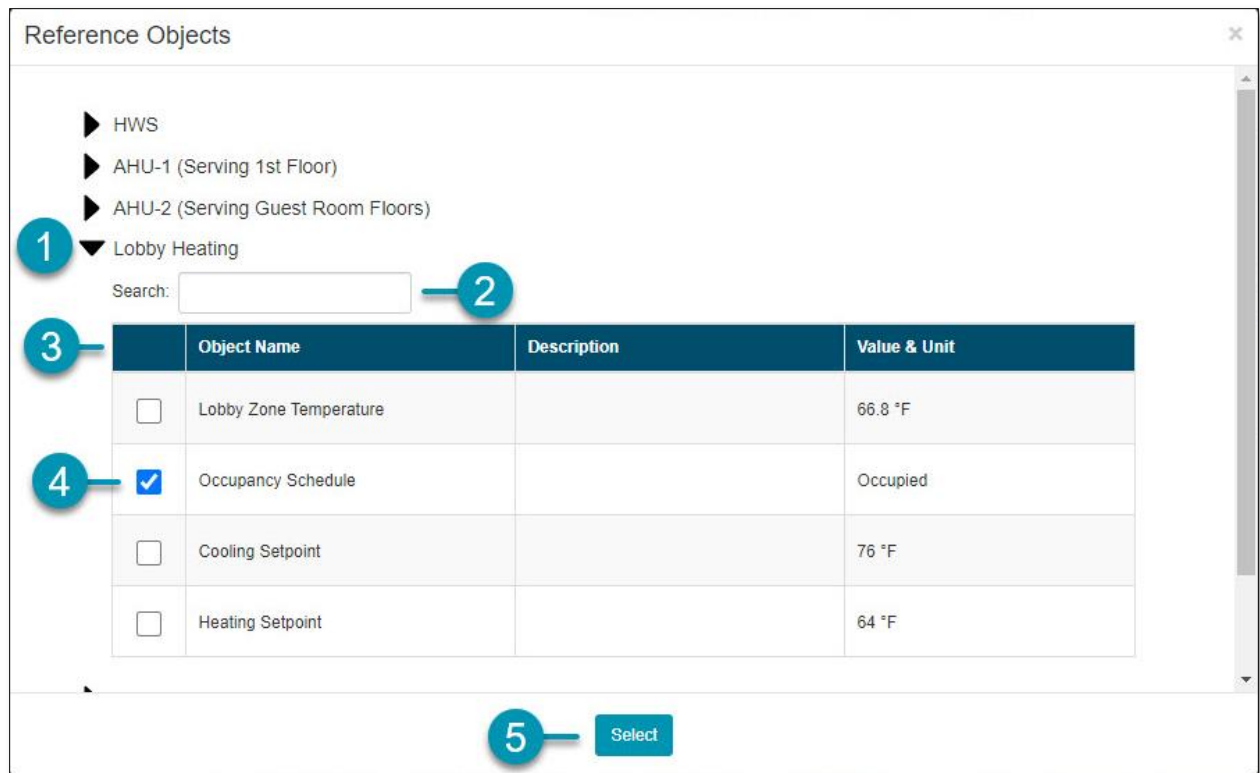
9. Event display with the scheduled events for the exception schedule.

10. **Save, Cancel, and Edit Properties:** Click to save or cancel any changes to the schedule or use the

 **icon** to edit the schedule's properties once the schedule has been saved. See [Edit Properties](#) for details.


## 7.4 Add Reference Object

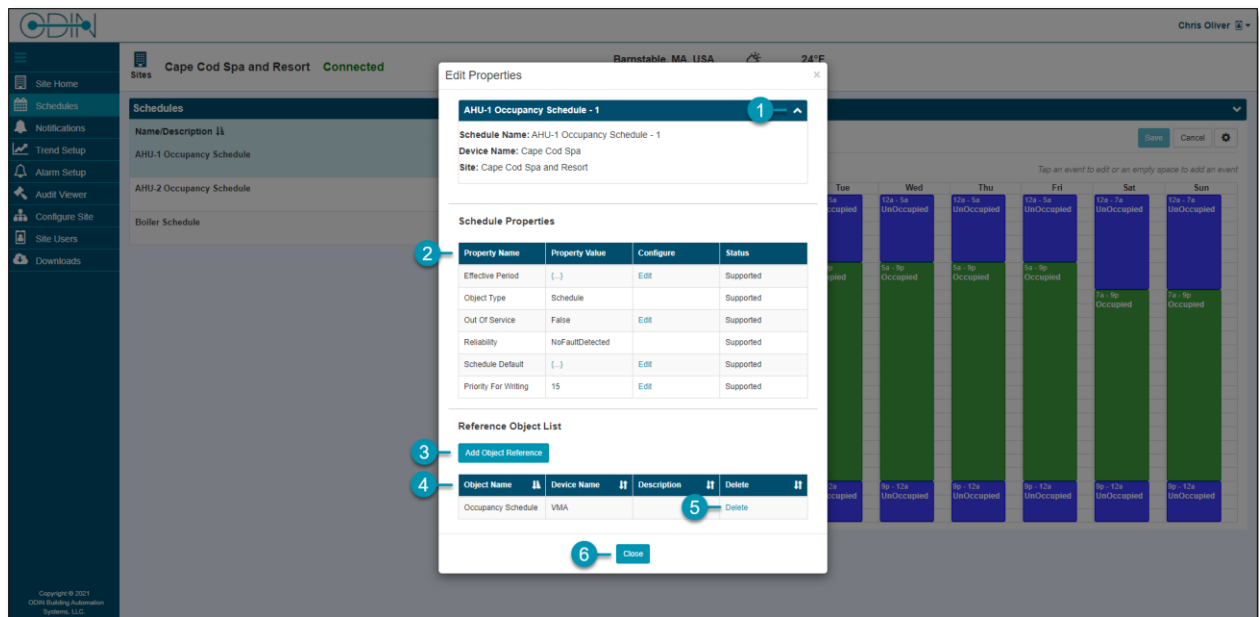
To add a reference object to an existing schedule, click the  icon to edit the schedule's properties and then click the **Add Object Reference** button. When adding multiple reference objects to a schedule, the objects must all have the same states text.



1. Click the Group arrow to expand the list of grouped objects.
2. **Search:** Search for an object by object name.
3. Table of objects including:
  - a. **Name**
  - b. **Description**
  - c. **Value & Unit**
4. Check the box next to the object you want to create a schedule for. Multiple objects can be selected if they are objects of similar types with matching state descriptions.
5. **Select:** Click to add the reference object to the schedule object.

## 7.5 Edit Properties

Edit the properties of a schedule after it has been created by clicking the  icon.



1. The Schedule details are displayed here. Expand to see Schedule Name, Device Name, and Site Name.
2. Table of Schedule Properties including:
  - a. **Effective Period**
  - b. **Out of Service**
  - c. **Reliability**
  - d. **Schedule Default**
  - e. **Priority for Writing**
3. **Add Object Reference:** Click to add or change the object reference. See [Add Reference Object](#) for details.
4. Table showing the Reference Object(s).
5. **Delete:** Click to remove the reference object from the schedule.
6. **Close:** Click to close the Edit Properties window and return to the Schedules page.

### 7.5.1 Effective Period

Select the period for which the schedule will be effective or select the Any option and the schedule will be effective for any date.

### 7.5.2 Out of Service

Click Edit to set Out of Service for the schedule to True or False.

### 7.5.3 Reliability

This property provides an indication of how well the information of the reference object is coming from the device. It will be listed as NoFaultDetected, Unreliable, ProcessError, ConfigurationError, or CommunicationError.

#### **7.5.4 Schedule Default**

The Datatype is a pre-populated value depending upon the datatype of the reference object added to the schedule. Use the Value pulldown to select a value for the schedule default.

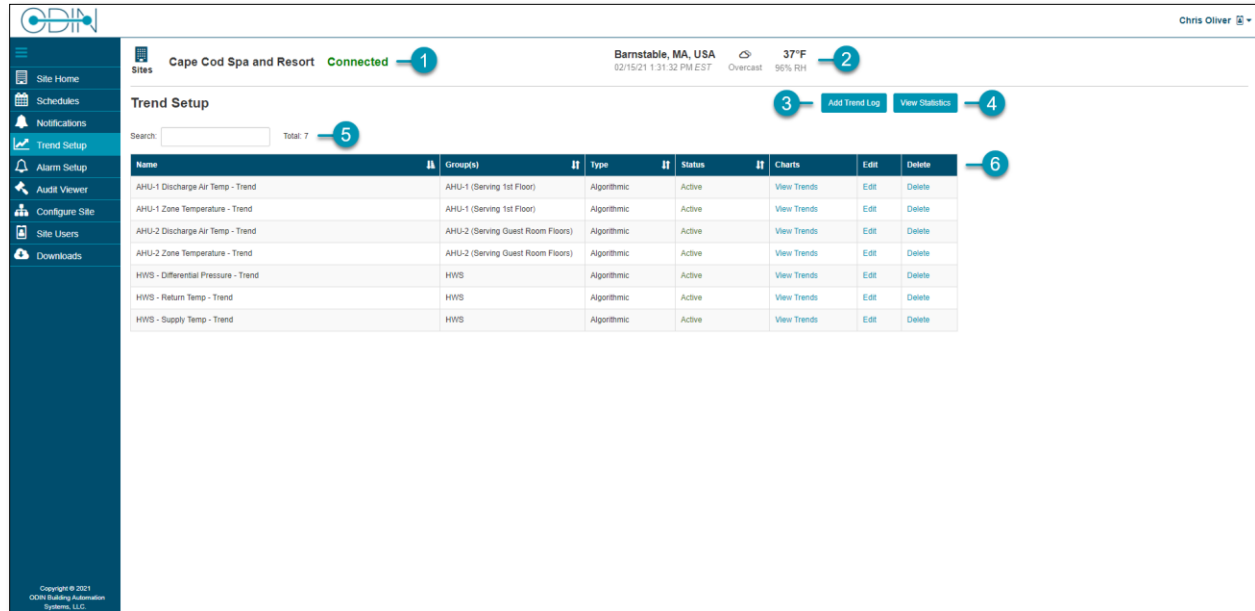
#### **7.5.5 Priority for Writing**


Select a priority for writing for the scheduled value. Priority is 1-16 (1 is highest and 16 is lowest). The default for a schedule will be 15.



## 8 Trends

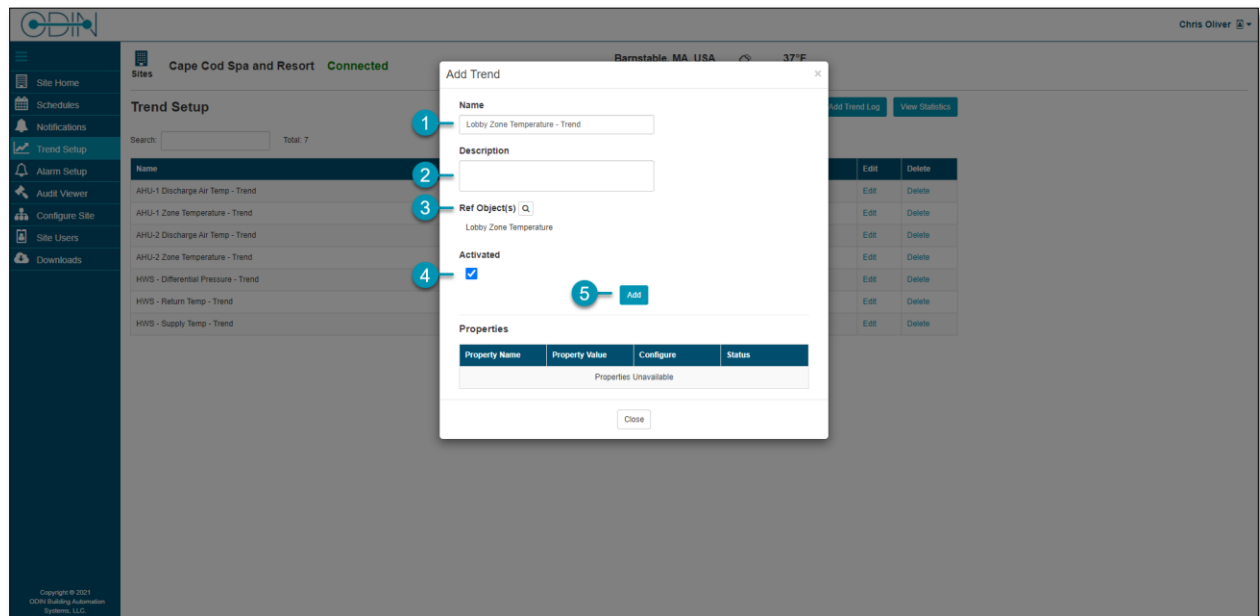
The Trends page is accessed by clicking Trends in the left menu bar as shown in the figure below. Use this page to create, edit, and view trends on objects.




1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **Add Trend Log:** Click to add a new Trend Log. See [Add Trend Log](#) for details.
4. **View Statistics:** Use the statistics page to see the flow of trend records.
5. **Search:** Search for trends using keywords. The total will show you the number of trends listed below or the number of filtered results from the search. Clear the search bar to see all trends again.
6. **Table of trend log objects including:**
  - a. **Name**
  - b. **Group(s)**
  - c. **Type**
    - Intrinsic: Trend log object resides on the devices which are present on the network.
    - Algorithmic: Trend log object resides in the BACapp device.
  - d. **Status:** The trend can be Active and collecting new data or inactive and not currently collecting new data.
  - e. **Charts:** Click View Trends to view a graphical representation of the trend data.
  - f. **Edit:** See [Edit Trend](#) for details.
  - g. **Delete:** Click to delete the trend object and all associated data.

## 8.1 Add Trend Log

Click the Add Trend Log button to add a new trend to an object.



1. **Name:** Enter the name of the trend log object to be created. If you select your Reference Object first, a trend name will be generated for you.
2. **Description:** Enter a description for the trend log object.
3. **Ref object(s):** Click the  icon to select the reference object to trend data on. See [Add Reference Object](#) for details.
4. **Activated:** Select or unselect to activate or deactivate the collection of trend data.
5. **Add:** Click to create the trend object and load the configurable properties in the table.

## 8.2 Add Reference Object

Reference Objects

- ▶ HWS
- ▶ AHU-1 (Serving 1st Floor)
- ▶ AHU-2 (Serving Guest Room Floors)
- ▼ **1** Lobby Heating

Search:  **2**

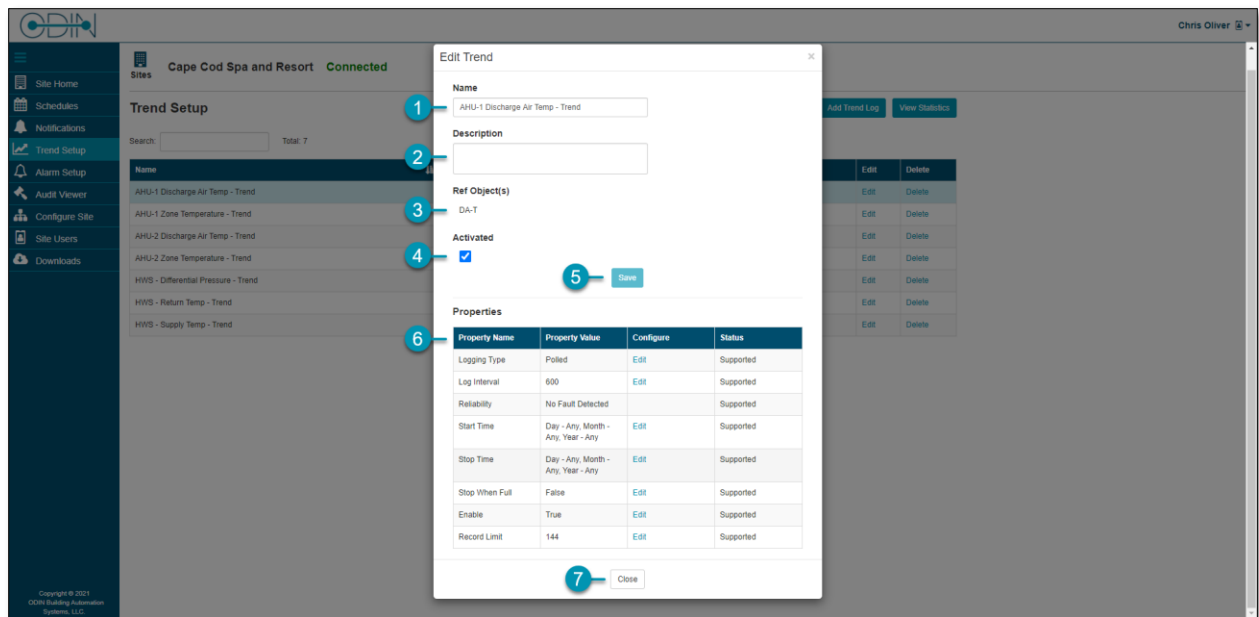
<b>3</b>	Object Name	Description	Value & Unit
<input type="checkbox"/>	Lobby Zone Temperature		66.8 °F
<b>4</b> <input checked="" type="checkbox"/>	Occupancy Schedule		Occupied
<input type="checkbox"/>	Cooling Setpoint		76 °F
<input type="checkbox"/>	Heating Setpoint		64 °F

**5**

1. Click the Group arrow to expand the list of grouped objects.
2. **Search:** Search for an object, by object name.
3. Table of objects including:
  - a. Name
  - b. Description
  - c. Value & Unit
4. Check the box next to the object you want to create a trend for.
5. **Select:** Click to add the reference object to the trend object.

## 8.3 Edit Trend

Click the Edit hyperlink in the table to edit the trend's name, description, properties, or to activate/deactivate.



1. **Name:** An editable field to change the name of the trend.
2. **Description:** Create or edit a description for the trend.
3. **Ref Object(s):** Shows the object that is being trended.
4. **Activated:** Use the checkbox to activate or deactivate the trend.
5. **Save:** Click to save any changes made above the Save button. Any properties below the Save button are automatically saved as they are changed.
6. **Trend Properties:** See [Configurable Trend Properties](#) for details.
  - a. **Property Name:** Displays the name of the trend object.
  - b. **Property Value:** Displays the current value of the trend object.
  - c. **Configure:** Click Edit to configure properties which are editable.
  - d. **Status:** Displays status of the property as either Supported or Unsupported.
    - Supported: Property is supported by the object.
    - Unsupported/Unknown to the Device: Property is not supported by the object.
7. **Close:** Click to close the Edit Trend popup.

### 8.3.1 Configurable Trend Properties

#### Logging Type

Use the pulldown to choose from Polled or COV for the logging type.

1. **Polled:** The BACapp periodically polls the reference object based on the Log Interval value.
2. **COV:** The BACapp logs the values of the reference object if it indicates a changed value.

### Log Interval

This property represents a periodic interval in seconds, based on which the trend log object logs the value when Logging Type is polled. The value can be entered between 0 and 4,294,967,295 seconds.

*Note: If the value of this property is "0" Logging type changes to COV.*

### Client COV Increment

This property is visible when Logging Type is changed to COV. Choose Any or Real to determine when logging should occur.

1. **Any:** Any change of value will be logged.
2. **Real:** Select to configure the change of value increment.
3. **Client COV Increment:** Enter the value you want a change to be logged at.

*Note: If the property has any (NULL) value, the Trend Log object will log the data based on the COV notifications received from the reference object.*

### Reliability

This property provides an indication of how well the information of the reference object is coming from the device. It will be listed as NoFaultDetected, Unreliable, ProcessError, ConfigurationError, or CommunicationError.

### Start Time

This property specifies the date and time at or after which logging shall be enabled.

1. **Calendar:** Select Calendar to enable the calendar icon.
2. **Any:** Select Any to begin trend logging immediately.
3. **Start Time:** Use the calendar icon to select a time and date for trend logging to begin.

### Stop Time

This property specifies the date and time at or after which logging shall be disabled.

1. **Calendar:** Select Calendar to enable the calendar icon.
2. **Any:** Select Any to begin trend logging immediately.
3. **Stop Time:** Use the calendar icon to select a time and date for trend logging to end.

### Stop When Full

This property determines whether data logging needs to stop or continue when Log buffer is full.

1. **True:** Logging stops once the number of records reaches the maximum limit of the buffer.
2. **False:** Logging continues, the oldest record gets overridden with new records.

## Enable

This property indicates and controls whether logging of collected data is enabled.

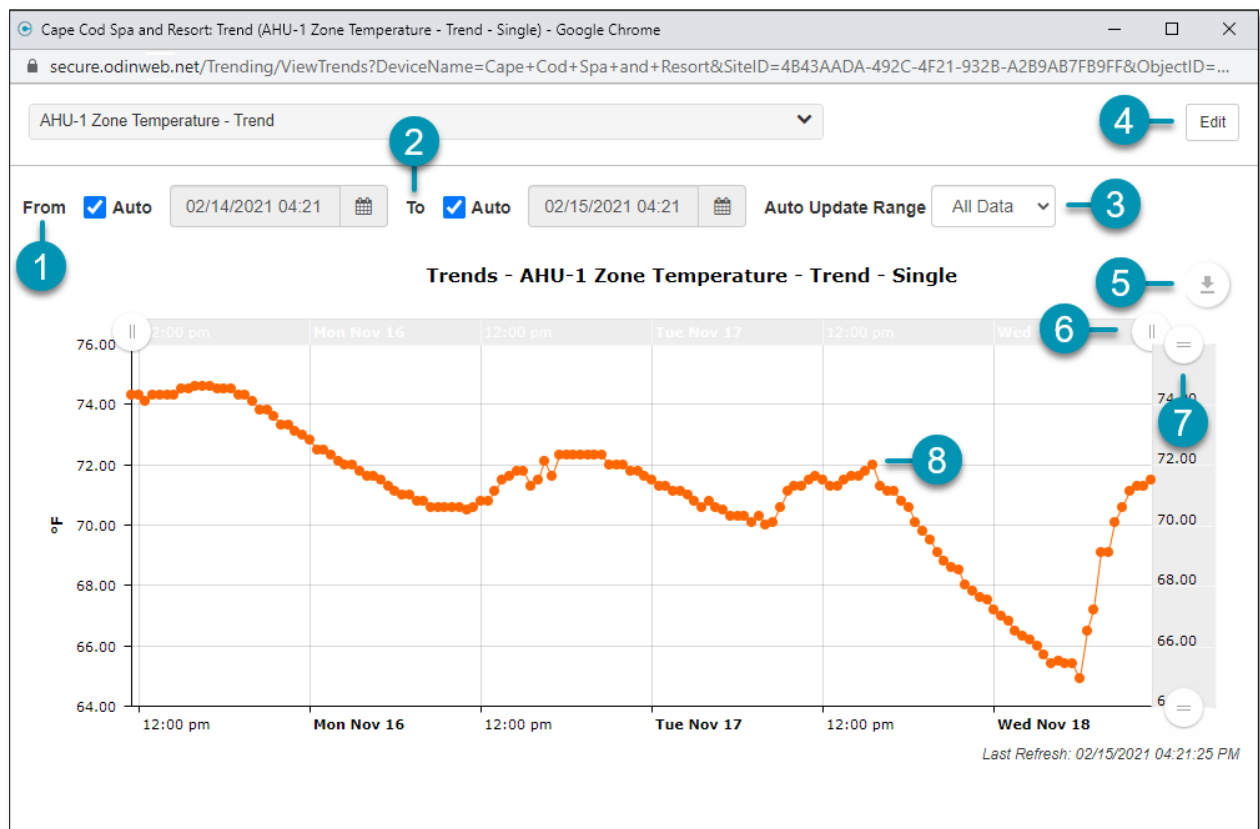
1. True: Logging of the trend data will occur.
2. False: Logging will be stopped.

## Record Limit





The limit for the number of trend records saved in ODIN for the trend log object.

## 8.4 View Trends

The following popup window is displayed after clicking on View Trends. If you have trouble viewing this window, be sure your browser is set to allow popups.

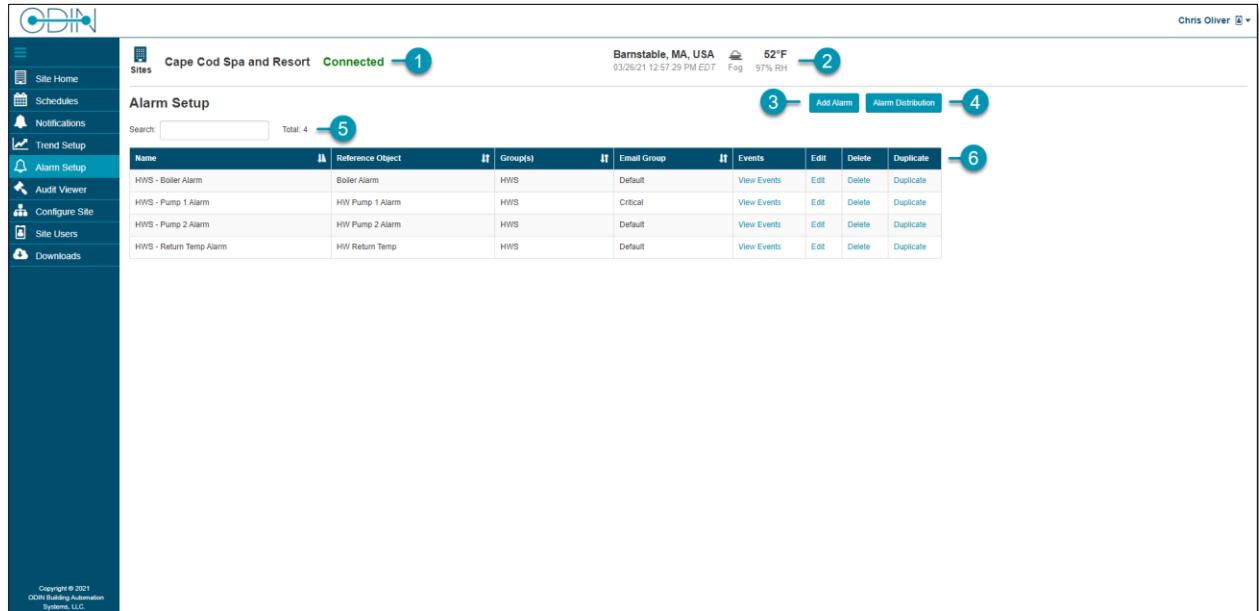



1. **From:** Auto is pre-selected and will auto populate yesterday's date. Unselect Auto to use the calendar icon to choose a date prior to yesterday at which to begin the trend view.
2. **To:** Auto is pre-selected and will auto populate today's date. Unselect Auto to use the calendar icon to choose a date prior to today at which to end the trend view.

3. **Auto Update Range:** If To and From time is on Auto, use the drop down to select your range of trend history. You have the option of 1, 4, 8, or 24 hours back from the current date and time. The default selection shows All Data when the trend window opens.
4. **Edit:** Edit the trend properties of the respective Trend Log object. See [Edit Properties](#) for details.
5.  **icon:** Click to Download, Save, Annotate, or Print the trend graph.
  - a. **Download as:** Download trend graph in PNG, JPG, SVG, PDF format.
  - b. **Save as:** Save trend graph data in CSV, XLSX, JSON format.
  - c. **Annotate:** Add notes or comments to the trend graph. Download, save, or print the trend graph with the annotations as they will be removed upon closing the trend window.
  - d. **Print:** Print the graph to a local printer.
6.  **icon:** Slide to narrow down or expand the chart within your selected date range.
7.  **icon:** Slide to zoom in or out of the value range.
8.  **icon:** Represents a time and a value logged for the reference object. Hover over each one to view details for that trend log.

## 9 Alarms

The Alarm Setup page is accessed by clicking Alarm Setup in the left menu bar as shown in the figure below. Use this page to view, edit, delete, or create alarms for the selected site.

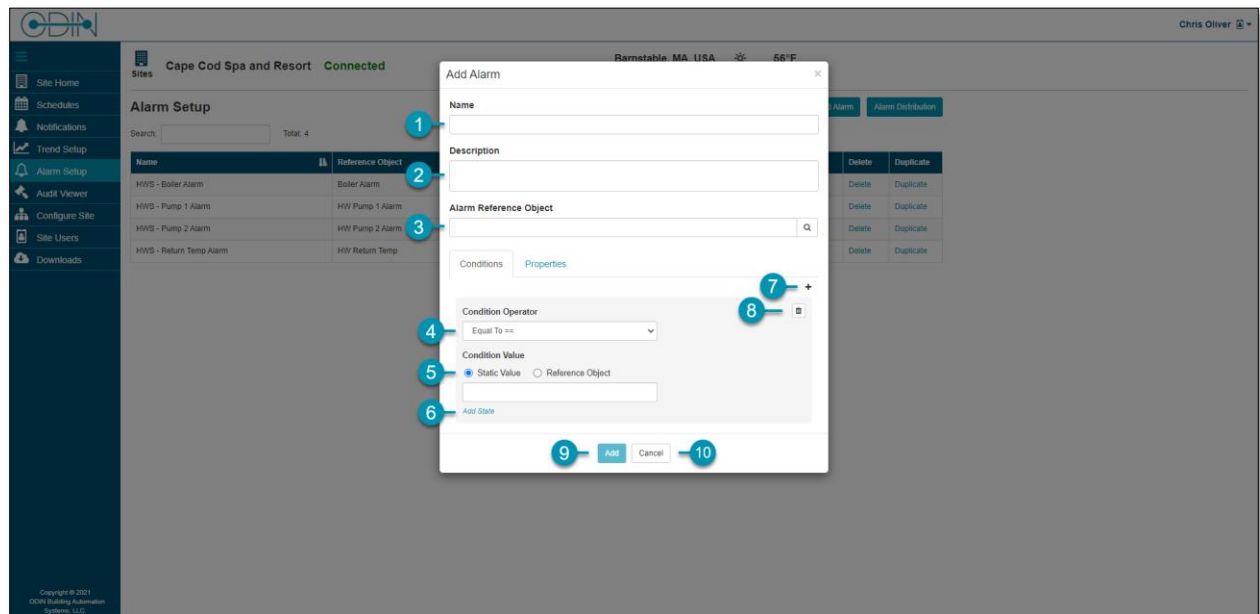




1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Location, time, date, and weather:** Click location to see details including a map with directions to the site.
3. **Add Alarm:** Click to add a new alarm to a reference object. See [Add Alarm](#) for details.
4. **Alarm Distribution:** Click to bring you to the Alarm Distribution page where you can configure alarm groups and the users in them.
5. **Search:** Search for alarms using keywords. The total will show you the number of alarms listed below or the number of filtered results from the search. Clear the search bar to see all alarms again.
6. **Table of alarms for the selected site.**
  - e. **Name:** The name given to the alarm when it was created.
  - f. **Reference Objects:** Shows the reference object for which the alarm is configured.
  - g. **Group(s):** Name of the group in which the referenced object is grouped under.
  - h. **Email Group:** The group that receives email notifications for this alarm. See Alarm Notification for details.
  - i. **Events:** Click to view alarms of respective objects. See Event Viewer for details.
  - j. **Edit:** Click to edit the alarm properties.
  - k. **Delete:** Click to delete an alarm. A popup will ask you to confirm before deleting.
  - l. **Duplicate:** Click to duplicate an existing alarm’s configuration for a new alarm.



## 9.1 Add Alarm

The following popup is displayed after clicking on the Add Alarm button.



1. **Name:** Create a name for the alarm or choose a Reference Object first and have the alarm name generated for you.
2. **Description:** A description can be entered if needed.
3. **Alarm Reference Object(s):** Click  to see a list of grouped objects. Select an object to create an alarm for. See [Add Reference Object](#) for details.
4. **Condition Operator:** Select from the pull down. Options will vary based on the selected reference object.
5. **Condition Value:**
  - a. **Static Value:** Enter a numerical value or select a pull down of on/off or Normal/Alarm based on the object type. Static values that are numerical will have the option of an Offset and Differential. The Offset is the difference from the reference object value required to trigger the alarm. The differential is the change required before the alarm returns to normal.
  - b. **Reference Object:** Base your alarm on the condition of another object.
6. **Add State:** Click to add a state to the condition such as occupancy. Alarms will only be generated when both the condition and state are met.
7. **+** : Click to add another condition to the alarm.
8.  : Click to delete a condition.
9. **Properties:** Click the properties tab to edit alarm properties:
  - a. **Enabled:** Pull down to select True or False.

- b. **Email Group:** Pull down to select which email group this alarm belongs to. When the alarm is triggered, it will be sent out to members of that group.
  - c. **Time Delay:** The default delay for alarms is 60 seconds. Alarms will not fire an event to alarm or to normal until 60 seconds has passed.
  - d. **Events:** Uncheck any of the boxes if you do not want an event triggered for that state.
10. **Add:** Click to create the alarm with the current configuration.
11. **Cancel:** Click to cancel the alarm creation. No object is added to the list.

## 9.2 Add Reference Object

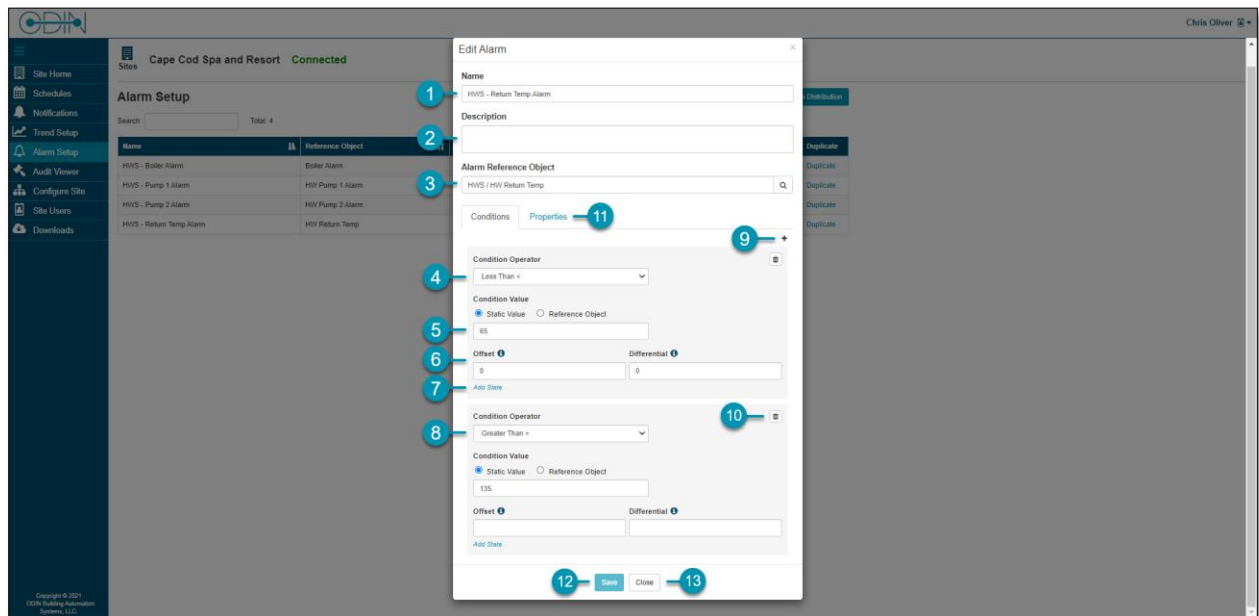
The screenshot shows a window titled "Reference Objects" with a close button (X) in the top right corner. Inside the window, there is a list of grouped objects on the left: HWS, AHU-1 (Serving 1st Floor), AHU-2 (Serving Guest Room Floors), and Lobby Heating. Callout 1 points to the expand arrow next to "Lobby Heating". Below this list is a search bar with the label "Search:" and a text input field; callout 2 points to this search bar. Below the search bar is a table with four columns: "Object Name", "Description", and "Value & Unit". Callout 3 points to the table header. The table contains four rows of objects, each with a checkbox in the first column. Callout 4 points to the checkbox for "Occupancy Schedule", which is checked. The other three rows have unchecked checkboxes. At the bottom of the window is a "Select" button; callout 5 points to this button.

	Object Name	Description	Value & Unit
<input type="checkbox"/>	Lobby Zone Temperature		66.8 °F
<input checked="" type="checkbox"/>	Occupancy Schedule		Occupied
<input type="checkbox"/>	Cooling Setpoint		76 °F
<input type="checkbox"/>	Heating Setpoint		64 °F

1. Click the Group arrow to expand the list of grouped objects.
2. **Search:** Search for an object, by object name.
3. Table of objects including:
  - a. Name
  - b. Description
  - c. Value & Unit
4. Check the box next to the object you want to create an alarm for.
5. **Select:** Click to add the reference object to the alarm object.

### 9.3 Edit Alarm

The following popup is displayed after clicking Edit in the table of alarms.



1. **Name:** Edit the name of the Alarm.
2. **Description:** Add, edit, or delete the alarm's description.
3. **Alarm Reference Object:** The alarm's reference object is displayed.
4. **Condition Operator:** Use the pull down to change the condition of the alarm.
5. **Condition Value:** Enter a value or select the Reference Object radio button to choose an object.
6. **Offset and Differential:** (Optional) The Offset is the difference from the reference object value required to trigger the alarm. The differential is the change required before the alarm returns to normal.
7. **Add State:** Click to add a state to the condition such as occupancy. Alarms will only be generated when both the condition and state are met.
8. **Condition Operator:** Alarms can have 1 or more conditions. Each condition will have it's own Condition Value, Offset, Differential, and State.
9. **+** : Click to add another condition to the alarm.
10. **-** : Click to delete a condition. Each condition on an alarm is deleted separately.
11. **Properties:** Click the properties tab to edit alarm properties:
  - a. **Enabled:** Pull down to select True or False.
  - b. **Email Group:** Pull down to select which email group this alarm belongs to. When the alarm is triggered, it will be sent out to members of that group.
  - c. **Time Delay:** The default delay for alarms is 60 seconds. Alarms will not fire an event to alarm or to normal until 60 seconds has passed.

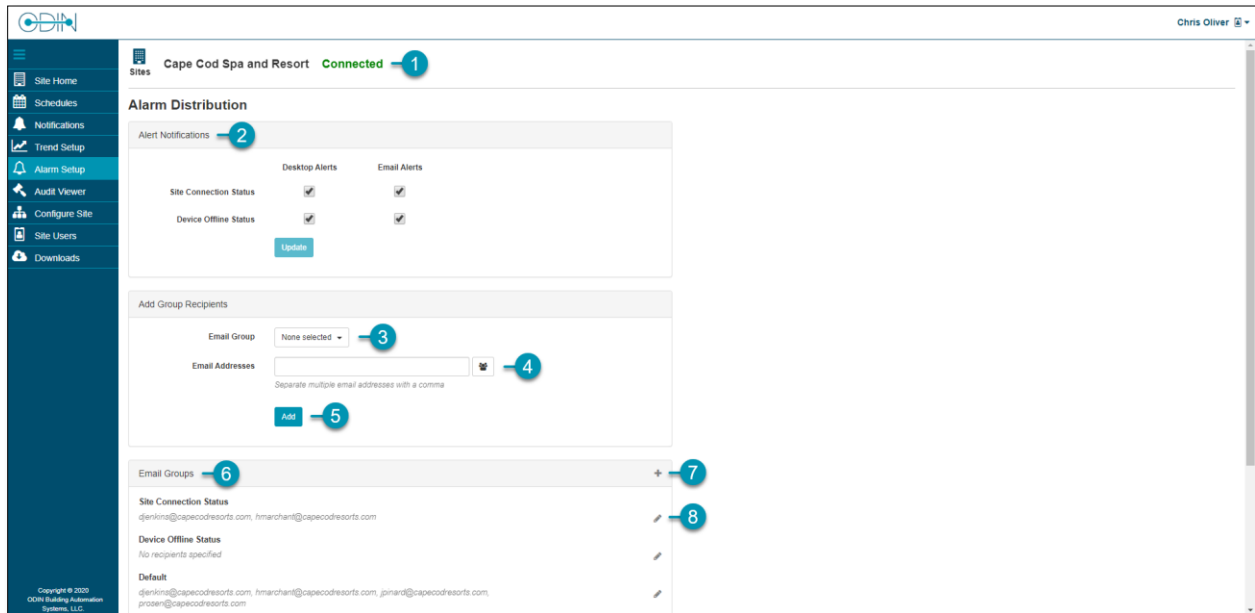
d. **Events:** Uncheck any of the boxes if you do not want an event triggered for that state.




**12. Save:** Click to save any changes made to your alarm configuration.


**13. Close:** Click to close the Edit Alarm dialogue without saving any changes.

## 9.4 Alarm Distribution

The Alarm Distribution page is accessed by clicking Alarm Setup in the left menu bar and then the Alarm Distribution button on the upper right. Use this page to configure who will receive alarm emails.



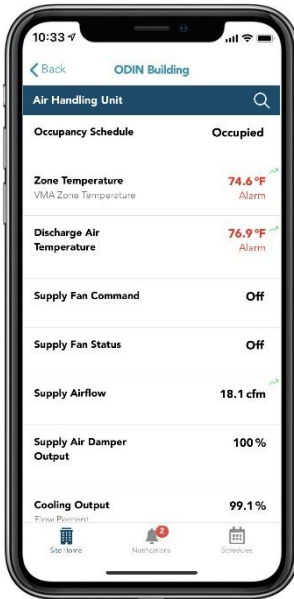
1. **Site:** The selected site will be displayed, and the status of the site will show as either “Connected” or “Disconnected”. To change your site selection, click the Sites  icon and select the site from the list. Any changes made on this page will be for the selected site only.
2. **Alert Notifications:** Check off the Desktop Alerts and/or Email Alerts to choose how you would like to receive alarm messages for your Site Connection Status and Device Offline Status.
3. **Email Group:** Use the dropdown to Select All, or individually choose Default, Critical, High, Low, or custom created groups. Users in these groups will receive alarms configured to send to the group.
4. **Email Addresses:** Enter an email address, or multiple addresses separated by a comma, to add to the selected group(s) or click the  icon to select people from a list of ODIN Users.
5. **Add:** Click to add the email addresses to the groups.
6. **Email Groups:** A list of configured groups and email addresses.
7.  **icon:** Click to create a custom group.

8.  **icon:** Click to edit email addresses within the group. The addresses will appear in the Email Addresses field above. After any changes, click Update to save back to the group.

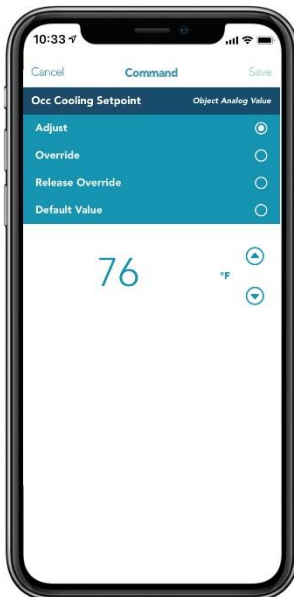
## 10 ODIN Mobile App

The “ConnectWithODIN” mobile app is available on both the Apple App Store and the Google Play Store. Use the search function for either store to find our free mobile app.

1. **Controlling Your Building:** Click any of your groups to view its BACnet objects and their present values. You will see trend and alarm icons on objects that have either of the features configured.

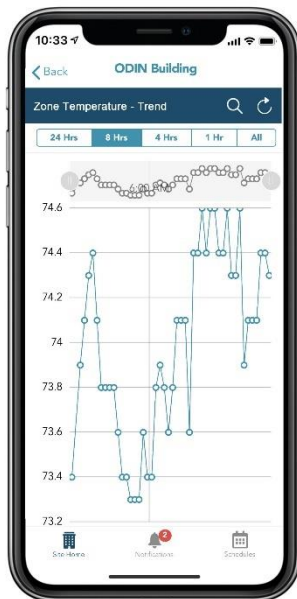


2. **Adjusting an Object:** Click any present value to make a change. Use the dialogue that opens to make changes if the device allows. Click Save to send the new value to the device.

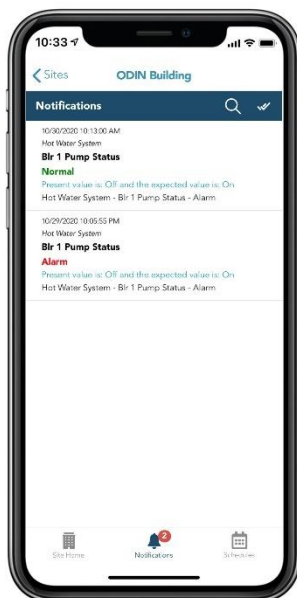


3. **Viewing Trends:** On any object where a green trend icon is displayed, swipe left to reveal the trend button. Click the trend button to display the trend graph. If the object has multiple trends,

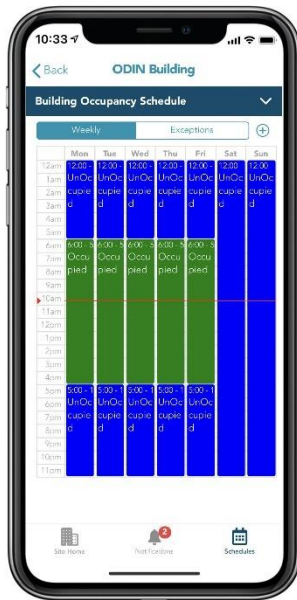
you will select the trend you want to display. The default view is set to show All data. Use the hour buttons on the top to select another time frame or the magnifying glass to set a custom range.



- 4. Viewing Notifications:** Click the Notifications tab on the bottom of the app to view alarm events for your site. This list shows unacknowledged alarms. Tap an event to view more details or swipe left to reveal an acknowledge button. Acknowledged alarms are removed from the Notifications page in the app. A full alarm history can be viewed on the Notifications page in the web UI.






- 5. Viewing Schedules:** Viewing and editing schedules can be done from the mobile app similar to the way it's done in the web UI. Make changes to the weekly operating schedule or add and edit exception schedules.





## 10.1 Creating Web Browser Shortcuts for your Mobile Devices

### Apple Devices Using Safari

1. Visit <https://secure.odinweb.net/> from your browser.
2. Click  from the bottom menu bar.
3. Scroll through the action icons to  and click this icon. From here you will have the option to rename the icon to how you would like it to show on your Home Screen.
4. Click Add and look for  on your Home Screen.

### Android Devices Using Chrome

1. Visit <https://secure.odinweb.net/> from your browser.
2. Click the  icon in the top menu bar.
3. Choose Add to Home screen. From here you will have the option to rename the icon to how you would like it to show on your Home Screen.
4. Click Add again to confirm. Look for  on your Home Screen.



## 11 Using ODIN as a Tech Tool

Technicians can easily implement ODIN to help them service non-ODIN customers. When a BACapp is installed on a technician's laptop, and configured as a Site, the tech can walk into a customer location and quickly discover BACnet objects and build groups.

### 11.1 Switching Sites

The first time you configure your site, you are brought to the BACnet Settings page.

The screenshot shows the ODIN interface with the 'BACnet Settings' page. The top navigation bar includes 'Site Home', 'Schedules', 'Notifications', 'Trend Setup', 'Alarm Setup', 'Audit Viewer', 'Configure Site', 'Site Users', and 'Downloads'. The 'Configure Site' option is selected. The page title is 'BACnet Settings'. The top right shows the location 'Barnstable, MA, USA' and weather '46°F'. The main content area has a table of interfaces and a form for site configuration.

IP Address	Interface Name	Interface Type	Status	Interface Description
192.168.22.183	Ethernet	Ethernet	Up	Intel(R) Ethernet Connection (5) I219-LM

Site Name: Tech Laptop

Port Number: 47808  
Preferred Range: 47808 - 47823

Device Instance Number: 2219  
The device instance number must be unique

APDU Time-out: 6000

Number of APDU Retries: 3

Expose Trends, Alarms, Schedules to BACnet network: ☒ No ☐ Yes

Instance Number Discovery High Limit: -1

Instance Number Discovery Low Limit: -1

Buttons: Save, Cancel

When you are ready to discover a new site, on a different network, you will need to come back to this page and click Save in order to update your network setting and advance to the Configure Site page.

The screenshot shows the ODIN interface with the 'Configure Site' page. The top navigation bar includes 'Site Home', 'Schedules', 'Notifications', 'Trend Setup', 'Alarm Setup', 'Audit Viewer', 'Configure Site', 'Site Users', and 'Downloads'. The 'Configure Site' option is selected. The page title is 'Configure Site'. The top right shows the location 'Barnstable, MA, USA' and weather '46°F'. The main content area has a 'Discover' button, a 'Delete Offline' button, and a 'Show 1500 Objects' button. Below these is a list of discovered sites. On the right, there is a 'Groups List' section with a 'Create Group' button, an 'Add to Group' button, and a 'Delete' button. The groups list shows a total of 574 objects.

Discover

Delete Offline

Show 1500 Objects

Tech Laptop - 192.168.22.183:47808

Groups List

569 / 1000 Max

N/A

3

2

Total 574

- Main St Credit Union
- Dunfield Group - Laconia
- J.L. Hopkins Middle School
- Newland Plaza - Mansfield
- Blake's Bar and Grill
- Weston Medical Center

Just check the box and click Discover to discover your new network. We recommend the top tier group to be the location name and creating subgroups for BACnet data. These groups can be saved for future service calls. When not on that network, all objects will appear offline. The data will become live again after reconnecting to the same network and going to the BACnet settings page to set the network adapter and clicking Save.

*Note: All discovered devices (from all buildings) will stay on the left side of the Configure Site page. Offline devices will sort to the bottom with a red X. If you choose to delete an offline device, any objects that have been grouped will be DELETED from that group.*