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Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.
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NOTICE: Indicates a situation that could result in equipment or property-damage-only accidents.
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Getting Started

What is Tracer ES System?

The Tracer ES system is a Web-enabled service and monitoring tool for multiple building facilities. Its adherence to IT standards enables Tracer ES to integrate building systems into a cohesive enterprise-wide system using open standards. It is easily added to new or existing Tracer Summit installations on BACnet/IP networks. Once installed and configured, building operators and administrators can access the Tracer ES server from the local network or internet to monitor and control the building system.

Log in to Tracer ES

All Tracer ES users must know the IP address (example 168.0.100.1) or the URL (example http://www.traceres.trane.com/live) of the Tracer ES server and have a User ID and password, which can be created by a system administrator.

To log in to Tracer ES:
1. Launch one of the following internet browsers:
   - Apple Safari version 3.0 or later.
   - Microsoft Internet Explorer version 7.0 or later.
   - Mozilla Firefox version 3.0 or later.
2. Enter the address of the Tracer ES server into the browser’s address bar. Tracer ES may take up to a minute to load, depending on available network and computer resources.
3. Select an alternate language, if needed, by clicking the button for the desired language. There are some additional regional settings you can change if you edit your preferences.
4. Type your User ID and password as indicated, then click Login.

   Note: If it is your first time logging in to the software, you must read and accept the Terms of Service agreement to continue. Read the agreement (you must scroll down to the bottom), then click Yes, I do accept, and Continue to indicate your agreement.

Figure 1. Login
What’s on Every Page

The content area on every Tracer ES page changes from page to page. But all pages* contain this header, which includes the following links:

Figure 2. Tracer ES Header

- **My Home** - go to the location you have designated as your home page.
- **Change Password** - change your user password.
- **Logout** - end your Tracer ES session and return to the login page.
- **Help** (Text link) - launch the complete online help system.
- **Help (Icon 📚)** - launch the help page written for the page you are on.
- **Tracer ES Home** - go to the main Tracer ES System home page.
- **All Alarms** - go to the main alarms page to see all the alarms in the system.
- **Reports** - go to the main report page to access completed reports or create a custom report.
- **Preferences** - view or change your user preferences, including general information, data display values (units of measurement), and regional settings.
- **Administration** - view or change administrative settings for users, buildings, applications, logs, and system maintenance. (This area requires administrative access permission.)
- **Find Building(s)** - search for buildings by name. Click **Search Tips** for additional information.
- **Process Tracker Icon ( )** - View the ProcessTracker.
- **Bread Crumbs** (Home / ...) - see where you are in the hierarchy of the Tracer ES menus and click a link to go to a place higher in the organization.

**Note:** The bread crumbs do not always exactly match the "Go to" path in user procedures. For instance if a procedural step is written "Go to Home / building name / Schedules / Exceptions," you click Home, then the building name, then on the building navigation sidebar click Schedules, then Exceptions. However, when you arrive at your destination page, the bread crumbs indicate you are at "Home / (your building name)/Manage Building Schedules / Manage Exception Schedules." Likewise, there is often more than one way to reach the same destination page. The procedures are written to indicate the briefest route to the desired destination.

**Note:** Pages with custom graphics may appear without the top page header. This is an option that can be specified by the graphic creator in Tracer Graphics Editor.

Tracer ES Help and Documentation

Following is a list of documentation associated with Tracer ES. Links in the list will open the documents in PDF format:

- **Installation Guide** - to be used by system administrators to install Tracer ES.
- **User’s Guide** - a printable document based on the operations tasks of the online help to be used by building operators for daily operation and reference.
- **Online Help** - contains all of the content of the User’s Guide, plus page-level help that can be accessed by clicking **Help** or 📚 on the Tracer ES pages.
- **Release Notes** - Also called a "README" file. A description of changes made since the previous release of Tracer ES, and other information related to this release.
Printing Help Information

To print an individual topic or page, use your browser’s printing function or click the “Print” link at the bottom of the page of the page you want to print.

Process Tracker: View, Clear Entries, Cancel Processes

The Process Tracker is a way for you to keep track of progress when Tracer ES is sending information to building panels. Whenever you create or make a change that must be written to one or more panels, the Process Tracker creates an entry for the new process, and opens the Process Tracker in a new window.

*Note: If the Process Tracker is already open in a window behind the active window, it will not automatically move in front of the active window. If you do not see the Process Tracker when you expect it to open, look behind the active window.*

To open the process tracker window and view your completed and in-progress processes:

1. Click.

![Figure 3. Process Tracker](image)

*Note: Each Tracer ES user has his or her own process tracker data. You will not see processes that were initiated by other users who were logged into a different user account. To see activities performed by other users, view the System Task log.*

To remove entries from the process tracker:

1. Click to open the Process Tracker.
2. Do one of the following:
   - To clear a completed single process, click Clear on the same row as the process.
   - To clear all completed processes in the Process Tracker, click Clear All.

*Note: Cleared processes are permanently removed from the Process Tracker, but the process is not stopped.*

To cancel processes:

1. Click to open the Process Tracker.
2. Click Cancel on the same row as the process.

Selecting, Sorting, and Filtering Tables

Tables appear throughout Tracer ES system. Here is some basic information to help you work with the data in the tables.

Some tables contain selectable items within the cells. When an item is selectable it appears as a text link (usually blue and underlined). To select it, click on the link.
Most tables contain selectable rows. After you select rows, you can use the buttons on the right side of the table. Some buttons apply to a single item, but many can be performed on more than one item.

- To select or clear a single row, click its check box. A selected check box contains a check mark.
- To select or clear all rows in a table, click the check box in the table header.

To sort the data that appears in a table:
1. Select which column you want to determine the sort order.
2. Click on the text in the column heading. (The text becomes a blue, underlined link when the mouse pointer hovers over it.)

**Figure 4. Table Header**

Notice the arrow that appears next to the text.
- An arrow pointing up (↑) indicates that the table is sorted so lower numbers and letters closer to "A" are at the top.
- An arrow pointing down (↓) indicates that the table is sorted so higher numbers and letters closer to "Z" are at the top.

You can use the filter to reduce the number of results that appear in the table below it.

**Figure 5. Table Filter**

To use the filter:

**Note:** You can enable or disable the filter in your user preferences. If disabled, you will not see the filter controls at the top of the table.
1. Select one of the table columns next to **For Column**. Only columns that appear in the table will appear in the list.
2. If **Show Only** is a drop-down list, select one of the items in the list; if **Show Only** is a text box, type in the name of the item you are looking for.
3. Click **Apply Filter**. Any data entries in the table that do not have the selected value in the selected column are hidden.

To turn off the filter and show all results, select **No filter, view all** next to **For Column**.

**System Status: View**

Because Tracer ES is made up of several individual applications that work together, you may find it useful to be able to view the status of the applications as a way to confirm expected operation of the software or to locate a problem in the system.
To view the system status:

- Go to Home / Administration / System Maintenance / System Status.

**Figure 6. System Status Page**

System Tasks: View

When a user tries to write a change to a building in the system and the change does not complete successfully, an entry is made into the System Task log. The type of tasks that can appear in the system task log are scheduling, communication, trending, and system tasks. It may be useful to look at the System Task log to identify details about why it did not complete, what application was involved, etc.
To view the system tasks:
- Go to Home / Administration / System Logs / System Tasks.

**Figure 7. System Tasks Page**

**Search Tips**

The search engine searches the building names or other attributes for the characters you type in the Find Buildings box. Here are some tips:

- Search terms must be exactly correct, including spaces and punctuation, but without regard to word capitalization. For example, if you are looking for all buildings with "St. Paul" in an attribute, none of the following search terms would find them: "St Paul" "StPaul" "St. Paul" "Saint Paul."
- Incomplete search terms will find results. For example, searching for just "St" would find buildings with any of the following attribute values: "stpaul" "oak st." "St. Paul."
- The search does not support Boolean or similar operators (AND, OR, NOT) or wildcards (*).
- The search will return results containing the search terms for any standard or custom attribute, even if the attribute does not appear on the search results page. For example, if a building contact person’s name is John Doe, searching for "Doe" will return all buildings with John Doe listed for the contact, but you will not see "John Doe" on the search results page.
- The search engine will not show you buildings if your user profile does not have access to them.

**Status**

**Area or Space Setpoints: Edit Globally**

With Tracer ES global change capability, you can quickly initiate the same edits to any number of area or space setpoints across your entire building network. Changes take effect as quickly as they can be communicated to the individual building panels.
To edit setpoints globally:
1. Go to Home / All Buildings.
2. Select the buildings for which you want to change the setpoints.
3. Click Global Changes. The Global Changes page appears.
4. Click Edit Setpoints.
5. Complete the series of pages and click Finish when you reach the end.

Figure 8. Global Edit Setpoints Screen

Missing Status Data

In the event of a communication problem or improper configuration, some status information may be missing from the status screen. When this occurs, “---“ appears where the data would have been.

Figure 9. Missing Status Data

<table>
<thead>
<tr>
<th>Space Condition</th>
<th>Current Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space Temperature</td>
<td>---</td>
</tr>
<tr>
<td>Active Setpoint</td>
<td>---</td>
</tr>
<tr>
<td>Local Setpoint</td>
<td>---</td>
</tr>
</tbody>
</table>

Equipment and Subsystems: Add or Remove Data

For each type of equipment or subsystem, you can choose which data points will appear on the status page. Data points that are not displayed on the main status page will still be visible when users click More Status Values.
To customize which data points are shown for an equipment type:

**Note:** These changes will apply to all users.

1. Go to **Home / Administration / Global Applications / Customize System Pages**.
2. Click **Add/Remove Data Shown on Equipment or Subsystem Page(s)**.
3. Select one of the options for **Equipment or Subsystem Family Type to Customize**.
4. Put a check mark next to each point you want to be shown for the equipment or subsystem type.
5. Clear the check mark for equipment or subsystem types you do not want shown.
6. Click **Finish** to save your changes.

**Figure 10. Add or Remove Data**

---

**Air Handlers: View**

Air handlers meter air to spaces at a specific temperature setpoint. They are often configured with economizers that allow fresh air ventilation and recirculation. Typically the amount of air is based on the number of spaces currently occupied.

**Note:** Some programmable controllers are configured to run as air handlers and will not be recognized as air handlers by Tracer ES. After discovery, you can customize a programmable controller to be an air handler. See **Programmable Controllers: View and Customize**.

To view the status of an air handler:

1. Go to **Home / Building Name / Equipment / Air Handlers**. A table appears with an air handler in each row and basic status data in each column.
2. Click on the name of the air handler you want to view. The individual air handler status page appears.
Areas: View

An area is created and managed by the building controller. It is an association of objects, called "members," typically serving a physical region within the building, such as a room, wing, or floor. Areas are created to provide operators a simplified way to control multiple objects in a coordinated and potentially more energy efficient way, while at the same time ensuring that area occupants experience the same level of comfort throughout the area.

To view the status of an area:
1. Go to Home / Building Name / Subsystems / Area. A table appears with an area in each row and basic status data in each column.
2. Click on the name of the area you want to view. The individual area status page appears.

Analog Inputs and Binary Inputs: View

Analog inputs and binary inputs are software objects in the building control panel that typically represent hard-wired or wireless sensors in the building. They could also represent values that are not read from a sensor but are manually manipulated at the building control panel. The names of the inputs are edited with the appropriate service tool for the building control panel (for example, Tracer Summit or Tracker software).

To view the current value of an analog input or binary input:
• Go to Home / Building Name / Subsystems / Input/Output / Analog Inputs or Binary Inputs. A table appears with an input in each row and basic status data in each column.

Analog Outputs, Binary Outputs, and Setpoints: View

Binary outputs are software objects in the building control panel and may or may not directly represent physical outputs on building controllers. The names of the outputs and values are edited with the appropriate service tool for the building control panel (for example, Tracer Summit or TracerTracker software).

To view the current value of an analog output, binary output or setpoint:
• Go to Home / building name / Subsystems / Input/Output / Analog Outputs and Setpoints or Binary Outputs and Setpoints. A table appears with an output or setpoint in each row and basic status data in each column.

Analog Inputs and Binary Inputs: View

Analog inputs and binary inputs are software objects in the building control panel that typically represent hard-wired or wireless sensors in the building. They could also represent values that are not read from a sensor but are manually manipulated at the building control panel. The names of the inputs are edited with the appropriate service tool for the building control panel (for example, Tracer Summit or Tracker software).

To view the current value of an analog input or binary input:
• Go to Home / Building Name / Subsystems / Input/Output / Analog Inputs or Binary Inputs. A table appears with an input in each row and basic status data in each column.

Analog Outputs, Binary Outputs, and Setpoints: View

Binary outputs are software objects in the building control panel and may or may not directly represent physical outputs on building controllers. The names of the outputs and values are edited with the appropriate service tool for the building control panel (for example, Tracer Summit or TracerTracker software).
To view the current value of an analog output, binary output or setpoint:

- Go to Home / building name / Subsystems / Input/Output / Analog Outputs and Setpoints or Binary Outputs and Setpoints. A table appears with an output or setpoint in each row and basic status data in each column.

**Heat Pump Loops: View**

Heat pump loops are HVAC applications that operate multiple heat pump controllers (which are also spaces) running pumps that move water through the loop.

Heat pump loops have characteristics of air systems and chiller plants:
- Like air systems, they determine the overall operation of the water loop based on the demands of the space controllers.
- Like chiller plants, their primary function is to provide water at the proper temperature to the HVAC system.

Water-source heat pump systems consist of three controllers:
- A water-source-heat-pump controller stages the HVAC unit fan, compressors, and heaters to control space temperature.
- A Tracer Loop Controller (TLC) runs the water loop pump, boilers and/or cooling towers to control the water temperature inside the loop.
- The Tracer Summit BCU or Tracker panel coordinates the TLC and the HVAC controllers.

To view a heat pump loop:
2. Click on the name of the heat pump loop you want to view. The Heat Pump Loop page appears, which is a list of the Spaces/Heat Pump Controllers in the loop.

**Chiller Plants: View and Control**

Chiller plants are HVAC applications that regulate the operation of multiple chillers to provide a constant supply of chilled water at a specific temperature (setpoint). Chiller plants start and stop chillers as required by the chilled water demanded by the system and can also regulate the operation of the pumps that move the chilled water through the building.

In Tracer ES, you can use the Chiller Plant page to view, set up data logs, and control chiller plants in the following ways:
- Manually rotate the chillers in the plant (Force Rotate). Normally the chillers rotate according to a specified interval.
- Manually put a chiller into service or take a chiller out of service (Force Add and Force Subtract). Normally the number of chillers in service is configured to change based on chilled water demand. You do not choose which chiller gets added or subtracted, because that is still determined by the chiller plant settings.
- Reassign the rotational order of the swing and numbered chillers.
- Make a chiller unavailable or available to the chiller plant (it must be a chiller that is already a member of the plant).
- Reset a chiller that has stopped due to a failure condition.

**Note:** For more information about Trane chiller plant operations, consult the Tracer Summit programming and service documentation and engineering bulletins.

To view and control a chiller plant:
1. Go to Home / Building Name / Subsystems / Chiller Plant. The Chiller Plants page appears.
2. Click on the name of the chiller plant you want to view. The individual chiller plant status page appears, which is a list of the chillers in the plant.
3. Use the action buttons on the page to make changes to the chiller plant operation.
Chillers: View

A chiller is a piece of equipment that provides a flow of chilled water usually to air handlers or space controllers to cool or dehumidify room air. There are many types and sizes of chiller, which affects the number and type of data points that appear for them in Tracer ES.

To view the status of a chiller:
1. Go to Home / Building Name / Equipment / Chiller. A table appears with a chiller in each row and basic status data in each column.
2. Click on the name of the chiller you want to view. The individual chiller status page appears.

Spaces: View

A space is a controller with primary responsibility for the comfort conditions of a single region or room in a building. A space can be small and simple (an individual damper controller) or large and complex (a rooftop unit with multiple compressors).

To view the status of a space:
1. Go to Home / Building Name / Spaces. A table appears with a space in each row and basic status data in each column.
2. Click on the name of the space you want to view. The individual space status page appears.

Variable Air Subsystems: View

A variable air subsystem coordinates air handlers and spaces to efficiently provide conditioned air to the HVAC system.

To view the status of a variable air subsystem:
1. Go to Home / Building Name / Subsystems / Air Systems. A table appears with an air system in each row and basic status data in each column.
2. Click on the name of the air system you want to view. The individual air system status page appears.

VariTrac Systems: View

VariTrac Central Control Panels (CCPs) are seen as air systems in Tracer ES.
- **VariTrac I Comfort Managers** are typically used with EMTKTrackers, which are not supported by Tracer ES. To be used with Tracer ES, these panels must be upgraded to BMTK trackers with VariTrac III CCPs.
- **VariTrac II Central Control Panels** are supported by Tracer Summit BCUs and Tracer ES. VariTrac II Central Control Panel (CCP) has one type of system configuration: changeover bypass. CCP has two types of bypass damper control methods: static pressure and velocity.
- **VariTrac III Central Control Panels** are supported only by BMTKTracker systems, not Tracer Summit BCUs. The VariTrac determines this configuration automatically based on the HVAC unit type. If the HVAC unit type is a variable air volume Voyager, VariTrac III automatically sets the system configuration to delivered VAV. All other HVAC unit types are configured as changeover bypass. VariTrac III does not support velocity bypass damper control; only static pressure bypass damper control is supported in the changeover bypass configuration.

To view VariTrac Systems:
1. Go to Home / building name / Subsystems / Air Systems. A table appears with an air system in each row and basic status data in each column.
2. Click on the name of the VariTrac system you want to view. The individual air system status page appears.
Programmable Controllers: View and Customize

Programmable controllers include all general-purpose controllers that have no inherently defined function in an HVAC system. These controllers may serve a single purpose, such as the control of a customized air handler or heat pump loop, but they can be highly customizable and variable.

**Note:** All non-Trane BACNet controllers and Tracer SC controllers appear as generic programmable controllers.

To view a building’s programmable controllers:

1. Go to Home / Building Name.
2. In the Building Navigation pane, click Equipment, then Programmable. Any programmable controllers (not assigned to a different equipment family) in the building will be listed. If the building has no programmable controllers, there will be no Programmable link in the building navigation list.
3. To view details on a particular controller, click its name. The main status page for the controller appears.

In Tracer ES, you can assign a programmable controller as an air handler, chiller or space. The programmable control then appears in the summary lists for the newly assigned controller type (it no longer appears in the Programmable Controllers list) and you can customize the data point assignments.

To assign a programmable controller to an equipment family:

1. Go to the main status page for the controller.
2. Click Manage Programmable Controllers.
3. Locate the programmable controller in the list.
4. Select a new value under Assigned Equipment Family.
5. Click Apply New Values.

To customize the data point assignments:

1. In the Building Navigation Pane, click Equipment or Spaces, according to the assigned equipment family you selected earlier.
2. Click the name of the programmable controller in the equipment list to which you assigned it. The main status page for the controller appears.
3. Click Customize Programmable Controller. A series of two pages begins.
4. Complete both pages and click Finish at the last page.

Buildings

Building Summary: View

A building summary page is a quick view of the health of the building. It includes basic information about the building, its most recent alarms, and a list of all the spaces in the building. It also provides access to the building navigation sidebar, which permits you to find information within the building.
To view a building summary:
- Go to Home / building name.

Note: There are additional pages with links to building summary pages; look for links with the building name on them.

Figure 11. Building Summary

Buildings: Add

Tracer ES can be used with the following building panel or object types:
- Trane BCUs that are controlled by Tracer Summit version 16 or higher.
- Trane Tracker panels, version 12 or higher.
- Standard BACnet objects that meet the 2004 or later BACnet specification.
- Tracer SC controllers. For this release they are recognized as generic BACnet devices.
- Tracer UC controllers. For this release they are recognized as generic BACnet devices.

All Buildings on your network will not appear in Tracer ES until you add them to the Tracer ES building list.
To add a building:
1. Click Home / Administration / Manage Buildings / Install Buildings.
2. Click Add a New Building.
3. Complete the information on the Add Building page and click Finish. The building discovery process begins.
4. After the building discovery is complete, view, and if necessary, edit the building attributes on the Advanced building page to make sure that building location, time zone, and time synchronization information are correct.

   **Note:** The discovery process can take several minutes or longer depending upon how many points Tracer ES identifies and the speed of the network. You can monitor the progress of the building discovery by watching the page, if desired. Navigating away from the page will not stop the discovery process.

**Figure 12. Add Buildings**

---

**Buildings: View or Delete Discovery Report**

After you add a building, Tracer ES generates a building discovery report that shows you the results of the discovery.

To view a building discovery report:
1. Click Home / Administration / Manage Buildings / Install Buildings.
2. Locate the row in which the building is listed.
3. Click View Report in the status column. The discovery report page appears. You can:
   - View the report on-screen.
   - Click View Printer-Friendly Page to view and print web page.
   - Click Save Report as Text to create a .txt file that you can read into another program.
   - Click Save Report as PDF to create a PDF version that can be stored on your local computer or printed.
To delete the building discovery report and the building discovery entry:
1. Click **Home / Administration / Manage Buildings / Install Buildings**.
2. Select the row in which the building is listed.
3. Click **Delete**.

   **Note**: Removing the report or the discovery entry from the list does not delete the building from Tracer ES.

---

**Figure 13. Discovery Report**

---

**Building Attributes: View, Edit, Create Custom**

**Overview**

Each building has attributes that can help you categorize them or provide placeholders for useful information that might otherwise need to be stored somewhere outside of the Tracer ES system. The attribute itself can be thought of as an information category. All buildings will have the same attributes, but the value assigned to each attribute can vary from building to building.

Tracer ES system uses attributes to:
- Locate and communicate with buildings (network attributes)
- Define the structure of the home page index
- Route alarms by e-mail
- Find and list buildings using the Find Buildings search

There are two types of building attributes: standard and custom.
Building Attributes: View, Edit, Create Custom

**Standard Attributes** are built into Tracer ES System and are automatically assigned to every building:

- **IP Address** or **DNS Name** - Every recognized object on network has an IP (Internet Protocol) address, which is a series of numbers, separated by decimals, that tells the network how to find it. An example of a local IP Address is 168.1.1.100. If the building has a DNS Name (the Domain Name Server name), it is usually best to use it instead of the IP address. If you are not sure what to use, contact your network administrator for assistance.

- **UDP Port** - (User Datagram Protocol) port is the port the system will use to communicate to the building panel.

- **Building Information** - (Name, City, State, and Time Zone) Required attributes for the building.

- **Additional General Attributes** - (Address 1, Address 2, Postal Code, Contact Name, Phone Number, E-mail Address, Graphic Directory, and Site Type). These are not required by Tracer ES, but you may want to use them.

**Custom Attributes** are created by administrators or users and added to buildings. It might be useful to create a custom attribute if the standard attributes do not include information that you would like to gather or use for sorting buildings in the index.

### View or Edit

To view or edit building attributes:

1. Go to Home / building name / Advanced. Standard attributes are at the top of the list; custom attributes are at the bottom of the list.
2. Click Edit to make changes.
3. Make desired changes.
4. Click Save.

### Create Custom

You can create one of four types of custom attribute:

- **Two Choices** - The value of the attribute can be only one of two choices. Typical examples would be On or Off, Yes or No, or True or False. You must choose the two choices when you create the attribute (users cannot create their own choices later).

- **Fixed Choice List** - The same principle as Two Choices, but you can specify more than two. Examples could be North, South, East, West, or District 1, District 2, District 3. You must choose all of the available choices when you create the attribute (users cannot create their own values later).

- **Growing Choice List** - The same principle as Two Choices and Fixed Choice except that a user can provide an alternate choice of his or her creation. Likewise, subsequent users can select from your original choices or those added later by other users.

- **Free Form Value** - Users can write in anything they want for this value within number of characters you specify when you create it.
To create a custom attribute:
1. Go to Home / Administration / Manage Buildings / Manage Building Custom Attributes.
2. Click Add New Building Custom Attribute. A series of steps begins.
3. Complete the information on each page until you reach the final page, then click Finish.

Figure 14. Manage building custom attributes

Whenever you are in a building context, that is, when you are looking at something inside of a single building,* a sidebar menu opens on the left side of the page. You can click on each item in the sidebar to go to the appropriate page for the building. Some of the links in the sidebar also open subordinate links.

*Note: Custom graphics that would otherwise be inside of a building context may appear without the left navigation. This is an option that can be specified by the graphic creator in Tracer Graphics Editor.

Figure 15. Building navigation sidebar
Buildings: Run Reports

There are three types of building report:

- **All Points in Alarm ("Alarm Report")** - Lists all of the points in the system that are currently in an alarm state.
- **All Points in Override ("Override Report")** - Lists all of the points in the system that are currently being overridden. The list is organized by equipment type and includes the name of the point, the priority level at which it is being overridden, the override value, and the date and time when it was last overridden.
- **Site Commissioning** - Lists the names, types, and present values of all of the objects in the building.

To run a report:
1. Navigate to Home / building name.
2. Click Run Reports. The Run Report popup window appears.
3. Select the report type from the list, and then click Run Report.

Buildings: Synchronize Manually

The entire Tracer ES database automatically synchronizes with all buildings once per week or other interval configured in the System Parameters page. Additionally, you should manually synchronize a building any time you suspect or know that changes were made using a different tool, such as Tracer Summit.

To manually synchronize individual buildings:
1. Go to Home.
2. Click All Buildings.
3. Select the buildings you want to synchronize.
4. Click Advanced.
5. Click Synchronize Now.

Figure 16. Advanced building options
Buildings: Customize Grouping

You can specify the way buildings are organized on the Tracer ES home page in one of three ways according to your preference.

- **No grouping** - buildings are listed in alphabetical order.
- **One grouping level** - buildings are grouped by a building attribute of your choice.
- **Two grouping levels** - buildings are grouped by two building attributes of your choice (one general and one specific).

To customize the building grouping:

2. Select the number of index levels.
3. Select the general and specific grouping attributes, if required: If you selected one level, select the general grouping attribute; if you selected two levels, select a general and a specific grouping attribute.
4. Click **Finish**.

---

**Figure 17. Customize building grouping**

![Customize building grouping page](image)

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Panel: Reset, Clear RAM, Delete

There are three advanced operations you can perform on building panels: reset the panel, clear the panel's RAM, and delete the panel.

**Reset or Clear RAM**

Resetting a panel typically has the same effect as cycling the power for the panel but it could have a different effect depending upon the device manufacturer. Clearing the panel's random access memory (RAM) clears out volatile memory.

**Note:** Reset and clear RAM are enumerations of the ReinitializeDevice BACnet service. For Trane panels, Reset RAM sets the ReinitializeDevice bit to 0 (Cold Start) and Clear Ram sets the bit to 1 (Warm Start). Other vendors may have somewhat different interpretations of these enumerations.
To reset a panel or clear its RAM:

**NOTE:** You may need to know the password for the panel.
1. Go to Home / building name / Advanced / Panel Reset.
2. Select the panel.
3. Click Reset, or click Clear RAM.
4. Enter the password, if prompted.

**Delete**

Deleting a panel removes the panel from Tracer ES, but does not remove it from service in the building network.
1. Go to Home / building name / Advanced / Panel Reset.
2. Select the panel.
3. Click Delete.

**Figure 18. Panel reset**

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**BACnet Objects and Properties: View, Edit**

BACnet objects and properties, as they are defined by the BACnet standard, contain much more information than most users would find useful or practical. Because of the large number of object types and properties that can exist, standard pages in Tracer ES use some naming conventions that are more meaningful to typical Tracer ES users. Likewise Tracer ES does not show objects or properties that are not useful to typical Tracer ES users. However, some advanced Tracer ES users may find it useful to be able to see comprehensive and pure BACnet information for advanced troubleshooting or other unanticipated reasons. The BACnetViewer feature was created for those advanced users.
Panel Communication Alarms: View, Create, Edit, Delete

To view or edit BACnet objects and their properties:
1. Go to **Home / building name / Advanced / BACnet Viewer**.
2. Select the type of object you want to view from the list.
3. Click **Apply**. All of the objects of the type you selected appear in the list.
4. Click the name of an object to view it.
5. If there are editable properties, click **Edit** to make changes, and then click **Save** to save them or **Cancel** to abandon your changes.

Panel Communication Alarms: View, Create, Edit, Delete

A panel communication alarm is an alarm that you set up in the system to be activated whenever Tracer ES is not able to communicate with the panel. It can also trigger an alarm when communication is restored.

To view panel communication alarm:
- Go to **Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Communication Alarms**.

To create a panel communication alarm:
1. Go to **Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Communication Alarms**.
2. Click **Create new Communication Alarm**. A series of pages begins.
3. Complete each page in the series and click **Finish** at the last page.

To edit a panel communication alarm:
1. Go to **Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Communication Alarms**.
2. Select an alarm.
3. Click **Edit**. A series of pages begins.
4. Complete each page in the series and click **Finish** at the last page.
To delete panel communication alarms:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Communication Alarms.
2. Select the alarms.
3. Click Delete.

Figure 19. Manage Panel Communication Alarms

Tracer SC Panels: View Directly

If you have any Tracer SC system control panels, you can use the Direct Link to Panel feature in Tracer ES to launch the Tracer SC software. To be able to access a Tracer SC panel in this way, you must:
• be assigned to a user role that has permission to direct link to panel in Tracer ES. To enable a user role to direct link to Tracer SC panels, create a new user role or edit an existing role with the Yes selected for Tracer SC under Direct Link to Panel.
• have a user name and password for the Tracer SC panel you want to view. To acquire a user name and password for the Tracer SC panel, contact the administrator for the controller.

To directly link to a Tracer SC panel:
1. Go to Home / building name.
2. Locate and click the Direct Link Icon ( ) next to Summary. You can also find and click the icon on several other pages including priority mapping, schedules, equipment and subsystems within the building. A small popup window appears with one or more underlined links, each representing a different Tracer SC controller.
3. Click the appropriate underlined link.
4. Wait for the browser to open the Tracer SC interface in a new window.
5. Log in to Tracer SC. See the Tracer SC help for more information.

BCU Phone Book: View, Edit

Each BCU can have up to two modems that it uses for alarm notification. Each modem can be configured independently with its own dialing settings and its own list of (alarm recipients’) phone numbers, known as a "BCU Phone Book." You can use Tracer ES to view and edit the dialing settings for each modem, and to add, edit, or delete entries in the BCU Phone Book.
To view the BCU Phone book:
1. Go to Home / building name / Advanced / BCU Phone Book. The BCU Phone Book page lists the names and Device IDs of the modems.
2. Click the name of a modem to go to the BCU Phone Book page for the modem.

To edit a BCU Phone book:
1. Go to the BCU Phone Book page for the modem.
2. Click Edit BCU Phone Number to make changes to the dialing information (the Dialing Prefix and Calling Card number) that can be used by alarm recipients in the phone book.
3. Select an alarm recipient and click Delete to move it or click Edit to make changes. Changes can include the alarm recipient type, name, phone number, or whether or not the dialing prefix or calling card number are used for the recipient.

Navigation Tree: Use, Edit, Backup, Restore

The building navigation tree is a faster, customizable way for you to navigate through the contents of a building. The tree appears at the top of the building navigation sidebar.

To use the building navigation tree:
1. Go to Home / Building Name.
2. Click Navigation Tree. The tree appears in a small, attached window. If it has not been edited, the tree is organized according to the building navigation sidebar.
   • Use the + and - signs to show and hide the children in the tree.
   • Click on the name of an element in the tree to go to the desired location.

You can use the tree editor to do the following:
• Edit the items in the tree, the way they are organized, custom graphics that are assigned them.
• Backup the tree to a file. This provides a convenient way for you to restore the tree in the event of unexpected or unwanted changes.
• Restore a tree to an earlier backup file.

To edit the tree:
1. Go to Home / Building Name / Advanced / Tree Editor.
2. Use the buttons under Tree Functions to make changes to items in the tree.
3. Click Save when finished.

To backup the existing tree:
1. Go to Home / Building Name / Advanced / Tree Editor.
2. Click Backup. The tree is saved to a predetermined location on the Tracer ES server and named according to the building name, date, and hour of the backup.
To restore the tree from an earlier backup:
1. Go to Home / Building Name / Advanced / Tree Editor.
2. Click Restore. The Restore Navigation Tree window appears.
3. Select the backup file from which you want to restore the tree. The backups are named according to the building name, date, and hour of the backup. If more than one backup was made within the same hour, each will have the same name in the list. More recent backup files appear closer to the top of the list.
4. Click Restore.

Figure 20. Navigation Tree Editor

Custom Pages: Assign to Building

If you have custom XML pages that were created for Tracer Summit, and they have been converted for use with Tracer ES and copied to the Tracer ES server, the final step is to assign them to the building in Tracer ES.
To assign a custom page to a building:
1. Go to Home / Building Name. The building summary page appears.
2. Click Define Custom Pages for Building. The Define Custom Pages for Building popup window appears.
3. Select a custom page for Change to this Building Customization.
4. Click Save.

Figure 21. Define custom pages for building

Alarms

Alarms: View, Acknowledge, Remove

The alarm handling capabilities of Tracer ES system permit users to receive, view, acknowledge, and make comments on building alarms. Administrative users can also manage alarm settings such as priority mapping, notification classes, E-mail routing, ignored alarm rules, panel communication alarms, and BACnet device alarm subscriptions.

Viewing - Tracer ES system receives alarm messages from building control panels and displays them in the Tracer ES Alarm log. The system can also notify recipients by E-mail and SMS text message, depending upon network configuration.

To view all system alarms:
- Click All Alarms (from any page).

To view the alarms for a single building:
1. Go to Home / building name.
2. Click Alarms on the sidebar.

   Note: If new alarms are received while you are viewing the building alarms list, a message appears stating that there are new alarms and includes a link for refreshing the alarm list.

To view alarms for a specific building panel:
1. Go to Home / building name.
2. Click Alarms on the sidebar.
3. Click View Panel Alarms. The list includes all of the alarms that originate from the panel or are routed to the panel from other devices.
Acknowledging - Many alarms are configured in their building panels to require user acknowledgement. If they are not acknowledged, they will continue to be broadcast in the system and they may also be sent electronically to specific users or administrators. Alarms can be acknowledged locally, or they can be acknowledged using Tracer ES system. In any case, when the alarm is acknowledged, the user’s name and the panel’s local time and date are recorded in Tracer ES system for other users to see.

To acknowledge alarms:
1. Follow the steps above to view the alarms.
2. Select one or more alarms.
3. Click **Acknowledge**.
   
   **Note**: If Tracer ES system is unable to acknowledge an alarm, a failure notification will appear.

Removing - Removing an alarm in Tracer ES system makes the alarm invisible to all Tracer ES users. However, the alarm record still remains in the alarm log database unless it is removed by a SQL server administrator.

To remove alarms:
1. Click **All Alarms** (from any page).
2. Select one or more alarms.
3. Click **Delete**.

Figure 22. All Alarms
Alarms: Advanced Search (and Remove)

Over time, Tracer ES can accumulate a large number of alarms in the alarm log. In some cases, there can be thousands, or even tens of thousands of them. The vast majority of the alarms in a typical alarm log can be removed because they are out of date, unimportant, or no longer applicable. The Advanced Search function permits you to search for, and remove large numbers of alarms very quickly.

**Note:** The ability to use the Advanced Search feature can be enabled or disabled according to user role assignment. If you do not see the link for Advanced Search and Remove, you are assigned to a role that cannot perform the advanced search and removal.

To use the Advanced Search feature for all alarms (across buildings):

1. Click **All Alarms** (from any page) or go to **Home / building name / Alarms**.
2. Use the controls on the page to select arms you want to view or remove.
3. Click Remove. A popup message appears and must be acknowledged before alarms are permanently removed.

   **NOTE:** Only the top 100 alarms of those selected can be shown at one time. The sort order determines which alarms are at the top. Clicking Remove will remove all selected alarms, including those that you cannot see, but meet the search criteria.

Alarm Comments: View or add

Tracer ES can store user comments for each alarm that posts to the system. This permits users to keep a running dialog of the status of an alarm, its causes, or other information that keeps everyone informed during a potentially urgent situation. All alarm comments are retained in the database.
To view or add alarm comments:
1. Go to the page containing the alarm (Home / All Alarms / or Home / Building Name).
2. Locate the alarm you are interested in. If comments have been left by you or another user, there will be a link in the Comment column.
3. Click the link. The User Comments page appears. Each comment includes the (user) profile that was used to create it and the date and time the comment was left.
4. To add your own comments, type them into the Comment field and click Save.

Figure 23. User comments

Alarms: Ignoring

You can ignore alarms in Tracer ES. Doing so does not alleviate the cause of the alarm but will prevent the alarm from posting repeatedly to the system. By ignoring an alarm, you are effectively creating a rule in the system telling it to always ignore a particular alarm from a particular source or a particular type of alarm from all sources.

**Note:** Ignored alarms affect all users in the system. If one user ignores an alarm, no other user will receive notification of it.

To ignore an alarm and create an ignored alarm rule:
1. Go to Home / All Alarms.
2. Locate and select the alarm you want to ignore.
3. Click Ignore. The Permanent Alarm Filtering popup window appears.
4. Read the popup window and make a choice, then click Save. Your choice will be applied to the system unless or until the rule is deleted.

Ignored Alarm Rules: View or Delete

You can view a list of all alarm types that are being ignored in the system and delete the rules if desired, which permits the alarms to post to the system again.
Alarm Priority Levels and Alarm Notification Classes: Edit

To view or delete an ignored alarm rule:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Ignored Alarm Rules. All of the ignored alarm rules are shown in the list.
2. Locate and select the rule you want to delete.
3. Click Delete. A confirmation window appears.
4. Read and respond to the confirmation window.

Figure 24. Manage ignored alarm rules

Alarm Priority Levels and Alarm Notification Classes: Edit

You can provide your own notification class names for classes 5-20. Notification classes 1-4 are named by default and cannot be changed. The name you provide should indicate the type and severity of the alarm it indicates. Descriptive names will be useful for mapping the alarm priorities to your control panels.
To change the alarm notification classes:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Notification Classes.
2. Type in a new name for each priority you want to change.
3. Click Save.

Figure 25. Manage notification classes
Alarm Priorities: Mapping

Notification classes must be defined to enable Tracer ES to notify the intended recipients of building alarms in the most efficient manner possible. Tracer ES supports as many alarm notification classes as needed for each panel type.

- **Non-Trane BACnet panels** can have up to 256 alarm priority levels. The building priority level is specified by the Notification Class or Event Enrollment objects that are associated with the alarm event. In Tracer ES, by default, alarms from all priority levels map to Service Required alarm notification class.

- **Trane BCUs** use 20 alarm priority levels, numbered 1 through 20. In Tracer ES, by default, alarm priorities 1 through 4 map to (1) No Alarm, (2) Informative/Advisory, (3) Service Required, and (4) Critical.

- **Trane Tracker panels** (version 10 and later) have three BACnet alarm priority levels, numbered Event Class 2 through 4. In Tracer ES, by default, these alarm priorities map to (Event Class 2) Informative/Advisory, (3) Service Required, (4) Critical.

**Notes:** To receive alarms from Tracker panels, the Tracer ES system must be configured in the building control panel as a recipient of alarms with the Tracker service tool. The workstation ID of the Tracer ES system must match the workstation ID used in the programming of the Tracker alarm event receiver for the Tracer ES system to receive Tracker alarms. See table below. To receive alarms from Tracker Version 12 or higher panels, Tracer ES will "register foreign" with the building control panel during the building discovery process.

<table>
<thead>
<tr>
<th>Workstation number</th>
<th>Workstation ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>02</td>
</tr>
<tr>
<td>2</td>
<td>03</td>
</tr>
<tr>
<td>3</td>
<td>04</td>
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<td>09</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>
To map alarm priority levels to notification classes:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Priority Mappings.
2. Select the Tracer ES alarm priority levels for each panel priority level you want to define.
3. Click Finish. The new priority levels will be applied immediately to existing and new panels of the type specified, but alarms received before the change will not be affected.

Figure 26. Manage priority mapping - BCUs

Alarm E-mail and SMS Text Message Templates: View, Create, Delete, Assign

You can create templates that define the format and content of alarm message notifications. Each alarm message recipient can then be assigned two of the templates: one for alarm messages received by e-mail and one for alarm messages received by SMS text message. There are several reasons why you might want to create message templates:
- The level of expertise or responsibility of the message recipient
- Limited screen size on some mobile devices may make long messages difficult to use
- SMS text messages are limited to 160 characters
- The language spoken by the message recipient

There is no practical limit to the number of templates that can be created and saved.

To view or delete alarm E-mail and SMS text message templates:
- Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates. All of the alarm message templates are listed.
  - To view, click the name of the template. (You can also edit the template if you make changes and click Save.)
  - To delete, select the template and click Delete.
Alarm Panel Subscriptions: Managing

To edit an alarm E-mail or SMS text message template:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates.
2. Click the name of the template. The Edit Alarm Message Template page appears.
3. Complete the fields in the pop-up window and click Save.

To create alarm E-mail and SMS text message templates:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates.
2. Click Add New Alarm Message Template. The Create Alarm Message Template page appears.
3. Complete the fields in the pop-up window and click Save.

To assign an alarm message template to a user, do one of the following:
- Go to Home / Administration / Global Applications / Manage Alarm Settings, select a template, and then click Assign.
- Go to Home / Administration / Manage User Profiles and Roles / Manage User Profiles, select a current user or create a new user, and then specify the template name in the Template for SMS Text Alarm Messages or Template for E-mail Alarm Messages field.
- Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Addresses.

Alarm Panel Subscriptions: Managing

You can set up subscriptions in Tracer ES so that the system receives alarms according to selected notification classes from specified equipment. A single subscription can contain multiple panels and a number or range of notification classes.

**Note:** Many devices do not support all of the alarm notification classes, or they may already be at the maximum number subscriptions for a particular class. There is no way in Tracer ES to know in advance that a class is unavailable, but you will see an error message if you attempt to subscribe to unavailable classes. The alarm subscriptions table accurately reflects which alarm notification classes are successfully subscribed. If you have completed the steps below, and an alarm notification class is absent from the table, it was unavailable for subscription.

To set up a subscription:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Alarm Subscriptions.
2. Select panel names from the list and click Subscribe. The Subscribe to Panel Alarm page appears.
3. Specify which notification classes you would like to subscribe to in the Classes field. You can specify each class individually, separated by commas (1, 3, 9), indicate a range using a hyphen (11-13, which includes 11, 12, and 13), or use a combination (1, 3, 9, 11-13).
4. Click Save. You will be returned to the updated Manage Tracer ES Alarm Subscriptions page.
To edit a subscription:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Alarm Subscriptions.
2. Select panel names from the list and click Edit. The Subscribe to Panel Alarm page appears.
3. In the Classes field, edit the numbers so that they represent the notification classes you want to subscribe to.
4. Click Save. On the Manage Tracer ES Alarm Subscriptions page, the notification classes that were successfully subscribed to will appear in the Subscriptions column for the selected panels.

Figure 27. Managing Alarm Subscriptions

To delete subscriptions:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Panel Alarm Subscriptions.
2. From the list, select panel names and click UnSubscribe. A confirmation window appears.
3. Read and respond to the confirmation window. “None” will appear in the Subscriptions column for the selected panels on the Manage Tracer ES Alarm Subscriptions page.

E-mail and SMS Text Message Routing: Setup Server

Tracer ES alarm e-mail and SMS text message delivery requires that an SMTP-compliant mail server is present and functioning on the IT network. Tracer ES does not send e-mail and SMS text messages directly; it uses the existing mail server to deliver the messages. For information regarding the installation and configuration of mail servers, contact your IT department.
To setup the e-mail and SMS text message routing:

1. Go to Home / Administration / System Maintenance / System Parameters.
2. Click Edit.
3. Make changes to the E-mail Server Parameters to enable Tracer ES to use an existing e-mail account.

   **Note:** If an e-mail recipient replies to the Tracer ES alarm e-mail, the Tracer ES mail service responds as defined by e-mail server—configured by your IT department. The Tracer ES system has no control over the configuration of these mail client parameters. Whether the Tracer ES mail profile is used as a send-only function and incoming e-mails are ignored or a user routinely checks the Tracer ES profile inbox for status on alarms sent to contractors or other personnel is determined by your IT department and/or local Trane representative.

**Figure 28. System parameters - E-mail server parameters**

### Alarm E-mail and SMS Text Message Templates: View, Create, Delete, Assign

You can create templates that define the format and content of alarm message notifications. Each alarm message recipient can then be assigned two of the templates: one for alarm messages received by e-mail and one for alarm messages received by SMS text message. There are several reasons why you might want to create message templates:

- The level of expertise or responsibility of the message recipient
- Limited screen size on some mobile devices may make long messages difficult to use
- SMS text messages are limited to 160 characters
- The language spoken by the message recipient

There is no practical limit to the number of templates that can be created and saved.

To view or delete alarm E-mail and SMS text message templates:

- Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates. All of the alarm message templates are listed.
  - To view, click the name of the template. (You can also edit the template if you make changes and click Save.)
  - To delete, select the template and click Delete.
To edit an alarm E-mail or SMS text message template:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates.
2. Click the name of the template. The Edit Alarm Message Template page appears.
3. Complete the fields in the pop-up window and click Save.

To create alarm E-mail and SMS text message templates:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage Alarm Message Templates.
2. Click Add New Alarm Message Template. The Create Alarm Message Template page appears.
3. Complete the fields in the pop-up window and click Save.

To assign an alarm message template to a user, do one of the following:
- Go to Home / Administration / Global Applications / Manage Alarm Settings, select a template, and then click Assign.
- Go to Home / Administration / Manage User Profiles and Roles / Manage User Profiles, select a current user or create a new user, and then specify the template name in the Template for SMS Text Alarm Messages or Template for E-mail Alarm Messages field.
- Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Addresses.

E-mail Addresses for Alarm Routing: Add, View, Edit, Delete

Alarms can be routed to the e-mail addresses of existing Tracer ES users with user IDs, or they can be routed to e-mail addresses for non-users who do not have a Tracer ES User ID. For instance, maintenance people in the field who can be reached on their handheld device, such as a PDA.

To add non-user e-mail addresses routing alarms:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Addresses.
2. Click Add New E-mail Address. The Add E-mail Address pop-up window appears.
3. Complete the fields in the popup window and click Save.
   - Verify the E-mail Address field contains a valid e-mail.
   - The Description field can be any text (It will appear in the Description column with Tracer ES users’ names).
   - Template should be set to Default if the recipient uses a regular desktop or laptop computer or to PDA if they are using a handheld device with limited text display capabilities.

To view or edit non-user e-mail addresses:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Addresses. All of the e-mail addresses and related information is shown.
2. Select an address and click Edit to make changes. The Edit E-mail Address pop-up window appears.
3. Change the fields in the popup window as desired and click Save.
To delete non-user e-mail addresses:

**Note:** you cannot delete Tracer ES users from this page. You can only delete them from the Manage User Profiles screen.

1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Addresses.
2. Select the addresses you want to delete.
3. Click Delete.

**Figure 29. Manage E-mail addresses**

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**Alarm E-mail Routing Rule: Create, Edit, View, Delete**

An alarm e-mail routing rule lets you route alarms by building and priority level to e-mail recipients (including users with mobile handheld devices, if they are able to receive e-mail messages) of your choosing. For instance, you could route high priority alarms to on-call staff so they can respond quickly to problems. The recipients for alarm notifications can include Tracer ES users with an e-mail address already in the system on their user profile pages, or other non-users whose e-mail address and other information is added only in the alarm routing section.

**Notes:**

Tracer ES users cannot receive e-mail notifications of alarms in buildings to which they do not have access.

If you are working on a rule that applies to a single building, you will not see addresses for users who do not have access to the building, and users without access to the building can only be added if they are given access to the building by editing their user profile.

To create an alarm E-mail routing rule:

1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Routing or Home / All Buildings, then select buildings and click Route Alarms.
2. Click Add new E-mail Routing Rule. A series of pages begins.
3. Complete each page in the series and click Finish at the last page.
To view or edit an alarm E-mail routing rule:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Routing.
2. Click the name of the rule. A series of pages begins.
3. Scroll through the pages to view the rule details or make changes and click Finish at the last page.

To delete alarm E-mail routing rules:
1. Go to Home / Administration / Global Applications / Manage Alarm Settings / Manage E-mail Routing.
2. Select the rules.
3. Click Delete.

Figure 30. Manage E-mail routing

Audible Alarms: Setup

Tracer ES can store can emit an audible sound on a user’s computer if an alarm occurs while the user is logged in. You can enable or disable the audible alarm feature and specify the sound file that is used to make the sound on the System Parameters page.

To setup audible alarms:
- Go to Home / Administration / System Maintenance / System Parameters and edit the system parameters.
Scheduling Overview

The scheduling application in Tracer ES overlays the native scheduling capabilities of the individual building control panels. When you create, edit, or delete schedules in Tracer ES, your changes are stored in Tracer ES and sent to the building panels as quickly as necessary. You can use the Tracer ES scheduling application to complete the following building-level tasks:

- Create, view, and edit normal schedules.
- Create, view, edit, and cancel exception schedules.
- Create, view, edit, delete, and assign schedule attributes.
- Create, view, edit, delete, and apply exception templates.
- Activate or Deactivate the emergency schedule.
- View panel schedules.

In addition to the building-level scheduling capabilities, you can use Tracer ES global scheduling abilities to make global changes to schedules and to create, view, edit, or delete the emergency schedule.

**Note:** Tracer ES does not recognize holidays as a separate schedule type. Use exception schedules to create holidays.

It is possible to use Tracer ES and Tracer Summit (or other tools) to manage the same building schedules simultaneously, but doing so is not recommended. Trying to use two or more different tools to manage the same panel database could create confusion and cause unwanted results. It is a best practice to insist that your users and administrators only use Tracer ES for schedule management.

Normal Schedule: Create, View, Edit

A Normal schedule is also known as a time of day schedule. It is the schedule that is used on a regular basis and under normal circumstances. Normal schedules can be of type HVAC, Lighting, Set Analog, Binary or Multistate. Binary and Multistate schedules are valid only in BACnet-compliant controllers. HVAC schedules are valid only for Tracer Summit BCU or Tracker schedules. Lighting schedules are valid only for Tracer Summit BCU schedules.

To create a normal schedule:
1. Go to Home / building name / Schedules / Normal.
2. Click Create New Schedule. A series of pages begins.
3. Complete the series of pages and click Save.
To view and edit normal schedule:
1. Go to Home / building name / Schedules / Normal.
2. Click the name of the schedule. The schedule summary page contains all viewable information about the schedule.
3. To edit the schedule, click Edit Name, Edit Schedules, or Edit Dates and Events.
4. Make changes to the page as desired.
5. Click Save. Your changes are saved and should be reflected on the summary page.
6. Repeat steps 3 to 5 for additional changes.

Figure 31. Manage normal schedule

Exception Schedule: Create, View, Edit, Cancel

An exception schedule is a temporary schedule that is applied to a normal schedule for specified days. Exceptions can be used for holidays or other occasions that require an extension, reduction, or other change to typical building operation. The start date is always defined and the end date is typically defined, but not required.

To create an exception schedule:
1. Go to Home / building name / Schedules / Exceptions.
2. Click Create New Exception Schedule. A series of pages begins.
3. Complete each page in the series and click Save at the last page.

To view and edit an exception schedule:
1. Go to Home / building name / Schedules / Exceptions.
2. Click the name of the schedule. The exception schedule summary page contains all viewable information about the exception.
3. To edit the exception schedule, click Edit Name, Edit Schedules, or Edit Dates and Events.
4. Make changes to the page as desired.
5. Click Save. Your changes are saved and should be reflected on the summary page.
6. Repeat steps 3 to 5 for additional changes.
Schedule Attributes: Create, View, Rename, Delete, Publish, Assign

To cancel exception schedules (and delete them from the system):
1. Go to Home / building name / Schedules / Exceptions.
2. Select one or more exception schedules.
3. Click Cancel. The exceptions schedules are no longer being used and are deleted from the system.

Figure 32. Manage exception schedules

Schedule Attributes: Create, View, Rename, Delete, Publish, Assign

Schedule attributes are a tool that can make it easier for you to locate or identify schedules with some property in common. You can create attributes with a name of your choosing. After attributes are created they must be published to make them available in the system. After they are published, an attribute can be assigned to one or more schedules. When schedules are listed in tables, such as in the global scheduling application, one column of the table contains schedule attributes, permitting you to sort the table on attribute values.

To create a schedule attribute:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage Schedule Attributes.
2. Click Add New Schedule Attribute. The Tracer ES Schedule Attribute pop-up window appears.
3. Type a name for the new attribute in the New Attribute Name field.
4. Click Save.

To view or rename a schedule attribute:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage Schedule Attributes. All the schedule attributes, their published status, and the assignment status are shown.
2. To rename an attribute, click its name. The Tracer ES Schedule Attribute pop-up window appears.
3. Type a name for the new attribute in the New Attribute Name field.
4. Click Save.
Schedule Attributes: Create, View, Rename, Delete, Publish, Assign

To publish schedule attributes and make them available for assignment:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage Schedule Attributes. Attributes that have not already been published contain a No in the Published column of the table.
2. Select the schedule attributes.
3. Click Publish.

Deleting an attribute removes it from the list and automatically removes its assignment from any schedules.

To delete schedule attributes:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage Schedule Attributes.
2. Select the schedule attributes.
3. Click Delete.

To change assignment of one attribute to one or more schedules:
1. Go to Home / building name / Schedules / Attributes. A table appears showing all the published attributes and the normal schedules assigned to them.
2. Select the attribute.
3. Click Edit. The Assign Schedule Attributes page appears.
4. Select the desired schedules from the Available Schedules and Selected Schedules lists and click the Add or Remove buttons to assign them as desired. Schedules in the Selected Schedules list will be assigned to the named schedule attribute.
5. Click Save.

To change assignment of one schedule to one or more attributes:
1. Go to Home / building name / Schedules. A list of all of the building schedules appears.
2. Click the name of the schedule. The schedule summary page appears.
3. Click Edit Attributes. The Edit Normal Schedule - Attributes page appears.
4. Select the desired schedule attributes from the Available Attributes list and Selected Attributes lists and click the Add or Remove buttons to assign them as desired. Schedule Attributes in the Selected Attributes list will be assigned to the named schedule.
5. Click Save.

Figure 33. Manage schedule attributes
Emergency Schedule: Create, View, Edit, Activate, Deactivate

The emergency schedule is a preconfigured exception template that allows building operators to "one-click" apply exceptions to all pertinent schedules in a building in the event of a "snow day" or similar "emergency" day. All exception events are applied simultaneously. The emergency schedule can be applied to one or more building schedules in one or more buildings. The emergency schedule can be used for any purpose, but it is intended to be a way to easily put specified schedules into a limited or unoccupied mode in the event of an emergent situation, such as building closure due to weather. Typically lighting and occupied periods on HVAC schedules would be shortened or eliminated in the emergency schedule. Likewise, a set analog or lighting schedule would be set to values appropriate for the desired effect on building operation.

To create the emergency schedule:
2. Click Add Events. A series of pages begins. The pages permit you to create events for each schedule type.
   
   Note: If the emergency schedule has already been created, there will be an Edit button instead of an Add Events button. See the emergency schedule editing instructions.
3. Complete each page in the series and click Save at the last page.

To view or edit the emergency schedule:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage Emergency Schedules. The Emergency Schedule Summary page shows the building and schedule names that would be affected by the emergency schedules if they were activated.
2. Click Edit. A series of pages begins. The pages permit you to view, create, or modify events for each schedule event type and include or exclude individual buildings and schedules.

   Note: If the emergency schedules have not been created, there will be an Add Events button instead of an Edit button. See the emergency schedule creating instructions.
3. View or make changes to each desired page.
4. Click Save at the last page.
To activate or deactivate the emergency schedule for one or more buildings:
1. Go to Home / All Buildings. The building list page appears. Note that there is a column in the table indicating whether or not any buildings have the emergency schedule activated.
2. Select the buildings for which you want to activate the emergency schedule.
3. Click Activate to activate the emergency schedule for the selected buildings or click Deactivate to deactivate the emergency schedule for the selected buildings. The emergency schedule will stay active or inactive for the selected building until changed by a user.

**Note:** You can also activate or deactivate the emergency schedule for a single building by going to the individual building summary page. However, the Emergency Schedule Activate and Deactivate buttons will only appear if the building is selected in the Emergency Schedule.

Figure 34. Emergency schedule summary

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**Exception Template: Create, View, Edit, Delete, Apply**

An exception template is a set of predefined scheduling events that are named and saved for subsequent or repeated use in future exceptions. These can be useful if you have irregularly scheduled activities that change the occupancy of an area or space at a predictable time and duration. For instance, if a particular conference occurs several times per year at different locations but outside of the normal occupied hours you could create an exception template called "Conference" and apply it as needed each time the conference is scheduled to the area in which the conference will be held.

To create an exception template:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage All Exception Templates.
2. Click Create a New Exception Template. The Create ExceptionTemplate page appears.
3. Create each exception event by defining the event type and start and stop times where applicable, and clicking Add for each.
4. Click Finish after all events are added.
To view and edit an exception template:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage All Exception Templates.
2. Click on the name of the exception template. The Exception Template Summary page appears containing all viewable information about the exception template.
3. Click Edit to edit template.
4. Make changes to the events in the template as desired.
5. Click Save.

To delete exception templates:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage All Exception Templates.
2. Select the exception templates.
3. Click Delete. The exception templates will no longer appear in the list, but deleting the template has no effect on any exceptions previously created by applying it.

To apply an exception template:
1. Go to Home / Administration / Global Applications / Manage Schedule Settings / Manage All Exception Templates.
2. Select the exception template.
3. Click Apply. A series of pages begins.
4. Complete each page in the series and click Finish at the last page.

Figure 35. Manage all exception templates
Schedule Events Color Coding

Every schedule must have at least one event, but it can also have numerous events. To assist you in distinguishing one type of event from others each type has its own color scheme:

- Orange/Light Orange: Occupied/Unoccupied or Binary On/Off
- Light Gray with hash marks: Optimal start/stop
- Gray: Night Economize period in HVAC schedule
- Yellow/Light Yellow: Lighting Start/Stop
- Tan: Analog
- Green/Light Green: Multistate (different states)
- White: Release

Figure 36. Schedule color coding

Panel Schedules: View

Typically, the scheduling application in Tracer ES sees and manipulates scheduling information as it exists in the Tracer ES database. Once your changes are completed, Tracer ES writes the changes to the building panels in a format they can use to execute the schedule. As a result, what you see in Tracer ES can look different than what appears if you look directly in the building panel.

To help you confirm that the resulting schedules in the building panels are what you expect them to be (or to make sure that your changes were actually written to the building panels), you can use Tracer ES to look at the panel schedules as they appear in the panel database.
Global Schedule Changes

To view panel schedules:
1. Go to Home / Building Name.
2. Click Schedules.
3. Click View Panel. A list of schedules appears in a table.
4. Click the schedule you want to view. The schedule appears as a list of events.
5. Click Previous or Next to see past or future schedules.

Note: Because of limited storage capabilities of building panels, schedule exceptions may not be shown in the panel schedule. These events will be written down from Tracer ES as needed.

Note: Exceptions marked "(Non-TES)" were created in Tracer Summit.

Figure 37. View panel schedules

Global Schedule Changes

You can use the Tracer ES global change functionality to change multiple schedules simultaneously. The schedule changes can be applied to one schedule type (HVAC, lighting, or set analog) at a time. To make changes to multiple schedule types, perform a global change as described once for each type.

To make global schedule changes:
1. Go to Home / All Buildings.
2. Select the buildings containing the schedules you want to change.
3. Click Global Changes. The Global Changes page appears.
5. Complete each page in the series and click Finish at the last page.
Reports

Completed Reports: View, E-mail, or Delete

Completed reports are reports that have been generated based on a custom report definition. Custom reports capture data at a particular point in time - when the report was run either manually or systematically by Tracer ES.

To access completed reports:
1. Click Reports (from any page).
2. Click Completed Reports.

View Completed Reports

To view completed reports:
1. Click Reports (from any page).
2. Click Completed Reports.
3. Click the report name to view the report in PDF format.

E-mail Completed Reports

To e-mail custom reports:
1. Click Reports (from any page).
2. Click Completed Reports.
3. Select one or more reports and click Send E-mail.
4. Enter a Subject and Body for the e-mail.
5. Select the Tracer ES Users to receive the e-mail. Select the user name and click Add.
6. To send reports via e-mail to non-Tracer ES users, enter the e-mail addresses in the Add Additional E-mail Recipients box.
7. Click Send.

Reports: Create, Modify, and Import Custom Reports

The Tracer ES Report Designer allows you to create meaningful, customized reports with minimal effort. You select the system, building, and equipment data point(s), set time parameters, and add graphics and text to the report.

To access the Report Designer to create a new report:
1. Click Reports (from any page).
2. Click Custom Reports.

To modify an existing report:
4. Click Reports (from any page).
5. Click Custom Reports.
6. Click on the report name.
Report Set Up

Select the **Canvas Size** for your report and page layout (portrait or landscape).

Adding Content to Reports

The **Report Canvas** in the middle of your screen is where you arrange report elements. Individual elements can be resized by dragging their borders or moved by clicking and dragging.
The **tool palette** on the left-hand side of the screen allows you to add elements to your report by dragging them onto your canvas. Elements and their associated properties are described below. Click each element to view further details.

- **Bar Graph**

<table>
<thead>
<tr>
<th>Bar Graph Properties</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data</strong></td>
<td>Chart Title</td>
<td>Enter a title for the chart.</td>
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<td></td>
<td>Data Source/Y Axis</td>
<td>Select data source(s) for the graph's Y axis. Click <strong>Apply</strong>.</td>
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<td></td>
<td>X Axis Scale</td>
<td>Select the time scale (hours, days, weeks, months, or years)</td>
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<tr>
<td></td>
<td>Report Period</td>
<td>Select a predefined time period or click <strong>Custom Date Range</strong> to define a time period.</td>
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<tr>
<td><strong>Format</strong></td>
<td>Chart Title</td>
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<td>X and Y Axis Labels</td>
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<td>Series Colors</td>
<td>Pick a color for each series.</td>
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- **Line Graph**

<table>
<thead>
<tr>
<th>Line Graph Properties</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Data</strong></td>
<td>Chart Title</td>
<td>Enter a title for the chart.</td>
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<td></td>
<td>Data Source/Y Axis</td>
<td>Select data source(s) for the graph's Y axis. Click <strong>Apply</strong>.</td>
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<tr>
<td></td>
<td>X Axis Scale</td>
<td>Select the time scale (hours, days, weeks, months, or years)</td>
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<tr>
<td></td>
<td>Report Period</td>
<td>Select a predefined time period or click <strong>Custom Date Range</strong> to define a time period.</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td>Chart Title</td>
<td>Select the text <strong>Format</strong>:</td>
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Reports: Create, Modify, and Import Custom Reports

- **Data Value**

Data Value Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data</td>
<td>Data Source</td>
<td>Click Select Data to choose data source(s). Click Apply. Or click Edit if data source(s) were previously selected. Note that if you select multiple data sources, a value element is created for each source.</td>
</tr>
<tr>
<td>Label</td>
<td>Automatic</td>
<td>inserts a user-friendly name for the data point. Or enter a label in the Custom field.</td>
</tr>
<tr>
<td>Report Period</td>
<td></td>
<td>Select a predefined time period or click Custom Date Range to define a time period.</td>
</tr>
</tbody>
</table>

Format

- **Label Format**
- **Data Format**

- **Table Value**

Table Value Properties

<table>
<thead>
<tr>
<th>Type</th>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
To add new elements to your report:
1. Drag the element from the tool palette to the report canvas.
2. On the right side of the screen, enter the Data Value Properties.
3. Drag the element to the desired place on your report canvas. To resize the element, grab the lower-right corner and resize.
Importing Report Definitions

To import custom report definitions:
1. Click Reports (from any page).
2. Click Custom Reports.
3. Click Import Custom Report.
4. Browse for the local file and click Import.

Reports: Scheduling, Exporting, and E-mail Notifications

Once you have created a custom report, you can schedule that report to run at regular intervals, export the report, and set up e-mail notifications so that interested parties receive reports when they are generated.

Scheduling Reports

To schedule a report or edit a report’s schedule:
1. Click Reports (from any page).
2. Click Custom Reports.
3. Next to the report name, click the schedule icon.
4. Select or change the report schedule’s dates, time, and recurrence.
5. Click Save.

If you want to run a report immediately (not wait until its next scheduled recurrence):
1. Click Reports (from any page).
2. Click Custom Reports.
3. Next to the report name, click the Run icon. Your completed report will be available on the Completed Reports page.

Exporting Reports

To export reports to Adobe PDF or CSV format and save them to your local drive:
1. Click Reports (from any page).
2. Click Custom Reports.
3. Next to the report name, click the Export icon. Select the appropriate file format and save the file to your local drive.

Enabling E-mail Notifications

Tracer ES can e-mail completed reports to any recipient that you specify (not only Tracer ES Administrators). To set up e-mail notifications for a report:
1. Click Reports (from any page).
2. Click Custom Reports.
3. Next to the report name, click the Set Up E-mail icon.
4. Enter a Subject and Body for the e-mail.
5. Select the Tracer ES Users to receive the e-mail. Select the user name and click Add.
6. To send reports via e-mail to non-Tracer ES users, enter the e-mail addresses in the Add Additional E-mail Recipients box.
Users

Password: Changing Your Own

You can change your own login password as desired. Passwords are case sensitive and must be 6–32 alphanumeric characters (0–9, A–Z, a–z) with no spaces or special characters. The user ID and password cannot be the same, and the new password must be different than the old password.

*Note:* If you forget your password, a system administrator cannot retrieve it for you; however, an administrator can create a new password for you.

To change your password:
1. Log in to Tracer ES system.
2. Click *Change Password* (link at the top of the page).
3. Complete the Change Password screen.
4. Click *Change Password* (button at the bottom of the page). Upon successfully changing your password, you will automatically be logged out of the system. You must use your new password to log in again.

Figure 38. Change password

User Preferences: View, Edit

Each user can edit the following user preferences as desired:

- **General Preferences** – includes your home page, default data display, default override priority, override level (advanced, advanced with point service, or simplified), and display filters.
- **Data Display Units** – the units of measurement for each unit type
- **Regional Settings** – including language and date/time formats.

*Note:* Each user profile has its own preferences. Making changes to the preferences for one profile does not affect the preferences for another profile.

*Note:* User role settings can prevent users from being able to change their own preferences. If the Edit button does not appear on your preferences page, you have been assigned to a role that does not permit you to change your preferences. Contact an administrator for assistance.
To edit your user preferences:
1. Log in to the Tracer ES system as the user whose preferences you want to edit.
2. Click Preferences.
3. Click Edit.
4. Make changes to the values as desired.
5. Click Save.

Figure 39. Edit preferences

User Profiles: Create, View, Edit, Delete, Activate, Deactivate

For security reasons, each Tracer ES user should have his or her own user profile. The profile contains a User ID, private password, access role, building and graphics permissions, and contact or other information.

**NOTE:** The ability to create or edit user profiles and roles should be reserved for only the highest-level administrators. Someone with full access to user profile and role editing will effectively have administrative access to your entire building network.

To create a new user profile:
1. Go to Home / Administration / Manage User Profiles and Roles / Manage User Profiles.
2. Click Add a New User. A series of steps begins.
3. Complete the information on each page until you reach the final page, then click Finish.

To view a user profile:
1. Go to Home / Administration / Manage User Profiles and Roles / Manage User Profiles.
2. Click the user's name in the User Name column. The user's profile information appears on the User Profile Details page.

To edit a user profile
1. View the user profile. See above.
2. Click Edit. The Edit User Profile page appears.
3. Make changes as desired.
4. Click Next.
5. Verify the new information and click Finish.

If you delete a profile, it is permanently removed from the system and cannot be recovered. You can deactivate unneeded profiles then reactivate them later.
To delete, activate, or deactivate a user profile:
1. Go to Home / Administration / Manage User Profiles and Roles / Manage User Profiles.
2. Select the profile.
3. Click Delete to permanently remove the profile from the system.
4. Click Activate or Deactivate to change the activation status of the profile.

Figure 40. Manage user profiles

User Roles: Assign

Each user profile must be assigned to a role, which defines what type of equipment or activities the user is permitted to do:

- **Equipment Permissions** - Users assigned to a user role can have varying levels of access with each broad category (such as Chillers) or even sub-category (Absorption Chillers) of equipment that Tracer ES can interact with can Permission levels are None, View, Override, and Full.

- **Application and Administrative Permissions** - Users assigned to a user role can have permission to perform tasks as they’re organized by the Tracer ES application categories (editing schedules or inserting comments in alarms).

You must assign a profile to a role when you create the profile, but you can also change the role assignment by editing the profile.
User Roles: Create, View, Edit, Delete

To assign a role to an existing profile:
- Edit the profile and select the new role you want to assign it to.

**Figure 41. Edit user profile - assign user role**

User Roles: Create, View, Edit, Delete

To see a list of all user roles:
- Go to Home / Administration / Manage User Profiles and Roles / Manage User Roles. The Manage User Roles page appears.

To view or edit a role:
1. Go to Home / Administration / Manage User Profiles and Roles / Manage User Roles.
2. Click the name of the role. The User Role Summary page appears. All of the settings for the role are shown on the page.
3. Click Edit. A series of pages begins.
4. Complete each page in the series and click Finish at the last page.

To create a new role:
1. Go to Home / Administration / Manage User Profiles and Roles / Manage User Roles.
2. Click Add a New Role. A series of pages begins.
3. Complete each page in the series and click Finish at the last page.
To delete a role:
1. Verify that there are no User IDs assigned to the role you want to delete. The system will not permit you to delete a role with assigned user IDs.
2. Go to Home / Administration / Manage User Profiles and Roles / Manage User Roles.
3. Select the role.
4. Click Delete.

Figure 42. Manager user roles

Password and User ID Security Policy: View, Edit

When a User ID or password are first created, they must meet the security policies as defined by the system administrator. There are a number of different parameters that you can change to make passwords more or less secure based upon how easy they are to guess:

- **Length** - longer user IDs and passwords are more secure than those that are shorter. You can specify a minimum user ID or password length. You can also specify a maximum length, if desired.
- **Mixed Case** - user IDs and password that contain mixed cases of letters, such as "MyPassword" are more secure than those containing only a single case, such as "mypassword." You can specify whether user IDs or passwords must contain mixed cases.
- **Numbers and Symbols** - user IDs and passwords that contain numbers and symbols (for example !@#$%^&*) are more secure than those that contain only letters. You can specify whether user IDs or passwords must contain numbers or symbols in addition to letters.
- **Password Containing User ID** - passwords that contain the user ID are less secure than those that do not contain the user ID. You can specify whether passwords that contain the user ID are acceptable.
- **Repeated Characters** - passwords that contain repeated characters or series of characters (for example "aa," or "22") are less secure than those without repeated characters. You can specify whether passwords with repeated characters are acceptable.
- **Expiration** - if passwords are set to expire frequently, the policy is more secure. Setting a less frequent expiration or setting the expiration to zero (which means passwords never expire) is less secure.
To view or edit the current user ID and password security policy:

1. Go to Home / Administration / System Maintenance / System Parameters. The current policy is shown under User Security Parameters.
2. To make changes, click Edit. The Edit System Parameters page appears.
3. Make changes as desired.
4. Click Save.

*Note: If password policies are changed, users with passwords that become non-compliant will be prompted to enter a new password the next time they log in to the system.*

**Figure 43. Edit system parameters - user security**

User Change Log: View or Delete Entries

Whenever a user makes a change to the Tracer ES system, a record is written to the user change log. You may find it useful to look and see what changes users have made.
To view the user change log:

- Go to Home / Administration / System Logs / User Change Log. The User Change Log page appears.
- To see details for a particular change in the log, click on the text link in the request column.
- To delete an entry, select its row and click Delete.

Figure 44. User change log

Overides

Simplified Overrides: Create

Simplified overrides are meant to provide an easier, graphical means of performing an override. Advanced users with permission for Advanced overrides can specify in their own preferences whether to view simplified or advanced overrides. Other user profiles can be assigned to roles that only have access to simplified overrides.

If a user has access to only simplified overrides, the simplified override popup window appears when they click an override button. The override options are presented graphically, typically with a toggle switch and buttons for the most basic override points.

The Auto/Manual knob indicates if the system is in control (Auto highlighted) or if the operator has overridden the point (Manual highlighted).

For Trane objects, Auto or Manual mode will display under the following conditions:

- **Auto mode** if the highest priority value is not controlled by the operator
- **Manual mode** if the highest priority value is controlled by the operator

You can override the value by toggling from auto to manual and selecting/entering a new value or return control back to the system by leaving the toggle on auto.
For a non–Trane BACnet device Manual mode will always display, indicating that the point is overridden (Change to state).

**Note:** The Auto/Manual control is disabled if the operator’s default priority level is lower than the highest priority level shown in the Priority Array.

Users with advanced override capability according to their user role permissions can also click the Advanced button, which opens the advanced override page.

**Advance Overrides: View, Create, Release**

There are four basic types of advanced override that can be performed if your user profile is assigned to a user role capable of performing advanced overrides:

- **Present Value Override** - circumvents the present value specified by the control strategy for a unit controller or application. The override value stays in effect until the value is released (by a user) and unless a competing request with a higher priority is received for the value.

- **Additional Override** - lets you specify a value for a piece of equipment that has additional points that can be individually overridden, such as valves. The only points available for this type of override are those that appear on the Overrides tab of the Properties window in Tracer Summit (namely, VAV Type II/II/IV, Space Comfort Controller (v14 & earlier)/(v15 & later), Voyager Rooftop Unit, Commercial Self-Contained Unit, Intellipack Rooftop Unit, Terminal Unit Controller). Additional overrides remain in effect until they are changed by another user.

- **Timed Override** - if a BCU has been configured for an area Timed Override, Tracer ES can be used to make the timed override active or inactive. Details about the timed override can only be edited using Tracer Summit. Once activated, a timed override remains in effect until its configured time expires or a user deactivates it, whichever happens first.

  **Note:** Additional overrides and timed overrides are considered “Advanced Overrides” in terms of user role permissions. If your user profile is assigned to a role without access for Advanced Overrides, the Additional Overrides section and the Timed Override button will not appear on the Tracer ES pages.

- **Point Out of Service Override** - Inputs and outputs can be put out of service with a specified value, and put back into service if they are currently out of service. In order to perform a point service type of override, your user profile must be assigned to a role with Point Service permission enabled.

  **Note:** For detailed information about advanced override fields, see the sections that follow.

To create a present value override:
1. Use the building navigation sidebar to go to the status page for the unit controller or application you want to override.
2. Click **Override**.
3. Select **Override Present Value**.
4. Select the priority level at which you want the override applied next to **Apply at Priority Level**. You cannot select a higher priority than your user role permits. Look at the priority array to see the competing controls for the present value. Your override will have no effect as long as there is a competing request of higher priority.
5. Select the present value you want to apply next to **Change Value To**. Only valid values will appear in the list.
6. Click **Apply**.

To create an additional override:
1. Use the building navigation sidebar to go to the status page for the unit controller or application you want to override.
2. Click **Override**.
3. Locate the point you want to override, below the present value override.
4. Select a new value in the Value column.
5. Click **Apply**.
To put an input or output point into or out of service:
1. Use the building navigation sidebar to go to the status page for the input or output.
2. Locate and select the point.
3. Click Override.
4. Select In service to put the point into service or select Out of Service to put the point out of service. If you are putting an input point out of service, specify a value for the point to use while it is out of service.
5. Click Apply.

To release a standard override:
1. Use the building navigation sidebar to go to the status page for the unit controller, application, or points that you want to override.
2. Click Override.
3. Click Release Control.
4. Click Apply.

Figure 45. Override

To activate or deactivate a timed override for an area:
1. Use the building navigation sidebar to go to the area status page of the area you want to override.
2. Click Timed Override. The Timed Override popup window appears.
3. Select Active to activate the timed override or Inactive to deactivate the timed override.
4. Click Apply.

VAV II/II/IV: Advanced Overrides

Note: Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for a VAV II/III or IV type UCM, in addition to Present Value, the following fields can be overridden:
VAV II/II/IV: Advanced Overrides

Calibrate Valve
Sends an air valve calibration request to the VAV. This request can be done manually or by reference.

If calibration is manually initiated, the VAV does not recognize the calibration request until this field transitions from Normal to Recalibrate, then stays for at least one minute in Recalibrate before going back to Normal again. If the switch is delayed in being set back to Normal, or if it is left in the recalibrate state indefinitely, the VAV does not calibrate. Additionally, the flow overrides do not function properly.

When a VAV undergoes calibration, it initializes the zero value for the pressure transducer (flow ring) measurements, re-establishes the air valve position, and re-establishes the water valve position if applicable. To re-establish valve position, the VAV over-drives the valve closed for 30 seconds beyond the configured stroke time (water valve for stroke time plus 15 seconds).

A VAV automatically recalibrates after power up or after 15 minutes of communication loss.

Because the unit valve closes during a calibration, calibrating all of the units at the same time could result in high duct pressure. To prevent this problem, the VAVs calibrate at different times from a common calibration start time. In any given group of VAVs, only 25% percent of them are allowed to calibrate at the same time.

Example: Once the calibration flag is set (at time = 0 minutes), the first 25% of a group of VAVs begins the calibration process. Seven minutes later (at time = 7 minutes) the second 25% of the group begins calibration. Seven minutes later (at time = 14 minutes) the third 25% of the group begins calibration. Finally, seven minutes later (at time = 21 minutes) the fourth 25% of the group begins calibration. Depending upon the air valve drive time, the entire calibration process for the group of VAVs could take up to 33 minutes to complete.

The membership of a VAV II/III UCM to a calibration group is predetermined. The ICS address of the UCM determines which group the UCM falls into. The list below shows the entire range of VAV UCM ICS addresses divided into four calibration groups.

- 2nd Group: 65, 69, 73, 77, 81, 85, 89, 93, 97, 101, 105, 109, 113, 117, 121, 125.
- 3rd Group: 66, 70, 74, 78, 82, 86, 90, 94, 98, 102, 106, 110, 114, 118, 122, 126.

VAV UCMs can have drive times up to 666 seconds (11.1 minutes). Since UCM resets are staggered by 7 minutes, up to half of the units could potentially be closed at one time during the calibration process.

After a power failure, the calibration start time is delayed until twenty minutes after power is restored. If a recalibrate command has been downloaded from Tracer Summit, the calibration begins immediately according to the address schedule as described above.

Drive Open
Sends a flow override to the UCM that causes the UCM to drive its damper fully open, turn off all unit heat, and disable its parallel fan.

Flow override selections that are not possible due to the priority scheme are unavailable. Also, if multiple flow overrides exist simultaneously, the following priority scheme applies: DRIVE OPEN, DRIVE CLOSED, DRIVE MINIMUM, DRIVE MAXIMUM, AUTO. Both VAS and the VAV editor can provide flow overrides. The VAV editor flow overrides are higher priority.

Drive Closed
Sends a flow override to the UCM. This causes the UCM to drive its damper fully closed, turn the unit fan off, and turn the unit heat off.
Flow override selections that are not possible due to the priority scheme are unavailable. Also, if multiple flow overrides exist simultaneously, the following priority scheme applies: Drive Open, Drive Closed, Drive Minimum, Drive Maximum, Auto. Both VAS and the VAV editor can provide flow overrides. The VAV editor flow overrides are higher priority.

**Example:** If an operator has selected Drive Closed override, the Drive Min and Drive Max override fields are not available because they cannot affect the UCM. The Drive Open override field is still available for use because it can still affect the UCM.

### Drive Min

Sends a flow override to the UCM that causes the UCM to drive its damper to its Active Min Flow Setpoint. The Active Min Flow Setpoint is one of the following:

- Min Cooling flow setpoint
- Min Heating flow setpoint
- Min Local Heating flow setpoint
- Series F PD (pressure dependent) Mode Min Damper Pos flow setpoint (which does not appear in the VAV editor and applies to only VariTrane F boxes.)

**Note:** The Active Min Flow Setpoint may not match what appears in the VAV editor if the Setpoint Multiplier is enabled and the Multiplier Value is not equal to one.

Flow override selections that are not possible due to the priority scheme are unavailable (grayed). Also, if multiple flow overrides exist simultaneously, the following priority scheme applies: DRIVE OPEN, DRIVE CLOSED, DRIVE MINIMUM, DRIVE MAXIMUM, AUTO. Both VAS and the VAV editor can provide flow overrides. The VAV editor flow overrides are higher priority.

**Example:** If an operator has selected Drive Min override, the Drive Max override field is not available because it is the only override that cannot affect the UCM.

### Drive Max

Sends a flow override to the UCM. This causes the UCM to drive its damper to the Max flow setpoint. Electric Heat and Parallel fans are disabled during a max flow override.

Flow override selections that are not possible due to the priority scheme are unavailable (grayed). Also, if multiple flow overrides exist simultaneously, the following priority scheme applies: Drive Open, Drive Closed, Drive Minimum, Drive Maximum, Auto. Both VAS and the VAV editor can provide flow overrides. The VAV editor flow overrides are higher priority.

Automatically, the VAS includes a capability to override its VAV members to maximum if the VAS is in the heat mode and the following check box is selected: Drive VAVs to Max Flow if VAS is Heating.

**Example:** If an operator has selected Drive Max override, the Drive Min, Drive Closed, and Drive Open override fields are still available for use because they can still affect the UCM.

### Parallel Fan Control

This field is available for units equipped with a parallel fan.

Use this field to disable the operation of the parallel fan. When a unit’s parallel fan is locked out, the UCM does not use its fan or its local electric heat (Staged Electric, Electric Fast Pulse, Electric Slow Pulse).

### Terminal Heat

Shows the state of the terminal heat override. When it is set to Reheat Lockout (either manually or by referencer), the UCM is not allowed to use its terminal heat.

### Drive Open Hot Water Outputs/Valve

**Note:** This field is only available when the unit has Staged Hot Water or Proportional Hot Water heat types.
Forces the UCM to turn on all of its hot water outputs or drive open its proportional hot water valve. This may be useful for water system balancing. The UCM maintains the full open condition over power failures. Unit heat must be enabled in order for this condition to be effective. To cancel the full open condition, click to clear the Drive Open Hot Water Outputs/Valve check box.

Only units with the following heat types are affected:

- **Staged Hot Water**: All three of the heat outputs are energized. If the unit has a fan, Output 3 is not affected.
- **Proportional Hot Water**: The hot water valve connected to Outputs 1 and 2 is driven open.

### Control Offset

When Setpoint Not Offset is selected, the control offset is not used and the heating and cooling setpoints are not affected. Selecting Setpoint Offset means that control offset is used and the heating and cooling setpoints are offset (added to the cooling setpoint and subtracted from the heating setpoint) by the Control Offset Value.

A referenced binary property in the zero state is interpreted as Setpoint Not Offset, and a referenced binary property in the one state is interpreted as Setpoint Offset.

In UCM software versions 1.0–3.0, the thumbwheel setpoint is not effected if selected as the setpoint source. In version 3.1 and later versions, the setpoint offset is applied to the thumbwheel setpoints.

Regardless of the Control Offset field setting, if the present value of the VAV is demand limit, the VAV applies the control offset value to its heating and cooling setpoint.

### Control Offset Value

If the VAV has been directed to apply a control offset to its heating and cooling setpoints, the value appearing in the Control Offset Value is the offset applied.

The Control Offset Value is added to the occupied cooling setpoint and subtracted from the occupied heating setpoint to determine the occupied mode active setpoints.

### Minimum Flow Setpoint Multiplier

Select the control source to enable or disable the Minimum Flow Setpoint Multiplier feature that adjusts the UCM minimum flow setpoint.

If Auto is selected, either manually or by referencer, a multiplier value of 1.0 is sent to the UCM.

If a referenced value is selected, the property must be Enabled to send the edited or referenced multiplier value.

**Field set to Auto**

- In the occupied mode, the UCM’s control algorithm internally sets the multiplier value to 1.0, which in effect does not change the minimum cooling flow setpoint.
- In the unoccupied mode, the UCM releases the minimum flow setpoint to zero.

**Field set to Enabled**

- During the occupied mode, the UCM uses the value in the Multiplier Value field to adjust active minimum flow setpoint.
- During the unoccupied mode, the UCM uses the value in the Multiplier Value field to adjust the active minimum flow setpoint if the multiplier value is greater than 1.0. If the multiplier value is less than or equal to 1.0, the UCM releases the minimum flow setpoint to zero.

**Example**: The Min Cooling flow setpoint = 1000 CFM (472 L/s). The Multiplier Value = 0.5. With the Minimum Flow Setpoint Multiplier field Enabled, the active minimum cooling flow setpoint would be 0.5 x 1000 CFM (472 L/s) = 500 CFM (236 L/s), assuming for this example that the active minimum flow setpoint is the Min Cooling flow setpoint.

### Multiplier Value

The edited cooling minimum flow/position can be adjusted by applying this multiplier.
In the heating mode, the heating minimum overrides the "adjusted" cooling minimum if it is higher. If the adjusted cooling minimum is higher than the heating minimum and the UCM is in heating mode, the adjusted cooling minimum applies.

If the multiplier = 1.0, the heating minimum always applies while in the heating mode. If the multiplier = 0, the cooling minimum = 0.

**Example:** The Min Cooling flow setpoint = 1000 CFM (472 L/s). The Multiplier Value = 0.5. With the Minimum Flow Setpoint Multiplier field Enabled, the active minimum cooling flow setpoint would be 0.5 x 1000 CFM (472 L/s) = 500 CFM (236 L/s), assuming for this example that the active minimum flow setpoint is the Min Cooling flow setpoint.

**Space Comfort Controller (v14 & earlier): Advanced Overrides**

*Note:* Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for a Space Comfort Controller, in addition to Present Value, the following fields can be overridden:

**Water Valve**

This group is hidden when connected to the LCI-R controller and LCI-I controller.

**Drive Open**

Select Auto or Open or set a referencer to determine the setting. When set to Open, the unit drives all of its hydronic valves to 100 percent open. For example, you might set the valves to open when balancing the system.

*Note:* The Drive Open override takes precedence over Drive Closed. When the Drive Open field is set to Open, the Drive Closed field becomes unavailable.

**Drive Closed**

Select Auto or Closed or set a referencer to determine the setting. When set to Closed, the unit drives all of its hydronic valves to 100 percent closed.

**Air Valve**

This group appears when the unit is read to be a VAV UCM. It also appears when you opt to configure the controller as a VAV.

**Drive Open**

Select Auto or Open or set a referencer to determine the setting. When set to Open, the VAV air valve is 100 percent open. For example, during a smoke purge, the VAV box needs to be 100 percent open.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type to VAV while the unit is offline.

**Drive Closed**

Select Auto or Closed or set a referencer to determine the setting. When set to Closed, the VAV air valve is 100 percent closed.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type to VAV while the unit is offline.
**Drive Min**
Select Auto or Minimum or set a referencer to determine the setting. When set to Minimum, the VAV air valve opens to its configured minimum setpoint. For example, during certain outside air conditions, you may want the VAV boxes to stay at their minimum position.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type on the controller to a VAV while the unit is offline.

**Drive Max**
Select Auto or Maximum or set a referencer to determine the setting. When set to Maximum, the VAV air valve opens to its configured maximum setpoint.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type on the Status tab to a VAV while the unit is offline.

**Space Comfort Controller (v15 & later): Advanced Overrides**

*Note:* Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.
When you go to the advanced overrides page for a Space Comfort Controller, in addition to Present Value, the following fields can be overridden:

**Water Valve**
This group is hidden when connected to the LCI-R controller and LCI-I controller.

**Drive Open**
Drives all of the hydronic valves to 100% open. This option is unavailable if the UCM or BCU is offline.

**Drive Closed**
Drives all of the hydronic valves to 100% closed. This option is unavailable if the UCM or BCU is offline.

**Release Override**
Returns the device back to normal hydronic valve operation.

**Air Valve**
This group appears when the unit is read to be a VAV UCM. It also appears when you opt to configure the controller as a VAV.

**Drive Open**
Select Auto or Open or set a referencer to determine the setting. When set to Open, the VAV air valve is 100 percent open. For example, during a smoke purge, the VAV box needs to be 100 percent open.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type to VAV while the unit is offline.

**Drive Closed**
Select Auto or Closed or set a referencer to determine the setting. When set to Closed, the VAV air valve is 100 percent closed.

*Note:* This field is available only if the unit is configured to be a VAV and is online or when you change the unit type to VAV while the unit is offline.

**Drive to Min Cooling Flow Setpoint**
The unit drives all valves to the minimum setpoint. This option is unavailable if the UCM or BCU is offline.
Drive Max Cooling Flow Setpoint
The unit drives all valves to the maximum setpoint. This option is unavailable if the UCM or BCU is offline.

Auto Commissioning Sequence Group
This group only displays when the UCM is read to be a Trane VAV, or you opt to configure the controller as a VAV.

Start (Auto Commissioning) Sequence
Use this option to command a Trane VAV box to start its autocommissioning sequence. Full use of this function requires the presence of an auxiliary temperature sensor in the discharge air stream (without it the fan and reheat operation cannot be tested). The Trane VAV box reports a status of "Test" in the Active Mode field on the Status tab while the sequence is executing.

The Autocommissioning Sequence may take up to 20 minutes depending on the local reheat capability and assuming a 90 second air damper stroke time on the VAV box.

Cancel (Auto Commissioning) Sequence
Use this option to command a Trane VAV box to stop its autocommissioning sequence. The Trane VAV box reports a status of “Test” in the Active Mode field on the Status tab while the sequence is executing.

Note: If the autocommissioning sequence is canceled while the VAV box is calibrating the VAV box first finishes its calibration before returning to normal operation.

Voyager Rooftop Unit: Advanced Overrides

Note: Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for a Voyager Rooftop Unit in addition to Present Value, the following fields can be overridden:

Compressor Control
In this field you can lock out all compressors on the Voyager. By locking out the compressors, a non-heat pump Voyager will not be able to provide any mechanical cooling. If the compressors are locked out on a heat pump unit, the Voyager will not be able to provide cooling or heating from the compressors. Even though the Voyager compressor does not require an external ambient lockout, you could use this field to lockout the compressors when the outdoor air temperature falls below a certain value.

- **Disable** - Stop mechanical cooling on the Voyager from operating.
- **Auto** (default) - Enable mechanical cooling to be operational when requested by the Voyagers cooling control algorithms.
- **Referencer** - Reference either a binary system value or a CPL Saved value to decide whether or not to lock out the compressors. A referenced property in the 0 state will be interpreted as Disable. When the property is 1, the state will be Auto.

Note: This field has no effect on the economizer control; only compressor cooling is affected.
Voyager Rooftop Unit: Advanced Overrides

Cooling Stages Enabled

This field allows you to limit the number of stages of mechanical cooling that will be allowed to operate in the Voyager. This field may be used in a demand-limiting control strategy that limits the stages of compressors operating during periods of high electrical demand.

- **Constant** - Enter a value to select the number of cooling stages enabled. To allow all stages of cooling to operate normally in the Voyager, enter 3. Enter 0 to inhibit all stages of mechanical cooling.
- **Referencer** - You can reference an analog system value that determines the number of cooling stages to be enabled (0 - 3).

*Note:* This field does not affect compressor operation during the heat mode for heat pump units.

Pressurization Mode

This applies only to 27 ½ to 50 ton Voyagers. If communications to the Voyager are down, this field is still available for editing.

The field allows you to activate the Pressurization Mode on the Voyager unit. The Pressurization Mode introduces as much outdoor air as possible to the conditioned space without providing a means for exhausting air, which can result in a positive static pressure condition in the space.

During the Pressurization Mode, the supply fan is turned on, inlet guide vanes (or VFD) are driven open, the exhaust fan is turned off, the outside air damper is driven open, and all heating and cooling is disabled.

If multiple ventilation override modes are activated simultaneously, the pressurization mode has the highest priority and the purge mode has the lowest priority.

The ventilation override modes can be used in situations requiring the Voyager rooftop units to assist in coordinated air movement control across several zones or floors.

- **Auto** (default) - Allow the unit to operate normally.
- **On** - Activate the Pressurization Mode on the unit.
- **Referencer** - Reference a binary system value that decides when to activate the pressurization mode. The referenced property in the 0 state puts the Pressurization mode to Auto, and a 1 value is interpreted as On.

Exhaust Mode

This applies only to 27 ½ to 50 ton Voyagers. If communications to the Voyager are down, you can still edit in this field.

This field allows you to activate the exhaust mode on the Voyager unit. The Exhaust Mode is used to discharge existing air from the conditioned space without providing a means for replacement air, which can result in a negative static pressure condition in the space.

During the Exhaust Mode, the supply fan is turned off, the inlet guide vanes (or VFD) are closed, the exhaust fan is turned on (if the unit is equipped with an exhaust fan), the outside air damper is closed, and all heating and cooling is disabled.

If multiple ventilation override modes are activated simultaneously, the pressurization mode has the highest priority and the purge mode has the lowest priority.

Ventilation override modes can be used in situations requiring the rooftop units to assist in coordinated air movement control across several zones or floors.

- **Auto** (default) - Allow the Voyager to operate normally.
- **On** - Activate the Exhaust Mode on the Voyager unit.
- **Referencer** - Reference a binary system value that decides when to activate the exhaust mode. If the referenced value is 1, Auto is used. If the value is 0, the Exhaust Mode is On.
**Purge Mode**

This field allows you to activate the Purge Mode on the Voyager unit. The Purge Mode is most often used to “change” the air in the conditioned space in an effort to improve the indoor air quality. During the purge mode the supply fan is turned on, the inlet guide vanes (or VFD) if installed, control to the static pressure setpoint, the exhaust fan is controlled normally, the outside air damper is driven open, and all cooling is disabled. The unit’s heating capacity remains enabled during the Purge Mode. If multiple ventilation override modes are activated simultaneously, the pressurization mode has the highest priority and the Purge Mode has the lowest priority.

Ventilation override modes can be used in situations requiring the rooftop units to assist in coordinated air movement control across several zones or floors.

- **Auto** (default) - Operate the unit normally.
- **On** - Activate Purge Mode on the unit.
- **Referencer** - Reference a binary system value that decides when to activate the Purge Mode. When the referenced property is 0 it is interpreted as Auto. For a referenced property in the 1 state, the Purge Mode will be On.

**Outside Air Dampers**

Use this field to override control of the economizer damper and drive the damper to the fully closed position. This field might be used to drive the economizer closed during times of extremely poor outdoor air quality to prevent the conditioned space from receiving the bad air.

- **Auto** (default) - Control the damper normally.
- **Drive Closed** - Drive the outside air damper to the fully closed position and keep it in that position until this field is set to Auto.
- **Referencer** - Reference a binary system value that will decide when to drive the economizer damper fully closed. A referenced property in the 1 state will be interpreted as Close and a property in the 0 state will put the Outside Air Dampers to Auto.

**Heating Control**

This field allows you to disable all heating capacity on the Voyager.

- **Auto** (default) - Permit the unit to heat when requested by its heating control algorithms.
- **Disable** - Do not permit the unit to heat.
- **Referencer** - Reference a binary system value that decides whether or not to lock out the heating. A property in the 0 state will be interpreted as Disable, and a 1 state will be interpreted as Auto.

**Enable Emergency Heat Mode**

In the emergency heat mode, the unit locks out compressors and only uses auxiliary electric heat to maintain the conditioned space at the zone heating setpoint.

This field will only be available if the unit is a heat pump option, and the Heat/Cool Control Source is set to Tracer.

**Disable Auxiliary Heat**

*Note: This field is available only when the unit is a heat pump.*

Prevent the electric heat strips from operating.

**Service Test Group**

If the Voyager rooftop is not communicating with the BCU when the Overrides screen is opened, the Service Test field group will be unavailable.
Test Mode
You can place the Voyager into the service test mode by choosing a test mode in this box. Use the service test mode during job startup and commissioning, and as a tool for diagnosing unit problems. When you select a service test mode, all standard unit operations cease and the Voyager is placed into the selected test mode.

Because the service test mode is not intended for use over extended periods of time, there is a timer that will disable the service test mode after 15 minutes. Each time you change the test mode, the 15-minute timer resets.

The Test Modes that are available will be specific to the type of Voyager unit that is connected: heat pump, 3 - 25 ton constant volume, 27.5 – 50 constant volume, or VAV units.

Status
This field displays the test mode status. Status information is automatically refreshed every 10 seconds. When the Voyager is not in a service test mode, this message displays: “No test in progress.”

Start
Initiate a service test.

Stop
Cancel a service test.

Commercial Self-Contained Unit: Advanced Overrides

Note: Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for a Commercial Self-Contained Unit in addition to Present Value, the following fields can be overridden:

Mechanical Cooling Control
Use this referencer edit control to lock out all mechanical cooling at the unit. When this control is set to Disable, the operations of the unit's compressors are stopped. When the control is set to Auto, the unit operates normally.

Heating Control
Use this referencer edit control to override the current operating mode of the UCM. When this control is set to Disable, the unit is prevented from actively heating. When the control is set to Auto, the unit operates normally.

Ventilation Control
Use this referencer edit control to override the ventilation output of the UCM. When this control is set to Disable, the CSC unit is forced to turn off its ventilation output. When the control is set to Auto, the CSC is allowed to decide when to turn its ventilation output on.

Maximum Ventilation Control
Use this referencer edit control to override the maximum ventilation mode of the CSC unit. When this control is set to Auto, the CSC operates normally. When the control is set to Forced, the CSC is put in Forced Max Vent mode. In this mode, all mechanical heating and cooling is off, and the supply fan is on. Static pressure control is also active in the Forced Max Vent mode.
Intellipack Rooftop Unit: Advanced Overrides

**Note:** Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for an Intellipack Rooftop Unit in addition to Present Value, the following fields can be overridden:

### Heating Control

Use this referencer edit control to disable all the heating on the Intellipak. When this control is set to Disable, the unit is prevented from actively heating. When the control is set to Auto, the unit operates normally.

A system binary property can be referenced to control this field to Disable or Auto. If the referencer is in the Off state, Disable will appear in the field. If the referencer is in the On state, Auto will appear in the field.

### Cooling Control

Use this referencer edit control to disable all cooling (DX and ChilledWater) on the Intellipak. When this control is set to Disable, cooling on the Intellipak will not be allowed to operate. When this control is set to Auto mechanical cooling at the Intellipak will be functional and will cool when requested by the Intellipak's cooling control algorithms.

A system binary property can be referenced to control this field to Disable or Auto. If the referencer is in the Off state, Disable will appear in the field. If the referencer is in the On state, Auto will appear in the field.

### Ventilation Overrides

Use these referencer edit controls to initiate a Tracer Summit Ventilation Override. These are five modes of ventilation override (A, B, C, D and E) that Tracer Summit can initiate. A referencer edit control exists for each one of these modes. The specifics of how the Intellipak will function for each override is handled at the Intellipak's human interface panel. If Auto is selected, Tracer Summit is not requesting a VOM (The VOM modes can still be activated locally at the Intellipak UCM). If On is selected, Tracer Summit is requesting a VOM to be activated.

A system binary property can be referenced to control this field to On or Off. The On state generates the On value. The Off state generates the Auto value.

### Terminal Unit Controller: Advanced Overrides

**Note:** Some of the descriptive information in this topic refers to elements that only appear on the Tracer SUMMIT user interface.

When you go to the advanced overrides page for a Terminal Unit Controller in addition to Present Value, the following fields can be overridden:
Terminal Unit Controller: Advanced Overrides

Valve 1 - Closed

When the TUC is programmed to use Tracer as the Unit Control Source, the Valve 1 – Closed field may be used to override control of Valve 1 to close it. This field is available only for TUC configurations that have Valve 1 configured (For example, 2 Pipe Heat or Cool Valve, 2 Pipe Cool Valve, 2 Pipe Heat Valve, SCUV, DX Cool, 2 Pipe hydro heat or 4 Pipe Heat and Cool Valve). To configure the valve requires selecting Valve 1 as a Change Unit Type parameter during offline editing. (The Change Unit Type button is located on the Status tab.)

- **Auto** (default) - TUC Valve 1 is issued an automatic mode by the building controls system (Tracer Summit). The TUC uses its own Valve 1 algorithms to control the exhaust fan’s operation.
- **Closed** - TUC Valve 1 is issued a Closed mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 1 will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 1 will be commanded to a Closed position.

Note: If both Open and Closed modes are overridden simultaneously, an Open mode command takes priority over the Closed mode (as decided by the TUC).

Valve 1 - Open

When the TUC is programmed to use Tracer as the Unit Control Source, the Valve 1 – Opened field may be used to override control of Valve 1, in order to open it. This field is available only for TUC configurations that have Valve 1 configured (example "2 Pipe Heat or Cool Valve" or "2 Pipe Cool Valve", "2 Pipe Heat Valve", "SCUV, DX Cool, 2 Pipe hydro heat" or "4 Pipe Heat and Cool Valve"). This configuration requires selecting Valve 1, during offline editing. This does not apply for units which have a Face and Bypass damper.

- **Auto** (default) - TUC Valve 1 is issued an automatic mode by the building control system (Tracer Summit). The TUC uses its own Valve 1 algorithms to control the exhaust fan’s operation.
- **Open** - TUC Valve 1 is issued an Open mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 1 will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 1 will be commanded to an Open position.

Note: If both Open and Closed modes are overridden simultaneously, an Open mode command takes priority over the Closed mode (as decided by the TUC).
Terminal Unit Controller: Advanced Overrides

Valve 1 - Face and Bypass Closed

When the TUC is programmed to use Tracer as the Unit Control Source, the Valve 1 – Closed field may be used to override control of both Valve 1 and the Face and Bypass damper, in order to close them. This field is available only for TUC configurations that have Valve 1 configured (For example, 2 Pipe Heat or Cool Valve, 2 Pipe Cool Valve, 2 Pipe Heat Valve, SCUV, DX Cool, 2 Pipe hydro heat or 4 Pipe Heat and Cool Valve). This configuration requires selecting the Face and Bypass damper unit as a Change Unit Type parameter, during offline editing.

- **Auto** (default) - The TUC's Valve 1 is issued an automatic mode by the building control system (Tracer Summit). The TUC uses its own algorithms to control Valve 1 and the Face and Bypass damper operations.
- **Closed** - The TUC's Valve 1 and the Face and Bypass damper are issued a Closed mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 1 and the Face and Bypass damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 1 and the Face and Bypass damper will be commanded to a Closed position.

**Note**: If both Open and Closed modes are overridden simultaneously, an Open mode commands takes priority over the Closed mode (as decided by the TUC).

Valve 1 - Face and Bypass Open

When the TUC is programmed to use Tracer as the Unit Control Source, the Valve 1 – Opened field may be used to override the control of both Valve 1 and the Face and Bypass damper, in order to Open them. This field is available only for TUC configurations that have a Face and Bypass damper. This configuration requires selecting the Face and Bypass damper unit as a Change Unit Type parameter, during offline editing.

- **Auto** (default) - The TUC's Valve 1 is issued an automatic mode by the building control system (Tracer Summit). The TUC uses its own algorithms to control the Valve 1 and the Face and Bypass damper operations.
- **Open** - The TUC's Valve 1 and the Face and Bypass are issued an Open mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 1 and the Face and Bypass damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 1 and the Face and Bypass damper will be commanded to an Open position.

**Note**: If both Open and Closed modes are overridden simultaneously, an Open mode commands takes priority over the Closed mode (as decided by the TUC).
Terminal Unit Controller: Advanced Overrides

Valve 2 - Closed

When the TUC is programmed to use Tracer as the Unit Control Source, the Valve 2 – Closed field may be used to override control of Valve 2, in order to close it. This field is available only for TUC configurations that have Valve 2 configured. This configuration requires selecting 4 Pipe heat and Cool Valve as a Change Unit Type parameter, during offline editing. This does not apply for units which have a Face and Bypass damper.

- **Auto** (default) - The TUC’s Valve 2 is issued an automatic mode command by the building control system (Tracer Summit). The TUC uses its own algorithms to control the Valve 2 operation.
- **Closed** - The TUC’s Valve 2 is issued a Closed mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 2 will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 2 will be commanded to a Closed position.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode command takes priority over the Closed mode (as decided by the TUC).*

Valve 2 - Open

When the TUC is programmed to use Tracer as the Unit Control Source, this referencer edit may be used to override the control of Valve 2, in order to open it. This field is available only for TUC configurations that have Valve 2 configured. This does not apply for units that have a Face and Bypass damper. This configuration requires selecting 4 Pipe Heat and Cool Valve as a Change Unit Type parameter, during offline editing.

- **Auto** (default) - The TUC’s Valve 2 is issued an automatic mode command by the building control system (Tracer Summit). The TUC uses its own algorithms to control the Valve 2 operation.
- **Open** - The TUC’s Valve 2 is issued an Open mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, Valve 2 will be allowed to run in the Auto mode. If the referenced property is in the On state, Valve 2 will be commanded to an Open position.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode command takes priority over the Closed mode (as decided by the TUC).*

Valve 2 - Face and Bypass Closed

When the TUC is programmed to use Tracer as the Unit Control Source, Valve 2 may be used to override the control of both Valve 2 and the Face and Bypass damper, in order to close them. This field is available only for TUC configurations that have both Valve 2 and the Face and Bypass damper. This configuration requires selecting both 4 Pipe Face and Bypass Damper unit as a Change Unit Type parameter during offline editing.

- **Auto** (default) - The TUC’s Valve 2 and the Face and Bypass damper is issued an automatic mode by the building control system (Tracer Summit). The TUC uses its own algorithms to control the Valve 2 and the Face and Bypass damper operations.
- **Closed** - The TUC’s Valve 2 and the Face and Bypass damper are issued a Closed mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, Valve 2 and the Face and Bypass damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 2 and the Face and Bypass damper will be command to a Closed position.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode command takes priority over the Closed mode (as decided by the TUC).*
Terminal Unit Controller: Advanced Overrides

Valve 2 - Face and Bypass Open

When the TUC is programmed to use Tracer as the Unit Control Source, Valve 2 may be used to override the control of both Valve 2 and the Face and Bypass damper, in order to open them. This field is available only for TUC configurations that have a Valve 2 and the Face and Bypass damper. This configuration requires selecting 4 Pipe Face and Bypass Damper unit as a Change Unit Type parameter, during offline editing.

- **Auto** (default) - The TUC's Valve 2 and the Face and Bypass damper is issued an automatic mode by the building control system (Tracer Summit). The TUC uses its own algorithms to control the Valve 2 and the Face and Bypass damper operations.
- **Open** - The TUC's Valve 2 and the Face and Bypass damper are issued an Open mode command by the building control system.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the Valve 2 and the Face and Bypass damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the Valve 2 and the Face and Bypass damper will be commanded to an open position.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode commands takes priority over the Closed mode (as decided by the TUC).*

Outdoor Air Damper - Closed

When the TUC is programmed to use Tracer as the Unit Control Source and is equipped with an outdoor air damper, the Outdoor Air Damper - Closed field is used to override the control of the outdoor air damper, in order to closed it. This configuration requires selecting Outdoor Air Damper as a Change Unit Type parameter during offline editing. (The Change Unit Type button is located on the Status tab.)

- **Auto** (default) - The building control system (Tracer Summit) controls the TUC to use its own Outdoor Air Damper algorithms to control the outdoor air damper’s operation.
- **Closed** - The building control system (Tracer Summit) controls the TUC's outdoor air damper’s operation. The outdoor air damper is commanded to a closed position.
- **Referencer** - Select this option to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the outdoor air damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the outdoor air damper will be commanded to Closed.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode commands takes priority over the Closed mode (as decided by the TUC).*
Terminal Unit Controller: Advanced Overrides

Outdoor Air Damper - Open

When the TUC is programmed to use Tracer as the Unit Control Source and is equipped with an outdoor air damper, the Outdoor Air Damper - Open field is used to override the control of the outdoor air damper, in order to open it. This configuration requires selecting Outdoor Air Damper as a Change Unit Type parameter during offline editing. (The Change Unit Type button is located on the Status tab.)

- **Auto** (default) - The building control system (Tracer Summit) controls the TUC to use its own Outdoor Air Damper algorithms to control the outdoor air damper’s operation.
- **Open** - The building control system (Tracer Summit) controls the TUC’s outdoor air damper’s operation. The outdoor air damper is commanded to an open position.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the outdoor air damper will be allowed to run in the Auto mode. If the referenced property is in the On state, the outdoor air damper will be commanded to an Open mode.

*Note: If both Open and Closed modes are overridden simultaneously, an Open mode commands takes priority over the Closed mode (as decided by the TUC).*

Exhaust Fan - Off

This field is available only for TUC configurations that have an exhaust fan configured. This configuration requires selecting the Exhaust Fan as a Change Unit Type parameter during offline editing. (The Change Unit Type button is located on the Status tab.)

When the TUC is programmed to use Tracer as the Unit Control, this field is used to override the control of the exhaust fan in order to turn it off.

- **Auto** (default) - The building control system (Tracer Summit) controls the TUC to use its own exhaust fan algorithms to control the exhaust fan’s operation.
- **Off** - The building control system (Tracer Summit) controls the TUC’s exhaust fan’s operation. The exhaust fan is commanded Off.
- **Referencer** - Select this option to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the exhaust fan will be allowed to run in the Auto mode. If the referenced property is in the On state, the exhaust fan will be commanded to an Off mode.

*Note: If both On and Off modes are overridden simultaneously, an On commands takes priority over the Off mode (as decided by the TUC).*

Exhaust Fan - On

This field is available only for TUC configurations that have an exhaust fan configured. This configuration requires selecting Exhaust Fan as a Change Unit Type parameter during offline editing. (The Change Unit Type button is located on the Status tab.)

When the TUC is programmed to use Tracer as the Unit Control, this field is used to override the control of the exhaust fan, in order to turn it on.

- **Auto** (default) - The building control system (Tracer Summit) controls the TUC to use its own exhaust fan algorithms to control the exhaust fan’s operation.
- **On** - The building control system (Tracer Summit) controls the TUC’s exhaust fan’s operation. The exhaust fan is commanded On.
- **Referencer** - Select this to make the function dependent on the current value of another binary property in the system. When the referenced property is in the Off state, the exhaust fan will be allowed to run in the Auto mode. If the referenced property is in the On state, the exhaust fan will be commanded to an On mode.

*Note: If both On and Off modes are overridden simultaneously, an On commands takes priority over the Off mode (as decided by the TUC).*
Overrides: View All

You can create a report that shows all of the overrides affecting some or all buildings in your network.

To view an override report for one building:

1. Go to Home / building name.
2. From the building summary page, click Override Report.

Figure 46. Building summary
Global Overrides: Create

To view an override report for more than one building:
1. Go to [Home](#) / [All Buildings](#).
2. Select the buildings for which you want the report.
3. Click [Advanced](#).
4. Click [Override Report](#). The report begins to generate and will appear in the Process Tracker as “All Points in Override Request.”
5. Click [View Report](#), when available, to view the report in PDF format.

**Figure 47. Advanced building options - for viewing override report**

![Advanced building options - for viewing override report](image)

Global Overrides: Create

If you would like to create the same override across multiple areas, even in multiple buildings, you can do so using the global override function.
To create a global override:
1. Go to Home / All Buildings.
2. Select the buildings in which you want to create an override.
3. Click Global Changes.
4. Click Set Override. A series of pages begins.
5. Complete each page in the series and click Finish at the last page.

Figure 48. Global changes - to create global override

Global Point Control

Virtual Point (Trigger): Create, Edit, Delete

Note: A virtual trigger (sometimes called virtual point) is a trigger used for a global reference.

Once a virtual point is created, you can manually manipulate its value to either simulate the behavior of a real point for testing or troubleshooting or act as a permanent, manually-operated software switch. When you edit the value of a virtual point, the associated global references are affected by the new value according to the settings of the global reference.

To create a virtual trigger:
1. Go to Home / Administration / Global Applications / Global Point Control / Create Global Reference.
2. Click virtual trigger. A series of pages begins.
3. Complete the series of pages and click Finish.

To edit a virtual point:
1. Go to Home / Administration / Global Applications / Global Point Control / Manage Virtual Points.
2. Select the virtual point.
3. Click Edit.
4. Specify the new value and click Save.
Global References: Create, Edit, Delete, View Log

To delete virtual points:

Note: you cannot delete a virtual point that is still being used as a trigger. Edit or delete the
global reference before you delete the virtual trigger.

1. Go to Home / Administration / Global Applications / Global Point Control / Manage Virtual
Points.
2. Select the virtual points.
3. Click Delete.

Figure 49. Manage virtual points

Global References: Create, Edit, Delete, View Log

A global reference is a connection that is made between a data point in the Tracer ES database and
one or more systems that are configured to respond to the value of the data point. The global
reference is made up of one trigger and one or more targets. The trigger can be an output from a
local panel somewhere in the system or a virtual point that exists only in the Tracer ES database.
The targets can be any configurable inputs anywhere in the system.

You can create new global references, and edit or delete existing global references. You can also
view the global point control activities in the system in the Global Point Control Log.

To create a new global reference:
1. Go to Home / Administration / Global Applications / Global Point Control / Create Global
Reference. A series of pages begins.
2. Complete each page in the series and click Finish at the last page.

To edit a global reference:
1. Go to Home / Administration / Global Applications / Global Point Control / Manage Global
References.
2. Select the reference and click Edit. A series of pages begins.
3. Complete each page in the series and click Save at the last page.

To delete global references:
1. Go to Home / Administration / Global Applications / Global Point Control / Manage Global
References.
2. Select the references and click Delete.
To view the global point control log:
- Go to Home / Administration / System Logs / Global Point Control Log.

Figure 50. Global point control

Graphics

Graphics: List, Discover

To install graphics into Tracer ES, they are first created in Tracer Graphics Editor or converted from another format, then copied into correct building directory on the Tracer ES server. Graphics cannot be imported through a remote web browser.

After they have been copied onto the Tracer ES server, they can be seen and discovered by Tracer ES.
To list current graphics in the system and discover new graphics:

1. Go to Home / Administration / Global Applications / Customize System Pages.
2. Click List Custom Graphics. The graphics listed on the page initially are already discovered and ready for use.
3. Click Refresh. Tracer ES will search its local directories to update the list. When complete, the page will refresh, showing you all of the graphics available to the system.

Figure 51. Custom graphics

Graphics: Assign to Buildings and Objects

Assigning graphics to buildings and objects permits you a more user-friendly view of the object or building. There are two ways to assign graphics:

- Using the NavigationTree Editor you can most quickly assign a graphic to a single object, node, or building.
- Using the administrative pages Assign Graphic feature you can most quickly assign a graphic to multiple objects in multiple buildings.
To assign graphics in the Navigation Tree Editor:
1. Go to Home / Building Name. The building summary page appears.
2. Click Advanced on the sidebar.
3. Click Tree Editor on the sidebar. The tree appears in a small, attached window. If it has not been edited, the tree is organized according to the building navigation sidebar.
   - Use the + and - signs to show and hide elements.
   - Click on the name of an element to select it for graphic assignment.
4. Select the building, node or object to which you want to assign the graphic.
5. Click Edit. Edit Tree Node appears.
6. Select the graphic and location as indicated.
7. Click Save.

Figure 52. Define custom pages for building

To assign graphics using the administrative pages Assign Graphics feature:
1. Go to Home / Administration / Global Applications / Customize System Pages.
2. Click Assign Graphic. A series of pages begins.
3. Complete the series of pages and click Save.

Custom Pages: Assign to Building

If you have custom XML pages that were created for Tracer Summit, and they have been converted for use with Tracer ES and copied to the Tracer ES server, the final step is to assign them to the building in Tracer ES.
To assign a custom page to a building:
1. Go to Home / Building Name. The building summary page appears.
2. Click Define Custom Pages for Building. The Define Custom Pages for Building popup window appears.
3. Select a custom page for Change to this Building Customization.
4. Click Save.

Figure 53. Define custom pages for building

Data Logs

Data Logs: Create, Edit, and Delete

To create standard data logs:
1. Go to Home / building name.
2. Navigate to the status page containing the data points you want to log.
3. Select one or more data points.
5. Complete each page in the series and click Finish at the last page.

To create panel data logs:
1. Go to Home / building name.
2. Click Data Logs.
3. Click Map Panel.
4. Select one or more trends.
5. Click Next. A series of pages begins.
6. Complete each page in the series and click Finish at the last page.

To edit a data log:
1. Go to Home / building name.
2. Click Data Logs.
3. Select a data log.
4. Click the name of the data log. The Edit Data Logs Page appears.
5. Make changes and click Save.
To delete data logs:

**Note:** Deleting a data log stops data collection and deletes all logged information.

1. Go to Home / building name.
2. Click Data Logs.
3. Select the data logs.
4. Click Delete.

Figure 54. Data logs

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To view data log graphs or tables:

1. Go to Home / Building Name / Data Logs.
2. Select the data logs you want to view (up to 10).
3. Click View. A graph appears with default settings.
   - Change the value for View Data as to Table to see a tabular view instead of a graph.
   - Use the other links on the page to customize the appearance of the graph.

**Note:** If you navigate away from the Data Log Graph Display after changes have been made to its appearance, you will lose your changes.

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**Data Logs: Description and Reference Information**

Use data logging in Tracer ES to collect historical data from your building control systems. This data can be used for a variety of purposes, from monthly energy usage reporting to equipment troubleshooting. After the data is collected, you can view one or more logs as a graph or a table in Tracer ES or you can export the data for use by other applications for storing or presenting the data.
Data Logs: Description and Reference Information

Types of Data Logs

There are two types of data log: (standard) Tracer ES data logs and Panel data logs:

- **Tracer ES data logs** — This type of data log is initiated by and essentially controlled by Tracer ES. You select a data point of interest and specify details about when the data is sampled, and Tracer ES requests and records the data according to your specification. The data is sampled and collected at the same time.

- **Panel data logs** — A panel data log is a panel trend log being read by Tracer ES. Because the trend log already has a sampling frequency, you only need to specify when the data is collected. And because the data is collected and stored in the panel when it is sampled, Tracer ES does not need to collect each sample one at a time.

Time Zones

With standard Tracer ES data logs, the Tracer ES server applies the time and date information to each data point. Assuming the user’s time zone is set correctly, the time and date stamp on each data point will be adjusted to the user’s local time. With Panel data logs, the panel applies the time and date information to each data point. All data points shown in Tracer ES will have the panel’s local time on them, not the user own time zone.

Snapshot Trends

Some panel trend objects are configured to log data only after an event occurs. These are called snapshot trends. Tracer ES has no way of knowing when that event has occurred. Similarly, trends may be configured to collect data only for part of a day. Tracer ES follows the same algorithm for collection times for these trend types as with the standard trend objects, despite the fact that there may not be any new data in the trend.

Failed Panel Communication

If Tracer ES is unable to retrieve data log information from the building control panel, the data request will be retried two times. When three attempts have failed, Tracer ES stops attempting to perform the scheduled data collection and a failure message is added to the system log with the following information:

- Date and time the failure occurred
- Name of the building that Tracer ES was requesting data from
- Name of the data log that Tracer ES was collecting data for
- Any available communications error details

Tracer ES will attempt to collect data from the building controller at the next scheduled data collection time. For panel data logs, it will occur 15 minutes after the failed attempt.

Tracer ES Server Failure

If Tracer ES is not operational at the time it is scheduled to collect data from a panel data log, it will collect the data it missed when it is operational again.
Data Log Staging

To minimize spikes in network traffic, Tracer ES monitors its scheduled communications tasks to warn you of possible bottlenecks. So, when you add new data logs, the system examines the specific collection times compared to the number of data points and buildings involved and evaluates the system performance impact. If the requested collection times would degrade network or system performance, Tracer ES will inform you of these concerns and suggest alternative collection times to alleviate the stress. If you see the warning, your choices will be:

- Proceed as specified and accept network risks. The system attempts to honor the data log request, but may limit data collections if the system begins to overload.
- Change the parameters of the data log.
- Allow the system to stage the requests. The data requests are sent out in smaller batches and the system monitors its performance before releasing each batch. This reduces the spike of network traffic. In this case the data log may show data and time stamps that start several minutes later than expected.

Collection Notification

Some building control panels have an option to communicate with the workstation to request that the workstation collect the data in its data log. Tracer ES supports this notification for all building control panel types. If the user-specified or algorithmic intervals selected for the data log are scheduled to collect the data before a collection notification is received, Tracer ES collects the data log information at that time rather than waiting for the collection notification. When you create a panel data log, Tracer ES subscribes to this service automatically when applicable.

Data Log Attributes: Create, Assign

Data log attributes are a tool that can make it easier for you to locate or identify data logs with some property in common. You can create data log attributes with a name of your choosing. After they are created, a data log attribute can be assigned to one or more data logs. When data logs are listed in tables, one column of the table contains the data log attributes, permitting you to sort the table on attribute values.

To create a data log attribute:
1. Go to Home / Administration / Global Applications / Manage Data Log Attributes.
2. Click Add New Data Log Attribute. The Create Tracer ES Data Log Attribute pop-up window appears.
3. Type a name for the new attribute in the New Attribute Name field.
4. Click Save.

To assign data log attributes globally to one or more existing data logs:
1. Go to Home / Administration / Global Applications / Manage Data Log Attributes.
2. Select one or more data log attributes.
3. Click Assign. The Assign Attributes to Data Logs page appears.
4. Place a check mark next to the data logs you want to assign to the attributes you selected earlier.
5. Click Save.
Licensing

Tracer ES Licensing

Tracer ES is licensed based upon the number of building panels it will control. Typically, Trane panels (specifically Tracer Summit BCUs, Tracer panels and Tracker panels) can be identified on the network as single panels. But non-Trane panels and Tracer SC controllers appear on the network as a collection of I/O points, not a single panel. To accommodate the difference in how the panels appear on the network, licenses are granted using the following formula:

1. Trane BACnet devices require one license each, but Tracer Summit Communications Bridges and Tracer UCs do not require licenses.
2. Non-Trane devices require between 1/1500 and one license each, depending upon the number of BACnet I/O points in them.
   - Each I/O point counts as 1/1500 of a license.
   - A single non-Trane BCU-equivalent panel with more than 1500 I/O points requires only one license.
   - BACnet object types such as calendar or trend objects do not require a license, but they are only shown in Tracer ES if they reside in a device that is licensed by Tracer ES.

License File: Install

The Tracer ES license is contained within a file created by Trane. Once it is acquired, it must be installed in the system before it can be used.
To install a license:
1. Locate the electronic license file and copy it somewhere on the system where you will be able to find it.
3. Click Choose File.
4. Locate and select the license file.
5. Click Open. The file name should appear next to the Choose File button.
6. Click Finish.

Figure 55. Upload Tracer ES system license file
Licensing Information: View, Register, or Change

License information is information provided when the software is registered, including customer information (name, address, telephone number, and e-mail address) and the license customer code provide by Trane.

- To view the current license information, go to Home / Administration / System Maintenance / Manage Tracer ES Licensing / View License Information.
- To register for the first time, or to change the current license information, go to Home / Administration / System Maintenance / Manage Tracer ES Licensing / Register Site License.

Figure 56. Register Tracer ES site license

License Administration: View or Change Licence Allocation

Users with sufficient permission can allocate available licences to the buildings discovered by the system. Reasons to allocate or reallocate licenses include the following:

- You purchase additional licenses.
- You add buildings or equipment to the system.
- You want to transfer the license permission from one panel to another.
To view or edit the current license allocation:

1. Go to Home / Administration / System Maintenance / Manage Tracer ES Licensing / View Panel Licensing. The View Panel Licensing page shows:
   - The number of licenses allocated to your system and the number actually being used.
   - The name and other details about each discovered panel, how much of your license it could use, and whether it is actively using any.

2. Activate or deactivate panels as desired by clicking the Yes or No radio buttons in the Active column. As soon as you click one of the radio buttons Tentative Licenses Used appears on the screen to indicate how your changes affect the total number of available licenses, but your changes are not yet saved.

3. To keep your changes, click Save. To revert to the previous allocation without making any changes, click Back.

Figure 57. View panel licensing

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Customizing

Home Page Custom Links: Define, Remove

There are two types of custom links that can appear on the right side of the Tracer ES home page. The Recent Visit list shows the last five places you have visited, and the custom links list, which has a name of your choice, shows four links to custom destinations for which you can also provide a custom name. Creating a list of custom links can be useful if you would like quick access to a page that you regularly use.

To define or edit home page custom links:

1. Go to Home / Administration / Global Applications / Customize System Pages.
2. Click Define Home Page Custom Links. A series of pages begins.
3. Complete the series of pages and click Finish on the last page.
To remove home page custom links:
1. Go to Home / Administration / Global Applications / Customize System Pages.
2. Click Remove Home Page Custom Links. A popup window will require you to confirm the action.

Figure 58. Customize System Pages

System Parameters: View, Edit

The system parameters are several small groups of Tracer ES program settings that apply to all users of the system. Categories of parameters include the following:
- Building discovery BACnet device IDs
- Site synchronization scheduling
- Alarm priority mapping path, audible alarm setting, and path to audible alarm sound file.
- Global point control log settings
- All points in override included priorities
- E-mail server settings and credentials
- Time synchronization scheduling
- Status application variance algorithm
- User security parameters (username and password settings)
- General display settings (system default language)
To view or edit the system parameters:
1. Go to Home / Administration / System Maintenance / System Parameters. The System Parameters page appears.
2. Click Edit. The Edit System Parameters page appears. All parameters can be edited.
3. Make change as desired.
4. Click Save.

Figure 59. System parameters
Buildings: Customize Grouping

You can specify the way buildings are organized on the Tracer ES home page in one of three ways according to your preference.

- **No grouping** - buildings are listed in alphabetical order.
- **One grouping level** - buildings are grouped by a building attribute of your choice.
- **Two grouping levels** - buildings are grouped by two building attributes of your choice (one general and one specific).

To customize the building grouping:
1. Go to **Home / Administration / Global Applications / Customize System Pages / Customize Building Grouping**. The Customize Building Grouping page appears.
2. Select the number of index levels.
3. Select the general and specific grouping attributes, if required: If you selected one level, select the general grouping attribute; if you selected two levels, select a general and a specific grouping attribute.
4. Click **Finish**.

**Figure 60. Customize building grouping**

Process Tracker: View, Clear Entries, Cancel Processes

The ProcessTracker is a way for you to keep track of progress when Tracer ES is sending information to building panels. Whenever you create or make a change that must be written to one or more panels, the ProcessTracker creates an entry for the new process, and opens the Process Tracker in a new window.

**Note:** If the Process Tracker is already open in a window behind the active window, it will not automatically move in front of the active window. If you do not see the ProcessTracker when you expect it to open, look behind the active window.
To open the process tracker window and view your completed and in-progress processes:

- Click .

**Figure 61. Process Tracker**

![Process Tracker Image]

*Note: Each Tracer ES user has his or her own process tracker data. You will not see processes that were initiated by other users who were logged into a different user account. To see activities performed by other users, view the System Task log.*

To remove entries from the process tracker:
1. Click to open the Process Tracker.
2. Do one of the following:
   - To clear a completed single process, click *Clear* on the same row as the process.
   - To clear all completed processes in the Process Tracker, click *Clear All*.

  *Note: Cleared processes are permanently removed from the Process Tracker, but the process is not stopped.*

To cancel processes:
1. Click to open the Process Tracker.
2. Click *Cancel* on the same row as the process.

**Database: Manage Size**

**Overview**

This feature is designed for Tracer ES installations using a SQL Express database but can be applied to all SQL database types. SQL Express does not provide automatic database maintenance plans. The database is allowed to grow until it reaches a size limit that prevents further data storage. User-defined data log collection, alarm collection, global point control, system, and user change logs contribute to database growth. This feature will remove these data growth components from the database. There are two components to Manage Database Size: Database Size Management and Application Log Management.

**Database Size Management**

Database Size management can be applied to all SQL database types. *It cannot be disabled* for SQL Express databases. With a new installation of Tracer ES, application data is automatically deleted based on a schedule. You can change the settings to one of the choices described below.
Database: Manage Size

**CAUTION:** Selecting one of the options to delete old data at this time will result in data log values being permanently deleted from the Tracer ES database. The default value for SQL Express databases automatically enables **Delete old data based on database file size** of 3.5 GB (SQL Express 2005) or 9.5 GB (SQL Express 2008) and will retain 90 days worth of data.

**NOTE:** The maximum database size cannot exceed 1000 Gigabytes.

- **Do not delete old data** - select this option if you want Tracer ES to continue to gather data without deleting any. Be aware that disk space usage and system performance can both be affected if you do not delete any data.
- **Delete old data based on a schedule** - data beyond a specified age is routinely deleted according to a specified schedule.
- **Delete old data based on database file size** - the system checks the database at specified intervals and deletes the oldest data first to reduce the database to a size smaller than the maximum size.

**Application Log management**

Application Log Management is applied to all SQL database types. **You cannot select No or set the value to unlimited** for any application log setting for SQL Express databases. You can limit the number of each type of log that is retained in the database independent of the age of the data or the size of the database. For example, you could specify that no more than 100 user changes are retained in the database; to make room for the 101st user change log record, the database would automatically delete the oldest record to make room for the newest. Valid selection for Limit are Yes and No. Valid entries for Maximum Log Entry range from 1 – 100,000. Setting limit to No automatically changes the Maximum Log Entry value to Unlimited. You cannot set the Limit to No for SQL Express databases.

**Viewing and Making changes**

To view and change the database size management settings:
1. Go to Home / Administration / System Maintenance / Manage Database Size. The current database management settings are shown on the page.
2. Click **Edit** to make changes.

You can also use the Manage Database Size page to execute the currently scheduled settings without waiting for the scheduled time to expire:
1. Go to Home / Administration / System Maintenance / Manage Database Size. The current database management settings are shown on the page.
2. Click **Run Now** to execute the settings.