BUILDING AUTOMATION SYSTEM

WebControl® Quick Reference Guide

htc
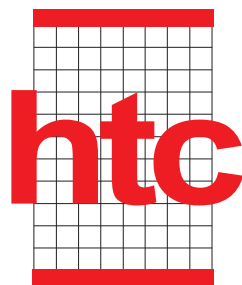
HTC CONTROLS
TEL: 416 231 3636

Launch/Log in /Log Out

To Launch

1 Open your Internet browser, then type your server's computer name, domain name, or IP address in the Address bar.
For example:
http://abccompany/
or
http://192.168.168.1/
If you are running the browser on the same computer as Core, you can use
http://localhost
NOTE If you want to make the WebCTRL login page the default opening page for your browser, set it as the home page in the browser's Internet Options.

To log In

2 Type your user name in the **Name** field. This field is not case sensitive.

3 Type your password in the **Password** field. This field is case sensitive.

4 Click Login.
The WebCTRL Server authenticates the name and password, and then displays your default starting location in the WebCTRL system.

To log Out

To maintain security, we recommend that you log out of WebCTRL when you have finished with your current session.

To log out, click the WebCTRL menu button, then click the Logout menu command. WebCTRL logs you out of the system and returns to the Login screen.
NOTE Do not close the browser's window without logging out of WebCTRL. If you do, you are still logged in, taking up a licensed operator slot. This could prevent additional operators from logging in.

WebCTRL's graphics use thermographic colors to show the current conditions throughout your system. The color bar shown below appears on many graphics as a reminder of color definitions.

| Alarm | Cool | Ideal | Warm | Alarm |

Red is not a Warm condition. Red is an Alarm condition.

Color	Color Name	Status Code	Condition Indicated
	Mustard	none	In equipment - viewing in design server mode
	Purple	0 or 15	In a device - non-operational or no communications In equipment - a hardware or software error
	Charcoal	14	In a device - a download is required or is already in progress In equipment - a module has stopped
	Coral	13	FB error in the equipment
	Red	2 or 9	Heating or cooling alarm in the equipment
	Orange	8	2nd stage cool - much too warm
	Dark Blue	3	2nd stage heat - much too cool
	Yellow	7	1st stage cool - too warm
	Light Blue	4	1st stage heat - too cool
	Gray	1	Unoccupied/inactive
	White	10	Occupied/active
	Light Green	6	Free cooling band
	Green	5	In a device - operational or operational read only In equipment - comfortable

ERRORS

1 If you are running WebCTRL in normal mode and a page contains an error, a small red triangle appears in the lower right corner to signify that there is an error. Click on the triangle to display the Error dialog box.

2 The Error dialog box lists any errors on the current page. You can use the View Debug Info link to describe problems to Technical Support.
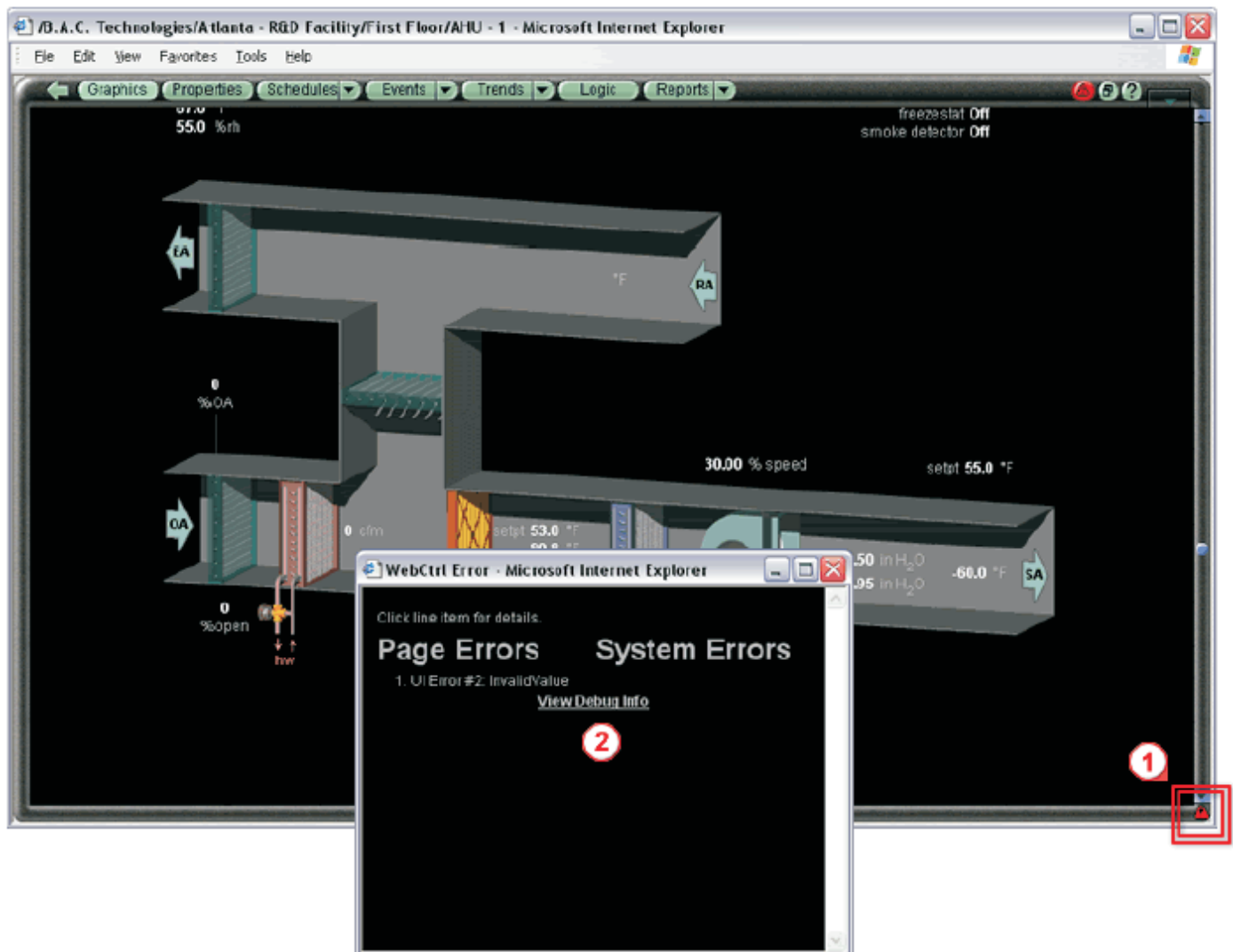
MENU COMMANDS

1 Clicking the menu button opens
2 a drop-down menu of the system functions described below.
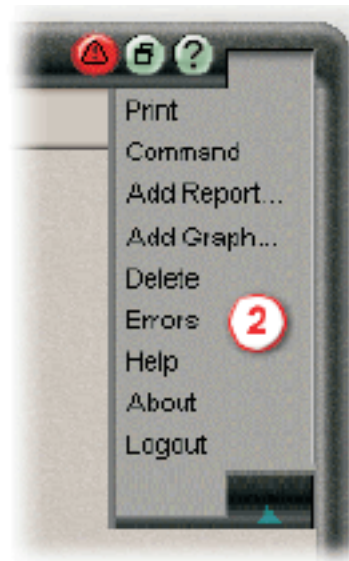
Menu command	
Silence	Temporarily silences for a 5-minute period an audible alert triggered by an event. This silences the alert only for the event that caused it. If a new event that triggers an alert is received during the 5-minute period, another alert will sound. **NOTE** The Silence menu command is only visible if the operator is receiving an audible alert. See "To configure an operator" in the Operator security manual.
Print	Opens the Print dialog box. We recommend that you set the print orientation to Landscape. When you click OK on the dialog, WebCTRL prints the contents of the action pane. The path to the current tree item automatically prints as the page header. **NOTE** The Print command removes the black background of floorplans and equipment graphics.
Command	Opens a dialog box where you can execute any of the supported manual commands. See "Manual commands".
Add Report	Opens a dialog box where you create a custom report for the selected tree item by choosing a report template created in Report Designer.See "To add a report instance to an item in the navigation tree".
Add Graph	Opens a dialog box where you create custom trend graphs. See "to configure graphs" in the Trends manual.
Delete	Deletes the custom report or custom trend graph that is currently displayed in the action pane.
Errors	Reopens the Error dialog box, allowing you to reread an error message. You can use the View Debug Info link in the error window
Help	Opens the WebCTRL help file at a topic relevant to your current location.
About	Opens a pop-up window that contains information about your WebCTRL software.
Logout	Immediately logs out the current operator of WebCTRL.

Action pane

The action pane is where you view information and perform actions in WebCTRL.

Navigation pane

The navigation pane consists of the tree ornaments menu, the navigation tree, and the view buttons.

Navigation trees and view buttons

Use the navigation tree to select the item that you want to see in the action pane. The four view buttons, located at the bottom of the navigation pane, let you select which navigation tree you want to see.

Click this button...	to view the...
GEO	Geographic tree: the hierarchy of areas and equipment defined in SiteBuilder.
NET	Network tree: a network-oriented view of your system. This generally shows the BACnet network. The only non-BACnet items in the Network tree are equipment items.
GRP	Groups tree: non-hierarchical groups, such as schedule groups.
CFG	Configuration tree: run-time system options you must configure and other WebCTRL functions such as Event Simulator and Download.
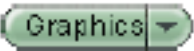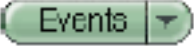
The callout legend in the image reads:

1 Action pane
2 Navigation pane
3 Navigation trees and view buttons
4 Action buttons
5 Categories and items
6 Display tabs
7 Back button
8 Tree ornaments button
9 System-wide Events button
10 Show/Hide button
11 Help button
12 Menu button

Action buttons

The following table describes what each action button displays for the selected item in the navigation tree.

Click this button...   **to view...**

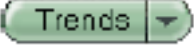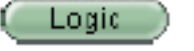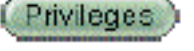| Button	Description
Graphics ▼	a graphic.
Properties	all of the control values that may be read from or written to the item.
Schedules ▼	pages where you view or configure schedules.
Events ▼	a page where you assign reporting actions to event categories and another page where you view and respond to events that have occurred.
Trends ▼	pages where you can view or configure trends.
Logic	the control program logic (or GFB) used to control a piece of equipment.
Reports ▼	the Checkout Report, Point List Report, Network Status Report, Module Version Report, Security Report and any custom reports.
Privileges	a page where you assign privilege sets to operators at specific locations in the system. his button is only visible if location-dependent security is enabled on the System Settings page.

Display tabs

1 When you click a Properties, Schedules, Events, Trends, or Reports action button, display tabs appear at the top of the action pane. The different action buttons produce various display tabs. For example, when you click the drop-down arrow on the Reports button, and then click Maintenance and Point List Report, the display tabs are Configure and View. Clicking Configure displays the page where you define the information to be included in the report. View displays the report.

2 To the right of the display tabs, WebCTRL shows the item you selected in the navigation tree, plus the category and/or item.
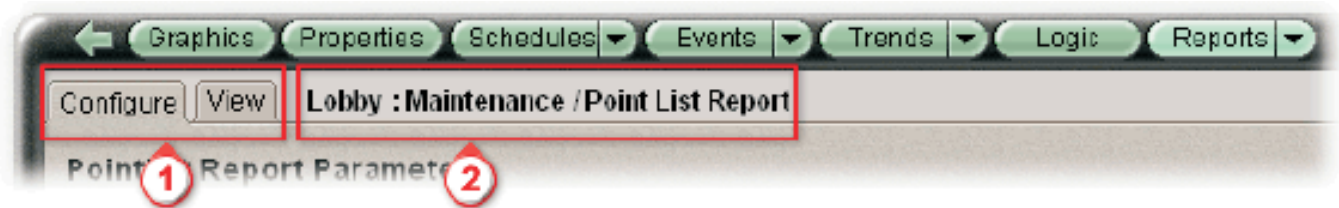
Back button

Click the Back button, located to the left of the action buttons, to return to the most recently viewed page. You can click this button up to nine times.
NOTE Do not use your browser's navigation buttons to move through WebCTRL.

System-wide Events button

Click the System-wide Events button to display events for the entire system.
Note that the highlight in the navigation tree jumps to the system level.

- A green button indicates that there are no events in the system that need acknowledging.
- A yellow button indicates that at least one non-critical event in the system needs acknowledging.
- A red button indicates that at least one critical event in the system needs acknowledging.

PROPERTIES & GRAPHICS PAGES

Properties pages are automatically generated from control programs created in Eikon for WebCTRL. Properties pages show the status of a piece of equipment and the properties currently stored in the control module.

To view or change properties on a Properties page

1 Select a piece of equipment or a microblock on the Geographic or Network tree, then click Properties.

NOTE You must resolve any condition, shown as red text at the top of the page, before a Properties page can obtain current information from its control module.

2 Click the plus and minus icons to show and hide sections as needed.

3 Do one of the following to change a property:

✎Select or clear a checkbox.
✎Select an item from a drop-down list.
✎Change text in a text field.
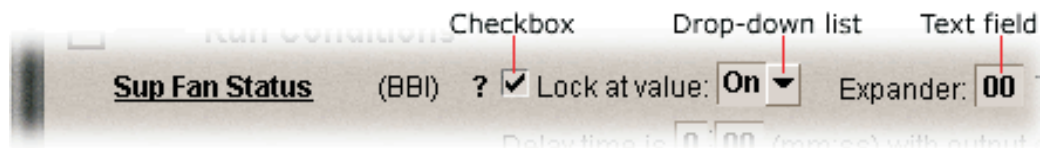
4 Click Accept.
NOTES

✎ Click the bold, underlined microblock name to open the microblock's Properties page.

✎ Ctrl-click any property field on any WebCTRL page to view or edit microblock details.

✎ Alt-click any property field on any WebCTRL page to open the Global Modify dialog box.

Graphics pages

You can view and adjust your system from Graphics pages.

Some typical controls are listed below.

✎ Button or switch to turn equipment on or off
✎ Input field to set a property value
✎ Drop-down list to select a state
✎ Interactive room sensor to override an unoccupied schedule
✎ Setpoint graph to adjust setpoints
✎ Trend graph to view trend information
✎ Link to jump to another WebCTRL page or to the Internet

Global Modify

Use the Global Modify feature to do the following:

- ✎ View a microblock's full reference name path, control program name, and the privileges required to change its properties.
- ✎ View or change a single property in several control programs at one time.

To obtain equipment information and relative paths using Global Modify

1 Click GEO.

2 Click the piece of equipment or point.

3 Verify Properties at the top of the action pane is selected. If not, click Properties.

4 Alt-click an item, whether a status value or an editable value.

NOTE Click the Details tab at point level to view or edit more configurable properties.

NOTE To view the Setpoint section of the Properties page at equipment level, place your cursor anywhere in the Setpoint graph. When the cursor turns into a four-pointed arrow, Alt-click and the Setpoint section's Properties page appears. You can Alt-click on any property to launch the Global Modify dialog box.

The Global Modify dialog box displays any tree-related information. The items listed will vary depending where you are in the tree.

In this dialog box you can:

5 Click GEO or NET to change your view when trying to locate equipment.

6 Click Show Advanced to display geographic and network path information. Once clicked, you can also click on any of the underlined text to navigate to that item or location.

7 Copy the Expression to your computer's clipboard to be used in graphics or Enhanced Reports.

8 Find similar pieces of equipment or points by clicking Find All.
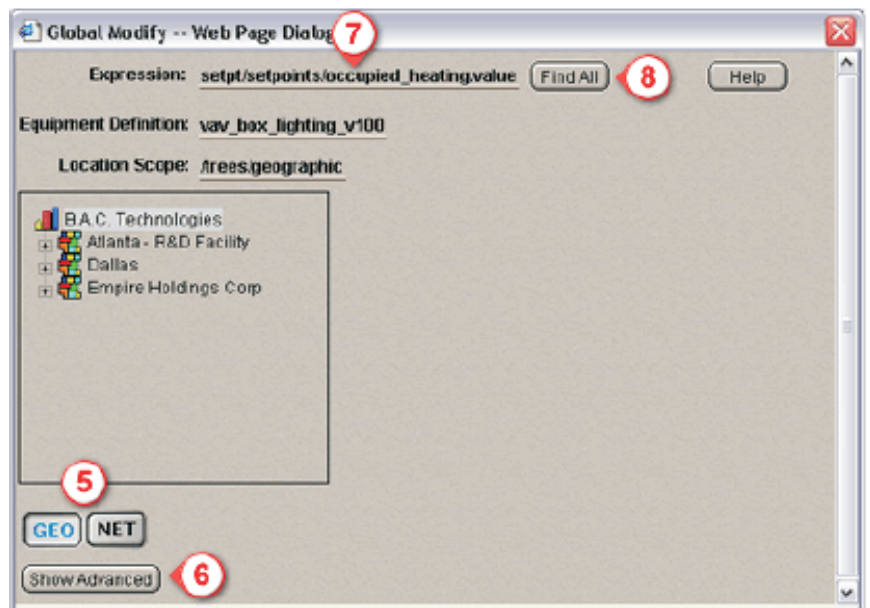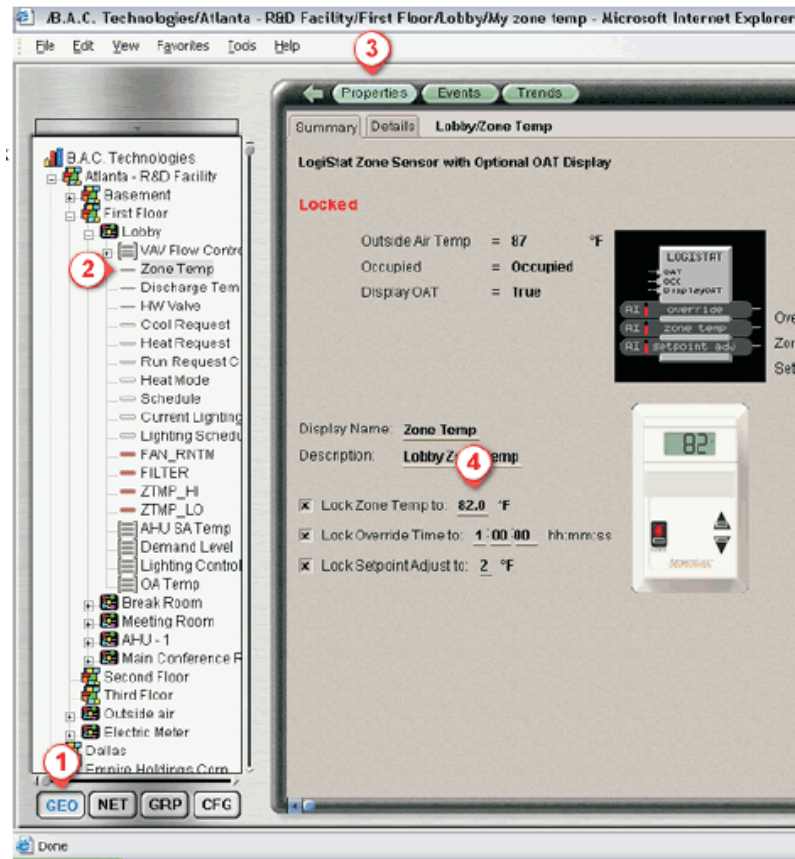
CHANGING PROPERTIES USING GLOBAL MODIFY

You can find all similar points or pieces of equipment by clicking the Find All button on the Global Modify dialog box. See "Global Modify" on page 35 to learn how to open the
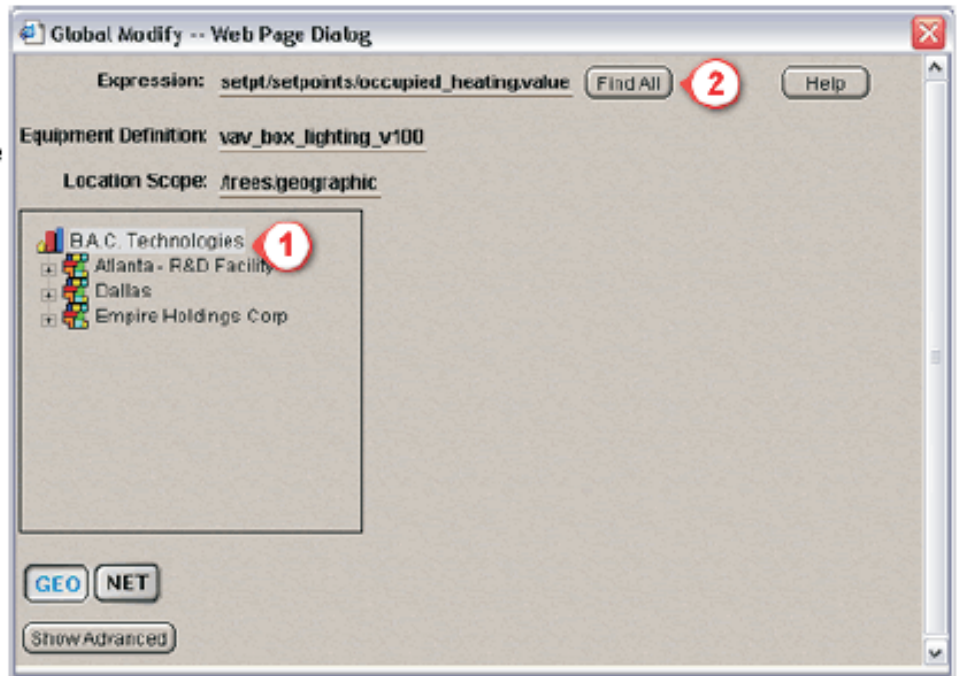Global Modify dialog box. The Find All button allows you to identify any other items with the same Expression. Then you can view all related status values or globally modify
any or all of the related editable tree items.
NOTE You can also use a wildcard (*) as the character of an Equipment Definition.

1 Click the tree item where you would like to begin the search. For example, click BAC Technologies to find all items in the system with the point or piece of equipment. Or click First Floor to find all items in the first floor, as well as all areas under the first floor, with that point or piece of equipment.

2 Click Find All.

7 Click Apply Changes.
In the example to the right, multiple occurrences of the Expression setpt/setpoints/ occupied_heating.value were found in the system.

3 By default, all items in the list are enabled for a change in value. To change the value of only one item, clear the other items' Enable check boxes. Then type the item's new value in its **New Value** field.

4 Type a value in the **Set All To** field or **Change All By** field. **Set All To** is used to change all values to a set value. **Change All By** is used to change all values by an increment.

5 Click Set All To to apply the set value.

6 Or, click Change All By to apply the increment.
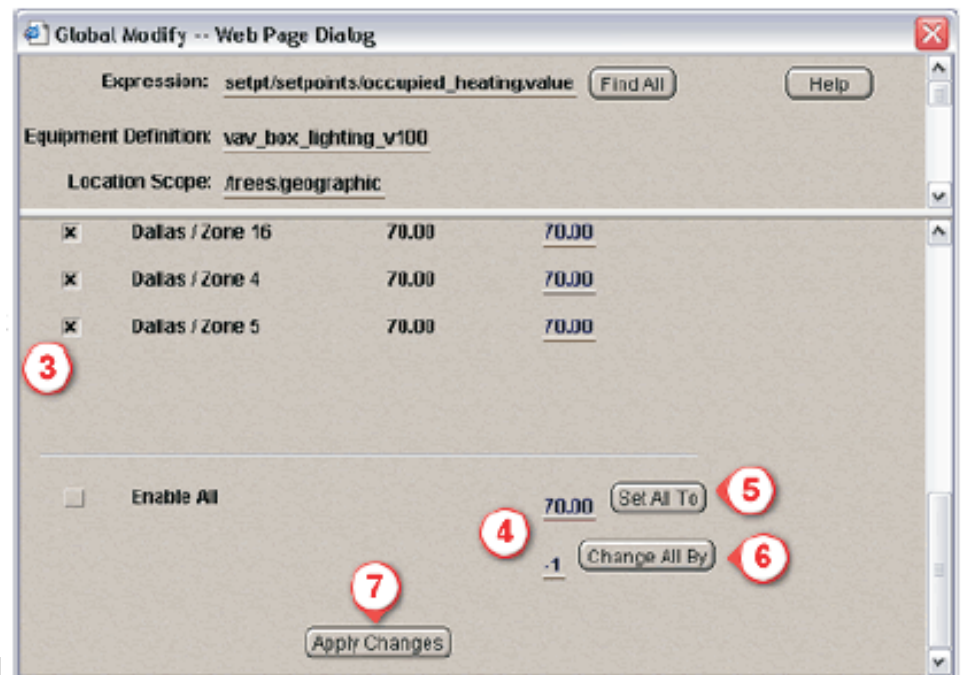
SETPOINTS

A setpoint is the temperature you want your equipment to maintain.
You define separate setpoints for heating and cooling to create a range of desired temperatures.

Setpoint adjustment is the basis of four cost-saving strategies:

Schedules
Optimal Start
Demand Control
Setpoint Optimization (or Trim and Respond)

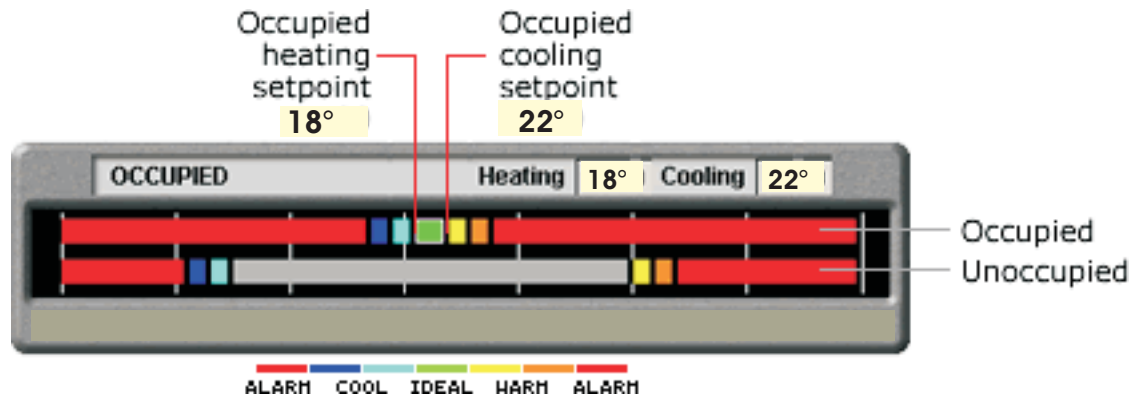When Set points are too close we might see Alarm condition earlier.

The setpoint graph displays the control program's setpoints as configured on the Properties page. Sometimes the effective setpoint does not match the configured setpoints. This situation may cause the control program to broadcast an unexpected thermographic color.
For example, the heating and cooling setpoints for an occupied zone may be 18° and 22°.

To change a setpoint

1 Click a segment or the gap between segments you want to change.

2 Type new values in the Heating and Cooling fields at the top of the graph.

3 You can click and drag a segment or a gap between segments to change setpoints.
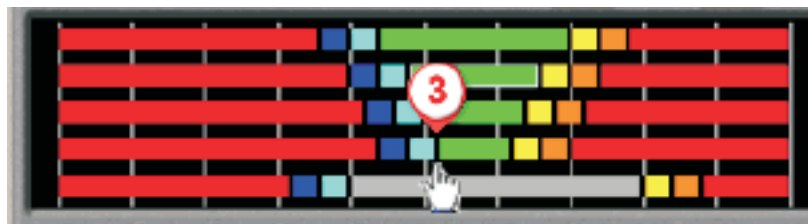
Click Accept.

The optimal start routine in zone setpoint microblocks allow equipment to begin heating or cooling a zone before occupancy begins. Zone temperatures can then reach the
ideal comfort range at the time occupancy begins. Optimal start works by calculating setpoints during the unoccupied periods that are gradually adjusted toward the
occupied setpoints.
In WebCTRL you can adjust values that were configured in one of the zone setpoint microblocks in Eikon for WebCTRL.

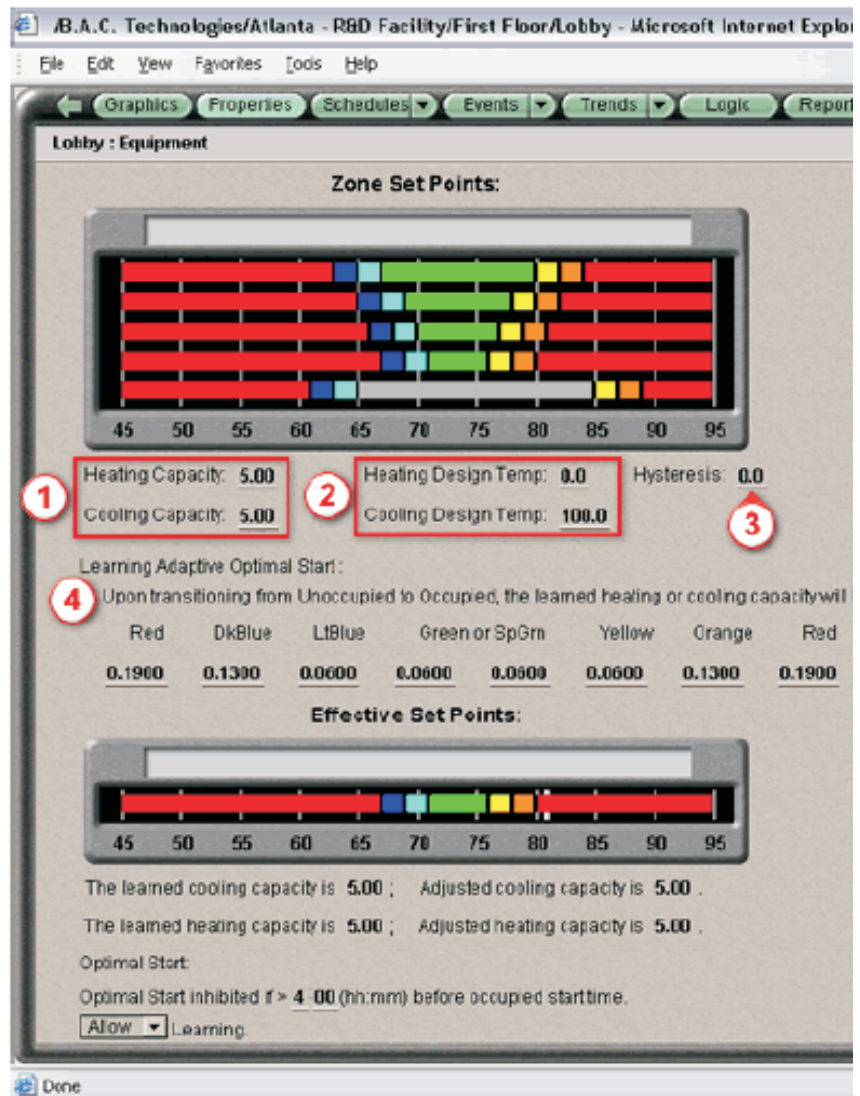**1 Heating Capacity** and **Cooling Capacity** The maximum rate (in degrees F/hr) that the zone temperature could be changed by heating or cooling if the outside temperature were 65 degrees Fahrenheit.
For example, if the equipment was stronger, or the area smaller, than was originally thought when this value was set in Eikon for WebCTRL, the heating or cooling capacity might be higher.

2 Heating Design Temp and **Cooling Design Temp** The most extreme outside winter and summer temperatures at which the equipment must run 100% of the time to maintain the zone temperature at a comfortable level. Design temps are based on the geographic location of the building and are determined by ASHRAE.

3 Hysteresis The amount by which the input value must fall below trip point before the microblock's output is turned off. The hysteresis can prevent the microblock from changing its value too frequently when the input oscillates around the trip point. For example, if the trip point is 35 and the hysteresis is 2, the microblock's input must fall to 33 before the output turns off.

4 The Zone Setpoint with Learning Adaptive Optimal Start microblocks can use the adjusted heating and cooling capacities to calculate current setpoints automatically.

Learning Adaptive Optimal Start

If you use learning adaptive optimal start and the zone does not reach the ideal temperature range by the time occupancy begins or reaches it too soon, then the heating or
cooling capacities of the equipment are automatically adjusted up or down for the next unoccupied period.
For example, the heating capacity for the zone is 5 degrees per hour. When the zone becomes occupied, the zone temperature is 1 degree below the occupied setpoint,
indicating a need for additional heat. Since the zone temperature was low by 1 degree, the heating capacity will be decreased by the light blue learning adaptive optimal start
value (1 degree below setpoint is in the light blue region). If the light blue learning adaptive optimal start value is 0.06 (see the **LtBlue** value in the example below), the
heating capacity will be adjusted to 4.94 for the next optimal start period. This causes the setpoint adjustment to begin sooner in the next unoccupied period.

1 These color values are the amount of adjustment depending on the color actually achieved at the beginning of occupancy.

2 The learned cooling or heating capacity is the maximum rate (in degrees Fahrenheit/hour) that the zone temperature could be changed by heating or cooling if the outside temperature was 65 degrees Fahrenheit.

3 The actual or adjusted capacity calculates the actual heating or cooling capacity of the equipment at the current outside temperature.

4 The inhibitor can prevent Optimal Start from occurring within a certain time before becoming occupied.

5 If Learning is allowed, heating and cooling capacities can be automatically adjusted when needed.

6 The percentage of heating/cooling capacity.

Schedules allow you to define when a building or zone is occupied and whether or not equipment should run. A schedule affects equipment at and below the area or equipment in the tree where the schedule was entered unless you manually exclude a specific item.

NOTE Do not include preheating or precooling time in your schedules. Optimal Start, a cost-saving strategy, automatically calculates and controls precise preheating and precooling routines.

Determining a schedule's priority

When multiple schedules have been entered into WebCTRL, the priority of a schedule determines which schedule is followed.
You determine a schedule's priority by assigning a schedule priority when you enter the schedule on the Schedules page. For example, the Occupancy schedule category
has three default schedule priority levels:

Priority level zero
Normal — a low priority schedule that represents times when the space is normally occupied and unoccupied.

Priority level one
Holiday — a medium priority schedule that cannot be Weekly type. A Holiday schedule represents times when the Normal occupancy schedule is overridden.
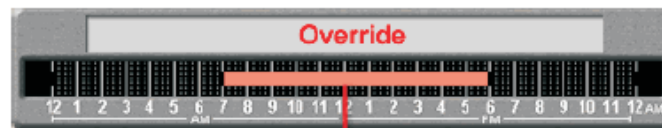
Priority level two
Override — a high priority schedule that cannot be a Weekly type. An Override schedule represents times when Holiday and Normal schedules are overridden.
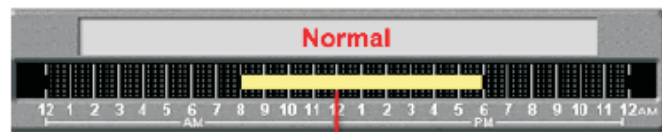
Determining a schedule's precedence

If two schedules have the same priority, precedence is determined by:
Time The last schedule to be entered takes precedence. However, schedules of the same priority may also merge. For example, if Merge Weekly Schedules is enabled on
the System Settings page, a weekly schedule of 9 to 6 and a weekly schedule of 8 to 5 merge so that the result is an 8 to 6 schedule.
Locality The more locally a schedule is entered within the tree hierarchy, the greater its precedence. For example, a schedule entered for a piece of equipment on Floor 1
has precedence for that equipment over a schedule of the same priority entered at the system level. Of the two factors affecting a schedule's precedence, locality has a
higher relative importance than time.
Check the Results bar in the schedule bar graph when you add schedules to verify the resulting schedule is the one you want to run.

Viewing schedules for a Geographic tree item

Each Result bar on the View tab of the Schedules page displays the result of all the schedules that affect the selected tree item. Click a Result bar to view all the schedules that contribute to the resulting schedule.

When multiple schedules affect a single area or piece of equipment, WebCTRL sorts the schedules by priority - the higher the priority, the closer the schedule is to the Result bar. You set a schedule's priority when you add a schedule.

To add a schedule

NOTES
Occupancy is the default WebCTRL schedule category. See Schedule categories if you want to create a different binary or a multi-state category.

New schedules and schedule changes download automatically if the Automatically Download Schedules checkbox is selected for a particular schedule. Click the Show Advanced button under the schedule table to access the checkbox.

In the Geographic tree, select the area or equipment you want to schedule.

Click Schedules, then click the Configure tab.

Click Add.

Select a Priority. (Normal is low priority; Holiday is medium; Override is high.)

Select a Type. See table below.

Type a schedule name in the Description field.

Enter desired values in the fields below the Description.

Define occupied schedule times by doing one of the following:

🖉 Click and drag the entire segment with the move cursor.

🖉 Click and drag either end of the schedule segment with the pointing-hand cursor.

🖉 Click the segment and type exact times in the fields above the segment.

🖉 Click Show Advanced to add or delete schedule segments.

Click Accept.

Type	Schedule runs
Weekly	Every week on the specified days
Date	On a single, specified date
Date Range	Between two specified dates
Date List	On multiple, specified dates
Wildcard	According to a repeating pattern (for example, the second Tuesday of every month)
Continuous	Continuously between specified times on two separate dates
Dated Weekly	Weekly between a start date and an end date NOTE To use a Dated Weekly schedule with an ExecB control module, you must use the 1.71:032 (or later) ExecB driver.

To edit or delete a schedule

In the Geographic tree, select the tree item where the schedule was defined.

Click Schedules, then click the Configure tab.

Select the schedule you want to edit or delete.

Edit the fields you want to change or click Delete.

Click Accept.

NOTE WebCTRL automatically deletes expired dated schedules from the database at 3:30 AM every day. But expired schedules remain in the control module until the next time schedules are downloaded to the control module. You can change the deletion time on the Scheduled Tasks tab of the System Settings page.

Manual Commands

You must have the Manual Commands/Console Operations privilege to issue a manual command.

1 Click Command in the Menu drop-down list.

2 Type the appropriate manual command in the dialog box that appears.

NOTE You may also press Ctrl+M to launch the manual command dialog box.