

INNcontrol™ 3 Product Guide

Table of Contents

Table of Contents	Page 1
Overview and General Concept	Page 2
Application	Page 2
Operation	Page 3
Features.....	Page 3
Quick Start Guide	Page 3
Login	Page 4
Layout and Navigation.....	Page 5
Menu Buttons and Bars.....	Page 6
Energy View options.....	Page 7
Room Trend Options	Page 8
Notification Pane	Page 10
Creating a Report	Page 11
Navigating the 3D Monitor	Page 12
Navigating the Quick View Screen	Page 14
Navigating Room Status View	Page 16
Navigate to Summary View	Page 19
Engineering and Maintenance Department Features	Page 21
Reports	Page 30
Guestroom Screens.....	Page 36
Room Control.....	Page 40
Alarms and Notifications	Page 45
Glossary.....	Page 47
Document Revision History	Page 50

Overview and General Concepts

INNcontrol™ 3 (IC3) is a powerful client-server application that provides a robust communications solution for properties with Honeywell's INNCOM Wireless Energy Management System. It delivers innovative room monitoring and control capabilities and provides efficient information presentation to staff and management.

Every INNCOM installation can have the option of having a three-dimensional rendering of the property as part of the real time display of information. The display rotates and can be manipulated to show any side of the building as well as individual floors.

The IC3 software communicates with INNCOM in-room intelligent devices such as the e4 Smart Digital Thermostat and a variety of light switches, controllers and communication devices.

It can also communicate with other hotel server-based systems, such as Property Management Systems, Building Automation Systems, Central Electronic Locking Systems and many others.

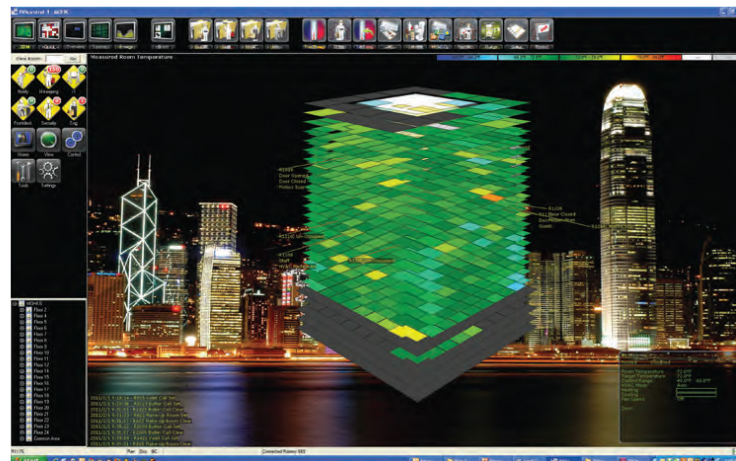


Figure 1. IC3 with 3D screen

Application

IC3 is used for real-time control of energy usage in rooms and to gather and manage information from intelligent INNCOM devices and sensors. The data is automatically processed to generate historical trends, reports and information for use by housekeeping, engineering, security and other hotel staff. IC3 also provides the gateway and backbone for Central Electronic Locking Systems. It uses a seamless interface between the room lock and the central server giving the hotel real-time, bidirectional access to the lock.

The network (backbone) required to communicate with in-room devices can be INNCOM's twisted-pair CINET, standard CAT-5 Ethernet cabling, DSL or LRE.

Operation

IC3 server and workstation applications can run on a PC under Windows XP, Windows 7, Windows 2000 Server or 2003 Server. It can support multiple PC terminals within the property, and extends over the internet to external users through a TCP/IP network.

The workstation software installed on the PC will provide central control functionality and data retrieval via a user-friendly, graphical user interface. The software is designed to deliver comprehensive functionality and can serve as a powerful tool to improve operations efficiency as well as guest service response levels.

The user interface has been designed to communicate critical information quickly using graphics and different color schemes to communicate the different system states.

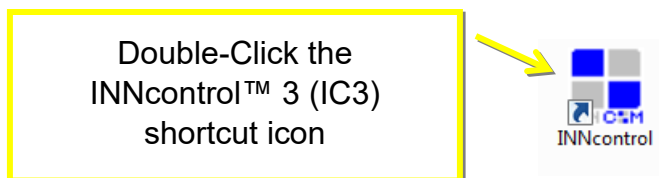
Features

- Real-time room status information
- Room and property energy trend data
- Alarm reports for malfunctioning equipment
- Instant control of temperature setback parameters and other system settings
- Online diagnostic/preventive maintenance
- Interface with most PMS, BMS and other hotel systems
- Automatic load shedding & peak demand algorithms
- Higher security for guests
- Remote access ready

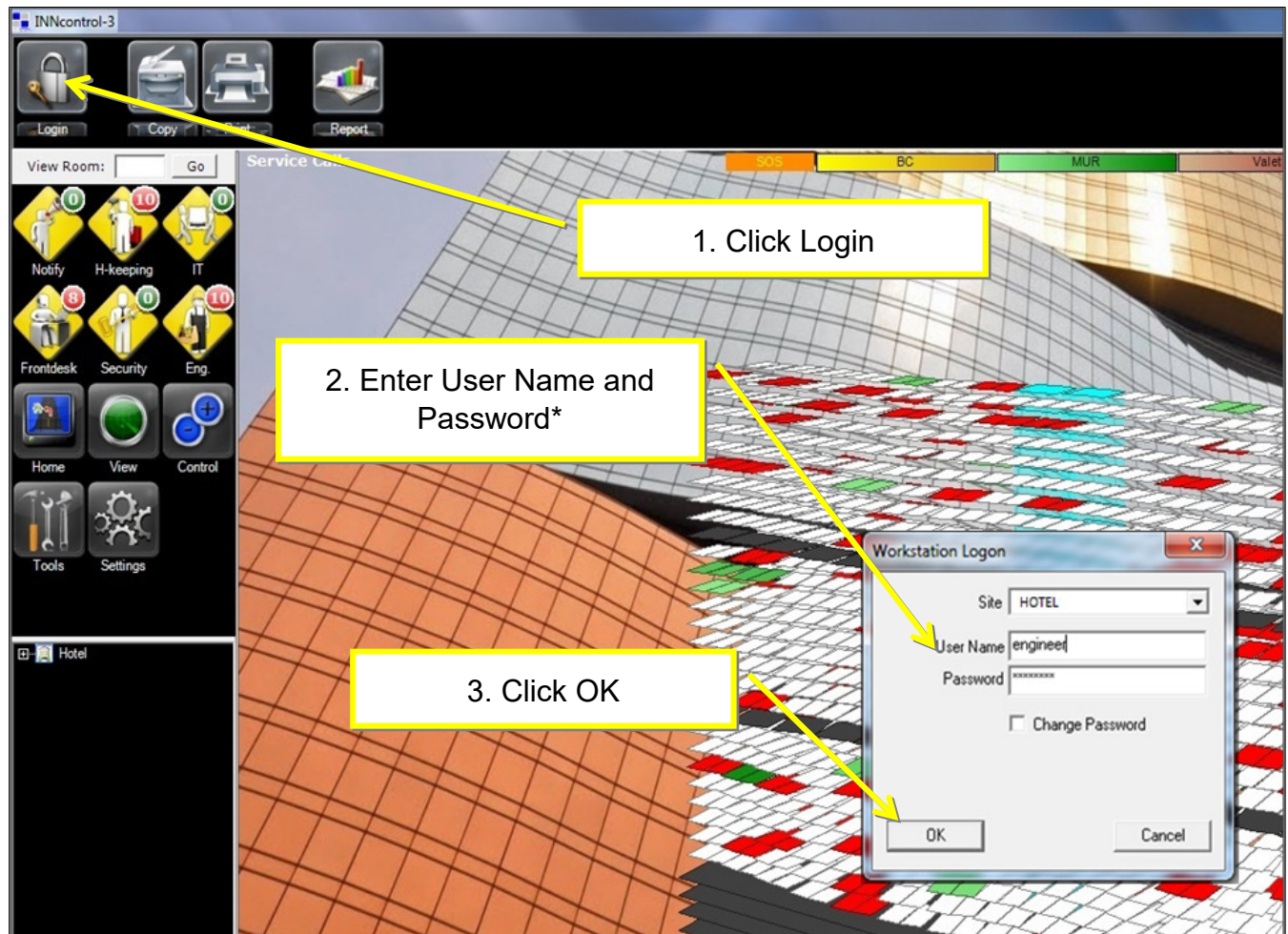
Quick Start Guide

This section provides quick reference information on the basic features and controls available in INNcontrol™3.

Start and Login

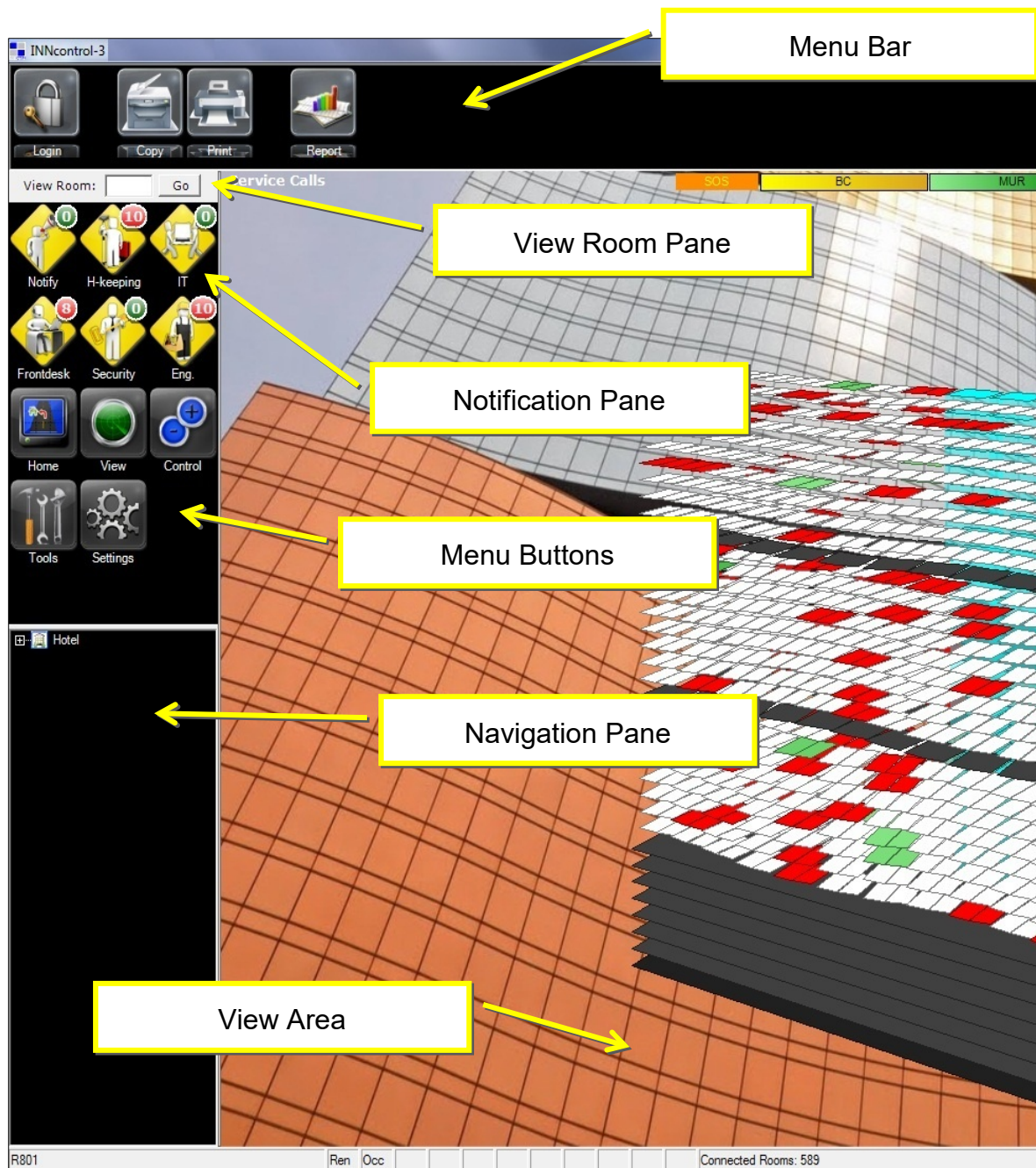


Login

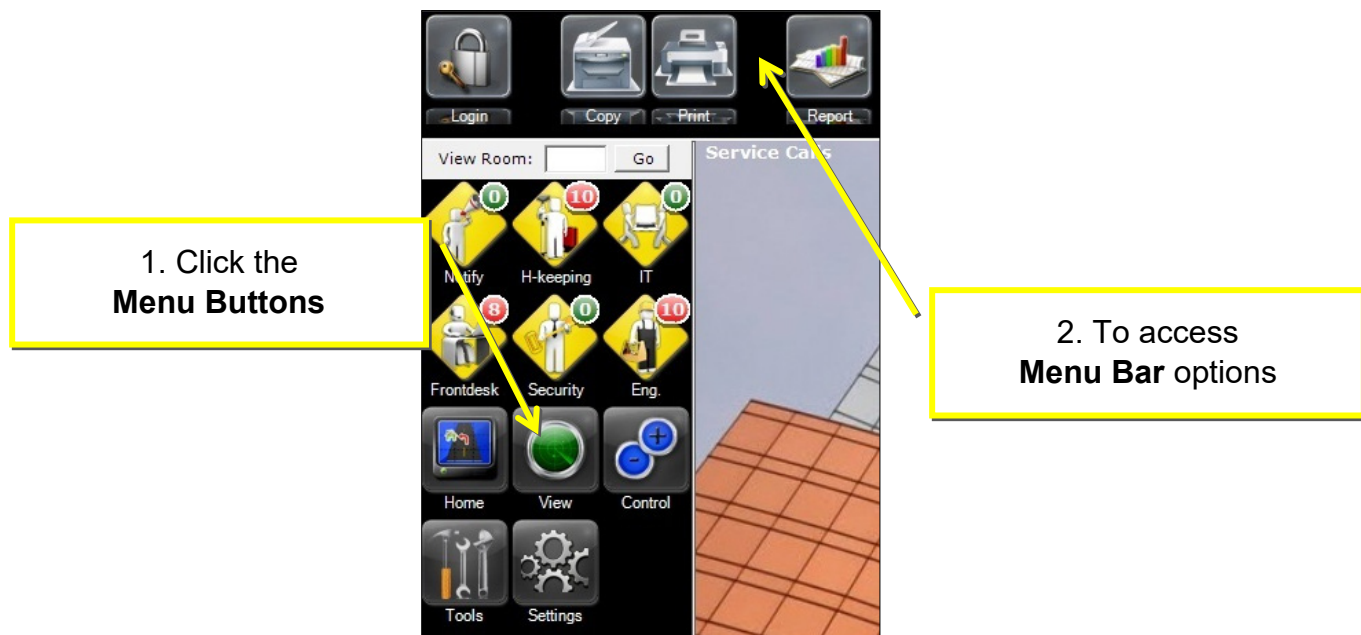


*Username and Password are provided by the installation or training team.

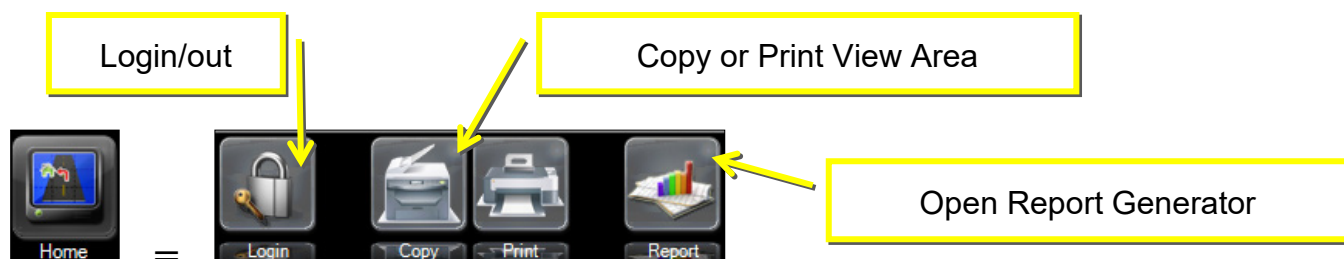
Layout and Navigation



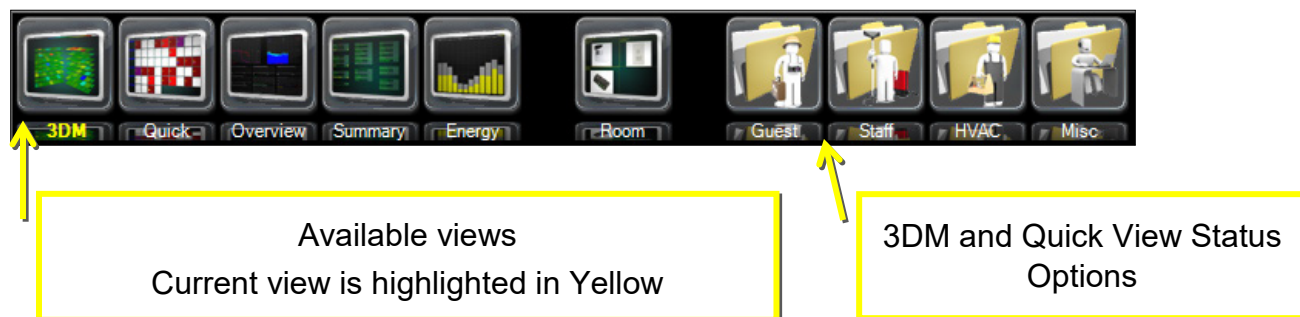
Menu Buttons and Menu Bar



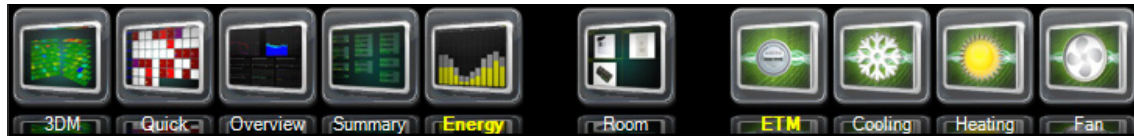
Menu Buttons and Menu Bar Details



3DM and Quick View Options:



Energy View Options



Energy View Graph Options
(ETM = Summary of cooling, heating and fan combined)

Function in development

Room View Options:



Current room status summary

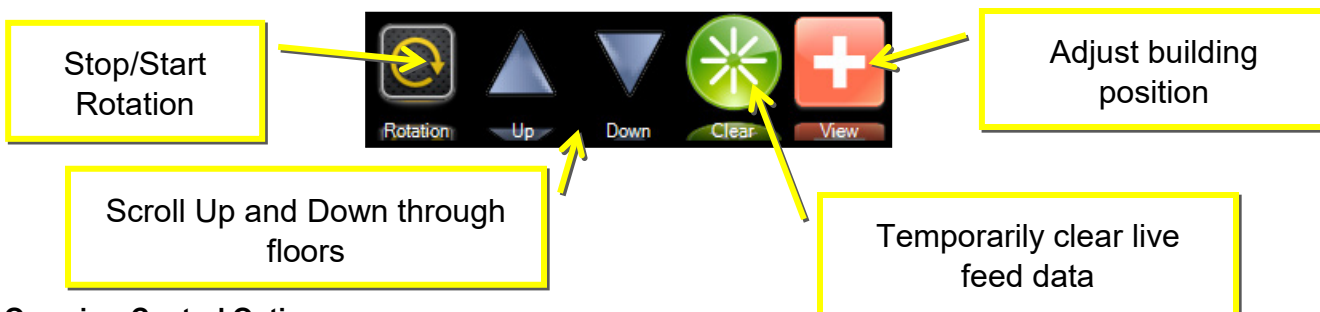
Historical trend of room status and HVAC

Schedule temp. in common areas



= Menu bar options depend on current view selected

3DM Control Options:



Stop/Start Rotation

Adjust building position

Scroll Up and Down through floors

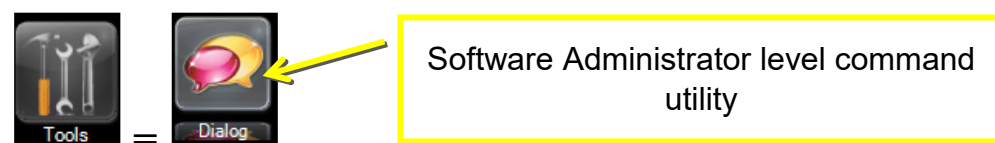
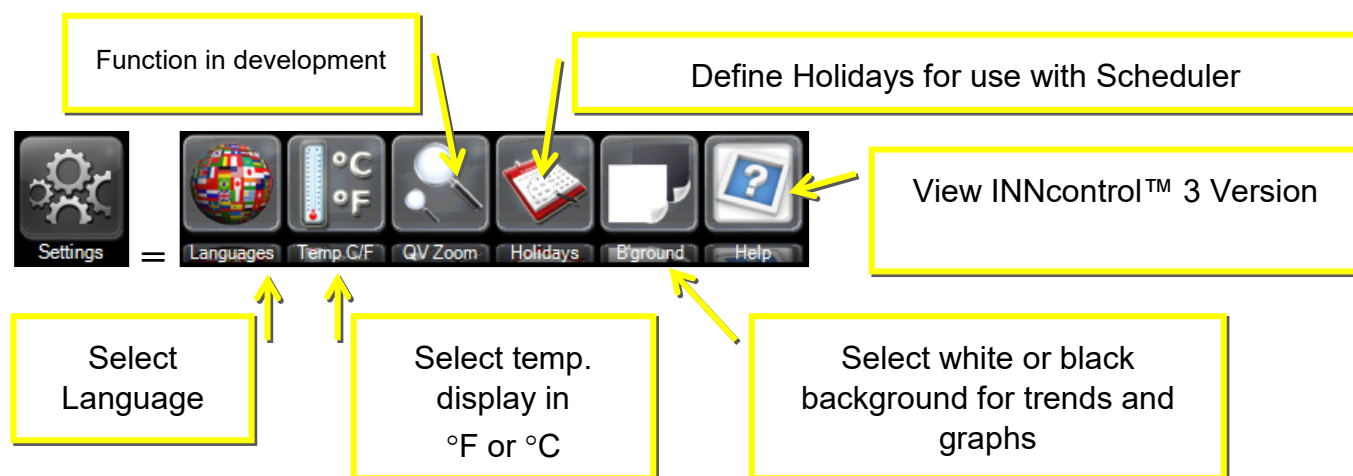
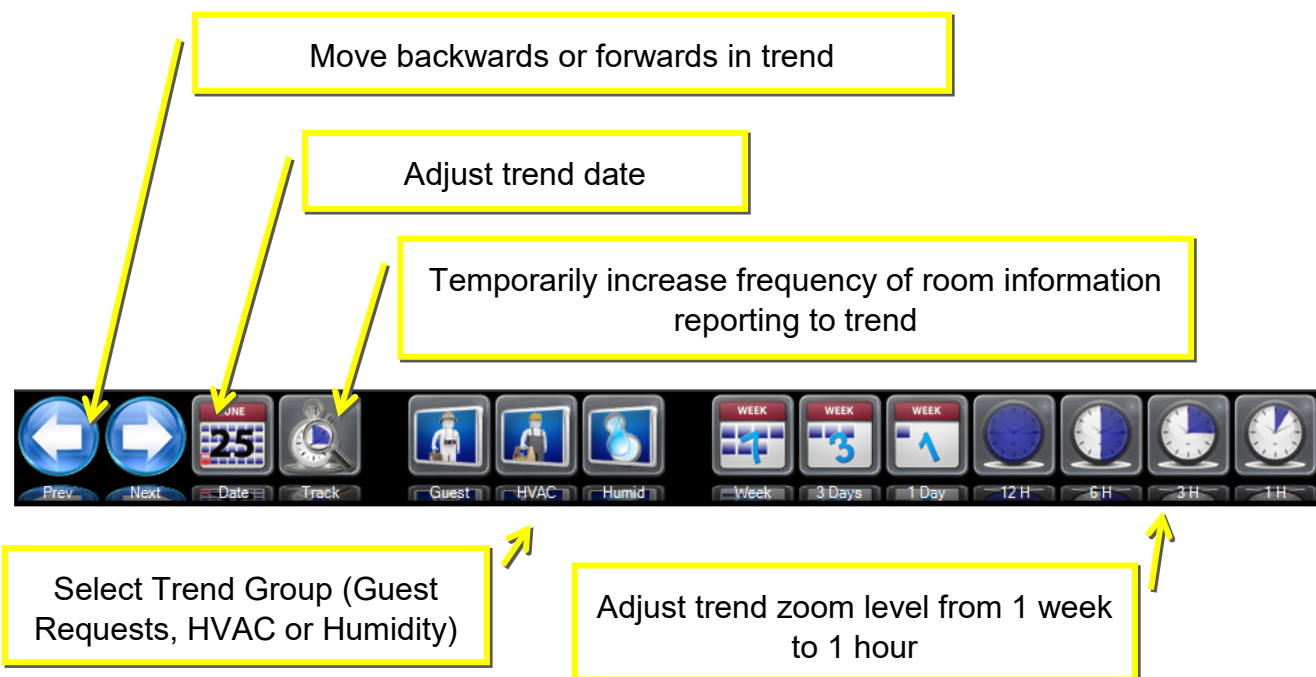
Temporarily clear live feed data

Overview Control Options:



Adjust date of Overview trend graphs

Room Trend Control Options



View Room and Navigation Pane

To access current Room Status and Historical Trend data:

Type the room number in the **View Room** field and click the **Go** Button



You may also navigate to room information by double-clicking on a room from the **Navigation Pane**

Rental, Occupancy and Communication status indicators

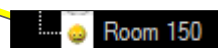
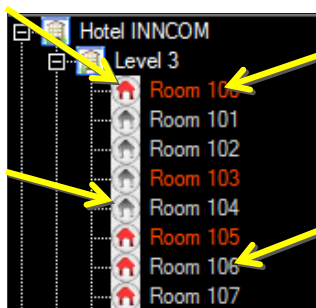
Red Hotel Icon = Room is Rented

Grey Hotel Icon = Room is Un-Rented

Red Room Name = Room is Physically Occupied

White Room Name = Room is Physically Unoccupied

Yellow Icon = Room is not communicating

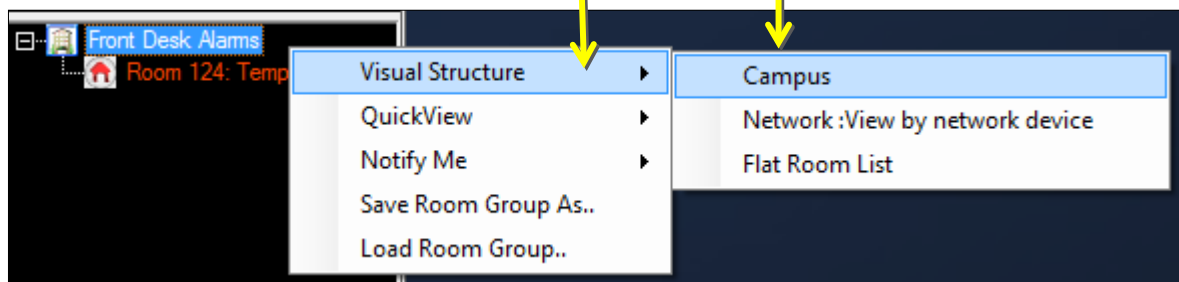


Change Room List in Navigation Pane

The Navigation Tree room list will change to display any group you have selected (e.g. Front Desk Alarms)

Right-Click anywhere in the Navigation Pane to open the Navigation Menu

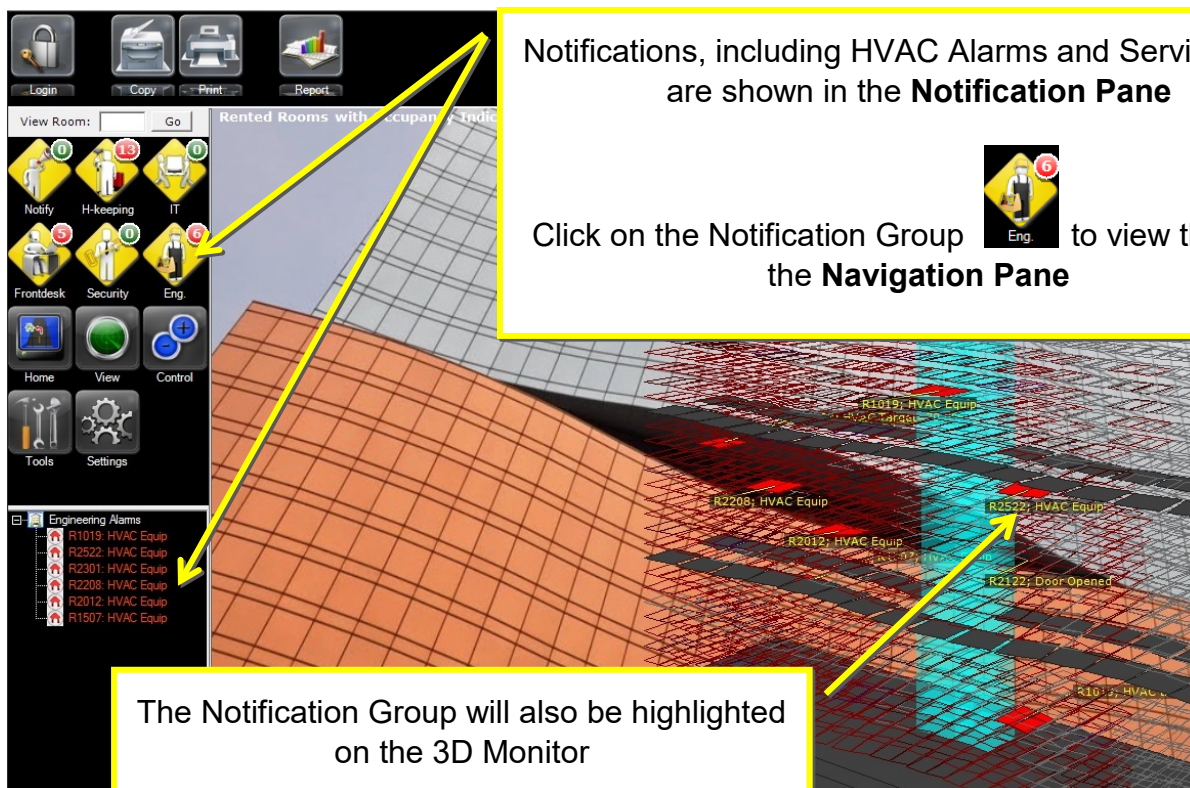
Select **Visual Structure** then **Campus** to return to the list of rooms by floor



Notification Pane

Notifications, including HVAC Alarms and Service Calls, are shown in the **Notification Pane**

Click on the Notification Group  to view the list in the **Navigation Pane**



The Notification Group will also be highlighted on the 3D Monitor

Creating a Report

1. Select the **Home** Menu Bar

2. Click the **Report** button to open the **Report Generator**

3. Select a Report Group

4. Click the Run button

Report text file opens

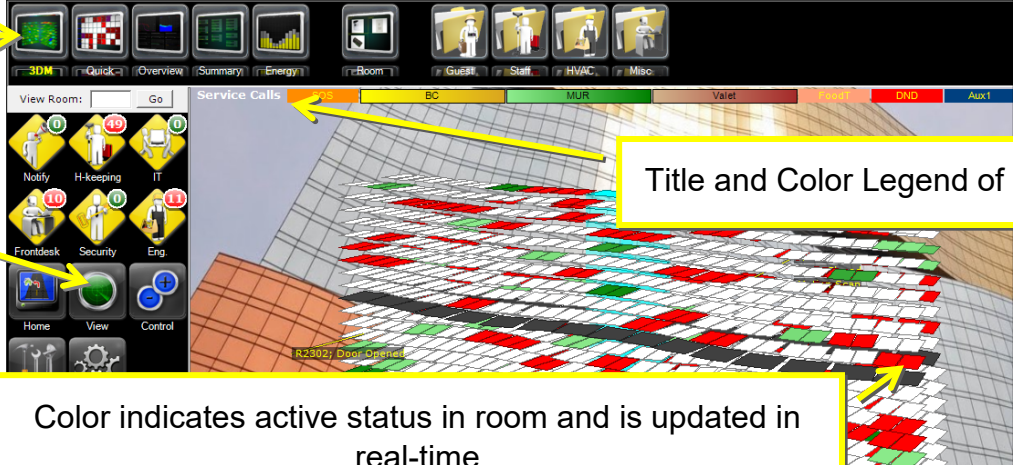
Save or Print a Report

Click the File menu

Click Save or Print

Navigate to the 3D Monitor

1. Select the **View** Menu Bar
2. Click the **3DM** button to open 3D Monitor View

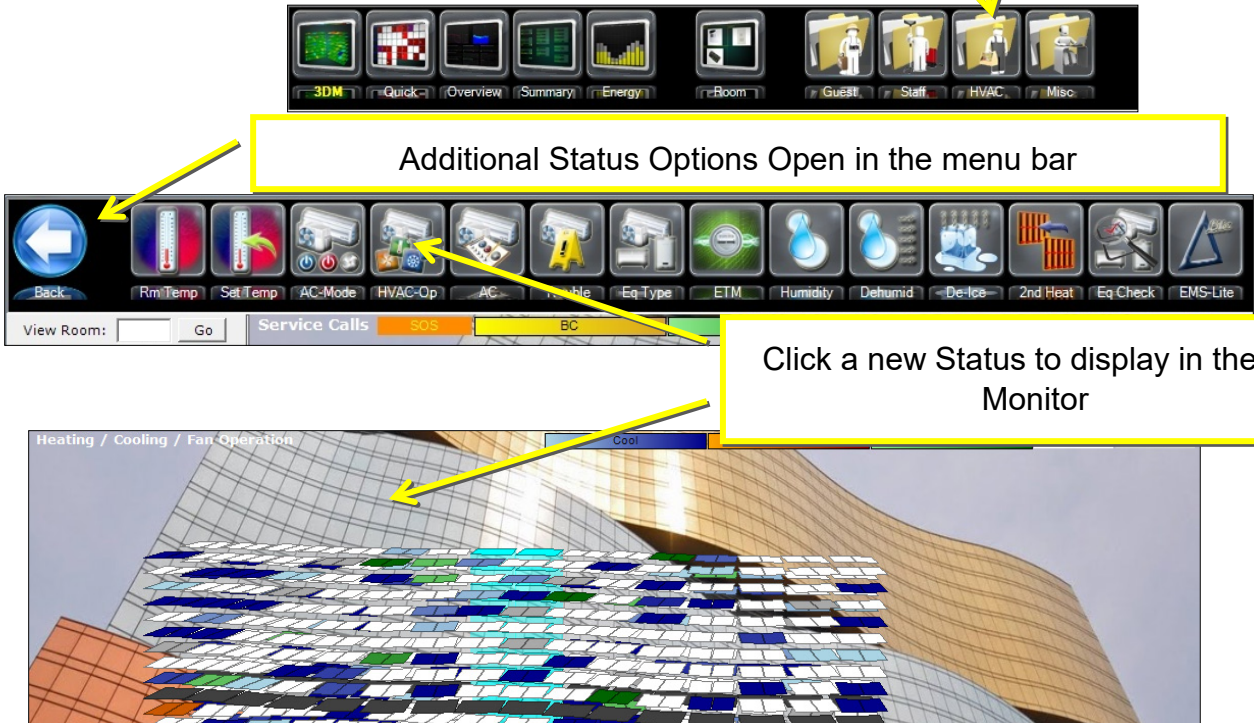


Title and Color Legend of current status

Color indicates active status in room and is updated in real-time

Change the 3DM Status View

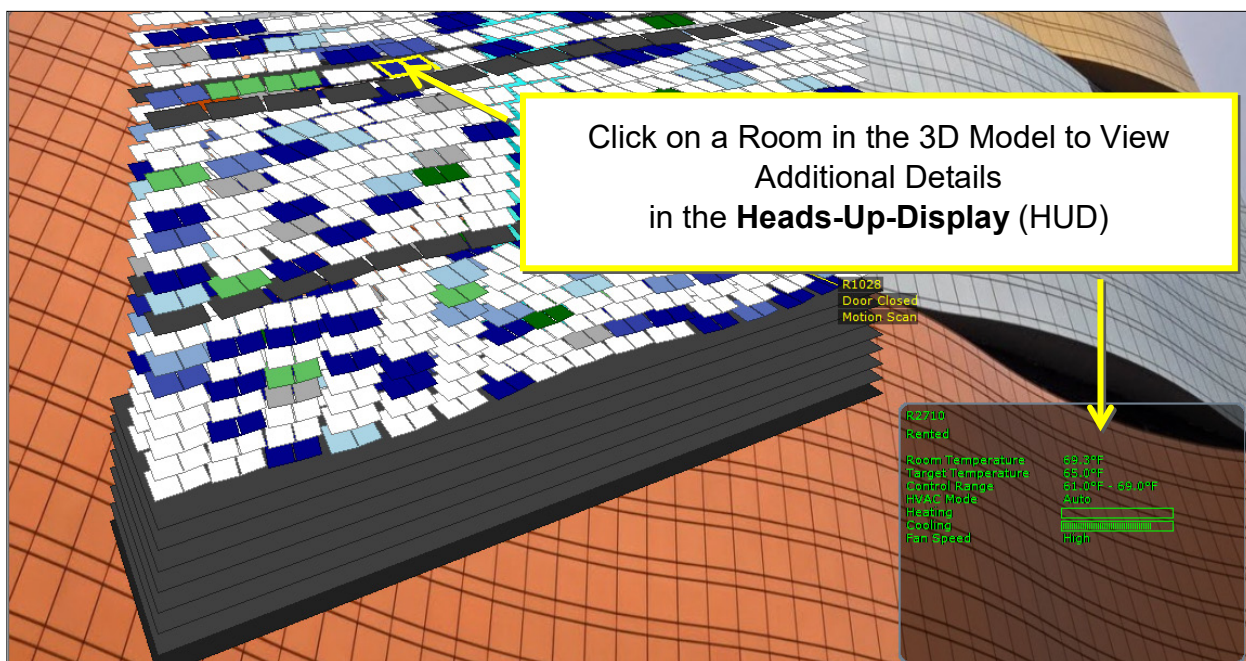
Click a Status Group folder from the menu bar



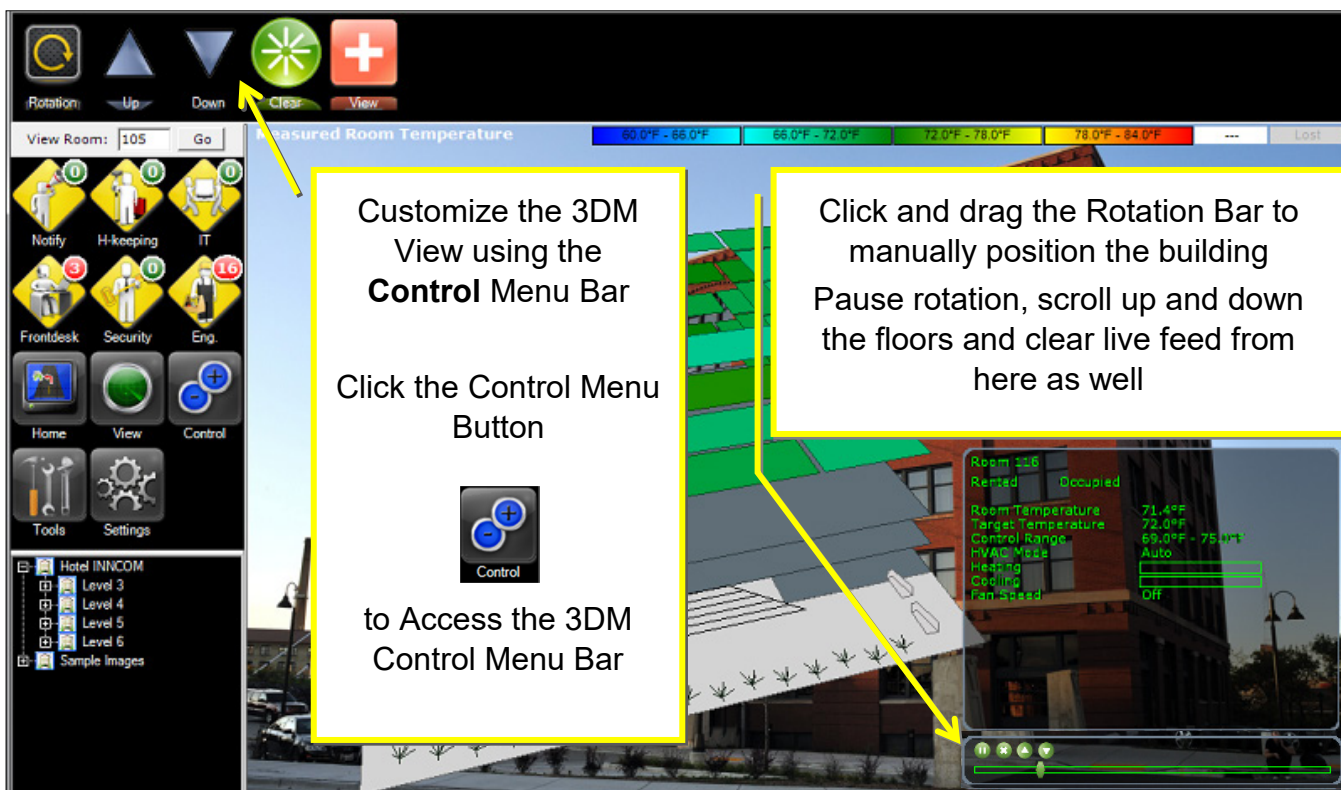
Additional Status Options Open in the menu bar

Click a new Status to display in the 3D Monitor

Heads-Up-Display (HUD) – Room Details Displayed in 3DM



Control and Customize the 3DM View



Navigate the Quick View Screen

1. Select the **View** Menu Bar
2. Click the **Quick** button to open Quick View Screen

Row title

Title and Color Legend of current status

Color indicates current status in room and is updated in real-time

Room number and status-specific info

Additional room details e.g. Rental/Occupancy status and Guest Requests

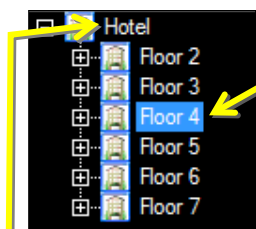
Change Quick View Status

Click a Status Group folder from the menu bar

Additional Status Options Open in the menu bar

Click a new Status to display on the Quick View screen

View Individual Floor Quick View Screens



Left-click on a floor from the Campus View in the Navigation Pane and this will automatically load the individual floor in the Quick View window

Left-click on the top branch of the Campus View navigation tree to load the full hotel back into the Quick View screen. This top branch is typically the hotel name.

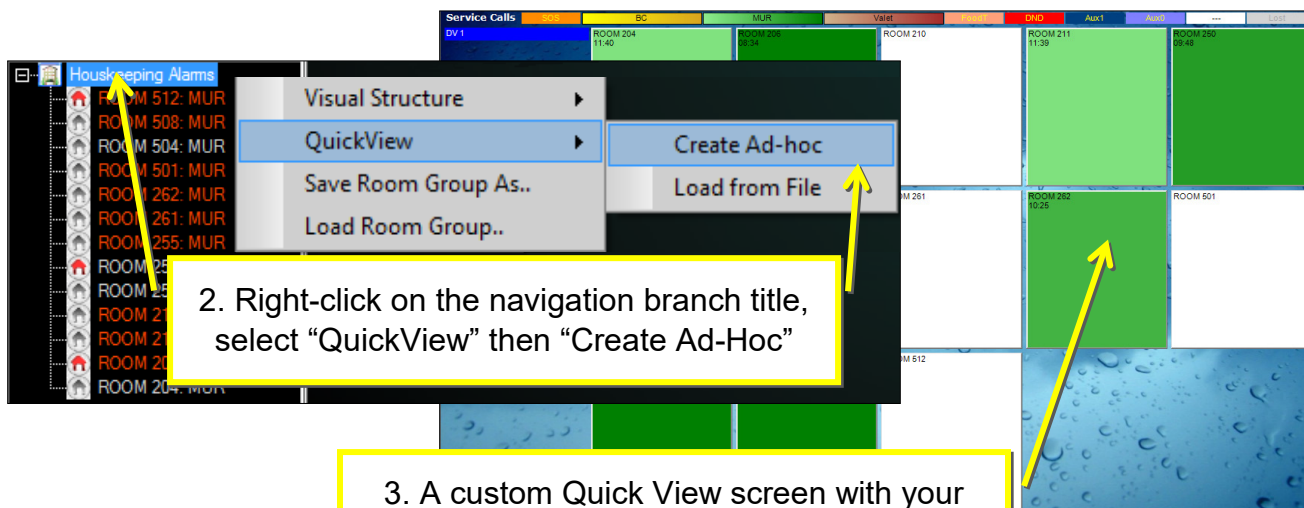
Each time you open IC3, your default quick view will open. This default quick view typically contains all guestrooms.

Summary or Notification Group Quick View Screens

You can create custom (ad hoc) Quick View screens from groups in your navigation pane. Custom groups in the navigation pane are created by selecting rooms from the summary screen or notification pane. Each time you click on a group of rooms from the Notification pane or Summary view, this group will appear in the Navigation pane. Right-click on Navigation branch that contains your desired custom quick view rooms. Select "QuickView" from this right-click menu, then "Create Ad-hoc" to load this group into its own quick view screen. See example below.



1. Left-click a group from the Notification pane or Summary view

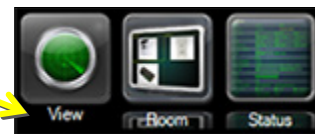


2. Right-click on the navigation branch title, select "QuickView" then "Create Ad-Hoc"

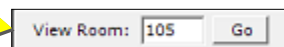
3. A custom Quick View screen with your selected room group opens

Navigate Room Status View

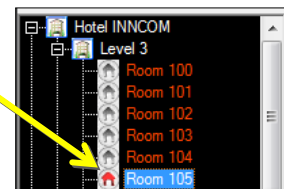
Option 1: Click these buttons sequentially



Option 2: Type the room number in **View Room** box and click **Go** button



Option 3: **Double-Click** on the room from the **Navigation tree**



Room Status Layout

Room Number and Guest Name (if available)

Room 105

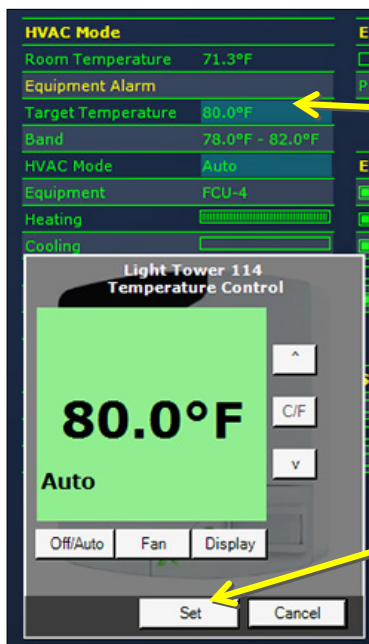
Status	Requests	HVAC Mode	Energy Conservation
<input checked="" type="checkbox"/> Rented	<input type="checkbox"/> Privacy	Room Temperature 70.5°F	<input type="checkbox"/> ETM Reference
<input checked="" type="checkbox"/> Occupancy	<input type="checkbox"/> MUR	Target Temperature 70.0°F	Peak Demand: Normal
<input type="checkbox"/> Keytag Inserted	<input type="checkbox"/> Butler	Band 67.0°F - 73.0°F	
<input type="checkbox"/> Door Open	<input type="checkbox"/> Valet	HVAC Mode Auto	Energy Control
<input type="checkbox"/> Window Open		Equipment FCU-4	<input checked="" type="checkbox"/> Cooling
<input type="checkbox"/> Phone		Heating <input type="text"/>	<input checked="" type="checkbox"/> Heating
<input type="checkbox"/> Powering	Pending Service	Cooling <input type="text"/>	<input checked="" type="checkbox"/> 2nd Stage Heat
<input type="checkbox"/> Call of Order	<input type="checkbox"/> Food Tray	Fan Speed Off	<input type="checkbox"/> Force 2nd Stage
<input type="checkbox"/> Supervisor	<input type="checkbox"/> Shoe Shine		<input checked="" type="checkbox"/> Electric Heat
<input type="checkbox"/> Cleaning Req.	<input type="checkbox"/> Msg. Waiting		
Provisioning	Minibar	Misc	Security
<input type="checkbox"/> 4°C	<input type="checkbox"/> Restock	PIR Motion Detector 00:00	<input type="checkbox"/> Open Duration
<input type="checkbox"/> ecoMode	<input type="checkbox"/> Door Open	Sample = 12/9/2011 3:56 PM	<input type="checkbox"/> Ajar
<input type="checkbox"/> ADA			<input type="checkbox"/> Low Lock Battery
<input type="checkbox"/> EMS Lib			
<input type="checkbox"/> Automatic			

Status is Active when box is filled in and Inactive when empty

Additional color shading indicates control is possible for these items

Current HVAC data

Room Status Controls



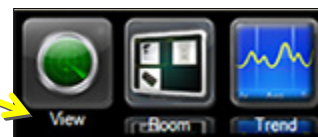
Click an area with extra color shading to open the control for that item

Controls are restricted based on user account

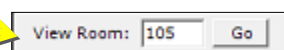
Make adjustments and click Set

Navigate to Room Trend View

Option 1: Click these buttons sequentially



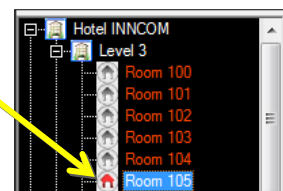
Option 2: Type the room number in **View Room** box and click **Go** button.



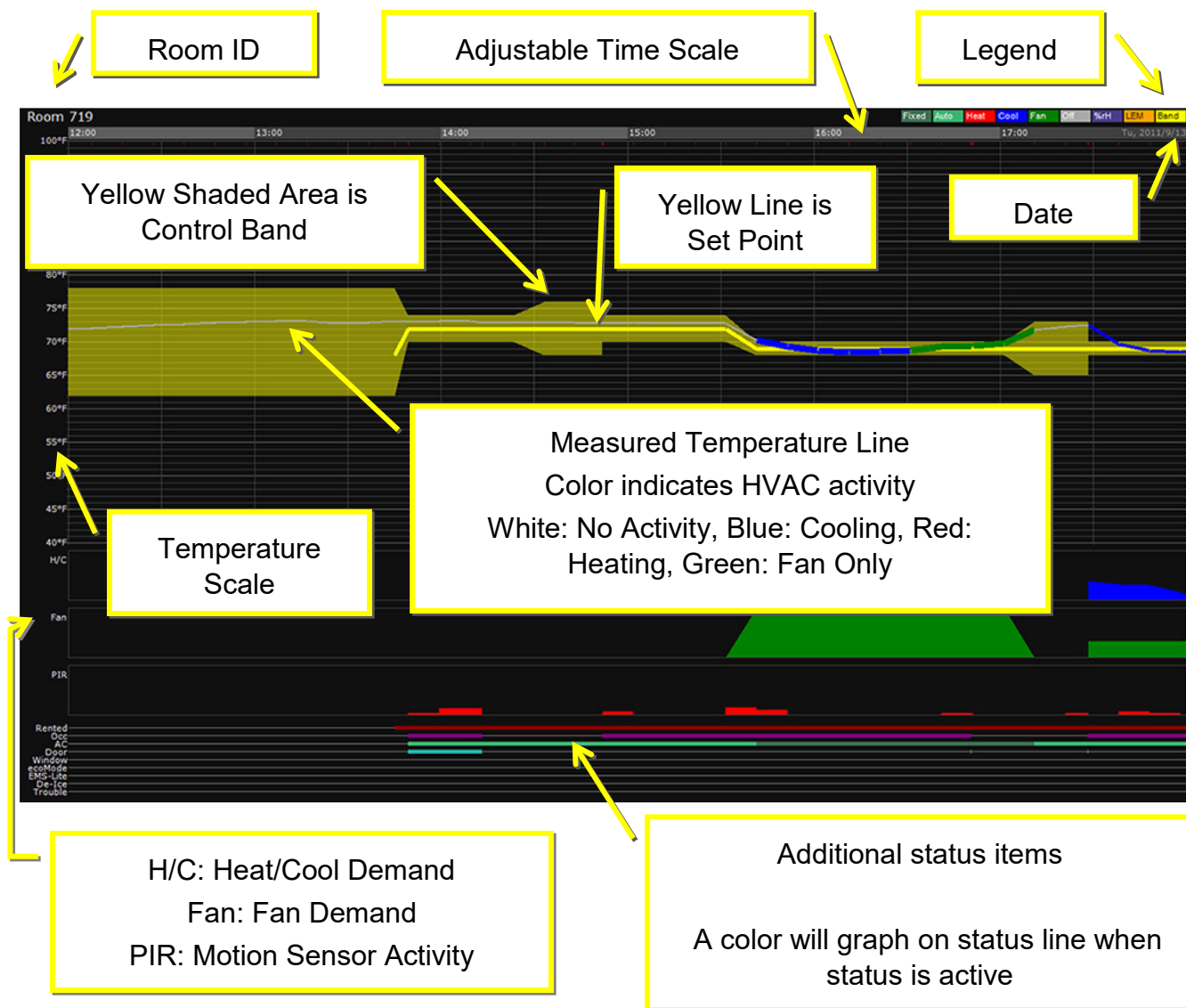
Then, click the  button from the Menu Bar.

Option 3: **Double-Click** on the room from the **Navigation** tree

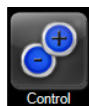
Then, click the  button from the Menu Bar.



Room Trend Layout





Room Trend Controls



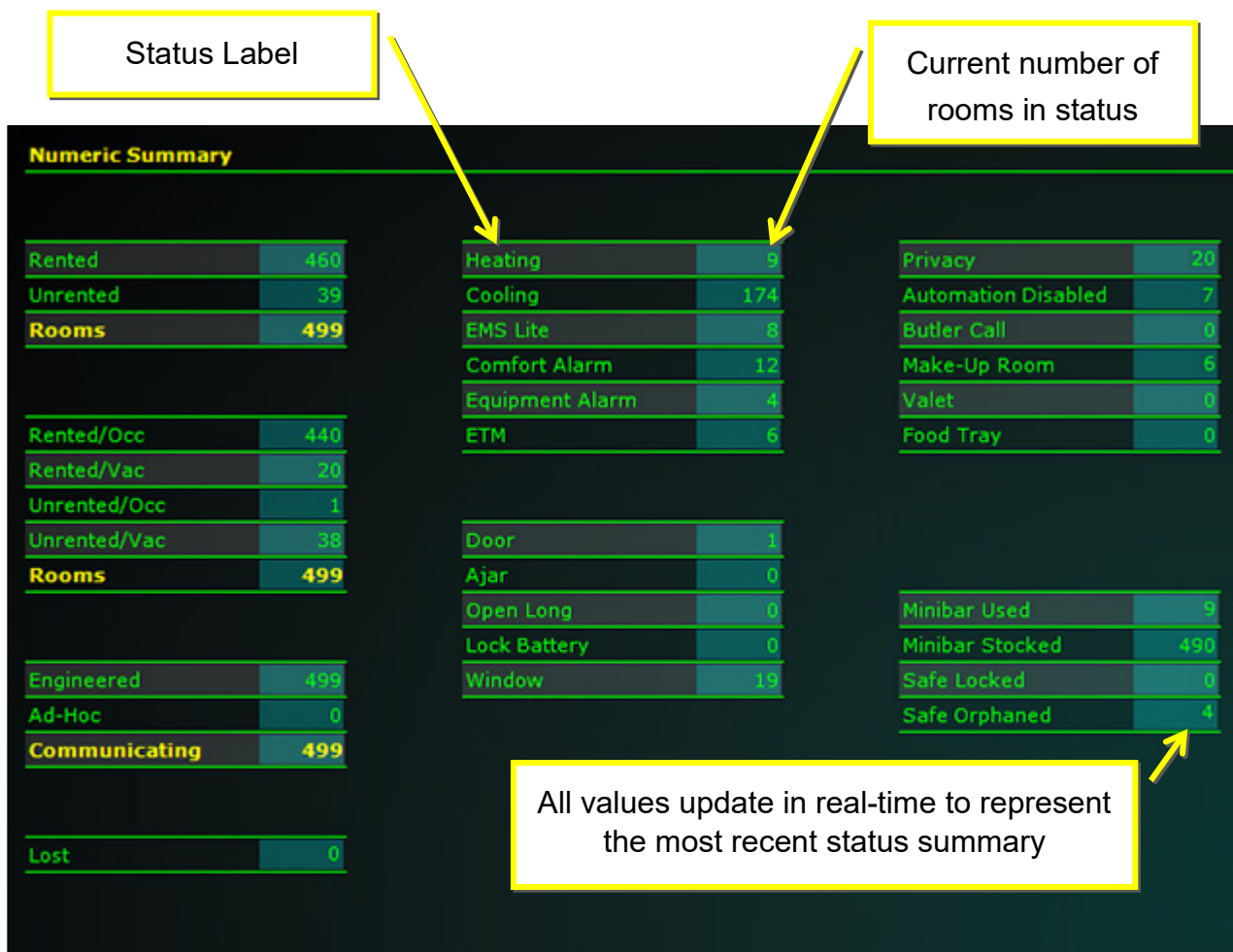
To control your Trend View, click the **Control** button from the Main Menu Buttons to open the Trend Control Menu Bar.



Navigate to Summary View

Click the  menu button then click the  button from the Menu Bar

Summary View Layout Controls



Click on a value to display the room list in the Navigation Pane

Heating	23
Cooling	3
EMS Lite	1



Cooling / 3
Room 101
Room 125
Room 138

Navigate to Energy View



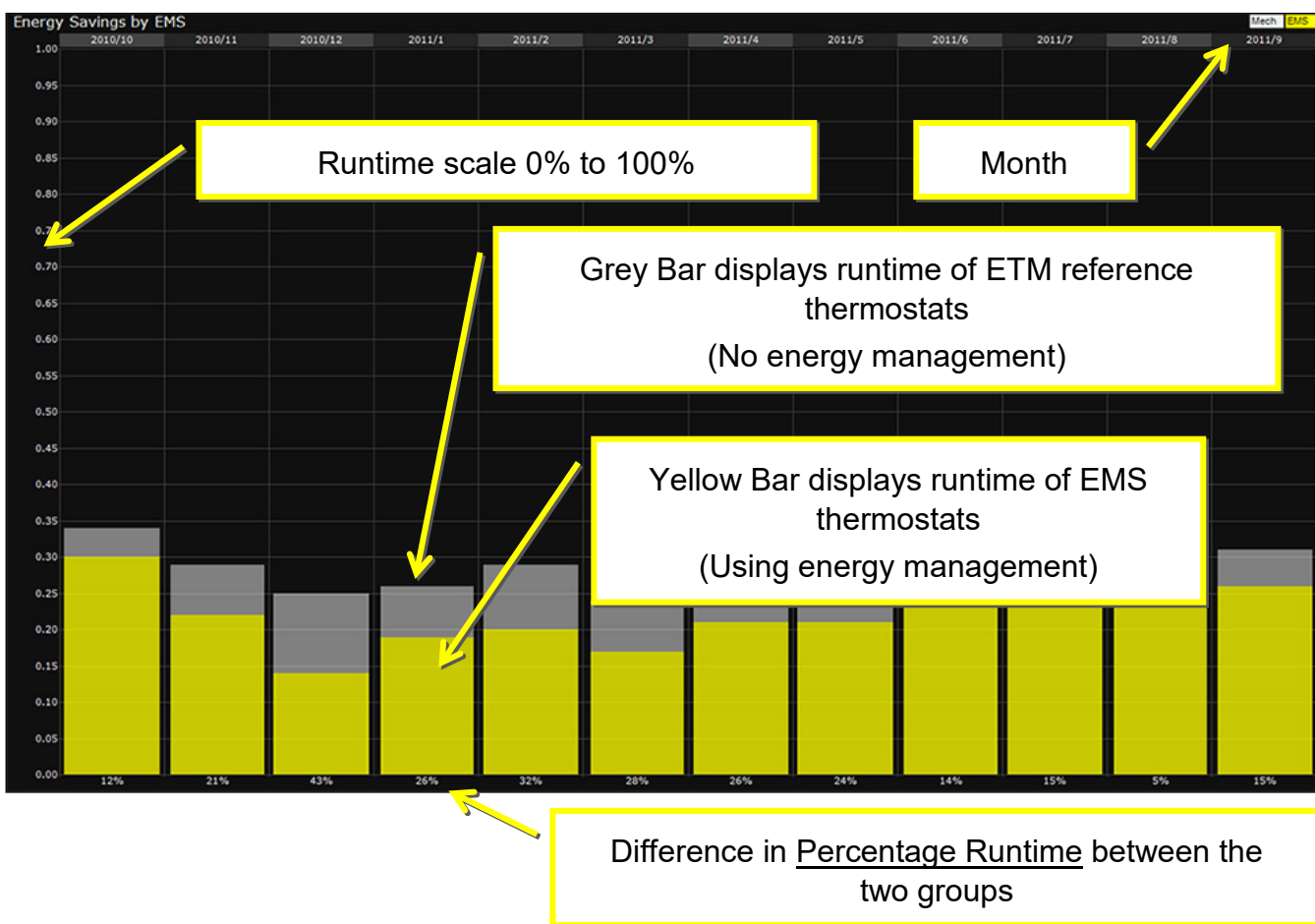
Click the **View** menu button then click the **Energy** button from the menu bar



Energy View Layout

INNCOM thermostats are designed to operate in [ETM](#) (Reference Mode) for 2% of their runtime by default. A random selection of thermostats will be in ETM mode throughout the month. Thermostats in ETM mode behave like a mechanical thermostat with NO ENERGY MANAGEMENT.

The runtime of heat, cool and fan used by the ETM reference sample is compared to a sample of thermostats operating with energy management (EMS). This comparison is displayed on the Energy View. The past year of data is displayed.



Engineering and Maintenance Department Features

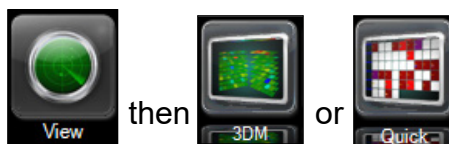
This section describes the features commonly used by the engineering or maintenance department. Engineering specific overview screens along with guestroom status, control and trend are referenced here. Engineering alarms and notifications are also discussed.

3DM and Quick View Screens

The 3D Monitor and Quick View screens display a real-time overview of your chosen status group. Each view has a series of shapes that represent thermostats/room controllers. The 3D Monitor displays these shapes in a three-dimensional orientation. The Quick View screen displays thermostats/room controllers as squares in a grid format. Each view applies a color coding to these shapes to indicate the current status of the guestroom. The title and color legend are displayed at the top of the main view window. Additional guestroom information is also available within each view. Refer to Section 1 to learn the basics of the 3DM and Quick View screens.

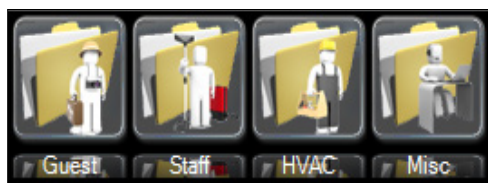
NOTE: INNcontrol™ 3 is customized based on your property design and some options may not be active in your application.

To select the 3DM or Quick View: Click



then or

3DM and Quick view share the same set of status items for view. These status items are grouped the following folders:



Guest: Status a guest may select in the room

Staff: Status important to most hotel staff members

HVAC: Status of heating, ventilation and air conditioning

Misc.: Additional status items

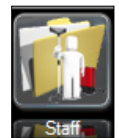
Status Groups Relevant to Engineering Listed by Folder



=



Displays current [ecoMode](#) status of the



=

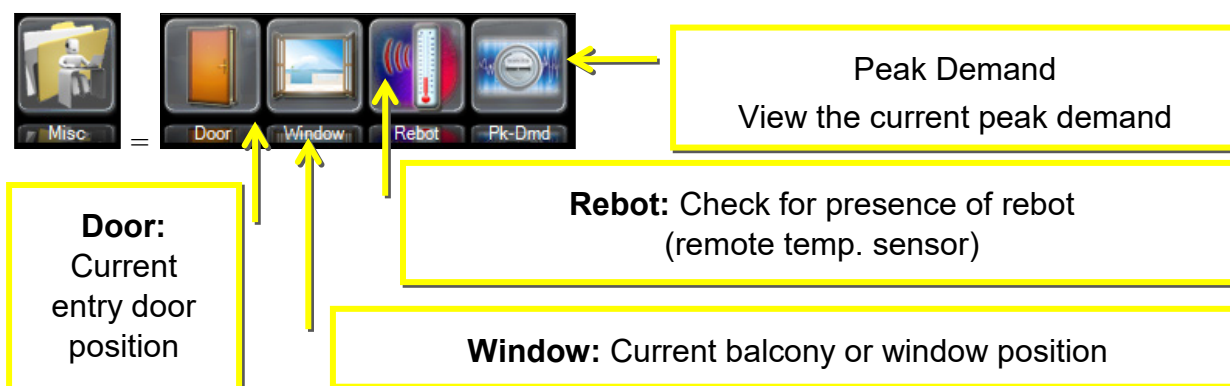
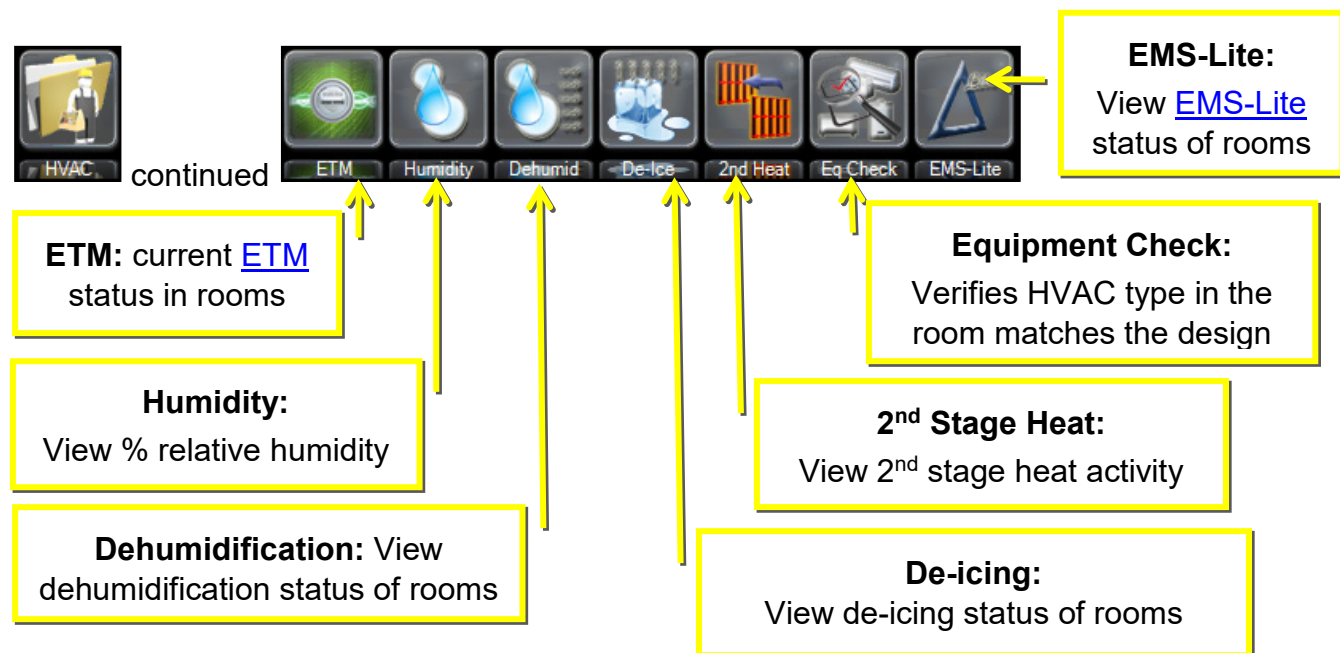
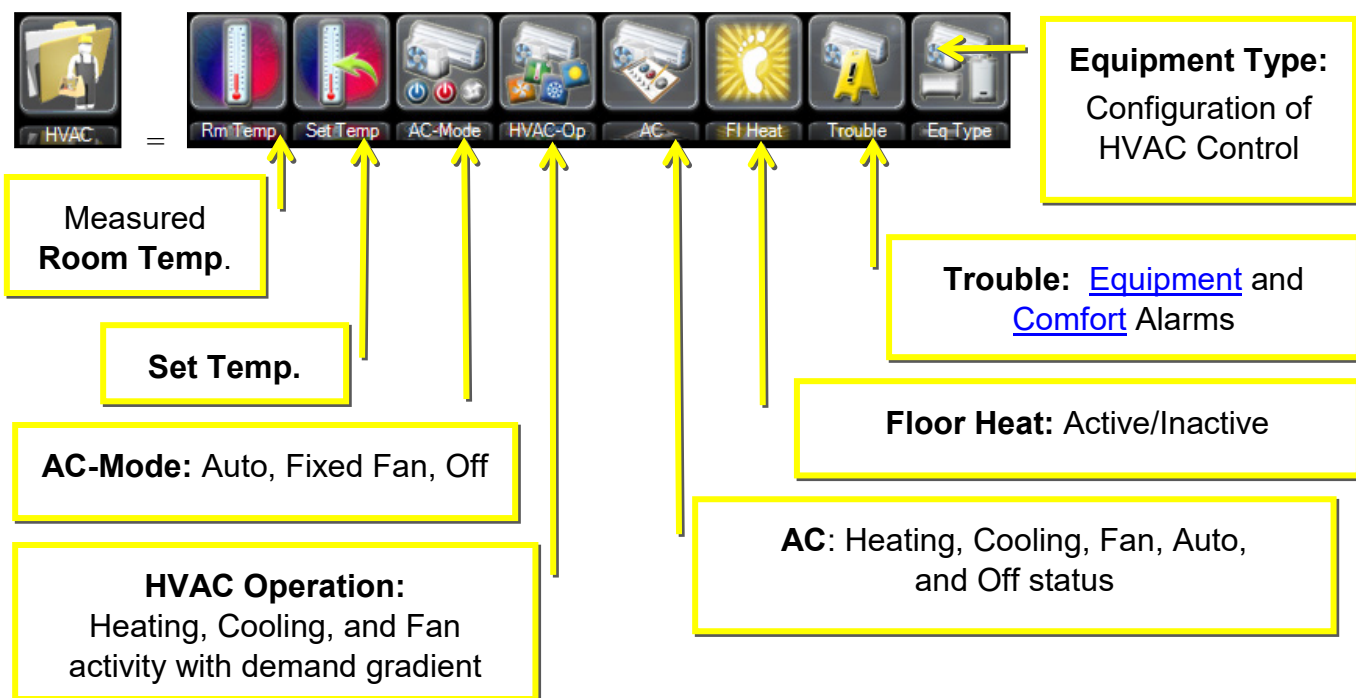


Displays current [hibernation mode](#) status

Displays current physical [occupancy status](#)

Displays a combination of rental and occupancy

Displays current [rental status](#)



Overview

The Overview screen provides a graphical summary of the entire system during a 24 hour period. Some overview graphs display historical trend for the selected 24 hour period. These trend graphs include Rental and Occupancy Status, HVAC demand, Relative Humidity, Room Communication, ecoMode and Peak Demand. Additional graphs represent a real-time overview of the system. These real-time graphs include HVAC indicators and alarm conditions. Click the Control menu button to access the control menu bar for the overview screen. Scroll or select alternative dates to view in the overview screen. The date in the center top of the screen will revert back to today's date when real-time graphs update, but the historical trend will remain on the selected date.

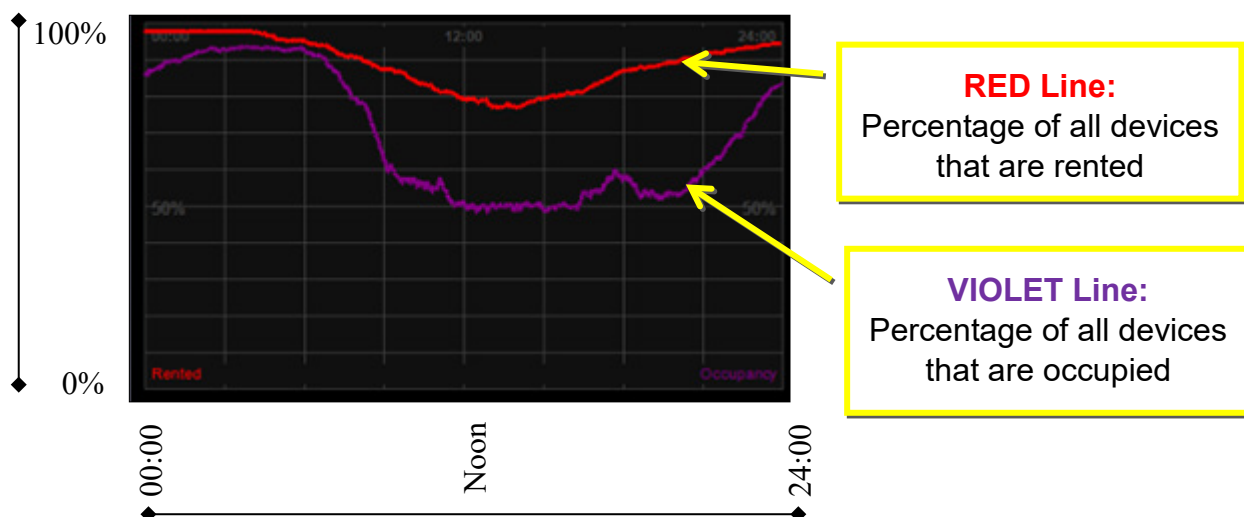
NOTE: IC3 is customized based on your property design and some options may not be active in your application.



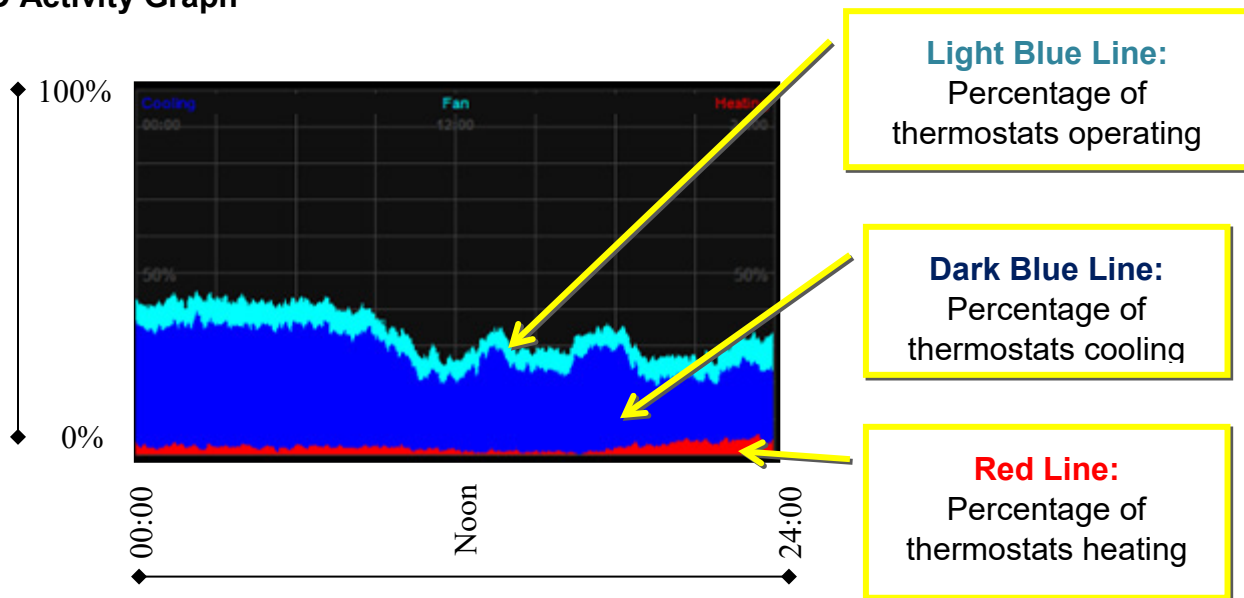
To select the Overview screen: Click **View** then **Overview**

Description of Engineering Trend Graphs in the Overview Screen

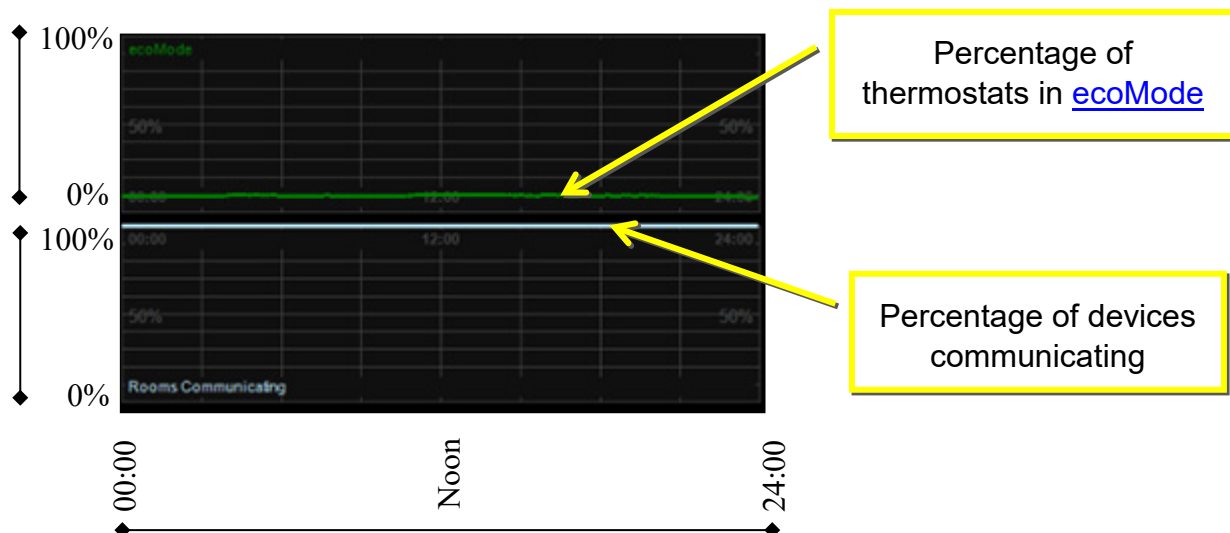
Rental and Occupancy Graph



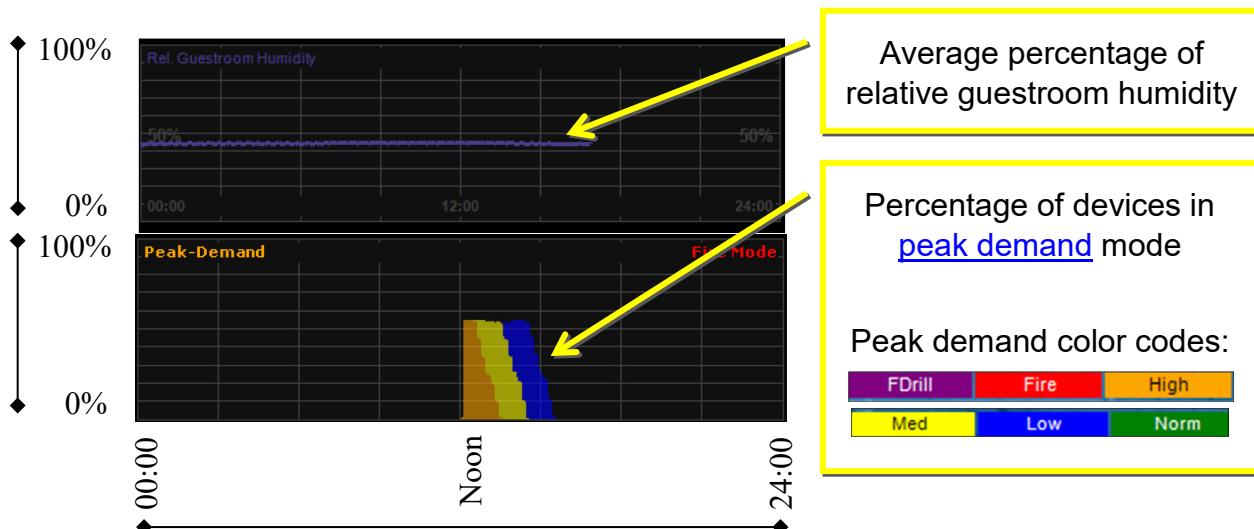
HVAC Activity Graph



ecoMODE and Room Communication Graphics

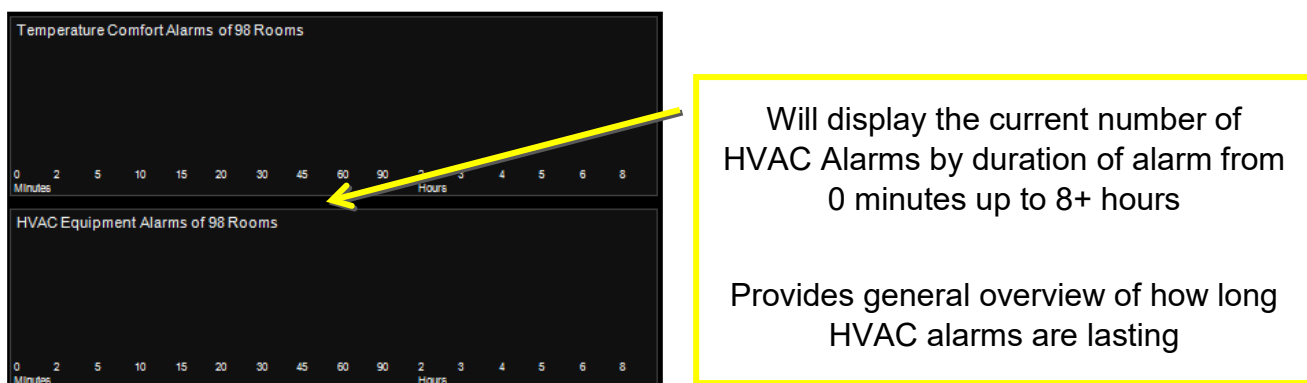


Relative Guestroom Humidity and Peak-Demand Graphs

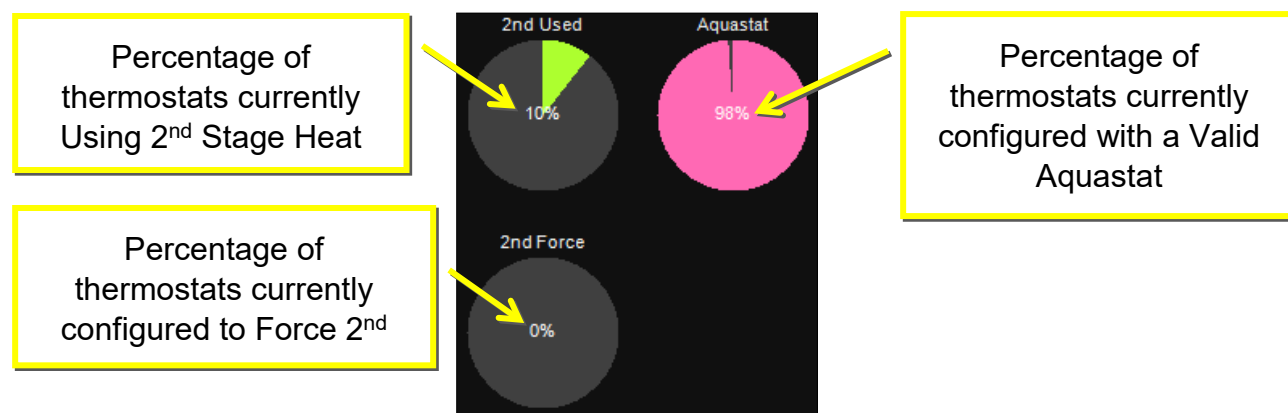
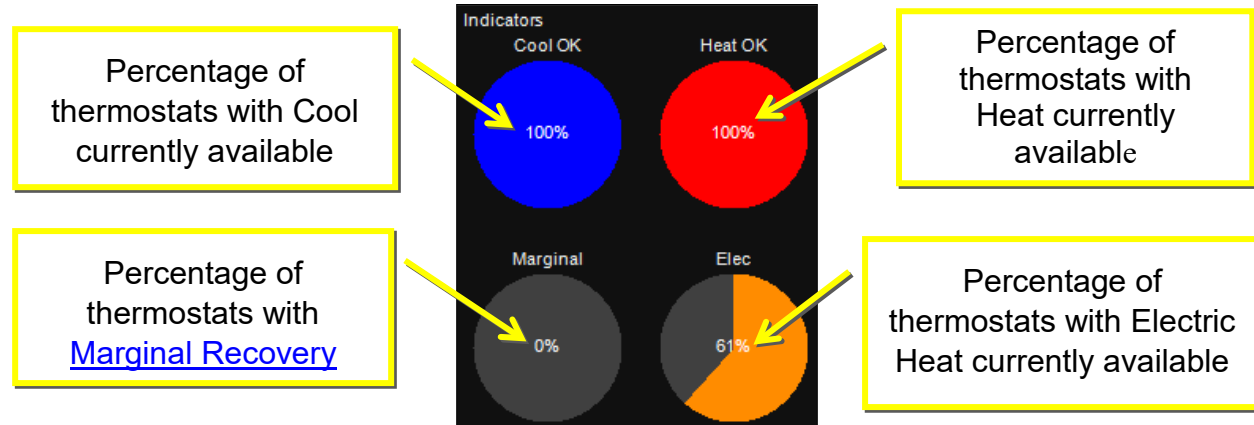


Description of Real-time Engineering Graphs in the Overview Screen

HVAC Comfort and Equipment Alarm Status Graphs (Currently in Development)



HVAC Indicator Pie Charts



Summary

The Summary screen provides a real-time numeric overview of the current system status. Status items monitored by INNCOM are displayed along with the current number of devices that qualify for that status. Network communication, HVAC, Rental and Occupancy status are included in the summary screen. Guest preferences like ecoMode and EMS-Lite mode are also displayed along with entry door and balcony (window) activity. You may view an interactive list of the rooms in any status group by clicking on the number of rooms to the right of the status. Refer to Section 1 to learn the basics of the Summary screen. **NOTE: IC3 is customized based on your property design and some options may not be active in your application.**



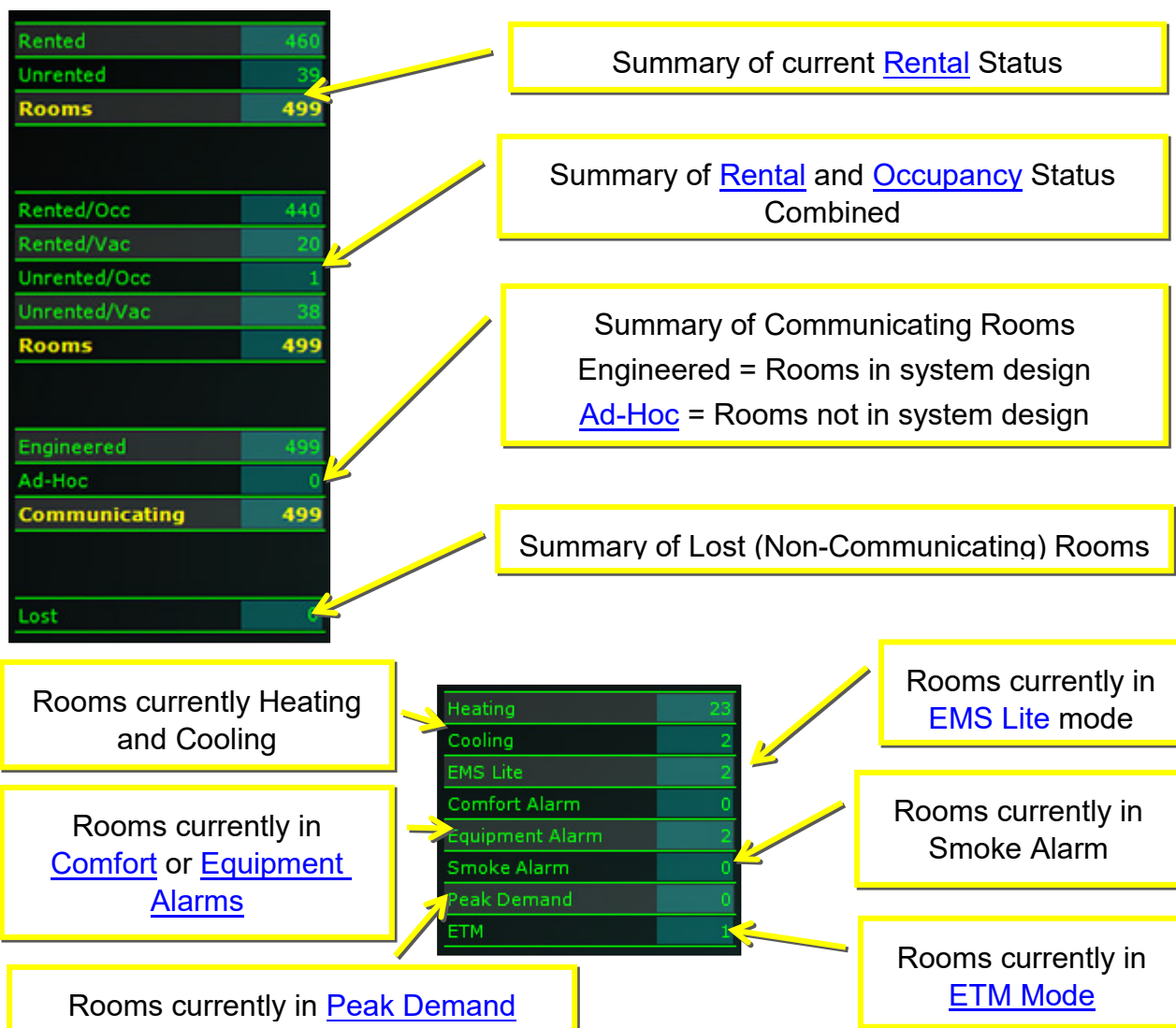
then

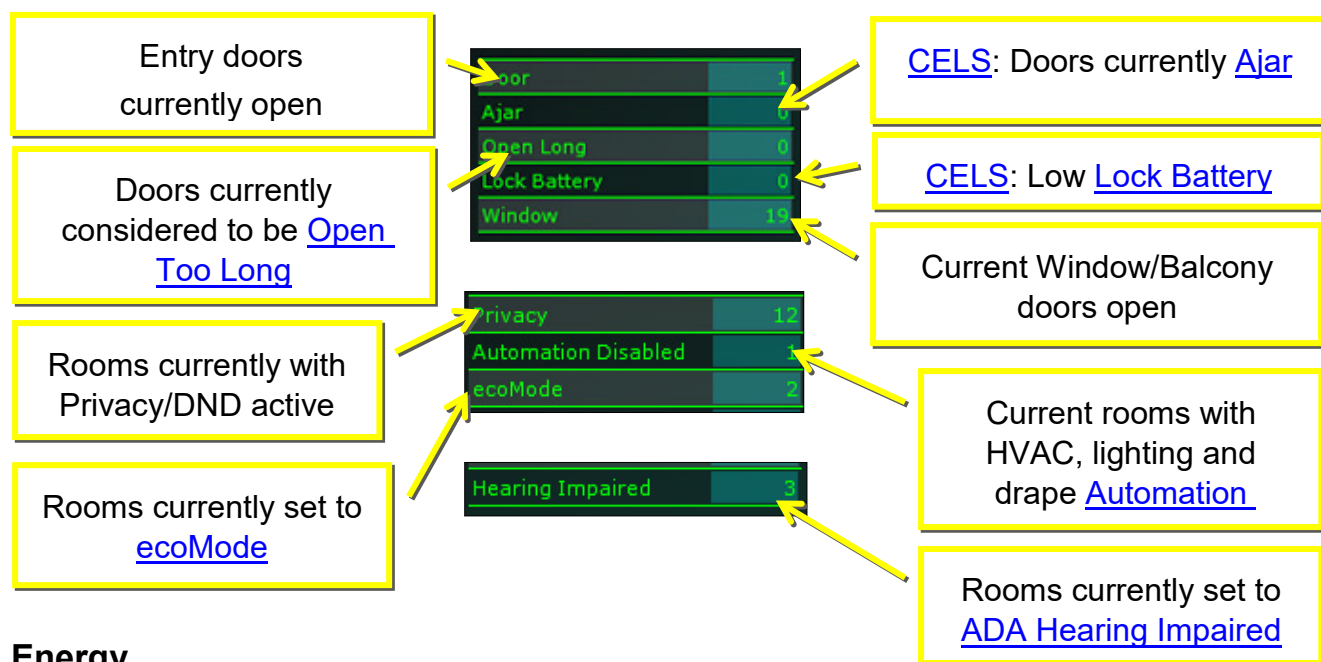


To select the Summary screen: Click

Description of Summary Screen Items Relevant to Engineering

NOTE: Each room gateway device (i.e. thermostat, tabletop controller, etc.) that is communicating to the INNCOM server counts as 1 'room'. For example, if a suite has 2 thermostats and each thermostat communicates to the INNCOM server independently, then each suite thermostat is counted as 1 unique 'room'.





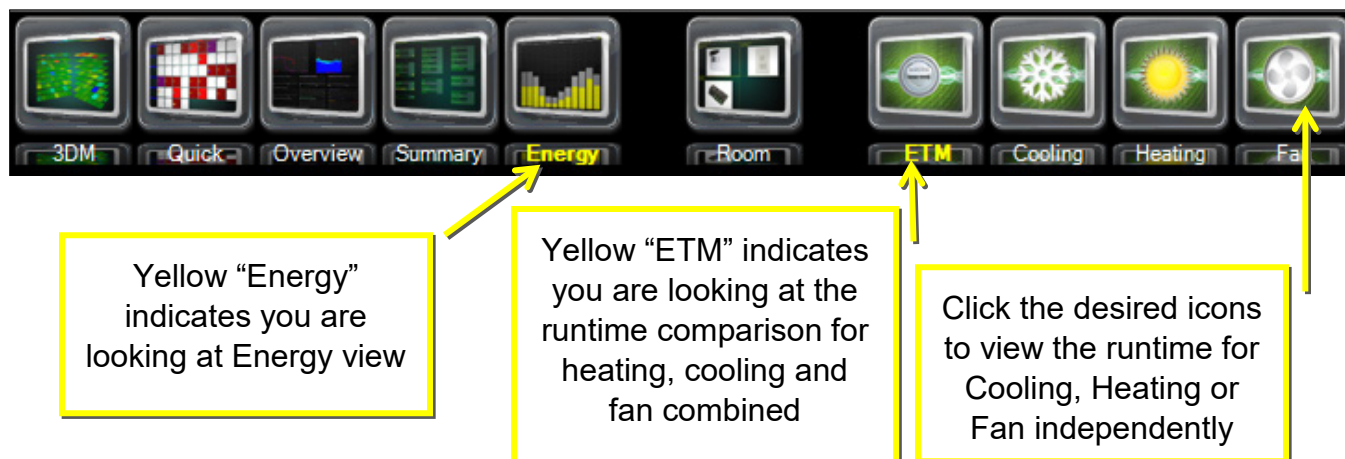
Energy

The Energy screen displays a yearlong comparison of thermostat runtime between thermostats in [ETM mode](#) and thermostats in standard energy management mode. There are 4 energy graphs available in the energy view. You may view a graph displaying the runtime for a summary of fan, heat and cool calls combined or you may view the runtime comparison for each call independently. These graphs may be easily copied or printed using the Home menu bar. You also have the option to change the background color of the graph from black to white via the Settings menu bar. Adjusting the background color may ease the ink consumption of your printed document. Refer to Section 1 to learn the basics of Energy view.

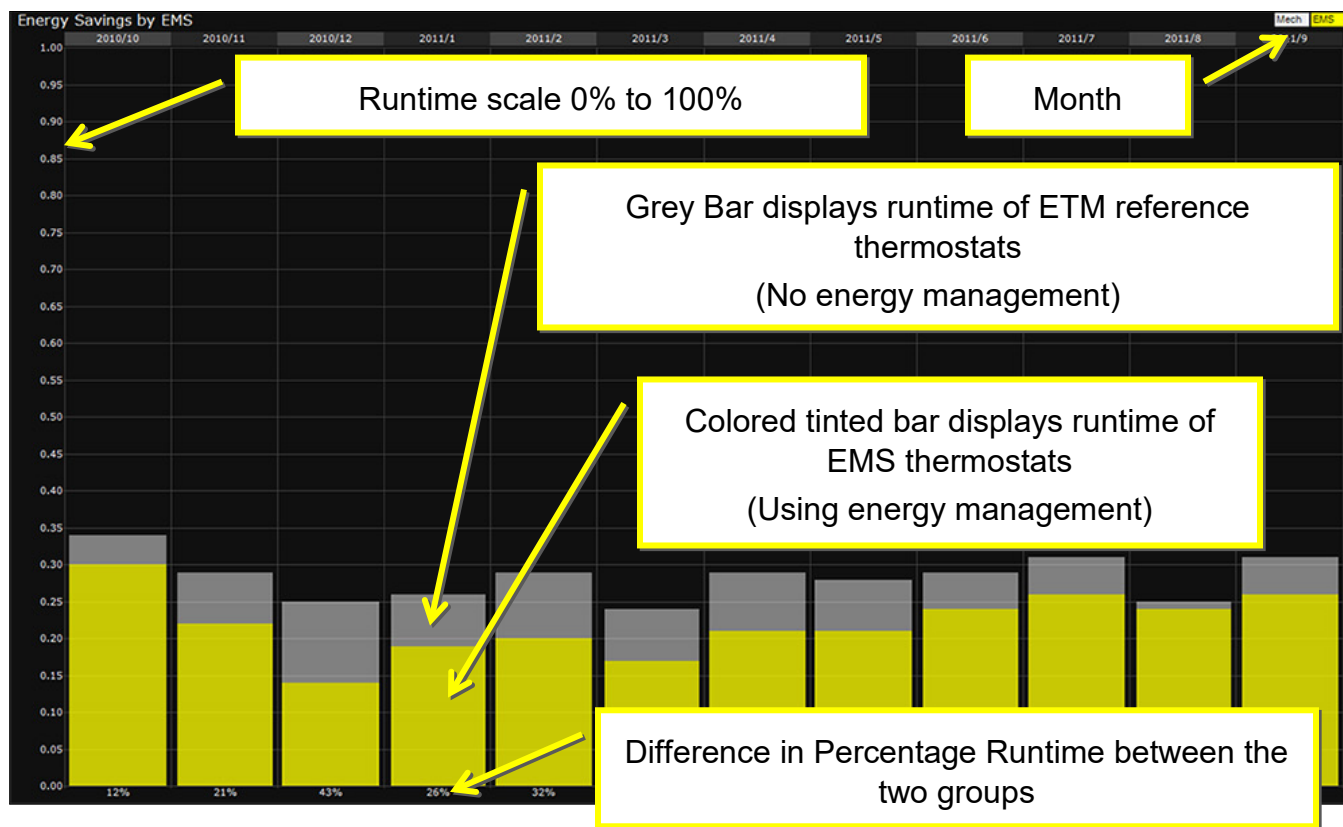


To select the Energy View screen: Click **View** then **Energy**

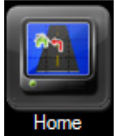

The first graph displayed when you select the Energy view is the “ETM” graph displaying a runtime comparison of heating, cooling and fan. The View menu bar will indicate the current graph you have selected along with the other graph options.





Energy View Layout



To SAVE your energy graph electronically:

While viewing your desired energy view graph, select the  menu button, then  from the menu bar. This will copy the visible energy graph to your computer's clipboard. Open a word processing or image application and paste your copied image into that application. Save the file in your desired format.

To PRINT your energy graph:

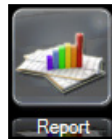
While viewing your desired energy view graph, select the  menu button, then  from the menu bar. This will open a Print window listing your available printers. Select the desired printer from the drop down menu and click the OK button.

To CHANGE BACKGROUND COLOR:

Select the  menu button, then  from the menu bar. This will change the background color for the overview and room trend graphs as well.

Reports

The report window is used to generate a real-time report of status items monitored by the INNCOM system. This section will focus on the reports that are most frequently used by engineering and maintenance department staff. The locations of these reports in the Report Generator are highlighted below. Details of each report are described in the tables below. Refer to Section 1 to learn the basics of the Report screen. **NOTE: IC3 is customized based on your property design and some options may not be active in your application.**



Opening the Report Generator: Click **Home** menu button, then **Report** from the menu bar

Report Generator

Guest Indicators <ul style="list-style-type: none"> <input type="radio"/> Rooms with active MUR <input checked="" type="radio"/> Rooms with activated DND <input type="radio"/> Rooms with active butler call <input checked="" type="radio"/> Rooms with activated ecoMode <input type="radio"/> Rooms with activated SOS <input type="radio"/> Rooms with active valet request <input type="radio"/> Rooms with active food tray removal request <input type="radio"/> Summary report of guest requests 	Guestroom Status <ul style="list-style-type: none"> <input type="radio"/> Rented <input type="radio"/> Unrented <input type="radio"/> Occupied <input type="radio"/> Unoccupied <input type="radio"/> Rented and Occupied <input type="radio"/> Rented and Unoccupied <input type="radio"/> Unrented and Occupied <input type="radio"/> Unrented and Unoccupied 	Alarm Conditions <ul style="list-style-type: none"> <input type="radio"/> Rooms with Smoke Alarm condition <input checked="" type="radio"/> Rooms with Comfort Alarm condition <input type="radio"/> Rooms with Equipment Alarm condition <input type="radio"/> Rooms with Dirty Filter Alarm condition <input type="radio"/> Peak Demand Status <input type="radio"/> ETM Status <input type="radio"/> Inactivity Alarm Status
Staff Indicators <ul style="list-style-type: none"> <input type="radio"/> Rooms listed as Dirty <input type="radio"/> Rooms where need a supervisor visit <input type="radio"/> Rooms listed as Out of Order <input checked="" type="radio"/> Rooms listed ADA <input type="radio"/> Rooms listed as Kosher <input checked="" type="radio"/> Rooms listed as Automation Disabled <input type="radio"/> Rooms where the Minibar was Restocked <input checked="" type="radio"/> Rooms listed as EMS Lite 	Network Status <ul style="list-style-type: none"> <input type="radio"/> Communication Report <input type="radio"/> Non-Communicating <input type="radio"/> Engineered Rooms <input type="radio"/> Adhoc Rooms <input type="radio"/> Adhoc Communicating <input type="radio"/> Adhoc Non-Communicating <input type="radio"/> Total Communicating <input type="radio"/> Total Non-Communicating <input type="radio"/> Total Rooms 	Door / Window Related <ul style="list-style-type: none"> <input type="radio"/> Rooms with the Entry Door Open <input type="radio"/> Rooms with the Balcony/Window Open <input type="radio"/> Rooms with Door Open Too Long <input type="radio"/> Rooms with Door Ajar Alarm Active <input type="radio"/> Rooms with Battery Low Alarm Active
History / Other <ul style="list-style-type: none"> <input type="radio"/> Security Log <input type="radio"/> Group Members <input type="radio"/> Room Details <input type="radio"/> Safe Lock Status 		

Sample Report

(c) INNCOM International Inc. 2012/3/8 11:27:35
 INNcontrol Report Rooms listed ADA

Room 41104	<div>Report result list</div>
Room 41123	
Room 41143	
Room 41148	
Reported Rooms = 4	

Date, time and report title

NOTE: Reports results are listed by Room ID. This is the numeric address programmed into the room controller/thermostat. Typically this room ID is the same as the room number. **All controllers/thermostats that are independently communicating on the network must have a unique Room ID.** Rooms with multiple controllers must have a unique room ID assigned to each controller. For example, Suite 1201 has three online thermostats. The living room was given room ID 1201, bedroom “A” was given room ID 11201 and bedroom “B” was given room ID 21201. **In this example, Suite 1201 Bedroom “A” and Bedroom “B” will appear on the reports as Room 11201 and 21201 respectively.**

Guest Indicators:

Report	Function
DND Rooms	Save time by viewing the DND status of rooms before making a trip to the room.
ecoMode Rooms	View the rooms where an expanded ecoMode band is applied during Rented/Unoccupied mode.

Staff Indicators:

Report	Function
ADA Rooms	View rooms set to ADA/Hearing Impaired mode. A designated light will flash when the doorbell button is pressed in rooms with ADA mode active.
Automation Disabled	View rooms where welcome scene and HVAC automation has been disabled. The HVAC will not automatically setback when Rented/Unoccupied. The thermostat will not disable cooling with window/balcony door open. Any automatic control of lighting or drapes will also be suspended.
EMS Lite Mode	View rooms set to EMS Lite. HVAC energy management is disabled and a wider selectable range is available for guest selection (default EMS Lite selectable range is 60°F to 90°F).

Guestroom Status:

Report	Function
Rented Rooms	View all rooms that are in Rented mode. If a PMS interface is active, this status will be set automatically. If no PMS interface is active, thermostats will default to the Rented mode.
Unrented Rooms	View all rooms that are in Unrented mode. If a PMS interface is active, this status will be set automatically. If no PMS interface is active, thermostats will default to the Rented mode and they may be manually set to Unrented mode via the INNcontrol Room Status screen.
Occupied Rooms	View all rooms that are in Occupied mode. Occupancy is typically determined by a combination of an entry door switch followed by a motion sensor timeout. Any motion or interaction with the INNCOM devices will also set the room to Occupied mode. See glossary for additional information.
Unoccupied Rooms	View all rooms that are in Unoccupied mode. Occupancy is typically determined by a combination of an entry door switch followed by a motion sensor timeout. If no motion is detected during the timeout, the room will become Unoccupied. See glossary for additional information.

Rented and Occupied Rooms	View rooms that are both Rented and Occupied. These rooms maintain the tightest control band around the guest set point. Default control band in this mode is +/- 1°F around the guest set point. This is called the Standard Delta . Refer to your property's functionality document for your specific value.
Rented and Unoccupied Rooms	View rooms that are both Rented and Unoccupied. The temperature is allowed to float a moderate number of degrees away from the guest set point. Default control band in this mode is +/- 4°F around the guest set point. Refer to your property's functionality document for your specific value.
Unrented and Occupied Rooms	<p>View rooms that are both Unrented and Occupied. Temperature control in this mode is dependent upon thermostat usage.</p> <p>If the thermostat has not been used by a staff member after the guest checked-out, then the thermostat will maintain the Unrented and Unoccupied band while Unrented and Occupied. The thermostat display will read "OFF".</p> <p>If the thermostat is used by a staff member after the guest has checked-out, the thermostat will maintain the standard delta (as in Rented and Occupied Rooms), but it will execute a hidden "Staff Clipping" temperature restriction. The default values for Staff Clipping are 68°F - 75°F where the room will not actively cool below 68°F and will not actively heat above 75°F when Unrented and Occupied.</p> <p>When the staff person exits, the room will revert to the Unrented and Unoccupied bands described in the row below.</p> <p>If you enter into an Unrented/Unoccupied room where a previous staff member has used the thermostat, the thermostat will remember the previous staff set point and it will work to satisfy the room temperature to this value within the staff clipping limits. If you enter into an Unrented/Unoccupied room where the thermostat has not been used after the guest check-out, then the thermostat will maintain the Unrented/Unoccupied limits.</p>
Unrented and Unoccupied Rooms	View rooms that are both Unrented and Unoccupied. The thermostat will allow the temperature to float within the Upper and Lower Unrented/Unoccupied limits. The default value of this range is 62°F to 78°F. The thermostat will not actively heat unless the room temperature falls below 62°F and it will not actively cool unless the room temperature rises above 78°F. Refer to your property's functionality document for your specific values.

Network Status:

Report	Function
Communication Report	<p>View communication status of all engineered rooms and any ad-hoc communicating rooms. If the engineered room is online, it will read "OK" across from the room number. Communicating DEVICES in each communicating engineered room will also appear on this report. Devices are listed by device address (e.g. "Dev 14"). The date and time of the last message received from each device is displayed across from the listed device (e.g. "Net: 2012/3/13 09:26:56").</p> <p>If the engineered room is not communicating it will read "Disconnected" across from the room number.</p> <p>The summary section at the bottom of the report lists the total number of rooms in the current report.</p> <p>Sample Lines of the Communication Report with description:</p> <p>Sample Line #1:</p>

Communication Report continued	<p>Room 103 Ad-Hoc</p> <p>Description: The thermostat/controller address 103 is communicating to the server, but this is not a known/engineered address.</p> <p>Sample Line #2: Room 105 OK Dev 14 Net:2012/3/13 09:26:56 Res:2004/1/1 00:00:00</p> <p>Description: The engineered room 105 is communicating. Device 14 in room 105 is online and the last message from Dev 14 was received at 09:26:56 on 2012/3/13. "Res:" displays the last known reset of this device. Not all devices will send this information to INNcontrol. The value "2004/1/1 00:00:00" is the default value and will appear for devices that do not send this information.</p> <p>Sample Line #3: Room 106 Disconnected</p> <p>Description: Engineered room 106 is not communicating.</p>
Non-Communicating Rooms	<p>View all engineered rooms that are currently offline and not communicating to the server.</p> <p>Common reasons for a room to be offline:</p> <p>There is no power to the thermostat/controller</p> <p>The thermostat/controller has not been configured with the proper room ID</p> <p>In RF networks: The thermostat/controller has not been programmed with the proper RF configuration (PAN ID, RF Channel)</p> <p>In hard-wired networks: The thermostat communication wire has is unplugged or damaged</p> <p>The thermostat is faulty and is unable to communicate on the network</p>
Engineered Rooms	<p>View a list of all rooms in the system design along with the communication status of each room. Scroll to the bottom of the report for a summary of total communicating and lost engineered rooms.</p>
Adhoc Rooms	<p>View a list of rooms that are or have communicated to the server with an unknown room ID. All ad-hoc rooms are listed along with the communication status of each room. Scroll to the bottom of the report for a summary of total ad-hoc communicating and ad-hoc non-communicating rooms.</p>
Adhoc Communicating	<p>View the list of all rooms currently communicating to the server with an unknown room ID.</p>
Adhoc Non-Communicating	<p>View the list of rooms that have communicated to the server with an unknown room ID, but are now offline.</p>

Total Communicating	View a summary of all engineered and ad-hoc rooms that currently ARE communicating to the server.
Total Non-Communicating	View a summary of all engineered and ad-hoc rooms that are currently NOT communicating to the server.
Total Rooms	View a summary of all engineered and ad-hoc rooms along with their current communication status. Scroll to the bottom of the report for a summary of room totals.

Alarm Conditions:

Report	Function
Rooms with Smoke Alarm condition	View all rooms that currently have an active Smoke Alarm. HVAC controls are disabled while a room is in Smoke Alarm condition. See glossary for additional information on Smoke Alarm.
Rooms with Comfort Alarm condition	<p>View all rooms that currently have an active Comfort Alarm. Comfort alarms activate when the measured room temperature is outside of the control bands for at least 3 hours and the thermostat is NOT calling for any HVAC control by design.</p> <p>Example scenarios for Comfort Alarm:</p> <p>Example 1:</p> <p>Measured room temperature is 76°F</p> <p>Room is Rented/Occupied and the guest has set the thermostat to 65°F</p> <p>The balcony door is monitored by INNCOM and this door is OPEN</p> <p>The thermostat is configured to disable HVAC controls while the balcony door is open, so it does not call for cooling. The thermostat will not call for cooling until the balcony door is closed. If this condition continues for longer than 3 hours, the Comfort Alarm condition is activated.</p> <p>Example 2:</p> <p>HVAC unit is a 2-pipe FCU with cold water available and no strip heat</p> <p>Measured room temperature is 76°F</p> <p>Room is Rented/Occupied and the guest has set the thermostat to 80°F</p> <p>The thermostat does not have any heating source available to raise the room temperature. The room will only reach 80°F if it naturally rises to that temperature based on environmental influences. If this condition continues for longer than 3 hours, the Comfort Alarm condition is activated.</p>

Rooms with Equipment Alarm condition	View all rooms that currently have an active Equipment Alarm. Equipment alarms activate when the measured room temperature is outside of the control bands for at least 3 hours and the thermostat is calling for heat or cool. This may indicate a problem with the HVAC unit or the wiring to the HVAC unit. In systems where the thermostat sends the HVAC control signals to a secondary HVAC control device (i.e. X07 or X05B), this alarm may also indicate a problem with the wireless communication between the thermostat and the HVAC control device. Report indicates current target and measured temp along with the active call (heating or cooling).
Rooms with Dirty Filter Alarm condition	Future implementation planned for Dirty Filter alarm.
Peak Demand Status	View all rooms that are currently in Peak Demand Mode. Control bands are relaxed based on Peak Demand Level and Rental/Occupancy/VIP mode status. See the glossary for additional information.
ETM Status	View all rooms currently in ETM (Energy Transfer Monitoring) mode. All energy management is eliminated during ETM mode and the thermostat will maintain a strict +/- 1°F control band around the set point. Refer to the glossary section for additional information.
Inactivity Alarm Status	View all rooms where the Inactivity alarm is active. The time duration since the last motion sensor event is listed across from the room.

Door/Window Related:

Report	Function
Rooms with Entry Door Open	View list of all entry doors that are currently open along with the duration of time they have been open. In addition, any doors that have not messaged the server for an extended time will appear on the report with the last known signal and the duration since that signal was received. This information points to a potential problem with the door signal.
Rooms with Window/Balcony Open	View list of all balcony doors and/or windows that are currently open along with the duration of time they have been open. In addition, any Balconies/Windows that have not messaged the server an extended time will appear on the report with the last known signal and the duration since that signal was received. This information points to a potential problem with the door signal.
Rooms with Door Open Too Long	View rooms that currently have a Door Open Too Long alarm active. This alarm is either activated via an interface with the Electronic Door Lock or via configuration on the INNCOM server. See glossary for information on how this alarm is generated.

Rooms with Door Ajar Alarm Active	View rooms that currently have a Door Ajar alarm active. This is available in CELS systems only and indicates when an entry door is not fully closed.
Rooms with Low Battery Alarm Active	View rooms that currently have a Low Battery alarm active. This is available in CELS systems only and indicates when a door lock is reporting a low battery status.

Guestroom Screens

The Room Status Screen displays various items monitored by the INNCOM system along with the current information on the status of each item. This screen is automatically updated in real-time. Items such as Rental/Occupancy status, HVAC operation, door status and guest amenities are indicated. Refer to Section 1 to learn the basics of the Room Status screen. **NOTE: IC3 is customized based on your property design and some options may not be active in your application.**

There are multiple ways to navigate to the Room Status screen:

You may double-click a room from the Navigation Tree, 3DM or Quick View screens.

You may type the room number in the view room pane and click “Go”

View Room:

Alternatively, you may single-click a room in the navigation tree to select it and then click the menu button followed by the



button from the menu bar.



If the box next to the status name is filled in, then the status is **active**.


If the box is empty, then the status is **inactive**.



Status items that are controllable from IC3 have additional green shading on the status line. These items will also be highlighted in yellow when they are active.


Room Status Section

The Status section contains general status items applied to the guestroom. The items listed here are important to the Engineering or Maintenance department. See the table below for an example and description of this section.

Example	Description
	<ul style="list-style-type: none"> • Rented <ul style="list-style-type: none"> ○ Active = Room is RENTED ○ Inactive = Room is UNRENTED • Occupancy <ul style="list-style-type: none"> ○ Active= Room is OCCUPIED ○ Inactive = Room is Unoccupied ○ Additional data will appear next to the Occupancy indicator. ○ Motion Scan = Occupancy detection sequence has started and room will soon be in unoccupied mode unless motion is detected within timeout • Keytag Inserted <ul style="list-style-type: none"> ○ Active: Keycard is inserted into Keytag device ○ Inactive: Keycard is not inserted in Keytag device • Door Open <ul style="list-style-type: none"> ○ Active= Entry door is in the open position ○ Inactive = Entry door is closed • Window Open <ul style="list-style-type: none"> ○ Active = Window or Balcony is in the open position ○ Inactive = Window or Balcony is in the closed position • Phone <ul style="list-style-type: none"> ○ Active = INNCOM GDA Phone is in use ○ Inactive = INNCOM GDA Phone is not in use • Hibernating <ul style="list-style-type: none"> ○ Active= Hibernation mode is on ○ Inactive = Hibernation mode is off

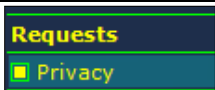
Provisioning Section:

The Provisioning section contains status items designed to customize the guest's temperature control and energy management experience based on their preference or request.

Example	Description
	<ul style="list-style-type: none"> • °C <ul style="list-style-type: none"> ○ Active = Default temperature display on the thermostat is in Celsius ○ Inactive = Default temperature display on the thermostat is in Fahrenheit • ecoMode <ul style="list-style-type: none"> ○ Active =ecoMode is on ○ Inactive = ecoMode is off • ADA <ul style="list-style-type: none"> ○ Active = ADA/Hearing Impaired mode is on ○ Inactive = ADA/Hearing Impaired mode is off • EMS Lite <ul style="list-style-type: none"> ○ Active = EMS Lite mode is on ○ Inactive = EMS Lite mode is off • Automation Disabled <ul style="list-style-type: none"> ○ Active = All room automation (i.e. energy management and welcome scenes) is turned off ○ Inactive = All room automation is on

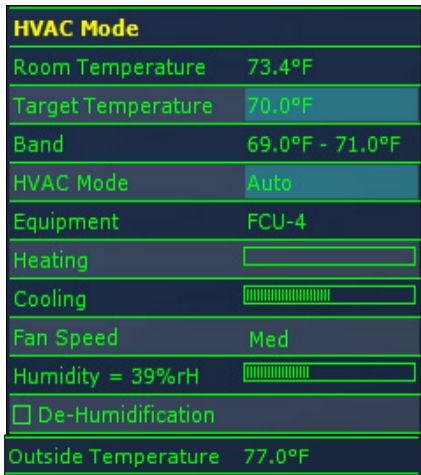
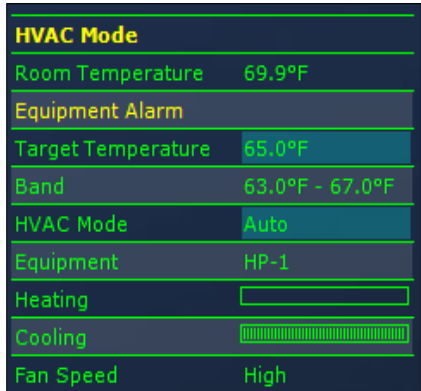
Requests Section:

The Requests section list the status of items selected by a guest in the room. Rather than walking to the guestroom for service only to find that the DND/Privacy is on, you can view this status from your workstation. You can also set INNcontroTM3 to monitor this Privacy status and notify you within application when the status has changed. See [Notify Me](#) section below.

Example	Description
	<ul style="list-style-type: none"> • Privacy <ul style="list-style-type: none"> ○ Active = Privacy/DND is on ○ Inactive = Privacy/DND is off

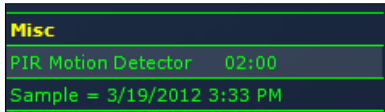

HVAC Mode Section:

The HVAC Mode section indicates the current status of HVAC controls in the room. This includes Room and Target temperature along with the current heating, cooling or fan demand.

Example	Description
<p>Example 1:</p>  <p>Example 2:</p> 	<ul style="list-style-type: none"> • Room = Current Measured room temperature • Target = Current target temperature/set point • Band = Current temperature control band <ul style="list-style-type: none"> ○ Band will vary based on Rental/Occupancy status and current target temperature • HVAC Mode = Auto, Fixed Fan or Off <ul style="list-style-type: none"> ○ Auto = Heat, cool and fan are turned on and off as needed to maintain target temperature ○ Fixed Fan = Heat and cool are turned on and off as needed while the fan remains on at the selected speed ○ Off = Heating, cooling and fan are off unless the measured temperature drifts outside the danger bands (50°F - 90°F). • Equipment = HVAC equipment class that the thermostat is currently designed to control. <ul style="list-style-type: none"> ○ FCU-4 = 4 Pipe Fan Coil Unit ○ FCU-2 = 2 Pipe Fan Coil Unit ○ PTAC = Packaged Terminal Air Conditioner ○ HP-b = Heat Pump Type B (Reverse to Heat) ○ HP-o = Heat Pump Type O (Reverse to Cool) • Heating = Current demand for heating. The bar will fill from left to right indicating 0% - 100% demand. • Cooling = Current demand for cooling. The bar will fill from left to right indicating 0% - 100% demand. • Fan Speed = Current fan speed • Humidity = Current relative humidity percentage if the thermostat is equipped with a humidity sensor • De-Humidification <ul style="list-style-type: none"> ○ Active = Room is currently dehumidifying ○ Inactive = Room is not currently dehumidifying • Outside Temperature = Current outside air temp • Equipment/Comfort Alarm indication <ul style="list-style-type: none"> ○ If the room is currently in an Equipment or Comfort alarm, an indication of this alarm will appear on the line below "Room Temperature". See Example 2 on the left.


Misc Section:

The Misc section contains information that does not easily fit into the other section categories. This includes information on the PIR Motion Sensor along with the date/time of the last process image update from the room. INNcontrol™3 uses this process image from the guestroom to populate each screen.

Examples	Description
<p>Example 1:</p>  <p>Example 2:</p> 	<ul style="list-style-type: none"> PIR Motion Detector <ul style="list-style-type: none"> ##:## = Hours : Minutes since the last motion signal was detected Sensor Problem = The system has not detected motion sensor activity indicating a problem with the motion sensor or its ability to communicate to the server. See Example 2 on the left. Sample = Date and time of the last message received from the room

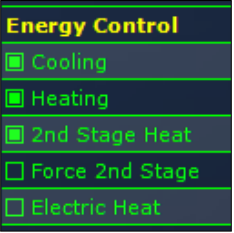
Energy Conservation Section:

The Energy Conservation section includes items like [ETM mode](#) and [Peak Demand](#) status which effect the energy conservation of your system.

Example	Description
	<ul style="list-style-type: none"> ETM Reference <ul style="list-style-type: none"> Active = Room is currently in ETM mode Inactive = Room is not currently in ETM mode Peak Demand = Current Peak Demand level (see Glossary for additional information on Peak Demand Load Shedding) <ul style="list-style-type: none"> Normal = No Peak Demand load shedding is active. This is also the default mode listed if there is no active Peak Demand input Low = Minimal impact to guests Medium = Moderate impact to guests High = Highest impact to guests Fire/Fire Drill = System wide shutdown of HVAC (This prevents HVAC units from circulating air in the building when there is a fire)

Energy Control Section:

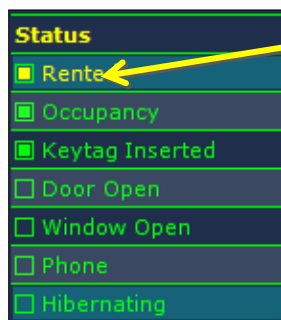
The Energy Control section indicates the potential available forms of energy. The use of these forms is determined by the thermostat HVAC type configuration settings. Therefore, this section may indicate some forms of energy that are not currently employed by the current configuration.

Example	Description
	<ul style="list-style-type: none"> • Cooling, Heating, 2nd Stage Heat, Electric Heat <ul style="list-style-type: none"> ○ Active = Energy source is available if HVAC type configuration calls for it ○ Inactive = Energy source is not available • Force 2nd Stage <ul style="list-style-type: none"> ○ Active = 2nd stage heat will be used on all heating calls ○ Inactive = 2nd stage heat will not be forced

Room Control

The remote control of various items is available within the Room Status screen. The availability of controls depends upon user account status. Remote control of HVAC and guest provisioning items is available along with the ability to manually adjust Rental status.

To access Room Controls, navigate to the Room Status screen as described in the section above. Items with additional shading have control options available. **See the example below:**

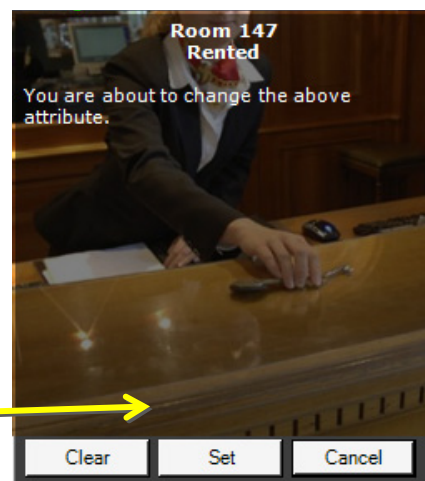


In the Status section, there are controls available for Rental Status and Hibernation.

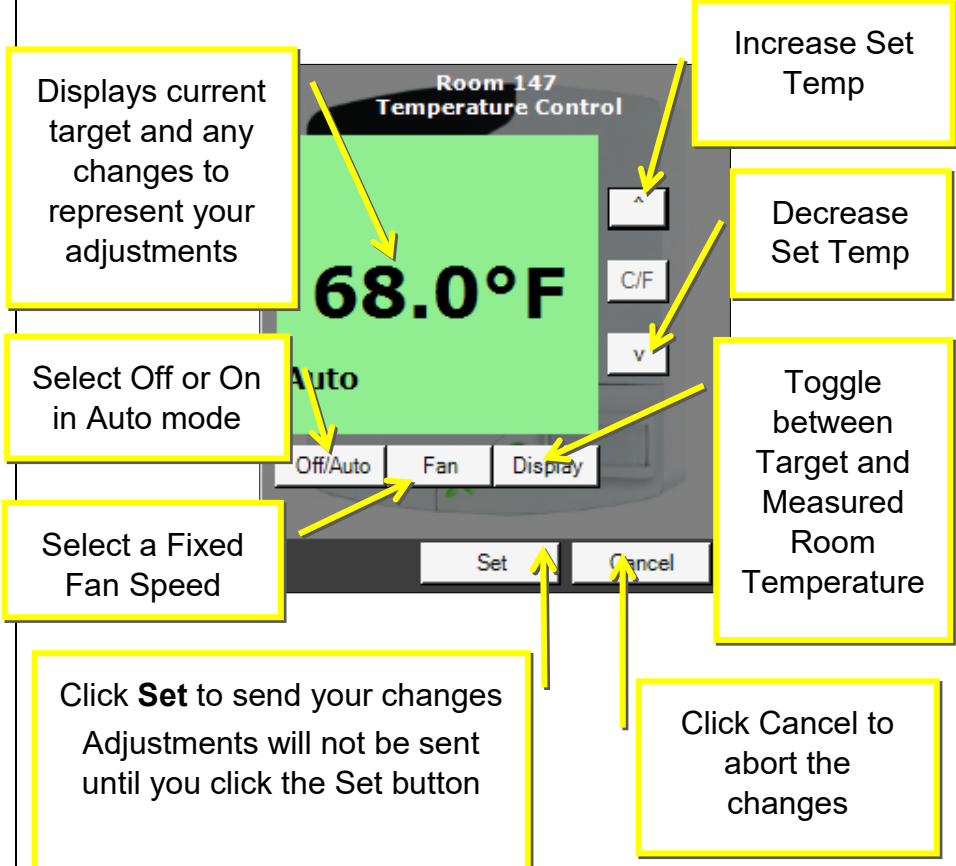
The other items listed in this example do not have controls available.

When you click on a controllable item, a new window will option with the available control options.

This example displays the control options for Rental Status.




NOTE: IC3 is customized based on your property design and some options may not be active in your application.

Controllable Items	Controls Available
Rented Hibernating °C ecoMode ADA EMS Lite Automation Disabled Privacy	Set and Clear
<p>HVAC Controls:</p> <p>Click on the VALUE of the Target Temperature or HVAC Mode to access HVAC controls</p>	<p>Target Temperature, Off/Auto Mode and Fan speeds are controllable via the Thermostat control Window:</p>  <p>The screenshot shows the 'Room 147 Temperature Control' window. It features a large green display showing '68.0°F'. To the right of the display are buttons for 'Increase Set Temp' (up arrow), 'Decrease Set Temp' (down arrow), and a 'C/F' toggle. Below the display is a mode selector with 'Off/Auto' and 'Auto' options. At the bottom are buttons for 'Fan', 'Display', 'Set', and 'Cancel'. Yellow callout boxes provide the following instructions:</p> <ul style="list-style-type: none"> Displays current target and any changes to represent your adjustments: Points to the '68.0°F' display. Increase Set Temp: Points to the up arrow button. Decrease Set Temp: Points to the down arrow button. Toggle between Target and Measured Room Temperature: Points to the 'Display' button. Select Off or On in Auto mode: Points to the 'Auto' mode selector. Select a Fixed Fan Speed: Points to the 'Fan' button. Click Set to send your changes Adjustments will not be sent until you click the Set button Click Cancel to abort the changes


Room Trend

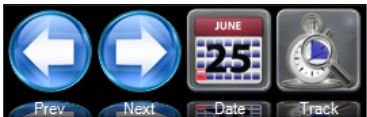
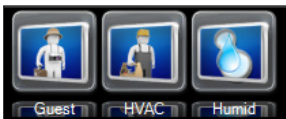

The Room Trend screen displays historical information for HVAC and other items monitored by the INNCOM system. The trend date, zoom level and data type (HVAC, Guest Request or Humidity) may be adjusted using the Control menu button. The trend history is very useful in troubleshooting current HVAC alarms and complaints or investigating reports of problems in the past. This trend data is maintained on the INNCOM server for 12 months and is built based on information sent to the server from the guestroom. Trend history cannot be recorded when a room is not communicating to the server. Any gaps in the trend history of a room indicates a time when the room was not reporting to the server or the server itself was offline. Refer to section 1 to learn the basics of the Room Trend screen. **NOTE: IC3 is customized based on your property design and some options may not be active in your application.**



To access Trend View: Navigate to Room View and select the  from the Menu Bar.



To control the Trend View: Click the  menu button to open the control menu bar at the top.

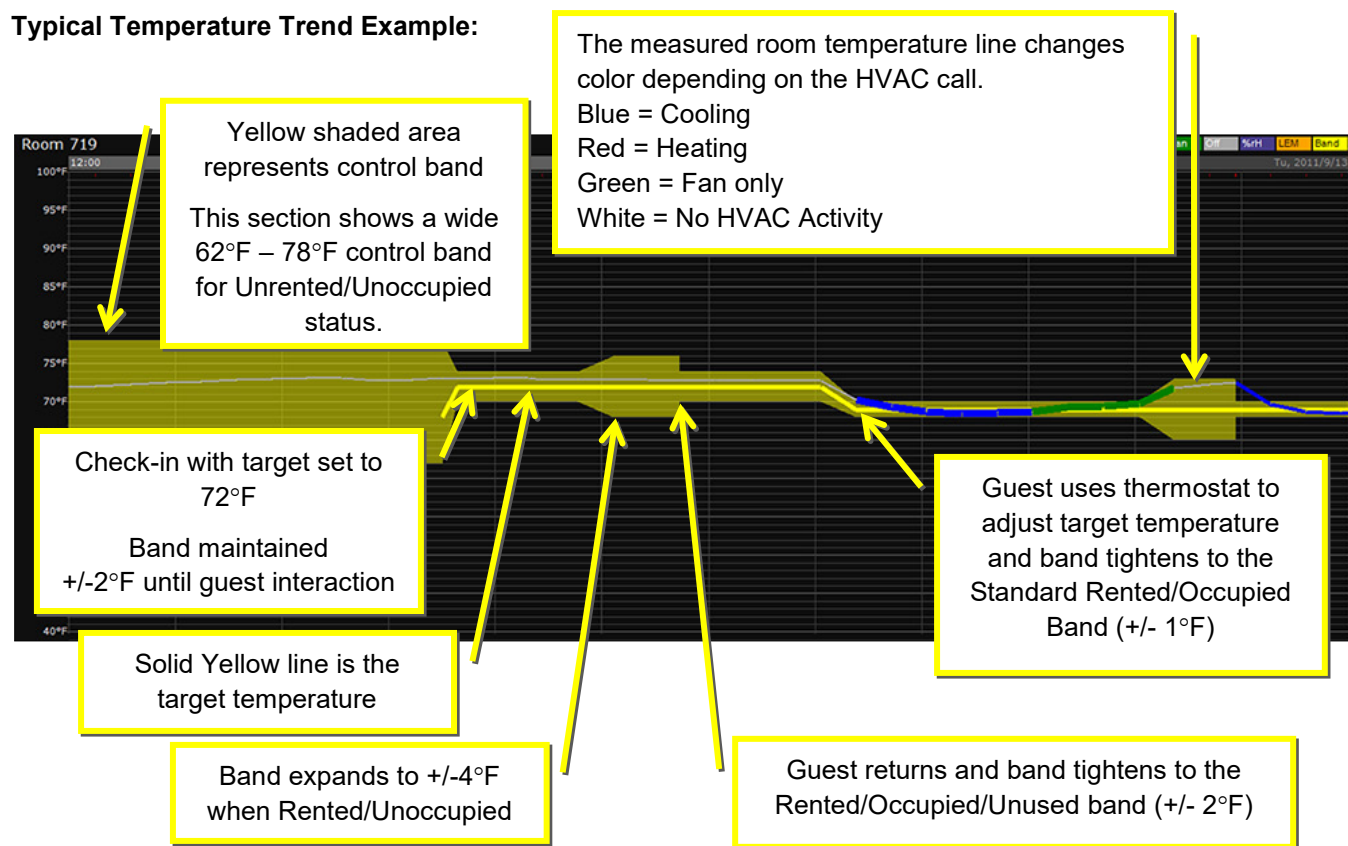
Trend Control Menu	Function
	<ul style="list-style-type: none"> • Prev. = Move backward in time • Next = Move forward in time • Date = Opens a calendar where you may select a trend date • Track = Temporarily increases the frequency of messages from the room. (Mainly used for advanced troubleshooting by INNCOM engineers).
	<ul style="list-style-type: none"> • Guest = Select a guest services style trend. Displays relevant service items (DND, MUR, Butler etc.) along with temperature, Rental Status and Occupancy Trend. • HVAC = Select HVAC trend group (Default View). View all temperature and energy management related trend along with Rental and Occupancy status. • Humid = Switches temperature trend to humidity. The Y axis scale displays percentage of relative humidity. Temperature trend also appears for reference.
	<ul style="list-style-type: none"> • Adjust the zoom level of trend from 1 week to 1 hour.

HVAC Trend Group:


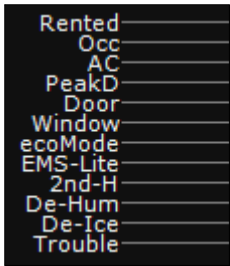
By default, the application opens with the HVAC trend group. The top portion of the trend history is a graph of the target temperature, temperature control bands and the measured room temperature. The measured room temperature line will graph in a color according to the HVAC call that was active. This graph will also display any additional temperature inputs from devices integrated with the INNCOM

system. These optional inputs included Outside Air Temperature (Solid Blue Line), Pipe or Output Air Temperature (Red Diamond Line) and Bartec Mini-bar Temperature (Green “b”). If your system includes a humidity sensor, the percentage of relative humidity value will appear on the temperature trend as a shaded violet line. There is a separate trend view available for humidity, but the humidity reading is included on the temperature trend for comparison. Additional HVAC trend group items are graphed below the temperature trend line and these options are described below.

Typical Temperature Trend Example:



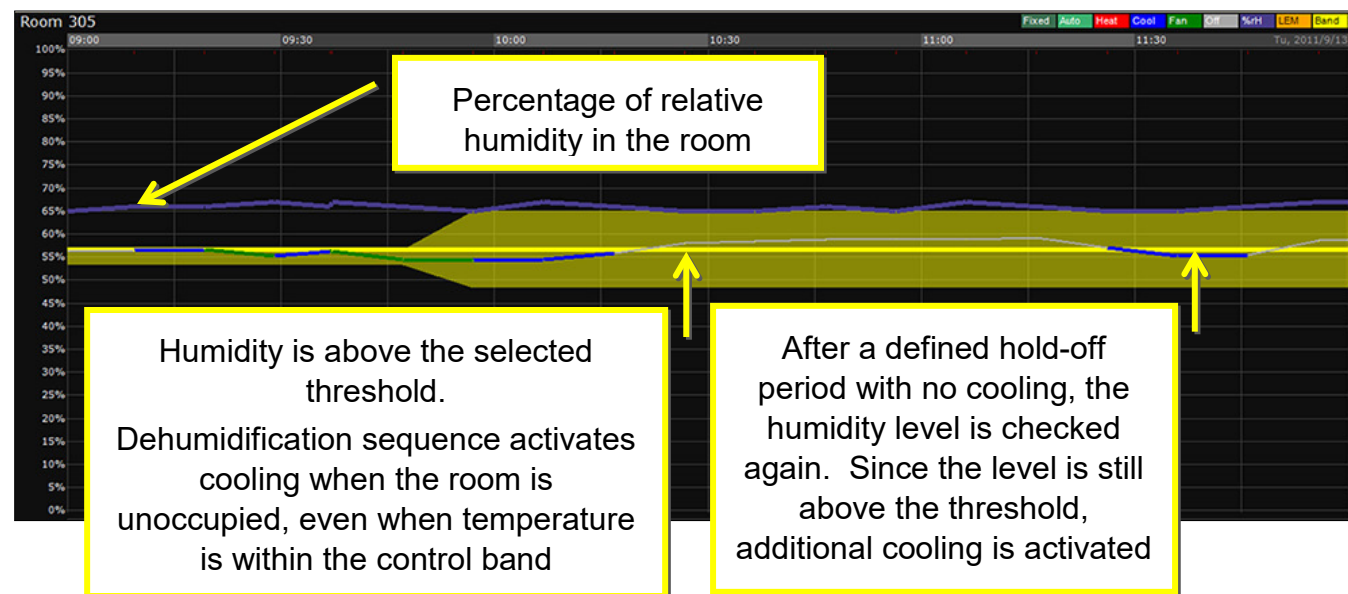
HVAC Trend Group Graphs	Description
	<ul style="list-style-type: none"> H/C = Heating and cooling demand over time. Demand is graphed from 0% to 100%. Heating is graphed in red and cooling is graphed in blue.
	<ul style="list-style-type: none"> Fan = Fan demand over time. Demand is graphed in green (Levels: no fan, low, medium and high).
	<ul style="list-style-type: none"> Floor = Floor Heat demand over time. Demand is graphed in red from 0% to 100%
	<ul style="list-style-type: none"> PIR = Passive Infrared motion sensor activity over time. Motion activity is graphed in red and increases in height as motion activity increases.

HVAC Trend Group Graphs	Description
	Light = Relative light level detected in the guestroom overtime is graphed in yellow.
	<ul style="list-style-type: none"> • Rented = Red line graphs while room is Rented • Occ = Violet line graphs while room is Occupied • AC = Light green graphs when room is in Auto mode and dark green graphs in Fixed Fan mode • PeakD = Peak demand colors graph when active (Blue=Low, Yellow=Medium and Orange=High) • Door = Blue graphs while door is open • Window = Blue graphs while window/balcony is open • ecoMode = Green graphs while ecoMode is set • EMS-Lite = Blue graphs while EMS-Lite is set • 2nd-H = Red graphs while 2nd stage heat is used • De-Hum = Violet graphs while dehumidification is active • De-Ice = White graphs while de-icing is active • Trouble = Violet graphs while room is in an Equipment Alarm and Pink graphs while room is in a Comfort Alarm

Humidity Trend Group:

By default, the application opens with the HVAC trend group. Click the “Control” menu button then select “Humid” from the menu bar to access the humidity trend group. The Humidity trend group changes the top portion of the graph to highlight the relative humidity reading from the room. The Y axis of the trend will read %rH instead of room temperature. The room HVAC activity will continue to appear in the background of the humidity trend for comparison. In this view, the dark purple line represents the %rH in the room.

Typical Humidity Trend Example with Dehumidification:



Alarms and Notifications

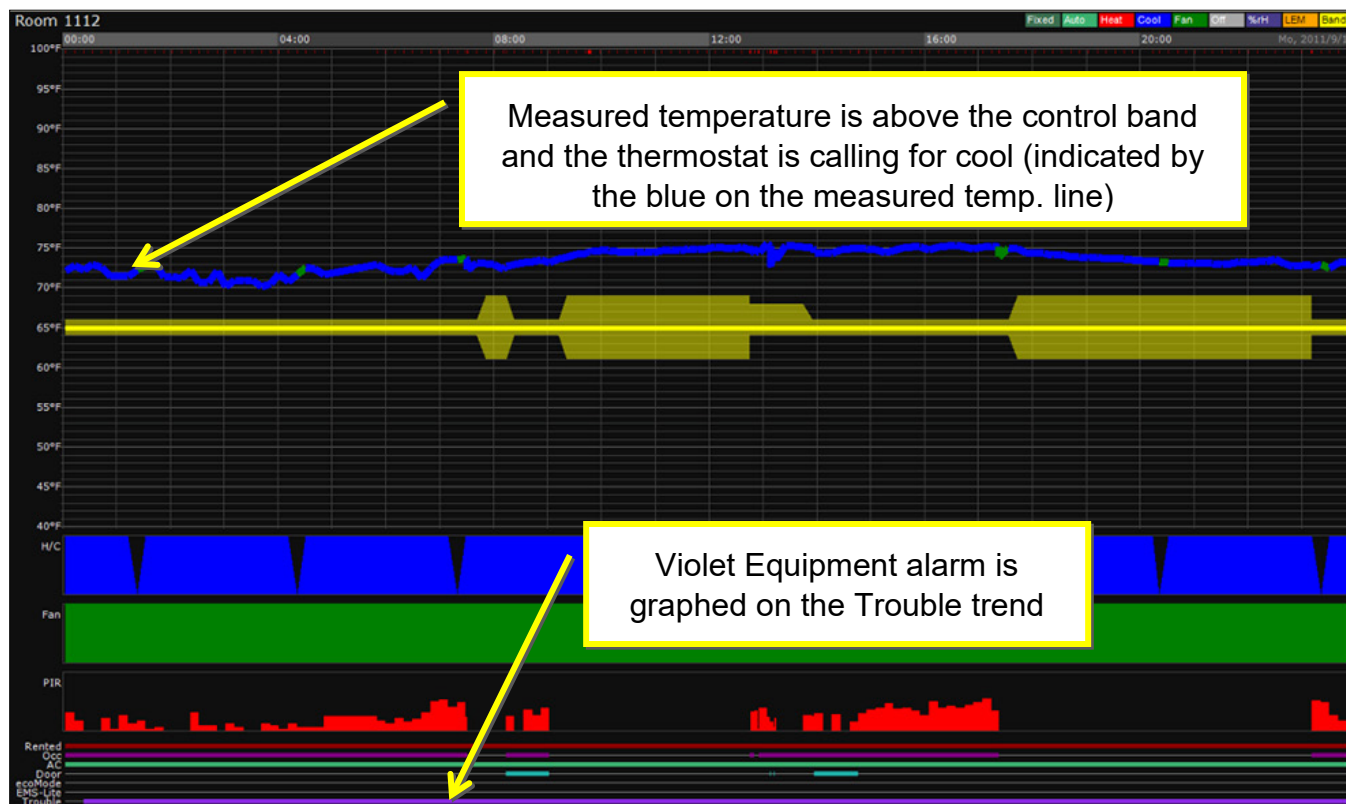
Engineering Alarms

An Engineering Alarm occurs when the room is unable to maintain temperature within the control band for at least 3 hours. There are two types of engineering alarms: Equipment Alarms and Comfort Alarms. If the thermostat is trying to use heat or cool to satisfy the room temperature, but the room temperature does not resolve into the band, then this is considered an Equipment Alarm (i.e. something may be wrong with the equipment since the heat or cool call is not changing the measured temperature). If the room temperature is out of band, but there is NO call for heat or cool (due to an open window/balcony or lack of available energy), then this will result in a Comfort Alarm (i.e. the room temperature is not in the desired band, but this is not due to an equipment problem).

Engineering alarms appear on multiple locations in the application. The Notification Pane, Summary View and Report generator will display the current engineering alarms. The trend history of each room will display history of alarm status. The report of current Equipment alarm rooms from the report generator includes information on the current target and measured temperature along with the active call.

The best course of action for responding to an Equipment alarm is to first examine the trend history for the room. This history will provide valuable information on the type of problem that the room is experiencing. See below for an example of an Equipment Alarm Room.

Typical Equipment Alarm Example:

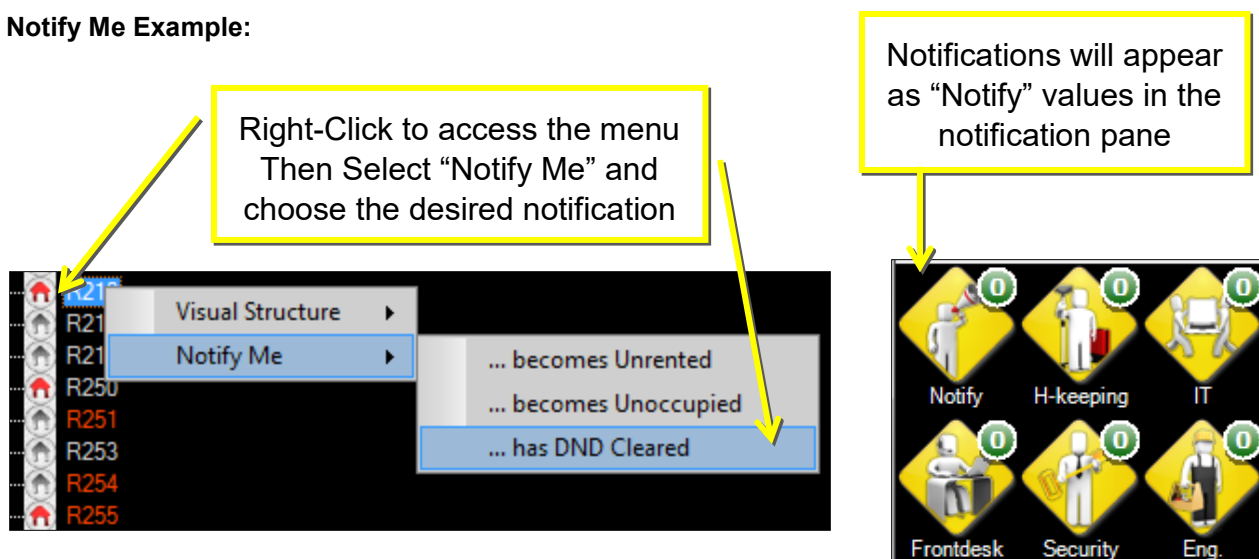


Additional Notifications

Door Open Too Long and Door Ajar notifications will appear under “Security” in the Notification Pane. These alarms may be relevant to engineering departments that also manage entry door devices. They are listed under the Security section since an open or ajar door represents a possible room security problem.

You may choose to be notified when a guest room Rental, Occupancy or DND status changes from the right-click menu on the Navigation tree. This is useful if you are waiting to service a room that is either Rented, Occupied or the DND is set. Right-click on the room from the navigation pane, select the “Notify Me” menu and select the desired notification. The available notifications will be the OPPOSITE of the current room status (i.e. if a room is Rented and Occupied, you will have the option to be notified when the room is Unrented and/or Unoccupied). The DND notification option is only available if the guestroom has the DND set. You are only able to be notified when the DND clears, so it must be in the set position for this option to be available.

Notify Me Example:



You may turn off a notification by right-clicking the room again, select “Notify Me” then choose “Cancel Future Requests”. Notifications will automatically clear when you close the IC3. The application must remain open for notifications to appear.

Glossary

Ad-Hoc Room	<p>Device currently or previously reporting to the INNCOM server with an address that is not recognized by IC3. This occurs if a known device has been incorrectly addressed or if the room is new and has not yet been added to the INNcontrol™3 design files.</p> <p>For example: The thermostat in Room 101 was replaced and the address was never configured in the new thermostat. This device may report as the default thermostat address 65535. Room 101 will report as 'Lost' in IC3 and Room 65535 may report as an Ad-Hoc room.</p>
Ajar (Door)	<p>Central electronic lock is in the ajar position (door is partially closed but not securely latched closed). Optional status indicator passed to INNCOM by some electronic lock vendors in CELS systems. If configured by the electronic lock vendor, the lock can send a message to the INNCOM system indicating the door is in the ajar position. This functionality is dependent upon lock configuration by the lock vendor and may not be available in all CELS applications.</p>
Automation Disabled	<p>All automated guest amenities and energy management features are disabled. HVAC will not expand temperature bands when unoccupied and window/balcony activity will not turn off HVAC. Lighting, drape control and other guestroom energy management measured are suspended. Welcome scene (including automatic light and drape control etc.) is suspended. This mode automatically clears on a check-out.</p>
CELS	<p>Central Electronic Lock System: Optional interface between INNCOM system and lock vendor (e.g. Saflok or Timelox). INNCOM guestroom and network devices provide the network backbone structure for lock information to pass from the guestroom to the lock vendor server.</p>
Comfort Alarm	<p>Measured room temperature has been outside of the control band for at least 3 hours AND the thermostat is NOT currently calling for any energy to resolve this based on the system design. The Comfort Alarm directs your attention to the potential discomfort of the room occupant, but the problem is not necessarily related to an equipment failure.</p> <p>Example: Room temperature is above the band AND the guest has the balcony door open. The thermostat is designed to disable HVAC while the balcony door is open and is therefore not calling for cool.</p>
Demand (Heating, Cooling and Fan)	<p>The demand for heating, cooling and fan is calculated by comparing the difference between target temperature and measured temperature along with the amount of time it takes to bring the temperature towards the target. The greater the difference between target temperature and measured temperature means a higher demand for heating/cooling/fan. Also, if the measured temperature and target temperature are not far away, but it is taking a long time for the room to reach the target band, then the demand will also be higher.</p>

Device Address	Each device in the In-Room Automation System has a unique number assigned to it which identifies it as a unique device within the room. The device address of each device is determined by the system designer and is listed on the wiring diagram. Some devices have a standard address reserved for them. For example, a communicating thermostat is typically address 14. Refer to your system documentation for information on your device addresses.
ecoMode	Optional button available on select INNCOM devices for guest interaction with energy management. Increases the temperature delta by a customizable value (default: 2°F) when the room is Rented and Unoccupied. Indicator also appears on on IC3.
EMS	Energy Management System
EMS Lite	Suspends energy management and increases the selectable range available to the guest (default expanded range: 60°F - 90°F). Mode clears upon Check-out. Management of this mode is available locally at the thermostat and from IC3. (Mode was historically referred to as VIP mode).
Engineered Room	Room that is defined in the IC3 system design files.
Equipment Alarm	Measured room temperature has been outside of the control band for at least 3 hours AND the thermostat IS currently calling for energy to try and resolve this. The Equipment Alarm directs your attention to potential HVAC equipment malfunctions.
ETM	Energy Transfer Monitoring – Thermostat suspends energy management measures for the duration of time it is ETM mode. The runtime for HVAC operation in the ETM thermostats is reported to the server for graphical comparison to thermostats that are using energy management. A small percentage of thermostats will automatically transition into and out of ETM mode at random.
Hearing Impaired (ADA)	Optional mode available with INNCOM room automation systems that have a doorbell and light control. When set, a designated INNCOM-controlled light will flash when the doorbell button is pressed. The mode may be manually turned on or off as needed through IC3.
Hibernation Mode	Thermostat maintains a very wide temperature band (default: 50°F – 100°F). This mode does NOT completely lockout control from the thermostat. Hibernation will automatically clear 2 minutes after the Off/Auto button is pressed. Optional management of this mode is available locally at the thermostat and via IC3.
Keytag	Optional hardware and energy management component for the room automation system. This devices accepts the guestroom key card and energy management strategy may be built around the presence of this card in the system, i.e. energy management is increased when the keycard is not present.

Lock Battery	<p>Central electronic lock is reporting a low battery status. Optional status indicator passed to INNCOM by some electronic lock vendors in CELS systems. If configured by the electronic lock vendor, the lock can send a message to the INNCOM system indicating the lock battery is low. This functionality is dependent upon lock configuration by the lock vendor and may not be available in all CELS applications.</p>
Marginal Recovery	<p>Optional mode that will reduce the standard energy management setbacks by roughly 50% while enabled. This feature may be used in rooms where the HVAC units are undersized compared to the majority of the rooms and they do not have the ability to recover the temperature quickly enough. This mode may also be adjusted seasonally to account for HVAC units that are able to recover more easily in heating seasons vs. cooling or vice versa.</p>
Occupancy Status	<p>Physical occupancy of the room as determined by the system's occupancy logic. Most common occupancy logic includes an entry door switch and a motion sensor.</p> <p>OCCUPIED = Door closes and motion is detected within timeout. Motion activity or interaction with an INNCOM device at any time will also force the room to be OCCUPIED.</p> <p>UNOCCUPIED= Door closes and NO motion is detected within timeout</p> <p>Occupancy status has an effect on the room's energy management mode. Refer to your customized functionality document for information on your system's energy management design.</p>
Open Too Long (Alarm)	<p>Entry door has been in the open position longer than a designated threshold. This threshold may be defined in the INNCOM system or by the Electronic Lock vendor if the system is a Central Electronic Lock System (CELS).</p> <p>If threshold is designated by the CELS vendor: Door lock may send a "door open too long" message to the INNCOM system once the threshold has been reached. The status will be cleared when the door is closed. INNCOM cannot adjust the time threshold within the lock vendor software. Not all lock vendors will send this "door open too long" message to INNCOM.</p> <p>If threshold is designated by INNCOM: The INNCOM server application WinP5PT can be configured to track the length of time an entry door is in the open position. The threshold duration and the times of day this threshold should be actively monitored are both customizable. If a door is open longer than the defined threshold during active monitoring hours, WinP5PT will set the "Door Open Too Long" status in the room. The status will be cleared when the entry door is closed.</p>

Peak Demand	Optional interface for automated load shedding based on peak demand mode input (provided by others). A networked INNCOM system can expand the temperature control bands for room based on the Peak Demand mode (e.g. Fire, High, Medium, Low) along with the real-time Rental, Occupancy and manually selected VIP mode status. INNCOM's peak demand logic provides for higher load shedding in rooms that are Unrented and physically Unoccupied with decreased load shedding in rooms where a guest may be impacted. The level of peak demand also dictates the degree to which load shedding is applied. Fire Mode disables HVAC for the duration of time the Fire Mode is active. Please refer to your property's functionality document or contact INNCOM for additional information.
PMS	Property Management System. Interfaces to various PMS systems are available. These interfaces provide rental status information to the INNCOM system.
Rental Status	<p>Status provided by PMS (property management system) interface to the INNCOM server. If no PMS interface is available, rooms will default to Rented mode.</p> <p>Rental status has an effect on the room's energy management mode. Refer to your functionality document for information on your system's energy management design.</p>
Smoke Alarm	Optional smoke alarm signal input (provided by others). HVAC activity is turned OFF while the smoke alarm signal is active. HVAC activity resumes normal functionality when the smoke alarm signal is inactive. Smoke alarm signal status is indicated on IC3 for HVAC status only and this indicator should NOT be used for life safety purposes.

Document Revision History

Revision	Date issued	Reason for change
v1.0	14-Dec-2011	Initial Release of Quick Start Section
v1.1	23-Dec-2011	Expanded Quick Start Menu Button/Menu Bar details, Navigation Tree status items and purpose statement.
v1.2	11-April-2012	Added Quick View to Section 1 Added Engineering and Maintenance Features Section Added Glossary
V2.0	05-May-2017	Updated to meet Honeywell branding standards

The material in this document is for information purposes only. The content and the product it describes are subject to change without notice. Honeywell makes no representations or warranties with respect to this document. In no event shall Honeywell be liable for technical or editorial omissions or mistakes in this document, nor shall it be liable for any damages, direct or incidental, arising out of or related to the use of this document. No part of this document may be reproduced in any form or by any means without prior written permission from Honeywell.

Copyright © 2017 by Honeywell International, Inc. All Rights Reserved.

Honeywell | 277 West Main Street | Niantic, CT 06357 | Phone: 1.860-739-4468 | www.INNCOM.com