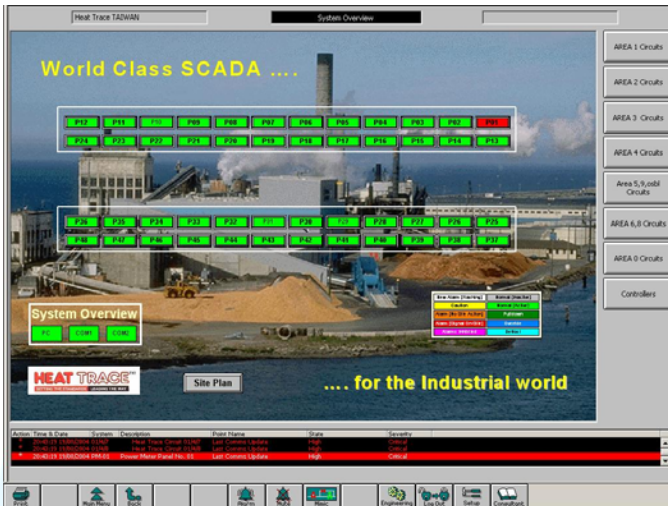


Consultant

Heat Tracing SCADA System



A flexible plant management tool, which instantly tells you what you want to know, when you need to know, wherever you are.

Supervisory Control & Data Acquisition (SCADA) System facilities within this software package provide operators, managers and engineers with the information necessary to manage and run an efficient plant requiring Heat Tracing circuits.

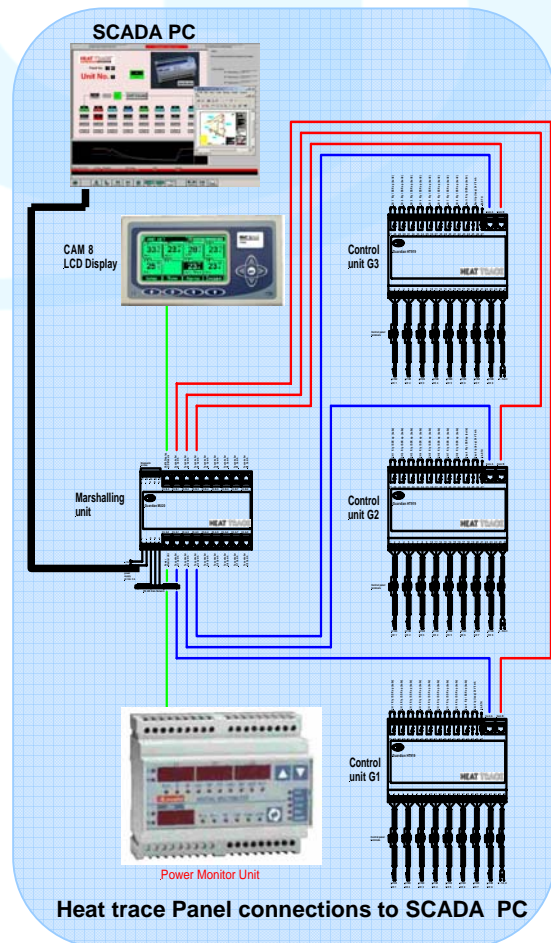
Simplicity Simple, intuitive, icon button operation provides animated mimics, alarm details, alarm archives, event logs, history graphs, system settings and associated documents and drawings for all heat tracing circuits.

Accuracy Reliably records detailed alarm information, accurate measurements of temperature, current, kWh energy and circuit operation mode for the last year at one minute intervals.

Flexibility Windows XP operating system, networking communications, modular control hardware, scaleable architecture and application structures anticipate future user facility and communication requirements.

Accessibility Local, wide area network or modem access of all management, alarm and graphical information is instantly available.

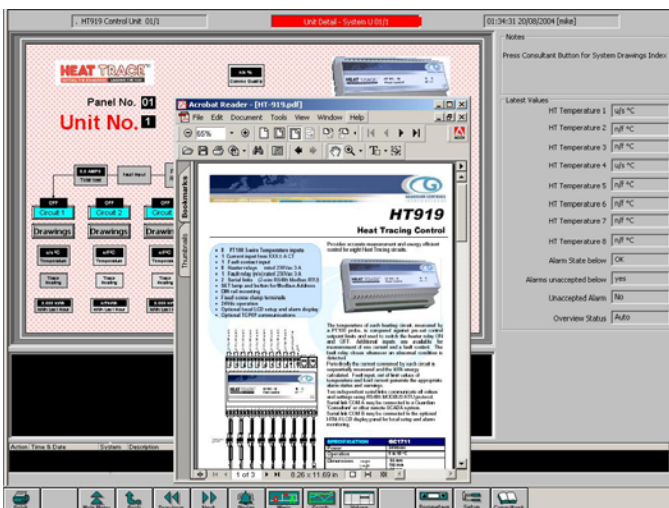
Integrity For increased system integrity, the supervisory software may be run simultaneously on two PCs. The HT919 controllers are totally autonomous and will continue to perform heating control without any central supervision. Integrity can be further enhanced by installation of Internet Protocol interfaces to the HTPM-8 units in each Electrical panel allowing connection to local area networks.



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Consultant Overview

The Consultant Supervisory Alarm Monitoring PC system is a state of the art graphical front end for industrial and supermarket multi-controller monitoring and control. Its ability to support either touch-screen or keyboard and mouse operation combined with a windowing interface make it easy to understand and use.

The Consultant system provides the following facilities:

- Continuous monitoring of all information supported by remote control and monitoring units. This includes setpoints, alarm limits, configuration data, etc, as well as continuously updating values.
- Mimic (graphical) representations of the current state of the whole site, up to 8 separate areas within it.
- Mimic representations of the current state of individual items as reported by remote control & monitoring units.
- Logging of all data once every minute and recording this for **up to one year** (all data is recorded, including setpoints, alarm limits, configuration data, etc).
- Graph displays of the performance of remote units. Up to 8 graphs with 8 traces each may be configured (including allowing retrospective graphing).
- Logging of all alarm events that occur for up to one year, with identification of all alarms that are pending or require a user to acknowledge them.
- Flexible alarm archive search capability that allows patterns of alarm events to be assessed.
- Logging of the last 10000 events that have occurred within the system (user activities, system activities, alarm assertions, alarm clear-downs, etc).
- Ability to adjust parameters associated with remote control and monitoring units.
- User administration facilities that allow the secure operation of the system and to allow audit tracing of user actions.
- Front-end alarming of temperatures associated with evaporators, HVAC plant, trace heaters, in order to implement the latest food or safety policies of the site owner.
- Integration of control and monitoring equipment from many different suppliers and protocols including Modbus, TCP/IP, and SNMP.
- Some (specifically limited) override capabilities
- 'Consultant' button facilities allow seamless transfer to display HTML, Acrobat.pdf and Autocad.dwg information files.

The system has been operational for more than 10 years and numerous supermarket and industrial plant systems have been installed throughout the world. Typical systems monitor up to a hundred controllers with several installations monitoring more.

The communications and database strategy permits an unlimited number of controllers to be connected to the system. The Guardian Integrator unit provides 8 simultaneous channels of potentially different protocols for each RS232 communication port in the PC.

Each channel can electrically support up to 32 RS485 controllers. A 4-port PC can therefore support communications with more than 1000 controllers, if required, each of which may have an unlimited number of internal values, states and parameters.

Consultant Heat Trace SCADA Overview

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DISPLAY OPERATION

Toolbar Buttons

Users interact with the Consultant system via either a touch screen or a mouse. Most simple operations can be carried out either by touching or pointing at an item on a mimic (diagram or picture) or clicking on a toolbar button. The new screen has a different set of toolbar buttons.

The toolbar is visible at the bottom of the screen on all pages:













Overview

Different toolbar buttons are displayed available dependent on the access level of the user password logged on and the display screen selected.

The following buttons appear on the toolbar of most displays.

Touching or clicking these buttons with the mouse gives the following functions:-

| | | |
|---|-------------------|---|
|  | Print | Provided the <i>Consultant</i> system is fitted with a printer, the " Print " button may be used to provide a hardcopy of the screen on display. |
|  | Main Menu | the " Main Menu " button always returns the screen to the Site Mimic (Main Overview) display. see Default System Overview (No alarms). |
|  | Back | the "Back" button always returns the screen to the display screen previously selected. |
|  | Previous | the "Previous" button always displays the same display screen for the previous unit or Area. |
|  | Next | the "Next" button always displays the same display screen for the next unit or Area in sequence. |
|  | Alarm | the "Alarm" button always displays the Current Alarm List for the system, area or unit. For details of how to Accept an Alarm event see ALARM SYSTEM |
|  | Mute | the "Mute" button always silences audible alarm lamps and beacons. |
|  | Mimic | the "Mimic" button always displays the mimic chart representing the operational state and measurement values of the unit. See Circuit Mimic Display |
|  | Graph | the "Graph" button always displays the first page of several graphs associated with a particular unit. See Circuit Graph display |
|  | Consultant | the "Consultant" button always displays indexes to useful information about the system. Index displays and buttons vary dependent on the system and the hardware units used. See Consultant button |
|  | Area | the "Areas" button always displays the Area Overview display/list showing all other units in the same Group See Circuits button |
|  | Values | It is often useful to be able to look at sets of key status information for all units within an area in tabular form. The AREA values display allows for the same 6 data points to be shown as a table for all of the units within the area. See Circuits button - Values |
|  | Log In | The 'Log In' button prompts for User Name and Passcode prior to Alarm accept, changing parameters or settings. See Authorized User Password Log In |

**Log Out**

The 'Log Out' button removes the current pass code user name and reverts to no passcode level.

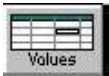
Passcodes are automatically logged out after 30 minutes.

The following additional buttons appear on the toolbar dependent on the display screen selected.

Touching or clicking these buttons with the mouse gives the following functions

Unit Mimic**Area**

This overview indicates the state of all control and monitoring devices, such as valves, heaters, motors, temperature and pressure measurement values, that are connected to the selected unit.

**Values**

the "Values" button gives a display of the major measurement, status and address identification values for the unit in a tabular form.

**Controls**

the "Controls" button gives a pop up display of unit control Function buttons associated with that particular unit. Select required function button:- Auto, Steam Out, OFF. This button is only displayed when the unit is Zoomed and a valid pass code has been entered.

See **Steam Out Display**

**Parameters**

the "Parameters" button gives a display of unit parameters and settings. These parameters vary for each different unit type dependent on the complexity of the control requirements. The ability to change particular parameters is dependent on the user access level of the user logged on.

See **Circuit Control Parameter Setup**

**Setup**

the "Setup" button gives a display that allows changes to the way in which the unit is configured, displayed and what parameters and settings may be changed.

The ability to change particular parameters is dependent on the user access level of the user logged on.

See **Circuit Setup**

Display

**Alarms****Accept**

The 'Accept' button indicates that a particular user has taken responsibility for an alarm event. Mimic icons for the device stop flashing and go steady and

For details of how to **Accept** an Alarm event see **Select Alarm for Acceptance**

**Search**

The 'Search' button provides facilities for searching the Alarm list or Archive List for all alarms that satisfy a particular set of time and date or other criteria.

**Statistics**

The 'Statistics' button provides a list of controllers in descending order of the number of alarm events on that controller.

See **Alarm Statistics Display**

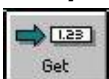
**Archive**

Alarms are removed from the Alarm List to the Alarm Archive if they have been accepted and automatically reset. The 'Archive' button displays this list of previously accepted and reset alarms.

See **Alarm Archive**

**Edit**

This button is available for use during installation to test, clear, accept and purge multiple alarms from the alarm list.

Setup Units**Get**

Parameters present in the controller may be read back into the consultant screen database by using the 'Get' button.

**Send**

Parameter changes shown on the consultant screen are sent to the appropriate controller using the "Send" button.

This button must be used to update the controller with any parameter changes made.

See **Circuit Control Parameter Setup**

**As Installed**

The default settings previously saved by the 'Set Installed' button are loaded as the current parameters when 'As installed' button is pressed. **This selection MUST be followed by the 'Send' button to load the controller with the default parameters.**



The settings in the controller are saved as the default parameters when commissioning is complete by pressing 'Set Installed' button.

Graphs



Date

The 'Date' button allows easy selection of a graph display for a particular date. This facility is used automatically when 'Graph' button is pressed for a particular alarm event in the Alarm List.



Trends

The 'Trends' button allows any of the 8 graph trends to be removed from display on a temporary basis in order to investigate trends of particular interest. All trends are displayed again the next time the graph is re-displayed.



Archive

The 'Archive' button displays the graphical data on display in tabular form with Time and date.



Export

This button provides a text file of graph Archive values which can be read into a EXCEL spreadsheet.

Configure Units



Engineering

Configuration of Units with the above toolbar is detailed in [Consultant Configuration Guide](#)

the "Engineering" button displays a page of further function buttons for system configuration and overall setup.

See **Engineering Functions (Level 4)**

DISPLAY SCREENS

OVERVIEW



Default System Overview (No alarms)

The display shows a mimic representation of the site. This overview indicates the state of all control and monitoring units that are connected to the consultant system. All units status boxes are green. Click anywhere on background to ZOOM. Click on panel unit icons or Group buttons for more details.



System Overview (ZOOM)

with no alarms and panel icons all normal (green). Click on panel unit icons or Group buttons for more details. Click on Login button to enter user name and password. Click on Consultant button for system information and documentation.

| | |
|------------------------|-------------------|
| New Alarm [Flashing] | Normal [Inactive] |
| Caution | Normal [Active] |
| Alarm [No Site Action] | Alarms Inhibited |
| Alarm [Signal On-Site] | Override |

Device Status Colour Key

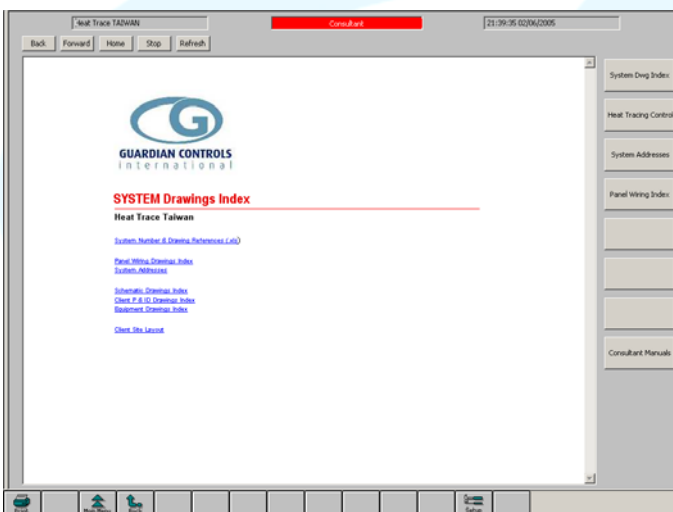
Each device shown on the overview mimic is colour coded to indicate its current operating state, mode or if it has a fault condition that requires attention. Unaccepted alarms FLASH.



System Overview with Alarms

Units in alarm display flashing red panel unit icons which go steady when accepted. Buttons flash if any unit or circuit in that group is in alarm and then go steady when all alarms have been accepted.

Press Mute to stop alarm beacons and lamps. Press panel unit icon or group button for further status display details. Press Alarms for Alarm List details and Alarm Accept button.



Consultant button - Drawings Index

Displays Client System Drawings Index.

Further buttons are available for selecting Heat Tracing control literature, System address references, toolbar icon definitions and Panel wiring index.

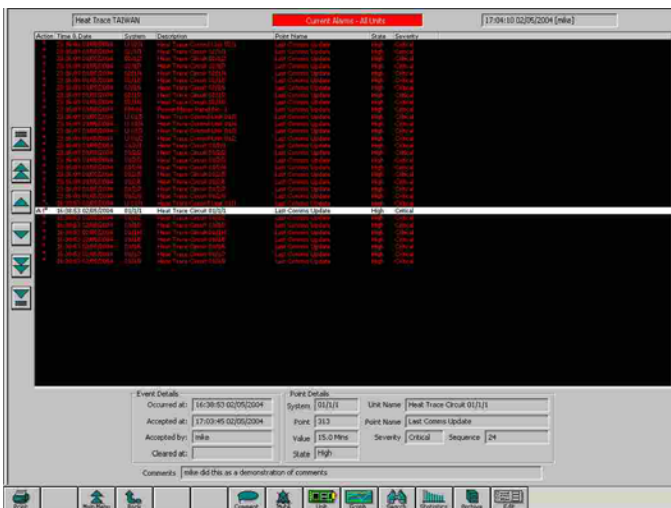


Consultant button - Heat Tracing Control

Displays Guardian Product Index for Heat Tracing Control Documentation.

Further buttons are available for selecting client drawings index, address references, toolbar icon definitions and Consultant system Operator Handbook.

ALARMS



Alarm List

The alarm list shows all of the alarms that have occurred and whether or not they have cleared or been accepted.

The column marked "Action" shows "A" for an accepted alarm, "C" for a cleared alarm, "+" for an engineering alarm and "!" for an alarm which has had a comment logged by the user who accepted it.

The "Time & Date" column shows the time at which an alarm occurred. "Unit" and "System" both indicate details of the unit that had the alarm event. The "Point Name" and "Severity" columns indicate the type of fault.

For details of how to Mute and Accept an Alarm event see **ALARM SYSTEM**

Individual alarm events can be viewed by selecting them by touching with a finger or with the mouse if fitted. Alternatively this can be done or by touching or clicking on the buttons on the left-hand side of the screen with the mouse

If there is more than one screen-full of alarm events, a moving the scroll bar appears on the right hand side of the display.

Alarm events can be selected by touching the scroll bar with a finger and dragging it down or with the mouse by clicking on the scroll bar and holding down the left mouse button whilst moving the mouse.

If the alarm that has been selected has not been accepted it will be shown in red.

In addition, a new button marked "Accept" will be shown. When alarms have been accepted and cleared they automatically disappear from the Current Alarm display and are transferred into the Archive Alarm display.



Alarm Archive

The Alarm Archive display contains a list of alarms which have been accepted and reset. The Archive may be selected by touching or clicking on the "Archive" button.

Individual alarm events can be viewed by selecting them by touching with a finger or with the mouse if fitted. Alternatively this can be done or by touching or clicking on the buttons on the left-hand side of the screen with the mouse or using the scrollbar.

This display has a button marked "Current" which when selected allows return back to the Current Alarm List display

The "Unit" button allows display of the current status mimic of the unit .

Selecting the "Graph" button displays graphical values at the time of the alarm event.

The "Search" button allows display of a group of alarms selected by various search criteria such as all alarms for a particular unit or all high alarms for a particular month.

CONSULT_GRO - [Alarm Statistics] - Consultant

GUARDIAN Heat Trace Supervisor Alarm Statistics: 8:58:56 AM 28-06-2002 7:02:34 AM 28-06-2002 (in/hr)

| System | Description | On Site Signal | No Site Actions | Minor | Major | Critical |
|--------|--|----------------|-----------------|-------|-------|----------|
| 0000 | Generic | 0 | 0 | 0 | 0 | 0 |
| 0004 | Generic temperature monitor (STD/H246) | 0 | 0 | 0 | 0 | 0 |
| 0005 | Generic temperature zone (STD/H246) | 0 | 0 | 0 | 0 | 0 |
| 0755 | Foodhall Temperature | 0 | 0 | 0 | 0 | 0 |
| 0756 | Outside Air Temperature | 0 | 0 | 0 | 0 | 0 |
| 1.01 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.01A | Ice Cream CE | 0 | 0 | 0 | 0 | 0 |
| 1.01B | Ice Cream | 0 | 0 | 0 | 0 | 0 |
| 1.02 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.02A | Ice Cream | 0 | 0 | 0 | 0 | 0 |
| 1.02B | Ice Cream | 0 | 0 | 0 | 0 | 0 |
| 1.03 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.03A | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.03B | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.04 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.04A | Freezer Meat | 0 | 0 | 0 | 0 | 0 |
| 1.04B | Freezer Fish | 0 | 0 | 0 | 0 | 0 |
| 1.05 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.05A | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.05B | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.06 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.06A | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.06B | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.07 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 1.07A | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.07B | Freezer Food | 0 | 0 | 0 | 0 | 0 |
| 1.08 | Freezer Food Freezer | 0 | 0 | 0 | 0 | 0 |
| 1.09 | Bakery Freezer | 0 | 0 | 0 | 0 | 0 |
| 1.10 | Fish Freezer | 0 | 0 | 0 | 0 | 0 |
| 1.11 | Meat Freezer | 0 | 0 | 0 | 0 | 0 |
| 2.01 | Generic controller | 0 | 0 | 0 | 0 | 0 |
| 7.m.a. | Call Response Point | 0 | 0 | 0 | 0 | 0 |

Statistic Summary (for selected units)

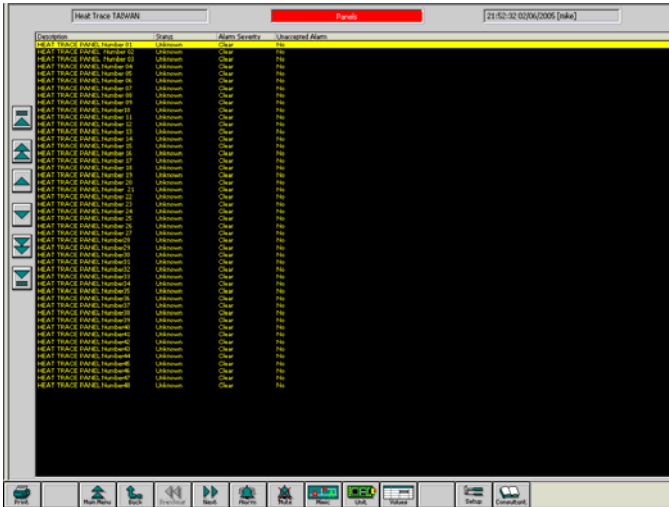
On-Site Signal: 0 Minor: 0 Critical: 0

Alarm Statistics Display

Provides a list of controllers in descending order of the number of alarms or faults in the alarm list or archive list. Controllers with most alarms are at the top of the list.

This provides a very useful service diagnostic report.

GROUP DISPLAY Buttons

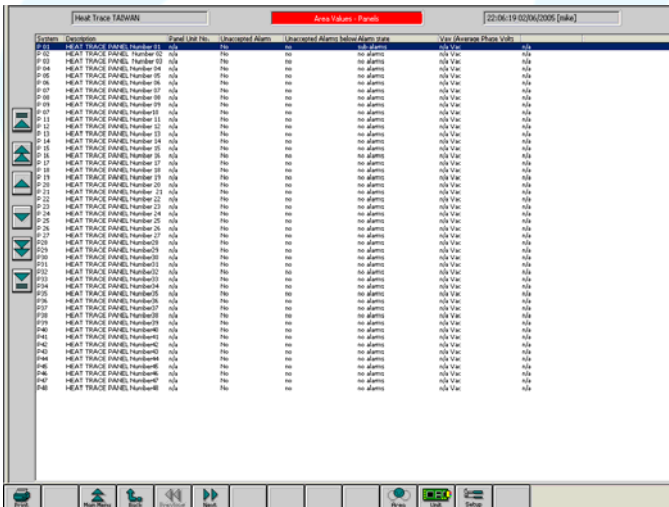


Panels Button

Gives list of Panels with alarm status.
Panels in normal state are green
Panels in alarm are red.

Press Alarms for Alarm List details and Alarm Accept button.

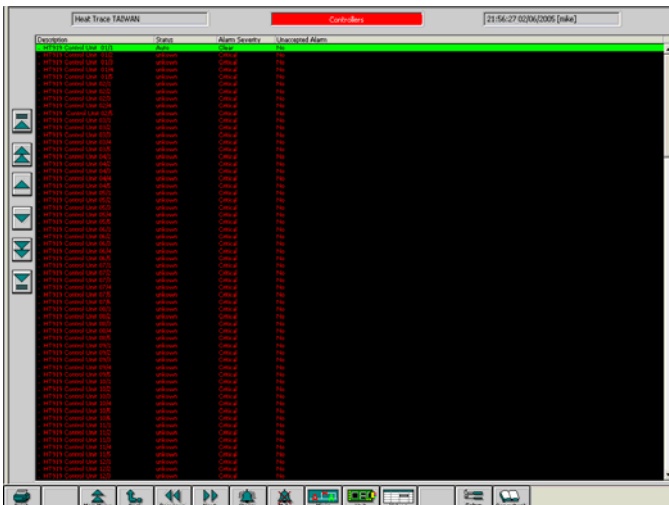
Use up down button or click on panel name and then select toolbar function to display further details of a particular unit.



Panels Button -Values

Gives list of panels with alarm status, and voltage values.

Select a panel then press toolbar 'Unit' button to get more details.



Controllers Button

Gives list of Controllers with alarm status.
Units in normal state are green
Units in alarm are red.

Press Alarms for Alarm List details and Alarm Accept button.

Use up down button or click on unit name and then select toolbar function to display further details of a particular unit.

Heat Trace TADWIN Area Values - Controllers 22:19:47 02/04/2005 [ukla]

| System | Description | Unit | Control | Set Point | Override Status | Alarm Status | Alarm Setpoint | Fault Input Status | Unannounced Alarm |
|--------|------------------------|-------|---------|-----------|-----------------|--------------|----------------|--------------------|-------------------|
| U101 | HT101 Control Line 101 | HT101 | Control | 101 | Normal | OK | 101 | OK | No |
| U102 | HT102 Control Line 102 | HT102 | Control | 102 | Normal | OK | 102 | OK | No |
| U103 | HT103 Control Line 103 | HT103 | Control | 103 | Normal | OK | 103 | OK | No |
| U104 | HT104 Control Line 104 | HT104 | Control | 104 | Normal | OK | 104 | OK | No |
| U105 | HT105 Control Line 105 | HT105 | Control | 105 | Normal | OK | 105 | OK | No |
| U106 | HT106 Control Line 106 | HT106 | Control | 106 | Normal | OK | 106 | OK | No |
| U107 | HT107 Control Line 107 | HT107 | Control | 107 | Normal | OK | 107 | OK | No |
| U108 | HT108 Control Line 108 | HT108 | Control | 108 | Normal | OK | 108 | OK | No |
| U109 | HT109 Control Line 109 | HT109 | Control | 109 | Normal | OK | 109 | OK | No |
| U110 | HT110 Control Line 110 | HT110 | Control | 110 | Normal | OK | 110 | OK | No |
| U111 | HT111 Control Line 111 | HT111 | Control | 111 | Normal | OK | 111 | OK | No |
| U112 | HT112 Control Line 112 | HT112 | Control | 112 | Normal | OK | 112 | OK | No |
| U113 | HT113 Control Line 113 | HT113 | Control | 113 | Normal | OK | 113 | OK | No |
| U114 | HT114 Control Line 114 | HT114 | Control | 114 | Normal | OK | 114 | OK | No |
| U115 | HT115 Control Line 115 | HT115 | Control | 115 | Normal | OK | 115 | OK | No |
| U116 | HT116 Control Line 116 | HT116 | Control | 116 | Normal | OK | 116 | OK | No |
| U117 | HT117 Control Line 117 | HT117 | Control | 117 | Normal | OK | 117 | OK | No |
| U118 | HT118 Control Line 118 | HT118 | Control | 118 | Normal | OK | 118 | OK | No |
| U119 | HT119 Control Line 119 | HT119 | Control | 119 | Normal | OK | 119 | OK | No |
| U120 | HT120 Control Line 120 | HT120 | Control | 120 | Normal | OK | 120 | OK | No |
| U121 | HT121 Control Line 121 | HT121 | Control | 121 | Normal | OK | 121 | OK | No |
| U122 | HT122 Control Line 122 | HT122 | Control | 122 | Normal | OK | 122 | OK | No |

Controllers button - Values

Gives list of controllers with individual alarm status, current, voltage and fault input status.

Select required circuit then press toolbar 'Unit' button to get more controller details.

Heat Trace TADWIN Circuits 21:54:34 02/04/2005 [ukla]

| Description | Status | Alarm Severity | Unannounced Alarm |
|------------------------|--------|----------------|-------------------|
| Heat Trace Control 101 | Normal | Clear | No |
| Heat Trace Control 102 | Normal | Clear | No |
| Heat Trace Control 103 | Normal | Clear | No |
| Heat Trace Control 104 | Normal | Clear | No |
| Heat Trace Control 105 | Normal | Clear | No |
| Heat Trace Control 106 | Normal | Clear | No |
| Heat Trace Control 107 | Normal | Clear | No |
| Heat Trace Control 108 | Normal | Clear | No |
| Heat Trace Control 109 | Normal | Clear | No |
| Heat Trace Control 110 | Normal | Clear | No |
| Heat Trace Control 111 | Normal | Clear | No |
| Heat Trace Control 112 | Normal | Clear | No |
| Heat Trace Control 113 | Normal | Clear | No |
| Heat Trace Control 114 | Normal | Clear | No |
| Heat Trace Control 115 | Normal | Clear | No |
| Heat Trace Control 116 | Normal | Clear | No |
| Heat Trace Control 117 | Normal | Clear | No |
| Heat Trace Control 118 | Normal | Clear | No |
| Heat Trace Control 119 | Normal | Clear | No |
| Heat Trace Control 120 | Normal | Clear | No |
| Heat Trace Control 121 | Normal | Clear | No |
| Heat Trace Control 122 | Normal | Clear | No |

Circuits button

Gives list of Circuits with alarm status. Circuits in normal state are green. Circuits in alarm are red.

Press Alarms for Alarm List details and Alarm Accept button.

Use up down buttons or click on unit name and then select toolbar function to display further details of a particular circuit.

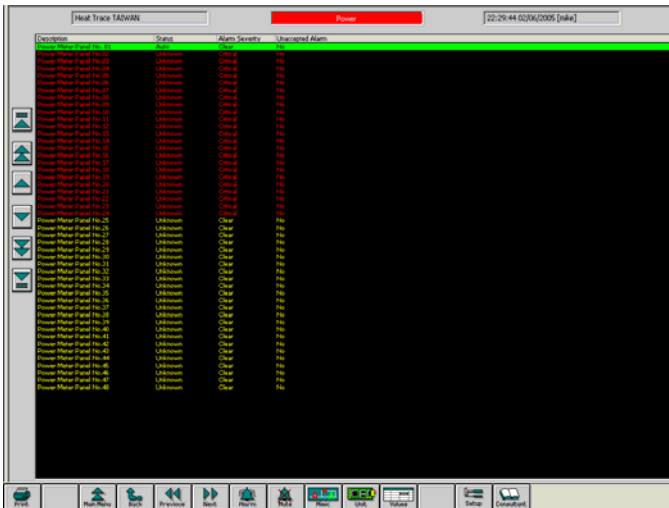
Heat Trace TADWIN Area Values - Circuits 22:00:29 02/04/2005 [ukla]

| System | Description | Override Status | Control Temperature | Heater Output Report | Control Temp Hi Alarm Lims | Control Temp Lo Alarm Lims | Unannounced Alarm |
|--------|------------------------|-----------------|---------------------|----------------------|----------------------------|----------------------------|-------------------|
| HT101 | Heat Trace Control 101 | Auto | 42.3 °C | 29 °C | 60 °C | 20 °C | No |
| HT102 | Heat Trace Control 102 | Auto | 36.3 °C | 29 °C | 60 °C | 20 °C | No |
| HT103 | Heat Trace Control 103 | Auto | 41.6 °C | 29 °C | 60 °C | 20 °C | No |
| HT104 | Heat Trace Control 104 | Auto | 41.6 °C | 29 °C | 60 °C | 20 °C | No |
| HT105 | Heat Trace Control 105 | Auto | 44.4 °C | 29 °C | 60 °C | 20 °C | No |
| HT106 | Heat Trace Control 106 | Auto | 36.5 °C | 29 °C | 60 °C | 20 °C | No |
| HT107 | Heat Trace Control 107 | Auto | 21.1 °C | 29 °C | 60 °C | 20 °C | No |
| HT108 | Heat Trace Control 108 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT109 | Heat Trace Control 109 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT110 | Heat Trace Control 110 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT111 | Heat Trace Control 111 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT112 | Heat Trace Control 112 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT113 | Heat Trace Control 113 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT114 | Heat Trace Control 114 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT115 | Heat Trace Control 115 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT116 | Heat Trace Control 116 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT117 | Heat Trace Control 117 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT118 | Heat Trace Control 118 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT119 | Heat Trace Control 119 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT120 | Heat Trace Control 120 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT121 | Heat Trace Control 121 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT122 | Heat Trace Control 122 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT123 | Heat Trace Control 123 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT124 | Heat Trace Control 124 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT125 | Heat Trace Control 125 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT126 | Heat Trace Control 126 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT127 | Heat Trace Control 127 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT128 | Heat Trace Control 128 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT129 | Heat Trace Control 129 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT130 | Heat Trace Control 130 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT131 | Heat Trace Control 131 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT132 | Heat Trace Control 132 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT133 | Heat Trace Control 133 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT134 | Heat Trace Control 134 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT135 | Heat Trace Control 135 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT136 | Heat Trace Control 136 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT137 | Heat Trace Control 137 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT138 | Heat Trace Control 138 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT139 | Heat Trace Control 139 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT140 | Heat Trace Control 140 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT141 | Heat Trace Control 141 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT142 | Heat Trace Control 142 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT143 | Heat Trace Control 143 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT144 | Heat Trace Control 144 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT145 | Heat Trace Control 145 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT146 | Heat Trace Control 146 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT147 | Heat Trace Control 147 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT148 | Heat Trace Control 148 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT149 | Heat Trace Control 149 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT150 | Heat Trace Control 150 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT151 | Heat Trace Control 151 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT152 | Heat Trace Control 152 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT153 | Heat Trace Control 153 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT154 | Heat Trace Control 154 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT155 | Heat Trace Control 155 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT156 | Heat Trace Control 156 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT157 | Heat Trace Control 157 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT158 | Heat Trace Control 158 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT159 | Heat Trace Control 159 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT160 | Heat Trace Control 160 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT161 | Heat Trace Control 161 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT162 | Heat Trace Control 162 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT163 | Heat Trace Control 163 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT164 | Heat Trace Control 164 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT165 | Heat Trace Control 165 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT166 | Heat Trace Control 166 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT167 | Heat Trace Control 167 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT168 | Heat Trace Control 168 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT169 | Heat Trace Control 169 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT170 | Heat Trace Control 170 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT171 | Heat Trace Control 171 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT172 | Heat Trace Control 172 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT173 | Heat Trace Control 173 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT174 | Heat Trace Control 174 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT175 | Heat Trace Control 175 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT176 | Heat Trace Control 176 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT177 | Heat Trace Control 177 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT178 | Heat Trace Control 178 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT179 | Heat Trace Control 179 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT180 | Heat Trace Control 180 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT181 | Heat Trace Control 181 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT182 | Heat Trace Control 182 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT183 | Heat Trace Control 183 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT184 | Heat Trace Control 184 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT185 | Heat Trace Control 185 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT186 | Heat Trace Control 186 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT187 | Heat Trace Control 187 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT188 | Heat Trace Control 188 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT189 | Heat Trace Control 189 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT190 | Heat Trace Control 190 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT191 | Heat Trace Control 191 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT192 | Heat Trace Control 192 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT193 | Heat Trace Control 193 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT194 | Heat Trace Control 194 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT195 | Heat Trace Control 195 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT196 | Heat Trace Control 196 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT197 | Heat Trace Control 197 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT198 | Heat Trace Control 198 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT199 | Heat Trace Control 199 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |
| HT200 | Heat Trace Control 200 | Setpoint | 49 °C | 55 °C | 60 °C | 20 °C | No |

Circuits button - Values

Gives list of circuits with individual alarm status, heater temperature, alarm limits and setpoint values.

Select required circuit then press toolbar 'Unit' button to get more circuit details.

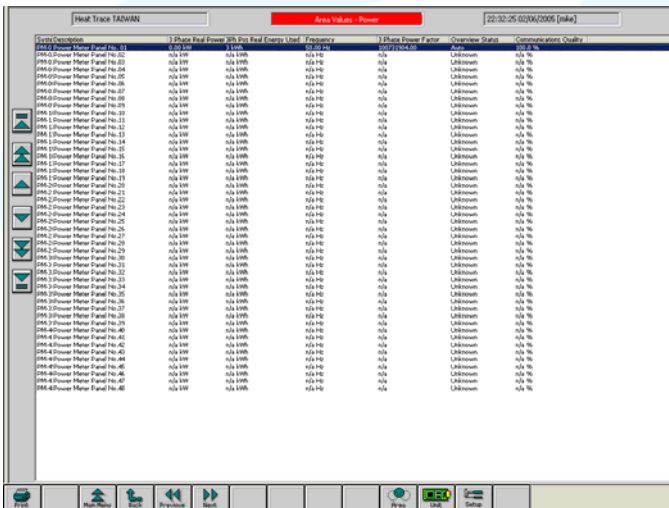


Power Meters button

Gives list of Power Meters with alarm status. Meters in normal state are green Meters in alarm are red.

Press Alarms for Alarm List details and Alarm Accept button.

Use up down buttons or click on meter name and then select toolbar function to display further details of a particular power meter.

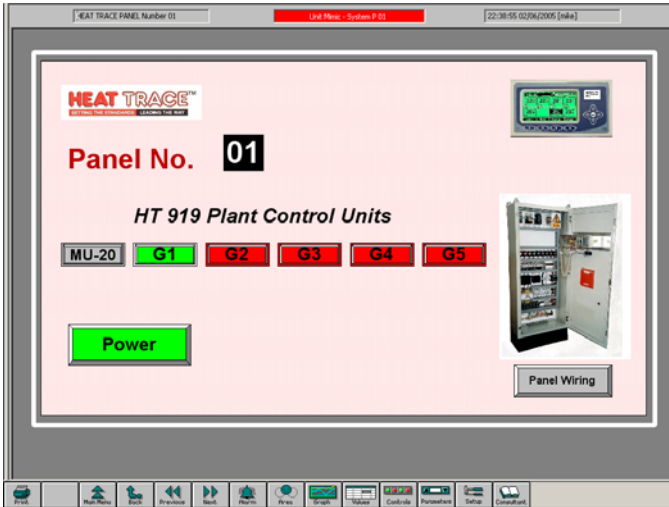


Power Meters button- Values

Gives list of meters with individual alarm status, power ,frequency , power factor values.

Select required meter then press toolbar 'Unit' button to get more meter details.

PANEL DISPLAYS



Panel Display (with units in alarm)

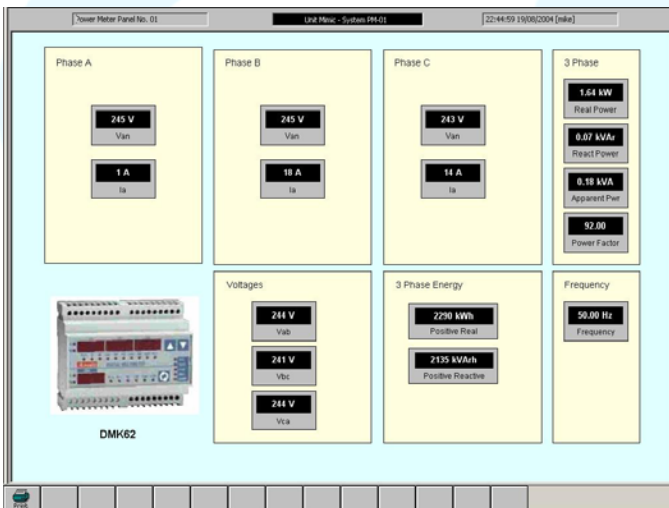
This mimic is displayed when the particular panel has been selected from a Site Overview or group button display.

It indicates the state of all controllers connected to the selected panel.

Press unit icon for further status display details.

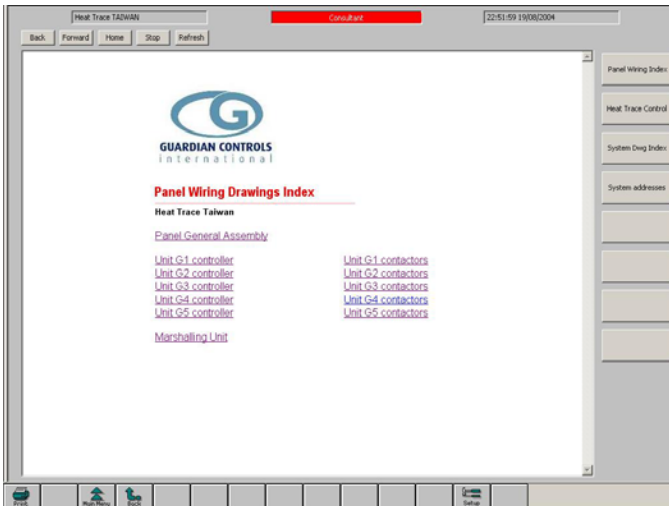
Press Alarms for Alarm List details of that panel.

The following displays are also available:-



Power Monitoring Display

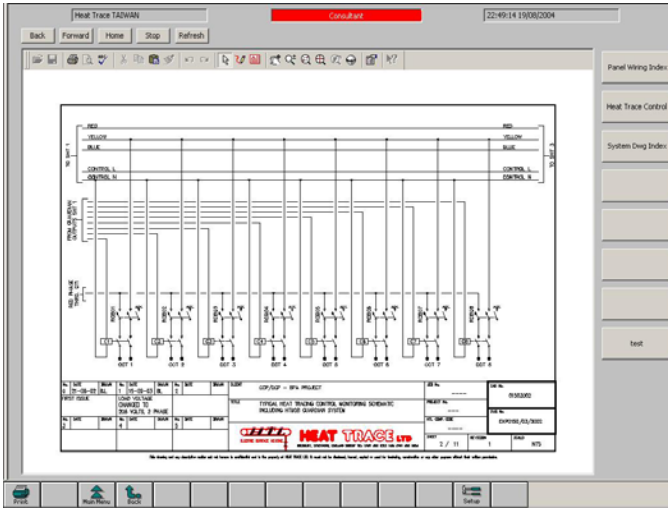
After selecting a particular power meter or pressing Power button on panel mimic



Panel Wiring Index Display

after pressing Panel Wiring Button or Consultant button

Shows panel drawing index selection and circuit display



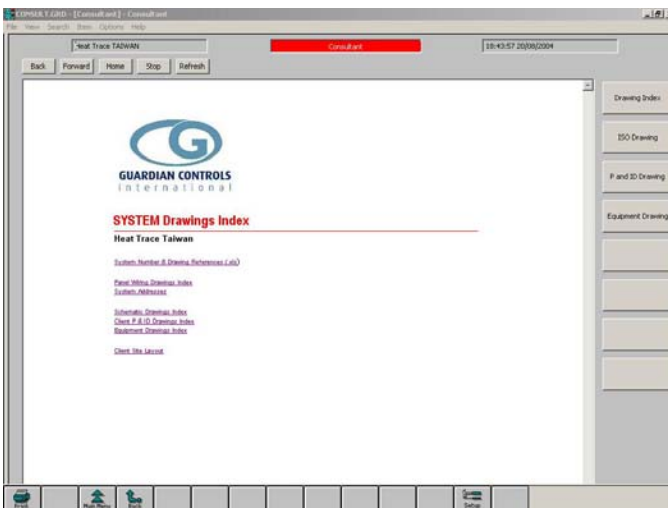
Panel Wiring Display

after selecting required controller in above list



Consultant / Heat Tracing Control Index Display button

Displays index of all system product documentation. Click on required item for more information.



Consultant / System Drawing Index Display button

Displays index of all system drawings and site documentation.

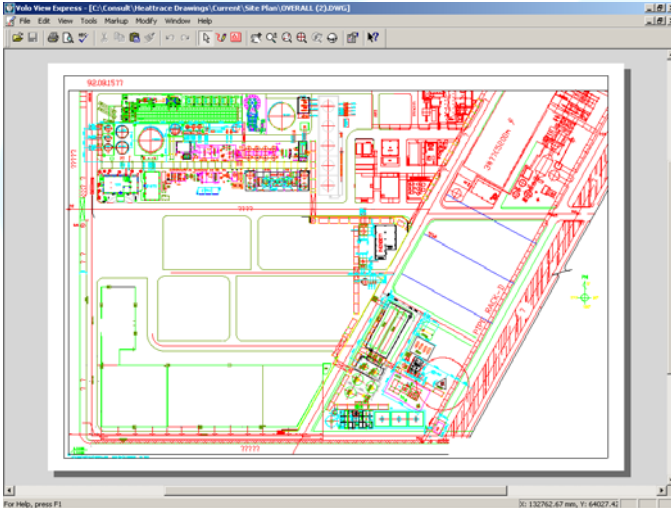
Click on required item for more information. for a particular circuit.

| Area | Panel | Unit No | Control No | Logical Unit No | Unit | Channel | Modbus Address |
|------|-------|---------|------------|-----------------|------|---------|----------------|
| 1 | 1 | 1 | 1 | 111 | 1 | 1 | 11 |
| 1 | 1 | 1 | 2 | 112 | 1 | 1 | 12 |
| 1 | 1 | 1 | 3 | 113 | 1 | 1 | 13 |
| 1 | 1 | 1 | 4 | 114 | 1 | 1 | 14 |
| 1 | 1 | 1 | 5 | 115 | 1 | 1 | 15 |
| 1 | 1 | 1 | 6 | 116 | 1 | 1 | 16 |
| 1 | 1 | 1 | 7 | 117 | 1 | 1 | 17 |
| 1 | 1 | 1 | 8 | 118 | 1 | 1 | 18 |
| 1 | 2 | 1 | 120 | 1 | 1 | 1 | 12 |
| 1 | 2 | 1 | 121 | 1 | 1 | 1 | 11 |
| 1 | 2 | 2 | 122 | 1 | 1 | 1 | 12 |
| 1 | 2 | 3 | 123 | 1 | 1 | 1 | 13 |
| 1 | 2 | 4 | 124 | 1 | 1 | 1 | 14 |
| 1 | 2 | 5 | 125 | 1 | 1 | 1 | 15 |
| 1 | 2 | 6 | 126 | 1 | 1 | 1 | 16 |
| 1 | 2 | 7 | 127 | 1 | 1 | 1 | 17 |
| 1 | 2 | 8 | 128 | 1 | 1 | 1 | 18 |
| 1 | 3 | 1 | 130 | 1 | 1 | 1 | 13 |
| 1 | 3 | 1 | 131 | 1 | 1 | 1 | 11 |
| 1 | 3 | 2 | 132 | 1 | 1 | 1 | 12 |
| 1 | 3 | 3 | 133 | 1 | 1 | 1 | 13 |
| 1 | 3 | 4 | 134 | 1 | 1 | 1 | 14 |
| 1 | 3 | 5 | 135 | 1 | 1 | 1 | 15 |

System Number & Drawing References (.xls)

Displays all Panel, Unit, System, port, channel highway numbers and Modbus addresses for all controllers plus hyperlink references to system drawings for Unit Heater circuits, Circuit ISO drawing and Client P & ID drawings.

Use vertical slidebars to view total list. Click on drawing Name hyperlink to display selected Drawing.



Site Plan button

Displays Client Site Plan drawing.

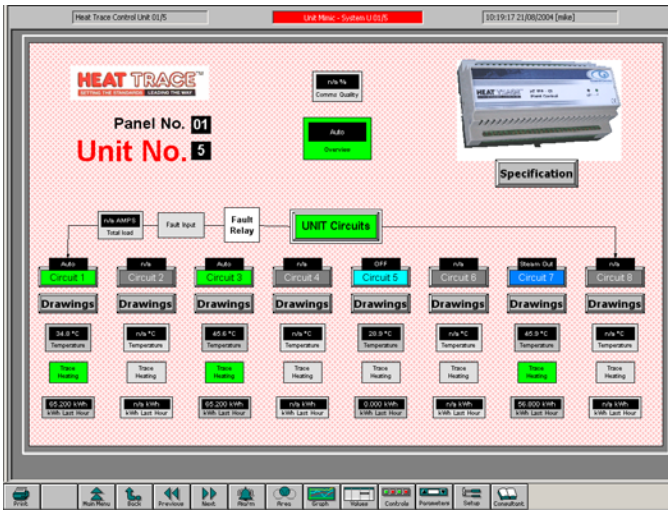
| Area | Panel | Unit No | Control No | Logical Unit No | Unit | Channel | Modbus Address |
|------|-------|---------|------------|-----------------|------|---------|----------------|
| 1 | 1 | 1 | 1 | 111 | 1 | 1 | 11 |
| 1 | 1 | 1 | 2 | 112 | 1 | 1 | 12 |
| 1 | 1 | 1 | 3 | 113 | 1 | 1 | 13 |
| 1 | 1 | 1 | 4 | 114 | 1 | 1 | 14 |
| 1 | 1 | 1 | 5 | 115 | 1 | 1 | 15 |
| 1 | 1 | 1 | 6 | 116 | 1 | 1 | 16 |
| 1 | 1 | 1 | 7 | 117 | 1 | 1 | 17 |
| 1 | 1 | 1 | 8 | 118 | 1 | 1 | 18 |
| 1 | 2 | 1 | 120 | 1 | 1 | 1 | 12 |
| 1 | 2 | 1 | 121 | 1 | 1 | 1 | 11 |
| 1 | 2 | 2 | 122 | 1 | 1 | 1 | 12 |
| 1 | 2 | 3 | 123 | 1 | 1 | 1 | 13 |
| 1 | 2 | 4 | 124 | 1 | 1 | 1 | 14 |
| 1 | 2 | 5 | 125 | 1 | 1 | 1 | 15 |
| 1 | 2 | 6 | 126 | 1 | 1 | 1 | 16 |
| 1 | 2 | 7 | 127 | 1 | 1 | 1 | 17 |
| 1 | 2 | 8 | 128 | 1 | 1 | 1 | 18 |
| 1 | 3 | 1 | 130 | 1 | 1 | 1 | 13 |
| 1 | 3 | 1 | 131 | 1 | 1 | 1 | 11 |
| 1 | 3 | 2 | 132 | 1 | 1 | 1 | 12 |
| 1 | 3 | 3 | 133 | 1 | 1 | 1 | 13 |

Consultant / System Addresses Display button

Displays all Panel, Unit, System, port, channel highway numbers and Modbus addresses for all controllers.

Use vertical slidebars to view total list.

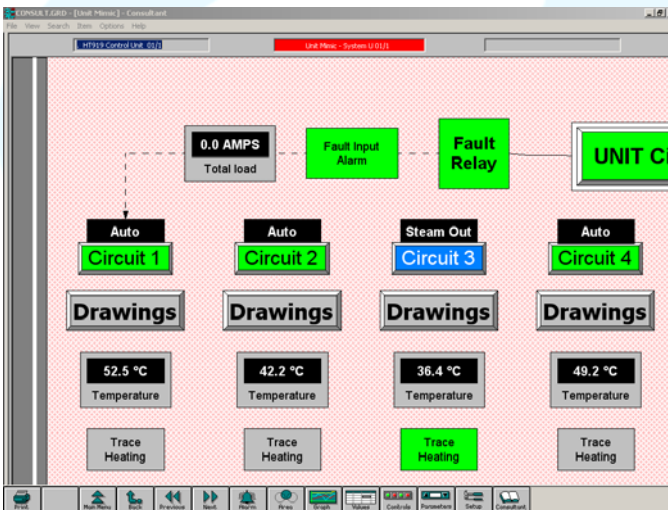
UNIT DISPLAYS



Unit Display

This mimic is displayed when the particular unit has been selected by touching or clicking with the mouse on a Site Overview Area Mimic or panel display.

It indicates the state of all control and monitoring devices, such as valves, heaters, motors, temperature and pressure measurement values, that are connected to the selected unit.



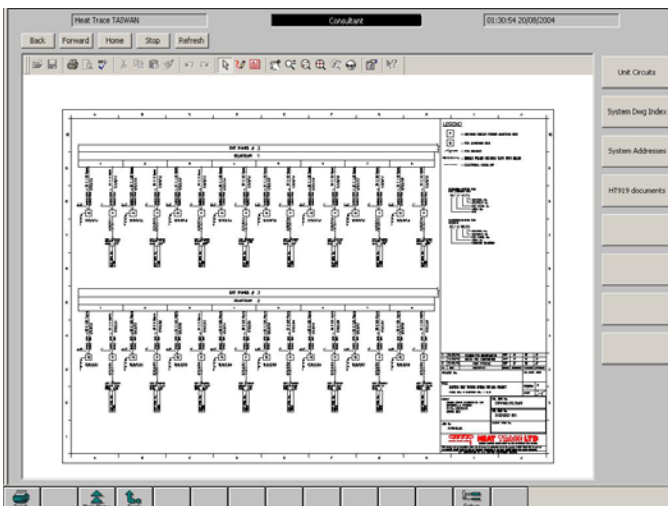
Unit Mimic (ZOOM) -

Click anywhere on mimic background

| | |
|------------------------|-------------------|
| New Alarm [Flashing] | Normal [Inactive] |
| Caution | Normal [Active] |
| Alarm [No Site Action] | Alarms Inhibited |
| Alarm [Signal On-Site] | Override |

Colour Key

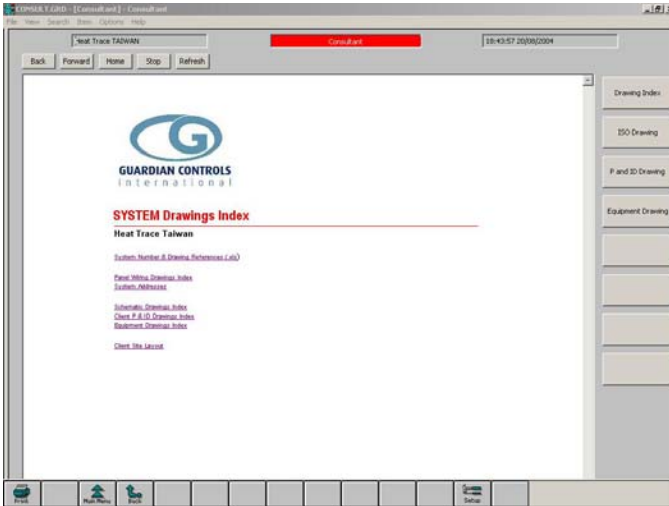
Each circuit shown on the unit mimic is colour coded to indicate its current operating state, mode or if it has a fault condition that requires attention.



Select Unit Circuits button

Automatically Displays Unit Circuit Drawing for the selected controller and displays buttons which allow selection of system documentation

REFRIGERATION CONTROL & MONITORING



Select the Drawings buttons

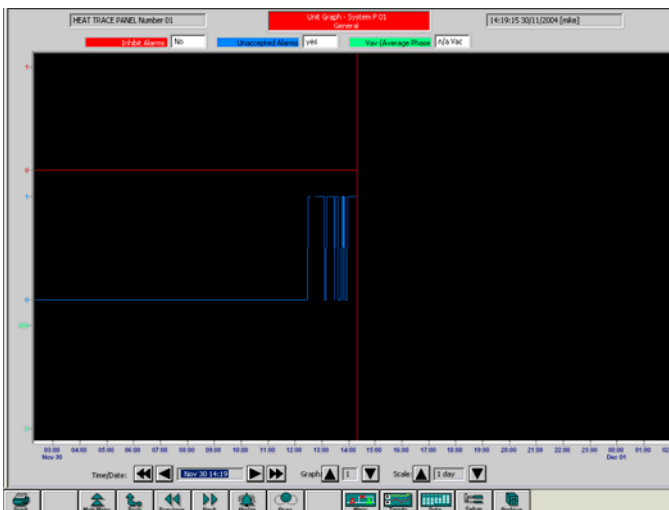
for a particular heattrace circuit.

Displays System Drawing Index and also buttons which allow selection of ISO or P&ID drawings for that circuit.



Values Display

Shows up to 36 major values associated with the unit or circuit.



Unit Graph Display

Touching or clicking on the "Graph" button gives a display of unit values and measurements as a graphical display. The values or states displayed vary for each different unit type dependent on the complexity of the control requirements.

Up to 8 values can be displayed on each graph. The identity, colour and value of each graph is indicated at the top of the display. The values displayed are those selected by the marker at the middle of the screen. Up to 8 graphs may be displayed for each unit. Other graphs for the unit are displayed by raising or lowering the Graph Number.

All data is saved on disc for the last 12 months.

Each value or data point is recorded every minute.

The period covered by the graph is selected by raising or lowering the Graph **Scale**.

The graph can be scaled to display from:- 1 hour, 8 hours, 1 day, 1 week, 1 month up to 1 year.

Touching or clicking the mouse on a particular section of the graph which is of interest results in that section being displayed in the centre of the screen at the next lower scale.

The graph can be moved along its axis quickly or slowly using the double or single arrow buttons.

The graph for a particular day and month can be selected after touching or clicking the "Date" button which displays a window for day and month selection.

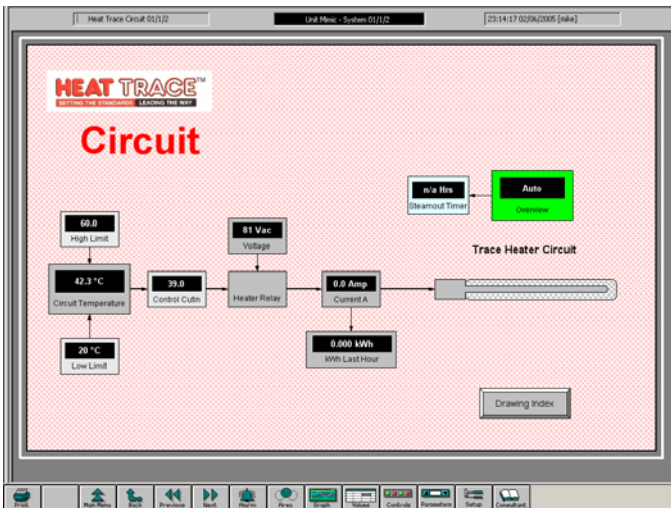
When selected from an Alarm display, the Unit Graph displays Graph 1 on a 1 day scale with the time of the alarm at the centre of the **screen**.

The archive button allows display of points in tabular form with time and date.

The Export button allows Tabular values for a selected day to be exported in a user specified .csv text file for use with EXCEL spreadsheets.



CIRCUIT DISPLAYS

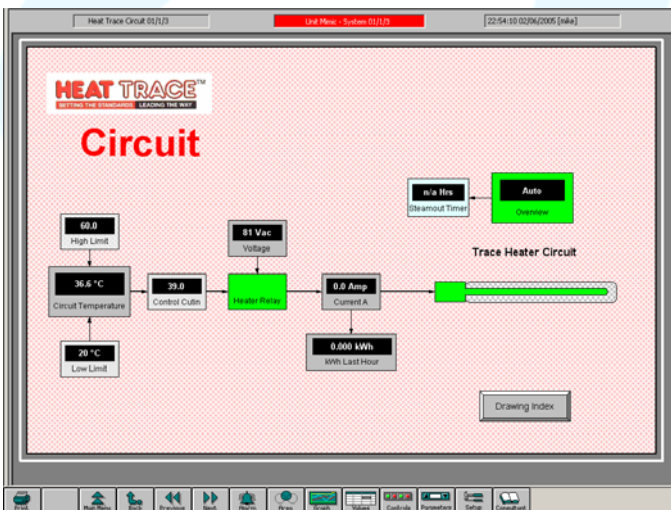


Circuit Display

Heater off

This mimic is displayed when the particular circuit has been selected by touching or clicking with the mouse on a Area Mimic or unit display.

It indicates the state of all control and monitoring devices, such as valves, heaters, motors, temperature and current measurement values, that are connected to the selected unit.

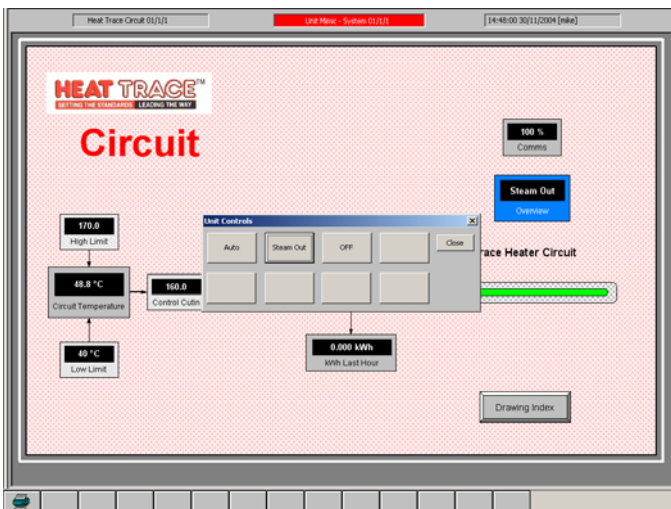


Circuit Mimic Display

Heater on

If Login was done with the appropriate passcode level, the Control Button is now available on mimic toolbar.

Press Control button to select Steamout as below:-



Steam Out Display

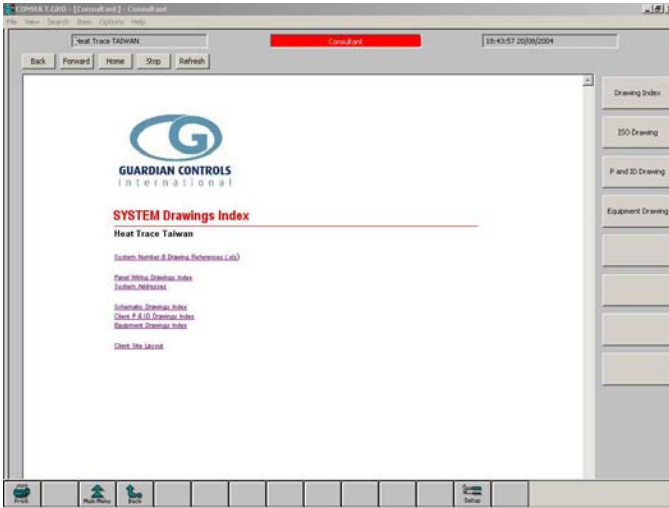
Steam Out is operated by pressing Controls button followed by Steam Out.

Steam Out is stopped by pressing Control followed by Auto.

During steamout the temperature is controlled to the Steam Out setpoint.

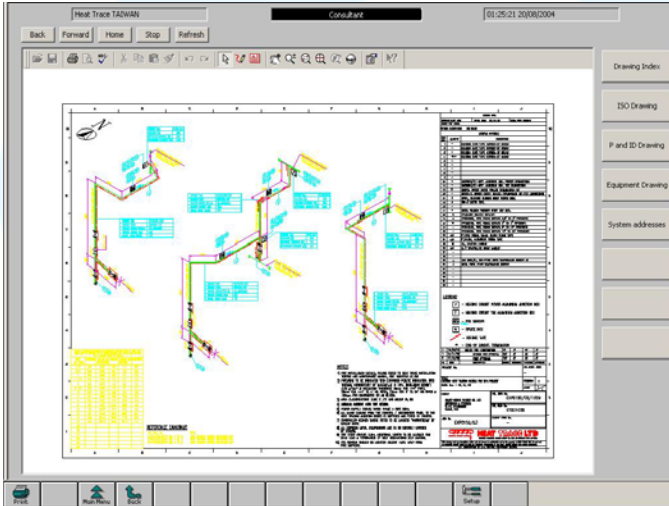
Temperature Alarms are active during Steam Out.

REFRIGERATION CONTROL & MONITORING

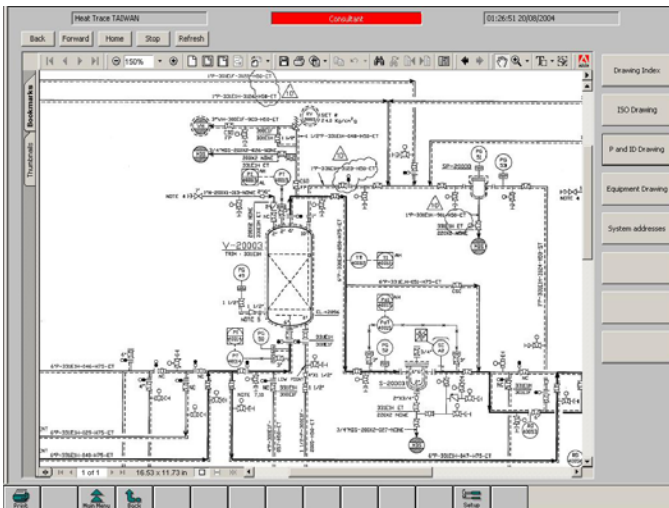


Select the Drawings buttons

for a particular heattrace circuit.
Displays System Drawing Index and also buttons which allow selection of ISO or P&ID drawings for that circuit.

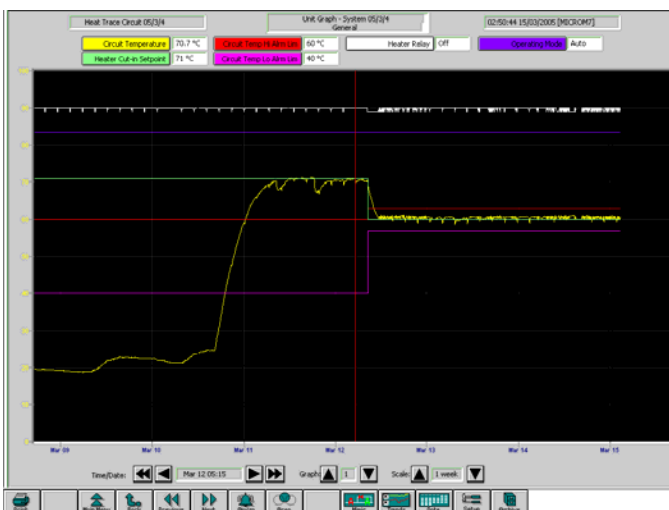


Select the Circuit Isometric buttons



Select the Circuit P & ID buttons

REFRIGERATION CONTROL & MONITORING



Circuit Graph display

Touching or clicking on the “Graph” button gives a display of unit values and measurements as a graphical display. The values or states displayed vary for each different unit type dependent on the complexity of the control requirements.

Up to 8 values can be displayed on each graph. The identity, colour and value of each graph is indicated at the top of the display. The values displayed are those selected by the marker at the middle of the screen. Up to 8 graphs may be displayed for each unit. Other graphs for the unit are displayed by raising or lowering the Graph Number.

All data is saved on disc for the last 12 months.

Each value or data point is recorded every minute.

The period covered by the graph is selected by raising or lowering the Graph **Scale**.

The graph can be scaled to display from:- 1 hour, 8 hours, 1 day, 1 week, 1 month up to 1 year.

Touching or clicking the mouse on a particular section of the graph which is of interest results in that section being displayed in the centre of the screen at the next lower scale.

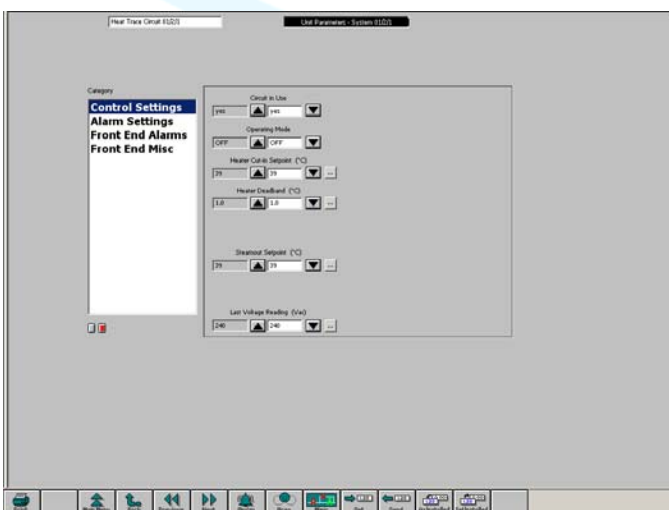
The graph can be moved along its axis quickly or slowly using the double or single arrow buttons.

The graph for a particular day and month can be selected after touching or clicking the “Date” button which displays a window for day and month selection.

When selected from an Alarm display, the Unit Graph displays Graph 1 on a 1 day scale with the time of the alarm at the centre of the **screen**.

The archive button allows display of points in tabular form with time and date.

Tabular values for a selected day can be exported in a .cst text file for use with spreadsheets.



Circuit Control Parameter Setup

These parameters vary for each different unit type dependent on the complexity of the control requirements.

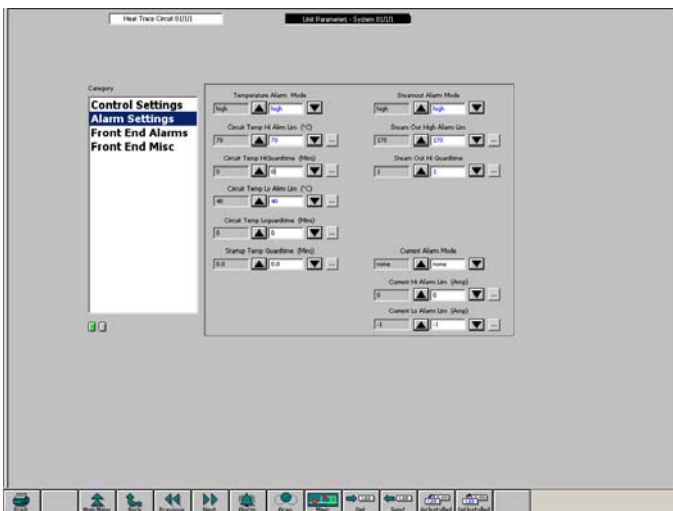
The ability to change particular parameters is dependent on the user access level of the user logged on to the system

Each unit has a number of pages of Parameter category displays

The display for a particular Parameter Category is selected by touching or clicking the mouse on one of the items in the category list at the left side of the display.

Parameters are changed using the up / down arrow buttons.

Parameter changes are sent to the appropriate controller using the “Send” button.

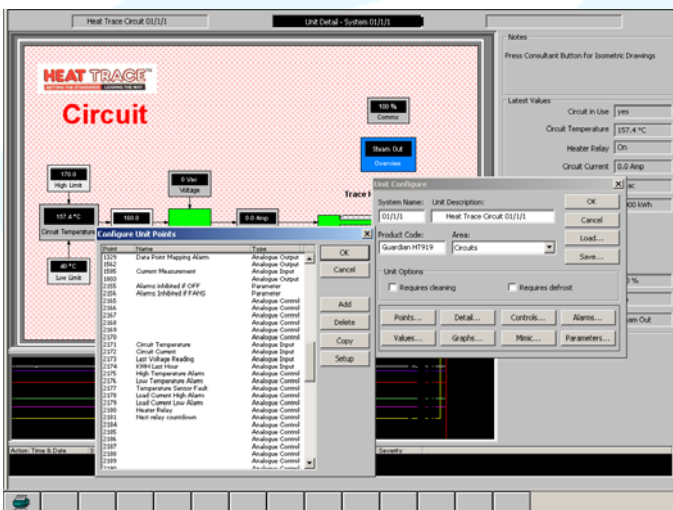


Circuit Alarm Parameter Display

Alarm state, High/Low Alarm Limit levels , and guardtimes are adjusted using this display.

Parameters are changed using the up / down arrow buttons.

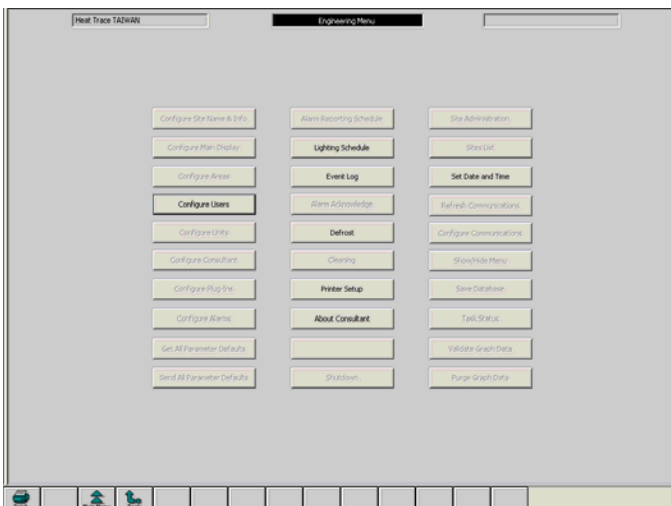
Parameter changes are sent to the appropriate controller using the "Send" button.



Circuit Setup Display

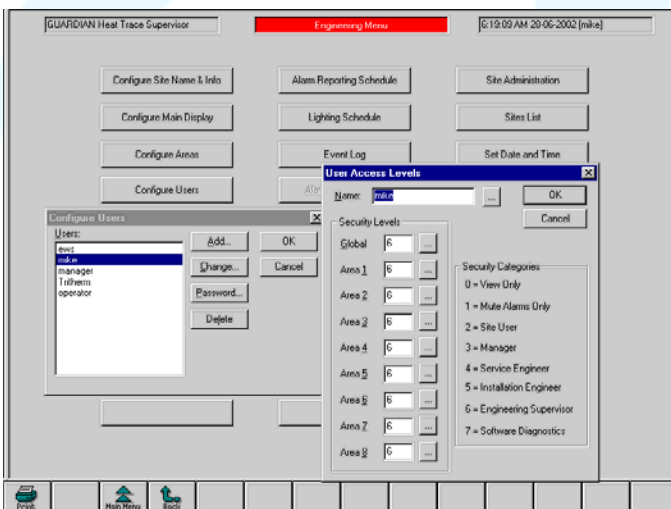
See [Consultant Configuration Guide](#) for more information.

Engineering Functions (Level 4)



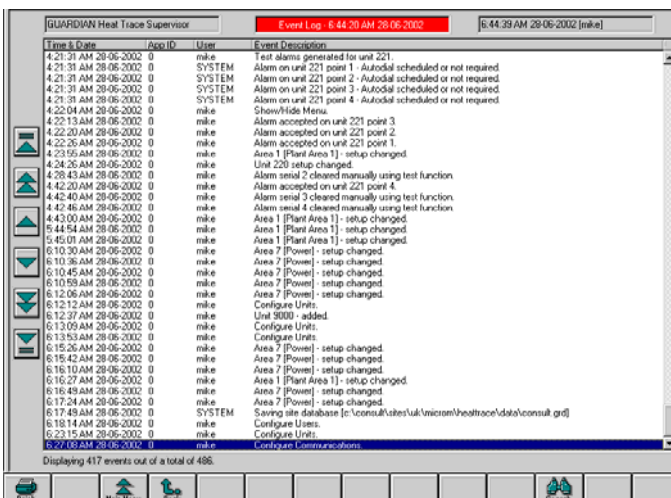
Engineering Display

Level 4 allows user configuration view the event log date and time adjustment of the PC printer setup view (if applicable) of defrost and lighting schedules



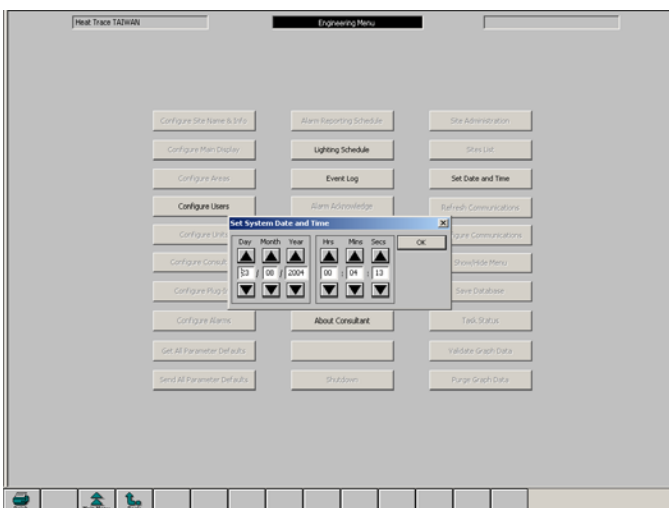
Configure Users

This screen allows entry and change of system passwords and user access levels. See PASSWORD ALLOCATION



Event Log

Displays a list of all PC System changes , alarm events and parameter changes with time date and user passwords. The user may only see activities at his pass level or below.



Set Time & Date

The time and date may be adjusted using this screen.

Enter new time and date by typing or using up/down arrows and then press 'OK'

Lighting Schedule

Not used on Heat trace Systems

Defrost Schedule

Not used on Heat trace Systems

System Configuration

The screenshot shows the 'GUARDIAN Heat Trace Supervisor' interface. The main window displays a table of units with columns for Unit, System, Product Type, Description, Area, and Configuration File Path. A 'Unit Configure' dialog box is open, showing configuration options for a selected unit (HT 22/12 Heat Trace Zone). The dialog includes fields for System Name, Unit Description, Product Code, and Area, along with checkboxes for 'Requires cleaning' and 'Requires defrost'. Buttons for 'OK', 'Cancel', 'Load...', 'Save...', 'Points...', 'Detail...', 'Controls...', 'Alarms...', 'Values...', 'Graphs...', 'Mimic...', and 'Parameters...' are visible.

Configure Units

See [Consultant Configuration Guide](#) for more information.

The screenshot shows the 'consultant.gc - GuardianComms' interface. The left pane shows a tree view of communication channels, including 'IME Nemo (0001)'. The right pane displays the configuration for the selected unit, showing logical unit number, address, and various communication parameters such as 'New Comms Requests', 'Deleted Comms Requests', 'Requests Issued', 'Last request', 'Replies', 'Last reply', 'Reply timeout', 'Last reply timeout', 'Unexpected replies', 'Last unexpected reply', 'Failed commands', and 'Last failed command'. A detailed list of parameters for 'Logical Unit Number 9000' is also shown, including 'Software Version', 'Unknown Point', 'Last Comms Update Timer', 'Comms Fault Alarm', 'Unknown Point', 'Parameters Locked', 'Unit Cleaning', 'Clean Inhibit Duration', 'Alarms Inhibited', 'Alarm Inhibit Duration', 'Alarm Inhibit Researing', 'Comms Alarm Delay', 'Communications Quality', 'Data Point Mapping Alarm', 'Unit Number', 'Phase A Current', and 'Phase B Current'.

Configure Communications

See [Consultant Configuration Guide](#) for more information.

ALARM SYSTEM

If an alarm occurs on the site, the sounder on the alarm panel will activate and the alarm lamp will start to flash.

In order to silence the alarm and accept responsibility for actioning the alarm procedure, the Consultant PC system requires an authorised user to log-on and accept the alarm event.

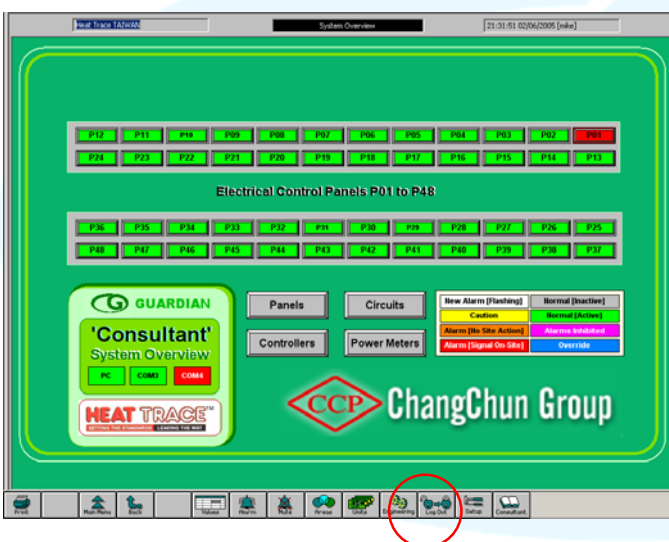
An authorised user will have been provided with a user access code and password.

If you do not know your password then contact your manager or service contractor.

Select Overview Display



The system Overview Screen is accessible at all times by selecting the "Main menu" button
Use the mouse to click the 'Main Menu' Button.

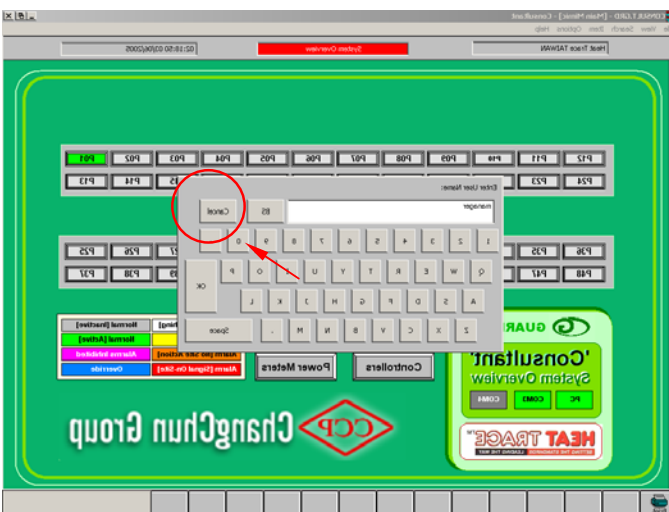


The front screen shows a representation of the areas managed by the Consultant system. The colour of each unit shown on this screen indicates its current operating state, flashing red indicates any units that have unaccepted alarms. Minor alarms (shown in orange) are primarily of interest to engineers only. These will not cause the alarm sounder to activate.

Authorized User Password Log In



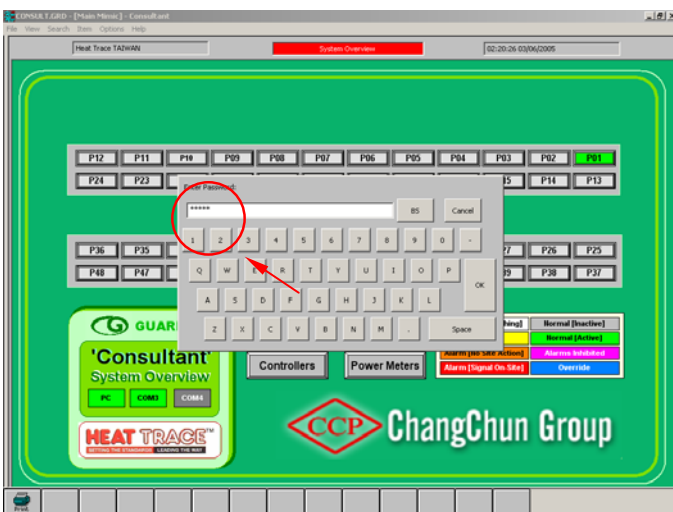
To log-In to the system, use the mouse to click the "Log In" button:



The system will prompt for your user name, and a valid system user identity should be entered via the keyboard by touching the keys or clicking with the mouse.

Use BS (Back space) if you mistype

Press OK when you have typed your user name correctly.



Once your user name has been entered and recognized, The system will ask for the password associated with the user name.

If the system does not recognize either the user name or password, it will display a message indicating the problem.

If this happens, click the OK button and try again.

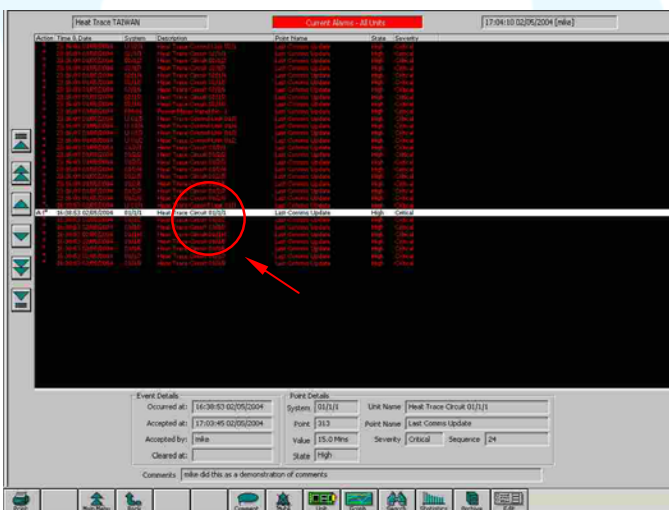
If you do not know your user name or password then you must consult your manager or Service Contractor.

When the password has been entered successfully then the Keyboard disappears.

Display Current Alarms



The Current Alarm list for the system is displayed when the ."Alarm " button is touched or clicked with the mouse.



The Current Alarm list shows all of the alarms that have occurred and whether or not they have cleared or been accepted. The column marked "Action" shows "A" for an accepted alarm, "C" for a cleared alarm, "+" for an engineering alarm and "!" for an alarm which has had a comment logged by the user who accepted it. The "Time & Date" column shows the time at which an alarm occurred. "Unit" and "System" both indicate details of the unit that had the alarm event. The "Point Name" and "Severity" columns indicate the type of fault.

Alarm Mute



Touch or click with the mouse on the "Mute" button to stop the audible alarm and the flashing Alarm Lamp or Beacon.

Select Alarm for Acceptance

Individual alarm events can be viewed by selecting them by touching with a finger or with the mouse if fitted.

If there is more than one screen-full of alarm events, the other alarms can be viewed by moving the scroll bar on the right hand side of the display. This can be done or by touching or clicking on the buttons on the left-hand side of the screen with the mouse. Alternatively, touching the scroll bar with a finger by and dragging it down or with the mouse by clicking on the scroll bar and holding down the left mouse button whilst moving the mouse. If the alarm that has been selected has not been accepted it will be shown in red. In addition, a new button marked "Accept" will normally be shown.

Alarm Accept



The "Accept" button will only appear if the user password logged on has the necessary access level.

To accept the alarm, touch or click on this button with the mouse.

The system will prompt for a comment to be entered against the alarm. The comment can be used to notify other users of some event related to the alarm condition. If no comment is required, click the mouse on the OK button to complete acceptance of the alarm.

Once the alarm has been accepted the details of the time at which the acceptance took place and the user who performed the task will be logged. This information is recorded for auditing purposes.

When all of the alarms have been accepted the alarm beacon will deactivate and the alarm lamp will stop flashing. The lamp will only go out when all alarms have been cleared as well as accepted. Alarm clearance is automatically detected by the system.

Logout



Having completed the alarm acceptance procedure, return to the main screen by using the mouse to click the "Main Menu" screen,



log-out from the system by clicking on the "Access" button. A message will be displayed to indicate that the log-out has occurred, the mouse should be used to click on the "OK" button.

PASSWORD ALLOCATION

Prior to changing any controller parameter or accepting an alarm on the Consultant system, it is necessary to log on to the system with a valid user name and password that is recognized by the system, as previously described in Authorized User Password Log In

Consultant provides a very secure yet flexible security access system for multiple users, each of which has their own password and access authority for any of the areas of the site.

User names may be specific (eg Steve, Jane, B.Smith), or generic (eg Manager, Service,).

Each **user name** has an associated **password** which allows system access at one of eight different levels for each of eight areas.

All parameter changes and alarm accept actions are recorded in the Event Log (see **Event Log**) with the time and date of the event and the User Name logged on when the event occurred.

Dependent on access level, certain facilities and buttons are inhibited or not displayed for that user.

Any authorized user may set up other user names and passwords which have the same or lower system access facilities.

For example the store manager can setup the deputy manager with the same facilities as himself (level 3) and ten other staff with lower level access (level 2).

The Installation Engineer (level 5) can set up five service engineers at Level 4.



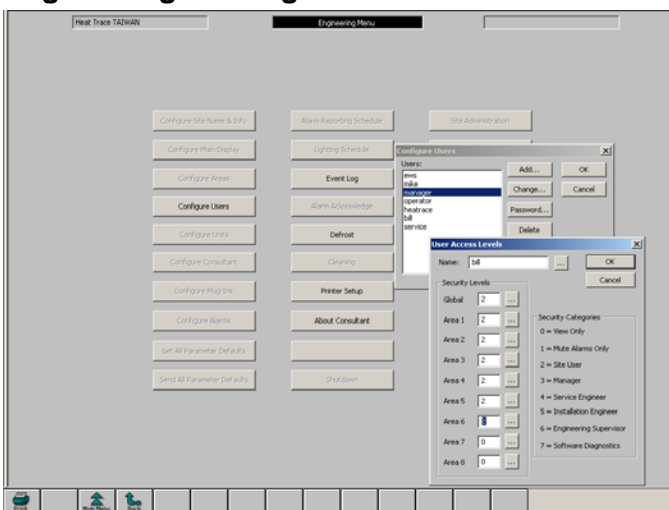
Use the mouse to click the “Log In” button and Log-In to the system with your user name and password as in **Authorized User Password Log In**,



Press the “**Engineering**” button which displays a page of further function buttons for system configuration and overall setup.

Press '**Configure Users**' button. The Configure Users window is displayed as below:-

Engineering - Configure Users



- Click on **Your Name** in the Configure Users List (eg **Manager**)
 - Press '**Add**' for the New User.
- The User Access window is displayed with blank name and level 0 for all areas.
- Enter new **user name (eg bill)**
 - Enter **level no.** allowed for new user at each area. (You will only be allowed to enter a level which is less than or equal to your own access level.)
 - Press **OK**
- The new user will appear in the user list. The default password for the new user is the user name. (eg user name:-bill, password:-bill)
- To change the user password of any user with lower access than yourself press **Password** and enter the new password twice as instructed.