Computer Interface System 2015

User Manual

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Overview

In **Figure 1** below, you'll find a description for each aspect of the left side of your C.I.S screen. This portion of the screen will display all greenhouses you have active and their current status (Temperatures, percentages, and whether an output is On or Off).

Options (Applies to all greenhouses):

Preferences — Change # of controllers, log frequency, text and email preferences, and enable wind/rain alarm.
Set All Clocks — Set all clocks to the same time.
Range Test — Test new radio installations.
Test Com — Test quality of communication between host and remote radios.

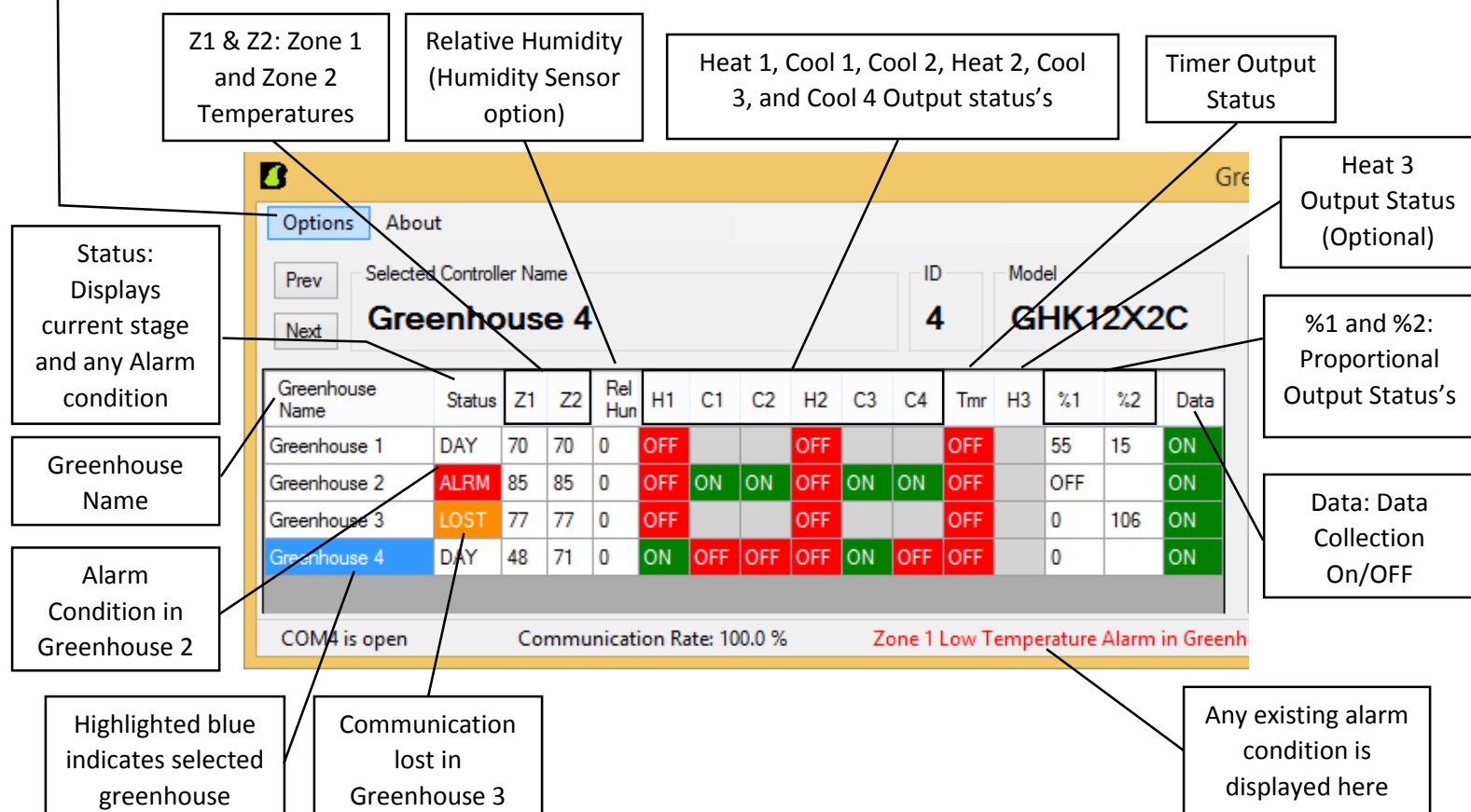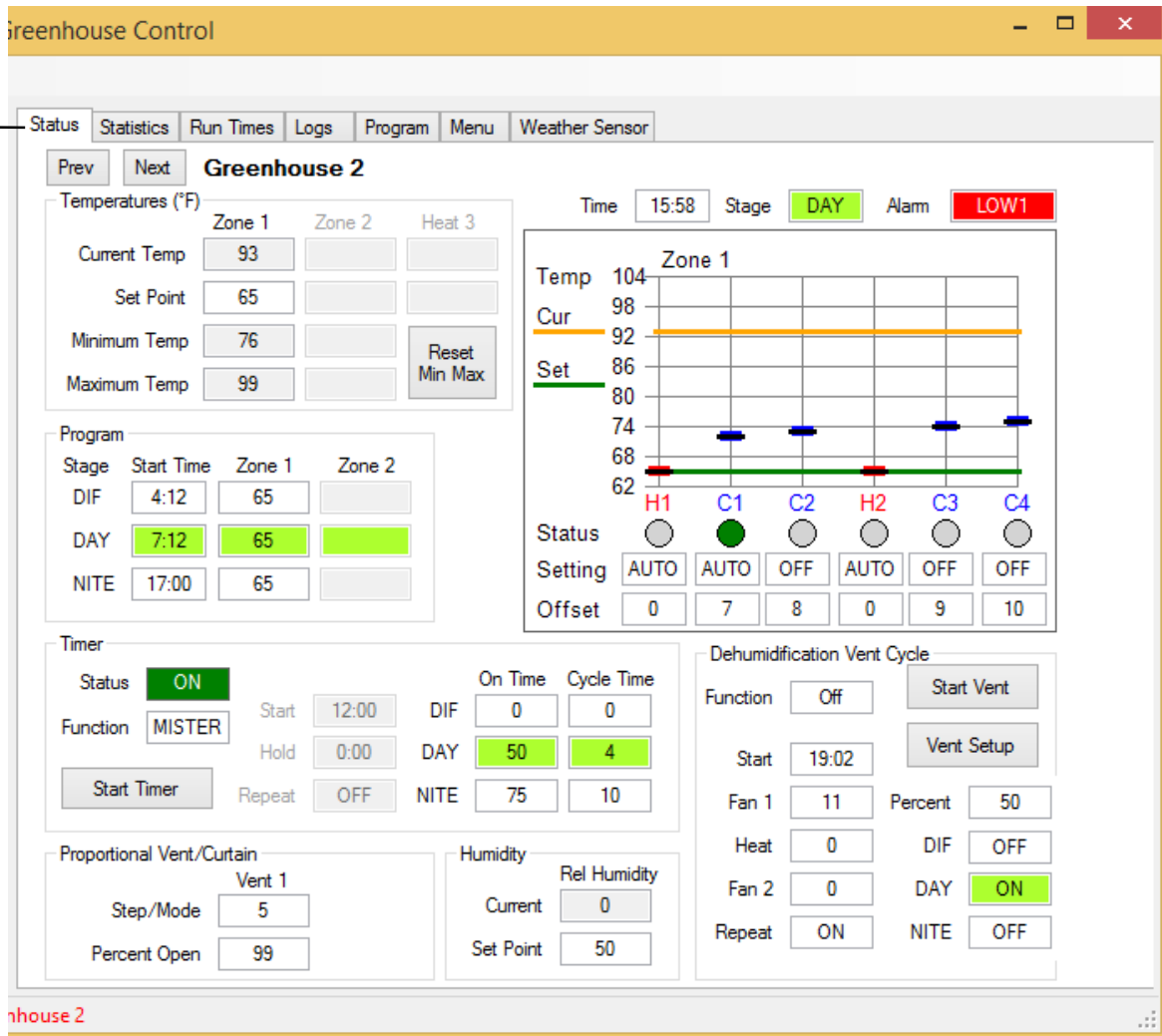Z1 & Z2: Zone 1 and Zone 2 Temperatures

Relative Humidity (Humidity Sensor option)

Heat 1, Cool 1, Cool 2, Heat 2, Cool 3, and Cool 4 Output status's

Timer Output Status

Heat 3 Output Status (Optional)

Status: Displays current stage and any Alarm condition

Greenhouse Name

Alarm Condition in Greenhouse 2

%1 and %2: Proportional Output Status's

Data: Data Collection On/OFF

Highlighted blue indicates selected greenhouse

Communication lost in Greenhouse 3

Any existing alarm condition is displayed here

Greenhouse Name	Status	Z1	Z2	Rel Hun	H1	C1	C2	H2	C3	C4	Tmr	H3	%1	%2	Data
Greenhouse 1	DAY	70	70	0	OFF			OFF			OFF		55	15	ON
Greenhouse 2	ALRM	85	85	0	OFF	ON	ON	OFF	ON	ON	OFF		OFF		ON
Greenhouse 3	LOST	77	77	0	OFF			OFF			OFF		0	106	ON
Greenhouse 4	DAY	48	71	0	ON	OFF	OFF	OFF	ON	OFF	OFF		0		ON

COM4 is open   Communication Rate: 100.0 %   Zone 1 Low Temperature Alarm in Greenh

Figure 1: Overview of main screen.

Figure 2 below shows the greenhouse specific side of the C.I.S. screen. The information on this screen is for the selected greenhouse only (Highlighted blue greenhouse shown in **Figure 1** indicates selected greenhouse). To change greenhouses, click "Next" or "Prev" in the top left corner, or click directly on the desired greenhouse.

** Note: To change settings, you must double click the box and change the setting in the pop out screen.

Tabs (Applies to selected greenhouse only):

Status   - Current status and setting for selected greenhouse

Statistics   - Past 7 days temperatures for DIF, DAY, and NITE with the daily average

Run Times   - Appliance run time in hours for each output (Must have GHK F or RWL H software or newer)

Logs   - Data collection logged by either event or time (Must activate to begin data collection)

Program   - Write saved program to selected controller

Menu   - Activate data logging, set alarms, and change greenhouse names

Weather Sensor - Monitor and change weather sensor settings

Options

       Under the Options tab, you will find different drop down options to change settings on the controllers, reset clocks, and run testing. Any changes made under Options will be applied to all greenhouses. When C.I.S. is first opened, go to Preferences under the Options tab to begin.

Preferences

In the Main tab of preferences, first select the correct COM port so the computer and controllers can communicate. For wireless and hybrid connections, select the COM port the Host Radio is plugged into. For a wired connection, select the COM port the USB converter is plugged into. There may be multiple ports available if you have other equipment or hardware plugged into other ports on your computer. If the first selected COM port doesn't work, continue changing COM ports until communication is established. For a wireless and hybrid configuration, the Host Radio and a remote radio must be powered for communication to be established. For the wired configuration, be sure the USB converter and controllers are powered. The Wind/Rain alarm is disabled or enabled by checking the box next to "Enable Weather Station." The time log frequency for time (in minutes) between log entries is enter here.

In the Messaging tab of preferences, you can add email or text recipients for all alarms and notifications. First, you must enter a Sender email or text and email notifications will not work. Enter sender email, password, and server. ***Note**: The Server is determined by what type of email address you have. Ex: For a Gmail account, the server is smtp.gmail.com. For an Outlook account, the server is smtp.live.com.

To enter email recipients, type in the address and click Add. For texting, type in the phone number without dashes and select the cell phone carrier, then click Add. The added recipients will appear in the list below. To activate or deactivate emails or phone numbers, check the box next to the number or email. Only recipients with a check mark next to them will receive notifications. See **Figure 3** below. ***Note**: You must have an internet connection for CIS to send text and email notifications.

Figure 3: Add recipients for notifications.

Set All Clocks

Set all controllers clocks to the time you input. Can use custom or PC time to set.

Range Test

Range test software for testing signal strength of remote radios. See the Radio Link Manual for full range test instructions.

Test Com

Use the Test Com to check communication strength between the host radio and in-controller radio or base radio. This can be used to determine why there are communication errors.

Greenhouse Specific Tabs

When viewing C.I.S., the left side of the screen will display information for all greenhouses. The right side of the screen will display information only for the greenhouse selected on the left side of the screen. Each tab has a specific function found below.

Status Tab

The Status tab displays the current status for the selected greenhouse. (Temperatures, stage, timer, alarms, etc.) To change any of the settings displayed, double click on the box and a new pop up screen will appear. Change the setting to the new desired setting and click save.

The color of a box determines what type of alterations if any is available for that particular box.

Box Color	Function
Gray	Indicates the value cannot be changed.
White	Indicates a value can be changed by double clicking the box.
Green	Indicates the current stage of operation (DIF, DAY, or NITE). The value cannot be changed.
Orange	Indicates the value is temporary and will be changed back to the original setting when the controller advances to the next stage.

***Note: If you change the temperature set point setting under Temperatures, this will only temporarily change the temperature. If you'd like to permanently change the set point for that stage, change the temperature under Program and the temperature will be permanently changed.

Statistics

The statistics tab displays the average temperature for each stage (DIF, DAY, and NITE) for the last 7 days. It will also give you an overall daily temperature. This is the same information can also be accessed directly at the controller. See your GHK or RWL manual for to access this information from your controller.

Run Times

The Run Times tab displays the appliance run time for equipment in the greenhouse. (Cool 1, Cool 2, Heat 1, etc.) This information is read directly from the controller. The run time display will be the total amount in hours since the last reset. The run time collection can be reset at the controller or in CIS.

***Note: This is a new feature and will not show up for all versions. GHK version F or newer and RWL version H or newer.

Logs

The Logs tab shows data logged by either time or event as they happen in the greenhouse. Each log will show up to 300 events per greenhouse. The data is showed graphically above and in the table below. By clicking on a section of the graph, it will highlight the corresponding section in the table and vice versa. To zoom in on certain portions of the graph or table, right click and a drop down menu will appear. Select hide entries before or hide entries after depending on the section you desire to view. Continue this process until the selected events are in view. See **Figure 4** below.
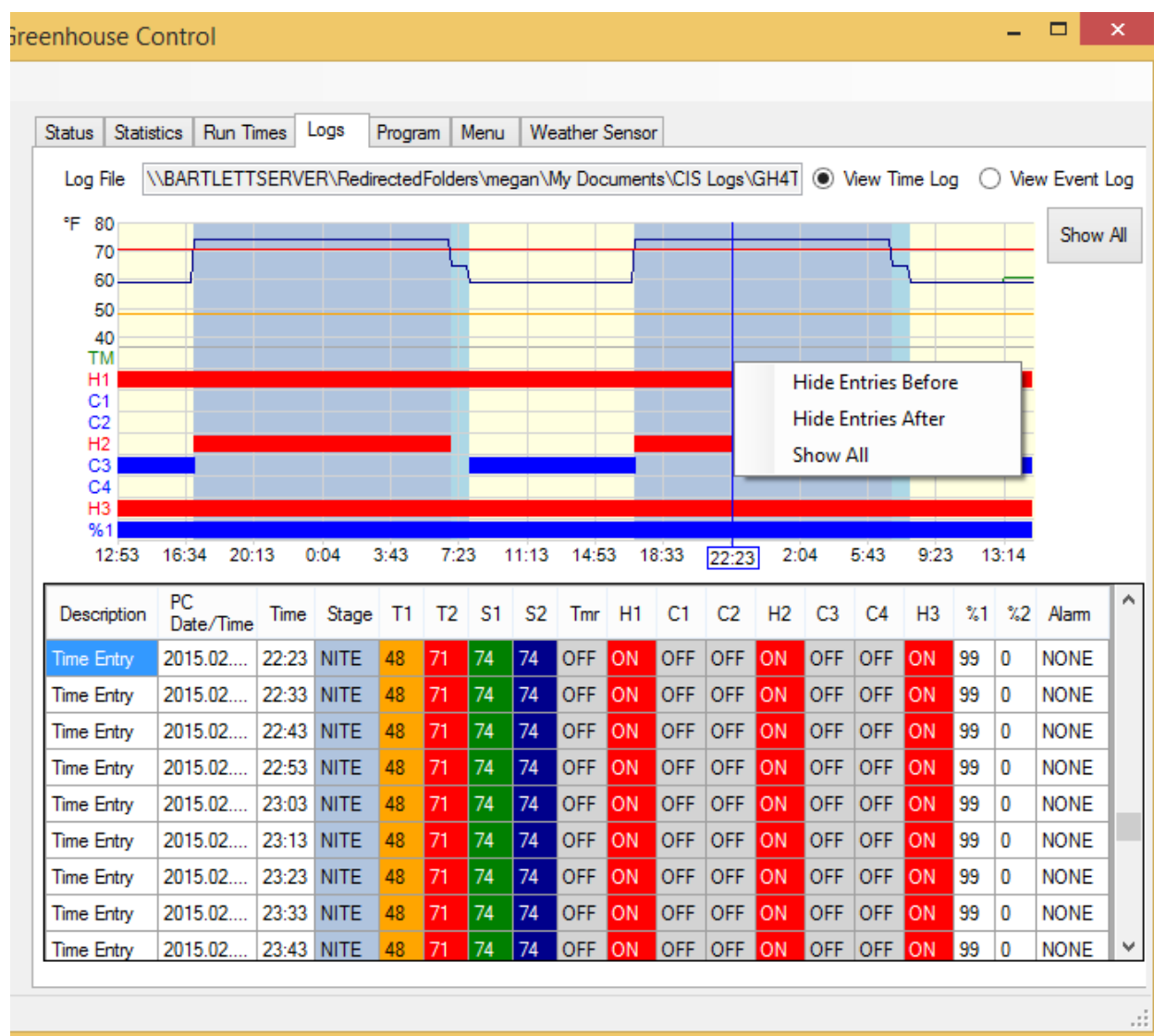

Figure 4

***Note: You must activate logs under the Menu tab to begin logging.

Program

The Program tab is used to write previously saved programs to the controllers. To save a program currently in the controller, go to the Program tab, click "Read Settings From Greenhouse X", then click "Save To File" and save the file in the desired destination. Then, when you have the same plants next year, load the program into CIS, and the programming is done for you. To load a saved program, click "Load From File", find the saved file, click "Write Settings To Greenhouse X", and the settings will be written to the controller.

Menu

The Menu tab gives general information for the controller such as model, software version, and ID. Customize the name of each of your greenhouses here as well as mark whether the controller is in use or not. If certain houses are not being used, mark them to not in use to only view information for active houses. Other functions under the menu tab include setting high and low temperature alarms for zone 1 and 2, setting On-to-Auto time, and thermistor fail mode. For more information on these functions consult your GHK12X2 or RWL11X2 Operation Manuals.

Under the Menu tab, you will also find the Log Files section. Checking the box next to Log Data by Event or Log Data by Time activates logging for that controller. To begin data logging, check the desired box, or both. Then, click Select File and choose a destination for the logs to be saved. To change the Time interval for data collection, go to Preferences.

Weather Station

If the weather station is enabled, monitoring and programming is done here. The current wind and rain activity is shown as well as the stats for the past 7 days. The activate set point, drop out set point, sensitivity, and delays can all be altered here. See your Wind/Rain Alarm manual for further information on the settings.