



AAW Control Systems Limited

Telephone: 01488638928 FAX: 01488638947

Email: aaw@aawcs.co.uk

Leckhampstead, Newbury, Berks, RG20 8RD

RIOT Station

Operating and Maintenance Manual

Written By
R.Snaith
30/12/2008

CONTENTS

1	INTRODUCTION.....	3
2	OVERVIEW.....	4
3	POINT DATA	5
	To Acknowledge alarms.....	5
	Alarm Status.....	6
	Point Settings	7
	Alarm Settings	8
4	THE TOP MENU BAR	9
	Edit.....	9
	RIOT Schedule.....	10
	Preferences	10
	Shifts	11
	Alarm Actions	12
	ITs	13
	HACCP Lists	14
	View	15
	RIOT Schedule.....	15
	Reports	15
	Weekly Graphs Reports	17
	Displaying the graph cursor	18
	Graph area selection.....	18
	Weekly Alarms Report	20
	Delivery Reports	21
	Tools.....	22
	About	24

1 Introduction

The RIOT Station is an elementary PC based system that is designed to allow recorded data held within AAW's RIOT (Remote Input Output Transceiver) to be stored and viewed on a Windows PC.

This entry-level system allows users to view current status, history data within a trend form, view and acknowledge alarms and modify RIOT configuration and alarm parameters.

It is possible to monitor and set up multiple RIOTs from one PC.

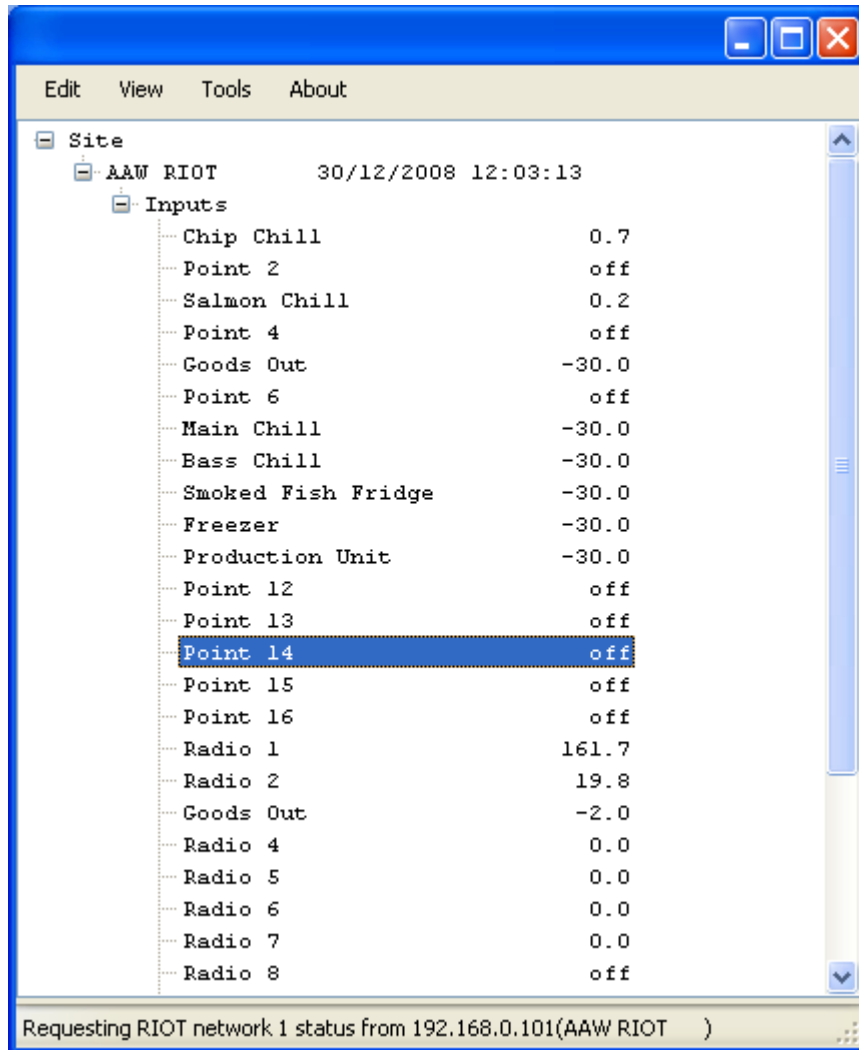
The PC should be on and a user should be logged on. The RIOT Station program should be running. If this is not the case then you will need to:
either use the shortcut on the PC screen
or Run the entry in the start up menu.

2 Overview

When the Overview is first displayed you will see the entry **Site** which will be preceded by a **+** box.

To display all RIOTs attached to the PC, mouse click on the **+** this will extend the list.

These RIOTs will also be preceded by a **+**, mouse click on this **+** will further extend this list to show all possible points on this RIOT and their current reading. As shown below.



From this overview screen it is possible to initiate all other pop up windows.

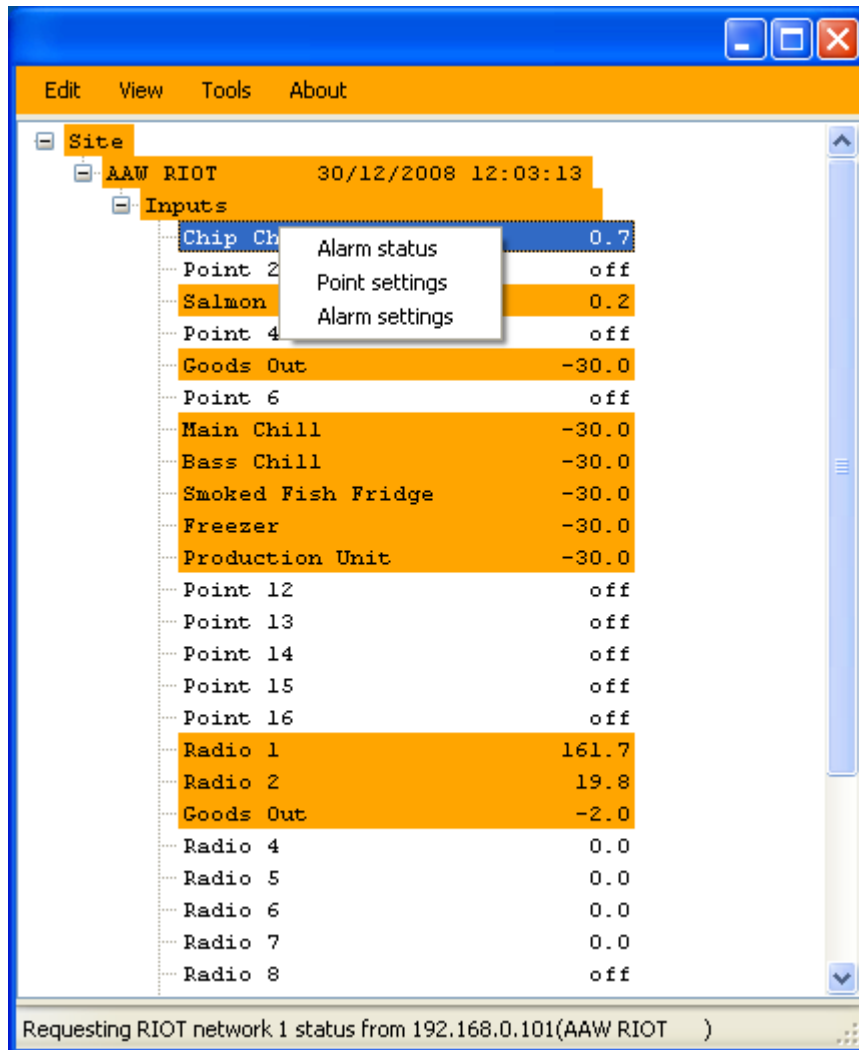
Each input or point has a line entry displaying its Name, and Value.

For temperatures this will be in Celsius with a **+** or **-** symbol and **OFF** if not in use, for a digital signal this will be **on** or **off**.

Each point name will have to signify its current status either a clear background (no alarm, as above), flashing orange background (new alarm) or solid orange background (acknowledged alarm).

3 Point Data

From the Overview screen by right clicking on a point name it is possible to access additional point data Alarm status, Point settings and Alarm settings.

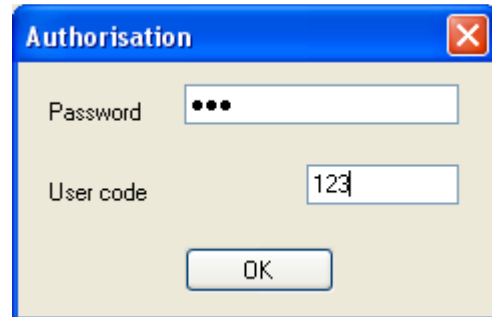
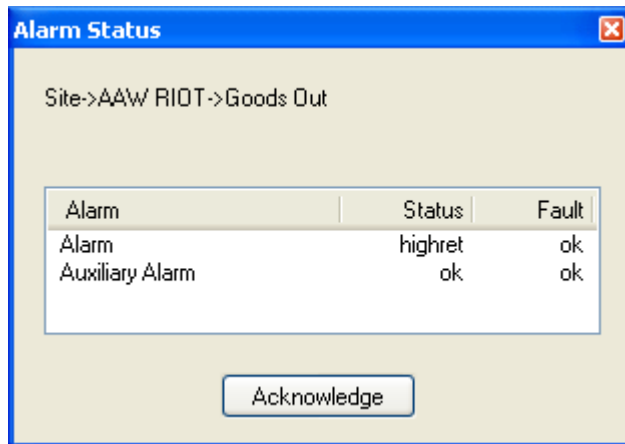


Points in alarm flash Orange as a visual indicator, Alarms acknowledged but not cleared will stay a solid Orange.

To Acknowledge alarms you need to select Alarm Status.

Alarm Status

From this screen it is possible to check the status of and acknowledge any alarms that have been activated on the system, as in the boxes below.



This pop up above will show you what type of alarm it is.

ack	The alarm has been acknowledged
fltack	Flatline fault acknowledged
highalm	new High alarm
lowalm	new Low alarm
highret	High alarm that has returned to within set points
lowret	Low alarm that has returned to within set points
flt	Flatline fault
clr	Cleared alarm
fltclr	Flatline fault cleared
mod	setting modified

See **Alarm Settings** section for details on the Auxiliary Alarm.
You will then Left mouse click the Acknowledge button.

To Acknowledge an Alarm

The Authorisation pop up will appear, you now have to input the authorisation password (factory default is **Ack**) select a user code, this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification.

Left mouse click the Acknowledge button and once the data has been sent to the RIOT and the alarms acknowledged on the RIOT then the screen will change. This could take up to 30 seconds.

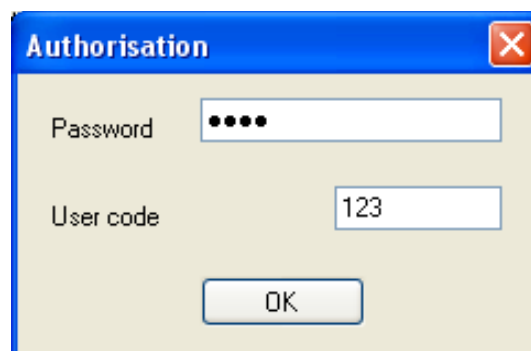
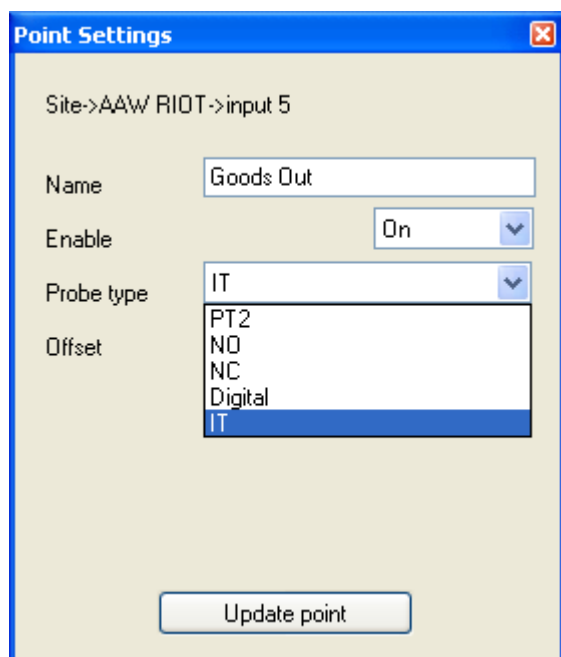
NOTE:

CURRENTLY ALL SUBSEQUENT ALARMS THAT ARE ACKNOWLEDGED WILL HAVE THE SAME USER CODE.

Should you wish to acknowledge and alarm with a different user code then you can either wait 3 minutes until the systems has timed your login out or access one of the other point options.

Point Settings

From the screen below it is possible to set a name for the point, turn the sensor off and on, set the probe type and input offsets after a calibration of the sensor.



Name	Any 22 alpha Numeric Characters can be entered.	
Enable	If the sensor is out of use or faulty it can be disabled until it is required / repaired.	
Probe type	PT100	or
	PT1000	or
	PT1	or
	PT2	or
	PT3	or
	4-20mA	or
	Normally open	This will be set on system setup but can be changed if the sensor type is changed at a later time. (base board will be either PT100, PT1000 or PT1/2/3)
	Normally closed	
	Digital	

If you have chosen 4-20mA then it is possible to set the equivalent values, again this would be done upon set up of system by AAW

After any changes press the Update point button.

The Authorisation pop up will appear, you now have to input the authorisation password (factory default is **Conf**) select a user code, this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification.

Left mouse click the **OK** button to confirm update of point details. This could take up to 30 seconds.

Offset This is a Super User option where a calibration offset can be placed for calibration a sensor.

Alarm Settings

From the following screen it is possible to name the type of alarm, set the high and low limits for the alarm, enter a time delay before the alarm is activated and the designate the times in which the alarm is to be set.

Alarm Settings

Site->AAW RIOT->Smoked Fish Fridge

Alarm

High limit

Low limit

Log alarm limits

Delay

Action

Authorisation

Password

User code

It is possible to have two alarm settings for each point, the Master alarm and the Auxiliary alarm. These can be set to cover different times if need be with different high and low limits.

Alarm This can be any alpha character or number, other characters are not allowed () around characters will stop those characters from being displayed.

Low limit These limits need to be set at a realistic level or consistent triggering will cause the system alarms to be ignored.

Log alarm This allows limits to be displayed on the daily graph.

Delay Delay in seconds before an alarm will sound this is from the time the limit is breached.

Action select preset Action setting – please refer to Action section in this manual

Once you have changed any of these settings left mouse click on the Update alarm button. The Authorisation pop up will appear and the authorisation password would have to be entered (factory default is **Conf**).

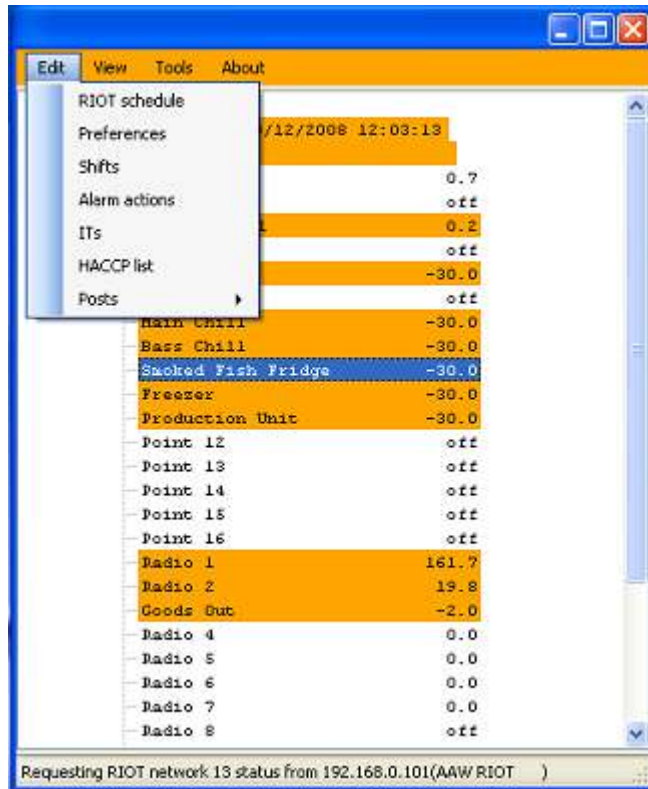
A user code may also be entered; this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification.

Left mouse click the **OK** button.

4 The Top Menu Bar

Edit

From the Top Bar Menu it is possible to perform various actions, which are either to be used in the setup of the system or in the day-to-day running of it.

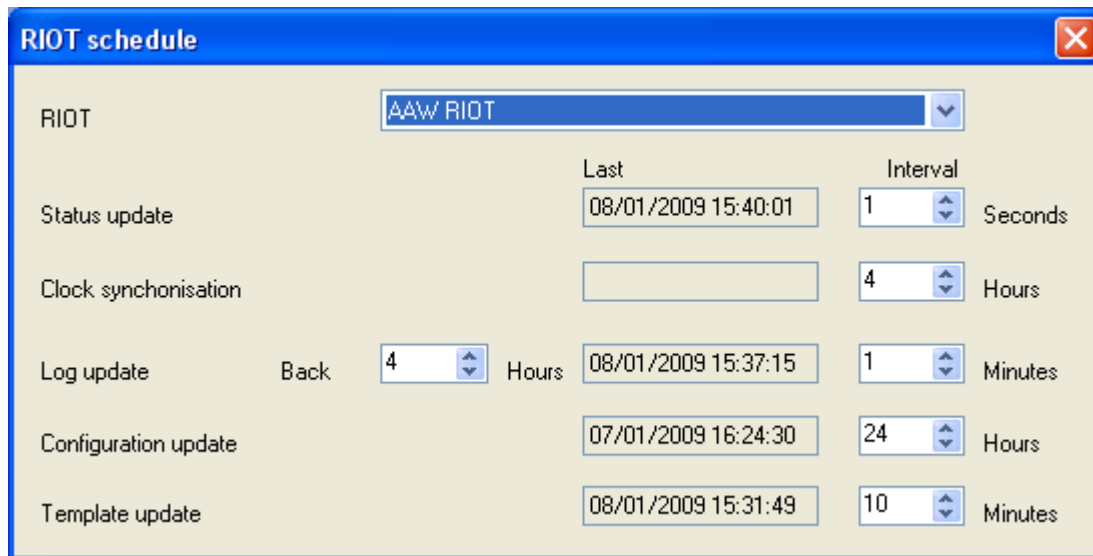


The following are the most relevant sections that should be covered for the end user, including Shifts, Alarm actions, HACCP list editing and report viewing.

RIOT Schedule

This option sets how the RIOT will log data.

It is advisable only to change these settings under the supervision of AAW, changing any settings may cause your system to become inoperable.



The screenshot shows a window titled "RIOT schedule" with a close button in the top right corner. The window contains the following settings:

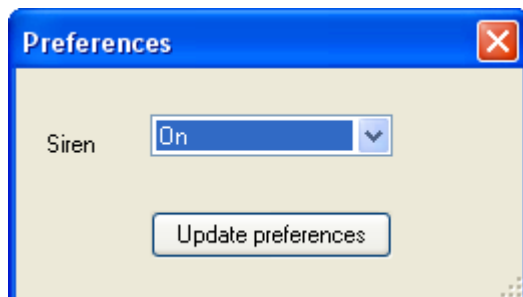
RIOT	Last	Interval
Status update	08/01/2009 15:40:01	1 Seconds
Clock synchronisation		4 Hours
Log update	08/01/2009 15:37:15	1 Minutes
Configuration update	07/01/2009 16:24:30	24 Hours
Template update	08/01/2009 15:31:49	10 Minutes

Additional settings include a dropdown menu for "RIOT" set to "AAW RIOT", a "Back" button, and a spinner set to "4 Hours".

Preferences

This allows you to turn the siren

- ON - Recommended
- OFF -Not recommended - may cause alarms to be missed.
- New Alarms Only Not recommended



The screenshot shows a window titled "Preferences" with a close button in the top right corner. The window contains the following settings:

Siren	On
-------	----

There is an "Update preferences" button at the bottom of the window.

Shifts

When you select the Shifts from the edit option in the menu bar a pop up window appears as below.

If you have multiple RIOTs attached to the PC then you will be able to use the Drop Down list to select each RIOT.

	From	To	Holiday	From	To
Sunday	22:00:00	12:00:00	1 / 1	12:30:00	12:00:00
Monday	22:00:00	10:00:00	1 / 5	12:30:00	12:00:00
Tuesday	22:00:00	10:00:00	26 / 12	12:30:00	12:00:00
Wednesday	22:00:00	10:00:00	26 / 12	12:30:00	12:00:00
Thursday	22:00:00	10:00:00	26 / 12	12:30:00	12:00:00
Friday	22:00:00	10:00:00	26 / 12	12:30:00	12:00:00
Saturday	00:00:00	11:42:00	26 / 12	12:30:00	12:00:00

Note: Enter 00:00:00 - 00:00:00 for all day

Update shift

By mouse clicking on the Shifts drop down list in the top right hand corner you can select and set up 4 different settings for different shift types and 8 Actions.

As an example shifts will most likely be Day, Night, Weekend and Actions most likely be Dial-out, Strobe and Siren

For each Shift you can change the name, and standard operating times.

Each Shift can have 8 special days for which you select the date and month and then the times for that special day.

As an example these may be Christmas Day or other Bank Holidays, this means you do not have to change all the shift settings for special days.

Once you have changed any of these settings left mouse click on the Update shift button. The Authorisation pop up will appear, you now have to input the authorisation password (factory default is **Conf**) select a user code, this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification

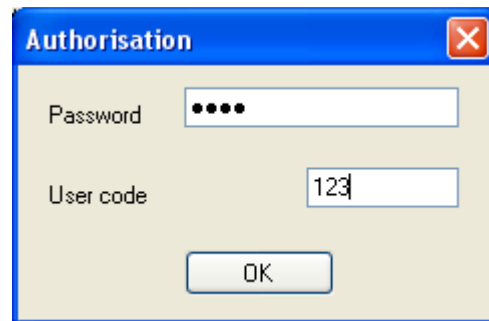
Authorisation

Password: ●●●●

User code: 123

OK

Alarm Actions



When you select the Alarm Action from the edit option in the menu bar a pop up window appears from which in the top left hand corner you can select and set up 8 different settings for different action types.

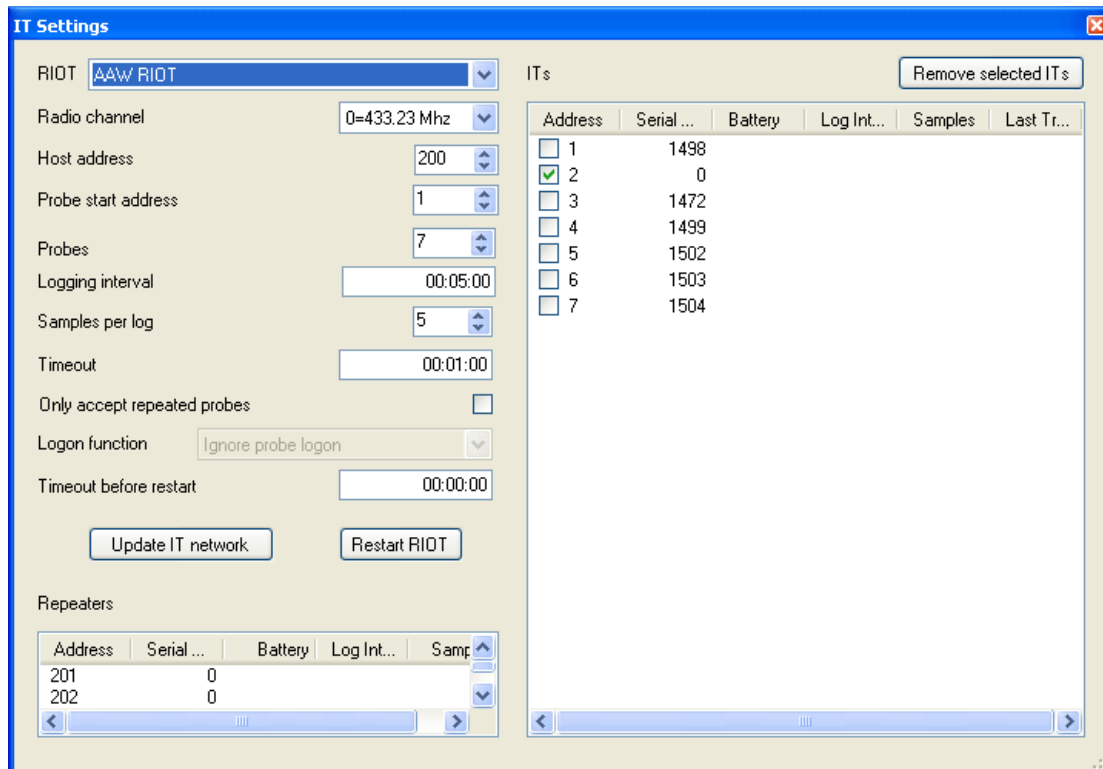
For each setting you can change the name, shift and an action relay.

These Relays can be connected to dial-out machines, remote sirens, flashing lights or any switched device that may be required.

Once you have changed any of these settings left mouse click on the **Update alarm action** button. The Authorisation pop up will appear, you now have to input the authorisation password (factory default is **Conf**) select a user code, this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification. Finally click on **OK** to confirm.

ITs

You may at some time be asked by AAW support staff to change the settings of an IT Input Transceiver, this may be when an IT has been sent as a replacement for a failed unit.



It is advisable only to change these settings under the supervision of AAW, changing any settings may cause your system to no longer work correctly.

HACCP Lists

Name	Min	Max	Delay
Anchovies	0	4	00:02:00
Barbel	0	4	00:02:00
Barracuda	0	4	00:02:00
Barramundi	0	4	00:02:00
AlbacoreTuna	0	4	00:02:00

Supplier	Delivery No.
FiveStarFF	BB^^^^
SeaFishUKFF	BB^^^^
ClearwatrFF	BB^^^^
JSykesSonFF	BB^^^^
ACL AtIntcFF	BB^^^^

When the HACCP list is selected from the Top Menu Edit option a pop up window appears (shown above) from which entries that appear on the HACCP probe can be edited.

Different products classes can be entered in the top left menu, then to its right new sub class of products can be entered. Each product will need a time delay and high and low limits for the HACCP test so that a Pass or Fail test may be instigated.

New suppliers along with delivery numbers can be added in the bottom right hand corner.

Users can be added or edited in the bottom left hand corner

Each HACCP test will require a comment on its Pass or Fail, to enable this to be possible all required comments must be entered/edited here.

After any changes have been made to the HACCP list, please click on the Update RIOT button. Failure to do this will result in no changes being made to your system.

Authorisation pop up will appear, you now have to input the authorisation password (factory default is **Conf**) select a user code, this is a number from 1 to 255. Your department management will have selected the meaning of this code. e.g. Action Code or User Identification.

Authorisation

Password: ••••

User code: 123

OK

In order for the changes to be downloaded to the probe itself, an update of the probe would have to be initiated. Please see HACCP probe manual for details.

View

RIOT Schedule

This allows you to view the previously described Edit option.

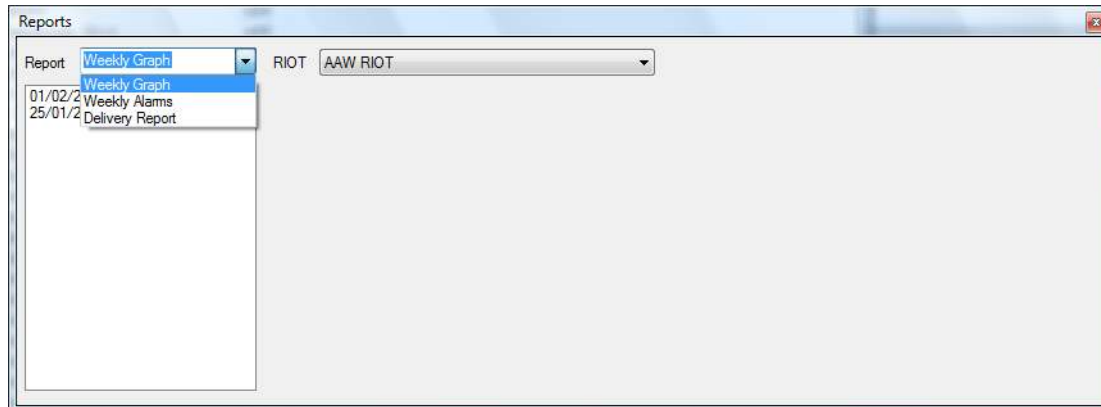
Reports

The screenshot shows a software application window with a menu bar containing 'Edit', 'View', 'Tools', and 'About'. The 'View' menu is open, showing three options: 'RIOT schedule', 'Reports', and 'Error log'. The 'Reports' option is highlighted. The main window area displays a list of RIOT network components and their status. The list is as follows:

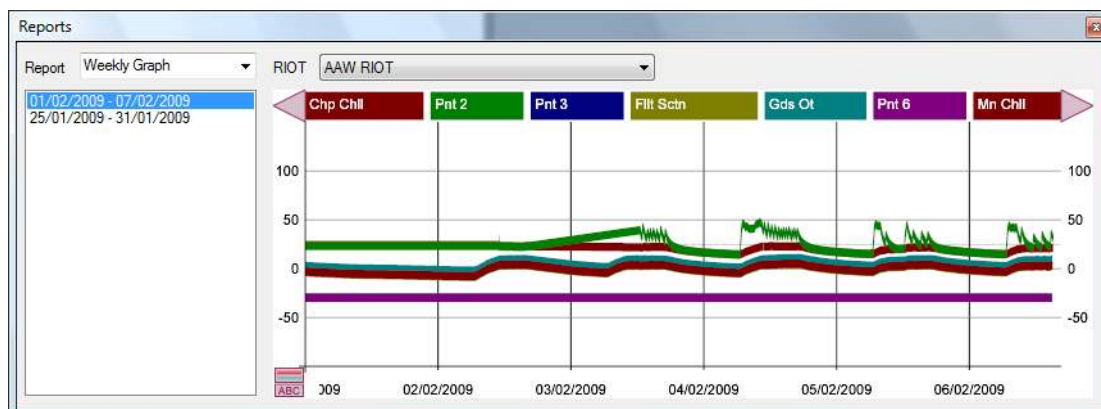
Point 2	off
Salmon Chill	0.2
Point 4	off
Goods Out	-30.0
Point 6	off
Main Chill	-30.0
Bass Chill	-30.0
Smoked Fish Fridge	-30.0
Freezer	-30.0
Production Unit	-30.0
Point 12	off
Point 13	off
Point 14	off
Point 15	off
Point 16	off
Radio 1	161.7
Radio 2	19.8
Goods Out	-2.0
Radio 4	0.0
Radio 5	0.0
Radio 6	0.0
Radio 7	0.0
Radio 8	off

The status bar at the bottom of the window displays the text: 'Requesting RIOT network 1 status from 192.168.0.101(AAW RIOT)'.

Reports that can be viewed include Weekly graph (as below), Weekly alarms and Delivery reports (HACCP tests).



once you have selected the required date range and the graph has been displayed it is possible to



Zoom in to an area by moving the mouse to the top left of the area you want to view and right mouse click, move the mouse to the bottom right of the area you want to view and right mouse click.

Zoom out once you have zoomed in a magnifying glass symbol with a - inside it appears at the bottom right corner of the graph, right mouse click on this symbol.

View date, time and Temperature of a specific point by double right mouse click at the point required.

Move along the graph and the point names by right mouse click the arrows provided.

The following sections describe these options

Weekly Graphs Reports

When entering Weekly Graph screen the graph will display the current information available for all points on the selected RIOT.

If the RIOT you are looking at has 16 points this can make the graph very cluttered.

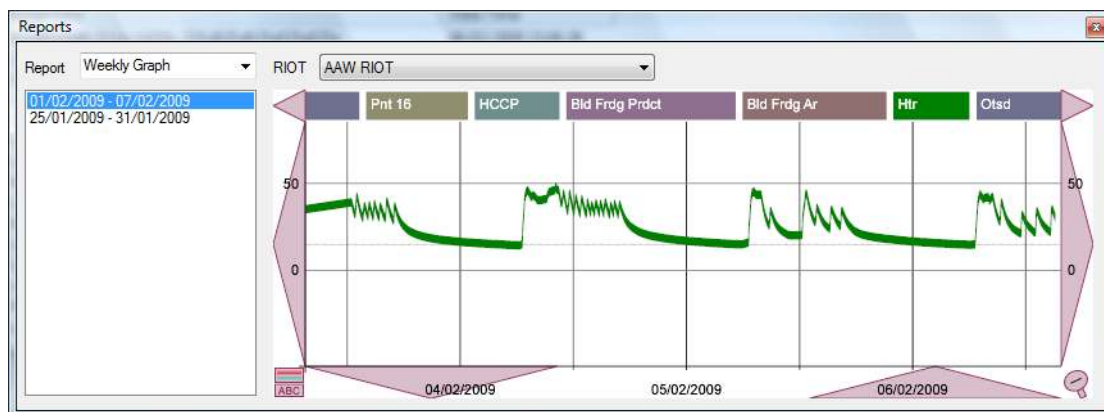
To turn all but one points trend off - double left mouse click on the points name at the top of the graph.

Scroll through the point names by mouse clicking the small right and left arrows either side of the point names.

Single mouse click will turn that point either on or off.

Bottom left of the graph pop up is a round button which can be used to displayed the LIMITS on the graph, if all points are showing then it will be the LIMITS of the first point on the list which is ON.

Bottom right of the graph pop up is a button in the shape of a magnifying glass, selecting this will zoom the graph out once you have used the option to zoom in.



Displaying the graph cursor

Displaying the temperature or state for each of the trends at a given moment on the graph is achieved by double clicking on the required location on the graph.

The graph cursor can then be moved left or right by mouse clicking the small arrow buttons either side of the time and date display that has appeared at the bottom of the graph.

The graph cursor will move different amounts depending on how far you have zoomed in to the graph.

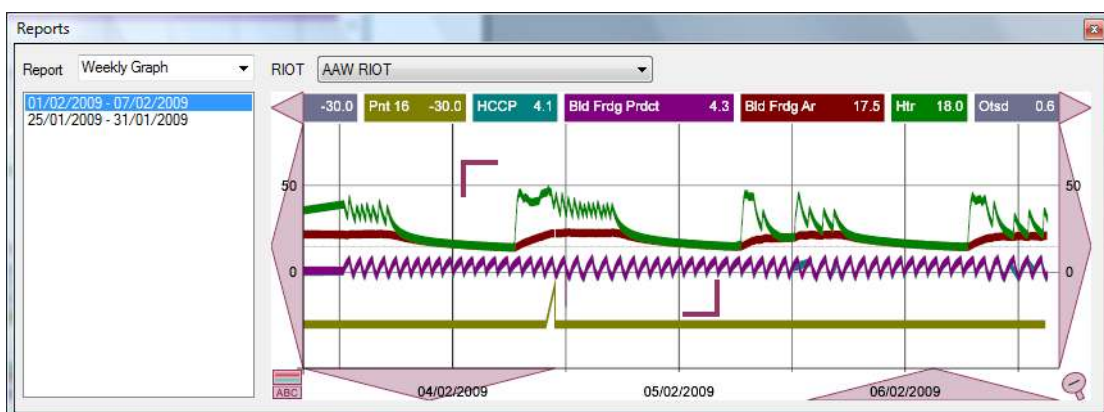


Graph area selection

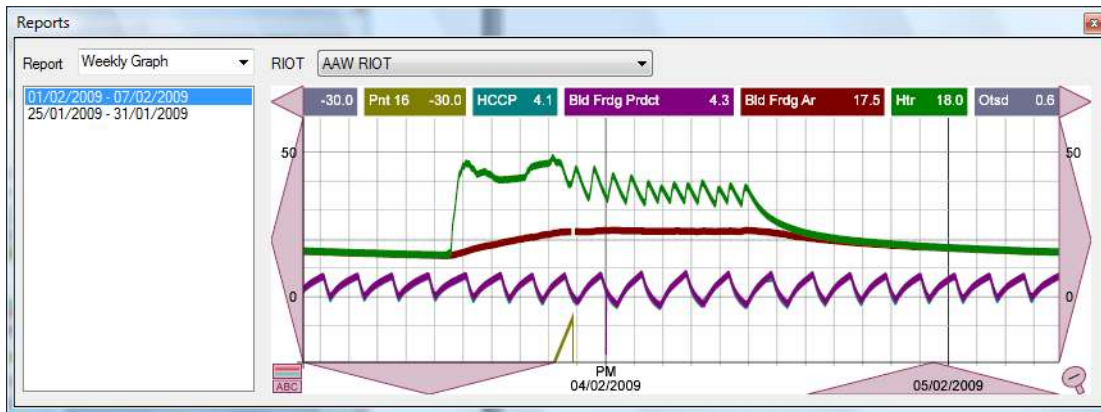
To view an area in more detail place the cursor in any corner of the area you wish to view in more detail, mouse click either mouse button, a Right-angle symbol will appear. Repeat this process for the opposite corner of the required area and another Right-angle symbol will appear.

Mouse click in the centre of the required area and the graph will be redisplayed in greater detail.

This process can be used repeatedly for greater detail.



Graph showing how the display changes once you have zoomed in.



It is now possible to move the graph in any direction by mouse clicking on either Up, Down, Right or left large arrow buttons.

Weekly Alarms Report

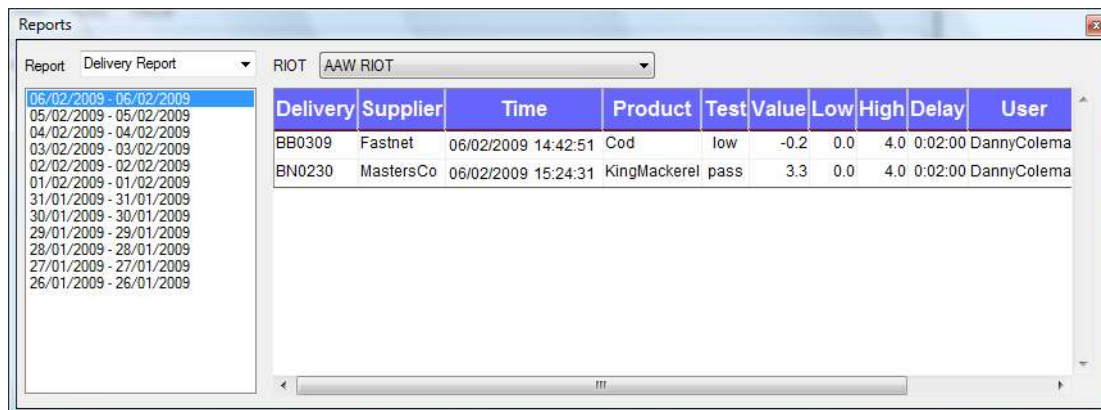
Time	Point	Alarm	User	Value	Limit	State
06/02/2009 14:55:51	Door Switch	Alarm				clr
06/02/2009 14:53:50	Door Switch		1			ack
06/02/2009 14:53:33	Door Switch	Alarm				lowret
06/02/2009 14:53:31	Door Switch	Alarm		0.0	0.5	lowalm
06/02/2009 14:53:19	Door Switch		1			ack
06/02/2009 11:57:42	Door Switch	Alarm				flt
06/02/2009 10:57:03	Door Switch	Alarm				clr
06/02/2009 10:57:02	Door Switch		1			ack
06/02/2009 10:56:05	Door Switch	Alarm				lowret
06/02/2009 10:55:48	Door Switch	Alarm				fltclr
06/02/2009 10:12:23	Main Chill	Alarm				clr
06/02/2009 10:12:23	Main Chill		1			ack

A history of alarms can be viewed for any of the selected times available in the left hand margin.

The following codes will be used to describe the type of alarm that was triggered and the current status of the relevant point.

ack	A user has acknowledged the Alarm. These will always be in black.
highalm	This is a new alarm caused by High or Low temperatures, Defrost overrun or plant fault and will be in red.
lowalm	
highret	The input has returned to within its alarm parameters. These will be in Blue.
lowret	
flt	Flat line alarm.
clr	Cleared alarm.

Delivery Reports



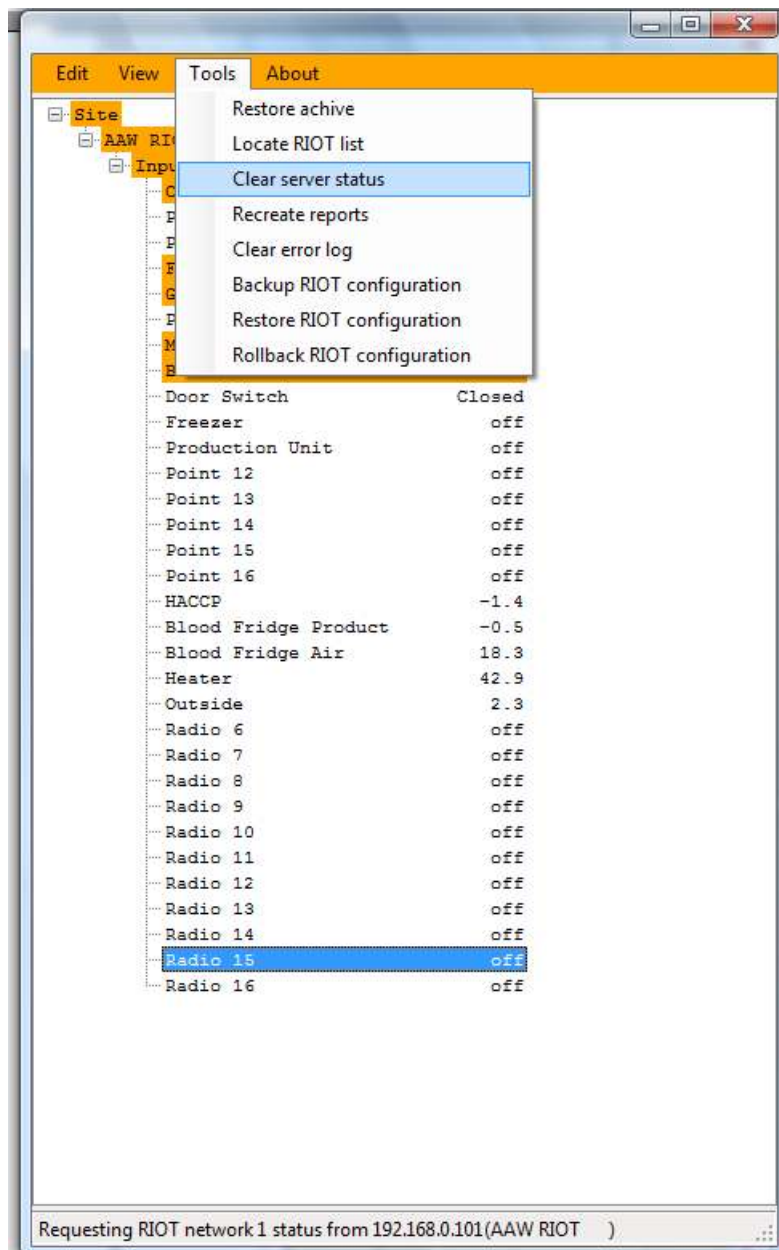
Reports

Report: Delivery Report RIOT: AAW RIOT

Delivery	Supplier	Time	Product	Test	Value	Low	High	Delay	User
BB0309	Fastnet	06/02/2009 14:42:51	Cod	low	-0.2	0.0	4.0	0:02:00	DannyColema
BN0230	MastersCo	06/02/2009 15:24:31	KingMackerel	pass	3.3	0.0	4.0	0:02:00	DannyColema

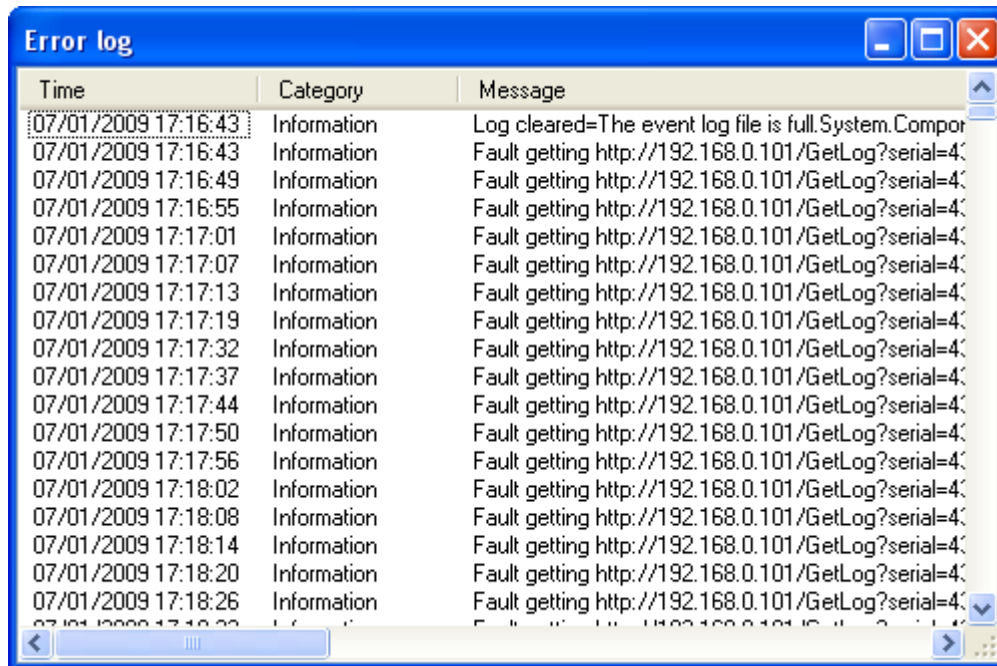
Once any HACCP tests have been run, the results can be seen in the delivery report as shown above. Data includes, delivery number, product, date and time, pass/fail, user and associated comments.

Tools



Many of these options could lose data or cause RIOT to change settings, please call AAW for advise before using any of these options.

clear error log



Time	Category	Message
07/01/2009 17:16:43	Information	Log cleared=The event log file is full.System.Compor
07/01/2009 17:16:43	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:16:49	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:16:55	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:01	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:07	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:13	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:19	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:32	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:37	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:44	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:50	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:17:56	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:02	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:08	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:14	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:20	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:26	Information	Fault getting http://192.168.0.101/GetLog?serial=4
07/01/2009 17:18:32	Information	Fault getting http://192.168.0.101/GetLog?serial=4

About

You may be asked which version of RIOT Station you are running if so this is where you find this information

