

AAW Control Systems Limited

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RIOT Station

Operating and Maintenance Manual

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CONTENTS

1 INTRODUCTION	3
2 OVERVIEW	4
3 POINT DATA	4
Point day trend graph	5
Point hour trend graph	5
Point alarm status	
Point alarm setting	
Point alarm setting	
Week graph	
Displaying the graph cursor	
Graph area selection	
Alarms	
4 TOP MENU BAR	12
Shifts	
Actions	
Selecting the RIOT	
Please Note	14
Global RIOT alarm status	
Global RIOT acknowledge	
Date Time and Data	

1 Introduction

The RIOT Station is a basic PC based system that is designed to allow recorded data held with in 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 with in 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.

2 **Overview**

Shifts	Actions	Help		15:47 3/10/200
AAW test I	RIOT	×		Data harvest is up-to-dat
IOT: AAW test RIOT	[m]	۱ <u>۸</u>		
Point	Value	Status	1000	
Game Chil	-30.0	ack 🗠 🗠 🕷 🕉		
Red Meat Cutting	-30.0	ack 🗹 🖆 🐗 🕉		
Sausage Room	25.7	ack 🗹 🖆 🐗 👸	->	
White Meat Cutting	-1.8	ack 🗠 🗠 🐗 👸	->	
Poultry	-2.8	ack 🗠 🗠 🝕 🕉	2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ANW
Marshalling Area	15.4	ack 🗠 🗠 🝕 🕉	->	
Maturation	4.2	ok [M] [L] 4€ 🖏		
Freezer	-17.8	ok 🗠 🖆 🐗 🕉	->	
Boxed Meats	22.4	ack 🗠 🖄 🐗 👸	->	
Despatch	12.0	ack 🗠 🗠 🐗 👸		AAW
Goods Out	37.8	ack 🗹 🖄 🐗 🕉	->	
Point 12	off	ok [W [/~ 4€ 🕉		
Point 13	off	ok 🗠 🗠 🐗 🗞	->	
Point 14	off	ok 🗠 🗠 🐗 🕉	7	
Point 15	off	ok 🗠 🗠 🐗 🕉	PANN	AAW V
Point 16	off	ok 🗠 🗠 🐗 🕉	->	
	110-021010-02	All Shartman -	Control Systems	

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

3 **Point Data**

Each point has a line entry showing the point Name, Value and Status. For temperatures this will be a + or - temperature, for a Digital signal this will be **on** or **off**.

He symbols following the point data are as follows

- Point day trend graph
- \mathbb{N} Point hour trend graph
- **n**(≦ Point alarm status
- ð Point alarm setting
- -> Point probe setting

Above the Point Data are two symbols which are options for viewing historical data.



Week trend



Alarms

The following shows each of the above.

Point day trend graph



Left mouse click on the cancel button takes you back to the overview screen



Point hour trend graph

Left mouse click on the cancel button takes you back to the overview screen

Point alarm status

A Shifts	Actions	Help	14 48 3/10/2005
AAW test F	RIOT	Acknowledge	Data harvest is up-to-date
(0100) 5550000	25500000055	Alarm Status	Control Stateme
NOT: AAW test RIOT	-wi 🌲	Point: Red Meat Cutting	A CONTRACT
Point	Value S	t Alarm Status	
Game Chil	-30.0	Alarm Iowalm	(100) (100)
Red Meat Cutting	-30.0	Auxiliary Alarm ok	course Control system.
Sausage Room	25.6		
White Meat Cutting	17.3	Acknowledge Cancel	
Poultry	-2.8		ANN
Marshalling Area	15.4	ack W K N & O -	
Maturation	4.2	ok ₩ ₩ 4€ % -5	
Freezer	-17.8	nk W K 14 8 -	
Boxed Meats	22.4	Authorisation	
Despatch	12.0		
Goods Out	37.8		
Point 12	off	Password	
Point 13	off		
Point 14	off	User Code 1	
Point 15	off	Log on Cancel	
Point 16	off		
Point 13 Point 14 Point 15 Point 16	οπ off off	User Code 1 Log on Cancel	

This screen shows the Alarm status pop up screen and the Authorisation pop up screen.

When you select the Alarm status icon to clear a single alarm then this pop up will appear. This pop up will show you what type of alarm it is

1 1 1	5 51
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.

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 secounds.

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 the you can either wait 3 minutes until the systems has timed your login out or access one of the other point options.

A Shifts	Actions	Help		16:08 3/10/
AAW test	RIOT	▼		Data harvest is up-to
(00800), 27241(168		Alarm S	ettings	· Vounnet Statema
IOT: AAW test RIOT	Point: Saus	age Room	Auxilary alarm	
Point	-			-
Game Chil	Message	(SR)Alarm	(PT3)Auxiliary Alarm	
Red Meat Cutting	Low limit	4.0	-12.0	0.000000 5550
Sausage Room	High limit	12.0	10.0	
White Meat Cutting	1	Tenned (2)	Notice and the	- A
Poultry	Limits	Loggea	Notlogged	N XW
Marshalling Area	Delay	60	60	
Maturation	Action	Day 😽	No Alarm 🐱	(minimus Startin)
Freezer				
Boxed Meats			Cancel	
Despatch	- I	и и ц ц <mark>и и</mark>		AAW.
Goods Out	37.8	ack 🗠 🖄 🐗 🕉	->	
Point 12	off	ok [↓] [↓] 📲 🖏		
Point 13	off	ok 🗠 🗠 🐗 👸	->	
Point 14	off	ok [4] [2] ♠ @	7	
Point 15	off	ok [A] [¶ ≈ "Q"	->	
Point 16	off	ok Kn k di≈ .Ø.	-2	

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.

Message	this can be any alpha character or number, other characters are not allowed () around characters will stop those characters from being displayed.
Low limit High limit	These need to be set at a realistic level or consistent alarms will cause the system alarms to be ignored.
Limits	This setting will be part of a future release, this will allow limits to be displayed on the week trend.
Delay breached.	delay in seconds before an alarm will sound this is from the time the limit is
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 OK button. The Authorisation pop up will appear and the authorisation password would have to be entered (factory default is **conf**).

A user code can 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.

Point alarm setting

Shifts	Actions	Help		16:07 3/10/2005
AAW test F	RIOT	✓		Data harvest is up-to-date
((nito) Stating	Р	robe Settings	00). 50x10040	Commission Statemen
RIOT: AAW test RIOT	Point: Sausa	age Room	× 1	
Point	Name	Sausage Room	- ANN	
Game Chil	Enable	On 🗸	-	
Red Meat Cutting	Probe type	4-20mA 👽	COMPACT SYSTEMS	
Sausage Room	Trobe Gpc	- 20107 1		
White Meat Cutting	_	4 mA 20 mA		
Poultry	_	Values -56.90148 42.29768	A AW \	
Marshalling Area			A CONTRACTOR OF CONTRACTOR	
Maturation		OK Cancel		
Freezer Boved Meste	22.4			
Deenstch	12.4			
Goods Out	37.8			
Point 12	off	ok W K d€ % →		
Point 13	off	ok ₩ 12 🕸 🖏 –		
Point 14	off	ok 🗠 🗠 🐗 🕉 🚽		
Point 15	off	ok 🗠 🗠 🛸 🍪 🚽		
Point 16	off	ok 🗠 🗠 🛸 🕲 🚽		
		Systems (C		

Any 22 alpha Numer	ic Chara	acters can be entered.
if the sensor is out of	use or	faulty it can be disabled until it is required / repaired.
PT100	or	
PT1000	or	
PT1	or	
PT2	or	
PT3	or	This will be set on system setup but can be changed if
4-20mA	or	the sensor type is changed at a later time.
Normally open		(base board will be either PT100, PT1000 or PT1/2/3)
Normally closed		
Digital		
	Any 22 alpha Numer if the sensor is out of PT100 PT1000 PT1 PT2 PT3 4-20mA Normally open Normally closed Digital	Any 22 alpha Numeric Charaif the sensor is out of use or 1PT100orPT1000orPT1orPT2orPT3or4-20mAorNormally openNormally closedDigital

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.

Week graph

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

Use the date drop down list at the top of the historic graph to select the historic data for the dates you wish to see.

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 (not show on this view), selecting this will zoom the graph out once you have used the option below 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.

Alarms

L

CHARTER (CANO)		Historic Alarm Lis	st		2/1	0/2005 -	8/10/2005	~	
OT: AAW test RIC	Time	Input	Alarm	User	Value	Limit	State	-	
Point	03/10/2005 14:58:20	White Meat Cutting	-	1	+		ack		N.
Game Chil	03/10/2005 14:57:21	White Meat Cutting	Alarm	1	-1.8	4.0	lowalm		-
Red Meat Cutting	03/10/2005 14:56:08	White Meat Cutting	Alarm		18.0	103361	cir		> 100
ausage Room	03/10/2005 14:49:18	Red Meat Cutting		1			ack		
Vhite Meat Cuttin	03/10/2005 14:47:57	Red Meat Cutting	Alarm		-30.0	4.0	lowalm		
oultry	03/10/2005 14:47:13	White Meat Cutting		1			ack		
tarchalling Area	03/10/2005 14:46:09	White Meat Cutting	Alarm		17.2		highalm		
tationaling Area	03/10/2005 14:44:42	White Meat Cutting	Alarm				clr		
naturation	03/10/2005 14:42:48	Goods Out		1			ack		
reezer	03/10/2005 14:42:48	Despatch		1			ack		
loxed Meats	03/10/2005 14:42:47	Boxed Meats		1			ack		-
Despatch	03/10/2005 14:42:46	Marshalling Area		1			ack		NO
∋oods Out	03/10/2005 14:42:46	Poultry		1			ack		
oint 12	03/10/2005 14:42:45	White Meat Cutting		1			ack		11510
Point 13	03/10/2005 14:42:45	Sausage Room		1			ack		
Point 14	03/10/2005 14:42:44	Game Chil		1			ack	*	
oint 15									
Point 16			Cancel						

Historic alarms can be viewed for any selected week

Use the date drop down list at the top of the historic alarm list to select the historic data for the dates you wish to see.

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

4 Top Menu Bar

Shifts

AAW test RI	TC	×					Data h	iarvest is up-to-dati
(100.01) (20.810.000)			Shift Ti	mes			Day 👻	Statemet
IOT: AAW test RIOT	0							A
Point	Name Day							- STUL
Game Chil		From	То		Dav	From	To	
Red Meat Cutting	Qunday	12:00:00	12:00:00	1	1	12:00:00	12:00:00	COMPONENTIAL
Sausage Room	Junuay	12.00.00	12.00.00	1		12.00.00	12.00.00	
White Meat Cutting	Monday	02:00:00	20:00:00	25	/ 12	12:00:00	12:00:00	<u></u>
Poultry	veheauT	07:00:00	20:00:00	26	(12	12:00:00	12:00:00	CANT THE
Marshalling Area	racoduy	01.00.00	20.00.00	20	12	12.00.00	12.00.00	
Maturation	Wednesday	02:00:00	20:00:00	26	/ 12	12:00:00	12:00:00	Sprant)
Freezer	Thursday	02:00:00	20:00:00	26	/ 12	12:00:00	12:00:00	1.0
Boxed Meats				1				
Despatch	Friday	02:00:00	20:00:00	26	/ 12	12:00:00	12:00:00	AAW .
Goods Out	Saturday	02:00:00	10:00:00	26	/ 12	12:00:00	12:00:00	
Point 12					1.6.2			COMPACTOR CONTRACT
Point 13	0	K Cance		26	/ 12	12:00:00	12:00:00	(
Point 14		. 141	-47 819					
Point 15	off	OK PU		7				(W)
PUIRTIO	UI	UK <u>PP</u>	L NG Q	2				

When you select the shifts option from the menu bar a pop up window appears from which in the top left hand corner you can select and set up 5 different settings for different shift types.

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.

Once you have changed any of these settings left mouse click on the OK 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.

AAW test RIG	Actions DT	Help			14:52 3/10/2005 Data harvest is up-to-date
ntini Spyrmus		Action	Day 🗸		Storment Statema
OT: AAW test RIOT				1 1	
oint	Name Day				
Bame Chil	11				
Red Meat Cutting	Shift		Day 💌	normal systems	
Sausage Room	Relay 1 (dial-o	out)			
White Meat Cutting	Relay 2		V		
Poultry	Relay 3				
Marshalling Area					
daturation		OK Cano	el		
reezer	1110		8 61		
Boxed Meats	22.4	ack [⊻ 12 📢	°Ö →		
Despatch	12.0	ack 🗠 🗠 🝕	10 ->		
Goods Out	37.8	ack 🗠 🗠 🐗	10 -s		
°oint 12	off	ok [½] [/~ ◀<	10 ->		
°oint 13	off	ok 🗠 🗠 🐗	°© →		
°oint 14	off	ok 🗠 🗠 🎼	°ପି →		
°oint 15	off	ok 🗠 🗠 🛋	🛱 🦐 👘 🖓		
°oint 16	off	ok⊻Ľ¶≶	°Ŭ →		
20int 13 20int 14 20int 15 20int 16	off off off off	ok A A A A A A A A A A A A A A A A A A A	0000 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

When you select the action option from 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 OK 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.

Selecting the RIOT

If there are multiple RIOTs on your site then as long as they are connected to the network then it will be possible for you to select them from the RIOT Station software on the PC.

With in the menu bar at the top of the screen there is a drop down list.

Left mouse click on the arrow and you will be able to left mouse click any RIOT available on your site.



once the data has been collect from the RIOT which could take 30 seconds the screen will display the selected RIOTs data.

Please Note

If you make changes to one RIOT for the SHIFT or ACTION settings they will **NOT** be changed on other RIOTs.

Each RIOT will have to be selected in turn and the same changes made if required.

Global RIOT alarm status

Next to the RIOT name is a Global alarm status Block, this will either Flash Orange if there is an alarm on ANY RIOT connected to the PC Show Solid Orange if there is an alarm which has been acknowledged but not cleared on ANY RIOT.

You will have to check each RIOT in turn to find which ones have alarms and it may be more than one.

Global RIOT acknowledge

When there are alarms waiting to be acknowledge then a Global Acknowledge button will show next to the Global Alarm Status.

CAUTION

All alarms on all RIOTs could be acknowledged when you use this option.

Date Time and Data

On the right of the menu bar the date and time of each RIOT as the PC collects the data from it will be displayed.

If the RIOTs date or time are different then you will see the time the last data was collected.

A data message shows that the data is

Data Harvest is	Up-to-date	
	is-Old	Call AAW as the RIOT data is not
being		

is-Full

by the PC. AAW will need to dial-in to reset or advise redeemable action.

If the Data Harvest indicates 'Old' then redeemable actions is required as data will start to be lost, RIOTs connected to a PC will only hold data for up to 3 days, dependent on how often the monitored temperatures are changing.