

RACO MANUFACTURING & ENGINEERING COMPANY

**ALARM  
AGENT  
.COM™**

CSA Website Manual v3.2

# RACO MANUFACTURING & ENGINEERING COMPANY

© RACO Manufacturing & Engineering Company  
1400 – 62<sup>nd</sup> Street, Emeryville, CA 94608  
Phone 510.658.6713 • Fax 510.658.2724

# Table of Contents

**WELCOME TO ALARMAGENT.COM! ..... 1**

**CUSTOMER SYSTEM ADMINISTRATORS (CSA) ..... 1**

**ENTERING USER DATA AND ESTABLISHING NOTIFICATION GROUPS AND SEQUENCES. 2**

*Manage Users:..... 2*  
*Users are individuals in your company eligible to: ..... 2*  
*Adding Users:..... 3*  
*Accuracy: ..... 3*  
*Phone PIN: ..... 4*  
*Pager:..... 4*  
*Preferred Notification Method: ..... 4*  
*Access Level: ..... 4*  
*Automatic email Notification to Users: 4*  
*Changing User Information or Status:.. 4*  
*Show Map Page after Login:..... 4*

**MANAGE NOTIFICATION GROUPS..... 5**

*Blast Mode:..... 6*  
*Notify Once:..... 6*  
*RTN Behavior: ..... 6*

**MANAGE GROUP MEMBERSHIP..... 6**

**NOTIFICATION SEQUENCES ..... 7**

*Notification Intervals: ..... 8*  
*Example for an electrical group:..... 10*

**SYSTEM WIDE SETTINGS ..... 11**

*System Name:..... 11*  
*Time Zone: ..... 11*  
*Notify on Return to Normal: ..... 12*  
*Return to Normal Clears Alarms: ..... 12*  
*Phone PIN Required: ..... 12*  
*Area-wide Power Failure Notifications Commence After: ..... 12*  
*Snooze alarm: ..... 13*  
*System Access Code: ..... 13*  
*Notification Phone Number for Test Calls: ..... 13*  
*Sort Reports by Newest First:..... 13*  
*Allow User Polls: ..... 14*

**IMPORTING RTUS INTO YOUR SYSTEM ... 14**

*What "Importing" means:..... 14*  
*To import an RTU:..... 14*  
*Naming your RTUs: ..... 15*

**CONFIGURING RTUS..... 15**

*What are Application Templates?..... 17*

**SERVICE LEVEL SETTINGS..... 18**

**RTU CONFIGURATION ..... 19**

*Watchdog Timer: ..... 19*  
*Account: ..... 19*  
*Channel Suspension Timer: ..... 19*  
*Template Reports/Day: ..... 20*  
*Analog Reading Reports per Day: ..... 20*  
*Armed state: ..... 20*  
*Relay Output 1: ..... 20*  
*Relay Output 2: ..... 20*  
*Output Name: ..... 20*  
*Relay Schedule: ..... 21*  
*Relay Link: ..... 21*  
*Power failure trip delay:..... 21*  
*RTU observes Daylight Savings Time: .21*  
*Pump Performance alarm sensitivity: .21*  
*Periodic report base time:..... 21*

**ALARM CONFIGURATION ..... 22**

*Alarm Criteria:..... 22*  
*Notification Group: ..... 22*  
*Messages: ..... 23*  
*Message 1 and Message 2:..... 23*  
*Messages for Digital Channels:..... 23*  
*Messages for Digital Channels Configured for Status Only:..... 24*  
*Messages for Totalizer Channels: ..... 24*  
*Messages for Runtime Channels:..... 24*  
*Messages for Analog Channels: ..... 24*

**RTU COMMANDS AND THE COMMAND QUEUE ..... 25**

*Monthly limitations on the number of RTU Commands sent:..... 26*

**SCALING CONFIGURATION ..... 26**

*1) Percentage (no units):..... 27*  
*4) Gain/Offset Scaling Specification Method: ..... 27*  
*5) Two Point Scaling Specification Method: ..... 28*

**RTU COMMAND QUEUE..... 29**

**REPORT CONFIGURATION ..... 30**

*For Application Templates 1 -4 (Pump  
Station Reports):..... 30*

*Optional Parameters: ..... 31*

*For Application Templates 5-7:..... 32*

*“CRIB CARD” INFORMATION TO  
PROVIDE TO OTHER USERS:..... 33*

**APPENDIX A – TEMPLATE / CHANNEL  
CONFIGURATION ..... 34**



## Welcome to AlarmAgent.com!

*AlarmAgent.com is RACO's newest wireless technology, bringing a state-of-the-art, Web-based interface to our complete line of alarm detection and notification products.*

**A**larmAgent.com is a revolutionary alarm detection and notification system which offers ease-of-use, cost-efficiencies, and around-the-clock access to its users. Wireless, Web-enabled RTUs monitor and collect data from equipment 24 hours a day. Users can easily access and view secured data from any Internet-connected appliance via a secure Web site. Administrators can make administrative changes just as easily.

## Customer System Administrators (CSA)

This portion of the manual is for users who have been designated as **Customer System Administrators (CSAs)**. You may find it helpful to first read the prior section, which is for all users who will be accessing the AlarmAgent™ web site.

**Note:** As a CSA, you will have to job of initiating new users to the web site. In particular, you will need to give them their individual web site login name and password. Users who will be placing or receiving phone calls to the system will also need the company-wide System Access Code (SAC), as well as their individual Phone PIN (if you elect to require Phone PINs).

The following describes the settings and configurations that you may perform as a Customer System Administrator (CSA) at the AlarmAgent web site, [www.alarmagent.com](http://www.alarmagent.com).

Enter your Web Site Login Name and Web Site Login Password.

If you are the originally designated CSA in your company, this name and password will have been provided to you in an email from RACO.

HOME | PRODUCTS & SERVICES | NEWS & EVENTS | ABOUT US | SUPPORT CENTER | CONTACT US

SINCE 1948  
**RACO**  
REMOTE ALARMS AND CONTROLS

**ALARM AGENT**  
.COM

Delivering Local Information Globally

USER:  PASSWORD:

[Forgot your password?](#)

You may proceed with entering user data and Notification Groups, as well as System Wide Settings, even if you are not yet ready to install or activate service for your RTUs.

Note that there is a login timeout which will require you to log in again, should there be no activity for several minutes.

### Entering User Data and Establishing Notification Groups and Sequences

Click on the Administrator (CSA) tab and then click on the Manage Users tab.



#### Manage Users:

This page lists the users that have been entered into your system. This page includes a filtering tool to assist you to focus on particular groups of users in case you have a large number of users in your system.

### MANAGE USERS

*Use this screen to select, edit or add new users.  
Adding a complete roster of users is the first step in setting up your new account.*

Filter By User:

Filter By Notification Group:

USER	TITLE	USER TYPE	GROUP	ORDINAL
<input type="radio"/> Marlon Fisher	MANAGER	CSA	WATCHDOG GROUP	<input type="text" value="1"/>
<input type="radio"/> Brighton Early	TECHNICIAN	USER	MAINTENANCE CREW , ELECTRICIAN GROUP	<input type="text" value="2"/>
<input type="radio"/> Chuck Waggon	COOK	USER	MAINTENANCE CREW	<input type="text" value="3"/>
<input type="radio"/> Duane Pipe	PLUMBER	USER	MAINTENANCE CREW	<input type="text" value="4"/>
<input type="radio"/> Gene Poole	ELECTRICIAN	USER	WATCHDOG GROUP , ELECTRICIAN GROUP	<input type="text" value="5"/>

*if you want all RTUs to notify everyone then*

Users are individuals in your company eligible to:

- Receive alarm notifications
- Check alarms using the toll free call-in number
- Access the web site to review reports and other RTU data

A special category of user is those who can also perform Administrative (CSA-level) operations.

Adding Users:

To add users, click the Add User button. Enter information on the user in the indicated fields.

*Note that some fields must have entries in order to be accepted. These fields are marked with an asterisk.*

**ADD/EDIT USER** ?

\* Indicates required field

*User Name (e.g. Bill Jones):	<input type="text" value="Duane Pipe"/>
*Web Site Login Name (8 to 25 characters):	<input type="text" value="rockstar2008"/>
*Web Site Password (8 to 25 characters):	<input type="text" value="rockstar"/>
Phone PIN (1 to 5 numerical digits):	<input type="text" value="55512"/>
Title:	<input type="text" value="Plumber"/>
Cellular Phone Number (e.g. 223-456-7890):	<input type="text" value="15105999335"/>
*Email:	<input type="text" value="dpipe@wastewaterinc.co"/>
Email Secondary:	<input type="text"/>
Text Messaging (e.g. 223-456-7890):	<input type="text" value="15105999335"/>
Pager (Phone # or Pager PIN):	<input type="text"/> @ <input type="text" value="-Select Carrier-"/>
Land Line Phone (e.g. 223-456-7890):	<input type="text" value="15105944236"/>
2nd Land Line Phone (e.g. 223-456-7890):	<input type="text"/>
Preferred Notification Method:	<input type="text" value="Email"/>
Time Zone:	<input type="text" value="Pacific Standard Time - Respects DST"/>
Access Level:	<input type="text" value="User"/>
Show map page after login:	<input type="text" value="No"/>

© 2003-2015 RACO Manufacturing and Engineering Co. | [User Agreement and Privacy Policy statements](#)

**Some special considerations regarding entering user information:**

Accuracy:

Entering notification information (especially phone numbers) must be done with particular care, to avoid someone getting nuisance calls, and to assure that the actual users receive the intended notifications.

Phone PIN:

These are needed only if you elect to have individual Phone PINs required. This is a system wide setting which will be covered in a later section.

If you will be electing to require Phone PINs, then during voice phone notifications the user will be prompted, and required, to enter their personal Phone PIN in order to hear the alarm information and to acknowledge the alarm.

Similarly, if you are establishing Phone PINs, users will need to enter them when placing calls to the toll free phone number.

Individual Phone PINs add detail to the event logs which provide an “audit trail” of alarm notification and acknowledgement events.

Pager:

Click the ? (Help) button on this page for details on how to establish pager notification capability.

Preferred Notification Method:

This is important if you elect not to establish Notification Groups as described below.

Without Notification Groups, when alarms occur, the Notification Sequence (described below) will revert to simply notifying all users in your system solely by the notification method designated as preferred. By default, email notification is selected by default.

Access Level:

This setting determines whether this user has Administrator (CSA) rights.

***Note: It is highly recommended that there be at least two users with CSA rights in your system, in case CSA access is needed when one person is unavailable.***

Automatic email Notification to Users:

When you click on either Save button, the user is automatically sent an email with his or her individual password information.

Changing User Information or Status:

Click on the Edit User button and make the desired changes.

Show Map Page after Login:

Select Yes or No. If yes is selected, you are directed to the Map page when you log in.

## Manage Notification Groups

Notification Groups are selected subsets of all the users in a system.

Once created, Notification Groups allow you to direct that certain alarm conditions cause notification to the selected group.

Having created Notification Groups, then in a separate subsequent step you will need to specify which alarms (which channels on which RTUs) are linked to each such named group. This will be done on the RTU Alarm Configuration page as described elsewhere.

In most cases, it is highly desirable to create Notification Groups.

Even if you do not need to differentiate between users who will be notified for different alarm conditions, Notification Groups provide a very helpful means of controlling the order in which notifications occur, as well as various notification methods.

If no notification group is created, the “Everyone” group will be used. The “Everyone” group is all the users added to the system for that company. Refer to the Manage Users page to set the “ordinal”, or order of notification. Notification will be sent to the default notification type selected when the user was created.

In order to create Notification Groups, first it is necessary to designate a name for the intended group. It might be named Mechanical, Electrical, Supervisor, or whatever might be appropriate in your system.

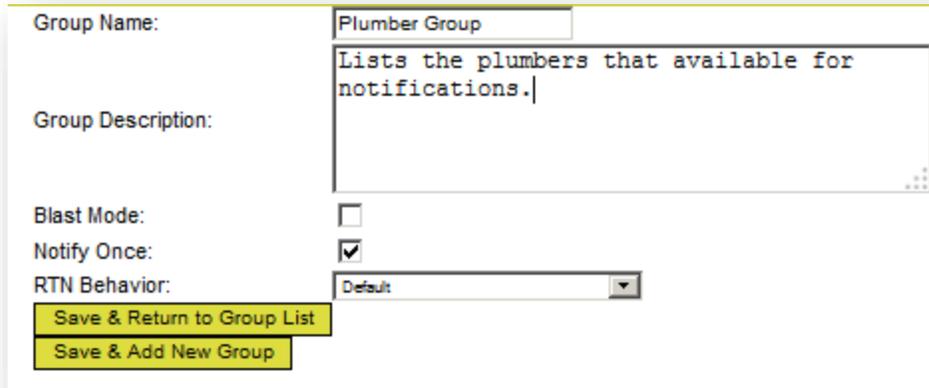
### MANAGE NOTIFICATION GROUP NAMES

*Establish categories for notification based on the type of people that will be required to respond to different alarm situations.*



GROUP NAMES	MEMBERS	CHANNELS	DESCRIPTION
<input type="radio"/> Electrician Group	2	2	On-call Electricians Group
<input type="radio"/> Maintenance Crew	3	8	Pump Inspection and Repair Group
<input type="radio"/> Watchdog Group	2	0	Contact in case of Watchdog Alarm

To designate the name of a new group, click on the “Add Group Names” button. Enter your chosen name for this group, along with any explanatory comments you may wish to enter in the “Group Description.” Click Save to close.



The screenshot shows a configuration form for a notification group. The fields are as follows:

- Group Name:** A text input field containing "Plumber Group".
- Group Description:** A text area containing "Lists the plumbers that available for notifications.".
- Blast Mode:** A checkbox that is currently unchecked.
- Notify Once:** A checkbox that is currently checked.
- RTN Behavior:** A dropdown menu currently set to "Default".
- At the bottom, there are two buttons: "Save & Return to Group List" and "Save & Add New Group".

**Blast Mode:**

Select this checkbox if you want all persons in the notification group to be contacted at the same time. Blast Mode is available for email and SMS text message recipients only.

**Notify Once:**

Select this checkbox if you want to be notified only once about an alarm. Once group notified, the alarm is closed. If used in conjunction with "Blast Mode", the system will send notifications to email and SMS, then close the alarm.

**RTN Behavior:**

Select the desired "Return to Normal" behavior for notification from the pull-down of selections.

## Manage Group Membership

Once you have established the existence of a group by giving it a name, you will need to select which users in your system are to be included in this group.

On the Manage Group Membership page, select a Notification Group from the dropdown box.

**MANAGE GROUP MEMBERSHIP**

Electrician Group

**CURRENT MEMBERS OF ELECTRICIAN GROUP**

Brighton Early

Gene Poole

**AVAILABLE USERS**

Marlon Fisher

Chuck Waggon

Duane Pipe

On the right hand side of the page, a listing of available users will appear. This list consists of all users currently entered into your system, excepting users already included in the currently selected group.

To add users to the selected group, select a user from the list of available users and click on the “Add Member” button.

To delete users from the selected group, select a user from the current group membership list and click on the “Remove Member” button.

When alarms occur, alarm notifications will progress endlessly until acknowledged, rotating repeatedly through the Notification Sequence you establish.

It is imperative that you include enough group members to assure that alarm notifications will be promptly received and acknowledged. This is to prevent undue proliferation of unanswered messages, in case some group members cannot be reached to receive and acknowledge notifications. As noted below, Notification Sequences can assist with this.

## Notification Sequences

Once you have established which users are included in a given group, you will want to specify the order and method by which each member of the group is to be notified when there are alarms which you have linked to the given group.

On the Notification Sequence page, first select the group you wish to deal with.

	CONTACT	VIA	MINUTES TO NEXT NOTIFICATION
<input type="checkbox"/>	Chuck Waggon	Pager	10
<input type="checkbox"/>	Duane Pipe	Text(SMS)	10
<input type="checkbox"/>	Brighton Early	Cellular	10
<input type="checkbox"/>	Marlon Fisher	Email	30

	PERSON	CONTACT VIA	CONTACT VIA
<input type="checkbox"/>	Marlon Fisher	Prefers Email	Email
<input type="checkbox"/>	Brighton Early	Prefers Cellular	Cellular
<input type="checkbox"/>	Chuck Waggon	Prefers Pager	Pager
<input type="checkbox"/>	Duane Pipe	Prefers Text (SMS)	Text(SMS)

On the right hand side of the page is a list of all the group’s members (users you have added to the selected group).

From this list, select the group member who you wish to be notified first. Select the notification method, and click on the “Add” button.

The group member and notification method now appear on the left hand list.

Continue to add group members and notification methods, to establish the order and notification method you desire for alarms you will be linking to this group.

The notification sequence you establish can include the same group member more than once, whether via the same notification method or via different methods.

You can also change the order of members in the notification sequence, as well as delete members, by selecting the member and then clicking on the Move Up, Move Down or Delete buttons.

#### Notification Intervals:

Once you have established the desired notification sequence for this group, you may choose to alter the notification interval for each notification in the sequence. This is the interval in minutes between any given notification and the next notification in the notification sequence. You may enter notification intervals of 5 to 240 minutes. The default value is 10 minutes.

Maintenance Crew ▼ Select Group

	CONTACT	VIA	MINUTES TO NEXT NOTIFICATION
<input type="checkbox"/>	Chuck Waggon	Pager	<input type="text" value="10"/>
<input type="checkbox"/>	Duane Pipe	Text(SMS)	<input type="text" value="10"/>
<input type="checkbox"/>	Brighton Early	Cellular	<input type="text" value="10"/>
<input type="checkbox"/>	Marlon Fisher	Email	<input type="text" value="30"/>

Delete MoveUp MoveDown

Even for companies with a limited number of users, the flexibility of establishing Notification sequences can assist in meeting the imperative of having enough group members to avoid a long proliferation of duplicate unacknowledged alarms, when the main group members are not available to acknowledge alarm notifications.

The ideal strategy regarding this is to include “backup” group members who might not be the ideal persons to deal with the alarm, but who can nevertheless acknowledge an alarm notification and end an otherwise ongoing series of unacknowledged notification messages.

Thus you should place one or more backup group members at the end of a Notification Sequence, perhaps after duplicate notifications of the primary group members. You can thus arrange several notifications to the primary group members before the sequence “falls through” to the backup members.

Example for an electrical group:

**NOTIFICATION SEQUENCE ?**

Electrical Group

	CONTACT	VIA	MINUTES TO NEXT NOTIFICATION
<input type="checkbox"/>	Al Electron	Email	<input type="text" value="10"/>
<input type="checkbox"/>	Bill Kilowatt	Land Line Phone	<input type="text" value="10"/>
<input type="checkbox"/>	Carl Wirehappy	Land Line Phone	<input type="text" value="30"/>
<input type="checkbox"/>	Al Electron	Cellular	<input type="text" value="10"/>
<input type="checkbox"/>	Bill Kilowatt	Pager	<input type="text" value="10"/>
<input type="checkbox"/>	Carl Wirehappy	Cellular	<input type="text" value="30"/>
<input type="checkbox"/>	Al Electron	Land Line Phone	<input type="text" value="10"/>
<input type="checkbox"/>	Bill Kilowatt	Text(SMS)	<input type="text" value="10"/>
<input type="checkbox"/>	Carl Wirehappy	Email	<input type="text" value="30"/>
<input type="checkbox"/>	Tom Topboss	Land Line Phone	<input type="text" value="60"/>

	PERSON	Prefers	CONTACT VIA
<input type="checkbox"/>	Al Electron	Email	<input type="text" value="Email"/>
<input type="checkbox"/>	Bill Kilowatt	Email	<input type="text" value="Email"/>
<input type="checkbox"/>	Carl Wirehappy	Email	<input type="text" value="Email"/>
<input type="checkbox"/>	Tom Topboss	Email	<input type="text" value="Email"/>

*TO THE CALL LIST*

In this example, the result will be three sets of notifications to the three electricians, via several contact methods, with 30 minutes between each set, followed if necessary by notification of the general manager after 30 more minutes. If none of the members acknowledge, then after 60 minutes notifications will proceed starting again at the top of the Notification Sequence.

## System Wide Settings

This page deals with settings that apply collectively to all the RTUs in your system.

### Water Management Group

#### SYSTEM WIDE SETTINGS

System Name:	<input type="text" value="Water Management Grou"/>
Time Zone:	<input type="text" value="Pacific Standard Time - Respects DST"/>
Behavior on Return To Normal:	<input type="text" value="No Action taken on Return To Normal"/>
PIN Required:	<input type="text" value="Yes"/>
Number of simultaneous Power Failure alarms required for Area-Wide notification:	<input type="text" value="5"/> (3 - 10)
Snooze Alarm:	<input type="text" value="On"/>
Snooze Alarm Duration:	<input type="text" value="4"/> Hours (1 - 48)
Duration of Acknowledged Alarms on Dashboard:	<input type="text" value="96"/> Hours (1 - 168)
Duration to show Acknowledged on RTN:	<input type="text" value="2"/> Hours (1 - 168)
Company ID:	31*
System Access Code:	191 1081**
<i>* AlarmAgent.Info Username</i>	
<i>** AlarmAgent.Info Password</i>	<a href="#">Click here to install AlarmAgent.info</a>
Message of the Day:	<div style="border: 1px solid black; padding: 5px;">WINTER WEATHER ADVISORY IN EFFECT UNTIL 9 AM PST THIS MORNING</div>
Old Logo:	<div style="text-align: center;"> <input type="button" value="Delete"/></div>
New Logo:	<input type="text" value=""/> <input type="button" value="Browse..."/> 
Notification Phone Number for Test Calls (eg. 223-456-7890):	<input type="text" value="5105944236"/>
Sort reports by Newest First:	<input type="text" value="No"/>
Allow user polls:	<input type="text" value="No"/>

### System Name:

This text box allows you to change the name of your company which will be used in notifications. Note that any changes will not become effective until the next time you log in.

### Time Zone:

Your selection will control the times stated on the web site.

Even if it is not currently Daylight Savings Time, if your locality observes Daylight Savings time you should select “Respects Daylight Savings Time”. When Daylight Savings time does change, the times stated on the web site will be adjusted accordingly.

When you configure specific RTUs, you will also need to select whether the RTU respects Daylight Savings Time, regarding when it sends periodic reports.

Notify on Return to Normal:

After an alarm, the RTU will always notify the web site when the condition has returned to normal. This setting determines whether users will receive notifications of the alarm condition having returned to normal.

Return to Normal Clears Alarms:

If you select “Yes”, then when the RTU advises the web site that the alarm condition has returned to normal, the alarm is completely cleared, and no additional notifications will occur as a result of that alarm event, regardless of whether the alarm has been acknowledged or not.

Phone PIN Required:

This setting determines whether users will be required to enter their own unique Phone PIN in order to hear and acknowledge phone notifications and to call in to the toll free phone number.

If so, you would enter the specific Phone PIN for each user on the Add/Edit Users page.

Area-wide Power Failure Notifications Commence After:

Sometimes an area wide power failure will occur, resulting in separate power failure alarm notifications for each RTU whose power has failed.

In large systems, this can be many RTUs.

A special AlarmAgent feature consolidates such multiple power failure alarm notifications, in order to avoid a needless and undesirable proliferation of such notifications.

If the number of simultaneous power failure alarms reaches or exceeds the number you enter, then a single “area wide” alarm notification will be created, identifying as many as five RTUs by name. If there are more than five RTUs experiencing the power failure, the notification will advise that there are additional RTUs with the power failure.

Acknowledging an “area wide” power failure alarm acknowledges all current power failure alarms in the system.

To identify the specific RTUs experiencing the area wide power failure beyond the maximum of five RTUs which will be specifically identified in notification messages, users should access the web site. All the relevant RTUs will appear on a list on the System Dashboard.

Snooze alarm:

If you turn on the Snooze Alarm function, then when the selected snooze period elapses, a new set of notifications will occur, if the RTU has not informed the web site that the condition has returned to normal as of that time.

If the Snooze Alarm function is turned on, then users who are notified of alarms will be given the choice to acknowledge the current alarm without Snooze, versus acknowledging the current alarm with Snooze.

You should carefully consider whether you want to activate Snooze Alarms. While their potential benefits are clear in some situations, they can also cause an undesirable proliferation of alarm notifications.

The range of allowable settings is 4 to 48 hours. The default is 4 hours.

System Access Code:

This is essentially a company-wide Phone PIN, provided by RACO. Any user who calls the toll-free phone number to check the status of alarms in your system will be required to enter this System Access Code.

This identifies your company to the web site and associated phone system, so that secure information regarding your company can be accessed.

Because the System Access Code consists of seven digits, it is easiest to remember if users think of it as a “phone number”.

Notification Phone Number for Test Calls:

In some situations it is desirable for someone at the RTU site to be able to invoke a test transmission in order to verify that the system is working at that level. This can be particularly useful at the time of RTU installation; as long as the RTU has already had its service activated and has been imported into your system.

To use this test call feature, on the System Wide Settings page enter the phone number (usually a cell phone number) of the individual who will be performing the test. When the installer presses the Test Call pushbutton on the RTU, a special confirmation call will be placed to the number you have entered.

Please note that the test call feature is not to be used on a regular ongoing basis. Ongoing verification of the functional link between the RTU and the web site occurs daily via the “Watchdog” feature. If a scheduled report is not received as expected at the web site, a special Watchdog (missing scheduled report) notification will occur.

Sort Reports by Newest First:

This feature gives CSAs the flexibility of having data in reports sorted by newest or oldest timestamp.

Allow User Polls:

This feature gives CSAs the ability to grant polling access to User level personnel.

## Importing RTUs into your System

Each of your RTUs must be imported into your system on the web site before they can be accessed or configured from the web site. This step is only required once for each RTU.

In order to import an RTU, you will need the “Import ID”, which is a pair of words supplied by RACO, unique to each RTU.

If your RTUs were ordered with a request that service not be activated at the time of shipment, you will need to contact RACO between 8:00 and 4:30 PST weekdays in order to have your RTU’s account activated and to be given the Import ID words for your RTU.

At that time, your RTU must be turned on with at least four bars lit on its signal strength bar graph indicator for this process to be executed.

What “Importing” means:

Importing associates a given RTU with your company, and thus allows you to access it, configure it and receive reports from it. It also initiates the active period of your service plan.

Importing the RTU also activates the web site’s Watchdog feature.

This means that if you import an RTU which is presently turned off (or doesn’t have adequate signal strength), then eventually nuisance Watchdog (missing scheduled report) alarm notifications will be generated, because the web site will expect to get scheduled reports from the RTU.

To import an RTU:

Select the “Administrator (CSA)” tab. Select “Manage RTUs” tab.

*If the RTUs appear on the “Manage RTUs” page, they have already been imported, and you may skip this step.*

	NAME	ASSET TAG	FIRMWARE	TEMPLATE	DAYS TO EXPIRATION	SERIAL #	PCB SERIAL #
<input type="radio"/>	American River Lift Station	AA-01	V2.6	3	277	H00236	AC11697
<input type="radio"/>	Squaw Valley Lift Station	AA-02	v5.2	1	1738	H02793	AC13402

RTU Import ID

At the bottom of the Manage RTUs page, enter the “RTU Import ID” word pair (provided by RACO via email) into the “RTU Import ID” text entry area. Entries are case-sensitive.

It is a good practice to copy the word pair directly from the body of the email message, to reduce the chance of entry errors.

Click on the “Import RTU” button.

The RTU will now appear in the list of RTUs in the upper area of the Manage RTUs page.

If this does not occur, it probably means that you have not accurately entered the Import ID words.

Repeat this import process for all RTUs which you are ready to begin using.

Naming your RTUs:

At this point, you should enter your own descriptive name for each RTU. This descriptive name (such as “South Main Street Station”) will become part of all alarm notifications, as well as appearing in the various online screens. ***NOTE: do not use special characters when naming your RTU.***

There is no need to refer to the name of your company in these RTU Names, because there is a separate place, described below, to enter the name of your company, which will be included in all notification messages.

The RTU Serial Number (beginning with the letter H) appearing on the screen next to the name field is the same number that appears on the RTU’s shipping container as well as on the RTU itself. This allows you to know which individual RTU you are naming.

Next to the RTU Serial Number is the PCB Serial Number. This is the number appearing on a bar-code label on the RTU circuit board. This provides an alternative means of identifying the specific RTU which you are naming.

After your text entries are complete, click on the “Save RTU Names” button

## Configuring RTUs

To proceed with configuring a given RTU, from the “Manage RTUs” page, select the RTU you wish to configure, and then click the “Configure RTU” button.

	NAME	ASSET TAG	FIRMWARE	TEMPLATE	DAYS TO EXPIRATION	SERIAL #	PCB SERIAL #
<input type="radio"/>	American River Lift Station	AA-01	V2.6	3	277	H00236	AC11697
<input type="radio"/>	Squaw Valley Lift Station	AA-02	v5.2	1	1738	H02793	AC13402

RTU Import ID

The first time you do this, you will automatically be taken to the Application Template Selection page.

**Water Management Group**

**APPLICATION TEMPLATE SELECTION**

**RTU NAME: NORTSHORE PUMP STATION**

<input type="radio"/> ? Template	
<input type="radio"/>	1) Duplex pump station with no pulse flowmeter installed
<input type="radio"/>	2) Duplex pump station with a pulse flowmeter installed
<input type="radio"/>	3) Triplex pump station with no pulse flowmeter installed
<input type="radio"/>	4) Triplex pump station with a pulse flowmeter installed
<input type="radio"/>	5) Multipurpose Equipment Service: 3 DRT, 5 digital and 2 universal Channels
<input checked="" type="radio"/>	7) Multipurpose Process Performance: 8 digital and 2 universal Channels

*\* Each DRT channel may be configured for any one of the following:*  
 - Ordinary Digital Input  
 - Run Time Accumulator Digital Input  
 - Event/Pulse Totalizer Digital Input

*\*\*Universal Channels may be configured for either 4-20 ma analog or digital inputs*

Send your template choice to the RTU

Leave template selection unchanged

This is because it is important that the correct Application Template for your application be selected before other configurations are undertaken. This in turn is because the various configuration items are generally different for different Application Template selections.

What are Application Templates?

To minimize the amount of user configuration required, the AlarmAgent system incorporates various Application Templates.

***You may select among the following Application Templates:***

<b>1</b>	<i>Duplex pump station with no pulse flowmeter installed</i>
<b>2</b>	<i>Duplex pump station with a pulse flowmeter installed</i>
<b>3</b>	<i>Triplex pump station with no pulse flowmeter installed</i>
<b>4</b>	<i>Triplex pump station with a pulse flowmeter installed</i>
<b>5</b>	<i>Multipurpose Equipment Service: 3 DRT*, 5 digital and 2 universal** channels</i>
<b>7</b>	<i>Multipurpose Process Performance: 8 digital and 2 universal** channels</i>

\* Each DRT channel may be configured for any one of the following:

- Ordinary Digital Input
- Run Time Accumulator Digital Input
- Event/Pulse Totalizer Digital Input

\*\*Universal channels may be configured for either 4-20 ma analog or digital inputs.

In most cases, the Application Template setting will already have been made at the RTU at the time of installation, via the DIP switch, and if so that setting will already be selected on the Application Templates page.

If the Application Template is already correctly selected, simply click on the desired page tab to proceed with other configuration items.

## Service Level Settings

To review your service level settings, click on the “Service Level” tab.

RTU Name: Northshore Pump Station

### Current Service Plan:

SERVICE	STATUS
Analog Reports	Disabled
Arm/Disarm Reports	Disabled
Watchdog Alarms	Enabled
CommCheck Service	Disabled
AlarmAgent.Info	Enabled
RealTime Service	Disabled
Scheduled Reports Per Day	1
Command Sessions per Month	5
Contract Type	2 Year Annual
Contract Expiration	2022-01-01
Monthly Fee	\$25

To change these values, please call [1-800-722-6999](tel:1-800-722-6999) or [contact your RACO sales representative](#).

## RTU Configuration

To proceed with RTU Configuration, click on the “RTU Config” tab.

**Water Management Group**

**RTU CONFIGURATION**

[Refresh](#)

RTU NAME: SQUAW VALLEY LIFT STATION

Watchdog Timer: 24 hrs  
Account: Enabled  
Channel Suspension Timer: 24 hrs  
Template Reports/Day: 1  
Analog Reading Reports per day: 0

---

Armed State: Armed

	MANUAL CONTROL	RELAY LINK	RELAY SCHEDULE			
Relay Output 1: Name: <input type="text"/>	<span>Open</span>	<input type="checkbox"/> Enable Local Link	Enable Relay <span>Disable</span>	Relay Close Time <input type="text" value="5:00"/> <span>PM</span>	Relay Open Time <input type="text" value="5:00"/> <span>PM</span>	
Relay Output 2: Name: <input type="text"/>	<span>Open</span>	<input type="checkbox"/> Enable Local Link	<span>Disable</span>	<input type="text" value="5:00"/> <span>PM</span>	<input type="text" value="5:00"/> <span>PM</span>	

Power Failure Trip Delay:  Minutes  
RTU observes Daylight Savings Time: Yes \*Leave this control set to YES unless your RTU is in Arizona, some counties in Indiana where DST is not observed, and all of Hawaii  
Pump Performance Alarm Sensitivity: Disabled

Periodic Report Base Time:  AM

Number of RTU Command Sessions available in the remainder of this month: 10  
Items shown in red are Commands that can be sent to the RTU. Changing one or more red items will result in the initiation of a new Command Session with the RTU. Sessions may contain multiple commands. Each new Command Session will result in the deduction of the available number of Commands Sessions for the remainder of the month.

Command Sessions (configuration changes, relay commands or polling) last a minimum of 5 minutes and can be extended by sending additional Commands within the 5-minute interval. [?](#)

*The following parameters applicable to the RTU are displayed above the horizontal line. Note that these parameters are informational only:*

**Watchdog Timer:**

This indicates how frequently the web site expects to receive periodic Template report transmissions from the RTU. If any such periodic report is missed, a “Watchdog” (missing scheduled report) alarm is created.

**Account:**

This indicates whether the account is enabled at the RTU. Normally this should indicate Enabled.

**Channel Suspension Timer:**

This indicates the period for which a channel is “suspended” before it is automatically re-enabled to send alarms.

Suspension eliminates unwanted follow-on alarms due to “dithering” inputs. If any given channel goes into alarm, then returns to normal, then goes into alarm again within the indicated Suspension Timer period, it will not be allowed to send additional alarms for the duration of the Suspension Timer period, beginning at the time of the initial alarm.

If a channel becomes throttled due to a dithering input, a special suspension notification is sent to all users in sequence until a notification is acknowledged.

If you wish to clear the suspended status of an RTU channel before it would otherwise time out, visit the RTU and temporarily disarm and then rearm the RTU.

Template Reports/Day:

This indicates how frequently the RTU sends periodic scheduled Template report transmissions. In some cases it relates to your Service Level.

Analog Reading Reports per Day:

This indicates how many (if any) separate analog reading report transmissions will be sent by the RTU per day.

All Application Templates provide alarms for exceeding high or low analog set points (assuming channel 9 or 10 are configured for analog).

However Application Templates 1 to 4 does not include actual analog readings in the Template (Pump) report. A separate analog reading report provides analog readings (average, maximum, minimum and current reading as of time of report). This requires a corresponding Service Level.

Application Templates 5 and 7 provide analog readings as part of their Template Report, without need for separate analog template report.

***The following settable items appear below the horizontal line on the RTU Configuration page:***

Armed state:

This indicates whether the RTU was armed or disarmed as of the most recent transmission from the RTU. It also allows you to change the armed/disarmed state via an RTU Command.

Note that when disarmed, the RTU will still send scheduled report transmissions. Only alarm transmissions are prevented.

Relay Output 1:

This indicates the state of Relay Output 1 as of the most recent transmission from the RTU. It also allows you to change the state via an RTU Command.

Relay Output 2:

Operates the same as Relay Output 1.

Output Name:

This allows you to enter a descriptive name for each Relay Output so that in the future each output is identified in terms of its function.

Relay Schedule:

This feature enables you to set up either relay to change state at a predetermined times.

Relay Link:

This feature is used to create a local alarm relay. If selected, when an alarm occurs, the selected relay is closed. Both relays can be enabled simultaneously. Enabling this feature will disable the relay schedule.

Power failure trip delay:

This setting determines how long primary power must be off before a power failure alarm is created.

RTU observes Daylight Savings Time:

This feature is OBSOLETE. AlarmAgent now gets the current time from the cell tower.

Pump Performance alarm sensitivity:

Occasionally a pump becomes partially or completely clogged or otherwise drops substantially in performance. When this occurs, the graphs on the Pump Report will make this apparent at a glance.

However if such a drop in performance persists for several cycles, a Pump Performance alarm will be created to advise you ahead of time.

The sensitivity setting determines how severe and for how many cycles the performance drop must be in persist to create such an alarm.

Some pump stations will experience wide and rapid variations in inflow which can occasionally cause false alarms. In such cases the sensitivity setting should be adjusted accordingly.

Periodic report base time:

This setting determines the time of day or night when the RTU sends its scheduled reports.

If your service level provides for periodic reports two or four times per day, any new setting of the report base time will become the new starting point for such multiple reports per day.

## Alarm Configuration

To proceed with Alarm Configuration, click on the “Alarm Config” tab.

RTU NAME: SAN BERNARDINO LIFT STATION

Notification Group for Watchdog (missing reports) Alarms: NORTHDCSONLY ?

Notification Group for Power Failure Alarms: NORTHDCSONLY

Notification Group for Battery Failure Alarms: NORTHDCSONLY

Global Channel Alarm Trip Delay: 10 seconds

ALARM CRITERIA	CHANNEL TRIP DELAY	RTN TRIP DELAY	NOTIFICATION GROUP	MESSAGE 1 ?	MESSAGE 2 ?
1 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLWETWELL1	SBSL High High Wet Well	Wet Well OK
2 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLWETWELL2	SBSL High High Wet Well	Wet Well OK
3 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLWETWELL3	SBSL High High Wet Well	Wet Well OK
4 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLWETWELL4	SBSL High High Wet Well	Wet Well OK
5 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLWETWELL5	SBSL High High Wet Well	Wet Well OK
6 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLSPRI1	SBSL Un Acknowledged Priority 1	No Un Ack Priority 1 ALarms
7 Digital, Normally Open (NO)	2 seconds	60 seconds	SBSLSPRI2	SBSL Un Acknowledged Priority 1	No Un Ack Priority 1 ALarms
8 Digital, Normally Open (NO)	10 seconds	60 seconds	SOUTHDCS	SBSL System Alarm	SBSL System OK
9 Analog with setpoints	10 seconds	60 seconds	SBSLWETWELL6	Sensor 1 High High Wet Well	Wet Well OK
Set Point					
Low:	Disabled	-5.000	(-5.000 to 20.00)		
High:	Enabled	11.99	(-5.000 to 20.00)		
10 Analog with setpoints	10 seconds	60 seconds	SBSLWETWELL7	Sensor 2 High High Wet Well	Wet Well OK
Set Point					
Low:	Disabled	-5.000	(-5.000 to 20.00)		
High:	Enabled	11.99	(-5.000 to 20.00)		

Number of RTU Command Sessions available in the remainder of this month: 25

Items shown in red are Commands that can be sent to the RTU. Changing one or more red items will result in the initiation of a new Command Session with the RTU. Sessions may contain multiple commands. Each new Command Session will result in the deduction of the available number of Commands Sessions for the remainder of the month.

Command Sessions (configuration changes, relay commands, or polling) last a minimum of 5 minutes and can be extended by sending additional Commands within the 5-minute interval ?

Send Alarm Configs to RTU:

No RTU Commands required: ?

Set the channel messages to default values:

Cancel your channel changes:

### Alarm Criteria:

The pull-downs for each channel indicate which choices are available for the selected Application Template. For digital channels that are not pre-assigned to specific functions based upon your Application Template setting, you may select Normally Open, Normally Closed or Status Only (meaning that the channel will not generate alarms regardless of closed or open input).

### Notification Group:

If you have created Notification Groups under Manage Users, the names of all such established Notification Groups are listed in the pull-downs. Simply select which Notification Group you wish to receive alarm notifications for this channel.

This should also be done at the top of the page for Power Failure and Watchdog (missed reports) alarm notifications.

Messages:

Entering your own messages is optional, because default “generic” messages identify each channel by channel number.

But entering your own messages is strongly recommended, because notifications will be far more meaningful if they are based upon your own descriptions of the conditions represented by each channel on the RTU.

If you have changed the Application Template setting for this RTU, then whether or not you plan to enter your own messages, prior to entering any messages you should click on Set Messages to Default so that the default messages will be correct for the chosen Application Template.

*Bear in mind that particularly long messages sent to alphanumeric pagers or as SMS (text) messages to cell will be truncated in order to retain displayable space for other important components of the notification message. If in doubt, create alarm conditions at the RTU and check the resulting text displays.*

***NOTE: do not use special characters when creating messages.***

Message 1 and Message 2:

There are two messages for each input channel, which will be used in delivering alarm notifications.

The specific meaning and use of Message 1 and Message 2 entries depends upon the alarm criteria or type selected for each channel.

Messages for Digital Channels:

For digital channels, Message 1 represents the alarm state of the input; while Message 2 represents the normal state.

Note that when an alarm on a given channel occurs, the notification system will add tag words after the appropriate message, such as “Alarm” or “Now Normal”.

With this in mind, a typical Message 1 would be something like “High wet well level”. The corresponding Message 2 would be “Wet well level”.

Tag words to be added include “*Normal*”, “*Alarm*”, “*Alarm Acknowledged*”, and “*Alarm now normal*”

Putting this all together, the above example messages will result in the following possible message contents:

- Wet Well Level *normal*
- High wet well level *alarm*
- High wet well level *alarm, acknowledged*

- High wet well level *alarm, now normal*
- High wet well level *alarm, now normal, acknowledged*

In summary, for digital channels, Message 1 should identify the alarm item but exclude the word “alarm”. Message 2 should identify the same item but state it in a “neutral” manner.

Messages for Digital Channels Configured for Status Only:

Message 1 will be used when the input is open.

Message 2 will be used when the input is closed.

Thus, a suitable Message 1 might be “The generator is off”, and Message 2 might be “The generator is on”, based upon the input at the RTU being a closed circuit when the generator is on.

Messages for Totalizer Channels:

Application Templates 5 and 6 allow some channels to be configured to report event totals. For channels so configured, only Message 1 is used. It should be of the form “Number of generator starts is”. Web site reports will consist of this Message 1, followed by the number of events counted.

Messages for Runtime Channels:

Application Templates 5 and 6 allow some channels to be configured to report total runtime hours. For channels so configured, only Message 1 is used. It should be of the form “Generator runtime is”. Web site reports will consist of this Message 1, followed by the total time over the reporting period in which the input state was closed.

Messages for Analog Channels:

For analog channels, Message 1 and Message 2 are used in a special way.

Message 1 becomes the initial component of the message; Message 2 becomes the follow-up component of the message. The scaled analog reading will automatically be inserted between these two message components.

Thus, a suitable Message 1 might be “Tank level is” and Message 2 might be “feet”.

The resulting composite message would be “Tank level is xx.x feet.”

If there is an alarm condition based upon exceeding the established high or low set points, then in addition to the above tag words, then the words “High Set Point” or “Low Set Point” will be added as follows:

- Tank level is xx.x feet
- Tank level is xx.x feet, High (or Low) Set Point Alarm
- Tank level is xx.x feet, High (or Low) Set Point Alarm, Acknowledged
- Tank level is xx.x feet, High (or Low) Set Point Alarm, Now Normal

- Tank level is xx.x feet, High (or Low) Set Point Alarm, Now Normal, Acknowledged

### High and Low Analog Set Points:

Important Note: Even if your Application Template or Service Level does not support analog reading reports, analog set points can still be used to create analog alarms.

The values you enter for analog alarm set points should be based upon the scaling method you choose on the Scaling Configuration page.

Therefore, analog alarm set points should be entered only after the analog scaling information has been entered on the Scaling Configuration page.

## RTU Commands and the Command Queue

There are three types of RTU Commands:

- 1) RTU CONFIGURATION CHANGES
- 2) UNSCHEDULED POLL REQUESTS
- 3) OUTPUT RELAY COMMANDS

Important Note: *Configuration changes that require RTU Commands are indicated in red on the corresponding configuration web pages.*

**Not all RTU configuration changes require RTU Commands to execute.**

**All three types of RTU Commands involve sending transmissions from the web site to the RTU.** The wireless communication system requires time to send these transmissions in the proper sequence.

Therefore, all RTU Commands are initially placed in the "RTU Command Queue." The command queue page shown above displays the scheduling status of upcoming Command transmissions. The Command transmissions are then automatically sent to the RTU according to the Command Queue. The web site then waits for the RTU to confirm that the command has been executed.

This process can take a few minutes, depending upon how many other users in other companies are initiating RTU Commands at the same time.

Correspondingly, when you make a change to a configuration item indicated in red and click SAVE, the change does not appear on the corresponding web site page until the change has been transmitted to the RTU and the RTU has confirmed back to the web site that the change has been executed.

To remind you of this, each time you do confirm a change to an item indicated in red by clicking SAVE, you are taken to the Command queue page.

Even after the transmission and confirmation process has been completed, you may have to hit the refresh button on your web browser in order to view that the change has taken effect.

Monthly limitations on the number of RTU Commands sent:

Beginning on the day you import your RTU into your system, and for an additional full calendar month afterwards, there is no limitation on the number of RTU Commands. This allows for the initial configuration of the RTU as needed.

After the expiration of the first full calendar month after the RTU is imported, the number of RTU Commands allowed each calendar month is determined by your selected Service Level. The number of RTU Commands remaining unused for the current calendar month is indicated on pages from which RTU Commands can be initiated. Unused RTU Commands do not roll over into following months.

## Scaling Configuration

To proceed with Alarm Configuration, click on the “Scaling Config” tab.

This page is used to specify analog scaling information for channels 9 and 10 when they are configured for 4-20 ma analog as opposed to digital input monitoring.

For Channels configured as analog, it is necessary to specify how the values will be translated into final readings, as well as in relation to analog set point entries that you may make on the Alarm Configuration page.

Scaling settings established on this page affect the range of possible entries for analog alarm set points on the Alarm Configuration page, even if your chosen Service Level and/or Application Template selection does not provide for actual analog readings to be delivered.

**Channel Number 9**

Percentage (no units)  
 Raw Counts  
 Milliamps  
 Custom Scaling Method: Gain/Offset  
 Custom Scaling Method: Two Point

**Gain/Offset**

1 Gain  
0 Offset

**Two-Point Method**

Point 1: 0  
Point 2: 1023  
Raw Count  
0 Units Measured

**Channel Number 10**

Percentage (no units)  
 Raw Counts  
 Milliamps  
 Custom Scaling Method: Gain/Offset  
 Custom Scaling Method: Two Point

**Gain/Offset**

5.0 Gain  
-30.0 Offset

**Two-Point Method**

Point 1: 8.0  
Point 2: 16.0  
Raw Count  
10.0 Units Measured

Save

### THERE ARE FIVE SCALING CHOICES:

The first three choices are simplest to enter because they are “pre-rolled”. The last two choices offer more powerful custom flexibility in translating the input signal values to corresponding physical values.

1) Percentage (no units):

Readings and set point entries will range from 0% at 4 ma input, to 100% at 20 ma input.

2) Raw Counts:

Readings and set point entries will range from a count of 205 at 4 ma input, to 1023 at 20 ma input

3) Milliamps:

Readings and set point entries will directly reflect the number of milliamps input (4 ma to 20 ma)

4) Gain/Offset Scaling Specification Method:

This scaling method can be used if you already know the specific gain/offset relationship between the input signal value translated into a count range of 205 to 1,023 (based upon a total count range of 0 to 1,023 for the 10-bit A/D conversion) and the corresponding physical values.

Given that there is a raw count range of 205 to 1023, choosing Gain/Offset allows you to enter scaling and offset values which will apply to this range of counts. For example, if you enter a gain factor of 2 and an offset of -100, then a raw count of 205 would give a reading of  $205 \times 2 - 100 = 310$ . A Raw count of 1023 would give a reading of  $1023 \times 2 - 100 = 1,946$ .

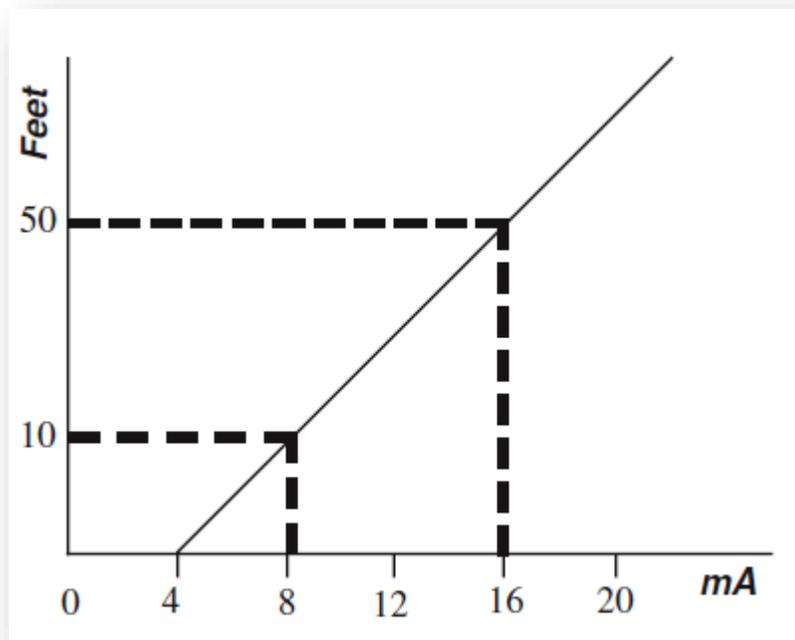
5) Two Point Scaling Specification Method:

When the gain/offset scaling parameters are not already independently known, the best way to establish the proper scaling is to visit the RTU site and observe the correlation between the observed physical quantity being measured (such as tank level) and the analog raw count reading at that same time. The raw count can be observed by plugging a portable computer into the RTU's serial port and setting terminal emulation to VT100. More information on how to do this is found in the RTU Quick Start Guide.

As an alternative to observing the raw counts via the serial port, you can measure the signal current in milliamps.

With this having been done for two different (ideally, widely separated) observed values of the physical quantity being measured, you can then select the Two Point Scaling Specification Method and enter the two observed actual physical values along with the two corresponding raw counts (or milliamps, depending upon your selection in the pulldown window on the page). Enter the counts (or milliamps) in the upper cells and the observed physical values in the lower cells.

Once this information has been entered, the web site will then automatically perform the proper calculations to translate 4-20 milliamp input signal values into the desired corresponding physical values over the entire analog span on an ongoing basis.



## RTU Command Queue

To view the Command Queue, click on the “CMD QUEUE” tab.

### RTU COMMAND QUEUE

**RTUNAME: WASTEWATER TREATMENT PLANT**  
RTU Busy: No

The following configuration changes are pending transmission to your RTU:

COMMANDS	CREATED BY	TIME ENQUEUED	SCHEDULED TRANSMIT TIME	
Set Channel Alarm Trip Delay to 10 seconds	USER	Jun 20, 2005 3:55:32 PM	ASAP	<input type="checkbox"/>

The following configuration changes for your RTU have been cancelled:

COMMANDS	REASON	TIME ENQUEUED
Poll: Respond with current Periodic Profile Report	No Response	May 31, 2005 11:45:21 AM
Disarm the RTU	Manual	May 26, 2005 4:16:57 PM

Some RTU configuration changes (such as message changes) apply solely to the web site.

Others (such as changing alarm criteria for a given channel) must be transmitted to the RTU.

Poll requests and output relay changes must also be transmitted to the RTU.

Operations which require such transmissions are called RTU Commands, and they are indicated in red font on the applicable web site pages.

RTU Command transmissions must be issued by the web site in a particular sequence, and spaced out over a span of two or more minutes. Further, the web site does not consider an RTU Command to have been actually implemented at the RTU until it has received a subsequent transmission from the RTU confirming the change.

This means that when you change an item shown in red font (i.e. requiring an RTU Command), there will be a delay before the web site considers it to be in effect.

In particular, this means that when you make a change that requires an RTU command, it will initially appear as though the change did not occur, in turn suggesting that you might need to issue the command again. Do not do this!

In order to remind you of this, each time you make such a change, you are automatically taken to the RTU Command Queue page. This page shows the status of any such changes you have made which have not yet been transmitted and confirmed.

Because of the way web pages are presented by web browsers, even after RTU commands have been transmitted and confirmed back from the RTU to the web site, it may be necessary to click on the browser's "refresh" button in order for the changed setting to appear on the relevant page.

## Report Configuration

To proceed with Report Configuration, click on the "Report Config" tab.

This page allows entry of supplemental information for the selected RTU which is needed in order for the AlarmAgent web site to complete the compilation of the primary template reports.

The specific items appearing on this page depend upon the Application Template which has been selected for this RTU.

**PUMP PERFORMANCE - WITH TOTALIZER (3 PUMP WITH TOTALIZER)**

Tank Volume		Optional Parameters ?			
Choose method of volume calculation:	Diameter		Pump1	Pump2	Pump3
Differential Height:	Feet: 50	Inches: 0	Runtime baseline: 1000	1000	3000
Length:	0	0	Hours till Maintenance 1: 500	500	250
Width:	0	0	Hours till Maintenance 2: 1000	1000	500
Diameter:	20	0			

Calculate D.V.

Differential Volume: 117444 Gallons ?

Totalizer Gal. per pulse: 0

Save

For Application Templates 1 -4 (Pump Station Reports):

#### DIFFERENTIAL WELL/TANK VOLUME:

In order to calculate GPM for each pump and total station flow, the AlarmAgent web site needs to know the volume corresponding to the difference between the low and high cycle levels for the tank or well (the levels at which a pump normally turns on and at which the pump normally turns off).

This requires you to measure and then enter the difference in height (the “differential height”) between these two levels, as well as the diameter of the well or tank (if it is round) or the width and length (if it is rectangular).

Before entering the dimensions, you must select the “using” method for the calculation. You may select one of the following:

“Length” (if you will be entering the measured length and width of a rectangular well or tank)

“Diameter” (if you will be entering the measured diameter of a tank or well)

“Direct Volume Entry” (if you will be directly entering the known Differential Volume of the tank or well in gallons, rather than having it calculated by the web site.)

When you make this selection and enter the basic length/width or diameter measurements, the web site automatically calculates the corresponding Differential Volume for this pumping station, when you click on the Calculate D. V. button. The calculated result appears in gray because it is not a user-entered value in this case.

If you enter the Differential Volume directly, the calculation process will be bypassed.

If a pulse flowmeter is installed at this station (Application Template 2 or 4), you will also need to enter the number of gallons of flow represented by each pulse generated by the flowmeter.

#### Optional Parameters:

The Pump Performance reports also include cumulative run time for each pump, as well as two tracks of “hours until maintenance” for each pump.

Example: You can enter values such that the cumulative run times shown on the Pump Performance reports match any existing physical run time meters at the pumping station.

This Report Configuration page allows you to enter any desired starting points for these cumulative values.

Likewise, you can enter starting values of one or two run times until maintenance is required for each pump. When each corresponding item of maintenance is performed, you would enter a new starting value for run time until the next maintenance.

For Application Templates 5-7:

The report configuration for these templates depends on the type of channels. Channels can be configured for totalizer or runtime. The example below is Template 5 with channels 1, 2, & 3 set to runtime.

**REPORT CONFIGURATION**

**RTU NAME: ANTIOCH LIFT STATION - M2**

Based on the Profile for this RTU, the following report types are available with the following parameters.

**TEMPLATE 5 REPORT (3 DRT, 5 DIGITAL AND 2 UNIVERSAL CHANNELS)**

	Channel 1 runtime is	Channel 2 runtime is	Channel 3 runtime is
Units Per Pulse	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>	<input type="text" value="0.0"/>
Current Count	29.4	29.5	18.3
Override Count	<input type="text" value="29.4"/>	<input type="text" value="29.5"/>	<input type="text" value="18.3"/>

© 2003-2015 RACO Manufacturing and Engineering Co. | [User Agreement and Privacy Policy statements](#)

“CRIB CARD” INFORMATION TO PROVIDE TO OTHER USERS:

Credit Card sized “crib cards” are provided with each RTU to give to each user in your system.

Additional cards are available free of charge by calling RACO at 1(800)722-6999.

The following information is pre-printed on the cards:

- The web site internet address: [www.alarmagent.com](http://www.alarmagent.com)
- The toll-free call in phone number: 1(877)374-7932.

There are spaces on the card for you to enter the following additional necessary information for each user:

- The user’s individual Web Site login name
- The user’s individual Web site login password
- The company-wide System Access Code for calling the toll-free phone number to check alarm status
- If required, the user’s Phone PIN

You should give careful consideration as to whether you should actually enter the above information on the cards, or allow users to enter it, from the standpoint of your company’s data security, should a card ever fall into the wrong hands.

## Appendix A – Template / Channel Configuration

Channel #	2 Pump No Totalizer Template #1	2 Pump & Totalizer Template #2	3 Pump No Totalizer Template #3	3 Pump & Totalizer Template #4	3 SRT, 1 D, 2 A Template #5	0 SRT, 8 D, 2 A Template #7
Channel #1	Pump Combo	Pump Combo	Pump Combo	Pump Combo	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #2	Pump Combo	Pump Combo	Pump Combo	Pump Combo	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #3	Totalizer	Totalizer	Pump Combo	Pump Combo	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #4	Totalizer	Totalizer	Totalizer	Totalizer	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #5	Totalizer	Totalizer	Totalizer	Totalizer	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #6	Totalizer	Totalizer	Totalizer	Totalizer	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #7	Totalizer	Totalizer	Totalizer	Totalizer	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #8	Totalizer	Totalizer	Totalizer	Totalizer	Status Only	Status Only
					Runtime	Normally Open
					Pulse Totalizer	Normally Closed
					Normally Open	
Channel #9	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low
	Analog High	Analog High	Analog High	Analog High	Analog High	Analog High
	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only
	Digital Status Only	Digital Status Only			Digital Status Only	Digital Status Only
	Normally Open	Normally Open			Normally Open	Normally Open
	Normally Closed	Normally Closed			Normally Closed	Normally Closed
Channel #10	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw
	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA
	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent
	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low
	Analog High	Analog High	Analog High	Analog High	Analog High	Analog High
	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only
Digital Status Only	Digital Status Only			Digital Status Only	Digital Status Only	
Normally Open	Normally Open			Normally Open	Normally Open	
Normally Closed	Normally Closed			Normally Closed	Normally Closed	
Channel #10	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw	SetPoint Units: Raw
	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA	SetPoint Units: 4-20mA
	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent	SetPoint Units: Percent
	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low	Analog Low
	Analog High	Analog High	Analog High	Analog High	Analog High	Analog High
	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only	Analog Status Only
Digital Status Only	Digital Status Only			Digital Status Only	Digital Status Only	
Normally Open	Normally Open			Normally Open	Normally Open	
Normally Closed	Normally Closed			Normally Closed	Normally Closed	