



## **BaseStation3**

**Version 3.13.1**

**User Guide**

**0999302\_D**



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# About this Manual / Communication Regulations

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## About this Manual

This manual illustrates how to use BaseStation3 on a personal computer by using a mouse to click objects on the screen. If you're using BaseStation on a touchscreen computer, tablet or mobile phone, substitute the word tap when you read the word click.

- Tapping once is the same as clicking.
- Tapping twice is the same as double clicking.
- To right click, touch and hold your finger on the glass, and lift your finger when the menu appears.

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# About this Manual / Communication Regulations

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# Recommended Hardware/Software Environment

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## Recommended Hardware

- Intel® Xeon® Core™ CPU @ 3.60 GHz
- 16 GB RAM
- 500 GB 7200 RPM Drive
- UPS battery backup
- Monitor adequate for environment and user needs (landscape or portrait orientation)
- Video adapter with 2 GB memory
- External storage for data backup (optional)

## Software

- Windows Server® 2016 (US/multi language OS)
- SQL Server® 2012 R2 Express and Standard 2012 R2\*
- TeamViewer 12
- IIS version 7.5\*
- Microsoft® Office® (or similar Office product ) if exporting reports to a spreadsheet application (optional)
- Adobe® PDF reader for additional documentation
- .Net Framework 4.6

\*BaseStation3 Setup will install these if not already present

## Web Browser Minimum

- Chrome™ browser version 27 or later (one of the preferred browsers for best compatibility)
- Microsoft® Internet Explorer® version 10 or Edge®
- Firefox® version 30 or later (one of the preferred browsers for best compatibility)
- Safari® version 6.1 or later

## Internet Service

1. Internet Service Provider
  - (a) A public IP address that can be mapped to a No-IP™ account for the URL address of the BaseStation
  - (b) Cannot be a private IP address
  - (c) A public static IP address can be used, but is not necessary
  - (d) Router must have NAT loopback, NAT reflection or NAT hairpin capabilities for internal mobile app connections
2. Minimum 5 Mbps upload speed (a slower upload speed will result in performance delays).
3. Customer's premise router for Internet access must have the manufacturer's most recent firmware release
  - (a) Must have the ability to configure the router for BaseStation3 connection
  - (b) Must be able to port forward
  - (c) Requires DHCP capabilities

## NOTE

**•It is not recommended that this computer be used for anything other than BaseStation3 software. Dedicating this machine for BaseStation3 ensures proper operations and usability.**

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# Recommended Hardware/Software Environment

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## Internet Service (Continued)

Internet is required for these functions to operate

- Google map background in the Map View
- Browser and Mobile Application access to the web server page for BaseStation3
- Delivery of notifications to email and text messages

## Base to Machine Communication Equipment Options

Radio:

- Valmont Spread Spectrum Radio
- Valmont DataRadio®

Ethernet:

- Valmont Cellular Modem
- Optional Ethernet-Serial server for adapting the control panel serial communications to a user provided Ethernet network communications device

### **NOTE**

•Customer cell phone service must be provided in order to receive texts for alarm notification. Without this information customer can only receive email alerts for alarm notifications.

## TouchScreen Monitor Support

- Pointer selection is supported when in Operational and Device Management modes
- Resize feature support
- Map view opens in hand mode by default; if an alternative is chosen, the selection is retained through the screens until changed

## Backup, Archive and Update Features

### Backup and Archive Data

- Configuration and transaction data backups
- Data archive backup options

Contact your Valley dealer for information and support.

### Web Updates

- Web update client allows installs and updates via the download folder (BaseStation v3.7 or higher required)

# BaseStation3 Product Information

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## What It Is

BaseStation3 is a web-based application that runs as a set of services in conjunction with Microsoft SQL Server database software. This allows the BaseStation3 processes to run continually, even when no users are logged in.

## How to Access It

Users access BaseStation3 via a web browser (Internet Explorer or Edge, Chrome, Firefox, Safari) or with a mobile application (Android, iOS). BaseStation3 is accessible from the Internet or cellular network any time that the BaseStation3 computer and the network router that is connected to is configured to open the local network to the BaseStation3 computer. The user connection sign-in with a browser or mobile app is routed through a web service that directs the browser or mobile app to the BaseStation3 computer's URL as a local web server.

**Formatting Example:** "http://MyFarm.com:8080/basestation3/pages".

Replace "MyFarm" with the registered BaseStation3 farm name. "8080" is the typical port number used for BaseStation3. Network port configuration may differ. When BaseStation3 is set up by Valley, a sticky note on the desktop includes the web service URL for the farm.

The full browser URL contains the "/basestation3/pages" routing. The mobile application server name does not require this additional page routing.

## What It Does

BaseStation3 can:

- Monitor Valley and AgSense equipment status to record history data, generate reports, send alarms and notifications and display the status and progress of running equipment.
- Send user commands to control the actions of the irrigation equipment including immediate commands, stored programs for local execution and irrigation prescriptions.
- Configure individual user accounts with language, user role permissions, contact methods for alarms and alerts and provide a default view selection.

## Set it Up to Use for Your Farm Operation

[Read the computer requirements document to verify that the computer and environments meet the minimum specifications.](#)

BaseStation3 uses Internet for these functions:

- Mobile Application and external browser connection with the BaseStation3 web server.
- Google Maps, Notifications (text/email/push notifications/passwords), Web Updates, and Valley support.
- AgSense device connections.

BaseStation3 is configurable so that it is organized according to the farm structure.

# BaseStation3 Product Information

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Follow the [Quick Step Guide](#) found in the computer folder that ships with the BaseStation3 computer. The guide is also available in online via the link provided in the BaseStation3 browser.

Use the tools under the “gear” icon to navigate the initial setup for “BaseStation Settings” and “Farm Administration.”

**Tools:** BaseStation3 has a list of utilities in the drop down list under the “gear” icon. These tools provide internal links to multiple features. The available utilities vary by user privileges and access to add-on options. There is information about BaseStation3 software and a link for requesting help from Valmont. The phone number and email address can be contacted for help. In addition, you can contact a Valley dealer for the add-on options. BaseStation3 also has a set of desktop icons for shortcuts, including a check for software version updates. All updates are available to registered installations with the web update. Version release notes state the changes that have been made to the release.

- **The Farm Map:** BaseStation3 uses Google Maps to display their satellite images as a background layer for the Map View. Map views include satellite, roadmap or terrain options. BaseStation3 also uses the GPS location data to place and scale the devices (pivot, linear, pump, etc.) on the farm map. Enter the base GPS location for the farm, along with the GPS and machine information when creating devices, and the map with devices emerges.
- **Users:** Create user profiles that define their control privileges. Then, set them up for receiving alarm and alert notifications for the devices that they need to stay aware of. User roles range from Administrator (full rights for managing and using BaseStation3), Operator (using BaseStation3, except setup/configuration privileges), and Monitor (viewer and running reports). A built-in admin user with default password is provided for getting started.
- **Views and Groups:** Users have a selection of views, including spatial representation on a Google map background (satellite, roadmap or terrain view), a collage of devices created on a fixed background image, or as an array of tiles or list of devices. Additional views include Soil Moisture, VRI, Overlap Zone, Restricted Entry (purchased add-on required) and Device Management. The view utilities collection is in the gray bar across the top of the map. Groups are a collection of devices selected and saved as a group for filtering the views and granting users rights. Groups are used for associating devices. Groups are useful for crop management organization, focused reports generation, and map view filtering.
- **Devices:** The “device” is an object that is created for the Farm Map and used for irrigation management. Devices represent and provide access to the equipment in the field. The drop down drawer from the View controller provides access to the Device Management view, where BaseStation3 devices are setup. Not all device information is mandatory for operation; but, entering as much information as possible about the machine will add to the value of using BaseStation3 for accurate synchronization with the control panel and collecting data that is used for reports. Accurate configuration information will provide realistic representation of water application and machine movement. In addition to actual machine status, there are several BaseStation3 utilities that enhance the past movement and predictive travel of the machine.
- **Alarms:** Each device has a set of status attributes that are monitored. A change in device status from what is last known as the BaseStation3 is expected status triggers an alarm event. Alarms have two functions 1) display graphically an icon on the device and 2) send a notification to the specified contact list for the device (see Notifications below). Fault alarms trigger when any shutdown fault is detected. Alarms are classified by importance as High Level, Low Level, Information only, or None. Selecting None is a simple “don’t care” about that particular machine state. High Level selection triggers a notification. Each alarm level is configurable.
- **Alerts:** For pivots and linears, a change in device status (Start / Stop, Water On / Off, Direction Change, Aux 1 Out - On / Off, Aux 2 Out - On / Off) can trigger an alert to a specified user designated on the contact list. (See Notifications below.) Restricted Entry also alerts the user when a Restricted Entry event is started and stopped.
- **Notifications:** BaseStation3 is designed to notify users of important machine events, when BaseStation3 is setup to send notifications for events. By defining “contact lists”, from a selection of users, the users in a list can be notified by phone, push notification, text message and/or email. Each device can have a contact list for alerts and a different (or same) list for alarms. A high level alarm triggers a notification to be sent.
- **Irrigation Exchange:** A utility that coordinates with other industries to share data relevant to irrigation processes. Valley has an approved partner list with agriculture industries that comply with the Valley standards for information sharing.

# BaseStation3 Product Information

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## Navigation and Getting Around in BaseStation3

BaseStation3 provides the fundamental device information visually as a graphic image, representing the equipment status.

See the legend sheets found in the computer folder that ships with the BaseStation3 computer. The legend is also available in this manual, and via the link provided in the BaseStation3 browser and mobile app.

- **User Preferences:** Each user is able to set their personal preferences for basic viewing options, making the BaseStation3 more user-friendly to the way they like to see the browser. Preferences include language, units of measure, and default display options for map view, supplemental pop up, and light/dark display theme.
- **Main Screen:** Primary information is displayed in the map or tile views on the browser page. Hovering the mouse over a device displays supplemental information. Primary information is displayed as a list view on the mobile applications. In both browser and mobile app environments, a click (or a screen touch) on the device opens a more detailed device view where controls are exposed.
  - Navigation and viewing controls are organized by function around the perimeter of the browser page. Across the top is the View controller drawer, the farm and group selectors, device filter, search field and the gear utilities. The lower right corner of the browser has the map scaling and the link tools. Viewing controls change based on the View Type selected.
  - When the browser header is not needed, the full screen view (F11) will expand the map area.
- **Device Interfaces:** The device view arranges the panel functions into frames for status information, quick commands that reflect the primary controls for the local panel at the machine, plus some additional tabs for extended commands and programming, when available.
  - Each device view has a few generic functions that surround the specific panel type and provides access to request fresh status updates, polling management and alarm resets (Clear Alarms).
  - The irrigation device interfaces have tabbed screens that give access to additional BaseStation3 operations and in the field panel utilities. There are utilities that directly link with the control panel. Some utilities take advantage of information received from the control panel, providing additional management functions and diagnostics. These utilities are grouped into frames that help the user understand their purpose.
  - Device notes that have been documented can be deleted by a user with Administrative level access.
- **Reports:** There are several fundamental reports available to review machine activity and compose water discharge information. Two locations in the user interface are used for reports; device view and the Reports utility, under the Gear tool icon.
  - Status change history is extracted from the database as an individual machine report, from the device view. Applied Water Depth report is an individual machine report, showing the calculated depth of water across the field.
  - More reports for farm, group and device type selections are available for configuration settings for devices, current status and water volume.
  - Water Volume reports can be configured to run automatically at daily, weekly, monthly and annual intervals.
- **Add-On Subscriptions:** Valley offers add-on features that can be enabled with an annual subscription.
  - [SCADA Management](#) application data sharing works with pump control software to coordinate water delivery.
  - [Fertilizer Application Rate Report](#) shows a profile of flow that has been recorded by monitoring the input from the BaseStation3's second flow meter option.
  - [Restricted Entry](#) provides timer options to notify users about a variety of field conditions such as chemical or fertilizer applications. A hand icon over the affected device signifies a restricted entry condition in the field. Additionally, other visual features include a countdown timer and future events display. Text, push notifications and email alerts notify recipients about restricted entry conditions. The mobile application displays the restricted entry icon with the timer countdown. A new view and reports are available specific to restricted entry data.
  - [Water Source Monitoring and Reporting](#) - The report will provide the detail of water applied by water source for a specific period of time. The report uses BaseStation3 recorded history of application data associated to the identified water source to generate tabular and graphical information. The units of measure shown in the report is according to the preferences selected by the user that runs the report.

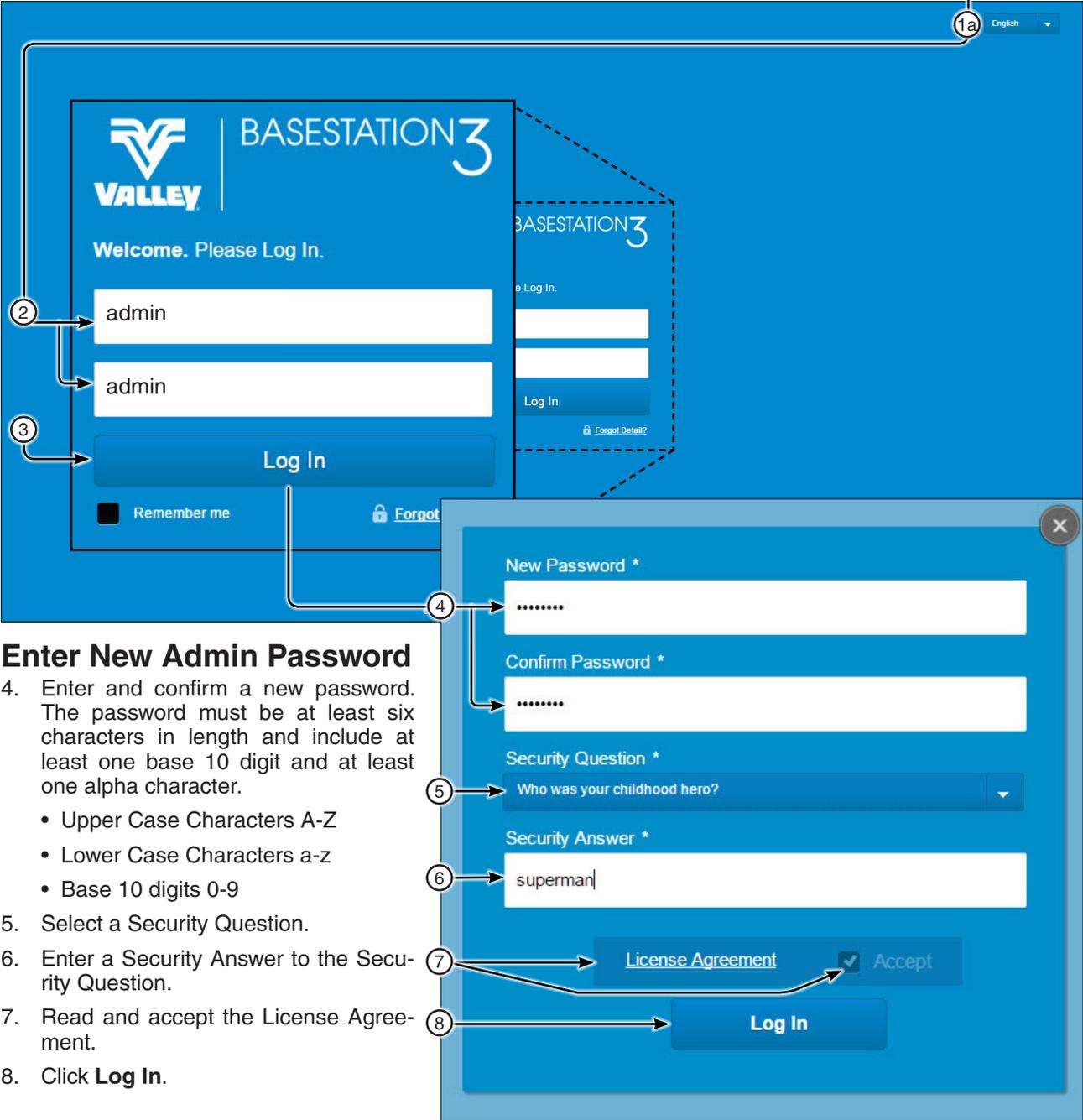
# BaseStation3 Product Information

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## Log In as Admin

After installation is complete, open the BaseStation3 program and log in as the Application Administrator. You are required to change the default password to ensure application security.

1. To open the program click the **BaseStation3** icon on the desktop. See Figure 17-1.  
(a) Optional: Select the **language** from the drop down menu. The default is English.
2. At the log in screen, enter the Username **admin** and Password **admin**.
3. Click **Log In**.



## Enter New Admin Password

4. Enter and confirm a new password. The password must be at least six characters in length and include at least one base 10 digit and at least one alpha character.
  - Upper Case Characters A-Z
  - Lower Case Characters a-z
  - Base 10 digits 0-9
5. Select a Security Question.
6. Enter a Security Answer to the Security Question.
7. Read and accept the License Agreement.
8. Click **Log In**.

Figure 17-1 1. BaseStation3  
1a. Language List  
2. Username / Password  
3. Log In  
4. New Password / Confirm Password

5. Security Question  
6. Security Answer  
7. License Agreement  
8. Log In

# Initial Setup

## Change Admin Profile

1. Click **Settings** and select **BaseStation Settings**.
2. Click **User Profiles**.
3. Select the **admin** user profile.
4. Enter the **Email Address** where you want user account registration and alarm contact notifications to be sent.
5. Click **Save**.
6. Continue with **Create Administrator Account(s) (Optional)** on the next page.

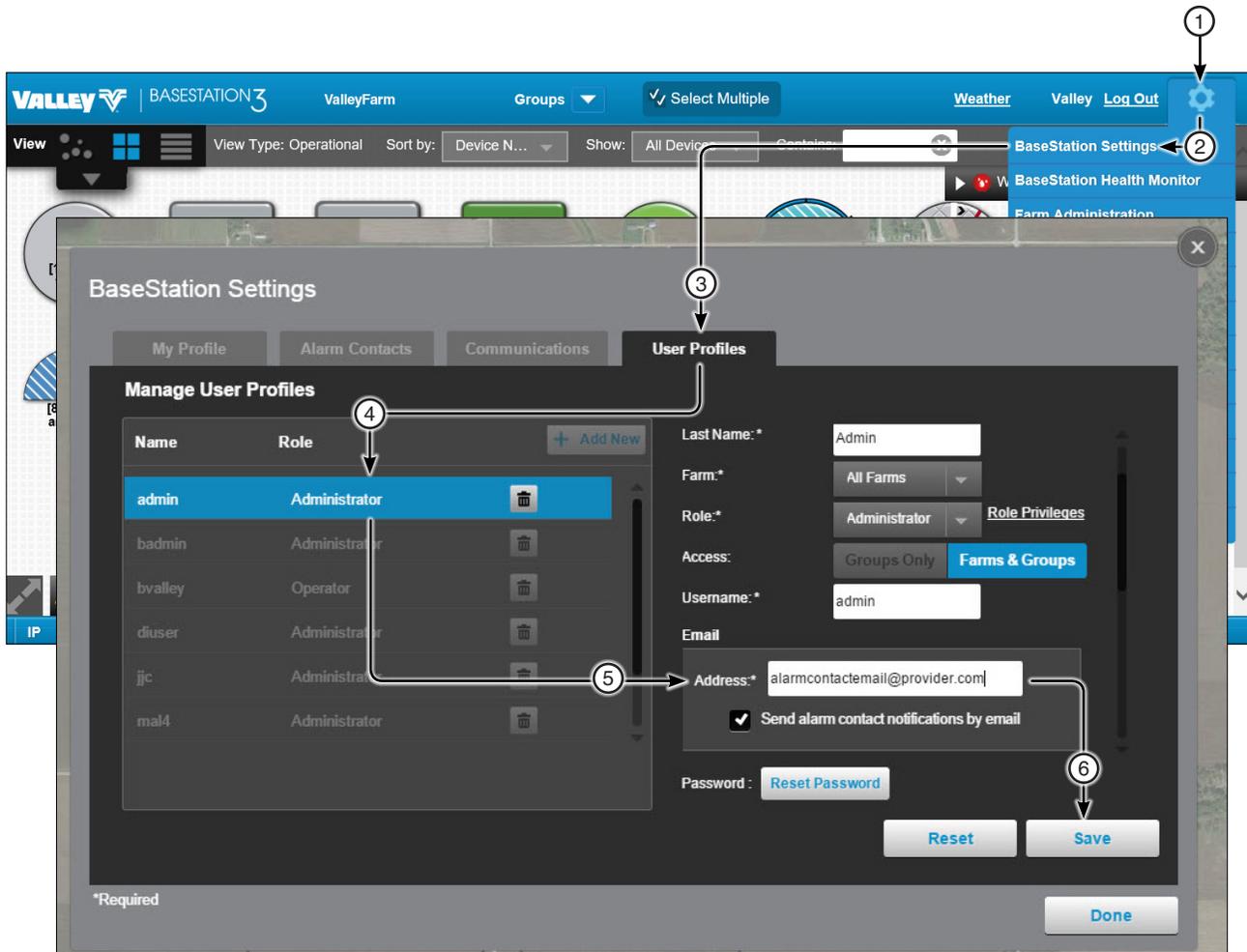


Figure 18-1

1. Settings	4. Admin
2. BaseStation Settings	5. Email
3. User Profiles	6. Save

## Create Administrator Account(s) (Optional)

After the initial log in, create any additional Application Administrator account(s) that may be needed. Refer to Figure 17-1.

To create an All Farms Administrator do the following:

1. Click **Settings**
2. Click **BaseStation Settings**.
3. Click **User Profiles**.
4. Click **Add New**.
5. Enter the First Name
6. Enter the Last Name.
7. Select **All Farms** from the Farm drop down list.
8. Select **Administrator** from the Role drop down list.
9. Choose **Farms & Groups**.
10. Enter the **Username** for log in.
11. Enter the users **Email Address** where the temporary log in password will be sent.
12. Click **Save**.
  - (a) A temporary log in password will be sent to the user's email address.
  - (b) Log out of the BaseStation application, and then log in as the All Farms Administrator or continue with Initial Settings on page 22.
13. Click **Done**.

# Initial Setup

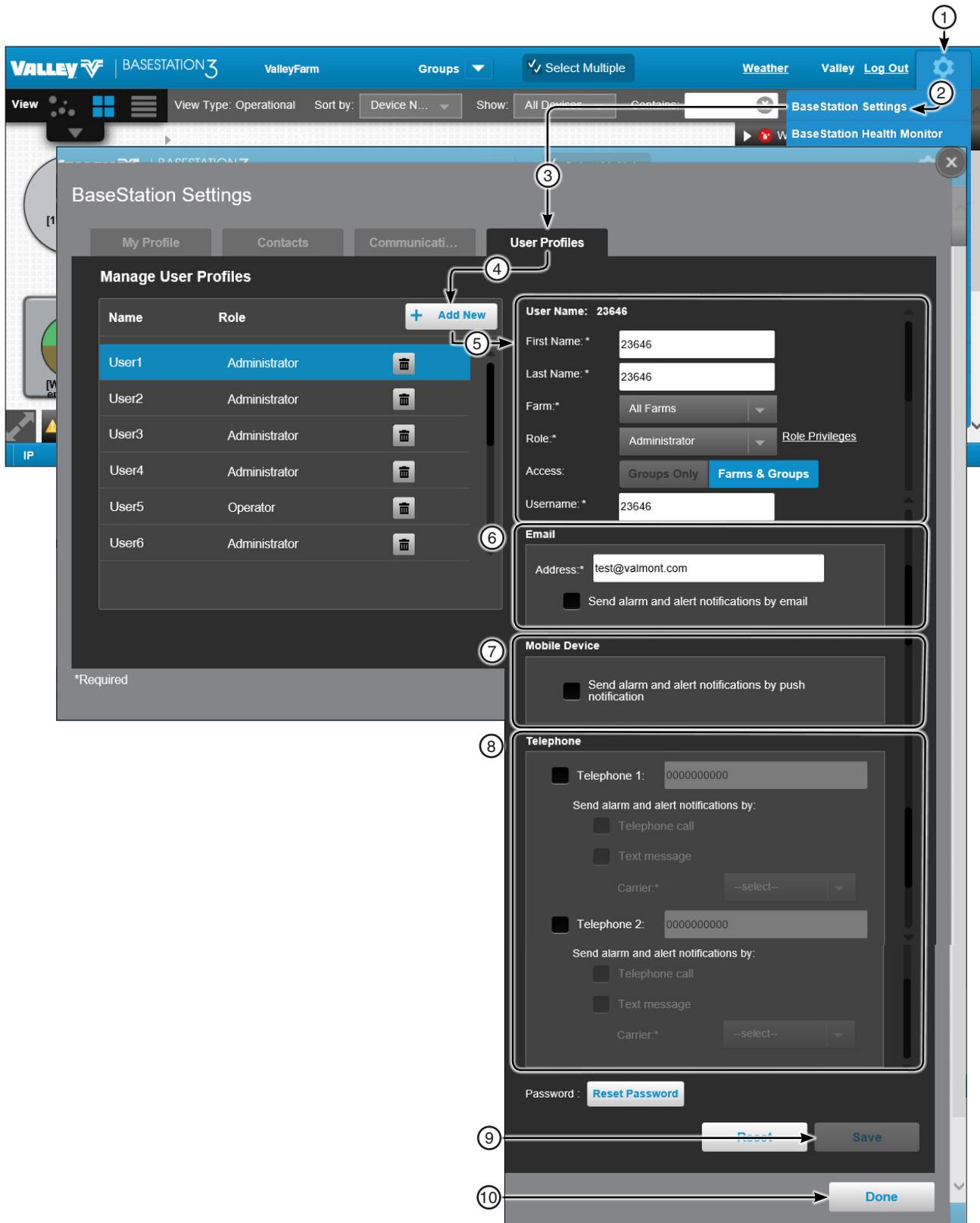


Figure 20-1 1. Settings 6. Email  
 2. BaseStation Settings 7. Mobile Device  
 3. User Profiles 8. Telephone  
 4. Add New 9. Save  
 5. User Name 10. Done

## Log In as All Farms Administrator (Optional)

1. Retrieve the username and temporary password from the user's email application.  
Log in to BaseStation3 using the temporary password. When the user logs in for the first time they are prompted to change the password, select a security question and provide a security answer.
  2. Enter and confirm a new password. The password must be at least six characters in length and include at least one base 10 digit and at least one alpha character.
    - Upper Case Characters A-Z
    - Lower Case Characters a-z
    - Base 10 digits 0-9
  3. Select a **Security Question**.
  4. Enter a **Security Answer** to the Security Question.
  5. Click **Log In**.
  6. Continue with **Initial Settings** on the next page.

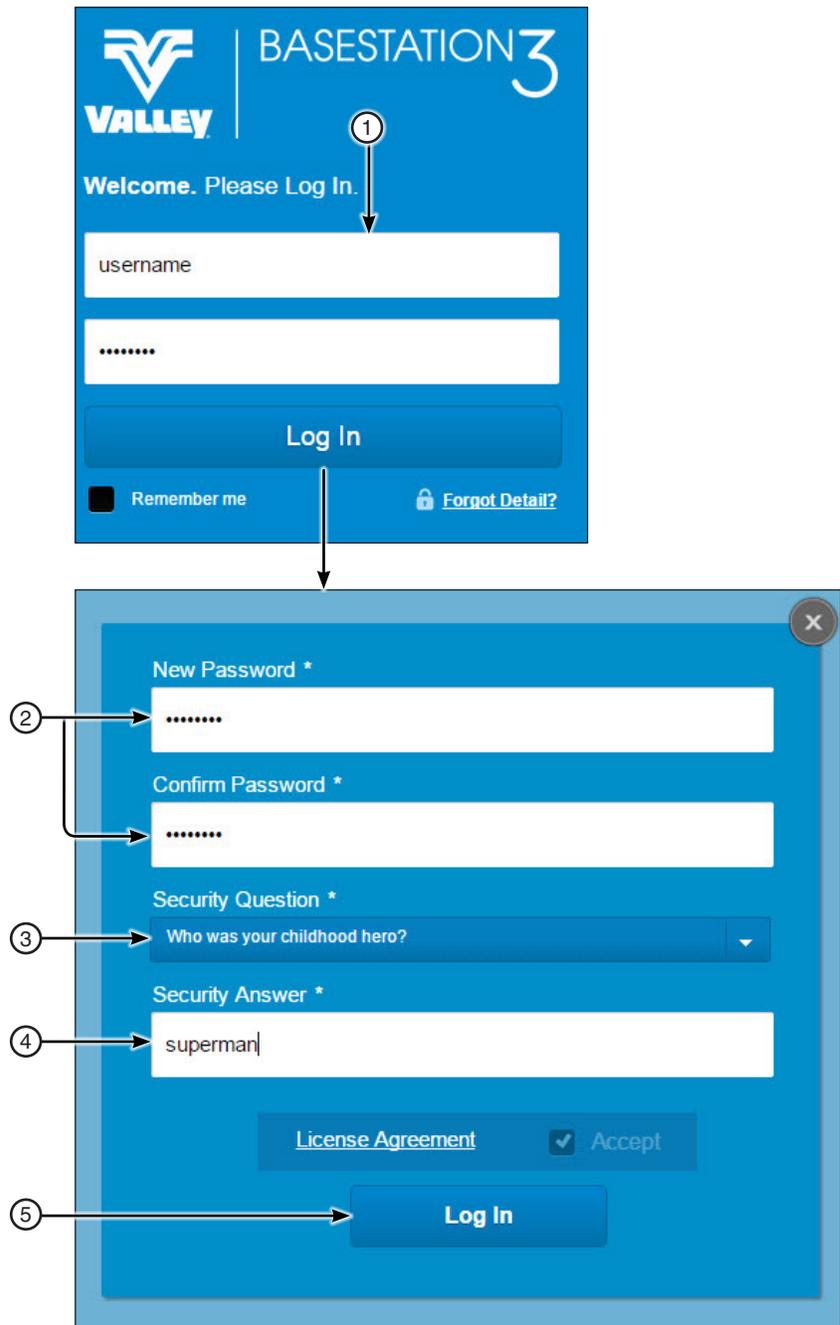
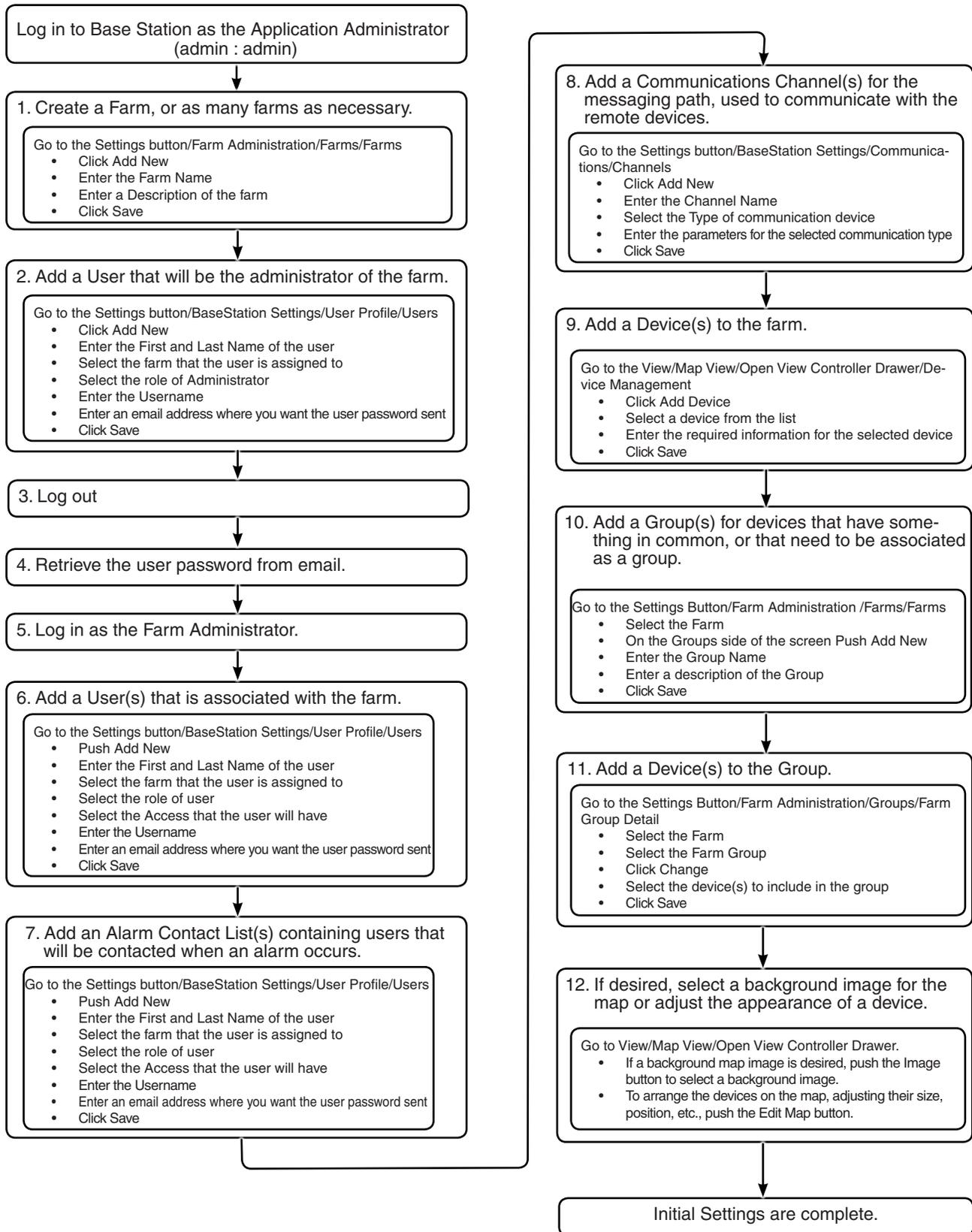


Figure 21-1 1. Username / Password / Log In 4. Security Answer  
2. New Password / Confirm Password 5. Log In  
3. Security Question

# Initial Setup

## Initial Settings

Before BaseStation3 can be used, BaseStation Settings and Farm Administration must be configured. The flow chart below illustrates the order to follow when setting the initial configuration.



## Valley BaseStation

The BaseStation software is designed to monitor and control devices equipped with control panels from a centrally located position. It can also control the function of pumps, valves and other auxiliary equipment using sensor devices.

Supported control and monitor devices

- Valley ICON 1, ICON 5, ICON 10 or ICON X
- Valley Pro2+ v9.00 or v9.01, Pro2 v8.40 or Pro v7.X.5
- Valley Select2+ v2.00, Select2 v1.21 or Select v1.9
- Valley AutoPilot v2.01, in Standard Linear Mode
- Valley PanelLink v9.0
- Valley Auxiliary Link v1.0
- Engine Control
- Torrent pump
- Yaskawa iQpump 1000
- VACON 100 Flow
- AgSense® Aqua Trac
- IP Rate cameras rated for outdoor use
- Web camera, requiring Ethernet data rates

Many functions that can be performed at the control panel in the field can be accomplished from the BaseStation computer at a home, office or mobile location.

Some of the basic machine functions that can be utilized include: obtaining the current status, stopping and starting, turning the water off and on, changing direction, speed and depth of water application, along with additional features that are available in the control panel.

The control functions are defined according to the type of control panel at the device. With the Auxiliary Link, the devices being controlled and/or monitored can be defined to represent many unique requirements.

Communications between the computer/BaseStation and the control panel at the device is accomplished through the use of radio modem connections and Ethernet IP addresses. BaseStation automatically tries to re-establish a connection when communication cannot be established initially, reducing IP connection error alarms.

The **BaseStation** is a polling application that processes status information either returned in response to transactions that are originated by the BaseStation, the BaseStation3 mobile application, or sent in a real time update from a device to the BaseStation. The BaseStation can send commands to control the devices and/or request information from the devices.

**Reports** can be obtained on the device configuration and status event history. The data is maintained in Microsoft® SQL Server® Express (or Standard, if installed) 2012 database files that can be exported to other applications where desired.

The **Panel Link** is used with a Valley ClassicPlus control panel or other manufacturer's pivot control panel, on a center pivot to provide status of the machine and control of start, stop, and direction, along with percent timer bypass and one auxiliary output.

**Auxiliary Link** panels can be configured to represent many sensors that monitor critical process controls. A set of input and output relays can be used to control and/or monitor the equipment that regulates water distribution or any device that can be switched. Auxiliary Link panels can be configured in the BaseStation by defining labels and scaling values for a large assortment of devices. Each Auxiliary Link can support a group of relay output controls, relay input sensors, logic counter inputs, and 4-20 mA or -10 VDC to +10 VDC analog sensor inputs.

**Soil moisture** monitoring information is available via BaseStation3 integration using AgSense Aqua Trac devices. The AgSense® Aqua Trac works with a variety of soil moisture sensors and provides a flexible soil monitoring solution via the BaseStation3 application.

**Pump Link** is an interface device used to communicate with supported pump controllers. It provides monitoring of the pump status; and is capable of sending some controls for on/off and managing the pump pressure setpoint.

**Engine Control** is an interface device that uses GenSet Link hardware to connect to BaseStation3. Engine control provides logic that gives the BaseStation the ability to work with electronic engine controllers and some basic functions when connected to a non-electronic engine controller setup. The device has connections for integrating with a pivot/linear machine to coordinate the automatic engine shutdown process with the attached machine shutdown event.

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# Overview

## BaseStation Basic Organization

The basic organization of a farm in the BaseStation application can look similar to the illustration shown in Figure 24-1.

Multiple user accounts can be created with privileges based on preset user roles. Users can be assigned to multiple alarm contact lists. Alarm contact lists can be associated with multiple devices. For example; Operator 1 is only notified when there is an alarm on a pivot device, because the operator is only in the Pivot Device Alarm Contact list. However, Operator 2 is notified when there is an alarm on a pivot or linear device, because this operator is in both alarm contact lists. Individual devices can be included in multiple groups. For example; Device 5 (Select2) is in the Beans Group and the Select2 Group.

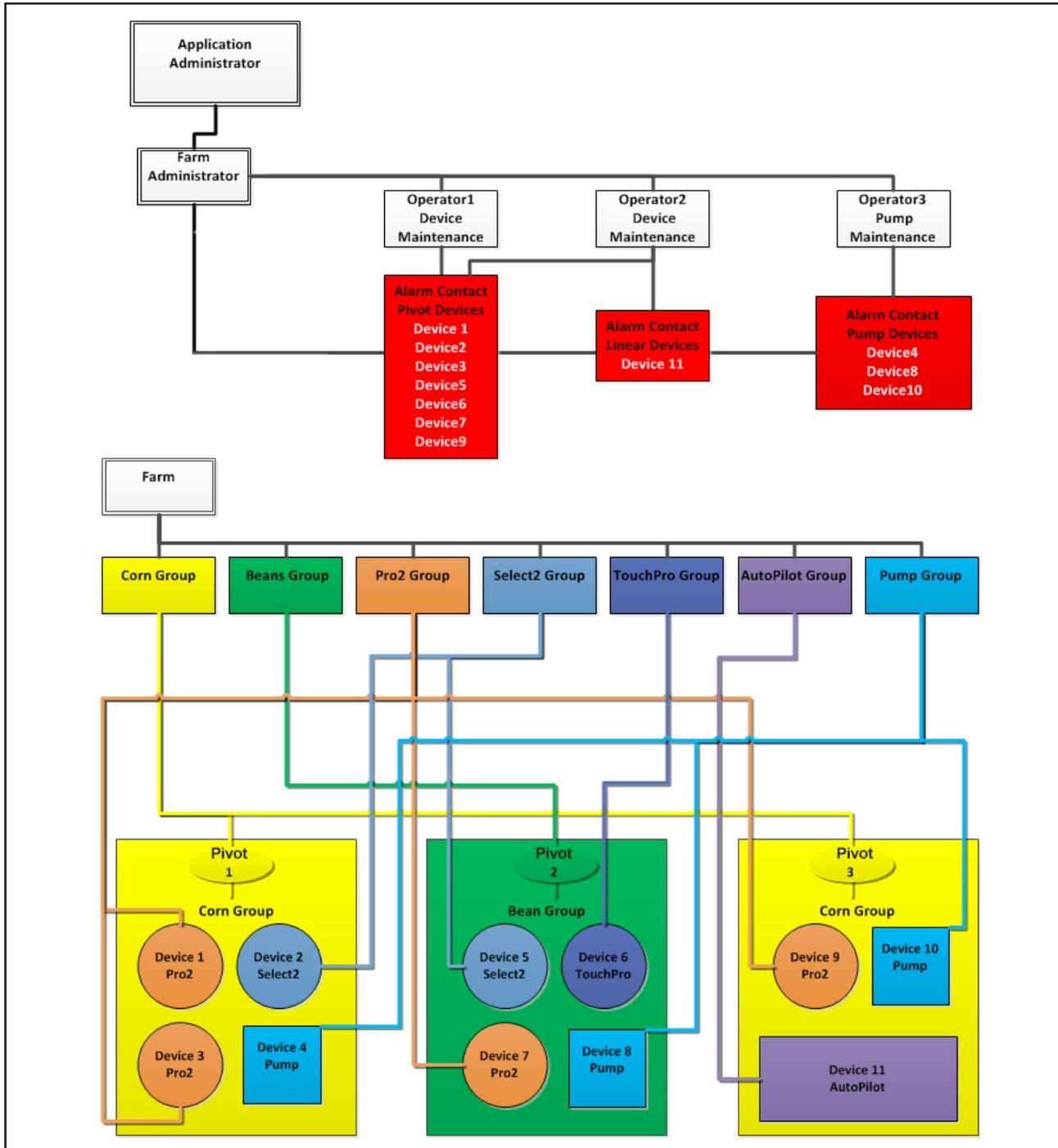


Figure 24-1

## Status Screen

The status screen on the following page displays all the devices for the farm and groups within the farm.

**BaseStation3 Header Bar (1):** Shows menu options for the BaseStation3; these options change based on view type.

**Farm (2) and Groups (3) Lists:** When more than one farm or group is available, the farm and/or group can be selected from the lists on the header bar.

**Select Multiple (4):** Use Select Multiple to make a change(s) to multiple devices at one time. The changes that will be allowed are determined by the devices that are selected, equipment installed at the device and the View Type. In the Operational view type the user can send commands. In Device Management view type the user can make changes to configuration. An individual farm must be selected from the Farm List; Select Multiple is not available when All Farms is selected.

**Weather Link (5):** When enabled in Preferences the hypertext link is displayed on the header bar. Click to open website. The label and website URL are set up in Preferences under Show Weather Link.

**Settings Button (6):** Menu of the configurable areas within BaseStation.

**View Controller (7):** The view can be changed by clicking the **Map (8)**, **Tile (9)** or **List (10)** views. The view type can also be changed. This does not change the default view set in Preferences.

**Options based on View Type selection (11):** The following options change based on the **view type** selected.

- **Sort By** (Tile view only) arranges devices on the screen in a particular order.
- **Show** a particular type of device, search for a specific device by state (Example: Device in Alarm State, Pivot, etc.).
- **Contains** searches for user-entered text.
- **Column Configuration** (List view only) allows columns to be added and arranged in order via drag and drop column headers.
- **Farm Total Flow** (Map, Tile, or List view only) displays total gallons per minute or liters per second per farm. A filter displays details about each flow meter/sprinkler package.

**Communications Status Bar (12):** Shows the data transaction activity between the BaseStation and the devices.

**Highlight No Response and Pressure Dry/Stopped (13):** When a device fails to communicate with the BaseStation, an alarm pop up is displayed in the lower left hand corner of the screen. The No Response Alarm must be enabled for display in Preferences under Map, Tile or List View Alarm Pop Up. The configuration options for the Alarm Pop Up display is in User Preferences for the No Response and Water Pressure Dry/Stopped alarms.

**Water Pressure Dry/Stopped (14):** Floating alarm pop up warning of water pressure alarms that can be dragged/dropped anywhere. The alarm pop up returns to the upper right corner of BaseStation3 screen under the header bar after logging out.

# Status Screen

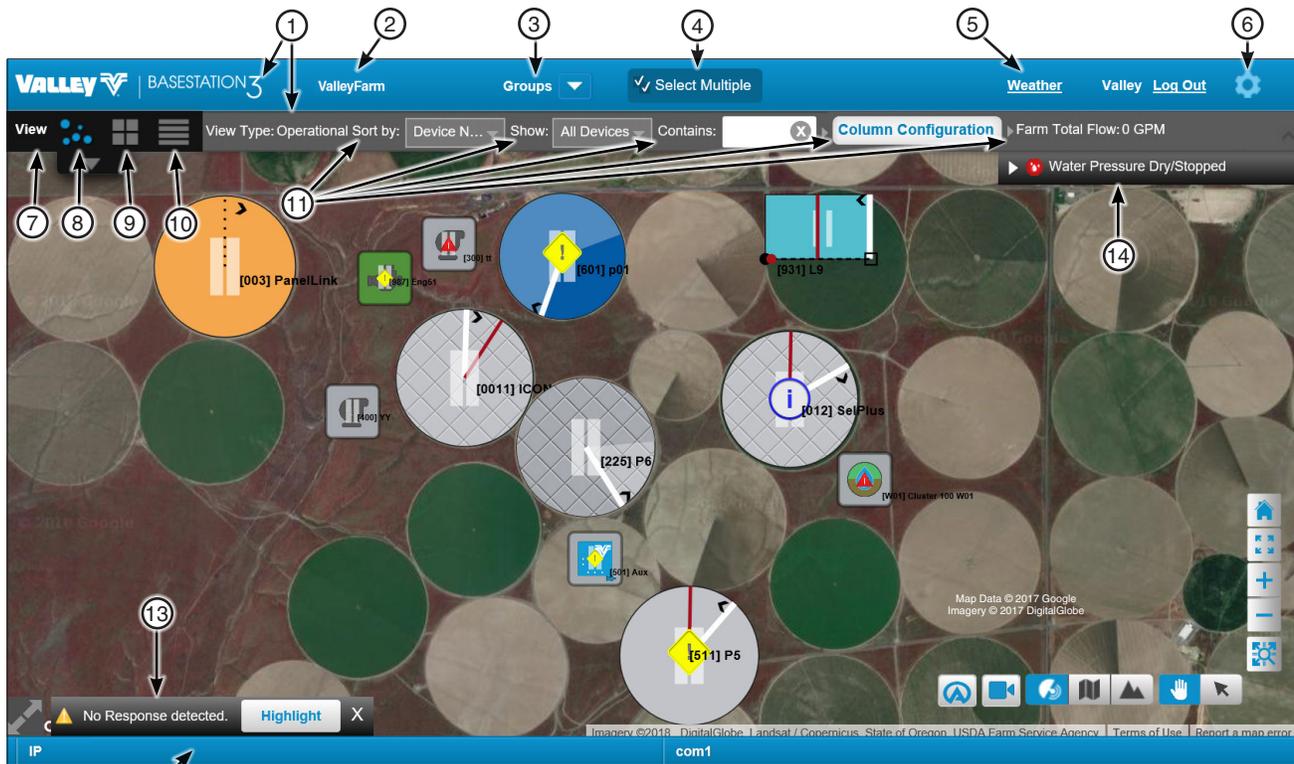


Figure 26-1

- |                    |                                                    |
|--------------------|----------------------------------------------------|
| 1. Header Bar      | 8. Map View                                        |
| 2. Farm            | 9. Tile View                                       |
| 3. Groups          | 10. List View                                      |
| 4. Select Multiple | 11. Options based on View Type selection           |
| 5. Weather         | 12. Communication Status                           |
| 6. Settings        | 13. Highlight No Response and Pressure Dry/Stopped |
| 7. View            | 14. Water Pressure Dry / Stopped                   |

## View Controller

### Map View

Map View displays the devices on a map. There are two different Map Views, either Google Maps or My Map.

### Google Map

Figure 25-1 illustrates how the screen looks in **Map View (1)** with **Operational (2)** view type selected. **Google Maps (3)** Displays a satellite image of the farm based on the user entered GPS location. To use Google Map an Internet connection is required. When an Internet connection is not available, use Tile View, List View or My Map to view devices.

- **Make Home View (4):** After adjusting the map, the Make Home View button is active. Click Make Home View to set the current view as the user's home view.
- **Full Screen (5):** To switch to full screen click the Full Screen button in the bottom left hand corner of the screen, select Full Screen Mode from the View Controller Drawer or push the Esc key. To exit full screen, click the Full Screen button again or push the Esc key. Full Screen is not available in Device Management view type.
- **AgSense (6):** Displays AgSense device configurations. Click on a device for individual configuration.
- **Web Camera (7):** Displays a list of the Web Cameras Associated with the Devices. Add web cameras and associate them with a device.
- **Satellite (8):** Google Map satellite view.
- **Roadmap (9, 18):** Google Map roadmap view.
- **Terrain (10, 19):** Google Map Terrain view.
- **Pan Tool (11) / Pointer Tool (12):** Toggle between the pan tool and pointer tool. Use the Pan Tool to move the map with devices. Depending on View Controller View type, use the pointer Tool to select and move, size, change, copy, open or delete a device or select and move an Auxiliary Link pin status box (only available on My Map).
- **Zoom to Area (13):** Click the button and draw a rectangle around the area to zoom in (Google Map Only).
- **Zoom Out (14):** Zooms out from the center of the screen. In Google Map you can also use the mouse wheel to zoom out.
- **Zoom In (15):** Zooms into the center of the screen. In Google Map you can also use the mouse wheel to zoom in.
- **Zoom to Fit Screen (16):** Changes the view to display all of the devices on the screen.
- **My Home View (17):** Changes the view back to the user's saved home view (Google Map Only).

# Status Screen



- Figure 28-1
- |                      |               |                  |                    |
|----------------------|---------------|------------------|--------------------|
| 1. Controller Drawer | 6. AgSense    | 11. Pan Tool     | 16. Zoom to Fit    |
| 2. View Type         | 7. Web Camera | 12. Pointer Tool | 17. My Home        |
| 3. Google Map        | 8. Satellite  | 13. Zoom to Area | 18. Google Roadmap |
| 4. Make Home View    | 9. Roadmap    | 14. Zoom Out     | 19. Google Terrain |
| 5. Full Screen       | 10. Terrain   | 15. Zoom In      |                    |

## View Controller

### Map View (Continued)

#### My Map

Figure 29-1 illustrates how the screen looks in **Map View (1)** with **Operational View (2)** selected. **My Map (3)** displays the devices over the screen capture of an image; this can be a .JPG or .PNG image file < 4MB in size that shows meaningful background information. Other types of images can be engineering drawings of field layout, pipeline routing, property survey, etc. To use My Map an Internet connection is NOT required.

» Upload and change the background image file. Images are loaded as a layer that can be changed when desired. Scaling is independent for all images.

- **Full Screen (4):** To switch to full screen click the Full Screen button in the bottom left hand corner of the screen, select Full Screen Mode from the View Controller Drawer or push the Esc key. To exit full screen, click the Full Screen button again or push the Esc key. Full Screen is not available in Device Management view type.
- **AgSense (5):** Displays AgSense device configurations. Click on a device for individual configuration.
- **Web Camera (6):** Displays a list of the Web Cameras Associated with the Devices. Add web cameras and associate them with a device.
- **Map Off (7) Map On (8):** Turn the map background On or Off (My Map Only).
- **Pan Tool (9)/Pointer Tool (10):** Toggle between the pan tool and pointer tool. Use the Pan Tool to move the map with devices. Depending on View Controller View type, use the pointer Tool to select and move, size, change, copy, open or delete a device or select and move an Auxiliary Link pin status box (only available on My Map).
- **My Home View (11):** Changes the view back to the user's saved home view (Google Maps Only).
- **Zoom to Fit Screen (12):** Changes the view to display all of the devices on the screen.
- **Zoom In (13):** Zooms into the center of the screen. In Google Maps you can also use the mouse wheel to zoom in.
- **Zoom Out (14):** Zooms out from the center of the screen. In Google Maps you can also use the mouse wheel to zoom out.

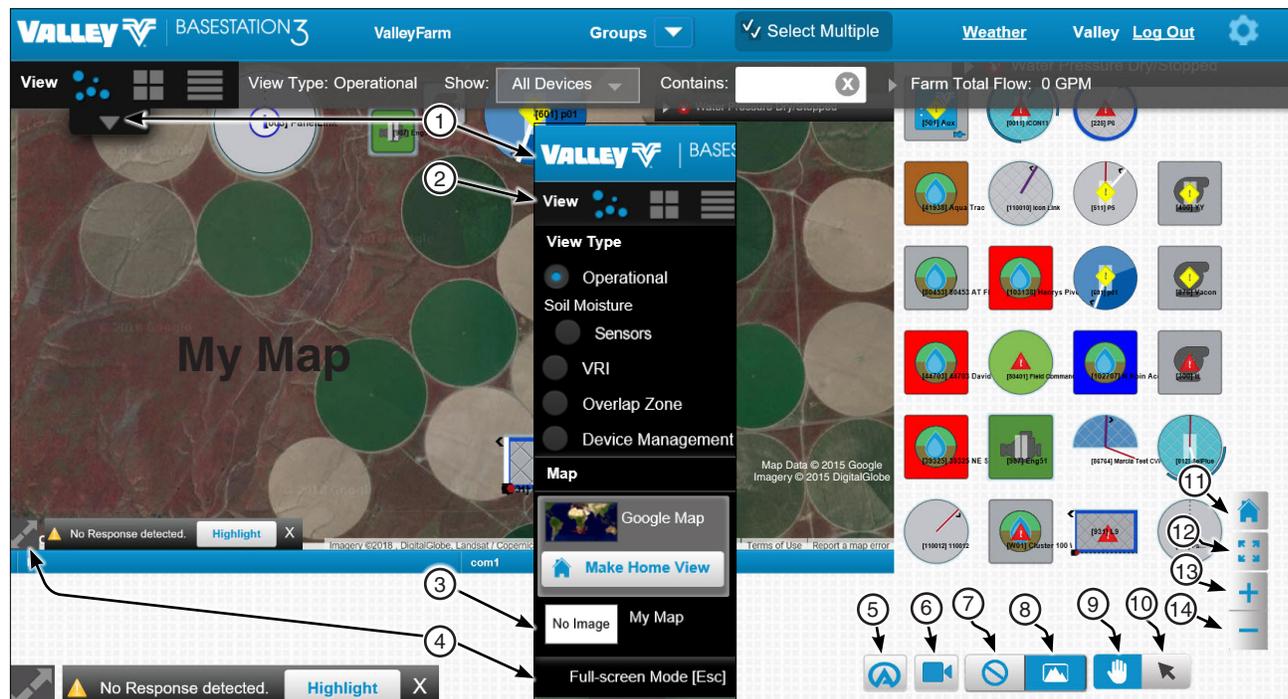


Figure 29-1 1. Controller Drawer / Map View 2. View Type / Operational 3. My Map 4. Full Screen Mode 5. AgSense 6. Web Camera 7. Map Off 8. Map On 9. Pan Tool 10. Pointer Tool 11. My Home 12. Zoom to Fit Screen 13. Zoom In 14. Zoom Out

# Status Screen

## View Controller

### Tile View

Tile View shown below displays the devices in rows across the screen. To set the sort order go to Settings/ Preferences.

- **Full Screen:** To switch to full screen click the Full Screen button in the bottom left hand corner of the screen, select Full Screen Mode from the View Controller Drawer or push the Esc key. To exit full screen, click the Full Screen button again or push the Esc key.

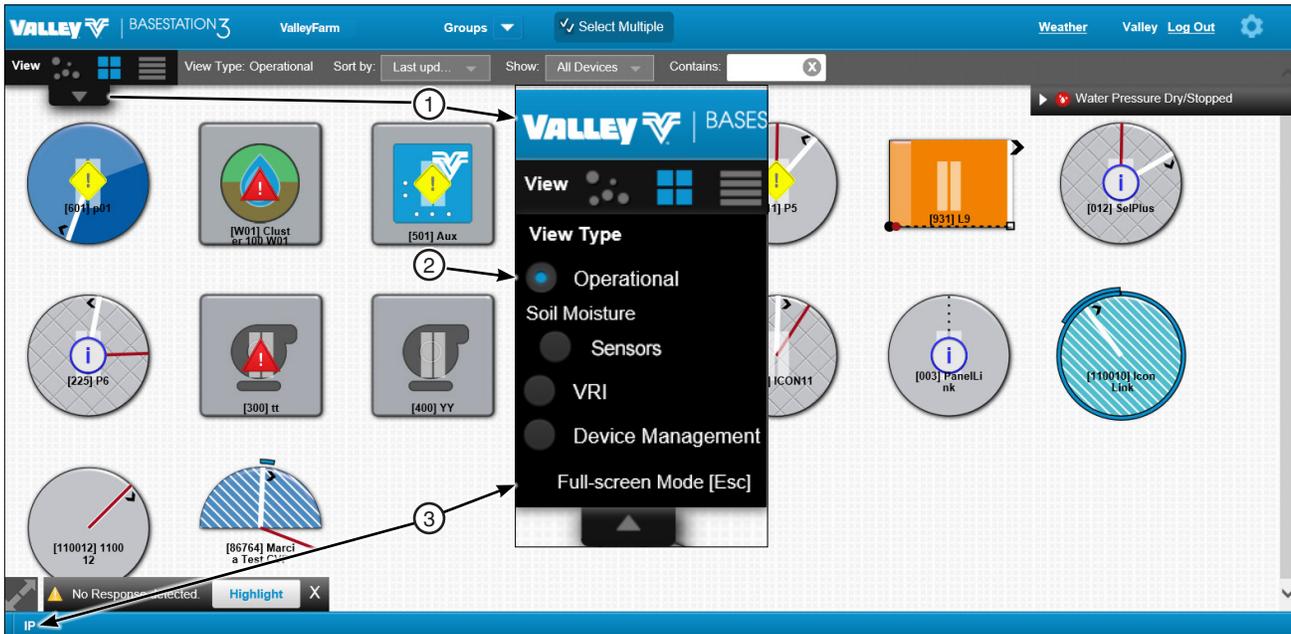


Figure 30-1 1. View Controller Drawer (Tile View) 2. View Type (Operational Selected) 3. Full Screen Mode

## View Controller

### List View

List View displays devices in rows across the screen with the device's graphical icon on the left and name in the adjacent column to the right. Device groups are organized in a tabular format. See Figure 28-1.

- **View Type:** Options include Operational and Restricted Entry. Devices can be filtered using the “Show” drop down list and “Contains” search feature. Device columns are configured by selecting or deselecting options in the list.
- **List Header:** includes details about each device in the list. The list header details can be sorted in ascending or descending order by clicking the list header label.
- **Full Screen:** To switch to full screen click the Full Screen button in the bottom left hand corner of the screen, select Full Screen Mode from the View Controller Drawer or push the Esc key to exit.
- **Auto Page:** Auto Page displays when more than one page of devices are listed. Pages automatically advance when enabled. This feature can be turned off or on and timing (in seconds) can be changed.
- **Previous / Next Navigation:** Navigation option displays when more than one page of devices are listed and is disabled when Auto Page is enabled.
- **Device Group Tabs:** Each tab displays a list of devices.
- **Device Columns Header:** Lists the Device Name and additional columns enabled in the Column Configuration drop down list. Column headers can be arranged by simply selecting the column header and dragging it to a new location within the header.
- **Device icon:** Represents devices in the field. Clicking the icon opens the device window.

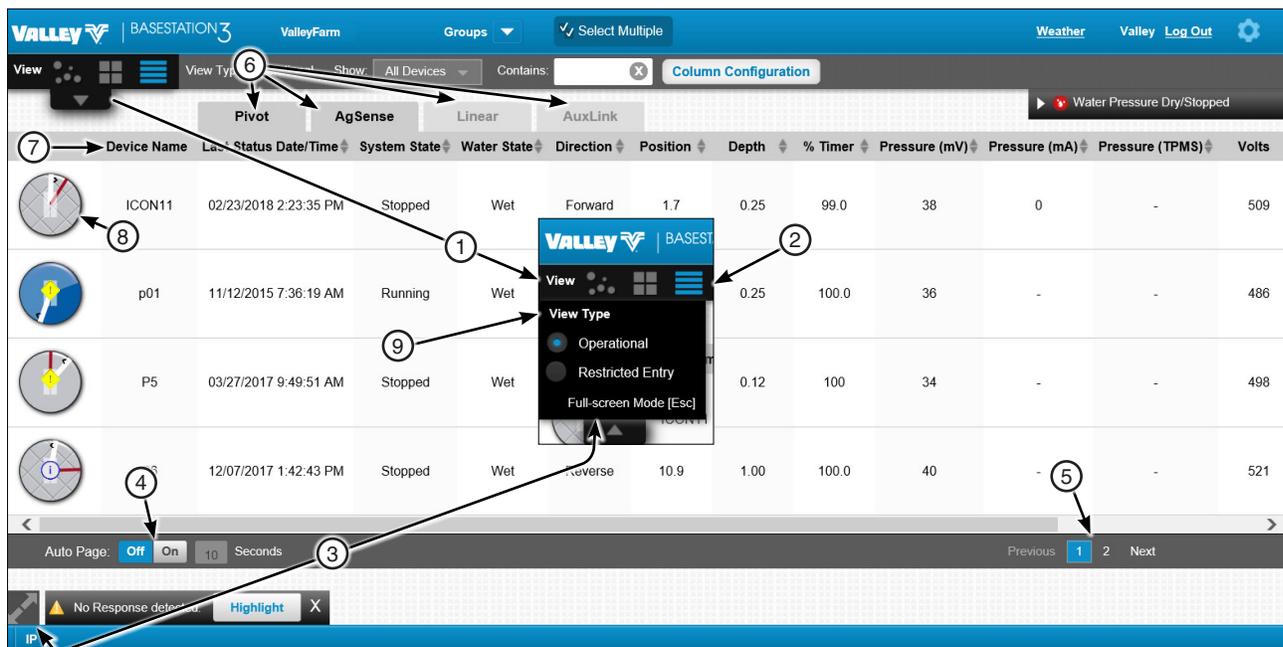


Figure 31-1 1. View Type Options 4. Auto Page 7. Device Details Header  
 2. List View 5. Page Navigation 8. Device Icon  
 3. Full Screen Mode 6. Device Group Tabs 9. View Type

# Status Screen

## View Controller

### View Controller Drawer

Open the View Controller Drawer to change the View Type. There are five view types available; Operational, Soil Moisture, VRI, Overlap Zone and Device Management. Changing the view type here does not change the default view type set in Preferences. See Figure 29-1.

- Operational shows the operating status of the devices and provides panel interface operations.
- Soil Moisture shows the soil moisture sensor status associated with the device.
- VRI shows the status of devices with VRI enabled.
- Overlap Zone shows locations where devices overlap.
- Device Management is used to add, change, copy or delete a device, with full device configuration tools.

### Operational View Type - Map View

When Operational View Type is selected, the last reported operational status is displayed on each device. Selecting this View Type does not change the default view type set in Preferences.

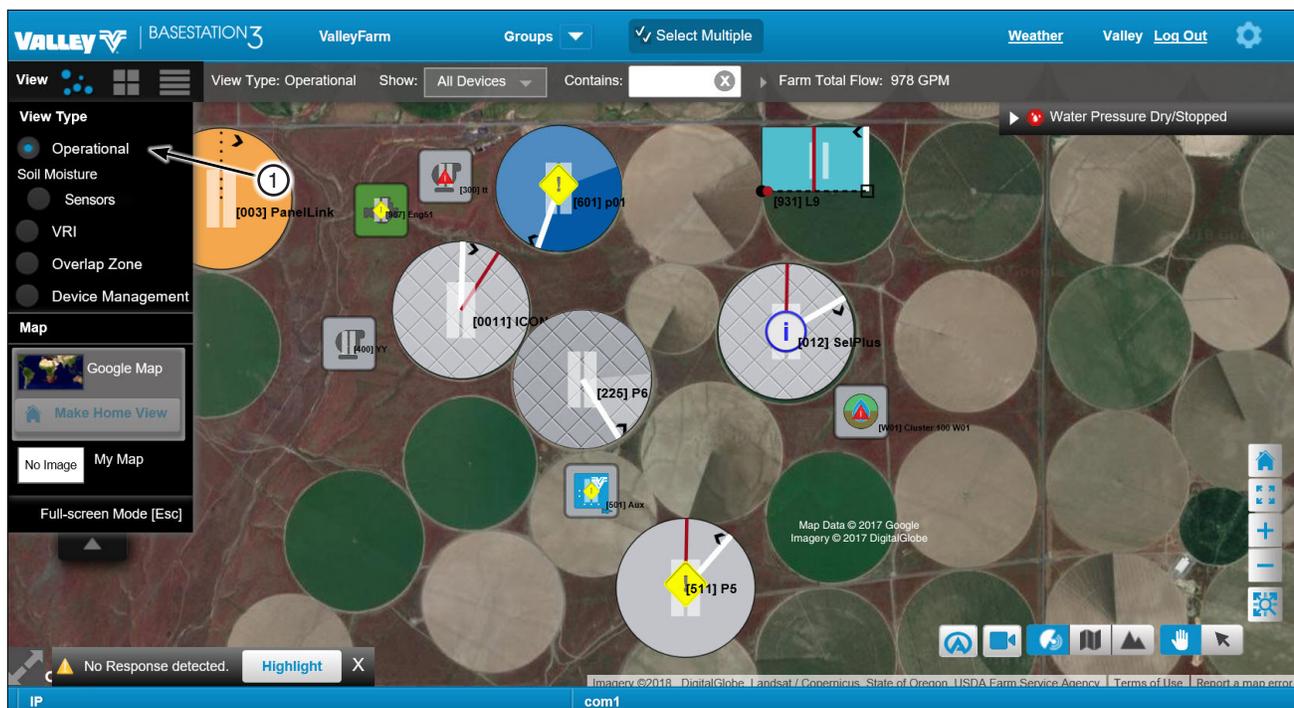


Figure 32-1 1. Operational Selected

## View Controller

### Soil Moisture View Type - Map View

When Soil Moisture is selected as the View Type, the last reported soil moisture status obtained from soil moisture sensors is displayed on the associated device for the soil layer selected. Soil Layers correspond with the sensor depth; Soil Layer 1 is the sensor closest to the ground surface (or a temperature sensor); Soil Layer 4 is the deepest sensor. Selecting this View Type does not change the default view type set in Preferences. See Figure 33-1.

A soil moisture status key is displayed below the tool bar.

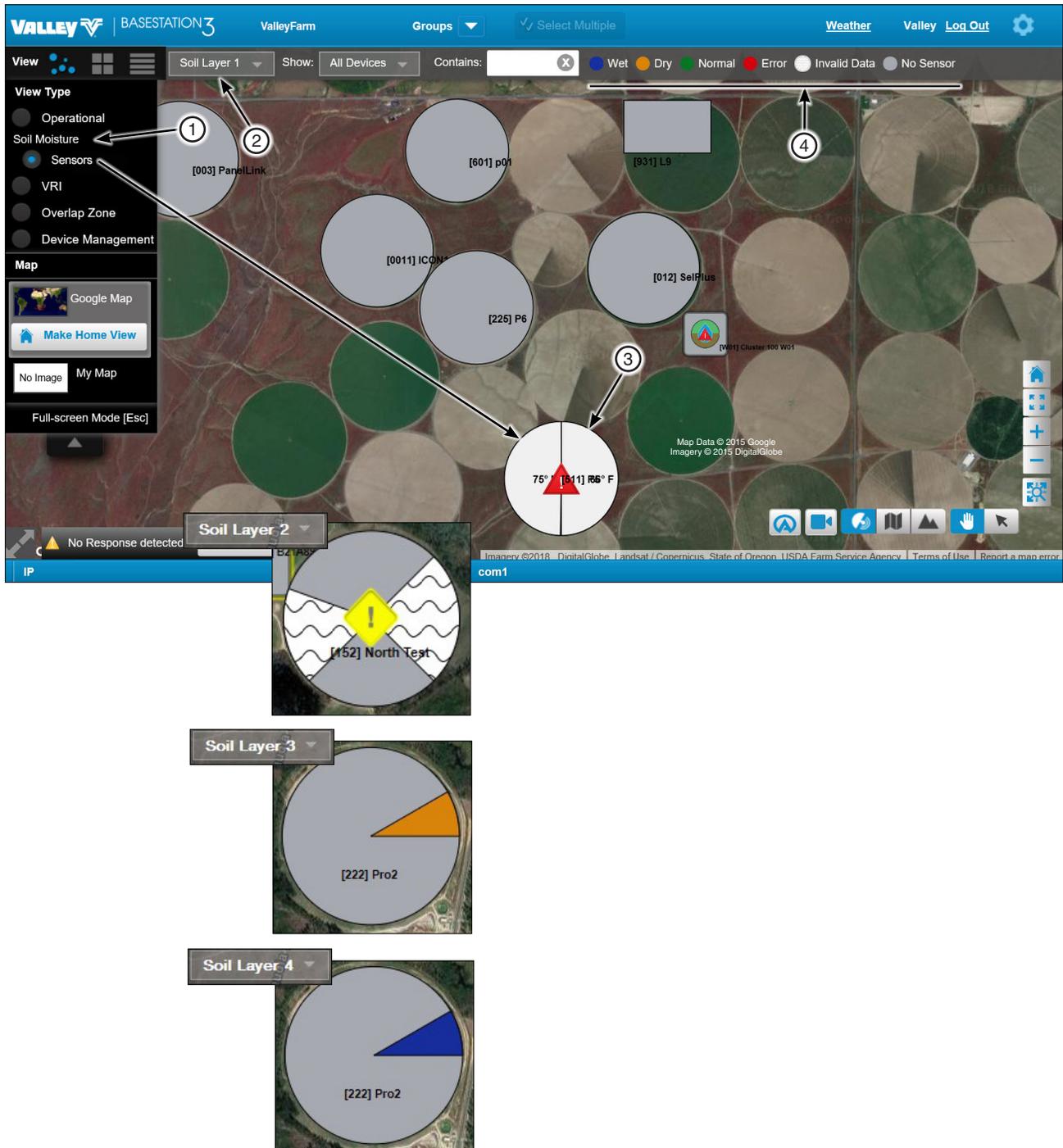


Figure 33-1 1. Soil Moisture Selected  
2. Soil Layer

3. Device Showing Status  
4. Soil Moisture Status Key

# Status Screen

## View Controller

### VRI View Type - Map View

When VRI is selected as the View Type, the last reported VRI status obtained from the applicable devices is displayed and VRI Show defaults to show only pivot devices. The default view type set in Preferences does not change. See Figure 34-1.

A VRI status key is displayed below the tool bar.

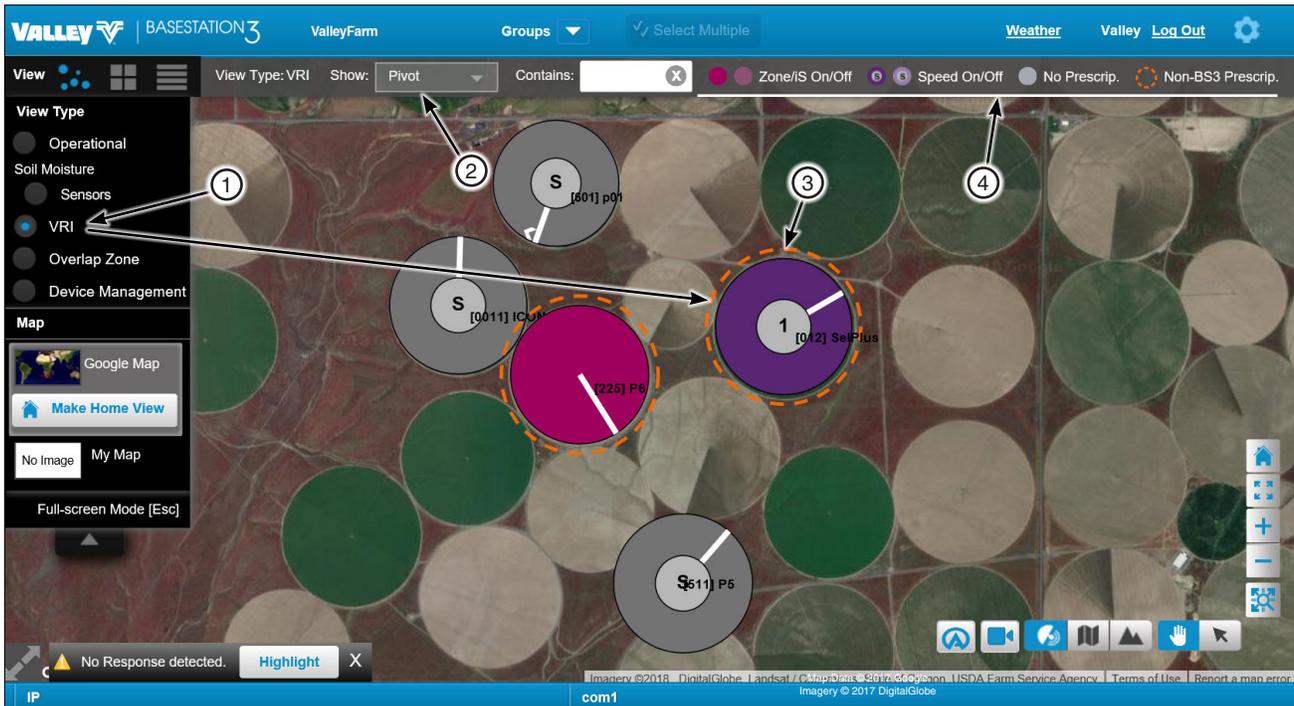


Figure 34-1 1. VRI Selected 2. VRI Show Pivot 3. Device Showing Status 4. VRI Status Key

## View Controller

### Overlap Zone Type - Map View

When Overlap Zone Type is select as the View Type, it will show where different devices overlap. Viewing overlap zones allows users to see partnerships between devices and add new partnerships by selecting individual plots. The Overlap Zone Type can only be viewed in map mode. See Figure 35-1.

An Overlap Zone Status key is shown below the tool bar.



Figure 35-1 1. Overlap Zone 2. All Devices 3. Device Overlap 4. Overlap Zone Status Key

# Status Screen

## View Controller

### Device Management View Type -Tile View

1. In Tile View, when **Device Management** is selected as the View Type, devices can be added, changed, copied, and deleted. Selecting this View Type does not change the default view type set in Preferences. See Figure 36-1.
2. **Add Device Button:** Click and then select a device to add from the drop down menu.
3. **Change Button:** The Change button is only displayed when a device is selected. Use to edit the device configuration.
4. **Copy Button:** The Copy button is only displayed when a device is selected. Create one or more devices like the one being copied. Not all types of devices can be copied.
5. **Delete Button:** The Delete button is only displayed when a device is selected. Permanently removes a device.
6. **Sort By Group Menu:** Show all devices for all groups or only devices for one group. Select a group from the drop down menu.
7. **Show Device Menu:** Show all devices or only one type of device. Select a device type from the drop down menu.
8. **Contains Search:** Search for a specific device. Enter search criteria in the Contains field and the device labels are instantly searched. Only devices that match the search criteria are displayed.
9. **Web Cameras Button:** Shows all web cameras associated with devices. Web cameras that are stand alone and not associated with devices are shown as devices in the Map or Tile View.
10. **AgSense:** Displays AgSense device configurations. Click on a device for individual configuration.

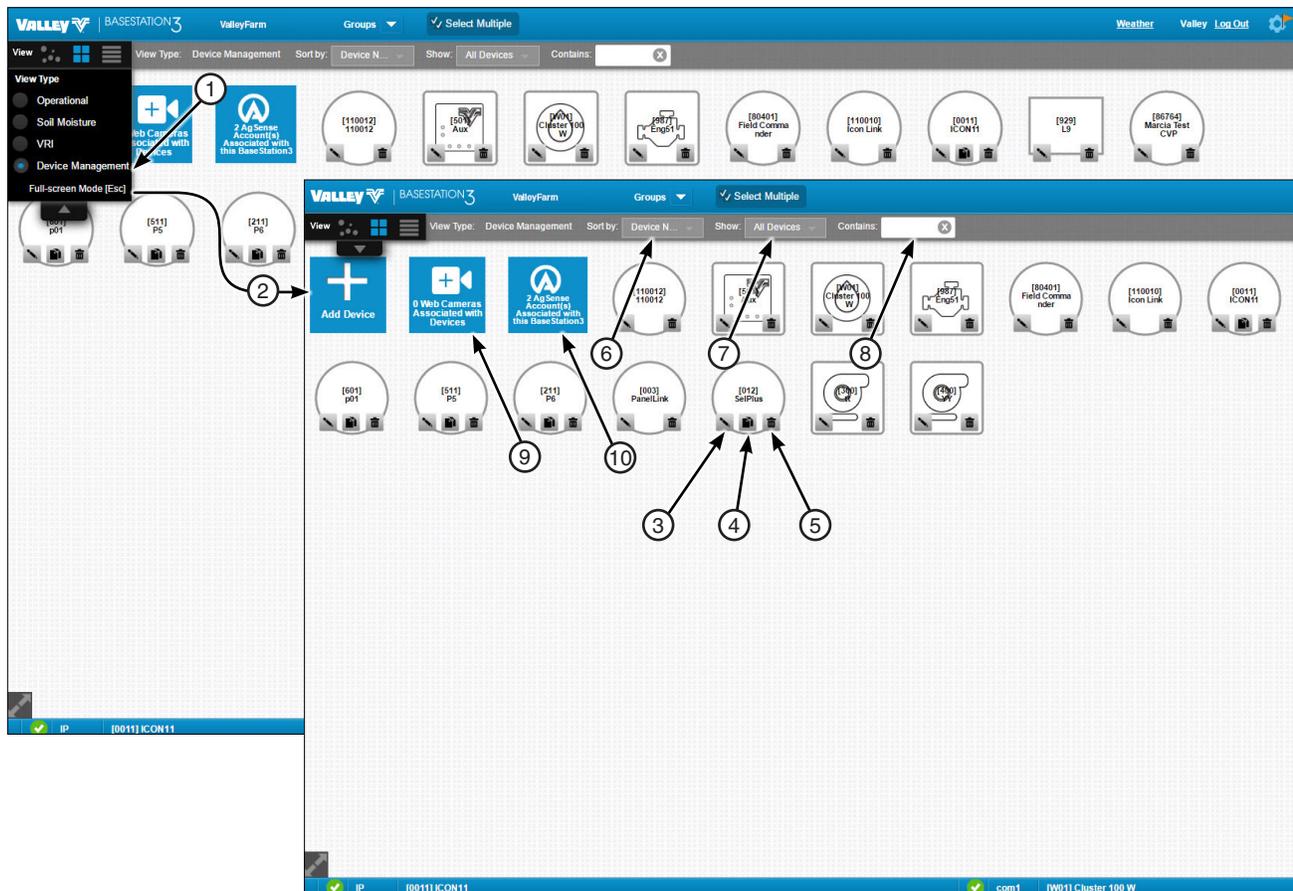


Figure 36-1

1. Device Management	6. Sort By Group
2. Add Device	7. Show
3. Change	8. Contains
4. Copy	9. Web Camera
5. Delete	10. AgSense

## View Controller

### Device Management View Type - Map View

1. **In Map View, when Device Management is selected** as the View Type, devices can be added, changed, copied, deleted and customized to match field size and position on the map image. This includes re-sizing any device on the map or changing a device position or label position. Selecting this View Type does not change the default view type set in Preferences. See Figure 37-1.
2. **Add Device:** Click and then select a device to add from the drop down menu.
3. **Change:** The Change button is only displayed when a device is selected.
4. **Copy:** The Copy button is only displayed when a device is selected and the device can be copied.
5. **Delete:** The Delete button is only displayed when a device is selected.
6. **Show (device menu):** Show all devices or only one type of device. Select a device type from the drop down menu.
7. **Contains (search):** Enter a key word or number to search for a device in the farm or group that is currently selected.
8. **Device Key:** A device component key displayed below the tool bar that describes the graphics associated with the 0° Reference Angle, Road Angle, SIS Angle, Current Position and New Device.

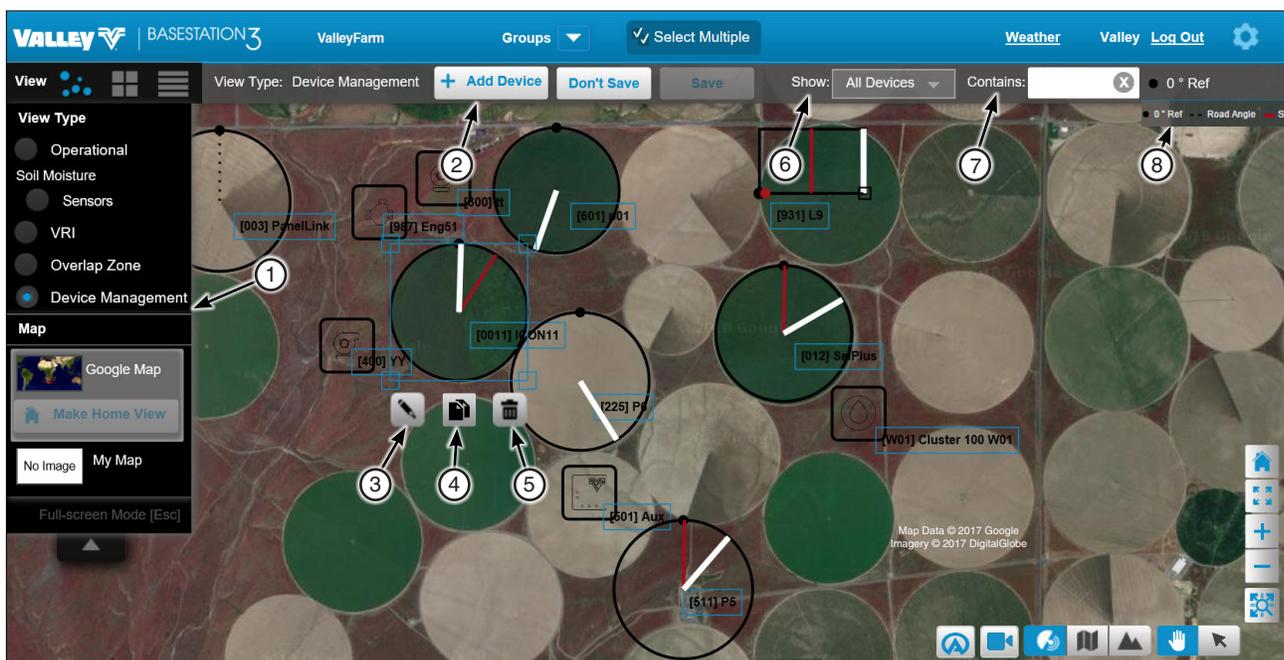


Figure 37-1

1. Device Management Selected	5. Delete
2. Add Device	6. Show
3. Change	7. Contains
4. Copy	8. Device Key

# Status Screen

## Highlight No Response

When a device fails to communicate with the BaseStation, an alarm pop up can be displayed in the lower left hand corner of the screen. To use Highlight No Response, the No Response Alarm must be enabled for Display in Preferences under Map and Tile View Alarm Pop Up. When enabled it will appear in the Operational, Soil Moisture and VRI view types. See Figure 38-1.

To highlight the devices that did not communicate, refer to Figure 38-1 and do the following.

1. Click **Highlight** and a yellow halo is displayed around the device.
2. To remove the highlight, click **No Highlight**.



Figure 38-1 1. No Response Pop Up 2. Highlight 3. Yellow Halo 4. No Highlight

## Supplemental Status

**Supplemental Status** shows the last known status of the device including information dependent on the control panel type and the features enabled. The supplemental status box appears when the mouse pointer is positioned over a device. It persists until the pointer is moved over another active device, or clicked in a neutral area. See Figure 39-1.

**Auxiliary Link Pinned Status** showing Auxiliary Link inputs, outputs, counters and sensors can be enabled. The status can remain open and can also be moved to any location on the screen. When enabled, an icon appears on the auxiliary link device. To display the pinned status, click the pin icon before the supplemental status appears. To enable the pinned status, go to View Controller/Device Management/Auxiliary Link/Select Inputs, Outputs, Counters or Sensors/Check the Show On Pin Status View.



Figure 39-1

1. Supplemental Status (Pivot Shown)
2. Pin icon (Auxiliary Link Only)
3. Pin Status (Auxiliary Link Only)

# Status Screen

## Communications Status Bar

The Communications Status Bar (see Figure 40-1) displays each communications channel with the status of data transaction activity icon, device name and device RTU ID. The number of communications channels that can be displayed is based on screen size. The bar will be blank when communication connections have not been configured. To configure communications go to Settings/BaseStation Settings/Communications/Channels.



Figure 40-1

1. Communications Bar
2. Communications Channel
3. Status Transaction Activity Icon
4. Device Name
5. Device RTU ID

STATUS	COLOR AND SHAPE	GRAPHIC
Transaction In Process When more than one message is required in a complete transaction, the in process icon will remain displayed for the duration of the transaction; then, the success or fail icon will be shown as a result.	White communication symbol	
Transaction Completed Successfully	Green circle with white check mark	
Transaction Completed but Failed	Red circle with white X	

Figure 40-2

# Status Screen

## Device Status Color

The BaseStation Computer and the BaseStation Mobile applications use a graphic color to represent the current known status of the devices. Refer to the chart below and on the following pages.

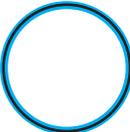
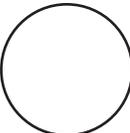
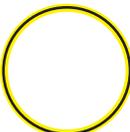
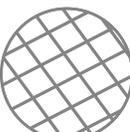
Status	Color	Graphic
Device is new	A translucent device (circle shown) with black border and blue halo.	
Device has never communicated with BaseStation	A translucent device (circle shown) with black border.	
Device failed to communicate with BaseStation. An alarm pop up is displayed at the bottom of the screen.	Click the pop up Highlight, with a yellow halo (circle shown) is displayed around the device. The color of the device will vary. No Response alarm pop up must be enabled in Preferences.	
Device is running wet	A blue device (circle shown).	
Device is stopped	A gray device (circle shown).	
<p>NOTE: Panellink only; when a pressure transducer is not configured, a gray device indicates both a stopped or running status. When running, a direction arrow is shown.</p>		
Device is running dry	A green device (circle shown).	
Device is running <b>dry</b> with Auxiliary 1 On	An orange device (circle shown).	
Device is running <b>wet</b> with auxiliary 1 On	A cyan device (circle shown).	
VRI or Cruise is On	Gray Hatch Marks appear on the device. The color of the device will vary. VRI (Zone, Speed or Individual Sprinkler) or Cruise Control.	
Program is On	White diagonal lines appear on the device. The color of the device will vary. Step and sector programs.	

Figure 41-1

# Status Screen

## Device Status Color (Continued)

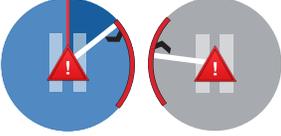
Status	Color	Graphic
Polling Off	White bars appear over the device. The color of the device will vary.	
Water Pressure Dry/Stopped Alarm	A gray, green or orange device with blue ring (gray circle shown). Device is stopped, or running dry, with water pressure above the minimum threshold and the Water Pressure Dry/Stopped Alarm has triggered.	
Overlap Zone Alarm	A red stroke (overlap zone) and the alarm icon will appear on each device only when both pivots are in the defined overlap zone. User must configure the overlap zone in Overlap Zone View.	

Figure 42-1

# Status Screen

## Device Status Color (Continued)

Pivot Status	Color and Shape	Graphic
Pivot Position	The white line is shown in the pivot location.	
Direction indicator	A black arrow at the end of the pivot line Indicates the direction that the pivot is moving.	
Stop in Slot is enabled	A red line is shown in the stop in slot location.	
Pivot Road location	A black dotted line is shown in the road location.	
Elapsed travel indicator	A darker shade of color between the starting location and the current pivot location.	
Cruise Control Pivot Position	A purple line is shown when Cruise or VRI and a Program are enabled.	
Pivot End Gun 1 On	A blue line on the outside of the device. The line appears when the pivot is running in between the user set angle range. The End Gun 1 must be On and the angles must be set at the control panel. The color of the device will vary.	
Pivot End Gun 2 On	A blue line on the outside of the device. The line appears when pivot is running in between the user set angle range. End Gun 2 must be On and the angles must be set at the control panel. The color of the device will vary.	
Pivot End Gun 3 On Not Available on Panel Link, Select2 or AutoPilot control panels.	A blue line on the outside of device. The line appears when pivot is running in between the user set angle range. End Gun 3 must be On and the angles must be set at the control panel. The color of the device will vary.	
Pivot End Gun 4 On Not Available on Panel Link, Select2 or AutoPilot control panels.	A blue line on the outside of the device. The line appears when pivot is running in between the user set angle range. End Gun 4 must be On and the angles must be set at the control panel. The color of the device will vary.	

Figure 43-2

Linear Status	Color and Shape	Graphic
Linear position	White line across linear graphic. This line turns purple when Cruise or VRI and a Program are enabled.	
Cart starting position	A black circle at zero feet.	
Direction indicator	A black arrow is displayed pointing in the direction of travel.	
Cart Location on Machine	Black rectangle over the intersection of the cart path and position line.	
Cart path	Black Line with hash marks.	
Marker locations	Red circles on cart path.	
Stop in slot is enabled	Red line appears in the stop in slot location.	
Elapsed travel indicator	A darker shade of color between the starting location and the current pivot location.	

Figure 43-2

# Status Screen

## Device Status Color (Continued) Soil Moisture Status Color

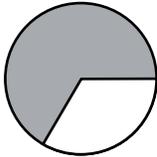
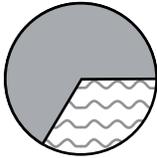
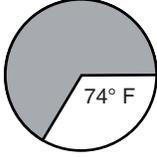
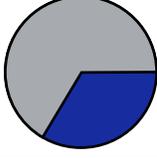
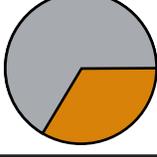
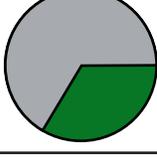
Status	Color	Graphic
No Sensor	A gray fill with a black border over the specified area between angles where the sensor is not located.	
Invalid Data	A white fill with gray wavy lines and black border over the specified area between angles where the sensor is located.	
Alternate Sensors	A white fill with black border over the specified area between angles where the sensor is located. Temperature is displayed.	
Wet	A dark blue fill with black border over the specified area between angles where the sensor is located.	
Dry	A dark orange fill with black border over the specified area between angles where the sensor is located.	
Normal	A dark green fill with black border over the specified area between angles where the sensor is located.	

Figure 44-1

# Status Screen

## Device Status Color (Continued)

### VRI Status Color

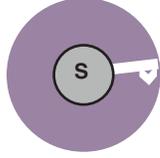
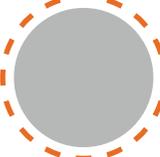
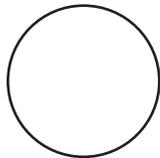
Status	Color	Graphic
Zone/iS On	A magenta fill when VRI Zone or Individual Sprinkler is On.	
Zone/iS Off	A pink fill when VRI Zone or Individual Sprinkler is Off.	
Speed On	A violet fill under a gray circle displaying the speed prescription number.	
Speed Off	A red violet fill under a gray circle displaying "S" for VRI Speed.	
No Prescription	A gray fill.	
Non-BS3 Prescription	An orange dashed line around the outside of field when VRI is On and running a prescription not loaded through BaseStation3.	
No Communication	A white fill.	

Figure 45-1

# Status Screen

## Device Status Color (Continued)

### AquaTrac Status

Status	Color	Graphic
Default Icon	Gray background indicates no data from the AquaTrac sensor.	
Partially dry	Brown background indicates partially full.	
Partially wet	Green to aqua background indicates nearly full.	
Dry	Red background indicates below dry / mostly dry.	
Wet / full	Blue background indicates full.	

Figure 46-1

## Alerts

Alerts are configured on the device based on the alert condition and computer hardware. Alert configuration is also available with the Select Multiple option in the Device Management View. The Status Screen has no visual indicators for the Alert feature.

Go to **Device Management/Add Device** or **Select Device/Full Configuration/Alerts**.

## Visual Notification

When an alert condition exists, a graphic alarm status icon will be displayed on the device experiencing the alert condition.

## Notification Methods

Alert notification by email, push notification, telephone call or text message to members in the Alert Contact List.

### NOTE

• **Push notifications are only sent to mobile devices and do not require an active phone number.**

- **Contact List:** A Contact List must be created for email address, mobile device or telephone. **Go to Settings/BaseStation Settings/Contacts.**
- **Email Address / Mobile Device:** Email and push notifications can be sent to each contact in a Contact List.
- **Telephone:** Telephone notifications include telephone call or text message. In addition, two telephone numbers can be configured for each user profile. A telephone call notification consists of ring only, does not include a voice message and requires an additional modem. Telephone 1 and or Telephone 2 must be checked in **Settings/BaseStation Settings/My Profile** or User Profiles.
- **Device Configuration:** A Contact List must be selected before the email, text message or telephone call features will work. Go to **Device Management/Add Device** or **Select Device/Full Configuration/Communication/Alert Contact List**.

## Alert Status Color and Shape

Restricted Entry	A white hand inside a red circle with an alert icon indicates a restricted entry condition in the field. During a restricted entry condition, the field should not be entered.	
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Figure 47-1

# Status Screen

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## Alarms

Alarm levels are configured on the device based on the alarm condition and computer hardware. Alarms trigger when any shutdown fault is detected regardless of expected device state. Alarms can be set based on user preferences including informational, low or high. Setting the alarm to None turns off the fault alarm for shutdown.

Go to **Device Management/Add Device** or **Select Device/Full Configuration/Alarms**.

## Visual Notification

When an alarm condition exists, a graphic alarm status icon will be displayed on the device.

## Notification Methods

Alarm notification by email, push notification, telephone call or text message to members in the Alarm contact list.

### NOTE

• **Push notifications are only sent to mobile devices and do not require an active phone number.**

- **Contact List:** A Contact List must be created for email, mobile device or telephone. Go to **Settings/BaseStation Settings/Contacts**.
- **Email Address / Mobile Device:** Email and push notifications can be sent to each contact in a Contact List.
- **Telephone:** Telephone notifications include telephone call or text message. In addition, two telephone numbers can be configured for each user profile. A telephone call notification consists of ring only, does not include a voice message and requires an additional modem. Telephone 1 and or Telephone 2 must be checked in **Settings/BaseStation Settings/My Profile** or User Profiles.
- **Device Configuration:** A Contact List must be selected before the Email, Text Message or Telephone Call features will work. Go to **Device Management/Add Device** or **Select Device/Configuration Communication/Contact List**.

## Alarm Status Color and Shape

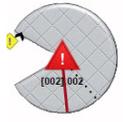
Alarms	Color and Shape	Graphic
<p><b>None</b></p> <p>No notification is sent.</p>	<p>The green square used to select the alarm response level during configuration is <b>never</b> displayed on a device.</p>	
<p><b>Information Level Alarm</b></p> <p>No notification is sent. Typically the Information Alarm is configured to identify machine state change information that is the result of an expected action by the user. Local programs running at the panel can properly manage the equipment, without BaseStation or user intervention.</p>	<p>A white circle with a blue “i” and border appears on the device. The color of the device will vary.</p>	
<p><b>Low Level Alarm</b></p> <p>Notification is sent when defined by user preference.</p>	<p>A yellow diamond with a gray exclamation point appears on the device. The color of the device will vary.</p>	
<p><b>End Gun Alarm</b></p> <p>Two conditions can cause the End Gun alarm.</p> <ol style="list-style-type: none"> <li>1. An End Gun is On when BaseStation expects it to be Off.</li> <li>2. An End Gun is Off when BaseStation expects it to be On.</li> </ol>	<p>A yellow diamond with a gray exclamation point appears on the end of the pivot. The pivot must be running in between the user set angles and the end gun must be On.</p>	
<p><b>Field Boundary Alarm</b></p> <ul style="list-style-type: none"> <li>• <b>Part circle center pivot:</b> When a machine runs beyond the left or right angle for the user specified angle tolerance.</li> <li>• <b>Linear:</b> When a machine runs beyond the start or end position.</li> </ul>	<p>A yellow diamond with a gray exclamation point appears at the end of the current position line.</p>	
<p><b>High Level Alarm</b></p> <p>Notification is sent to contact lists that are configured to the device.</p>	<p>A red triangle with a white exclamation point appears on the device. The color of the device will vary.</p>	

Figure 49-1

# Status Screen

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# Status Screen

## Alarm Types, Names, Descriptions and Default Settings

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro 2+ v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
State	Running	<ul style="list-style-type: none"> <li>When device was stopped and now is running.</li> <li>The Running alarm level will generate a notification only if the level is set to High.</li> <li>Setting the Running alarm level to None may affect shutdown Alarm recognition.</li> </ul>	Indicated by Pivot Color	Info	Info	Info	Info	Info	Info	Info	Info	Info	NA	NA	NA	NA
State	Wet/Dry	When the state has changed and is different than the BaseStation expected state.	Indicated by Pivot Color	Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA
State	Direction	When the state has changed and is different than the BaseStation expected state.		Info	Info	Info	Info	Info	Info	Info	Info	Info	NA	NA	NA	NA
State	SIS On/Off	When the state has changed and is different than the BaseStation expected state.	Indicated by Pivot Color	Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA
State	End Gun 1	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA
State	End Gun 2 (Wide Boundary)	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	Low	Low	Low	NA	Low	NA	NA	NA	NA	NA
State	End Gun 3 (Wide Boundary 2)	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
State	End Gun 4 (Wide Boundary 3)	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
State	Speed	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA
State	Aux 1 In	When the state has changed and is different than the BaseStation expected state.		None	None	None	None	None	None	None	None	NA	NA	NA	NA	NA
State	Aux1 Out	When the state has changed and is different than the BaseStation expected state.		Low	Low	Low	Low	NA	NA	NA	Low	NA	NA	NA	NA	NA
State	Aux 2 In	When the state has changed and is different than the BaseStation expected state.		None	None	None	None	None	None	None	None	NA	NA	NA	NA	NA
State	Aux 2 Out	When the state has changed and is different than the BaseStation expected state.		None	None	None	None	NA	NA	NA	None	NA	NA	NA	NA	NA
State	No Response	When device has not responded to a transaction within the allowable time delay.		Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	NA
State	Daily Operations Restart	When Daily Operations restarts.	No Icon	Info	Info	Info	Info	NA	NA	NA	Info	NA	NA	NA	NA	NA
State	Data Exchange Error	When the BaseStation cannot process a command. <ul style="list-style-type: none"> <li>Command is not recognized.</li> <li>Command has a bad parameter.</li> <li>Command string has invalid checksum value.</li> <li>Unknown command.</li> </ul>		Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA
State	No Power	When power is off.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA	NA	NA	NA
State	IP Connection Error	When the BaseStation cannot make an IP connection.	No Icon	Low	Low	Low	Low	Low	Low	Low	Low	NA	NA	NA	NA	NA

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro2 v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
Shutdown (Fault)	Power	Pivot stopped due to power outage or voltage may be low or may have temporarily fallen below the low voltage limit for more than 15 seconds while the machine was running.		High	High	High	High	High	High	High	High	NA	NA	NA	NA	NA
Shutdown (Fault)	Safety	When safety return circuit is broken for more than 3 seconds. The safety shutdown alarm will trigger when the machine is not started by BaseStation, and BaseStation did not expect the machine to be running.		High	High	High	High	High	High	High	High	NA	NA	NA	NA	NA
Shutdown (Fault)	Daily Operations	When the device is stopped by the Daily Ops function.		Info	Info	Info	Info	NA	NA	NA	Info	NA	NA	NA	NA	NA
Shutdown (Fault)	Command	When the device was intentionally commanded to stop by one of the following: 1. The stop key was pressed. 2. An autostop condition occurred at the end-of-field stop. 3. A programmed stop command was executed.		Info	Info	Info	Info	Info	Info	Info	Info	NA	NA	NA	NA	NA
Shutdown (Fault)	Temperature	When the machine shuts down because the temperature fell below the Low Temperature Limit.		High	High	High	High	NA	NA	NA	High	NA	NA	NA	NA	NA
Shutdown (Fault)	Wind	When the machine shuts down because the wind speed reached the High Wind Limit.		High	High	High	High	NA	NA	NA	High	NA	NA	NA	NA	NA
Shutdown (Fault)	Pressure	When the pressure falls below the Low Pressure Limit for more than thirty seconds or the Pressure Delay is not a sufficient amount of time to build pressure in the machine after it is started.		High	High	High	High	High	Info	Info	High	NA	NA	NA	NA	NA
Shutdown (Fault)	RelayBD Comm	When there is a hardware or software communication problem between the module and the electrical relay board within the control panel.		High	High	High	High	High	Info	NA	High	NA	NA	NA	NA	NA
Shutdown (Fault)	SIS	When the device is stopped by the Stop In Slot function.		Info	Info	Info	Info	Info	Info	Info	Info	NA	NA	NA	NA	NA
Shutdown (Fault)	Transition	While the system was running in manual mode: 1. In Linear mode, when the machine transitions between zones. 2. In Pivot mode, when the machine reaches the transition position. While the system was running in auto mode: 1. A transition programmed stop occurs. 2. While in linear mode, a wrong transition was detected. 3. While in pivot mode, the pivot cart alignment proximity switch was actuated after the 2° buffer expired.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	Proximity	Universal linear cart / span misalignment.		Info	Info	Info	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	Program	When the device is stopped by a program.		Info	Info	Info	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	Auto-Stop	When the device is stopped by the Auto Stop function.		Info	Info	Info	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	No Ack	When acknowledgement was NOT received from the BaseStation after sending a real-time update. Notice Message Shutdown with No Acknowledge must be selected in the control panel.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	BB Ram	When the Battery Backed Ram check failed at power up.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	Direction Shutdown	When both the forward and reverse sense relays were on simultaneously for more than 15 seconds while the system was running or waiting.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro2+ v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
Shutdown (Fault)	GPS Com	When there is no communication with GPS for a user specified time set in control panel. While system was running or waiting, all of the following must have occurred: 1. GPS is selected as a protocol. 2. GPS signal loss is set to shut down the machine. 3. The machine shut down due to no communication with the GPS for a user specified time.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	GPS Signal	When GPS signal is lost for a user specified time set in control panel. While system was running or waiting, all of the following must have occurred: 1. GPS is selected as a protocol. 2. GPS signal loss is set to shut down the machine. 3. The machine shut down due to GPS signal loss for a user specified time.		High	High	High	NA	NA	NA	NA	High	NA	NA	NA	NA	NA
Shutdown (Fault)	Flow	With VRI-Z on, the flow rate has fallen below the amount set in the FLOWMETER GAL/PULSE field. The machine is not able to deliver a reliable water distribution pattern.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	High Water Pressure	When higher than the user set value set in control panel. With VRI-Zone on, the pressure went above the high pressure limit for more than three seconds.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown (Fault)	Tire Pressure Low	When lower than the user set value set in control panel. Tire pressure shutdown was turned on and one or more tires had low pressure.		High	High	High	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shutdown	Emergency	When the torrent pump shuts down due to an emergency.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Other	Telemetry Failed	When there is no communication.	No Icon	Info	Info	Info	Info	Info	Info	Info	Info	NA	NA	NA	NA	NA
Other	Field Boundary	When the device moves outside the field boundary. The machine traveled beyond the forward/reverse angle or start/end position.	No Icon	High	High	High	High	High	High	High	High	High	NA	NA	NA	NA
Threshold*	Water Pressure Low	When lower than the user set value in BaseStation. Range 0 to 200 psi. The default value is 15 psi (103.4 kPa).		High	High	High	High	High	High	High	High	High	NA	NA	NA	NA
Threshold*	Water Pressure High	When higher than the user set value in BaseStation. Range 0 to 200 psi. The default value is 65 psi (448 kPa).		High	High	High	High	High	High	High	High	High	NA	NA	NA	NA
Threshold*	Voltage Low	When lower than the user set value in BaseStation. Range 100 to 999 volts. The default value is 440 volts.		High	High	High	High	High	High	High	High	High	NA	NA	NA	NA
Threshold*	Voltage High	When higher than the user set value in BaseStation. Range 100 to 999 volts. The default value is 510 volts.		High	High	High	High	High	High	High	High	NA	NA	NA	NA	NA
Threshold*	Water Pressure Dry/Stopped	When higher than the user set value in BaseStation, while the machine is stopped or the Water is Off.		High	High	High	High	High	High	High	High	NA	NA	NA	NA	NA
Threshold	Low Discharge Threshold	When lower than the user set value in the BaseStation. The default value is less than 20 psi from the discharge set point.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Threshold	High Discharge Threshold	When higher than the user set value in the BaseStation. The default value is more than 20 psi from the discharge set point.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
AuxLink State	Outputs (AuxLink)	The Output state is not the state that is expected (On when BaseStation expected it to be Off or Off when BaseStation expected it to be On).	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	Info	NA	NA	NA
AuxLink State	Inputs (AuxLink)	The Input state is not the state that is expected (On when BaseStation expected it to be Off or Off when BaseStation expected it to be On).	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	Info	NA	NA	NA
AuxLink Threshold*	Sensor Less Than (AuxLink)	When lower than the user set value in BaseStation.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	Info	NA	NA	NA

\* Threshold alarms are BaseStation monitored levels. The user set threshold values in BaseStation do not affect the constants settings in the control panel.

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro 2+ v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
AuxLink Threshold*	Sensor Greater Than (AuxLink)	When higher than the user set value in BaseStation.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	Info	NA	NA	NA
Soil Moisture Sensor Threshold*	Moisture	The monitored moisture index value is lower or higher than the configured normal range of moisture.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA	NA
Soil Moisture Sensor Threshold*	Battery Low	The battery voltage in a field transmitter unit is lower than the reliable voltage for the battery.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Info	NA	NA
Soil Moisture Sensor Threshold*	Sensor Error	When there is an error in the sensor.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA	NA

## Alarm Types, Names, Descriptions and Default Settings

### Engine Control Alarms

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro 2+ v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
State	Engine Start Failure	When the engine fails to start.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
State	Connected Device Stopped	When the connected device stops.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
State	Connected Device Not Started	When the connected device fails to start.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
State	Engine Stop Failure	When the engine stops due to a failure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
State	Local Stopped	When the local device stops.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
Shutdown (Fault)	Engine Shutdown	When the engine shuts down.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High
Other	Valley Remote Error	The Engine Interface has replied indicating that it has had an internal failure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low
Threshold	Low Battery Voltage	When the battery voltage falls below a set point.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low

\* Threshold alarms are BaseStation monitored levels. The user set threshold values in BaseStation do not affect the constants settings in the control panel.

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings Torrent Pump Control Alarms

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro2 v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
BaseStation3	IP Connection Error	BaseStation is not able to get a connection with the communications device with this IP address.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
BaseStation3	No Response	After sending a command to the machine, there are no returned messages. The No Response alarm occurs only after the configured number of tries has been attempted.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
BaseStation3	Data Exchange Error	BaseStation is not able to process a message due to missing communications between a pump controller and the Pump Link interface.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
BaseStation3	Low Pressure Threshold	The water pressure is below the threshold configured in the control panel.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
BaseStation3	High Pressure Threshold	The water pressure is higher than the threshold allowed.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
BaseStation3	Ambient Temperature Lower	The ambient temperature is lower than the user set value in the torrent pump.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	None	NA
BaseStation3	Ambient Temperature Upper	The ambient temperature is higher than the user set value in the torrent pump.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	None	NA
Pump Station	Emergency Shutdown	The alarm state reported by the pump controller that it has had an Emergency Shutdown.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump Station	Fail to Reach Setpoint	When the torrent pump fails to reach its setpoint.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump Station	Pic Battery Low	When the battery is low on the torrent pump.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Pressure Transmitter Fail	When the pressure transmitter fails.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump Station	Suction Transmitter Fail	When the suction transmitter fails.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Flow Meter Fail	When the flow meter fails.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Low Pressure Fault	The machine has reported a shutdown due to water pressure that has decreased below a threshold configured in the control panel.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump Station	Low Pressure Alarm	An alarm showing that the machine has reported water pressure that has decreased below a threshold configured in the control panel.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Low Pressure Warning	A warning showing that the machine will shutdown due to water pressure that has decreased below a threshold configured in the control panel.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings

### Torrent Pump Control Alarms

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro 2+ v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
Pump Station	High Pressure Fault	The machine stopped as a result of water pressure that is higher than the threshold allowed.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	High Pressure Alarm	An alarm that the water pressure is higher than the threshold allowed.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	High Pressure Warning	A warning that the machine will stop as a result of water pressure that is higher than the threshold allowed.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Hi-Hi Pressure Fault	An alarm indicating that the pump has stopped as a result of Hi-Hi Discharge Pressure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump Station	Hi-Hi Pressure Warning	The alarm timer for Hi-Hi Discharge Pressure has begun.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump Station	Hi-Hi Pressure Alarm	The alarm timer for Hi-Hi Discharge Pressure has expired.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Speed Signal Fail	VFD 1 Speed Signal Failure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Low Water Level Fault	An alarm indicating that the pump has stopped as a result of Low Water Level.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Low Water Level Alarm	The alarm timer for Low Water Level has expired.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Low Water Level Warning	The alarm timer for Low Water Level has begun.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Low Suction Pressure Fault	An alarm indicating that the pump has stopped as a result of Low Suction Pressure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Low Suction Pressure Alarm	The alarm timer for Low Suction Pressure has expired.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Low Suction Pressure Warning	The alarm timer for Low Suction Pressure has begun.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Seal Temperature Fault	An alarm indicating that the pump has stopped as a result of High Seal Temperature.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Seal Temperature Alarm	The alarm timer for High Seal Temperature has expired.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Seal Temperature Warning	The alarm timer for High Seal Temperature has begun.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Motor Fail to Run	When the torrent pump fails to run due to motor failure.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Amperage Signal Fail	When the amperage signal fails.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Modbus Comm Error	When there is an error with modbus communication.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Motor Temperature Alarm	When the motor temperature is too high or low.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA

# Status Screen

## Alarm Types, Names, Descriptions and Default Settings Yaskawa / VACON 100 Flow Pump Control Alarms

Alarm Type	Alarm Name	Description	Icon	Pro2+ v9.00	Pro2 v9.01	Pro2 v8.40	Pro v7.x.5	Select 2+ v2.00	Select2 v1.21	Select v1.9	Standard Linear	PanelLink	AuxLink	Soil Moisture Sensor	Pump Station	Engine Control
Pump	Warning Alarms	Alerts to the user that pump conditions are varying beyond the desired ranges, but not enough to cause a shutdown.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Fault Alarms	All fault alarms are reasons for the machine to be stopped. No fault alarm is active when the machine is running; one (only one) fault alarm is active when the machine is stopped.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	High	NA
Pump	Data Exchange Error	BaseStation is not able to process a message due to missing communications between a pump controller and the Pump Link interface.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	IP Connection Error	BaseStation3 is not able to get a connection with the communications device with this IP address.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	No Response	After sending a command to the machine, there are no returned messages. The No Response alarm occurs only after the configured number of tries has been attempted.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	Low Discharge Threshold	When lower than the user set value in the BaseStation. The default value is less than 20 psi from the discharge set point.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA
Pump	High Discharge Threshold	When higher than the user set value in the BaseStation. The default value is more than 20 psi from the discharge set point.	No Icon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Low	NA

## Status Screen

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# BaseStation Settings

## BaseStation Settings

To open BaseStation Settings, click 1) **Settings** and choose 2) **BaseStation Settings**. See Figure 59-1.

## My Profile

**My Profile** shows the roles and privileges of the logged in user. Information can be entered or changed by the logged in user. Only an administrator can change the roles and privileges of a user other than themselves.

The First Name, Last Name, Email Address, Password, Security Question and Answer are required. Mobile and Telephone numbers for calls and text messaging are optional.

Alarm and alert notifications can be sent to an email address or to a telephone in the form of a call, push notification and/or text message. All three methods can be used at the same time. The default is Email.

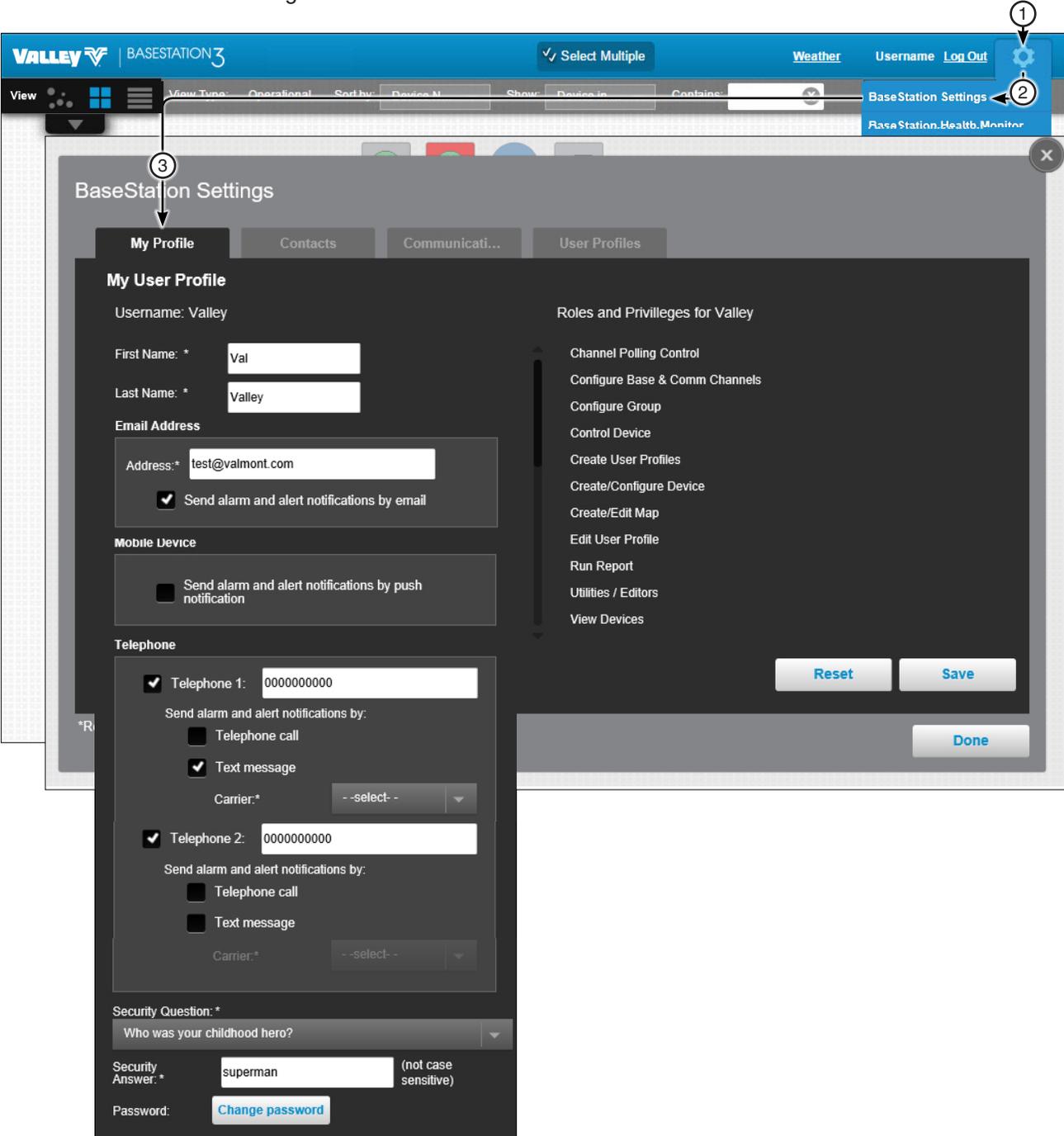


Figure 59-1 1. Settings 2. BaseStation Settings 3. My Profile

# BaseStation Settings

## My Profile (Continued)

### Mobile Device

To enable push notifications, check the box to Send alarm and alert notifications by push notification. See Figure 60-1.

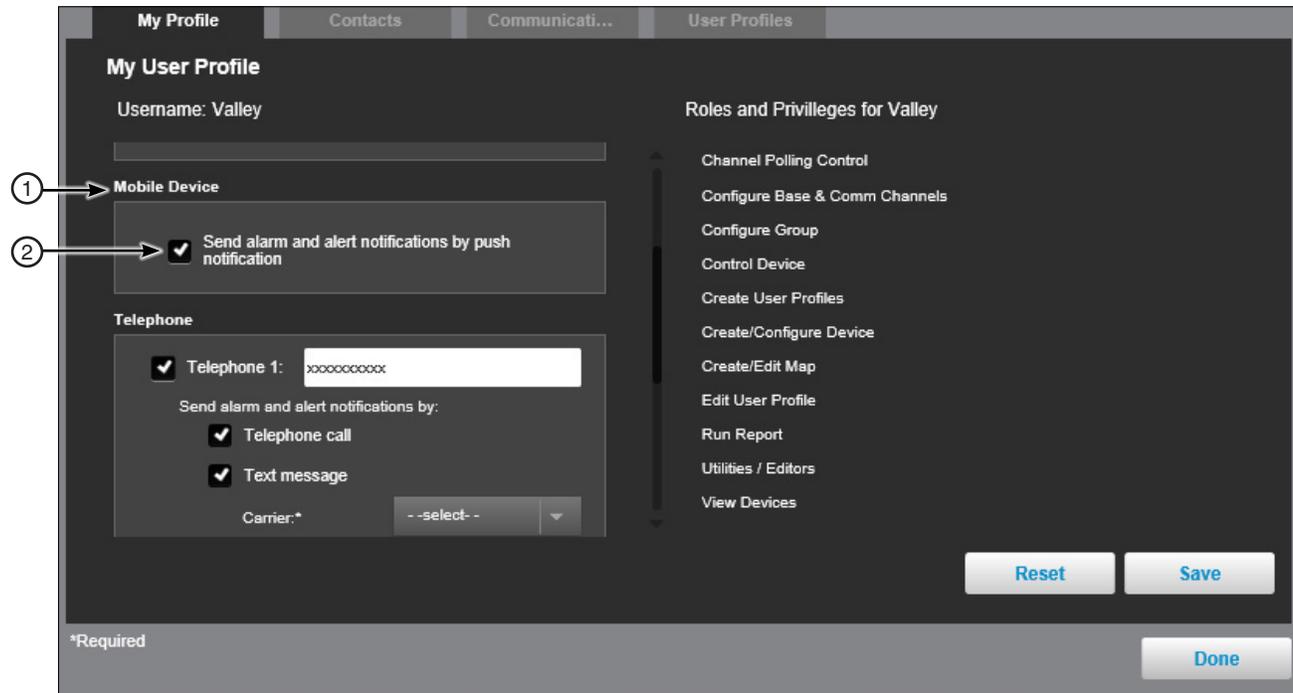


Figure 60-1 1. Mobile Device  
2. Checkbox

## My Profile (Continued)

### Calls and Text Messaging

To enable text messaging refer to Figure 61-1 and do the following:

1. Check the box for Telephone 1.
2. Enter the **Phone Number** that will be receiving alarm and alert notifications.
3. Select how you want alarm and alert notifications delivered, choose Telephone Call and/or Text Message. Both methods can be used at the same time.

### NOTE

•A telephone call requires an analog voice modem option installation. This provides a phone connection that can dial a phone, causing the phone to ring. Caller ID on the phone being called is required for identification of the BaseStation3 phone number as the caller. (No voice or interaction is provided.)

4. When Text Message is selected, choose the carrier from the drop down list for the telephone number that will be receiving text messages.
5. Click **Save**.

If Telephone 2 will be used, repeat the steps above to add a second telephone.

### NOTE

•Click **Reset** to reset all settings back to the last saved state or the default if its never been saved.

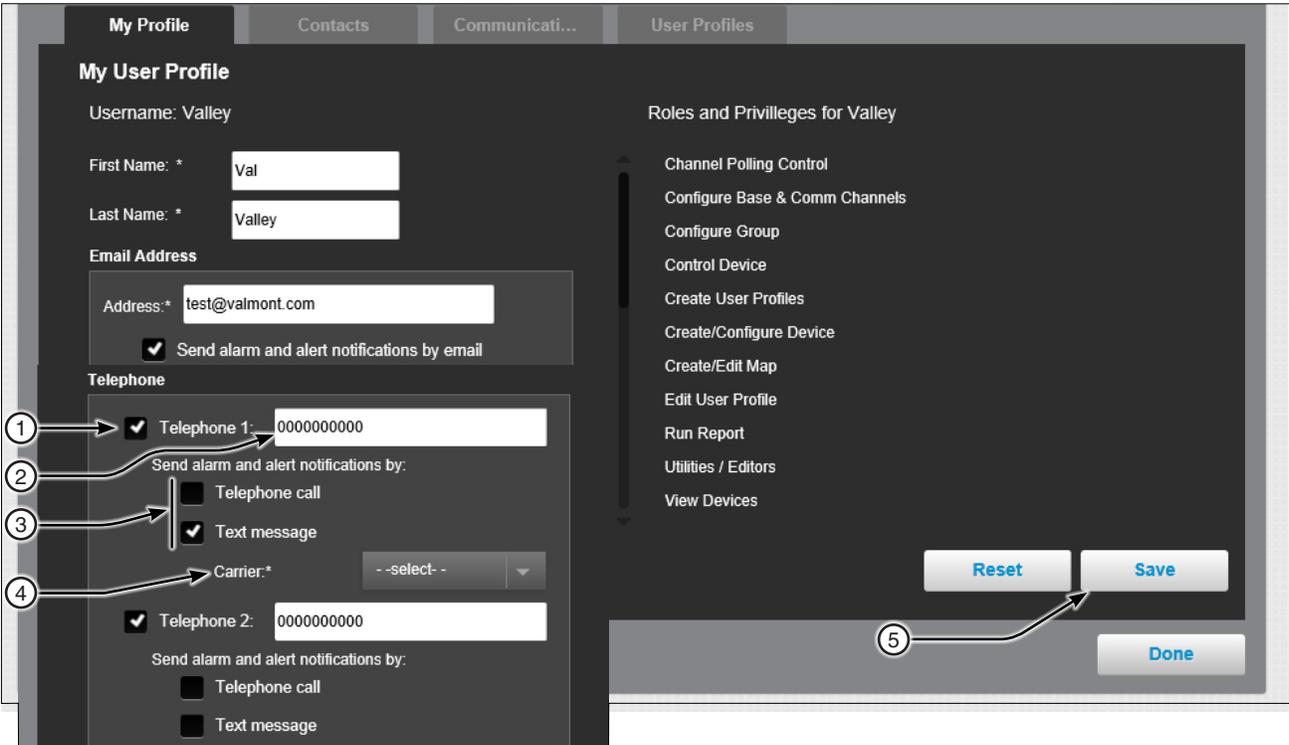


Figure 61-1 1. Telephone  
2. Phone Number Field  
3. Send alarm contact notifications by

4. Carrier  
5. Save

# BaseStation Settings

## My Profile (Continued)

### Change Security Question

To change the security question refer to Figure 62-1 and do the following:

1. Choose a new **Security Question** from the drop-down list.
2. Enter the **Answer** to the security question in the Security Answer field.
3. Click **Save**.

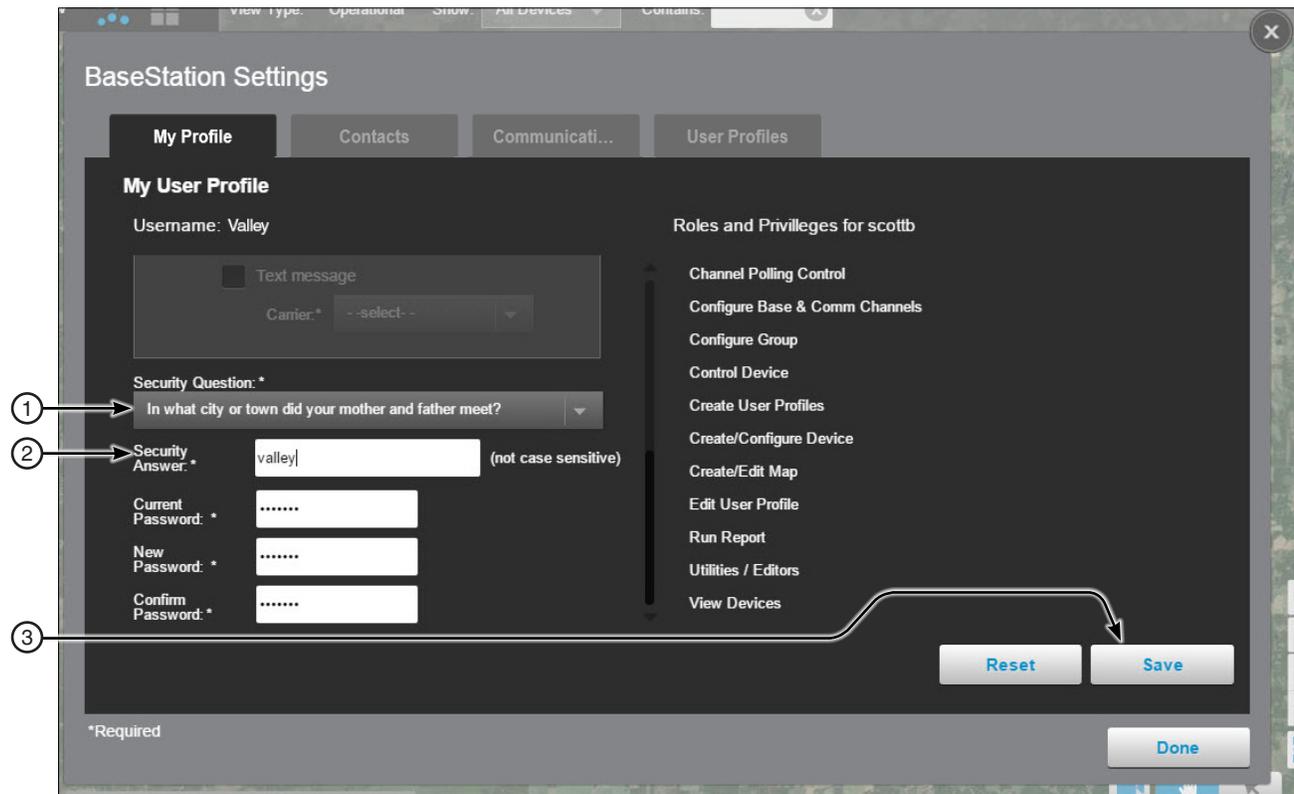


Figure 62-1 1. Security Question  
2. Security Answer  
3. Save

## My Profile (Continued)

### Change Password

To change the password refer to Figure 63-1 and do the following:

1. Scroll down and click **Change Password**.
2. Enter the **Current Password** in the Current Password field.
3. Enter and confirm the **New Password** in the New Password field.

The password must be at least six characters in length and include at least one base 10 digit and at least one alpha character.

- Uppercase characters A through Z
- Lowercase characters a through z
- Base 10 digits 0 through 9

4. Click **Save**.

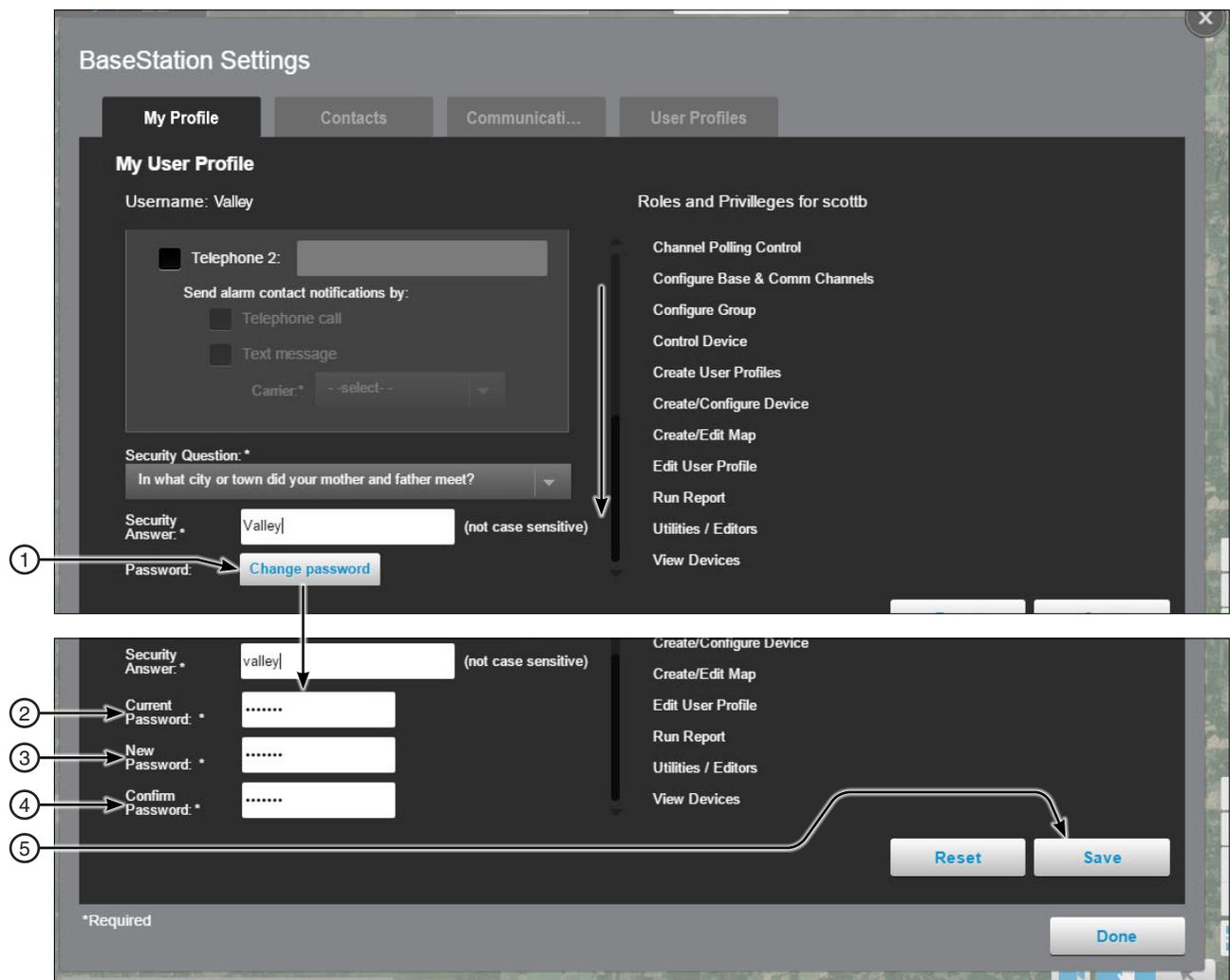


Figure 63-1

1. Change Password
2. Current Password
3. New Password
4. Re-enter New Password
5. Save

# BaseStation Settings

## Contacts

Contact Lists are displayed for the logged in administrator. A contact list can only be added, changed or deleted by an administrator. See Figure 64-1.

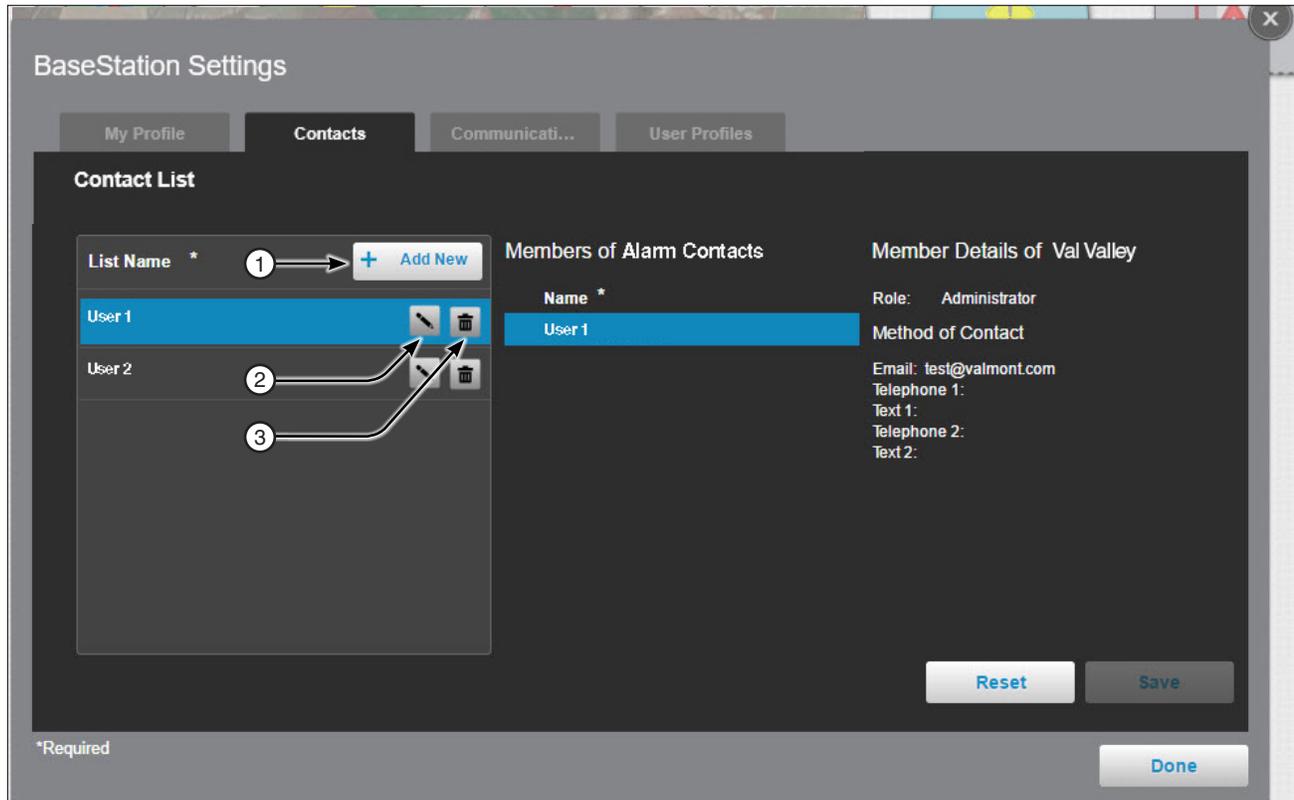


Figure 64-1 1. + Add New  
2. Change  
3. Delete

## Contacts (Continued)

### Add Initial Contact List

To add the initial contact list refer to Figure 65-1 and do the following:

1. Enter a **List Name**.
2. Select users in the Members list by checking the **User Name** box. Selecting a user name from the Members list will display the user's role and preferred contact method. More than one user can be added.
3. Click **Save**.

When a Contact List is associated with a device, any high alarm, texts, emails and push notifications will be sent simultaneously to all the users that are included in that contact list.

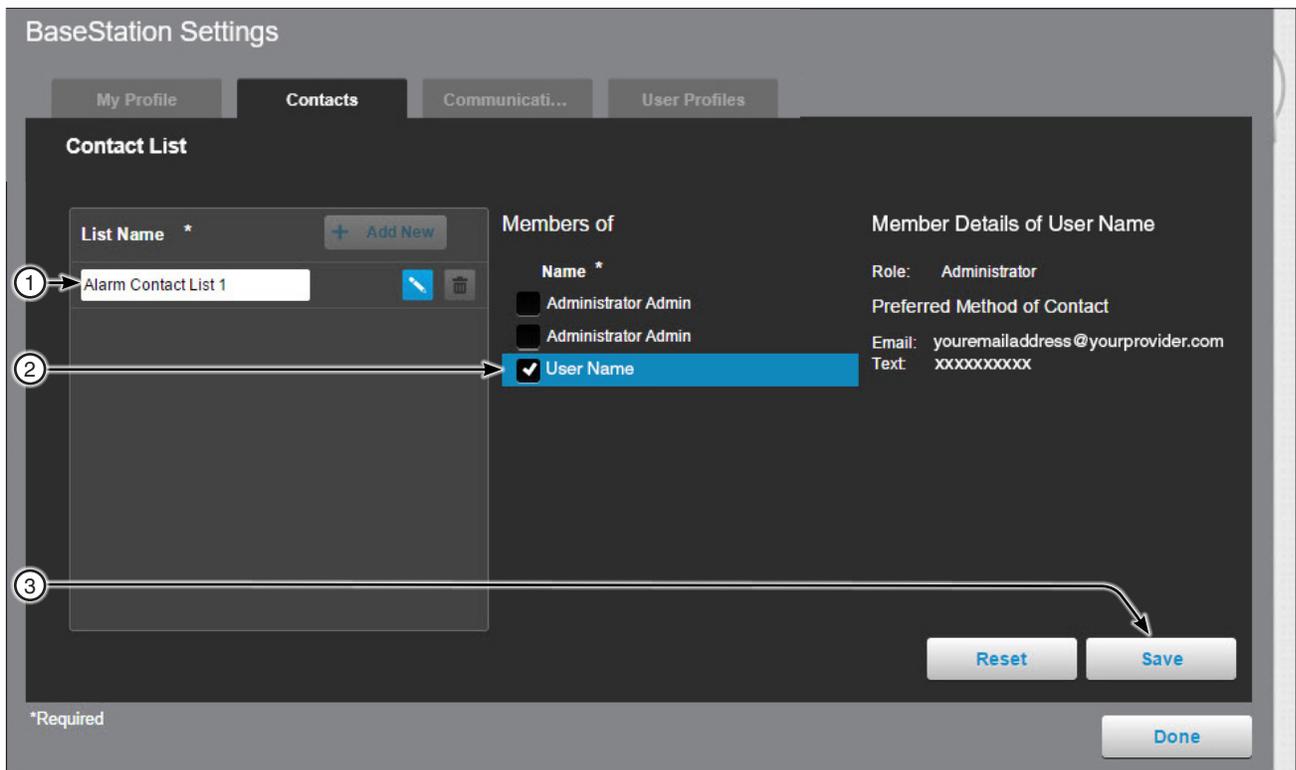


Figure 65-1

1. List Name
2. User Name
3. Save

# BaseStation Settings

## Contacts (Continued)

### Adding Additional Contacts

To add additional Contact Lists click **Add New**, enter a **List Name**, select **User Name(s)** and click **Save**. See Figure 66-1.

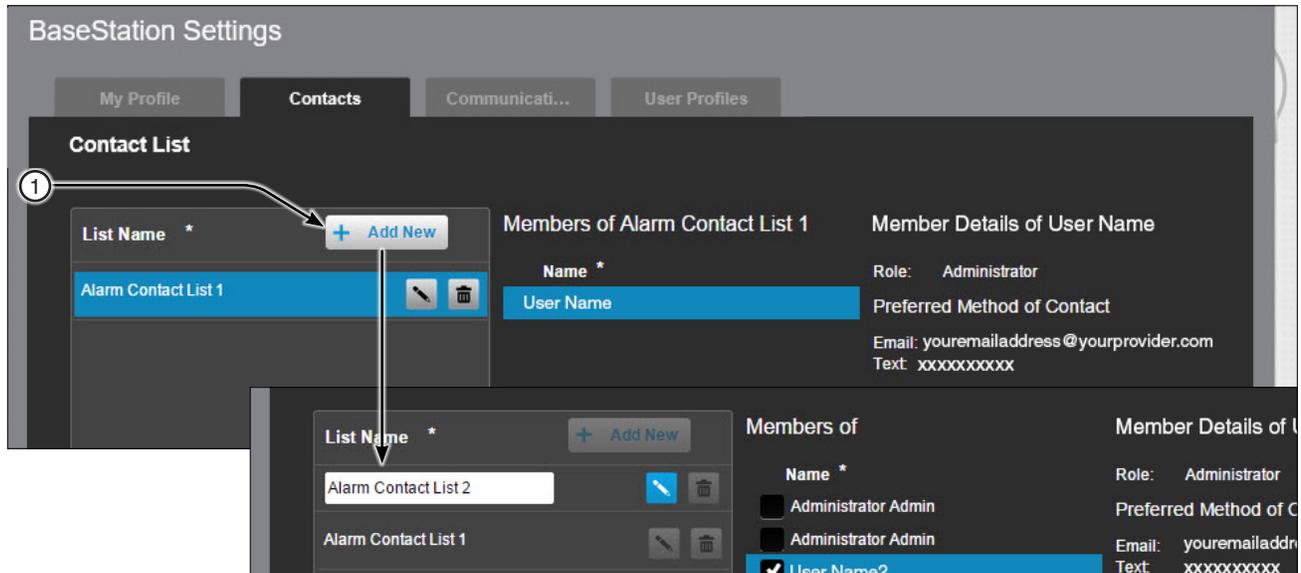


Figure 66-1 1. + Add New

# BaseStation Settings

## Communications

Use the Communications tab to setup the recurring maintenance time, create the BaseStation Identification (Base ID) and the Channels for communication. Only an administrator can add, edit or delete a Base ID or Channels.

### Base

The Base ID identifies the BaseStation and is automatically set to “999”. See Figure 67-1.

The ID can be numbers, characters, or a combination. Each control panel’s Device Management setup screen has built-in rules for accepted ID entries. It should be a unique identifier and must not match any other device or other BaseStations that communicate to the same devices. Avoid using the sequence of “000” since Valley control panels ship from with factory with the default RTU ID of “000”.

The Base ID must be three digits.

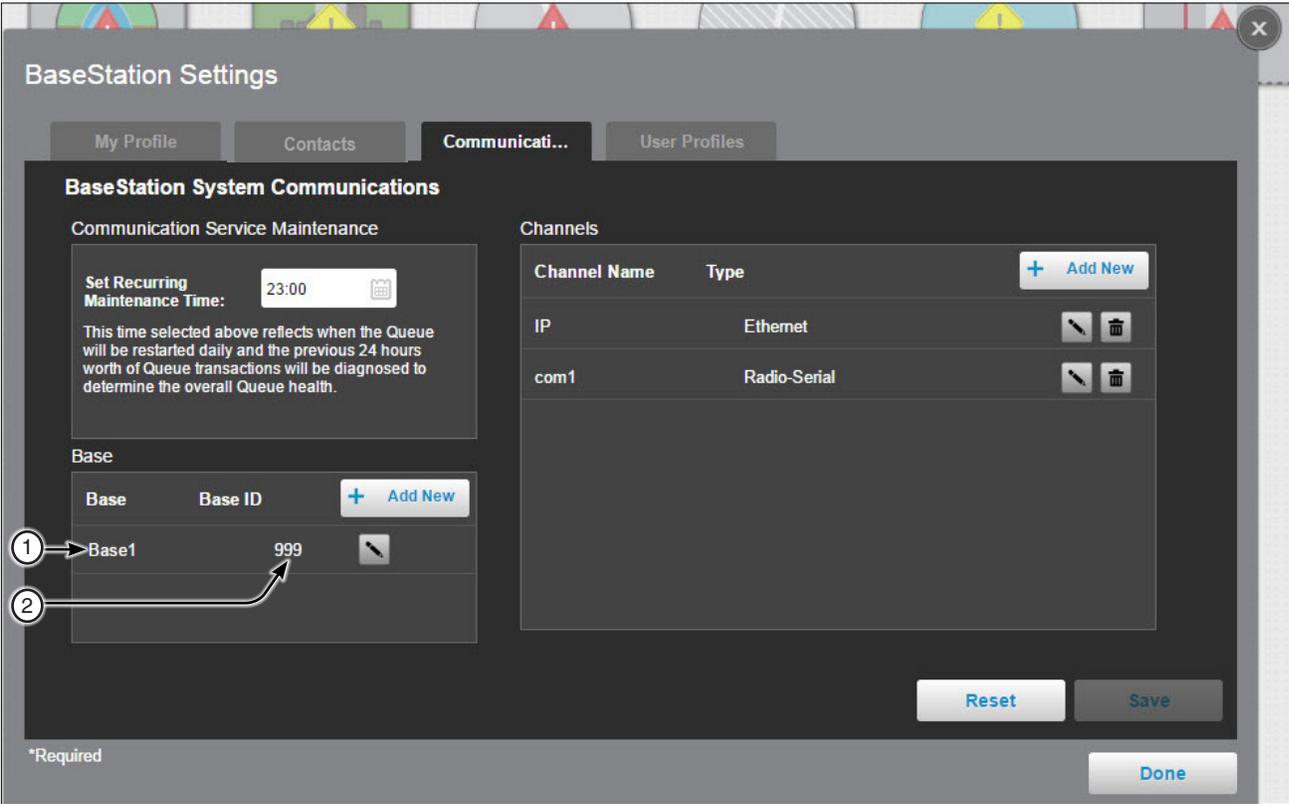


Figure 67-1 1. Base Name  
2. Base ID

# BaseStation Settings

## Communications (Continued)

### Adding an Additional Base

To add another base refer to Figure 68-1 and do the following:

1. Click **Add New**.
2. Enter the **Base Name** and **Base ID**.

## NOTES

- When there is another BaseStation on a common communication network (radio), use different Base IDs for each computer so that they do not respond to each other. The primary computer Base ID should be set to “999” and the Base IDs for any secondary computers must be set to the next lower number in numerical order (998, 997, etc.).
- Adding another Base ID(s) will specify that BaseStation will monitor all transactions that it receives including those addressed to another Base ID. Any status messages received will be used to update machine status.
- A Base ID is limited to the numbers 991 to 999. If other Base ID(s) are used with associated farms, where sharing radio frequencies exist, the Add New is provided so that BaseStation3 can monitor all activity on the radio channel.

3. Click **Save**.

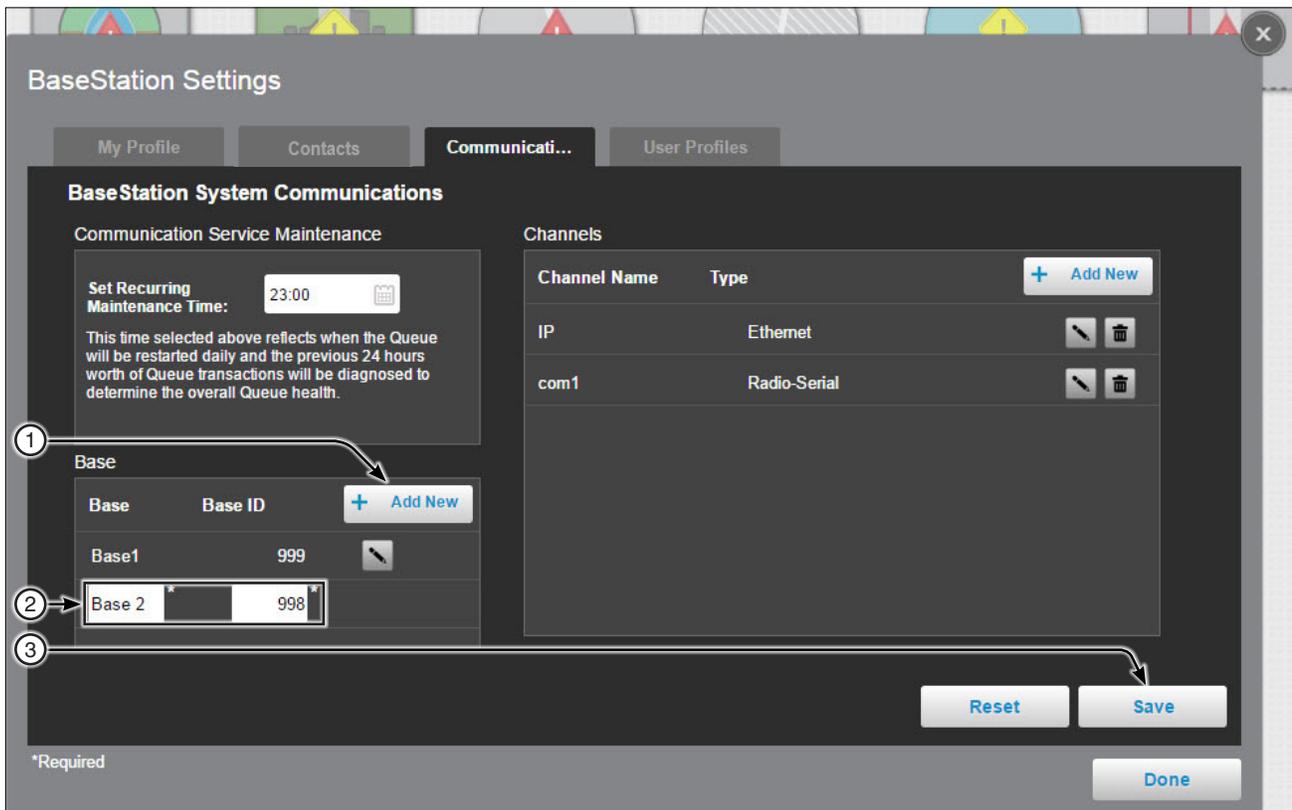


Figure 68-1 1. + Add New  
2. Base / Base ID  
3. Save

# BaseStation Settings

## Communications (Continued)

### Channels

Channels identifies the hardware path that the BaseStation will use to communicate with devices. Channels can only be added, edited or deleted by an Administrator.

The available communications for BaseStation includes:

- **Radio Serial:** Radio telemetry equipment is connected to the BaseStation computer serial communication port. The Base Radio broadcasts messages for all remotes to hear. The message contains addressing, so that the addressed remote will act on the message.
- **Ethernet:** Ethernet uses IP communications by sending/receiving messages via the computer's network connection. BaseStation can communicate with any remote device that has an IP address that can have a connection with the BaseStation computer. For the Valley cellular modem option, this requires a VPN to be configured with the cellular provider's network, in the computer's network settings. Consult with your local network administrator for network communications configuration within the on-premise network.

Network connection to an IP addressable device, either on a private network, or on an internet accessible IP address. Ethernet communication requires the device to have a static IP address. A radio can be connected to the IP addressable unit, to further extend the communications or broadcast the messages to multiple devices. If the IP connection is not established initially, BaseStation automatically retries to establish a connection.

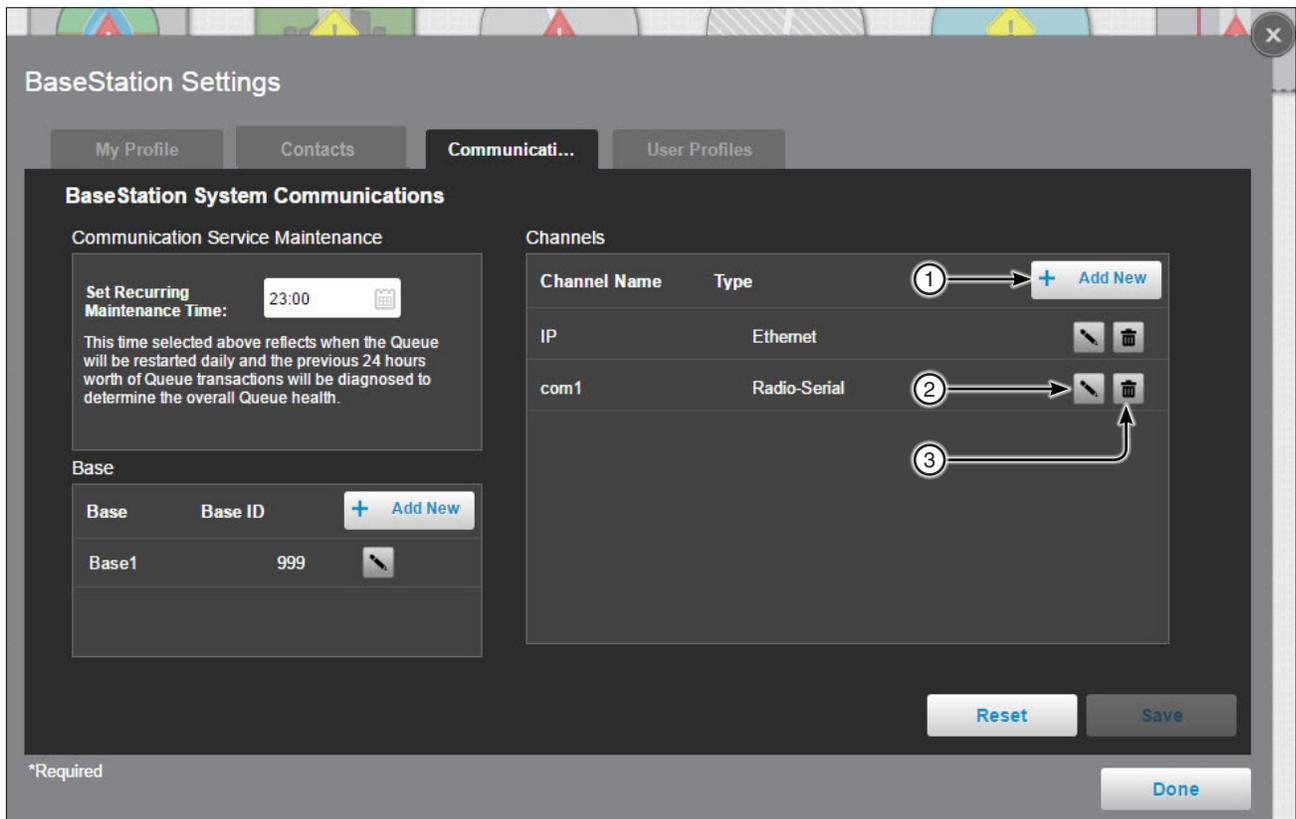


Figure 69-1 1. + Add New  
2. Change  
3. Delete

# BaseStation Settings

## Communications (Continued) Channels (Continued)

### Radio-Serial

Radio-Serial is for use with the DataRadio® or FreeWave® SSR radios provided by Valmont. Other radios capable of serial communications may be used, according to user-arranged design. To add a new Radio-Serial channel, refer to Figure 70-1 and do the following.

1. Click **Add New**.
2. Enter a **Channel Name** and select **Radio-Serial** from the drop-down list.
3. Optional: Select **Partnered Channel** if two devices will be connected to one antenna. The drop down list displays available options; select the desired option.
4. The default radio-serial settings include Com Port NO. (COM#), Baud (9600), Data Bits (8), Stop Bits (One) and Parity Bits (None). The Com Port number is the most common change that may need to be made. Refer to the radio manufacturers documentation to determine if changes need to be made to any other parameter.
5. Select the correct **Com Port** number and make changes to other parameters as required. When choosing the appropriate Com Port for the radio hardware connection the communications port designator will not show a device attached. To determine which communications port the hardware is attached to, go to Start/Control Panel/Device Manager/Ports/select a Port/right click for Properties.

## NOTES

- DCD (Data Carrier Detect) should remain unchecked unless using the remote control panel feature for Notice (real-time update for unrequested event transmissions from the machine) or another BaseStation is sharing the radios with the same frequency.
- To communicate with a device, installation of appropriate hardware at the device and configuration of device communication is required.

6. Click **Save**.

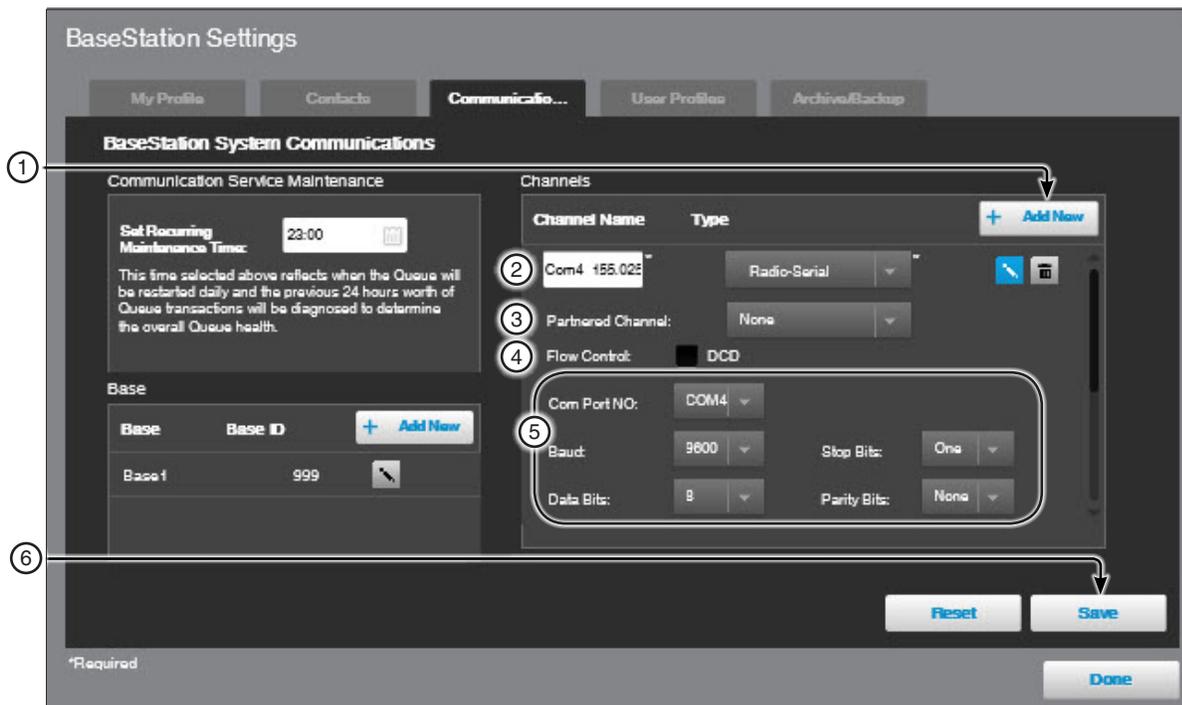


Figure 70-1 1. + Add New 2. Radio-Serial 3. Partnered Channel 4. Flow Control 5. Com Port No., Baud, Data Bits, Stop Bits, Parity Bits 6. Save

DataRadio is a registered trademark of CalAmp Corp.  
FreeWave is a registered trademark of FreeWave Technologies.



# BaseStation Settings

## User Profile

User Profile displays all the users that an administrator can manage. The user role is displayed next to the name. Select a user to display the profile fields. Only an Administrator can add a user, change a user's role or delete a user. Each user, except a Contacts Only user, can edit the other parts of their own profile using My Profile. See Figure 72-1.

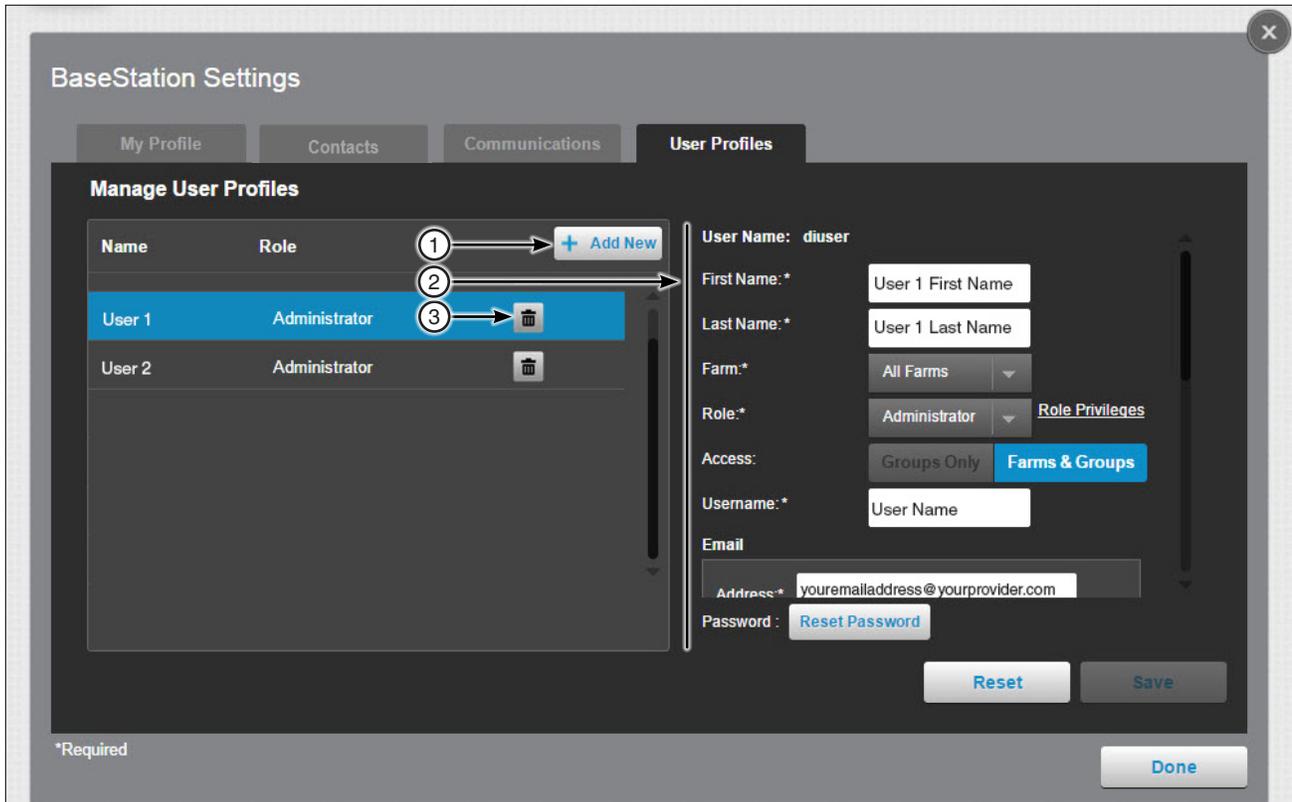


Figure 72-1 1. + Add New 2. User Profiles 3. Delete

## Roles and Privileges

Roles	Privileges											
	Channel Polling Control	Configure Base & Comm Channels	Configure Group	Control Device	Create User Profiles	Create/Configure Device	Create/Edit Map	Edit My Profile	Run Reports	Utilities / Editors	View Devices	All Farms Administrator
Application Administrator All Farms	X	X	X	X	X	X	X	X	X	X	X	X
Administrator Single Farm	X	X	X	X	X	X	X	X	X	X	X	
Operator	X			X				X	X	X	X	
Monitor								X	X		X	
Contact Only (No System Access)	When user is on a contact list, the user will receive alarm notification.											

## User Profile (Continued)

### Creating a New User

To create a new user refer to Figure 74-1 and do the following.

1. Click **Add New**.
2. Enter the User's **First and Last Name**.
3. Select the specific **Farm**, or **All Farms**, from the drop-down list. When All Farms is selected with the Administrator Role, the User has privileges to make changes on All Farms.
4. Select the **Role** from the drop-down list. Only an Application Administrator can create another Application Administrator.
5. Select the **Access**, either Farms and Groups or Groups Only. When All Farms is selected, Groups Only is not available.
  - Farms and Groups associates the user with all the groups in the farm that the user is created in.
  - Groups Only associates the user with only the administrator specified groups in the farm that the user is created in. The administrator must assign the user to a group in the Farm Administration Groups.
6. Enter a **Username**.
7. Enter the user's **Email Address**. The initial Username and Password will be sent to this email Address.
8. Optional: **Mobile Device** allows enabling push notifications.
9. Optional: Enter Telephone number 1 and/or telephone number 2 and set the Telephone Call/Text parameters. When Telephone Call is checked, the BaseStation rings the telephone number to notify the user. This is ring only, no voice message. Requires additional modem.
10. When done click **Save**. A temporary login password will be sent to the user's email address.

# BaseStation Settings

## User Profile (Continued)

### Creating a New User (Continued)

The screenshot shows the 'User Profiles' section of the BaseStation Settings application. It features a 'Manage User Profiles' table on the left and a form on the right for creating or editing a user profile. The table lists existing users with columns for Name, Role, and a delete icon. The form includes fields for First Name, Last Name, Farm, Role, Access, Username, Email, Address, Mobile Device, and Telephone. At the bottom, there are buttons for 'Reset Password', 'Reset', 'Save', and 'Done'. Numbered callouts (1-11) point to specific elements: 1. '+ Add New' button; 2. 'User Profiles' tab; 3. 'Farm' dropdown; 4. 'Role' dropdown; 5. 'Access' dropdown; 6. 'Username' field; 7. 'Email' section; 8. 'Mobile Device' section; 9. 'Telephone' section; 10. 'Save' button; 11. 'Done' button.

Figure 74-1 1. + Add New  
2. User Profiles  
3. Farm  
4. Role  
5. Access  
6. Username

7. Email  
8. Optional: Mobile Device  
9. Optional: Telephone  
10. Save  
11. Done

## User Profile (Continued)

### Reset Password

To reset a user's password refer to Figure 75-1 and do the following.

1. Select the **User Profile** to manage.
2. Click **Reset Password**.
3. Click **Reset**, and a temporary login password will be sent to the user's email address. The user will be required to enter and confirm a new password when logging in.

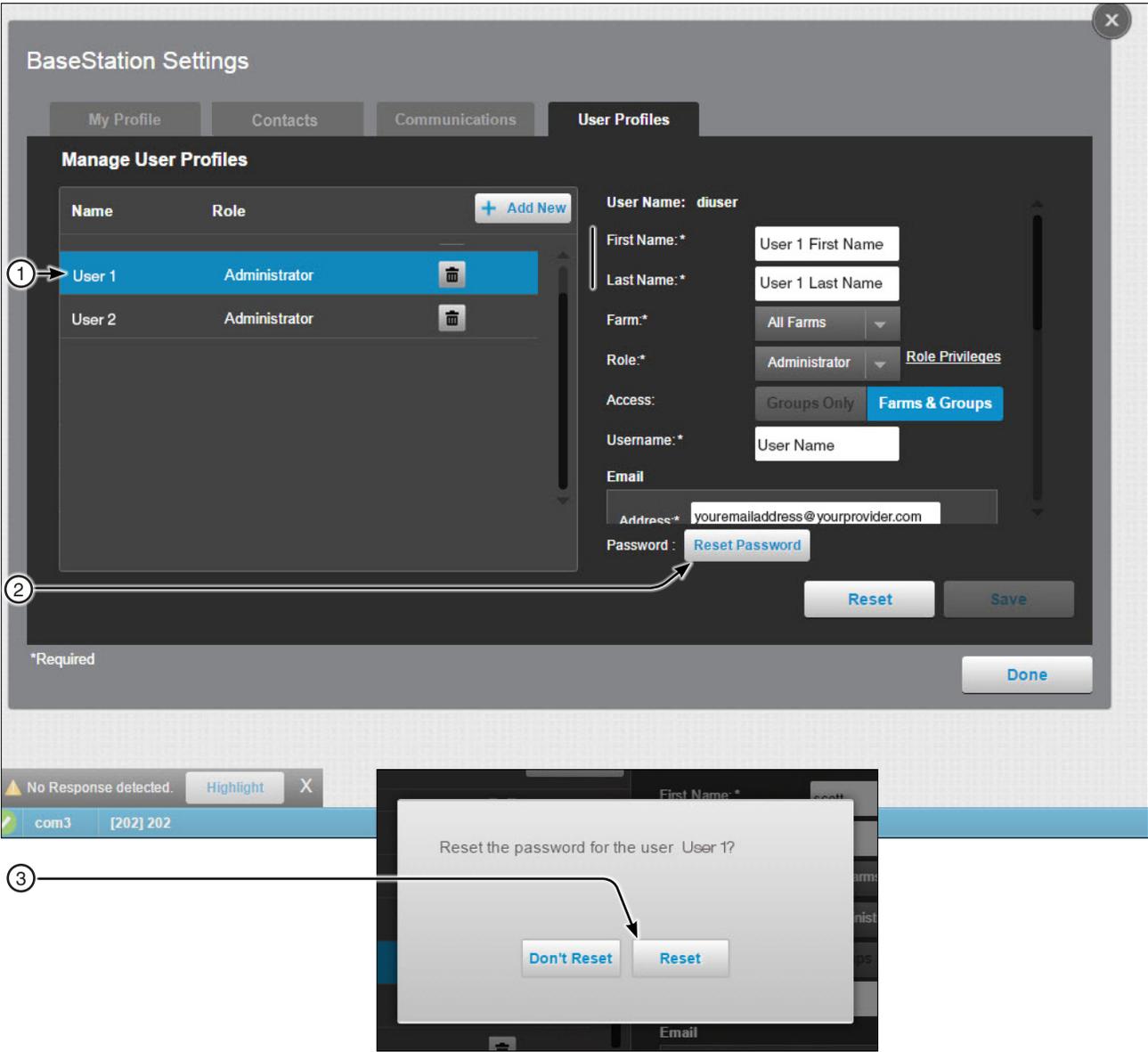


Figure 75-1 1. User Profile  
2. Reset Password  
3. Reset

# BaseStation Settings

## User Profile (Continued)

### Delete a User

To delete a user refer to Figure 76-1 and do the following.

1. Select the **User Profile** to manage.
2. Click **Delete**.
3. Click **Delete** again to permanently delete the user.

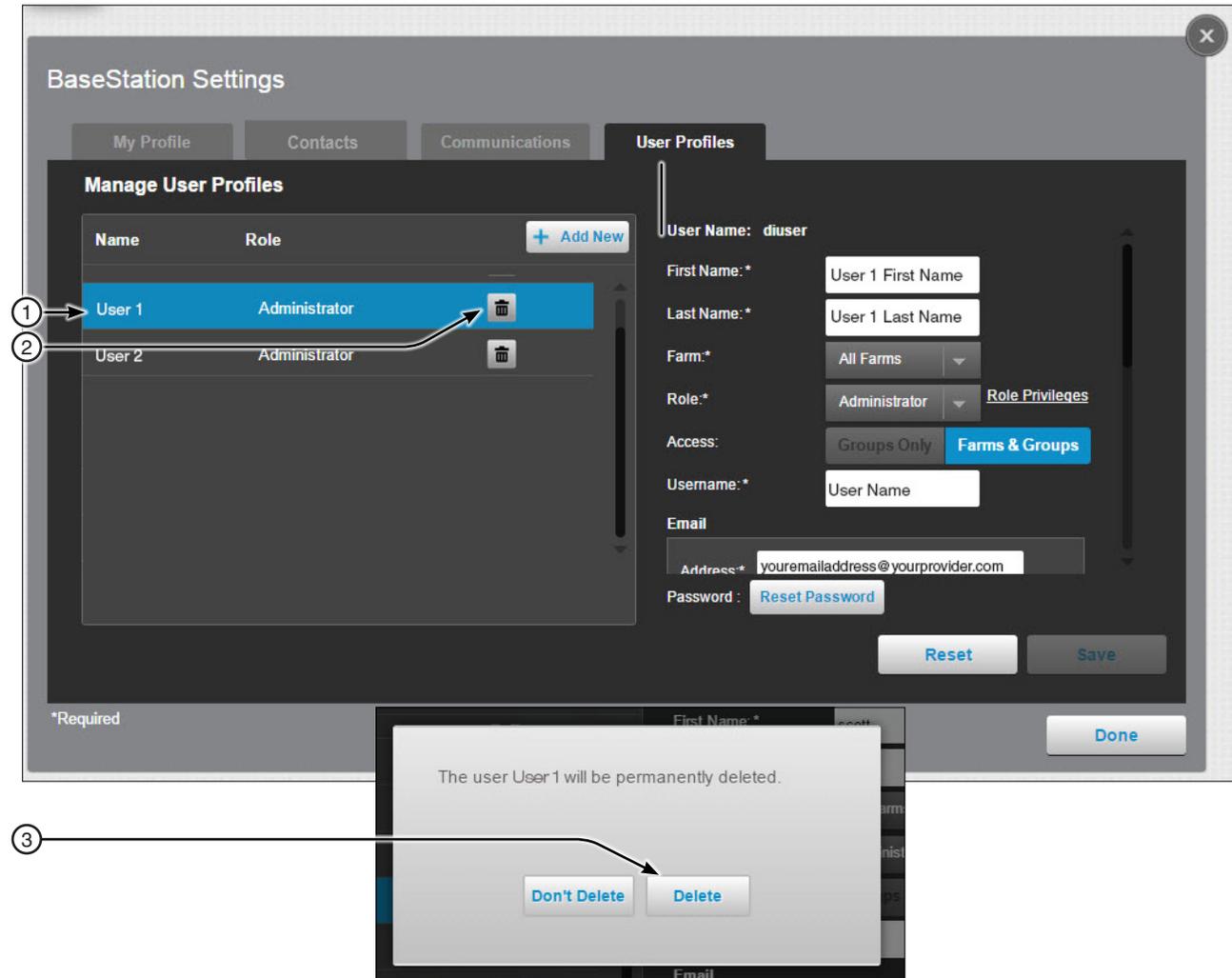


Figure 76-1 1. User Profile  
2. Delete  
3. Delete

# BaseStation Health Monitor

## BaseStation Health Monitor

To access the BaseStation Health Monitor, click **Settings** and choose **BaseStation Health Monitor**.

The application runs an automatic daily health check of BaseStation communications. This check performs a diagnostic of the day's communication to determine the overall health of the application. The **Restart Queue** feature allows users to restart the communications service if BaseStation communications are not processing.

The **Communication Alerts (4)** shows any situation where the communication channel could not efficiently execute message transactions. **Restart Queue (6)** is an action that controls the communication service. The restart will close the Windows process, then restart the Windows process. This action will force the communications channel(s) to reconnect with their hardware connections.

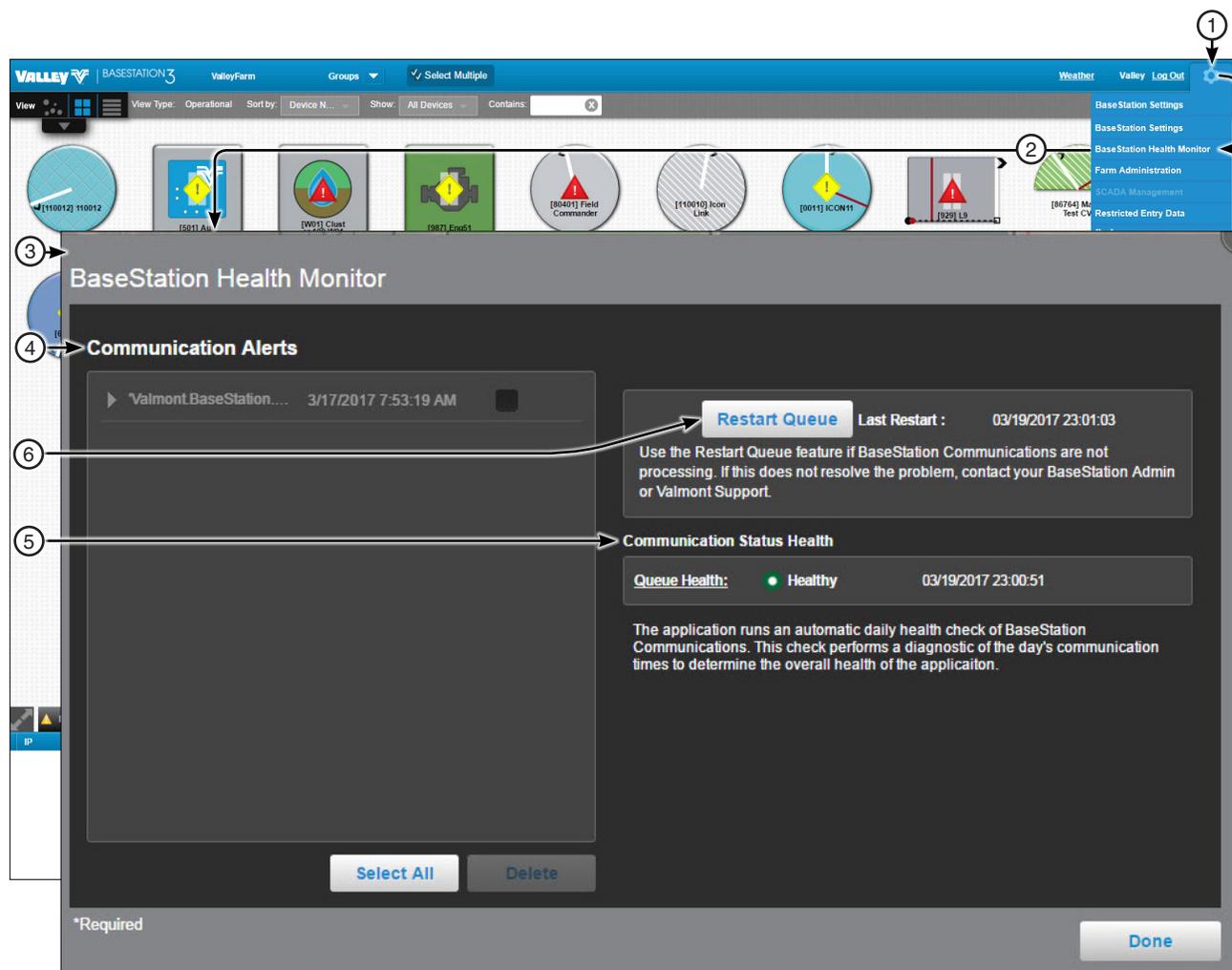


Figure 77-1

1. Settings	4. Communication Alerts
2. BaseStation Health Monitor	5. Communication Status Health
3. BaseStation Health Monitor Screen	6. Restart Queue

# BaseStation Health Monitor

---

# Farm Administration

## Farms and Groups

Use Farm Administration to setup and maintain farms and groups.

To open the Farm Administration screen, click **Settings** and choose **Farm Administration**. See Figure 79-1. Only an All Farms Administrator can Add or Change a farm.

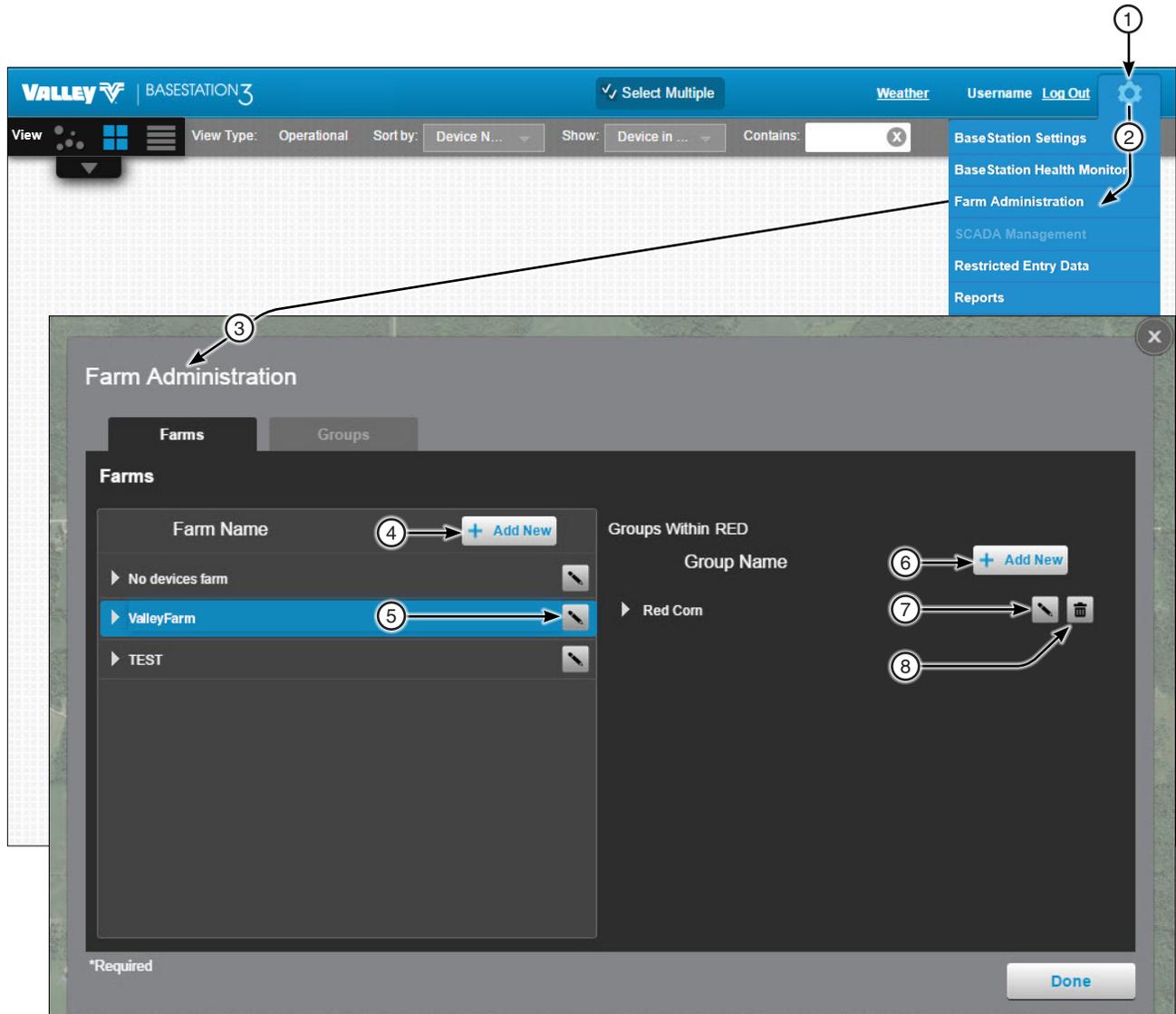


Figure 79-1

1. Settings	3. Farm Administration Screen	6. + Add New
2. Select Farm Administration	4. + Add New	7. Edit
	5. Edit	8. Delete

# Farm Administration

## Farms and Groups

### Create a Farm

Only an All Farms Administrator can add a farm.

To create a new farm refer to Figure 80-1 and do the following.

1. Click **Add New**.
2. Enter the **Farm Name**.
3. Enter the **Latitude** and **Longitude** of the farm. The latitude and longitude are automatically applied to all new devices that are added to the farm, unless a device is provided with its location in the device management configuration.
4. **Percent Timer Warning** monitors user entries for the irrigation equipment percent setting and pops up a message to the user if a percent setting is entered that is less than the warning level. The feature is intended to alert a user about an entry where the decimal point may be misplaced.
5. **Location Type (Label)** is a property type identification, often a legal description or land survey identifier.
6. The **Time Zone** is used as the time zone for all of the devices assigned to the farm. It is referenced to the UTC standard time zones. The Select Multiple command can be used to send the computer time to the Pro and ICON panels, useful in locations that wish to utilize Daylight Savings Time, especially in coordination with utility load management contracts.
7. Enter the farm **Description**.
8. **Farm Total Flow** monitors total gallons per minute (GPM) or liters per second (LPS), per farm. The Farm Total Flow value allows growers to know the total flow rate for all Valley pivot and linear devices running wet on the farm based on the configured sprinkler package or flow meter 1 rate per device. Click Hide or Show. When Show is enabled, Farm Total Flow displays in the center of the BaseStation Header Bar in map, tile or list views. Farm Total Flow adjusts based on the devices that are filtered in the operational view showing the flow value for only those devices.
9. Click **Save**.

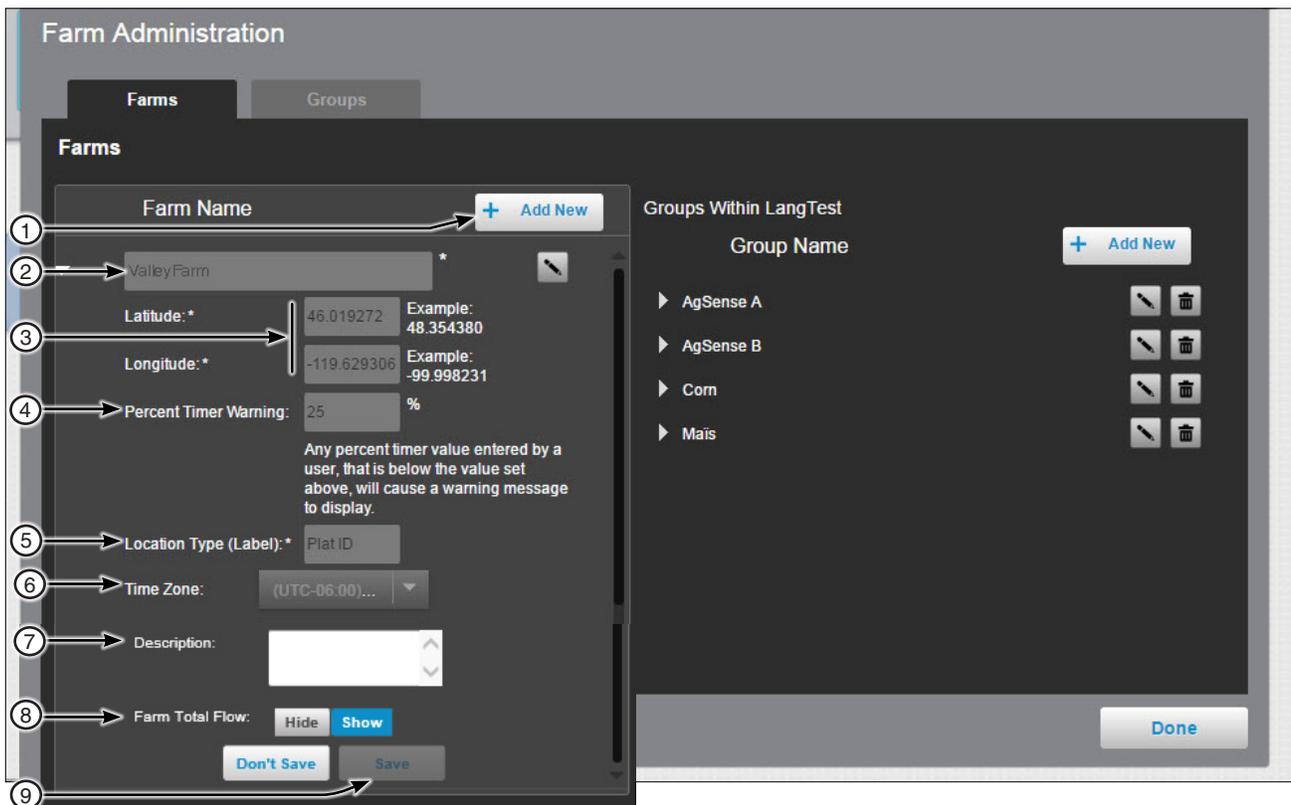


Figure 80-1 1. + Add New 4. Percent Timer Warning 7. Description  
2. Farm Name 5. Location Type (Label) 8. Farm Total Flow  
3. Latitude / Longitude 6. Time Zone 9. Save

## Farms and Groups

### Groups

Groups are a collection of devices within a single farm. Groups are also used to create an association between group only users and the devices that the administrator wants them to see when they log in to BaseStation (see BaseStation Basic Organization on page 23 in the Overview section of this manual for a diagram that outlines Farms, Groups and Users). Any Administrator associated with the farm can maintain a group within that farm. See Figure 81-1.

### Creating a Group

To create a group refer to Figure 81-1 and do the following.

1. Click **Add New**.
2. Enter the **Group Name**.
3. Enter the group **Description**.
4. Click **Save**.

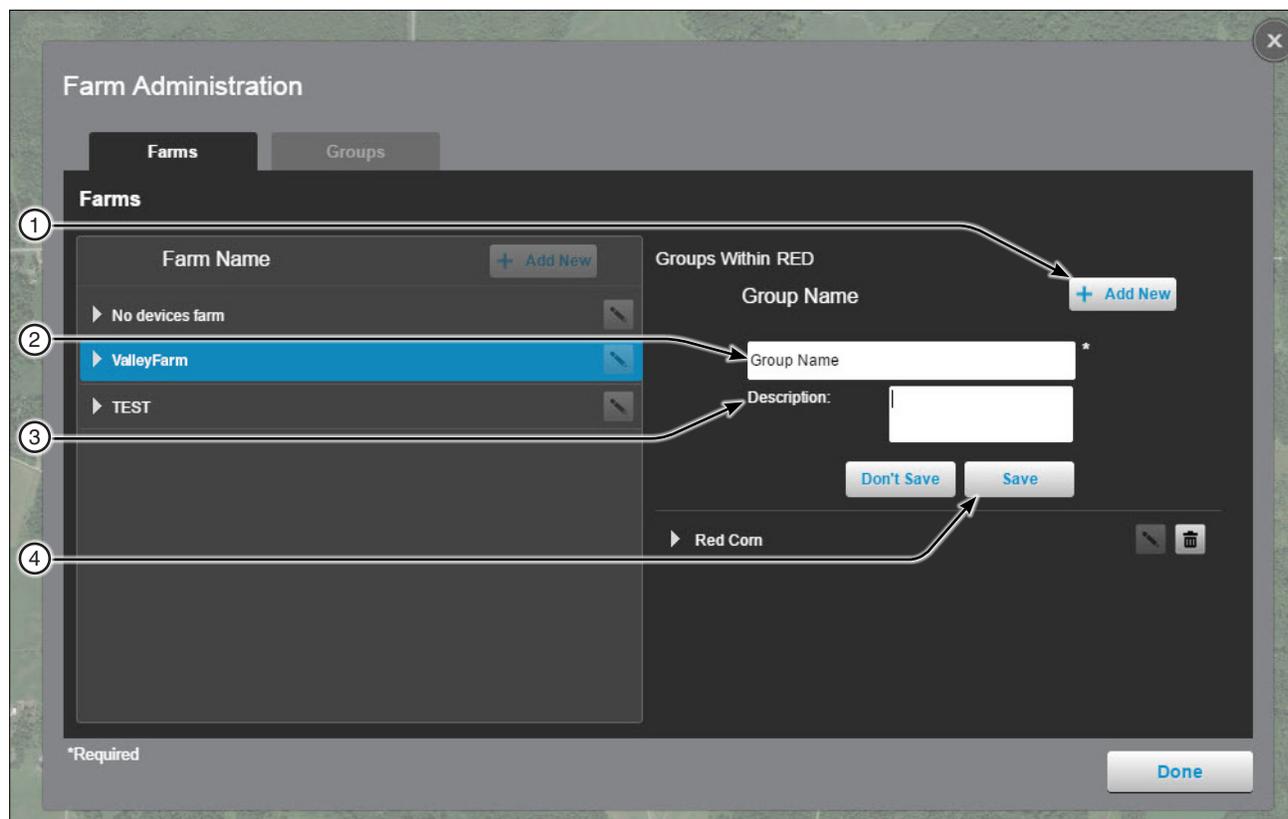


Figure 81-1 1. + Add New 2. Group Name 3. Description 4. Save

# Farm Administration

## Farms and Groups

### Viewing Group Users and Devices

To view a group, select the farm (if more than one farm is listed), then select the group to display users and devices. See Figure 82-1.

Farms and Groups users are automatically associated with all the devices on the farm, but initially there is no association between a group, a group only user or a device. Associations with a group are indicated by a check in the box next to a user or device.

### Associate a Group with Users and Devices

To create an association between the group, a group only user or a device, refer to Figure 82-1 and do the following.

1. Select the **Farm**.
2. Choose the **Group**.
3. Select user(s), check the **User** check box to associate the user with the group. **When a Groups only user logs in they will see only the devices that are in the group(s) that they are associated with. If no association to a group is made, the groups only user will not see any devices.**
4. Select device(s), check a **Device** check box, to associate the device with the group. **These are the devices that will be displayed when this group is selected on the status screen.**
5. Click **Save**.

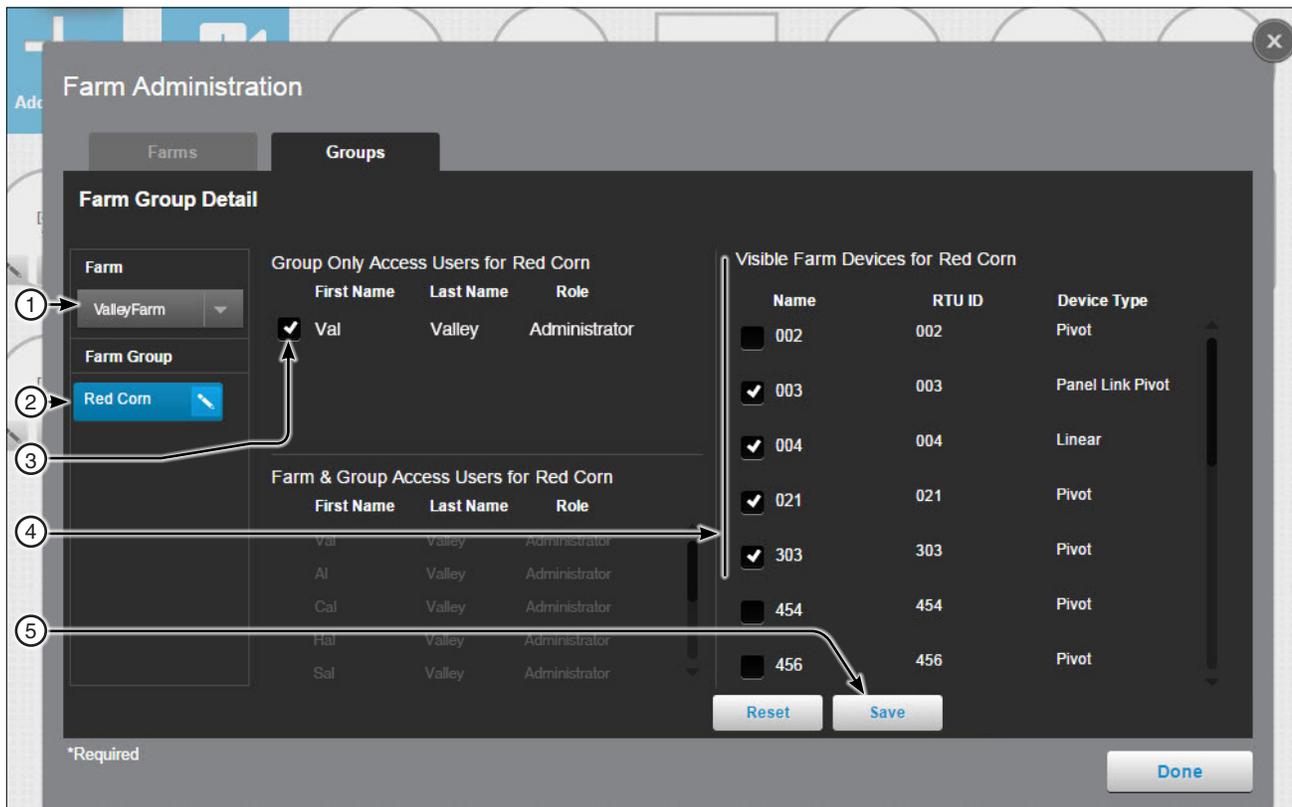


Figure 82-1

1. Farm
2. Farm Group
3. Group Only Access Users
4. Visible Farm Devices
5. Save

# SCADA Management

SCADA Management is an add-on software option. The primary objective is to coordinate water demand and delivery with pump control software.

The goal of a managed pumping system is to operate the pumps at their optimum efficiency, while meeting the demand for irrigation. This is accomplished by sharing BaseStation3 water discharge status with the pump system management software.

The OPC Server is a service used to share status and controls with some other software program. OPC is the acronym for Object Linking and Embedding for Process Control. The OPC Server is a data sharing utility. BaseStation3 writes relevant current status information in the shared memory of the OPC Server. The pump management software is able to use the BaseStation3 status information to adjust the pumps to their most efficient usage.

BaseStation3 has two modes of operation. The basic mode, Monitor Mode, utilizes the OPC Server as a BaseStation3 monitor, only, sharing current status information. The extended mode, Control Mode, provides for feedback from the pump management software. When set to Control Mode, BaseStation3 issues a request to the OPC Server before sending commands to the irrigation devices to start or stop water. The pump management software then has the opportunity to make any pump adjustments prior to approving the start or stop of water delivery. When the pump management software issues a permission granted, or denied, BaseStation3 takes the appropriate action, either to send the water start/stop command, or to cancel the pending command.

The SCADA Management selection is disabled until the add-on software option subscription has been purchased. For information about the SCADA Management option, contact your Valley dealer, or BaseStation3 Support at 888-223-0595. See Figure 83-1.

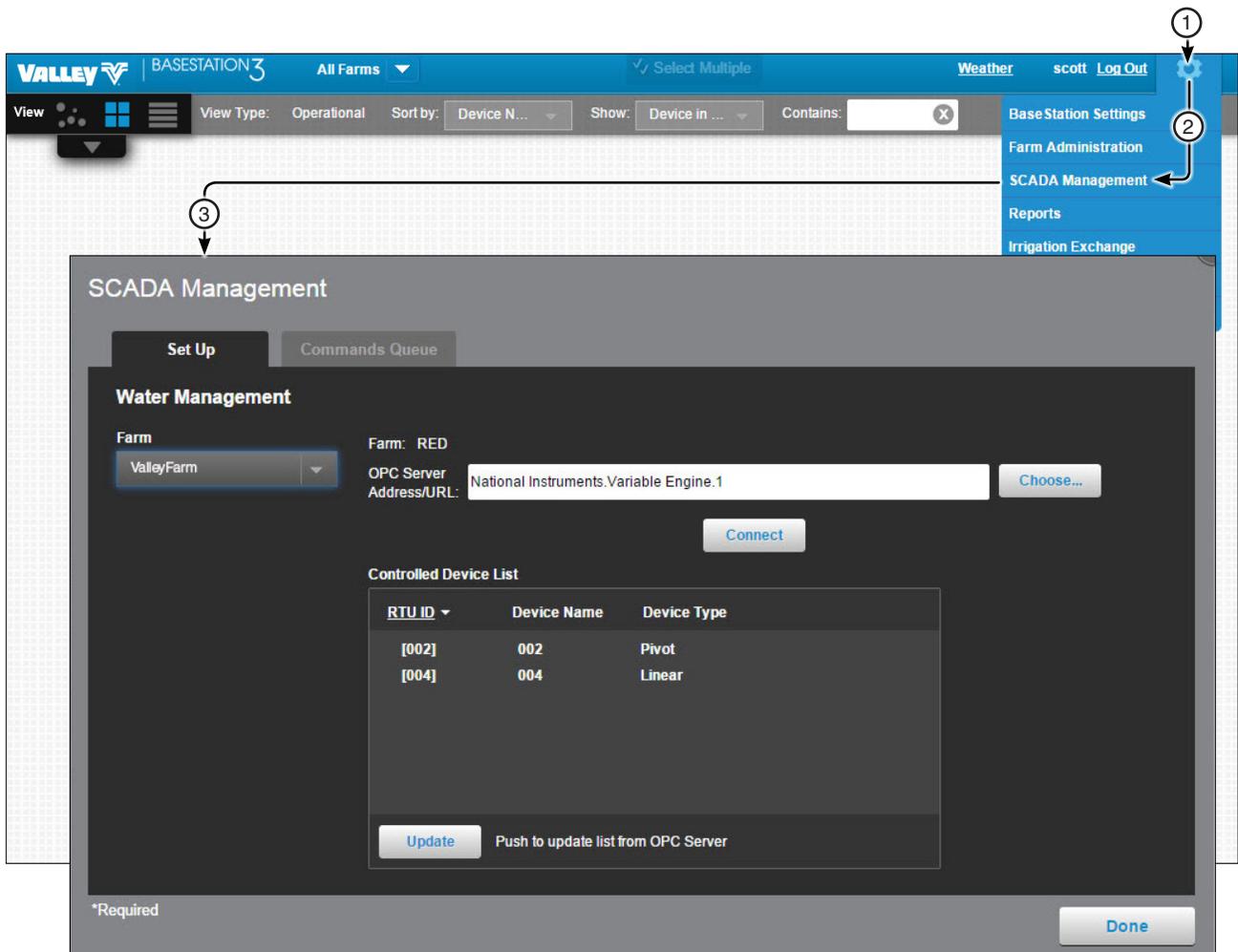


Figure 83-1 1. Settings  
2. SCADA Management  
3. SCADA Management Water Management

# SCADA Management

---

# Restricted Entry Data

Restricted Entry is an add-on option that warns users to stay out of the affected field for a scheduled period of time.

A hand icon over the affected device signifies a restricted entry condition in the field. Additionally, other visual features include a countdown timer and future events display. Text, push notifications and email alerts notify recipients about restricted entry conditions. The mobile application displays the restricted entry icon with the timer countdown. A new view and reports are available specific to restricted entry data.

To add Restricted Entry chemical data, click **+Add New**. Next enter the Chemical Data information for the chemical in the fields. Click **Save** and then click **Done**. Repeat the steps to add additional chemicals.

The Restricted Entry selection is disabled until the add-on software option subscription has been purchased. For information about the Restricted Entry option, contact your Valley dealer, or BaseStation3 Support at 888-223-0595. See Figure 85-1.

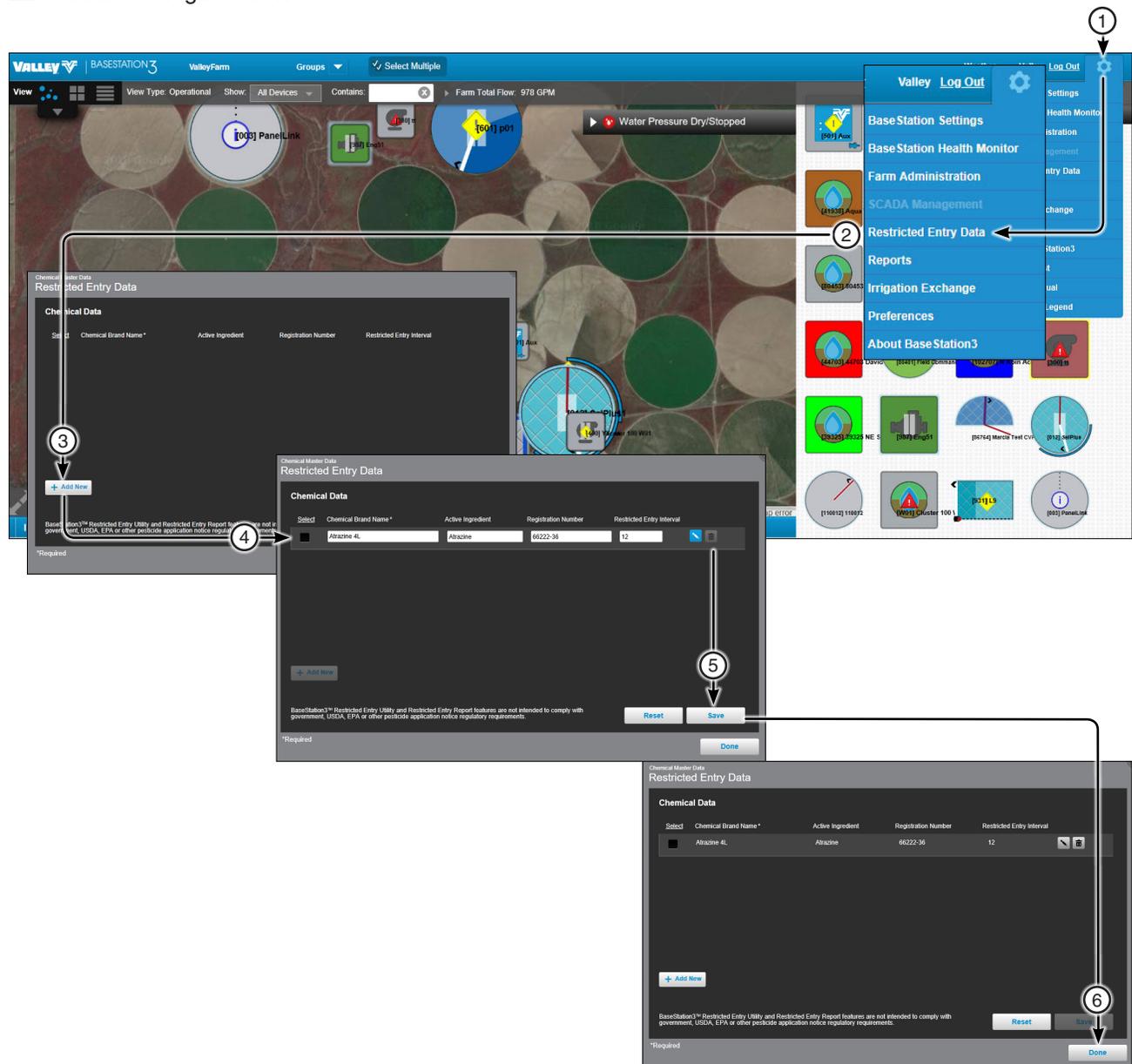


Figure 85-1

1. Settings	4. Chemical Data
2. Restricted Entry Data	5. Save
3. +Add New	6. Done

# Restricted Entry Data

---

Use Reports to access status, configuration and water application information.

## Available Reports

The following reports are available through BaseStation3:

One-Time Reports	Water Sentinel Reports
Multiple Device Reports	<ul style="list-style-type: none"> <li>• Water Volume (see page 107)</li> <li>• Optional: Fertilizer Application</li> </ul>
<ul style="list-style-type: none"> <li>• Current Status: by Pivot (see page 95)*</li> <li>• Configuration: by Device (see page 96)*</li> <li>• Configuration: Pivot Alarms (see page 97)*</li> <li>• Water Volume: by Device (see page 99)*</li> <li>• Transaction Overdue (see page 100)*</li> <li>• Restricted Entry: Alerts (see page 101)*</li> <li>• Restricted Entry: History All (see page 102)</li> <li>• Notifications (see page 104)</li> <li>• Water Volume: by Auxilliary Link (see page 104)</li> </ul>	<b>Device Utilities</b> <ul style="list-style-type: none"> <li>• Status Change Report (see page 108)</li> <li>• Event History Log (see page 114)</li> <li>• Alarm History Report (see page 114)</li> </ul>
Individual Device Reports	
<ul style="list-style-type: none"> <li>• Water Applied Depth Report (see page 105)</li> <li>• Restricted Entry: History (see page 106)</li> </ul>	

\* This report can also be scheduled on a recurring basis.

Don't see the report you want listed? BaseStation also offers custom reports. Contact your Valley dealer today to learn more.

\*These reports are also available when archiving is enabled.

# Reports

## Accessing Reports

To access reports, click **Settings** and choose **Reports**. See Figure 88-1.

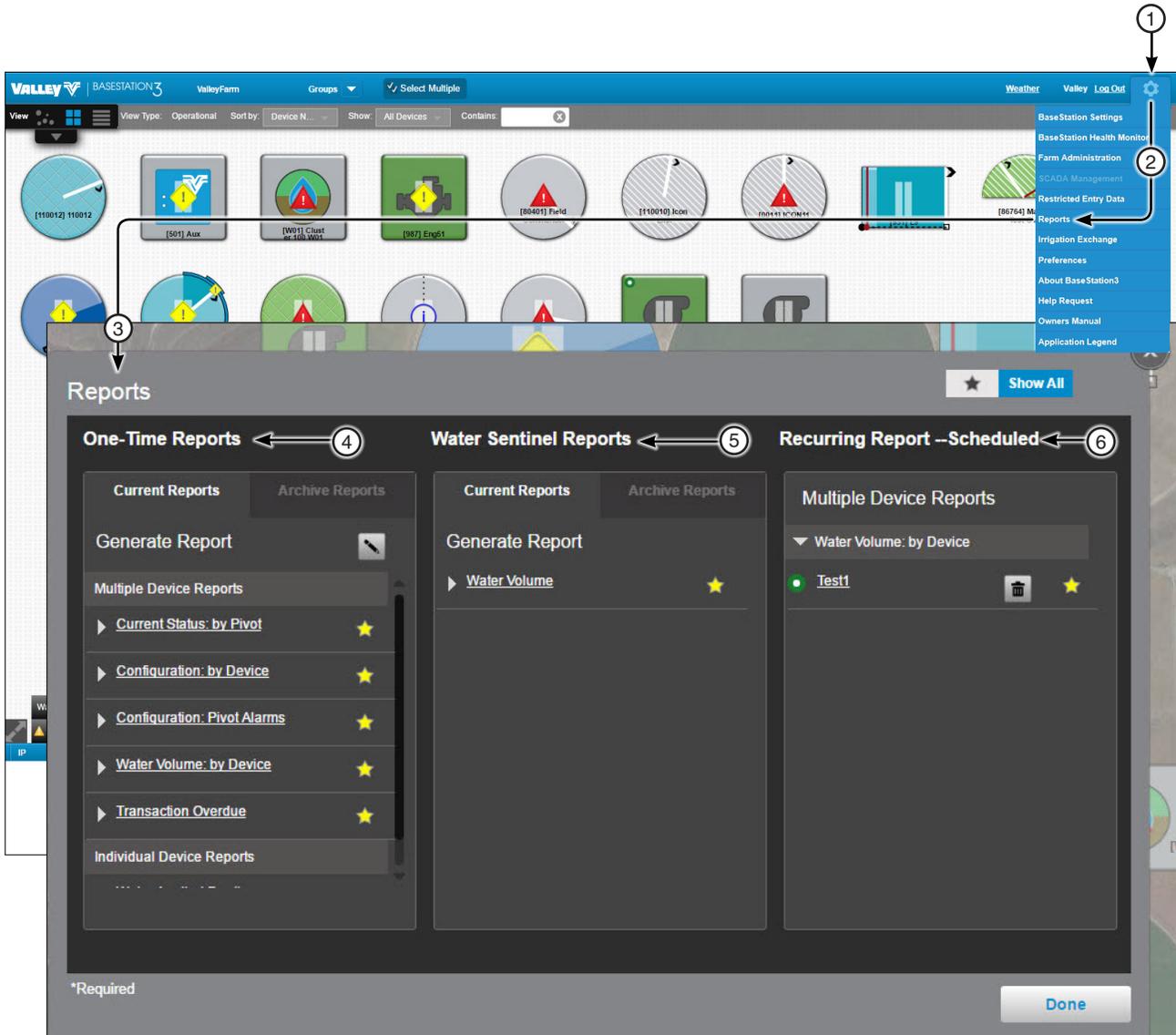


Figure 88-1 1. Settings 2. Select Reports 3. Reports Screen 4. One-Time Reports 5. Water Sentinel Reports 6. Recurring Report – Scheduled

## Hiding Report Titles in the List

To select which report titles are displayed, refer to Figure 89-1 and do the following.

1. Click the star associated with a report that you want to display to highlight the star.
2. Click the star on other reports that you want to remove the highlight from the star.
3. Click the **Star** icon in the upper right corner to display only the reports with the highlighted star.

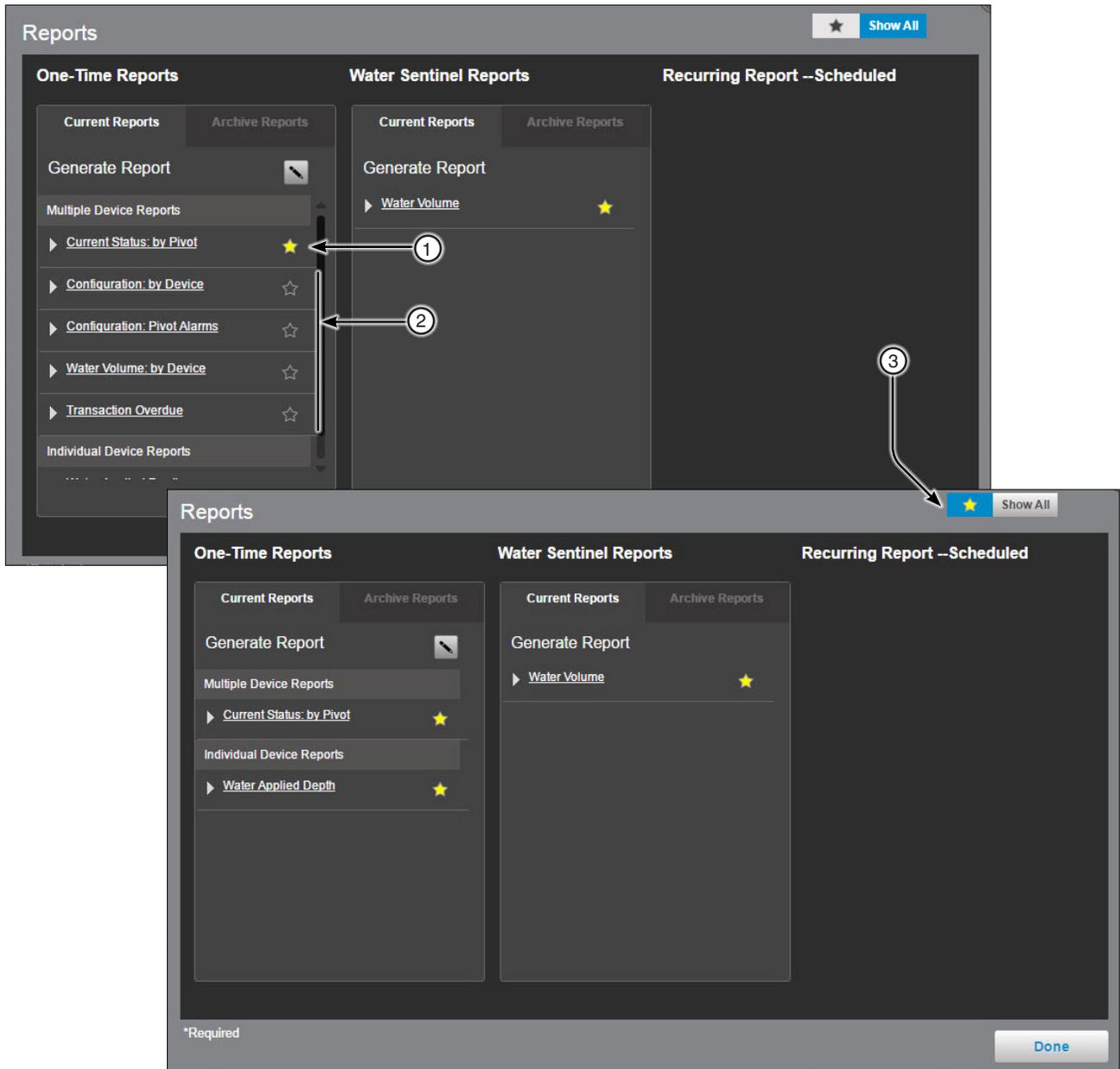


Figure 89-1 1. Show  
2. Hide  
3. Display Selection

# Reports

## Changing the Order of Report Titles in the List

The user can customize the reports screen view to limit which reports are displayed and in what order they are displayed. To change the order of the report titles as they appear in the list, refer to Figure 90-1 and do the following.

1. Click **Change**.
2. Do one of the following:
  - Click the down arrow for a report to move it down one position.
  - or
  - Click the up arrow for a report to move it up one position.
3. Click **Change** again.

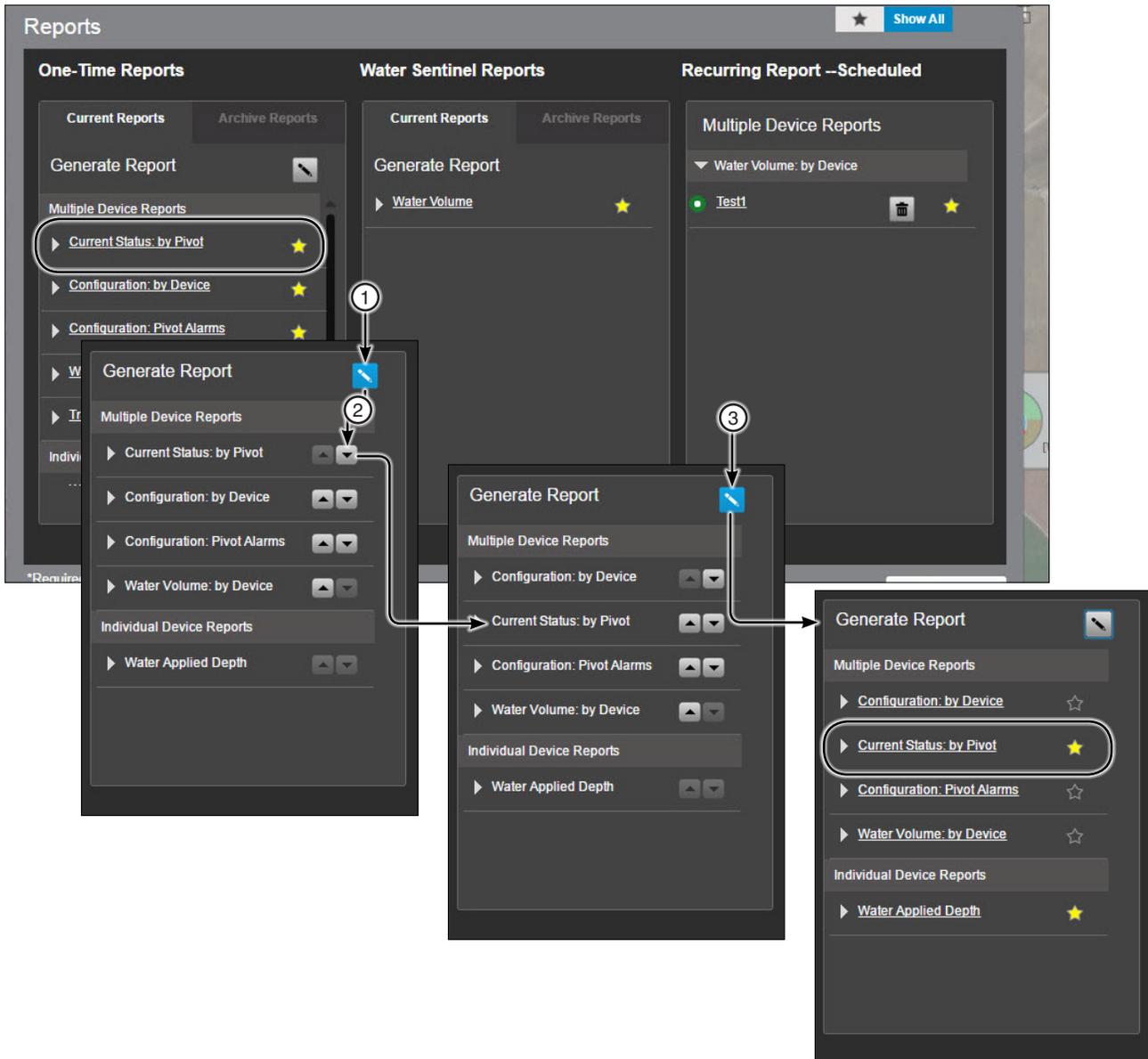


Figure 90-1 1. Edit  
2. Arrow  
3. Edit

## Report Interface

**Side Bar:** Toggle the side bar off and on. Refine the report by selecting different parameters and clicking View report.

**Search:** Click **Search**, enter a **Key Word** or phrase and click **Search**.

**Page Selection tools:** Choose the page by clicking either First Page, Previous Page, Next Page or Last Page.

**Exporting:** The report can be exported in the following formats; PDF, Word, XML and Excel. To export the report, select the export format and click **Export**.

**Print:** To Print the report click the **Print** button.

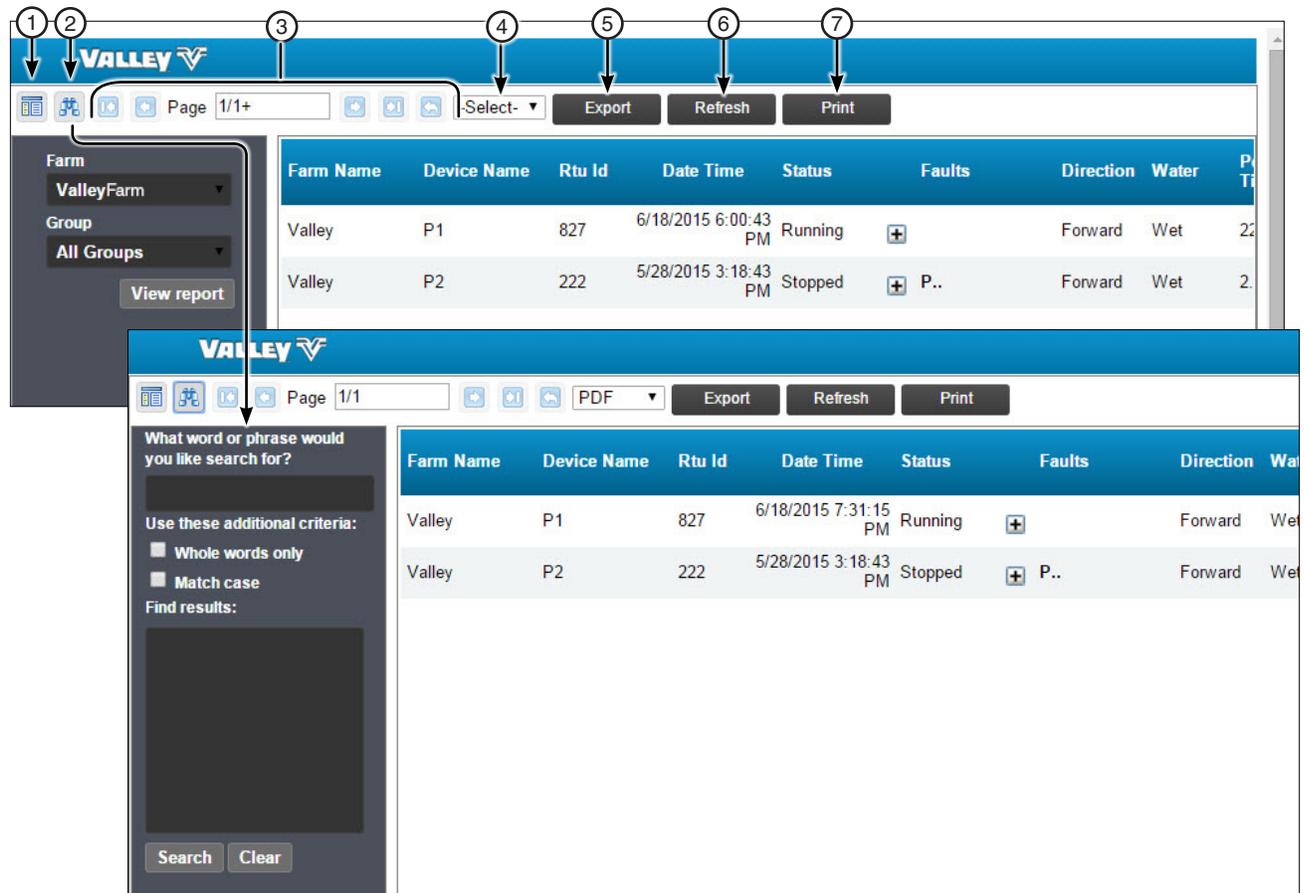


Figure 91-1

1. Side Bar	5. Export
2. Search	6. Refresh
3. Page Selection Tools	7. Print
4. Select	

# Reports

---

## Generating Reports Now

To generate reports now, refer to Figure 93-1 and do the following.

1. Click **Settings**.
2. Click **Reports**.
3. Click on the **Report**; the **Generate or Schedule Recurring Report** pop up is shown.
4. The **Generate Report Now** radio button should be selected (the bubble found by the radio button).
5. Set the report parameters as desired. Depending on the report, some parameters are preset and cannot be changed.
  - (a) Select a **Farm**.
  - (b) Choose the **Farm Group**.
  - (c) Choose the **Device Type**.
  - (d) Choose the **Device**.
  - (e) Set the **Time Frame**, which includes the **Start Date** and **End Date**.
  - (f) Select whether to **Include Supplemental Irrigation Device Location** information in the report click **Yes / No**.
6. Click **Generate**.

### **NOTE**

•Some of the BaseStation3 reports require configuration settings.

## Generating Reports Now

The screenshot shows the Valley BaseStation3 interface. The top navigation bar includes 'VALLEY BASESTATION3', 'All Farms', 'Weather', and 'Valley Log Out'. The main area displays a 'Reports' section with a list of report types. A 'Generate or Schedule Recurring Report' dialog box is open, showing the configuration for a 'Water Applied Depth' report. The dialog includes fields for Report Name, Farm, Farm Group, Device Type, Device, Time Frame (Start and End dates), and an option to include supplemental irrigation device location info. Numbered callouts (1-11) indicate the steps to generate the report: 1. Settings, 2. Reports, 3. Water Applied Depth, 4. Generate Report Now, 5. Farm, 6. Farm Group, 7. Device Type, 8. Device, 9. Time Frame, 10. Include Supplemental Irrigation Device Location Info, 11. Click Generate.

Figure 93-1

1. Settings	5. Farm	9. Time Frame
2. Reports	6. Farm Group	10. Include Supplemental Irrigation Device Location Info
3. Water Applied Depth	7. Device Type	11. Click Generate
4. Generate Report Now	8. Device	

# Reports

## Scheduling Reports

To generate or schedule a recurring report, additional information will be needed than what is required for a one-time report. To do this, follow the same steps to generate a report (found on page 93) with the additional steps below, refer to Figure 94-1. The report will appear under **Recurring Report — Scheduled**.

1. Check **Schedule Recurring Report** after pulling up reports from Settings.
2. Set the parameters as desired.
  - (a) Select a **Farm**.
  - (b) Enter a **Scheduled Report Name**.
  - (c) Select the **Schedule**, **Report Period**, **Active Reporting Months** and **File Type**.
  - (d) Users have the option to include and verify the **FTP Address**, **FTP username** and **FTP Password** or they can click **Anonymous**. There is also an option to add one or more **Recipient email address** and to **Include Supplemental Irrigation Device Location Info**.
  - (e) Click **Save** to create the report.

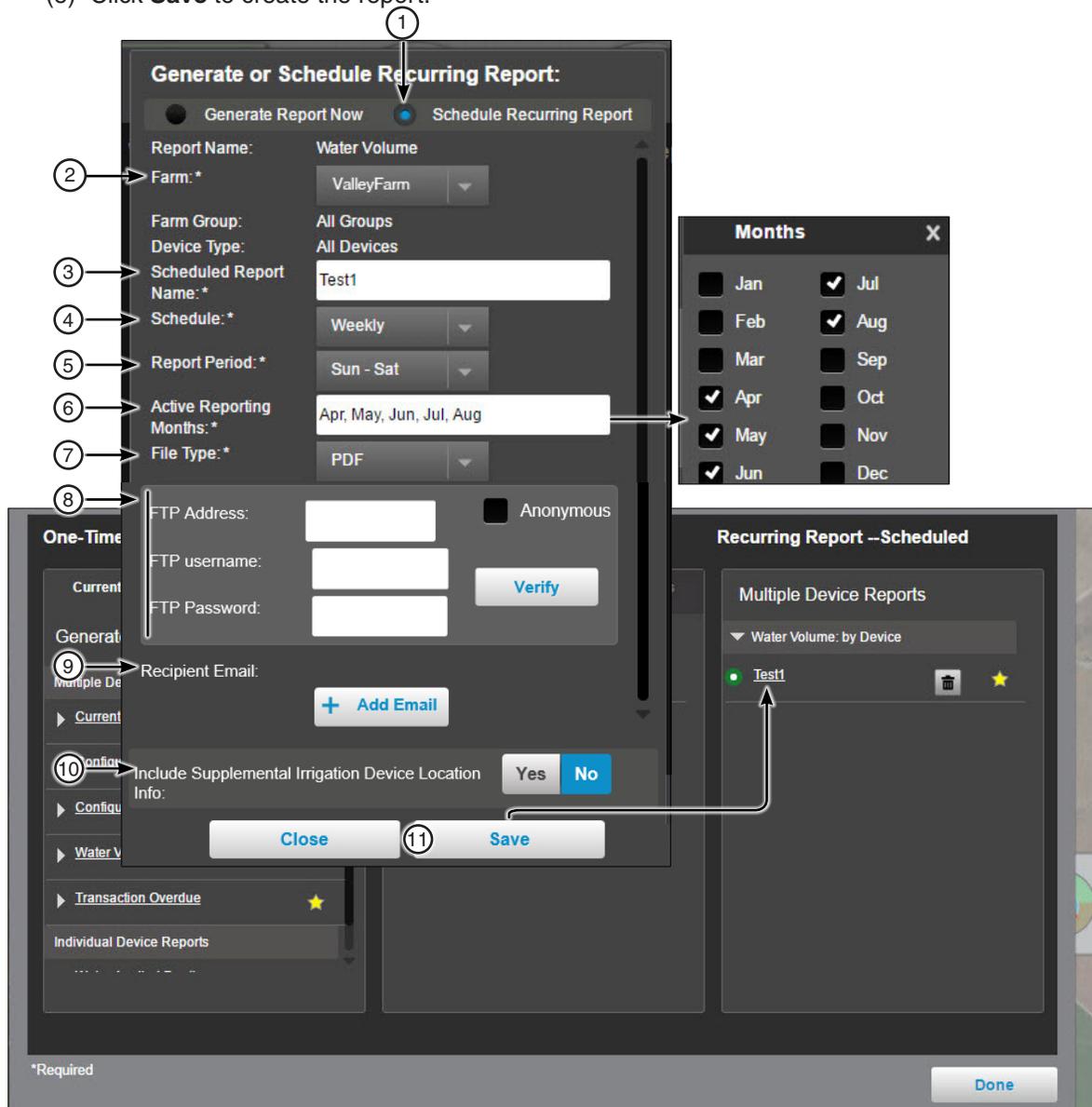


Figure 94-1 1. Schedule Recurring Report 5. Report Period 9. Recipient Email  
2. Farm 6. Active Reporting Months 10. Include Supplemental Irrigation Device Location  
3. Scheduled Report Name 7. File Type 11. Save  
4. Schedule 8. FTP settings / Anonymous

## One-Time Reports — Current Status by Pivot

**Description:** This report will provide a snapshot of the current status of each of the pivot devices in BaseStation3 under the selected Farm and Group. This report is available on demand as well as on a scheduled basis.

Farm Name	Device Name	RTU ID	Date Time	Status	Faults	Direction	Water	Percent Timer	Application Depth (inches)	End Guns Running	AUX 1 OUT	AUX 2 OUT	Pivot At
ValleyFarm	ICON11	0011	3/20/2018 7:15:05 AM	Stopped	Power	Forward	Wet	99.0	0.25	None	On	On	1.7
ValleyFarm	p01	601	11/12/2015 7:38:19 AM	Running		Forward	Wet	100.0	0.25	EG1, EG2	Off	Off	199.4
ValleyFarm	P5	511	3/27/2017 8:49:51 AM	Stopped	Command	Reverse	Wet	100	0.12	None	On	On	41
ValleyFarm	P8	225	3/13/2018 11:56:47 AM	Stopped	DailyOperations	Reverse	Wet	100.0	1	None	On	Off	147.9
ValleyFarm	SelPlus	012	11/30/2017 8:15:38 AM	Stopped	Command	Forward	Wet	15.0	3.6	None	On	Off	59.9

Faults	Direction	Water	Percent Timer	Application Depth (inches)	End Guns Running	AUX 1 OUT	AUX 2 OUT	Pivot At	Volts	Pressure (PSI)	Hrs/Rev	SIS	Step Programs	Cruise Control	Vri Mode	Vri Active	Daily Operations	Restart	Panel Lockout
	Forward	Wet	99.0	0.25	None	On	On	1.7	496	38	18.2	33.0	None	On	Zone	Off	Disabled	Disabled	Off
	Forward	Wet	100.0	0.25	EG1, EG2	Off	Off	199.4	486	36	24.0	Off	None	Off	Speed	Off	Disabled	Disabled	Off
	Reverse	Wet	100	0.12	None	On	On	41	498	34	24.0	1.0	None	Off	Speed	Off	Disabled	Disabled	Off
	Reverse	Wet	100.0	1	None	On	Off	147.9	502	37	130.9	Off	Running	Off	Zone	On	Enabled	Disabled	Off
	Forward	Wet	15.0	3.6	None	On	Off	59.9	506	21	186.7	1.0	None	Off	Speed	On	Disabled	Disabled	Off

Figure 95-1

1. Farm Name	7. Direction	13. AUX 2 OUT	19. Step Programs
2. Device Name	8. Water	14. Pivot At	20. Cruise Control
3. RTU ID	9. Percent Timer	15. Volts	21. VRI Mode
4. Date Time	10. Application Depth (inches)	16. Pressure (PSI)	22. VRI Active
5. Status	11. End Guns Running	17. Hrs/Rev	23. Daily Operations
6. Faults	12. AUX 1 OUT	18. SIS	24. Restart
			25. Panel Lockout

# Reports

## One-Time Reports — Configuration by Device Report

**Description:** This report is available for Aux Link and Pivot type devices and will provide a list of the current configuration settings for each device active within the BaseStation3 installation. Depending on the device type selected during report generation, different fields may appear within the report applicable to that device type (Aux Link or Pivot) and its configuration elements. Figure 96-1 shows an Aux Link Device Configuration Report and Figure 96-2 shows a Pivot Device Configuration Report.

Aux Link Name	Firmware	Comm Channel Name	Farm Name	Contact List Name	RTU ID	Radio Hop RTU ID	Store In Forward Path Enabled	Store In Forward Path RTU ID	Is Polling Enabled	Polling Period	Number Of Times To Send Messages	Time To Wait For Acknowledge	Device Type
Aux	1.0	com1	ValleyFarm		501	-	False		False	5.5	2	5	AuxLink
Aux	1.0	com1	ValleyFarm		501	-	False		False	5.5	2	5	AuxLink
Aux	1.0	com1	ValleyFarm		501	-	False		False	5.5	2	5	AuxLink
Aux	1.0	com1	ValleyFarm		501	-	False		False	5.5	2	5	AuxLink

- Figure 96-1
- |                                  |                                      |                                        |                         |
|----------------------------------|--------------------------------------|----------------------------------------|-------------------------|
| 1. Aux Link Name                 | 9. Store in Forward Path RTU ID      | 17. Device Name                        | 23. Display Rate Units  |
| 2. Firmware                      | 10. Is Polling Enabled               | 18. Aux Link Ancillary Device Category | 24. Display Total Units |
| 3. Comm Channel Name             | 11. Polling Period                   | 19. Aux Link Ancillary Device Type     | 25. Counter Offset      |
| 4. Farm Name                     | 12. Number Of Times To Send Messages | 20. On Label                           | 26. Counter Multiplier  |
| 5. Contact List Name             | 13. Time To Wait For Acknowledge     | 21. Off Label                          | 27. Units               |
| 6. RTU ID                        | 14. Device Type                      | 22. Show On Map                        | 28. Default Low         |
| 7. Radio Hop RTU ID              | 15. Sensor M Amp Count               |                                        | 29. Low                 |
| 8. Store In Forward Path Enabled | 16. Sensor Volt Count                |                                        | 30. Default High        |
|                                  |                                      |                                        | 31. High                |

Name	RTU ID	Radio Hop RTU ID	Panel	Version	Farm	Channel	Polling	Water Meter	Sprinkler Discharge	Irrigated Acres	Multiplier	Min App	Min Hrs
ICON11	0011	-	ICON	1.17	ValleyFarm	com1	30	OneFlowMeter	755	96	1.25		
p01	601	-	Pro2+	9.01	ValleyFarm	com1	30	WetHourMeter	230	175		0.25	24
P5	511	-	Pro	7.2.5	ValleyFarm	com1	5.5	None	680	420		0.12	24
P6	225	-	Pro2	8.40	ValleyFarm	com1	5.5	WetHourMeter	458	200		0.25	50
SelfPlus	012	-	Select2+	2.00	ValleyFarm	com1	30	OneFlowMeter			1.3514	0.54	28

- Figure 96-2
- |                     |            |                         |             |
|---------------------|------------|-------------------------|-------------|
| 1. Name             | 5. Version | 9. Water Meter          | 13. Min App |
| 2. RTU ID           | 6. Farm    | 10. Sprinkler Discharge | 14. Min Hrs |
| 3. Radio Hop RTU ID | 7. Channel | 11. Irrigated Acres     |             |
| 4. Panel            | 8. Polling | 12. Multiplier          |             |

## One-Time Reports — Configuration: Pivot Alarms Report

**Description:** This report will provide a list of pivot devices and the associated alarms that are configured with the level (None, Info, Low or High) at which they will be initiated. The report can be filtered down to the farm, group, device name or alarm type (State, Fault, Thresholds, Other or Overlap Zone).

			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱
			Aux 1 In	Aux 1 Out	Aux 2 In	Aux 2 Out	Daily Operations Restart	Data Exchange Error	Direction	End Gun 1	End Gun 2	End Gun 3	End Gun 4	IP Connection Error	No Response	Running	SIS On/Off	Speed	Wet/Dry	Unreliable Position
P6	225	ValleyFarm	None	Low	None	None	Info	Low	Info	Low	Low	Low	Low	Low	Low	Info	Low	Low	Low	
P5	511	ValleyFarm	None	Low	None	None	Info	Low	Info	Low	Low	Low	Low	Low	Low	Info	Low	Low	Low	
SeiPlus	012	ValleyFarm	None	None	None	None	Info	Low	Info	Low	Low			Low	Low	Info	Low	Low	Low	
p01	001	ValleyFarm	None	Low	None	None	Info	Low	Info	Low	Low	Low	Low	Low	Low	Info	Low	Low	Low	
ICON11	0011	ValleyFarm	None	Low	None	None	Info	Low	Info	Low	Low	Low	Low	Low	Low	Info	Low	Low	Low	Low

- Figure 97-1
- 1. Aux 1 In
  - 2. Aux 1 Out
  - 3. Aux 2 In
  - 4. Aux 2 Out
  - 5. Daily Operations Restart
  - 6. Data Exchange Error
  - 7. Direction
  - 8. End Gun 1
  - 9. End Gun 2
  - 10. End Gun 3
  - 11. End Gun 4
  - 12. IP Connection Error
  - 13. No Response
  - 14. Running
  - 15. SIS On / Off
  - 16. Speed
  - 17. Wet / Dry
  - 18. Unreliable Position

			①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
			Voltage High	Voltage Low	Water Pressure Dry/Stopped	Water Pressure High	Water Pressure Low	End Pressure High (TPMS)	End Pressure Low (TPMS)	Water Pressure Dry/Stopped (mA)	Water Pressure Dry/Stopped (mV)	Water Pressure High (mA)	Water Pressure High (mV)	Water Pressure Low (mA)	Water Pressure Low (mV)
P6	225	ValleyFarm	High	High	High	High	High								
P5	511	ValleyFarm	High	High	High	High	High								
SeiPlus	012	ValleyFarm	High	High	High	High	High								
p01	001	ValleyFarm	High	High	High	High	High								
ICON11	0011	ValleyFarm	High	High				High	High	High	High	High	High	High	High

- Figure 97-2
- 1. Voltage High
  - 2. Voltage Low
  - 3. Water Pressure Dry / Stopped
  - 4. Water Pressure High
  - 5. Water Pressure Low
  - 6. End Pressure High (TPMS)
  - 7. End Pressure Low (TPMS)
  - 8. Water Pressure Dry/Stopped (mA)
  - 9. Water Pressure Dry/Stopped (mV)
  - 10. Water Pressure High (mA)
  - 11. Water Pressure High (mV)
  - 12. Water Pressure Low (mA)
  - 13. Water Pressure Low (mV)

			①
			Overlap Zone
P6	225	ValleyFarm	High
P5	511	ValleyFarm	High
SeiPlus	012	ValleyFarm	High
p01	001	ValleyFarm	High
ICON11	0011	ValleyFarm	High

- Figure 97-3
- 1. Overlap Zone

# Reports

## One-Time Reports — Configuration: Pivot Alarms Report (Continued)

**Description:** This report will provide a list of pivots and the associated alarms that are configured with the level (None, Info, Low or High) at which they will be initiated. The report can be filtered down to the farm, group, device name or alarm type (State, Fault, Thresholds, Others or Overlap Zone).

Device Type	Pivot	FarmList	FarmGroup	DeviceName	AlarmType	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
						BB RAM	GPS Com	GPS Signal	Tire Pressure Low	Auto-Stop	Command	Daily Operations	Direction Shutdown	Flow	High Water Pressure	No Ack	Power	Pressure	Program	Proximity	Relay BD Comm	Safety	SIS	Temperature	Transition	Wind	BB RAM	GPS Com	GPS Signal	Tire Pressure Low	12V Power	Cut Cable	Daily Ops	For/Rev	GPS Lock		
	P6	225	ValleyFarm			High	High	High	High	Info	Info	Info	High	High	High	High	High	Info	Info	High	High	Info	High	High	High												
	P5	511	ValleyFarm							Info	Info	Info			High	High	High	High	Info	Info	High	High	Info	High	High	High	High	High	High	High							
	SelPlus	012	ValleyFarm								Info	Info				High	High																				
	p01	801	ValleyFarm							Info	Info	Info			High	High	High	High	Info	Info	High	High	Info	High	High	High	High	High	High	High							
	ICON11	0011	ValleyFarm							Info	Info				High	High																					

Device Type	Pivot	FarmList	FarmGroup	DeviceName	AlarmType	31	32	33	34	35	36	37	38	39	40	41	42																								
						Water Pressure	No Ack	Power	Pressure	Program	Proximity	Relay BD Comm	Safety	SIS	Temperature	Transition	Wind	BB RAM	GPS Com	GPS Signal	Tire Pressure Low	12V Power	Cut Cable	Daily Ops	For/Rev	GPS Lock	License	Low Pressure	NVM	Operating Sector	PCB Hardware	Position Encoder Com	Rain	System Power Lost	System Power Low	System Safety	Tire Pressure	Water Timer			
						High	High	High	High	Info	Info	High	High	Info	High	High	High	High	High	High	High	High	High																		

- Figure 98-1
- |                         |                   |                       |                          |
|-------------------------|-------------------|-----------------------|--------------------------|
| 1. BB RAM               | 12. Power         | 23. GPS Com           | 34. Operating Sector     |
| 2. GPS Com              | 13. Pressure      | 24. GPS Signal        | 35. PCB Hardware         |
| 3. GPS Signal           | 14. Program       | 25. Tire Pressure Low | 36. Position Encoder Com |
| 4. Tire Pressure Low    | 15. Proximity     | 26. 12V Power         | 37. Rain                 |
| 5. Auto-Stop            | 16. Relay BD Comm | 27. Cut Cable         | 38. System Power Lost    |
| 6. Command              | 17. Safety        | 28. Daily Ops         | 39. System Power Low     |
| 7. Daily Operations     | 18. SIS           | 29. For/Rev           | 40. System Safety        |
| 8. Direction Shutdown   | 19. Temperature   | 30. GPS Lock          | 41. Tire Pressure        |
| 9. Flow                 | 20. Transition    | 31. License           | 42. Water Timer          |
| 10. High Water Pressure | 21. Wind          | 32. Low Pressure      |                          |
| 11. No Ack              | 22. BB RAM        | 33. NVMEM             |                          |

Device Type	Pivot	FarmList	FarmGroup	DeviceName	AlarmType	1	2
						Field Boundary	Telemetry Failed
	P6	225	ValleyFarm			High	Info
	P5	511	ValleyFarm			High	Info
	SelPlus	012	ValleyFarm			High	Info
	p01	801	ValleyFarm			High	Info
	ICON11	0011	ValleyFarm			High	Info

Figure 98-2 1. Field Boundary 2. Telemetry Failed

## One-Time Reports — Water Volume: by Device Report

**Description:** This report will provide a summary information of water discharged by the selected farm, group and device type, for the time period specified. The report uses the water measure that has been configured for the device in the Device Management form to calculate total water discharged. The units of measure shown in the report display according to the preferences selected by the user. The report can be saved as an exported file.

Device RTU ID	Device Name	Device Type	Panel Type	Measure	Flow Meter 1 Name	Flow Meter 1 Pulse Count	Flow Meter 1 Multiplier	Water From Flow Meter 1 (Gallons)	Flow Meter 2 Name	Flow Meter 2 Pulse Count
0011	ICON11	Pivot	ICON	Gallons		0	1.25	0		0
931	L9	Linear	Standard Linear	Gallons		21752760		0		0
225	P6	Pivot	Pro2	Gallons		24656		0		0
012	SelfPlus	Pivot	Select2+	Gallons		0	1.3514	0		0
<b>Totals</b>						<b>21777416</b>		<b>0</b>		<b>0</b>

Flow Meter 1 Pulse Count	Flow Meter 1 Multiplier	Water From Flow Meter 1 (Gallons)	Flow Meter 2 Name	Flow Meter 2 Pulse Count	Flow Meter 2 Multiplier	Water From Flow Meter 2 (Gallons)	Total Flow Meter (Gallons)	Wet Hours	Gallons Per Minute (GPM)	Water From Wet Water Hours	Total Water (Acre Feet)
0	1.25	0		0		0	0	1887.1	755	85485630	262.3439
21752760		0		0		0	0	2034.1	978	119360988	366.3028
24656		0		0		0	0	6899.5	458	185598260	581.8516
0	1.3514	0		0		0	0	0	0	0	0
<b>21777416</b>		<b>0</b>		<b>0</b>		<b>0</b>	<b>0</b>			<b>394444878</b>	<b>1210.4983</b>

Figure 99-1

1. Device RTU ID	6. Flow Meter 1 Name	10. Flow Meter 2 Name	14. Total Flow Meter (Gallons)
2. Device Name	7. Flow Meter 1 Pulse Count	11. Flow Meter 2 Pulse Count	15. Wet Hours
3. Device Type	8. Flow Meter 1 Multiplier	12. Flow Meter 2 Multiplier	16. Gallons Per Minute (GPM)
4. Panel Type	9. Water From Flow Meter 1 (Gallons)	13. Water From Flow Meter 2 (Gallons)	17. Water From Wet Water Hours
5. Measure			18. Total Water (Acre Feet)

# Reports

## One-Time Reports — Transaction Overdue Report

**Description:** This report will provide a list of scheduled transactions with remote devices that did not get executed within an acceptable time limit. The transactions were delayed, so they were abandoned.

RTU ID	Created By	Command Name	Command Paramete	Priority	Schedule Date Time	OverDue Date Time	IsScada	IsApproved
501	Val	As yncUpdates		20.0	11/05/2015 15:31:5	11/05/2015 16:28:54	0	False
W01	Val	As yncUpdates		20.0	12/09/2015 12:38:2	12/09/2015 13:46:03	0	False
W01	Val	As yncUpdates		20.0	12/19/2015 04:46:4	12/19/2015 06:16:18	0	False
501	Val	As yncUpdates		20.0	12/29/2015 10:48:1	12/29/2015 11:38:38	0	False
501	Val	As yncUpdates		20.0	01/02/2016 06:47:1	01/02/2016 08:16:43	0	False
W01	Val	As yncUpdates		20.0	01/02/2016 07:08:4	01/02/2016 08:16:43	0	False

Figure 100-1

1. RTU ID	4. Command Parameter	7. OverDue Date Time
2. Created By	5. Priority	8. IsScada
3. Command Name	6. Schedule Date Time	9. IsApproved

## One-Time Reports — Restricted Entry: Alerts

**Description:** This report will provide a list of restricted entry alerts during a specified time frame.

The screenshot shows the Valley V software interface. On the left, there is a sidebar with 'Farm' and 'Group' dropdown menus, both set to 'All'. A 'View report' button is visible. The main area displays a table of Restricted Entry Alerts. The table has a blue header with columns: Date Time, Device RTU ID, Device Name, Last Name, First Name, and Alert Type. A circled '1' is in the top-left corner of the table. The table contains several rows of data, including 'Start' and 'Stop' alerts for device 0013 on 4/1/2019.

Date Time	Device RTU ID	Device Name	Last Name	First Name	Alert Type	De
4/1/2019 1:31:03 AM	0013	0013aaa	Valley	Val	Start	te
4/1/2019 1:31:04 AM	0013	0013aaa	Valley	Val	Start	00
4/1/2019 1:31:04 AM	0013	0013aaa	Valley	Val	Start	00
4/1/2019 2:31:03 AM	0013	0013aaa	Valley	Val	Stop	te
4/1/2019 2:31:04 AM	0013	0013aaa	Valley	Val	Stop	00
4/1/2019 2:31:04 AM	0013	0013aaa	Valley	Val	Stop	00
4/1/2019 2:47:01 AM	0013	0013aaa	Valley	Val	Start	te

Figure 101-1 1. Restricted Entry Alerts

# Reports

## One-Time Reports — Restricted Entry: History All

**Description:** This report provides historical details about restricted entry events during a specified time frame.

1	2	3	4	5	6	7	8	9
Start Date Time	End Date Time	Device RTU ID	Device Name	Timer Status	Work Order Number	Chemical Brand Name	Active Ingredient	Registration Number
3/16/2018 8:00:00 AM	3/16/2018 4:00:01 PM	0011	ICON11	Completed	01245			
12/14/2017 1:32:00 PM	12/14/2017 3:32:00 PM	511	P5	Completed				
12/7/2017 1:31:59 PM	12/7/2017 1:32:05 PM	511	P5	Cancelled				
12/13/2017 1:30:00 PM	12/13/2017 2:30:00 PM	601	p01	Completed				
12/7/2017 1:30:13 PM	12/7/2017 2:30:00 PM	0011	ICON11	Completed				

10	11	12	13	14	15	16
Restricted Entry Interval	Application Hours	Timer Set Hours	Start Last Name	Start First Name	Stop Last Name	Stop First Name
8	8	8	System	System	System	System
2	2	2	System	System	System	System
1	1	1	System	System	System	System
1	1	1	System	System	System	System
1	1	1	System	System	System	System

Figure 102-1

1. Start Date Time	5. Timer Status	9. Registration Number	13. Start Last Name
2. End Date Time	6. Work Order Number	10. Restricted Entry Interval	14. Start First Name
3. Device RTU ID	7. Chemical Brand Name	11. Application Hours	15. Stop Last Name
4. Device Name	8. Active Ingredient	12. Timer Set Hours	16. Stop First Name

## One-Time Reports — Notifications

**Description:** This report will provide a list of all notifications during a specified time frame.

1	2	3	4	5	6	7	8	9	10	11	12
Date Time	RTU ID	Device Name	Last Name	First Name	Notification	Notification Type	Destination Address	Notification Method	Notification Status	SMTP Failed Reason	Last Try Date Time
5/24/2018 8:55:48 PM	514	T14	Valley	Val	Water Pressure Dry/Stopped	Threshold	valley	Push	Successful		5/24/2018 8:55:49 PM
5/24/2018 8:55:47 PM	514	T14	Valley	Val	Water Pressure Dry/Stopped	Threshold	2223593599@bt.net	Text	Successful		5/24/2018 8:55:48 PM
5/24/2018 8:55:46 PM	514	T14	Valley	Val	Water Pressure Dry/Stopped	Threshold	2223593599@bt.net	Text	Successful		5/24/2018 8:55:47 PM
5/24/2018 8:55:45 PM	514	T14	Valley	Val	Water Pressure Dry/Stopped	Threshold	test@viahmont.com	Email	Successful		5/24/2018 8:55:46 PM
5/24/2018 11:11:01 AM	931	B7 Linear 931	Valley	Val	Field Boundary	Other	valley	Push	Successful		5/24/2018 11:11:02 AM
5/24/2018 11:11:00 AM	931	B7 Linear 931	Valley	Val	Field Boundary	Other	2223593599@bt.net	Text	Successful		5/24/2018 11:11:01 AM
5/24/2018 11:11:00 AM	931	B7 Linear 931	Valley	Val	Field Boundary	Other	2223593599@bt.net	Text	Successful		5/24/2018 11:11:00 AM
5/24/2018 11:10:59 AM	931	B7 Linear 931	Valley	Val	Field Boundary	Other	test@viahmont.com	Email	Successful		5/24/2018 11:11:00 AM

Figure 103-1

1. Date Time	4. Last Name	7. Notification Type	10. Notification Status
2. RTU ID	5. First Name	8. Destination Address	11. SMTP Failed Reason
3. Device Name	6. Notification	9. Notification Method	12. Last Try Date Time

# Reports

## One-Time Reports — Water Volume: by Auxiliary Link

**Description:** This report will generate a report displayed as an Excel file showing water volume by auxiliary link.

1	2	3	4	5	6	7	8	9	J	K	L	M	N
Aux Link Name	Volume Rep	RTU ID	Begin Record Date	End Record Date	Counter 0 Name	Volume Counter 0	Counter 1 Name	Volume Counter 1					
ValleyFarm	Well 1	502	4/21/2019 9:42:13 AM	6/21/2019 3:23:13 PM	West Pump	30.6	East Pump	0					
ValleyFarm	Well 1	502	4/15/2019 7:53:00 AM	6/15/2019 2:23:00 PM	West Pump	120.4	East Pump	0					
ValleyFarm	Pond 3	507	4/18/2019 2:34:27 AM	6/18/2019 11:24:27 AM	Meter	34898447	Off	0					
ValleyFarm	Pond 5	501	4/29/2019 8:17:43 AM	6/29/2019 12:57:18 PM	Meter3	24512609	Off	0					

Figure 104-1 One Time Reports — Individual Device Reports

1. Farm Name
2. Aux Link Name
3. RTU ID
4. Begin Record Date
5. End Record Date
6. Counter 0 Name
7. Volume Counter 0
8. Counter 1 Name
9. Volume Counter 1

## Device Water Applied Depth Report

**Description:** This report will provide a detail of water applied by the pivot for the time period specified. The report uses BaseStation3 recorded history of the application depth at the pivot location to generate tabular and graphical information. The data table and the circular chart shows the summed depth of water applied, partitioned by angle sectors of the depth variations. In addition to water applied, the report includes separate tables and graphic charts that show when fertilizer/chemical/other additives have been injected with the water, using Auxiliary Output controls. The units of measure shown in the report is according to the preferences selected by the user that runs the report. The report can be saved as an exported file.

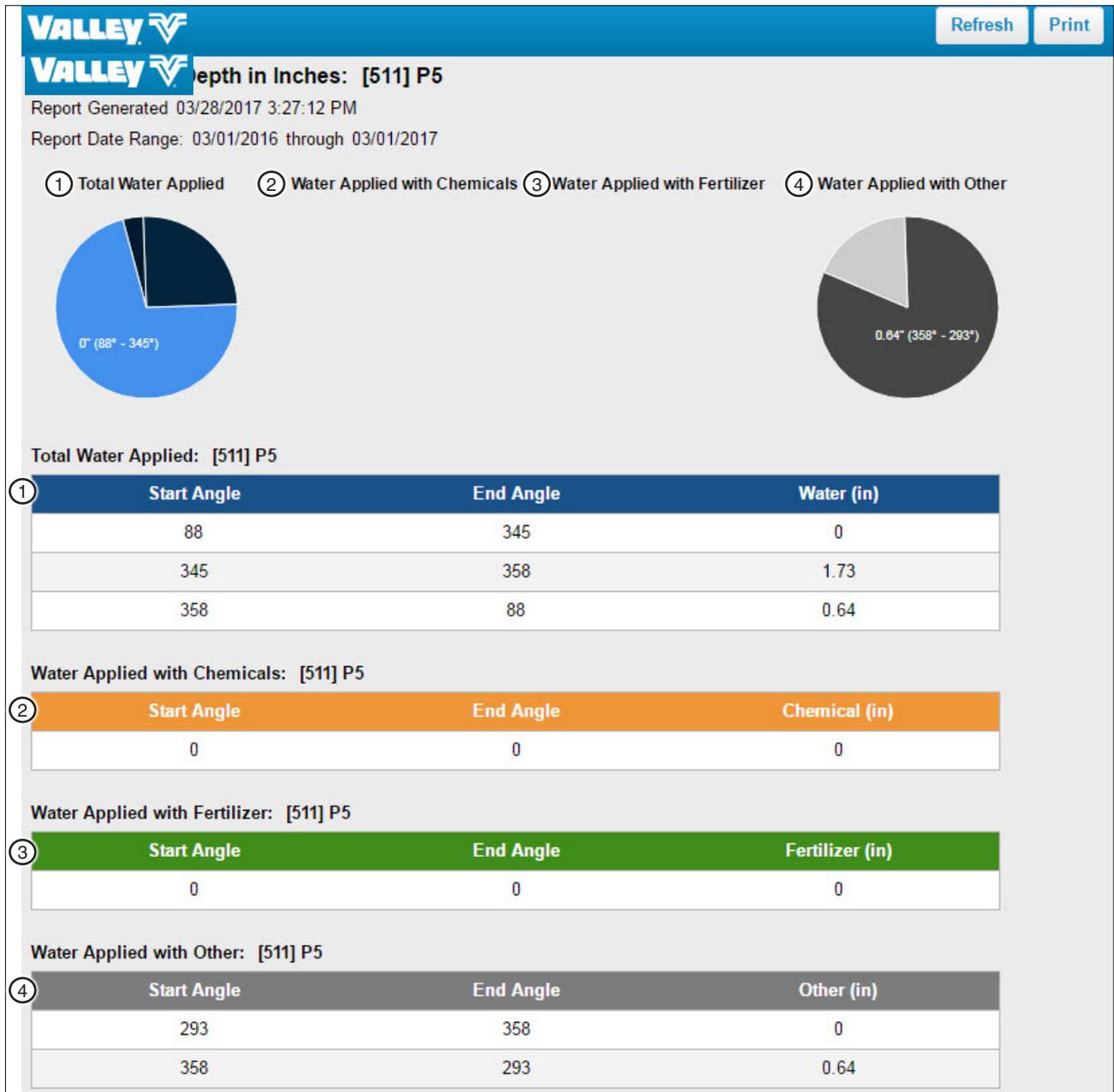


Figure 105-1 1. Total Water Applied 2. Water Applied with Chemicals 3. Water Applied with Fertilizer 4. Water Applied with Other

# Reports

## One Time Reports — Individual Device Reports

### Restricted Entry: History

**Description:** This report provides a view of restricted history events by device over a specified time frame.

Start Date Time	End Date Time	Device RTU ID	Device Name	Timer Status	Work Order Number	Chemical Brand Name	Active Ingredient	Registration Number	Restricted Entry Interval	Application Hours	Timer Set Hours	Start Last Name	Start First Name	Stop Last Name	Stop First Name
3/18/2018 8:00:00 AM	3/18/2018 4:00:01 PM	0011	ICON11	Completed	01245					0.0	0	System	System	System	System
12/7/2017 1:30:13 PM	12/7/2017 2:30:00 PM	0011	ICON11	Completed						1.0	1	System	System	System	System

3. Restricted Entry History and Restricted Entry Report features are not available to comply with government, USDA, EPA or other pesticide application notice/regulatory requirements.

Figure 106-1 1. Start Date Time      5. Timer Status      9. Registration Number      13. Start Last Name  
 2. End Date Time      6. Work Order Number      10. Restricted Entry Interval      14. Start First Name  
 3. Device RTU ID      7. Chemical Brand Name      11. Application Hours      15. Stop Last Name  
 4. Device Name      8. Active Ingredient      12. Timer Set Hours      16. Stop First Name

## Water Sentinel Reports — WS Water Volume Report

**Description:** This report will provide a summary information of water discharged by the selected farm (all groups, all devices) for the time period specified. The report uses the water measure method that has been configured for the device in the Device Management form to calculate total water discharged. The units of measure shown in the report is according to the preferences selected by the user that runs the report. The report also includes Total Hours and averaged applied depth for the field size configured in the Device Management form. The report can be saved as an exported file.

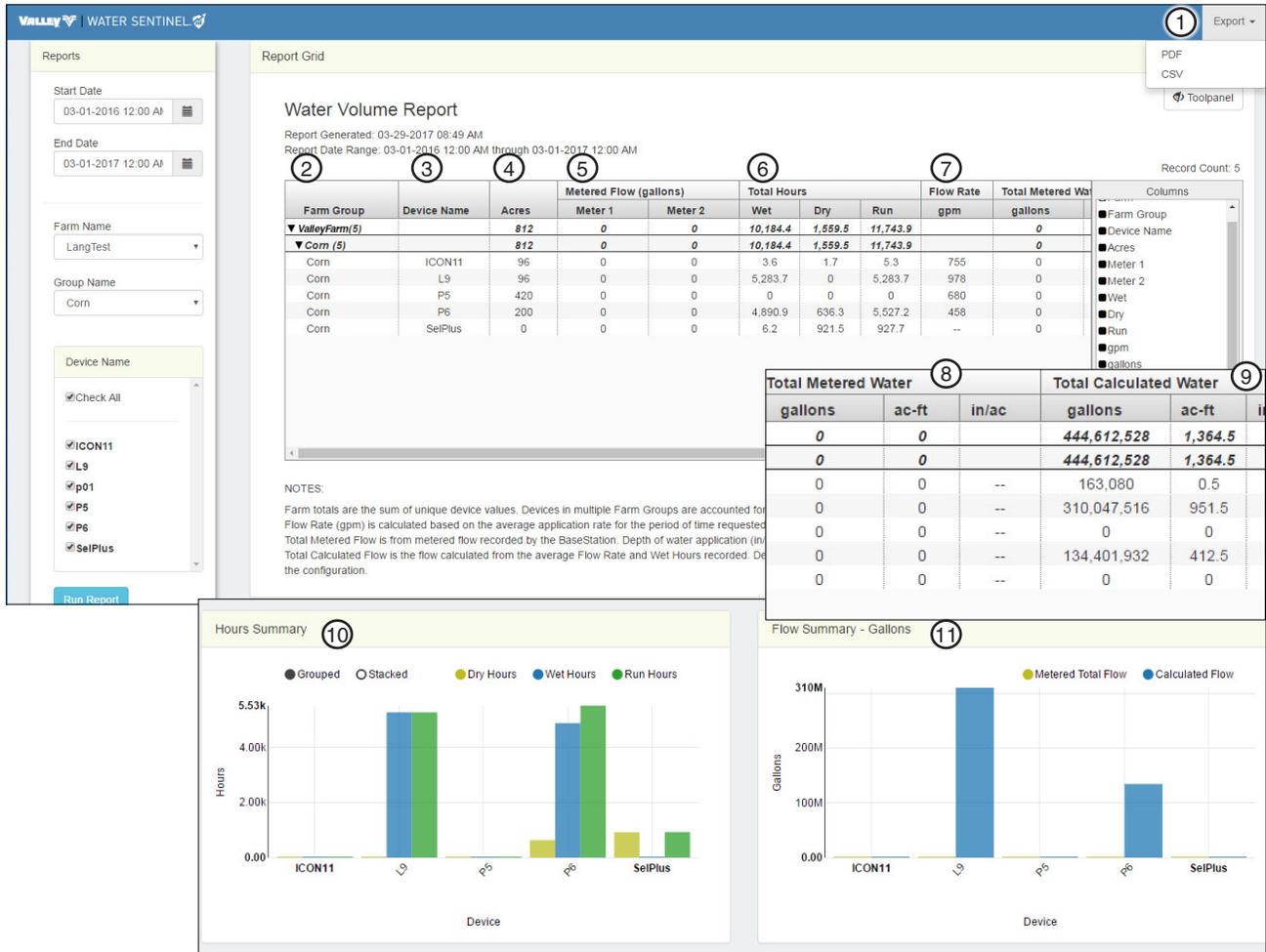


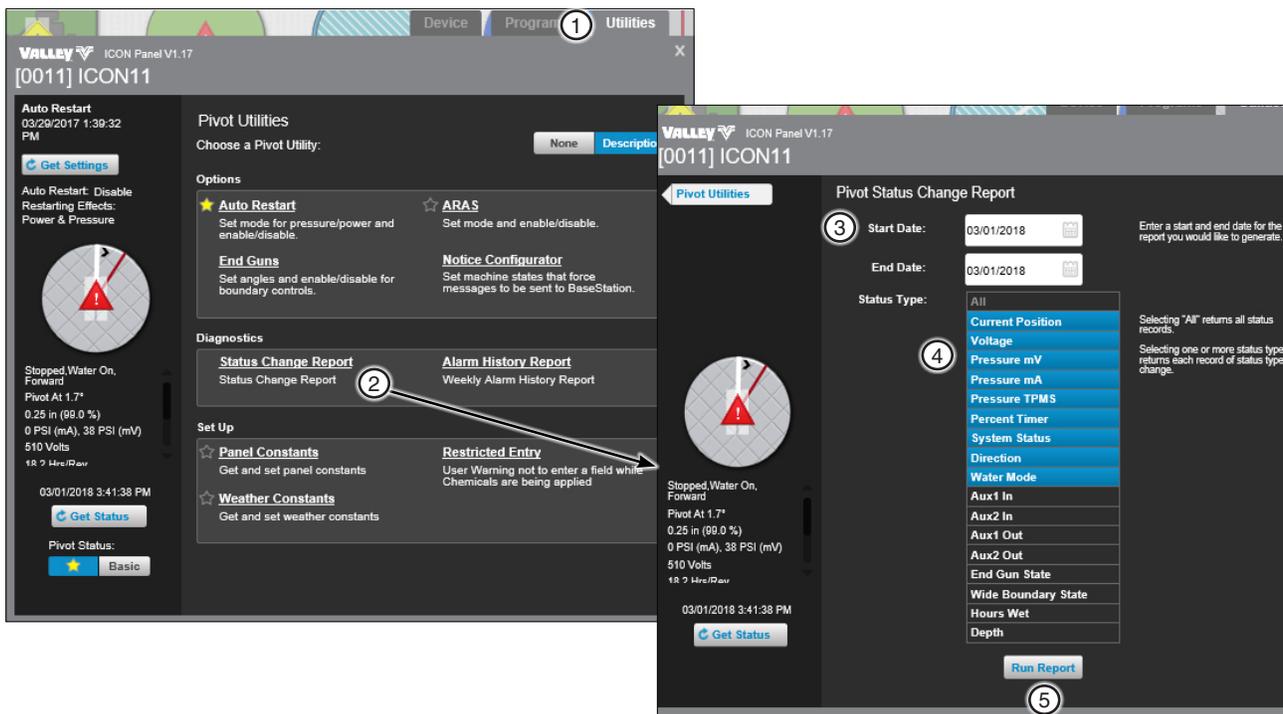
Figure 107-1 1. Export 5. Metered Flow (gallons) 9. Total Calculated Water  
 2. Farm Group 6. Total Hours 10. Hours Summary  
 3. Device Name 7. Flow Rate 11. Flow Summary - Gallons  
 4. Acres 8. Total Metered Water

# Reports

## Device Utilities Reports — Status Change Report

The Status Change Report is a chronological list view of logged data, filtered according to parameters selected in the Change Criteria list. No calculations or evaluations of the data are performed. Note that diagnostic data returned by the panel varies based on the panel type. To view a Diagnostics Status Change Report through Devices, refer to Figure 108-1 and do the following.

1. Click on the device you want a report for. The device menu will pop up. Click the **Utilities** tab.
2. Under the **Diagnostics** section, click **Status Change Report**.
3. Select the report date range by selecting a **Start Date** and **End Date**.
4. Select Status Type. By default **All** is selected. To select specific status types, click each desired status type to include. Selected status types are blue.
5. Click **Run Report**.



Status Date	RTU IC	Device Name	System Status	Current Position	Direction	Water Mode	Hours Wet	Pressure mV (PSI)	Pressure mA (PSI)	Pressure TPMS (PSI)	Depth (inches)	Percent Timer	EndGun State	Wide Boundary State	Stored Program Running	Shutdown	Aux 1In	Aux1 Out	Aux 2In	Aux2 Out	Hour Meter	Voltage	Panel Lock Out
3/1/2017 12:18:08 AM	0011	ICON1 1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 12:49:17 AM	0011	ICON1 1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 1:19:25 AM	0011	ICON1 1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	514	Off
3/1/2017 1:46:34 AM	0011	ICON1 1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 2:19:43 AM	0011	ICON1 1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	519	Off

Figure 108-1 1. Utilities  
2. Status Change Report  
3. Start Date / End Date  
4. Status Type  
5. Run Report

## Device Utilities Reports — Status Change Report (Continued)

**Description:** This report will provide the event history of the device(s), which can be viewed by a range of dates. The Status Change Report is accessed in the Utilities tab of the pivot and linear devices. The report provides a filter selection for the user to choose which change events will be included in the report.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Status Date	RTU ID	Device Name	System Status	Current Position	Direction	Water Mode	Hours Wet	Pressure mV (PSI)	Pressure mA (PSI)	Pressure TPMS (PSI)	Depth (inches)	Percent Timer	EndGun State	Wide Boundary State	Stored Program Running	Shutdown	Aux 1 In	Aux 1 Out	Aux 2 In	Aux 2 Out	Hour Meter	Voltage	Panel Lock Out
3/1/2017 12:16:08 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 12:46:17 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 1:16:25 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	514	Off
3/1/2017 1:46:34 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	516	Off
3/1/2017 2:16:43 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	519	Off
3/1/2017 2:46:51 AM	0011	ICON1_1	Stopped	0.0	Reverse	Wet	29.9	22			0.25	100.0	Off	Off	Off	-	Off	Off	Off	Off	0.0	520	Off

Figure 109-1

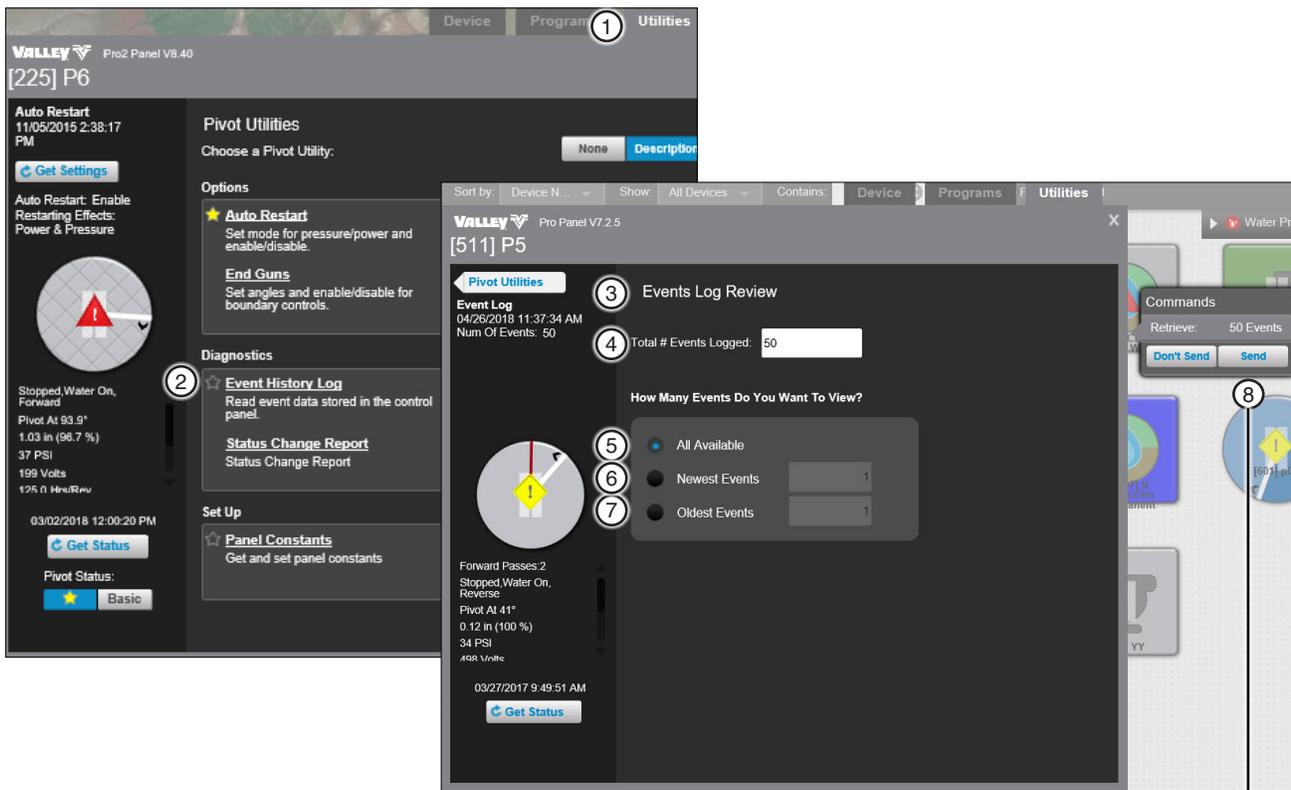
1. Status Date	7. Water Mode	13. Percent Timer	19. Aux 1 Out
2. RTU ID	8. Hours Wet	14. End Gun State	20. Aux 2 In
3. Device Name	9. Pressure mV (PSI)	15. Wide Boundary State	21. Aux 2 Out
4. System Status	10. Pressure mA (PSI)	16. Stored Program Running	22. Hour Meter
5. Current Position	11. Pressure TPMS (PSI)	17. Shutdown	23. Voltage
6. Direction	12. Depth (inches)	18. Aux 1 In	24. Panel LockOut

# Reports

## Device Utilities Reports — Event History Log Pro Control Panel

The Event History Log displays events recorded in the PRO control panel v7.2.5 retrieves the event log entries directly from the control panel. The PRO control panel retains a limit of the last 50 machine state changes; events older than the 50 most recent events are no longer available. The most recent event is event #1. To see event #25, you must select either the Newest 25 or the Oldest 25. BaseStation3 will show the communications transaction as a single communications process. The collection of all events requested will be displayed as a sequential list after all of the events have been retrieved. To view an Event History Log through Devices refer to Figure 110-1 and do the following.

1. Click on the device to open the device panel. From here, click on the **Utilities** tab.
2. Under the Diagnostics section, click on **Event History Log**.
3. Select how many events to view by checking either All Available, Newest Events or Oldest Events. For Newest and Oldest Events, the Total # Events Logged needs to be selected as well. This number cannot exceed the number of Total Events Logged.
4. The **Commands** list dialog box opens.
5. Click **Send**.



Event Number	Date	Time	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/Dry	Program	Restart	Aux1 Out	SIS
12	02/15/2018	07:21:40	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*		0	SIS= OFF
11	02/20/2018	07:11:29	WAITING	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*		1	SIS= OFF
10	02/20/2018	07:11:29	WAITING	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF
09	02/20/2018	07:11:29	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	197 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF

Figure 110-1 1. Utilities 2. Event History Log 3. Events Log Review 4. Total # Events Logged 5. All Available 6. Newest Events 7. Oldest Events 8. Send

## Device Utilities Reports — Event History Log (Continued)

### Pro Control Panel Report

**Description:** This report displays the most recent 50 events. Events include an event number, date, time, status, position, pressure, depth, percent, direction, volts, wet/dry, program, restart, auxiliary1 out and stop in slot information. Refer to Figure 111-1.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Event Number	Date	Time	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/Dry	Program	Restart	Aux1 Out	SIS
12	02/15/2018	07:21:40	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*		0	SIS= OFF
11	02/20/2018	07:11:29	WAITING	91.0 DEG	37	1.03	98.7 %	FORWARD	199 VOLTS	WATER. ON	*PROGRA M*		1	SIS= OFF
10	02/20/2018	07:11:29	WAITING	91.0 DEG	37	1.03	98.7 %	FORWARD	199 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF
09	02/20/2018	07:11:29	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	197 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF
08	02/20/2018	07:11:29	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	197 VOLTS	WATER. ON	*PROGRA M*		1	SIS= OFF
07	02/22/2018	16:38:24	WAITING	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF
06	02/22/2018	16:38:24	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*	*RESTART	1	SIS= OFF
05	02/22/2018	16:38:24	STOPPED	91.0 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*		1	SIS= OFF
04	03/02/2018	09:35:35	WAITING	93.9 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*		0	SIS= OFF
03	03/02/2018	09:35:36	WAITING	93.9 DEG	37	1.03	98.7 %	FORWARD	198 VOLTS	WATER. ON	*PROGRA M*	*RESTART	0	SIS= OFF

Figure 111-1

1. Event Number	5. Position	9. Direction	13. Restart
2. Date	6. Pressure	10. Volts	14. Aux 1 Out
3. Time	7. Depth	11. Wet/Dry	15. SIS
4. Status	8. Percent	12. Program	

# Reports

## Device Utilities Reports — Event History Log (Continued)

### Pro2 Control Panel

The Event History Log displays events recorded in the Pro2 control panel v7.2.5 retrieves the event log entries directly from the control panel. The Pro2 control panel retains a limit of the last 99 machine state changes; however, events older than the 50 most recent events are no longer available in the report. The most recent event is event #1. To view an Event History Log through Devices refer to Figure 112-1 and do the following.

1. Click on the device to open the device panel. From here, click on the **Utilities** tab.
2. Under the Diagnostics section, click on **Event History Log**.
3. Enter the number of events (between 1 and 50) to view in the number field.
4. Click **Run Report**.
5. A new browser window opens with the report results.

### NOTE

- Reports can be exported as PDF, Word, XML or Excel file formats.
- Use the **Select Multiple Utility** command to Send the Server Date and Time to the Valley control panel.

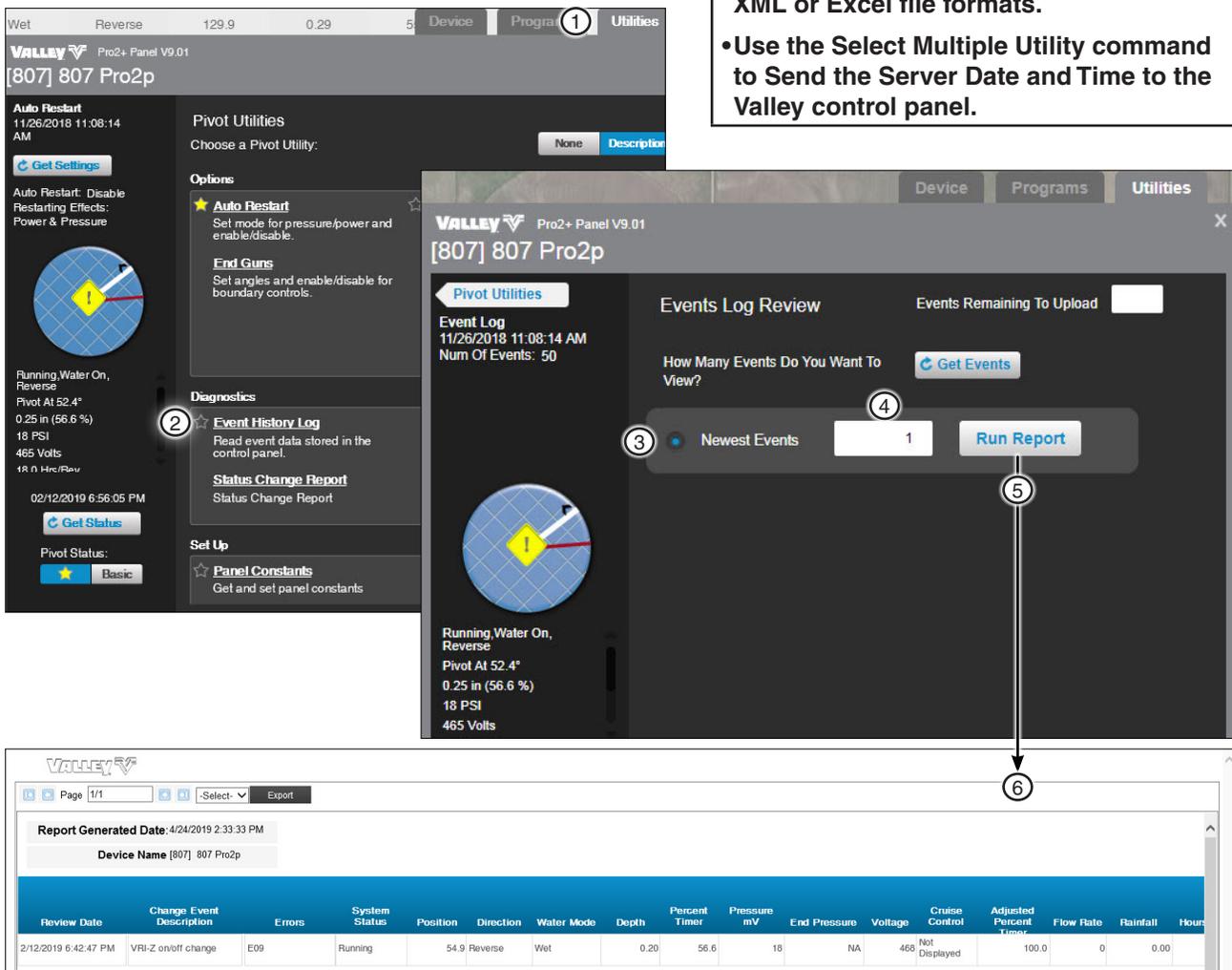


Figure 112-1 1. Utilities 2. Event History Log 3. Newest Events 4. Number Field 5. Run Report 6. Report Window

## Device Utilities Reports — Event History Log (Continued) ICON Control Panel

The Event History Log displays events recorded in the ICON control panel. BaseStation retrieves the event log entries directly from the control panel. The most recent event is event #1. The collection of all events requested will be displayed as a sequential list after all of the events have been retrieved. To view an Event History Log through Devices refer to Figure 113-1 and do the following.

1. Click on the device to open the device panel. From here, click on the **Utilities** tab.
2. Under the Diagnostics section, click on **Event History Log**.
3. Enter the number of events (between 1 and 50) to view in the number field.
4. Click **Run Report**.
5. A new browser window opens with the report results.

### NOTE

- Reports can be exported as PDF, Word, XML or Excel file formats.
- Use the **Select Multiple Utility command to Send the Server Date and Time to the Valley control panel.**

The screenshot displays the Valley ICON Panel V1.17 interface. The top navigation bar includes 'Device', 'Program', and 'Utilities' (1). The main content area is divided into several sections: 'Auto Restart' (04/25/2019 3:05:48 PM), 'Pivot Utilities' (Choose a Pivot Utility: None, Description), 'Options' (Auto Restart, End Guns), 'Diagnostics' (Event History Log (2), Status Change Report), and 'Set Up' (Panel Constants). The 'Event History Log' section shows a 'Stopped, Water On, Forward' event with details like 'Pivot At 164.8°', '0.23 in (65.0 %)', '0 PSI (mA), 19 PSI (mV)', and '476 Volts'. The 'Events Log Review' window (3) shows 'Event Log 12/13/2018 4:15:15 AM' and 'Num Of Events: 50'. It includes a 'How Many Events Do You Want To View?' field (4) set to '1' and a 'Run Report' button (5). The resulting report window (6) shows a table of event data.

Review Date	Change Event Description	Errors	System Status	Fault Code	Position	Direction	Water Mode	Depth	Percent Timer	Pressure mV	Pressure mA	End Pressure	Voltage	Cruise Control	Adjusted Percent Error	Flow Rate	Rainfall	Hours
4/04/2019 12:00:00 AM	Date changed (midnight)	E03, E22	Stopped	Daily Ops	97.8	Forward	Dry	0.19	45.4	34	0	NA	516 disabled	45.4	0	0.00		
4/03/2019 12:00:00 AM	Date changed (midnight)	E03, E22	Stopped	Daily Ops	97.8	Forward	Dry	0.19	45.4	34	0	NA	515 disabled	45.4	0	0.00		
4/02/2019 4:45:28 AM	Daily_Ops_Restart_Position change	E03	Stopped	Daily Ops	97.8	Forward	Dry	0.19	45.4	36	0	NA	504 disabled	45.4	0	0.00		
4/02/2019 4:45:28 AM	Daily_Ops_Restart_Position change	E03	Stopped	Daily Ops	97.8	Forward	Dry	0.19	45.4	36	0	NA	504 disabled	45.4	0	0.00		
4/02/2019 4:45:16 AM	Daily_Ops_Restart_Position change	E03	Stopped	Daily Ops	97.8	Forward	Dry	0.19	45.4	36	0	NA	501 disabled	45.4	0	0.00		

Figure 113-1 1. Utilities 2. Event History Log 3. Newest Events 4. Number Field 5. Run Report 6. Report Window

# Reports

## Device Utilities Reports — Alarm History

**Description:** This report provides alarms recorded for pivot and linear devices. The report provides a time and date stamp, RTU ID, device name, alarm name, position, actual, threshold, alarm type and alarm level for the week. Refer to Figure 114-1.

Alarm Date/Time	RTU ID	Device Name	Alarm Name	Position	Actual	Threshold	Alarm Type	Alarm Level
6/5/2018 4:44:25 AM	0011	ICON11	Running	1.7	--	--	State	Info
6/5/2018 4:44:25 AM	0011	ICON11	Water Pressure Dry/Stopped (mV)	1.7	37	7	Threshold	High
6/5/2018 4:39:23 AM	0011	ICON11	Voltage High	1.7	517	510	Threshold	High

Figure 114-1 1. Alarm Date/Time 2. RTU ID 3. Device Name 4. Alarm Name 5. Position 6. Actual 7. Threshold 8. Alarm Type 9. Alarm Level

## Glossary of Report Terms

The following descriptions are for the fields available and displayed on BaseStation3 reports. Please note that some fields may display a blank value on the report due to this field not being available to control or report. This is based on the panel type for the device it's associated with and its available functions.

**12V Power (Fault Alarm):** ICON panels monitor the 12V power on the Smart Relay Board. A failure of the 12V power will cause a machine shutdown.

**Acres/Hectares:** The amount of area where the water volume is being measured by acres or hectares (as specified by user preferences).

**Active Ingredient (Restricted Entry):** The active ingredient applied during a restricted entry event.

**Application Depth:** The application depth of the water currently being applied, measured in inches or millimeters (as specified by user preferences).

**Application Hours (Restricted Entry):** The additional time in hours added to the Restricted Entry Interval for a restricted entry event.

**Auto-Stop (Fault Alarm):** The machine stopped when reaching the physical field boundary barrier, with the Auto Stop function enabled and selected to Stop.

**Aux 1 In (State Alarm):** The current state of Auxiliary Input #1 is not what was expected by BaseStation3, triggering an alarm, with the alarm level set to Low, Info, or High.

**Aux 1 Out (State Alarm):** The current state of Auxiliary Output #1 is not what was expected by BaseStation3, triggering an alarm, with the alarm level set to Low, Info, or High.

**Aux 2 In (State Alarm):** The current state of Auxiliary Input #2 is not what was expected by BaseStation3, triggering an alarm, with the alarm level set to Low, Info, or High.

**Aux 2 Out (State Alarm):** The current state of Auxiliary Output #2 is not what was expected by BaseStation3, triggering an alarm, with the alarm level set to Low, Info, or High.

**Aux Link Name:** The name label given to an Auxiliary Device.

**Aux Ancillary Device Category (Aux Link only):** In the Parameters Panel, the user can enter the category label (sensor, counter, output or input) as a filter parameter for the report. These device categories are used to identify the ancillary device that is wired to the Auxiliary Link.

**Aux Link Ancillary Device Type (Aux Link only):** This is a user description selection to help identify the equipment connected to the Auxiliary Link. It is for description only.

**BB Ram (Fault Alarm):** The machine stopped due to a memory error.

**Channel or Comm Channel Name:** The name of the communication channel being used.

**Chemical Brand Name (Restricted Entry):** The brand name of a chemical applied in a field during a restricted entry event.

**Command (Fault Alarm):** The machine stopped as a result of a local command, such as a STOP button press or a STOP command in a stored program, or a STOP command received from BaseStation3.

**Command Name:** The name of the command being used, such as Start, Stop, Forward, Reverse, Water On, Water Off, Percent, Depth, etc.

**Command Parameter:** The parameters of the command being used. This is additional data sent with a Command that provides specific information about the command. Example, "28.5" is a parameter that is added to the Set Percent Command.

**Contact List Name:** The list name of the contacts list configured to receive notifications for the device.

**Counter Multiplier/Offset (Aux Link only):** The Auxiliary Link Counter inputs require scaling to convert a raw pulse input count to a measurable unit. One pulse is equivalent to some unit of measure for the device that is sending pulses. The multiplier is applied to produce a units per pulse conversion. Some pulse output devices do not have a zero measurement, so there is an offset value that is applied, as a minimum reference. (An example is a wind speed anemometer, which has an offset of 1 mph.)

**Created By:** The login name for the user who created the command.

**Cruise Control:** Indicator if cruise control is currently running on this pivot.

# Reports

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## Glossary of Report Terms (Continued)

**Current Position:** The current position of the pivot or linear.

**Cut Cable (Fault Alarm):** The machine stopped as a result of the Cut Cable function that is monitoring for lack of electrical continuity in the span wire.

**Daily Operations or Daily Ops (Fault Alarm):** Indicator that the machine stopped due to the Daily Ops settings that control when the machine is not allowed to be running.

**Daily Operations Restart (State Alarm):** The machine has been restarted by the Daily Operations control, with BaseStation3 not having commanded the machine to start.

**Data Exchange Error (State Alarm):** Several conditions can cause a message that is received by BaseStation3 to not be able to be processed. Some messages that cannot be processed include ones with data corruption caused by external interference or weak signals, incorrect device type or version configuration in BaseStation3 that does not match the actual panel version, and missing communications between a pump controller and the Pump Link interface.

**Date/Time:** The date and time that the last status information was retrieved from the control panel.

**Depth:** The water applied to the field for the current pass, equivalent to a rainfall measurement.

**Destination Address (Notification Reports):** The destination email address used in a notification report.

**Device Name or Name:** The name associated with this device.

**Device RTU ID:** The remote telemetry unit identifier assigned to this device.

**Device Type (Aux Link only):** See Aux Link Ancillary Device Type (Aux Link only).

**Device Type (Pivot/Linear):** The type of device.

**Direction (State Alarm):** A state alarm triggered when BaseStation3 detected that the machine is running in the opposite direction than expected.

**Direction Shutdown (Fault Alarm):** The machine stopped as a result of a mechanical problem where the control panel reported that the machine direction is both Forward and Reverse, simultaneously for a time duration longer than allowed for Auto Reverse to execute.

**Display Rate Units (Aux Link only):** The units of measure used for the rate calculation of an Auxiliary Link sensor.

**Display Total Units (Aux Link only):** The units of measure used for an accumulated total calculation of an Auxiliary Link sensor.

**End Gun 1 (State Alarm):** A state alarm that indicates the state of End Gun 1 is different than what BaseStation3 is expecting. (The End Gun angle settings in the control panel are different than the angles known by BaseStation3.)

**End Gun 2 (State Alarm):** A state alarm that indicates the state of End Gun 2 is different than what BaseStation3 is expecting. (The End Gun angle settings in the control panel are different than the angles known by BaseStation3.)

**End Gun 3 (State Alarm):** A state alarm that indicates the state of End Gun 3 is different than what BaseStation3 is expecting. (The End Gun angle settings in the control panel are different than the angles known by BaseStation3.)

**End Gun 4 (State Alarm):** A state alarm that indicates the state of End Gun 4 is different than what BaseStation3 is expecting. (The End Gun angle settings in the control panel are different than the angles known by BaseStation3.)

**End Guns Running:** The list of end guns currently running for this pivot.

**End Gun State:** Indicates whether or not the end gun(s) are running: On or Off.

**End Pressure (High/Low TPMS):** Monitors end pressure remotely and also allow users to set threshold alarms for low and high end pressure values.

**Event Number:** Each recorded state change is saved in the PRO/Pro2/Pro2+/ICON panels as a history event, with an index number for sequence recording. BaseStation3 is able to retrieve the events with the Event History Log utility, available with the PRO and Pro2 Device View.

## Glossary of Report Terms (Continued)

**Export:** Report(s) can be exported and saved in the Downloads folder of the BaseStation3 computer. Each report has a selection of file types that it can be exported to, such as PDF, CSV, Excel, etc. They are saved with the filename "Active Report (n). ext".

**Farm or Farm Name:** The name label given to a partition of devices and user accounts for managing limitations granted to the users, to accommodate the separation of farm businesses.

**Farm Group:** The name label given to a partition of devices, within a farm partition, regulating the separation of user access to devices.

**Faults:** The list of current faults on this device describing the reason why the machine has stopped on this device: Command, Power, etc.

**Fault Alarms:** All fault alarms are reasons for the machine to be stopped. No Fault Alarm is active when the machine is running; one (only one) fault alarm is active when the machine is stopped.

**Field Boundary (Other Alarm):** An alarm set to trigger when the device is outside of the field boundary.

**Firmware (Aux Link only):** The version of firmware on this device. (All devices have a firmware version, which is the version of the internal software that runs the device.)

**Flow (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to water flow that has decreased below a threshold configured in the control panel.

**Flow Meter 1 Multiplier:** The numeric value provided by the flow meter manufacturer that specifies the water volume (gallons or liters) represented by each pulse output of the meter. Example, a multiplier of 1.25 states that each electronic pulse output of Flow Meter 1 is equal to 1.25 gallons.

**Flow Meter 2 Multiplier:** The numeric value provided by the flow meter manufacturer that specifies the water volume (gallons or liters) represented by each pulse output of the meter. Example, a multiplier of 1.25 states that each electronic pulse output of Flow Meter 2 is equal to 1.25 gallons.

**Flow Meter 1 Name:** The name label assigned to Flow Meter 1, typically indicating the water source that is being measured.

**Flow Meter 2 Name:** The name label assigned to Flow Meter 2, typically indicating the water source that is being measured.

**Flow Meter 1 Pulse Count:** The totalized pulse output from Flow Meter 1, as a cumulative count total.

**Flow Meter 2 Pulse Count:** The totalized pulse output from Flow Meter 2, as a cumulative count total.

**Flow Rate:** The volume of water (or other liquid) being measured by a flow meter during a one minute interval, expressed as Gallons per Minute (or Liters per Second).

**Flow Summary - Gallons:** The total calculated volume of water for a specified period of time, in gallons (cubic meters).

**For/Rev (Fault Alarm) - Same as Direction Shutdown (Fault Alarm):** The machine stopped as a result of a mechanical problem where the control panel reported that the machine direction is both Forward and Reverse, simultaneously for a time duration longer that allowed for Auto Reverse to execute.

**Gallons Per Minute (GPM):** The sprinkler discharge rate, used when calculating water volume from wet hours. Also, seen as the Flow Rate when viewing current status.

### NOTE

- When using the sprinkler chart flow rate, the discharge rate include the end gun, if included in the machine design.

**GPS Com (Fault Alarm):** The machine has stopped as a result of the control panel is not receiving data from the GPS receiver, causing the machine to not be able to calculate the span position.

**GPS Lock (Fault Alarm):** The machine has stopped as a result of the GPS receiver not being able to collect enough stable satellite signals to establish a location, causing the machine to not be able to calculate the span position.

# Reports

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## Glossary of Report Terms (Continued)

**GPS Signal (Fault Alarm):** The machine has stopped as a result of the GPS receiver or lost satellite signals, causing the machine to not be able to calculate the span position.

**High (Aux Link Only):** High and Low are the maximum and minimum range values that are used for calculating the scale of a sensor. A sensor returns an electronic measurement which is translated into a unit value by BaseStation3. The High and Low are the scale values used to calculate the sensor measurement limits into the user defined units of measure.

**High Water Pressure (Fault Alarm):** The machine stopped as a result of water pressure that is higher than the threshold allowed.

**Hour Meter:** The clock in the panel that records the run time of the machine both when water is on and off. The Hour Meter records run time in tenths of an hour.

**Hours Summary:** This is the sum of the hours, for the associated group of hours recorded and being reported.

**Hours Wet:** The Select/Pro/ICON control panel model types have an hour meter that can be reset and records the amount of time that the machine is running with Water On. The Wet Hour Meter records run time in tenths of an hour.

**Hrs/Rev:** The amount of time for the pivot to complete one 360 degree pivot revolution, at the current Percent (for linear machines, one full pass of the field) (in hours).

**IP Connection Error (State Alarm):** BaseStation3 is not able to get a connection with the communications device with this IP address.

**Irrigated Acres (Panel only) - Pivot and Linear fields only:** The total area of the field that receives water.

**IsApproved:** True/False value for remote device scheduling.

**Is Polling Enabled (Aux Link only):** Indicator if polling is currently set for this device to poll data: True or False.

**IsScada (Aux Link Only):** Used for remote device scheduling.

**Last/First Name (Notifications):** Recipients of notification messages.

**Last Try Date Time (Notifications):** Last time that a notification was attempted.

**License (Fault Alarms):** A protocol fault affecting ICON panels.

**Low (Aux Link only):** High and Low are the maximum and minimum range values that are used for calculating the scale of a sensor. A sensor returns an electronic measurement which is translated into a unit value by BaseStation3. The High and Low are the scale values used to calculate the sensor measurement limits into the user defined units of measure.

**Low Pressure (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to water pressure that has decreased below a threshold configured in the control panel.

**Measure:** The measure being used for the water: Gallons or Liters.

**Metered Flow (gallons):** The measured total water volume, for the report period, as recorded by the BaseStation.

**Min App (Panel only):** The current configuration setting for minimum application rate on this device. This is the least applied water depth that can be applied with the current sprinkler package, while the machine is moving with the Percent Timer set at 100%.

**Min Hrs (Panel only):** The current configuration setting for minimum hours (per revolution) on this device. This is the shortest time in which the machine can make one full pass of the field. For a pivot, it is a full 360 degrees; for a linear, it is the length of the field. The shortest time is achieved with the Percent Timer set at 100%. See the control panel Owner's Manual for the Pro2 and ICON panels for usage of the Minimum Application when the machine is setup for a part-circle field (not a full 360 degree pass).

**Multiplier (Panel only):** The scale value used by a flow meter that represents the volume of water measured for each pulse output of the meter, as gallons per pulse or liters per pulse.

**Name:** See **Device Name**.

**No Ack (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to not receiving an Acknowledge response from BaseStation after sending a Notice Report message.

## Glossary of Report Terms (Continued)

**No Response (State Alarm):** Transaction failure where after sending a BaseStation command to the machine, and not getting a reply. The No Response alarm occurs only after the configured number of tries has been attempted.

**Notification Method:** Type of notification sent.

**Notification Status (Notifications):** The notification status of a communication.

**Number of Times to Send Messages:** BaseStation will attempt the configured number of tries to send and get a response from the machine. If the message sent receives a reply, the transaction is complete and successful, no more tries are attempted.

**NVMEM (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a hardware memory failure.

**Off Label (Aux Link only):** A user applied label to the state of an input or output that is configured in BaseStation. The user can assign a descriptive label that defines the usage of the input or output.

**On Label (Aux Link only):** A user applied label to the state of an input or output that is configured in BaseStation. The user can assign a descriptive label that defines the usage of the input or output.

**Operating Sector (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to the current position being outside of the configured field boundaries.

**Overdue Date Time:** The date and time that the transaction with the remote device was expected to be completed.

**Overlap Zone:** The pair of devices are both positioned in the area designated where a machine collision is possible.

**Panel (Panel only):** The name of the panel type for this device.

**Panel Lockout:** Indicator if the panel is in lockout status: On or Off. When the panel is locked out, only status request commands are executed. Otherwise, the panel replies to any action command with the current status, indicating that the panel is locked out, for any remote command execution.

**Panel Type:** The specific model of the control panel being used: PRO2, Select2, Aux Link, etc.

**PCB Hardware (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to circuit board failure.

**Percent or Percent Timer:** The value of percent timer set for this device: 0-100.

**Pivot At:** The position in degrees that the pivot is currently at (or distance from the start location of a linear machine).

**Polling or Polling Period:** The interval of time configured for this device to poll data.

**Position:** The location of the machine in the field.

**Position Encoder Com (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to the current position not being known by the control panel, while configured to use the position encoder.

**Power (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a loss of power, system voltage below the Low Voltage Limit.

**Pressure or Pressure PSI (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a loss or gain of pressure (Pounds Square Inch), system pressure below the Low Pressure Limit or above the High Pressure Limit.

**Priority:** The ranking of importance that determines the order of communication transactions in the proposed queue.

**Program (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a commanded Stop by a running Step Program.

**Proximity (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a position problem while the Universal Linear machine transitions between a Linear/Pivot zone. (BaseStation3 does not have a Universal Linear panel type selection, so this is never used).

# Reports

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## Glossary of Report Terms (Continued)

**Radio Hop RTU ID:** The RTU ID of the intermediate machine that is used as a relay point.

**Rain (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to rainfall measured above the threshold limit.

**Registration Number (Restricted Entry):** Registration number of the chemical brand name.

**Relay BD Comm (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to a communications interruption with the Relay Board. Without Relay Board communications, the control panel does not have current status information, causing a shutdown.

**Restart:** Indicator if auto-restart settings are enabled or disabled.

**Restricted Entry Interval (Restricted Entry):** The minimum interval of time, which when added to application hours, represents the total time when the field is not accessible.

**Running (State Alarm):** A state where the machine is moving.

**RTU / RTU ID (Panel only):** The remote telemetry unit (RTU) identifier address assigned to this device.

**Safety (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to an open safety circuit.

**SCADA Approved (Labeled as IsApproved):** SCADA Approved indicates that the transaction was approved by the SCADA program. (Data can appear as No, currently a False, or Yes, currently True.)

**SCADA Managed (Labeled as IsScada):** SCADA Managed indicates if an external SCADA program is associated with the device transaction. (Data can appear as No, currently a 0, or Yes, currently 1.)

**Schedule Date Time:** The scheduled date and time for the command.

**Sensor mAmp (Aux Link only):** The analog sensor that returns an electrical current between 4 and 20 mAmp.

**Sensor Volt (Aux Link only):** The analog sensor that returns an electrical DC voltage between 0 and 10 Volts.

**Show On Map (Aux Link only):** The user selection choosing whether to show this data in the pinned status.

**Shutdown:** The reason why the machine is stopped.

**SIS (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to the Stop In Slot function, indicating that the machine has reached the SIS position.

**SIS On/Off (State Alarm):** Indicator that the SIS function enable/disable (On/Off) has changed, without the command being sent by BaseStation3.

**SMTP Failed Reason:** Failed message reason.

**Speed (State Alarm):** An alarm indicating that the speed (percent timer setting) reported by the machine is not what BaseStation is expecting it to be.

**Sprinkler Discharge (Panel only):** The water flow rate currently configured for this device based on the sprinkler package in use.

**Start/End Date Time (Restricted Entry):** The start date/time and end date/time of a restricted entry event.

**Start/Stop Last Name/First Name (Restricted Entry):** The last and first name of the user who started and stopped the Restricted Entry event.

**Status:** The current status of the device: condition of the machine, Running or Stopped, Water On or Off, Forward or Reverse, etc.

**Status Date:** The date/time that the status of the machine is recorded.

**Step Programs:** Indicator if a step program is currently running on this pivot's PRO, Pro2 or ICON control panel. Locally saved program that can be run by the control panel. Steps are executed sequentially when the condition of the active step occurs (such as Position, Direction, Time Delay, etc.). Commands are entered for each step.

**Store In Forward Path Enabled:** The intermediate device used for communications is being used.

**Store In Forward Path RTU ID:** The RTU ID of the intermediate device, specifying the communications path. BaseStation sends the command to the intermediate device with the instruction to forward the command to the destination device. (In the panel, the reverse action for the panel to originate a Notice Message, the intermediate RTU ID is called a Hop Path.)

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## Glossary of Report Terms (Continued)

**Stored Program Running:** A Step Program or Sector Program that has been saved in the control panel is actively running.

**System Power Lost (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to loss of voltage.

**System Power Low (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to low system voltage below the Low Voltage threshold for a period of time exceeding the tolerance that has been setup.

**System Safety (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to an interruption in the span Safety circuit.

**System Status:** The state in which the machine is running: Running, Waiting or Stopped.

**Telemetry Failed (Other Alarm):** The current alarm level set to initiate when telemetry fails to communicate.

**Temperature (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to the low temperature threshold has been exceeded.

**Time To Wait For Acknowledgement:** The defined allowable time to wait for an active transaction to finish before executing the next sequential transaction(s) or retry the current transaction if the response is not successfully received.

**Timer Set Hours (Restricted Entry):** The total hours (Restricted Entry Interval + Application Hours) set for a Restricted Entry event.

**Timer Status (Restricted Entry):** The set time of a restricted entry event.

**Tire Pressure (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to low tire pressure. This is monitored by the TPMS option, when the sensor hardware is installed.

**Tire Pressure Low (Fault Alarm):** Indicator that a tire at one of the towers has pressure that is less than the allowable tolerance.

**Total Calculated Water:** The Wet Hours calculated water volume. When Wet Hours is used, the GPM is used to calculate the Total Calculated Water. Gallons, acre-feet, and inches-acre are calculations showing the water applied using the various measurement units.

**Total Flow Meter (Gallons):** Total Flow Meter is the measured water volume resulting from the meter's pulse output for the report period, multiplied by the meter's calibrated gallons per pulse setting. Includes Flow Meter 1 and Flow Meter 2 subtotals. (Units of measure is determined by user preferences.)

**Total Hours:** The total hours the device ran, includes numbers for wet, dry and total hours run.

**Total Metered Water:** Total Metered Water is the calculated water volume resulting from the meter's pulse output for the report period, multiplied by the meter's calibrated gallons per pulse setting. Includes Flow Meter 1 and Flow Meter 2 subtotals. Gallons, acre-feet, and inches-acre are calculations showing the water applied using the various measurement units.

**Total Water (Acre Feet or Hectare Meter):** The water volume discharged for the report period, using each available water discharge used during the report period.

**Total Water Applied:** The equivalent depth of water applied to the field, as the volume of water with respect to the area of the field.

**Transition (Fault Alarm):** An alarm showing that the Universal Linear machine has reported a shutdown due to an error in transition between the linear and pivot modes.

**Units (Aux Link only):** The unit of measure used: Fahrenheit or Celsius.

**Unreliable Position (State Alarm):** The ICON panel position state alarm indicating that the GPS position receiver does not have sufficient satellite information to provide machine position, and that the control panel is using the fallback position estimation method of calculating current position based on the last known accurate position and machine calculated rate of movement.

**Version (Panel only):** The version number of the panel firmware.

**Voltage:** The machine power source voltage measurement from the panel.

# Reports

---

## Glossary of Report Terms (Continued)

**Voltage High (Threshold Alarm):** An alarm showing that the voltage measurement from the panel exceeds the threshold being monitored by BaseStation.

**Voltage Low (Threshold Alarm):** An alarm showing that the voltage measurement from the panel is below the threshold being monitored by BaseStation.

**Volts:** The machine voltage measurement from the panel.

**VRI Mode:** Indicator for showing the type of VRI prescription that the machine is configured to run.

**VRI Active:** Indicator showing that a VRI prescription is running.

**Water:** This column is the cumulative depth applied for the report period, summarized for each row of the report.

**Water Applied with Chemicals:** The total amount of water applied with chemicals during the specified report period (in inches).

**Water Applied with Fertilizer:** The total amount of water applied with fertilizer during the specified report period (in inches).

**Water Applied with Other:** The total amount of water applied with other compounds during the specified report period (in inches).

**Water From Flow Meter 1 (Gallons):** The calculated water volume using the Flow Meter 1 Pulse Count, for the report period, times the Flow Meter 1 Multiplier.

**Water From Flow Meter 2 (Gallons):** The calculated water volume using the Flow Meter 2 Pulse Count, for the report period, times the Flow Meter 2 Multiplier.

**Water From Wet Water Hours:** The calculated water volume using the hours run, with water on, for the report period, times the Gallons per Minute (GPM) or Liters per Second (LPS).

**Water Meter (Panel only):** The number of meters configured on this device to measure water.

**Water Mode:** The machine is either applying water or not: Dry or Wet.

**Water Pressure Dry/Stopped (Threshold Alarm):** An alarm indicating that the water pressure reported by the machine is higher than the tolerance for pressure when the machine is stopped or when Water is Off (Dry).

**Water Pressure Dry/Stopped mA/mV:** Water pressure monitoring for values in either mA or mV ICON panels and ICON Link devices.

**Water Pressure High/Low:** Water pressure monitoring for values in PSI. Threshold alarms are available and trigger based on low and high PSI values set.

**Water Pressure High (Threshold Alarm):** An alarm indicating that the water pressure reported by the machine is higher than the range desired.

**Water Pressure Low (Threshold Alarm):** An alarm indicating that the water pressure reported by the machine is lower than the range desired.

**Water Timer (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to excessive or too little water being applied as a result of improper machine movement rate.

**Wet/Dry (State Alarm):** Indicates That the machine Water On/Off state is different than expected.

**Wet Hours:** Recorded run time when the machine is running with water on.

**Wide Boundary State:** The state of the end gun with the shortest water spray: On or Off.

**Wind (Fault Alarm):** An alarm showing that the machine has reported a shutdown due to the high wind speed limit has been exceeded.

**Work Order Number (Restricted Entry):** The work order number of a restricted entry event.

# Irrigation Exchange

Irrigation Exchange™ enables BaseStation3 to share irrigation data, and BaseStation access, with third party agronomy partners and Original Equipment Manufacturers (OEM), that are approved and registered with Irrigation Exchange. The grower decides which partners to share with and the types of information to send through the interface.

- **Irrigation Data:** shares machine information, machine status and applied water information for that machine.
- **Access My BaseStation:** allows the third party to access BaseStation with full control over the pivot irrigation machines that the administrator has access to.
- **Receive VRI Prescription:** allows the third party to access VRI layout for a pivot irrigation machine and send VRI prescriptions for that machine. The user can choose to require approval of requests before running or allow auto approval.
- **Work Order:** use work order to start, stop or run a program on a pivot irrigation machine. The user can choose to require approval of requests before running or allow auto approval.

## Irrigation Exchange Home Page

Click **Settings** and then **Irrigation Exchange**. The Irrigation Exchange home page is displayed in a new browser window. See Figure 123-1.

1. **Grant Access:** To allow or disallow a third party to access and exchange data.
2. **Approve Request:** To approve or reject a third parties pending or past requests to send a VRI prescription or a VRI prescription or a work order command. Also stores past requests that were approved or rejected.
3. **View Log:** Allows the user to view a complete log of API requests.
4. **Command History:** Allows the user to view a complete history of commands by third party clients.

## NOTE

- **Browser pop ups must be allowed in order to use Irrigation Exchange.**

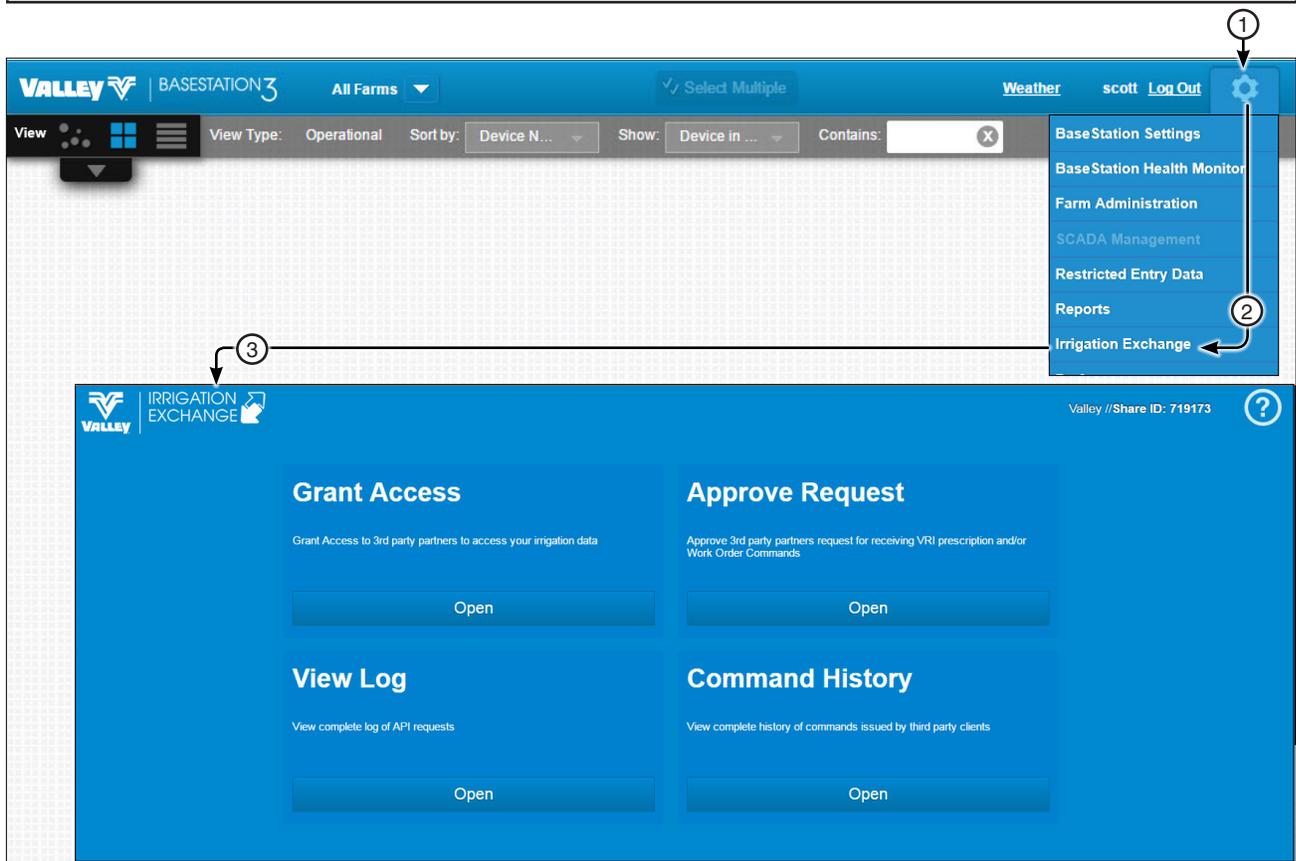


Figure 123-1 1. Settings 2. Irrigation Exchange 3. Irrigation Exchange Home Page

# Irrigation Exchange

---

## Setting Preferences

Click **Settings** (see Figure 114-1 on the next page).

Click **Preferences**.

**Select Theme:** Choose Dark Theme or Light Theme.

**Display Language:** Select a language from the drop down list.

**Units of Measure:** Select US Customary or SI (Metric).

**Date Format:** Choose to show dates as mm/dd/yyyy or dd/mm/yyyy.

### Default Screen View:

- Choose the **Farm** from the drop down list.
- Choose the **Groups** from the drop down list.
- Select a **View** option; Map, Tile or List.
- Select the **View Type**; Operational or Soil Moisture (Soil Moisture unavailable in List View).

**Tile View Sort By:** Select the default **Tile View Sort** from the drop down list.

**Status Pop Up Options:** Select Standard or Upper Left.

**Get Status Preference:** Select Automatically Get Status when opening devices or Do Not Automatically Get Status when opening devices.

### Map Display Options:

- Choose **Map Type:** My Map or Google Map default map for Map View.
- Choose **Map and Tile View Device Display Label:** Select RTU ID, Device Name or Both.

### Map and Tile View Alarm Pop Up:

- **State: No Response** checkbox.
- **Threshold Water Pressure Dry/Stopped** checkbox.

**Weather Link:** When **Show weather link** is checked, the **Label** and **URL** are required.

Click **Save**.

# Preferences

The screenshot shows the Valley Farm BaseStation3 interface. At the top, there's a navigation bar with 'Weather', 'Valley', and 'Log Out'. Below it, a toolbar contains various icons for different devices and functions. A 'Preferences' dialog box is open in the foreground, containing the following sections:

- 3 Select Theme:** A dropdown menu set to 'Dark Theme'.
- 4 Display Language:** A dropdown menu set to 'English'.
- 5 Units Of Measure:** A dropdown menu set to 'US Customary'.
- 6 Date Format:** A dropdown menu set to 'mm/dd/yyyy'.
- 7 Default Screen View:** A section with 'Farm:' (LangTest), 'Groups:' (All Groups), and 'View' options (Map, Tile, List). The 'View Type' section has 'Operational' selected.
- 8 Tile View Sort by:** A dropdown menu set to 'Device Name - Ascending'.
- 9 Status Pop Up Options:** A section with 'Pop Up Location' options: 'Standard' (selected) and 'Upper Left'.
- 10 Get Status Preference:** Radio buttons for 'Automatically Get Status when opening devices' (unselected) and 'Do Not Automatically Get Status when opening devices' (selected).
- 11 Map Display Options:** 'Map Type:' with 'My Map' and 'Google Map' (default map for Map View) buttons. Below, 'Map and Tile View Device Display Label:' with buttons for '[RTU ID]', 'Device Name', and 'Both'.
- 12 Map and Tile View Alarm Pop Up:** A section with 'Display Alarm' options: 'State: No Response' (checked) and 'Threshold: Water Pressure Dry/Stopped' (checked).
- 13 Weather Link:** A section with 'Show weather link' (checked), a 'Label:' field containing 'Weather', and a 'URL: \*' field containing 'http://www.dtnprogressivefarmer.com/dtnag/v'.

At the bottom of the dialog, there are three buttons: 'Reset', 'Save', and 'Done'. A '\*Required' note is visible at the bottom left of the dialog.

Figure 126-1

1. Settings
2. Preferences
3. Select Theme
4. Display Language
5. Units of Measure
6. Date Format
7. Default Screen View
8. Tile View Sort by
9. Status Pop Up Options
10. Get Status Preference
11. Map Display Options
12. Map and Tile View Alarm Pop Up
13. Weather Link
14. Save

## Setting Preferences (Continued)

**Status Pop Up Options:** Allows users to choose **Standard** or **Upper Left** as a pop up location.

**Get Status Preference:** Select **Automatically Get Status** when opening devices or **Do Not Automatically Get Status** when opening devices.

**Map Display Options:**

- **Map Type:** Select **My Map** or **Google Map** option.
- **Map and Tile View Device Display Label:** Select **[RTU ID]**, **Device Name** or **Both** options.
- Click **Save**.

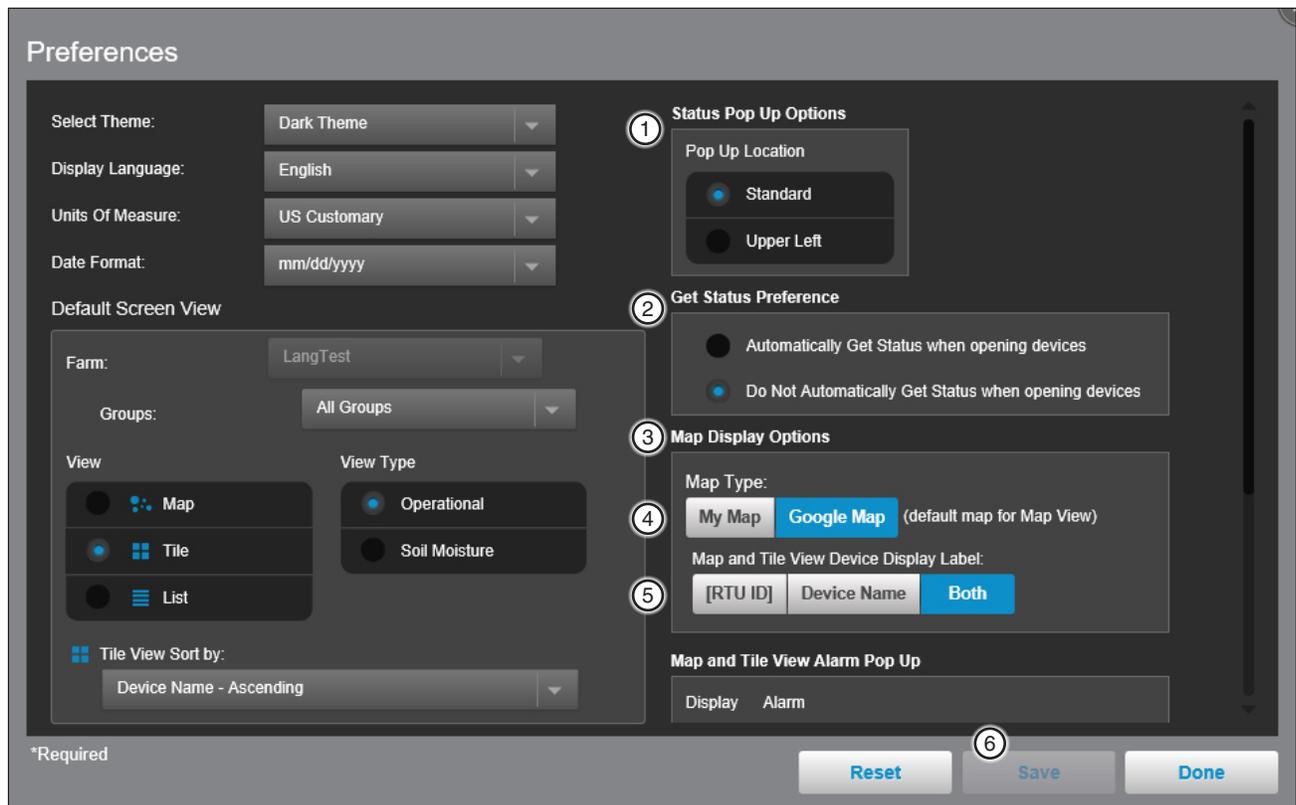


Figure 127-1 1. Status Pop Up Options  
2. Get Status Preference  
3. Map Display Options

4. Map Type
5. Map and Tile Device Display Label
6. Save

# Preferences

## Setting Preferences (Continued)

**Map and Tile View Alarm Pop Up:** Check the box associated with the alarm to enable the pop up feature. When checked, the user must click the Highlight button to see the yellow ring around the devices that have a No Response alarm, or the blue ring around devices that have a Pressure Dry/Stopped alarm.

- **No Response Alarm:** When the alarm occurs, the alarm pop up will appear at the bottom of the screen. Click Highlight, to highlight devices that have not responded with a yellow halo. Click No Highlight to remove the yellow halo.
- **Water Pressure Dry/Stopped:** By default, the alarm pop up is located in the upper right area of the BaseStation3 screen. The alarm pop up can be relocated via drag and drop and returns to the same location on launching BaseStation3. Expand the pop up to see a list of all devices having a Water Pressure Dry/Stopped alarm. The highlight for this alarm will be blue.

When done, click **Save**.

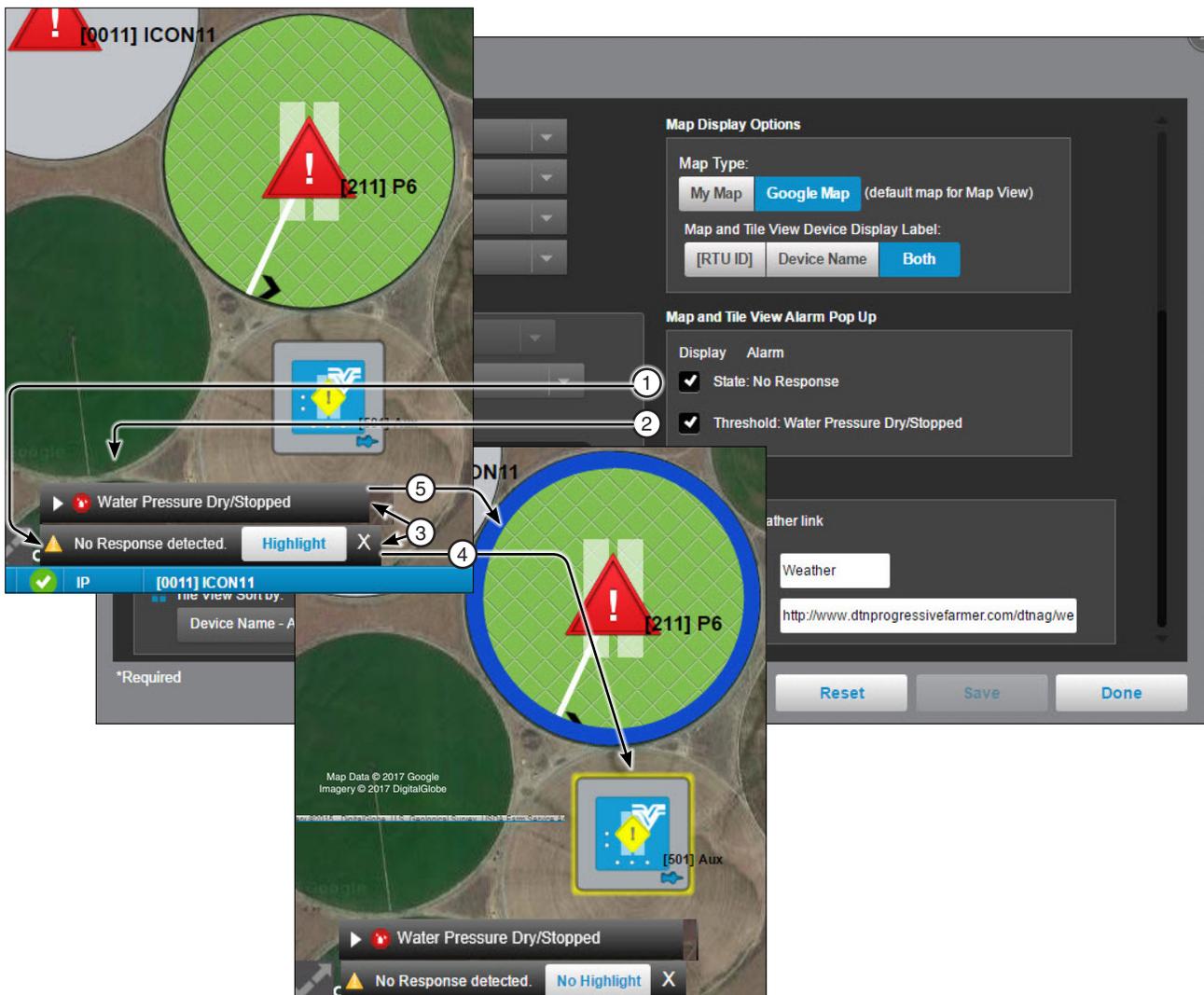


Figure 128-1 1. State: No Response 2. Threshold Water Pressure Dry/Stopped 3. Highlight button 4. Yellow Halo for No Response Alarm 5. Blue Halo for Water Pressure Dry / Stopped

## Setting Preferences (Continued)

**Weather Link:** Provides a hyperlink on the header bar to the user specified URL. Only an Administrator can enable, disable, change label or URL for the Show Weather Link.

To enable and configure the hyperlink on the header bar refer to Figure 129-1 and do the following.

1. Check the **Show Weather Link** check box.
2. Enter the **Label** for display on the header bar.
3. Enter the **URL** address.
4. Click **Save**.

The screenshot shows the 'Preferences' window with several sections. The 'Weather Link' section is highlighted with numbered callouts: 1 points to the 'Show weather link' checkbox, 2 points to the 'Label' text field containing 'Weather', 3 points to the 'URL' text field containing 'http://www.dtnprogressivefarmer.com/dtnag/v', and 4 points to the 'Save' button. Other sections include 'Map Display Options' with 'Map Type' set to 'Google Map' and 'Map and Tile View Device Display Label' set to 'Both'. The 'Default Screen View' section shows 'Farm' set to 'LangTest', 'Groups' set to 'All Groups', and 'View Type' set to 'Operational'. The 'Map and Tile View Alarm Pop Up' section has two checked items: 'State: No Response' and 'Threshold: Water Pressure Dry/Stopped'. At the bottom, there are 'Reset', 'Save', and 'Done' buttons, and a '\*Required' label.

Figure 129-1 1. Show Weather Link  
2. Label  
3. URL  
4. Save

# Preferences

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## About BaseStation3

To view version information, release notes and other details about BaseStation3:

- Click **Settings**.
- Choose **About BaseStation3**.
- The BaseStation3 pop up is shown.

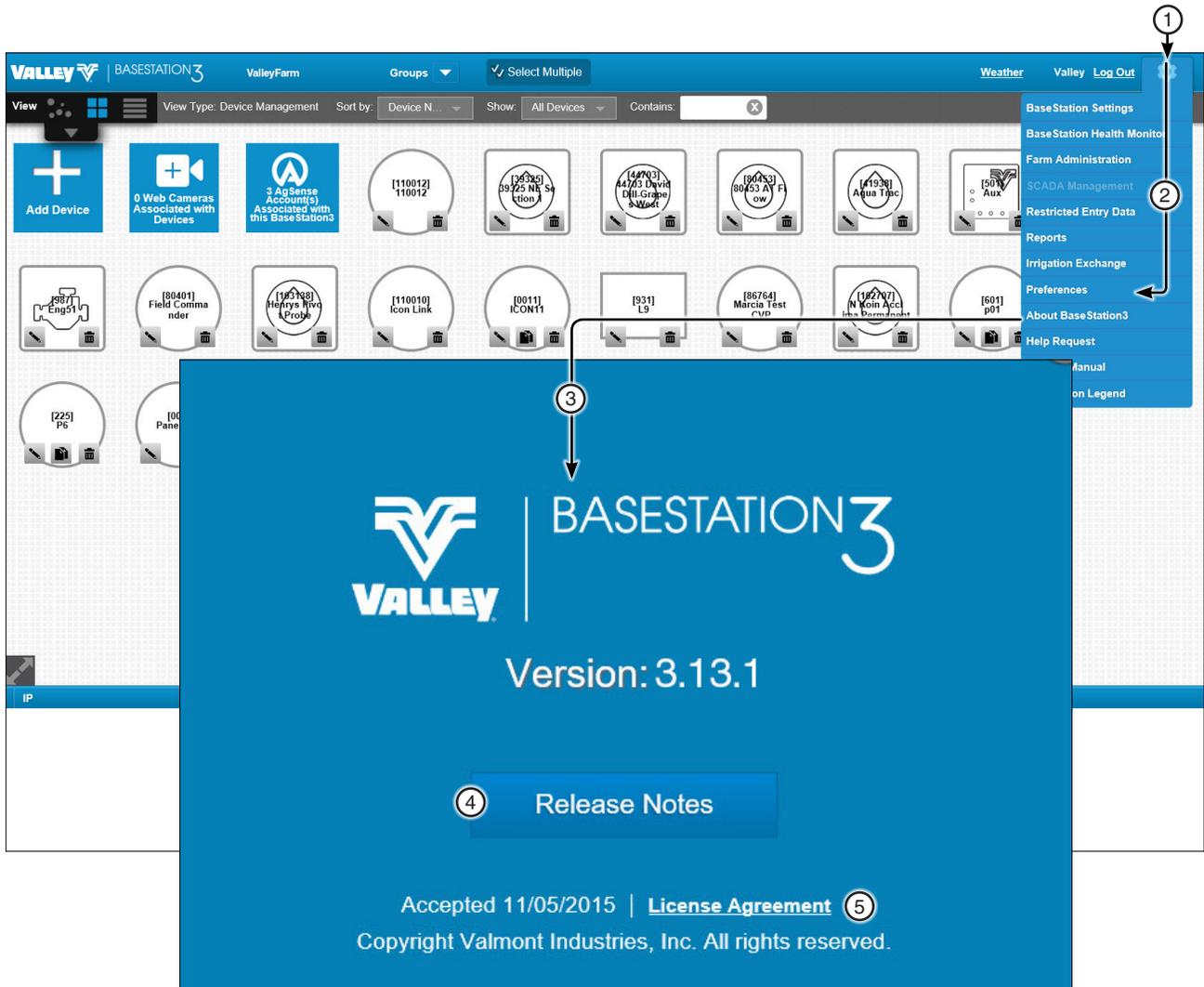


Figure 131-1

1. Settings
2. About BaseStation3
3. About BaseStation3 pop up
4. Release Notes
5. License Agreement

# About BaseStation

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## Help Request

To open a Help Request. See Figure 133-1.

- Click **Settings**.
- Choose **Help Request**.
- To log a help request, users can:
  - Call the listed phone number.
  - Email the provided email address.
  - Fill out the message form.

The screenshot displays the BaseStation3 web interface. At the top, there is a navigation bar with the Valley logo, 'BASESTATION3', 'ValleyFarm', and a 'Groups' dropdown. A 'Settings' gear icon is circled with a '1'. Below the navigation bar is a main menu with 'View Type: Device Management', 'Sort by: Device N...', 'Show: All Devices', and a search field. A grid of device icons is visible, with one icon circled and labeled '2'. A 'Help Request' link in the right-hand sidebar is circled with a '2'. A modal window titled 'Help Request' is open, featuring the Valley logo and 'BASESTATION3' text. It provides contact information: 'Call : 1-888-223-0595' and 'Email: [bs3help@valmont.com](mailto:bs3help@valmont.com)'. The 'Message' section contains instructions: 'To request help directly, please fill out the form to the right. Enter details of the issue you need help with and a BaseStation3 support person will contact you to help resolve your issue.' The form on the right includes fields for 'Name', 'Farm', 'Phone', and 'Email', a '-Request Type-' dropdown menu, a text area labeled 'Enter Text', and a 'Send' button. A '3' is circled near the top of the modal window.

Figure 133-1 1. Settings  
2. Help Request  
3. Help Request Form

# Help Request

## Filling Out a Help Request

To fill out a **Help Request**, provide the following information in the message form provided and click **Send**. See Figure 134-1.

Enter the Name, Farm Phone number and Email address. Next, select the Request Type from the drop down menu. Options include Bug Fix, Help or Feature. In the **Message** box, enter any additional relevant information. Click **Send**.

The screenshot shows a 'Help Request' form for BaseStation3. On the left, there is contact information: 'Call : 1-888-223-0595' and 'Email: [bs3help@valmont.com](mailto:bs3help@valmont.com)'. Below this is a 'Message' section with instructions: 'To request help directly, please fill out the form to the right. Enter details of the issue you need help with and a BaseStation3 support person will contact you to help resolve your issue.' On the right, the form fields are: 1. Name (text input), 2. Farm (text input), 3. Phone (text input), 4. Email (text input), 5. Request Type (dropdown menu with options: Bug Fix – Problem/Issue, Help – Usability Issue or Questions on existing feature, Feature – New feature request or an enhancement), 6. Message (text input), and 7. Send (button).

Figure 134-1

1. Name	5. Request Type
2. Farm	6. Message
3. Phone	7. Send
4. Email	

## Owner's Manual

To view the latest version of the Owner's Manual, click **Settings** and choose **Owners Manual**. See Figure 135-1. BaseStation will redirect to the link below, which lists Valley Owners Manuals including the latest version of the BaseStation3 manual.

<http://www.valleyirrigation.com/valley-irrigation/us/resources/owners-manuals>

The screenshot displays the Valley BaseStation3 web interface. At the top, the 'Settings' gear icon is circled with a '1'. A sidebar menu on the right contains 'Owners Manual' circled with a '2'. The main dashboard area shows a grid of device icons, with one icon circled by a '3'. An inset browser window shows the URL 'valleyirrigation.com/resources/product-materials/owners-manuals'. The page title is 'Valley Owner's Manuals'. A table lists various manuals with 'DOWNLOAD' buttons. The 'BaseStation3 v10 User Guide' row is circled with a '4'.

Manual Title	Action
VRI Pivot Prescription Software User Guide	DOWNLOAD
VRI Linear User Guide	DOWNLOAD
VRI-IS Pivot Prescription User Guide	DOWNLOAD
BaseStation2-SM v8.3 Owner's Manual	DOWNLOAD
BaseStation3 v10 User Guide	DOWNLOAD
GPS Guidance Panel Owner's Manual	DOWNLOAD
AuxiliaryLink Owner's Manual	DOWNLOAD
8000 Slurry Manager Owners Manual	DOWNLOAD
Global Corner Owner's Manual	DOWNLOAD

Figure 135-1 1. Settings 2. Owner's Manual 3. Redirect to list Valley Owner's Manuals 4. BaseStation3 Owner's Manual

# Owner's Manual

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# Application Legend

## Application Legend

To view the Application Legend through the BaseStation Legend, click **Settings** and choose **Application Legend**. See Figure 137-1.

The Application Legend will pop up as a PDF file. See page 41 for full Application Legend.

**Status Screen**

**Device Status Color**

The BaseStation Computer and the BaseStation Mobile applications use a graphic color to represent the current known status of the devices.

Status	Color	Graphic
Device is new.	A translucent device (circle shown) with black border and blue halo.	
Device has never communicated with BaseStation.	A translucent device (circle shown) with black border.	
Device failed to communicate with BaseStation. An alarm pop up is displayed at the bottom of the screen.	Click Highlight and a yellow halo (circle shown) is displayed around the device. The color of the device will vary. No response alarm pop-up must be enabled in Preferences	
Device is running wet.	A blue device (circle shown).	
Device is stopped.	A gray device (circle shown). <small>Note: PanelLink Only, when a pressure transducer is not configured, a gray device indicates both a stopped or running status. When running, a direction arrow is shown.</small>	
Device is running dry.	A green device (circle shown).	
Device is running <b>dry</b> , with Auxiliary 1 On.	An orange device (circle shown).	
Device is running <b>wet</b> , with auxiliary 1 On.	A cyan device (circle shown).	
VRI or Cruise is On	Gray Hatch Marks appear on the device. The color of the device will vary.	

Figure 137-1 1. Settings  
2. Application Legend  
3. Application Legend PDF

# Application Legend

---

# Device Management

## Add/Change/Copy/Delete Devices

Devices are added, changed, copied or deleted from the Device Management view type in either Map View or Tile View.

Open the View Controller Drawer and select Device Management. See Figures 139-1 and 139-2.

## Tile View

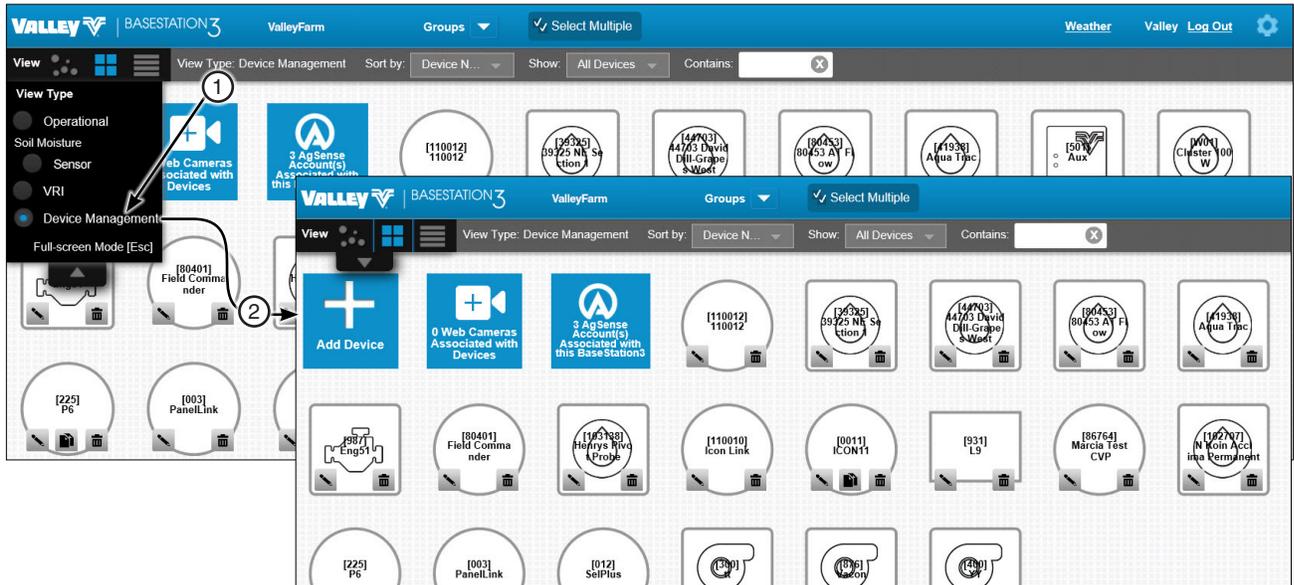


Figure 139-1 1. Device Management  
2. Device Management Tile View

## Map View



Figure 139-2 1. Device Management  
2. Device Management Map View

# Device Management

## Add a Device

### Tile View

**Tile View:** To add a device while in Device Management - Tile View, refer to Figure 140-1 and do the following.

1. Click **Add Device**.
2. Select the device type to be added to display its configuration screen.

A limited number of devices can be added based on the farm. When the limit is reached a warning is displayed and the addition of new devices is prevented until the device limit is adjusted. Call BaseStation3 Support at 888-223-0595.

3. Configure the device.

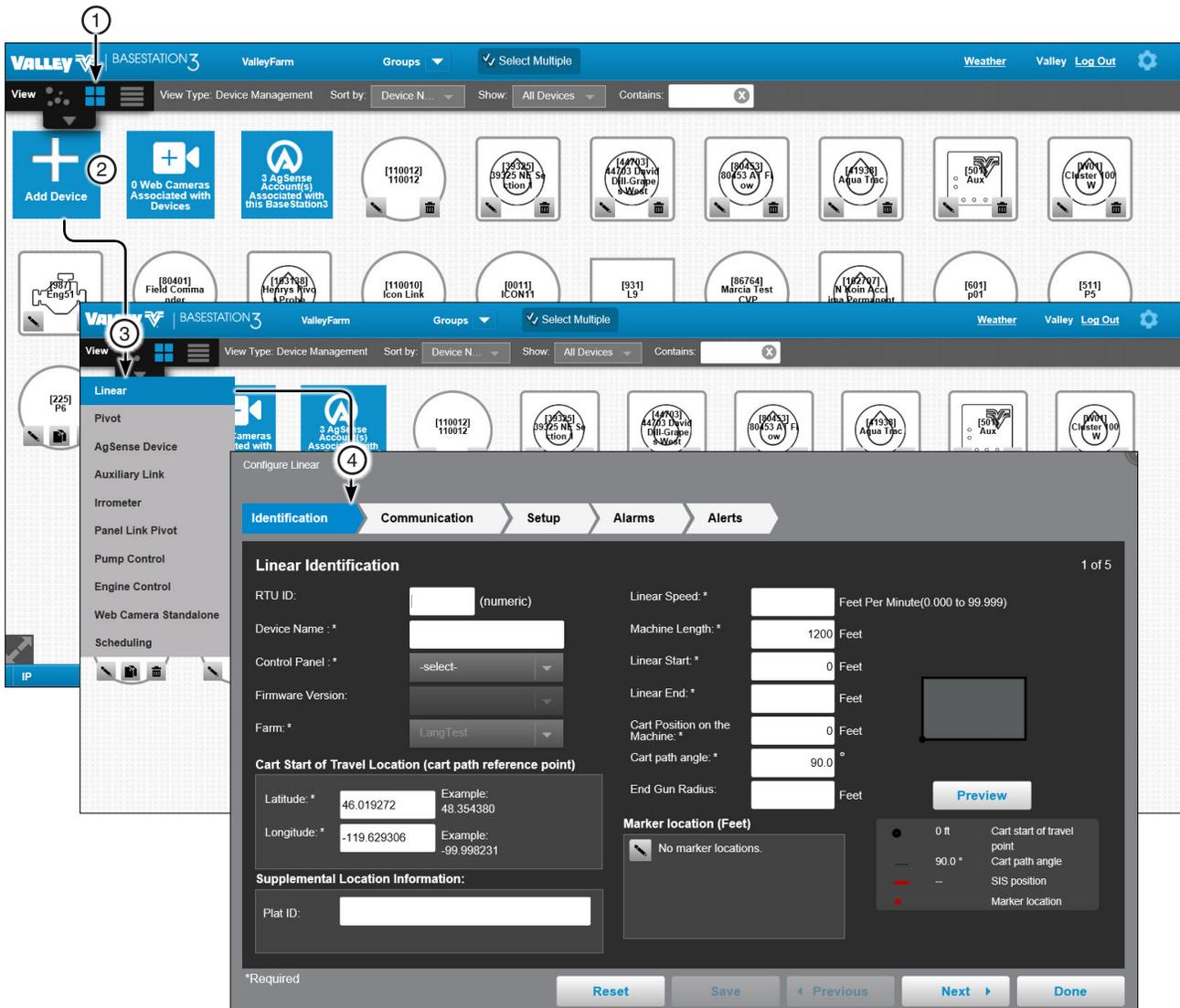


Figure 140-1 1. Tile View Device Management 2. + Add Device 3. Device List 4. Device Configuration

## Add a Device (Continued)

### Map View

**Map View:** To add a device while in Device Management - Map View, refer to Figure 141-1 and do the following.

1. Click **Add Device**.
2. Select the device to be added. The configuration screen should open for the device that was selected.

A limited number of devices can be added based on the farm. When the limit is reached a warning is displayed and the addition of new devices is prevented until the device limit is adjusted. Call BaseStation3 Support at 888-223-0595.

3. Configure the device.

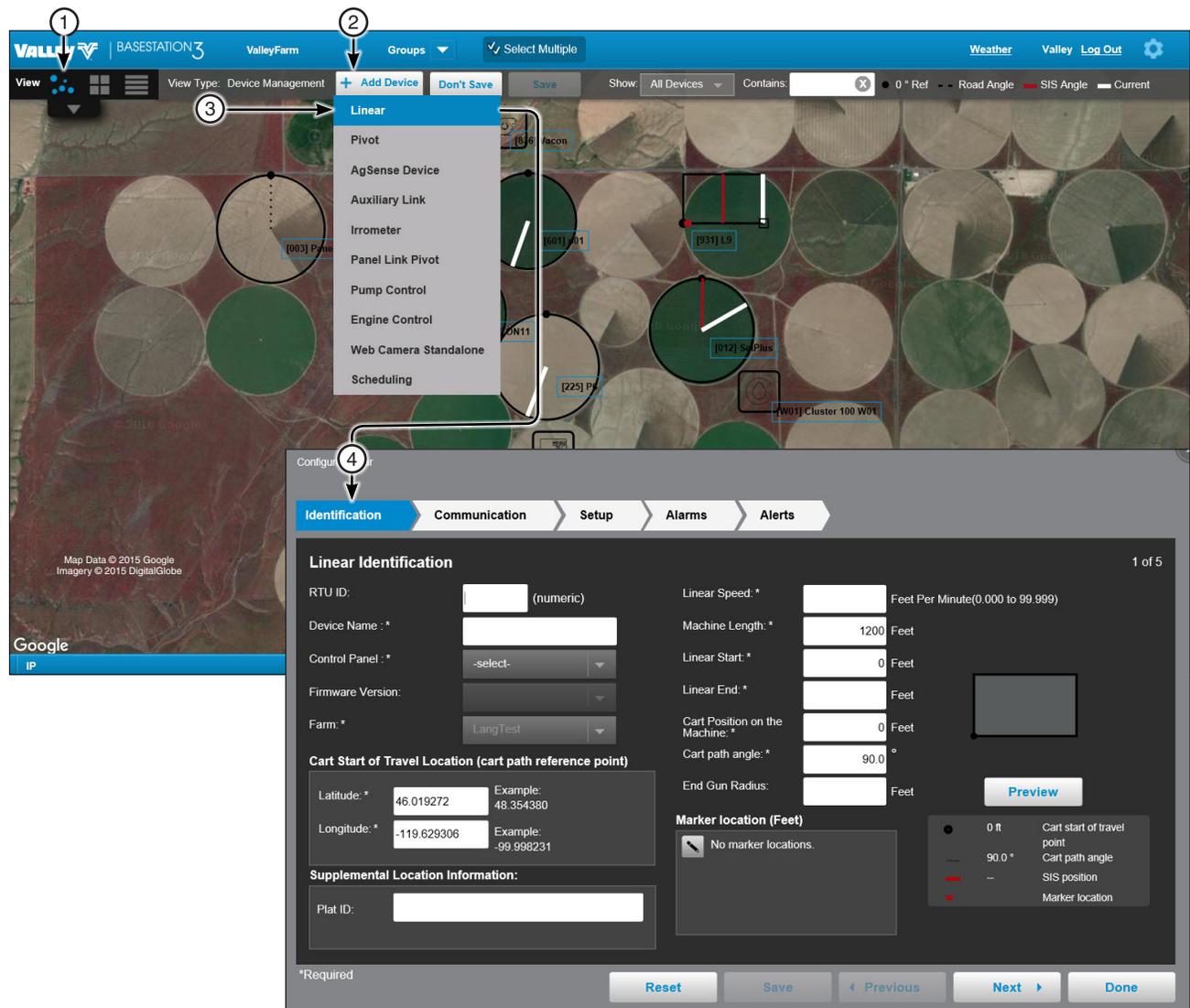


Figure 141-1 1. Map View Device Management Screen 2. + Add Device 3. Device List 4. Device Configuration

# Device Management

## Change a Device

### Tile View

**Tile View:** To change the configuration of a device in Tile View, refer to Figure 142-1 and do the following.

1. Select **Tile View**.
2. Click **Change** on an existing device. The Configure Device screen opens.
3. Make changes as required.
4. When done click **Save**.

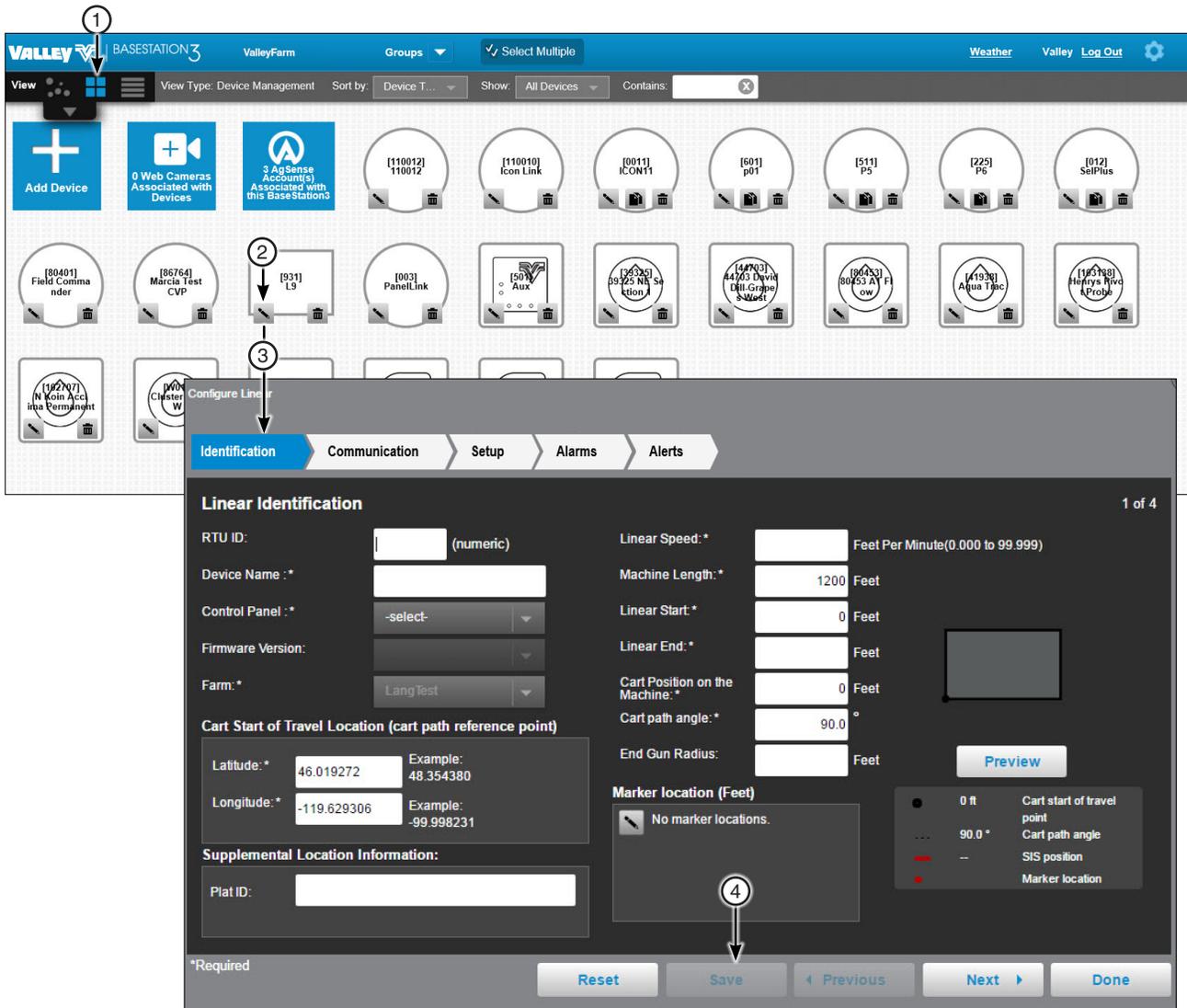


Figure 142-1 1. Tile View Device Management Screen 2. Change 3. Configure Device 4. Save

## Change a Device (Continued)

### Map View

**Map View:** To change the configuration of a device in Map View, refer to Figure 144-1 and do the following.

1. Select **Map View**.
2. Select an existing device.
3. Click **Change**. The reduced parameters **Configure Device** screen opens. This screen can be repositioned so that the device being changed can be seen.
4. Make changes as required.
5. Click **Apply** to see the changes before saving.
6. When done, click **Save**.
7. Optional: To access all parameters for the device click **Full Configuration**.
  - (a) Make changes as required.
  - (b) When done click **Save**.

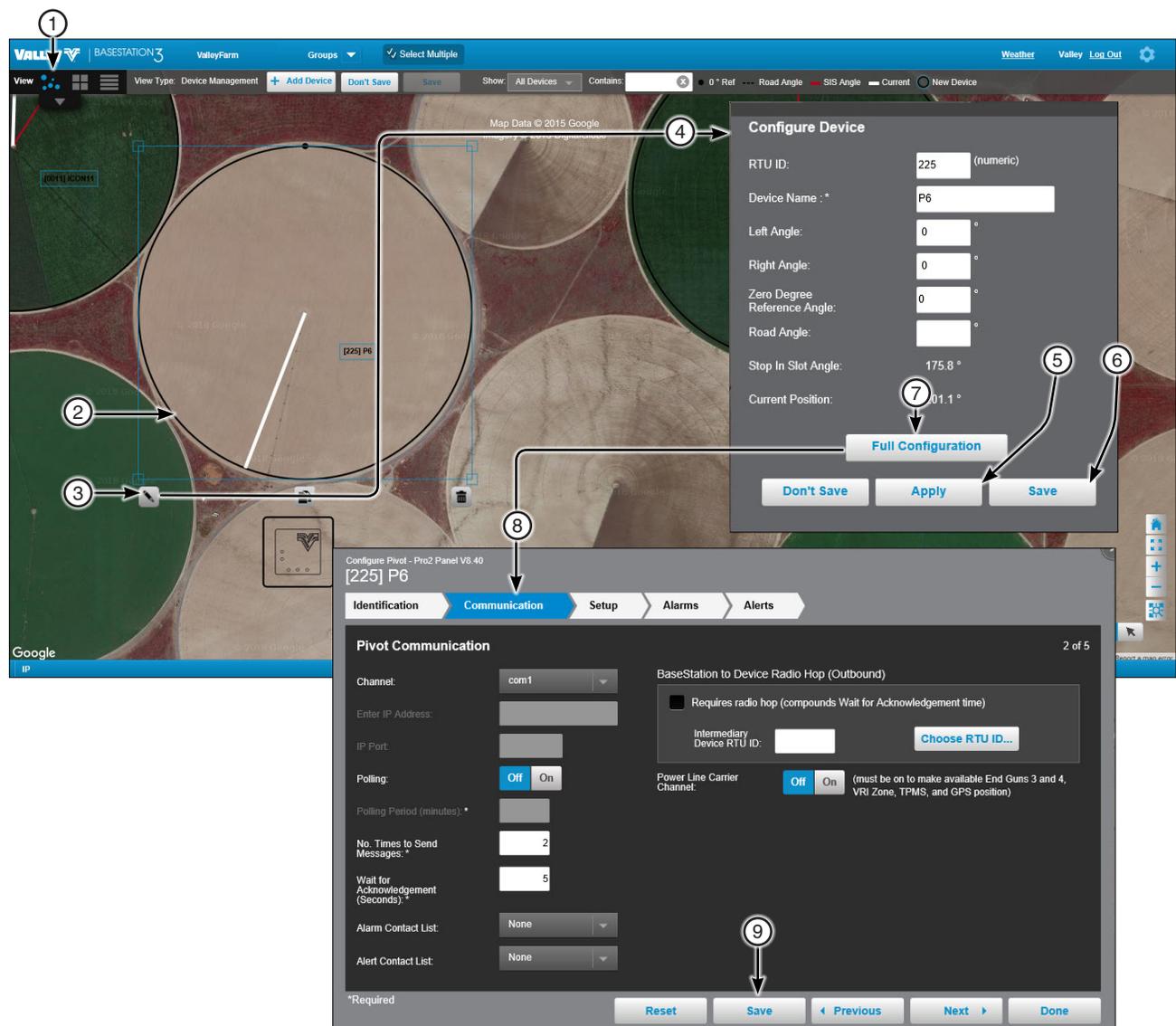


Figure 143-1 1. Map View Device Management  
2. Device  
3. Change

4. Configure Device  
5. Apply  
6. Save

7. Full Configuration  
8. Configure Device  
9. Save

# Device Management

---

## Copy a Device

The copy function creates copies of the selected device and its configuration. A partial list of the original device configuration is shown on the copy device screen.

When copying a device the user can select one of three different naming conventions for the copies.

- **Enter the device name and RTU ID now:** This naming convention creates copies where the user is required to enter the device name and RTU ID for each copy of the device. The latitude and longitude can also be changed as needed.
- **Use RTU ID as device name:** This naming convention creates copies where the RTU ID is used for both the device name and RTU ID. The initial RTU ID for copies is user entered. The copied device names and RTU IDs are created in numerical order. Note that ICON devices use a four character hex format.
- **Change the device name later:** This naming convention creates copies where the RTU ID is used only for the RTU ID, and the device name from the copied device is used for the device name followed by Copy 1, Copy 2, etc.... The initial RTU ID for copies is user entered. The copy device names and RTU IDs are created in numerical order.

A limited number of devices can be added based on the farm. When the limit is reached a warning is displayed and the addition of new devices is prevented until the device limit is adjusted. Call BaseStation3 Support at 888-223-0595.

## Copy a Device (Continued)

### Enter the Device Name and RTU ID Now

Use **Enter the device name and RTU ID now** to copy a device in Device Management View Type, refer to Figure 145-1 and do the following.

1. Select one of the following:
  - Tile View: Click **Copy** on an existing device. The Copy Device screen is displayed.
  - Map View: Select an existing device (Map View only) and click **Copy**. The Copy Device screen is displayed.
2. Choose **Enter the device name and RTU ID now**.
3. Set the **Number of Copies** to make.
4. Click **Copy**. The Copy Device screen changes to accept RTU ID and Device Name for each copy.
5. Enter the **RTU ID** and **Device Name** for each copy.
6. Click **Copy**.



Figure 145-1 1. Tile View Device Management 4. Number of Copies 7. Copy  
 2. Copy 5. Copy  
 3. Enter the device name and RTU ID now 6. RTU ID and Device Name

# Device Management

## Copy a Device (Continued) Use RTU ID as Device Name

Use RTU ID as device name to copy a device in Device Management View Type, refer to Figure 146-1 and do the following.

1. Based on the view, do one of the following:
  - Tile View: Click **Copy** on an existing device. The Copy Device screen is displayed.
  - Map View: Select an existing device (Map View only) and click **Copy**. The Copy Device screen is displayed.
2. Choose **Use RTU ID as device name**.
3. Enter the **Start RTU ID**.
4. Set the **Number of Copies** to make.
5. Click **Copy**.

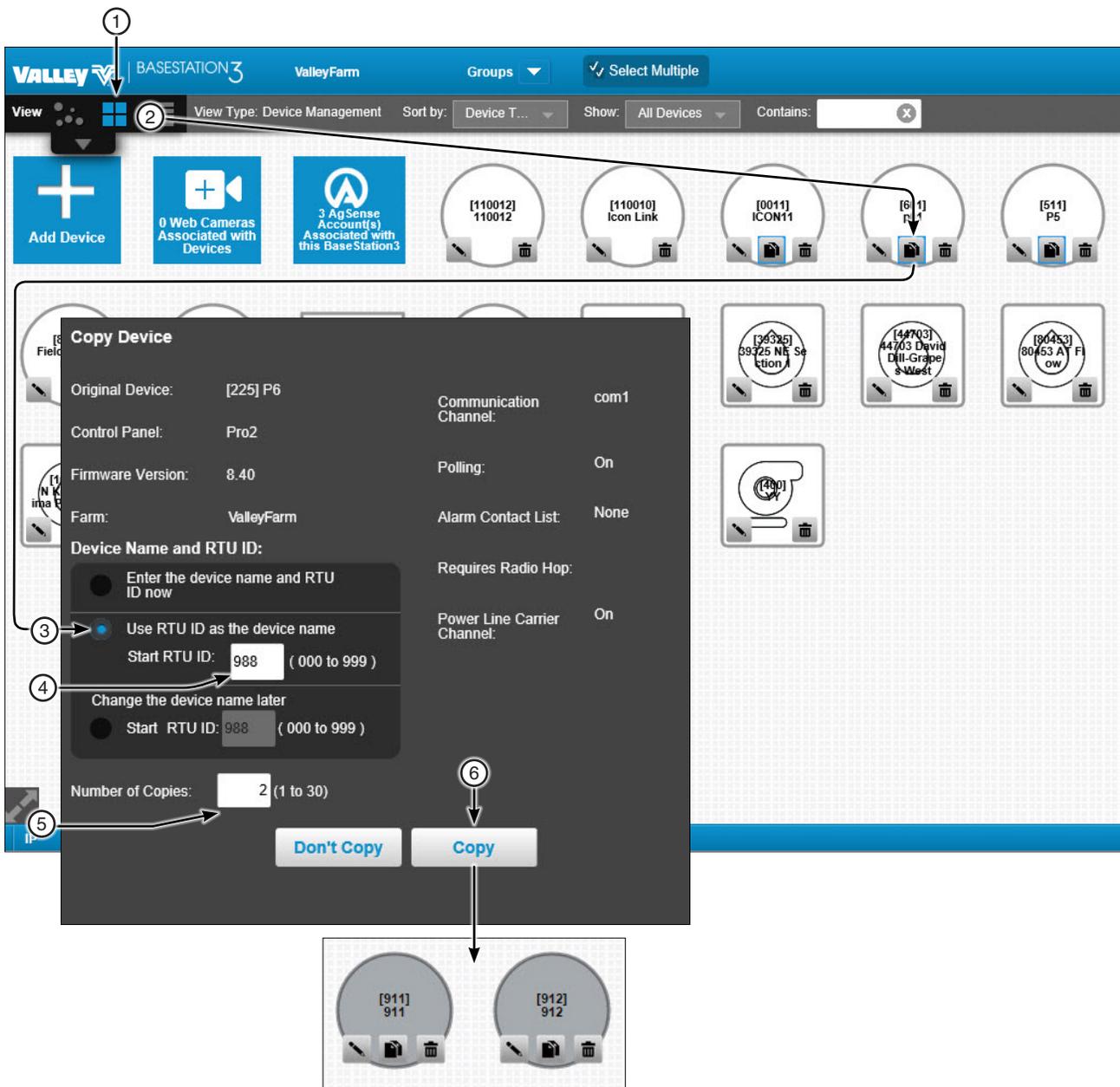


Figure 146-1 1. Tile View Device Management 2. Copy 3. Use RTU ID as device name 4. Start RTU ID 5. Number of Copies 6. Copy

## Copy a Device (Continued) Change the Device Name Later

Use **Change the device name later** to copy a device in Device Management View Type, refer to Figure 147-1 and do the following.

1. Based on the view, do one of the following:
  - Tile View: Click **Copy** on an existing device. The Copy Device screen is displayed.
  - Map View: Select an existing device (Map View only) and click **Copy**. The Copy Device screen is displayed.
2. Choose **Change the device name later**.
3. Enter the **Start RTU ID**.
4. Set the **Number of Copies** to make.
5. Click **Copy**.

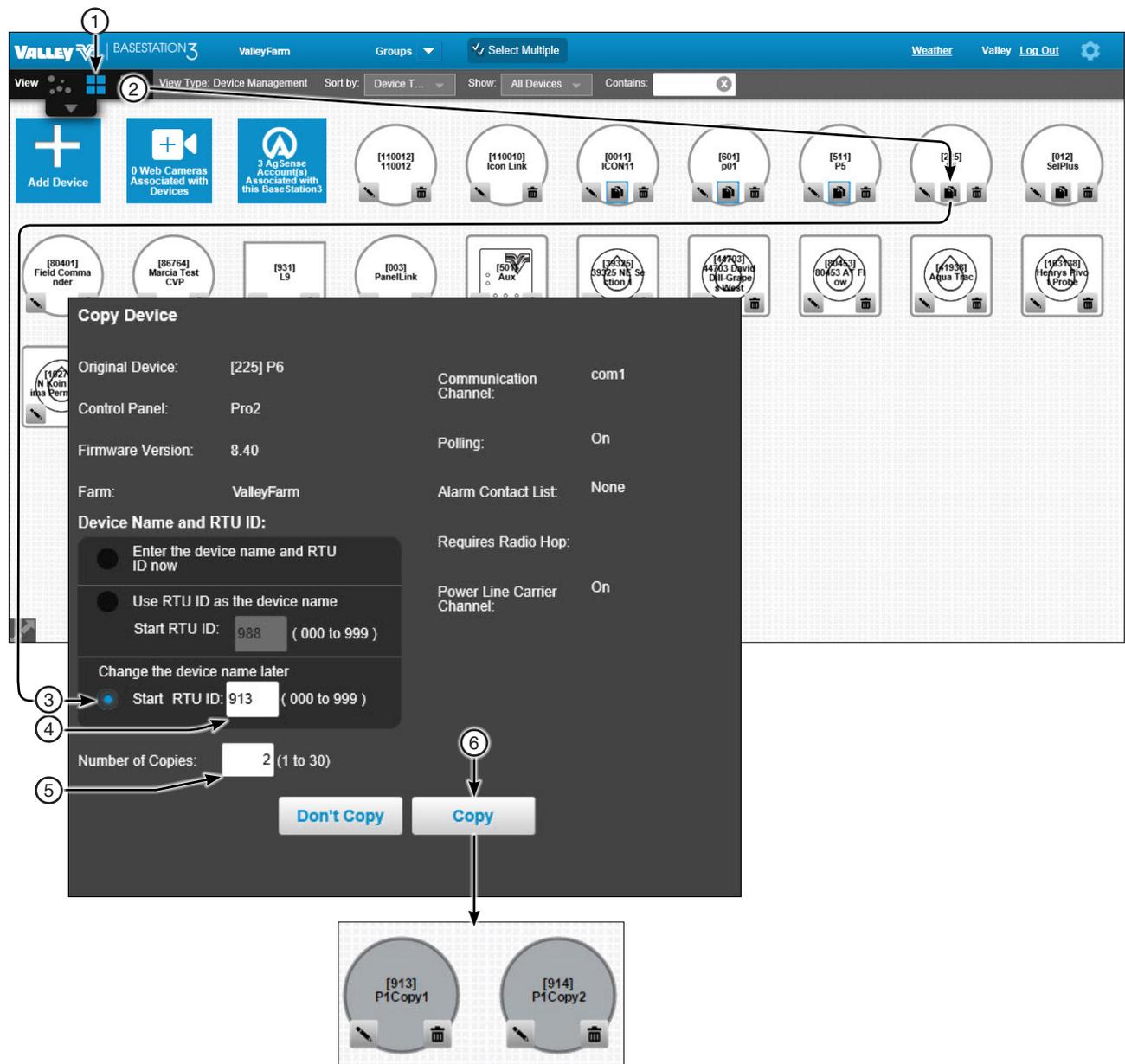


Figure 147-1 1. Tile View Device Management 2. Copy 3. Change the device name later 4. Start RTU ID 5. Number of Copies 6. Copy

# Device Management

## Delete a Device

To delete a device refer to Figure 148-1 and do the following.

1. Based on the view, do one of the following:
  - Tile View: Click **Delete** on an existing device. The delete confirmation screen is displayed.
  - Map View: Select an existing device (Map View only) and click **Delete**. The delete confirmation screen is displayed.
2. Click **Delete** to permanently delete the device.

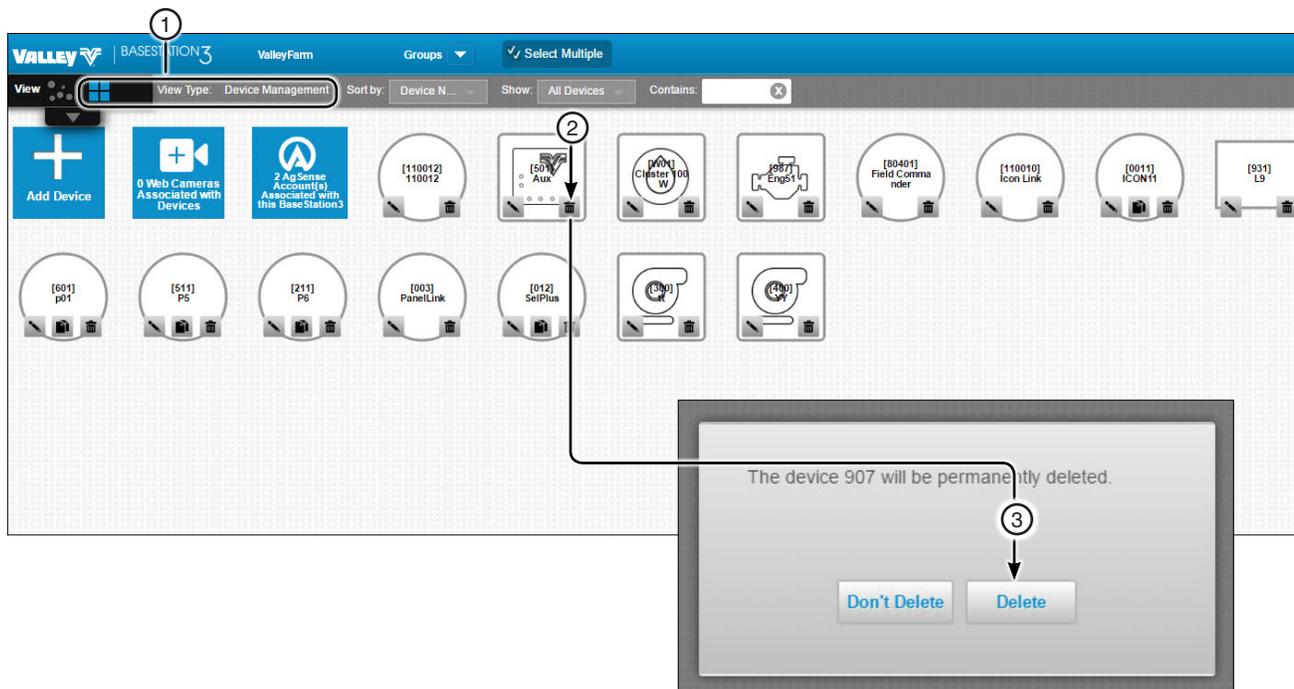


Figure 148-1 1. Tile View Device Management Screen  
2. Delete  
3. Delete

# Device Management

## Configuration Screen

While configuring a device, use the buttons at the bottom of the screen to **Reset**, **Save**, navigate **Previous** / **Next** and **Done**. See Figure 149-1.

**Reset:** Resets the configuration to the last saved state or the default configuration if the device has not been saved.

**Save:** Saves the current configuration.

**Previous / Next:** Navigate through the pages of the device configuration.

**Done:** Use the **Done** button to exit the device configuration.

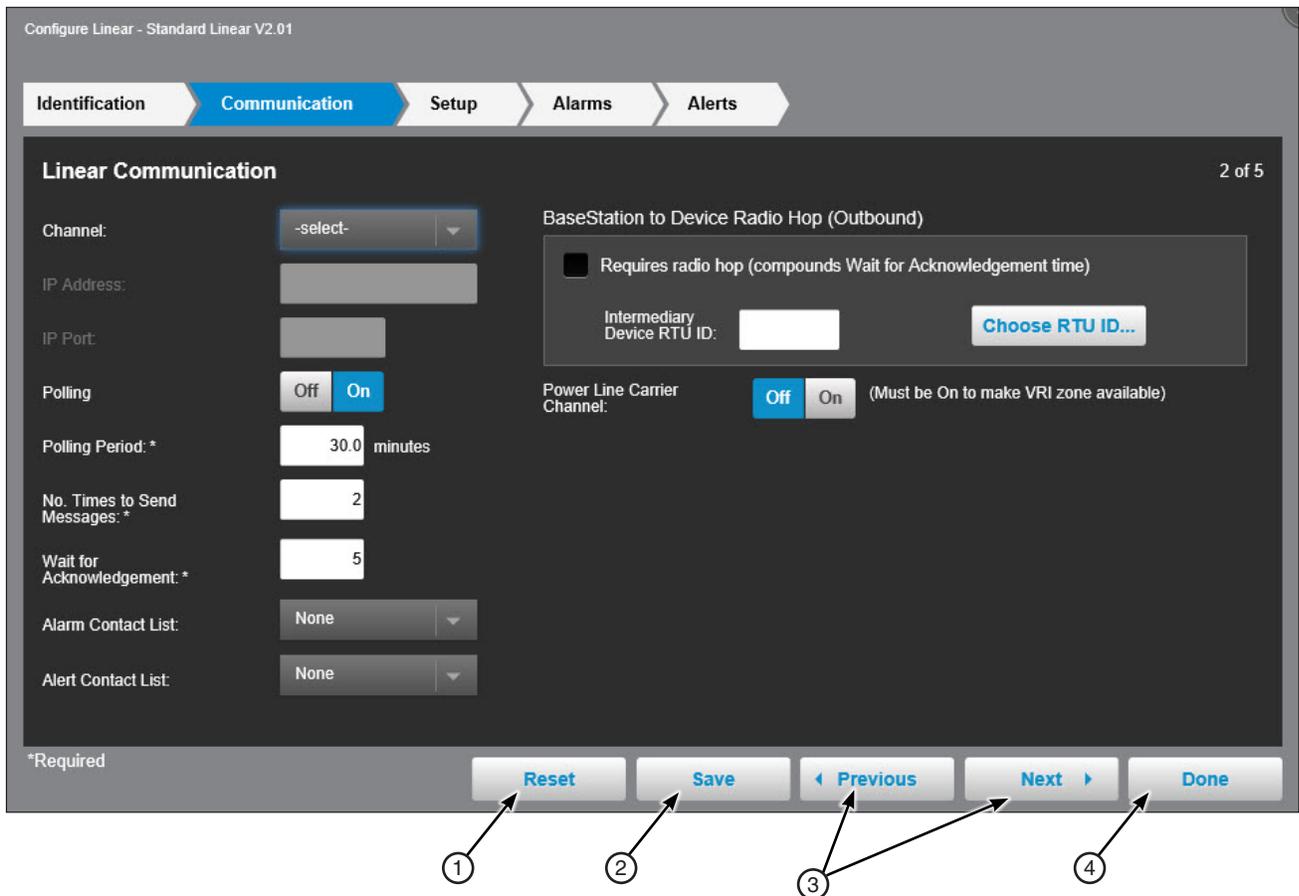


Figure 149-1 1. Reset  
2. Save  
3. Previous / Next  
4. Done

# Device Management

## Select Multiple - Configuring Multiple Devices

Use Select Multiple in the Device Management view type to configure multiple devices at once. The available configuration choices are determined by the devices that are selected and the equipment installed at the device. Only devices that have communicated with the BaseStation can be selected. Select Multiple is not available in the Soil Moisture or VRI view types.

To use Select Multiple in the Device Management view type, refer to Figure 150-1 and do the following.

1. Select a farm from the Farm List. An individual farm must be selected from the Farm List. Select Multiple is not available when All Farms is selected.
2. Click **Select Multiple**.
3. Select individual devices or click **Select All**. Click **Select None** to deselect all devices.
4. Click **Configuration**.
5. The Identification screen shows the selected devices, type of device and software version, uncheck the box associated with a device to deselect the device.
6. Navigate to the **Communications, Setup, Alarms** and **Alerts** screens, check the box associated with the configuration changes that you want to save. Make adjustments to the parameters of the configuration if allowed.
7. When done making changes, click **Save**.

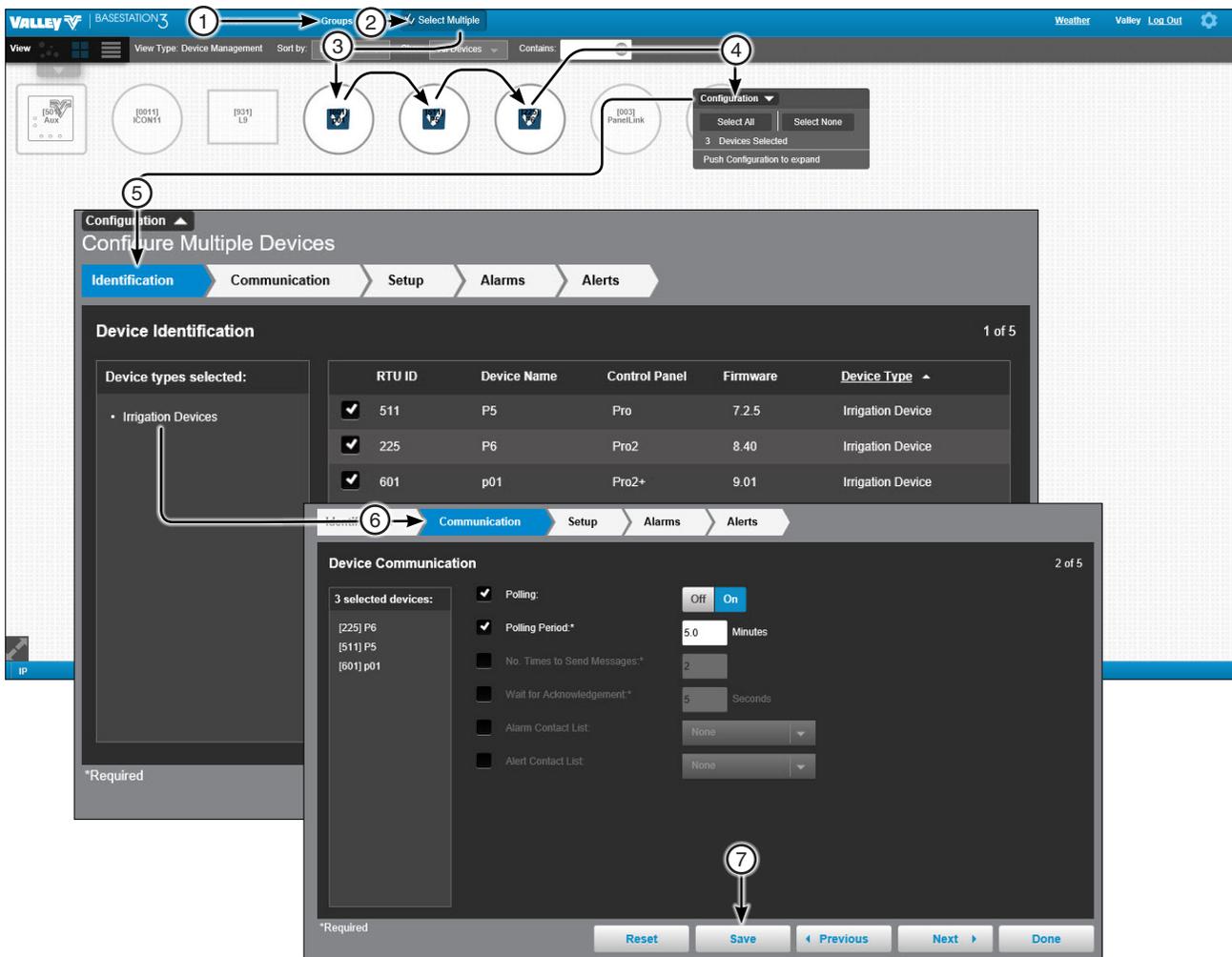


Figure 150-1 1. Farm 2. Select Multiple 3. Devices 4. Configuration 5. Identification 6. Communication 7. Save

## Sizing and Positioning Devices on a Map

In Map View, when Device Management is selected as the View Type, devices can be customized to match field size and position on the map image, including re-sizing a device and changing a device position or label position.

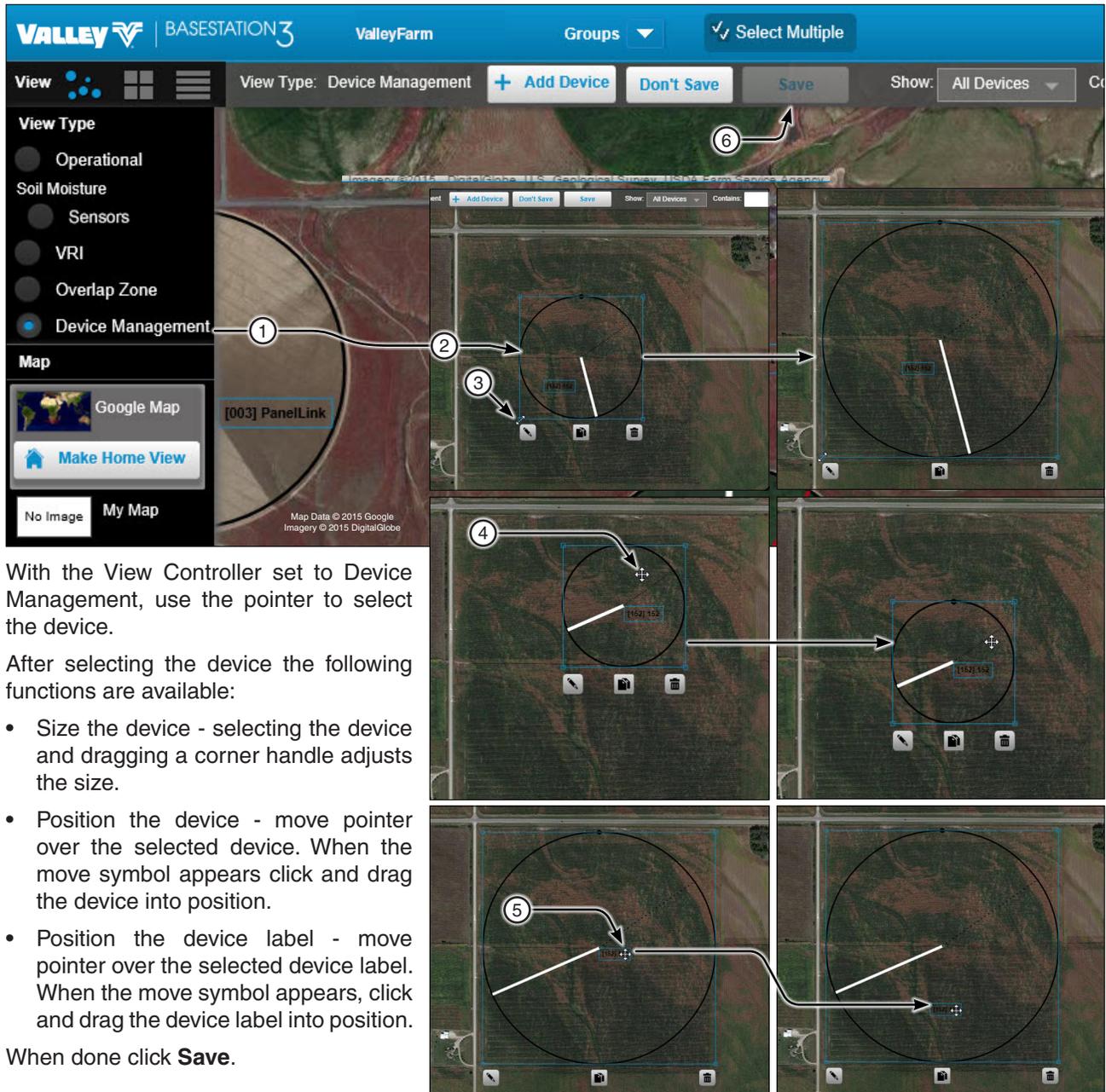


Figure 151-1 1. Device Management  
2. Device  
3. Option: Size Device - Drag Handle

4. Option: Position Device - Drag Device  
5. Option: Position Title - Drag Label  
6. Save

# Device Management

## Saving Device GPS Position in Google Map

In Google Map, when Device Management is selected as the View Type, the GPS position can be updated after a device is customized to match field size and position on the Google map.

To save the Google Map GPS Position, refer to Figure 152-1 and do the following.

1. Select the device, then move or size as needed.
2. Click **Save**.
3. Select the device again.
4. Click **Change**.
5. Click **Full Configuration** (Pivot, Linear or Panel Link only).
6. Click **Save as Configuration** to save the configuration.
7. Or, click **Undo** to clear the configuration.
8. Click **Done** to close configuration screen.

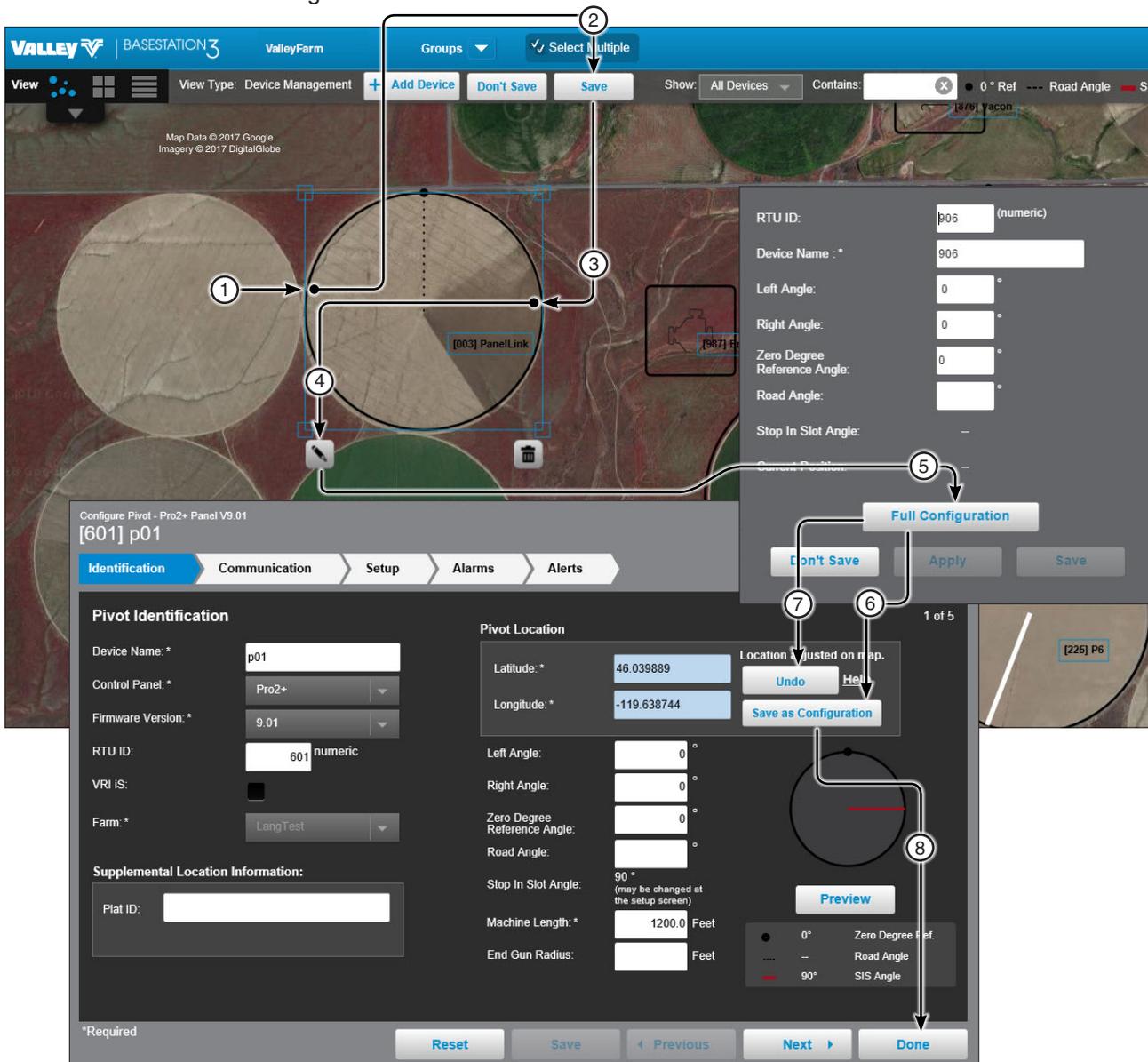


Figure 152-1 1. Device  
2. Save  
3. Device  
4. Change  
5. Full Configuration  
6. Save as Configuration  
7. Undo  
8. Done

## Linear Configuration Identification

The identification screen describes the physical attributes of the Linear Machine. The linear name and farm are required. Other required fields depend on control panel choice. See Figure 153-1.

**RTU ID:** Enter the control panel RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Control Panel and Firmware Version (required):** Select the control panel and firm ware version for this machine from the drop down lists.

**Farm List (required):** If more than one farm is available select the farm from the drop down list.

**Latitude and Longitude (required):** The GPS position of the cart start of travel location. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the linear cart on the Google Map, enter the known coordinates of the cart or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, click **Full Configuration** and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the linear cart on the map.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification Communication Setup Alarms Alerts

### Linear Identification

1 of 5

RTU ID: 1 931 (numeric)

Device Name: \* 2 L9

Control Panel: \* 3 Standard Linear

Firmware Version: 4 2.01

Farm: \* 5 ValleyFarm

Cart Start of Travel Location (cart path reference point)

6 Latitude: \* 46.039740 Location adjusted on map. Undo Help

Longitude: \* -119.623640 Save as Configuration

Supplemental Location Information:

Plat ID:

Linear Speed: \* 15.56 Feet Per Minute(0.000 to 99.999)

Machine Length: \* 1200 Feet

Linear Start: \* 0 Feet

Linear End: \* 2000 Feet

Cart Position on the Machine: \* 0 Feet

Cart path angle: \* 90 °

End Gun Radius: 0 Feet

Marker location (Feet)

1) 111

Preview

- 0 ft Cart start of travel point
- 90 ° Cart path angle
- 984 ft SIS position
- Marker location

\*Required

Reset Save Previous Next Done

Figure 153-1

1. RTU ID
2. Device Name
3. Control Panel
4. Firmware Version
5. Farm
6. Latitude / Longitude

# Device Management

## Linear Configuration

### Identification (Continued)

**Linear Speed (required):** Enter the speed in feet per minute from 0.000 to 9.999. There is no default speed.

**Machine Length (required):** Enter the length in feet from 0 to 9999. The default is 1200 feet.

**Linear Start (required):** Enter the start point in feet from 0.0 to 32808. The default is 0.0 feet.

**Linear End (required):** Enter the end point in feet from 0.0 to 32808. There is no default end point.

**Cart Position on the Machine (required):** The location of the cart on the machine in feet. The default is 0.0 feet and displays the cart at the end of the machine.

**Cart Path Angle (required):** The angle of the cart path in the field. Changing the cart path angle effects the Latitude and Longitude, cart path location and the start and end positions of the machine travel. The default is 90 degrees, which displays a machine that travels from left (start) to right (end) on a cart path at the bottom of the field.

**End Gun Radius:** If an End Gun will be used, enter the End Gun radius in feet.

**Marker Location:** To add a marker location click **Change** and enter the marker position in feet from 0 to 32808. To add another marker, click **Add New**. When done click **Save**.

**Preview:** Click Preview to display a view of what the linear machine will look like.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification Communication Setup Alarms Alerts

### Linear Identification

1 of 5

RTU ID: 931 (numeric)

Device Name: \* L9

Control Panel: \* Standard Linear

Firmware Version: 2.01

Farm: \* ValleyFarm

1 Linear Speed: \* 15.56 Feet Per Minute(0.000 to 99.999)

2 Machine Length: \* 1200 Feet

3 Linear Start: \* 0 Feet

4 Linear End: \* 2000 Feet

5 Cart Position on the Machine: \* 0 Feet

6 Cart path angle: \* 90 °

7 End Gun Radius: 0 Feet

8 Marker location (Feet)  
1) 111

9 Preview

Cart Start of Travel Location (cart path reference point)

Latitude: \* 46.039740 Location adjusted on map. Undo Help

Longitude: \* -119.623640 Save as Configuration

Supplemental Location Information:

Plat ID: \_\_\_\_\_

\*Required

Reset Save Previous Next Done

Legend:  
● 0 ft Cart start of travel point  
..... 90 ° Cart path angle  
- - - 984 ft SIS position  
● Marker location

Figure 154-1

1. Linear Speed	4. Linear End	7. End Gun Radius
2. Machine Length	5. Cart Position on the Machine	8. Marker Location
3. Linear Start	6. Cart Path Angle	9. Preview

## Linear Configuration Communication

Use Communication to configure communications between BaseStation and the device. See Figure 155-1.

**Channel:** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Enter IP Address:** The Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port:** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off:** The periodic request based on the polling period that the BaseStation makes for machine status from the device.

**Polling Period:** The time in minutes between polling tries for obtaining machine status. The default time is 30 minutes.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification Communication Setup Alarms Alerts

Linear Communication 2 of 5

Channel: 1 com1

IP Address: 2

IP Port: 3

Polling 4 Off On

Polling Period: \* 5 minutes

No. Times to Send Messages: \* 2

Wait for Acknowledgement: \* 5

Alarm Contact List: None

Alert Contact List: None

BaseStation to Device Radio Hop (Outbound)

Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID: Choose RTU ID...

Power Line Carrier Channel: Off On (Must be On to make VRI zone available)

\*Required

Reset Save Previous Next Done

Figure 155-1

1. Channel
2. IP Address.
3. IP Port
4. Polling
5. Polling Period

# Device Management

## Linear Configuration

### Communication (Continued)

**Number of Times to Send Messages:** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary. See Figure 156-1.

**Time to Wait for Acknowledge:** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by the BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Messages limitation. See Figure 156-1.

**Alert Contact List:** Associates the device with a contact list of users that will be notified when an alert occurs. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact List**. See Figure 156-1.

**Alarm Contact List:** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact List**. See Figure 156-1.

**Radio Hop (outbound):** The use of an intermediate device to relay communications from the BaseStation to another device through Pro, Pro2 or AutoPilot modules without the need for additional hardware. When using this function all control panels involved must be either Pro version 7 or Pro2. Additional time will be required to relay the message. Increasing the Time to Wait for Acknowledge value will be necessary; typically double the original Time to Wait, depending on the type of communications being used.

**RTU ID (Radio Hop):** The RTU ID of the intermediate machine that is used as a relay point.

**To use Radio Hop, check the Requires radio hop check box. Click Choose RTU ID and select an intermediate device to relay communications.**

**Power Line Carrier Channel:** The Power Line Carrier Channel must be turned on to make VRI zone available.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification Communication Setup Alarms Alerts

Linear Communication 2 of 5

Channel: com1

IP Address:

IP Port:

Polling: Off On

Polling Period: \* minutes

No. Times to Send Messages: \* 1 2

Wait for Acknowledgement: \* 2 5

Alarm Contact List: 3 None

Alert Contact List: 4 None

BaseStation to Device Radio Hop (Outbound)

5  Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID: Choose RTU ID...

6 Power Line Carrier Channel: Off On (Must be On to make VRI zone available)

\*Required

Reset Save Previous Next Done

Figure 156-1 1. No. Times to Send Messages 2. Wait for Acknowledgement 3. Alarm Contact List 4. Alert Contact List 5. BaseStation to Device Radio Hop (Outbound) 6. Power Line Carrier Channel

## Linear Configuration Setup

### Water Measurement

The Water Measured By selection provides four choices of water monitoring; None, Wet Hour Meter, 1 Flow Meter or 2 Flow Meters. The default setting is None. The type of water measuring selected here determines the formula that is used in reports. See Figure 157-1.

### None

When None is selected, water reports are based on calculated approximations of water discharge in Gallons Per Minute (GPM). See Calculation Examples on the next page. Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system.

To use None for water measuring, select **None** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 157-1.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification > Communication > **Setup** > Alarms > Alerts

**Linear Setup** 3 of 5

Water Settings

1 Water Measured by: None

2 Sprinkler Package: 978 GPM (decimal number)

3 Irrigated Area: 96.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application: Get Send 0.6 Inches

Stop in Slot Position: Get Send 984 Feet

Direction: Forward Reverse Both

Minimum Hours: 2.1 hrs

Auxiliary Labels

Aux label Type Show on device panel

Other Aux 1 label: [ ] [x]

Other Aux 2 label: [ ] [x]

\*Required

Reset Save < Previous Next > Done

Figure 157-1 1. Water Measured by  
2. Sprinkler Package  
3. Irrigated Area  
4. Save

# Device Management

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Calculation Examples

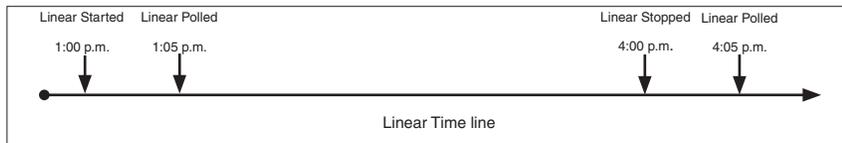
The formula for reporting is the product of the discharge value entered and the accumulated wet hours known by the BaseStation from polled interval status changes.

In this example, at a discharge rate of 170 GPM, the Totals Report will calculate the number of minutes that the machine was running wet during the report period and multiply that by 170.

The report is only as accurate as the status update records for logging start/stop times and the precision of the discharge rate.

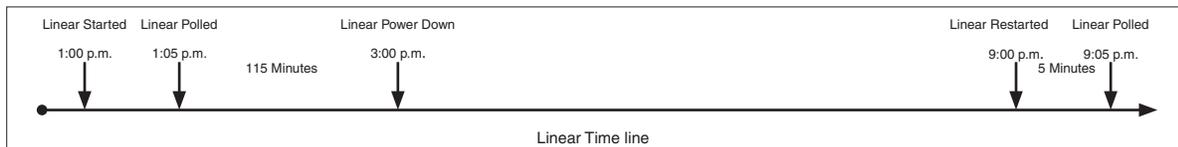
The BaseStation records actual start and stop times that are commanded through the BaseStation. Other local controls at the machine that start or stop the machine, such as Programs, SIS, and Daily Ops are logged only when updated by polling or manual requests for status updates.

Example:



1. The discharge rate is set for 170 GPM and the pivot is started at 1:00 p.m. and polled at 1:05 p.m., then the BaseStation gets data that the pivot is running wet.
2. The pivot is stopped at 4:00 p.m. and polled at 4:05 p.m., then the BaseStation gets data that the pivot has stopped.
3. The flow rate is calculated from 1:05 p.m. to 4:05 p.m. discharge rate ( $170 \text{ GPM} \times 180 \text{ minutes} = 30,600 \text{ gal}$ ).

If power is lost, as shown below, the calculated flow total would occur between 1:05 p.m. and 9:05 p.m. even though the pivot wasn't running wet between 3:00 p.m. and 9:05 p.m.



View the examples on the next page.

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Calculation Examples (Continued)

Example:

Calculated:  $8 \text{ hours} \times 60 \text{ minutes/1 hour} \times 170 \text{ GPM} = 81,600 \text{ gal}$

Actual:  $120 \text{ minutes} \times 170 \text{ GPM} = 20,400 \text{ gal}$

Error:  $81,600 \text{ gal} - 20,400 \text{ gallons} = +61,200 \text{ gal}$

Linear is running with water on, starting at 1:00 PM, stopping at 4:00 PM.

- That means that the linear is running wet for 3.0 hours (180 minutes)
- At 170 gallons per minute, that is a discharge of 30,600 gallons

The BaseStation3 report looks at the status when polling records were saved. In this example the sample period duration is the same 3.0 hours as the actual run duration. If polling occurred differently, the monitored run time can vary.

Using the water measurement mode as polled interval, if power is lost at 3:00 PM, as shown below, the calculated flow total would occur between 1:05 p.m. and 9:05 p.m. even though the linear wasn't running wet between 3:00 p.m. and 9:05 p.m.

Example:

Calculated:  $8 \text{ hours} \times 60 \text{ minutes/1 hour} \times 170 \text{ GPM} = 81,600 \text{ gal}$

Actual:  $120 \text{ minutes} \times 170 \text{ GPM} = 20,400 \text{ gal}$

Error:  $81,600 \text{ gal} - 20,400 \text{ gallons} = +61,200 \text{ gal}$

Using the water measurement mode as Wet Hour Meter, if power is lost at 3:00 PM, as shown below, the calculated flow total would occur the polled records saved at 1:05 p.m. and 9:05 p.m. even though the linear wasn't running wet between 3:00 p.m. and 9:05 p.m.

Example:

Calculated:  $2.0 \text{ hours} \times 170 \text{ GPM} = 81,600 \text{ gal}$

Actual:  $120 \text{ minutes} \times 170 \text{ GPM} = 20,400 \text{ gal}$

The hour meter is counting from the actual start time at 1:00 p.m., to the actual stop time at 3:00 p.m.

Valmont recommends that choosing the Wet Hour Meter from the control panel as the reference for calculating the Water Volume reports.

# Device Management

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Wet Hour Meter

When Wet Hour Meter is selected, the formula for reporting is the product of the discharge value in Gallons Per Minute (GPM) entered and the actual accumulated wet hours as gathered from the control panel. The BaseStation requests the Wet Hours data from the device control panel. The control panel can be either a Pro2 or AutoPilot module where Wet Hours are accumulated. Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system. To use the Wet Hour Meter for water measuring, select **Wet Hour Meter** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 160-1.

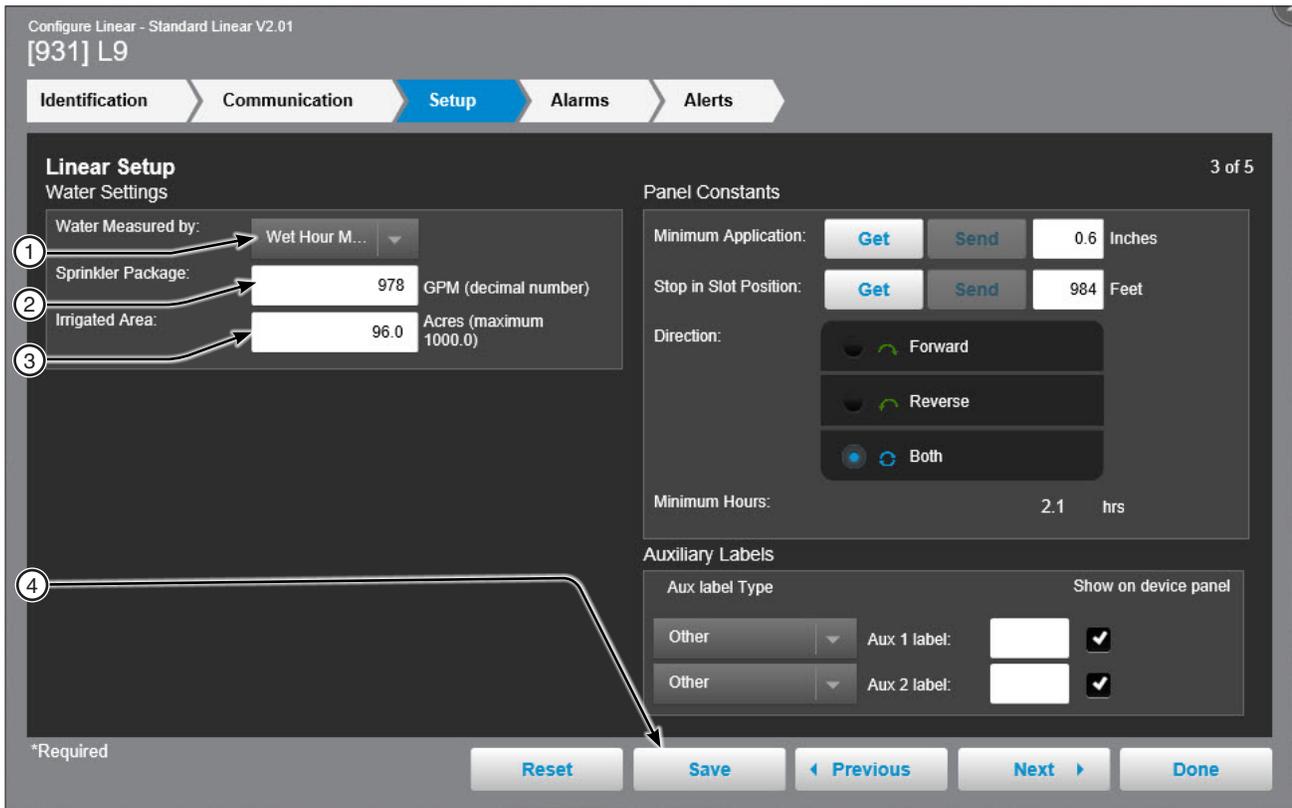


Figure 160-1 1. Water Measured by 3. Irrigated Area  
2. Sprinkler Package 4. Save

## Linear Configuration Setup (Continued) Water Measurement (Continued) Flow Meters

When One Flow Meter or Two Flow Meter is selected, the BaseStation uses the pulse count value(s) from an AutoPilot module. The formula for reporting is the product of the periodic count total and the multiplier value for the flow count device. When 2 Flow Meter is selected, up to two different flow count devices can be used and each device has it's own multiplier. See Figure 161-1.

When a Valley flow count device is selected, the multiplier field is automatically populated. When a flow count device of Other is selected, a multiplier must be entered.

Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system.

The image shows two overlapping screenshots of the 'Linear Setup' configuration interface for a 'Standard Linear V2.01' system. The interface is titled '[931] L9' and has navigation tabs for Identification, Communication, Setup (selected), Alarms, and Alerts. The 'Linear Setup' section is divided into 'Water Settings' and 'Panel Constants'.  
The top screenshot shows the 'One Flow Meter' configuration. In 'Water Settings', 'Water Measured by' is set to 'One Flow M...', 'Meter 1 Label' is 'Flow Meter 1', 'Flow Meter Type' is '-select-', and 'Multiplier 1:\*' is a text input field. 'Sprinkler Package' is 978 GPM and 'Irrigated Area' is 96.0 Acres. 'Panel Constants' include 'Minimum Application' (0.6 Inches), 'Stop in Slot Position' (984 Feet), and 'Direction' (Forward, Reverse, Both).  
The bottom screenshot shows the 'Two Flow Meter' configuration. 'Water Measured by' is set to 'Two Flow M...'. It includes fields for 'Meter 1 Label' (Flow Meter 1) and 'Meter 2 Label' (Flow Meter 2), each with a 'Show on device panel' checkbox. It also has 'Flow Meter Type' and 'Multiplier 1:\*'/'Multiplier 2:\*' fields. 'Sprinkler Package' is 978 GPM and 'Irrigated Area' is 96.0 Acres. 'Panel Constants' include 'Minimum Hours' (2.1 hrs) and 'Auxiliary Labels' (Aux 1 label and Aux 2 label, both checked).  
At the bottom of the interface are buttons for 'Reset', 'Save', 'Previous', 'Next', and 'Done'. A '\*Required' label is present near the bottom left.

Figure 161-1

# Device Management

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Using 1 Flow Meter

To use 1 Flow Meter for water measuring, select **One Flow Meter** from the drop down menu, enter the flow meter label, select the **Flow Count Device** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 162-1.

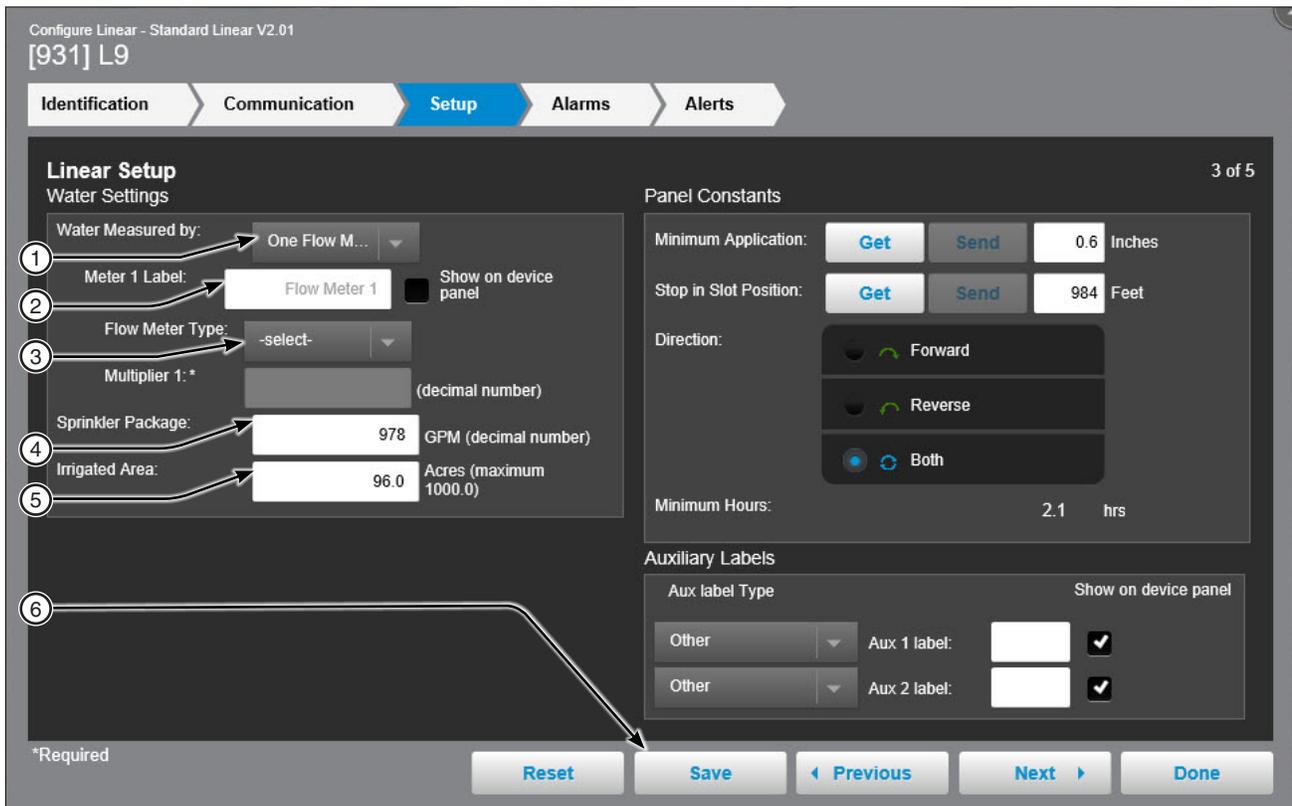


Figure 162-1

1. Water Measured by	4. Sprinkler Package
2. Meter 1 Label	5. Irrigated Area
3. Flow Meter Type	6. Save

## Linear Configuration Setup (Continued) Water Measurement (Continued) Using 2 Flow Meter

To use 2 Flow Meter for water measuring, select **Two Flow Meter** from the drop down menu, enter the first flow meter label, select the first **Flow Count Device** from the drop down menu, enter the second flow meter label, select the second **Flow Count Device** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres, and click **Save**. See Figure 163-1.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification > Communication > **Setup** > Alarms > Alerts

### Linear Setup

Water Settings

Water Measured by: Two Flow M...  
Meter 1 Label: Flow Meter 1  Show on device panel  
Flow Meter Type: -select-  
Multiplier 1: \* (decimal number)  
Meter 2 Label: Flow Meter 2  Show on device panel  
Flow Meter Type: -select-  
Multiplier 2: \* (decimal number)  
Sprinkler Package: 978 GPM (decimal number)  
Irrigated Area: 96.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application:   0.6 Inches  
Stop in Slot Position:   984 Feet  
Direction:  Forward  Reverse  Both  
Minimum Hours: 2.1 hrs

Auxiliary Labels

Aux label Type  Show on device panel  
Other   Aux 1 label:    
Other   Aux 2 label:

\*Required

Figure 163-1

1. Water Measured by
2. Meter 1 Label
3. Flow Meter Type
4. Meter 2 Label
5. Flow Meter Type
6. Multiplier 2
7. Sprinkler Package
8. Save

# Device Management

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

#### Panel Constants

The panel constant values for Minimum Application, Stop in Slot Angle and Minimum Hours Per Revolution can be obtained from or sent to the control panel. Get and Send are disabled when there is no RTU ID. See Figure 164-1.

**Minimum Application (Inches):** The depth of water applied at a speed setting of 100 percent. The Minimum Application values are used to calculate depth in inches (in). The Discharge rate is not used in calculations when Flow Meter measurements are utilized.

**Stop In Slot Position:** The position of Stop In Slot in feet.

**Direction:** The direction in which Stop In Slot will stop the machine. Either Forward, Reverse or Both directions.

**Get:** To load the constant values from an AutoPilot control panel into the BaseStation database, click the **Get** button associated with the constant. After the values are synchronized click **Save**. Communication between BaseStation and the device is required.

**Send:** To send the constant values to an AutoPilot control panel from the BaseStation database, enter a value in the field associated with the constant and then click the **Send** button associated with the constant. After the values are synchronized click **Save**. Communication between BaseStation and the device is required.

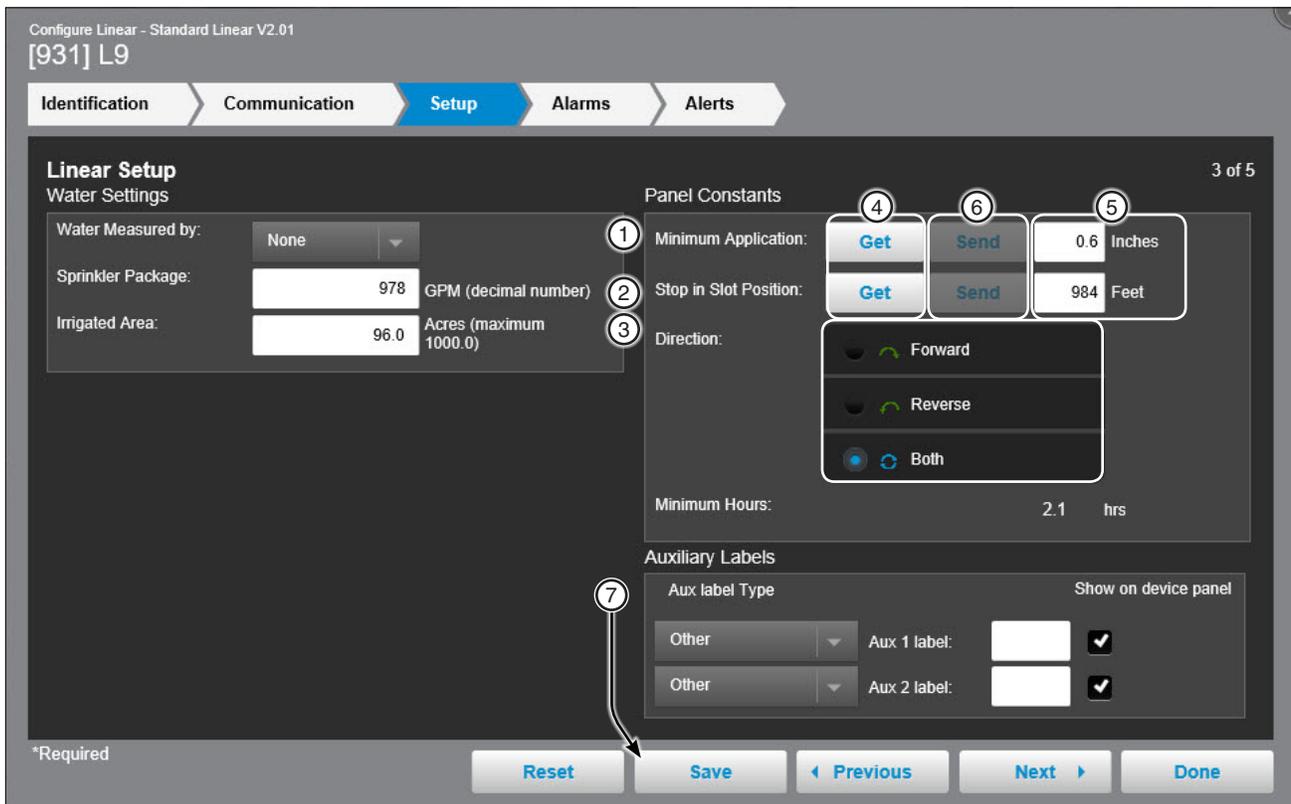


Figure 164-1 1. Minimum Application 2. Stop in Slot Position 3. Direction 4. Get 5. Inches/Feet 6. Send 7. Save

## Linear Configuration Setup (Continued) Water Measurement (Continued) Auxiliary Labels

The Auxiliary 1 and 2 labels can be customized. See Figure 165-1.

**Auxiliary Label Type:** Choose either the Fertilizer or Chemigation label from the drop down menu or enter a label name in the auxiliary label field. To show the label on the device panel, check the Show on Device Panel check box.

Configure Linear - Standard Linear V2.01  
[931] L9

Identification > Communication > **Setup** > Alarms > Alerts

### Linear Setup

Water Settings

Water Measured by: Two Flow M...  
Meter 1 Label: Flow Meter 1  Show on device panel  
Flow Meter Type: -select-  
Multiplier 1: \* (decimal number)  
Meter 2 Label: Flow Meter 2  Show on device panel  
Flow Meter Type: -select-  
Multiplier 2: \* (decimal number)  
Sprinkler Package: 978 GPM (decimal number)  
Irrigated Area: 96.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application:   0.6 Inches  
Stop in Slot Position:   984 Feet  
Direction: Forward, Reverse, Both  
Minimum Hours: 2.1 hrs

Auxiliary Labels

1 Aux label Type 2 Aux 1 label:   Show on device panel  
Other Aux 2 label:

\*Required

Figure 165-1 1. Aux Label Type 2. Aux Label 3. Show on Device Panel 4. Save

# Device Management

## Linear Configuration

### Alarms

Alarms can be set for each device to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state. To change the alarm level for an alarm, choose the desired alarm level icon. When done click **Save**.

- Current State is the last machine state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

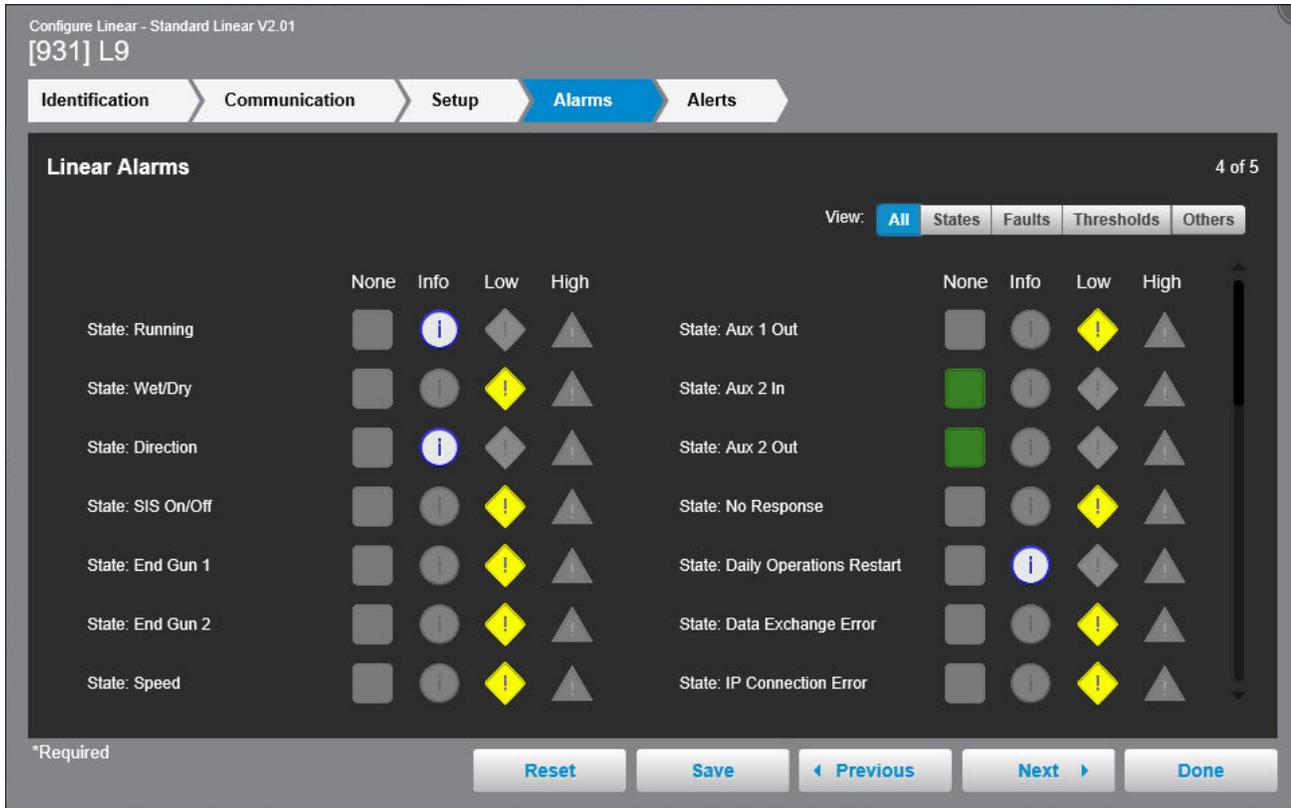


Figure 166-1

## Linear Configuration

### Alerts

Alerts can be set to notify the contact list of users about a change to the linear device. To enable the alert, click the desired alert checkbox. When done click **Save**.

- Alerts are sent to the Alert Contact List selected on the Communication tab when there is a change to a selected action.

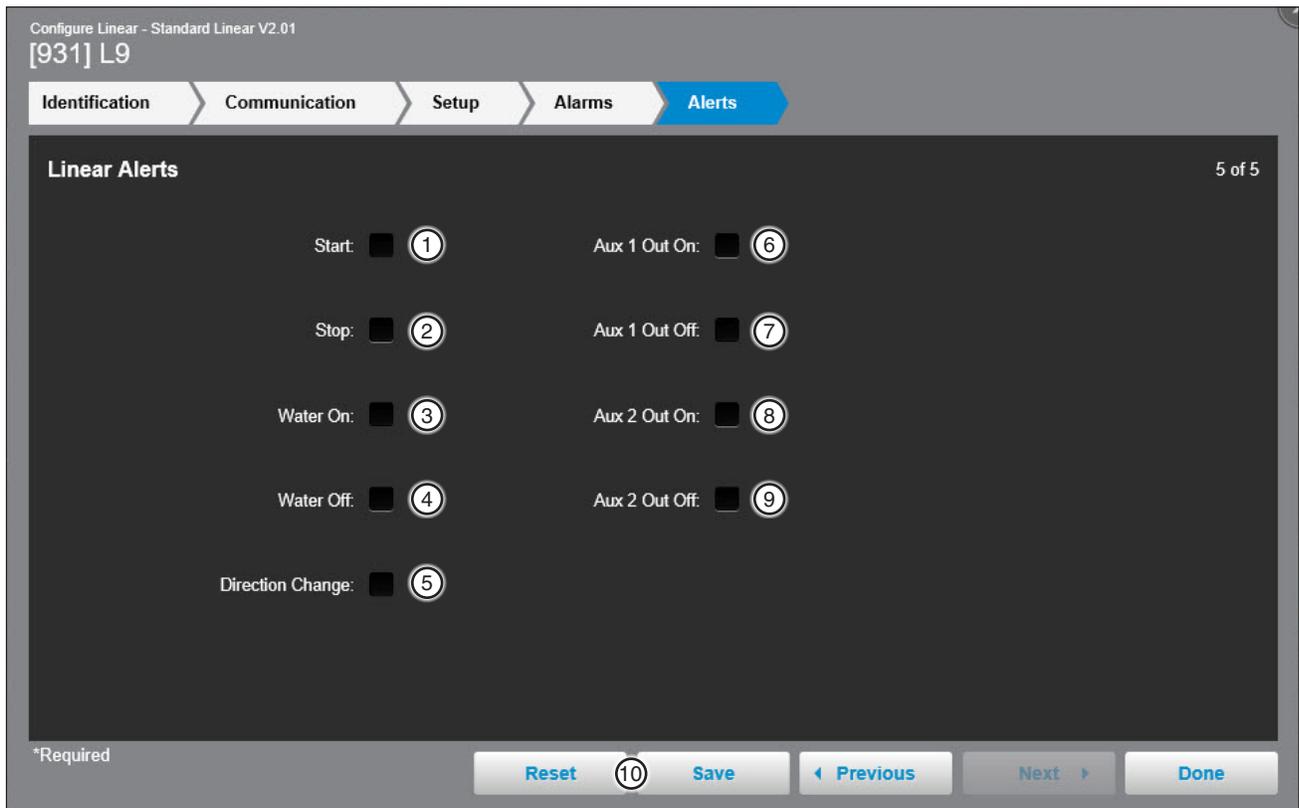


Figure 167-1

1. Start	6. Aux 1 Out On
2. Stop	7. Aux 1 Out Off
3. Water On	8. Aux 2 Out On
4. Water Off	9. Aux 2 Out Off
5. Direction Change	10. Save

# Device Management

---

## Pivot Configuration Identification

The Identification button describes the physical attributes of the pivot. The pivot name and farm are required. Other required fields depend on control panel choice. See Figure 169-1.

**Device Name (1) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Control Panel (2) and Firmware Version (3) (required):** Select the control panel and firmware version for this machine from the drop down lists.

**RTU ID (4):** Enter the control panel RTU ID. The RTU ID must be unique and cannot match any other device.

**VRI iS (5):** Indicates that the pivot may use Variable Rate Irrigation Individual Sprinkler prescriptions. When the VRI iS checkbox is selected, and the ICON panel is set up for VRI iS, the new page is shown with prescription information for up to 9 prescriptions.

**Farm (6) (required):** If more than one farm is available select the farm from the drop down list.

**Latitude (7) and Longitude (8):** The GPS position of the pivot point. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the pivot circle on the map, enter the known coordinates of the pivot point or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, click **Full Configuration** and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the pivot circle on the map.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification Communication Setup Alarms Alerts

**Pivot Identification** 1 of 5

1 Device Name: \* p01

2 Control Panel: \* Pro2+

3 Firmware Version: \* 9.01

4 RTU ID: 601 numeric

5 VRI iS:

6 Farm: \* LangTest

Supplemental Location Information:  
Plat ID:

**Pivot Location**

7 Latitude: \* 46.039889 Location adjusted on map. Undo Help

8 Longitude: \* -119.638744 Save as Configuration

Left Angle:  0°

Right Angle:  0°

Zero Degree Reference Angle:  0°

Road Angle:  0°

Stop In Slot Angle: 90° (may be changed at the setup screen)

Machine Length: \* 1200.0 Feet

End Gun Radius:  Feet

Preview

0° Zero Degree Ref.  
- Road Angle  
90° SIS Angle

\*Required

Reset Save Previous Next Done

Figure 169-1

1. Device Name	5. VRI iS
2. Control Panel	6. Farm
3. Firmware Version	7. Latitude
4. RTU ID	8. Longitude

# Device Management

## Pivot Configuration

### Identification (Continued)

**Left Angle (1):** The extreme counterclockwise movement boundary for a circle.

**Right Angle (2):** The extreme clockwise movement boundary for a circle.

If this is a full circle pivot, leave the Left Angle and Right Angle at 0.0. If this is a part circle pivot enter the Left Angle and/or Right Angle of the pivot to change the shape of the pivot on the map.

**Zero Degree Reference Angle (3):** The default position 0.0 degrees were the pivot span on the screen is pointing up or to the North. If desired enter a different zero degree reference angle that represents the position of the span when at 0.0 degrees.

**Road Angle (4):** The position of the road in the field. When an angle value is entered a road is displayed on the pivot.

**Stop In Slot Angle (5):** The angle of the Stop In Slot.

**Machine Length (6):** The pivot point to LRDU distance in feet. Used for run time position calculation. This changes the size of the pivot circle on the map.

**End Gun Radius (7):** The distance that the end gun will spray in feet. This is information only and does not change the way that the pivot circle appears on the map.

**Preview (8):** Click Preview to display a preview of what the pivot will look like.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification Communication Setup Alarms Alerts

**Pivot Identification** 1 of 5

Device Name: \* p01

Control Panel: \* Pro2+

Firmware Version: \* 9.01

RTU ID: 601 numeric

VRI iS: [ ]

Farm: \* LangTest

**Supplemental Location Information:**

Plat ID: [ ]

**Pivot Location**

Latitude: \* 46.039889 Location adjusted on map.

Longitude: \* -119.638744

Undo Help

Save as Configuration

1 Left Angle: [ ] °

2 Right Angle: [ ] °

3 Zero Degree Reference Angle: [ ] °

4 Road Angle: [ ] °

5 Stop In Slot Angle: 90 °  
(may be changed at the setup screen)

6 Machine Length: \* 1200.0 Feet

7 End Gun Radius: [ ] Feet

8 Preview

0° Zero Degree Ref.  
- - Road Angle  
90° SIS Angle

\*Required

Reset Save Previous Next Done

Figure 170-1 1. Left Angle 4. Road Angle 7. End Gun Radius  
2. Right Angle 5. Stop In Slot Angle 8. Preview  
3. Zero Degree Reference Angle 6. Machine Length

## Pivot Configuration Communication

Use Communication to configure communications with the device. See Figure 171-1.

**Channel (1):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Enter IP Address (2):** The Internet Protocol address. Only available when IP is selected from the Channel drop down menu.

**IP Port (3):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off (4):** The periodic request based on the polling period that the BaseStation makes for machine status from the device.

**Polling Period (5):** The time in minutes between polling tries for obtaining machine status. The default time is 30 minutes.

**Number of Times to Send Messages (6):** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary. See Figure 171-1.

**Time to Wait for Acknowledge (7):** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by the BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Messages limitation. See Figure 171-1.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification > **Communication** > Setup > Alarms > Alerts

**Pivot Communication** 2 of 5

1 Channel: com1

2 Enter IP Address:

3 IP Port:

4 Polling: Off On

5 Polling Period (minutes): \*

6 No. Times to Send Messages: \* 2

7 Wait for Acknowledgement (Seconds): \* 5

Alarm Contact List: None

Alert Contact List: None

\*Required

BaseStation to Device Radio Hop (Outbound)

Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID:  [Choose RTU ID...](#)

Power Line Carrier Channel: Off On (must be on to make available End Guns 3 and 4, TPMS, and GPS position)

Reset Save < Previous Next > Done

Figure 171-1 1. Channel 4. Polling 7. Wait for Acknowledgement (Seconds)  
2. Enter IP Address 5. Polling Period (minutes)  
3. IP Port 6. No. of Times to Send Messages

# Device Management

## Pivot Configuration

### Communication (Continued)

**Alarm Contact List (1):** Associates the device with a contact list of users that will be notified when an alarm occurs. Select a contact list from the drop down menu. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact Lists**. See page 184.

**Alert Contact List (2):** Associates the device with a contact list of users that will be notified when an alert occurs. Select a contact list from the drop down menu. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact Lists**. See page 185.

**Radio Hop (3) (outbound):** The use of an intermediate device to relay communications from the BaseStation to another device through all panels except for the original Select, without the need for additional hardware. Auxiliary Links should only be used as the hop device to another Auxiliary link due to a message length limit. When using this function all control panels involved must be either Pro version 7, Pro2, Select2, AutoPilot, or Panel Link. ICON panels can only relay communications to other ICON panels. Additional time may be required to relay messages. Increasing the Time to Wait for Acknowledge value may be necessary; typically double the original Time to Wait, depending on the type of communications being used.

**RTU ID (4) (Radio Hop):** The RTU ID of the intermediate machine that is used as a relay point.

**To use Radio Hop, check the Requires radio hop check box. Click Choose RTU ID (5) and select an intermediate device to relay communications.**

**Power Line Carrier Channel (6):** The pivot control panel communication setting for a power line carrier. Selecting the On choice for Power Line Carrier will make available the End Guns 2 and 3, TPMS and GPS position. See Figure 172-1.

The screenshot shows the 'Configure Pivot - Pro2+ Panel V9.01' interface for device [601] p01. The 'Communication' tab is active, showing various settings. A 'Pivot Communication' section is highlighted with a dark background. The 'BaseStation to Device Radio Hop (Outbound)' section is expanded, showing a 'Requires radio hop' checkbox (3), an 'Intermediary Device RTU ID' field (4) with a 'Choose RTU ID...' button (5), and a 'Power Line Carrier Channel' checkbox (6) set to 'Off'. The 'Power Line Carrier Channel' is noted as '(must be on to make available End Guns 3 and 4, TPMS, and GPS position)'. Other settings include 'Channel' (com1), 'Enter IP Address', 'IP Port', 'Polling' (Off/On), 'Polling Period (minutes): \*', 'No. Times to Send Messages: \*' (2), 'Wait for Acknowledgement (Seconds): \*' (5), 'Alarm Contact List' (1) (None), and 'Alert Contact List' (2) (None). A '\*Required' note is at the bottom left. Navigation buttons 'Reset', 'Save', 'Previous', 'Next', and 'Done' are at the bottom right.

Figure 172-1

1. Alarm Contact List
2. Alert Contact List
3. Requires radio hop (compounds Wait for Acknowledgement time)
4. Choose RTU ID
5. Intermediate Device RTU ID
6. Power Line Carrier Channel

## Pivot Configuration Setup

### Water Measurement

The Water Measured By selection provides four choices of water monitoring; None, Wet Hour Meter, 1 (one) Flow Meter or 2 (two) Flow Meters. The default setting is None. The type of water measuring selected here determines the formula that is used in reports. For ICON panels, an option to display water pressure sensors in mV and mA can also be selected for all water monitoring settings.

### None

When None is selected, water reports are based on calculated approximations of water discharge in Gallons Per Minute (GPM). See Calculation Examples on the next page. Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system.

To use None for water measuring, select **None** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 173-1.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification > Communication > **Setup** > Alarms > Alerts

**Pivot Setup** 3 of 5

Water Settings

1 Water Measured by: Wet Hour M...  
2 Sprinkler Package: 230 GPM (decimal number)  
3 Irrigated Area: 175.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application: Get Send 0.25 Inches  
Stop In Slot Angle: Get Send 90.0 °  
Minimum Hours/Rev.: Get Send 24.0

Auxiliary Labels

Aux label Type Show on device panel

Other Aux 1 label:    
Other Aux 2 label:

\*Required

Reset Save < Previous Next > Done

5 Pressure Sensor Setup

Show on device panel

6  Water Pressure(mV)  
7  Water Pressure(mA)

Figure 173-1 1. Water Measured by 4. Save 6. Water Pressure (mV) (ICON panel only)  
2. Sprinkler Package 5. Pressure Sensor Setup (ICON panel only) 7. Water Pressure (mA) (ICON panel only)  
3. Irrigated Area

# Device Management

## Pivot Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Calculation Examples

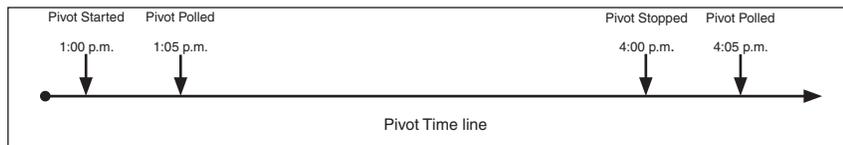
The formula for reporting is the product of the discharge value entered and the accumulated wet hours known by the BaseStation from polled interval status changes.

In this example, at a discharge rate of 170 GPM, the Totals Report will calculate the number of minutes that the machine was running wet during the report period and multiply that by 170.

The report is only as accurate as the status update records for logging start/stop times and the precision of the discharge rate.

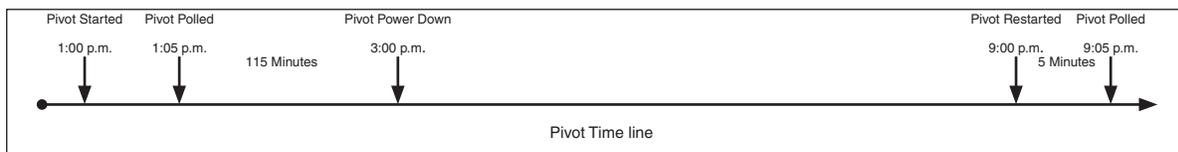
The BaseStation records actual start and stop times that are commanded through the BaseStation. Other local controls at the machine that start or stop the machine, such as Programs, SIS, and Daily Ops are logged only when updated by polling or manual requests for status updates.

Example:



1. The discharge rate is set for 170 GPM and the pivot is started at 1:00 p.m. and polled at 1:05 p.m., then the BaseStation gets data that the pivot is running wet.
2. The pivot is stopped at 4:00 p.m. and polled at 4:05 p.m., then the BaseStation gets data that the pivot has stopped.
3. The flow rate is calculated from 1:05 p.m. to 4:05 p.m. discharge rate (170 GPM × 180 minutes = 30,600 gal).
4. If you check the flow rate between 1:10 p.m. and 4:00 p.m. the flow rate would have shown 0 GPM.

If power is lost, as shown below, the calculated flow total would occur between 1:05 p.m. and 9:05 p.m. even though the pivot wasn't running wet between 3:00 p.m. and 9:05 p.m.



View the examples on the next page.

## Linear Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Calculation Examples (Continued)

Example:

Calculated: 8 hours × 60 minutes/1 hour × 170 GPM = 81,600 gal

Actual: 120 minutes × 170 GPM = 20,400 gal

Error: 81,600 gal - 20,400 gallons = +61,200 gal

Pivot is running with water on, starting at 1:00 PM, stopping at 4:00 PM.

- That means that the pivot is running wet for 3.0 hours (180 minutes)
- At 170 gallons per minute, that is a discharge of 30,600 gallons

The BaseStation3 report looks at the status when polling records were saved. In this example the sample period duration is the same 3.0 hours as the actual run duration. If polling occurred differently, the monitored run time can vary.

Using the water measurement mode as polled interval, if power is lost at 3:00 PM, as shown below, the calculated flow total would occur between 1:05 p.m. and 9:05 p.m. even though the pivot wasn't running wet between 3:00 p.m. and 9:05 p.m.

Example:

Calculated: 8 hours × 60 minutes/1 hour × 170 GPM = 81,600 gal

Actual: 120 minutes × 170 GPM = 20,400 gal

Error: 81,600 gal - 20,400 gallons = +61,200 gal

Using the water measurement mode as Wet Hour Meter, if power is lost at 3:00 PM, as shown below, the calculated flow total would occur the polled records saved at 1:05 p.m. and 9:05 p.m. even though the pivot wasn't running wet between 3:00 p.m. and 9:05 p.m.

Example:

Calculated: 2.0 hours × 170 GPM = 81,600 gal

Actual: 120 minutes × 170 GPM = 20,400 gal

The hour meter is counting from the actual start time at 1:00 p.m., to the actual stop time at 3:00 p.m.

Valmont recommends that choosing the Wet Hour Meter from the control panel as the reference for calculating the Water Volume reports.

# Device Management

## Pivot Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Wet Hour Meter

Wet Hour Meter choice is available for pivot control models Select2, Pro, Pro2, Pro2+, and ICON. BaseStation3 does not include the selection for Towable Pivot, which is an Auto Pilot mode selection.

## NOTE

•Auto Pilot firmware has four modes of operation:

- » Standard Linear
- » Swing Around Linear
- » Universal Linear
- » Towable Pivot Only Standard Linear mode is provided with BaseStation3

When Wet Hour Meter is selected, the formula for reporting is the product of the discharge value in Gallons Per Minute (GPM) entered and the actual accumulated wet hours as gathered from the control panel. The BaseStation requests the Wet Hours data from the device control panel. The control panel can be either a Pro2 or AutoPilot module where Wet Hours are accumulated. Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system.

To use the Wet Hour Meter for water measuring, select **Wet Hour Meter** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 176-1.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification > Communication > **Setup** > Alarms > Alerts

### Pivot Setup

Water Settings

1 Water Measured by: Wet Hour M...  
2 Sprinkler Package: 230 GPM (decimal number)  
3 Irrigated Area: 175.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application: Get Send 0.25 Inches  
Stop In Slot Angle: Get Send 90.0 °  
Minimum Hours/Rev: Get Send 24.0

Auxiliary Labels

Aux label Type Show on device panel

Other Other Aux 1 label:    
Other Other Aux 2 label:

\*Required

Reset Save < Previous Next > Done

Figure 176-1 1. Water Measured by 3. Irrigated Area  
2. Sprinkler Package 4. Save

## Pivot Configuration Setup (Continued) Water Measurement (Continued) Flow Meters

When 1 Flow Meter or 2 Flow Meter is selected, the BaseStation uses the pulse count value(s) from a Pro2 module. The formula for reporting is the product of the periodic count total and the multiplier value for the flow count device. When 2 Flow Meter is selected, up to two different flow count devices can be used and each device has it's own multiplier. See Figure 177-1.

When a Valley flow count device is selected, the multiplier field is automatically populated. When a flow count device of Other is selected, a multiplier must be entered.

Sprinkler Package (GPM) (VChart Flow) and Irrigated Area (Acres) (VChart Field Area) values are included in the VChart document for the specific irrigation system.

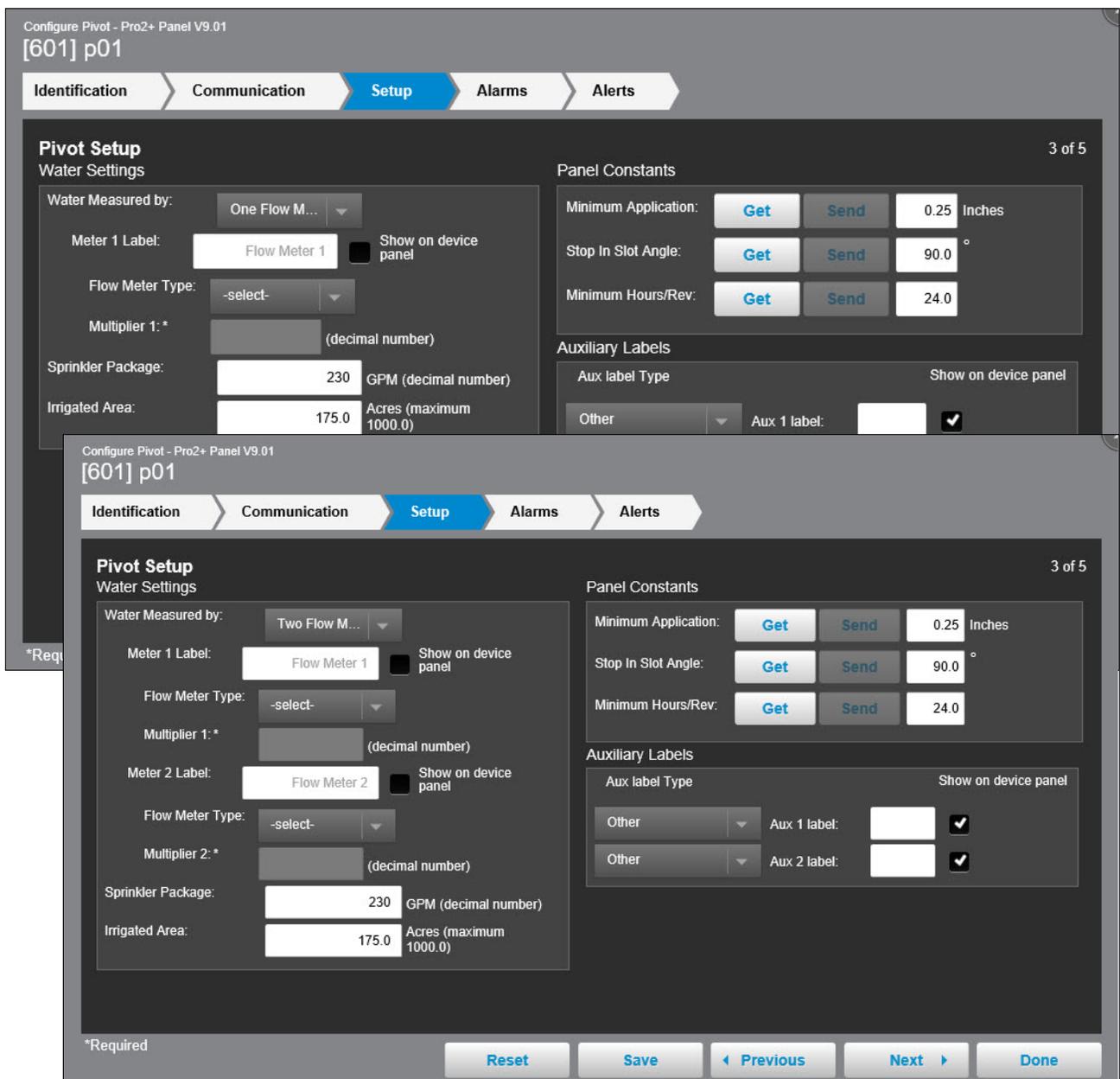


Figure 177-1

# Device Management

## Pivot Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Using 1 Flow Meter

To use 1 Flow Meter for water measuring, select **1 Flow Meter** from the drop down menu, select the **Flow Count Device** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 178-1.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification > Communication > **Setup** > Alarms > Alerts

**Pivot Setup** 3 of 5  
Water Settings

Water Measured by: One Flow M...  
Meter 1 Label: Flow Meter 1  Show on device panel  
Flow Meter Type: -select-  
Multiplier 1: \* (decimal number)  
Sprinkler Package: 230 GPM (decimal number)  
Irrigated Area: 175.0 Acres (maximum 1000.0)

Panel Constants

Minimum Application:   0.25 Inches  
Stop In Slot Angle:   90.0 °  
Minimum Hours/Rev:   24.0

Auxiliary Labels

Aux label Type Show on device panel  
Other   Aux 1 label:    
Other   Aux 2 label:

\*Required

Figure 178-1 1. Water Measured by 4. Sprinkler Package  
2. Meter 1 Label 5. Irrigated Area  
3. Flow Meter Type 6. Save

## Pivot Configuration Setup (Continued) Water Measurement (Continued) Using 2 Flow Meter

To use 2 Flow Meter for water measuring, select **2 Flow Meter** from the drop down menu, select the first **Flow Count Device** from the drop down menu, select the second **Flow Count Device** from the drop down menu, enter the **Sprinkler Package GPM**, enter the **Irrigated Area** in Acres and click **Save**. See Figure 179-1.

### NOTE

•ICON panel users can monitor a second flow meter, by using either the rain or wind speed inputs and replacing with a flow meter. This will disable the particular weather feature chosen and allows flow meter 2 to be able to monitor, control through BaseStation3 as well as save data for reporting.

Figure 179-1

1. Water Measured by
2. Meter 1 Label
3. Flow Meter Type
4. Meter 2 Label
5. Flow Meter Type
6. Sprinkler Package

7. Irrigated Area
8. Save
9. Setup (ICON panel)

# Device Management

## Pivot Configuration

### Setup (Continued)

### Water Measurement (Continued)

#### Panel Constants

The panel constant values for Minimum Application, Stop in Slot Angle and Minimum Hours Per Revolution can be obtained from or sent to the control panel. Get and Send are disabled when there is no RTU ID. See Figure 180-1.

**Get (5):** To load the constant values from a Pro2, Select2 or AutoPilot control panel into the BaseStation database, click the **Get** button associated with the constant. After the values are synchronized click **Save**. Communication between BaseStation and the device is required.

**Send (6):** To send the constant values to a Pro2, Select2 or AutoPilot control panel from the BaseStation database, enter a value in the field associated with the constant and then click the **Send** button associated with the constant. After the values are synchronized click **Save**. Communication between BaseStation and the device is required.

**Minimum Application (1) (Inches):** The depth of water applied at a speed setting of 100 percent. The Minimum Application values are used calculate depth in inches (in). The Discharge rate is not used in calculations when Flow Meter measurements are utilized.

**Stop In Slot Angle (2):** The position of Stop In Slot angle in degrees.

**Minimum Hours/Rev (3):** The amount of time (in hours) required for a full circle machine to make one revolution at a speed setting of 100 percent. The Minimum Hrs/Rev values are used to calculate the Hours/Rev at the percentage timer setting.



Figure 180-1

1. Minimum Application	5. Units of Measure
2. Stop in Slot Angle	6. Send
3. Minimum Hours/Rev	7. Save
4. Get	

## Pivot Configuration Setup (Continued) Water Measurement (Continued) Pressure Values

**Water Pressure mA/mV (1) (2):** BaseStation 3 allows pressure monitoring from mA (milliamp) and mV (millivolt) sensors for ICON panels and ICON Link devices. Measurement display options include pressure values in either mA or mV.

Threshold alarms are available and trigger based on low and high mA/mV values set.

**End Pressure:** If machine hardware is available on ICON devices to monitor end pressure, BaseStation3 will enable functionality to monitor end pressure remotely and also allow users to set threshold alarms for low and high end pressure values.

The screenshot shows the 'Configure Pivot - ICON Panel V1.17' interface for device '[0011] ICON11'. The 'Setup' tab is active, showing 'Pivot Setup' (3 of 5 screens). The 'Water Settings' section includes: 'Water Measured by:' (One Flow M...), 'Meter 1 Label:' (Flow Meter 1), 'Flow Meter Type:' (Valley 8\*), 'Multiplier 1: \*' (1.25 Gallons), 'Sprinkler Package:' (755 GPM), and 'Irrigated Area:' (96 Acres). The 'Panel Constants' section includes: 'Minimum Application:' (Get Send), 'Stop In Slot Angle:' (Get Send 33.0°), and 'Minimum Hours/Rev:' (Get Send). The 'Auxiliary Labels' section includes: 'Aux label Type' (Other) and 'Aux 1 label:' (Other) with 'Show on device panel' checkboxes. The 'Pressure Sensor Setup' section includes: 'Show on device panel' and two checked options: 'Water Pressure(mV)' (1) and 'Water Pressure(mA)' (2). A '\*Required' note is at the bottom left. Navigation buttons (Reset, Save, Previous, Next, Done) are at the bottom.

Figure 181-1 1. Water Pressure (mV)  
2. Water Pressure (mA)

# Device Management

## Pivot Configuration

### Setup (Continued)

### Water Measurement (Continued)

### Other Values

Other values are for radio parameters on all control panels. See Figure 182-1.

**Key Wait (1) (seconds):** The amount of time that the device control panel waits after enabling the serial port Request To Send line (RTS) before sending data. Spread spectrum radios and digital data radios often have programmable features for managing the transmission of data that may require only a short key wait period or none at all. This allows a lower key wait time at the control panel to speed up communications.

- The value zero, 0, sets the key wait duration to 0.05 second. This provides a minimal time delay for the RTS line to change before data is sent to the radio.
- Any positive value entered, such as 0.8, sets the delay period between the time RTS is enabled and the data is sent.

## NOTE

- The default value in the Select panel is 1.0 seconds. For efficient communications with a data radio or IP channel communications, the recommended value to send to the Select panel is 0.

**Times to Send (2):** The Select panel expects to receive an acknowledge back from BaseStation3 after sending its reply to a command. This is the number of times that the Select panel will attempt to reply to a BaseStation3 command if an acknowledge is not received. The default value in the Select panel is 2 times. Since BaseStation3 manages retries, this value should be set to 1. See Figure 182-1.

Configure Pivot - Select Panel V1.91

Identification > Communication > **Setup** > Alarms > Alerts

**Pivot Setup** 3 of 5

Water Settings

Water Measured by: None

Sprinkler Package: [ ] GPM (decimal number)

Irrigated Area: [ ] Acres (maximum 1000.0)

Panel Constants

Minimum Application: [ ] Inches

Stop In Slot Angle: [ ] °

Minimum Hours/Rev: [ ]

Other

① Key Wait: [ ] seconds

② Times to Send: [ ]

\*Required

Reset Save < Previous Next > Done

Figure 182-1 1. Key Wait  
2. Times to Send

## Pivot Configuration Setup (Continued)

### Water Measurement (Continued)

### Auxiliary Labels

The Auxiliary Label values in device management/pivot/setup appear on the operational device panel view and are used in report headings. See Figure 183-1.

**Aux Label Type (1):** The type of label associated with each auxiliary. Choose between Other, Chemicals or Fertilizer.

**Aux 1 and 2 Label (2):** A label can be entered in the Aux 1 and/or 2 label fields. Checking the box associated with the label allows the label to be displayed on the operational device panel view.

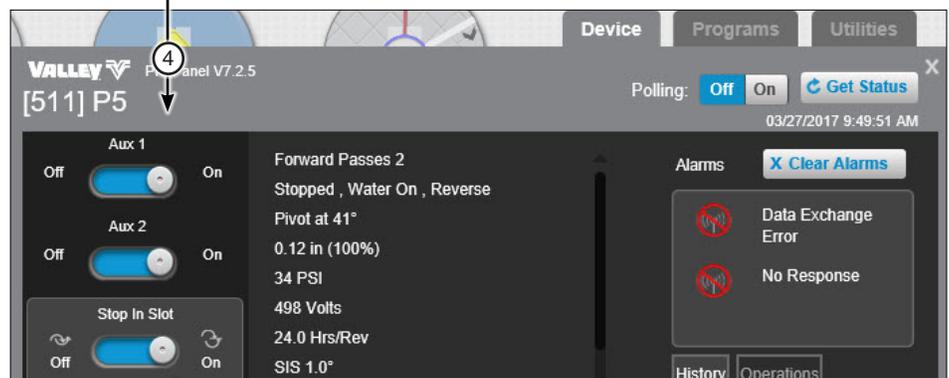


Figure 183-1 1. Aux Label Type 2. Aux 1/Aux 2 Label 3. Show on device panel 4. Aux 1/Aux 2

# Device Management

## Pivot Configuration

### Alarms

Alarms can be set for each device to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state. To change the alarm level for an alarm, choose the desired alarm level icon. When done click **Save**.

- Current State is the last machine state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

Configure Pivot - Pro2+ Panel V9.01  
[601] p01

Identification > Communication > Setup > **Alarms** > Alerts

Pivot Alarms 4 of 5

View: **All** States Faults Thresholds Others

	None	Info	Low	High		None	Info	Low	High
State: Running	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	State: Aux 1 In	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>
State: Wet/Dry	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	State: Aux 1 Out	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
State: Direction	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>	State: Aux 2 In	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>
State: SIS On/Off	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	State: Aux 2 Out	<input checked="" type="checkbox"/>	<input type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>
State: End Gun 1	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	State: No Response	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>
State: End Gun 2	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	State: Daily Operations Restart	<input type="checkbox"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	<input type="checkbox"/>
State: End Gun 3	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>	State: Data Exchange Error	<input type="checkbox"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="checkbox"/>

\*Required

**Reset** **Save** **Previous** **Next** **Done**

Figure 184-1

## Pivot Configuration

### Alerts

Alerts can be set to notify the contact list of users about a change to the pivot. To enable an alert, click the desired alert checkbox. When done click **Save**.

- Pivot Alerts are sent when there is a change to the selected pivot action.

The screenshot shows the 'Configure Pivot - Pro2+ Panel V9.01' interface for device [601] p01. The navigation menu includes Identification, Communication, Setup, Alarms, and Alerts (the active tab). The 'Pivot Alerts' section, labeled '5 of 5', contains the following settings:

Start:	<input type="checkbox"/>	Aux 1 Out On:	<input type="checkbox"/>
Stop:	<input type="checkbox"/>	Aux 1 Out Off:	<input type="checkbox"/>
Water On:	<input type="checkbox"/>	Aux 2 Out On:	<input type="checkbox"/>
Water Off:	<input type="checkbox"/>	Aux 2 Out Off:	<input type="checkbox"/>
Direction Change:	<input type="checkbox"/>		

At the bottom left, there is a note: \*Required. At the bottom right, there are five buttons: Reset, Save, Previous, Next, and Done.

Figure 185-1

# Device Management

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# Device Management

## AgSense

### AgSense Devices

To use the Display AgSense Devices, the user has to log into their AgSense Account. To do this, enter the username and password for the AgSense Account and click **Enter**. To remove an account, click **Remove**. See Figure 187-1.

**Serial Number (1):** The serial number for the device.

**Device Name (2):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**FC-Type (3)/Panel Type (4):** The specific model of the control panel being used: Pro2, Select2, etc.

**Pivot Type (5):** The type of pivot AgSense is connected to.

**Firmware (6):** The version of firmware on this device. (All devices have a firmware version, which is the version of the internal software that runs the device).

**Farm (7):** If more than one farm is available select the farm from the drop down list.

**No Response (8):** Alarm to monitor when the device does not respond to communication. The alarm level is user set. Default setting is low.

**Data Exchange Error (9):** A message received by BaseStation3 is not be able to be processed.

**Alarm Contact List (10):** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Alarm Contacts/Contact Lists**.

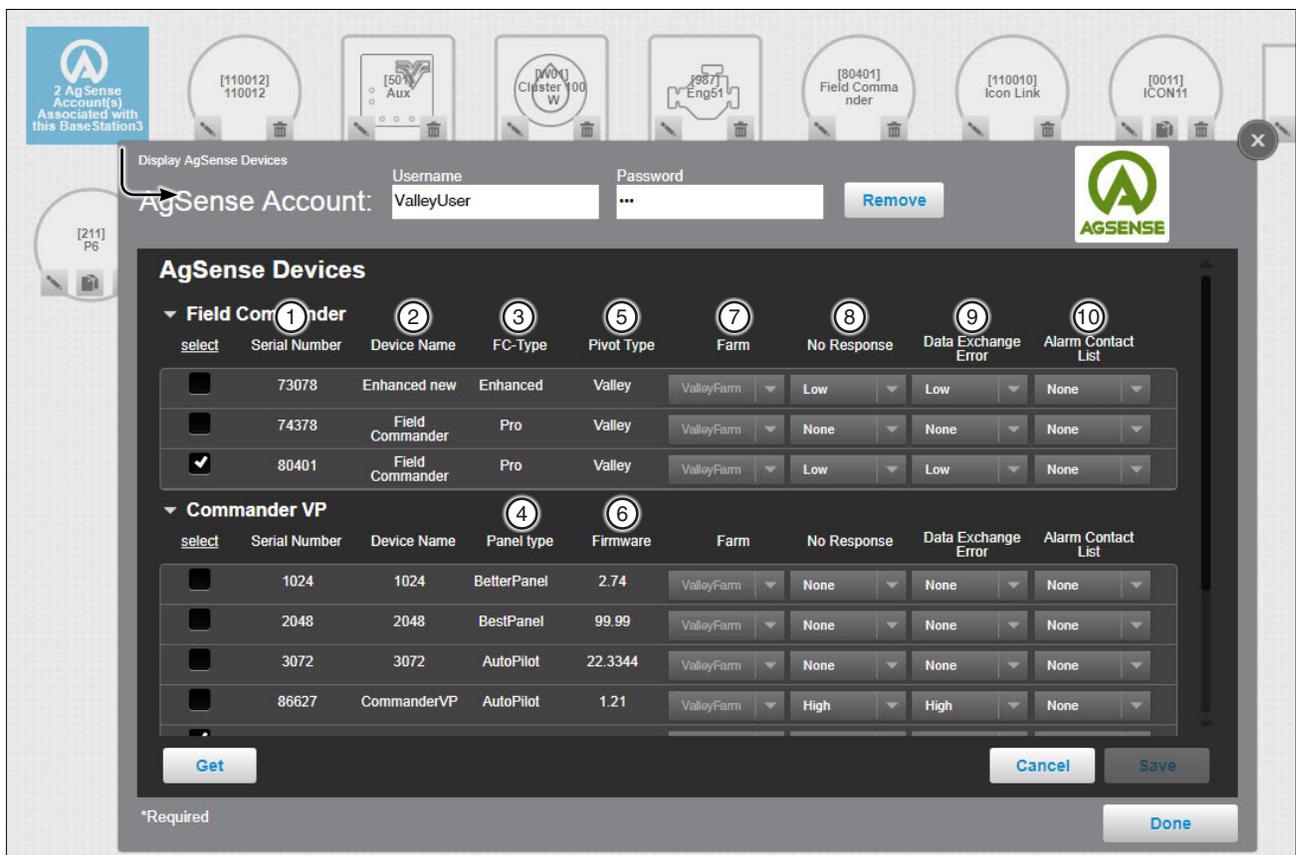


Figure 187-1

1. Serial Number	4. Panel Type	7. Farm	10. Alarm Contact List
2. Device Name	5. Pivot Type	8. No Response	
3. FC-Type	6. Firmware	9. Data Exchange Error	

# Device Management

---

# Device Management

## Auxiliary Link Dependencies

One use for an Auxiliary Link device can be used to control pumps via BaseStation3. The All Farms Administrator can create dependencies between an Auxiliary Link and multiple Pivot / Linear devices. This automates Auxiliary Link output commands.

To set up this function, first access Device Management for the Auxiliary Link device and navigate to the Outputs tab. There, the Administrator can enable dependencies and select up to 9 pivot and/or linear devices to establish a dependency relationship.

When the status of any pivot or linear is running Wet and it has an Auxiliary Link Output for dependency, BaseStation3 will also send a command to turn the Aux Link Output on. When all the pivot or linear devices associated with the Auxiliary Link Output are stopped or dry (not watering), an off command will be sent to the Auxiliary Link Output. Within the Auxiliary Link device panel in BaseStation3, users can view and manage the dependency control.

If a user controls the Auxiliary Link device that has dependent pivot or linear devices that could be impacted, a message will warn the user and allow them to change or proceed with the action. Dependency indicators will show in status details of the pivot or linear device panel in both core and mobile, as well as hover status on the map, tile, and list views. To view whether a device is linked, mouse over the pivot or linear. The Auxiliary Link Dependency icon is displayed in the device summary pop up box.

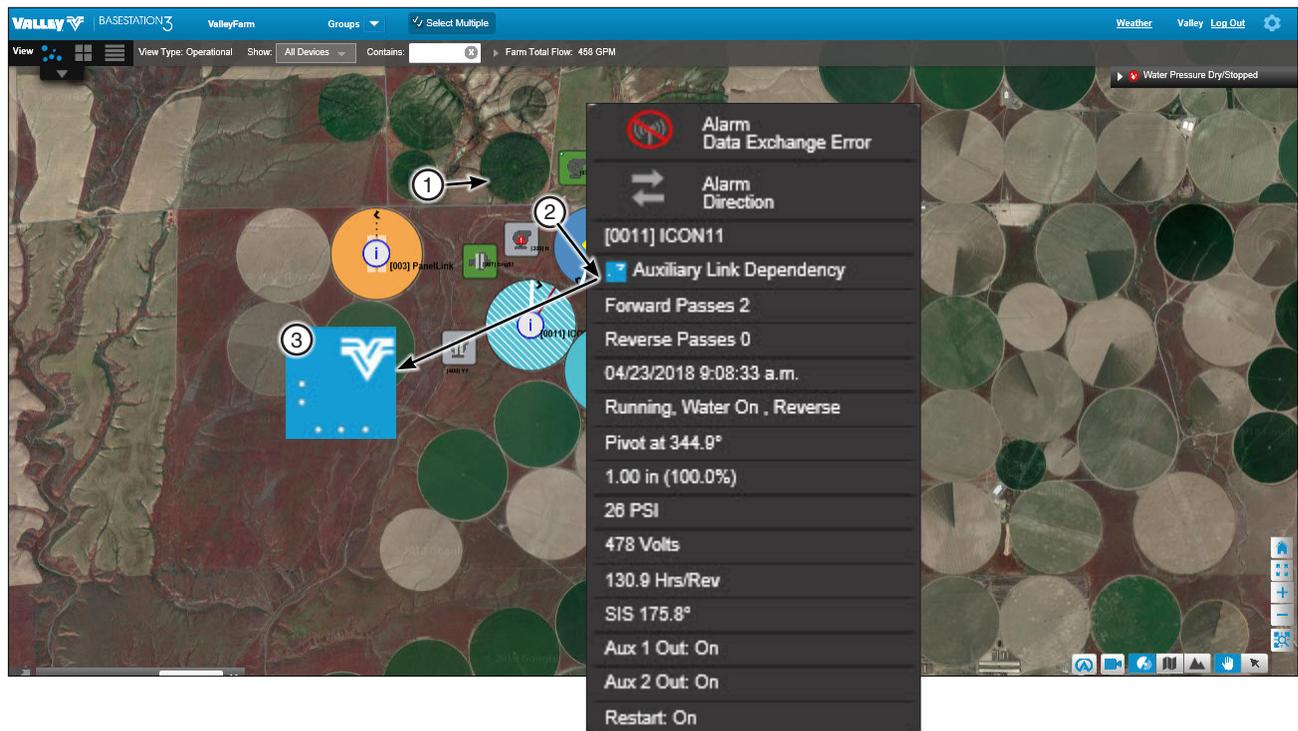


Figure 189-1

1. Pivot
2. Pivot pop up
3. Aux Link Dependency icon

# Device Management

## Auxiliary Link Configuration

### Identification and Configuration

Identification & Configuration describes the physical attributes of the Auxiliary Link. The Aux Link RTU ID, name, Farm, Channel and Location are required. Other fields may be required as choices are made. See Figure 190-1.

**RTU ID (1) (Auxiliary Link):** RTU ID of the Auxiliary Link is programmed to \*\*\* when shipped from the factory.

**Device Name (2) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Firmware Version (3):** Displays the Auxiliary Link software version.

**Farm List (4) (required):** If more than one farm is available select the farm from the drop down list.

**Channel (5) (required):** The BaseStation channel used to communicate with the device. Select from the available channels on drop down menu. To create a new channel go to **Settings\BaseStation Settings\Communication\Channels**.

**IP Address (6):** The IP Address of the device.

**IP Port (7):** The IP Port number of the device.

**Latitude and Longitude (8):** The GPS position of the device. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the device on the map, enter the known coordinates of the device or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, select the device again click **Change**, and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the device on the map.

Figure 190-1 1. RTU ID 2. Device Name 3. Firmware Version 4. Farm List 5. Channel 6. IP Address 7. IP Port 8. Latitude/Longitude

## Auxiliary Link Configuration

### Identification and Configuration (Continued)

**Setting the RTU ID (Auxiliary Link):** RTU ID of the Auxiliary Link is programmed to \*\*\* when shipped from the factory. When a new Auxiliary Link panel is added to the map, the default ID is also \*\*\*. A new RTU ID needs to be saved in BaseStation3 and sent to the Auxiliary Link panel. See Figure 191-1.

Enter the **Device Name**, Select the **Farm** and **Channel**, click **Save**. This enables the RTU ID field. Make sure all other devices with the default RTU ID of \*\*\* are powered off or disconnected before continuing. Enter the desired **three-character RTU ID**, a combination of numbers and/or alphabetic characters. The RTU ID must be unique and cannot match any other device. Click **Send**. When the acknowledge response is received from the Auxiliary Link panel that the new ID was accepted, the new ID will be saved in the BaseStation3 database.

## NOTES

- All Valley computer control panels have a default RTU ID of 000 or 0000 for ICON panels.
- Unprogrammed Auxiliary Link panels have a default RTU ID of \*\*\*. Often they are setup here.
- If using radio communications, make sure any other device(s) with the default RTU ID of \*\*\* are powered off or disconnected while attempting to communicate with the Auxiliary Link.
- If multiple new Auxiliary Link panels are being installed, the panels must be powered up one at a time.
- If the Auxiliary Link has an RTU ID configured in the panel, enter and Save the ID in the BaseStation3 configuration.
- If the Auxiliary Link has the factory default ID of \*\*\*, editing the RTU ID requires that the new ID be sent to the Auxiliary Link panel and then saved ion BaseStation3.
- Only one Auxiliary Link panel with the default RTU ID of \*\*\* is allowed to be active when setting the ID.

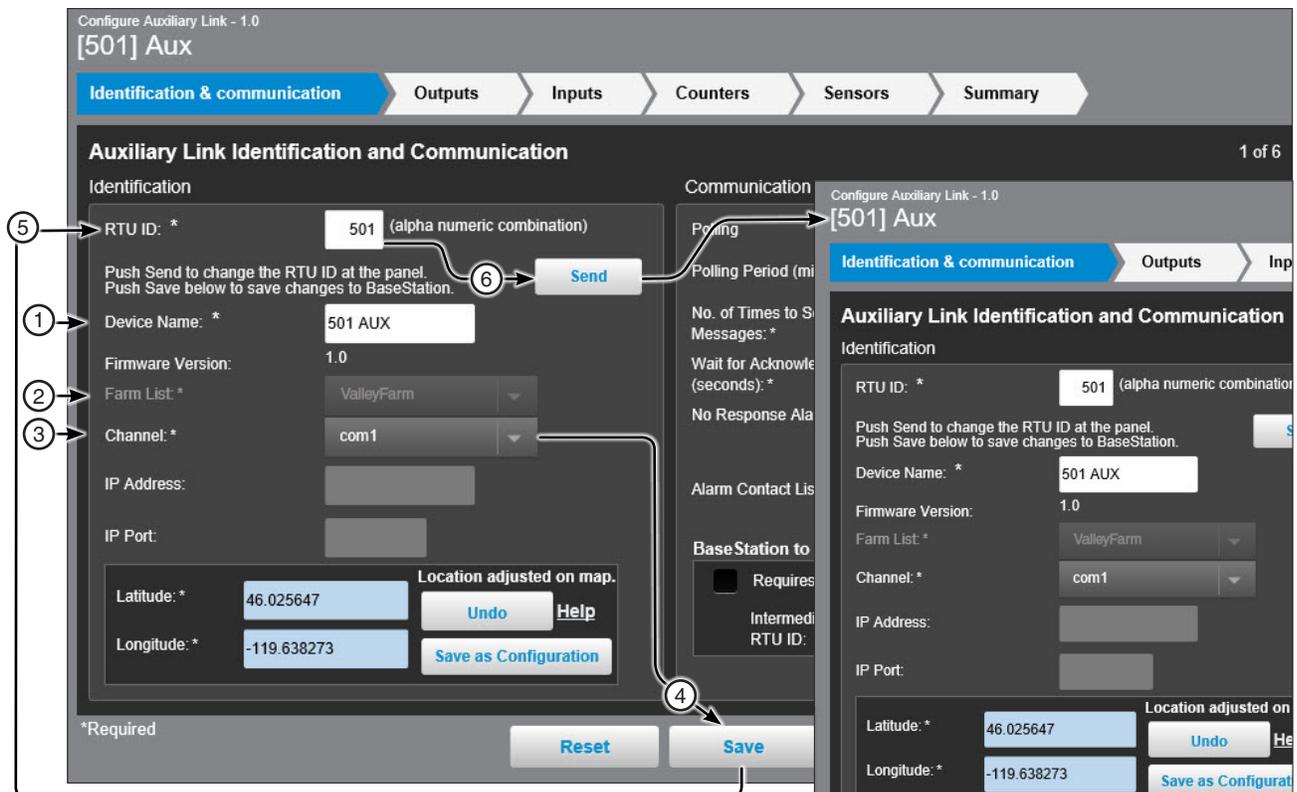


Figure 191-1 1. Device Name 3. Channel 5. RTU ID  
2. Farm List 4. Save 6. Send

# Device Management

## Auxiliary Link Configuration Identification and Configuration (Continued)

**Polling On/Off:** The periodic request based on the polling period that BaseStation3 makes for machine status from the device. See Figure 192-1.

**Polling Period:** The time in minutes between polling tries for obtaining machine status. The default time is 30 minutes. See Figure 192-1.

**Number of Times to Send Messages:** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary. See Figure 192-1.

**Time to Wait for Acknowledge (seconds):** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radio repeaters will delay the transmission. The type of communications determines the Wait for Response time. If a returned message is not received by the BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Number of Times to Send Messages. See Figure 192-1.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication | Outputs | Inputs | Counters | Sensors | Summary

### Auxiliary Link Identification and Communication

1 of 6

**Identification**

RTU ID: \* 501 (alpha numeric combination) **1** →

Push Send to change the RTU ID at the panel.  
Push Save below to save changes to BaseStation. **Send** **2** →

Device Name: \* 501 AUX **3** →

Firmware Version: 1.0 **4** →

Farm List: \* ValleyFarm

Channel: \* com1

IP Address:

IP Port:

Latitude: \* 46.025647 Location adjusted on map. **Undo** **Help**

Longitude: \* -119.638273 **Save as Configuration**

**Communication**

1 → Polling Off On

2 → Polling Period (minutes): 5.5 minutes

3 → No. of Times to Send Messages: \* 2

4 → Wait for Acknowledge (seconds): \* 5 seconds

No Response Alarm: None Info Low High

Alarm Contact List: None

**Base Station to Device Radio Hop (Outbound)**

Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID:  **Choose RTU ID...**

\*Required

**Reset** **Save** **Previous** **Next** **Done**

Figure 192-1 1. Polling 3. No. of Times to Send Messages  
2. Polling Period (minutes) 4. Wait for Acknowledge (seconds)

## Auxiliary Link Configuration

### Identification and Configuration (Continued)

**No Response (Alarm Level):** Alarm to monitor when the device does not respond to communication. The alarm level is user set. Default setting is low. See Figure 193-1.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication   Outputs   Inputs   Counters   Sensors   Summary

### Auxiliary Link Identification and Communication 1 of 6

#### Identification

RTU ID: \*  (alpha numeric combination)  
Push Send to change the RTU ID at the panel.  
Push Save below to save changes to BaseStation.

Device Name: \*

Firmware Version: 1.0

Farm List: \*

Channel: \*

IP Address:

IP Port:

Latitude: \*    Location adjusted on map.

Longitude: \*

#### Communication

Polling

Polling Period (minutes):  minutes

No. of Times to Send Messages: \*

Wait for Acknowledge (seconds): \*  seconds

No Response Alarm:

Alarm Contact List:

#### BaseStation to Device Radio Hop (Outbound)

Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID:

\*Required

Figure 193-1 1. No Response Alarm

# Device Management

## Auxiliary Link Configuration

### Identification and Configuration (Continued)

**Alarm Contact List:** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact Lists**. See Figure 194-1.

**BaseStation to Device Radio Hop (Outbound):** The use of an intermediate device to relay communications from the BaseStation to another device through all panels except for the original Select and ICON panels without the need for additional hardware. Auxiliary Links should only be used as the hop device to another Auxiliary link due to a message length limit. When using this function all control panels involved must be either Pro, Pro2, AutoPilot or Panel Link. Additional time will be required to relay the message. Increasing the Time to Wait for Acknowledge value will be necessary; typically double the original Time to Wait, depending on the type of communications being used.

**Intermediary Device RTU ID:** The RTU ID of the intermediate machine that is used as a relay point.

To use Radio Hop, check the Requires radio hop check box. Click Choose RTU ID and select an intermediate device to relay communications.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication | Outputs | Inputs | Counters | Sensors | Summary

### Auxiliary Link Identification and Communication

1 of 6

**Identification**

RTU ID: \* 501 (alpha numeric combination)  
Push Send to change the RTU ID at the panel. Push Save below to save changes to BaseStation. **Send**

Device Name: \* 501 AUX

Firmware Version: 1.0

Farm List: \* LangTest

Channel: \* com1

IP Address:

IP Port:

Latitude: \* 46.025647 **Location adjusted on map.** **Undo** **Help**

Longitude: \* -119.638273 **Save as Configuration**

**Communication**

Polling: Off **On**

Polling Period (minutes): 5.5 minutes

No. of Times to Send Messages: \* 2

Wait for Acknowledge (seconds): \* 5 seconds

No Response Alarm: None Info Low **High**

Alarm Contact List: None

**Base Station to Device Radio Hop (Outbound)**

Requires radio hop (compounds Wait for Acknowledgement time)

Intermediary Device RTU ID:  **Choose RTU ID...**

\*Required

**Reset** **Save** **Previous** **Next** **Done**

Figure 194-1 1. Alarm Contact List 2. BaseStation to Device Radio Hop (Outbound) 3. Choose RTU ID 4. Intermediary Device RTU ID

## Auxiliary Link Configuration

### Outputs

The Outputs button displays all the output devices setup on the auxiliary link. One or more Valley pivots or linears can be mapped to one or more Auxiliary Link devices.

**Device Name (required):** The name that will appear on the Digital Relay Output list.

**Device Type:** The name that will appear on the Digital Relay Output list.

**On Label (required):** The On function reference label that appears in the panel view, pop up status display, and reports.

**Off Label (required):** The Off function reference label that appears in the panel view, pop up status display, and reports.

**Alarm Level:** The alarm level setting controls what action is taken by the BaseStation when an alarm is activated. When the current state is not the same as the expected state, BaseStation displays an alarm icon on the affected device.

**Show on Pin Status:** Show digital relay output status on a movable screen that can be user positioned to any location on the Map View. Check the box to enable or uncheck the box to disable. Pin Status is only available for use in My Map.

By default, the Aux Link Configuration is set to **Disabled**. See Figure 195-1.

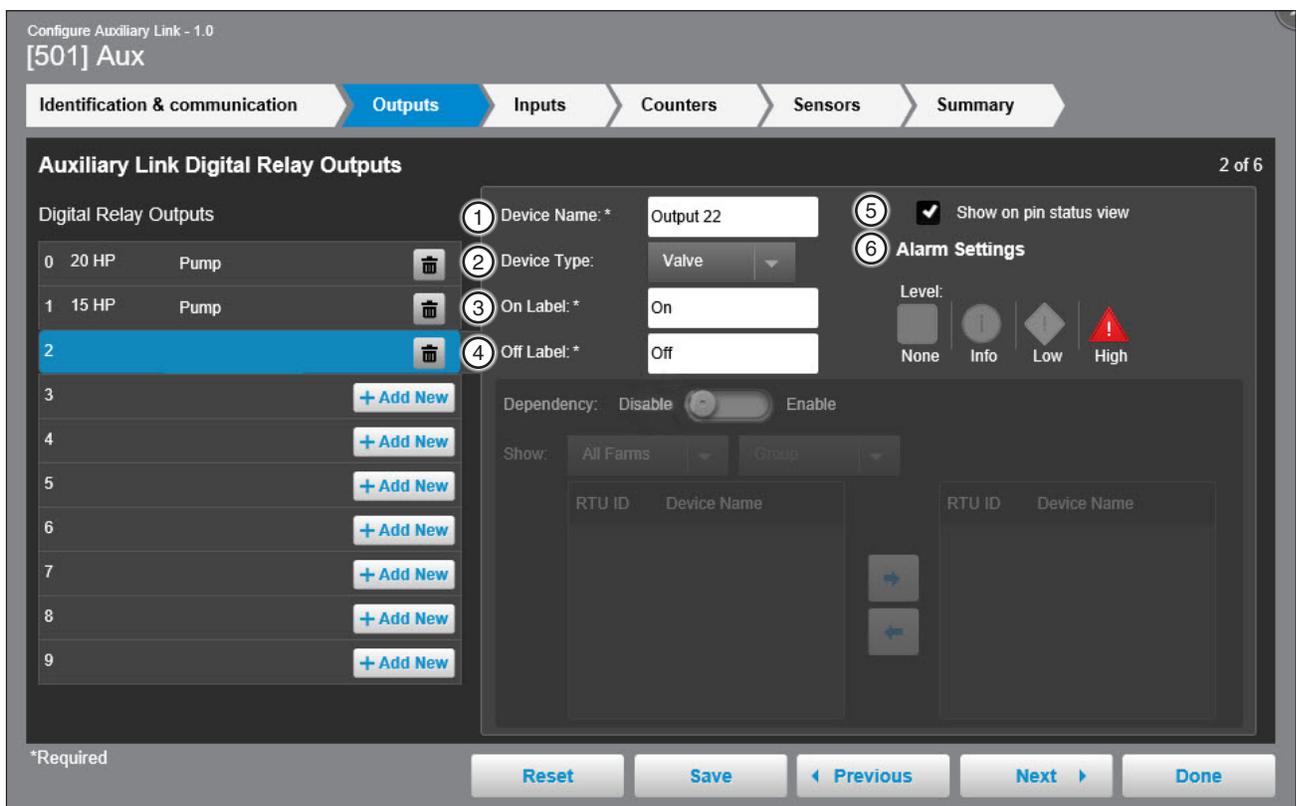


Figure 195-1

1. Device Name
2. Device Type
3. On Label
4. Off Label
5. Show on Pin status view
6. Alarm Settings

# Device Management

## Auxiliary Link Configuration Outputs (Continued)

To add an Output do the following:

1. Click **+ Add New**.
2. Enter a **Device Name**.
3. Select a **Device Type** from the drop-down list.
4. Enter an **On Label**.
5. Enter an **Off Label**.
6. Optional: Check the **Show on pin status view** box.
7. Optional: Change the **Alarm Settings**.
8. Click **Save**.

**To change a setting:** Click the output name, make the desired changes and click **Save**.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication | **Outputs** | Inputs | Counters | Sensors | Summary

### Auxiliary Link Digital Relay Outputs

Digital Relay Outputs

0	20 HP	
1	15 HP	
2	Output 22	
3	100	
4		
5		
6		
7		
8		
9		

1 + Add New

2 Device Name: \* Test

3 Device Type: Pump

4 On Label: \* On

5 Off Label: \* Off

6 Show on pin status view

7 Alarm Settings

Level: None Info Low High

Dependency: Disable Enable

Show: All Farms Group

RTU ID	Device Name	RTU ID	Device Name

\*Required

Reset Save Previous Next Done

Figure 196-1

1. + Add New
2. Device Name
3. Device Type
4. On Label
5. Off Label
6. Show on pin status view
7. Alarm Settings
8. Save

## Auxiliary Link Configuration Outputs (Continued)

To Enable a dependency do the following:

1. Select a device from the **Auxiliary Link Digital Relay Outputs** device list.
2. Click the Dependency switch to the **Enable** position.
3. Select from **Show All Farms / Show Group**.
4. Click on one or more devices in the source (left) device list.
5. Click the arrow icon to move the devices to the (right) dependent device list.
6. Click **Save**.

To change a setting: Click the output name, make the desired changes and click **Save**.

The screenshot shows the 'Configure Auxiliary Link - 1.0' interface for '[501] Aux'. The 'Outputs' tab is active, showing a list of 'Digital Relay Outputs' on the left and configuration options on the right. The 'Dependency' toggle is currently set to 'Disable'. The 'Alarm Settings' section shows 'Level' set to 'Info'. The 'Show' dropdown is set to 'ValleyFarm'. The 'Device Name' dropdown is set to 'Corn'. The 'RTU ID' and 'Device Name' lists are shown for both 'ValleyFarm' and 'Corn'. The 'Save' button is highlighted with a callout 6.

Figure 197-1 1. Digital Relay Outputs list 4. Device list  
2. Dependency Disable/Enable 5. Add/Remove  
3. Show All Farms/Groups 6. Save

# Device Management

## Auxiliary Link Configuration

### Inputs

Inputs displays all the input devices setup on the auxiliary link. See Figure 198-1.

**Device Name (required):** The name that will appear on the Digital Relay Inputs list.

**Device Type:** The name that will appear on the Digital Relay Inputs list.

**On Label:** The On function reference label that appears in the panel view, pop up status display, and reports.

**Off Label:** The Off function reference label that appears in the panel view, pop up status display, and reports.

**Show on Pin Status:** Show digital relay input status on a movable screen that can be user positioned to any location on the Map View. Check the box to enable or uncheck the box to disable. Pin Status is only available for use in My Map.

**To add an input:** Click **Add New**; enter a **Device Name**, select a **Device Type** from the drop-down list, enter an **On Label** and enter an **Off Label**. If desired, check the **Show on Pin Status View** box and/or change the **Alarm Settings**. Click **Save**.

**To change a setting:** Click the input name, make the desired changes and click **Save**.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication > Outputs > **Inputs** > Counters > Sensors > Summary

### Auxiliary Link Digital Relay Inputs

3 of 6

Digital Relay Inputs

2	20HP status	Pump	
3	15HP Status	Pump	
4	100	Wind	
5			

[+ Add New](#)

1 Device Name: \* 100

2 Device Type: Wind

3 On Label: \* On

4 Off Label: \* Off

5  Show on pin status view.

**Alarm Settings**

Type: None

Level: None Info Low High

Response Latency: 0 Min 0 Sec

\*Required

[Reset](#) [Save](#) [Previous](#) [Next](#) [Done](#)

Figure 198-1

1. Device Name
2. Device Type
3. On Label
4. Off Label
5. Show on pin status view

## Auxiliary Link Configuration Inputs (Continued)

**Alarm Settings:** The alarm setting controls what action is taken by the BaseStation when an alarm is activated. When the current state is not the same as the expected state, BaseStation displays an alarm icon on the affected device.

- **Type:** Select None, Change Condition, Input or Output.
  - » When none is selected, changes are shown as their current state without regard to the previous expected state; no alarm is triggered.
  - » When Change Condition is selected an alarm will occur whenever the status changes.
  - » When Input is selected an alarm will occur when ever the selected state is not the current state.
  - » When Output is selected, an alarm will occur when the Input state does not change to match the change of the Output, within the delay time.
- **Level:** Choose the level of alarm; None, Info, Low or High.
- **Response Latency:** A delay in minutes and seconds to allow the output function to complete before a status update is requested from the device to confirm the expected input state. The delay time is adjustable from 0 to 59 minutes and 59 seconds and is only available when the Type is set to Output.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication > Outputs > **Inputs** > Counters > Sensors > Summary

### Auxiliary Link Digital Relay Inputs 3 of 6

Digital Relay Inputs

2	20HP status	Pump	
3	15HP Status	Pump	
4	100	Wind	
5			<a href="#">+ Add New</a>

Device Name: \* 100

Device Type: Wind

On Label: \* On

Off Label: \* Off

Show on pin status view:

① **Alarm Settings**

② Type: None

③ Level:  None  Info  Low  High

④ Response Latency: 0 Min 0 Sec

\*Required

[Reset](#) [Save](#) [← Previous](#) [Next →](#) [Done](#)

Figure 199-1

1. Alarm Settings
2. Type
3. Level
4. Response Latency

# Device Management

## Auxiliary Link Configuration Counters

The Counters button displays all the counter devices setup on the auxiliary link. See Figure 200-1.

**Device Name (required):** The name that will appear on the Counters list.

**Device Type:** The name that will appear on the Counters list.

**Show on pin status:** Show the counter's status on a movable screen that can be user positioned to any location on the Map View. Check the box to enable or uncheck the box to disable. Pin status is also available for use in My Map.

### NOTE

- Use a short label, in consideration of the pop up status limited display width.
- The Auxiliary Link returns both the counter value and the difference from the previous minute with the status update message.

**To add a Counter:** Click **Add New**; enter a **Device Name**, select a **Device Type** from the drop-down list. Check the **Rate** and/or **Total** boxes and enter the appropriate **Units** and select the **Precision**. If desired, check the **Show on Pin Status View**. Click **Save**. Refer to the following pages for information on Display As and Set Pulse Count Value.

**To change a setting:** Click the counter name, make the desired changes and click **Save**.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication > Outputs > Inputs > **Counters** > Sensors > Summary

### Auxiliary Link Counters

4 of 6

Counters

0	EastFlow	Other	
1			

[+ Add New](#)

Device Name: \*  (1)

Device Type: Other (2)

Show on pin status view (3)

Display as (check at least one)\*

Rate Units:

Precision: None (1)

Total Units:

Precision: None (1)

Offset:  0.0

Multiplier: \*  0  
(decimal number)

Calculated Formula: =0.0+(0\*CounterValue)

Set Pulse Count Value: \*

Unscaled count:  0

{units} Total:  0

Do not reset count(count remains unchanged):

\*Required

Figure 200-1

1. Device Name
2. Device Type
3. Show on pin status view

## Auxiliary Link Configuration Counters (Continued)

The rate and/or total value from the counter input of the Auxiliary Link panel can be displayed. Some sensors may not have a total value that has any meaning, such as wind speed. In these situations, only a rate is practical. In other situations, such as monitoring a water flow meter, both the rate and total are significant. See Figure 201-1.

### Display As:

- **Rate:** The label for the calculated rate. The rate is the change in the Auxiliary Link computer counter value over the past minute. The rate value is sent to the BaseStation by the Auxiliary Link. When selected, the counter rate is shown on the panel view. Enter the Units and select the Precision for the Rate.
- **Display Total:** When selected the scaled total is shown on the panel view. Enter the Units and select the Precision for the Total.
- **Units:** The measurement label to be used for the sensor.
- **Precision:** The number of digits to be shown to the right of the decimal point.

Check the **Display Rate** box and/or the **Display Total** box, enter the **Units** to display for the sensor value(s) and select the **Precision** for the Display. Click **Save**.

## NOTE

- Use a short label, in consideration of the pop up status limited display width.
- The Auxiliary Link returns both the counter value and the difference from the previous minute with the status update message.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication > Outputs > Inputs > **Counters** > Sensors > Summary

### Auxiliary Link Counters

4 of 6

Counters

0	EastFlow	Other	
1			

Device Name: \*

Device Type: Other

Display as (check at least one) \*

Rate Units:

Precision: None (1)

Total Units:

Precision: None (1)

Offset:

Multiplier: \*   
(decimal number)

Calculated Formula: =0.0+(0\*CounterValue)

Show on pin status view

Set Pulse Count Value: \*

Unscaled count:

{units} Total:

Do not reset count(count remains unchanged):

\*Required

Figure 201-1

1. Rate	4. Total
2. Units	5. Units
3. Precision	6. Precision

# Device Management

## Auxiliary Link Configuration Counters (Continued)

**Offset:** The offset is the initial starting reference value. The Offset is part of the conversion formula that is provided by the manufacturer of a pulse sensing device. The formula is used to convert a pulse count into a measurable unit.

**Multiplier (required):** The multiplier is a scaling factor that is applied to the pulse count, converting it from a counter number to a unit of measure according to the Units label. The Multiplier is part of the conversion formula that is provided by the manufacturer of a pulse sensing device. The formula is used to convert a pulse count into a measurable unit.

**Conversion Formula Preview:** Shows the formula that will be used to convert a pulse count into a measurable unit.

**Presetting the counter:** The counter in the Auxiliary Link can be preset to a value. This can be done to initialize the Auxiliary Link count to match a meter reading that has been used prior to connecting it to the Auxiliary Link. Use Set Unscaled Count or Set Total to initialize the count.

**Set Unscaled Count:** Used to preset the counter in Auxiliary Link to a user entered actual pulse count. Enter an actual pulse count and click **Send**.

**Set Total:** Used to preset the counter in Auxiliary Link to a user entered scaled total, that uses the Offset/Multiplier conversion formula, to calculate an equivalent pulse count. Enter a scaled total and click **Send**.

**Do Not Reset Count:** Used to keep the original count unchanged.

Configure Auxiliary Link - 1.0  
[664] Aux664

Identification & communication > Outputs > Inputs > **Counters** > Sensors > Summary

### Auxiliary Link Counters

4 of 6

Counters

- 0 Cnt0
- 1 Cnt1

Device Name: \* Cnt0 ContPulse  Show on pin status view

Device Type: Flow

Display as (check at least one) \*

- Rate Units: GPM Precision: None (1)
- Total Units: Gallons Precision: None (1)

Set Pulse Count Value: \*

- Unscaled count: 0
- {units} Total: 0
- Do not reset count(count remains unchanged):

Offset: 0

Multiplier: \* 2 (decimal number)

Calculated Formula: Gallons=0+(2\*Counter)

Send

\*Required

Reset Save < Previous Next > Done

Figure 202-1

1. Offset
2. Multiplier
3. Calculated Formula
4. Unscaled Count
5. (units) Total
6. Do not reset count (count remains unchanged)
7. Send

## Auxiliary Link Configuration

### Sensors

Sensors are analog devices that are either voltage or current output. The Auxiliary Link hardware has a factory installed analog input module. (See the Auxiliary Link Technical Reference Manual for information about the hardware configuration.) The Auxiliary Link device in BaseStation must be configured to match the hardware in the physical panel, particularly with the setting for the Sensor type, Volts or mAmp. See Figure 203-1.

**Device Name (required):** The name that will appear on the sensors list.

**Device Type:** The name that will appear on the sensors list.

**Units (required):** The measurement label to be used for the sensor.

**Precision:** The number of digits to be shown to the right of the decimal point.

**Show on Pin Status:** Show sensor status on a movable screen that can be user positioned to any location on the Map View. Check the box to enable or uncheck the box to disable. Pin Status is only available for use in My Map.

**To add a Sensor:** Click **Add New**; enter a **Device Name**, select a **Device Type** from the drop-down list, enter the **Units** label and choose the **Precision**. If desired, check the **Show on Pin Status View** box and/or change the **Alarm Settings**. Click **Save**. See the following pages for Use High and Low or Use Offset and Multiplier.

**To change a setting:** Click the sensor name, make the desired changes and click **Save**.

## NOTE

- Sensors 4-7 are a field install only. An additional analog module is required.

Configure Auxiliary Link - 1.0  
[664] Aux664

Identification & communication > Outputs > Inputs > Counters > **Sensors** > Summary

### Auxiliary Link Sensors

5 of 6

Sensors

Device Name	Device Type	Units	Precision	Show on pin status view
0 mAmp				<input type="checkbox"/>
1 mAmp				<input type="checkbox"/>
2 Volts				<input type="checkbox"/>
3 Temperature Gauge Volts	Gauge	deg F	None (1)	<input checked="" type="checkbox"/>
4 mAmp				<input type="checkbox"/>
5 mAmp				<input type="checkbox"/>
6 Volts				<input type="checkbox"/>
7 Volts				<input type="checkbox"/>

\*Required

Reset Save < Previous Next > Done

Figure 203-1 1. Device Name 2. Device Type 3. Units 4. Precision 5. Show on pin status view

# Device Management

## Auxiliary Link Configuration Sensors (Continued)

**Use high and low:** when the sensor has a working range that is based on a high limit and a low limit. The output signal of the sensor has a constant rate of change (volts or mA) that corresponds with the physical change (Units) being monitored. BaseStation will calculate the scaled value according to the high and low units of measurement entered.

Choose **Use high and low**. Enter the **Low** limit of physical change. Enter the corresponding **Low** limit of the output signal **Volts** (volts/mA). Enter the **High** limit of physical change. Enter the corresponding **High** limit of the output signal Volts (volts/mA). To keep the settings, click **Save**.

Example: This sensor setup is for the Valley pressure transducer. The working range of the transducer is 0 to 200 PSI where 0 PSI is at 1.000 VDC and 200 PSI is at 4.000 VDC. BaseStation will calculate the equivalent PSI according to the voltage signal output of the transducer. See Figure 204-1.

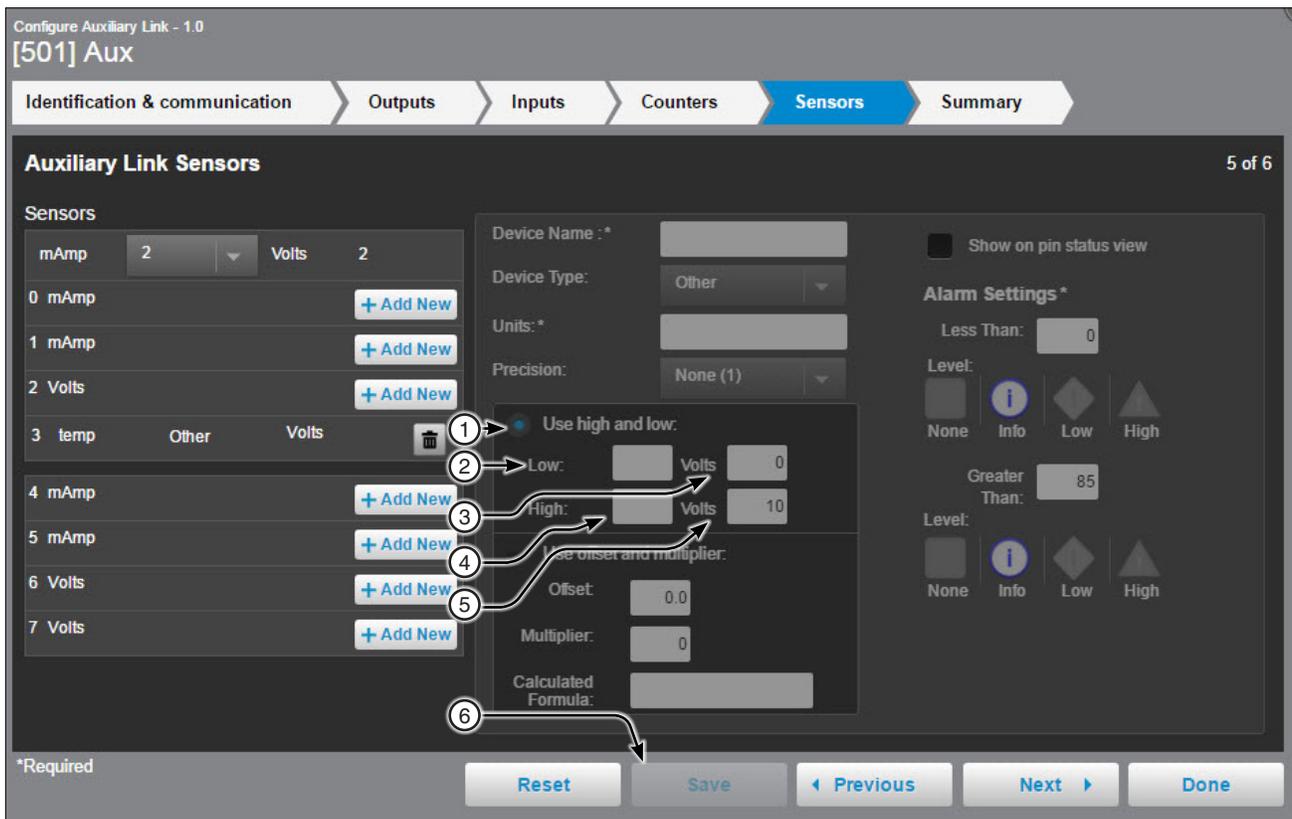


Figure 204-1 1. Use high and low  
2. Low  
3. Volts

- 4. High
- 5. Volts
- 6. Save

## Auxiliary Link Configuration Sensors (Continued)

**Use offset and multiplier:** When the sensor has a working range that is based on a starting reference value, and the output signal changes according to a calibrated rate of change of the physical sensor. The offset is the initial starting reference value. The multiplier is a factor that is applied to make the output signal follow the physical change. BaseStation applies the offset and multiplier specified in the manufacturers information sheet to calculate the appropriate units of measurement.

Choose **Use offset and multiplier**. Enter the **Offset** value. Enter the **Multiplier** value. The results are displayed in the **Calculated Formula** field. To keep the settings, click **Save**. See Figure 205-1.

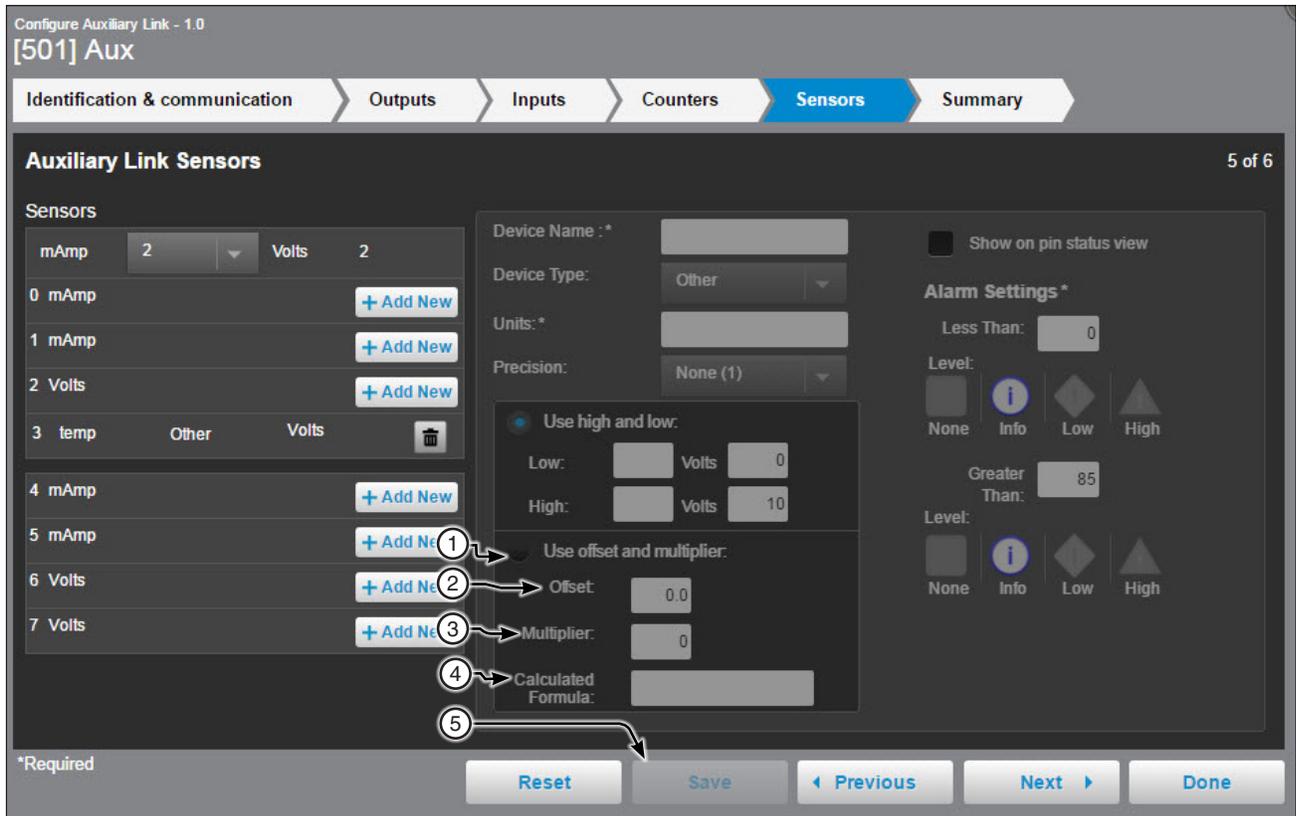


Figure 205-1

1. Use offset and multiplier
2. Offset
3. Multiplier
4. Calculated Formula
5. Save

# Device Management

## Auxiliary Link Configuration Sensors (Continued)

**Alarm Settings:** Monitors the sensor values and issues an alarm when the values are less than or greater than the user set values.

- **Less Than:** When the value is less than the set value, an alarm will occur.
- **Greater Than:** When the value is greater than the set value, an alarm will occur.
- **Level:** Choose the level of alarm: None, Info, Low or High.

Enter the **Less Than / Greater Than** values. Choose the level for each alarm. Click **Save**. See Figure 206-1.

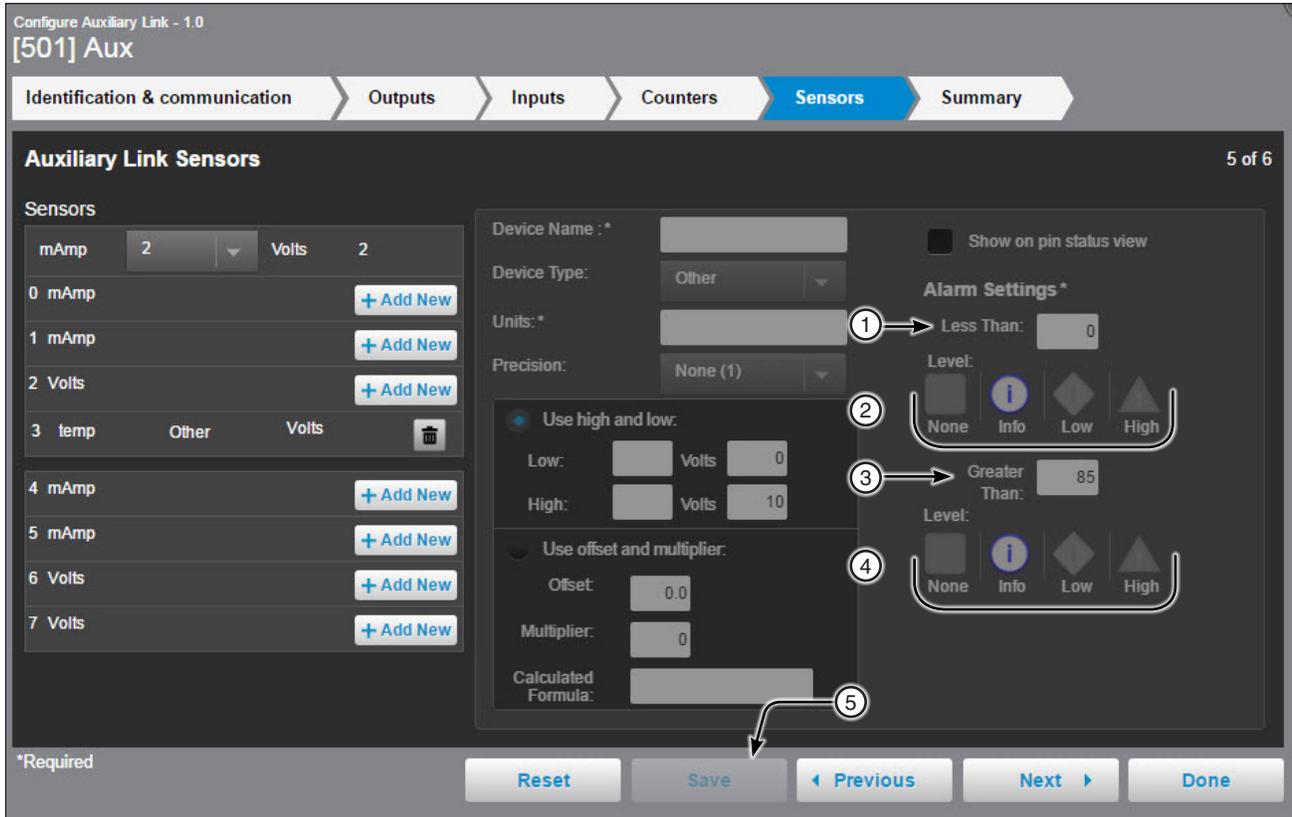


Figure 206-1 1. Less Than 4. Level  
2. Level 5. Save  
3. Greater Than

## Auxiliary Link Configuration Summary

Summary displays all the devices (relays, counters and sensors) that have been set up on the auxiliary link. Clicking on a device title opens the device for editing. See Figure 207-1.

Configure Auxiliary Link - 1.0  
[501] Aux

Identification & communication > Outputs > Inputs > Counters > Sensors > **Summary**

### Auxiliary Link Relays, Counters and Sensors Summary 6 of 6

Digital Relay Outputs			Digital Relay Inputs			Sensors		
0	20 HP	Pump	2	20HP status	Pump	mAmp	2	Volts 2
1	15 HP	Pump	3	15HP Status	Pump	0	mAmp	+ Add New
2		+ Add New	4		+ Add New	1	mAmp	+ Add New
3		+ Add New	5		+ Add New	2	Volts	+ Add New
4		+ Add New	Counters			3	temp Other Volts	+ Add New
5		+ Add New	0	EastFlow Other	+ Add New	4	mAmp	+ Add New
6		+ Add New	1		+ Add New	5	mAmp	+ Add New
7		+ Add New				6	Volts	+ Add New
8		+ Add New				7	Volts	+ Add New
9		+ Add New						

\*Required

Reset Save < Previous Next > Done

Figure 207-1

# Device Management

---

## PanelLink Configuration

### Add Device

To configure a PanelLink with software version 9.0 or later for a pivot device do the following.

With the View Type set to Device Management, click **Add Device** and select **Panel Link Pivot**. Initially, none of the configuration screens are visible until the Send button is pressed and the BaseStation has established communication with the Panel Link.

### First-time Setup

**RTU ID:** Leave the preset \*\*\* RTU ID for a new PanelLink or enter an RTU ID of the existing PanelLink.

The RTU ID of each Panel Link is preset to \*\*\* when shipped from the factory. As with other panel types, all other remote(s) with the same RTU ID of \*\*\* (if using radio communications) **MUST** be powered off, or disconnected, while attempting to communicate with this PanelLink. **Make sure the PanelLink being setup is the ONLY new device that is On.**

Enter the **Device Name**, select the **Farm** and choose the **Channel** for communication.

Click **Send** and the BaseStation will establish communication with the PanelLink, save information and display the Identification screen. See Figure 209-1.

If the PanelLink is configured for a linear or custom application, configuration of the device is interrupted until the user either stops the setup or chooses to change the configuration of the PanelLink to pivot.

Configure Panel Link Pivot - V9.0  
[\*\*\*]

First-time Setup

**Establish PanelLink Pivot Communication - First-time Setup**

To establish communications and to enable the RTU ID field, complete the fields below.

1 RTU ID: \*  (alpha numeric combination)

2 Device Name: \*

3 Farm: \*

4 Channel: \*

Enter IP Address:

IP Port:

5

Pushing Send will:

- Save changes.
- Establish communications with the device and get settings.
- Upon successful communication, allow completion of configuration of this device.

\*Required

Figure 209-1

1. RTU ID	4. Channel
2. Device Name	5. Send
3. Farm	

# Device Management

## PanelLink Configuration

### Identification

The identification screen is populated with the information that was entered on the First-time Setup screen.

**Latitude and Longitude:** The GPS position of the device. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the device on the map, enter the known coordinates of the device or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the device on the map.

To complete Identification of the device do the following. See Figure 210-1.

**RTU ID:** Enter the RTU ID unique 3 digit number containing numbers and/or capitol letters that do not match any other device. Click **Send** to change the RTU ID at the panel.

**Full circle or part circle pivot.** If this is a full circle pivot, leave the Left Angle and Right Angle at 0.0 degrees. If this is a part circle pivot enter the Left Angle degrees and/or Right Angle degrees to change the shape of the pivot on the map. The Zero Degree Reference Angle will effect orientation of the pivot shape on the map.

**Zero Degree Reference Angle:** The Zero Degree Reference Angle can be changed if you do not want the actual physical position of the span pointing to the North when at 0.0 degrees.

**Road Angle:** The Road Angle can be entered. When an angle value is entered a road is displayed on the pivot.

**Machine Length:** Enter the length from pivot point to LRDU in feet. The default length is 1200 feet. When Google Map is used the size of the pivot circle on the map changes automatically based on the machine length. When My Map is used the size of the pivot circle on the map does not change.

**Preview Button:** To see what the pivot will look like after changes are made, click **Preview**.

Click **Next** to retain the changes.

Configure Panel Link Pivot - V9.0  
[003] PanelLink

Identification Communication Setup Outputs Inputs Alarms

PanelLink Pivot Identification 1 of 6

1 RTU ID: \* 003 (alpha numeric combination)  
2 Send Push Send to change the RTU ID at the panel.

Device Name: \* PanelLink  
Control Panel: Valley Farm  
Manufacturer:  
Model:  
3 Firmware Version: 9.00  
Farm: LangTest

Supplemental Location Information:  
Plat ID:

Pivot Location  
4 Latitude: \* 46.039353 Location adjusted on map.  
Longitude: \* -119.663809 Undo Help  
Save as Configuration

5 Left Angle: 0 °  
6 Right Angle: 0 °  
7 Zero Degree Reference Angle: 0 °  
8 Road Angle: 0 °  
9 Machine Length: \* 1200.0 Feet

10 Preview

11 Next

\*Required

Reset Send & Save Previous Next Done

Figure 210-1 1. RTU ID 4. Latitude/Longitude 7. Zero Degree Reference Angle 10. Preview  
2. Send 5. Left Angle 8. Road Angle 11. Next  
3. Firmware Version 6. Right Angle 9. Machine Length

## PanelLink Configuration Communication

The Communication screen is populated with Channel or IP Address and Port information from the First-time Setup screen.

To customize the communications with the device do any of the following (see Figure 211-1):

- Change the Channel, IP Address and/or Port.
- Polling can be turned Off, the default is On.
- The Polling Period can be changed by entering a new value. The default time is 30 minutes.
- The Number of Times to Send Messages can be changed by entering a new value. The default number of times is 2.
- The Wait for Acknowledgment can be changed by entering a new value. The default wait time is 7 seconds.
- An existing Alarm Contact List can be chosen from the drop down menu.

Click **Next** to retain the changes.

Configure PanelLink Pivot - V9.0  
[003] PL 003

Identification > **Communication** > SetUp > Outputs > Inputs > Alarms

**PanelLink Pivot Communication** 2 of 6

1 Channel: \* COM8

2 Enter IP Address:

3 IP Port:

4 Polling Off On

5 Polling Period: \* 30 minutes

6 No. of Times to Send Messages: \* 2

7 Wait for Acknowledgement: \* 7 seconds

8 Alarm Contact List None

\*Required

Reset Send & Save < Previous Next > Done

Figure 211-1

1. Channel	4. Polling Off/On	7. Wait for Acknowledgement
2. Enter IP Address	5. Polling Period	8. Alarm Contact List
3. IP Port	6. No. of Times to Send Messages	

# Device Management

## PanelLink Configuration

### Setup

To customize setup of the device do the following. See Figure 212-1.

**Water Settings:** If water usage reports will be used, enter values for Sprinkler Package and Irrigated Area. Water is measured by Run-time Calculation. See Figure 212-1.

**Auxiliary Labels:** When the auxiliary is used for chemigation, check the Auxiliary used for irrigation box. The default setting is unchecked. See Figure 212-1. The Aux 1 Label, Aux 1 On Label and Aux 1 Off Label fields contain a default description. You can rename these labels for the application. If you don't want the auxiliary controls to be displayed on the device when viewed in the operational view type, uncheck the Show on device panel box. The default setting is checked.

**Pivot Length and Speed:** End Tower Speed (feet/min) must be entered. Verify the Machine Length (feet) that was populated from the identification screen during the initial communication. See Figure 212-1.

**Pivot Position:** To show the pivot position on the device panel, check the **Show Pivot Position on device panel** box. Pivot Position is a calculation based on run time. See Figure 212-1.

The Current Calculated Position is shown. To reset the position, enter the angle (degrees) of the new position in the **Reset Position to:** field and click **Send**. PanelLink will set its internal position to the angle specified.

Configure PanelLink Pivot - V9.0  
[003] PL 003

Identification > Communication > **Setup** > Outputs > Inputs > Alarms

**PanelLink Pivot Setup** 3 of 6

**Water Settings**

Water Measured by: Run-time Calculation (8)

(1) Sprinkler Package: [ ] GPM (decimal number)

(2) Irrigated Area: [ ] acres (maximum 1000.0)

**Auxiliary Labels**

(3)  Auxiliary used for chemigation (7)  Show on device panel

(4) Aux 1 Label: \* Aux 1

(5) Aux 1 On Label: \* On

(6) Aux 1 Off Label: \* Off

**Pivot length and Speed**

(8) End Tower Speed: \* 45 feet/min. (1.00 to 100.00)

(9) Pivot Point to LRDU Distance: \* 87 feet (10 to 4096)

**Pivot Position**

(10)  Show Pivot Position on device panel

(11) Current Calculated Position 222

(12) Reset Position to: 222 (13) **Send**

Calculation Method: Run-time Calculation

**Position Calibration:**

Input Switch 4 Angle: 120 ° Check to enable the input switch for position calibration. Enter the angle location for the position of the switch.

Input Switch 5 Angle: 110 °

Input Switch 6 Angle: 130 ° Uncheck to allow input to be used for another digital relay input.

\*Required

Reset Send & Save < Previous Next > Done

- Figure 212-1
1. Sprinkler Package
  2. Irrigated Area
  3. Auxiliary used for chemigation
  4. Aux 1 Label
  5. Aux 1 On Label
  6. Aux 1 Off Label
  7. Show on device panel
  8. End Tower Speed
  9. Pivot Point to LRDU Distance
  10. Show Pivot Position on device panel
  11. Current Calculated Position
  12. Reset Position to
  13. Send

## PanelLink Configuration Setup (Continued)

**Calculation Method:** During the First-time Setup initial communication with the PanelLink, BaseStation determines and selects the calculation method based on which calculation methods are available at the pivot. Either Run-time Calculation or None (Position Calibration). See Figure 213-1.

- **Run-time Calculation:** The PanelLink calculates an approximate field location using the End Tower Speed and Machine Length. When run-time calculation is enabled, the Panel Link will calculate the estimated position and return that value to the BaseStation. BaseStation will then show the direction arrow at the position returned by the Panel Link. The progress shading will be shown according to the position change.
- **None:** When None is the calculation method, the position calibration input switches are used for calibrating the pivot position at specified locations around the field.

**Position Calibration:** To enable an input switch for position calculation, check the input switch box. Enter the angle (degree) location of the switch in relationship to the Zero Degree Reference Angle. When the pivot triggers the input switch, the PanelLink sets its internal position calculation to the angle specified for the corresponding switch. Default position calibration is applied by the Reset to Defaults button located on the Inputs screen. Position Calibration requires additional hardware.

Click **Next** to retain any changes.

Configure PanelLink Pivot - V9.0  
[003] PL 003

Identification > Communication > **Setup** > Outputs > Inputs > Alarms

**PanelLink Pivot Setup** 3 of 6

**Water Settings**

Water Measured by: Run-time Calculation

Sprinkler Package: [ ] GPM (decimal number)

Irrigated Area: [ ] acres (maximum 1000.0)

**Auxiliary Labels**

Auxiliary used for chemigation

Aux 1 label: \* Aux 1  Show on device panel

Aux 1 On Label: \* On

Aux 1 Off Label: \* Off

**Pivot length and Speed**

End Tower Speed: \* 45 feet/min. (1.00 to 100.00)

Pivot Point to LRDU Distance: \* 87 feet (10 to 4096)

**Pivot Position**

Show Pivot Position on device panel

Current Calculated Position 222

Reset Position to: 222°

1 Calculation Method: Run-time Calculation

2 Position Calibration:

Input Switch 4 Angle: 120°  Check to enable the input switch for position calibration. Enter the angle location for the position of the switch.

Input Switch 5 Angle: 110°

Input Switch 6 Angle: 130°  Uncheck to allow input to be used for another digital relay input.

\*Required

Figure 213-1 1. Calculation Method  
2. Position Calculation  
3. Input Switch Angles

# Device Management

## PanelLink Configuration

### Outputs

This screen is used to configure the relay momentary on times and one additional user-defined auxiliary relay. The Momentary Time (relay momentary on time) can be increased or decreased by entering a different time in the applicable Momentary Time Field.

Momentary Time is enabled for all digital outputs except the Aux 1 output. Listed below are the momentary time defaults and range.

- Start, Forward and Reverse - Default 3 Seconds; Range 1-5 Seconds.
- Stop (Safety) and Stop (Stop In Slot) - Default 10 Seconds; Range 1-59 Seconds.
- Percent Timer Bypass - 00:00 Seconds (not adjustable).
- Pressure Bypass - Default 10 Seconds; Range 0 to 19 minutes 59 seconds.
- Aux 1 - Default Unchecked and 5 Seconds; Range 0 to 99 minutes 59 seconds.

To reset the outputs to default values, click **Reset to Defaults**. To view default output values, follow the View BaseStation3 Default Output Settings hyperlink.

The Aux 1 Momentary Time can be enabled by checking the Aux 1 box. Uncheck the box to disable.

Click **Next** to retain any changes.

## NOTE

- During power off conditions and after a power on reset, all outputs are set to their “normal” or non-energized position.

Configure Panel Link Pivot - V9.0  
[003] PanelLink

Identification > Communication > SetUp > **Outputs** > Inputs > Alarms

PanelLink Pivot Digital Outputs 4 of 6

Digital Outputs	Momentary	Momentary Time*	Recommend
1 Start (Safety Out)	<input checked="" type="checkbox"/>	4 sec	00:03
2 Forward	<input checked="" type="checkbox"/>	5 sec	00:03
3 Reverse	<input checked="" type="checkbox"/>	4 sec	00:03
4 Stop (Safety)	<input checked="" type="checkbox"/>	11 sec	00:10
5 Stop (Stop in Slot)	<input checked="" type="checkbox"/>	11 sec	00:10
6 Percent Timer Bypass		00:00	
7 Pressure Bypass	<input checked="" type="checkbox"/>	10 min 01 sec	10:00
8 Aux 1	<input type="checkbox"/>	00 min 01 sec	

Reset to Defaults View BaseStation3 Default Output Settings

\*Required

Reset Send & Save < Previous Next > Done

Figure 214-1 1. Digital Outputs 2. Momentary Time 3. Aux 1 4. Reset to Defaults 5. View BaseStation3 Default Output Settings 6. Next



# Device Management

## PanelLink Configuration Inputs (Continued)

To add an input click **Add New**. Enter the **Input Name**. Customize the input for supplemental status and Real-time Event Updates, including notice transmit delay.

Show on supplemental status: To allow the input status to appear on the supplemental status, check the **Show on supplemental status**.

**Real-time Event Updates:** The Notice enabled or disabled icon is displayed with the delay time on the specific input. Check the **Notice** box to have input relay status information sent to the BaseStation. Set the **Notice Transmit Delay Time**. The default time is 30 seconds after the event and the range is 1 second up to 1 minute and 59 seconds after the event.

Select an existing input to make changes. The Forward Run, Reverse Run and Percent Timer input names cannot be changed. The Percent Timer input cannot be changed.

To delete an input, click **Delete**. The Forward Run, Reverse Run and Percent Timer input names cannot be deleted. Click **Next** to retain any changes.

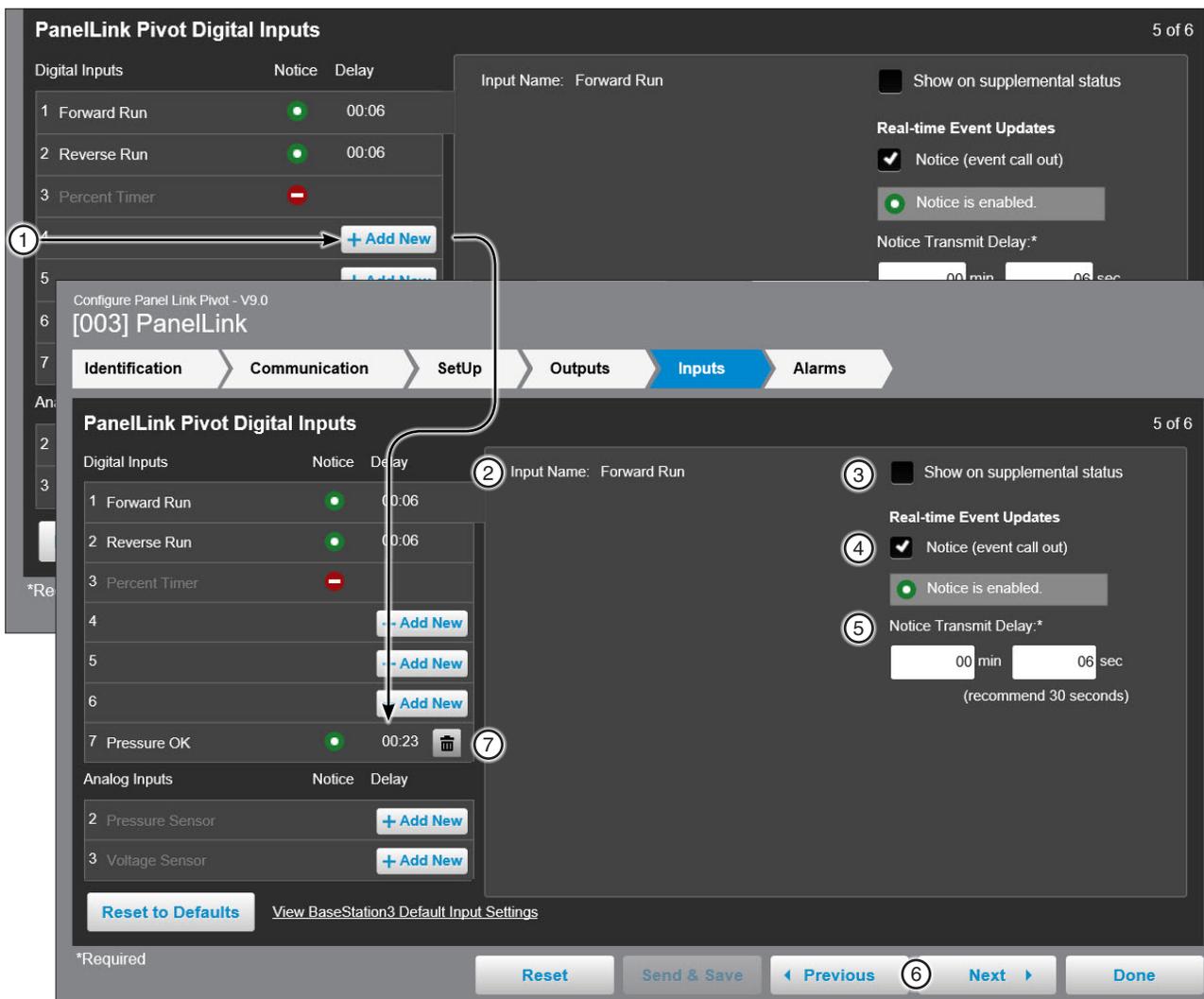


Figure 216-1 1. + Add New 4. Real Time Event Updates 7. Delete  
2. Input Name: Forward Run 5. Notice Transmit Delay  
3. Show on supplemental status 6. Next

## PanelLink Configuration Inputs (Continued)

### Analog Inputs

Configure the analog input devices number 2 and 3 for the optional pressure and/or voltage sensors.

- Pressure Sensor - The low and high settings are the operational pressure settings.
  - » If the pressure transducer option is not installed and configured, while the machine is running (wet or dry), the direction arrow is displayed on a gray color, at the last known span position.
  - » If the pressure transducer option is installed and configured, the circle will show as green or blue when running. BaseStation will show running status as green when pressure less than the threshold setting, or blue when the pressure is equal to or greater than the threshold setting.
- Voltage Sensor - The low and high settings are the operational voltage settings.

To add an analog input click **Add New**. Enter the **low** and **high** operational values. Customize the input for supplemental status and Real-time Event Updates, including notice transmit delay time.

**Show on supplemental status:** To allow the input status to appear on the supplemental status, check the **Show on supplemental status** box.

**Real-time Event Updates:** Check the **Notice** box to have input relay status information sent to the BaseStation. Set the Notice Transmit Delay Time. The default time is 30 seconds and the range is 1 second to 1 minute and 59 seconds.

- Delay Time is the time (in minutes and seconds) after the machine's operational pressure has exceeded its limits and an update is sent to the BaseStation.

Select an existing input to make changes.

To delete an input, click **Delete**.

Click **Next** to retain any changes.

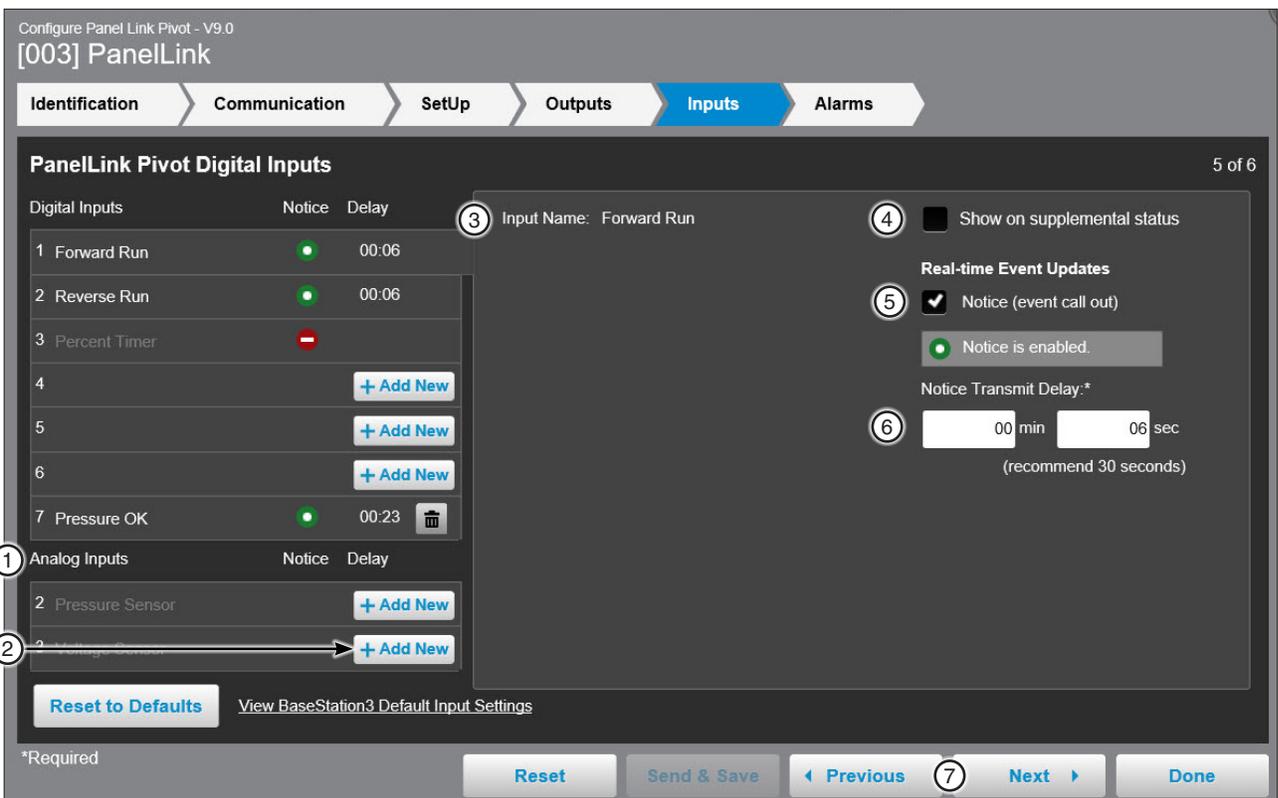


Figure 217-1 1. Analog Inputs  
2. + Add New

3. Input Name: Forward Run  
4. Show on supplemental status

5. Real-time Event Updates  
6. Notice Transmit Delay  
7. Next

# Device Management

## PanelLink Configuration

### Alarms

Alarms can be set to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state.

- Current State is the last machine state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

To change the alarm level for an alarm, choose the desired alarm level icon. When done click **Send & Save**.

To change a threshold low or high value of an alarm, enter a value in the applicable threshold alarm field. When done click **Send & Save**.

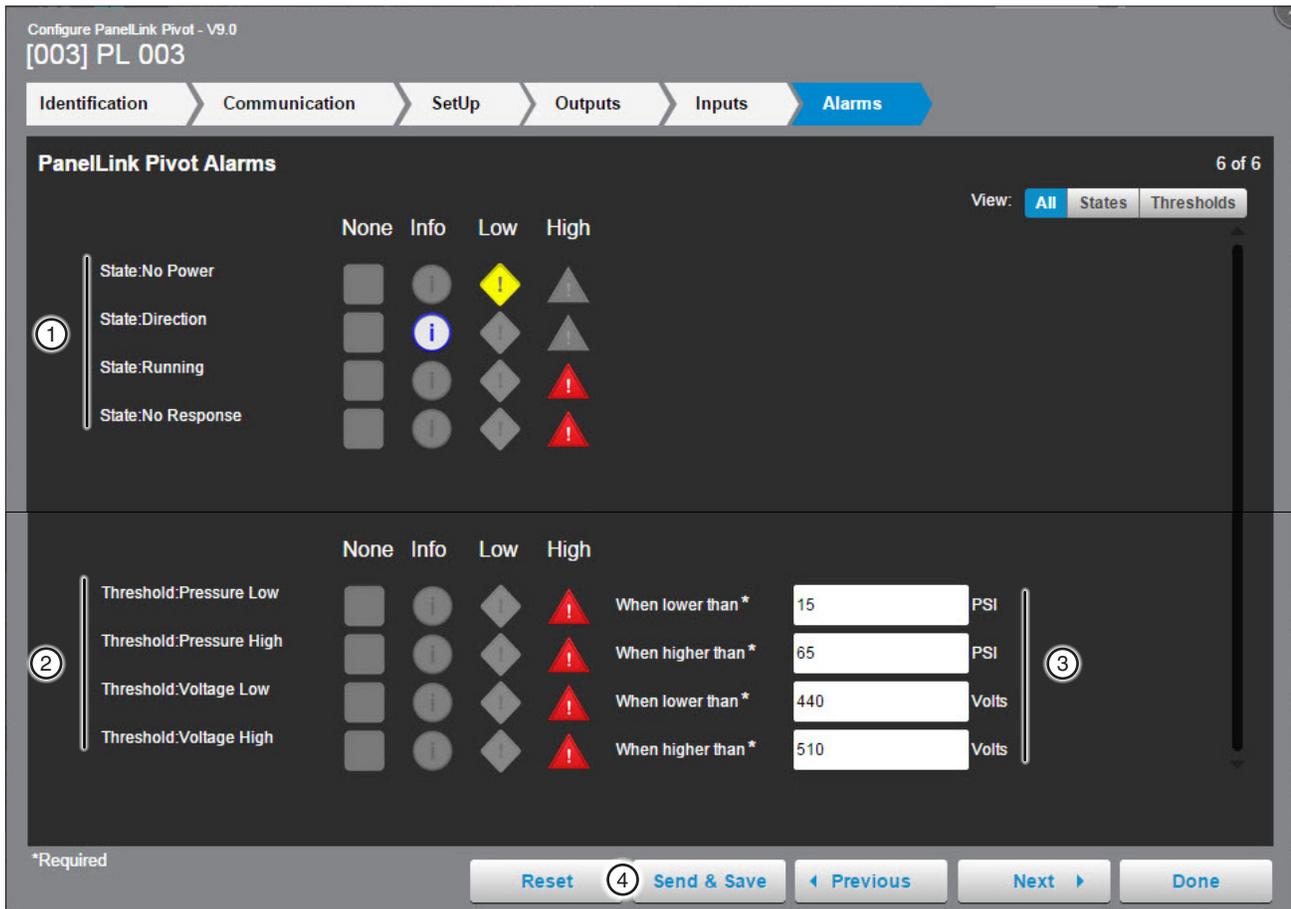


Figure 218-1 1. State Alarms 2. Threshold Alarms 3. Threshold Alarm Fields 4. Send & Save

## Irrrometer Configuration

### Identification

The identification describes the physical attributes of the Irrrometer. The Irrrometer Service, Data Logger and Farm are required. The field name or first characters in field names are obligatory. Other fields may be required as choices are made. See Figure 219-1 for Cellular example.

**Model (1) (required):** Select the model version from the drop down list.

**Firmware (2) (required):** Displays the Irrrometer software version.

**Irrrometer Service (3) (required):** An Irrrometer Cellular Service subscription is required.

**Irrrometer Account Login ID (4) (required):** Enter the user's Irrrometer Cellular User ID.

**Get Setup Button (5):** Click **Get Setup** to connect to your Irrrometer account. This will populate the Data Logger drop down menu with device names, transmitter names and settings.

**Data Logger (6) (required):** Data Logger information loaded from Irrrometer setup file or website. Select the Data Logger from the drop down list.

**Farm (7) (required):** If more than one farm is available select the farm from the drop down list.

**Latitude and Longitude (8) (required):** The GPS position of the device. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the device on the map, enter the known coordinates of the device or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, select the device again, click **Change**, and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the device on the map.

**Data Logger Rain Measurement On/Off (9):** To collect rain data a rain collection sensor must be installed and the rain measurement feature must be turned On.

**Transmitters (10):** The transmitter names are loaded from the Irrrometer website and displayed automatically under the Device Name. Based on Data Logger selected, 1 to 16 transmitters can be displayed. Check the box of transmitters that you wish to display under the Transmitter button.

Figure 219-1

1. Model	5. Get Setup	9. Data Logger Rain Measurement
2. Firmware	6. Data Logger	10. Transmitters
3. Irrrometer Service	7. Farm	11. Save
4. Irrrometer Account Login ID	8. Data Logger Location	

# Device Management

## Irrrometer Configuration

### Identification (Continued)

Radio requires different fields, which include:

**RTU ID (required):** Enter the control panel RTU ID. The RTU ID must be unique and cannot match any other device.

**Update Setup Button:** Click **Update Setup** to connect to your Irrrometer account. This will populate the Data Logger drop down menu with device names, transmitter names and settings.

Configure Irrrometer - V2.6  
[01] Cluster 100 W

Identification Communication Transmitter

### Irrrometer Identification

1 of 3

Model: \* 950

Firmware: \* 2.6

Irrrometer Service: \* Radio

1 RTU ID: \* W 01

2 **Update Setup**  
Push Update Setup to connect to your Irrrometer settings.txt file.

Data Logger: \* Cluster 100 W01

Farm: \* LangTest

#### Data Logger Location

Latitude: \* 46.029730 Location adjusted on map. Undo Help

Longitude: \* -119.618231 Save as Configuration

#### Data Logger Rain Measurement

Off On

#### Transmitters

<input checked="" type="checkbox"/> 1) T1	<input type="checkbox"/> 9)
<input checked="" type="checkbox"/> 2) T2	<input type="checkbox"/> 10)
<input checked="" type="checkbox"/> 3) U3 open	<input type="checkbox"/> 11)
<input checked="" type="checkbox"/> 4) U4 open	<input type="checkbox"/> 12)
<input type="checkbox"/> 5)	<input type="checkbox"/> 13)
...	...

\*Required

Reset Save Previous Next Done

Figure 220-1 1. RTU ID  
2. Update Setup

## Irrrometer Configuration

### Data Logger Communication

**Channel (1):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**. See Figure 221-1.

**Enter IP Address (2):** The Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port (3):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off (4):** The periodic request based on the polling period that the BaseStation makes for status information from the web account.

**Polling Period (5):** The time in hours (Cellular) between polling tries for obtaining status information. Poll frequently enough to capture changes in soil moisture. Since changes in soil moisture usually occur slowly, polling 2 times a day is a recommended initial setting. Enter the polling period wait time. The default time is 4 hours (Cellular).

Configure Irrrometer - V2.6  
[01] Cluster 100 W

Identification Communication Transmitter

**Data Logger Communication** 2 of 3

① Channel: com1

② Enter IP Address:

③ IP Port:

④ Polling: Off On

⑤ Polling Period: 4 (hours)

Number of Times to Send Messages: 2

Time to Wait for Acknowledgement (seconds): 5

Alarm Contact List: -select-

Alarm Settings  
No Response Alarm: None Info Low High

\*Required

Reset Save Previous Next Done

Figure 221-1 1. Channel 2. Enter IP Address 3. IP Port 4. Polling 5. Polling Period

# Device Management

## Irrrometer Configuration

### Data Logger Communication (Continued)

**Number of Times to Send Messages (1):** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

**Time to Wait for Acknowledgement (3):** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by the BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Messages limitation.

**Alarm Contact List (4):** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Alarm Contacts/Alarm Contact Lists**.

**No Response (5) (Alarm Level):** Alarm to monitor when the device does not respond to communication. The alarm level is user set. Default setting is high. See Figure 222-1.

The screenshot shows the 'Configure Irrrometer - V2.6' interface for '[01] Cluster 100 W'. The 'Communication' tab is active. The 'Data Logger Communication' section (2 of 3) contains the following fields and settings:

- Channel: com1
- Enter IP Address: [Empty]
- IP Port: [Empty]
- Polling: On
- Polling Period: 4 (hours)
- Number of Times to Send Messages: 2
- Time to Wait for Acknowledgement (seconds): 5
- Alarm Contact List: -select-

The 'Alarm Settings' section (4) includes a 'No Response Alarm' selector (5) with options: None, Info, Low, and High. The 'Low' option is currently selected.

Navigation buttons at the bottom include: \*Required, Reset, Save, Previous, Next, Done.

Figure 222-1

1. Number of Times to Send Messages
2. Time to Wait for Acknowledgement (seconds)
3. Alarm Contact List
4. Alarm Settings
5. No Response Alarm

## Irrrometer Configuration

### Transmitter

**Latitude and Longitude:** The GPS position of the Transmitter. This information is saved to the BaseStation database and does not change the position of the Irrrometer on the map. Enter the Latitude and Longitude in decimal degrees.

**Field (1):** The field (Device) associated with this Transmitter. If more than one field is available, select the field from the drop down list.

- **Angle L/R (2) (Pivot Devices):** The Left and Right Angles are used to indicate on the field where the transmitter sensors are located. The wedge between the left and right angle in the field where the transmitter sensors are located.
- **Position Start/End (Linear Devices):** The Start and End Positions are used to indicate on the field where the transmitter sensors are located. The area between the start and end position in the field where the transmitter sensors are located.

**Use Sensor Name (3):** The check box enables the BaseStation to display of the sensor name. It selects which sensors are attached to the transmitter. Check the box in front of the sensor to display on the Irrrometer device screen.

**Moisture Zone (4):** The Lower and Upper settings determine the normal range shown for each sensor. The Lower and Upper thresholds are set individually for each sensor and are displayed in green on the Irrrometer device screen.

To set the normal range for a sensor, enter the number associated with the beginning of the range in the left text field. Enter the number associated with the end of the range in the right text field.

**Transmitter Location (5):** The Latitude and Longitude of the transmitter's location.

Configure Irrrometer - V2.6  
[01] Cluster 100 W

Identification > Communication > **Transmitter**

<< 1) T1 2) T2 3) U3 open 4) U4 open >>

Irrrometer Transmitter  
1) T1 3 of 3

1) Field: P5

2) Angle L: \* 0 ° R: \* 180 °

3) Use Sensor Name

4) Moisture Zone

5) Transmitter Location

Latitude: [ ] Example: 61.457  
Longitude: [ ] Example: 169.963

Alarm Settings

Moisture: None Info Low High  
Battery Low: None Info Low High  
Sensor Error: None Info Low High

Battery: 9V 6V (4 AA)

\*Required

Reset Save Previous Next Done

Figure 223-1 1. Field  
2. Angle  
3. Use Sensor Name  
4. Moisture Zone  
5. Transmitter Location

# Device Management

## Irrrometer Configuration Transmitter (Continued)

### Alarm Settings:

- **Moisture Alarm:** Monitors the moisture level for change.
- **Battery Low Alarm:** Monitors the transmitter battery voltage. Alarm trigger is based on battery type selected.
- **Sensor Error:** Monitors the sensor for errors.
- **Battery:** The battery voltage of the transmitter. Choose the battery voltage for the transmitter being monitored. Battery levels for alarm, 9 volt battery - 8.2 volts and lower will trigger the alarm.  
6 volt (4 AA batteries) - 5.3 volts and lower will trigger the alarm.

Configure Irrrometer - V2.6  
[01] Cluster 100 W

Identification > Communication > **Transmitter**

<< 1) T1 2) T2 3) U3 open 4) U4 open >>

Irrrometer Transmitter 3 of 3  
1) T1

Field: P5

Angle L: 0° R: 180°

Moisture Zone

Use Sensor Name	Lower	Upper
<input checked="" type="checkbox"/> 1 . TEMP		
<input checked="" type="checkbox"/> 2 . T1 s2 6in.	30	60
<input checked="" type="checkbox"/> 3 . T1 s3 12in	30	60
<input checked="" type="checkbox"/> 4 . T1 s4 18in	30	60

Transmitter Location

Latitude: [ ] Example: 61.457  
Longitude: [ ] Example: 169.963

Alarm Settings

① Moisture	None	Info	Low	High
② Battery Low	None	Info	Low	High
③ Sensor Error	None	Info	Low	High
④ Battery:	9V	6V (4 AA)		

\*Required

Reset Save Previous Next Done

Figure 224-1 1. Moisture 3. Sensor Error  
2. Battery Low 4. Battery

## Pump Control Configuration

### Yaskawa Pump

#### First-Time Setup

To configure a Yaskawa Pump Control do the following. See Figure 225-1.

With the View Type set to Device Management, click **Add Device** and select **Pump Control**. Select **Yaskawa iQpump 1000** from the drop-down menu under **Pump Control Mode**. Enter the **PLC Address**, **RTU ID**, and **Device Name** and select the **Farm** and **Channel**. If needed, add in the **IP Address** and **IP Port** as well. When done click **Save**. See Figure 225-1.

The **Connect** button will send and receive information from the device and complete configuration.

**Pump Control Model (required):** Select **Yaskawa iQpump 1000** from the drop down menu.

**PLC Address (required):** The Programmable Logic Controller (PLC) is referred to as a “drive”, or VFD. It has an address that is used for communications with the Pump Link (often referred to as the “black box”), the BaseStation interface. Enter the address (4) that is used by the Yaskawa unit.

**RTU ID (required):** Enter the control panel RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Farm (required):** If more than one farm is available select the farm from the drop down list.

**Channel (required):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Enter IP Address:** Enter the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port:** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

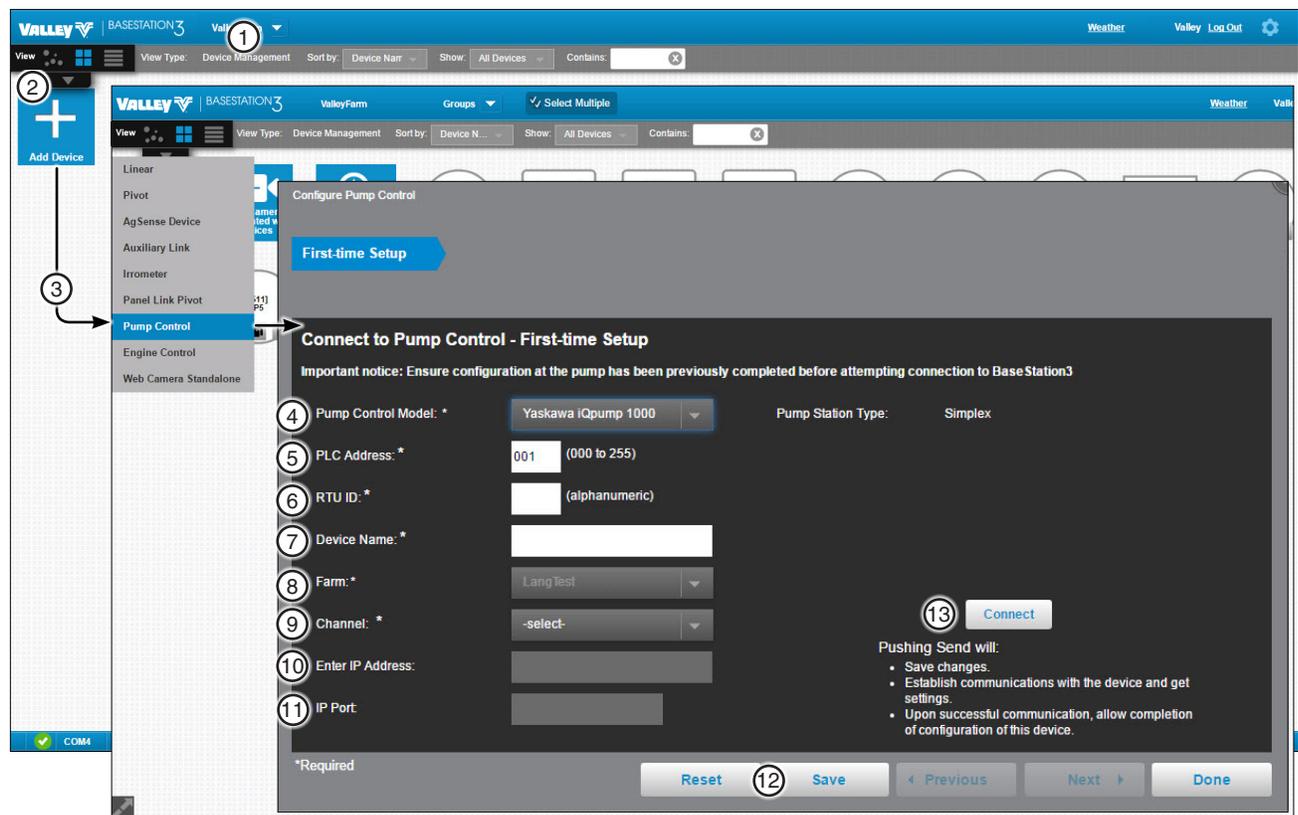


Figure 225-1 1. Device Management View Type  
2. Add Device  
3. Pump Control  
4. Pump Control Model

5. PLC Address  
6. RTU ID  
7. Device Name  
8. Farm

9. Channel  
10. Enter IP Address  
11. IP Port  
12. Save  
13. Connect

# Device Management

## Pump Control Configuration

### Yaskawa Pump (Continued)

### Change Pump Configuration

To change the configuration of a pump control do the following. With the View Type set to **Device Management**, click **Change** to open the configuration screen. All of the values on the configuration screen can be changed. When finished click **Done**. See Figure 226-1.

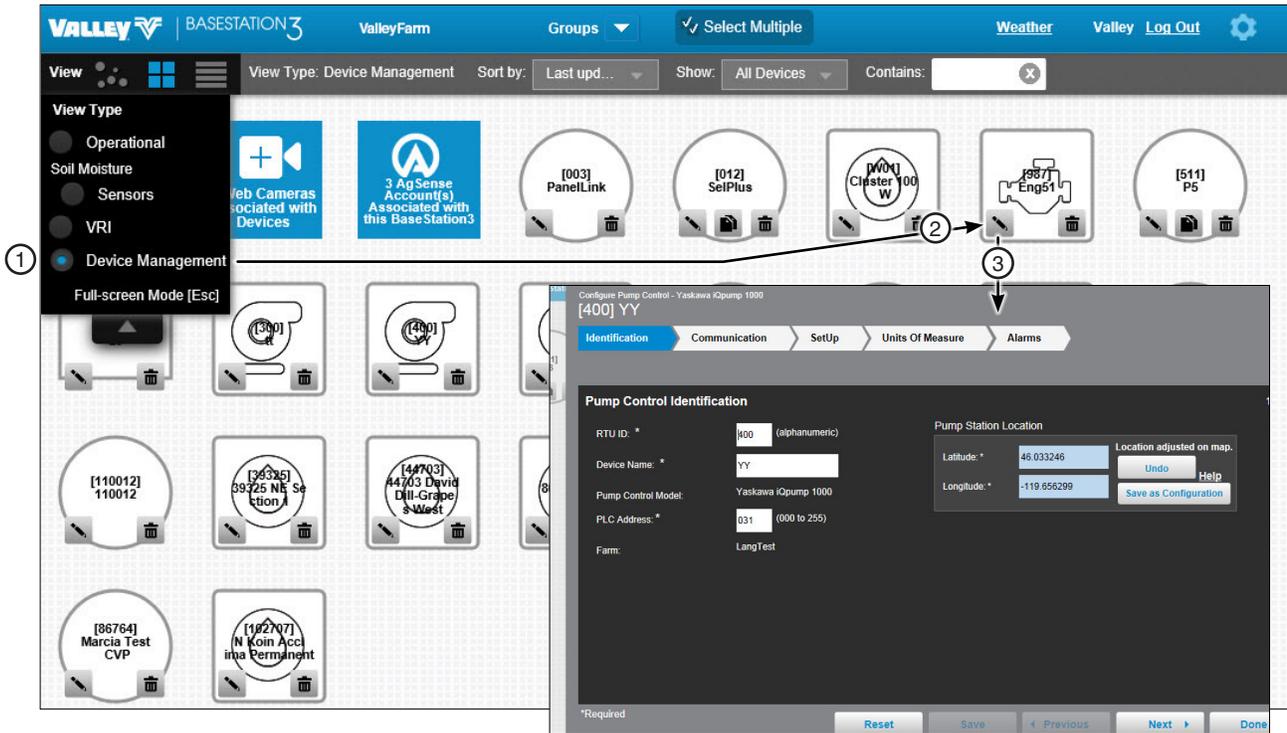


Figure 226-1 1. Device Management View Type 2. Change Button 3. Configuration Screen

## Pump Control Configuration Yaskawa Pump (Continued)

### Identification

The identification screen describes the physical attributes of the Yaskawa pump control. The RTU ID, Device Name, PLC Address, and Latitude and Longitude are required. See Figure 227-1.

**RTU ID (1) (required):** Enter the control panel RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (2) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Pump Control Model (3):** Yaskawa iQpump 1000 should be pre-populated based on initial setup.

**PLC Address (4) (required):** The Programmable Logic Controller (PLC) is referred to as a “drive,” or VFD. It has an address that is used for communications with the Pump Link (often referred to as the “black box”), the BaseStation interface. Enter the PLC address that is used by the Yaskawa unit.

**Farm (5):** The Farm name should be pre-populated based on initial setup.

**Latitude and Longitude (6) (required):** The GPS location of the cart start of the travel location. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the linear cart on the Google Map, enter the known coordinates of the cart or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, click **Full Configuration** and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the linear cart on the map.

Configure Pump Control - Yaskawa iQpump 1000  
[400] YY

Identification Communication SetUp Units Of Measure Alarms

**Pump Control Identification** 1 of 5

① RTU ID: \* 400 (alphanumeric)

② Device Name: \* YY

③ Pump Control Model: Yaskawa iQpump 1000

④ PLC Address: \* 031 (000 to 255)

⑤ Farm: LangTest

⑥ Pump Station Location

Latitude: \* 46.033246 Location adjusted on map. Undo Help

Longitude: \* -119.656299 Save as Configuration

\*Required

Reset Save Previous Next Done

Figure 227-1

1. RTU ID	4. PLC Address
2. Device Name	5. Farm
3. Pump Control Model	6. Pump Station Location (Latitude and Longitude)

# Device Management

## Pump Control Configuration Yaskawa Pump (Continued)

### Communication

Use Communication to configure communications between BaseStation and the device. See Figure 228-1.

**Channel:** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel got to **Settings/BaseStation Settings/Communication/Channels**.

**IP Address:** The Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port:** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off:** The periodic request based on the polling period that BaseStation makes for machine status from the device.

**Polling Period:** The time in minutes between polling tries for obtaining machine status. The default time is 30 minutes.

**Number of Times to Send Messages:** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

**Time to Wait for Acknowledgement:** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Message limitation.

**Alarm Contact List:** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Alarm Contacts/Contact Lists**.

Identification   **Communication**   SetUp   Units Of Measure   Alarms

**Pump Control Communication** 2 of 5

① Channel: \* com1

② IP Address:

③ IP Port:

④ Polling Off On

⑤ Polling Period: \* minutes

⑥ No. of Times to Send Messages: \* 2

⑦ Wait for Acknowledgement: \* 5 seconds

⑧ Alarm Contact List None

\*Required

Reset Save Previous Next Done

Figure 228-1 1. Channel 2. IP Address 3. IP Port 4. Polling On/Off 5. Polling Period 6. Number of Times to Send Messages 7. Wait for Acknowledgement 8. Alarm Contact List

## Pump Control Configuration Yaskawa Pump (Continued)

### Setup

#### Configured Pump List

The Pump Control Setup shows the settings and setup for the Yaskawa pump control. The Configured Pump List displays the Pump Label and allows the user to check if they want it to show on panel. See Figure 229-1.

#### Pump Station Settings

The Pump Station Settings displays the settings for the Yaskawa pump control. The Low Pressure Threshold, High Pressure Threshold and Counter Label are required. See Figure 229-1.

**Pressure Set Point:** The pressure required by the irrigation machine. The pump controller is requested to deliver this pressure to the irrigation machine.

**Low Pressure Threshold:** The threshold for a shutdown if the water pressure falls below the number. The threshold number is set by subtracting from the Pressure Set Point.

**High Pressure Threshold:** The threshold for a shutdown if the water pressure goes above the number. The threshold number is set by adding to the Pressure Set Point.

**Resettable Volume Counter:** The pump controller is recording the accumulated water volume that has been pumped. The Resettable Counter can be used as a periodic total, that can be reset (9) for the next record-able period.

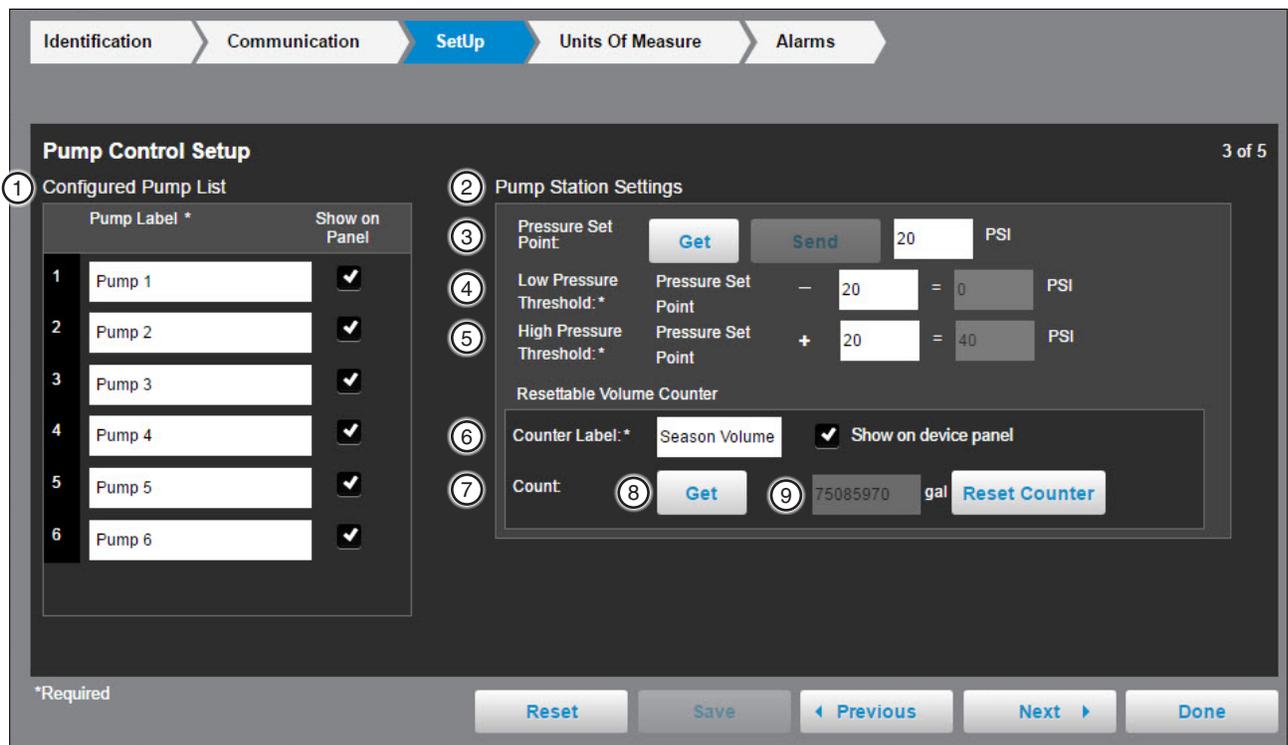


Figure 229-1

1. Configured Pump List	4. Low Pressure Threshold	7. Count
2. Pump Station Settings	5. High Pressure Threshold	8. Get
3. Pressure Set Point	6. Counter Label	9. Reset Counter

# Device Management

## Pump Control Configuration Yaskawa Pump (Continued)

### Units of Measure

The Units of Measurement Settings can be set for the Flow Rate Units, Total Volume Units, Pressure and Frequency-Drive Speed.

**Flow (1):** Flow is monitored by a meter or sensor. Flow includes the flow rate in Gallons per Minute (GPM) and the Total Volume of flow measured. The Flow Rate Units and the Total Volume Units is read from the setup configured in the VFD controller.

**Pressure (2):** Water Pressure is measured by the control panel with a sensor. The sensor can be installed at any significant location in the pipe that is delivering water to the field. Typically, the machine pressure sensor is located midway in the riser pipe of the pivot or linear machine. Pressure is shown as units according to the user preference, PSI or kPa.

**Frequency - Drive Speed (3):** Frequency - Drive Speed is the frequency of the AC voltage applied to the pump, by the controller. This controls the speed of the pump motor. The pump speed is controlled by the VFD frequency. This shows the units of measure, and the minimum and maximum drive speed that is configured in the VFD controller.

Identification > Communication > Setup > **Units Of Measure** > Alarms

**Units of Measurement Settings** 4 of 5

① Flow:

Flow Rate Units: GPM  Show on device panel  
A flow meter must be present to display flow rate.

Total Volume Units: gal  
Seasonal Volume will use the same units of measurement.

② Pressure:

Pressure Units: PSI  
Pressure Set Point Units: PSI

③ Frequency-Drive Speed:

Units: Hz  
Min-Max: 40-60 Hz

④ **Get Settings**

\*Required

Reset Save < Previous Next > Done

Figure 230-1 1. Flow 2. Pressure 3. Frequency-Drive Speed 4. Get Settings

## Pump Control Configuration Yaskawa Pump (Continued)

### Alarms

Alarms can be set for each device to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state. To change the alarm level for an alarm, choose the desired alarm level icon. When complete click **Done**.

- Current State is the last machine state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

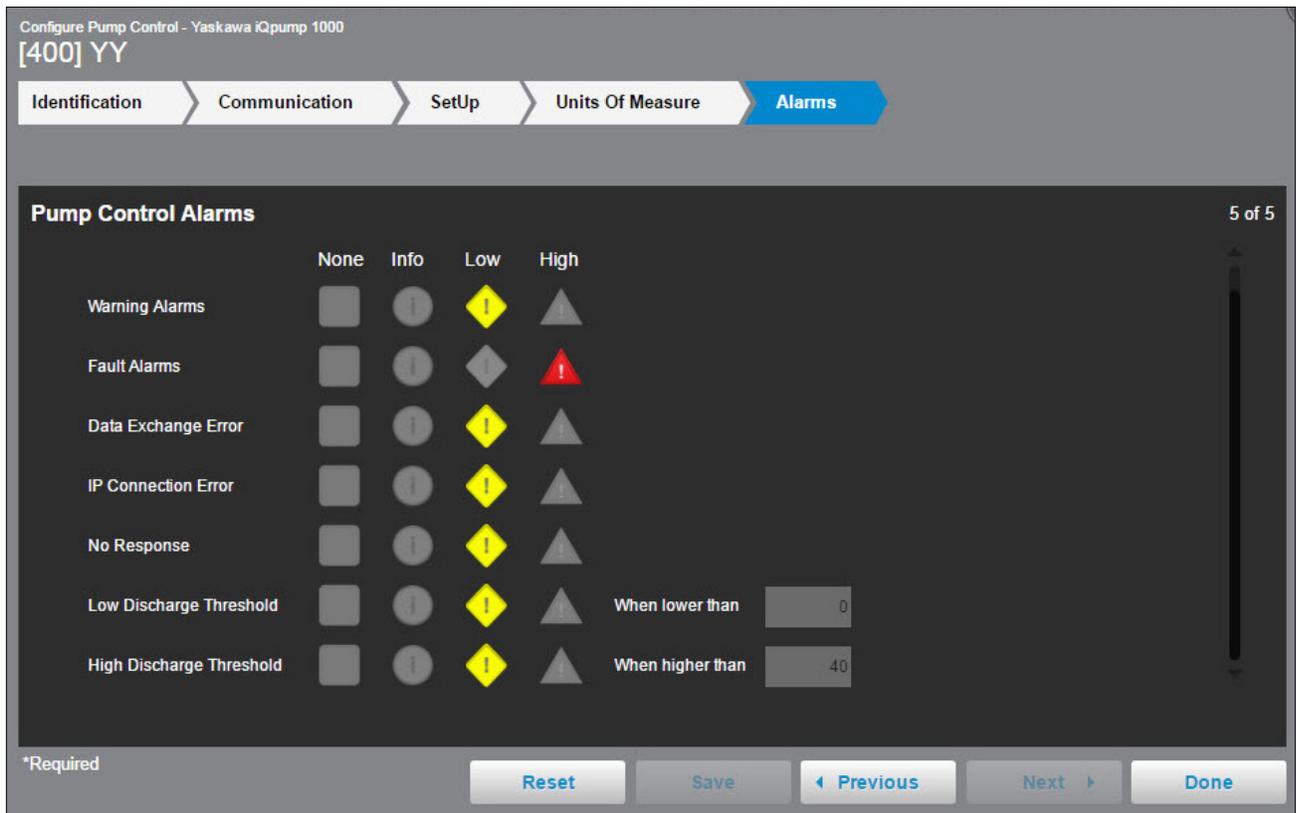


Figure 231-1

# Device Management

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## Pump Control Configuration Vacon 100 Flow Pump First-Time Setup

To configure a Vacon Pump Control do the following. See Figure 233-1.

With the View Type set to Device Management, click **Add Device** and select **Pump Control**. Select **Vacon 100 Flow** from the drop-down menu under **Pump Control Model**. Enter the **PLC Address**, **RTU ID**, and **Device Name** and select the **Farm** and **Channel**. If needed, add in the **IP Address** and **IP Port** as well. When done click **Save**. See Figure 233-1.

The **Connect** button will send and receive information from the device and complete configuration.

**Pump Control Model (4) (required):** Select **Vacon 100 Flow** from the drop down menu.

**PLC Address (5) (required):** The Programmable Logic Controller (PLC) is referred to as a “drive,” or VFD. It has an address that is used for communications with the Pump Link (often referred to as the “black box”), the BaseStation interface. Enter the PLC address that is used by the Vacon 100 Flow unit.

**RTU ID (6) (required):** Enter the pump’s RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (7) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Farm (8) (required):** If more than one farm is available select the farm from the drop down list.

**Channel (9) (required):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Enter IP Address (10):** Enter the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port (11):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

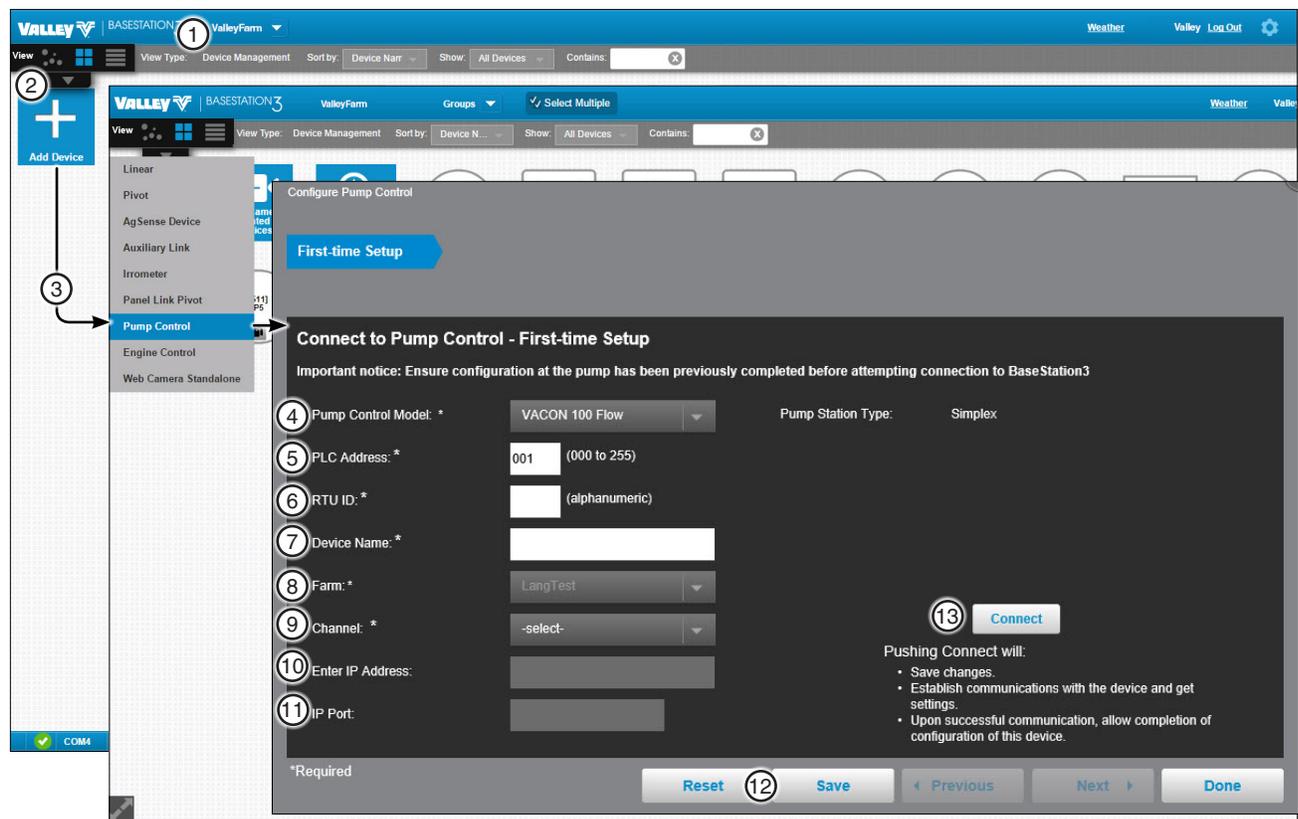


Figure 233-1 1. Device Management View Type  
2. Add Device  
3. Pump Control  
4. Pump Control Model

5. PLC Address  
6. RTU ID  
7. Device Name  
8. Farm

9. Channel  
10. Enter IP Address  
11. IP Port  
12. Save Button  
13. Connect Button

# Device Management

## Pump Control Configuration

### Vacon 100 Flow Pump (Continued)

#### Change Pump Control Configuration

To change the configuration of a pump control do the following. With the View Type set to **Device Management**, click **Change** to open the configuration screen. All of the values on the configuration screen can be changed. When finished click **Done**. See Figure 234-1.

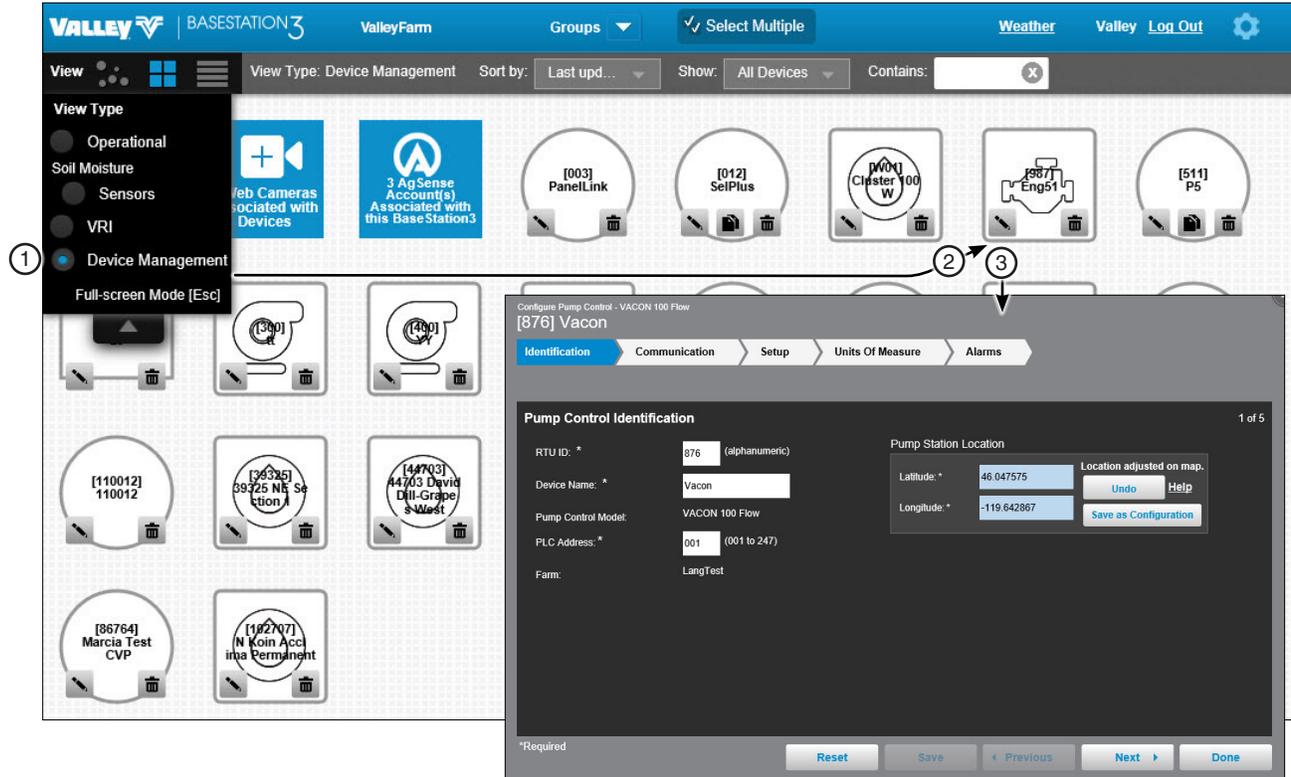


Figure 234-1 1. Device Management View Type 2. Change 3. Configuration Screen

## Pump Control Configuration Vacon 100 Flow Pump (Continued)

### Identification

The identification screen describes the physical attributes of the Vacon pump control. The RTU ID, Device Name, PLC Address, and Latitude and Longitude are required. See Figure 235-1.

**RTU ID (1) (required):** Enter the pump's RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (2) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Pump Control Model (3):** Vacon 100 Flow should be pre-populated based on initial setup.

**PLC Address (4) (required):** The Programmable Logic Controller (PLC) is referred to as a "drive," or VFD. It has an address that is used for communications with the Pump Link (often referred to as the "black box"), the BaseStation interface. Enter the PLC address that is used by the Vacon unit.

**Farm:** The (5) Farm name should be pre-populated based on initial setup.

**Pump Station Location (6) (required):** The GPS location of the pump. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the pump, enter the known coordinates of the pump or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, click **Full Configuration** and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the pump on the map.

Configure Pump Control - VACON 100 Flow  
[876] Vacon

Identification Communication Setup Units Of Measure Alarms

**Pump Control Identification** 1 of 5

① RTU ID: \* 876 (alphanumeric)

② Device Name: \* Vacon

③ Pump Control Model: VACON 100 Flow

④ PLC Address: \* 001 (001 to 247)

⑤ Farm: LangTest

⑥ Pump Station Location

Latitude: \* 46.047575 Location adjusted on map. Undo Help

Longitude: \* -119.642867 Save as Configuration

\*Required

Reset ⑦ Save Previous Next Done

Figure 235-1

1. RTU ID	4. PLC Address	7. Save
2. Device Name	5. Farm	
3. Pump Control Model	6. Pump Station Location (Latitude and Longitude)	

# Device Management

## Pump Control Configuration Vacon 100 Flow Pump (Continued)

### Communication

Use Communication to configure communications between BaseStation and the device. See Figure 236-1.

**Channel (1):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel got to **Settings/BaseStation Settings/Communication/Channels**.

**IP Address (2):** The Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port (3):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off (4):** The periodic request based on the polling period that BaseStation makes for pump status from the device.

**Polling Period (5):** The time in minutes between polling tries for obtaining pump status. The default time is 30 minutes.

**Number of Times to Send Messages (6):** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

**Wait for Acknowledgement (7):** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Message limitation.

**Alarm Contact List (8):** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact List**.

The screenshot shows the 'Pump Control Communication' configuration screen. At the top, there is a navigation bar with tabs for 'Identification', 'Communication' (selected), 'Setup', 'Units Of Measure', and 'Alarms'. Below the navigation bar, the title 'Pump Control Communication' is displayed on the left, and '2 of 5' is on the right. The main configuration area contains the following fields:

- 1 Channel: \* (Dropdown menu showing 'com1')
- 2 IP Address: (Text input field)
- 3 IP Port: (Text input field)
- 4 Polling: (Toggle switch set to 'Off')
- 5 Polling Period: \* (Text input field with 'minutes' label)
- 6 No. of Times to Send Messages: \* (Text input field with value '2')
- 7 Wait for Acknowledgement: \* (Text input field with value '5' and 'seconds' label)
- 8 Alarm Contact List: (Dropdown menu showing 'None')

At the bottom left, there is a note '\*Required'. At the bottom right, there are buttons for 'Reset', 'Save' (circled with a 9), 'Previous', 'Next', and 'Done'.

Figure 236-1 1. Channel 4. Polling On/Off 7. Wait for Acknowledgement  
2. Enter IP Address 5. Polling Period 8. Alarm Contact List  
3. IP Port 6. No. of Times to Send Messages 9. Save

## Pump Control Configuration Vacon 100 Flow Pump (Continued)

### SetUp

#### Configured Pump List

The Pump Control Setup shows the settings and setup for the Vacon pump control. The Configured Pump List displays the Pump Label and allows the user to check if they want it to show on panel. See Figure 237-1.

#### Pump Station Settings

The Pump Station Settings displays the settings for the Vacon pump control. The Low Pressure Threshold, High Pressure Threshold and Counter Label are required. See Figure 237-1.

**Pressure Set Point (2):** The pressure required by the irrigation machine. The pump controller is requested to deliver this pressure to the irrigation machine.

**Low Pressure Threshold (3):** The threshold for a shutdown if the water pressure falls below the number. The threshold number is set by subtracting from the Pressure Set Point.

**High Pressure Threshold (4):** The threshold for a shutdown if the water pressure goes above the number. The threshold number is set by adding to the Pressure Set Point.

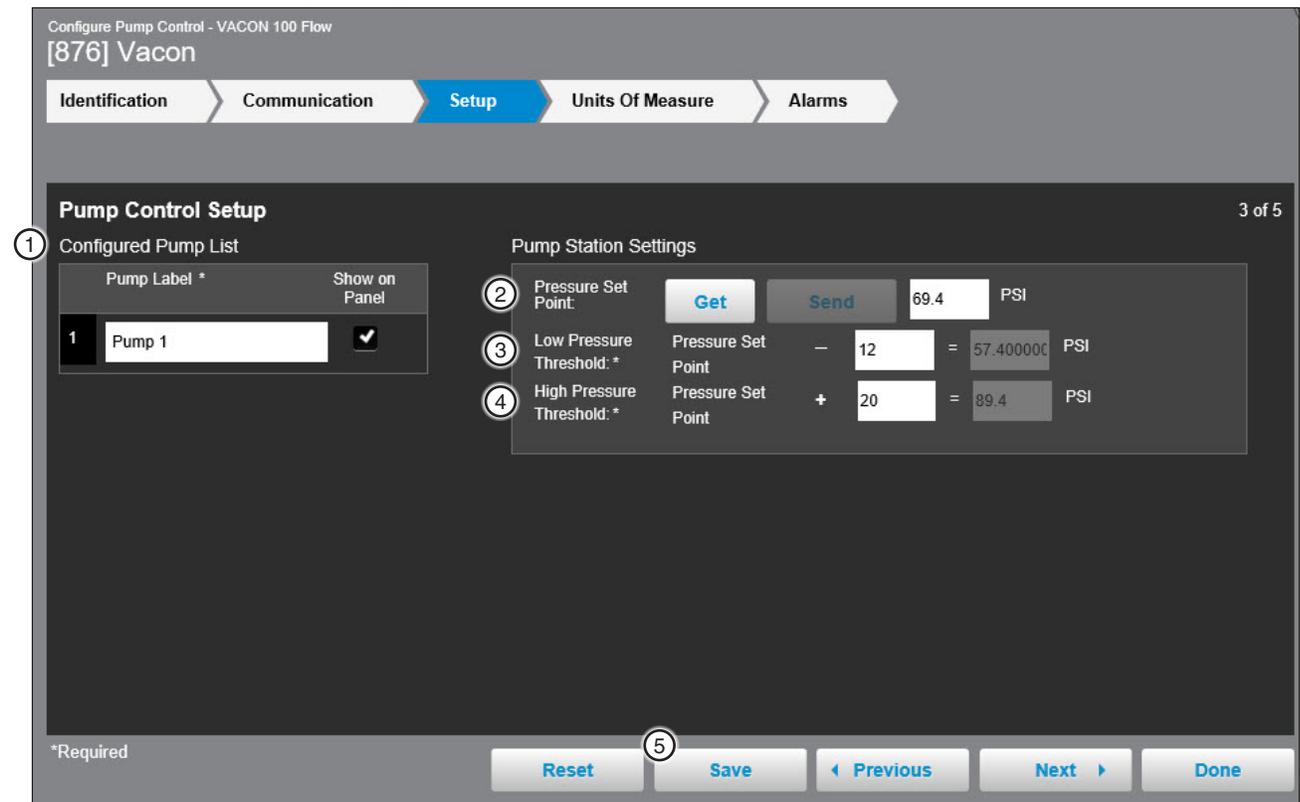


Figure 237-1

1. Configured Pump List
2. Pressure Set Point

3. Low Pressure Threshold
4. High Pressure Threshold

5. Save



## Pump Control Configuration Vacon 100 Flow Pump (Continued)

### Alarms

Alarms can be set for each device to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state. To change the alarm level for an alarm, choose the desired alarm level icon. When complete click **Done**.

- Current State is the last pump state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

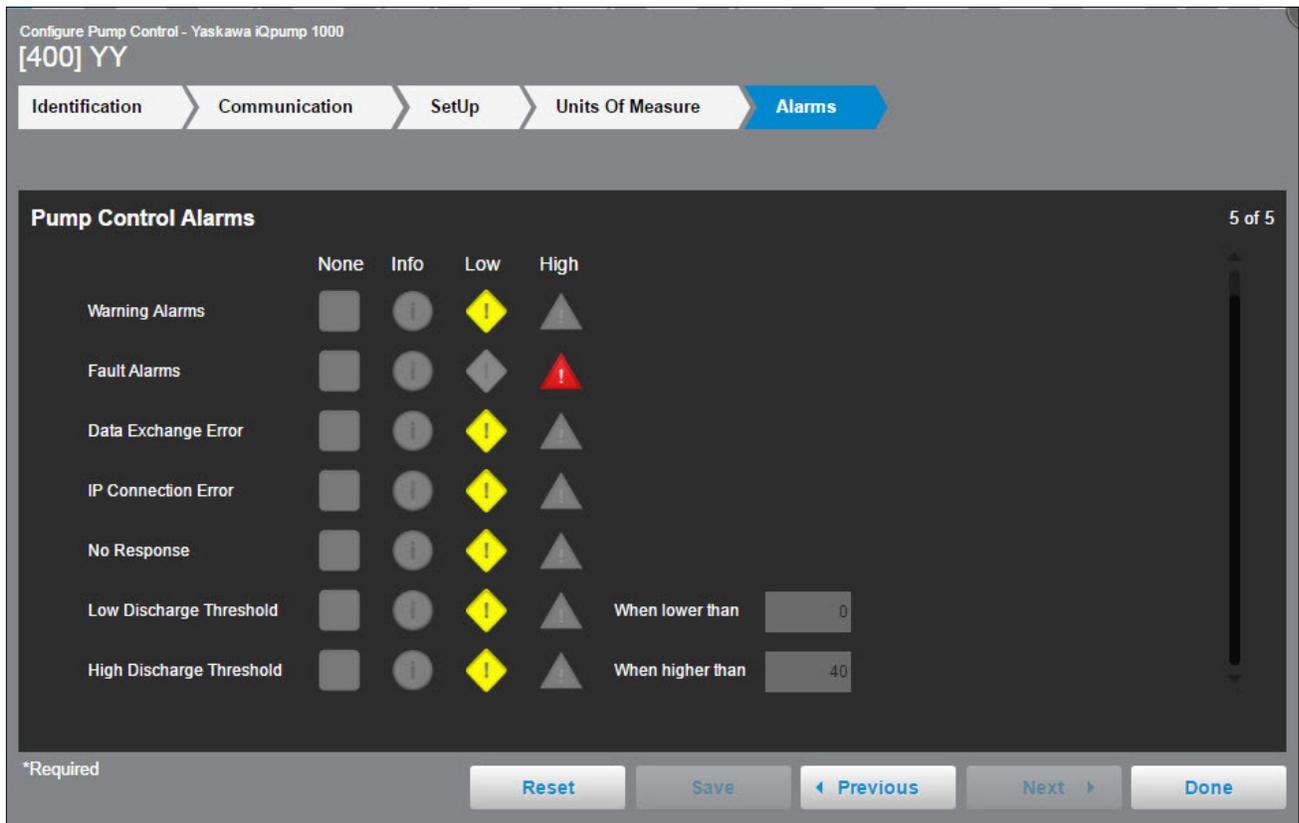


Figure 239-1

# Device Management

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## Pump Control Configuration

### Torrent Pump

#### First-Time Setup

To configure a Torrent Pump Control do the following (see Figure 241-1):

With the View Type set to Device Management, click **Add Device** and select **Pump Control**. Select **Torrent** from the drop-down menu under **Pump Control Model**. Enter the **PLC Address**, **RTU ID**, **Device Name**, select the **Farm** and **Channel**. If needed, enter the information to the **Enter IP Address** and **IP Port** fields as well. When done click **Save**. See Figure 241-1.

The **Connect** button will send and receive information from the device and complete configuration.

**Pump Control Model (4) (required):** Select **Torrent** from the drop down menu.

**PLC Address (5) (required):** The Programmable Logic Controller (PLC) is referred to as a “drive,” or VFD. It has an address that is used for communications with the Pump Link (often referred to as the “black box”), the BaseStation interface. Enter the PLC address that is used by the Torrent unit.

**RTU ID (6) (required):** Enter the RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (7) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Farm (8) (required):** If more than one farm is available select the farm from the drop down list.

**Channel (9) (required):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Enter IP Address (10):** Enter the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port (11):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

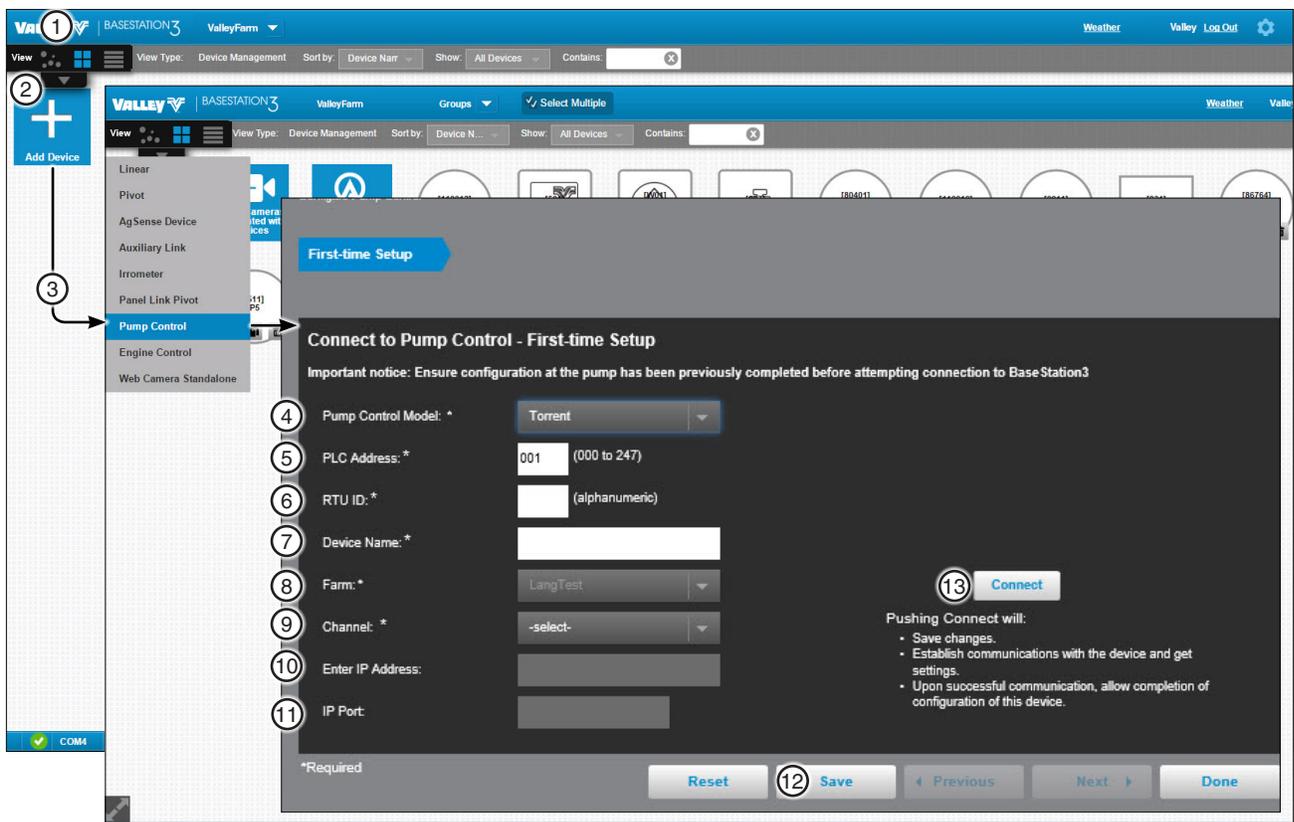


Figure 241-1

1. Device Management View Type	5. PLC Address	9. Channel
2. + Add Device	6. RTU ID	10. Enter IP Address
3. Pump Control	7. Device Name	11. IP Port
4. Pump Control Model	8. Farm	12. Save
		13. Connect

# Device Management

## Pump Control Configuration Torrent Pump (Continued)

### Change Pump Control Configuration

To change the configuration of a pump control do the following. With the View Type set to **Device Management**, click **Change** to open the configuration screen. All of the values on the configuration screen can be changed. When finished, click **Done**. See Figure 242-1.



Figure 242-1 1. Device Management View Type 2. Change Button 3. Configuration Screen

## Pump Control Configuration Torrent Pump (Continued)

### Identification

The identification screen describes the physical attributes of the Torrent pump control. The RTU ID, Device Name, PLC Address, and Latitude and Longitude are required. See Figure 243-1.

**RTU ID (1) (required):** Enter the pump RTU ID. The RTU ID must be unique and cannot match any other device.

**Device Name (2) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Pump Control Model (3):** Torrent should be pre-populated based on initial setup.

**PLC Address (4) (required):** The Programmable Logic Controller (PLC) is referred to as a “drive,” or VFD. It has an address that is used for communications with the Pump Link (often referred to as the “black box”), the BaseStation interface. Enter the PLC address that is used by the Torrent unit.

**Farm (5):** The Farm name should be pre-populated based on initial setup.

**Pump Station Location (6) (required):** GPS location of the pump. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the pump on the Google Map, enter the known coordinates of the pump or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, click **Full Configuration** and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the pump on the map.

Configure Pump Control - Torrent  
300] tt

Identification Communication Setup Alarms

**Pump Control Identification** 1 of 4

1 RTU ID: \* 300 (alphanumeric)

2 Device Name: \* tt

3 Pump Control Model: Torrent

4 PLC Address: \* 001 (001 to 247)

5 Farm: LangTest

**Pump Station Location** 6

Latitude: \* 46.041884 Location adjusted on map. Undo Help

Longitude: \* -119.649131 Save as Configuration

\*Required Reset Save Previous Next Done

Figure 243-1

1. RTU ID	4. PLC Address
2. Device Name	5. Farm
3. Pump Control Model	6. Pump Station Location (Latitude and Longitude)

# Device Management

## Pump Control Configuration Torrent Pump (Continued)

### Communication

Use Communication to configure communications between BaseStation and the device. See Figure 244-1.

**Channel (1):** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel got to **Settings/BaseStation Settings/Communication/Channels**.

**IP Address (2):** The Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**IP Port (3):** The port associated with the Internet Protocol address. Only available when an Ethernet channel is selected from the Channel drop down menu.

**Polling On/Off (4):** The periodic request based on the polling period that BaseStation makes for pump status from the device.

**Polling Period (5):** The time in minutes between polling tries for obtaining pump status. The default time is 30 minutes.

**Number of Times to Send Messages (6):** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

**Time to Wait for Acknowledgement (7):** The amount of time that the BaseStation will wait for a response from the device (default value is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Message limitation.

**Alarm Contact List (8):** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Alarm Contacts/Contact Lists**.

Identification Communication Setup Alarms

Pump Control Communication 2 of 4

1 Channel: \* com1

2 IP Address:

3 IP Port:

4 Polling Off On

5 Polling Period: \* 30 minutes

6 No. of Times to Send Messages: \* 2

7 Wait for Acknowledgement: \* 5 seconds

8 Alarm Contact List None

\*Required

Reset Save Previous Next Done

Figure 244-1 1. Channel 4. Polling 7. Wait for Acknowledgement  
2. IP Address 5. Polling Period 8. Alarm Contact List  
3. IP Port 6. No. of Times to Send Messages

## Pump Control Configuration Torrent Pump (Continued) Setup

### Configured Pump List

The Pump Control Setup shows the settings and setup for the Torrent pump control. The Configured Pump List displays the Pump Label and allows the user to enable it to show on panel. See Figure 245-1.

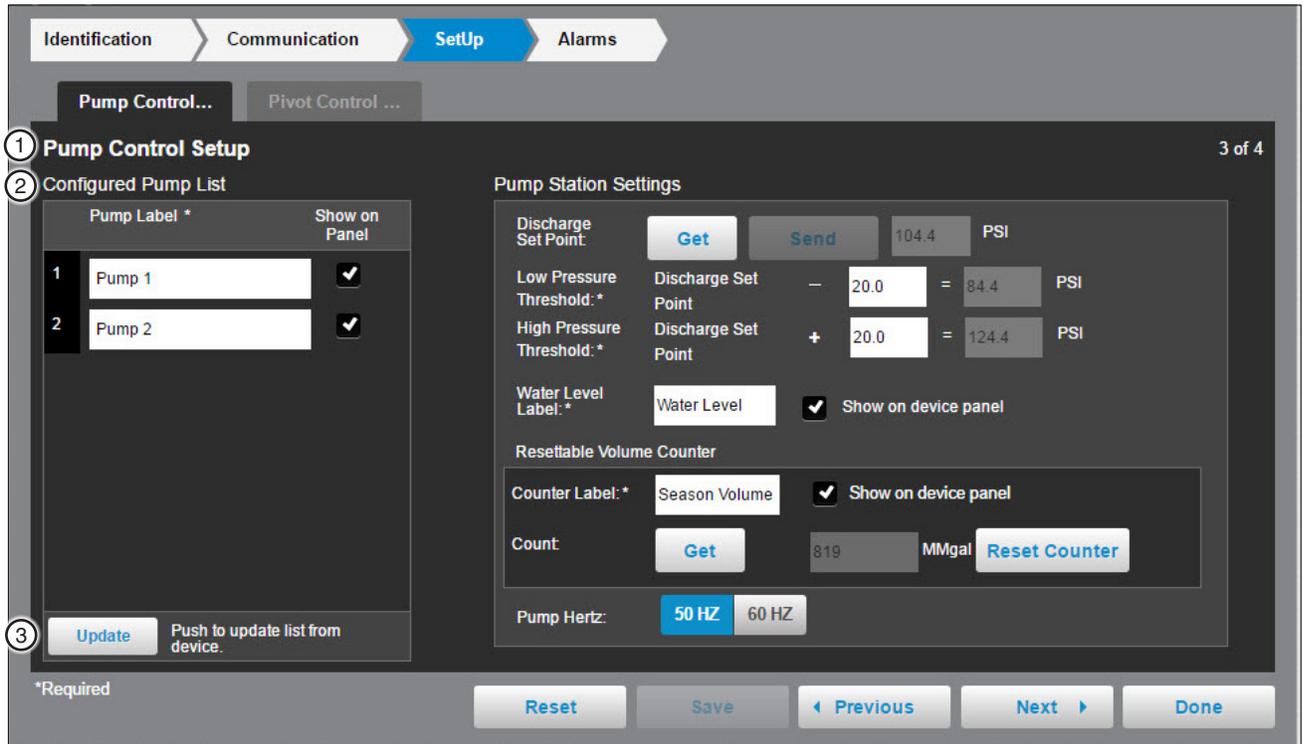


Figure 245-1 1. Pump Control Setup 2. Configured Pump List 3. Update

# Device Management

## Pump Control Configuration Torrent Pump (Continued)

### Setup (Continued)

#### Pump Station Settings

The Pump Station Settings displays the settings for the Torrent pump control. The Low Pressure Threshold, High Pressure Threshold, Water Level Label and Counter Label are required. See Figure 246-1.

**Pump Station Settings (1):** Displays the settings for the pump control.

**Discharge Set Point (2):** The desired pressure to be maintained by the pump controller.

**Get (3):** The Get button requests current information from the pump.

**Low Pressure Threshold (4):** The threshold for a shutdown if the water pressure falls below the number. The threshold number is set by subtracting from the Discharge Set Point.

**High Pressure Threshold (5):** The threshold for a shutdown if the water pressure goes above the number. The threshold number is set by adding to the Discharge Set Point.

**Water Level Label (6):** A descriptive label for the pump's water source.

**Resettable Volume Counter (7):** The pump controller is recording the accumulated water volume that has been pumped. The Resettable Counter can be used as a periodic total, that can be reset for the next recordable period.

**Counter Label (8):** A descriptive label for the Resettable Volume Counter.

**Count (9):** The actual volume count accumulated in the controller.

**Reset Counter (10):** Resets the MM/Gal counter.

**Pump Hertz (11):** The pump manufacturer's model specification for the operating frequency.

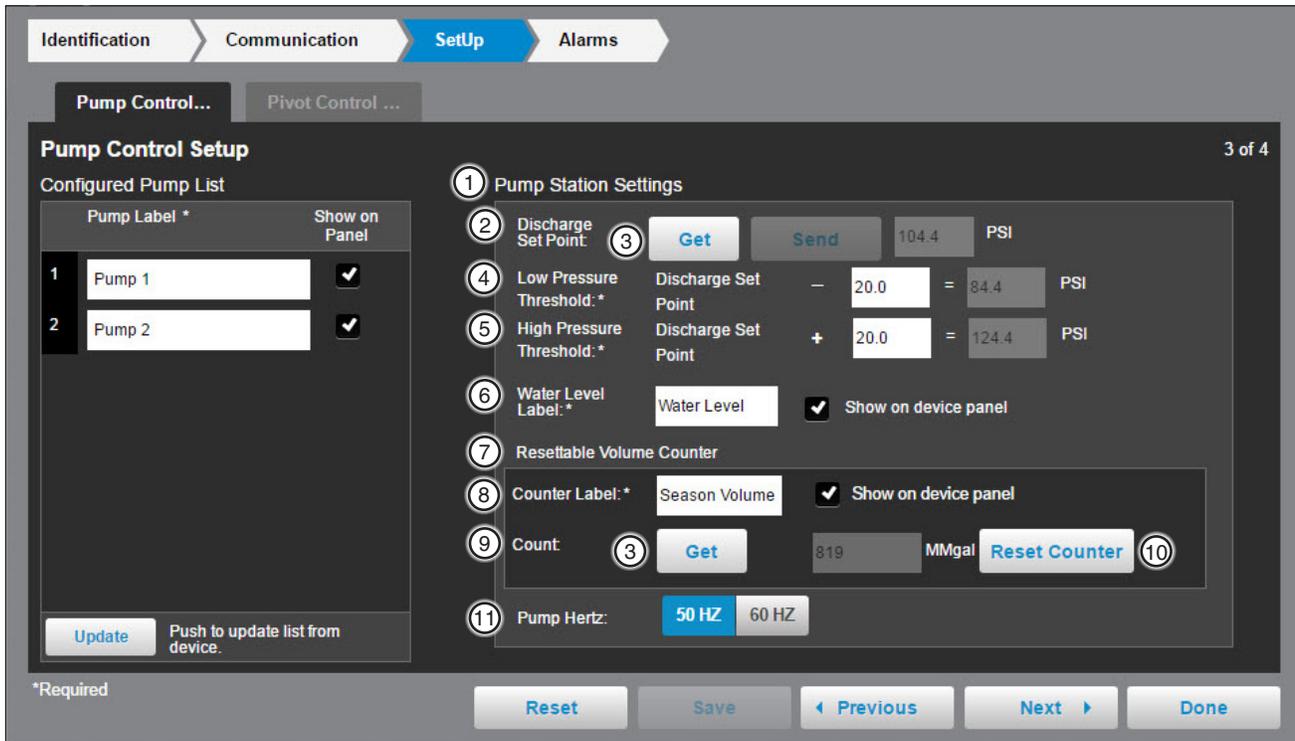


Figure 246-1

- |                           |                              |                   |
|---------------------------|------------------------------|-------------------|
| 1. Pump Station Settings  | 5. High Pressure Threshold   | 9. Count          |
| 2. Discharge Set Point    | 6. Water Level Label         | 10. Reset Counter |
| 3. Get                    | 7. Resettable Volume Counter | 11. Pump Hertz    |
| 4. Low Pressure Threshold | 8. Counter Label             |                   |

## Pump Control Configuration

### Torrent Pump (Continued)

### Setup (Continued)

#### Pivot Control Table

The Pivot Control Table displays the Position, RTU ID, Device Name, PSI Set Point and RTU ID Status. It can be synced. See Figure 247-1.

**Position:** The position of the pivot in the pivot control table.

**RTU ID:** The address of the Remote Terminal Unit that BaseStation can communicate with. It is a three character string that complies with the protocol requirement for the associated panel type.

**Device Name:** The name associated with the device.

**PSI Set Point:** The pressure required by the irrigation machine. The pump controller is requested to deliver this pressure to the irrigation machine. Same as Pressure Set Point.

**RTU ID Status:** Indicator that the irrigation machine is being monitored by BaseStation3, or not available for the pump controller to get pressure status.

The screenshot shows a configuration interface for a Torrent Pump. The title is 'Configure Pump Control - Torrent' with a sub-header '[300] tt'. There are four tabs: 'Identification', 'Communication', 'Setup' (selected), and 'Alarms'. Below the tabs are two sub-tabs: 'Pump Control...' and 'Pivot Control ...'. The main area is titled 'Pivot Control Table' and contains a table with 9 rows. The columns are 'Position', 'RTU ID', 'Device Name', 'PSI Set Point', and 'RTU ID Status'. A 'SYNC' button is located below the table. At the bottom, there are buttons for 'Reset', 'Save', 'Previous', 'Next', and 'Done'. A '\*Required' label is present near the bottom left.

Position	RTU ID	Device Name	PSI Set Point	RTU ID Status
1	005		81.2	Not In BS3
2	000		82.7	Not In BS3
3	600	P6	84.1	OK
4	000		85.6	Not In BS3
5	000		87	Not In BS3
6	000		88.5	Not In BS3
7	002		89.9	Not In BS3
8	000		91.4	Not In BS3
9	000		92.8	Not In BS3

Figure 247-1

1. Pivot Control Table
2. Position
3. RTU ID

4. Device Name
5. PSI Set Point
6. RTU ID Status

7. Sync
8. Save

# Device Management

## Pump Control Configuration Torrent Pump (Continued)

### Alarms

Alarms can be set for each device to notify a contact list of users about various conditions. An alarm is activated when the current state is not the same as the expected state. To change the alarm level for an alarm, choose the desired alarm level icon. When complete, click **Done**.

- Current State is the last machine state reported by the device to the BaseStation.
- Expected State is the last commanded state sent to the device by the BaseStation or the acknowledged state as accepted by a user when clearing the alarm.

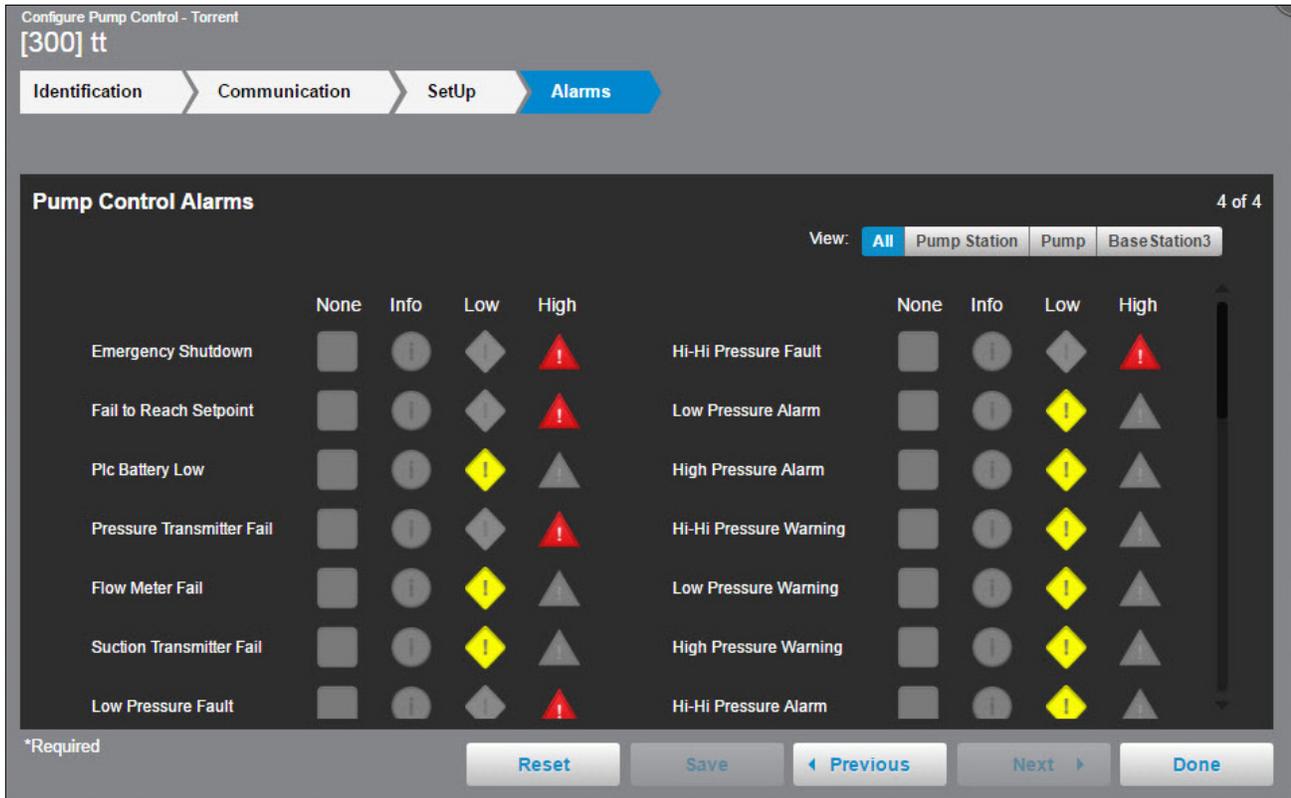


Figure 248-1

# Device Management

## Engine Control Configuration

The engine control device is for use with a Murphy Genset Controller Unit Model EMS-GC10. The use of other engine controls is not supported.

## Add Device

To configure an Engine Control do the following. See Figure 249-1.

With the View Type set to Device Management, click **Add Device** and select **Engine Control**. To connect to Engine Control, the user will enter the **RTU ID** and **Device Name**, then select the **Farm** (if more than one is available) and **Channel**.

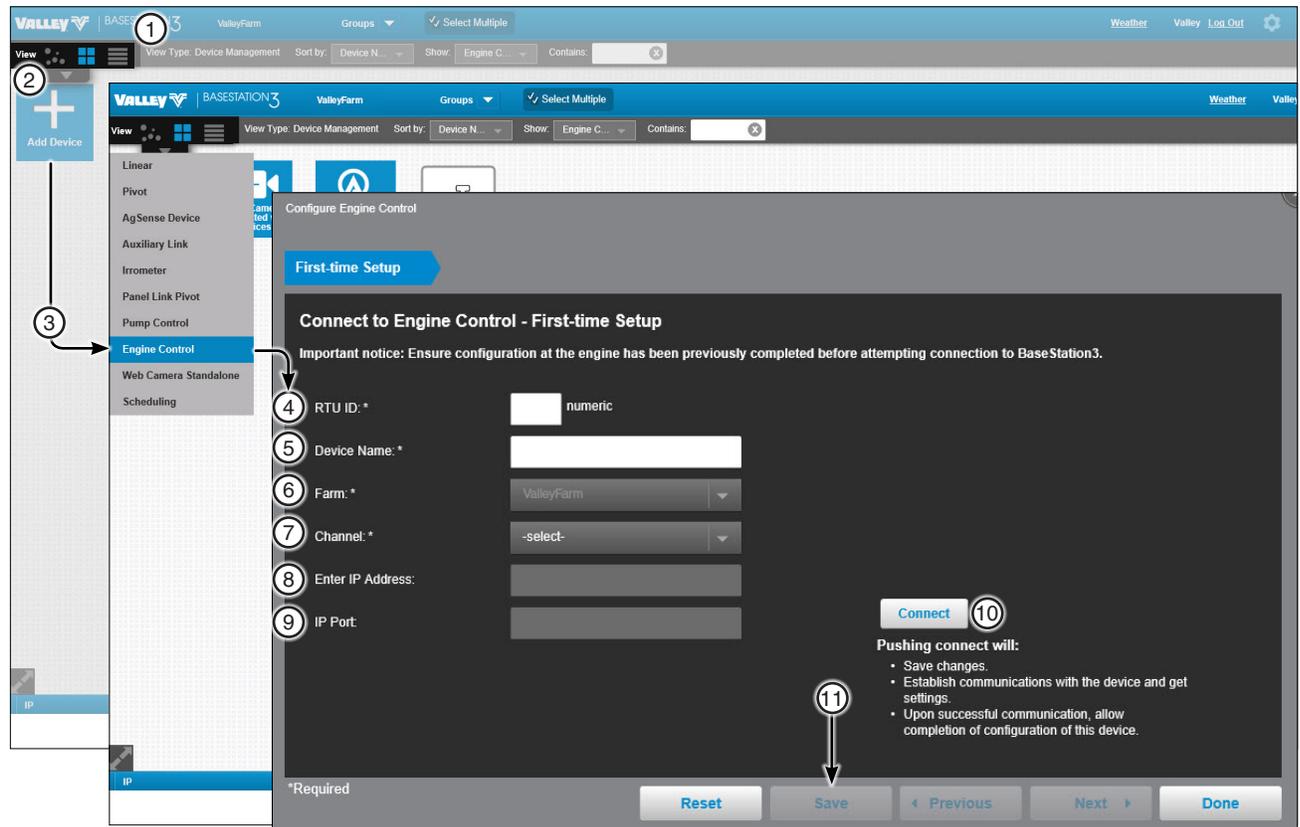


Figure 249-1

1. View Type - Device Management	5. Device Name	9. IP Port
2. + Add Device	6. Farm	10. Connect button
3. Engine Control	7. Channel	11. Save button
4. RTU ID	8. Enter IP Address	

# Device Management

## Engine Control Configuration

### Identification

Enter the **RTU ID** and **Device Name**. Select the **Engine Type** and choose the **Farm**. See Figure 250-1.

**Latitude and Longitude:** The GPS position of the device. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the device on the map, enter the known coordinates of the device or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the device on the map.

Configure Engine Control - V1.0  
[987]Eng51

Identification Communication Setup Alarms

1 Engine Control Identification 1 of 4

2 RTU ID: \* p87 numeric

3 Device Name: \* Eng51

4 Version: 1.0

5 Farm: LangTest

6 Engine Control Location

Latitude: \* 46.040127 Location adjusted on map. Undo Help

Longitude: \* -119.653895 Save as Configuration

7

\*Required

Reset Send & Save Previous Next Done

Figure 250-1 1. Engine Control Identification 4. Version 6. Engine Control Location  
2. RTU ID 5. Farm 7. Send & Save  
3. Device Name

## Engine Control Configuration Communication

Configure **Communications**. See Figure 251-1.

Select the **Channel** for communications. Turn on **Polling** and enter the **Polling Period** in minutes, the **No. of Times to Send Messages** and the **Wait for Acknowledgement** time in seconds. Select the **Alarm Contact List**. When done click **Save**.

**Channel:** The BaseStation channel used to communicate with the device. Select from the available channels on the drop down menu. To create a new channel go to **Settings/BaseStation Settings/Communication/Channels**.

**Polling On/Off:** The periodic request based on the polling percent that the BaseStation makes for status from the device.

**Polling Period:** The time in minutes between polling tries for obtaining machine status. The default time is 30 minutes.

**Number of Times to Send Messages:** The maximum number of attempts that will be made to communicate with the device. The default value is 2 tries. When a communication transaction is successful on the first attempt, the BaseStation will not continue with additional tries. When using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

**Wait for Acknowledgement:** The amount of time that the BaseStation will wait for a response from the device (default is 5 seconds). Using radios or trunking systems will delay the transmission of data. If a returned message is not received by the BaseStation within the allowed response time, the BaseStation will retry the transaction for as many attempts as specified in the Times to Send Messages limitation.

**Alarm Contact List:** Associates the device with a contact list of users that will be notified when an alarm occurs. Contact lists are created in **Settings/BaseStation Settings/Contacts/Contact List**.

Configure Engine Control - V1.0  
[987]Eng51

1. Communication

2. Channel: \* com1

3. IP Address:

4. IP Port:

5. Polling: Off On

6. Polling Period: \* 30 minutes

7. No. Times to Send Messages: \* 2

8. Wait for Acknowledgement: \* 5 seconds

9. Alarm Contact List: None

10. Send & Save

\*Required

Reset Send & Save Previous Next Done

Figure 251-1 1. Communication  
2. Channel  
3. IP Address

4. IP Port  
5. Polling  
6. Polling Period

7. No. Times to Send Messages  
8. Wait for Acknowledgement  
9. Alarm Contact List  
10. Send & Save

# Device Management

## Engine Control Configuration Setup

Engine Control **Setup**. See Figure 252-1.

**Switch Type:** The Run control type is determined by the local engine controller model. The controller may require just a pulse signal (Momentary) to toggle the Run/Stop command; or the controller may require a maintained input to sustain the Run/Stop state.

**Run Command Pulse Length:** When the Switch Type is set to Momentary, the Run Command Pulse Length sets the time duration that the Run signal is present.

**Stop Command Pulse Length:** When the Switch Type is set to Momentary, the Stop Command Pulse Length sets the time duration that the Stop signal is present.

**Engine Start Up Shutdown Delay:** This delay has two functions. For the start up function. This amount of time is allowed to manually start an engine with the start up state enabled. For the shutdown function, following a Stop command, the engine is allowed to run for this duration of time.

**Connected Devices:** This is a text entry for describing a device that is being powered by the engine. The entry is for user visibility only.

Configure Engine Control - V1.0  
[987]Eng51

1 Identification > Communication > **Setup** > Alarms

Engine Control Setup 3 of 4

2 Switch Type: \* Momentary

3 Run Command Pulse Length: \* 5 seconds

4 Stop Command Pulse Length: \* 4 seconds

5 Engine Start Up Shutdown Delay: \* 1 minutes

6 Connected Devices:

Pivots, Linears, or other devices that may be connected to this engine

\*Required

7

Reset Send & Save < Previous Next > Done

Figure 252-1

1. Setup
2. Switch Type
3. Run Command Pulse Length
4. Stop Command Pulse Length
5. Engine Start Up Shutdown Delay
6. Connected Devices
7. Send & Save

## Engine Control Configuration

### Alarms

Configure **Alarms**. See Figure 253-1.

Enter descriptions in the label fields for the **User Defined LEDs** that appear on the Murphy Genset Controller Unit. Choose the desired **View** button to determine how BaseStation displays an alarm for No Response, Fault Alarms and Warning Alarms. When done click **Save & Send**.

Additional alarm indication LEDs:

- Flashing: active, non-acknowledged alarm(s) where output A or B is configured to LED 1, 2, 3 or 4.
- Steady: active, acknowledged alarm(s) where output A or B is configured to LED 1, 2, 3 or 4.

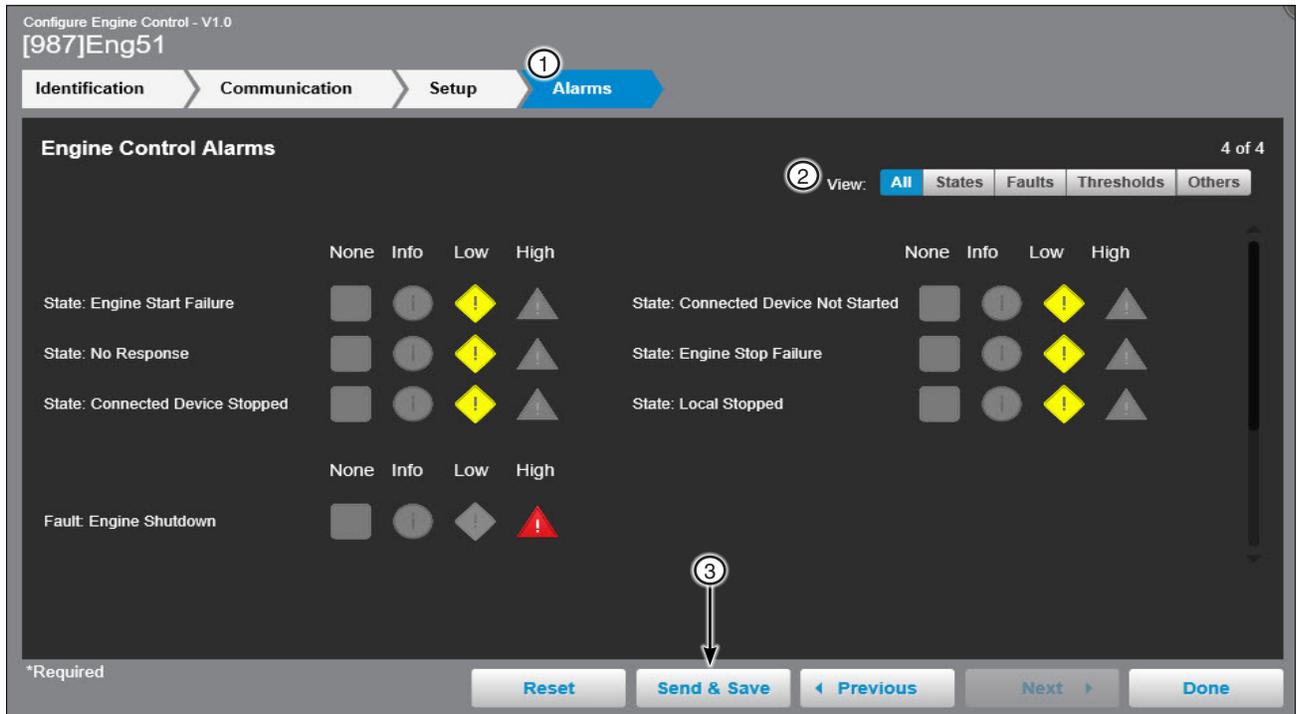


Figure 253-1 1. Alarms  
2. View

3. Send & Save

# Device Management

---

## Web Camera Configuration

To use a web camera as a standalone device on a farm or to associate the web camera with a device on a farm, The web camera must be set up with a modem and web address (Uniform Resource Locator (URL)) that is on the same network as the BaseStation. IP communications must be set up in BaseStation Settings.

### Add a Standalone Web Camera Device

To configure a Standalone Web Camera do the following. See Figure 255-1.

With the View Type set to Device Management, click **Add Device** and select **Web Camera Standalone**. Enter the **Web Camera Name** and select the **Farm**. Enter optional details about the camera in the description field. Enter the web camera location **Latitude** and **Longitude**. Enter the **Web Camera URL** and click **Test** to check the web address and camera operation. When done click **Save**. See Figure 255-1.

**Web Camera Name (4) (required):** Enter the device name. No special characters are allowed and field is limited to 20 characters.

**Farm (5) (required):** If more than one farm is available select the farm from the drop down list.

**Description (6):** Add details about the camera.

**Latitude and Longitude (7):** The GPS position of the device. The latitude and longitude are initially populated with the coordinates of the farm in which it is created.

In Google Map, to change the position of the device on the map, enter the known coordinates of the device or go to **Device Management Map View**, select the device and move it to the desired position. Click **Save**, click **Change**, and click **Save as Configuration** (see Saving Device GPS Position in Google Map, earlier in the Device Management section).

In My Map the latitude and longitude are information only and do not change the position of the device on the map.

**Web Camera URL (8) (required):** Enter a web address for the web camera that begins with http:// or https://. The web address must be on the same network as the BaseStation.

**Test Button (9):** Click Test to test the web address and camera operation. The test button opens a browser window displaying a view from the web camera.

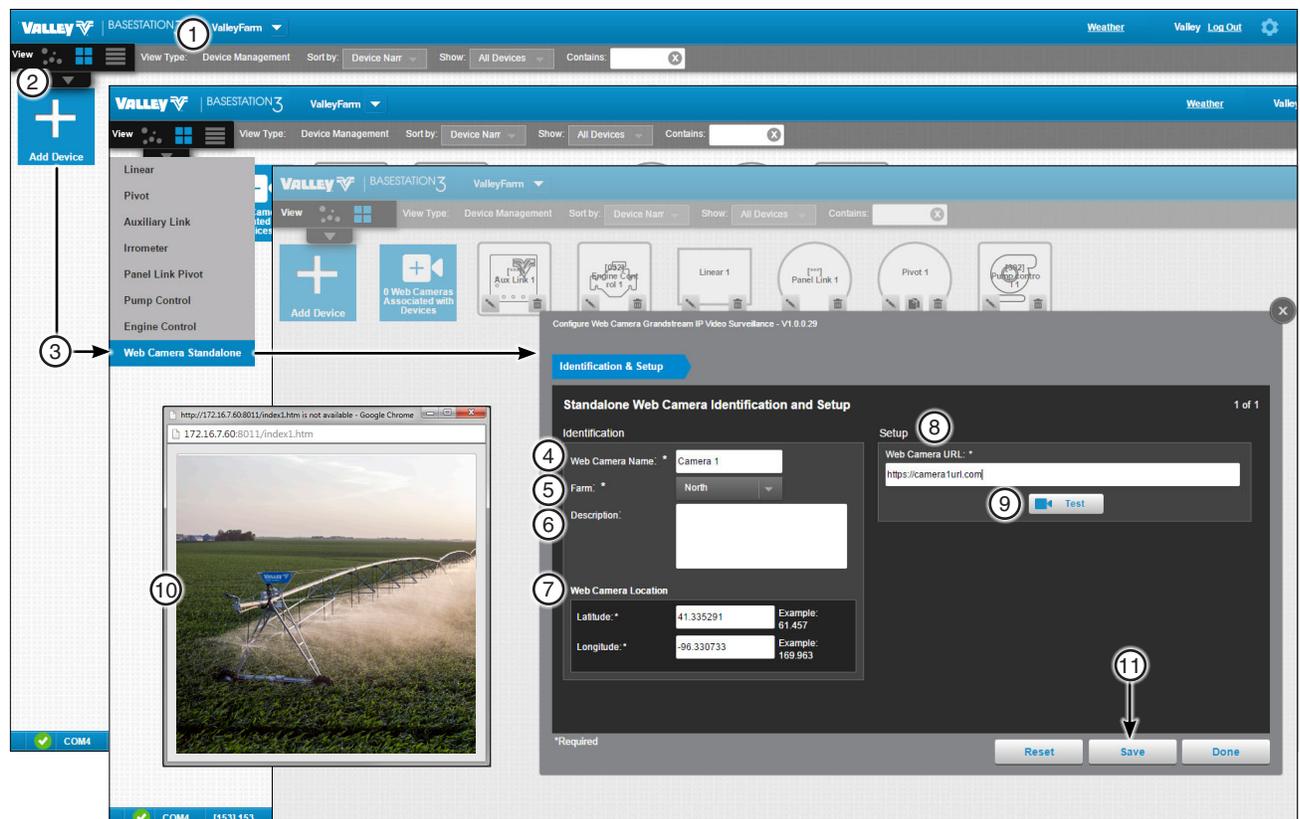


Figure 255-1 1. Device Management View Type  
2. + Add Device  
3. Web Camera Standalone

4. Web Camera Name  
5. Farm  
6. Description  
7. Latitude and Longitude

8. Web Camera URL  
9. Test  
10. Browser Window  
11. Save

# Device Management

## Web Camera Configuration

### Change or Delete a Standalone Web Camera Device

To change the configuration of a web camera do the following. With the View Type set to **Device Management**, click **Change** to open the configuration screen. All of the values on the configuration screen can be changed. When done click **Save**. See Figure 256-1.

To Delete the web camera device from the farm do the following. With the View Type set to **Device Management**, click **Delete**, then click **Delete** again to permanently delete the camera device from the farm. See Figure 256-1.

This only deletes the stand alone web camera device from the farm, it does not delete an association between a web camera and a device.

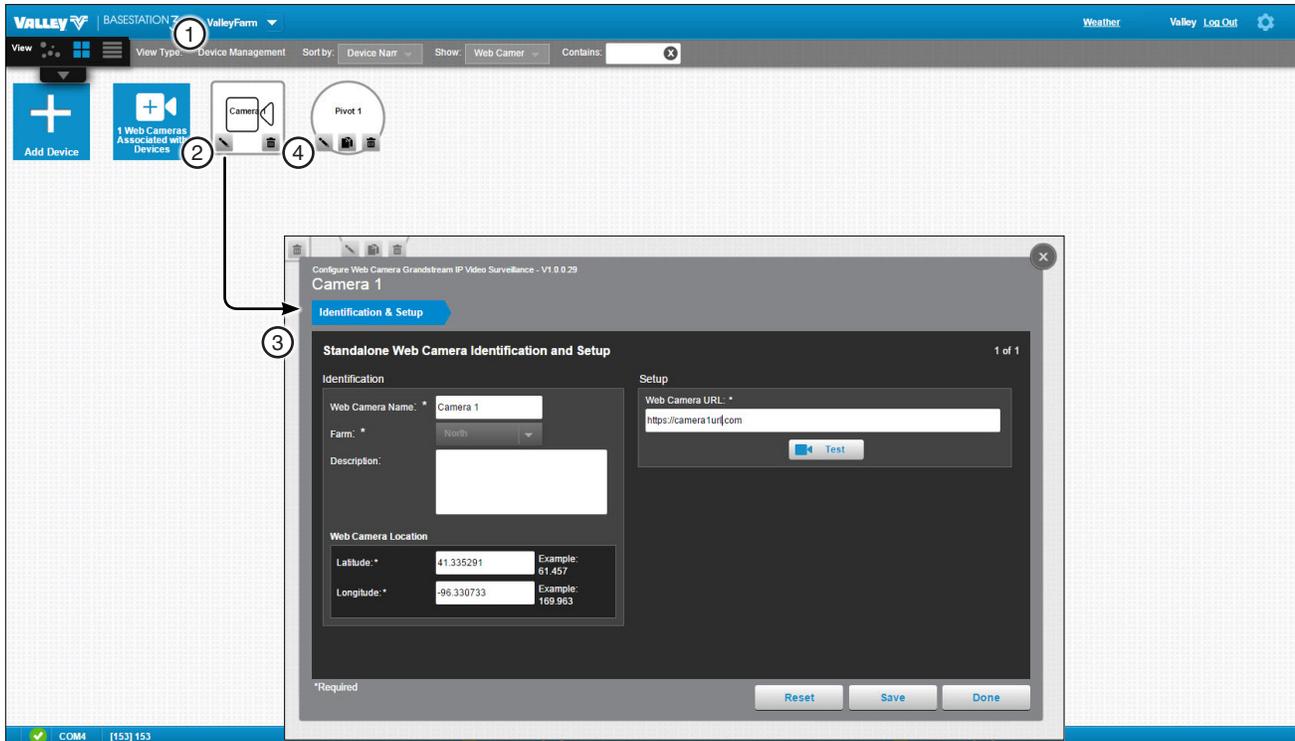


Figure 256-1 1. Device Management View Type 3. Configuration  
2. Change 4. Delete

# Device Management

## Web Camera Configuration

### Associate a Web Camera with a Device

A web camera can be associated with a device on a farm. The web camera does not need to be set up as a standalone camera. Only an all farms administrator can associate a web camera with a device on any farm.

To associate a web camera with a device do the following. See Figure 257-1.

In **Tile View**, with the View Type set to **Device Management** or **Map View** in any View Type, click **Web Cameras Associated with Devices**. On the configuration screen, click **Add New**, then click **Choose** and select the farm where the device is located. Select the device from the device list or use the **Contains** field to search for the device by RTU ID or device name, then select the device. Enter a description in the **Description** field if desired. Enter the **Web Camera URL** web address, beginning with `http://` or `https://`. Click **Test** to check the web address and camera operation. When done click **Save**.

After an association is configured between a web camera and a device, the device will be shown (in no particular order) with the web cameras, when Show: Web Cameras is selected.

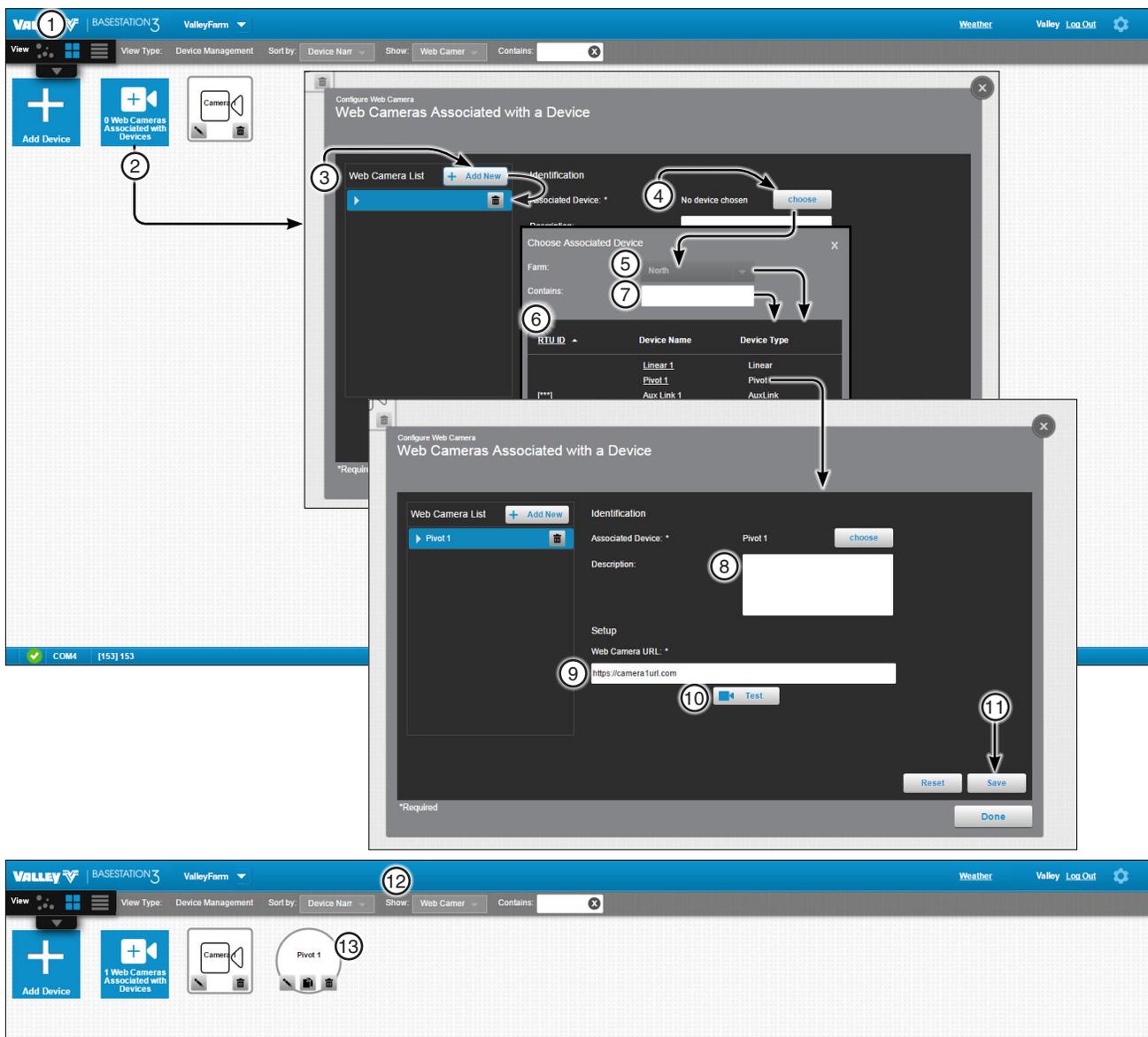


Figure 257-1

1. Device Management Tile View Type	5. Farm	9. Web Camera URL
2. Web Cameras Associated with Devices	6. Device	10. Test
3. Add New	7. Contains	11. Save
4. Choose	8. Description	12. Show: Web Cameras
		13. Associated Device

# Device Management

## Web Camera Configuration

### Change the Association of a Web Camera with a Device

To change the association of a web camera with a device do the following. In **Tile View**, with the View Type set to **Device Management** or **Map View** in any View Type, click **Web Cameras Associated with Devices** to open the configuration screen. Select the web camera to device association. All of the values on the configuration screen can be changed. When done click **Save**. See Figure 258-1.

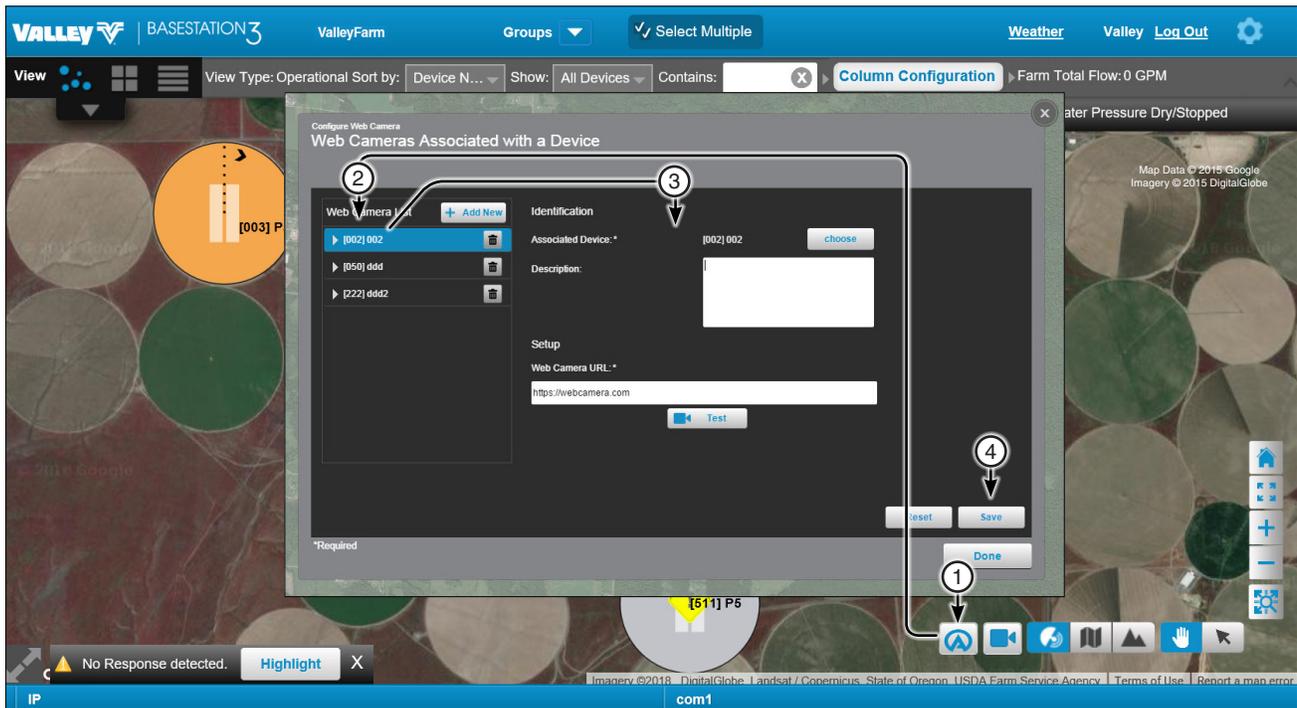


Figure 258-1 1. Web Cameras Associated with Devices 2. Web Camera to Device Association 3. Change 4. Save

## Web Camera Configuration

### Delete the Association of a Web Camera with a Device

To Delete the web camera do the following. In **Tile View**, with the View Type set to **Device Management** or **Map View** in any View Type, click **Web Cameras Associated with Devices** to open the configuration screen. Click **Delete** on the web camera and device association, then click **Delete** again to permanently delete the association between the web camera and the device. See Figure 259-1.

This only deletes the association between the web camera and a device, it does not delete a stand alone web camera device or the associated device from the farm.

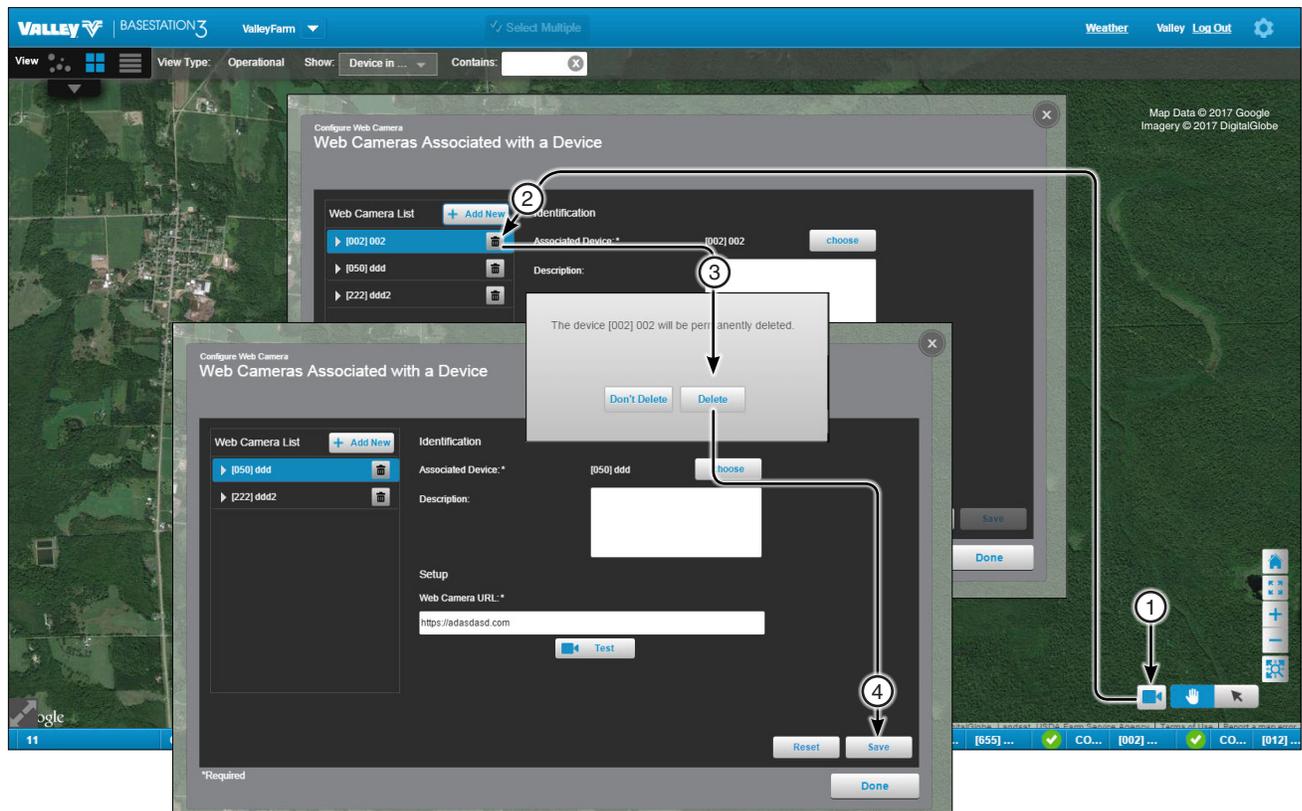


Figure 259-1

1. Web Cameras Associated with Devices
2. Delete
3. Delete Again
4. Save

# Device Management

---

## Accessing a Device

In Map, Tile, or List view with the Operational View Type selected, select a device.

## Common Functions

Common functions are used across all device panel views and between the different tabs.

**RTU ID and Device Name (1):** The RTU ID and Device Name are shown on the header.

**Polling On/Off Button (2):** When polling is On, the On button text is highlighted in blue. When polling is Off, the Off button text is highlighted in blue. Opening a device panel view automatically suspends polling, providing exclusive use of the BaseStation communications to the selected device.

**Get Status Button (3) (Appears on all tabs):** Click **Get Status** to send a request for an update on the current status of the device.

**Time and Date (4) (Appears on all tabs):** The BaseStation computer date and time of the most recent status update is show below the Get Status button. Periodically verify the device Date and Time to coordinate the BaseStation time with the device. This is important when writing Stored programs based on Date/Time and for reviewing the device history screens. When the Get Status button is clicked, the BaseStation sends the computer's date and time to the device. The BaseStation computer time and date is NOT sent to the module during the Polling activity.

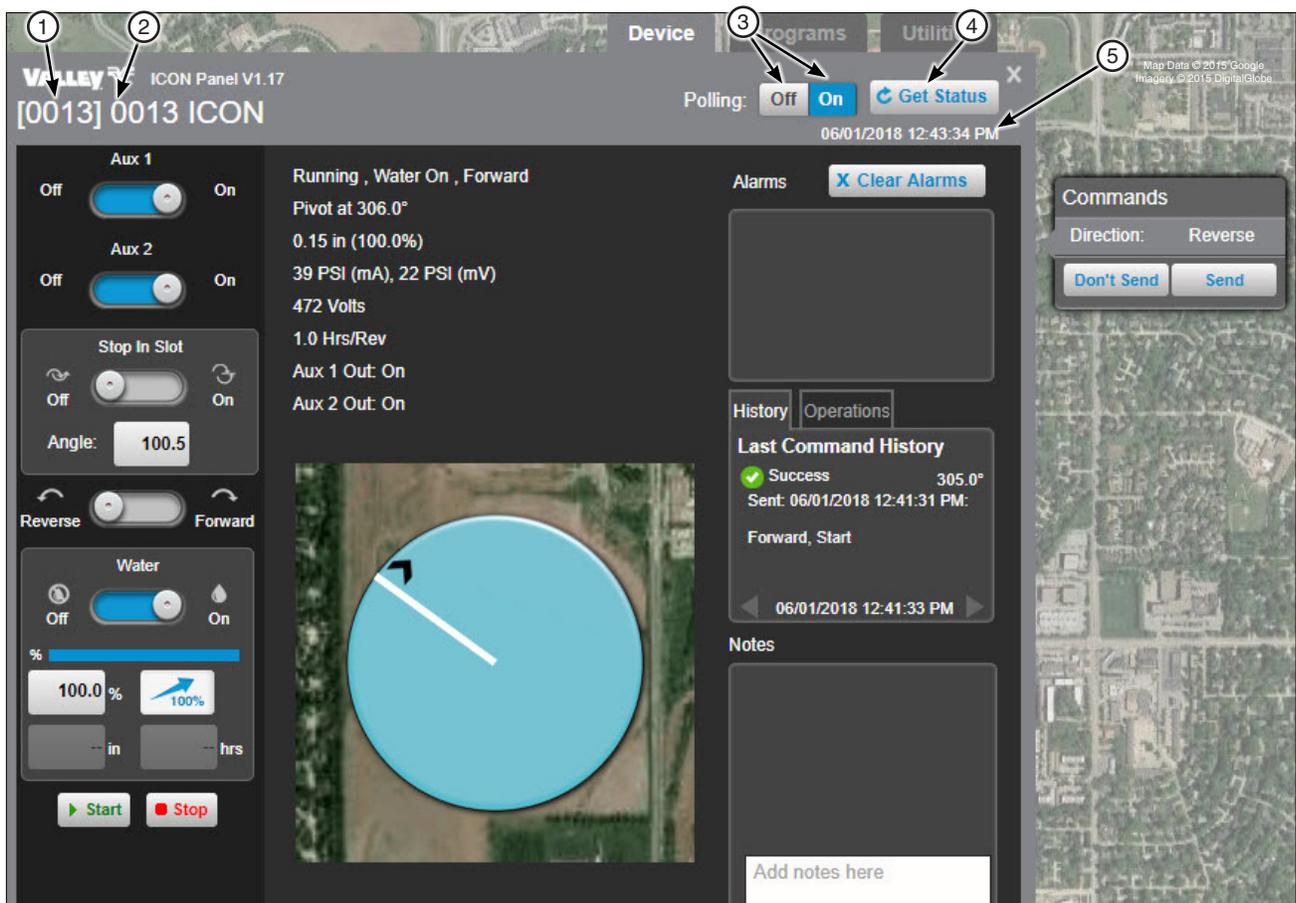


Figure 261-1 1. RTU ID  
2. Device Name  
3. Polling On/Off

4. Get Status Button  
5. Time and Date

# Monitor and Control

## Common Functions (Continued)

**Control Panel ID (1):** The control panel type and software version.

**Device Status (2) (Appears on all screens):** A graphic of the device illustrating the status along with the written last reported status of the device. The BaseStation date and time of the last status update is shown on the header.

**Device Controls (3):** Slide switches On or Off, click buttons or enter values in text field to change the operation of the device. The Commands list dialog box is automatically populated with the change. When done making changes click **Send**. The command(s) are sent to the device. Refer to the appropriate Owners Manual for a complete description of the module features. There are different pivot monitor and control screens based on available features of the control panel.

**Alarms (4):** Displays the current alarm conditions with graphic and text. To clear the alarms click **Clear Alarms**.

**Clear Alarms Button (5):** Sets the expected status to be the same as the current status and clears the alarm graphics from the affected device.

**History (6):** Displays command history from the last five communications with the device.

**Operations (7):** Displays the Run-time feature information (Destination ETA and Irrigation Cycle information).

**Notes (8):** An area to enter and view all notes for the device. When the maximum number of 10 notes exist in the notes display, any new note is added to the top of the list and the oldest note is discarded. Notes can be deleted by a user with Administrator level access. Notes cannot be edited.

**Commands list dialog box (9) (Appears on all tabs):** Any changes made to the operation of the device from the device panel view will show on the Commands list dialog box until the change is sent or canceled.

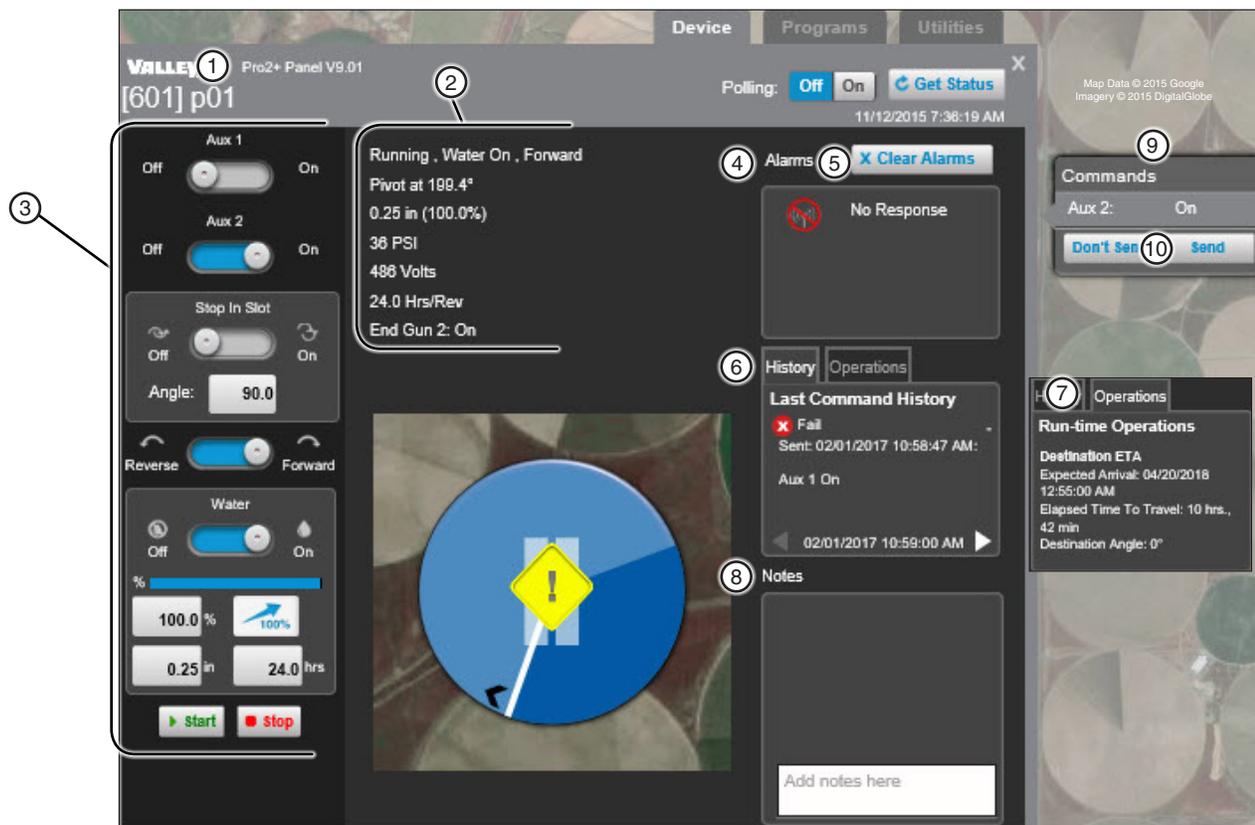


Figure 262-1 1. Control Panel ID 2. Device Status 3. Device Controls 4. Alarms 5. Clear Alarms 6. History 7. Operations 8. Notes 9. Commands 10. Send

## Common Functions (Continued) Programs and Utilities Screens

The Programs and Utilities screens display device status and all the programs and utilities in the BaseStation and in the control panel that can be enabled or disabled for the device from the BaseStation.

**Basic Status:** To display only the last reported basic machine status, click **Basic**. Basic status is displayed in the lower half of the status area.

**Program Status:** To display the last reported basic and program specific status click **Star**, then click the **star** next to the program label. Program specific status is displayed near the top of the status area.

**None/Description:** Use to toggle the descriptions On or Off.



Figure 263-1

1. Programs	4. Status Program Specific	7. None
2. Pivot Status Basic	5. Program Selected	8. No Description
3. Basic Status	6. Program Status	9. Description
		10. Program Description

# Monitor and Control

## Commanding Devices

Devices are commanded from the Operational view type in either Map, Tile or List View.

### Device Panel View

Select a device to open the Device panel view. See Figure 264-1.

The control and monitor functions available vary depending on the type of control panel at the device. There are some functions that are disabled or not available based on hardware configurations that must be mechanically changed at the device control panel, features that have not been added or are restricted because of safety considerations.

After the device panel view is opened it remains open until the user closes it.

Any changes made to the operation of the device will show on the **Commands** list dialog box until the change is sent by clicking **Send** or canceled by clicking **Don't Send**.

Alarm conditions for the selected device are shown in the Alarms information box. The various alarms indicate status conditions that are different from what the BaseStation has commanded or is expecting.

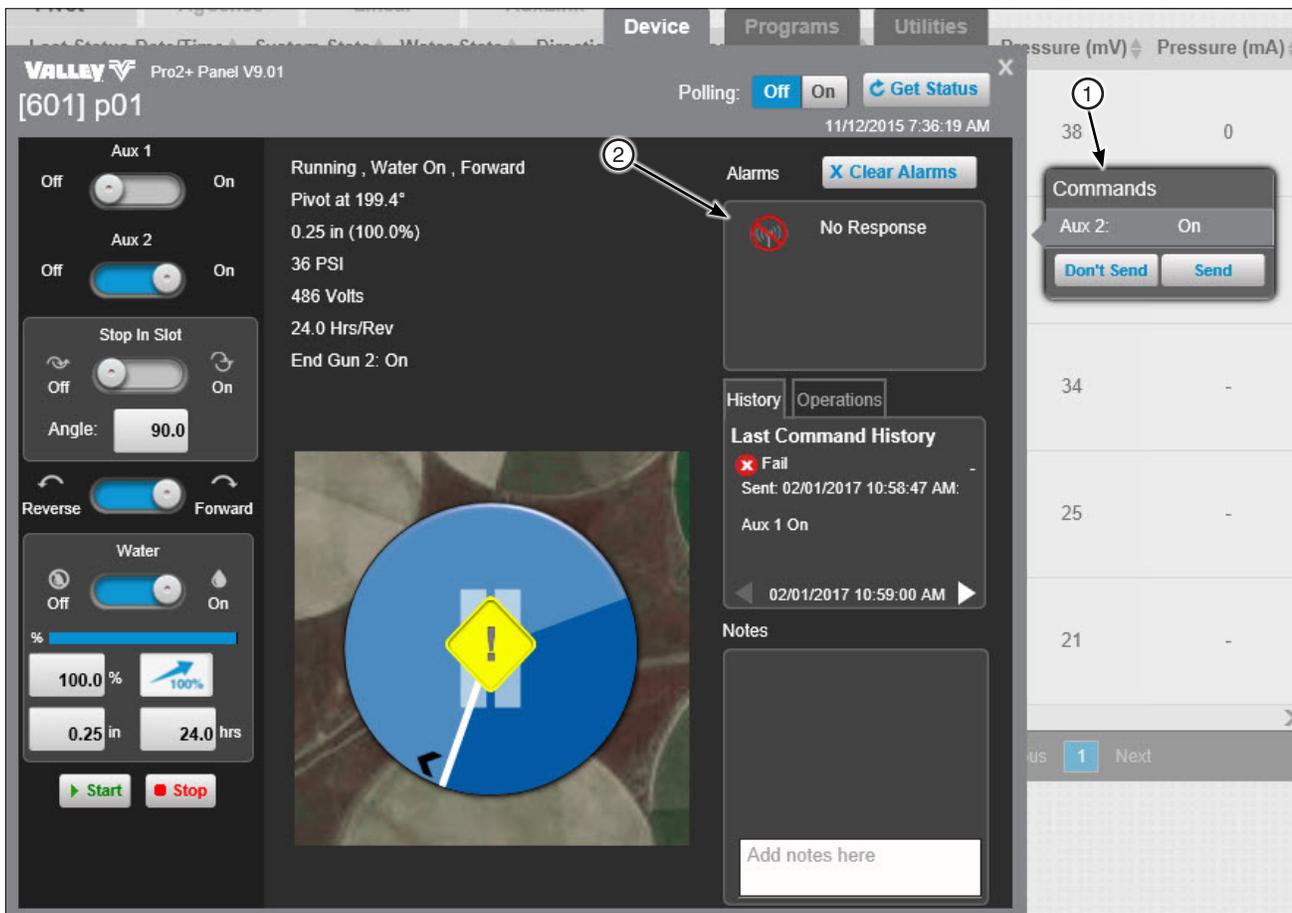


Figure 264-1 1. Commands  
2. Alarms

## Commanding Devices (Continued)

### Select Multiple - Commanding Multiple Devices

Use Select Multiple while in the Operational View Type to command multiple devices at the same time. The available commands are determined by the devices that are selected and the equipment installed at the device. Only devices that have communicated with the BaseStation can be selected. Select Multiple is not available in the Soil Moisture or VRI view types.

To use Select Multiple while in the Operational view type, refer to Figure 265-1 and do the following.

1. Select a farm from the Farm List. An individual farm must be selected from the Farm List. Select Multiple is not available when All Farms is selected.
2. Click **Select Multiple**.
3. Select individual devices or click **Select All**. Click **Select None** to deselect all devices.
4. Click **Commands**.
5. Check the box associated with the command that you want to send, make adjustments to the parameters of the command if allowed. In some cases a command or configuration will be sent to a device where that command or configuration does not exist. When this happens, the command or configuration is ignored.
6. Select **Send Server Date & Time** to set the panel date/time to match the server date and time.
7. When done click **Send**.

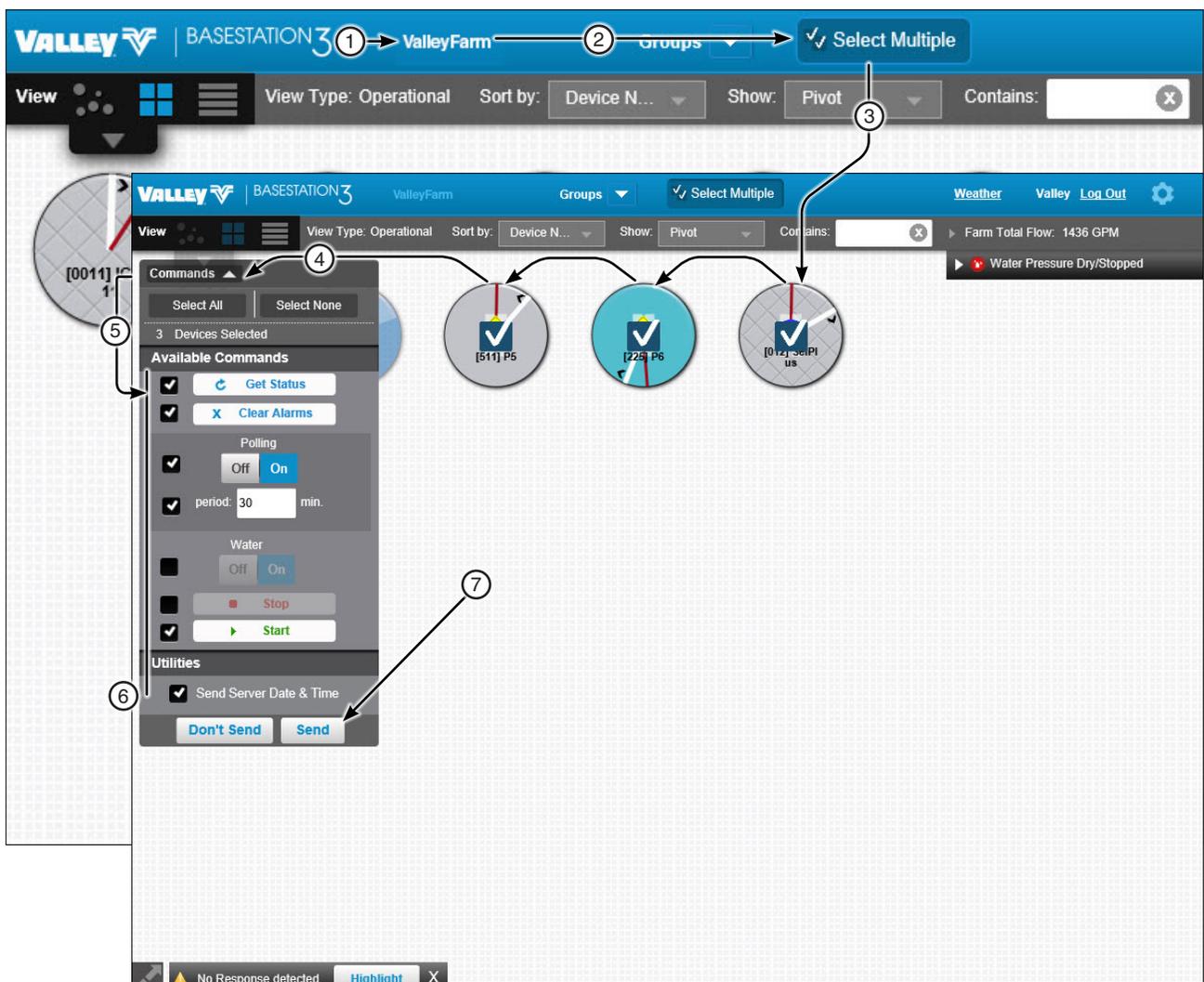


Figure 265-1 1. Farm 2. Select Multiple 3. Devices 4. Commands 5. Available Commands 6. Send Server Data & Time 7. Send

# Monitor and Control

---

## Linear

### Device Screen Controls

Refer to the appropriate Owners Manual for a complete description of the module features. There are different monitor and control screens based on available features of the control panel. The AutoPilot control panel view is shown throughout this section. The following controls are available on the Device.

**Aux 1 and Aux 2 (Hardware required):** Select On or Off to populate the Commands list dialog box.

**Stop In Slot:** Turn control On or Off to populate the Commands list dialog box. Enter a direction and position for Stop In Slot, then click **Save** to populate the Commands list dialog box with the new direction and position.

**Direction Reverse/Forward:** Selecting a direction populates the Commands list dialog box.

**Water Dry/Wet:** Click **Dry** (Water Off) or **Wet** (Water On) to populate the Commands list dialog box.

**Percent Timer:**

- Select the percent field, enter a new value, then click **Save** to populate the Commands list dialog box.
- Click **100 Percent** to change the value to 100% and populate the Commands list dialog box.

**Depth:**

- Select the depth field, enter a new value, then click **Save** to populate the Commands list dialog box.
- Select the hours field, enter a new value, click **Save** to populate the Commands list dialog box.

**Start/Stop:** Click **Start** or **Stop** to populate the Commands list dialog box.

After making a change click **Send** to send the command or click **Don't Send** to cancel.

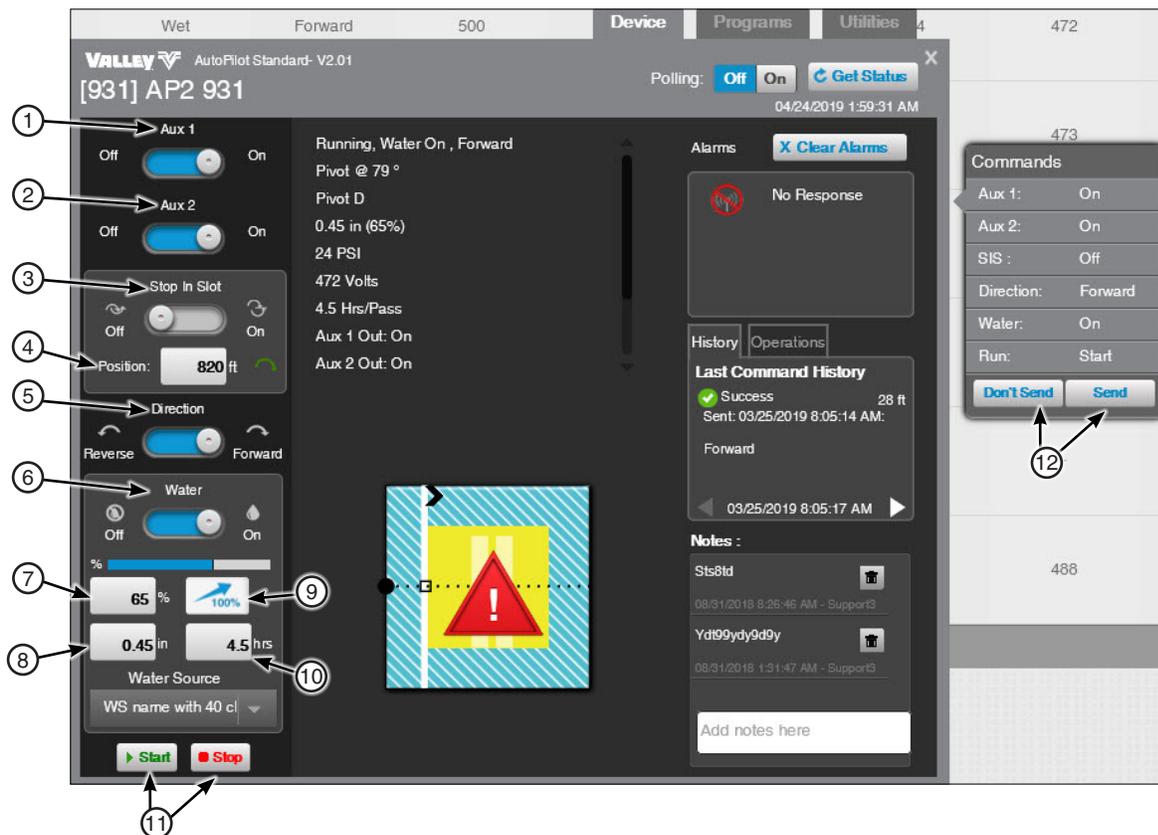


Figure 267-1

- |                 |              |                       |
|-----------------|--------------|-----------------------|
| 1. Aux 1        | 5. Direction | 6. 100%               |
| 2. Aux 2        | 6. Water     | 10. Hours             |
| 3. Stop In Slot | 7. Percent   | 11. Start / Stop      |
| 4. Position     | 8. Depth     | 12. Don't Send / Send |

# Monitor and Control

## Linear (Continued) Programs Screen

### Destination ETA

The Destination ETA is the running duration calculation of the current run to a marked destination.

To use, click **Destination ETA**, click the **Calculate ETA** switch to **Enable**. Choose the destination and click **Save**. The Current Calculated ETA will be displayed in Current Calculated ETA and also on the Device screen in Run Time Operations.

The Destination ETA cannot be enabled when VRI is running, when the Percent Timer is set to zero (0) or when the machine is stopped. If VRI is switched On, Destination ETA is automatically disabled.

Destination ETA settings includes an **Alert Notifications** option. To enable, click the Alert Notification switch to **Enable**. Then, add the **Variance** distance and click the **Save** button.

To disable this feature, click **Destination ETA**, click the **Calculate ETA** switch to **Disable** and then click **Save**.

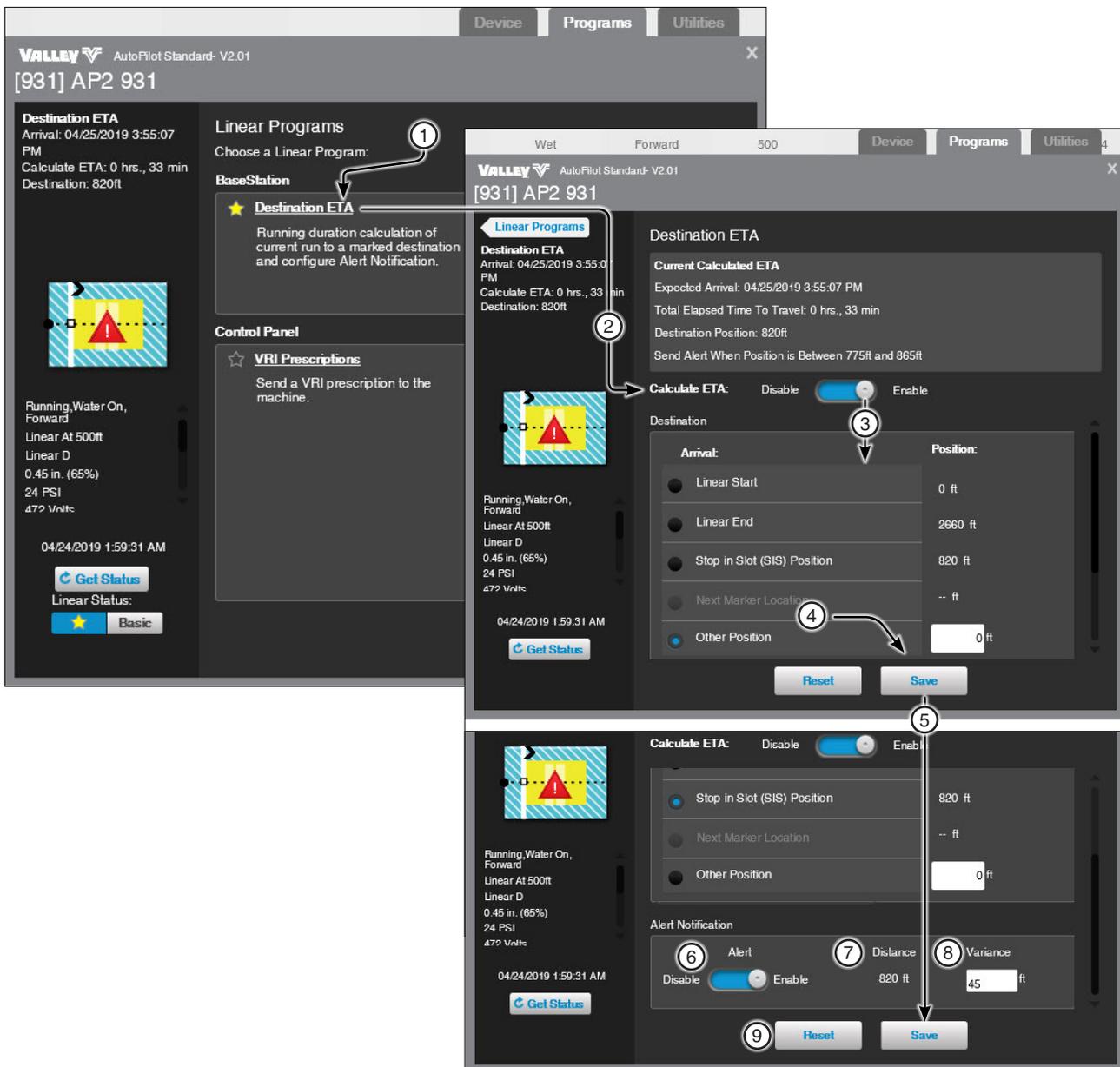


Figure 268-1 1. Destination ETA 2. Enable 3. Destination 4. Save 5. Current Calculated ETA 6. Alert Disable / Enable 7. Distance 8. Variance 9. Reset / Save

## Linear (Continued)

## Programs Screen (Continued)

### VRI Prescriptions

VRI Prescriptions are tools that tell a linear when and where to adjust the application depth for specific sections or management zones in fields.

## NOTE

- The Power Line Carrier Channel must be set to “On” on the device’s communication configuration screen. Otherwise, VRI Prescription will not display in Programs.

To use, click **VRI Prescriptions**, click the edit pencil and then enter the Zone Prescription by selecting the prescription file using the **Browse** button. Click the **VRI** switch to **On**. Add any notes or change the name of the Zone Prescription if necessary. Click **Get VRI** to get the current VRI state from the panel.

When a VRI prescription is loaded, the prescription number in the VRI file is validated against the prescription number. In addition, an error displays if the prescription numbers do not match. Once validated, a load processing bar displays to indicate the progress of loading the prescription.

To configure zones, click **Configure Zones** to link to Irrigation Exchange.

To disable click **VRI Prescriptions**, click the **VRI** switch to **Off**.

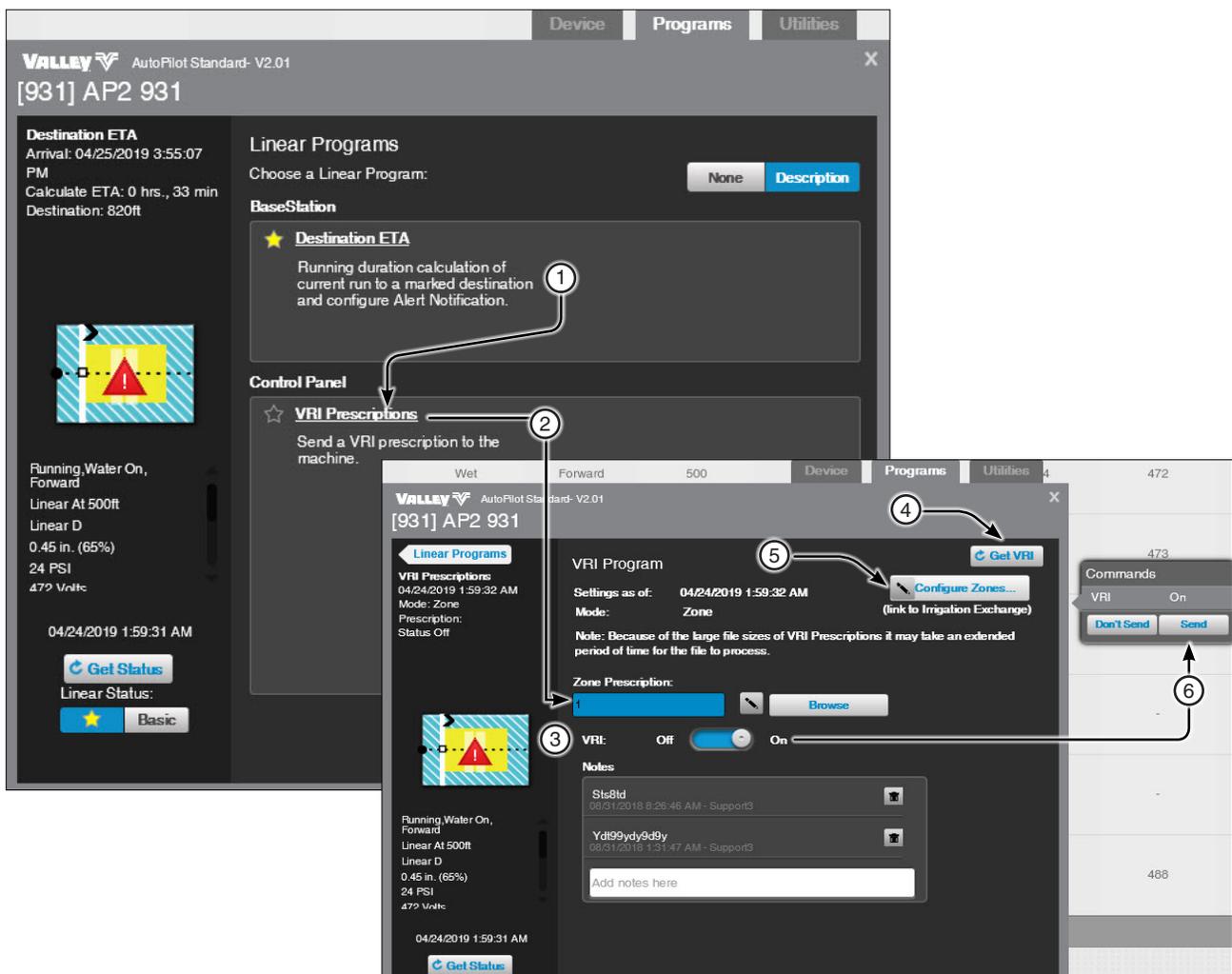


Figure 269-1 1. VRI Prescriptions 3. VRI On 5. Configure Zones  
2. Zone Prescription 4. Get VRI 6. Send

# Monitor and Control

## Linear (Continued) Utilities Screen

### Auto Restart

Use **Auto Restart** to Enable/Disable the option at the device.

Click **Get Settings** to synchronize the BaseStation with the device settings.

To enable Auto Restart click **Auto Restart**. Click **Auto Restart** switch to enable.

On the **Commands** list dialog box click **Send**.

Click **Get Status** to update the device status.

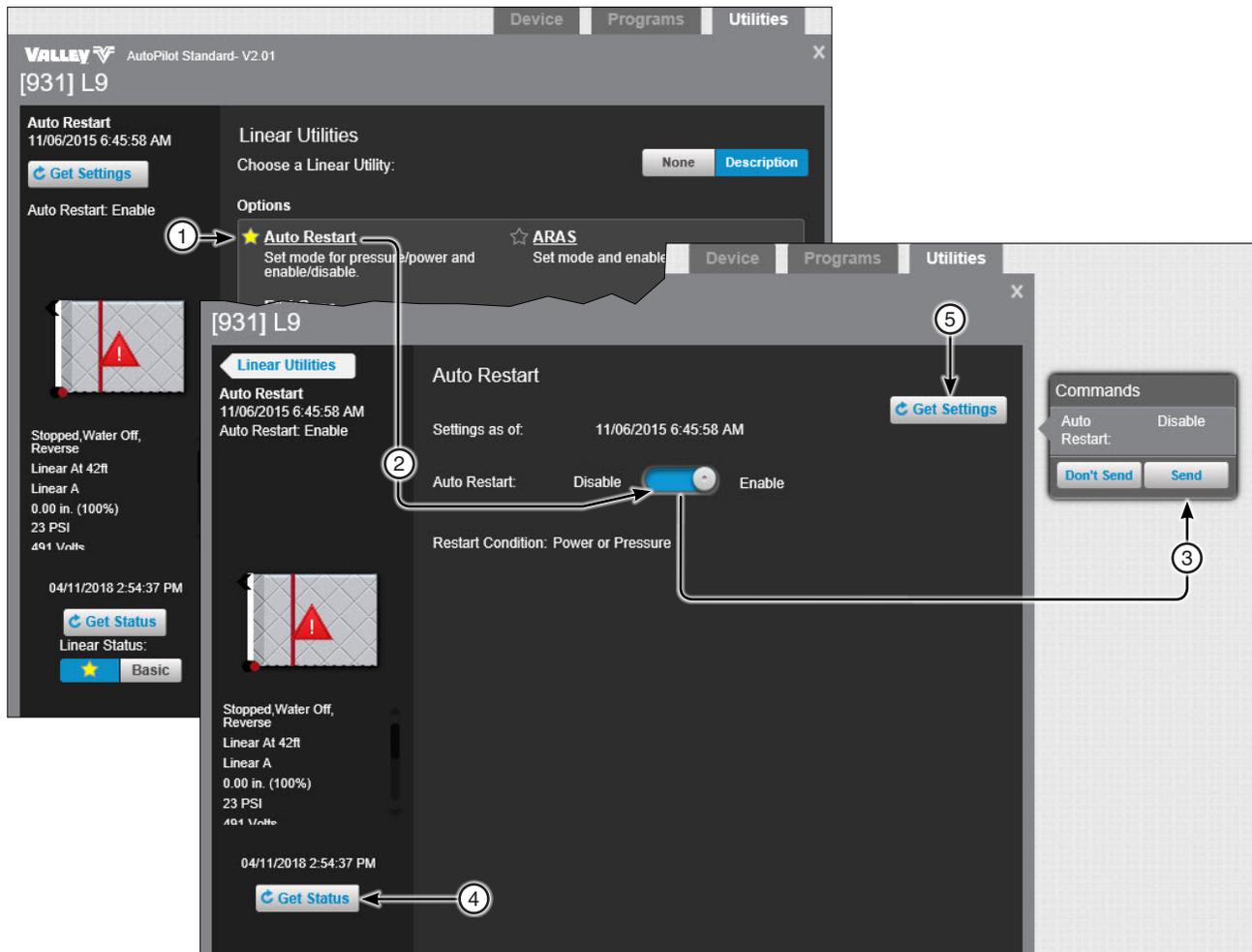


Figure 270-1 1. Auto Restart 4. Get Status  
2. Enable 5. Get Settings  
3. Send



# Monitor and Control

## Linear (Continued)

### Utilities Screen (Continued)

#### End Guns

Set end gun positions in BaseStation, save them and send them to the device or update BaseStation with positions from the device.

End guns must be enabled in the control panel. However, end guns can be turned Off from BaseStation by setting all end gun positions to (0) and sending them to the device. Since the end gun positions are (0), the end gun will not turn On.

**Get Positions:** Click Get Positions to update the BaseStation with end gun positions from the device.

**End Guns:** Select the End Gun to change.

**Display:** Choose the end of the machine where the end guns will be displayed. Either Left end or Right end.

**End Gun Start and End Position Fields:** The fields where the start and end positions are entered.

**Preview:** Click to preview the end gun On sequences for the selected end gun. The end gun On sequences are highlighted in blue.

**Reset:** Click Reset to reset all settings back to the last saved state or the default if its never been saved.

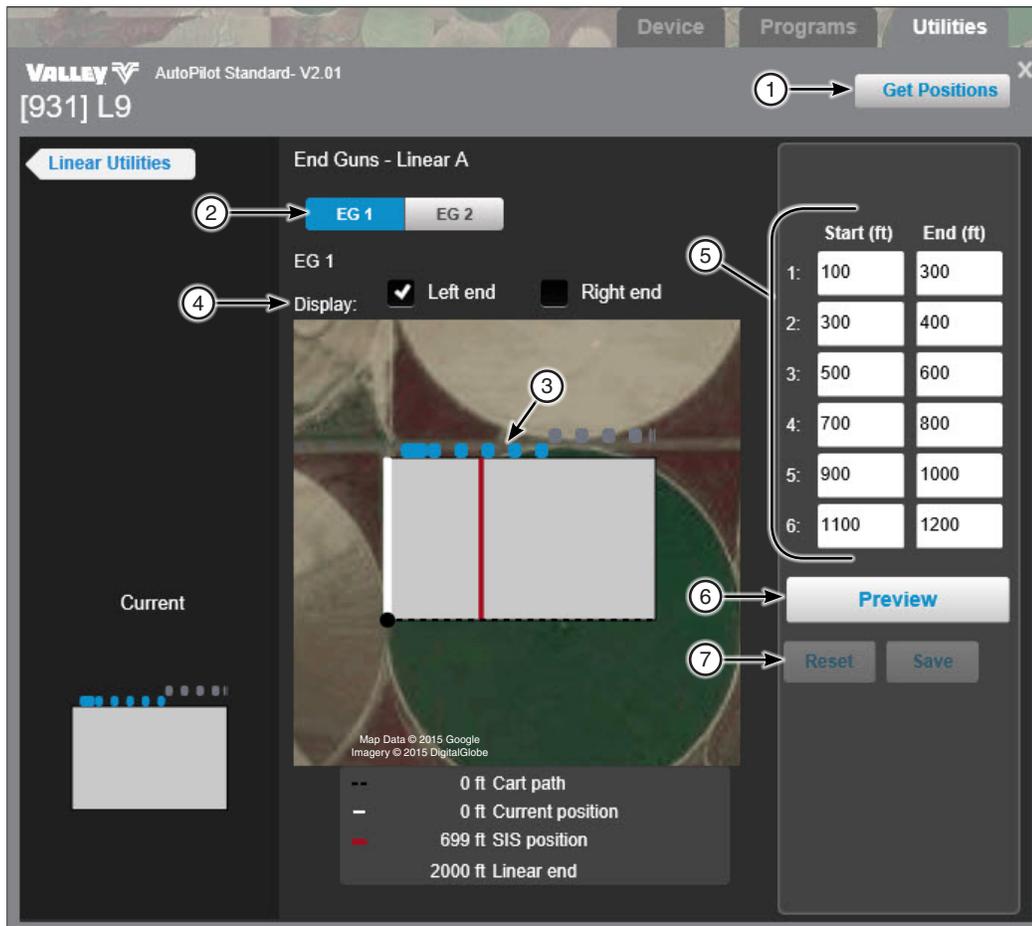


Figure 272-1 1. Get Positions

2. End Guns

3. End Gun Position

4. Display

5. Start / End Position Fields

6. Preview

7. Reset

## Linear (Continued)

## Utilities Screen (Continued)

## End Guns (Continued)

## Set End Gun Positions

To set end gun positions click **End Guns**. Select the End Gun to change. Choose the end of the machine where the end guns will be displayed. Determine which sequence number 1 through 6 to change and enter the **Start** position in feet. Enter the **End** position in feet. Enter start and end positions in other sequences as required. Click **Preview** to update the linear graphic with end gun sequences. The end gun On sequences are highlighted in blue for the selected end gun. When done click **Save**. On the Commands list dialog box click **Send**.

The screenshot shows the 'VALLEY AutoPilot Standard- V1.11' interface. The 'Utilities' tab is active, and the 'Linear Utilities' section is open. The 'End Guns' utility is selected, and the 'End Guns - Line A' configuration window is displayed. The 'Display' section shows 'Left end' and 'Right end' checked. The 'End Guns' table is visible, with sequence 6 selected. The 'Commands' dialog box is open, showing the 'End Gun 1, Position 6' configuration. The 'Preview' window shows the 'End Gun 1, Position 6' configuration. The 'Save' button is highlighted.

Sequence	Start (ft)	End (ft)
1	100	300
2	300	400
3	500	600
4	700	800
5	900	1000
6	1100	1300

Commands:

```

End Gun 1, Start 1100 ft
Position 6: to Start
            1100 ft ,
            End 1200 ft
            to End 1300
            ft
    
```

Legend:

- 0 ft Cart path
- 42 ft Current position
- 699 ft SIS position
- 2000 ft Linear end

Figure 273-1

1. End Guns
2. End Guns
3. Display
4. Sequence Number
5. Start
6. End
7. Other Sequences
8. Preview
9. Save
10. Send

# Monitor and Control

## Linear (Continued)

## Utilities Screen (Continued)

### Status Change Report

The Status Change Report displays the event history of the linear and can be viewed by a range of dates/times.

**To Run Status Change Report:** To run the Status Change Report from the control panel, refer to Figure 274-1 and do the following.

1. Click **Status Change Report**.
2. Select the **Start Date and Time** and the **End Date and Time**.
3. Select the **Change Criteria**.
4. Click **Run Report** to receive the Status Change Report.

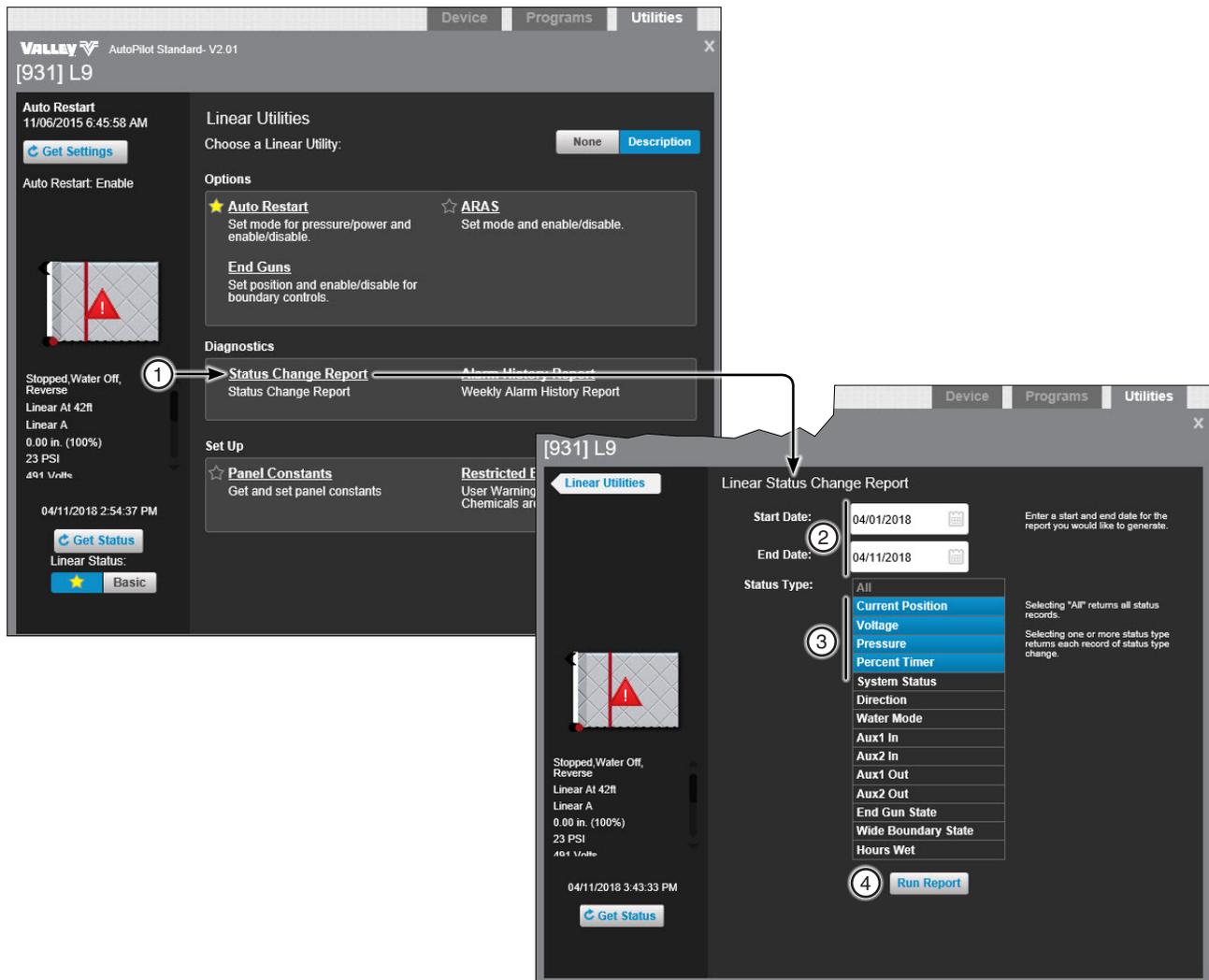


Figure 274-1 1. Status Change Report  
2. Start Date / End Date

3. Status Type  
4. Run Report

## Linear (Continued) Utilities Screen (Continued)

### Alarm History Report

Click the Run Report button to generate a seven day alarm history report for this device. See Figure 275-1.

**Run Report:** To run a report, click the **Run Report** button.

1. Click the **Run Report** button.
2. The report is generated on a pop up web page. See Figure 275-2.

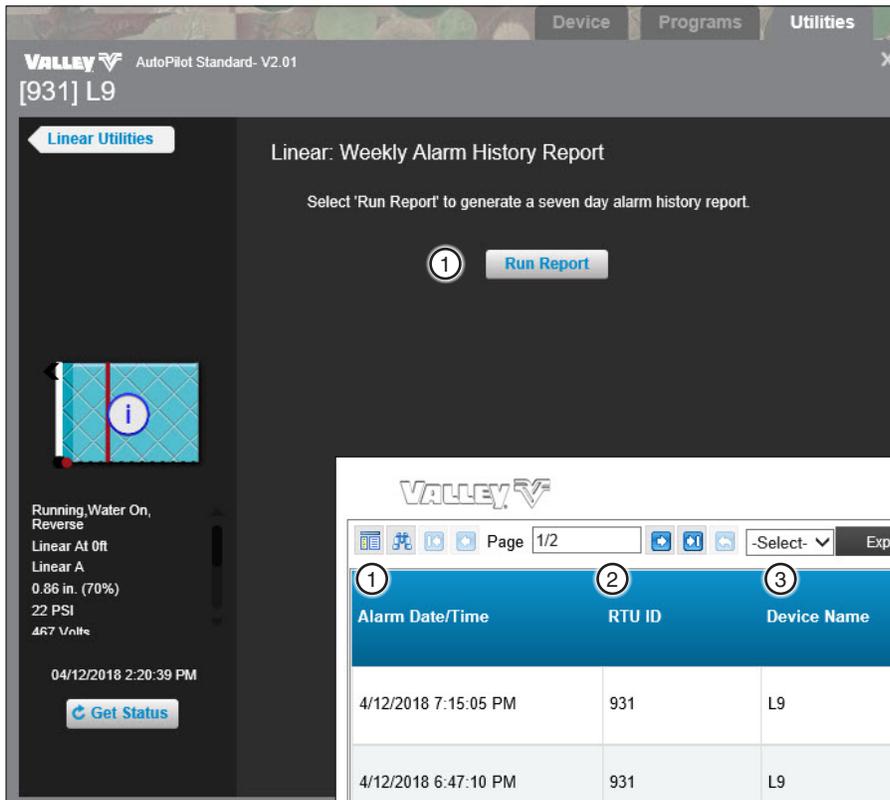


Figure 275-1 1. Run Report

1 Alarm Date/Time	2 RTU ID	3 Device Name	4 Alarm Name
4/12/2018 7:15:05 PM	931	L9	Direction
4/12/2018 6:47:10 PM	931	L9	No Response
4/12/2018 5:40:23 PM	931	L9	No Response
4/12/2018 5:01:12 PM	931	L9	No Response
4/12/2018 4:10:54 PM	931	L9	No Response
4/12/2018 2:47:26 PM	931	L9	No Response
4/12/2018 2:36:10 PM	931	L9	No Response

Figure 275-2 1. Alarm Date/Time 2. RTU ID 3. Device Name 4. Alarm Name

# Monitor and Control

## Linear (Continued)

### Utilities Screen (Continued)

#### Setup Panel Constants

Use Panel Constants to Get or Set the minimum application, stop in slot position, pressure delay, low pressure limit, low voltage limit, system voltage, set position, and wind speed shutdown control panel constants. The Minimum Hours setting at the control panel is also displayed. See Figure 276-1.

**Get Constants:** To Get constants from the control panel, refer to Figure 276-1 and do the following.

1. Click **Panel Constants**.
2. Click the **Get** button associated with the available constants, and the command list dialog is populated with the command "Get."
3. Click **Send** on the Commands list dialog box to obtain the setting from the control panel.

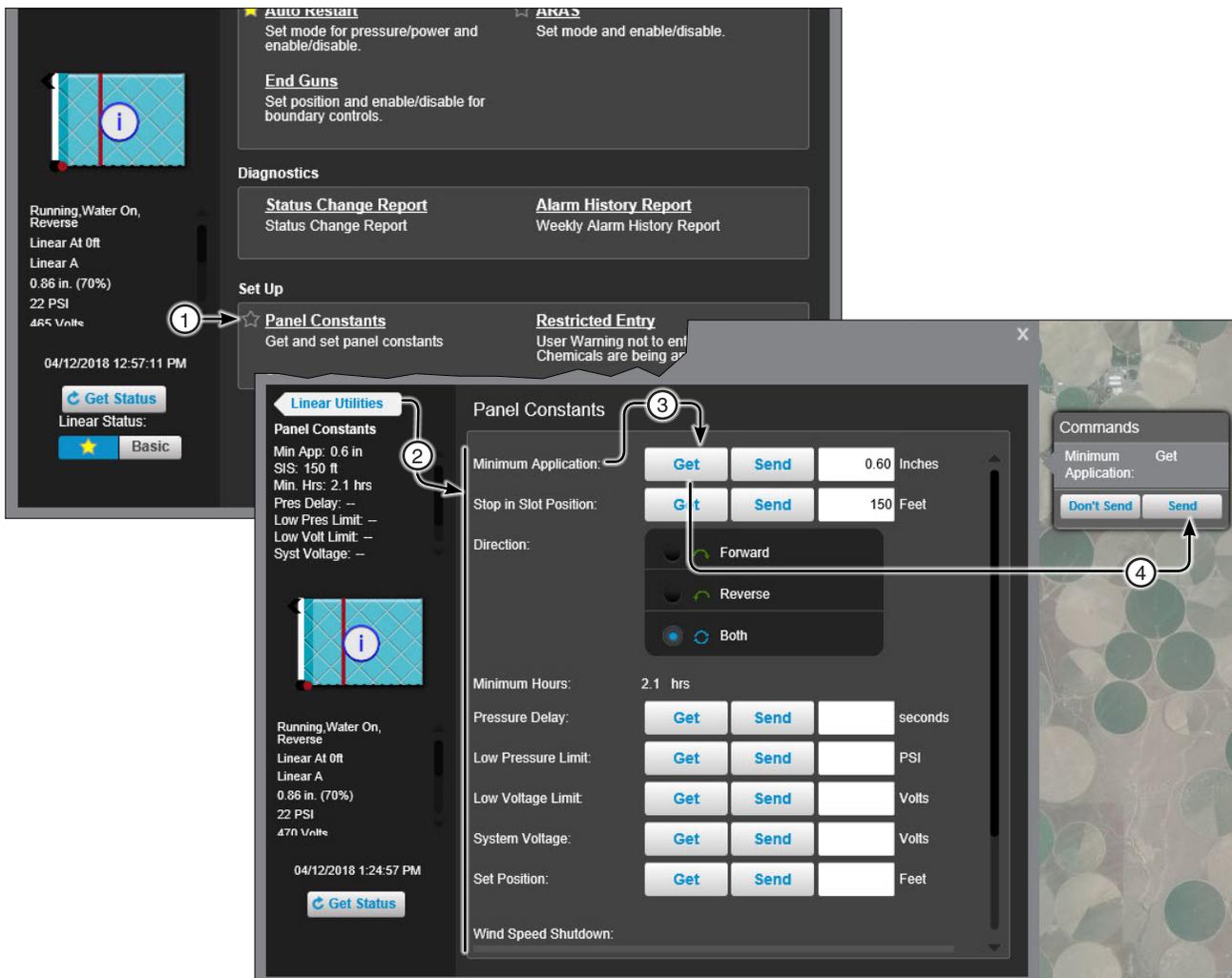


Figure 276-1 1. Panel Constants 2. Available Constants 3. Get 4. Send

## Linear (Continued)

### Utilities Screen (Continued)

#### Setup Panel Constants (Continued)

**Send Constants:** To Send constants to the control panel, refer to Figure 277-1 and do one or more of the following.

##### Minimum Application:

1. Click **Panel Constants**.
2. Enter a value in the minimum application field. The value must be entered in inches.
3. Click **Send**, and the Commands list dialog box is populated with the value.
4. Click **Send** on the Commands list dialog box to send the setting to the control panel.

##### Stop in Slot:

1. Click **Panel Constants**.
2. Enter a position value in the stop in slot field. The value must be entered in feet.
3. Choose the direction in which stop in slot will operate. Either Forward, Reverse or Both directions.
4. Click **Send**, and the command list dialog is populated with the value and direction.
5. Click **Send** on the Commands list dialog box to send the setting to the control panel.

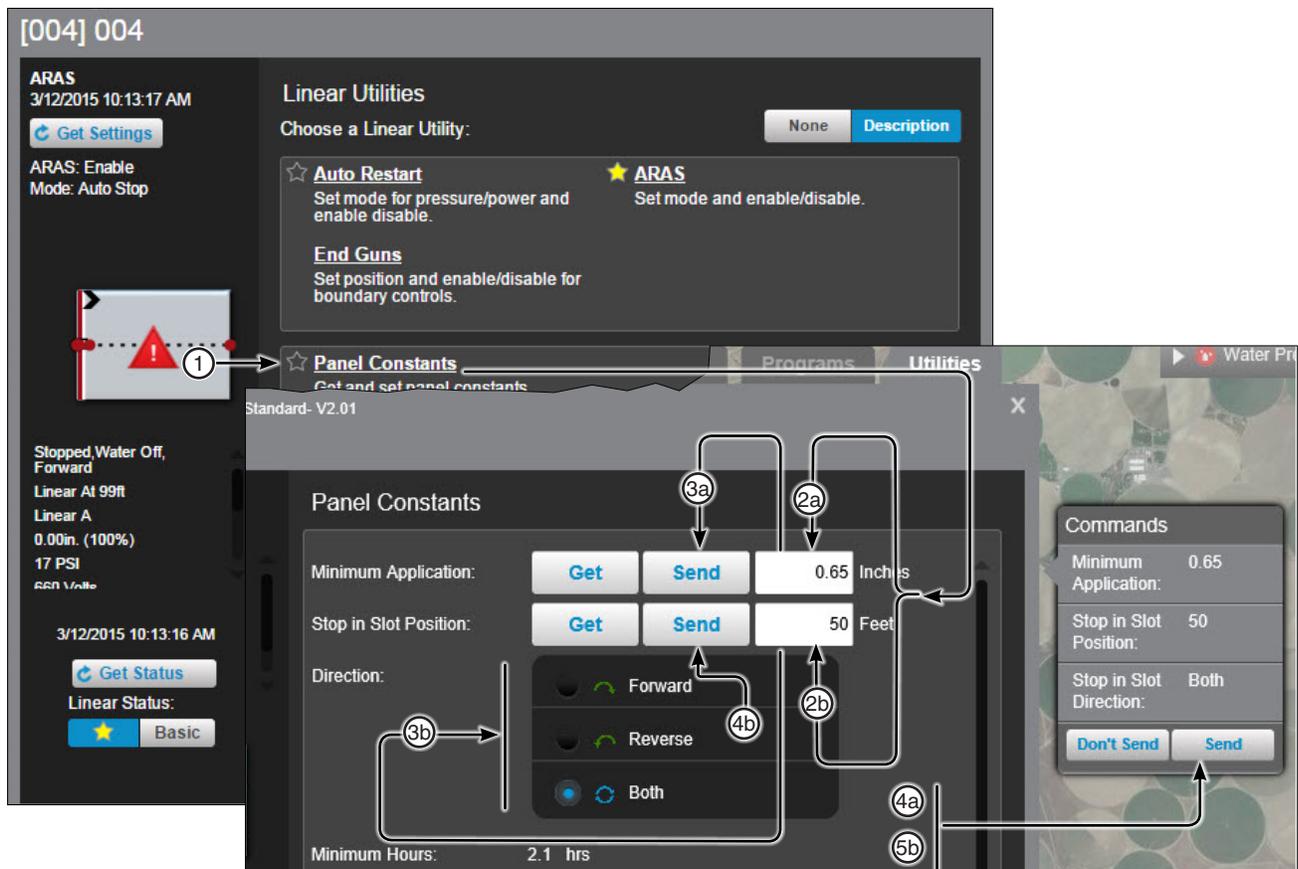


Figure 277-1 **Minimum Application**

1. Panel Constants
- 2a. Minimum Application
- 3a. Send
- 4a. Send

**Stop in Slot**

1. Panel Constants
- 2b. Stop in Slot Position
- 3b. Direction
- 4b. Send
- 5b. Send

# Monitor and Control

## Linear (Continued)

### Utilities Screen

#### Restricted Entry Interval Timer

The Restricted Entry Timer, available by subscription, warns not to enter a field. Click the Restricted Entry link to open the options to run or schedule a restricted entry event. When Restricted Entry Data is configured, the user is warned about chemical application. To learn more about the Restricted Entry Timer and what it does, please contact BaseStation support.

## NOTES

- To add the Chemical Brand Name, Restricted Entry Data must be set up BEFORE scheduling or running the Restricted Entry event. Once set up, the Active Ingredient, Registration Number, and Restricted Entry Interval are added based on the selection.
- To enable Restricted Entry notifications, click the Detail tab and select the Alert Contact List BEFORE scheduling or running the Restricted Entry event.

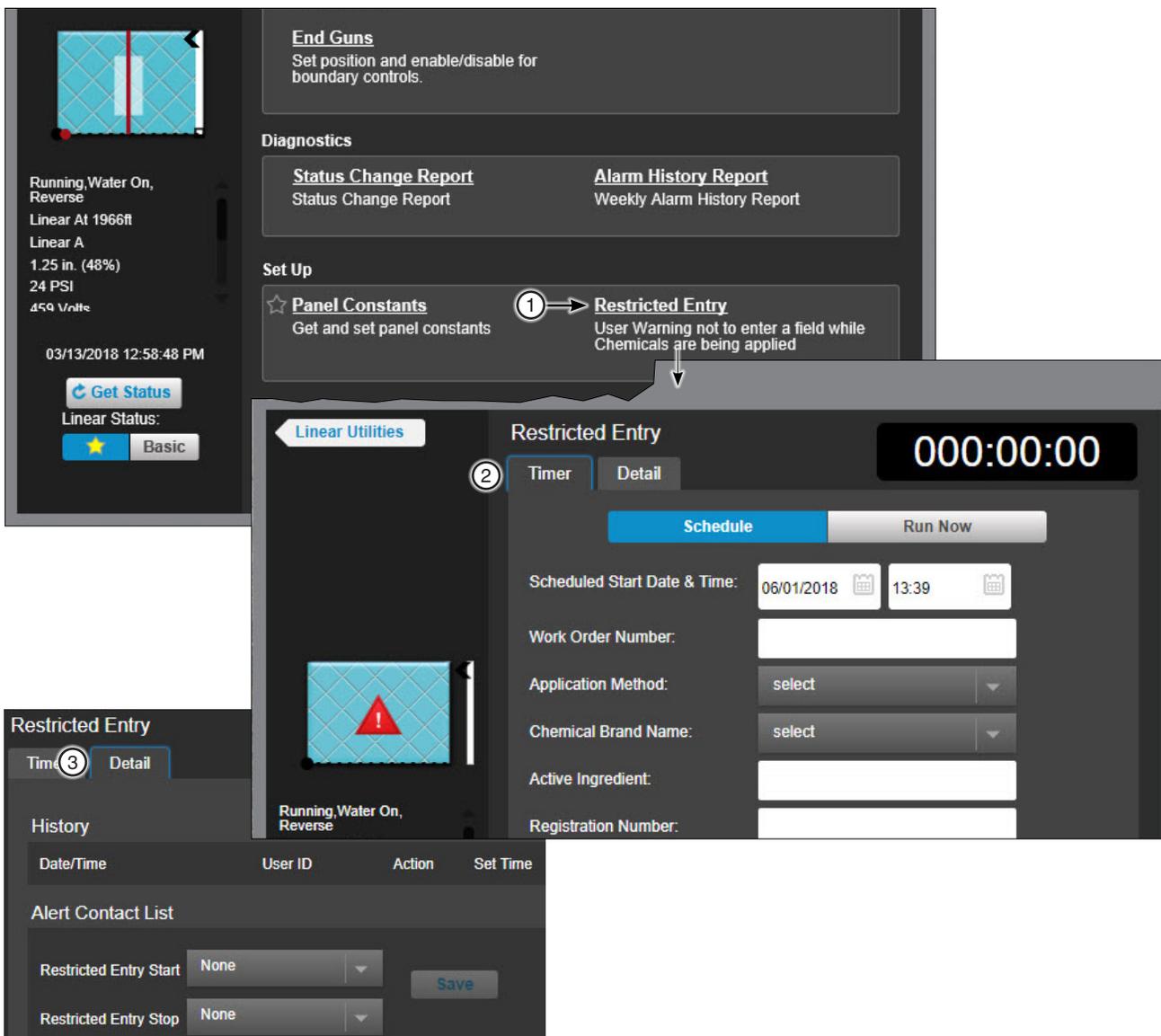


Figure 278-1 1. Restricted Entry 2. Timer 3. Detail

## Pivot

### Device Screen Controls

There are different pivot monitor and control screens based on available features of the control panel. The Pro2 v8.40 control panel view is shown throughout this section. The following controls are available on the device. When making a change, the Commands list dialog box pops up.

**Aux 1 and Aux 2 (Hardware required):** Select On or Off.

**Stop In Slot:** Turn control On or Off.

**Stop In Slot Angle:** Click the Angle field, use the keypad to enter a new value for the Stop In Slot location, then click **Save**.

**Direction Reverse/Forward:** Select Forward or Reverse.

**Water Off/On:** Click **Dry** (Water Off) or **Wet** (Water On).

**Irrigation Percent:** Click the % field and enter a percent timer value using the keypad. Click **Save**. The application depth and hours fields are automatically adjusted.

**Irrigation Depth:** Click the “in” field, and enter an application depth value using the keypad. Click **Save**. The percent timer and hours fields are automatically adjusted. The minimum application constant must be entered in the pivot setup before this option is available. See Pivot Configuration/Setup/Constant Values/Minimum Application in the Device Management section of this manual.

**Irrigation Hours:** Click the “hrs” field and enter a new hours value using the keypad. Click **Save**. The percent timer and application depth fields are automatically adjusted. Hours per revolution must be entered in the pivot setup before this option is available. See Pivot Configuration/Setup/Constant Values /Minimum Hours/Rev in the Device Management section of this manual.

**100%:** Click **100%**. The percent timer, application depth and hours fields are automatically adjusted.

**Start/Stop (machine):** Click **Start** or **Stop**.

After making one or more change(s) click **Send** to send the command(s) or click **Don't Send** to cancel all changes listed in the Commands list dialog box pop up.

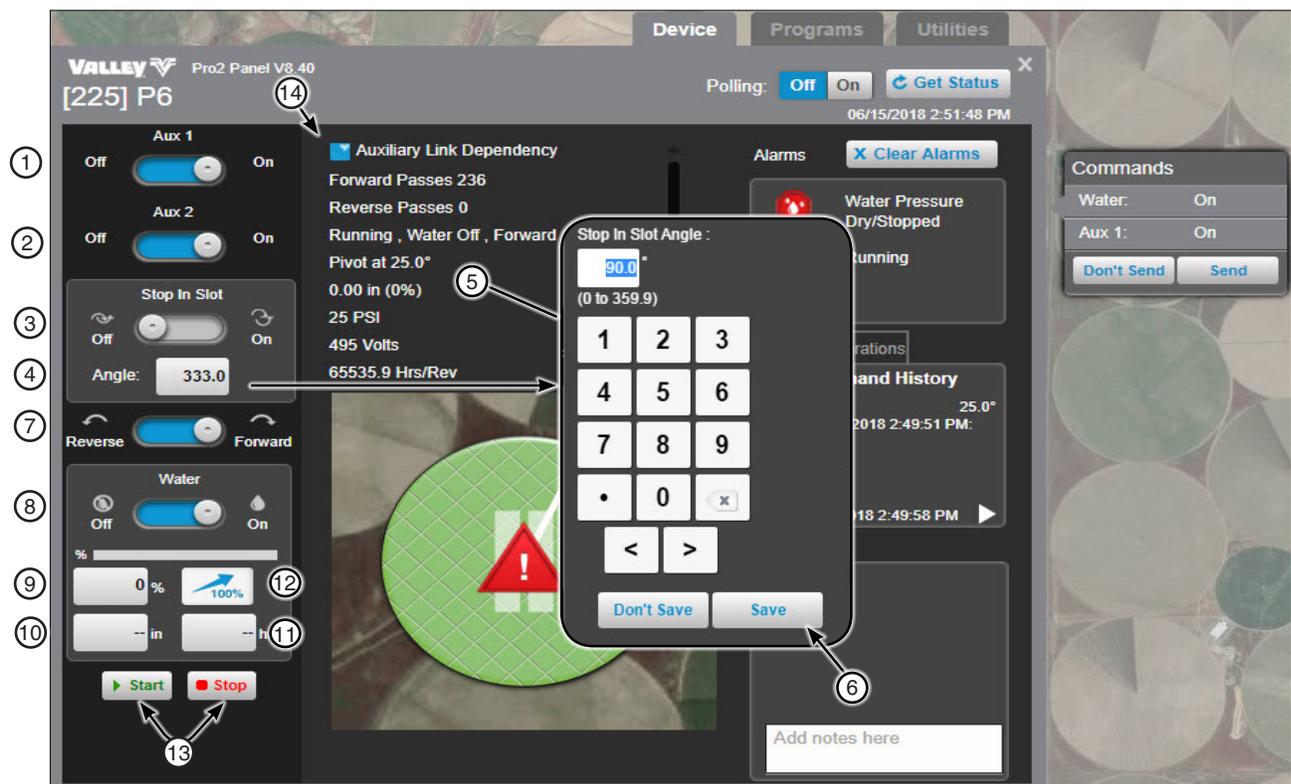


Figure 279-1 1. Aux 1 4. Angle 7. Reverse / Forward 10. Depth Field 13. Start / Stop  
 2. Aux 2 5. Stop in Slot Angle 8. Water 11. Hours Field 14. Auxiliary Link Dependency  
 3. Stop In Slot 6. Save 9. Percent Field 12. Percent

# Monitor and Control

## Pivot (Continued)

### Programs Screen

#### Destination ETA

Destination ETA is the running duration calculation of the current run to a marked destination.

To use, click **Destination ETA**, click the **Destination ETA** switch to Enable. Choose the destination and click **Save**. The Current Calculated ETA will be displayed here in Current Calculated ETA and also on the Device screen in Run Time Operations.

Destination ETA cannot be Enabled when VRI or Cruise is running, when the Percent Timer is set to zero (0) or when the machine is stopped. If VRI or Cruise is enabled, Destination ETA is automatically disabled.

To disable follow **Destination ETA**, click the **Destination ETA** switch to Disable and then click **Save**.

## NOTE

- The field size, located under the cruise setting, needs to be set on the panel for this feature to work.

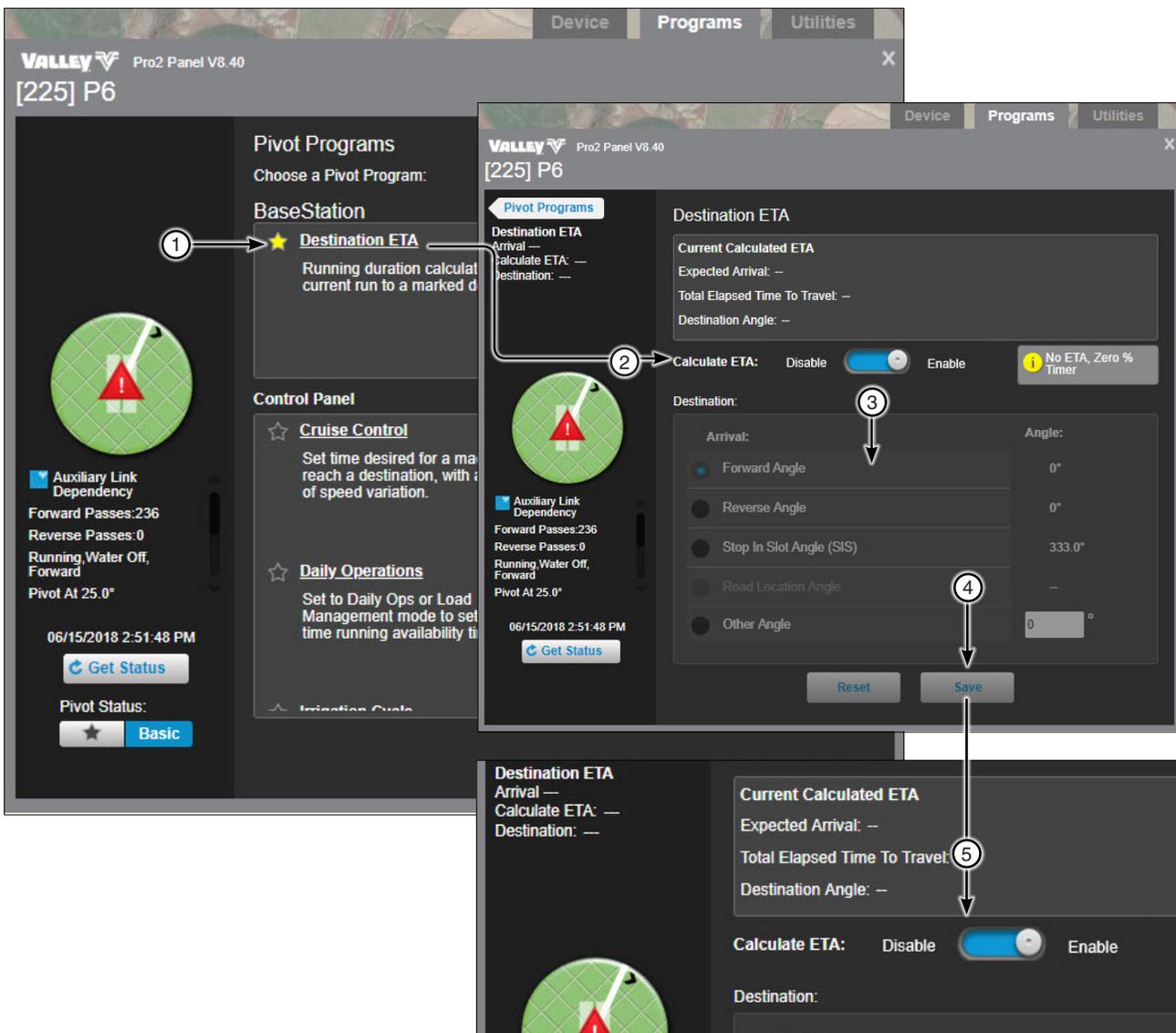


Figure 280-1 1. Destination ETA  
2. Calculate ETA  
3. Arrival

4. Save  
5. Disable / Enable

## Pivot

### Programs Screen (Continued)

#### Pass Counter

Pass Counter allows the user to set the mark angle and enable or disable pass counters to increment when passing the mark angle.

Click **Pass Counter** to open the screen. The Pass Counters work for both the forward and reverse counter, which can be enabled or disabled.

Information for both counters include:

**Disable/Enable:** Disables or enables the Forward or Reverse Counter.

**Mark:** The degree mark in which the counter will record a pass each time the pivot hits while either in forward or reverse, depending on which counter it is set for.

**Count:** Records the number of times the mark is hit, can be reset by pressing the reset button.

**Count Start (Date & Time):** The date and time when the count started.

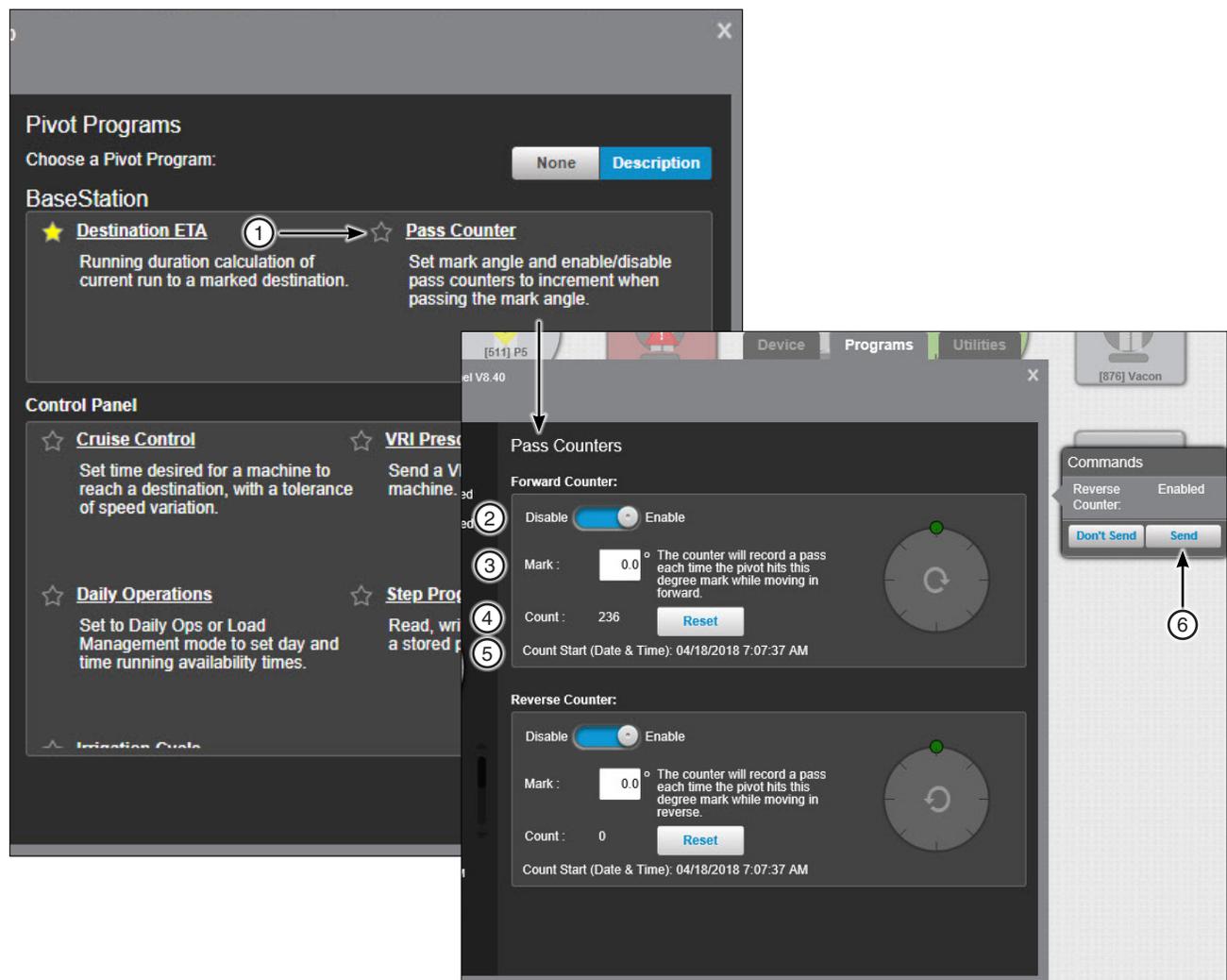


Figure 281-1

1. Pass Counter	4. Count
2. Disable/Enable	5. Count Start (Date & Time)
3. Mark	6. Send

# Monitor and Control

## Pivot (Continued)

## Programs Screen (Continued)

### Cruise Control

Cruise Control is only available when it's supported by the device and VRI is Off as shown on page 284 .

Use Cruise Control to:

- Enable or Disable cruise control
- Send the Cruise Hours Per Pass to the device
- Adjust application hours based on the set field size (PRO2, PRO2+ and ICON)

Click **Cruise Control** to open the screen. BaseStation automatically retrieves the current setting and Cruise Hours Per Pass from the control panel. Clicking the **Get Cruise Info** button also retrieves the current settings from the control panel. Note that the Field size value is not stored in the panel; this value is used only for BaseStation3 calculations.

Available Cruise Control information:

- **Cruise Start:** Date and time that Cruise Control was enabled.
- **Est End:** Estimated end date and time.
- **Adj. Pct. Timer:** The adjusted percent timer percent.
- **Start Angle:** The angle where the Cruise program starts.
- **End Angle:** The angle where the Cruise program ends.
- **App. Depth:** Application depth (in inches) that the pivot is set at.
- **Cruise Hours per Pass:** Application hours based on Field Size, Change of Speed and Resolution.

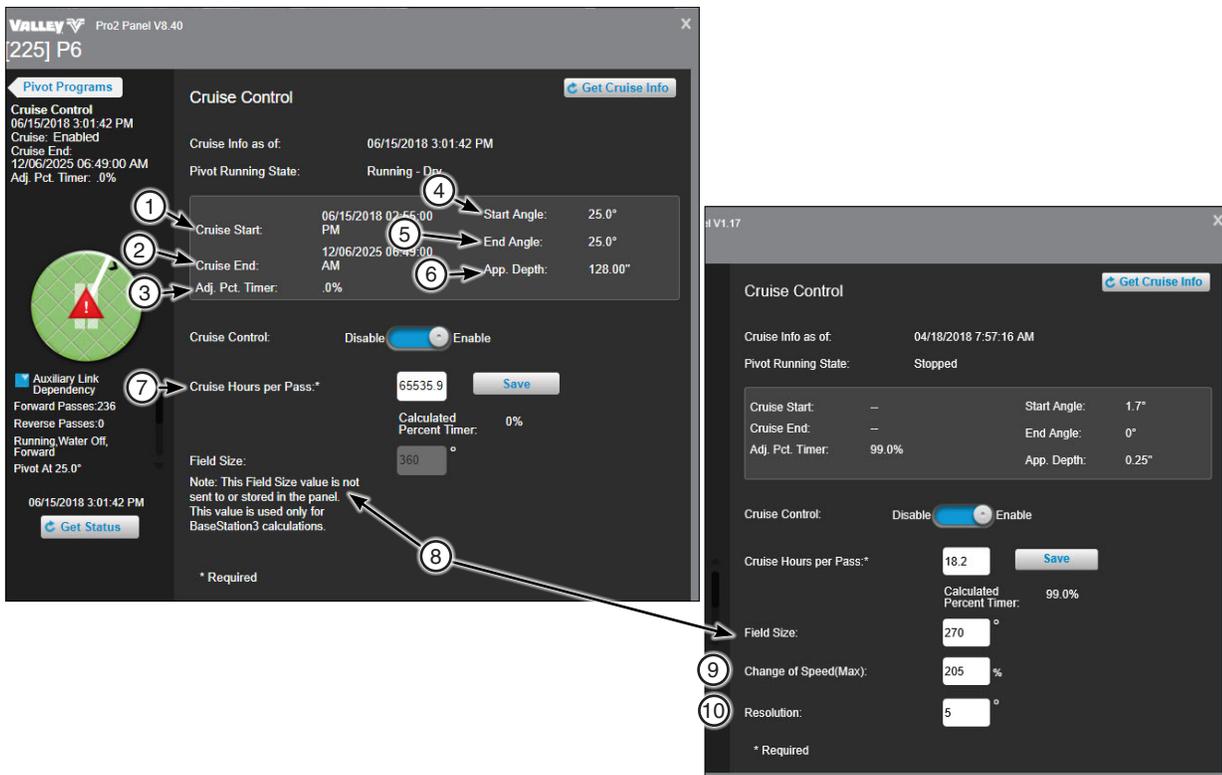


Figure 282-1 1. Cruise Start  
2. Cruise End  
3. Adj. Pct. Timer  
4. Start Angle

5. End Angle  
6. App. Depth  
7. Cruise Hours per Pass  
8. Field Size

9. Change of Speed  
10. Resolution

## Pivot (Continued) Programs Screen (Continued) Cruise Control (Continued)

To enable cruise control see Figure 283-1 and do the following.

1. Click **Cruise Control**.
2. Click **Enable** or **Disable** (the Commands list dialog box is populated).
3. Enter new values (Optional):
  - (a) Cruise Hours per Pass
  - (b) Field Size
  - (c) Change of Speed
  - (d) Resolution
4. Click **Save** to populate the Commands list dialog box with the change.
5. When done click **Send**.
6. Click **Get Cruise Info** to get current cruise information.



Figure 283-1 1. Cruise Control 2. Disable/Enable 3. Cruise Hours per Pass 4. Save 5. Get Cruise Info

# Monitor and Control

## Pivot (Continued)

### Programs Screen (Continued)

#### VRI Prescriptions

VRI Prescriptions is only available when Cruise Control is disabled and the device supports VRI (Variable Rate Irrigation) Speed, Zone or iS. Use VRI Prescriptions to send speed, zone or individual Sprinkler prescriptions to the device and turn VRI On or Off.

Click **VRI Prescriptions** to open the screen. BaseStation automatically retrieves the current mode setting from the control panel. Clicking the **Get VRI** button also retrieves the current mode setting from the control panel.

**Mode:** The Mode, either speed, zone or individual Sprinkler is set at the control panel and cannot be changed through BaseStation. When the mode is Zone, only 1 prescription is shown, if Speed, 5 prescription locations are shown, when the mode is set to individual sprinkler (iS), up to 9 prescriptions are shown.

**Configure Zones:** Use to customize zone information in Irrigation Exchange for this machine. The custom information is used for VRI prescriptions that will be generated from Irrigation Exchange. Set the number of zones and customize the start, end and cycle time for each zone.

**Notes:** To add a note, click the note field, enter the message and click **Add**.

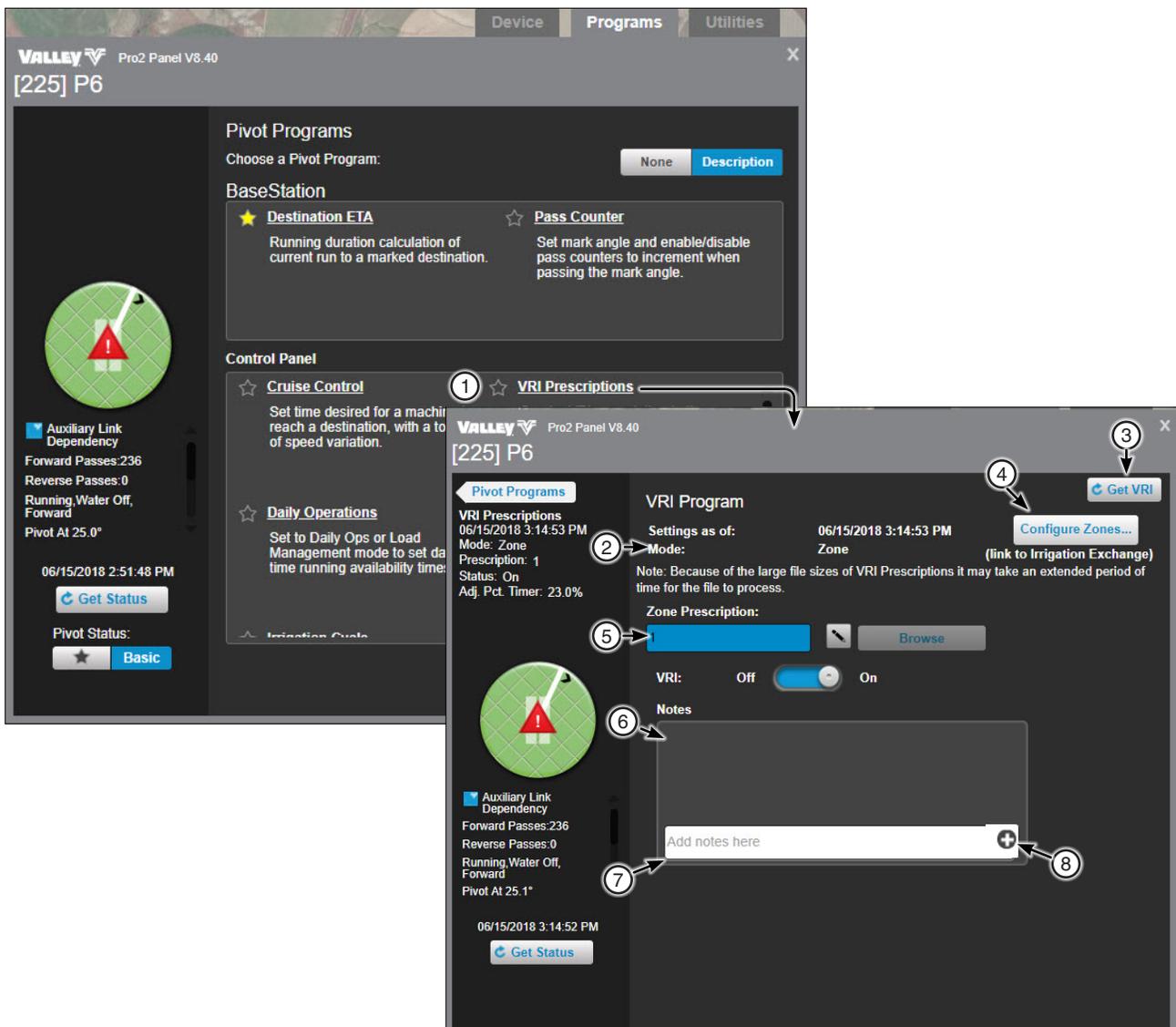


Figure 284-1 1. VRI Prescriptions  
2. Mode  
3. Get VRI  
4. Configure Zones

5. Zone Prescription  
6. Notes  
7. Note Field  
8. Add

## Pivot (Continued)

## Programs Screen (Continued)

## VRI Prescriptions (Continued)

## Upload VRI Prescriptions

To upload a prescription to the control panel, go to the **VRI Prescriptions** screen. Click the edit pencil and then the **Browse** button for the prescription location. Select the prescription file for the current mode (Speed, Zone or individual Sprinkler) and click **Open**. On the Commands list dialog box, click **Send** to upload the file (use a .speed, .zone or .iVis file, not .VRI) to the control panel in the same location. When a VRI prescription is loaded, the prescription number is validated in a VRI file against the prescription number. In addition, an error displays if the prescription numbers do not match. Once validated, a load processing bar displays to indicate the progress of loading the prescription.

The file name is shown in the prescription location as a reference to the file that was uploaded. To edit the reference file name click **Change**, to exit the change mode click **Change** again.

## NOTES

- The procedure only is true if the VRI switch is off; users cannot browse if it is on.
- The VRI prescription is not stored in the BaseStation data base.
- BaseStation does not verify that the VRI Prescription in the control panel matches the referenced file name in the BaseStation. Therefore, if a different VRI Prescription is uploaded to the control panel locally, BaseStation only knows that there is a prescription, it does not verify the file name.
- BaseStation3 validates the Prescription Number entered in the file with the number of the location that the prescription was loaded to. If the numbers do not match, an error appears notifying the user.

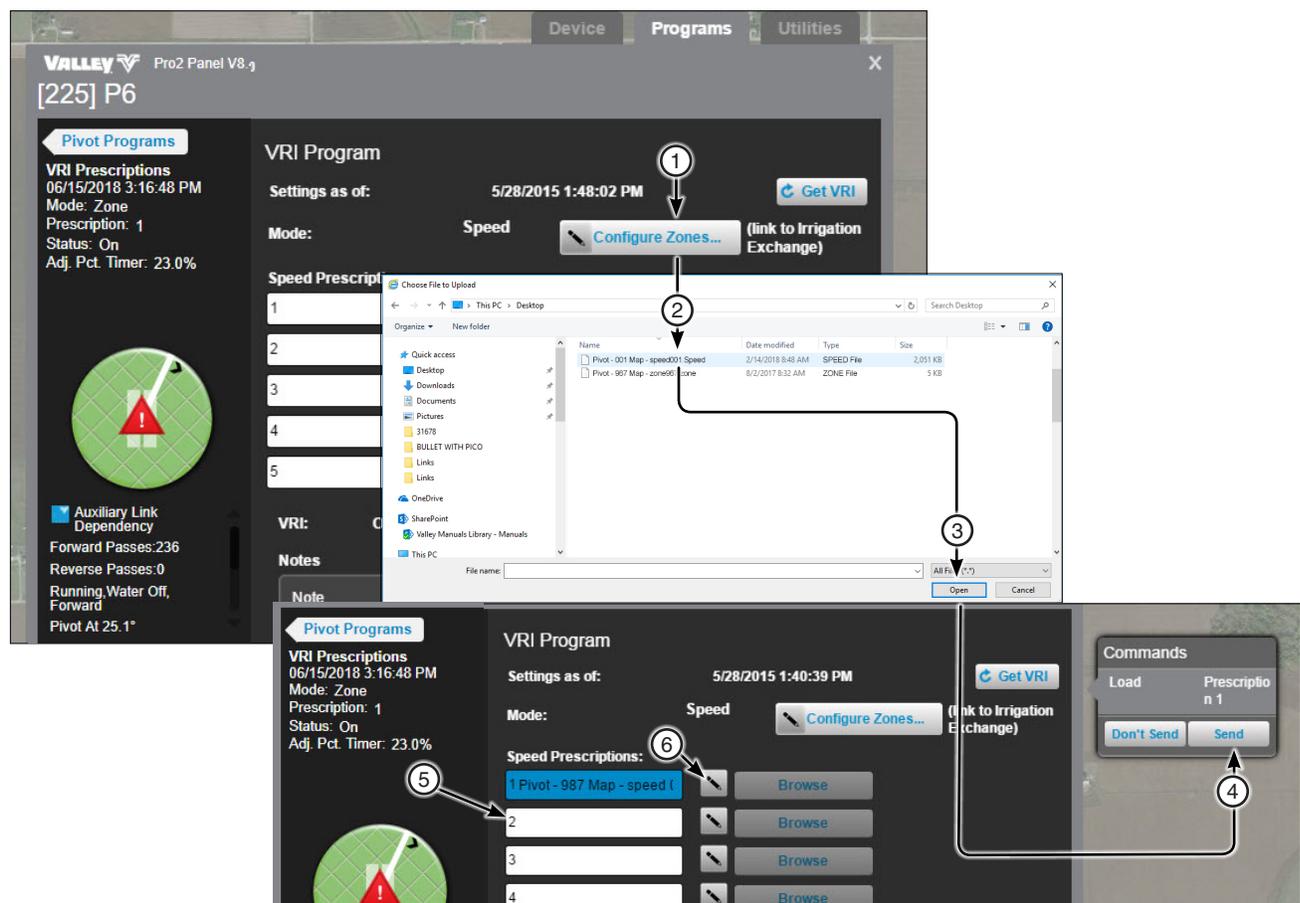


Figure 285-1 1. Browse 2. Prescription File 3. Open 4. Send 5. File Name Reference 6. Change

# Monitor and Control

## Pivot (Continued)

## Programs Screen (Continued)

## VRI Prescriptions (Continued)

## Run VRI Prescriptions

To run a VRI Prescription, go to the **VRI Prescriptions** screen. Select the prescription and click **On**. From the Commands list dialog box click **Send**. The current status of the prescription displays under the Pivot Programs area of the screen.

If VRI is switched On, Destination ETA is automatically disabled.

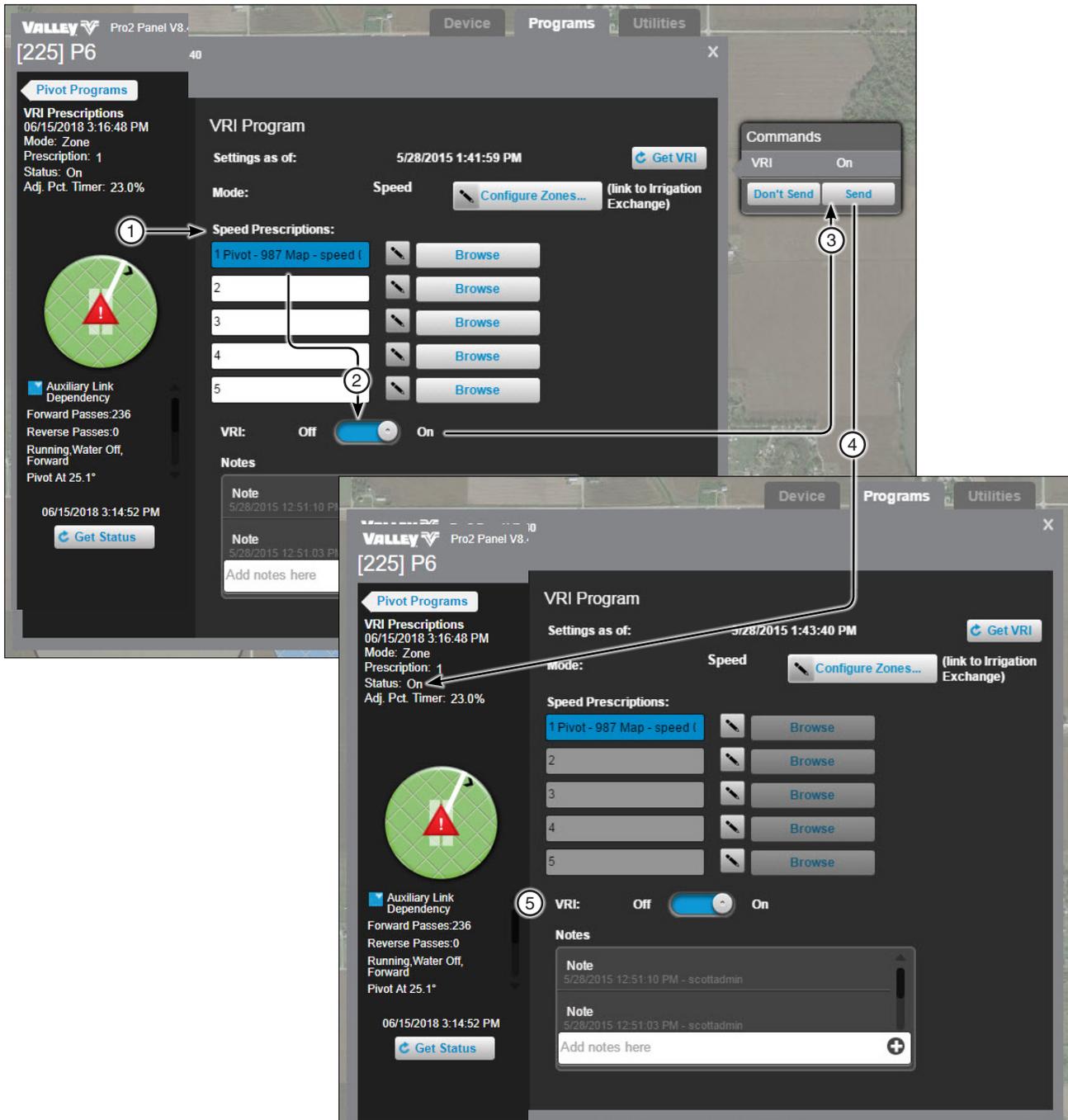


Figure 286-1 1. Prescriptions  
2. VRI On

3. Send  
4. VRI Prescriptions Status

5. VRI Off / On

## Pivot (Continued) Programs Screen (Continued)

### VRI iS

VRI iS supports up to 9 prescriptions.

**Configure Zones:** Use to customize zone information in Irrigation Exchange for this machine. The custom information is used for VRI prescriptions that will be generated from Irrigation Exchange. Set the number of zones and customize the start, end and cycle time for each zone.

**Notes:** To add a note, click the note field, enter the message and click **Add**.

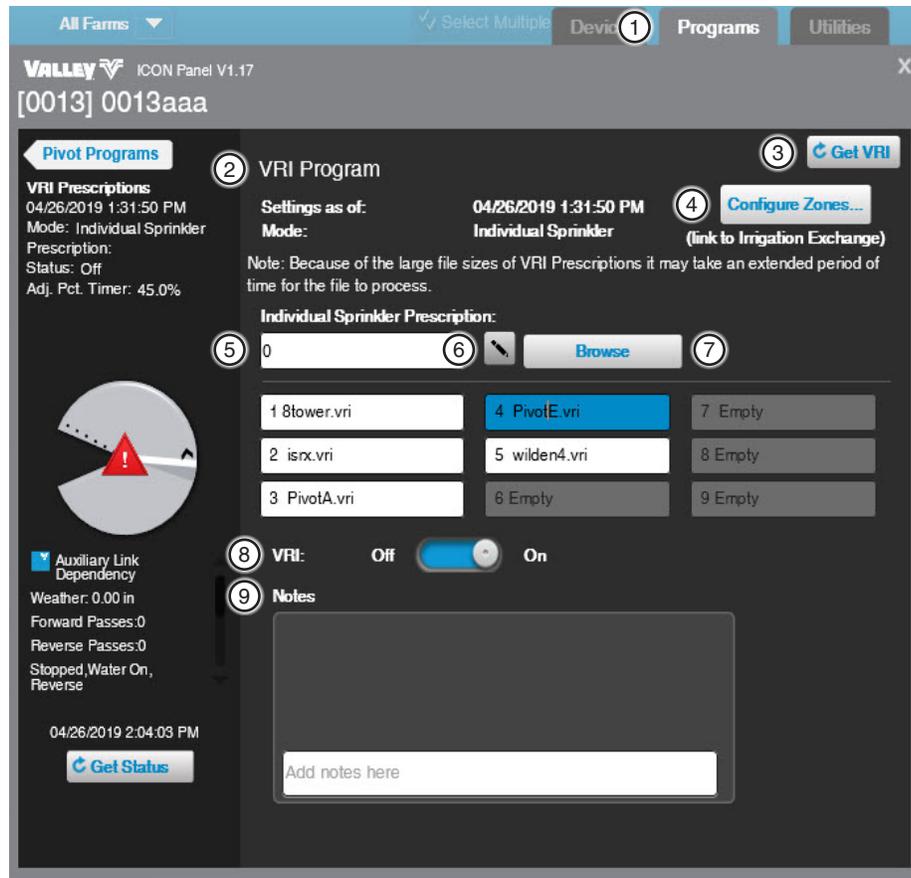


Figure 287-1

1. Program	5. Individual Sprinkler Prescription
2. VRI Program	6. Edit
3. Get VRI	7. Browse
4. Configure Zones	8. VRI Off/On
	9. Notes

# Monitor and Control

## Pivot (Continued)

### Programs Screen (Continued)

#### Daily Operations

Use Daily Operations to program remote start and stop tasks to occur at predetermined times during a 24 hour period. Custom settings are available for one day or every day at the same time.

Click **Daily Operations** to open the screen. BaseStation automatically retrieves and displays the settings currently stored on the control panel. Clicking the **Get Status** button also retrieves the settings stored on the control panel.

**Disable/Enabled:** Disable or Enabled daily operations by clicking the switch.

**Mode:** Choose the mode, either Load Management or Daily Ops by clicking the switch.

**Currently in:** The type of period based on the mode. Restricted period and available period for load management or Locked period or unlocked period for daily ops.

**Pivot Running State:** The current running status of the machine.

**Restart:** Either active or inactive.

**Activate restart:** In Load Management, click Activate Restart to activate restart after pivot was stopped outside of Daily Operations.

**Set Times of Operation During the Week:** A graphic schedule displaying the restricted, available, locked or unlocked periods by day and hour.

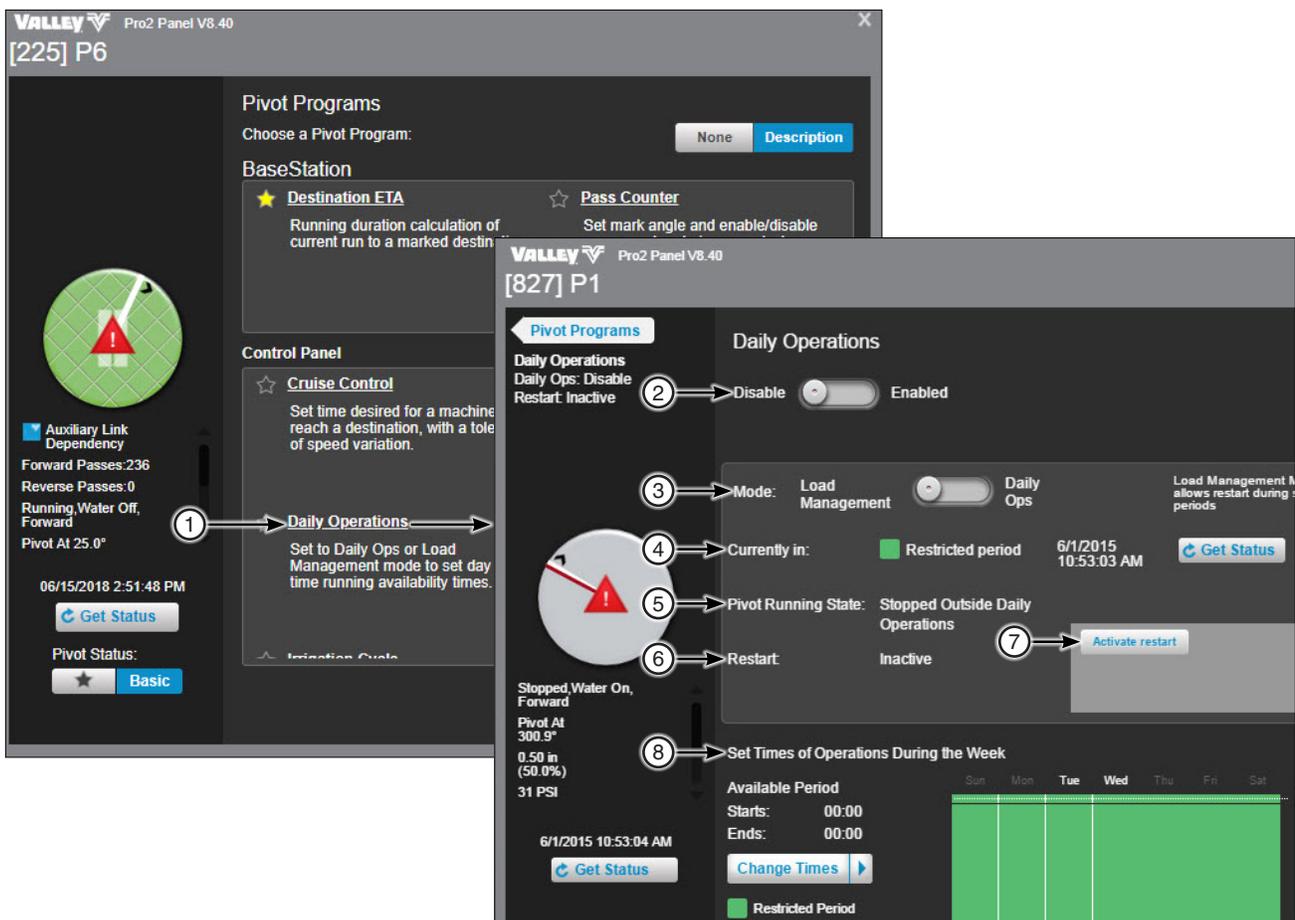


Figure 288-1 1. Daily Operations  
2. Disable/Enable  
3. Mode  
4. Currently In

5. Pivot Running State  
6. Restart  
7. Activate restart  
8. Set Times of Operation During the Week

## Pivot (Continued)

## Programs Screen (Continued)

## Daily Operations (Continued)

## Disable/Enable

To disable, enable and/or set the mode of operation, refer to Figure 289-1 and do the following:

1. Click the **Daily Operations Disable/Enabled** switch to toggle between Disable and Enable.
2. Click **Load Management or Daily Ops** switch to toggle between Load Management and Daily Ops.
3. When done making changes, click **Send**.

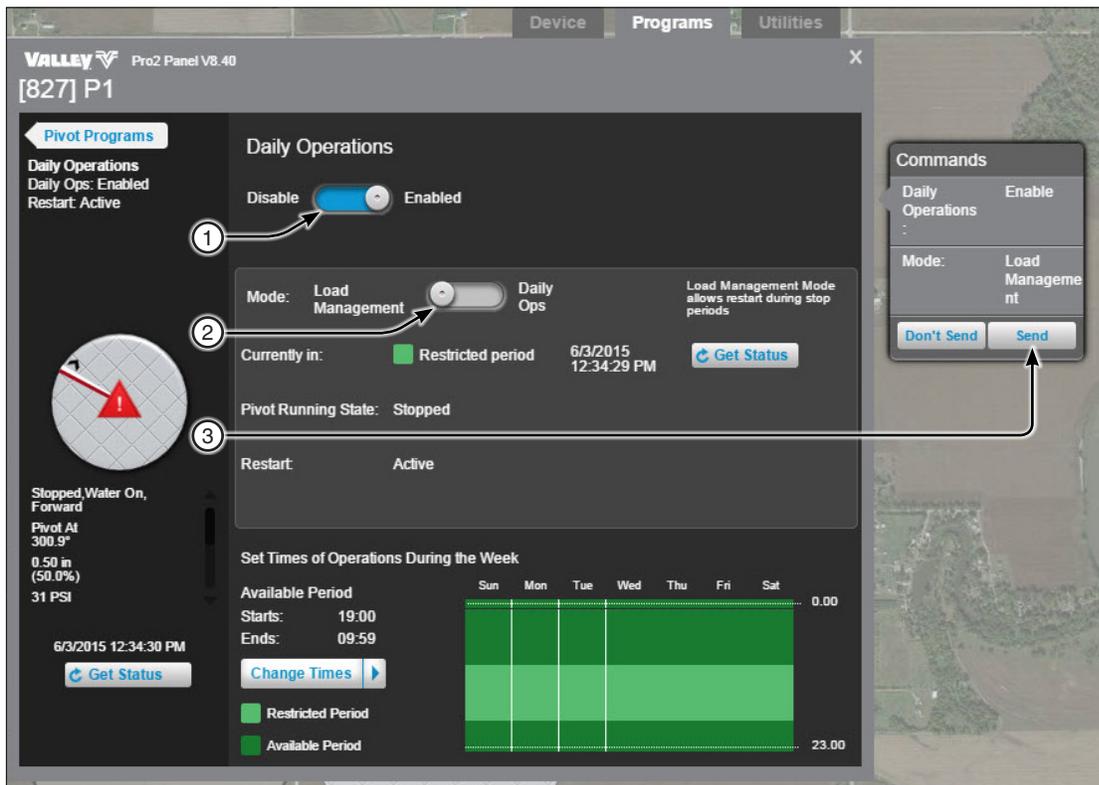


Figure 289-1 1. Daily Operations Disable/Enabled  
2. Mode  
3. Send

# Monitor and Control

## Pivot (Continued)

## Programs Screen (Continued)

## Daily Operations (Continued)

### Setting Time of Operation

To set the time of operation, refer to Figure 290-1 and do the following.

1. Click **Change Times**.
2. Choose the days of the week for daily operations to run.
3. Click the **Unlocked period starts** calendar. Using the +/- buttons, set the start hour and minute and click **Set Time**.

## NOTE

•Checking 24 Hr period adjusts the end time to 23:29 from the start time.

4. Click the **Unlocked period ends** calendar. Set the end hour and minute, then click **Set Time**.
5. Click **Apply** and the schedule is updated with the new settings.
6. Click **Done** or click **Reset** to change settings back to the last saved.
7. Click **Send**.

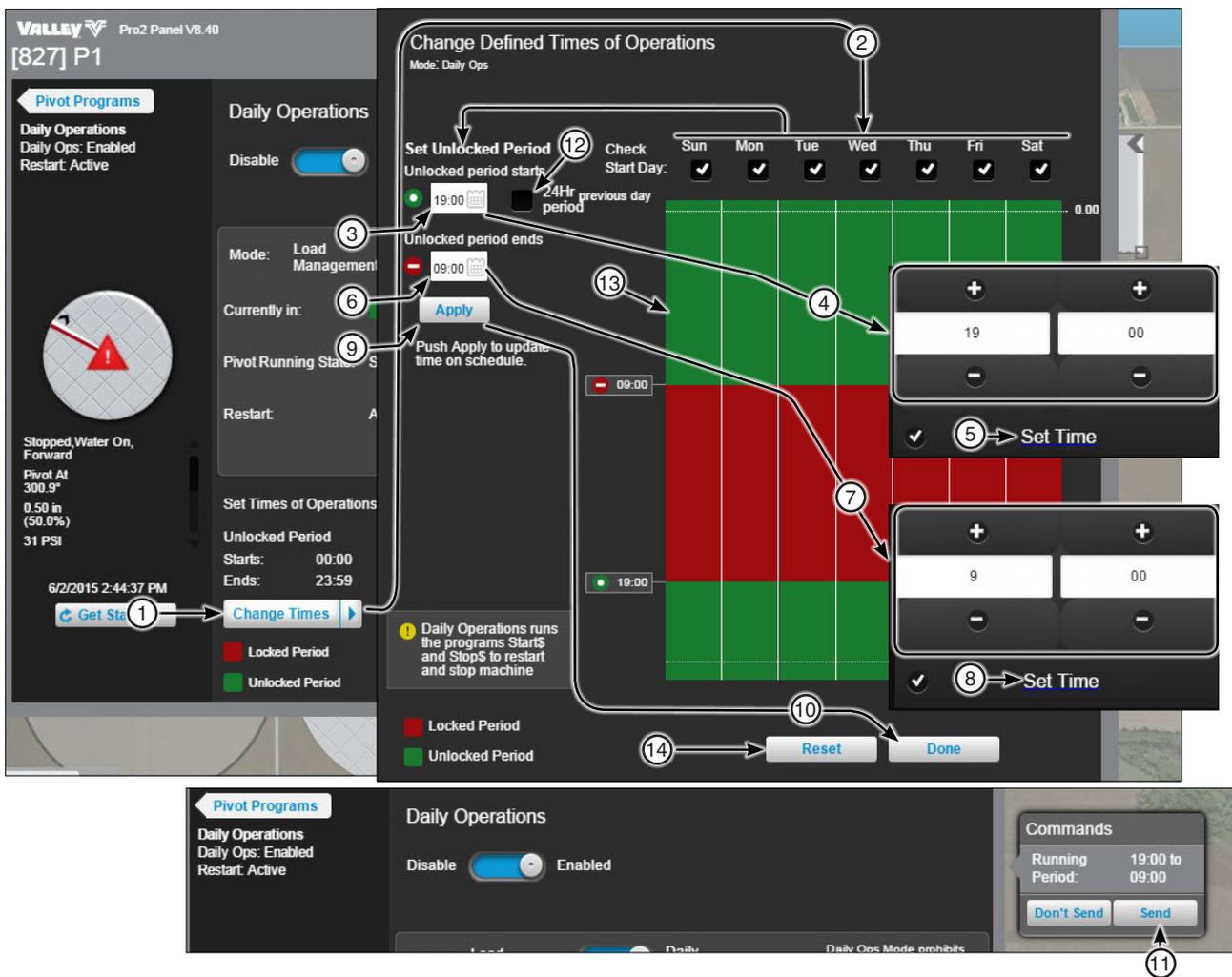


Figure 290-1

1. Change Times	6. Unlocked period ends	11. Send
2. Check Start Day	7. Set Time Hours/Minutes	12. 24Hr period
3. Set Unlocked Period Unlocked period starts	8. Set Time	13. Schedule
4. Set Time Hours/Minutes	9. Apply	14. Reset
5. Set Time	10. Done	

## Pivot (Continued)

### Programs Screen (Continued)

### Step Programs

Read/write/edit/run/stop/erase stored step programs.

Click **Step Programs** to open the screen. BaseStation automatically retrieves and displays all programs currently stored on the control panel. Clicking the **Get Programs** button also retrieves all programs stored on the control panel.

**Run a Program:** To run a program click **Run**. Then from the Commands list dialog box click **Send, Run And Erase** or **Send**. When a program is running a green circle appears in front of the program number.

**Stop a Program:** To stop a program click **Stop**. Then from the Commands list dialog box click **Send**.

To expand or collapse the steps displayed within the a program click **Expand Step**. To expand or collapse the steps in all programs at once use the **Expand All** button.



Figure 291-1

1. Step Programs	4. Running Indicator
2. Run	5. Expand Step
3. Send	6. Expand All

# Monitor and Control

## Pivot (Continued)

### Programs Screen (Continued)

#### Step Programs (Continued)

All of the programs can be displayed by clicking the **On Panel** button or only the programs that are running can be displayed by clicking the **Running Only** button, which then shows only the programs that are currently running in the panel.

**Edit a Program:** To edit a program click **Change**.

**Copy a Program:** To copy a program click **Copy**. Select the program position number to copy or overwrite and click **Done**. The program is copied to the selected number and the program list is refreshed.

The program copy function is useful for re-using an existing program as a template to create a new program. After copying a program and saving it to another program number, it can be edited as desired. This leaves the original program undisturbed, while providing another program with the same design.

**Delete a Program:** To delete a program click **Delete**.

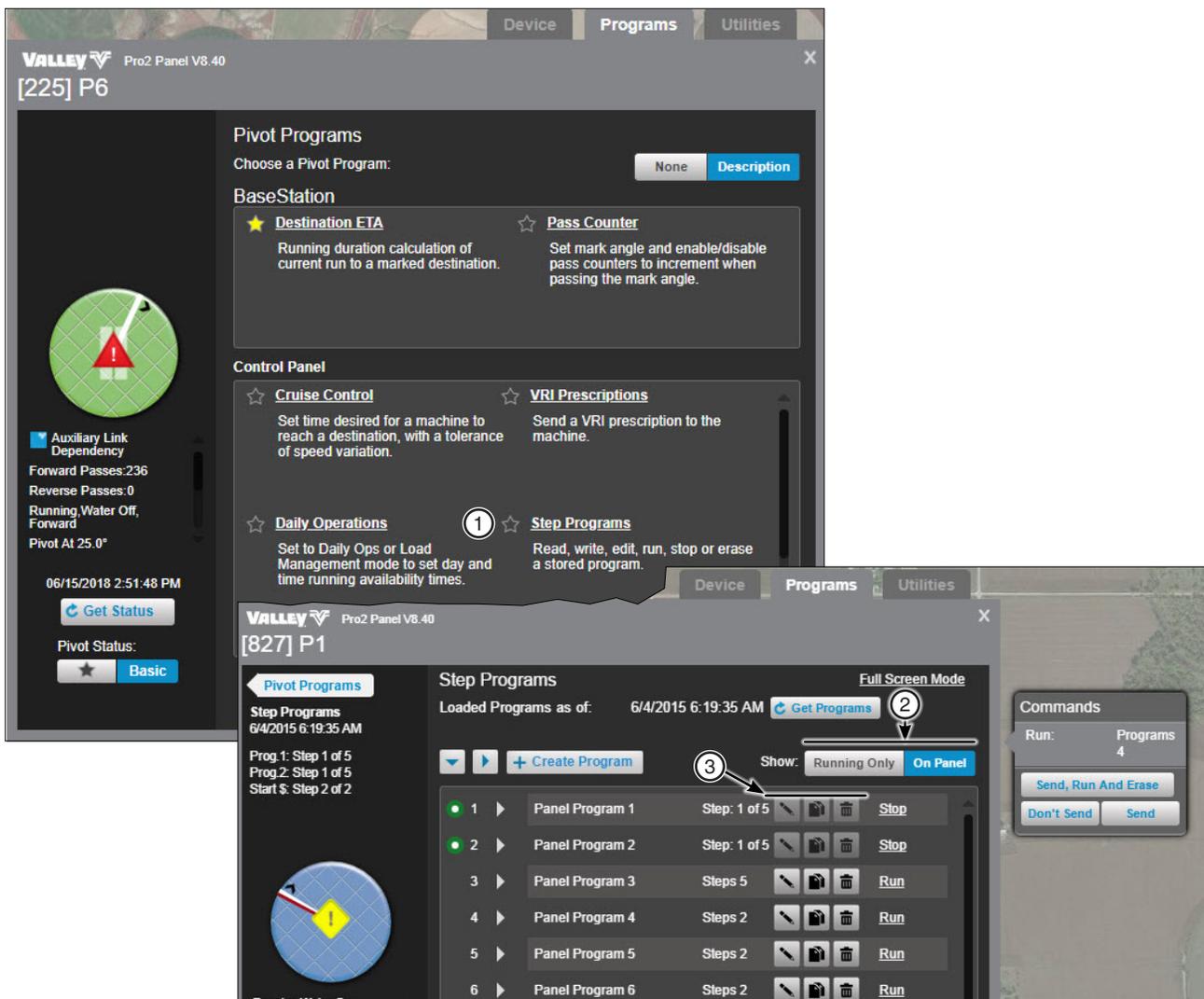


Figure 292-1 1. Step Programs  
2. On Panel/Running Only  
3. Change/Copy/Delete

## Pivot (Continued)

### Programs Screen (Continued)

### Step Programs (Continued)

### Creating Programs

### Conditions

To create a new program, refer to Figure 293-1 and do the following.

1. Click **Create Program**.
2. Click **Condition** in Step 1.
3. Select a condition for this step. Then enter or select the parameters for the condition.
4. Click **Done**. Continue with step 5 on page 295.

## NOTE

- The last four conditions listed in Figure 293-1 (Pulse Rate, Count-Higher, Analog and Module are available for use only in the physical panel. BaseStation3 will display these conditions when viewing stored programs.



Figure 293-1 1. Create Program  
2. Condition

3. Step 1 Condition  
4. Done

# Monitor and Control

---

**Pivot (Continued)**

**Programs Screen (Continued)**

**Step Programs (Continued)**

**Creating Programs (Continued)**

**Condition List**

Condition	Parameters
Position	Enter pivot position in degrees.
Direction	Select the direction.
Delay	Enter a delay time in minutes or seconds. Range is 1 to 60000.
Day-Time	Toggle days On or Off, enter time of day and click Set Time.
Date-Time	Enter date, enter time of day and click Set Time.

## Pivot (Continued)

### Programs Screen (Continued)

### Step Programs (Continued)

### Creating Programs (Continued)

### Commands

To select commands for a new program, refer to Figure 295-1 and do the following.

5. Click **Commands** in Step 1.
6. Select the first command for this step. Depending on the command, additional fields may appear that need to be filled with information about the command selected. Up to 8 different commands can be selected, one on each command line.
7. Do one of the following:
  - (a) If there are more commands for this step click **Add**.
  - (b) If there are no more commands for this step click **Done**. Continue with step 8 on page 297.

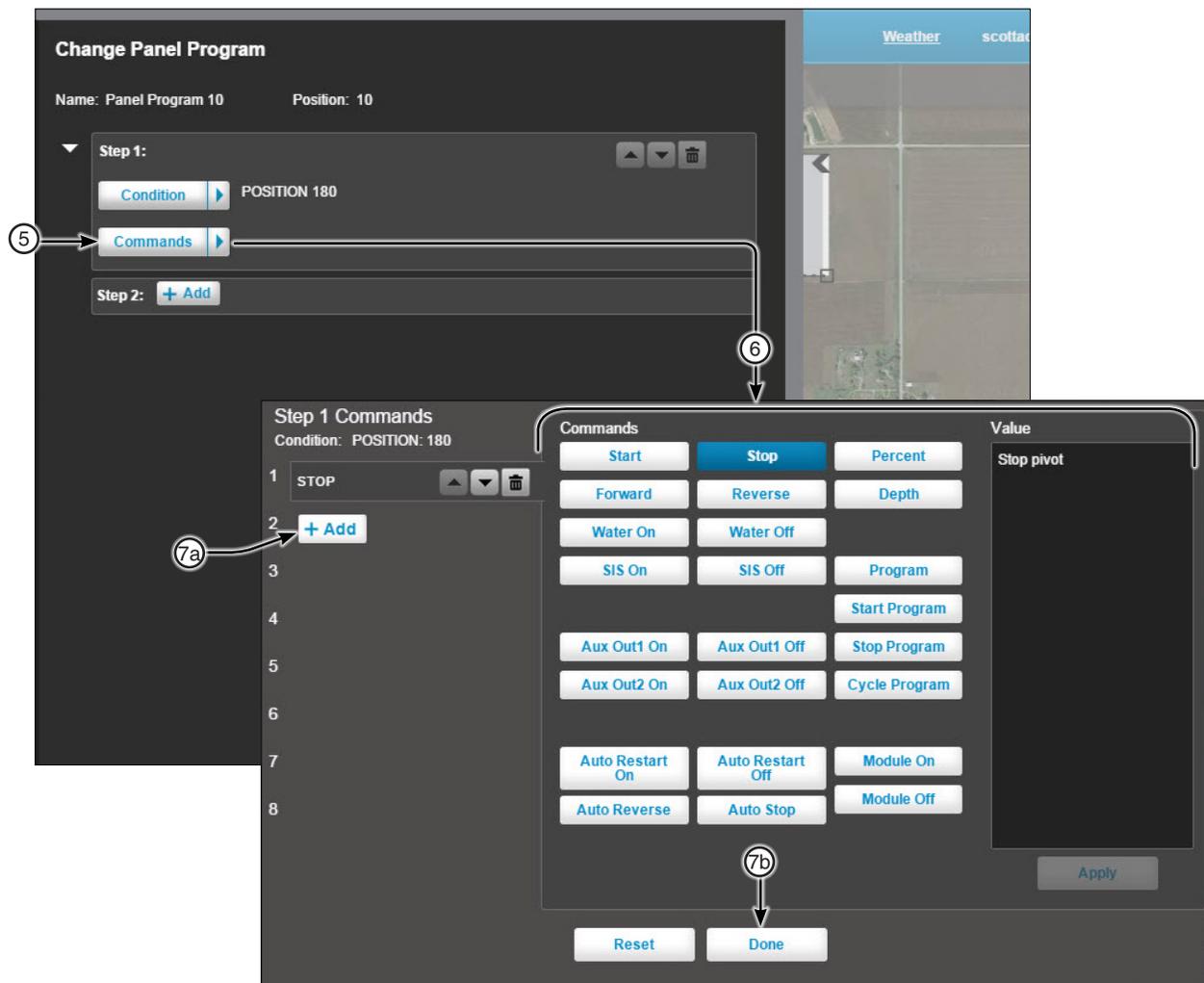


Figure 295-1 5. Commands  
6. Commands  
7a. Optional: + Add Command  
7b. Done

# Monitor and Control

---

## Pivot (Continued)

## Programs Screen (Continued)

## Step Programs (Continued)

## Creating Programs (Continued)

## Command List

Command	Action/Parameter
Start	Start pivot.
Stop	Stop pivot.
Percent	Set percent timer, enter percent and click apply.
Forward	Set direction forward.
Reverse	Set direction reverse.
Depth	Set application depth, enter depth and click apply.
Water On	Turn water on.
Water Off	Turn water off.
SIS On	Stop in slot on.
SIS Off	Stop in slot off.
Aux Out1 On	Turn auxiliary output 1 on.
Aux Out1 Off	Turn auxiliary output 1 off.
Aux Out2 On	Turn auxiliary output 2 on.
Aux Out 2 Off	Turn auxiliary output 2 off.
Auto Restart On	Turn auto restart on.
Auto Restart Off	Turn auto restart off.
Auto Reverse	Set ARAS to Auto Reverse mode.
Auto Stop	Set ARAS to Auto Stop mode.
Program	Run program, select program and click apply.
Start Program	Run START\$ program.
Stop Program	Run STOP\$ program.
Cycle Program	Run CYCLE\$ program.

## Pivot (Continued)

## Programs Screen (Continued)

## Step Programs (Continued)

## Creating Programs (Continued)

### Add a Step

Optional: To add another step to the program, refer to Figure 297-1 and do the following.

8. Click **Add**. Select a **Condition** and choose **Commands**. When done adding steps, continue with **Storing the Program**.

### Storing the Program

To finish and store the program in the control panel, refer to step 9 and Figure 297-1.

9. Do one of the following storage options.
  - Click **Don't Store** to leave the screen without storing the program. All changes will be lost.
  - Click **Store, Run and Erase** to store program on the control panel, run the program, then erase the program when the run is complete.
  - Click **Store and Run** to store program on the control panel and then run the program.
  - Click **Store** to store the program on the control panel.
10. Click **Send**.

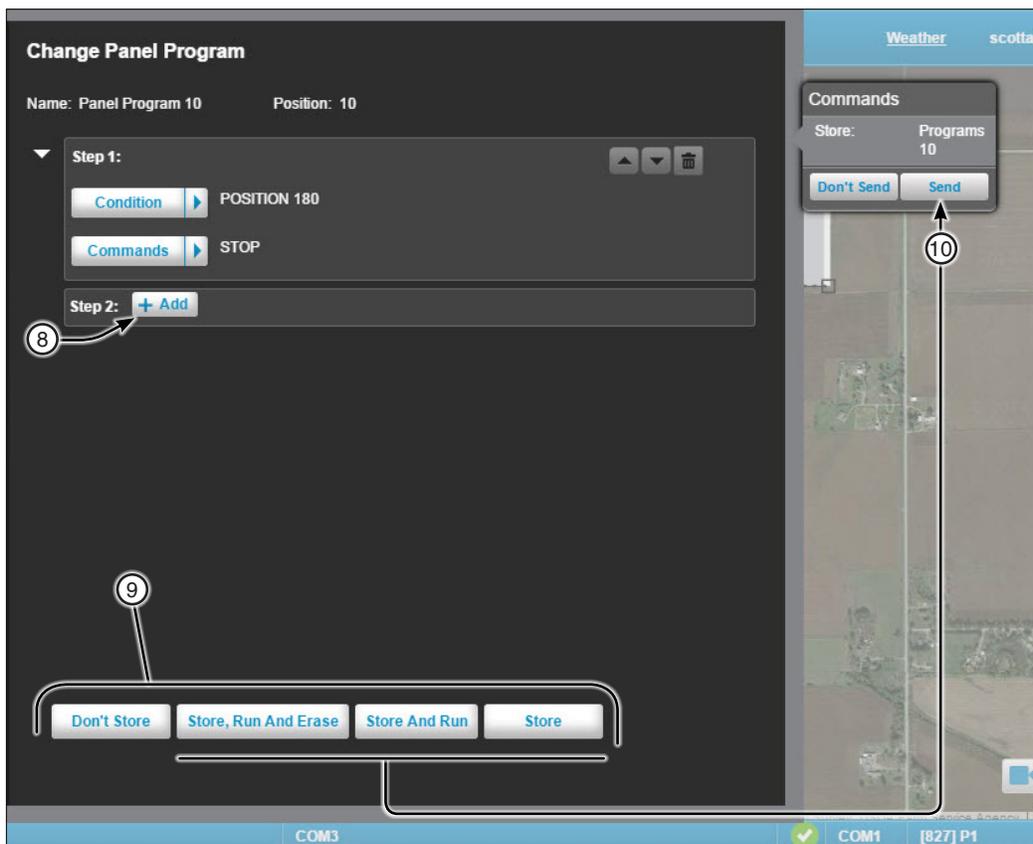


Figure 297-1 8. Optional: + Add  
9. Storage Options  
10. Send

# Monitor and Control

## Pivot (Continued)

## Programs Screen (Continued)

### Irrigation Cycle

The Irrigation Cycle is used to run the system to the SIS location and bypass it a defined number of times.

**Irrigation Cycle Stop Angle (SIS):** The angle at which the irrigation cycle stops. The SIS angle can be set within the Irrigation Cycle settings; additionally, the device can be started at any position (not just the SIS angle).

**Number of Cycles:** The number of times to bypass the SIS location.

**Irrigation Cycle:** Switch from Stop or Run.

**Status Information:** Includes Cycle Count, Irrigation Cycle ETA and Start (Date & Time).

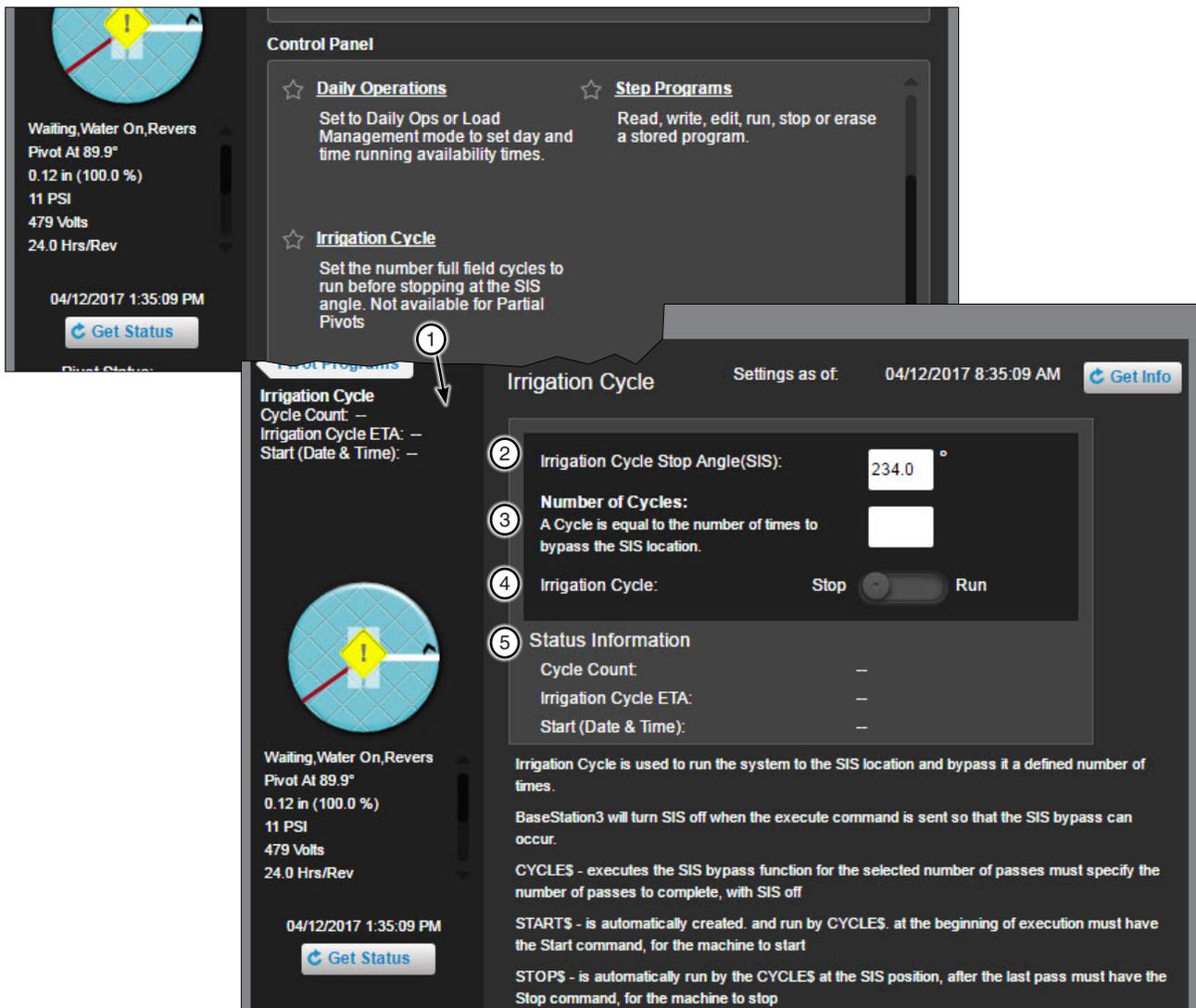


Figure 298-1 1. Irrigation Cycle 2. Irrigation Cycle Stop Angle (SIS) 3. Number of Cycles 4. Irrigation Cycle 5. Status Information

## Pivot (Continued)

### Utilities Screen

#### Options

#### Auto Restart

Use Auto Restart to set mode for Pressure/Power/Both, and Enable/Disable.

To enable and setup Auto Restart click **Auto Restart**. Click **Auto Restart Enable** enable. Select a **Restarting Effects** option. On the Commands list dialog box click **Send**. Click **Get Status** to update the Device Status.



Figure 299-1

1. Auto Restart
2. Auto Restart Enable
3. Restarting Effects
4. Send
5. Get Status

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## ARAS (Auto Reverse and Auto Stop)

Set Mode and Enable / Disable ARAS.

To enable and setup click **ARAS**. Click **ARAS Enable** to enable. Select the Mode option and enter the ARAS Delay Time. The delay time sets the panel's time duration that it waits before executing the machine shutdown or the direction change movement, once the end of field position is sensed. Select the ARAS Status Part of Polling option. Click **Send** in the Commands list dialog box. Click **Get Status** to update the Device Status.

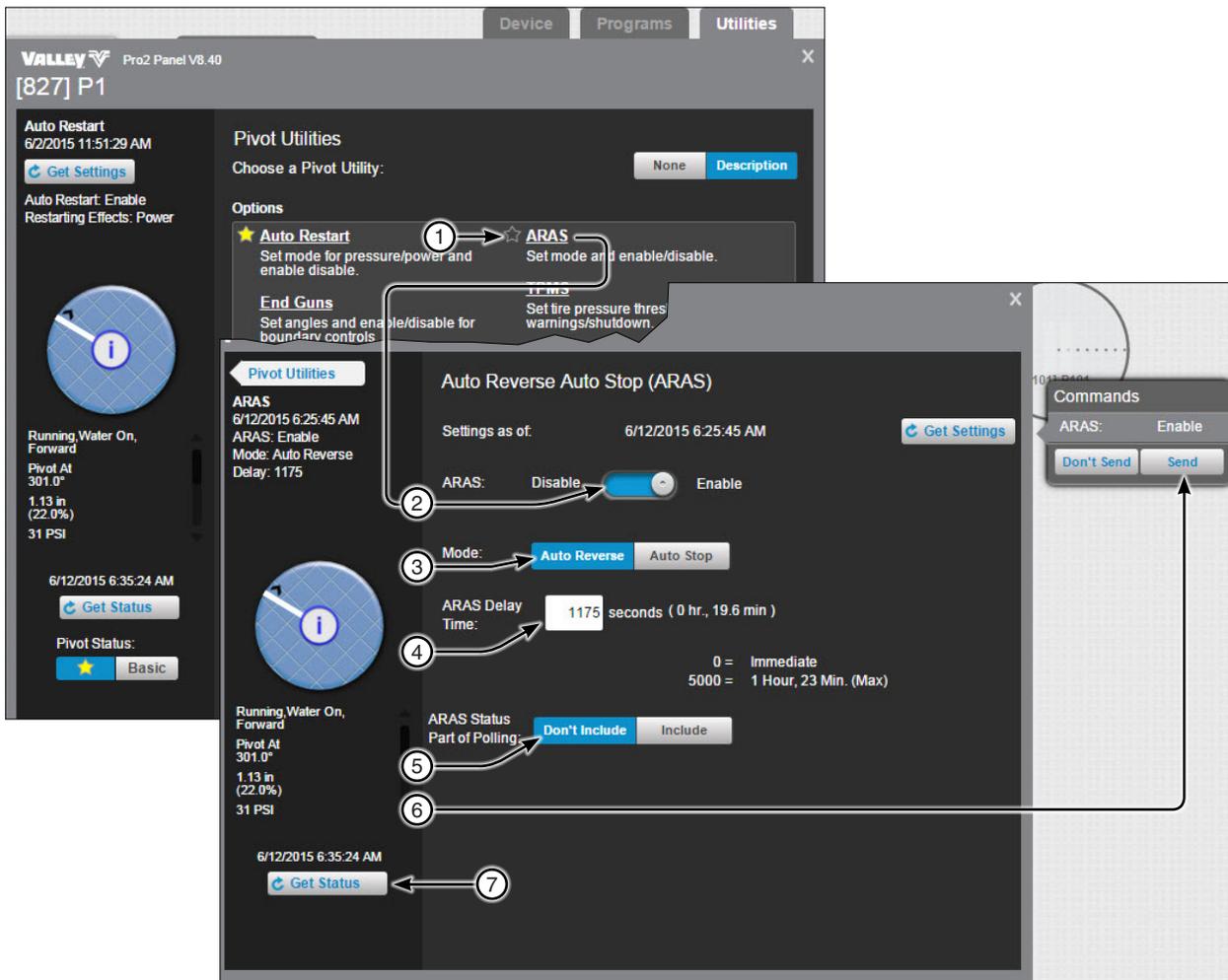


Figure 300-1

1. ARAS	5. ARAS Status Part of Polling
2. ARAS Enable	6. Send
3. Mode	7. Get Status
4. ARAS Delay Time	

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

### End Guns

Set angles and enable/disable for end gun controls. End Guns 3 and 4 must be enabled at the control panel. End Guns 3 and 4 are available only on Pro2 control panels when the PLC hardware option is installed on the machine and the PLC option is configured in the Device Configuration of the machine. To turn the PLC option On, open the view controller drawer and select **Device Management**. Select the device and click **Change/Communications/Power Line Carrier Channel/On/Save/Done**.

**Get Angles:** Click **Get Angles** to update the BaseStation with end gun settings from the control panel.

**End Gun Controls:** Click a switch to turn the related end gun On or Off. The Commands list dialog box is automatically populated with the change. When done making changes click **Send** in the Commands list dialog box to send the command(s) to the device.

**Selection Buttons:** Select the End Gun to change. The graphic arcs are highlighted in blue, to match the selection.

**Reset Button:** Click **Reset** to reset all setting back to the last saved state or the default if its never been saved.

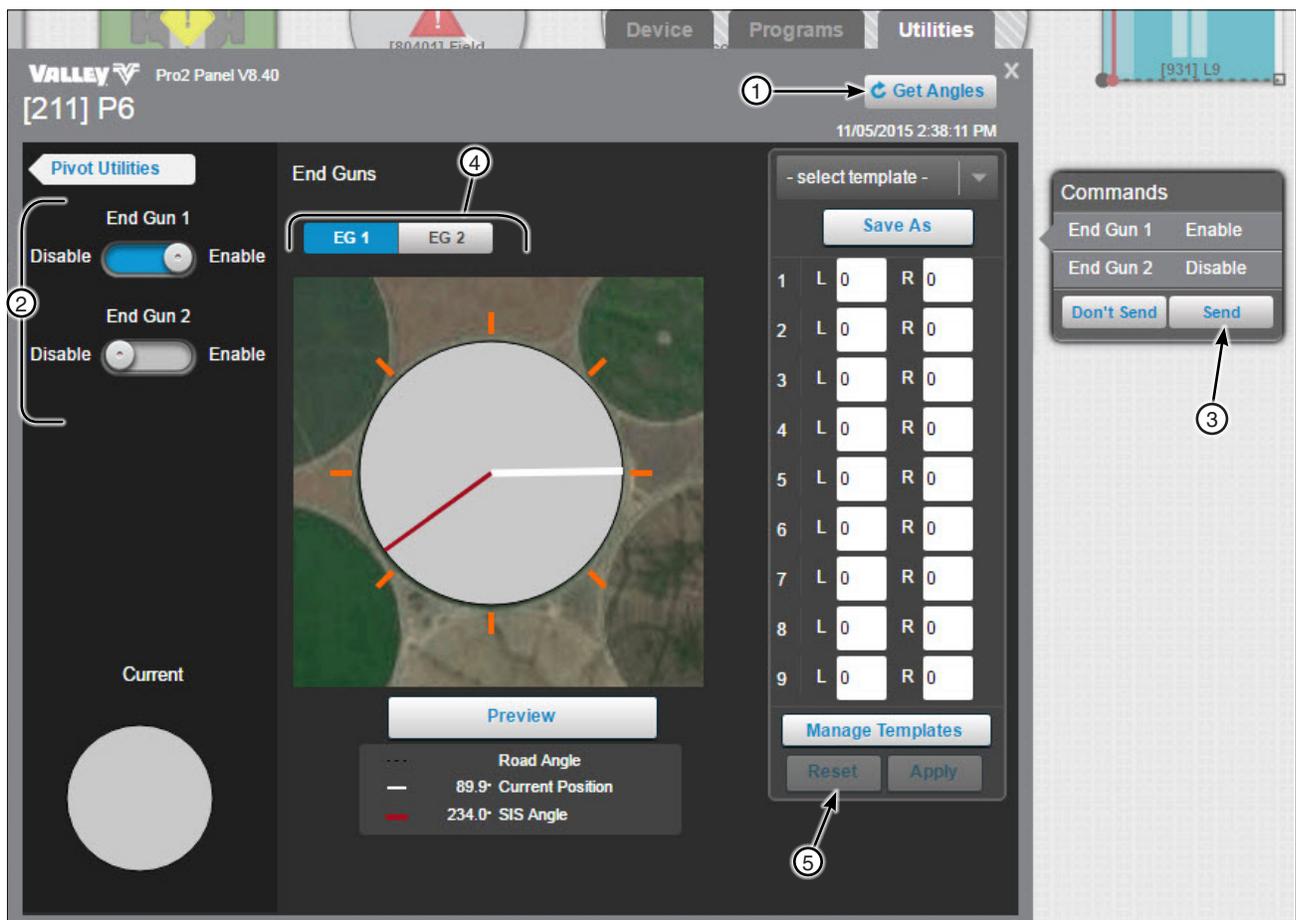


Figure 301-1

1. Get Angles	4. End Guns
2. End Gun	5. Reset
3. Send	

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## End Guns (Continued)

## Set End Gun

To set End Gun angles click **End Guns**. Select the End Gun to change. The graphic arcs are highlighted in blue, to match the selection of End Gun. Determine which sequence number 1 through 9 to change and enter the left angle. The angle can be input in tenths. Enter the right angle. The angle can be input in tenths. Enter angles in other sequences as required. Click **Preview** to update the pivot graphic. When done click **Apply**. On the Commands list dialog box click **Send**.



Figure 302-1 1. End Guns 2. End Guns 3. Sequence Numbers 4. Left Angle 5. Right Angle 6. Sequence Angles 7. Preview 8. Apply 9. Send

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## End Guns (Continued)

## Save End Gun Templates

To save the angle settings as a template click **Save As** then either enter the Template Name and Description or select an existing Template Name to save over. Click **Save** and the template appears in the list. To exit the screen click **Done**.

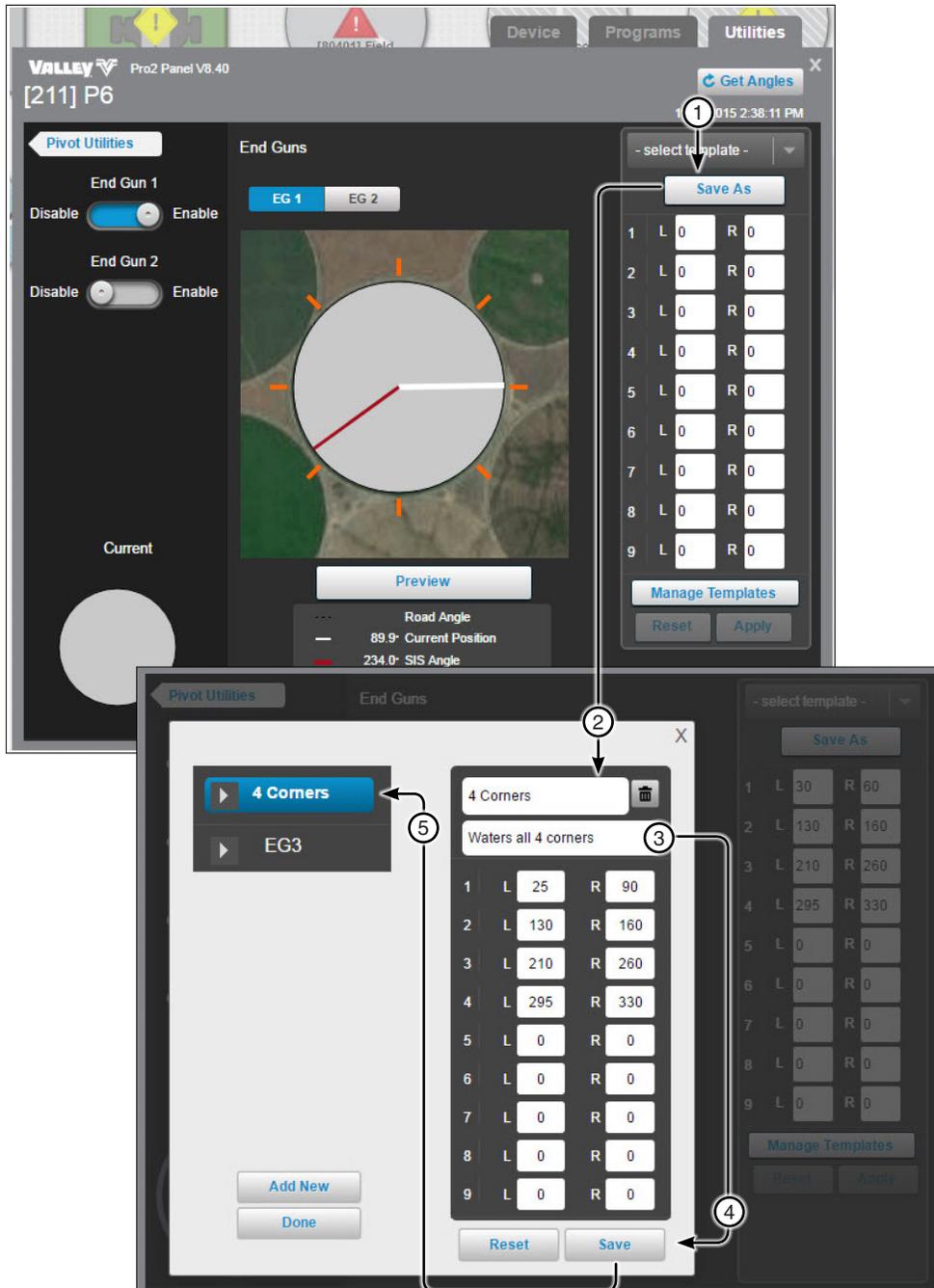


Figure 303-1 1. Save As 2. End Gun Template Name 3. End Gun Template Description (Optional) 4. Save 5. End Gun Template List

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## End Guns (Continued)

## Select End Gun Templates

To select an existing template click **Select Template**. Choose from the existing templates that are displayed. Click **Preview** to update the pivot graphic. When done click **Apply**. On the Commands list dialog box click **Send**.

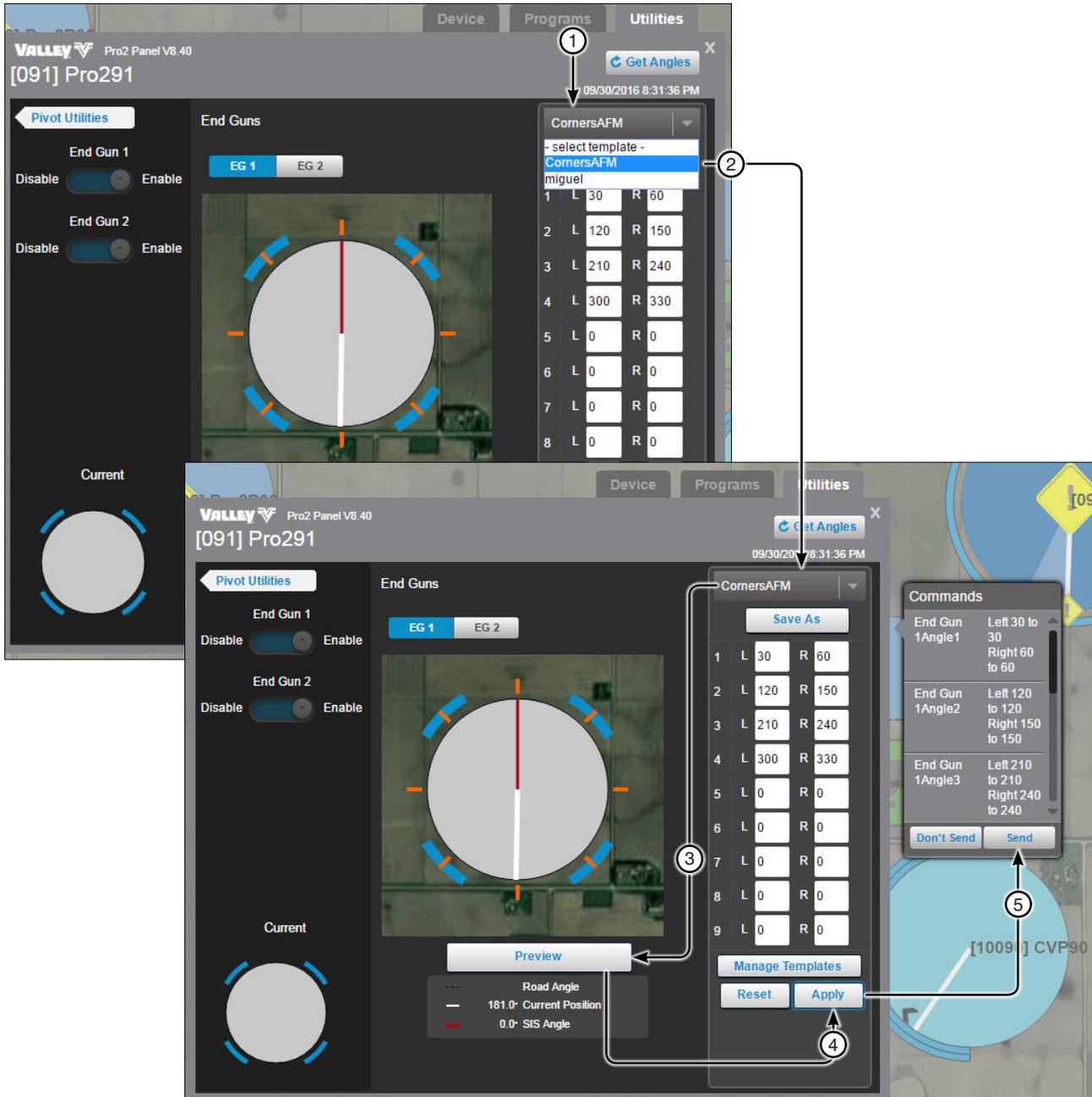


Figure 304-1 1. Select Template  
2. Existing Templates List  
3. Preview

4. Apply  
5. Send

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## End Guns (Continued)

## Delete End Gun and Wide Boundary Templates

To delete a template, click **Manage Templates**, select the template and click **Delete**, and then click **Delete** from the Commands list dialog box. To exit the screen click **Done**.

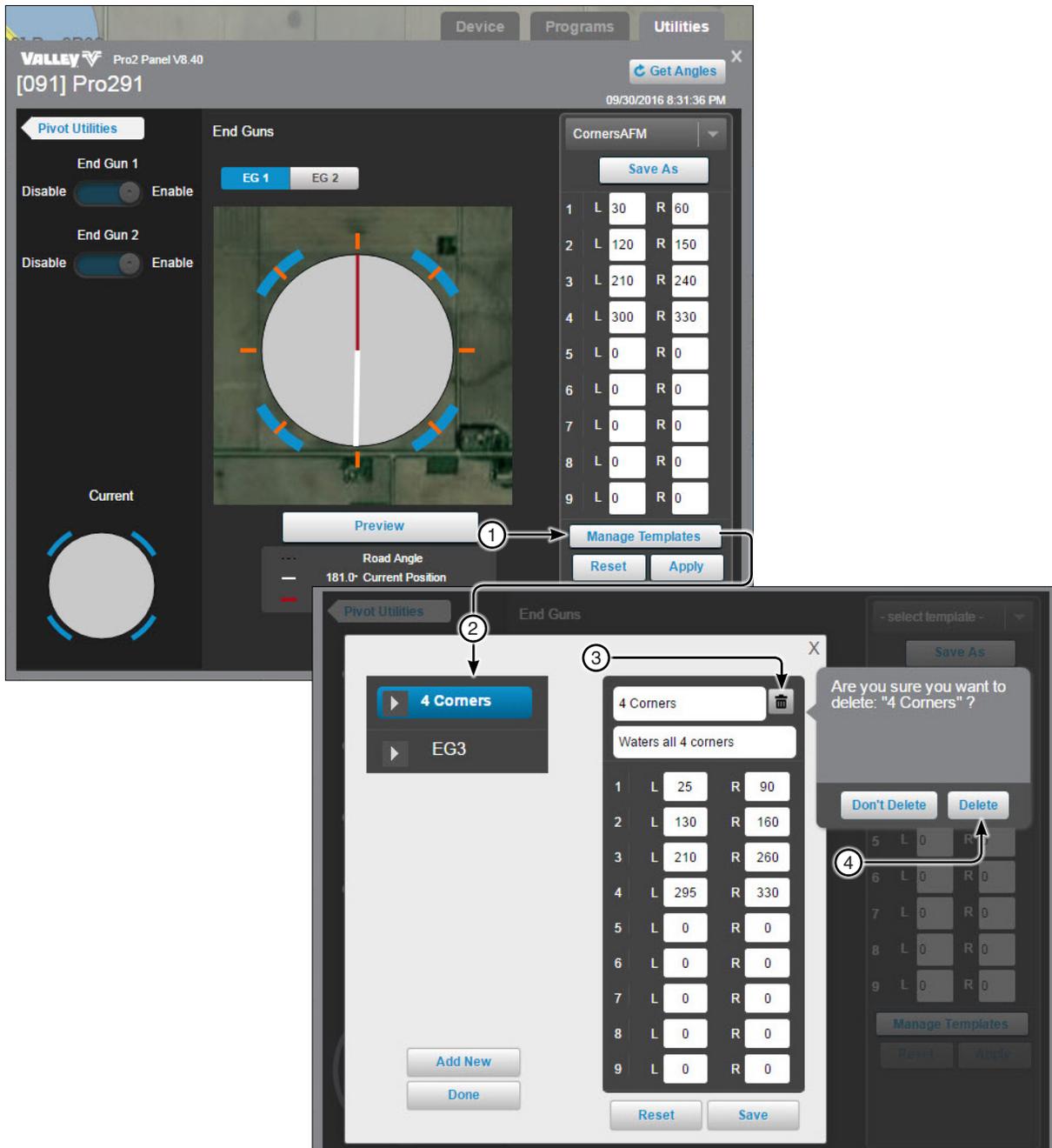


Figure 305-1 1. Manage Templates  
2. Select Template

3. Delete  
4. Delete

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Options (Continued)

## Tire Pressure Management System (TPMS)

Set tire pressure thresholds for warning and or shutdown. TPMS must be enabled at the control panel and is available on ICON and Pro2 control panels when the PLC (Power Line Carrier) hardware option is installed on the machine. The PLC option is configured in the Device Configuration of the machine. To turn the PLC option On, open the view controller drawer and select **Device Management**. Select the device and click **Change/Communications/Power Line Carrier Channel/On/Save/Done**.

**Get Settings:** Click **Get Settings** to update the BaseStation with TPMS settings from the control panel.

**TPMS Schedule:** Click the switch to turn polling of tire pressures On or Off.

**Daily Scheduled Polling Time:** In the **Daily Scheduled Polling Time** field, click the field to view the pop up box and then set the polling time using the +/- buttons. Click **Set Time** to populate the Commands list dialog box. Click **Send**.

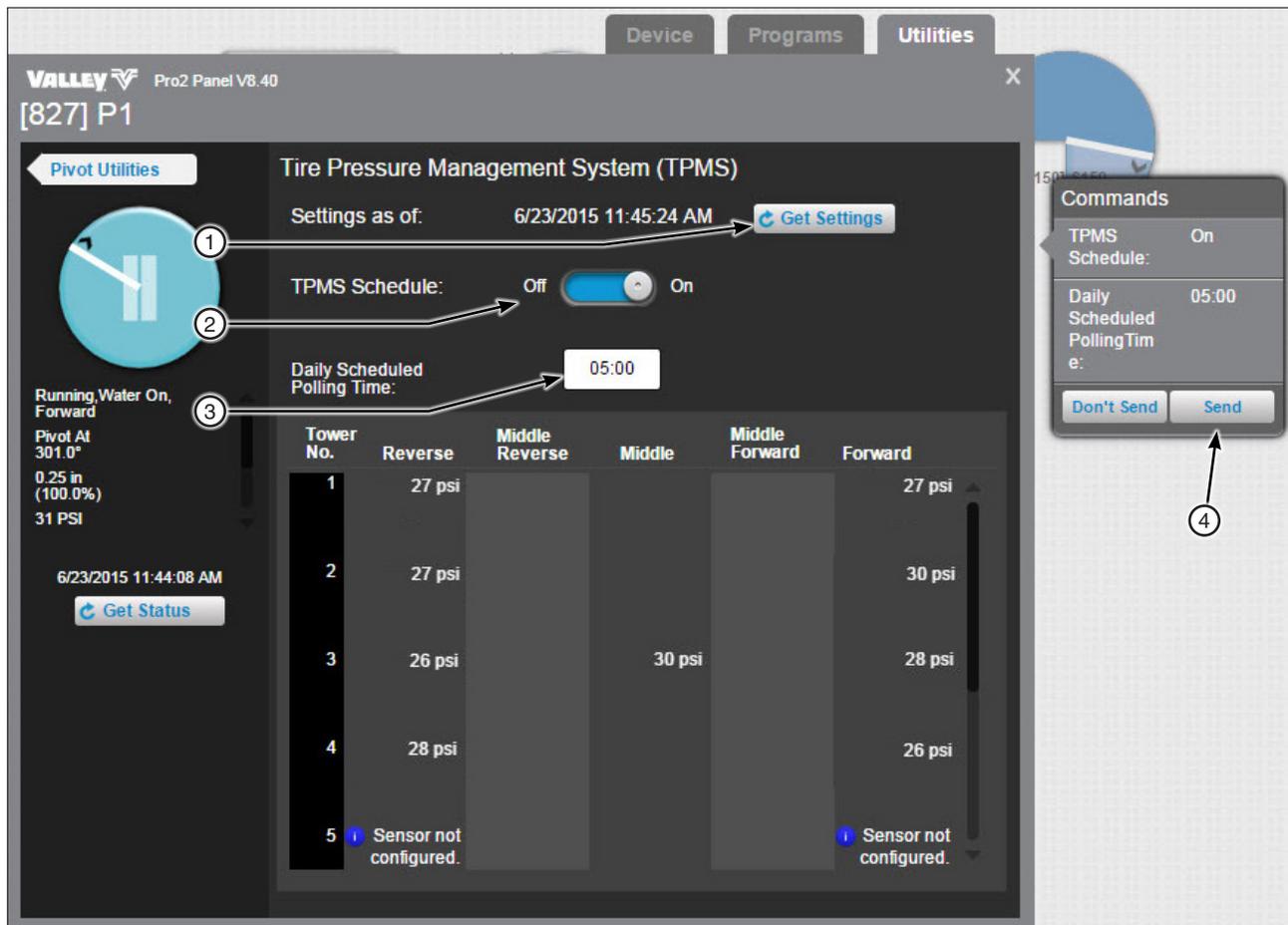


Figure 306-1 1. Get Settings  
2. TPMS Schedule  
3. Daily Scheduled Polling Time  
4. Send

## Pivot (Continued)

### Utilities Screen (Continued)

### Options (Continued)

### Notice Configurator

Select machine states that force messages to be sent to BaseStation when the state changes.

**Get Settings:** Click **Get Settings** to update the BaseStation with notice settings from the control panel.

**Pivot Base ID:** Displays the BaseStation ID. To use a different BaseStation, click in the Pivot Base ID field and enter a new base ID, then click **Send**.

**No. Times to Send Messages:** The number of times to send the messages. To change click in the No. Times to Send Messages field and enter a new number, then click **Send**.

**Radio Hop to BaseStation (inbound):** Displays the choices for **inbound** radio hop to the BaseStation.

- **Not Configured:** Displayed when outbound radio hop is not configured in device management. Alternately, the outbound **Intermediary Device RTU ID** is displayed when radio hop is configured in device management. Choose this option to use the same intermediary device for inbound radio hop to the BaseStation.
- **Configure radio hop:** Use to choose an intermediary device RTU ID and enable inbound radio hop to the BaseStation. To configure inbound radio hop, select Configure radio hop, click **Choose RTU ID**, Select **Device RTU ID**, click **Save**, and then click **Send**.
- **Do not use radio hop:** Use when radio hop is not required for inbound communication with the BaseStation.

**Machine States:** Check the box of a machine state, to send a notification to the BaseStation when the machine state changes.

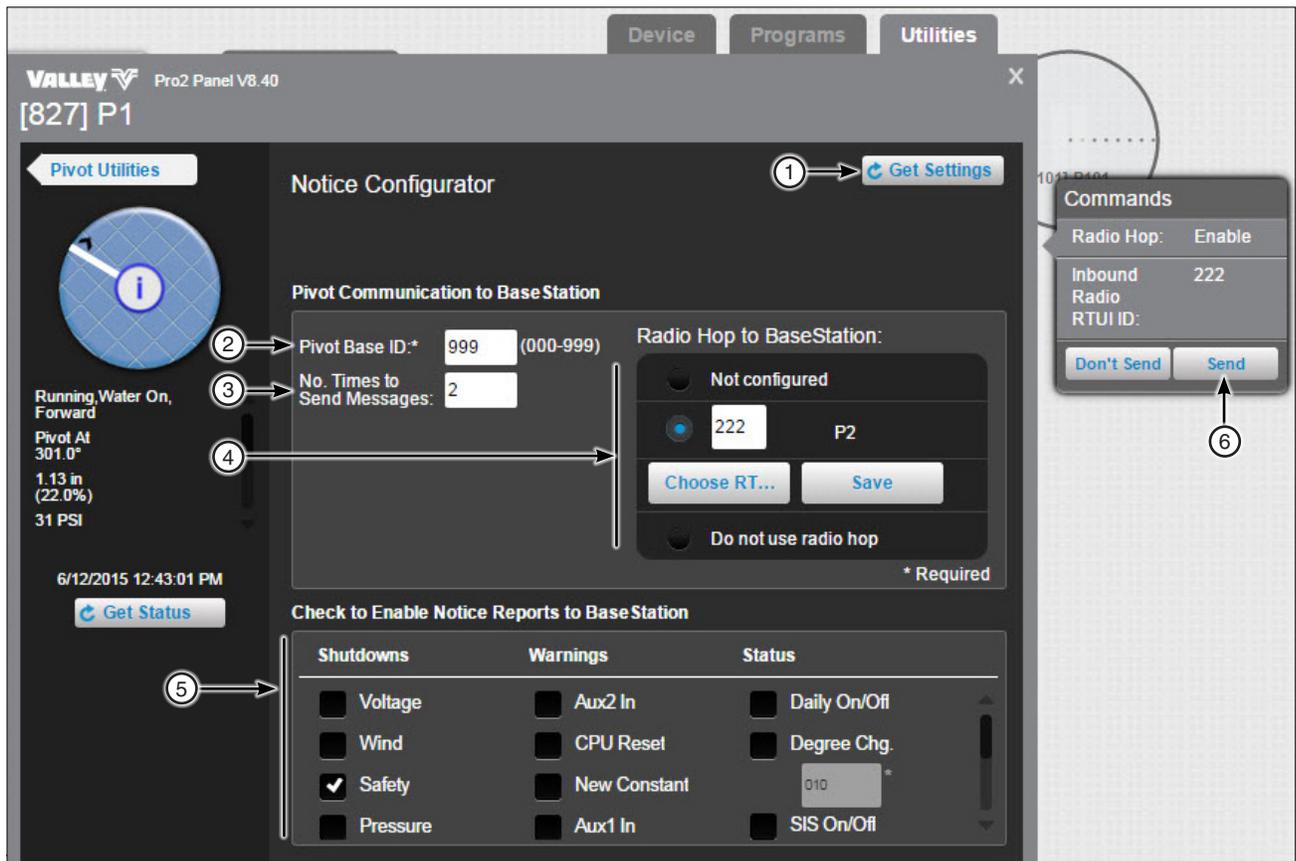


Figure 307-1

1. Get Settings	4. Radio Hop to BaseStation
2. Pivot Base ID	5. Check to Enable Notice Reports to BaseStation
3. No. Times to Send Messages	6. Send

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics

## Event History Log - Pro2

Read event data stored in an individual Pro2 v8.40 control panel. Click **Event History Log** to view.

Control panel history contains machine status changes, logged with the date and time of the event.

When the Event History Log is displayed, the Total # Events Logged is set to the number of events (maximum 50) that exist in the control panel module at that time.

When the maximum number of 50 events exist in the control panel module, any new event is added as event number 1 and the oldest event is discarded.

The screenshot shows the Valley Pro2 Panel V8.40 interface. The 'Event History Log' screen displays the following information:

- Total # Events Logged:** 50
- How Many Events Do You Want To View?** (Options: All Available, Newest Events, Oldest Events)
- Commands:** Retrieve: 50 Events, Don't Send, Send

The table below shows the event data:

Event Number	Date	Time	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/Dry	Program	Restart	Aux1 Out	SIS
50	6/2/2015	1:32:36 PM	STOPPED	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WATER. ON		*RESTART	0	SIS=298.0
49	6/2/2015	1:32:36 PM	STOPPED	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WATER. ON			0	SIS=298.0
48	6/2/2015	1:35:48 PM	WAITING	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WATER. ON			0	SIS=298.0
47	6/2/2015	1:35:49 PM	WAITING	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WATER. ON		*RESTART	0	SIS=298.0

Figure 308-1 1. Event History Log  
2. Total # Events Logged  
3. How Many Events do You Want To View?  
4. Send

## Pivot (Continued)

### Utilities Screen (Continued)

### Diagnostics

### Event History Log - Pro2+

Read event data stored in an individual Pro2 9.01 and higher control panel. Click **Event History Log** to view.

Control panel history contains machine status changes, logged with the date and time of the event.

The **Event History Log** displays the **Events Log Review** screen. The **Newest Events** field allows the user to specify how many events are included in the report. The default is "1". Up to 50 of the most recent events can be included in the report. Enter the number and click **Run Report** to generate the report.

When the maximum number of 50 events exist in the control panel module, any new event is added as event number 1 and the oldest event is discarded.

The screenshot shows the Valley Pro2+ Panel V9.01 interface. The top navigation bar includes 'Device', 'Programs', and 'Utilities'. The main content area is divided into several sections:

- Auto Restart:** Shows the last restart on 11/26/2018 at 11:08:14 AM. A 'Get Settings' button is present.
- Pivot Utilities:** A section for configuring various utilities like Auto Restart, ARAS, TPMS, and Notice Configurator.
- Diagnostics:** Contains the 'Event History Log' link, which is circled with a '1'.
- Events Log Review:** A modal window that is open, showing the 'Event Log' for 11/26/2018 at 11:08:14 AM with 50 events. It features a 'How Many Events Do You Want To View?' field with the value '1' (circled with a '4') and a 'Run Report' button (circled with a '5').

The 'Events Log Review' window also shows a 'Pivot Utilities' button (circled with a '2') and a 'Get Events' button (circled with a '3').

At the bottom, a table displays the event data:

Event Number	Date	Time	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/Dry	Program	Restart	Aux1 Out	SIS
50	6/2/2015	1:32:36 PM	STOPPED	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WATER ON		*RESTART	0	SIS=298.0
49	6/2/2015	1:32:36 PM	STOPPED	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WATER ON			0	SIS=298.0
48	6/2/2015	1:35:48 PM	WAITING	300.9 DEG	31. PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WATER ON			0	SIS=298.0
	6/2/2015		WAITING				50.0 %	FORWARD				*RESTART		

Figure 309-1 1. Event History Log 3. How Many Events do You Want To View? 5. Run Report  
2. Events Log Review 4. Newest Events

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics

## Event History Log - ICON

Read event data stored in an individual ICON and higher control panel. Click **Event History Log** to view.

Control panel history contains machine status changes, logged with the date and time of the event.

The **Event History Log** displays the **Events Log Review** screen. The **Newest Events** field allows the user to specify how many events are included in the report. The default is "1". Up to 50 of the most recent events can be included in the report. Enter the number and click **Run Report** to generate the report.

When the maximum number of 50 events exist in the control panel module, any new event is added as event number 1 and the oldest event is discarded.

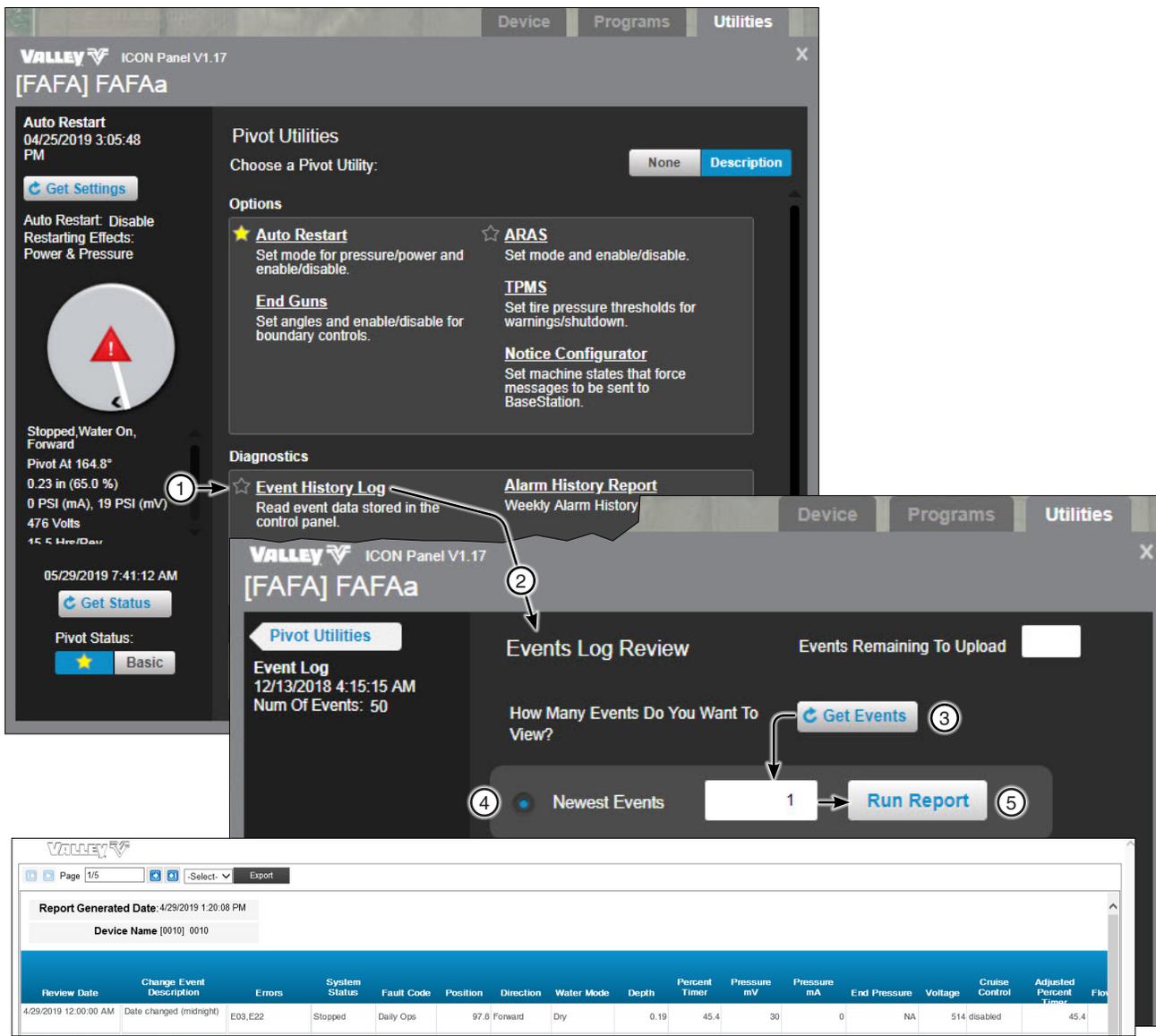


Figure 310-1 1. Event History Log 2. Events Log Review 3. Get Events 4. Newest Events 5. Run Report

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics (Continued)

## Event History Log (Continued)

## Event History Log Report

Toggle the side bar off and on.

**Search:** Click **Search**, enter a **Key Word** or phrase and click **Search**.

**Page Selection Tools:** Choose the page by clicking either First Page, Previous Page, Next Page or Last Page.

The history log can be exported in the following formats; PDF, Word, XML and Excel. To export the report, select the export format and click **Export**.

To Print the history log click the **Print** button.

The screenshot displays the Valley Event History Log interface. The top navigation bar includes a search icon (2), page selection tools (3), an export format dropdown menu (4), an export button (5), and a print button (6). The main content area features a table of event history with the following columns: Event Number, Date, Time, Status, Position, Pressure, Depth, Percent, Direction, Volts, and Wet/Dry. The table contains several rows of data, including events 50, 49, 48, 47, 46, 45, 44, and 43. A search sidebar is visible on the left, with a search input field and a search button.

Event Number	Date	Time	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/Dry
50	6/2/2015 1:32:36 PM	13:32:36	STOPPED	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WAT ON
49	6/2/2015 1:32:36 PM	13:32:36	STOPPED	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	533 VOLTS	WAT ON
48	6/2/2015 1:35:48 PM	13:35:48	WAITING	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON
47	6/2/2015 1:35:49 PM	13:35:49	WAITING	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON
46	6/2/2015 1:35:50 PM	13:35:50	RUNNING	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON
45	6/2/2015 1:35:53 PM	13:35:53	STOPPED	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON
44	6/2/2015 1:35:53 PM	13:35:53	STOPPED	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON
43	6/2/2015 1:36:08 PM	13:36:08	STOPPED	300.9 DEG	31..PSI	0.50 IN	50.0 %	FORWARD	561 VOLTS	WAT ON

Figure 311-1 1. Toggle Side Bar 2. Search 3. Page Selection Tools 4. Export Format Selection Drop Down List 5. Export 6. Print

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics (Continued)

## Status Change Report

**Status change report:** Click **Status Change Report** to select categories and view report.

The status changes logged by the BaseStation from polling, manual updates, and Real-Time updates for the selected device(s), for the date range and time period specified. The status changes are shown in a table containing information including the Name (of machine(s) selected), Date, Time, Status (Stopped or Running), End Gun (On or Off), Position (in degrees), Direction (Forward or Reverse), Water (Wet or Dry), Speed (expressed as a percentage of full speed 0-100), Pressure (PSI), Depth (in inches), Aux 1 Out, Aux 1 In, Aux 2 Out, Aux2 In, Analog Value, Counter 1, and Hours Wet.

The screenshot shows the Valley Pro2 Panel V8.40 interface. The 'Utilities' tab is active, showing 'Pivot Utilities' with options like Auto Restart, ARAS, TPMS, and Notice Configurator. A 'Status Change Report' link is highlighted with a circled '1'. This leads to the 'Pivot Status Change' screen, where a date range from 06/03/2015 to 06/12/2015 is selected, and a 'Run Report' button is highlighted with a circled '3'. The resulting report is shown in a table below.

Status Date	Rtuld	Device Name	System Status	Current Position	Direction	Water Mode	Hours Wet	Pressure	Depth
6/3/2015 12:11:13 AM	827	P1	Running	300.9	Forward	Wet	1167 2.1	31	0.5

Figure 312-1 1. Status Change Report  
2. Pivot Status Change

3. Run Report

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics (Continued)

## Status Change Report (Continued)

**Search:** Click **Search**, enter a **Key Word** or phrase and click **Search**.

**Page Selection Tools:** Choose the page by clicking either First Page, Previous Page, Next Page or Last Page.

The report can be exported in the following formats; PDF, Word, XML and Excel. To export the report, select the export format and click **Export**.

To print the report click the **Print** button.

The screenshot displays the VALLEY Status Change Report interface. It features a header with the VALLEY logo and a navigation bar with buttons for Search, Page Selection Tools, Export Format Selection Drop Down List, Export, Refresh, and Print. Below the navigation bar is a table with columns: Status Date, Rtuld, Device Name, System Status, Current Position, Direction, Water Mode, Hours Wet, Pressure, Depth, Percent Timer, End Gun State, Wide Boundary State, Stored Program Running, and Shutdown. A search dialog box is overlaid on the table, prompting the user to enter a search term and providing options for search criteria (Whole words only, Match case) and a Find results section. The table shows a single data row for a status change on 6/3/2015 at 12:11:13 AM.

Status Date	Rtuld	Device Name	System Status	Current Position	Direction	Water Mode	Hours Wet	Pressure	Depth	Percent Timer	End Gun State	Wide Boundary State	Stored Program Running	Shutdown
6/3/2015 12:11:13 AM	827	P1	Running	300.9	Forward	Wet	1167 2.1	31	0.5	50.0	Off	Off	On	-

Figure 313-1

1. Search
2. Page Selection Tools
3. Export Format Selection Drop Down List
4. Export
5. Print

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Diagnostics (Continued)

## Alarm History Report

**Run Report:** Click the **Run Report** button to generate a seven day alarm history report.

The report can be exported in the following formats; PDF, Word, XML and Excel. To export the report, select the export format and click **Export**.

To Print the report click the **Print** button.

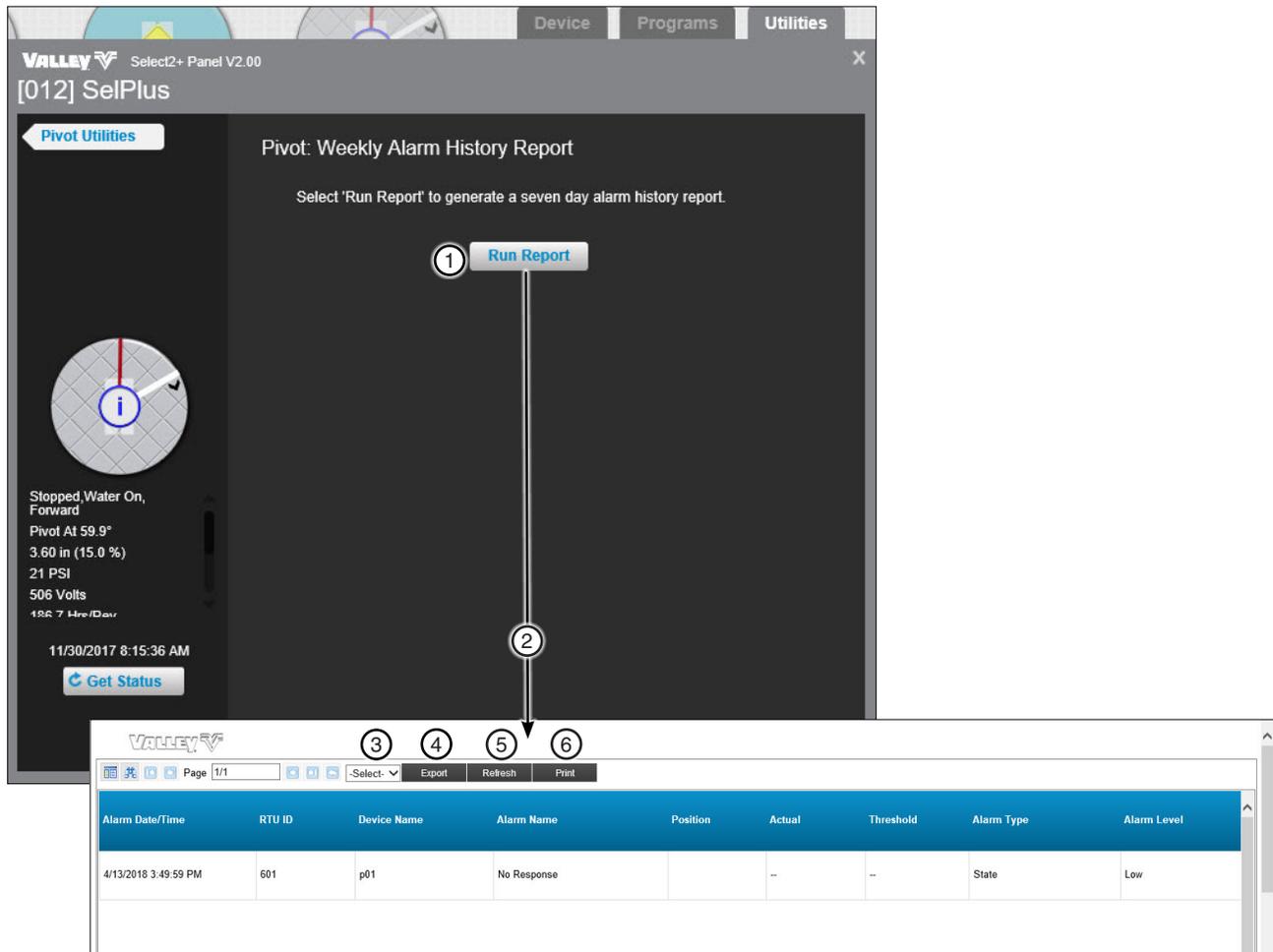


Figure 314-1 1. Run Report 2. Report Window 3. Export / Format Selection Drop Down List 4. Export 5. Refresh 6. Print

## Pivot (Continued)

## Utilities Screen (Continued)

### Set Up

#### Panel Constants

The constant values for Minimum Application, Stop in Slot Angle and Minimum Hours Per Revolution can be obtained from or sent to the control panel. Get and Send are disabled when there is no RTU ID. See Figure 315-1.

**Get:** To load the constant values from an ICON, Pro2, Select2 or AutoPilot control panel into the BaseStation database, click the **Get** button associated with the constant, then click **Send**. Communication between BaseStation and the device is required.

**Send:** To send the constant values to an ICON, Pro2, Select2 or AutoPilot control panel from the BaseStation database, enter a value in the field associated with the constant, click the **Send** button associated with the constant, then click **Send** on the Commands list dialog box. Communication between BaseStation and the device is required.

**Minimum Application (Inches):** The depth of water applied at a speed setting of 100 percent. The Minimum Application values are used calculate depth in inches (in). The Discharge rate is not used in calculations when Flow Meter measurements are utilized.

**Stop In Slot Angle:** The position of Stop In Slot in degrees.

**Minimum Hours/Rev:** The amount of time (in hours) required for a full circle machine to make one revolution at a speed setting of 100 percent. The Minimum Hrs/Rev values are used to calculate the Hours/Rev at the percentage timer setting.

**Pressure Delay:** The panel constant for Pressure Delay is the time allowed for pressure to reach the Low Pressure Limit, when the machine is switched to Water On and Running. The default delay time is 600 seconds. The delay timer continues to run for the full timer duration, allowing pressure to fluctuate as pressure stabilizes. The machine may shutdown, after the Pressure Delay timer expires, if the pressure remains below the Low Pressure Limit threshold.

**Low Pressure Limit:** The Low Pressure Limit is the threshold used by the control panel. The default is 15 PSI. Working with the Pressure Delay (and the panel's internal operational pressure delay timer of 30 seconds), operational pressure less than the setting for the Low Pressure Limit will cause a Pressure Fault shutdown.

**Low Voltage Limit:** The Low voltage Limit is the threshold used by the control panel. The default is 440 Volts. Working with the panel's 15 second internal Low Voltage Delay, operational voltage less than the setting for the Low Voltage Limit will cause a Power Fault shutdown.

**System Voltage:** The current voltage measured by the control panel.

**Set Position:** The current position of the machine, as reported when receiving the Get Status message.

**Wet Hour Meter:** Recorded run time when the machine is running with water on.

**Hour Meter:** The clock in the panel that records the run time of the machine both when water is on and off. The Hour Meter records run time in tenths of an hour.

**Wind Speed Shutdown:** The shutdown due to Indicator the high wind speed limit has been exceeded.

#### Pro Panel only:

- **Key Wait:** The Key Wait command is used to set the radio key wait time before data is transmitted.

#### ICON Panel only:

- **Temperature Shutdown:** This feature is used to shut the machine down when the temperature reaches a user-defined setting.
- **Rain Shutdown:** This feature shuts the machine down when a user-defined amount of rainfall has been detected.

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Set Up (Continued)

## Panel Constants (Continued)

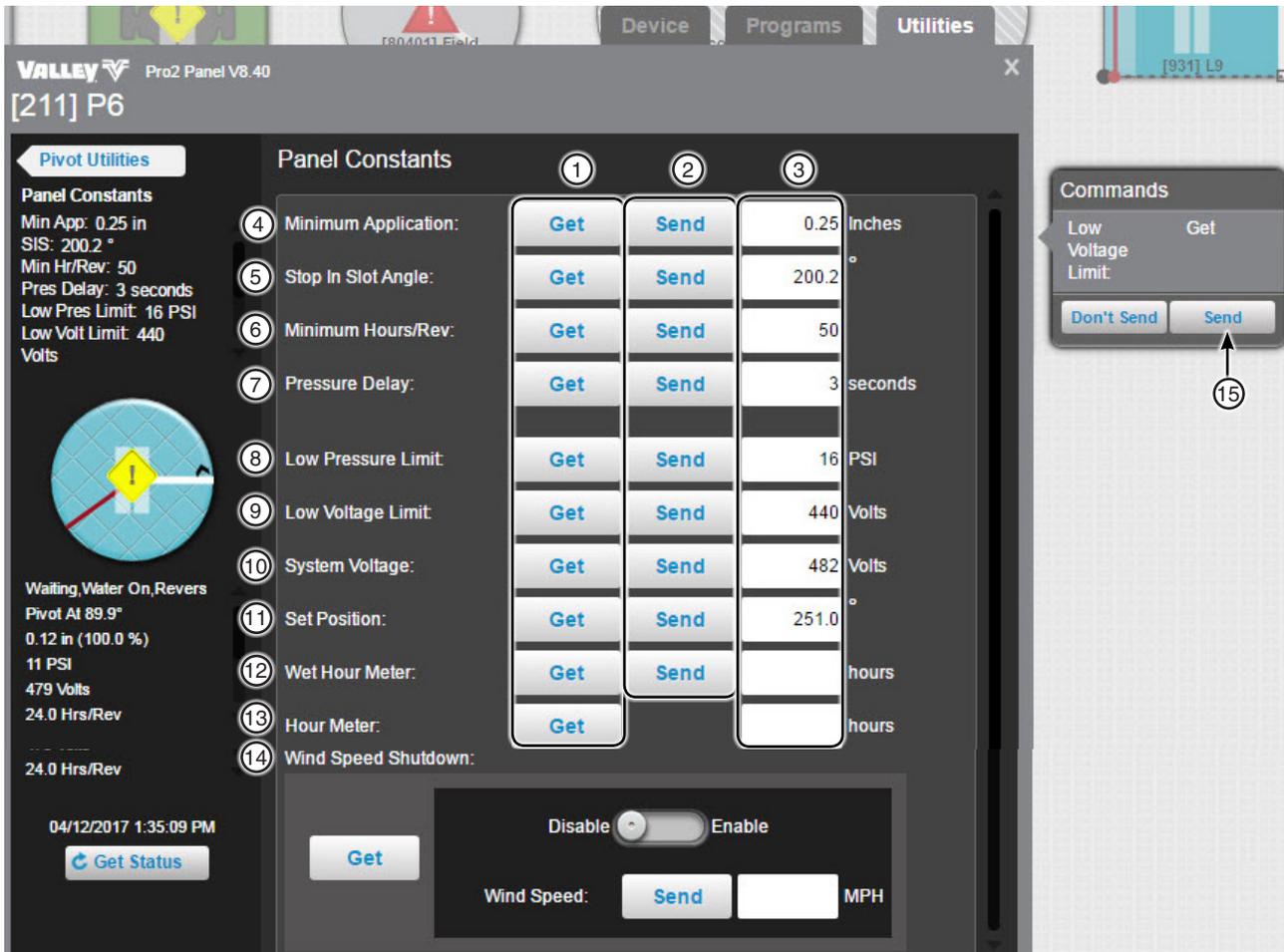


Figure 316-1

1. Get	6. Minimum Hours/Rev.	11. Set Position
2. Send	7. Pressure Delay	12. Wet Hour Meter
3. Value	8. Low Pressure Limit	13. Hour Meter
4. Minimum Application	9. Low Voltage Limit	14. Wind Speed Shutdown
5. Stop in Slot Angle	10. System Voltage	15. Send

## Pivot (Continued)

## Utilities Screen (Continued)

## Set Up (Continued)

## Restricted Entry Interval Timer

The Restricted Entry Timer, available by subscription, warns not to enter a field for any reason such as chemical application. Click the Restricted Entry link to open the options to run or schedule a restricted entry event. When Restricted Entry Data is configured, the user is warned about chemical application. To learn more about the Restricted Entry Timer and what it does, please contact BaseStation support.

### NOTES

- To add the Chemical Brand Name, Restricted Entry Data must be set up BEFORE scheduling or running the Restricted Entry event. Once set up, the Active Ingredient, Registration Number, and Restricted Entry Interval are added based on the selection.
- To enable Restricted Entry notifications, click the Detail tab and select the Alert Contact List BEFORE scheduling or running the Restricted Entry event.

Figure 317-1

1. Restricted Entry	4b. Set Time	9. Registration Number
2. Timer / Detail	5. Work Order Number	10. Restricted Entry Interval
3. Schedule / Run Now	6. Application Method	11. Application Hours
4. Scheduled Start Date & Time	7. Chemical Brand Name	12. Save
4a. Calendar	8. Active Ingredient	

# Monitor and Control

## Pivot (Continued)

## Utilities Screen (Continued)

## Set Up (Continued)

## Restricted Entry Detail

The Restricted Entry Detail tab displays History and Alert Contact List information.

- The History section includes historical restricted event details.
- The Alert Contact List provides Restricted Entry Start and Restricted Entry Stop contact list selections. To send restricted entry alerts, choose from each drop down list and then click **Save**.

Once alerts have been selected and saved, click the Timer tab to schedule or run a restricted entry event.

VALLEY Pro2 Panel V8.40  
[225] P6

Pivot Utilities

1 Restricted Entry

Timer 2 Detail

3 History

Date/Time	User ID	Action	Set Time
11/10/2015 8:10:58 AM	admin	Stop	--
11/10/2015 8:10:58 AM	admin	Stop	--
11/10/2015 8:10:57 AM	admin	Stop	--

Alert Contact List

4 Restricted Entry Start None

5 Restricted Entry Stop None

Save 6

Get Status

04/20/2018 6:53:29 AM

BaseStation3™ Restricted Entry Utility and Restricted Entry Report features are not intended to comply with government, USDA, EPA or other pesticide application notice regulatory requirements.

Figure 318-1 1. Restricted Entry  
2. Detail  
3. History

4. Restricted Entry Start  
5. Restricted Entry Stop  
6. Save

## Pivot (Continued)

## Utilities Screen (Continued)

## Set Up (Continued)

### Cut Cable

Cut Cable is only available on ICON panels. By default, Cut Cable controls are disabled. An Administrative User can **Enable** / **Disable** this option by clicking the **Utilities Screen** and clicking on the **Notice Configurator**.

To enable cut cable detection, click **Enable** and then click **Send** on the Commands list dialog box.

Click **Get** and then click **Send** on the Commands list dialog box to view Cut Cable status.

Click **Get Status** to update the device status.

The **Notice Warning - Cut Cable** displays on the History tab of the Device screen.

## NOTE

- Cut Cable notifications must be enabled by an Administrator User Role
- The Notice Message for Cut Cable arrives via radio telemetry and does not include Ethernet IP communication channels.

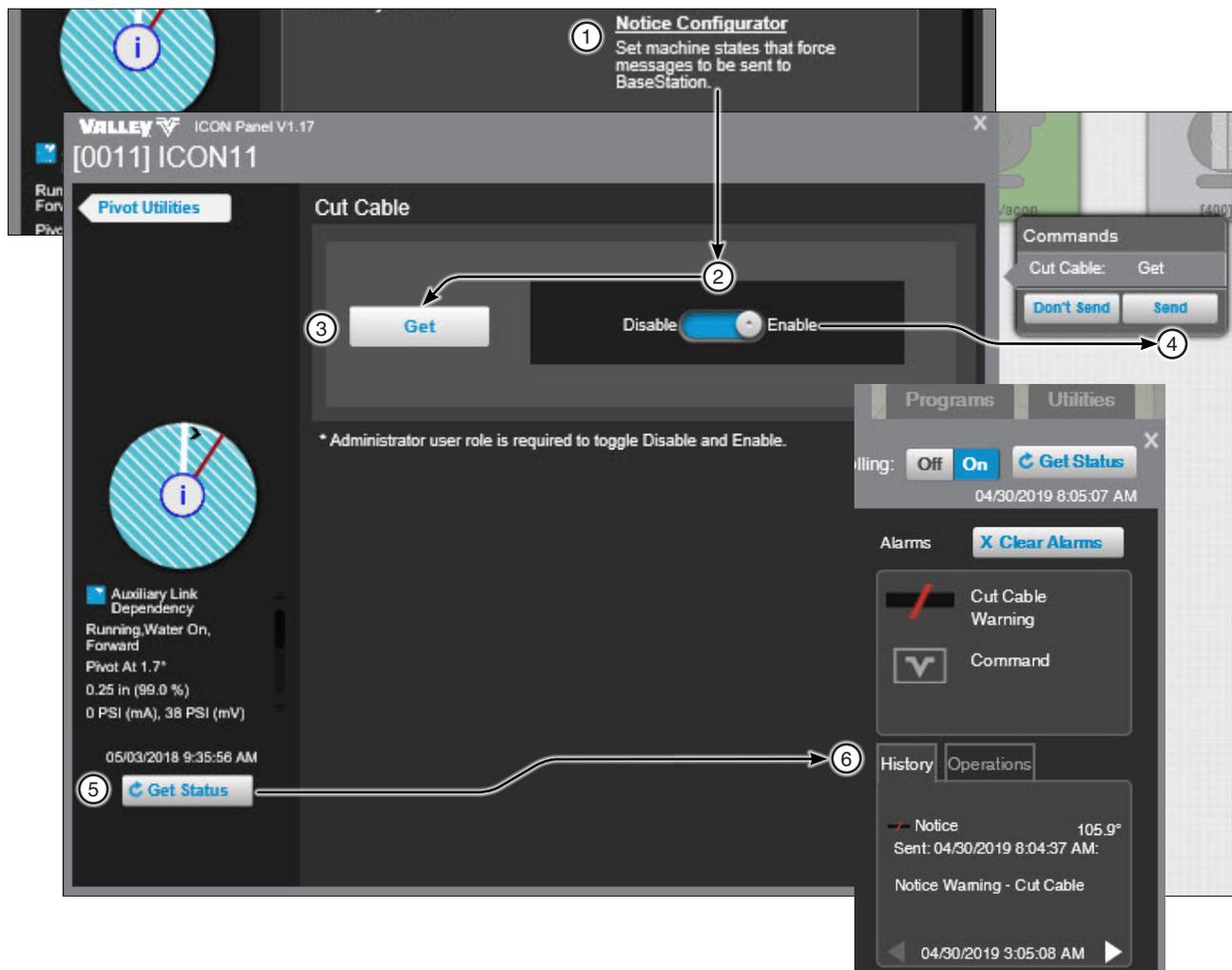


Figure 319-1 1. Notice Configurator 2. Disable / Enable 3. Get 4. Send 5. Get Status 6. Cut Cable Warning

# Monitor and Control

---

## AgSense

### Device Screen

There are different monitor and control screens based on available features of the control panel. The Commander VP is what is shown throughout this section, but ICON Link and Field Commander options are also available. For AgSense Field Commander and Commander VP devices, Panel Lockout monitoring is available. The following controls and status displays are available on the device. After making a change, click the **Send** button to send the command or to cancel click the **Don't Send** button.

**Aux 1 and Aux 2:** Select On or Off to populate the Commands list dialog box.

**Stop In Slot:** Turn control On or Off to populate the Commands list dialog box. Enter an angle for Stop In Slot, then click **Save** to populate the Commands list dialog box with the new angle.

**Direction Reverse/Forward:** Selecting a direction populates the Commands list dialog box.

**Water Dry/Wet:** Click **Dry** (Water Off) or **Wet** (Water On) to populate the Commands list dialog box.

**Percent Timer:**

- Select the percent field, enter a new value, then click **Save** to populate the Commands list dialog box.
- Click **100 Percent** to change the value to 100% and populate the Commands list dialog box.

**Depth:**

- Select the depth field, enter a new value, then click **Save** to populate the Commands list dialog box.
- Select the hours field, enter a new value, click **Save** to populate the Commands list dialog box.

**Start/Stop:** Click **Start** or **Stop** to populate the Commands list dialog box.

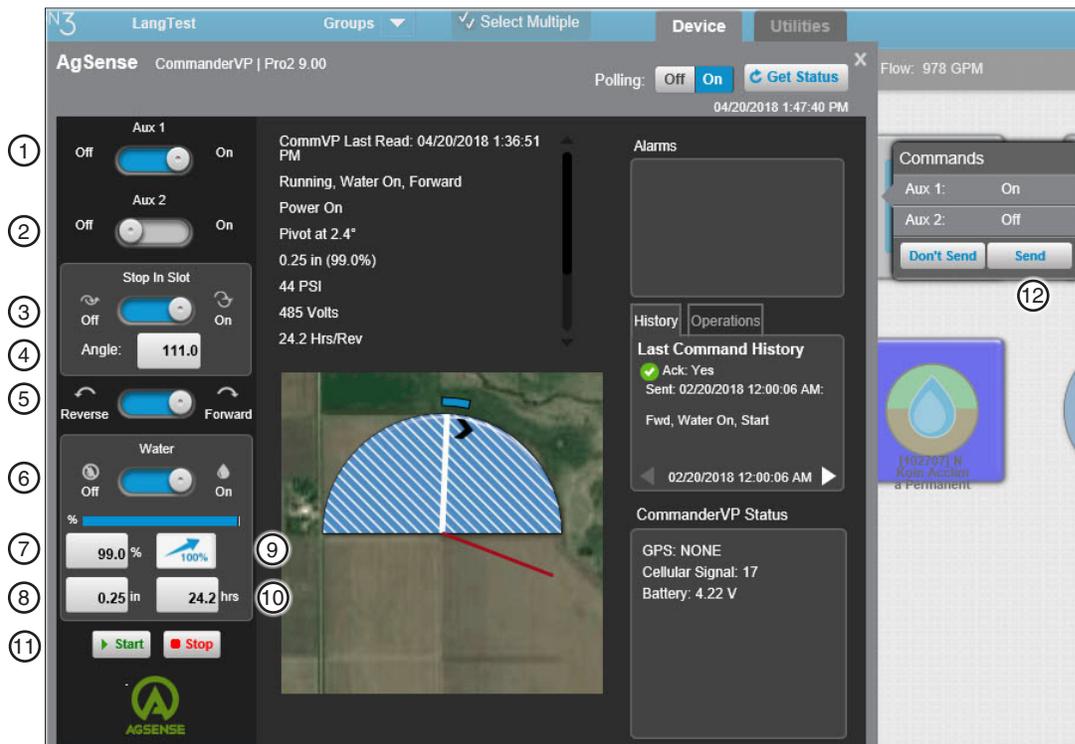


Figure 321-1

1. Aux 1	5. Direction Reverse/Forward	9. Percentage
2. Aux 2	6. Water Off/On	10. Hours
3. Stop in Slot	7. % (Percent)	11. Start / Stop
4. Angle	8. In (Depth)	12. Send

# Monitor and Control

## AgSense Utilities Screen

### Auto Restart

Use Auto Restart to Enable/Disable the option at the device.

Click **Get Settings** to synchronize the BaseStation with the device settings.

To enable Auto Restart click **Auto Restart**. Click the Auto Restart switch to **Enable**. On the Commands list dialog box click **Send**. Click **Get Status** to update the Device Status.

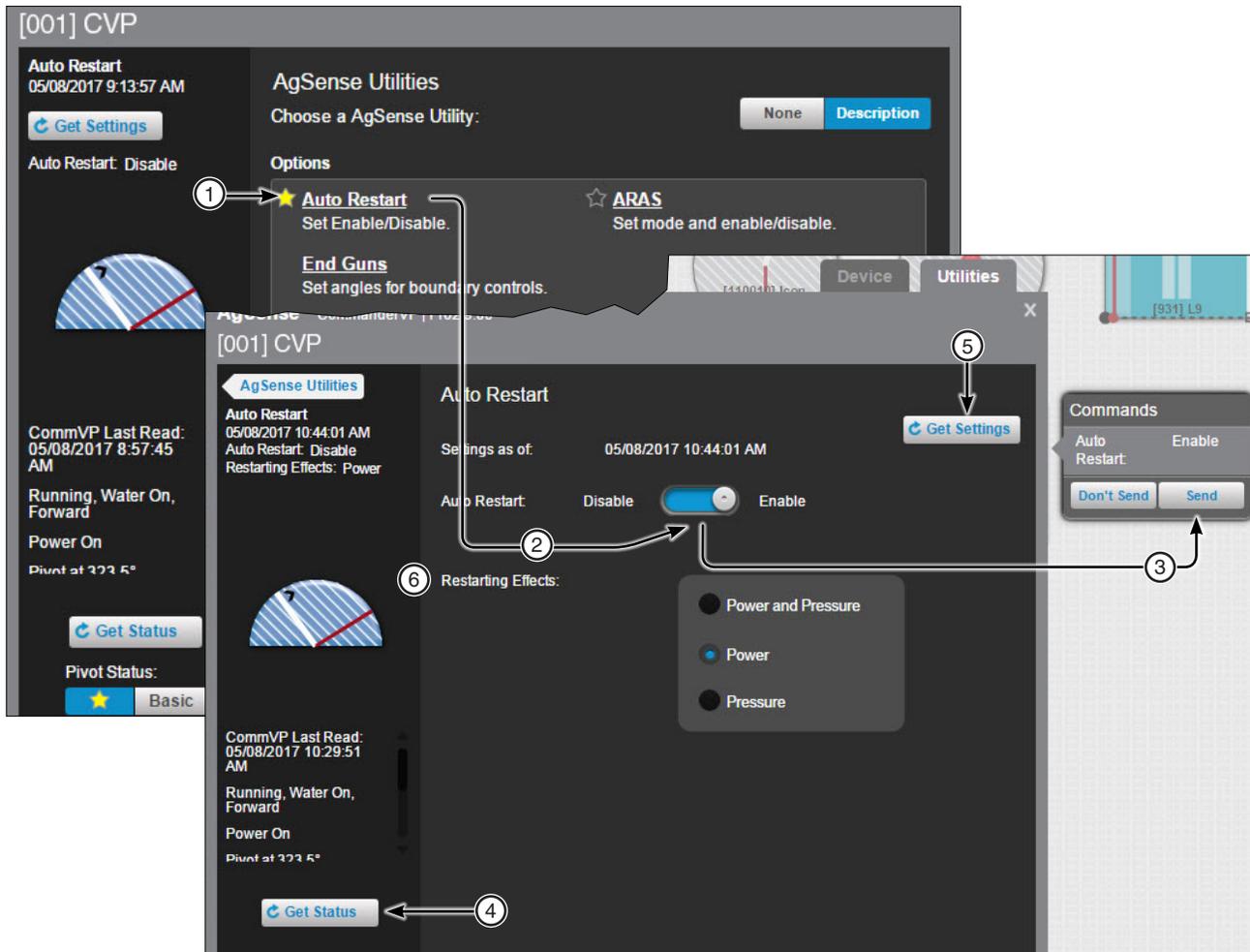


Figure 322-1

1. Auto Restart	4. Get Status
2. Enable / Disable	5. Get Settings
3. Send	6. Restarting Effects

## AgSense

### Utilities Screen (Continued)

#### ARAS (Auto Reverse Auto Stop)

Use ARAS to set the Mode, Polling Status and Enable/Disable the option at the device.

Click **Get Settings** to synchronize the BaseStation with the device settings.

To enable and setup ARAS click **ARAS**. Click **ARAS** switch to enable. Select the Mode and set the Polling Status. On the Commands list dialog box click **Send** button. Click **Get Status** to update the Device Status.

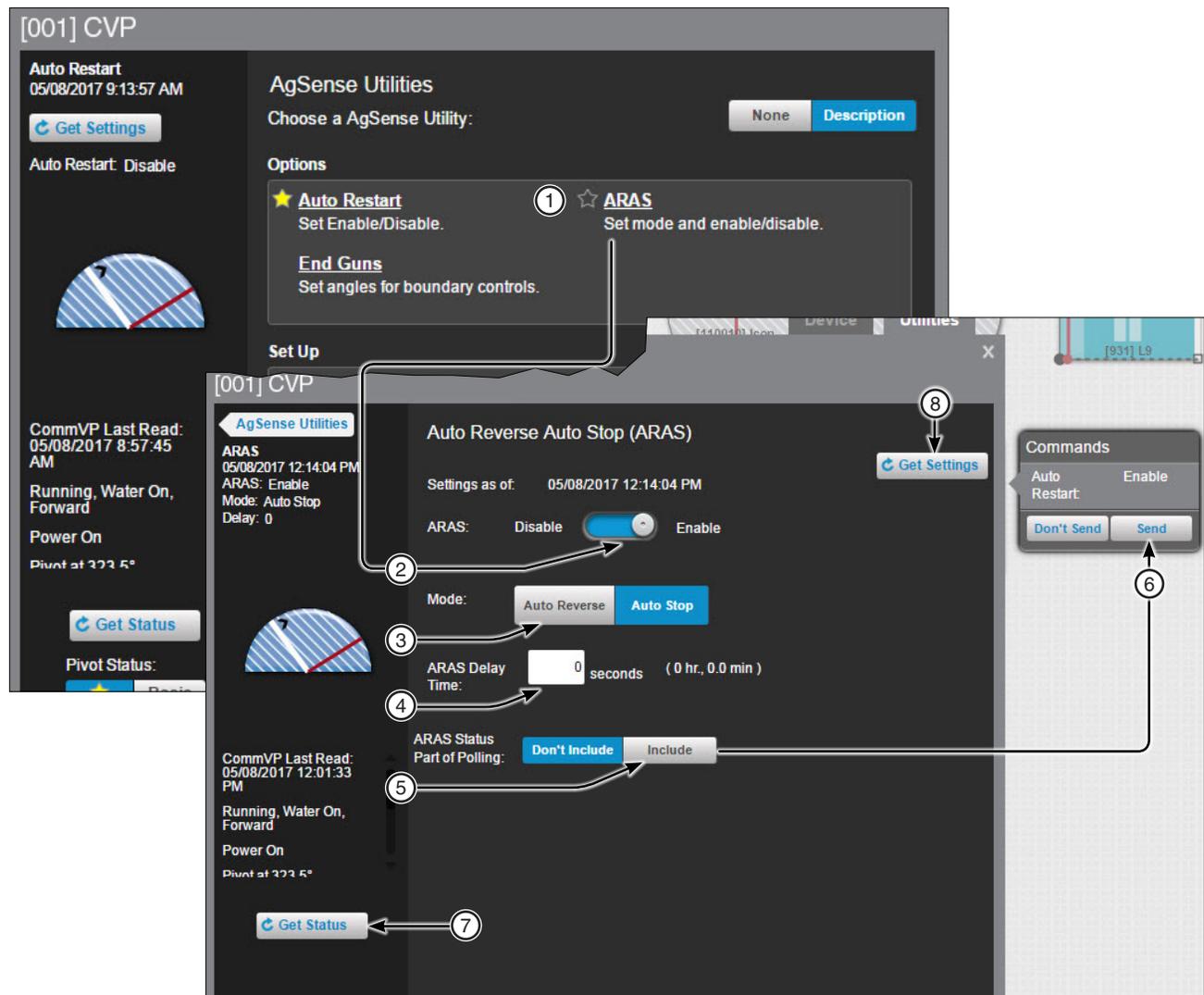


Figure 323-1

1. ARAS	5. ARAS Status Part of Polling
2. ARAS Enable / Disable	6. Send
3. Mode	7. Get Status
4. ARAS Delay Time	8. Get Settings

# Monitor and Control

## AgSense

### Utilities Screen (Continued)

#### End Guns

Send end gun positions in BaseStation, save them and send them to the device or update BaseStation with positions from the device.

End guns must be enabled in the control panel. However, end guns can be turned Off from BaseStation by setting all end gun positions to (0) and sending them to the device. Since the end gun positions are (0), the end gun will not turn On.

**Get Angles:** Click **Get Angles** to update the BaseStation with end gun positions from the device.

**End Guns:** Select the End Gun to change.

**End Gun Start and End Position Fields:** The fields where the start and end positions are entered.

**Preview:** Click to preview the end gun On sequence for the selected end gun. The end gun On sequences are highlighted in blue.

**Reset:** Click **Reset** to reset all settings back to the last saved state or the default if its never been saved.

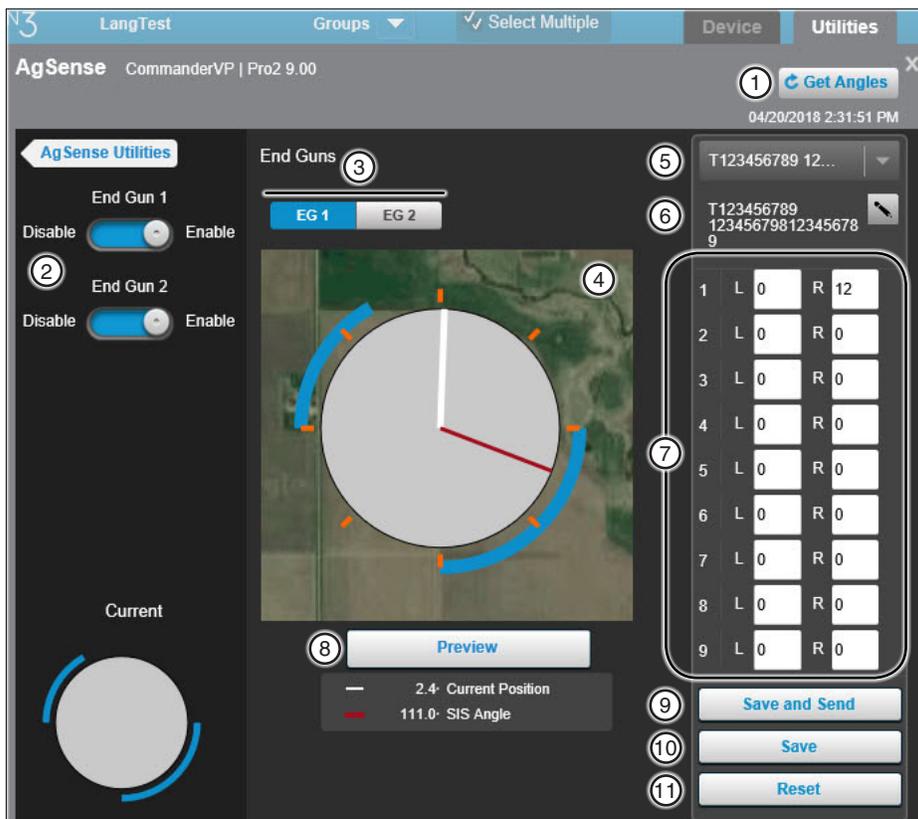


Figure 324-1

1. Get Angles	5. Table List	9. Save and Send
2. End Gun 1 and 2	6. Edit Name	10. Save
3. End Guns	7. End Gun Start / End Position	11. Reset
4. Display	8. Preview	

## AgSense Utilities Screen (Continued) End Guns (Continued) Set End Gun Positions

To set end gun positions click **End Guns**. Select the End Gun to change. Choose the table template to be used. Determine which sequence number 1 through 6 to change and enter the **Start** position in feet. Enter the **End** position in feet. Enter start and end positions in other sequences as required. Click **Preview** to update the linear graphic with end gun sequences. The end gun On sequences are highlighted in blue for the selected end gun. When done, click **Save**. On the Commands list dialog box click **Send**.

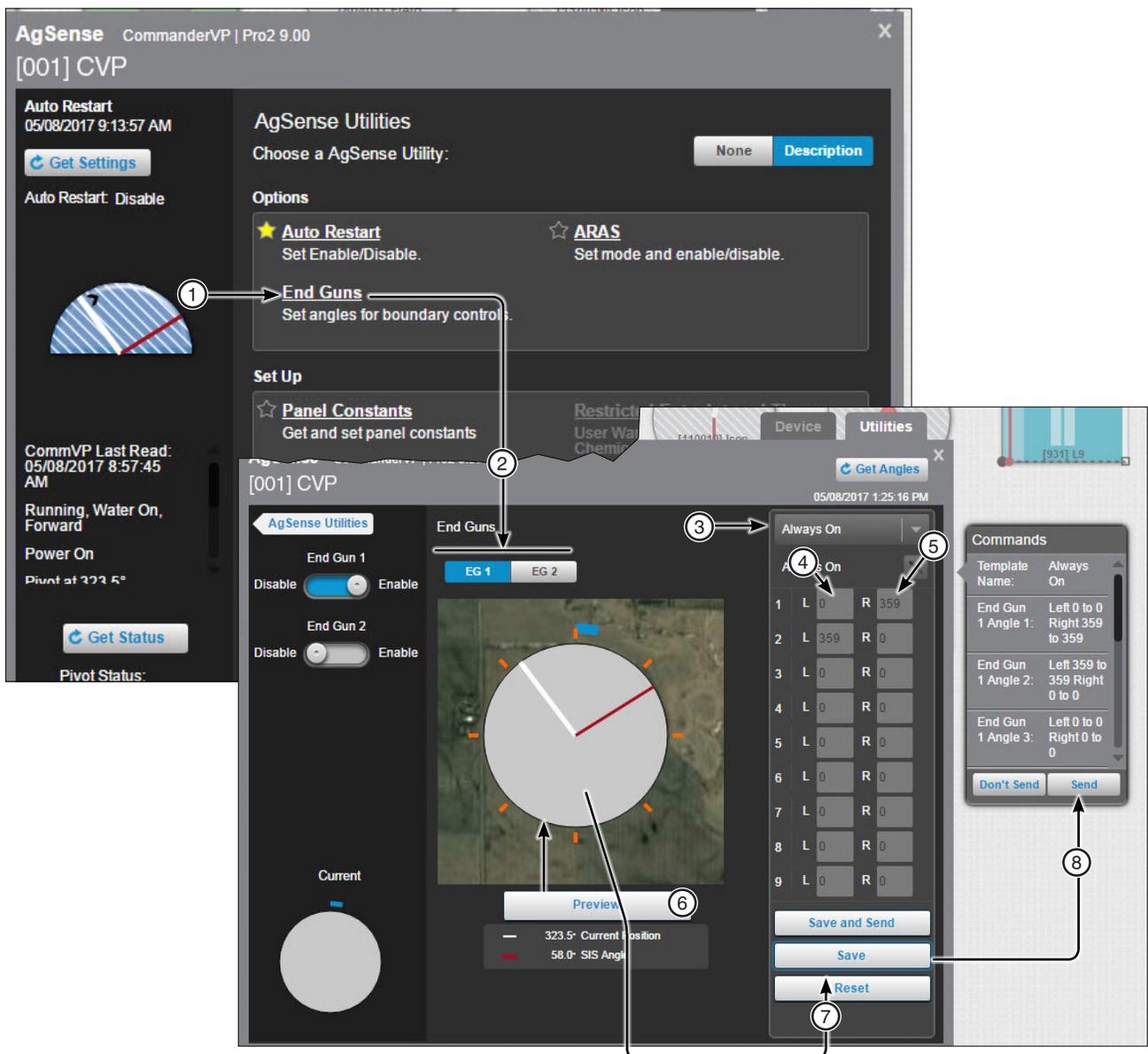


Figure 325-1

1. End Guns	5. End Position
2. EG 1 / EG 2	6. Preview
3. List	7. Save
4. Start Position	8. Send

# Monitor and Control

## AgSense Utilities Screen (Continued) Panel Constants

Panel Constants displays the minimum application and minimum hours/rev panel constants.

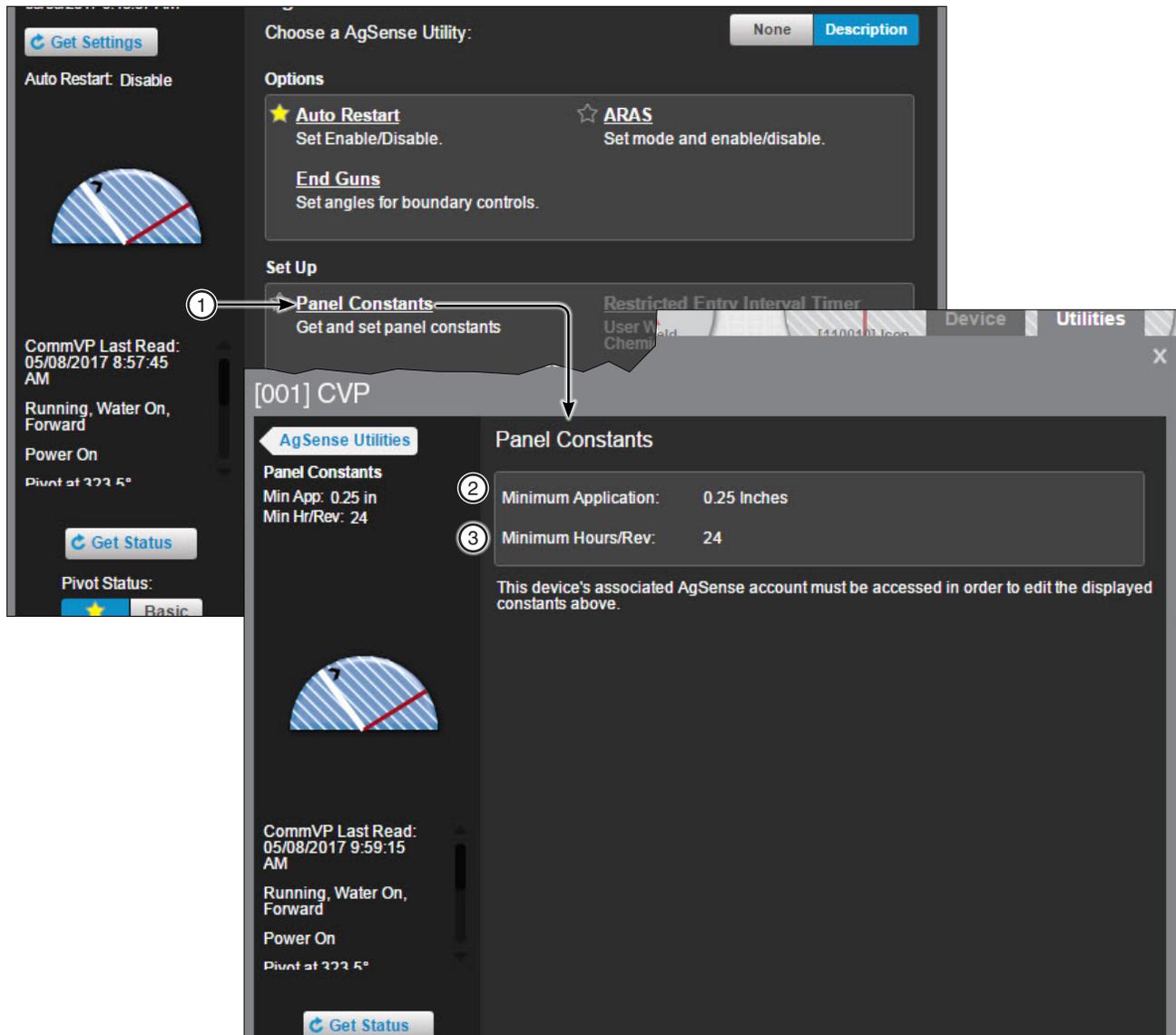


Figure 326-1 1. Panel Constants 2. Minimum Application 3. Minimum Hours/Rev

## AgSense

### Utilities Screen (Continued)

#### Restricted Entry Interval Timer

The Restricted Entry Timer, available by subscription, warns not to enter a field for any reason such as chemical application. Click the Restricted Entry link to open the options to run or schedule a restricted entry event. When Restricted Entry Data is configured, the user is warned about chemical application. To learn more about the Restricted Entry Timer and what it does, please contact BaseStation support.

### NOTE

- To add the Chemical Brand Name, Restricted Entry Data must be set up BEFORE scheduling or running the Restricted Entry event. Once set up, the Active Ingredient, Registration Number, and Restricted Entry Interval are added based on the selection.
- To enable Restricted Entry notifications, click the Detail tab and select the Alert Contact List BEFORE scheduling or running the Restricted Entry event.

The screenshot displays the 'Restricted Entry' configuration screen in the AgSense CommanderVP Pro2 9.00 application. The interface includes a 'Set Up' menu at the top left with 'Restricted Entry' selected (1). The main screen has 'Timer' and 'Detail' tabs, with 'Timer' selected (2). A large digital timer shows '000:00:00'. Below the timer are 'Schedule' and 'Run Now' buttons (3). The 'Scheduled Start Date & Time' field is set to 04/20/2018 14:48 (4). Other fields include 'Work Order Number' (5), 'Application Method' (6), 'Chemical Brand Name' (7), 'Active Ingredient' (8), 'Registration Number' (9), 'Restricted Entry Interval' (10) set to 0, and 'Application Hours' (11) set to 0. A 'Save' button (12) is at the bottom right. A 'Get Status' button is at the bottom left. A calendar (4a) and a 'Set Time' dialog (4b) are also shown, with arrows indicating their interaction with the main screen elements.

Figure 327-1

- |                       |                                |                                          |
|-----------------------|--------------------------------|------------------------------------------|
| 1. Restricted Entry   | 4. Scheduled Start Date & Time | 7. Chemical Brand Name                   |
| 2. Timer / Detail     | 4a. Calendar                   | 8. Active Ingredient Registration Number |
| 3. Schedule / Run Now | 4b. Set Time                   | 9. Restricted Entry Interval             |
|                       | 5. Work Order Number           | 10. Application Hours                    |
|                       | 6. Application Method          | 11. Save                                 |

# Monitor and Control

## AgSense

### Utilities Screen (Continued)

#### Restricted Entry Interval Timer (Continued)

The Restricted Entry Detail tab displays the History and Alert Contact List sections.

- History includes past restricted entry event details.
- Alert Contact List provides drop down alert contacts. To send Restricted Entry Alerts, choose from the Start and Stop drop down lists and then click **Save**.

Once alerts have been selected and saved, click the **Timer** tab to schedule or run a Restricted Entry Event.

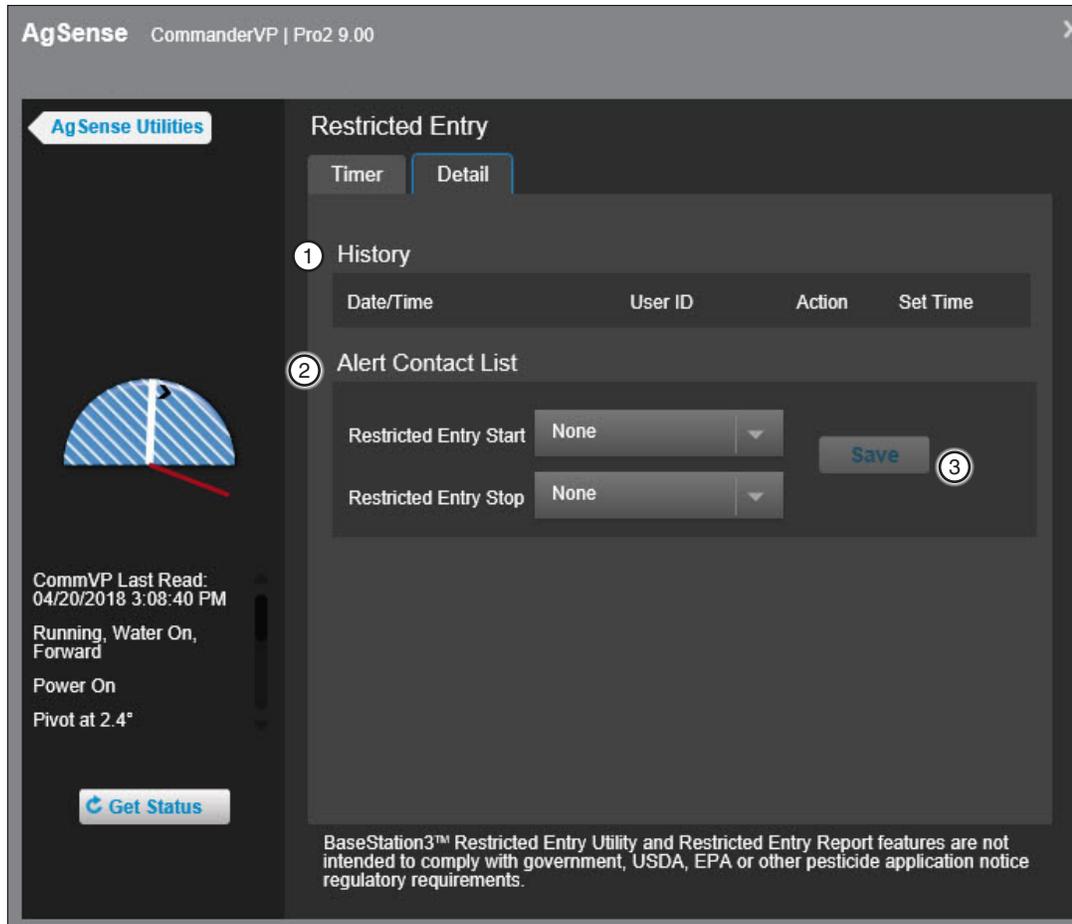


Figure 328-1 1. History  
2. Alert Contact List  
3. Save

## Auxiliary Link

### Controls and Status Displays

The following controls and status displays are available on the device. After making a change, click the **Send** button to send the command or to cancel click the **Don't Send** button.

**Outputs:** Slide switches to enable or disable the output. The Commands list dialog box is automatically populated with the change. When done making changes click the **Send** button in the Commands list dialog box to send the command(s) to the device.

**View More/View Less:** When more outputs or information exists than can be displayed in the original window, click **View More** to see the additional outputs or information. To return the window to the original size click **View Less**.

**Inputs, Sensors and Counters** display status information about the respective devices.

**Remote Lock:** Indicates the position of the Local-Off-Remote Switch at the Auxiliary Link control panel. When the switch is in the Remote position, operation of the Auxiliary Link by the BaseStation is allowed. When the switch is in the Local position, the lock icon appears. Remote operation of the Auxiliary Link by the BaseStation is NOT allowed.

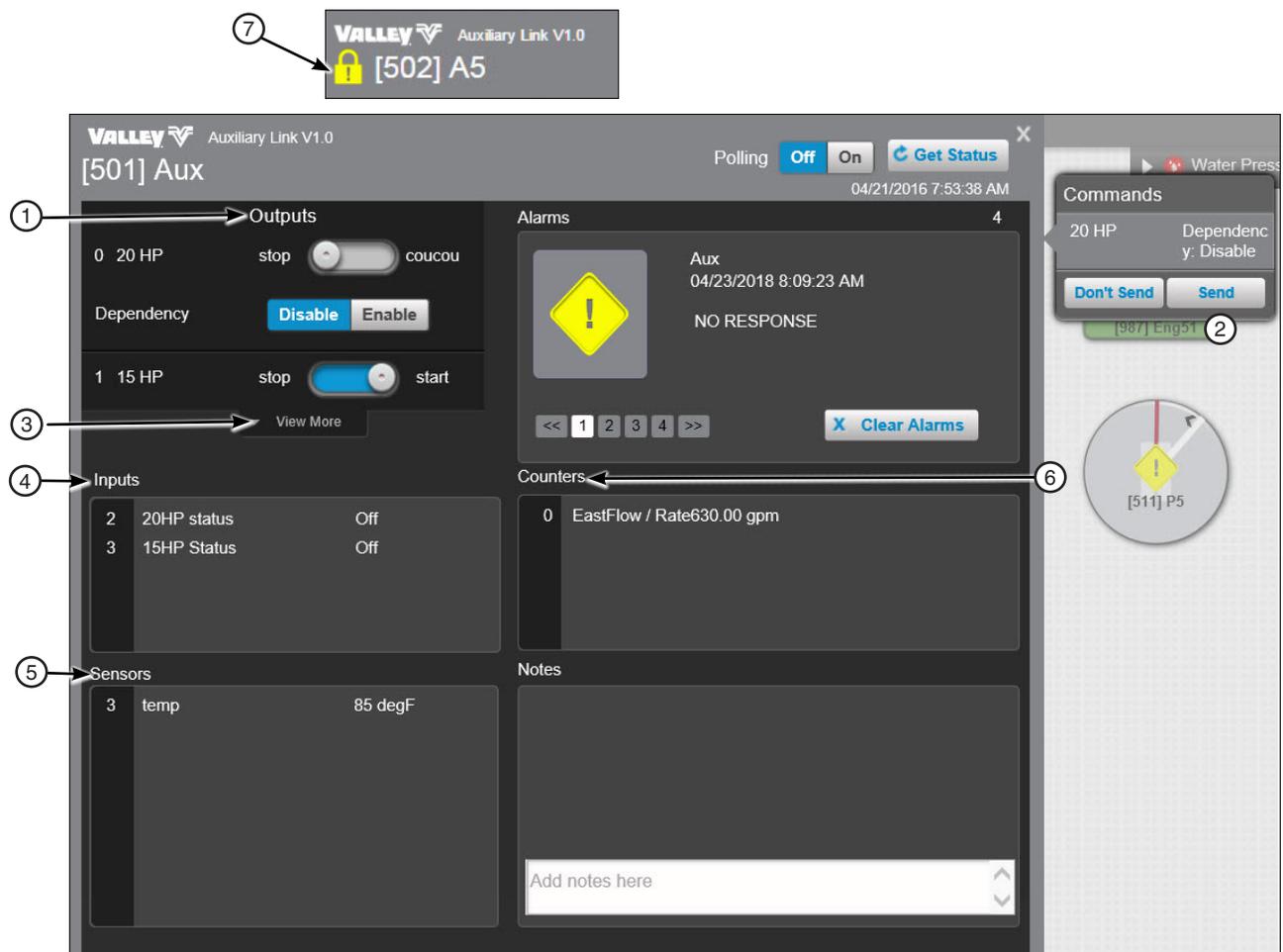


Figure 329-1

1. Outputs	5. Sensors
2. Send	6. Counters
3. View More / View Less	7. Remote Lock
4. Inputs	

# Monitor and Control

---

## Irrrometer Soil Moisture Monitor

### Monitor Display

**Rain Measurement:** Displays the amount of rain received with date and time.

**Transmitter Name:** Displayed on the tab. Up to 16 transmitters can be displayed.

**Last Update:** The last date and time that the Irrrometer website received an update from this transmitter.

**Field:** Shows the name of the field from the Irrrometer website.

**Angles:** Displays the angular location of the transmitter and sensors.

**Battery Level:** Shows the battery voltage reported to the Irrrometer website during the last update.

**Sensor Name:** Shows the name of each sensor. Up to four sensors can be displayed on each transmitter. The position of the sensor name on the screen depends on the physical connection of the sensor to the transmitter in the field.

**Moisture Zone:** The user set range associated with the normal level of moisture. Every reading greater than this range is dry. Every reading less than this range is wet. The Normal Threshold values are set in BaseStation.

**Last Read:** Shows the previous reading from the Irrrometer website.

**Current Read:** Shows the current reading from the last update of the Irrrometer website.

**Chg Dir:** Displays the change in direction of the moisture or temperature reading between the last reading and the current reading.

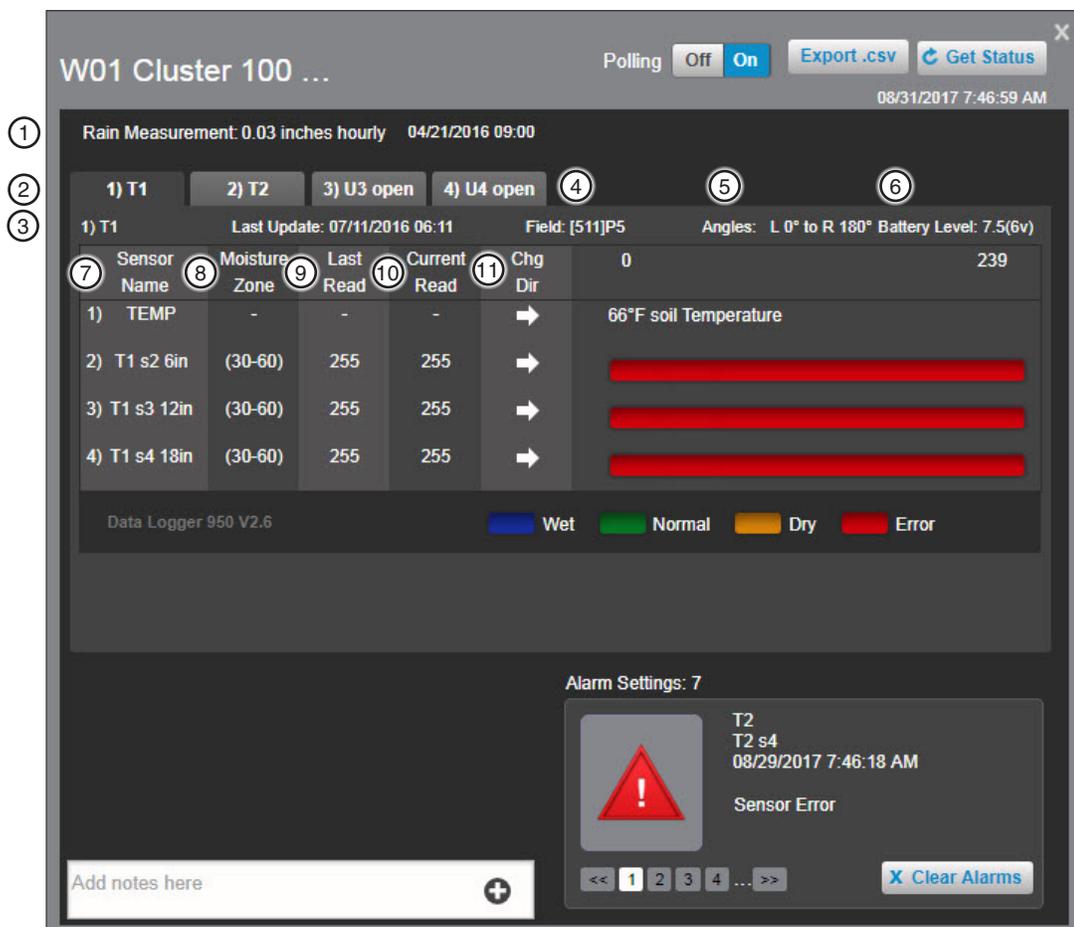


Figure 331-1 1. Rain Measurement 4. Field 7. Sensor Name 10. Current Read  
2. Transmitter Name 5. Angles 8. Moisture Zone 11. Chg Dir  
3. Last Update 6. Battery Level 9. Last Read

# Monitor and Control

## Irrrometer Soil Moisture Monitor

### Monitor Display (Continued)

**Graphic Reading:** A graphic display of the last reading and the current reading. Temperature values are displayed in Fahrenheit only. The black line indicates the last reading and the white line indicates the current reading.

**Data Logger Version:** Displays the data logger software version.

**Color Key:** The colors associated with the Wet, Normal, Dry and Error values in the Graphic.

**Notes:** An area to enter notes for this device. Notes can be deleted by a user with Administrator level access.

**Alarms:** Displays the current alarm conditions with graphic and text. The number of current alarms is displayed above the right corner of the Alarms area. When more than one alarm condition exists, click the arrows or a number to display a different alarm. To clear the alarm that is being displayed, click **Clear Alarms**.

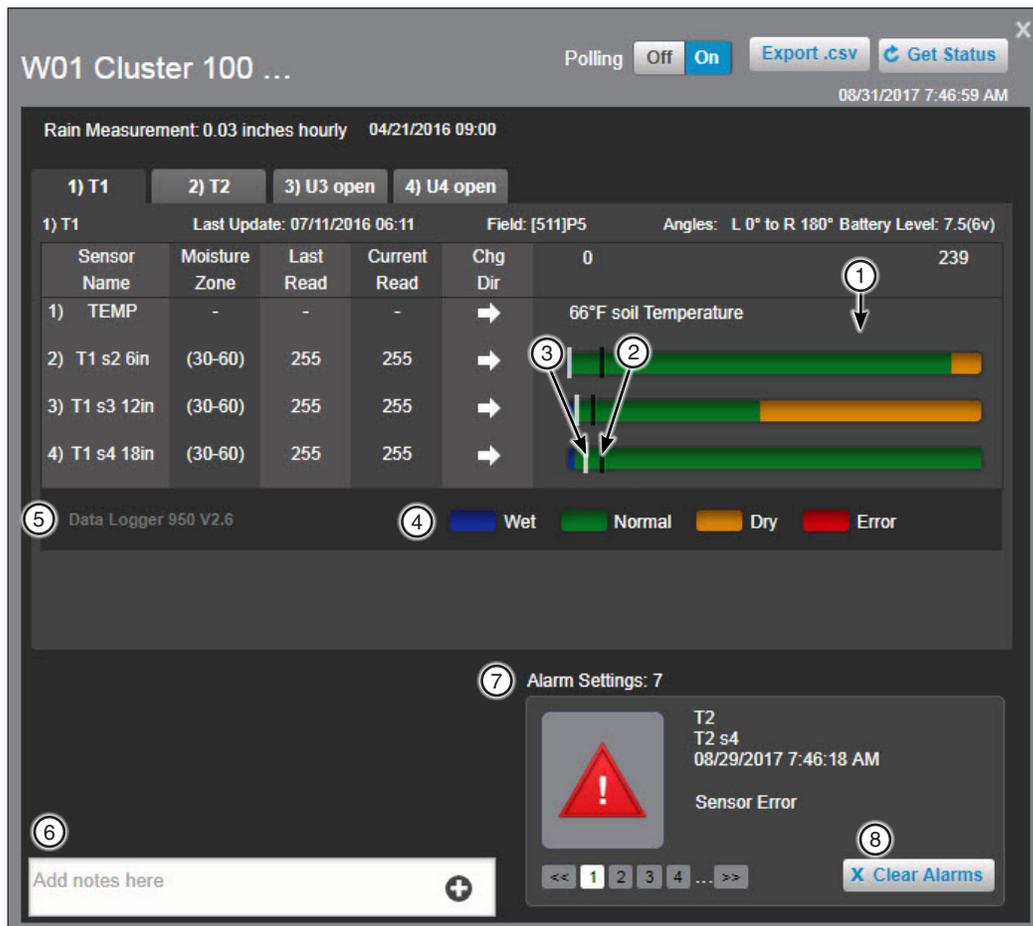


Figure 332-1

1. Graphic Reading
2. Last Reading
3. Current Reading
4. Color Key
5. Data Logger Version
6. Notes
7. Alarms
8. Clear Alarms Button

## PanelLink Pivot

### Device Screen Controls

The following controls are available on the Device tab. After making a change click the Commands list dialog box **Send** button to send the command. Alternatively, click the **Don't Send** button to cancel.

**Aux 1 (Hardware required):** Select On or Off to populate the Commands list dialog box.

**Percent Bypass:** When On, it bypasses the pivot control panel percent timer and runs the machine at 100%. This does not change the percent timer setting at the pivot control panel. When Off, the pivot control panel's percent timer is the active timer. Select On or Off to populate the Commands list dialog box.

**Start Reverse/Start Forward/Stop:** Selecting a start direction or stop populates the Commands list dialog box.

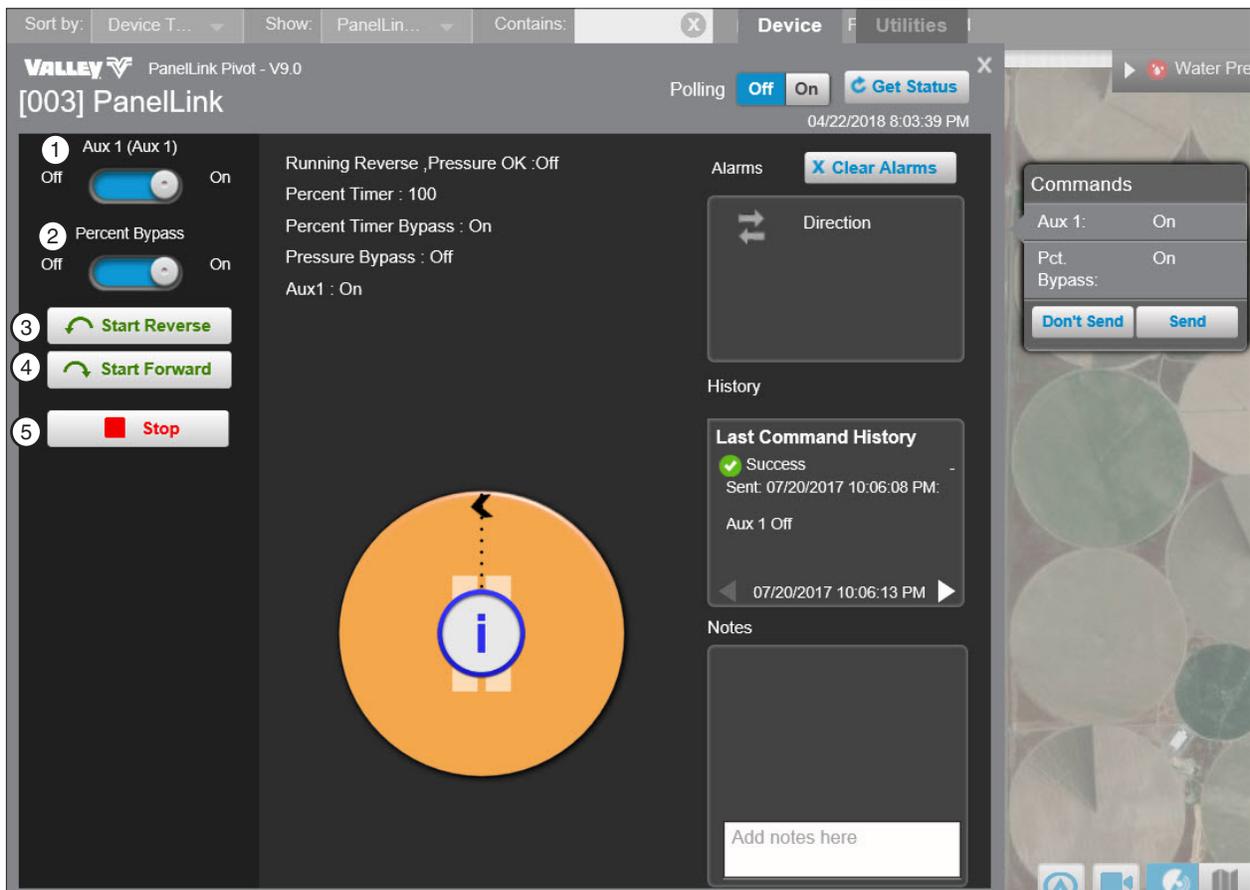


Figure 333-1

1. Aux 1
2. Angle Field
3. Start Reverse
4. Start Forward
5. Stop

# Monitor and Control

## PanelLink Pivot

### Utilities

#### Restricted Entry Interval Timer

The Restricted Entry Timer, available by subscription, warns not to enter a field while chemicals are being applied. Click the Restricted Entry link to open the options to run or schedule a restricted entry event.

## NOTES

- To add the Chemical Brand Name, Restricted Entry Data must be set up BEFORE scheduling or running the Restricted Entry event. Once set up, the Active Ingredient, Registration Number, and Restricted Entry Interval are added based on the selection.
- To enable Restricted Entry notifications, click the Detail tab and select notification recipients in the Alert Contact List BEFORE scheduling or running the Restricted Entry event.

Panel Link Utilities  
Choose a Panel Link Utility: None Description

Set Up

1 **Restricted Entry**  
User Warning not to enter a field while Chemicals are being applied

VALLEY PanelLink Pivot V9.0  
[003] PanelLink

Pivot Utilities

Restricted Entry

000:00:00

Timer Detail

Schedule Run Now

4a

4b

2

3

4 Scheduled Start Date & Time: 04/23/2018 09:11

5 Work Order Number:

6 Application Method: select

7 Chemical Brand Name: select

8 Active Ingredient:

9 Registration Number:

10 Restricted Entry Interval: 0

11 Application Hours: 0

Running Reverse Pressure OK : Off  
Percent Timer : 100  
Percent Timer Bypass : On  
Pressure Bypass : Off  
Aux1 : On

Get Status

Cancel 12 Save

BaseStation3™ Restricted Entry Utility and Restricted Entry Report features are not intended to comply with government, USDA, EPA or other pesticide application notice regulatory requirements.

Figure 334-1

1. Restricted Entry	4b. Set Time	9. Registration Number
2. Timer / Detail	5. Work Order Number	10. Restricted Entry Interval
3. Schedule / Run Now	6. Application Method	11. Application Hours
4. Scheduled Start Date & Time	7. Chemical Brand Name	12. Save
4a. Calendar	8. Active Ingredient	

## Pump Control

### Torrent Pump Control

The following controls are available for the Torrent Pump Control. Click **Get Status** to send commands to the device.

**Operation State:** The current pressure, as monitored with a pressure sensor on the pump output.

**Discharge Set Point:** The pressure set point that the pump is intended to maintain as its output pressure.

**Drive Temperature:** The temperature of the air surrounding the pump controller, typically inside the pumping facility.

**Flow Rate:** The volume of water (or other liquid) being measured by a flow meter during a 1 minute interval, expressed as Gallons per Minute (or Liters per Second).

**Water Level:** A monitored water level, typically from the reservoir that is being pumped from.

**Total Volume:** A permanent total volume of water that has been pumped by the controller.

**Season Volume:** A resettable volume monitor.

**Pumps:** A list of pump(s) that are enabled for monitoring.

**Alarms:** Displays the current alarm conditions with graphic and text. To clear the alarms click **Clear Alarms**.

**Notes:** An area to enter and view all notes for this device. When the maximum number of 10 notes exist in the notes display, any new note is added to the top of the list and the oldest note is discarded. Notes can be deleted by a user with Administrator level access. Notes cannot be edited.

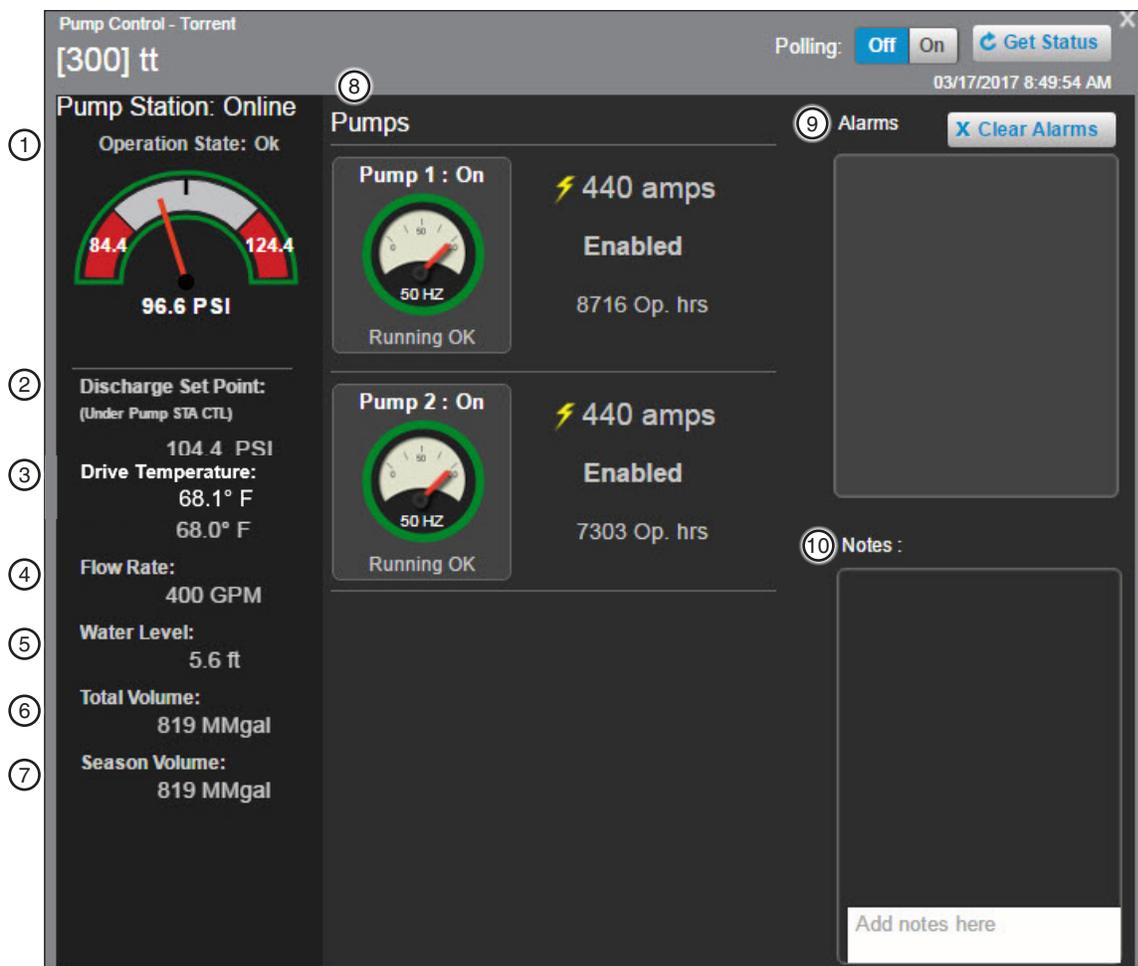


Figure 335-1 1. Operation State 4. Flow Rate 7. Season Volume  
2. Discharge Set Point 5. Water Level 8. Pumps  
3. Drive Temperature 6. Total Volume 9. Alarms  
10. Notes

# Monitor and Control

## Pump Control

### Yaskawa Pump Control

The following controls are available for the Yaskawa iQpump 1000 Pump Control. Click **Get Status** to send commands to the device.

**Pump Station Mode:** The switch position, Local or Remote.

**Mode:** The panel operation mode, Hand, Off, or Auto. This determines the control operation function.

**Operation State:** The current pressure, as monitored with a pressure sensor on the pump output.

**Pressure Set Point:** The pressure set point that the pump is intended to maintain as its output pressure.

**Flow Rate:** The flow rate measured in gallons per minute (GPM).

**Total Volume:** A permanent total volume of water that has been pumped by the controller.

**Season Volume:** A resettable volume monitor.

**Pumps:** A list of pump(s) that are enabled for monitoring.

**Alarms:** Displays the current alarm conditions with graphic and text. To clear the alarms click **Clear Alarms**.

**Notes:** An area to enter and view all notes for this device. When the maximum number of 10 notes exist in the notes display, any new note is added to the top of the list and the oldest note is discarded. Notes can be deleted by a user with Administrator level access. Notes cannot be edited.



Figure 336-1 1. Pump Station Mode 6. Total Volume  
2. Mode 7. Season Volume  
3. Operation State 8. Pumps  
4. Pressure Set Point 9. Alarms  
5. Flow Rate 10. Notes

## Pump Control

### Vacon Pump Control

The following controls are available for the Vacon 100 Flow Pump Control. Click **Get Status** to send commands to the device.

**Pump Station Mode:** The switch position, Local or Remote.

**Mode:** The panel operation mode, Hand, Off or Auto. This determines the control operation function.

**Operation State:** The current pressure, as monitored with a pressure sensor on the pump output.

**Pressure Set Point:** The pressure set point that the pump is intended to maintain as its output pressure.

**Flow Rate:** The flow rate measured in gallons per minute (GPM).

**Total Volume:** A permanent total volume of water that has been pumped by the controller.

**Season Volume:** A resettable volume monitor.

**Pumps:** A list of pump(s) that are enabled for monitoring.

**Alarms:** Displays the current alarm conditions with graphic and text. To clear the alarms click **Clear Alarms**.

**Notes:** An area to enter and view all notes for this device. When the maximum number of 10 notes exist in the notes display, any new note is added to the top of the list and the oldest note is discarded. Notes cannot be edited.

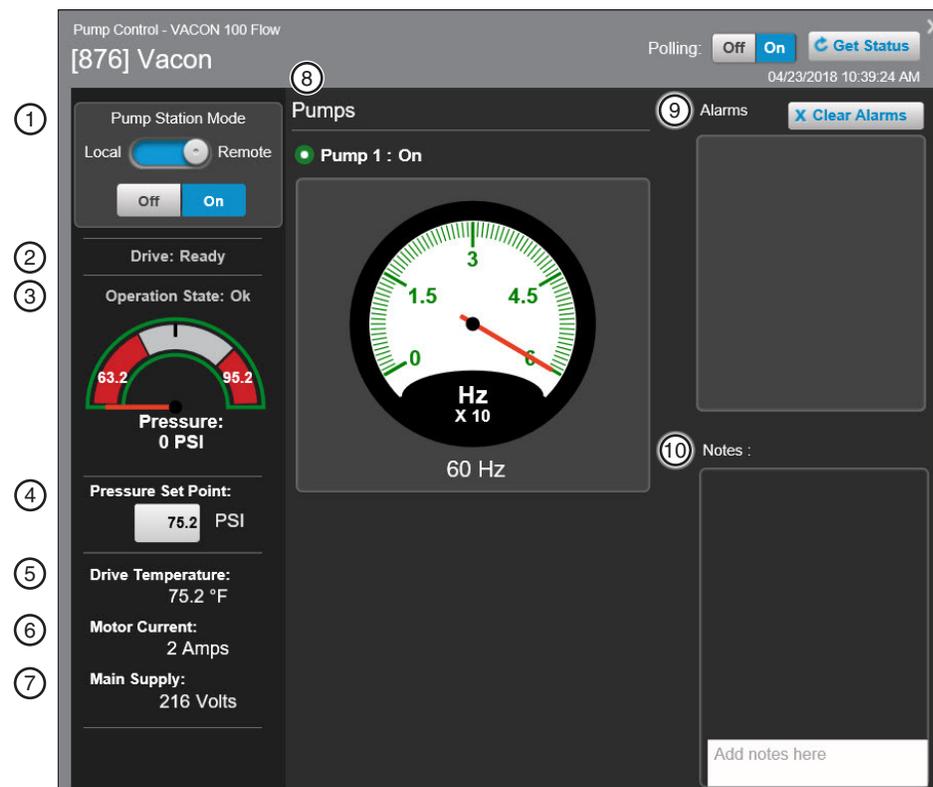


Figure 337-1 1. Pump Station Mode  
2. Drive  
3. Operation State  
4. Pressure Set Point  
5. Drive Temperature

6. Motor Current  
7. Main Supply  
8. Pumps  
9. Alarms  
10. Notes

# Monitor and Control

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## Engine Control

### Controls and Status Displays

The following controls and status displays are available on the Device. After making a change, click the **Send** button to send the command or to cancel click the **Don't Send** button.

**Connected Device Run Delay:** The Engine Control device will not automatically shutdown the engine while the Connected Device Run Delay timer is running, even if the state of Connected Device Status is not running. If the Connected Device Status is not running, and the Connected Device Run Delay period has expired, the Engine control device will switch the command to Stop. The Run Delay can be set according to field installation, with the Run Delay time adjustable as necessary. This can also be used when an engine is needed to run for an extended period of time, even if there is no connected device. The default settings for the Engine Control device is for the traditional pivot or linear machine as the Connected Device. This is to allow time for the pivot/linear machine to be started, following a short duration that is allowing the engine to stabilize at normal RPM, or to allow for communications with the pivot/linear machine after it has had a shutdown, before killing the engine power.

**Start/Stop Button:** Click **Start** or **Stop** to populate the Commands list dialog box.

**Alarms:** Displays the current alarm conditions with graphic and text.

**History:** Displays command history from the last two communications with the device.

**Connected Devices:** A connected device can be any equipment that the engine is installed to support. The default settings for the Engine Control device is for the traditional pivot or linear machine as the Connected Device.

**Notes:** An area to enter and view all notes for this device. When the maximum number of 10 notes exist in the notes display, any new note is added to the top of the list and the oldest note is discarded. Notes can be deleted by a user with Administrator level access. Notes cannot be edited.

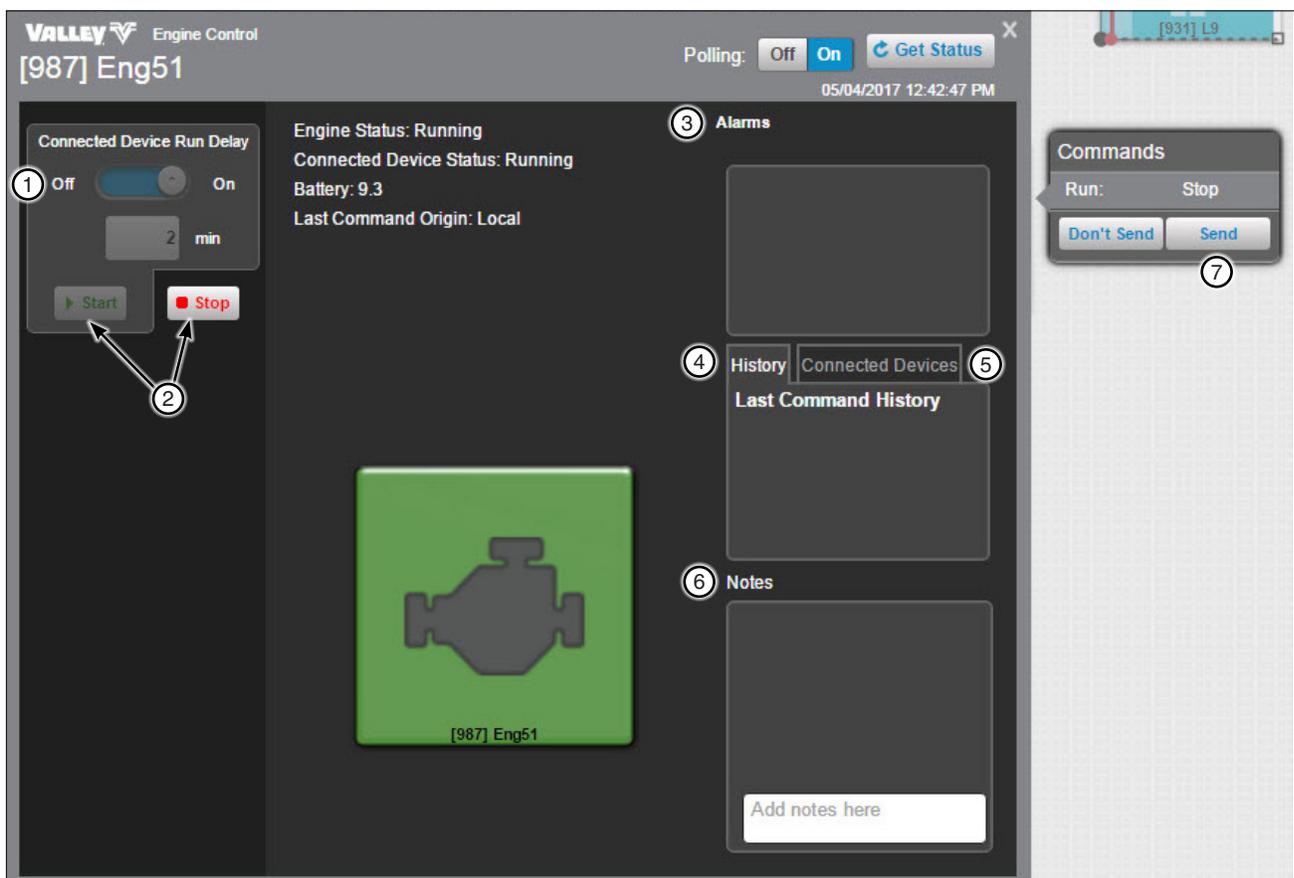


Figure 339-1 1. Connected Devices Run Delay Switch 2. Start/Stop Buttons 3. Alarms 4. History 5. Connected Devices 6. Notes 7. Send Button

# Monitor and Control

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# Monitor and Control

## Standalone Web Camera Device

To view live streaming video from a web camera device do the following.

In **Tile View** or **Map View** in the **Operational View Type**, select a web camera device to open the viewing window. The viewing window will display live streaming video, and can be maximized, restored down or minimized. The window will remain open until user closes it.

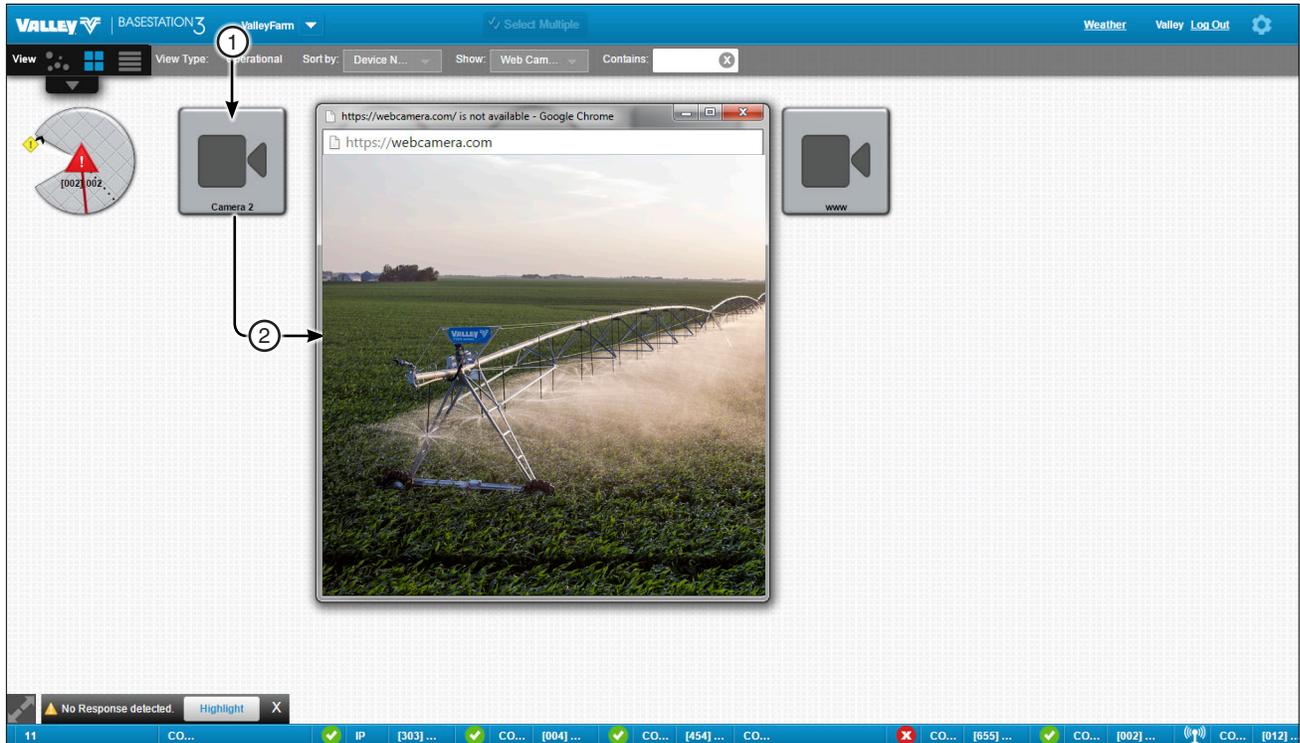


Figure 341-1  
1. Web Camera  
2. View Window

# Monitor and Control

## Web Camera Associated with a Device

To view live streaming video from a web camera that is associated with a device do the following.

In **Tile View** or **Map View** in the **Operational View Type**, select a device that is associated with a web camera to open the device view. On the device view, click **Camera** to open the **View Window**. The viewing window will display live streaming video, and can be maximized, restored down or minimized. The window will remain open until user closes it.

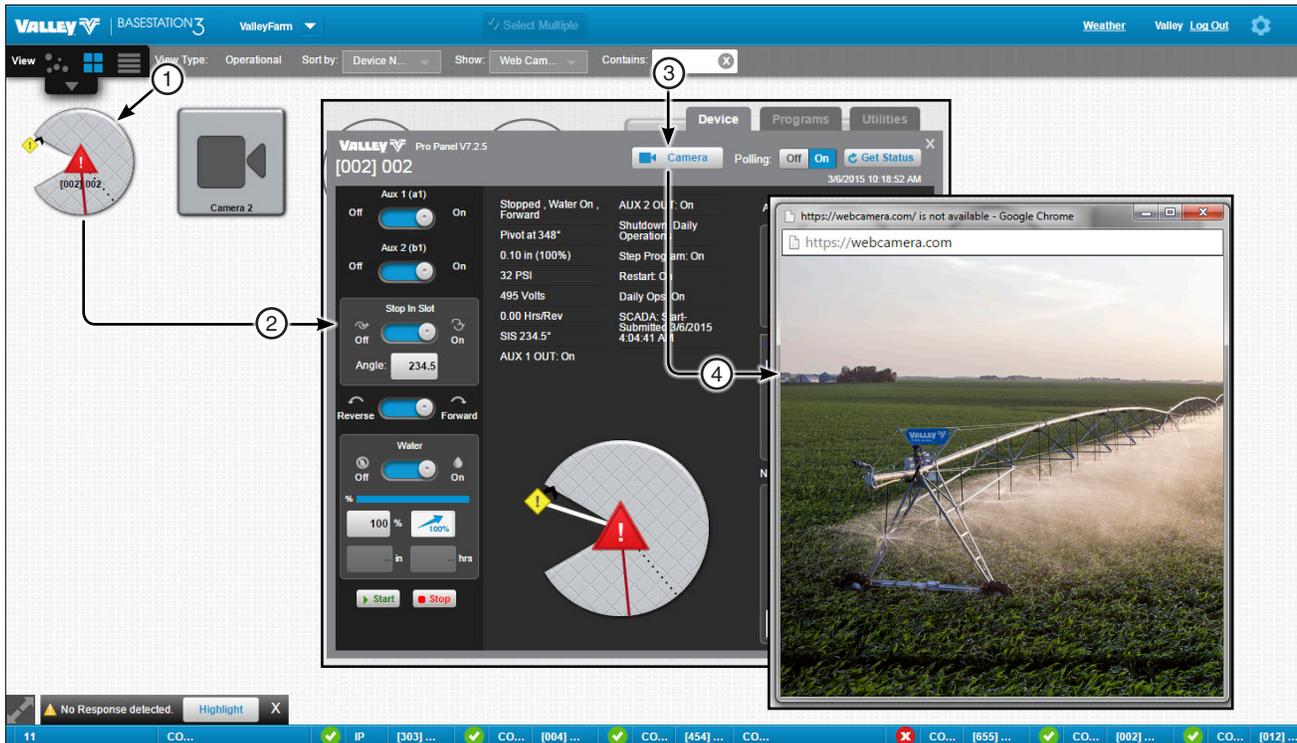


Figure 342-1 1. Device Associated with Web Camera 2. Device View 3. Camera 4. View Window

# Troubleshooting

PROBLEM	POSSIBLE CAUSE / CORRECTIVE ACTION
In Base Setup, Time to Wait for Acknowledge set too low.	Increase the Time to Wait for Acknowledge in 2 second increments until commands are executed correctly.
	Contact your local Valley dealer.
BaseStation is not communicating with a specific device.	Verify that power is ON at the device.
	The control panel setup RTU ID does not match the actual device/control panel RTU ID.
	Verify the correct RTU ID.
	Verify proper operation of communication hardware at device.
	Contact your local Valley dealer.
BaseStation can communicate with a specific device, but will not Poll the device.	Polling is turned off. Turn Polling on.
	Contact your local Valley dealer.
BaseStation is communicating with device but update information received from device is corrupt.	In Base Setup, Time to Wait for Acknowledge is set too high. Decrease Time to Wait for Acknowledge in 2 second increments until uncorrupted update information is received correctly.
	Contact your local Valley dealer.
BaseStation will not communicate with any device.	Power to BaseStation communication hardware is off. Turn power on to communication hardware.
	Serial or USB cable from BaseStation computer to communication hardware is not connected. Verify correct connection of cable.
	Faulty antenna connection or radio. Verify antenna connection and radio operation.
	Contact your local Valley dealer.

# Troubleshooting

PROBLEM	POSSIBLE CAUSE / CORRECTIVE ACTION
<p>Minimum Application (Application Rate) in BaseStation does not match the Application Rate at device control panel. Minimum application constant must be entered in the pivot setup before this option is available. See Pivot Configuration/Setup / Constant Values / Minimum Application in the Device Management section of this manual.</p>	<p>To synchronize the Minimum Application click <b>Settings</b> and <b>Add/Remove Devices</b>, click the device <b>Change</b> button, click the <b>Setup</b> button, enter the correct Minimum Application and click the <b>Send</b> button or click the <b>Get</b> button to get the correct Minimum Application from the device/control panel.</p>
<p>Minimum Hours/Rev in BaseStation does not match the Hours/Rev at device/control panel. Hours per revolution must be entered in the pivot setup before this option is available. See Pivot Configuration/Setup / Constant Values / Minimum Hours/Rev in the Device Management section of this manual.</p>	<p>To synchronize the Minimum Hours/Rev click <b>Settings</b> and <b>Add/Remove Devices</b>, click the device <b>Change</b> button, click the <b>Setup</b> button, enter the correct Minimum Hours/Rev and click the <b>Send</b> button or click the <b>Get</b> button to get the correct Minimum Hours/Rev from the device/control panel.</p>
<p>Stop In Slot Angle in BaseStation does not match the Stop In Slot Angle at the device control panel.</p>	<p>To synchronize the angle click <b>Settings</b> and <b>Add/Remove Devices</b>, click the device <b>Change</b> button, click the <b>Setup</b> button, enter the correct Stop In Slot Angle and click the <b>Send</b> button or click the <b>Get</b> button to get the correct Stop In Slot Angle from the device/control panel.</p>
<p>Google Map won't display the map. Error message:</p>	<p>Call your Internet provider.</p>
	<p>Use Tile View or My Map when Internet service is unavailable.</p>