



**BaseStation2-SM
Version 8.3**

**Base Setup Guide
and
Owner's Manual**

0997206_G





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MINIMUM HARDWARE REQUIREMENTS

Desktop Computers

- Pentium IV 2.6GHz or equivalent
- Microsoft Windows XP Professional
- 1 GB of RAM
- 40 GB, 7200RPM
- 150 MB of hard disk space for the basic package installation, 200 MB including the voice option; additional space required for accumulating database files.
- 2X CD-ROM (for software installation only)
- Video resolution of 1024 x 768 or higher with 8 MB video RAM recommended.
- Multi-media sound with speaker (for alarm announcement and support of a Call In/Out Voice modem).
- TAPI compliant voice phone modem for Phone Call In/Out interface, 33.6 k Baud or greater.
- Serial connection (referred to as the COM port) is based on remote telemetry type (RS232 serial port and an extra card).

Notebook Computers

- Notebook computers are not recommended for use as the primary BaseStation because of limited features and performance. However, a notebook computer can be used as a secondary BaseStation.
- When purchasing a notebook computer follow the minimum recommended specifications for the desktop computer.
- Other considerations when purchasing a notebook computer:
 - Screen Type** - A transreflective screen (BriteView®, TruBrite®, XBrite®, UltraBrite®, etc) is visible in both subdued lighting and in direct sunlight. Transmissive (the common matte finish screens) nearly disappear in sunlight.
 - Size** - The computer must be an appropriate size that can be transported and positioned in the environment it is to be used.
 - Durability** - Rugged are recommended if the computer is to be transported and bounced around a lot. Some semi-rugged computers have internal hard disc vibration sensing to protect the media.
- Serial connection is based on remote telemetry type (USB to RS232 converter).

Installed Software

- Adobe Reader 8.0 or later (for display of BaseStation manuals).

Windows Configuration

- Windows XP Regional and Language Options:
 - Set Regional Options, Standards and formats to English (United States)
 - Verify Number, Decimal Symbol is set to decimal point
 - Verify Date, Short Date is set to a Month/Day/Year format
- Power save disabled for Standby, Hibernation, and Hard Drive

Base to Machine Communication Equipment Options

Phone - Data

- One Analog phone line for data communications to control panel.
- Analog phone modem for data communications to control panel.
 - Compatible modems for use with Valmont remote phone hardware.
 - US Robotics® model 5633 USB External Fax Modem.
 - US Robotics® model 5686 Serial External Fax Modem.
 - Valmont Digital Cellular Modem*.

Radio - Data

- Valmont Spread Spectrum Radio*.
- Valmont 300 baud modem (for radio obtained locally)*.
- Valmont 1200 baud modem (for radio obtained locally)*.
- Valmont DataRadio® Integra/TR.
 - DataRadio is a registered trademark of DataRadio COR LTD.

Phone - Audio

- One Analog phone line for Call In/Out Voice option.

*** Not offered for new BaseStation installations.**

Remote machine hardware IS supported.

Regulations

United States & Canada Radio Communications

Radio communications are subject to the rules and regulations and licensing requirements of the governing bodies in which they operate. The governmental body may require the radio operator to obtain a license. Information concerning application for an FCC license can be obtained by writing the governmental agencies below, or from your local Valley Dealer.

Federal Communications Commission
445 12th Street, SW
Washington, DC 20554
1-888-225-5322 (1-888-CALL FCC) Voice: toll-free
1-888-835-5322 (1-888-TELL FCC) TTY: toll-free
1-866-418-0232 FAX: toll-free

Industry Canada
Spectrum, Information Technologies and Telecommunications
300 Slater Street
Room 1337B
Ottawa, Ontario K1A 0C8
1-800-328-6189 (Canada) or (613) 954-5031

Frequency Coordination

After the application is on file with the FCC, the license, if granted, must go to the Frequency Coordination for Business Band Radios. The address for this agency is listed below:

Personal Communication Industry Assoc.
Frequency Coordination Dept.
500 Montgomery Street, Suite 700
Alexandria, VA 22314
Toll Free: (800) 759-0300
Fax: (703) 836-1608

There will be a filing fee for the Frequency Coordination. Please contact the appropriate agency for fee charges.

Canadian Compliance Notice (Radio)

This digital apparatus does not exceed the Class A limits for radio noise emissions for digital apparatus as set out in the Radio Interference Regulations of Industry Canada.

Avis Canadien

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique édicté par l'Industrie Canada.

Customer Service

Valley dealers are the primary customer support provider for all Valley products. The dealer service group should be contacted for all customer help beginning with design consulting and extending through product upgrade and troubleshooting problems. Valley dealers are trained and supported by Valmont Service Engineers to provide complete customer solutions.

Assistance with communications hardware not purchased from Valmont should be obtained from the product supplier. Valmont will provide Valley product information to communications equipment suppliers for installation with Valley equipment.

PREFACE

Regulations

Telephone Communications

Federal Communications Commission Regulation

Federal Communications Commission (FCC) Regulations for telephone equipment

You must comply with all Federal Communications Commission (FCC) regulations:

1. The FCC registration number and ringer equivalence number of this device must be reported to the telephone company, if so requested. The FCC Registration Number and the Ringer Equivalence Number are found in the label attached to this device.
2. The sum of Ringer Equivalence numbers for all devices connected to a single telephone line should not exceed 5 for reliable operation.
3. This device must not be installed on coin-operated telephone lines or party lines.
4. This device complies with the requirements in Part 15 of the FCC Rules for a “Class A” Digital Device. Operation is subject to the following conditions:
 - This device may not cause harmful interference.
 - This device must accept any interference received, including interference that may cause undesired operation.

Important: Repair work on this device must be done by Valmont Irrigation or a Valmont Irrigation Authorized Dealer.

Industry Canada Regulation

The Industry Canada label identifies certified equipment. The certificate means that the equipment meets certain telecommunications network protective, operational, and safety requirements. Industry Canada does not guarantee the equipment will operate to a user’s satisfaction.

Before installing this equipment, make sure you are permitted to connect it to the facilities of the local telecommunications company. You must also install the equipment using an acceptable method of connection. In some cases, you may also extend the company’s inside wiring for single line individual service by means of a certified connector assembly (telephone extension cord). You should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

For your own protection, make sure that the electrical ground connections to the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

CAUTION: Do not attempt to make electrical ground connections yourself; contact the appropriate electrical inspection authority or electrician.

The model number and load number are found on the label attached to the circuit card.

The load number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to the telephone loop used by the device, to prevent overloading. The termination of a loop may consist of any combination of devices, subject to the requirement that the total of the load numbers of all the devices not exceed 100.

PREFACE

International Regulations

Radio And Telephone Communications

Radio and telephone communications outside of the United States and Canada are subject to the rules and regulations and licensing requirements of the governing bodies in which they operate. The governmental body may require the radio operator to obtain a license. Information concerning application for an end-user license can be obtained by contacting the local governmental agency or your local Valley Dealer. Valmont Industries Inc. takes no responsibility for any unauthorized use of these devices.

Regulaciones

Comunicaciones De La Radio Y Del Teléfono

Las comunicaciones de la radio y del teléfono fuera de los Estados Unidos y del Canadá están sujetas a las reglas, regulaciones y requerimientos de licencias de los organismos que gobiernan en los cuales funcionan. El organismo gubernamental puede requerir al operador de radio obtener una licencia. La información referente al uso de la licencia del usuario final puede ser obtenida contactando con la agencia gubernamental local o con su distribuidor local Valley. Valmont Industries Inc. no se responsabiliza del uso desautorizado de estos dispositivos.

Règlements

Communications Par Radio Et Téléphone

Les communications par radio et téléphone en dehors de des Etats-Unis et le Canada sont assujetties aux règlements et conditions d'autorisation des pays dans lesquels ils sont utilisés. L'organisme gouvernemental peut exiger de l'opérateur l'obtention d'une licence. L'information concernant la demande de licence radio peut être obtenue en contactant l'agence gouvernementale locale ou votre concessionnaire Valley. Valmont Industries Inc. ne prend aucune responsabilité pour tout usage non autorisé de ces dispositifs.

Regolazioni

Comunicazioni Del Telefono E Della Radio

Le comunicazioni radiofoniche e telefoniche al di fuori degli Stati Uniti e del Canada sono soggette alle leggi, ai regolamenti e alle licenze richieste dagli Stati in cui si opera. Le legislazioni locali possono richiedere licenze specifiche al radio-operatore. Le informazioni, inerenti la domanda di autorizzazione dell'utilizzatore finale, possono essere ottenute contattando l'autorità locale oppure il Distributore Valley di zona. Valmont Industries Inc. non si assume nessuna responsabilità per usi non autorizzati di questi dispositivi.

Regulamentos

Comunicações Por Rádio E Telefone

Comunicações por Rádio e Telefone fora dos Estados Unidos da América e Canadá são sujeitas às regras, regulamentações e requisitos de licenciamento das autoridades locais onde operam. O órgão governamental responsável pode exigir uma licença do operador de rádio. Informações para obtenção de tal licença pelo cliente final deverão ser obtidas com a agência regulatória local ou o Revendedor Valley da região. A Valmont não se responsabiliza pelo uso não autorizado desses equipamentos.

PREFACE

Mouse Buttons

Left Mouse Button

- Used to make all selections of toolbar buttons and menu commands.
- Used to specify starting and ending points for placement of pivots and other objects in the Map Drawing Program.
- Used to select a single machine for viewing of the simulation of the panel screen that is in the field.
- Used to select individual machines after first clicking on the Groups.

Right Mouse Button

- Used to select individual machines prior to performing a task with a menu command or toolbar button.
- Used in the Map Drawing Program to deselect the last object if misplaced or last command is unwanted.
- Used to deselect machines once they have been selected.
- Used to reverse Zoom In or Zoom Out.

Key Stroke Combinations

Main Window

[Alt] + F	Opens the File Menu
[Alt] + M	Opens the Maps Menu
[Alt] + G	Opens the Groups Menu
[Alt] + A	Opens the Action Menu
[Alt] + V	Opens the View Menu
[Alt] + H	Opens the Help Menu

Map Draw Window

FILE MENU

[Alt] + F + O	Open Map
[Alt] + F + N	New
[Alt] + F + S	Save
[Alt] + F + A	Save As
[Alt] + F + P	Print
[Alt] + F + x	Exit

DRAW MENU

[Alt] + D + P + [Return] + F	Full Pivot
[Alt] + D + P + [Return] + P	Part Pivot
[Alt] + D + L	Linear
[Alt] + D + R	Road
[Alt] + D + o	Boundary
[Alt] + D + B	Building
[Alt] + D + P + P + [Return]	Pump
[Alt] + D + V	Valve
[Alt] + D + P + P + P + [Return]	Pipeline
[Alt] + D + T	Text
[Alt] + D + A	Auxiliary Link Unit

EDIT MENU

[Alt] + E + t	Cut
[Alt] + E + C	Copy
[Alt] + E + P	Paste
[Alt] + E + M	Move
[Alt] + E + s	Resize
[Alt] + E + N	Name
[Alt] + E + R	Pivot road
[Alt] + E + I	Color

VIEW MENU

[Alt] + V + A	Zoom All
[Alt] + V + C	Zoom Center
[Alt] + V + I	Zoom In
[Alt] + V + O	Zoom Out
[Alt] + V + r	Zoom Area

GRID MENU

[Alt] + G + G	Grid On
[Alt] + G + S	Snap to Grid

HELP MENU

[Alt] + H + C	Contents
[Alt] + H + S	Search
[Alt] + H + A	About

Valley BaseStation2-SM BASE SETUP GUIDE

BASE SETUP GUIDE

Base Setup Overview

This Base Setup Guide provides common initial settings for startup of BaseStation2-SM on a computer that meets the minimum hardware requirements.

- A computer with 32 bit Windows 7 operating system is recommended.
- If this is a New BaseStation Installation or if upgrading from BaseStation DOS, version 3.0 or 3.1, complete steps 1 through 7 of this Base Setup Guide.
- If you are **Modifying a Previous Version** of BaseStation 2001 that exists on this computer, complete steps 1 and 2, then BaseStation2-SM is ready to use in its existing configuration. The desktop shortcut must be removed before installing the updated software. Any new communications hardware that may be added will require additional setup. Existing BaseStation settings are not affected by the installation of BaseStation2-SM.

See the Valley BaseStation2-SM Owners Manual section of this manual for information about program features. To view the BaseStation2-SM Base Setup Guide and Owners Manual from the Main Window or Map Draw window, click on Help, then Contents.

1 Install Software

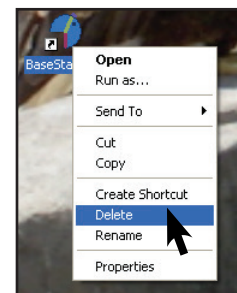
With the computer on:

- Log on to the computer. Make sure you are logged on as an Administrator with administrator rights.**
- Close all other applications that may be running.**
- Disable any antivirus or firewall software.**
- Disable User Account Control:**
 - Click on Start, Settings, Control Panel, User Accounts, Change User Account Control Settings to NEVER NOTIFY. Leave this setting at Never Notify to use BaseStation.
- Disable standby:**
 - Click on Start, Settings, Control Panel, Power Options, Power Scheme, then set System Standby to NEVER.
- Disable hibernate:**
 - Click on Start, Settings, Control Panel, Power Options, Hibernate tab, then uncheck the enable hibernate check box.
- Set the date format to United States:**
 - Click on Start, Settings, Control Panel, Region and Language (Windows XP and Windows 7) then:
 - » Set the Standards and formats to English (United States).
 - » Verify Number, Decimal Symbol is set to decimal point.
 - » Verify Date, Short Date is set to a Month/Day/Year format.

NOTE

•Short Date must be set to Month/Day/Year format (MM/DD/YYYY).

- If you are modifying a previous version of BaseStation - The shortcut on the desktop must be removed. Right click on the shortcut and left click on Delete. This will remove the shortcut only, not the application.**

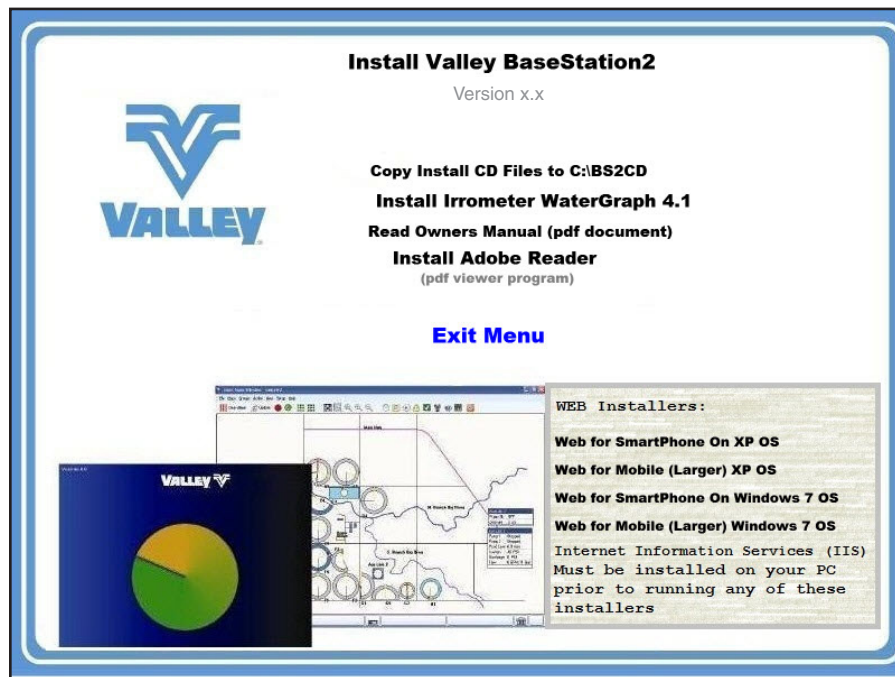


BASE SETUP GUIDE

- i. Reboot computer.
- j. Insert the BaseStation2-SM CD into the CD-ROM drive, the disk will start running automatically.

NOTE

- If the disk fails to start automatically, click on the START button, then click on RUN to open the run dialogue box. Browse for, then double click the CD drive, then double click on Setup.exe. Click on OK to begin installation.



NOTE

- Installation of the BaseStation2-SM software is a multiple part process that may take several minutes to complete. Do not open other applications or use the computer for other operations during the installation process.

- The Valley BaseStation2-SM CD includes the following installation programs:

- ◇ The latest Valley BaseStation2-SM version
- ◇ Valley Web (DO NOT install, see requirements for installation later in this setup guide)
- ◇ Irrrometer WaterGraph 4.1 software (Installed on and used with computer)
- ◇ Copy Install CD Files to C:\BS2CD (Copies CD files to computer hard drive for future updates)

- k. Click on Install Valley BaseStation and follow the on screen instructions.
- l. Click on Install Valley BaseStation and run the setup again.
- m. After installing Valley BaseStation2-SM click on Exit Menu.
- n. Reboot the computer, then continue with step 2 on the next page.

BASE SETUP GUIDE

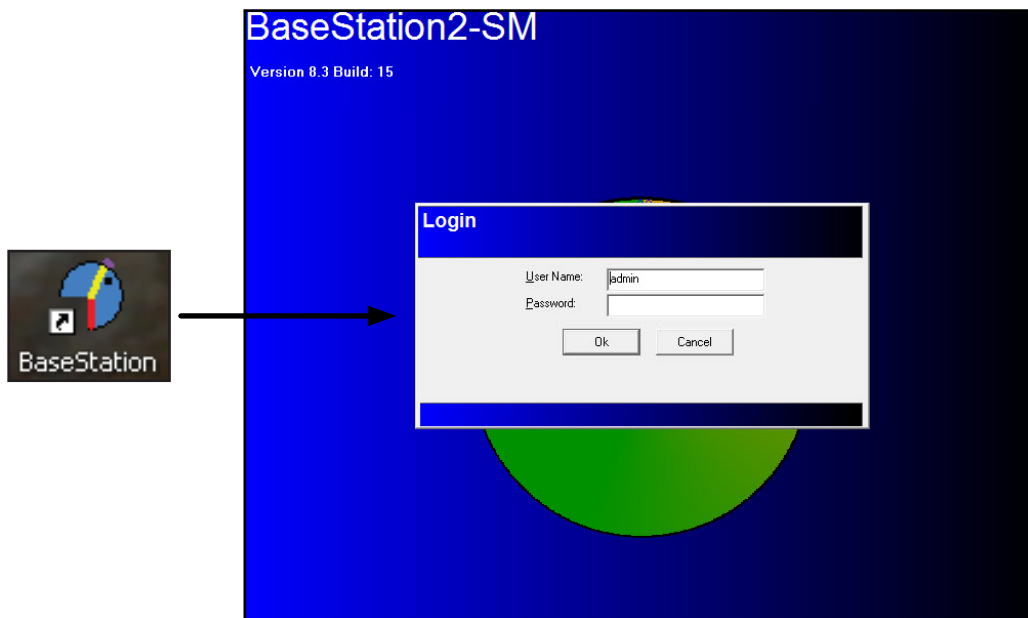
2 Start BaseStation2-SM Program

When the software installation is complete, enable antivirus and firewall software, then open the BaseStation2-SM program.

NOTE

•Make sure the User Account Control Settings are set to Never Notify.


- Click on the Desktop shortcut icon for BaseStation2-SM.
- At the login screen, enter Admin for the User Name, then enter Admin for the Password. You can change the User Name and Password after completing the Base Setup.

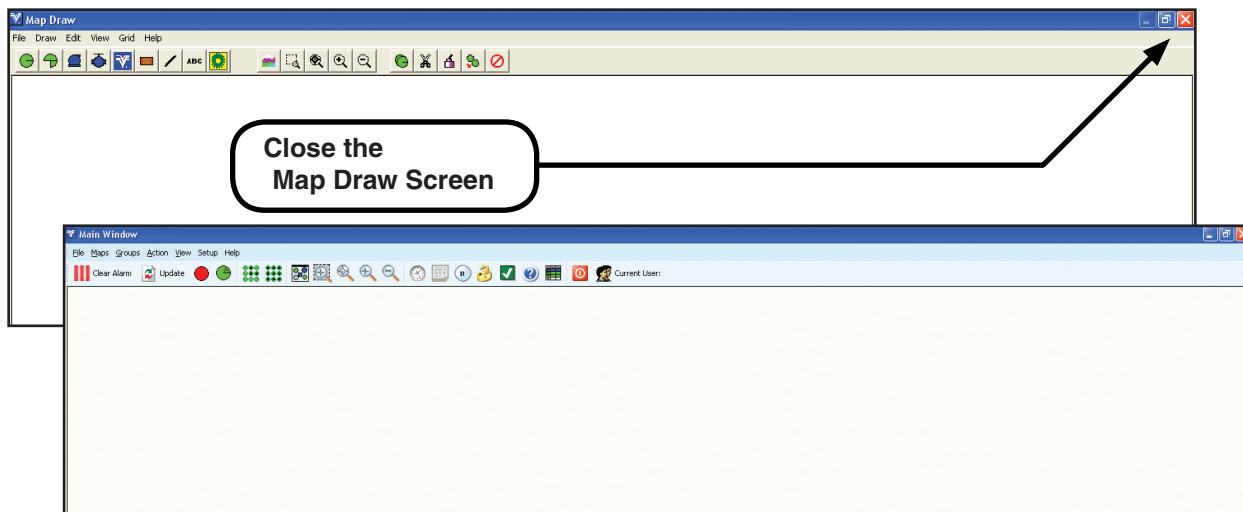


- Click OK to open BaseStation2-SM.
 - If you are updating from a version of BaseStation2, prior to version 7.5, the water history data will be recalculated the first time this new version is run.
 - If you are Modifying a previous version of BaseStation2, then the software installation and initial password setup is complete and BaseStation2-SM is ready to use in its existing configuration. Any new communications hardware that may be added will require additional setup. Existing BaseStation settings are not affected by the installation of BaseStation2-SM. The Key Radio check box, located in the BaseStation Setup under Remote Telemetry, may need to be checked if this is an update from an older version of BaseStation.
- or
- If this is a New BaseStation installation continue with step 3 on the next page.

3 Close Map Draw Screen

The BaseStation2-SM program initially opens to the Map Draw screen when no map exists in the program.

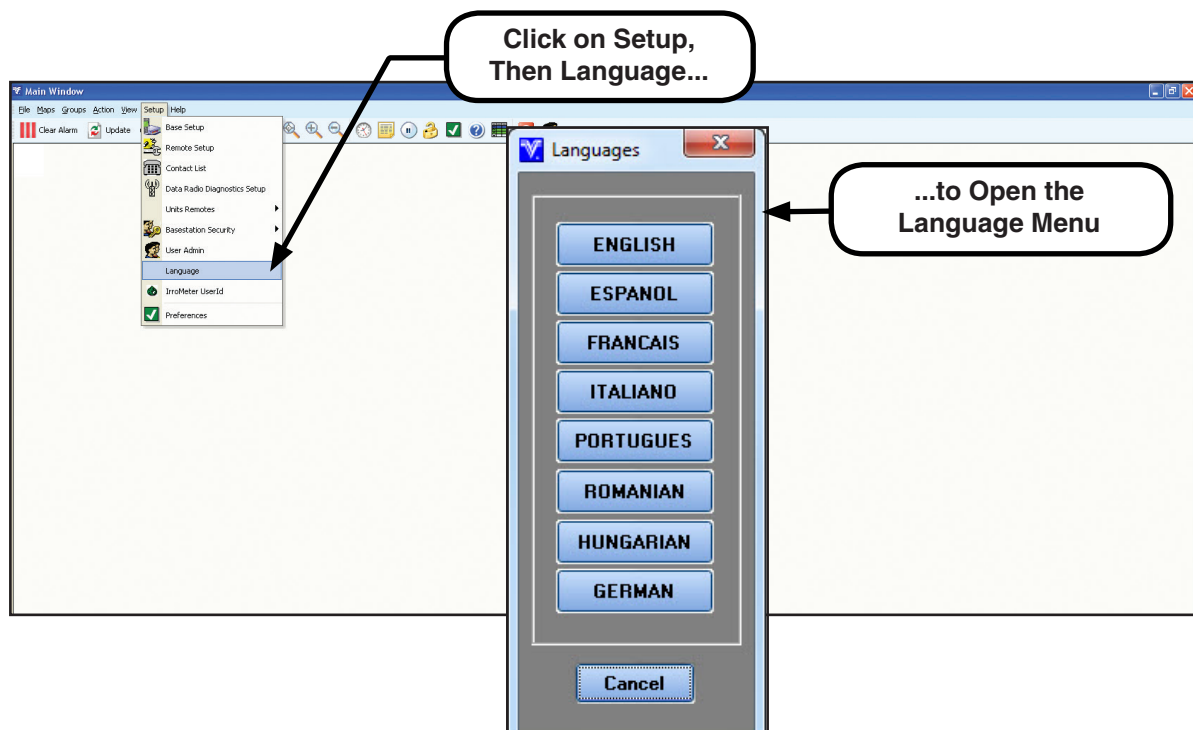
- a. Close the Map Draw screen by clicking on the  button in the upper right hand corner. When the Map Draw screen disappears, the Main Window is displayed.



4 Set Language (Optional)

If desired, the Language that is displayed on screen can be changed. The default language is English.

- a. From the Main Window, click on Setup, then Language to open the Language menu.
- b. Click on the desired language. The default language is English.



BASE SETUP GUIDE

5 Open BaseStation2-SM Setup Screen

Open the BaseStation2-SM Setup screen.

- a. From the Main Window, click on Setup, then Base Setup to open the BaseStation2-SM Setup screen.

The image shows a sequence of three screenshots illustrating the steps to open the BaseStation2-SM Setup screen. The first screenshot shows the 'Map Draw' application window with a callout bubble pointing to the close button in the top right corner, labeled 'Close the Map Draw Screen...'. The second screenshot shows the 'Main Window' with the 'Setup' menu open and 'Base Setup' selected. A callout bubble points to the 'Setup' menu, labeled '...Click on Setup, Then Base Setup...'. The third screenshot shows the 'BaseStation2-SM BaseStation Setup' dialog box. A callout bubble points to the dialog box, labeled '...to Open the Base Station Setup Screen'. The dialog box contains the following fields and options:

- Base Station Id:** 999
- Times To Send Messages:** 2
- Seconds To Wait For Acknowledge:** 5
- Remote Telemetry**
 - Radio 1**
 - Radio Type: None
 - COM Port: [Dropdown]
 - Baud: <none>
 - Key Radio:
 - Key Wait: -1
 - Flow Control: None
 - Radio 2**
 - Radio Type: None
 - COM Port: COM3--
 - Baud: <none>
 - Key Radio:
 - Key Wait: -1
 - Flow Control: None
 - Phone**
 - COM Port: [Dropdown]
 - Baud: [Dropdown]
 - Uses Digital Cellular Modem At Remote:
 - Call Timeout: 40
 - Modem Setup: AT &FO H0
- External User Connection**
 - Base Link**
 - COM Port: [Dropdown]
 - Baud: [Dropdown]
 - Call Timeout: 40
 - Modem Setup: AT &FO H0
- Alarms**
 - Enable Voice:
 - Play Alarm On Computer Speakers:
 - Enable Call Out:
 - Email/text Message:
 - Remote Voice Password: [Text Field]
 - Voice Device: [Dropdown]

Buttons: Ok, Cancel

6 Adjust Required Settings

Change the following BaseStation2-SM Required Settings.

BaseStation ID

If this is the primary computer, set the BaseStation ID to 999.

Base Station Id: <input type="text" value="999"/>	Times To Send Messages: <input type="text" value="2"/>
	Seconds To Wait For Acknowledge: <input type="text" value="5"/>

If more than one computer is being used, each computer must have a unique BaseStation ID. Set the BaseStation ID for each remote computer in descending order, beginning with 998 for the first remote computer. The next remote computer would be set at 997 and the next would be set at 996 and so forth.

Times To Send Messages

The default number of attempts to send messages is set to 2 times. For remotes using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

DELAY SECONDS		
Baud Rate or Radio	Without Store and Forward	With Store and Forward
300 Baud	5	9
1200 Baud	4	8
Data Radio	2	4
SSR	2	4
Phone	2	—

Time To Wait For Acknowledge

Set the number of seconds to wait for acknowledge based on the radio(s) being used at the BaseStation Radio key wait settings and if store and forward is being used. The use of Store and Forward requires additional Time To Wait For Acknowledge.

If more than one radio is being used set the Time To Wait For Acknowledge to the longest delay setting between the two radios. See Delay Seconds chart for approximate settings.

7 Adjust Optional Settings

Adjust the BaseStation2-SM Optional Settings found on pages 17 to 23 that are applicable to this BaseStation configuration.

After adjusting the applicable optional settings, click OK to save the settings or click Cancel to close without saving the settings. After making changes, close and restart the BaseStation program.

Radio 1 (Optional Setting)

If there are no radios connected to the primary computer, proceed to the PHONE section on page 19.

If one radio is connected to the primary computer, enable Radio 1 by clicking a check mark in the Radio 1 check box. Adjust the Radio 1 settings as shown in RADIO SETTINGS on the next page.

<input checked="" type="checkbox"/> Radio 1	COM Port <input type="text"/>	<input type="checkbox"/> Key Radio	Flow Control
Radio Type <input type="text" value="None"/>	Baud <input type="text" value="<none>"/>	Key Wait <input type="text" value="-1"/>	<input type="text" value="None"/>

Radio 2 (Optional Setting)

If another radio is connected to the primary computer, enable Radio 2 by clicking a check mark in the Radio 2 check box. Radio 1 must be enabled before Radio 2 can be enabled. Adjust the Radio 2 settings as shown in RADIO SETTINGS on the next page.

<input checked="" type="checkbox"/> Radio 2	COM Port <input type="text" value="COM3--"/>	<input type="checkbox"/> Key Radio	Flow Control
Radio Type <input type="text" value="None"/>	Baud <input type="text" value="<none>"/>	Key Wait <input type="text" value="-1"/>	<input type="text" value="None"/>

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Radio Settings (Required Only When Radio 1 or Radio 2 is Enabled)

If Radio 1, or Radio 1 and Radio 2, have been enabled, adjust the radio settings based on the communications hardware connected to the primary computer. Listed below are settings for Valmont supplied radios and modems.

If Radio 1 has not been enabled, proceed to PHONE section on the next page.

• For Radio With 300 Baud Modem change the following settings:

- Set the Radio Type to Radio & Modem.
- Set the Baud to 300.
- Enable Key Radio with check mark in the Key Radio check box.
- Enter 1.0 in the Key Wait box.
- Set the Flow Control to None.★
- Select the COM Port that the radio is connected to.

<input checked="" type="checkbox"/> Radio 1	COM Port	COM3--	<input checked="" type="checkbox"/> Key Radio	Flow Control		
Radio Type	Radio & Modem	Baud	300	Key Wait	1.0	None

or

• For Radio With 1200 Baud Modem change the following settings:

- Set the Radio Type to Radio & Modem.
- Set the Baud to 1200.
- Enable Key Radio with check mark in the Key Radio check box.
- Enter 1.0 in the Key Wait box.
- Set the Flow Control to None.★
- Select the COM Port that the radio is connected to.

<input checked="" type="checkbox"/> Radio 1	COM Port	COM3--	<input checked="" type="checkbox"/> Key Radio	Flow Control		
Radio Type	Radio & Modem	Baud	1200	Key Wait	1.0	None

or

• For DataRadio change the following settings:

- Set the Radio Type to DataRadio.
- Set the Baud to 9600.
- Disable Key Radio, leave Key Radio check box blank.
- Set the Flow Control to None.★
- Select the COM Port that the radio is connected to.

<input checked="" type="checkbox"/> Radio 1	COM Port	COM3--	<input type="checkbox"/> Key Radio	Flow Control		
Radio Type	DataRadio	Baud	9600	Key Wait	-1	None

or

• For SSR Link change the following settings:

- Set the Radio Type to SSR Link.
- Set the Baud to 9600.
- Disable Key Radio, leave Key Radio check box blank.
- Set the Flow Control to None.★
- Select the COM Port that the radio is connected to.

<input checked="" type="checkbox"/> Radio 1	COM Port	COM3--	<input type="checkbox"/> Key Radio	Flow Control		
Radio Type	SSR Link	Baud	9600	Key Wait	-1	None

★Important Note about Flow Control:

- The default will be None for the Flow Control setting when the BaseStation originates all communications with the machines.
- When the Real-Time Updates feature is used with the Pro2 panels, flow control will minimize the chance that the machine will transmit while the BaseStation or another machine is transmitting.
- The radio and modem hardware must support the flow control signals in order to use the CTS or DCD settings.

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Phone (Optional Setting)

If this application uses a phone modem at the control panel:

- Enable Phone by clicking a check mark in the Phone check box, then adjust the settings depending on the communications hardware connected to the control panel(s). Listed below are settings for Valmont supplied modems.
- Set the dip switches on the US Robotics external Fax Modem as shown below.
- Make sure the US Robotics external Fax Modem is connected to the phone line, computer, and power supply. Then switch the fax modem ON.

If this application does not use a phone modem at the control panel proceed to the BASE LINK section on the next page.

• If a Valmont digital cellular modem is connected to the control panel(s):

- a. Click a check mark in the Uses Digital Cellular Modem check box.
- b. Set the Baud to 9600.
- c. Set the Call Timeout to 40 and increase as required, depending on how long the call takes.
- d. Select the COM Port that the US Robotics External Fax Modem for Phone is connected to.
- e. Select the following Modem Setup text string:
 - » ATH0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

Phone COM Port: COM3-- Uses Digital Cellular Modem At Remote
Call Timeout: 40 Baud: 9600
Modem Setup: ATH0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

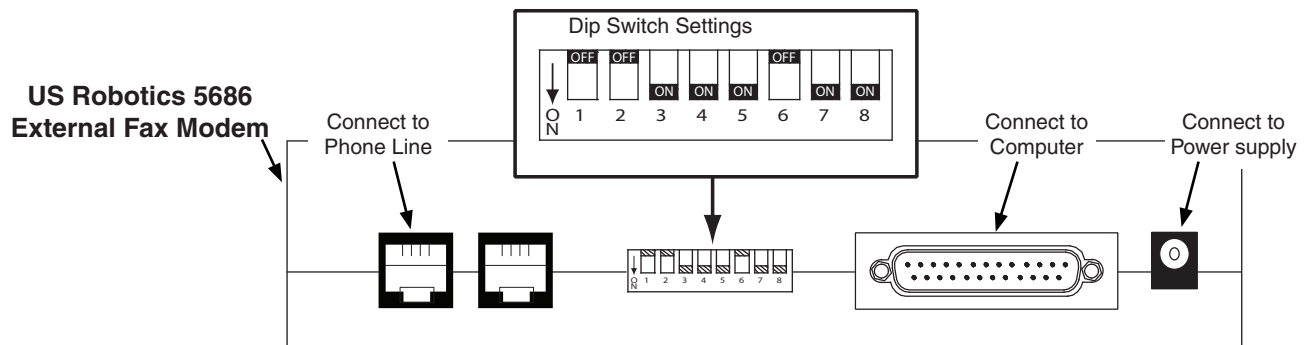
or

• If a Valmont PHONE LINK phone modem is connected to the control panel(s):

- a. Set the Baud to 1200.
- b. Set the Call Timeout to 40 and increase as required, depending on how long the call takes.
- c. Select the COM Port that the US Robotics External Fax Modem for Phone is connected to.
- d. Select the following Modem Setup text string:
 - » ATH0 &F0 &H0 &N2 &U2 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

Phone COM Port: COM3-- Uses Digital Cellular Modem At Remote
Call Timeout: 40 Baud: 1200
Modem Setup: ATH0 &F0 &H0 &N2 &U2 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

Fax Modem Connections And Dip Switch Settings



BASE SETUP GUIDE

Base Link (Optional Setting)

If a Smart Phone or a remote computer with BaseStation2-SM software will be used to call the primary computer for control and monitor equipment from a remote location, enable Base Link by clicking a check mark in the Base Link check box, install US Robotics external Fax modem for Base Link, then change the Base Link settings.

• For Smart Phone or Remote Computer, change the following settings:

- Set the Baud to 9600.
- Enter the following modem setup text string in the modem setup box:
 - ATH0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5
- Set the Call Timeout to 40.
- Select the COM Port that the US Robotics external Fax modem for Base Link is connected to.

Base Link COM Port: COM3--
Call Timeout: 40 Baud: 9600
Modem Setup: AT H0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

DO NOT enable Base Link unless a Smart Phone or remote computer will be used to call the primary computer. If a Smart Phone or remote computer is not being used to call the primary computer for control and monitor equipment from a remote location, proceed to ALARM section below.

Alarms (Optional Setting)

The following Alarm notification features can be setup if desired.

- Voice Call In/Out
- Play Alarm On Computer speakers
- Email/Text Message

If none of the Alarm notification features above will be enabled, proceed to the SAVE SETTINGS instruction on the next page.

Voice Call In/Call Out

If the Voice Call In/Out option will be used, enable Voice by clicking a check mark in the Voice check box, then change the settings for Call In. Voice Option Call In is enabled when the Voice check box is checked.

The Voice Call Out is enabled separately by clicking a check mark in the Enable Call Out check box, then change the settings for Call Out and follow the Contact/Call Out List Setup instructions.

• Call In

- » Enabled when the Enable Voice check box is checked, allows a user to call the computer for monitor and control of equipment by phone.
- » Enter a Remote Voice Password. The remote voice password can be any combination of numbers 0-9 up to 6 characters long. The computer asks for this password followed by # when a user calls in. If no password is entered, just press # when asked to enter password.
- » Set Voice Device to the installed voice modem. The Call In and Call Out program will use this device for communication. Computers supplied by Valmont use the Creative or Broadxent V.92 PCI modem or the Multi-Tech MT5634ZPX modem.

• Call Out

- » Allows the computer to call a user or users when a high level alarm is triggered.
- » Enable Call Out by clicking a check mark in the Enable Call Out check box. If this feature is enabled, the Contact/Call Out List Setup must be completed.

Alarms Play Alarm On Computer Speakers
 Enable Voice Email/text Message
 Enable Call Out Remote Voice Password:
Voice Device:

Alarms (Optional Setting)

Play Alarm on Computer Speakers

Enable the Play Alarm on Computer Speakers if desired.

When enabled and a high level alarm occurs, the alarm notification is played through the computer speakers.

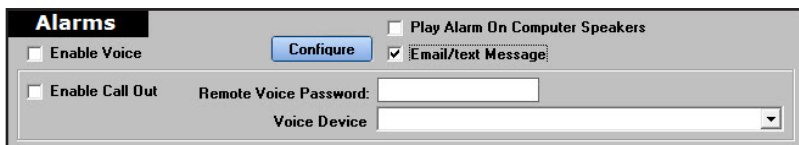


Email/Text Message

The Email/Text Message feature allows the computer to email and/or text message users on a contact list when a high level alarm is triggered. This feature requires a dedicated email address for BaseStation and a high speed internet connection.

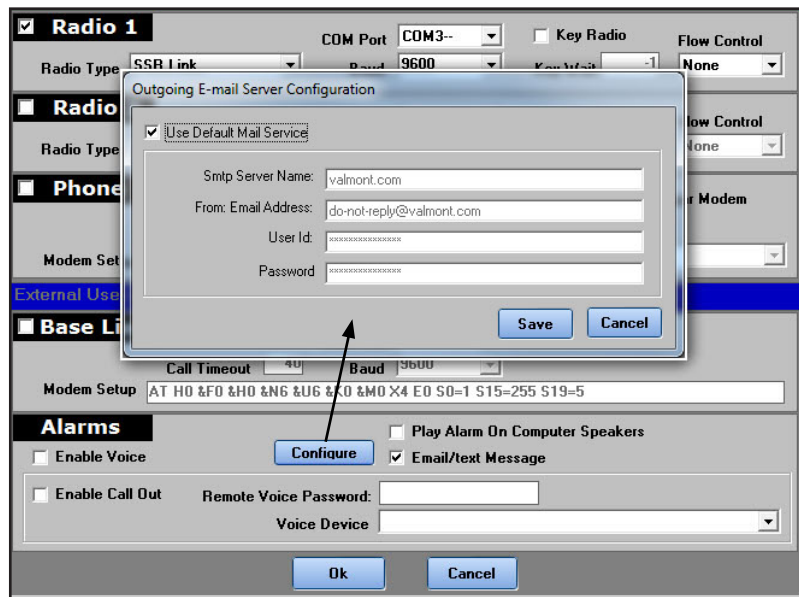
• Enable Email/Text Message

- Enable Email/Text Messaging by clicking a check mark in the Email/Text Message check box.



• Configure Email/Text Message

- Configure Email/Text Messaging by clicking the Configure button.
- Do one of the following:
 - To use the default Valmont.com email server click the Save button.
 - or
 - To use a different email server uncheck the Use Default Mail Service check box.
 - Enter the Simple Mail Transfer Protocol (SMTP) server name for your Internet Service Provider (ISP) in the SMTP Server Name field.
 - Enter the BaseStation dedicated email address (Example: BaseStation2@yourisp.com) in the FROM: Email Address field.
 - Enter the ISP account user I.D. in the User I.D. field.
 - Enter the ISP account password in the Password field.
 - Click Save to save the settings or Cancel to close without saving.



Save Settings

If all required and applicable optional settings have been set, click OK to save the settings, then close and restart BaseStation2-SM so that the changes take effect.

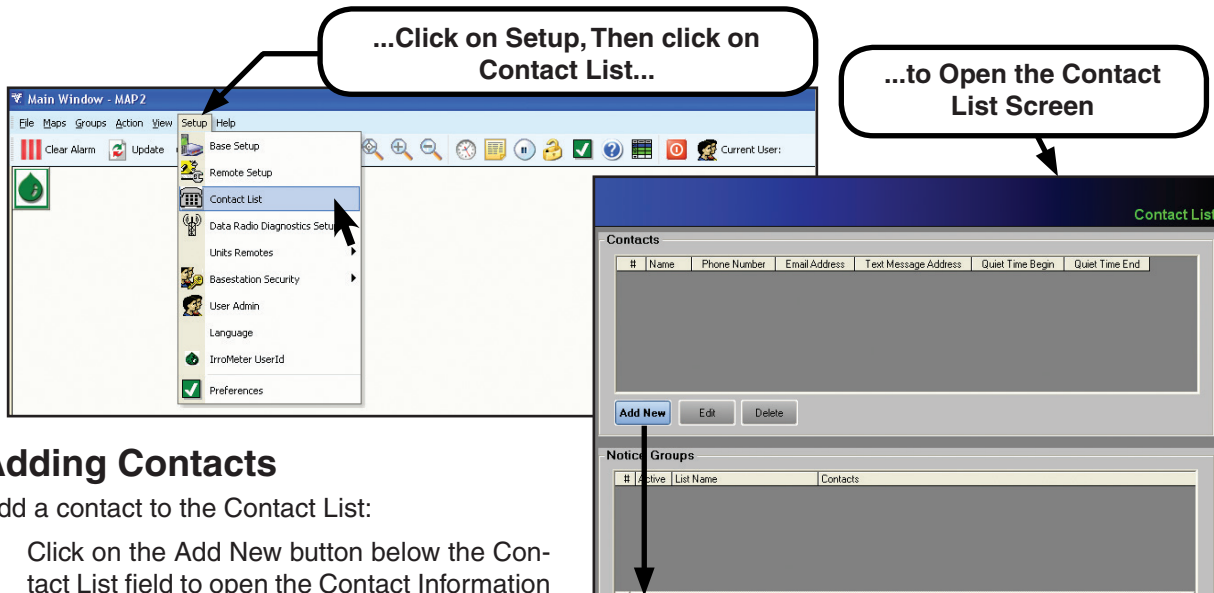
The Adjustment of Required and Optional Settings is complete.

- If Voice Call Out or Email/Text message was enabled, proceed to Contact List Setup on the next page.
- If Voice Call Out or Email/Text message was NOT enabled, proceed to Setup Communications on page 24.

BASE SETUP GUIDE

Contact List Setup (Required for Voice Call Out and/or Email/Text Message)

If the Voice Call Out and/or Email/Text Message feature in the BaseStation2-SM Setup screen is enabled, the Contact List Setup must be completed in order to use the Call Out or Email/Text Message feature. To open the Contact List Setup screen click on Setup, then Contact List to display the Contact List screen.



Adding Contacts

Add a contact to the Contact List:

- Click on the Add New button below the Contact List field to open the Contact Information screen.
- Enter the contact's name in the Name field on the Contact Information screen.
- Voice Call Out: If Voice Call Out is enabled and voice call out to this contact is desired, enter the contact's phone number in the Call Out Phone Number field on the Contact Information screen.

The image shows a 'Contact Information' dialog box with the following fields and values:

Name:	Ron	Quiet Time (voice Only):	
Call-out Phone Number:	4023590001	Begin:	10:00 PM
Text Message Address:	4023590001@isp.com	End:	05:00 AM
Email Address:	ronsemail@isp.com		

Buttons: Save, Cancel

DO NOT separate the numbers with spaces or dashes. If needed, use a comma(,) after a number to pause for 1 second before dialing the remaining numbers.

The examples below illustrate the correct way to enter the phone number 1-402-359-2201 based on the type of call.

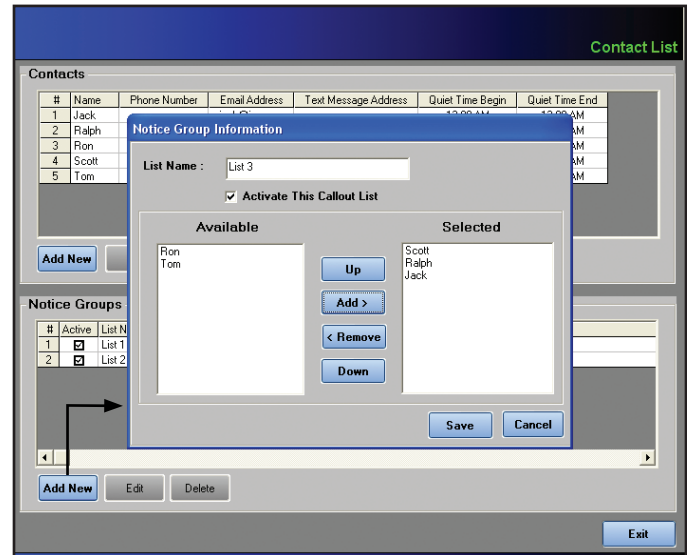
- Local call, enter the seven digit phone number, 3592201.
 - Long distance call, enter the eleven digit phone number, 14023592201.
 - Phone system call with an outside access number, enter the outside access number, one comma (,) and the phone number. • Local Calls 9,3592201 • Long Distance Calls 9,14023592201
- Text Message: If Email/Text Message is enabled and text messaging to this contact is desired, enter the contact's text message address (phonenumber@yourisp.com) in the Text Msg # field on the Contact Information screen.
 - Email: If Email/Text Message is enabled and email messaging to this contact is desired, enter the contact's email address (youremail@yourisp.com) in the Email field on the Contact Information screen
 - Quiet Time: Use Quiet Time to block voice call out to the contact during a set period of time. Setting the Quiet Time Begin and End times to the same time disables the Quiet Time feature.
 - Set the Quiet Time Begin and End times as desired.
 - After entering information and making settings, click the Save button to save information or click Cancel to cancel without saving.

Contact List Setup

Create Call Out Lists

Create a Call Out List.

- a. Click on the Add New button below the Notice Groups field to open the Notice Group Information screen.
- b. Enter the Call Out List name in the List Name field.
- c. The Call Out List is by default activated when the Notice Group Information window is opened.
 - If this is an active Call Out List, the Activate This Call Out List check box is checked by default and no action is needed.
 - If this is a non-active Call Out List the, click the Activate This Call Out List check box to remove the check mark and de-activate the list.
- d. Add, remove or position contacts in the list.
 - To add a contact to the list, click on a contact in the Available column, then click the Add button to move the contact to the Selected column. Repeat this step as required to add the desired contacts to the Call Out List.
 - To remove a contact from the list, click on a contact in the Selected column, then click the Remove button to move the contact to the Available column.
 - To move a contact up in the list, click on a contact in the Selected column, then click the Up button to move the contact to the desired position in the list.
 - To move a contact down in the list, click on a contact in the Selected column, then click the Down button to move the contact to the desired position in the list.
- e. When finished, click the Save button on the Notice Group Information screen to save information or click Cancel to cancel without saving.
- f. Click the Exit button on the Contact List screen to close the Contacts List screen.
 - Proceed to Setup Communications on the next page.



BASE SETUP GUIDE

8 Setup Communications

After the BaseStation2-SM software has been configured for the computer and communications hardware that is connected to it (phone and/or radio), an association with the machines in the field must be defined. See Maps and Remote Setup below. It may be necessary to refer to the control panel Owner's Manual for detailed information about the panel usage.

If desired, configure any Pro2 v 8.03 and higher, AutoPilot modules or Panel Links for Real-Time Updates to the BaseStation. See Real-Time Update below.

Maps

Establishing a connection with field equipment requires a BaseStation2-SM reference using an active Map. An existing map can be opened, a map can be imported from a previously drawn BaseStation Map, or a new map can be created. See the Maps Menu in the Main Window section of this manual.

Do one of the following:

- Open an existing map: Maps Menu-Open Map.
- Import a saved map drawn on another computer or from a previous version of the BaseStation: Maps Menu-Map Maintenance-Import.
- Draw a new map using the map drawing utility: Maps Menu-Draw Map.

Remote Setup

Each machine needs to be identified and have a communications link defined using Remote Setup in the Setup menu of Main Window. Incorrect settings will cause communications to fail completely and/or messages to be interpreted incorrectly.

Set the following:

- a. Panel type - What type of control panel the BaseStation2-SM will be communicating with.
- b. RTU ID - The electronic identification (RTU ID) that matches with the one in the panel in the field.
- c. Communications channel - Choosing the communications device and path to the machine in the field.
- d. If DataRadio, enter the radio ID if utilizing a second com port to obtain signal strength.
- e. Communications channel - Choosing the communications device and path to the machine in the field.
- f. If phone, enter Phone Number.
- g. Polling period - Set the length of time until the next automated polling update.
- h. If Store and Forward, enter RTU ID of the machine being used as a repeater (radio hop path).
- i. If Alarm Voice Call Out is active, select the Call Out List.
- j. If Sync constants - Matching the constants in the machine with the BaseStation information.
- k. Alarm configuration - Selecting what the BaseStation views as acceptable status differences between its expected status and the last received machine status from the field.

Real-Time Update

The Pro2, AutoPilot modules and Panel Links provide Real-Time updates to the BaseStation2-SM with an update at the time that any user specified change happens.

- For Pro2 or AutoPilot control panel Real-Time Update settings, see the Advanced Features Manual for the control panel.
- For Panel Link Real-Time Update settings see [Panel Link Panel View](#) in the OVERVIEW section of this manual.

9 Setup Valley Web (Optional)

If the Valley Web option will be used, make sure all hardware requirements are met, verify that the web server application is installed on the BaseStation computer and then install the Valley Web application.

Hardware Requirements

- A BaseStation computer running Microsoft XP Professional operating system must have Service Pack 3 installed. Note: XP Home does not provide for IIS.
- Obtain Broadband Internet access from an Internet Service Provider.
- Obtain a static (recommended) or dynamic IP address for the BaseStation computer from the Internet Service Provider.

Verify Web Server Application Installation

To verify that the Microsoft Internet Information Services (IIS) web server application is installed on the BaseStation computer do the following:

- a. Login to BaseStation computer as an administrator.
- b. Click the START button on the BaseStation computer desktop.
- c. Click on Control Panel.
- d. Double Click on Add Remove Programs.
- e. On the left hand side of the Add Remove Programs window select Add/Remove Windows Components.
- f. Scroll down to “Internet Information Services (IIS)” and notice the check box in front of the application.
 - If the check box is checked, IIS has already been installed. Continue with Install Valley Web Application below.
 - If the check box is NOT checked, IIS has NOT been installed. Continue with next step of this instruction.
- g. Select Internet Information Services (IIS). Follow any instructions during the install. A Windows installation CD may be required to complete installation.
- h. After IIS is installed reboot the computer and continue with Install Valley Web Application below.

Install Valley Web Application

To install the Valley Web application, make sure hardware requirements have been met and verify the web server application has been installed on the BaseStation computer then do the following:

- a. Insert the BaseStation2-SM version CD into the CD-ROM drive, the disk will start running automatically.
- b. When the Installation menu appears click “Install BaseStation2 Web for SmartPhone (Small format)” and/or Install BaseStation2 Web for Mobile (Large format)”. This install configures the IIS server for the desired Valley Web application.
- c. After the Valley Web installation is complete continue with Create IIS User Name and Password on the next page.

BASE SETUP GUIDE

Setup Valley Web (Optional) (continued)

Create IIS User Name and Password

This is a separate administrative account with a user name and password that is not accessed to operate the BaseStation. The primary login for operation of the BaseStation2 must be different than this account.

To create a new Windows User ID and Password for only IIS to use when logging into the BaseStation computer do the following:

- a. Click on the START button on the BaseStation computer desktop.
- b. Click on Control Panel.
- c. Double Click on Administrative Tools.
- d. Double Click on Computer Management.
- e. On the left hand side of the Computer Management window select Local Users and Groups, then select Users.
- f. On the computer management window tool bar click Action/New User to open the new user screen.
- g. Enter the IIS User Name and Password on the new user screen.
- h. Uncheck the "User must change password at next login" check box and check the "Password never expires" check box.
- i. When done click the Create button.
- j. Continue with Modify Web Configuration file below.

Modify Web Configuration File

Modify the web configuration file after creating the Windows User ID and Password for only IIS to use.

The web.config file needs to have the file locations specified for reading BaseStation status data. There are two ways to specify the path for these files, depending on whether the Valley Web program(s) are installed on the same computer as the BaseStation program, or on another network computer.

- When logged into a network or in a WORKGROUP, with the Valley Mobile application running on a computer other than the BaseStation computer, use the source as: "\\PC-NAME\c:\program files\valleybase\..."
- When the Valley Web application and BaseStation are running on the same computer, use the source as: "c:\program files\valleybase\..."
- When the computer is logged into a network with a DOMAIN name, the "identity impersonate" userName must be in the form: "DOMAIN-NAME\USERID"

To modify the web configuration file do the following:

- a. **Using Notepad, open one of the following text files depending on format. If using both formats, both web configuration file will need to be modified:**
 - "c:\Program Files\Valmont Inc\VBM\web.config" (Web for SmartPhone smaller format)
 - "c:\Program Files\Valmont Inc\VBW\web.config" (Web for Mobile larger format)

Setup Valley Web (Optional) (continued)

Modify Web Configuration File (continued)

b. Locate the following text string:

```
"<add name="msAccessConnectionString"ConnectionString="Provider=Microsoft.Jet.OLEDB.4.0;Password=; User ID= Admin;Jet OLEDB:Database Password=BaseStation2008;DataSource=\\PC-NAME\c\program files\valleybase\basestation.mdb;Persist Security Info=True"/>"
```

- When logged into a network or in a WORKGROUP, with the ValleyMobile application running on a computer other than the BaseStation computer, use the source as: "\\PC-NAME\c\program files\valleybase\..." Change "PC-NAME" in text string to the computer name of the BaseStation PC.

OR

- When the ValleyWeb application and BaseStation are running on the same computer, use the source as: "c:\program files\valleybase\..." Delete "PC-NAME\" from the text string.

c. Locate the following text string:

```
"<add name="CamsWinINI" connectionString="\\PC-NAME\c\program files\valleybase"/>"
```

- When logged into a network or in a WORKGROUP, with the ValleyMobile application running on a computer other than the BaseStation computer, use the source as: "\\PC-NAME\c\program files\valleybase\..." Change "PC-NAME" in text string to the computer name of the BaseStation PC.

OR

- When the ValleyWeb application and BaseStation are running on the same computer, use the source as: "c:\program files\valleybase\..." Delete "PC-NAME\" from the text string.

d. Locate the following text string:

```
"<identity impersonate="true" userName="PC-NAME\USERID" password="Password"/>"
```

- When the computer is logged into a network with a DOMAIN name, the "identity impersonate" userName must be in the form: "DOMAIN-NAME\USERID"
- Change "PC-NAME\USERID" in the text string to the computer name of the Base2Web\Base2Web assigned for IIS to use.
- Change "Password" in the text string to the password that was created for IIS to use when logging into the BaseStation computer.

e. Modification of web configuration file is complete, To view Valley Web on a Smart phone that has Internet access and a browser, use the following Uniform Resource Locator (URL) for Smart Phone size view.

<http://yourbasestationipaddress/vbm> - Example: <http://172.16.181.25/vbm>

- To view Valley Web on a Mobile Tablet, Netbook, Notebook, Laptop or Personal Computer that has Internet access and a browser, use the following Uniform Resource Locator (URL) for Tablet, Netbook, Notebook, Laptop or Personal Computer size view.

<http://yourbasestationipaddress/vbw> - Example: <http://172.16.181.25/vbw>

f. Continue with Port forwarding on the next page.

BASE SETUP GUIDE

Setup Valley Web (Optional) (continued)

Port Forwarding

In order for a user to log in through the Internet to a Valley web application that resides on the BaseStation or network computer, port forwarding or port mapping must be used to “port forward the router IP address to port 80”.

Firewall and Virus Software

Make settings in firewall and virus software that will allow users to access the Valley web application through the Internet.

Enable Web Sharing

Open the ValleyBase folder properties and go to the Web Sharing tab. Set Share on to Default Website. Click the Share radio button. Edit Alias ValleyBase and set Access permissions to Read, Write and Directory browsing. Set Application permissions to Scripts. Click OK to save settings

Create a Group

In BaseStation create at least one group of remotes (Groups/Save Groups As). Valley Web uses the list of Saved Groups for the Web Account Setup, where the list of available groups are shown for user account selections. See the Owner’s Manual Groups Menu section for more information.

Setup Web Account

In BaseStation setup the Web Account (Setup/Web Account Setup). See the Owner’s Manual Setup section for more information.

Verify

Log in to the local host\Valley web application to verify correct operation.

10 Setup Irrrometer Soil Moisture Monitor Datalogger (Optional)

If the Irrrometer Soil Moisture Monitor option will be used make sure all hardware requirements and settings are met.

Hardware Requirements and Settings

- The Irrrometer Wireless Monitor Datalogger firmware must be version 2.5.
- Irrrometer Wireless Monitor Datalogger and Transmitter must be installed with at least one sensor.
- Irrrometer software, WaterGraph 4.1 or later must be installed on both the BaseStation Computer and laptop computer **from the BaseStation2-SM installation CD**. Software installed from other sources will not work with BaseStation.
- All Irrrometer Datalogger(s), Transmitter(s) and Sensor(s) must be configured using the WaterGraph application that was installed on the laptop computer **from the BaseStation2-SM installation CD**.
 - » The Irrrometer Datalogger Base Radio Name(with RTU ID), Base Address, Unit and Sensor names are assigned using the WaterGraph application that was installed on the laptop computer **from the BaseStation2-SM installation CD**.
 - » The Datalogger name is optional and is limited to the first 14 characters of the 16 character base radio name field.
 - » The RTU ID is the last two characters of the 16 character base radio name field. The range is 00 through 99. The RTU ID must be 2 numerical characters, example "01". Alpha characters are not allowed.
- The user must provide a radio connection from the Irrrometer Wireless Monitor Datalogger to the BaseStation2-SM computer. Data Radios or Spread Spectrum Radios with radio and Base Setup Radio Settings set to 9600 baud with "Transmit on Data" (DOX) configured (No keying used).

Configure Datalogger

To set the RTU ID and configure the datalogger do the following:

- a. Predetermine what the Base Radio Name and RTU ID will be for each datalogger. See Irrrometer/WaterGraph guidelines for Base Address, Unit Name, Sensor Name and Switch Mode configuration. See figure 27-1.
- b. Log on to laptop computer as an administrator.

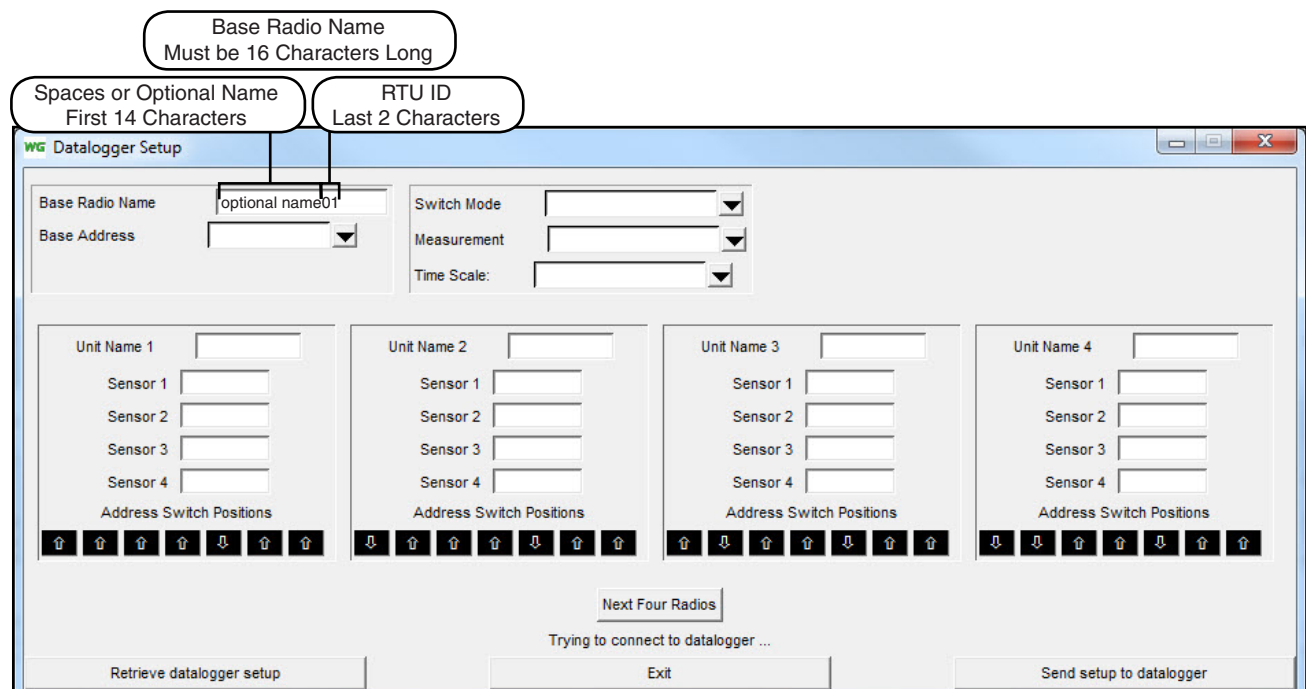


Figure 27-1 Datalogger Setup Screen

BASE SETUP GUIDE

Setup Irrrometer Soil Moisture Monitor Datalogger (continued)

Configure Datalogger (continued)

NOTE

- One laptop computer should be used to set up Name/RTU IDs and configure each datalogger used with this BaseStation.
- This creates one settings file with all the information.
- If multiple laptop computers are used for Name/RTU ID setup and configuration, the settings files must be uniquely named before copying them to the flash drive.

- At the wireless monitor datalogger, disconnect the serial cable the from radio.
- Use a null modem adapter and a gender changer to connect serial cable to the computer COM port. See figure 28-1.
- Turn the datalogger ON.
- Open the WaterGraph application from the desktop icon on laptop computer. See figure 28-2.
- Click Select Serial Port. See figure 28-3.
- Select serial port from the list and click DONE. See figure 28-4.

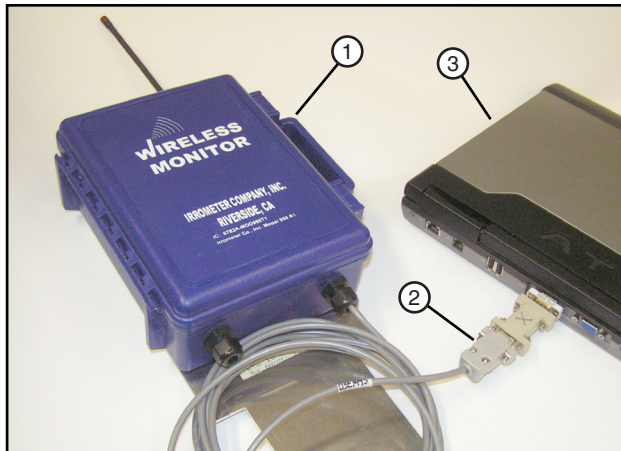


Figure 28-1 1. Wireless Monitor 3. Computer
2. Serial Cable



Figure 28-2 WaterGraph Icon



Figure 28-3 1. Select Serial Port Button

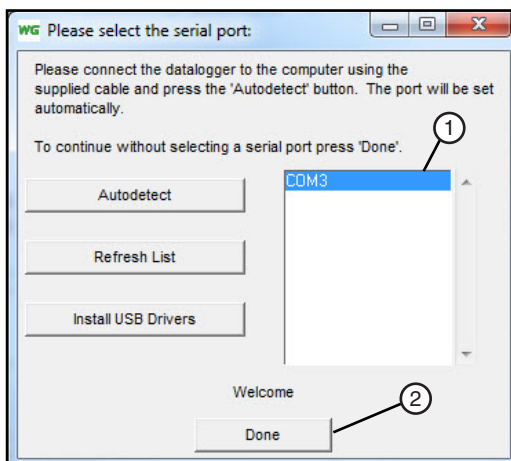


Figure 28-4 1. Serial Ports Available
2. Done Button

BASE SETUP GUIDE

Setup Irrrometer Soil Moisture Monitor Datalogger (continued)

Configure Datalogger (continued)

- i. Click Setup Datalogger button. The Datalogger Setup screen opens and searches for the datalogger. is populated with any information already stored in the datalogger. See figure 29-1.
- j. Switch datalogger to configuration mode. Use a nonmetallic object to press the reset button through the hole in datalogger panel. Command? will be displayed. See figure 29-2.

The Datalogger Setup screen is populated with any information already stored in the datalogger.

NOTE

- When the datalogger is in the configuration mode a 5 minute countdown timer starts.
- After 5 minutes of inactivity the datalogger automatically switches to BaseStation mode preventing changes to the configuration.
- To re-enter the configuration mode after the countdown timer has expired, press the datalogger reset button.
- The countdown timer restarts when information is sent to, or is requested from the datalogger before the countdown timer expires.

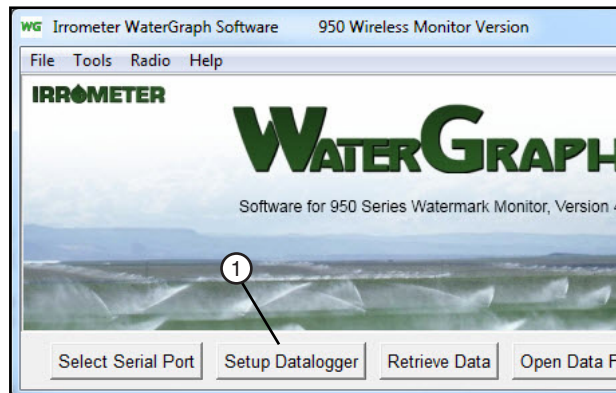


Figure 29-1 1. Setup Datalogger Button



Figure 29-2 1. Reset Button

BASE SETUP GUIDE

Setup Irrrometer Soil Moisture Monitor Datalogger (continued)

Configure Datalogger (continued)

- k. Click in the Base Radio Name field. See figure 30-1.
- l. Optional - Enter a Base Radio Name for the datalogger. The name can have up to 14 characters. See figure 30-2.
- m. Press and hold the space bar until the cursor stops. When the cursor stops the total number of characters including spaces will be 16 characters.
- n. Press the Back Space key 2 times.
- o. Enter the unique 2 character RTU ID for this datalogger.
- p. The RTU ID must be 2 characters, 00 through 99 located at the end of the 16 character name field, example "01". Alpha characters are not allowed. No other datalogger can have the same RTU ID. See figure 30-2.
- q. See Irrrometer/WaterGraph guidelines for Base Address, Unit Name, Sensor Name and Switch Mode, then finish configuring the datalogger.

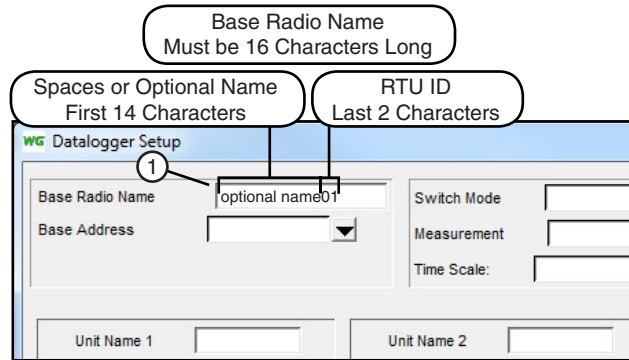


Figure 30-1 1. Base Radio Name Field

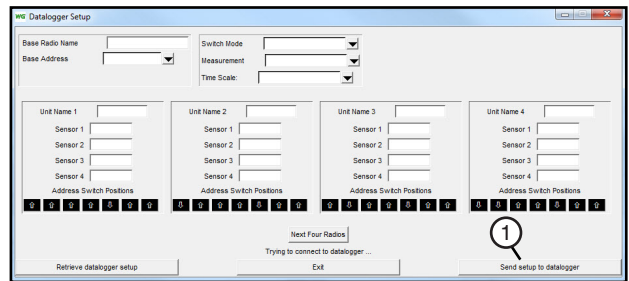


Figure 30-2 1. Send to Datalogger button

NOTE

•If a temperature sensor will be used the sensor name must contain "temp", for example "Field 1 temp"

- r. Click the Send to Datalogger button to update the datalogger.
- s. Switch datalogger to BaseStation mode. Use a nonmetallic object to press the reset button through the hole in datalogger panel.
- t. Repeat all steps for each datalogger using the same laptop computer. After all dataloggers are setup/configured continue with Copy Settings to BaseStation on the next page.

BASE SETUP GUIDE

Setup Irrrometer Soil Moisture Monitor Datalogger (continued)

Copy Settings to BaseStation

- Insert a USB Flash Drive in the laptop USB port. See figure 31-1.
- Browse for C:/WaterGraph 4.1 and copy the settings.txt file to the flash drive. See figure 31-2
- Eject the flash drive from the laptop USB port.
- At the BaseStation computer, insert the flash drive in the USB port. See figure 31-3.
- Open the BaseStation2-SM application. See figure 31-4.

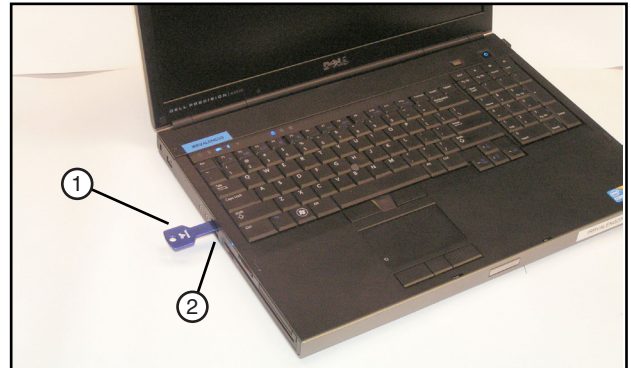


Figure 31-1 1. Flash Drive
2. USB Port

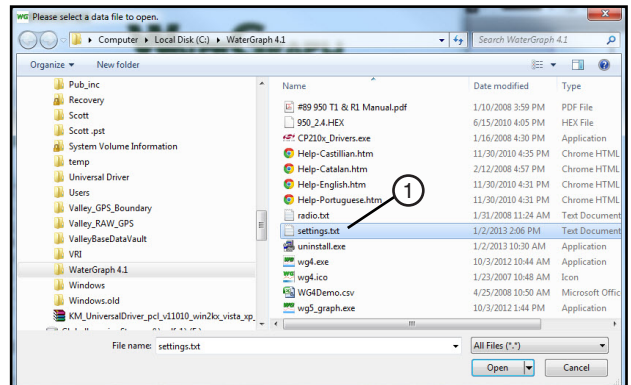


Figure 31-2 1. C:/WaterGraph 4.1/settings.txt File



Figure 31-3 1. Flash Drive
2. USB Port



Figure 31-4 BaseStation2-SM Icon

BASE SETUP GUIDE

Setup Irrrometer Soil Moisture Monitor Datalogger (continued)

Copy Settings to BaseStation (continued)

- f. Click on Setup/Load Irrrometer Settings.txt. See figure 32-1.
- g. Browse for the flash drive and select the settings.txt file. See figure 32-2.
- h. Click the Open button to load the new settings. See figure 32-2.
- i. Irrrometer datalogger configuration is complete. To use Irrrometer an Irrrometer Remote must be drawn on the map and setup on the main window.

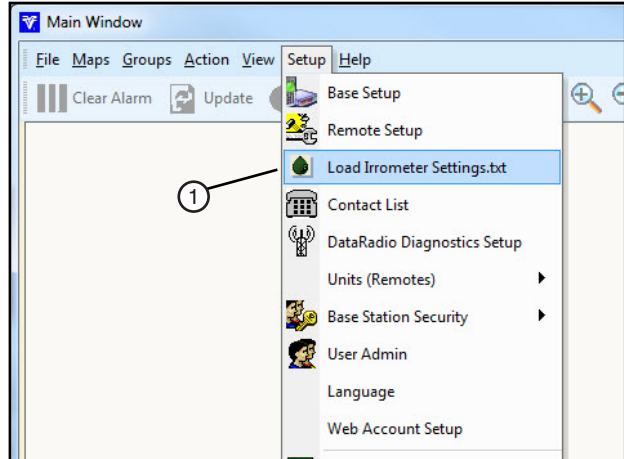


Figure 32-1 1. Load Irrrometer Setting.txt

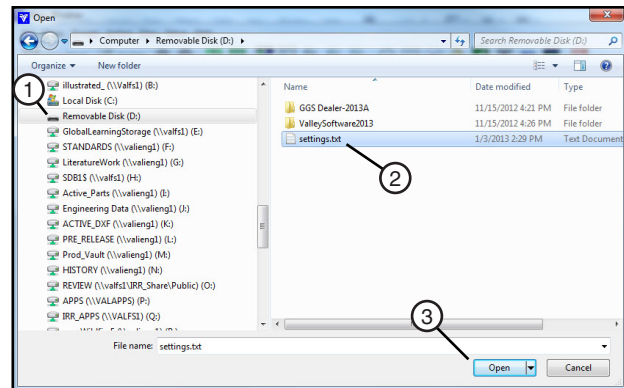


Figure 32-2 1. Flash Drive
2. Settings.txt File
3. Open Button

Valley BaseStation2-SM OWNER'S MANUAL

OVERVIEW

OVERVIEW

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Valley BaseStation2-SM (Soil Moisture)

The BaseStation2-SM software is designed to monitor and control remote devices equipped with control panels, whether Pro, Pro2, AutoPilot, Select, Remote Link, Auxiliary Link, or Panel Link from a centrally located position. It can also control the function of pumps, valves, and other auxiliary equipment using sensor devices.

Many functions, which can currently 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 are obtaining the current status, stopping and starting, turning the water off and on, and changing direction, speed, and depth of water application.

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

Communications between the computer/BaseStation2-SM and the control panel at the remote device is accomplished through the use of either phone modem or radio modem connections.

The BaseStation2-SM is a polling application that processes status information either returned in response to transactions that are originated by the BaseStation2-SM or sent in a Real-Time Update from a Pro2 or AutoPilot control panel to the BaseStation2-SM. The BaseStation2-SM can send commands to control the remote devices and/or request information from the remote devices.

The Map Drawing program allows the user to make a map of the property showing irrigators, buildings, roads, property boundaries, pipelines, pumps, and valves. The mapping software can be used with a grid for scaled maps or without grid for logically grouped items.

Reports can be obtained on the operation of the machines showing run time statistics, water statistics, and cumulative water statistics. The data is maintained in Microsoft Access database files that can be exported to other applications where desired.

Voice Call In/Out can be used to notify the user when an alarm condition occurs on a remote machine by dialing Call Out List phone numbers and relaying phone messages; sending Email and/or Text Messages, or the BaseStation2-SM can be called from anywhere to check the current status of the remotes and send messages to change the status. Voice communications from the BaseStation is accomplished by composing voice messages from a group of recorded wave files or generating voice messages from user entered text. User interaction is with the telephone keypad as prompted from the BaseStation2-SM menu.

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 BaseStation2-SM 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.

Panel Link panels can be installed on mechanical or non-Valley panels for fundamental monitor and control of pivots not previously having BaseStation communications.

Soil moisture monitoring information is available through BaseStation2 after installing the required software, hardware and subscribing to IrroMeter Direct.

BaseStation Mobile is a separately installed application that sets up the BaseStation2-SM computer as an Internet server. BaseStation Mobile requires an Internet connection to the BaseStation2-SM computer, a smart phone or smart PDA with touch screen and internal browser, Windows® Mobile software version 5.0 or later and access to the internet through Internet Explorer Mobile.

BaseStation mobile is used with BaseStation2-SM and a touch screen smart phone to monitor and/or control remote machines over the internet. BaseStation Mobile uses a graphic color and shape to represent the current known status of the remote machines

OVERVIEW

Main Window

The Main Window is designed for easy navigation with the mouse pointer. The Main Window shows a selectable view of a map representing remote machines and other map legends. The Map Drawing program contains the graphics drawing tools for creating and editing custom map designs.

The principal BaseStation functions occur within the controls of the Main Window:

- **Timer:** The timer regulates tasks required by the BaseStation for all activities for polling, timed operations, and coordination with other functions.
- **Communications:** The radio and phone data communications with remote machines is managed through the Com ports.
- **Dialog:** All activity messages and prompts are exchanged by the Windows common dialog form.
- **Call In/Out:** The voice prompt and keypad tone controls for the TAPI voice modem is provided in the Main Window for the Windows interface.

The primary features found in the Main Window are:

- **Map View:** The focus of the Main Window is the map currently in use. Several functions are available for customizing the desired view, such as the zoom functions and the Saved View function.
- **Menu:** The menu is a standard Windows drop-down menu providing all of the BaseStation functions grouped according to the type of function that they execute.
- **Toolbar:** A toolbar is provided for easy and recognizable access to some commonly used functions in the Main Window. Each of these toolbar functions are available in the drop-down menu selections.
- **Current Status Line/Box:** A quick summary of the last known status of the machine that is under the mouse pointer. A pop-up box will appear when the mouse pointer is near the center of a map item. The display style is selectable as a pop-up box positioned at the center point of a map item, as a fixed position pop-up box in the top left corner of the map, or as a narrow band located immediately above the communications status bar at the bottom of the map.
- **Communications Status Bar:** The status bar is a segmented strip along the bottom of the Main Window. The activity of the three modes of communication are represented here. The radio modem (or hard wired) port is the left group; the data phone modem is the center group. Each has an icon that shows the device status. To the right of the icon is the RTU ID and a short text phrase that identifies the progress of a transaction with a remote machine. The right most segment contains two icons that represents the status of the voice modem used for the Call In/Out feature and the data modem used for BaseLink session. When a communications device is not enabled, the corresponding spaces are blank. When the communications device is enabled in the Base Setup form, an icon will be shown that indicates the communications activity. The icon will show conditions such as idle, transmitting, receiving, etc. At the same time, the machine name will be shown along with a text description of the transaction progress.

Frequently used functions from the Main Window are:

- **Status Update:** Request an immediate status update for a remote or multiple remotes by selecting the remote(s) with the right mouse button. A black ring on the remote indicates that it has been selected. Click on the Update toolbar button with the left mouse button to start the update process. The graphics representation of the machine status and the Current Status Strip/Box are updated according to the data returned by the machine.
- **Panel View:** Open a panel view window that shows a representation of the control panel in the field. The panel view contains a graphical representation of controls available along with alarm status indicators, a small picture of the remote as shown on the Main Window, and a set of command buttons to process the desired commands to the remote.
- **Clear Alarm:** Sets the expected status to be the same as the current status.
- **Pause Polling:** Manually resumes/pauses polling for user directed transactions.

NOTE •The Main Window must be the only BaseStation2-SM window open. If any panel view or setup window is open, the polling and Voice Call In/Out are temporarily suspended.
--

Main Window Menus

Main Window - MAP 2						
File Maps Groups Action View Setup Help						
File Menu	Maps Menu	Groups Menu	Action Menu	View Menu	Setup Menu	Help Menu
Report	Open Map	Groups	Stop	Open Saved Views	Base Setup	Contents
Total Flow	Draw Map	Save Group As	Start	Save Views	Remote Setup	About
Diagnostics • Phone Communications • Radio Communications • View Tasks	Map Maintenance	Select All Remotes	Pause Poll	Zoom • Stretch • Zoom Center • Zoom In • Zoom Out • Zoom Area	Load Irrrometer Settings.txt	
	Print Map	Deselect All	Timed Ops		Contact List	
Maps Data • Backup • Restore			Update	Graphic View OR Tabular View	Data Radio Diagnostics Setup	
			Clear Alarm		Units Remotes • English • Metric	
Exit			Program		BaseStation Security	
			Daily Ops		User Admin	
			History (Pro2 only)		Language	
					Web Account Setup	
					Preferences	

Main Window Toolbar Buttons

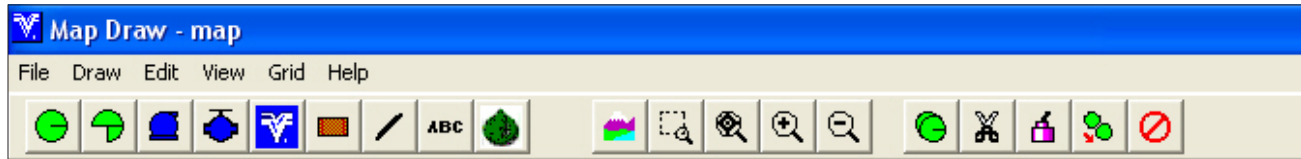
File Maps Groups Action View Setup Help			
	Clear Alarm		Update
	Stop Selected Remote(s) Sends Stop command to selected Remote(s)		Start Selected Remote(s) Sends Start command to selected Remote(s)
	Groups Selects remotes within a specific group		Select All Remotes Selects All Remotes on the current map
	Zoom to Full View Toggles Zoom to Full View, ON and OFF		Zoom Area Toggles Zoom to an Area, ON and OFF
	Zoom Center Toggles Zoom Center Point, ON and OFF		Zoom In Toggles Zoom In, ON and OFF
	Clear Alarms Clears Alarms on selected Remote(s)		Zoom Out Toggles Zoom Out, ON and OFF
	Update Selected Remote(s) Sends Update command to selected Remote(s)		Timed Commands Displays the Timed Ops Window
	Reports Displays the Report Window		Polling Pause/Resume Toggles between Pause and Resume Polling
	Lock/Unlock BaseStation Toggles between Lock and Unlock		Preferences Displays the Preferences screen
	Data Radio Diagnostics Displays the Data Radio Diagnostics Window		Help Displays the Help file
	Graphic View/Tabular View Toggles between the Graphic View and Table View		Exit Application
	IP Channel Displays the IP List.		




















OVERVIEW

Map Draw Menus

Map Draw					
File Draw Edit View Grid Help					
File Menu	Draw Menu	Edit Menu	View Menu	Grid Menu	Help Menu
Open	Pivot • Full Circle Pivot • Part Circle Pivot	Cut	Zoom All	Grid On	Contents
New	Linear	Copy	Zoom Center	Snap To Grid	About
Save	Road	Paste	Zoom In		
Save As	Boundary	Move	Zoom Out		
Print	Building	Resize	Zoom Area		
Exit	Pump	Name			
	Valve	Pivot Road			
	Pipeline	Color			
	Text				
	AutoPilot				
	Auxiliary Link Unit				

Map Draw Toolbar Buttons



	Draw a full circle pivot		Zoom Area Toggles Zoom to an Area, ON and OFF
	Draw a part circle pivot		Zoom Center Toggles Zoom Center Point, ON and OFF
	Draw a pump		Zoom In Toggles Zoom In, ON and OFF
	Draw a valve		Zoom Out Toggles Zoom Out, ON and OFF
	Draw an Auxiliary Link panel		Copy an item
	Draw a building		Cut an item
	Draw a road		Paste an item
	Write a text label		Move an item
	Draw a Soil Moisture Monitor		Exit Map Draw Program
	Zoom All Toggles Zoom to Full View, ON and OFF		

Popup Status Box

The popup status shows the last known status of the remote, depending on control panel type and radio being used. The popup status box can be set to appear over a map item, in the top left corner, or at the bottom of the Main Window. It can be set to display as the mouse rolls over a map item, automatically during polling, or when a change occurs at the remote.

- Mouse Pointer Activated

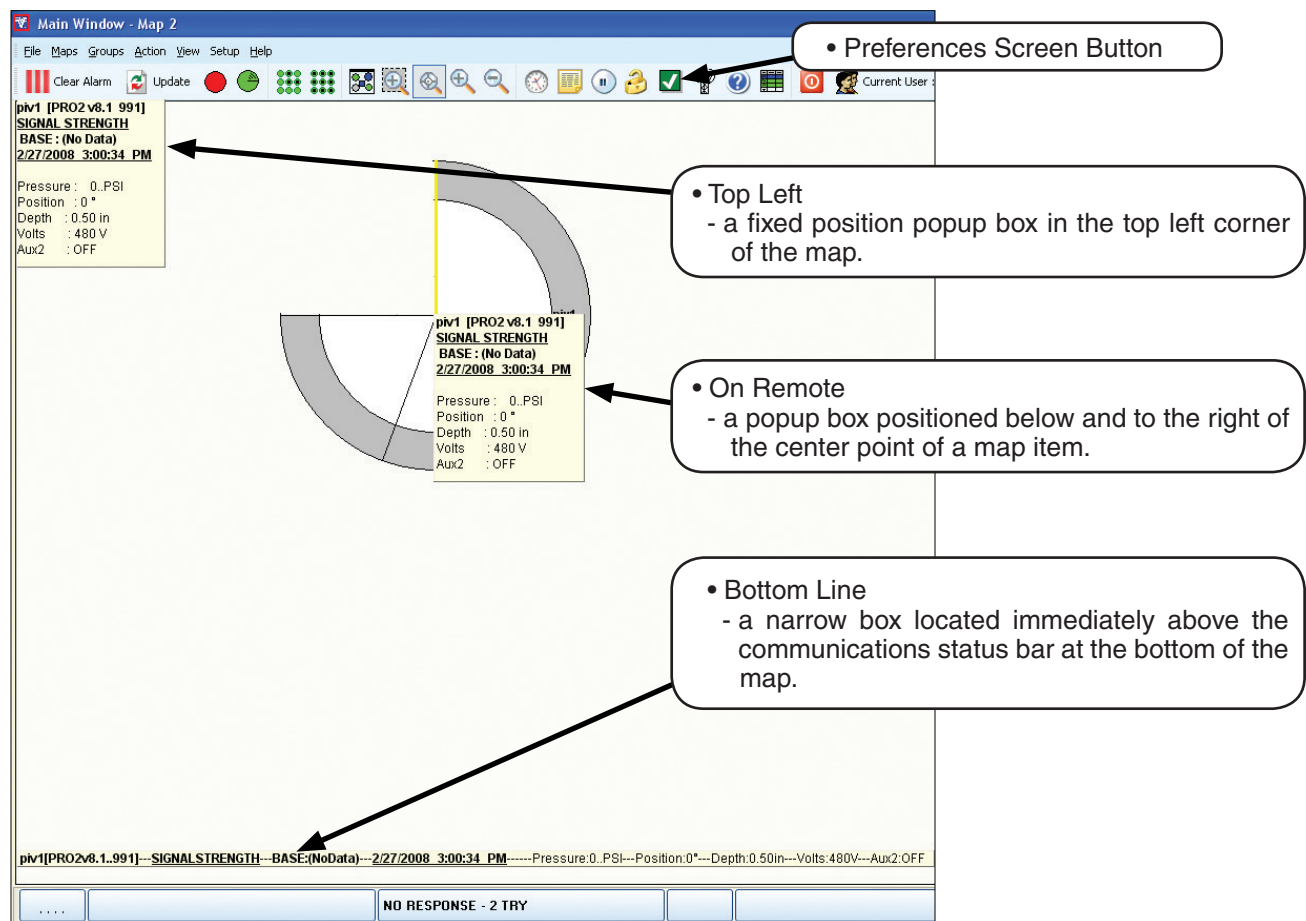
The Mouse pointer activated popup status is set in the Preferences Screen. When the mouse pointer is positioned over a map item, the Popup Status is activated and shows the status for that map item in one of three locations that can be set by the user.

- Automatically Activated

The automatic popup status is set in the Preferences Screen. When a change occurs at the remote or when polling remote(s), the Popup Status is activated and automatically shows the status for the map item that changed or is being polled. When the automatic popup status is activated the mouse pointer activated popup status box is disabled.

- Popup Status Box Locations

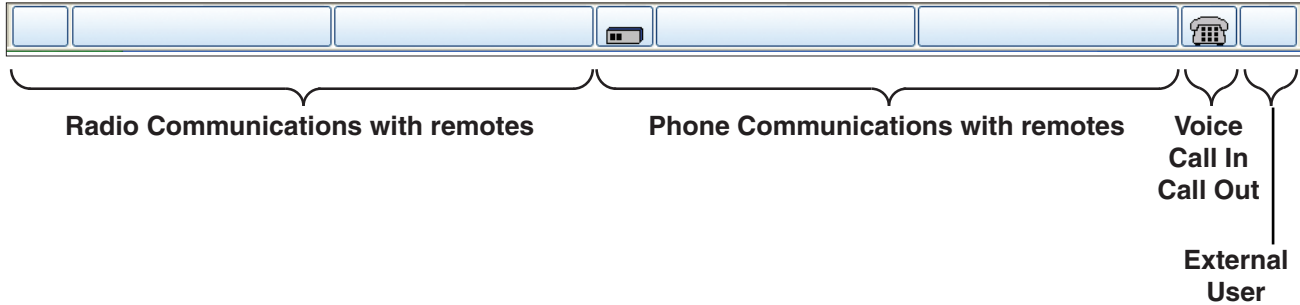
The Popup Status Box location is set in the Preferences Screen. The Popup Status Box location can be set to appear in one of the following three different locations: Top Left, On Remote, or Bottom Line.



OVERVIEW

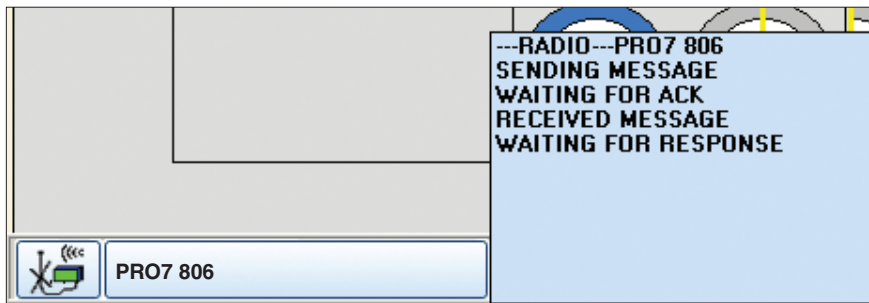
Communications Status Bar

The Communications Status Bar shows the data transaction activity with the remotes. The bar is divided into three groups. The left group shows transactions through radio or wired communications hardware. The middle group shows data modem transaction through the telephone. The right group shows the connection status with audio communications for the Voice Call In/Out. A group will be blank when no communications connections have been enabled in the Base Setup form.






Radio Modem Communications

The Radio Modem has transmitted a command, received the acknowledgement from the remote that the command was received, and is waiting for complete message containing the requested data that is currently being received. Double clicking on the status bar shows the last transaction history.



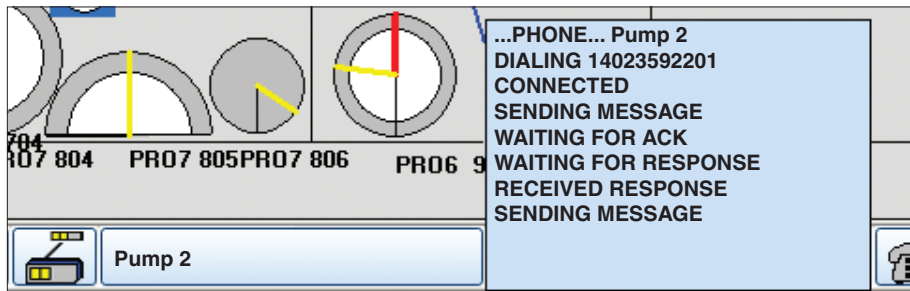
Status Icons that are used to represent Radio Modem activity:

-  Communications are idle.
-  Radio Modem is transmitting data (Red).
-  Radio Modem is receiving data (Green).

Communications Status Bar (Continued)

Phone Modem Communications

The Phone Modem has had a successful transaction with a remote. Double clicking on the status bar shows the last transaction history.



Status Icons that are used to represent Phone Modem activity:



Communications are idle.



Phone Modem is On Hook (Two black squares).



Phone Modem is Off Hook or Dialing (One yellow square and one black square).



Phone Modem is connected to a remote modem (Two yellow squares).



Phone Modem is transmitting data (Two yellow squares and one red rectangle).



Phone Modem is receiving data (Two yellow squares and one green rectangle).

OVERVIEW

Communications Status Bar (Continued)

Voice Modem Communications

Voice Call In/Out

The Voice Modem is On Hook



Status Icons are used to represent the Voice features that are enabled and the voice Modem activity:



Voice (Call In/Out) is NOT enabled in Base Setup.



A gray phone indicates that Voice is enabled and Call Out is not enabled in Base Setup. Call In only.



A green phone indicates that Voice is enabled in Base Setup.



A red phone off hook indicates active.



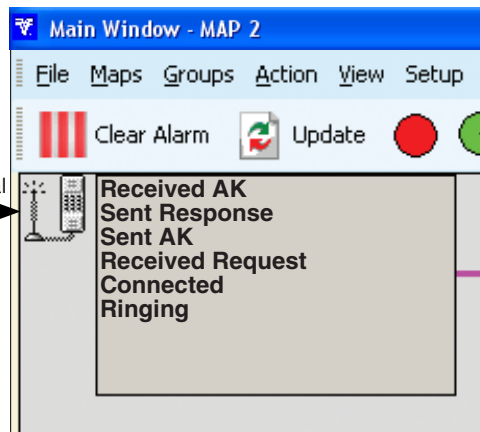
Voice Phone Modem is On Hook. (green or gray)



Voice Phone Modem is Off Hook. (red)

External User Communications

The External User Communications activity is displayed on the end of the communications status bar and on the Main Window (Main Window display is optional, enable Show External User in Preferences).



Status Icons that are used to represent Phone Modem activity:



Communications are idle.



Phone Modem is On Hook (Two black squares).



Phone Modem is Off Hook or Dialing (One yellow square and one black square).



Phone Modem is connected to a remote modem (Two yellow squares).



Phone Modem is transmitting data (Two yellow squares and one red rectangle).

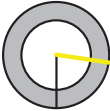
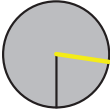

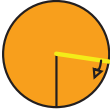
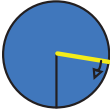
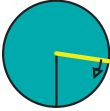
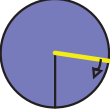
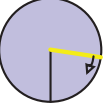

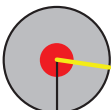
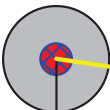
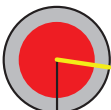
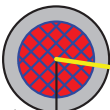


Phone Modem is receiving data (Two yellow squares and one green rectangle).

OVERVIEW




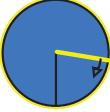
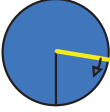
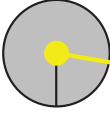
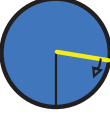
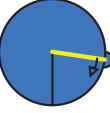
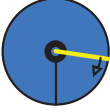
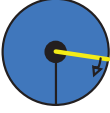
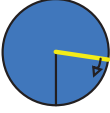
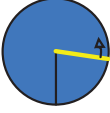
Remote Status Color And Shape

The BaseStation -SM Main Window and the BaseStation Mobile application use a graphic color and shape to represent the current known status of the remote machines.

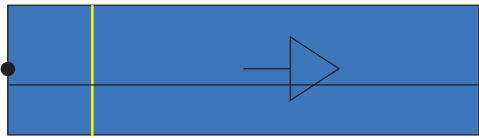
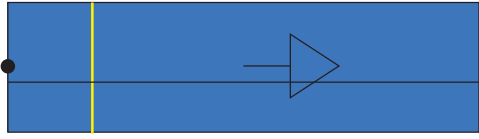
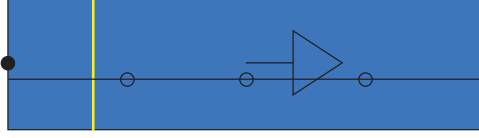
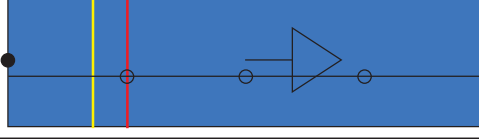
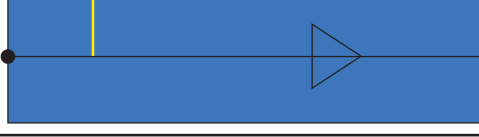
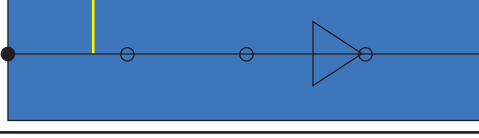
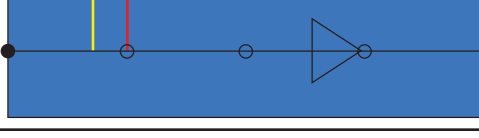

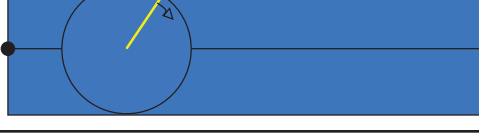
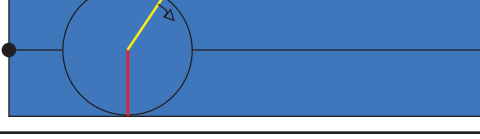
STATUS	COLOR AND SHAPE	GRAPHIC
Polling will not occur on this remote.	White circle centered on a remote when polling for the remote is paused or when polling period for the remote is not set above zero.	
Remote is stopped.	Gray circle.	
Remote is running dry.	Green circle.	
Remote is running dry, with Auxiliary 1 ON.	Orange circle.	
Remote is running wet.	Blue circle.	
Remote is running wet, with auxiliary 1 ON.	Cyan circle.	
Remote is running wet, with program ON and Aux 1 out is OFF. • Step Programs, VRI Zone Control, VRI Speed Control or Cruse Control (Pro2 Only).	Dark Purple circle	
Remote is running wet, with program ON and Aux 1 out is ON. • Step Programs, VRI Zone Control, VRI Speed Control or Cruse Control Pro2 Only).	Light Purple circle	
Stop in slot is enabled.	Red line appears in the stop in slot location.	
Low level alarm condition.	Small red circle centered on remote.	 
No response.	Small red circle with hatched pattern centered on remote.	
High level alarm condition.	Large red circle centered on remote.	 
No response.	Large red circle with hatched pattern centered on remote.	

OVERVIEW

Remote Status Color And Shape (Continued)

STATUS	COLOR AND SHAPE	GRAPHIC
No response - Power source is off.	Brown with hatched pattern centered on remote.	
IP Lost	Brown circle, alarms still show on remote.	
No Response after User Defined Time	Black circle, alarms still show on remote.	
Remote is being polled by the BaseStation2-SM.	Bright yellow ring is displayed around edge of a remote, when the remote is being polled. Polling status must be checked in preferences screen.	
Pivot: Machine representation and span position in the field.	Yellow line. (Pivot representation shown)	
A control panel commanded change causing a stop fault.	Small yellow circle centered on remote. One or more of the following must be checked in the Stop Alarms section of the preferences screen: Stop, SIS, or Daily Ops.	
Real-Time update.	Thick black ring around edge of remote. After a Real-Time Update for a remote is received. Pro2 version 8.03 or later only.	
End gun on.	When the end gun is enabled and the constants are set at the control panel, a bump appears on the outside of the remote at the end of the yellow line when the end gun is on.	
Remote is selected.	Small black ring centered on remote.	
Remote panel view open.	Small black circle centered on remote.	
Pivot is running in forward.	A black arrow is displayed pointing in the forward direction.	
Pivot is running in reverse.	A black arrow is displayed pointing in the reverse direction.	

Remote Status Color And Shape (Continued)

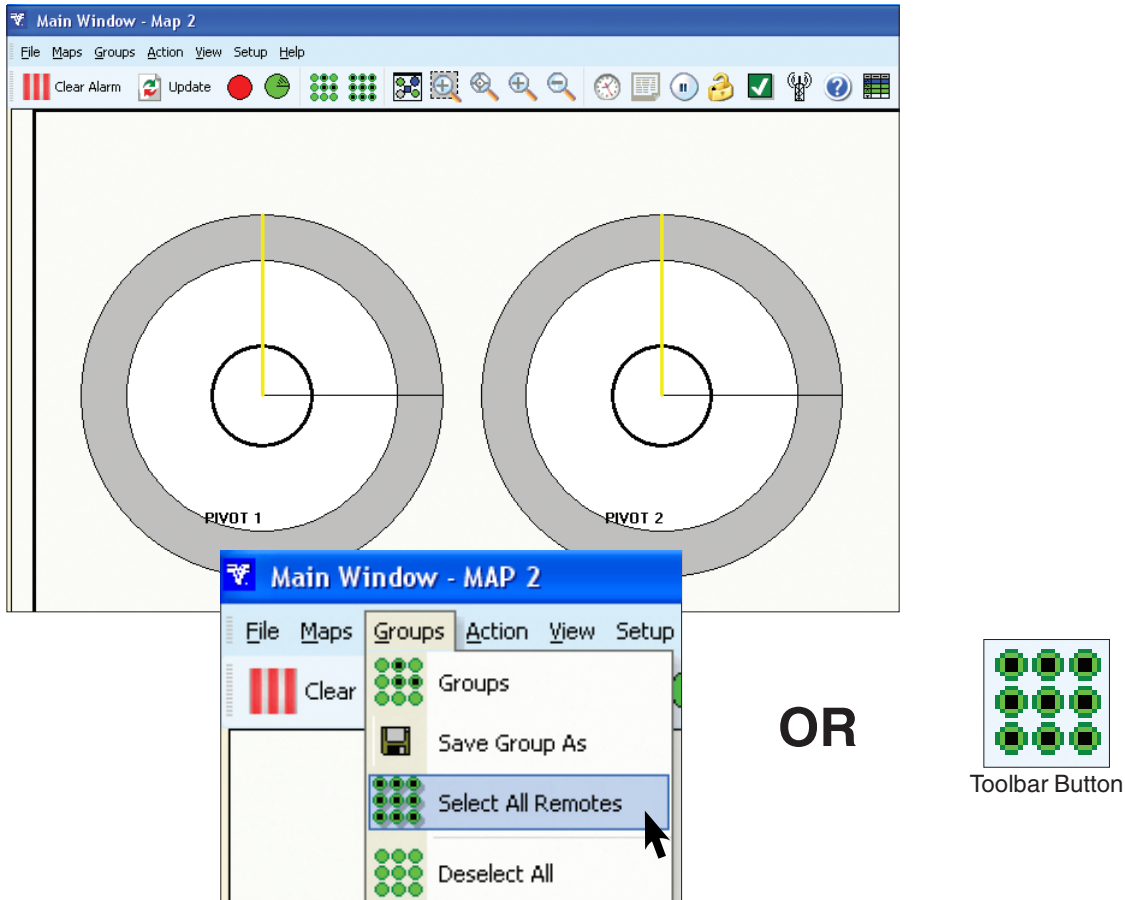
STATUS	COLOR AND SHAPE	GRAPHIC
AutoPilot: Linear machine is running.	A black arrow is displayed pointing in the direction of travel.	
AutoPilot: Standard Linear machine representation and span position in the field.	Yellow line across linear graphic..	
AutoPilot: Standard Linear cart path and marker locations.	Cart path: Black Line. Marker Locations: Black circles on cart path.	
AutoPilot: Standard Linear Stop in slot is enabled.	Red line appears in the stop in slot location.	
AutoPilot: Universal Linear/Linear Mode machine representation and span position.	Yellow line in linear zone that machine is in. (Machine in linear zone A shown)	
AutoPilot: Universal Linear Cart path and marker locations.	Cart path: Black Line. Marker Locations: Black circles on cart path.	
AutoPilot: Universal Linear/Linear Mode Stop in slot is enabled.	Red line appears in the stop in slot location.	
AutoPilot: Universal Linear/Pivot Mode Pivot zone A / B, machine representation and span position.	Yellow line on pivot graphic. (Pivot zone A shown)	
AutoPilot: Universal Linear/Pivot Mode Pivot zone C / D, machine representation and span position.	Yellow line on pivot graphic. (Pivot zone C shown)	
AutoPilot: Universal Linear/Pivot Mode Stop in slot is enabled.	Red line appears in the stop in slot location.	

OVERVIEW

Grouping Remotes

Features that can use the Group functions include Reports, Remote Setup, starting or stopping machines, and Timed Operations. Use the group function to select a saved group of machines to be included in the desired action, save selected machines as a group, select all machines, or deselect all machines.

To associate a group of machines, on the main map, use the right mouse button to select each remote or to select all remotes, click on Groups in the Main Menu then on Select All Remotes in the drop-down menu or click on the Select All Remotes toolbar button. A small black circle in the center will indicate which machines are selected. The action commanded for a group of remotes will be executed in the sequential order that they were selected.



To deselect all remotes, click on Groups in the Main Menu then on Deselect All in the drop-down menu or click on the Select All Remotes toolbar button or click on each machine with the right mouse button.

Select All Remotes will select all pivot, linear, remote link, valve, and pump remotes except Auxiliary Link.

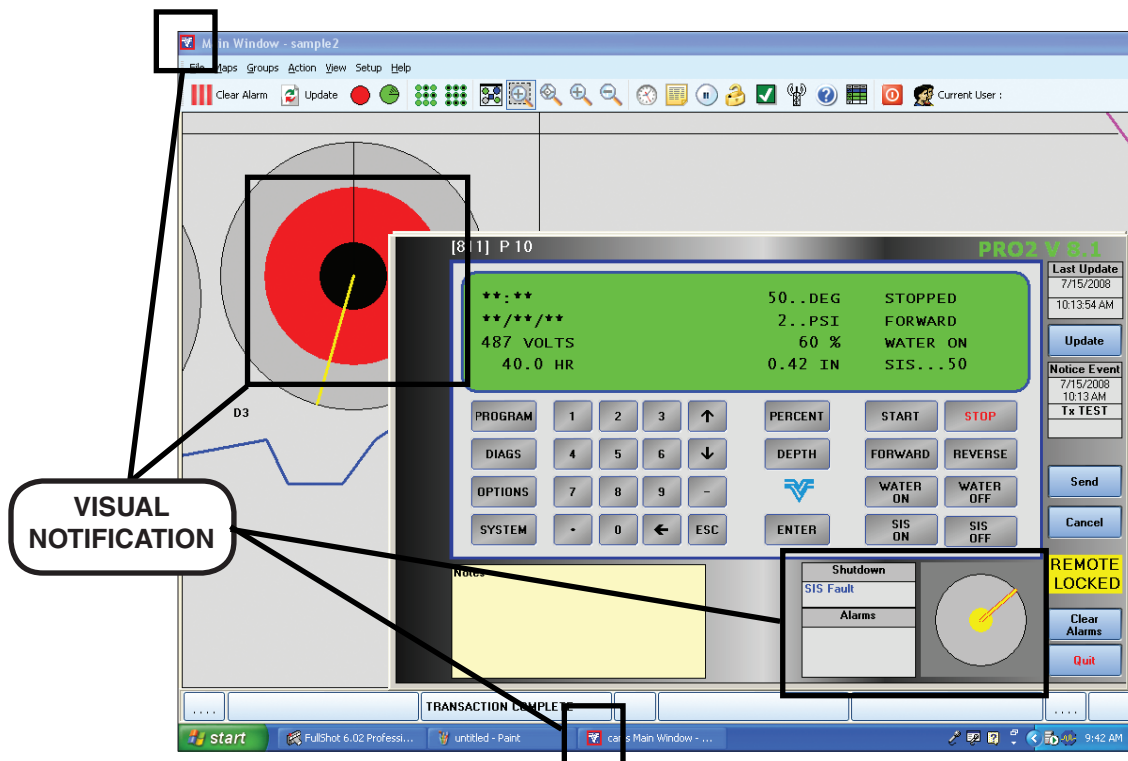
Alarm Notification

Alarm notification can be configured as desired in Base Setup, Remote Setup, and Preferences based on the alarm condition and computer hardware.

Visual Notification

When an alarm condition exists, the machine(s) experiencing the alarm condition will display a small or large red circle on the machine(s) and a red square appears around the Valley logo located in the upper left hand corner of the BaseStation2-SM application window and on the Windows BaseStation2-SM application task bar button.

Written Alarm Notification appears in the Shutdowns and Alarms fields on the machines Panel View.



Notification Methods

Voice: The BaseStation2-SM is able to play an alarm notification through the computer speakers and use a dedicated phone line to Call Out an alarm notification to a user.

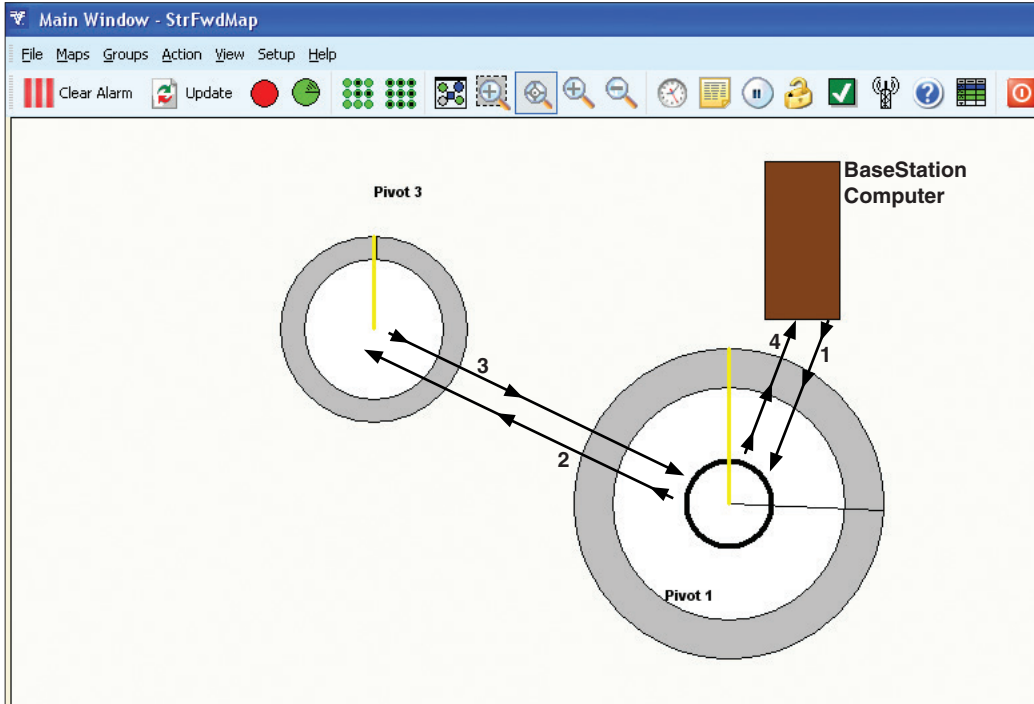
Email/Text Message: Email and Text Messages can be sent to each contact on a Notice Group Call Out List.

- Base Setup: The Alarms/Voice/Play Alarms on Computer Speakers/Email/Text Message features can be enabled in the Base Setup screen.
- Contact List: A Contact List and Notice Group Call Out List must be created for Voice Call Out and Email/Text Message.
- Remote Setup: A Notice Group Call Out List must be assigned to a remote before the Voice Call Out and Email/Text Message features will work.

OVERVIEW

Store and Forward Path

The Store and Forward Path is used for a single hop repeater function. When using this function all control panels involved must be Pro v7, Pro2, AutoPilot, Panel Link, or Auxiliary Link. No setup is required at the control panel.



In the map above, the BaseStation talks to Pivot 1 and then Pivot 1 talks to Pivot 3, and they reply back by the same path in reverse.

In order for the communication to function properly, each Remote Setup screen must be set correctly.

PIVOT 1 Remote Setup

Section	Field	Value
Identification	Rtu Type	PRO2 v8.1
	Rtu Id	001
	Dataradio Id	1
Machine Setup	Radius	1280
	Discharge	800
	Reverse Angle	0
	Forward Angle	0
	Road Angle	90
Communications	Channel	Radio 1
	Store And Forward Path	
Alarm Levels	Remote Started	■■■
	Wet/dry	■■■
	Direction	■■■
	SIS ON/OFF	■■■
	Speed	■■■
	Aux 1 In	■■■
	Aux 1 Out	■■■
	Aux 2 In	■■■
	Aux 2 Out	■■■
	Restart	■■■
No Response	■■■	
Stop Fault	■■■■	
SIS	■■■■	
Daily Ops	■■■■	

PIVOT 3 Remote Setup

Section	Field	Value
Identification	Rtu Type	PRO2 v8.1
	Rtu Id	003
	Dataradio Id	3
Machine Setup	Radius	1280
	Discharge	800
	Reverse Angle	0
	Forward Angle	0
	Road Angle	150
Communications	Channel	Radio 1
	Store And Forward Path	001
Alarm Levels	Remote Started	■■■
	Wet/dry	■■■
	Direction	■■■
	SIS ON/OFF	■■■
	Speed	■■■
	Aux 1 In	■■■
	Aux 1 Out	■■■
	Aux 2 In	■■■
	Aux 2 Out	■■■
	Restart	■■■
No Response	■■■	
Stop Fault	■■■■	
SIS	■■■■	
Daily Ops	■■■■	

Voice Option Call In

The BaseStation2-SM can be called from a telephone to check the current status of the remotes and send messages to change the status. Voice has to be checked in the Setup Menu under Base Setup and a dedicated phone line is required. The Voice messaging system is in English for all languages.

If Voice is checked, the BaseStation2-SM will answer the phone and the voice messaging system will then ask for the Voice Password entered in the Setup Menu under Base Setup. Then the operator is directed to the main menu where one of the following is completed:

Press		
1	To review all alarms	Lists the remote(s) with high level alarms by RTU ID
2	To select a remote	Opens the settings menu for a selected remote
3	To stop all remotes	Sends Stop command to all remotes after confirmation
4	To acknowledge all alarms	Acknowledges all alarms but does NOT clear alarm graphics from the affected remotes on the BaseStation2-SM Main Window Map.
5	To enable/disable the Voice Callout	Allows the user to enable or disable the Callout feature
0	To exit Voice Callout	Exits Voice Callout
#	To listen to main menu options	Repeats the main menu options

If the operator chooses number 2; select a remote, enter the remote ID in which the operator is taken to the settings menu that lists the following choices for the chosen remote:

Press		
1	To acknowledge an alarm	Acknowledges alarm but does NOT clear alarm graphics from the selected remote on the BaseStation2-SM Main Window Map
2	To check the status of a remote	Lists the current status of the selected machine
3	To start or stop a machine	Start or Stop the machine
4	To set water	Set the water to ON or OFF
5	To set application	Set the application rate
6	To set percent	Set the percent timer setting
7	To set direction	Set the direction to Forward or Reverse
8	To set auxiliary	Set an auxiliary to ON or OFF (Pro only)
9	Return to the main menu	Takes you to the main menu
0	Exit	Exit Voice Callout
*	Remote diagnostics	Hear which fault caused a shutdown
#	Listen to settings menu options	Repeats the settings menu options

If the operator chose number 2, to check status of a remote, the operator will get an update on the current status of the selected machine giving the following information:

- Status is off/on
- Water is off/on
- Application depth
- Percent Timer Setting
- Direction forward/reverse
- Position in degrees
- Water Pressure
- Auxiliary is off/on (Pro, Pro2, AutoPilot only)
- Alarm is off/on (Pro, Pro2, AutoPilot only)

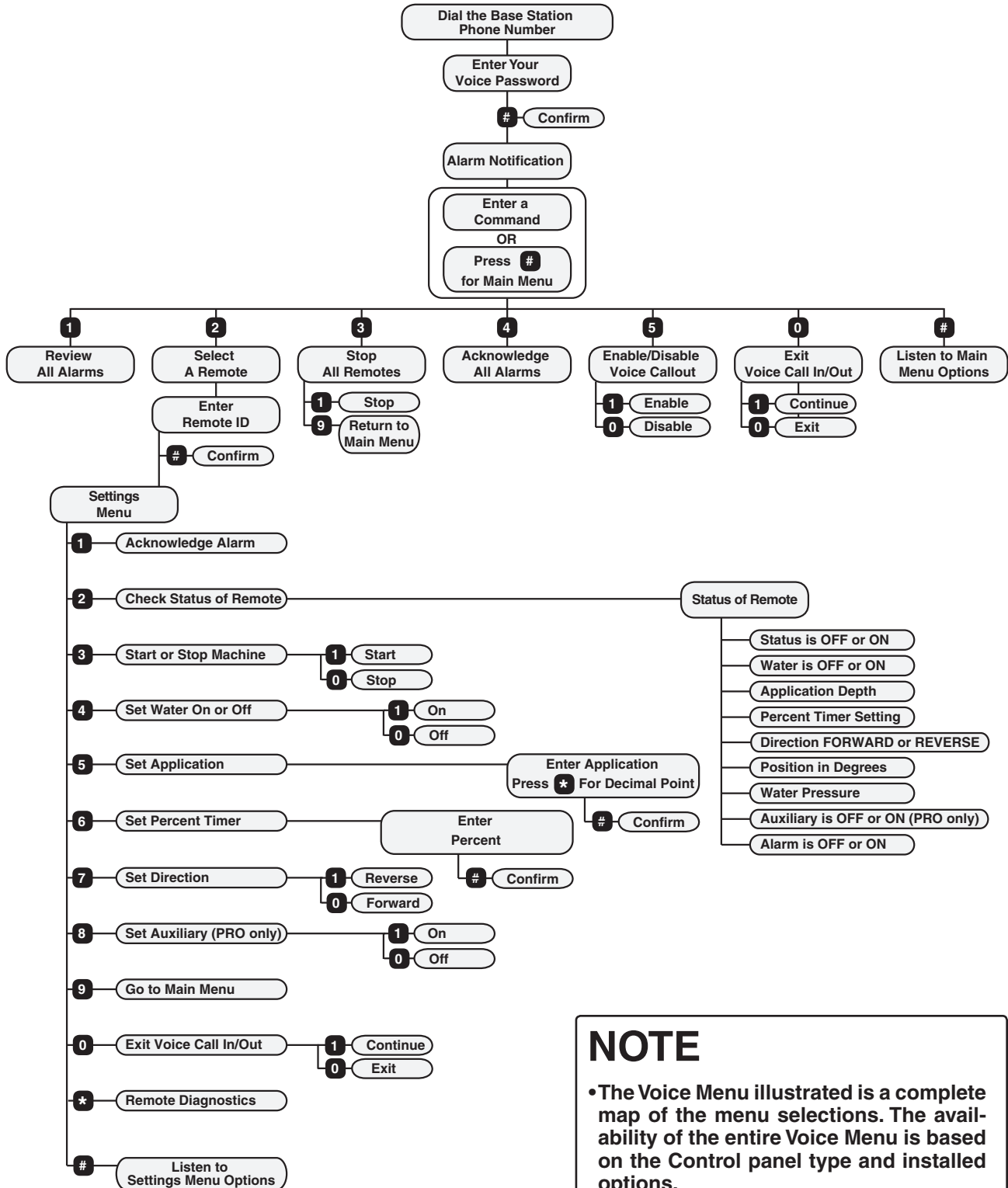
NOTE

•The Voice Menu illustrated is a complete map of the menu selections. The availability of the entire Voice Menu is based on the Control panel type and installed options.

After the update is given, the operator is taken back to the settings menu where changes can be made to the settings for the chosen remote.

OVERVIEW

Voice Option Menu



NOTE

• The Voice Menu illustrated is a complete map of the menu selections. The availability of the entire Voice Menu is based on the Control panel type and installed options.

Voice Call Out

The BaseStation2-SM can use Voice Call Out to notify the user when an alarm condition occurs on a machine that is assigned to a Call Out List. The Voice messaging system is in English for all languages.

Voice Call Out can send the following types of messages:

- Voice Message over the Phone relaying voice messages. Several layers of menus are available over the phone that allow the operator to acknowledge the alarm, get the current status of the remotes, and send messages to change the status.
- Voice Message over the Computer Speakers relaying voice messages. Provides Notification Only.
- Play Alarm on Computer Speakers must be checked in the BaseStation Setup.
- Text Message. Provides Notification Only.
- Email Message. Provides Notification Only.

Before a Call Out can be made the following are required:

- Enable Call Out must be checked in the Setup Menu under Base Setup Alarms.
- A Contact List with at least one contact must be created.
- A Notice Group Call Out List with at least one name must be created.
- A Call Out List must be assigned to at least one machine.

If a high level alarm condition occurs in a machine that the Call Out List is assigned to, the BaseStation2-SM will do the following:

- Call the first contact phone number in the assigned Call Out List.
 - If the call/alarm is not acknowledged, the next contact phone number on the assigned Call Out List is called.
 - If none of the calls are acknowledged BaseStation2-SM will retry each phone number in order until either the call is acknowledged or all the phone numbers have been retried one time.

NOTE

- **When BaseStation2-SM Calls Out to a contact because of a high level alarm and the contact acknowledges alarms or all alarms, only the alarm(s) assigned to the contact name are acknowledged and the Call Out cycle ends. The alarm graphics that appear on the remote(s) in the Main Window map, are NOT cleared when the contact acknowledges alarms or all alarms. Alarm graphics can only be cleared at a BaseStation Computer.**
- **Acknowledge Alarm - Only with Voice interface; terminates the alarm call-out for the alarm that initiated the call.**
- **Acknowledge All Alarms - Only with Voice interface; terminates all alarm call-outs for the remote(s) that are assigned to the user acknowledging the alarms.**
- **Clear Alarm - Only at the BaseStation computer; terminates the alarm call-out for the remote(s) selected, and clears the red alarm dot by setting the expected machine status equal to the current machine status.**

- Send one text message to all the contacts on the assigned Call Out List with a Text Message Address.
- Send one email message to all the contacts on the assigned Call Out List with an Email Address.

OVERVIEW

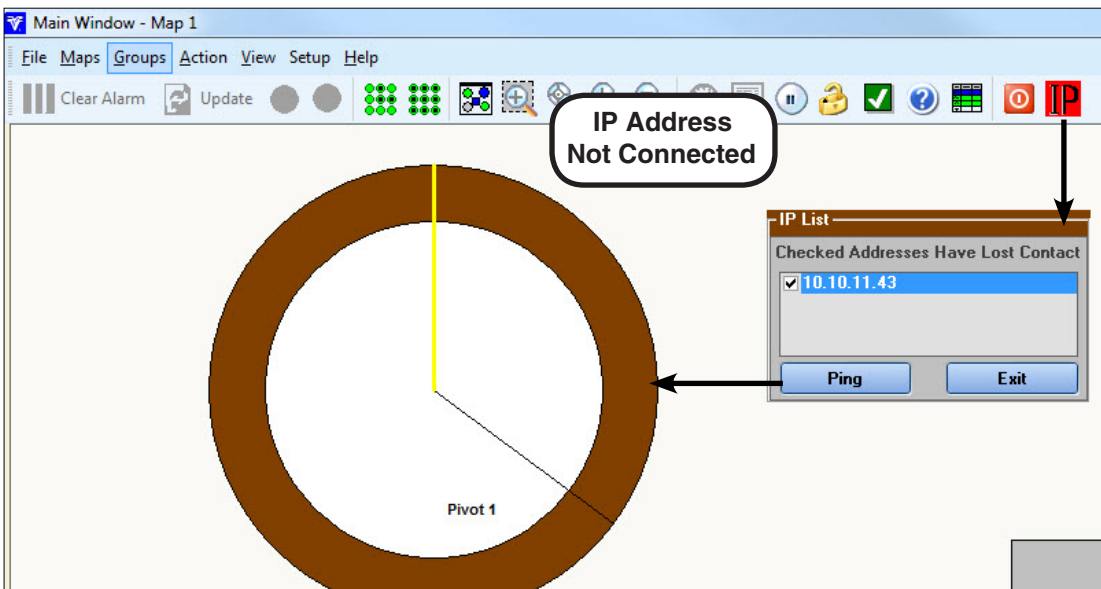
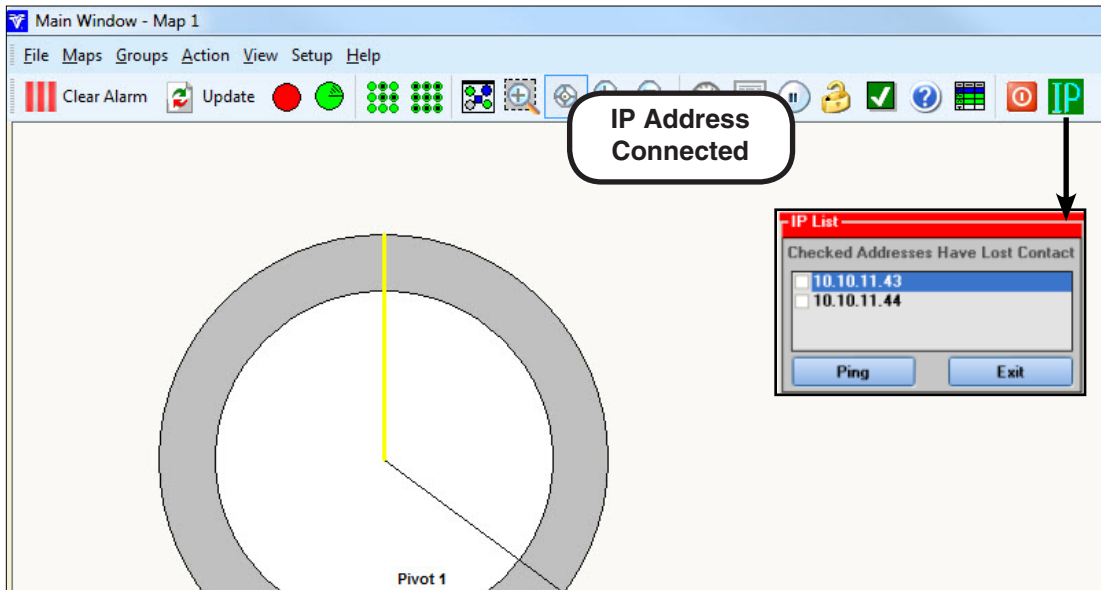
IP Address Icon

When IP Address is selected in Remote Setup the IP Address icon appears on the Main Window Tool Bar.

- Click the IP Address icon to open the IP List screen.
 - » View all IP addresses
 - » IP addresses with a checkmark in front of them have lost contact with the BaseStation computer.
 - » Click Ping to test the connection with the device(s).

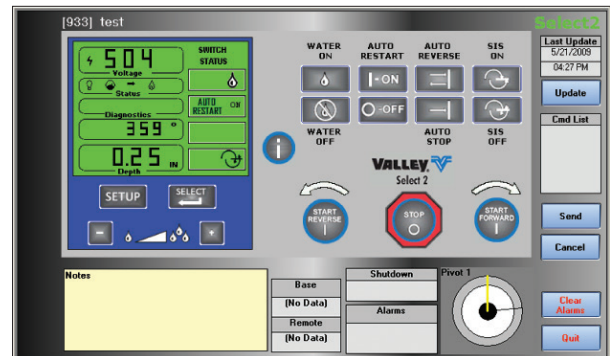
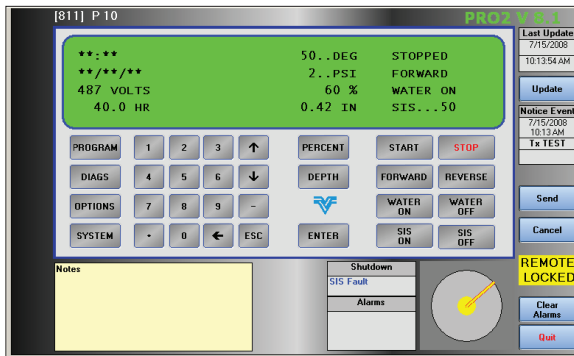
The color of the IP address icon indicates the following:

- Green - Indicates all IP addresses were connected as of the last poll.
- Red - Indicates that the connection to one or more IP addresses has been lost as of the last poll. When an IP connection is lost the the IP icon will turn red. To determine which remotes are affected click the IP icon, then click the Ping button. Remotes with IP addresses that have lost connection will turn brown.



Control Panel View

In the Main Window, when you select a machine by clicking on it with the left mouse button, a window will open showing a simulated view of the control panel that is at the remote machine.



The control and monitor functions simulate those that are available for each individual remote machine. There are some functions that are disabled or not available in each type of panel. The disabled functions are based on hardware configurations that must be mechanically changed at the panel, features that have not been added or are restricted because of safety considerations.

Any changes made to the operation of the remote from the control panel view in the main window will show on the control panel view screen in blue until the change is sent or canceled. Commands from the lower level menus of the Pro panel views are sent when the change is requested from the menu.

Alarm conditions for the selected machine are shown in the Alarm status box. The various alarm conditions indicate changes that are different from what the BaseStation2-SM has commanded or is expecting.

Opening a control panel view automatically suspends polling, providing exclusive use of the BaseStation2-SM communications to the selected remote.

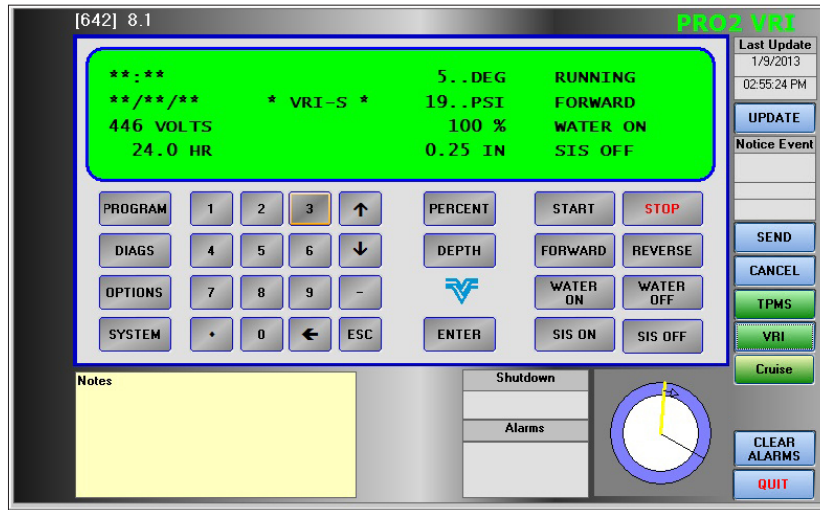
The control panel view will remain open as long as there is user activity. When there is no user activity for the amount of time specified in the preferences screen the control panel view will automatically close.

OVERVIEW

Pro Panel View

Refer to the Pro2 or Pro Owners Manual for a complete description of the module features.

There are different Pro Panel Views. The panel view for Pro v4/5, Pro v6, and Pro v7 panels and the Pro2 v8.03 and Pro2 v8.1 view for Pro2 panels. The panel views can be identified by the title in the upper right hand corner. Variations in the panel views correspond with features and menus in the panel. The Pro2 v8.1 Panel View is shown below.

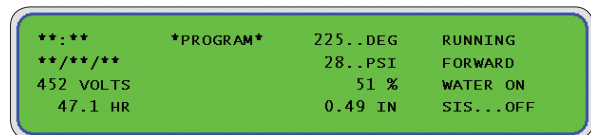


Status Display

The LCD screen displays current information about the machine.

Most screens are displayed the same as they appear locally at the panel. Some Pro2 screens have been moved at the panel.

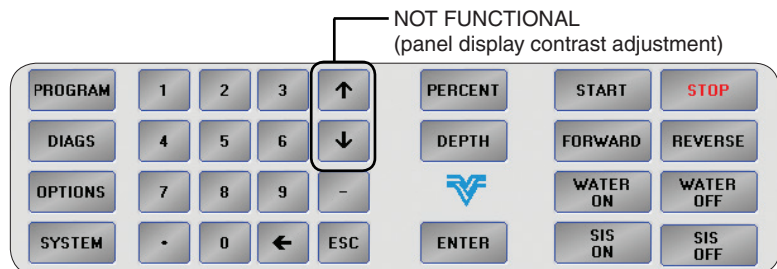
The date and time are not shown on the Pro module panel view because the actual date and time of the clock in the module is not sent to the BaseStation2-SM during an update. The Pro module's date and time can be read and/or set through the Pro module panel view menus in the same manner as at the panel.



Keyboard Buttons

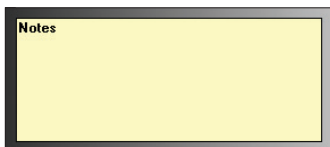
Keyboard buttons function the same as they do locally at the control panel except for the arrow keys which are not functional.

Refer to Pro2 or Pro Control Panel Owners Manual for more information.



Notes

An area to enter notes for this machine.



Pro Panel View (Continued)

Signal Strength

Signal Strength
Base
Excellent
Remote
(No Data)

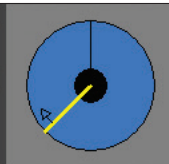
Signal strength of the BaseStation and remote DATARADIOS are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.

Signal Strength
Signal Strength

Signal strength of the last communication from the remote SSR Link is displayed when the Signal Strength button is clicked. The Base Setup Radio must be SSR Link to view.

Alarm Status

Shutdown
Alarms



The alarm condition is shown in the Alarm status box. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

- Shutdown - Displays fault conditions that caused the machine to stop.
- Alarms - Displays alarm conditions.
 - Start, Stop, Direction, Water, No Response, Stop in Slot, Aux1 Out, Aux2 Out, Aux1 In, Aux2 In, and Restart are indicators of machine status conflicts with the commanded condition known by the BaseStation. See Remote Setup for Alarm definitions.
- Isolated Display of the Map Item associated with this control panel view.

Last Update

Last Update
7/18/2006
03:24 PM

The BaseStation computer date and time of the most recent status update. Note: Periodically verify the Pro module Date and Time to coordinate the BaseStation time with the Pro module. This is important when writing Stored programs for the Pro module based on Date/Time and for reviewing the Pro module history screens. When the Update button is clicked, the BaseStation sends the computer's date and time to the Pro2 v7, Pro2 v8.03, or Pro2 v8.10 modules. The BaseStation computer time and date is NOT sent to the module during the Polling activity.

Notice Event

Notice Event
8/18/2006
02:32 PM
STATUS
Run/stop

Displays Notice Event messages sent to the BaseStation.

Control Buttons

Update

- Click the Update button to send the remote machine a request for an update on the current status of the machine.

Send

- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.

Cancel

- Click the Cancel button to cancel any changes before you click the Send button.

Clear Alarms

- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

Quit

- Click the Quit button to close the control panel view screen.

Remote Locked - Pro2 v8.10 and Higher Only

REMOTE LOCKED

Remote control is inhibited, remote monitoring is active only:

- Relay Output commands from the BaseStation WILL NOT be executed.
- Status message is sent when requested.

Notice Event
7/15/2008
10:13 AM
Tx TEST

The Notice Event will display **Tx TEST** on the status line and the date and time that the Remote Locked was activated as shown.


OVERVIEW

Pro Panel View

Variable Rate Irrigation

The Variable Rate Irrigation(VRI) features are enabled in Remote Setup.

When VRI is ON, VRI is displayed in the status screen.

 Click the VRI button to display the VRI Command screen for Speed Control or Zone Control depending on the VRI program selected in Remote Setup.

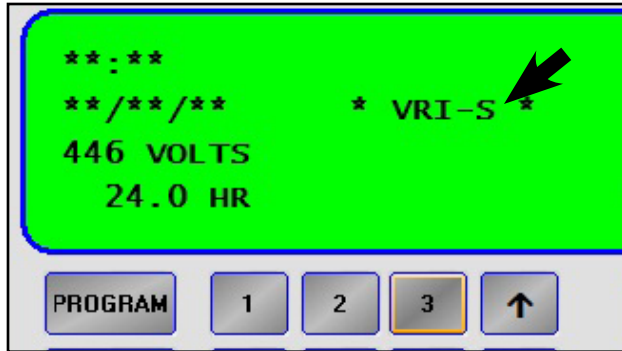
There are two VRI Command screens. Click the VRI Program radio button or Send Prescription radio button to toggle between screens.

Turn VRI ON, use the VRI Program screen:

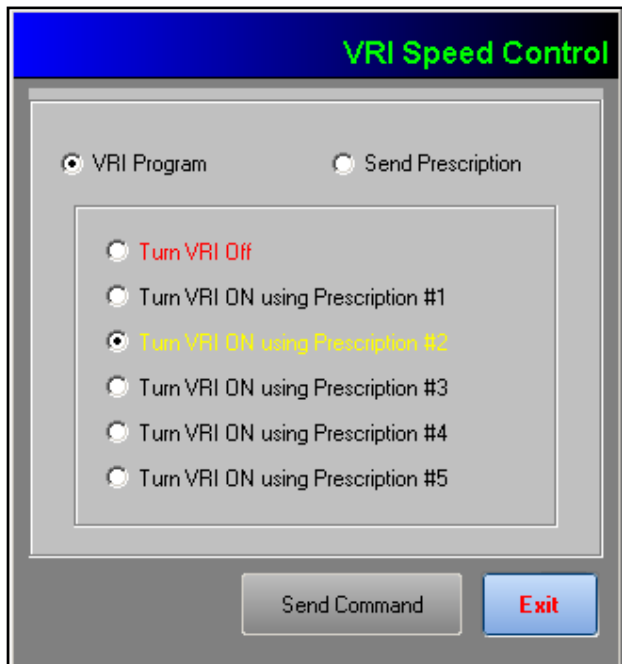
- VRI-SPEED: Up to five(5) VRI Speed prescriptions can be stored in control panel.
 - (a) Select one of the Turn VRI ON using Prescription radio buttons. The current program running is highlighted in yellow.
 - (b) Click the Send Command button.
- VRI-ZONE: Only one(1) VRI Zone prescription can be stored in control panel.
 - (a) Select the Turn VRI ON n radio button.
 - (b) Click the Send Command button.
- Turn VRI OFF, use the VRI Program screen:
 - (a) Select the Turn VRI Off radio button
 - (b) Click the Send Command button.

Use the Send Prescription screen to:

- Upload up to five (5) different VRI Speed prescriptions or one (1) Zone prescription to the control panel from the BaseStation computer or a network.
 - (a) Click the Browse button to select the VRI prescription to upload to the control panel.
 - » Speed prescriptions are internally coded as Prescription #1, 2, 3, 4 or 5 outside of BaseStation using the Prescription Loader application.
 - » Speed Control file names are followed by ".speed"
 - » Zone control file names are followed by ".zone"
 - (b) Click the Send Command button.



Pro2 Status Screen



VRI Program Screen - VRI Speed Control Shown



VRI Send Prescription Screen - VRI Speed Control Shown

Pro Panel View

Cruise Control

The CRUISE button is visible when the Cruise check box in Remote Setup. is checked.


 Click the CRUISE button to display the Cruise Control Systems screen.

From the Cruise Control Systems screen you can do the following:

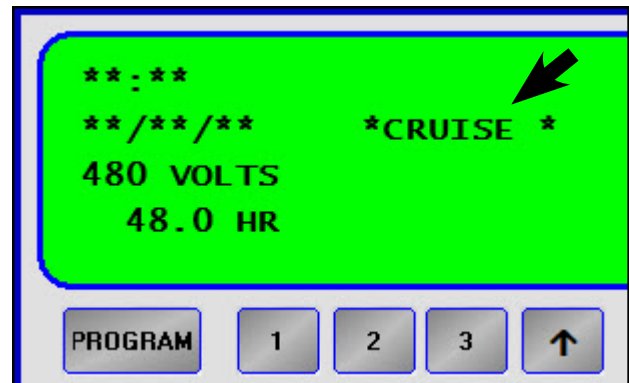
- To view Cruise Control information, click the Get Latest Cruise Info button.
 - (a) Watch screen for response from remote.
- To view or change the Cruise Control hours per revolution, click Set Cruise Hours.
 - (a) Watch screen for response from remote.
- To Enable Cruise Control:
 - (a) Click the Enable Cruise button.
 - (b) Watch screen for response from remote.
 - (c) When Cruise Control is enabled CRUISE is displayed on the PRO2 status screen.
- To disable Cruise Control:
 - (a) Click the Disable Cruise button.
 - (b) Watch screen for response from remote.

Tire Pressure Monitor (TPMS)

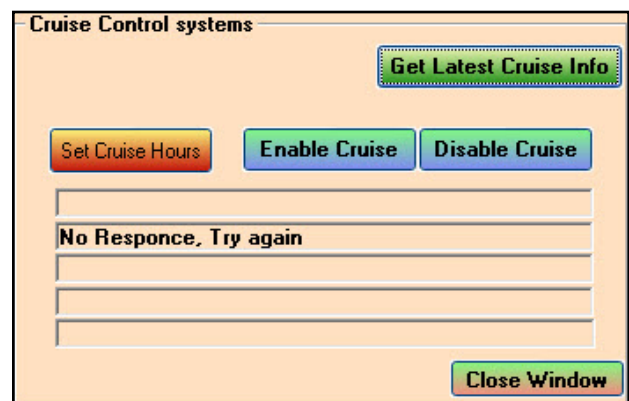
The TPMS button is visible when the Read Tire Pressure During Update check box in Remote Setup. is checked.

 Click the TPMS button to display the Tire Pressure Information screen.

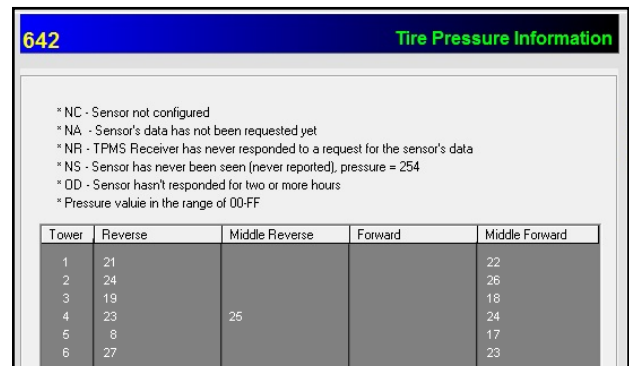
- The Tire Pressure Information screen displays tire pressures as of the last update.
- If tire pressure falls below the minimum setting, a pop up warning screen will appear on the Main Window.



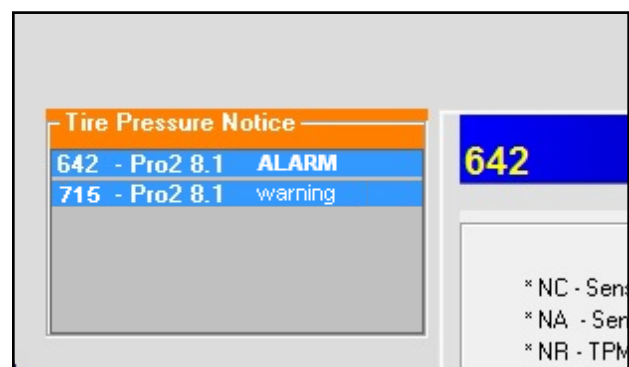
Pro2 Status Screen



Cruise Control Systems Screen



Tire Pressure Information Screen



Tire Pressure Notice Screen

OVERVIEW

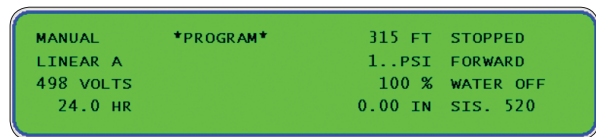
AutoPilot Panel View

Refer to the AutoPilot Owners Manual for a complete description of the module features. The AutoPilot Panel View is shown below.



Status Display

The LCD screen displays current information about the machine. Most screens are displayed the same as they appear locally at the panel.



The date and time are not shown on the AUTOPILOT panel view because the actual date and time of the clock in the module is not sent to the BaseStation2-SM during an update.

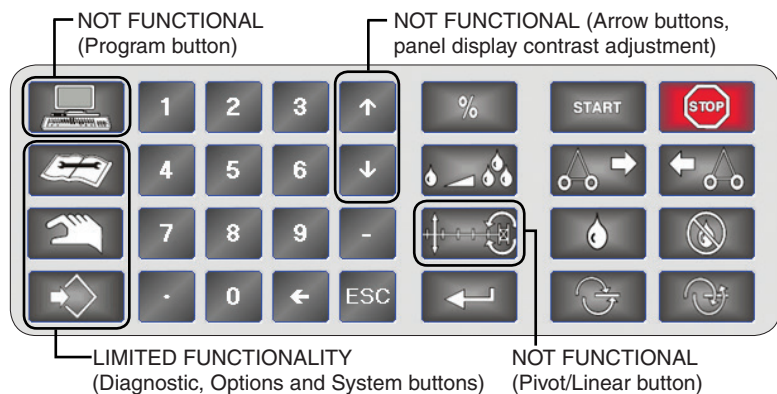
The AutoPilot module's date and time can be read and/or set through the AUTOPILOT panel view menus in the same manner as at the panel.

Keyboard Buttons

Keyboard buttons function the same as they do locally at the control panel except for the Program, Arrow and Pivot/Linear buttons which are not functional.

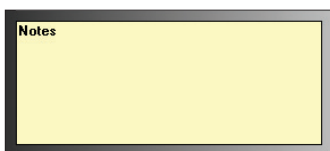
The System, Options and Diagnostics buttons have limited functionality.

Refer to AutoPilot Control Panel Owners Manual for information on other functions.



Notes

An area to enter notes for this machine.



Listed below are the Diagnostics, Options and System functions that are not available through BaseStation AutoPilot Panel View.

<u>DIAGNOSTICS</u>	<u>OPTIONS</u>	<u>SYSTEM</u>
• ERROR LOG	• MODULE	• TRANSMIT
	• END -GUN	• MODULES
	• WIDE BND	• MOISTURE
	• PIVOT/LINEAR	• POSITION
	• REGION	• FLOWMETER
		• RTU ID
		• ENGINE/PUMP
		• COM PORT
		• PRES CAL
		• PRES TYPE
		• BACKLIGHT
		• MOISTURE
		• SYSTEM TYPE

AutoPilot Panel View (Continued)

Signal Strength

Signal Strength
Base
Excellent
Remote
(No Data)


Signal strength of the BaseStation and remote DATARADIOS are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.

Signal Strength
Signal Strength

Signal strength of the last communication from the remote SSR Link is displayed when the Signal Strength button is clicked. The Base Setup Radio must be SSR Link to view.

Alarm Status

Shutdown
Alarms



The alarm condition is shown in the Alarm status box. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

- Shutdown - Displays fault conditions that caused the machine to stop.
- Alarms - Displays alarm conditions.
 - Start, Stop, Direction, Water, No Response, Stop in Slot, Aux1 Out, Aux2 Out, Aux1 In, Aux2 In, and Restart are indicators of machine status conflicts with the commanded condition known by the BaseStation. See Remote Setup for Alarm definitions.
- Isolated Display of the Map Item associated with this control panel view.

Last Update

Last Update
7/18/2006
03:24 PM

The BaseStation computer date and time of the most recent status update. Note: Periodically verify the AutoPilot module Date and Time to coordinate the BaseStation time with the AutoPilot module. This is important when writing Stored programs for the AutoPilot module based on Date/Time and for reviewing the AutoPilot module history screens. When the Update button is clicked, the BaseStation sends the computer's date and time to the AutoPilot module. The BaseStation computer time and date is NOT sent to the module during the Polling activity.

Notice Event

Notice Event
8/18/2006
02:32 PM
STATUS
Run/stop

Displays Notice Event messages sent to the BaseStation.

Control Buttons

Update

- Click the Update button to send the remote machine a request for an update on the current status of the machine.

Send

- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.

Cancel

- Click the Cancel button to cancel any changes before you click the Send button.

Clear Alarms

- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

Quit

- Click the Quit button to close the control panel view screen.

Remote Locked

REMOTE LOCKED

Remote control is inhibited, remote monitoring is active only:

- Relay Output commands from the BaseStation WILL NOT be executed.
- Status message is sent when requested.

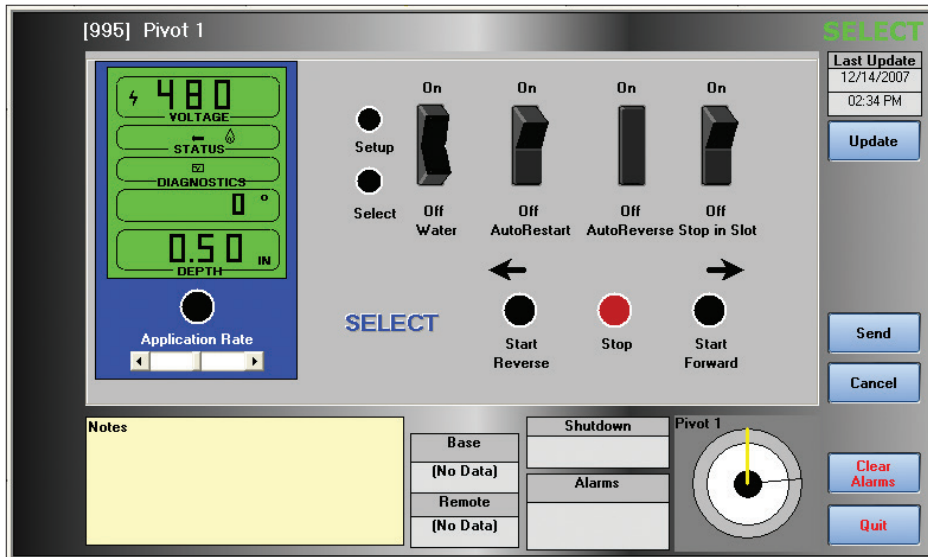
Notice Event
7/15/2008
10:13 AM
Tx TEST

The Notice Event will display **Tx TEST** on the status line and the date and time that the Remote Locked was activated as shown.

OVERVIEW

Select Panel View

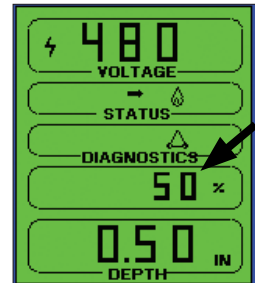
Refer to the SELECT Owners Manual for a complete description of the module features. The Select panel view is shown below. The AutoRestart, AutoReverse, and Stop in Slot buttons are not functional and DO NOT indicate how they are set in the field.



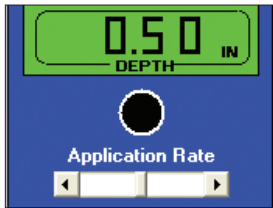
Status Display

The LCD screen displays current information about the machine. The fourth line down on the LCD screen sequences through current position, pressure, and percent timer values. Click on the Select button to manually step through these values.

The hours per revolution, wet hours, and total hours are not included in the current status information returned with the status update, so they are not included in the status display.



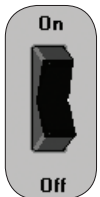
Command Buttons



- Application Rate - Click the knob image to enter the depth using the keyboard or click and slide the scroll bar to change the depth of water application.

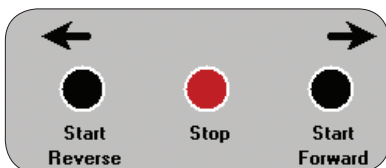
NOTE •The following functions can only be controlled at the control panel, they cannot be controlled in Select Panel View at the BaseStation:

- Setup
- AutoRestart
- AutoReverse/AutoStop
- Stop In Slot



- Water On - Set the Water mode to on.

- Water Off - Set the Water mode to off.



- Start Reverse - Set the machine to Running in Reverse direction.

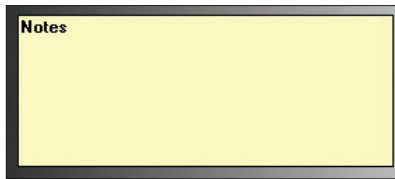
- Stop - Set the machine to Stop.

- Start Forward - Set the machine to Running in Forward direction.

Select Panel View (Continued)

Notes

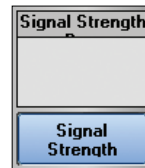
An area to enter notes for this machine.



Signal Strength

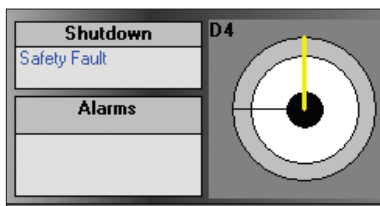
Base
Excellent
Remote
(No Data)

Signal strength of the BaseStation and remote DATARADIOS are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.



SSR LINK - Signal strength of the last communication from the remote SSR Link is displayed when the Signal Strength button is clicked.

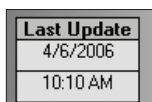
Alarm Status



The alarm condition is shown in the Alarm status box. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

- Shutdown - Displays fault conditions that caused the machine to stop.
- Alarms - Displays alarm conditions.
- Start, Stop, Direction, Water, Speed, Stop in Slot, Aux, and No Response are indicators of machine status conflicts with the commanded condition known by the BaseStation. See Remote Setup for Alarm definitions.
- Isolated Display of the Map Item associated with this control panel view.

Last Update



The BaseStation computer date and time of the most recent status update.

Control Buttons



- Click the Update button to send the remote machine a request for an update on the current status of the machine.



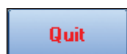
- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.



- Click the Cancel button to cancel any changes before you click the Send button.



- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

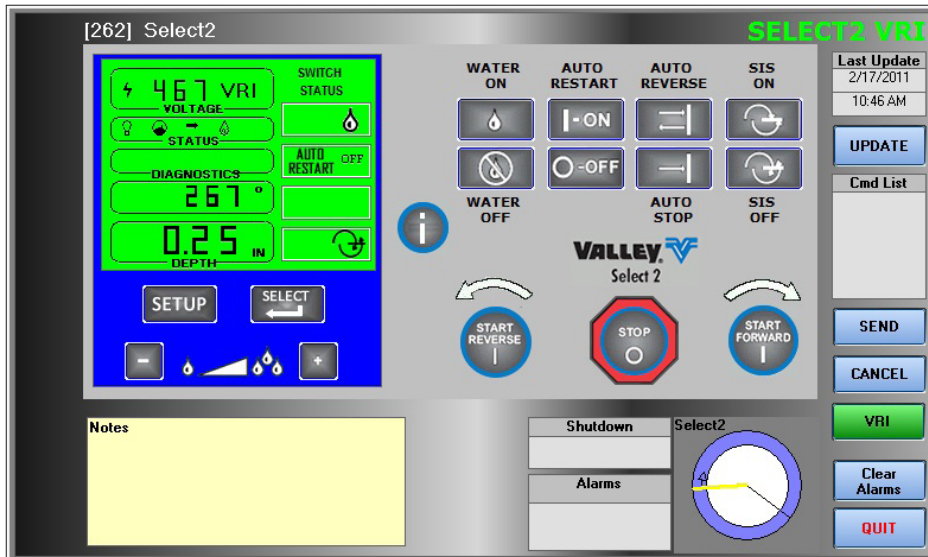


- Click the Quit button to close the control panel view screen.

OVERVIEW

Select2 Panel View

Refer to the Select2 Owners Manual for a complete description of the module features. The Select2 panel view is shown below.



Status Display

The LCD screen displays current information about the machine. The fourth line down on the LCD screen sequences through current position, pressure, and percent timer values. Click on the Information button to manually step through these values.

The hours per revolution, wet hours, and total hours are not included in the current status information returned with the status update, so they are not included in the status display.

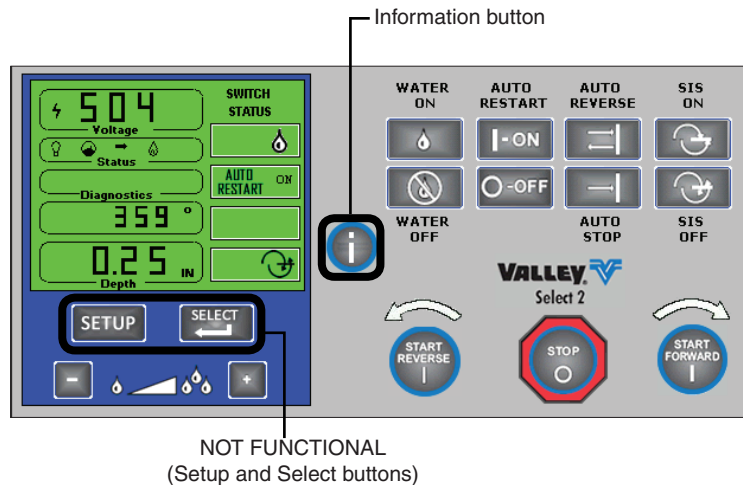
Keyboard Buttons

Keyboard buttons function the same as they do locally at the control panel except for the Setup and Select buttons which are not functional.

Refer to Select2 Control Panel Owners Manual for information on other functions.

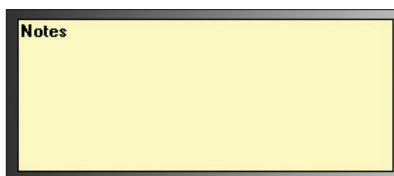
NOTE

- If Auto Reverse/Auto Stop is disabled, it can only be enabled at the control panel in the field.



Notes

An area to enter notes for this machine.



Select2 Panel View (Continued) Signal Strength

Base
Excellent
Remote
(No Data)

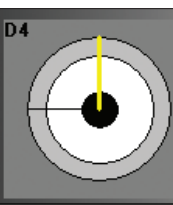
Signal strength of the BaseStation and remote DATARADIOS are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.

Signal Strength
Signal Strength

SSR LINK - Signal strength of the last communication from the remote SSR Link is displayed when the Signal Strength button is clicked.

Alarm Status

Shutdown
Safety Fault
Alarms



The alarm condition is shown in the Alarm status box. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

- Shutdown - Displays fault conditions that caused the machine to stop.
- Alarms - Displays alarm conditions.
- Start, Stop, Direction, Water, Speed, Stop in Slot, Aux, and No Response are indicators of machine status conflicts with the commanded condition known by the BaseStation. See Remote Setup for Alarm definitions.
- Isolated Display of the Map Item associated with this control panel view.

Last Update

Last Update
4/6/2006
10:10 AM

The BaseStation computer date and time of the most recent status update.

Control Buttons



- Click the Update button to send the remote machine a request for an update on the current status of the machine.



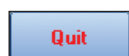
- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.



- Click the Cancel button to cancel any changes before you click the Send button.



- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.



- Click the Quit button to close the control panel view screen.

OVERVIEW

Select2 Panel View (Continued)

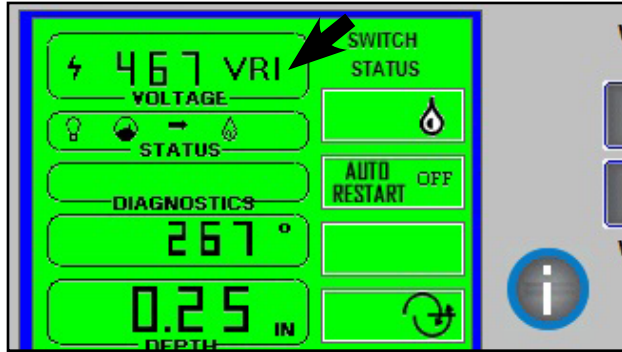
Variable Rate Irrigation

The Variable Rate Irrigation(VRI) features are enabled in Remote Setup.

When VRI is ON, VRI is displayed in the status screen.



Click the VRI button to display the VRI Command screen for Speed Control.

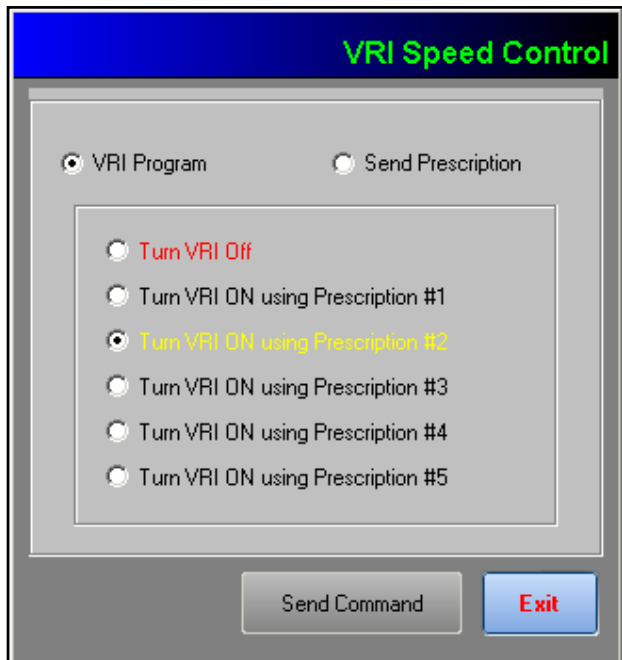


Select2 Status Screen

There are two VRI Command screens. Click the VRI Program radio button or Send Prescription radio button to toggle between screens.

Use the VRI Program screen to:

- Turn VRI OFF
 - (a) Select the Turn VRI Off radio button
 - (b) Click the Send Command button.
- Turn VRI ON using one(1) of up to five(5) VRI prescriptions stored in control panel.
 - (a) Select one of the Turn VRI ON using Prescription radio buttons. The current program running is highlighted in yellow.
 - (b) Click the Send Command button.



VRI Program Screen

Use the Send Prescription screen to:

- Upload up to 5 different Speed prescriptions to the control panel from the BaseStation computer or a network.
 - (a) Click the Browse button to select the VRI prescription to upload to the control panel.
 - » Speed prescriptions are internally coded as Prescription #1, 2, 3, 4 or 5 outside of BaseStation using the Prescription Loader application.
 - » Speed Control file names are followed by ".speed"
 - (b) Click the Send Command button.

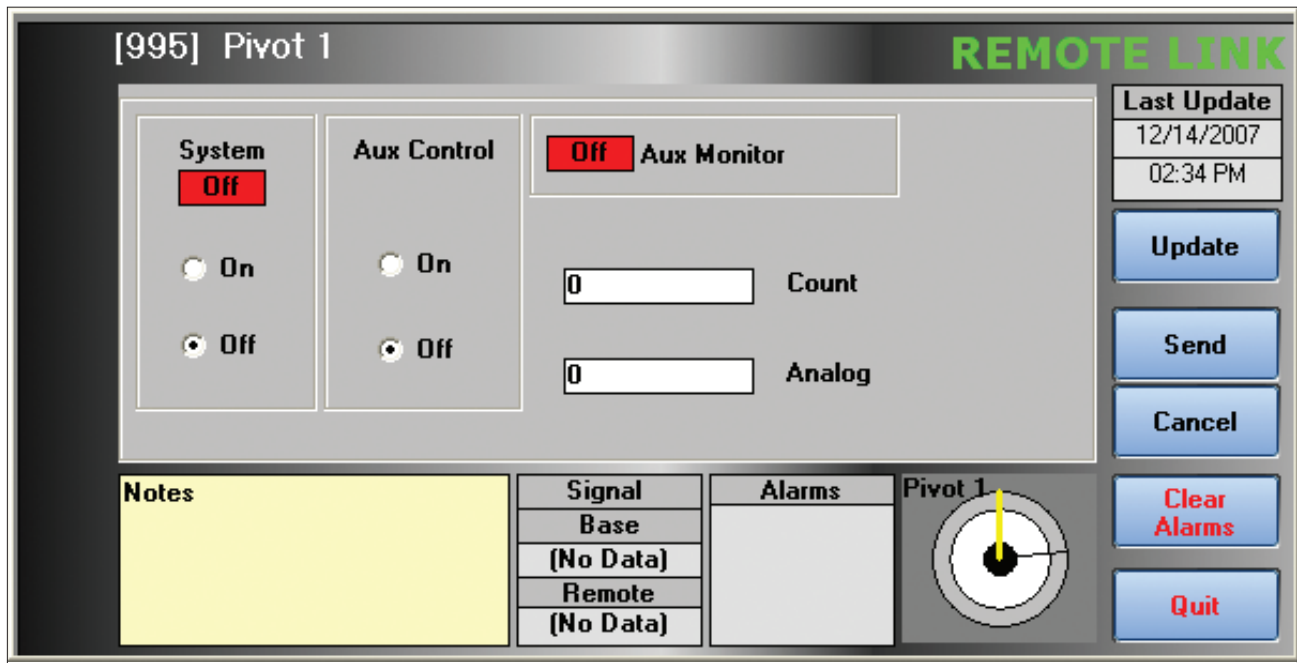


VRI Send Prescription Screen

Remote Link Panel View

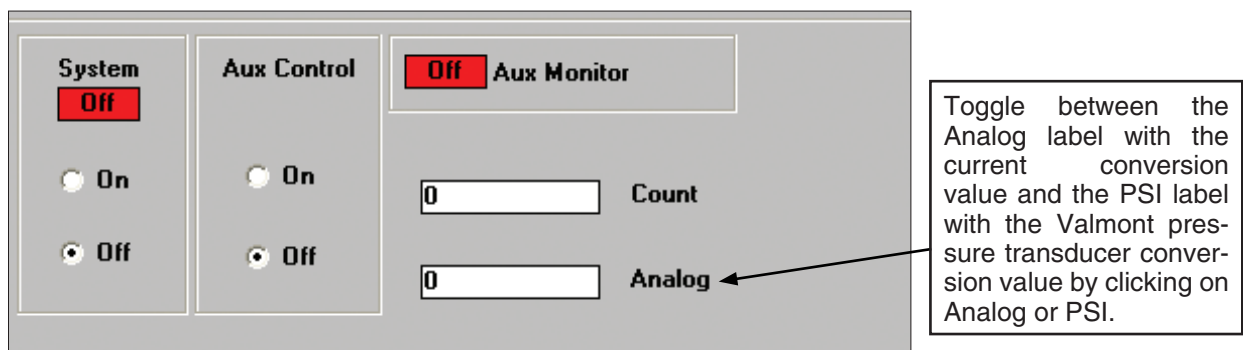
Refer to the REMOTE LINK Owner's Manual for a complete description of the product features.

The Remote Link Panel View shown below is for use with a standard panel, pump, or other device using relay input/output. When a Remote Link is connected to a Pro2, Pro, or Select control panel with a serial cable choose the panel view that matches the control panel.



Command Buttons

- System Monitor - Status of the On/Off system monitor relay.
- System On - Set the Run mode to On.
- System Off - Set the Run mode to Off.
- Auxiliary On - To close the relay's output contact, set the Auxiliary relay to On.
- Auxiliary Off - To open the relay's output contact, set the Auxiliary relay to Off.
- Auxiliary Monitor - Status of the Auxiliary In sense relay on the Remote Link board.
- Count - Monitor the digital pulse count value from the Remote Link board.
- Analog/PSI - Monitor the analog voltage value from the Remote Link board or the PSI measured by the pressure transducer.



OVERVIEW

Remote Link Panel View (Continued)

Notes

An area to enter notes for this machine.



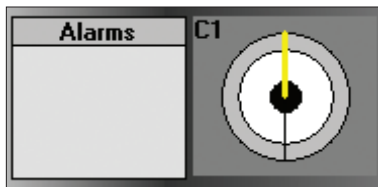
Signal Strength

Signal
Base
Excellent
Remote
(No Data)

Signal strength of the BaseStation and remote DATARADIOs are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.

Signal strength for other radio types is not shown.

Alarm Status



- Displays alarm conditions. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.
- Start, Stop, Aux 1 In, Aux 1 Out, and No Response are indicators of machine status conflicts with the commanded condition known by the BaseStation. See Remote Setup for Alarm definitions.
- Isolated display of the Map Item associated with this control panel view.

Last Update

Last Update
10/23/2000
01:00 PM

The BaseStation computer date and time of the most recent status update.

Control Buttons



- Click the Update button to send the remote machine a request for an update on the current status of the machine.



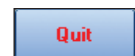
- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.



- Click the Cancel button to cancel any changes before you click the Send button.



- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

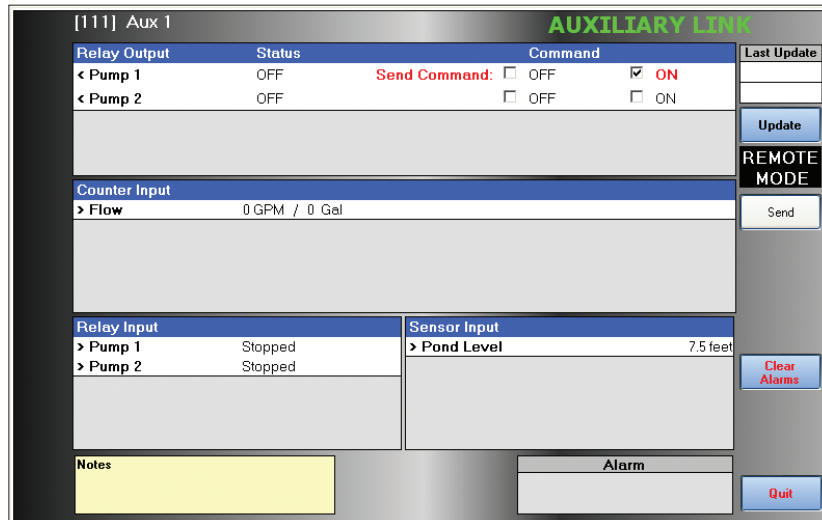


- Click the Quit button to close the control panel view screen.

Auxiliary Link Panel View

The devices connected to the Auxiliary Link are assigned with name labels, status labels, units of measurement, and unit conversion factors in the Remote Setup form.

The Auxiliary Link panel view is shown below:



Status Display

Relay Output

The Relay Output group shows the last known status of the Auxiliary Link output relays that are used for controlling devices attached to the panel. The Relay Outputs function as On/Off switches for relays in the panel. The device names, status labels, and command labels are the labels that have been defined in the Remote Setup for the Auxiliary Link.

- The Relay Output column lists the device(s) that have been configured.
- The Status column shows the last known state of the Auxiliary Link output signal.
- The Command columns are the control interface to change the state of the output. When a command box is checked, the “Send Command” label is shown and the command is highlighted. The command will be sent to the Auxiliary Link panel when the Send command button is clicked.

Note: The Relay Output status is the state of the Auxiliary Link output signal. The position of the front panel switch (or any other control that has been added to the panel) is not accounted for by the Relay Output status but can be shown by the Relay Input status when wired at the control panel to do so.

Counter Input

The Counter Input group shows the last known status of the Auxiliary Link counter inputs. Each device configured in the Remote Setup for the Auxiliary Link is shown according to its device name and units of measurement that have been defined. The rate is shown first, followed by the total, if the total has been selected in the Remote Setup form. Each counter can be configured to show rate only or both a rate and a total. For example, a wind speed sensor would show rate only and a flowmeter would show both rate and total.

Relay Input

The Relay Input group shows the last known status of the Auxiliary Link relay inputs. Each device configured in the Remote Setup for the Auxiliary Link is shown according to its device name and labels that have been defined.

Sensor Input

The Sensor Input group shows the last known status of the Auxiliary Link analog inputs, both mA and voltage types. Each device configured in the Remote Setup for the Auxiliary Link is shown according to its device name and units of measurement that have been defined.

OVERVIEW

Auxiliary Link Panel View (Continued)

Notes

An area to enter notes for this machine.

Notes

Signal Strength

Signal Strength	
Base	Excellent
Remote	(No Data)

Signal strength of the DATARADIOs at the Base and the Remotes are displayed. DATARADIO Diagnostics must be enabled, the BaseStation and remote DATARADIO IDs must be entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup must have a DATARADIO type selected.

Signal strength for other radio types is not shown.

Alarm Status

Alarm

Displays alarm conditions. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

Last Update

Last Update

The BaseStation computer date and time of the most recent status update.

Control Buttons

Update

- Click the Update button to send the remote machine a request for an update on the current status of the machine.

Send

- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.

Clear Alarms

- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

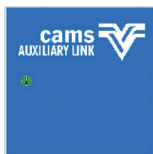
Quit

- Click the Quit button to close the control panel view screen.

Remote/Local Mode



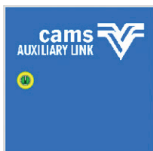
Panel View



Map View - Remote Mode



Panel View



Map View - Local Mode

Panel power/mode switch is in Remote Position:

- Relay Output commands from BaseStation WILL be executed.
- Status message is sent when requested.

Panel power/mode switch is in Local Position:

- Relay Output commands from BaseStation WILL NOT be executed.
- Status message is sent when requested.

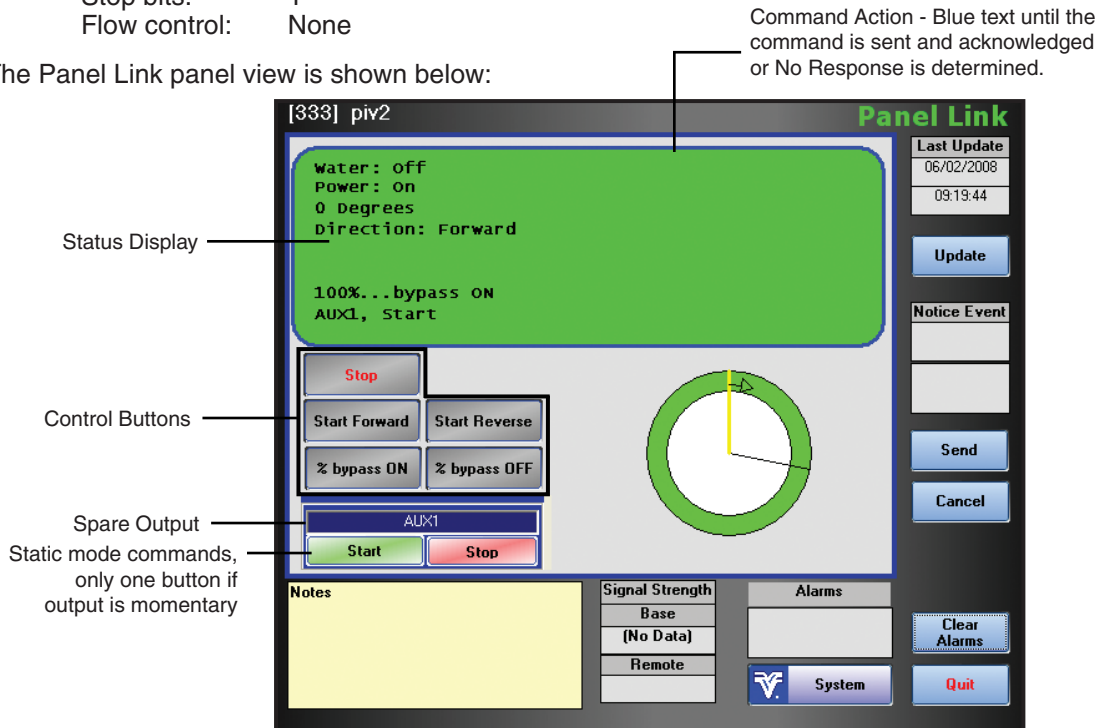
Panel Link Panel View

The devices connected to the Panel Link are assigned with name labels, status labels, units of measurement, and unit conversion factors in the Panel Link configuration form. The Panel Link must be configured before it can be used. Open the Panel Link configuration form by clicking on the System button in the panel view.

Radio communication settings should be:

Bits per second: 9600
 Data bits: 8
 Parity: None
 Stop bits: 1
 Flow control: None

The Panel Link panel view is shown below:



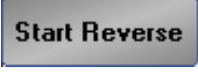
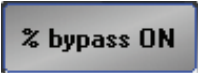
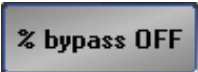


Status Display

Status Display shows the last known machine status at the time and date shown in the Last Update box.

Control Buttons

Control buttons are used to send commands to the machine and to configure the BaseStation2-SM with the remote panel. The control buttons represent commands that include Stop, Start Forward, Start Reverse, % bypass ON, and % bypass OFF.

- 
 - Sends a command to the machine to stop. The operator must click the Send button to relay the signal to the machine.
- 
 - Sends a command to the machine to start in the forward position. The operator must click the Send button to relay the signal to the machine.
- 
 - Sends a command to the machine to start in the reverse position. The operator must click the Send button to relay the signal to the machine.
- 
 - Acts as a switch to bypass the pivot panel percent timer and run the machine at 100%. This does not change the machine timer setting. The operator must click the Send button to activate the setting.
- 
 - Acts as a switch to return the pivot panel's percent timer as the active timer. The operator must click the Send button to activate the setting.

OVERVIEW

Panel Link Panel View (Continued)

Notes

An area to enter notes for this machine.

Notes

Signal Strength

Signal Strength
Base
(No Data)
Remote
(No Data)

Signal strength of the BaseStation and remote DATARADIOS are displayed when DATARADIO Diagnostics is enabled, the BaseStation and remote DATARADIO IDs are entered, and the BaseStation DATARADIO setup port is connected to the BaseStation computer. The Base Setup Radio must be DATARADIO to view.

Signal strength for other radio types is not shown.

Alarm Status

Alarms

Displays alarm conditions. The various alarm conditions indicate changes that are different from what the BaseStation has commanded.

Last Update

Last Update

The BaseStation computer date and time of the most recent status update.

Control Buttons

Update

- Click the Update button to send the remote machine a request for an update on the current status of the machine.

Send

- Click the Send button to send user requested machine operation changes to the remote. Any changes you make to the operation of the machine will show on the control panel view screen in blue text until the change is sent or canceled.

Cancel

- Click the Cancel button to cancel any changes before you click the Send button.

Clear Alarms

- Acknowledges the alarm conditions detected by the BaseStation. The alarms are reset and the current status is used as a new reference for the next status update.

Quit

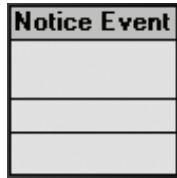
- Click the Quit button to close the control panel view screen.

NOTE

- If the machine is not equipped with Auto Reverse, the operator will not be able to use the BaseStation control panel to change the direction of the machine. The operator will have to go to the field panel to change the direction of the machine.
- If the machine is equipped with Auto Reverse, then the control panel in the field must be setup for Auto Reverse for the operator to be able to use the BaseStation control panel to change the direction of the machine. The field control panel cannot be setup for Auto Stop.

Panel Link Panel View (Continued)

Notice Event



Displays Notice Event messages sent to the BaseStation.

Remote Locked



Panel power/mode switch is in Local Position:

- Relay Output commands from BaseStation WILL NOT be executed.
- Status message is sent when requested.
- The Panel Link panel view SEND button is disabled.

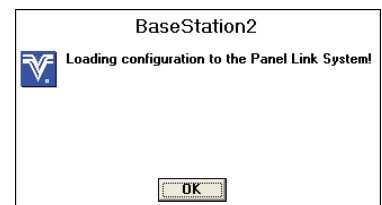


- Clicking on the System button opens the Panel Link configuration form for setting up the Panel Link hardware in the field.

Panel Link Configuration

Panel Link Configuration is used to configure the Panel Link settings. This includes the machine type, output relays, input switches, and the analog inputs. Panel Link configuration can be accessed by clicking on the System button in the panel view.

When exiting from the Panel Link Configuration window another window will pop up on top of the Panel Link window to let the user know that the configuration from the BaseStation is being sent to the Panel Link in the field.



Configuration - Identification

Identification is used to configure the position calibration switches. The pivot speed and length, the number of callout tries, and the store and forward RTU ID are documented within this screen.

RTU ID: Three digit machine ID.

Machine Type: Pivot is the only type available.

Position Type: None - Position sensor hardware is not being used.

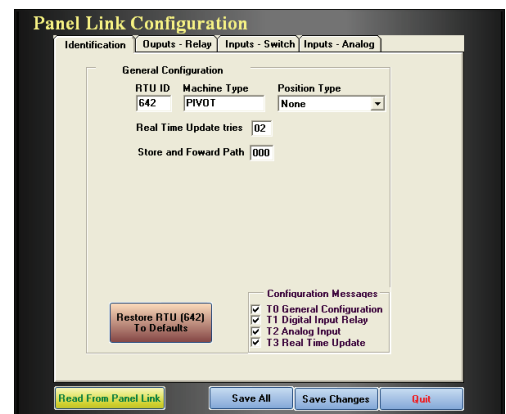
Timing - Used to calibrate and sense the position of the machine.

GPS - Reserved for future use with a GPS

system.

Real Time Update tries - The number of times that the Panel Link will send a RTU message to the base.

Store and Forward Path - The RTU ID of an intermediate machine for the message to reach the base. Leave blank to communicate directly to the unit.



OVERVIEW

Panel Link Panel View (Continued)

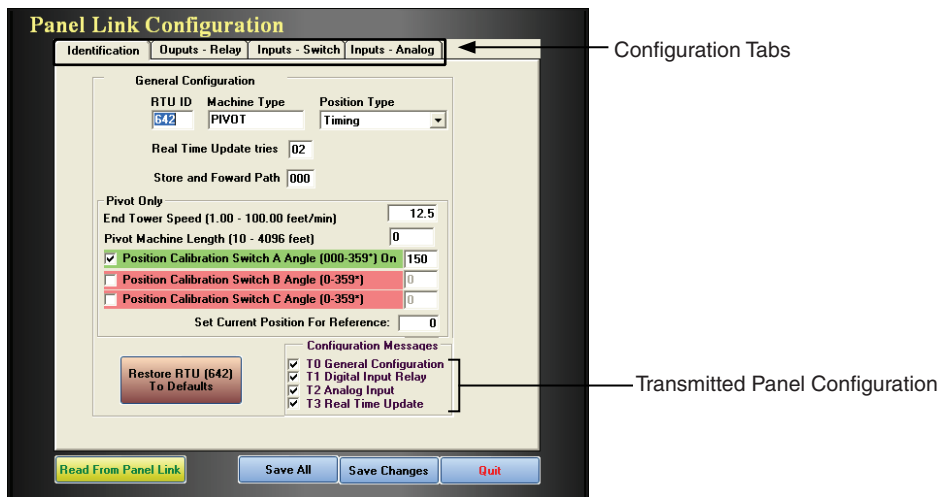
The configuration buttons listed below are used within all four configuration tabs:

Read From Panel Link

- When opening the Panel Link Configuration window, none of the configuration tabs are active until the Read From Panel Link button has been pressed. After the button is pressed, each of the Transmitted Panel Configuration boxes will receive a check mark as the information is processed. The BaseStation is receiving and transmitting data from the Panel Link configured in the field. If any one of the boxes is not checked, then the information was not received complete. The Read From Panel Link button will have to be pressed again.

Restore RTU (642) To Defaults

- Restore RTU To Defaults will send factory default configuration values to the Panel Link and save the default information to the BaseStation2-SM database. The RTU ID is not changed.



The configuration tabs will not be active until all four boxes of the Transmitted Panel Configuration are checked.

Save All

- Use the Save All button the first time the Panel Link is configured. The Save All button will save the entire configuration to the Panel Link. If the Panel Link is not performing correctly after using the Save Changes button, then open the Panel Link Configuration and click on the Save All button. The user will be returned to the Panel Link panel view after clicking on the button.

Save Changes

- Use the Save Changes button to save the Configuration tab that is currently being modified. Clicking this button will not save the rest of the Configuration tabs unless each tab is saved individually. The user will be returned to the Panel Link panel view after clicking on the button.

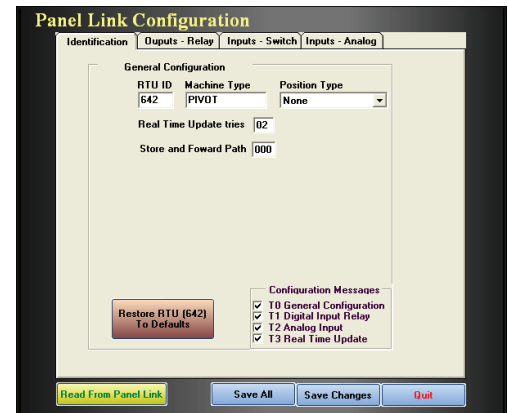
Quit

- Click the Quit button to close the control panel view screen and to return to the Panel Link panel view.

Panel Link Panel View (Continued)

Position Type - None

No machine type constants need to be updated if there is no position sensor hardware used.



Position Type - Timing

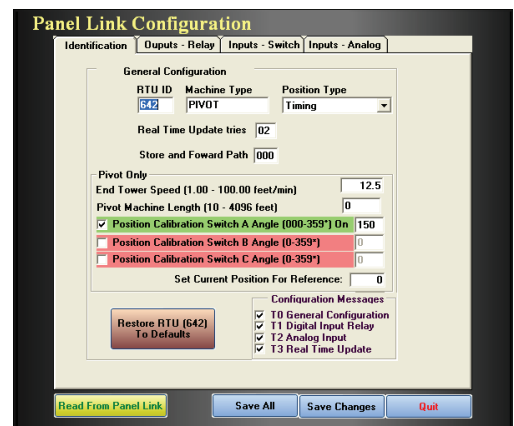
End Tower Speed (feet/min) must be entered.

Pivot Machine Length (feet) must be entered.

Pivot Calibration Switches are used for calibrating the machine at specified locations around the field. The Panel Link will calculate an approximate field location using System Speed and Pivot Machine Length input by the operator. Click on the check box to turn the pivot calibration switch on. Enter the angle of the location of the switch. When the switch is active the Panel Link will set its internal position calculation to the angle specified for the corresponding switch.

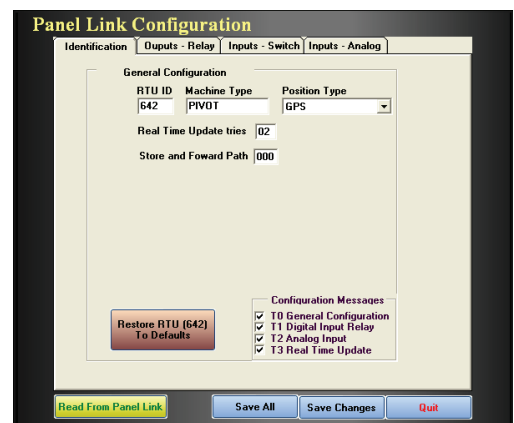
Click the Save All or Save Changes button to retain the changes.

Click the Quit button to return to the panel display.



Position Type - GPS

Reserved for future use. The Panel Link will calculate the actual machine position based on GPS data received from the GPS antenna mounted on the span.



OVERVIEW

Panel Link Panel View (Continued) Configuration - Relay Outputs

Relay Outputs is used to configure the relay momentary on times and one additional user-defined auxiliary relay.

The operator can increase or decrease the momentary on time (in seconds) of the Start, Forward, Reverse, Stop (Safety), Stop (Stop In Slot), and Pressure Bypass relays. The relay momentary on time default for all of the relays except the Pressure Bypass relay is 2 seconds. The Pressure Bypass relay momentary on time default is 600 seconds. The maximum relay momentary on time is 5000 seconds.

By clicking on the Momentarily On box of %Timer Bypass the bypass can be turned momentarily on with a time (in seconds) constant. This is optional.

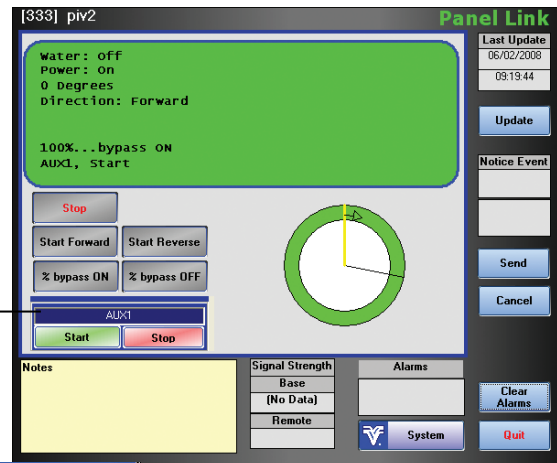
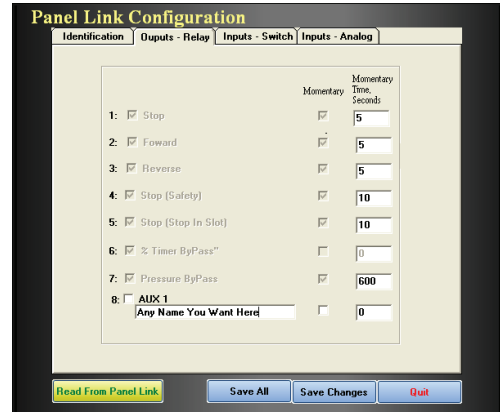
The AUX1 relay can be activated by clicking on the check box as shown above. Activating the relay causes the Panel Link display to add an additional button display as shown below.

The AUX1 relay can be renamed by typing in the space provided. The Momentary On time (in seconds) can be increased or decreased as needed.

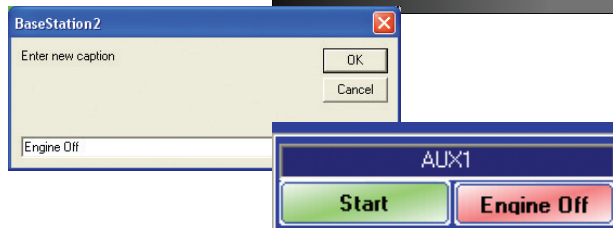
During power off conditions and after a power on reset, all outputs are set to their "normal" or non-energized position.

Click the Save All or Save Changes button to retain the changes.

Click the Quit button to return to the panel display.



AUX1 relay button display



The AUX1 buttons can be renamed for the application.

- Right click on either AUX1 button to view the pop-up window to rename the button.
- Click OK when the name has been typed.

The new button will be shown similar to the button display above.



- Front panel button display if the Momentary On is selected within the configuration menu for the Aux1 relay.

Panel Link Panel View (Continued)

Configuration - Switch Inputs

Switch Inputs is used to configure the digital input trigger times, enable real time updates, and the display statements for the On or Off states of the inputs. Digital inputs 1-7 are 120 VAC inputs. This system constant is primarily for informational purposes only.

Digital inputs 1, 2, 3, and 7 are dedicated to the pivot operations.

Digital inputs 4, 5, and 6 are reserved for position sense switches. Any data placed in these digital inputs will be overridden by the timer switches.

Click the Real Time Update button to have the information sent to the BaseStation2-SM. The digital input trigger time is adjustable between 0 seconds and 99 minutes and 59 seconds (shown as 99:59). An entry of 99 minutes and 0 seconds will disable the reporting of changes to that input.

Click the Save All or Save Changes button to retain the changes.

Click the Quit button to return to the panel display.

Configuration - Analog Inputs

Analog Inputs is used to configure the analog input devices: pressure and volts.

Pressure Sensor - The low and high settings are the operational pressure settings. Click on the Pressure Sensor box to initiate the analog input device.

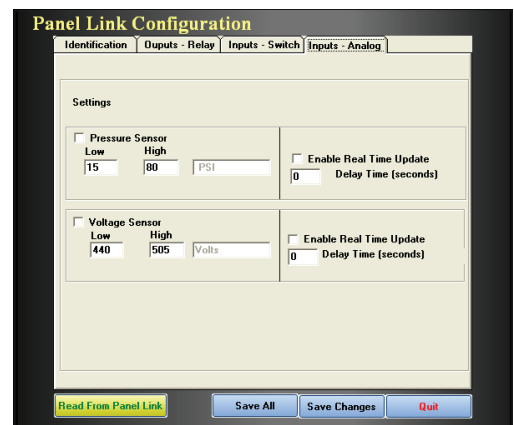
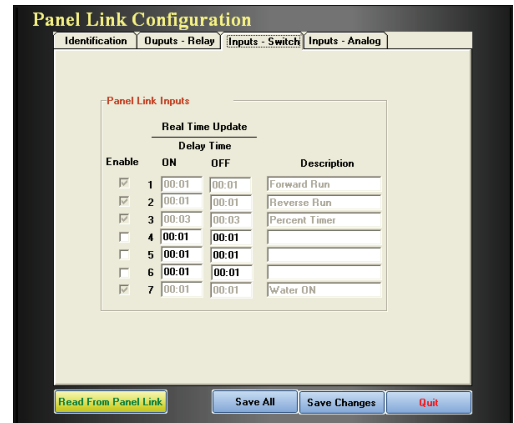
- Click the Enable Real Time Update to have the information sent to the BaseStation.
- Delay Time is the time (in seconds) after the machine's operational pressure has exceeded its limits and an update is sent to the BaseStation.

Voltage Sensor - The low and high settings are the operational voltage settings. Click on the Voltage Sensor box to initiate the analog input device.

- Click the Enable Real Time Update to have the information sent to the BaseStation.
- Delay Time is the time (in seconds) after the machine's operational voltage has exceeded its limits and an update is sent to the BaseStation.

Click the Save All or Save Changes button to retain the changes.

Click the Quit button to return to the panel display.



OVERVIEW

Irrrometer Soil Moisture Monitor Screen

The BaseStation2-SM Soil Moisture Monitor provides a numeric and graphic display of soil moisture information from the WaterGraph software application.

To display the Soil Moisture screen, click on Soil Moisture icon. The Soil Moisture screen is shown below:

The screenshot shows the 'Irrrometer 1' screen in the 'Map Draw' application. The screen displays data for two transmitters: 'East' (11/30/2010 04:51 PM) and 'West' (12/6/2010 04:07 PM). Each transmitter has up to four sensors. The 'East' transmitter shows a temperature of 65 F and three sensors (EE2, EE3, EE4) with color-coded bars representing moisture levels. The 'West' transmitter shows four sensors (WW1, WW2, WW3, WW4) with color-coded bars. A legend at the bottom indicates color codes: Wet (blue), Normal (green), Dry (orange), and Invalid Data (red). Callouts provide detailed information about the interface elements.

Callouts:

- Soil Moisture Icon
- Wireless Monitor RTU ID Name
- Click to view the Irrrometer data collected by BaseStation polling in a line graph. The graph will only be displayed if data exists.
- Last BaseStation status update (Does not coincide with the Last Transmitter Update)
- Click a Tab to View Other Transmitters
- click here for IRRMETER graph
- Last Transmitter Update
- Transmitter Name
- Sensor Name
- Temperature Value
- Numeric Threshold Values
- Numeric Sensor Values
- Graphic Sensor Value
- Arrow Shows Movement From Previous Reading
- The Color Code reflects Numeric Threshold Values
- Color Code

Screen Details

- Only displays current value numerically and graphically
- Up to 16 transmitters can be displayed with up to 4 sensors each.
- The position of the transmitter and sensor name on the screen depends on the physical connection of the sensor to the transmitter in the field.
- The Normal Threshold values are set in BaseStation Remote Setup.
- Temperature values are displayed in Fahrenheit only.
- The BaseStation2-SM version 7.3 or higher program polls the Irrrometer Wireless Monitor for updated information at a frequency set by the user in the BaseStation remote setup screen. Values update only after the wireless monitor has received an update from the transmitter. BaseStation polling checks for, and records, new values received by the wireless monitor.

Alarms

The Soil Moisture Monitor will NOT Call Out, send an Email Message, send a Text Message or produce an Alarm when soil moisture levels are outside of the threshold. Soil Moisture information is NOT available to a user that Calls In or is using Valley Web.

Irrrometer Soil Moisture Monitor Screen (Continued)

History

Only current information is displayed from the WaterGraph database. Any old information is saved in the WaterGraph software application.

OVERVIEW

Valley Web

Valley Web is a web based program that can be used to monitor and/or control remote machines (devices) over the Internet. Valley Web includes 2 applications, one for SmartPhones and the other for computer applications (Larger screen). Access Valley Web with a Smart Phone equipped with a touch screen, an Internet browser and access to the Internet or a Computer with or without a touch screen, equipped with an Internet browser and access to the Internet.

Requirements

To use Valley Web to monitor and/or control a device, Valley Web must be installed and setup on the BaseStation computer or corresponding network computer. The BaseStation or network computer must have a static (recommended) or dynamic I.P. address and uninterrupted Internet access.

Using the Smart Phone Application

NOTE

- To use Valley Web, the BaseStation computer must be on and the BaseStation program must be running.
- The user must have a BaseStation User Name with administrative privileges.
- Valley Web Smart Phone Application does not support Auxiliary Link, Remote Link or Soil Moisture Monitor.

Login Screen

1. Using a Smart Phone go to:
<http://yourbasestationipaddress/vbm>
2. At the Login screen enter your User Name and Password. See figure 80-1-A.
3. Press Login button and the Device List is displayed. See figure 80-1-A.

Device List Screen

Shows the last reported status of each device for all machines or machines in a selected group. See figure 80-1-B.

- Use Group Menu to select and view a different group of devices if applicable.
- Use Map Draw - Edit Name in BaseStation to customize the Device Name so that it fits on the Device button.

STS	Status	Run or Wait = GREEN STP (Stop) = RED
DIR	Direction of travel	FWD (Forward, Green) REV (Reverse, Green)
WTR	Water	ON = GREEN OFF = RED
POS	Position in field	Pivot is displayed in degrees Linear is displayed in feet
ALM	Alarm condition	Normal Condition = GREEN Alarm Condition = RED

- Press a Device button to display the Device Summary for that device. See figure 80-1-B and 80-1-C.

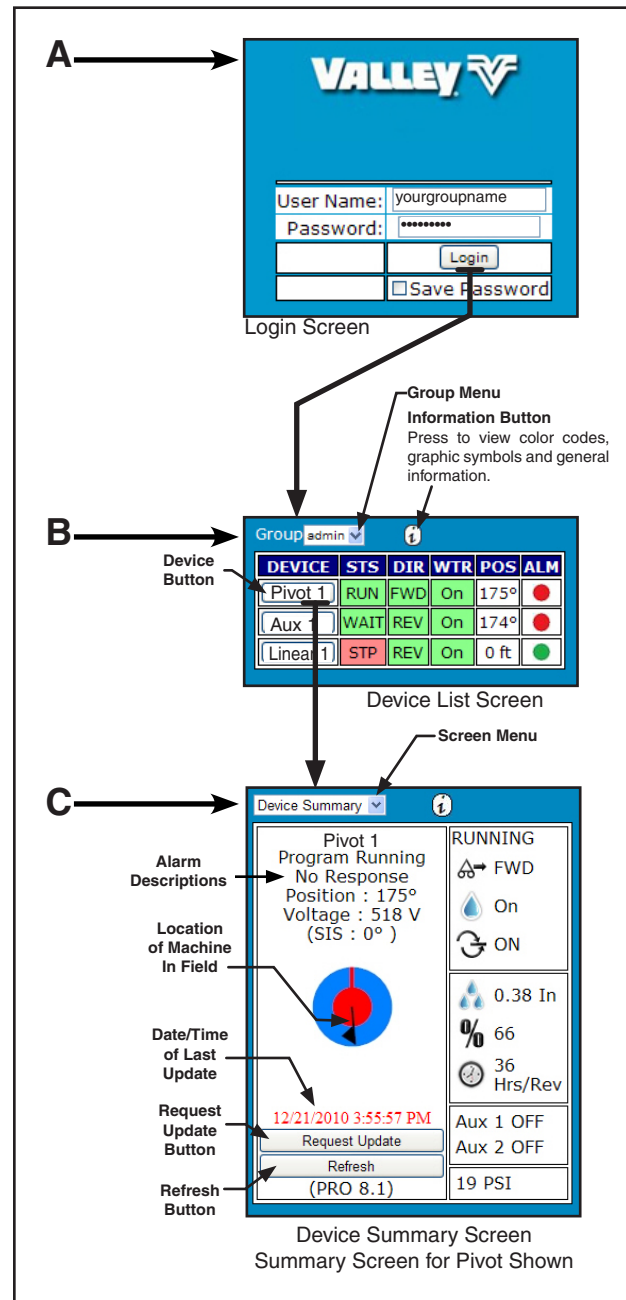


Figure 80-1

Valley Web

Using the Smart Phone Application (continued)

Device Summary Screen

Shows a summary of the last reported status for the selected device. See figure 81-1.

- The information displayed is based on the type of device.
- Use the Screen Menu to select a different screen. See figure 81-1.
- N/A, indicates feature not installed or not applicable.
- All units of measure are displayed in English only. Metric is not available.
- The Device Summary screen does not update automatically.

To update the Device Summary screen:

1. Press the Request Update button. See figure 81-1.
2. Return to the screen a few minutes later and press the Refresh button to view the updated Device Summary. See figure 81-1.

Press the Back button to return to the previous screen.

Screen Menu

Information Button
Press to view color codes, graphic symbols and general information.

Cause of Alarm

Location of Machine In Field

Date/Time of Last Update

Request Update Button

Refresh Button

Device Summary Screen
Pivot Graphic Shown

Back

For best viewing use your phone's Menu-> View-> Fit to Screen

Pivot is always shown as a whole circle even if it is shown as a part circle in BaseStation.

	Gray = Stopped
	Green = Running dry
	Orange = Running dry, Aux 1 ON
	Blue = Running wet
	Cyan = Running wet, Aux 1 ON
	Dark Cyan = Waiting
	Small Red Circle = Alarm condition exists
	Black Line = Machine position
	Black Arrow = Machine direction
	Small Bubble = End gun is ON - Pivot Only
	Running Forward
	Running Reverse
	Stopped
	Water ON
	Water OFF
	SIS ON
	SIS OFF
	Depth
	Percent Timer
	Hours/Rev

Information Screen

Screen Menu

Location of Machine In Field

Date/Time of Last Update

Request Update Button

Refresh Button

Device Summary Screen
Linear Graphic Shown

Figure 81-1

OVERVIEW

Valley Web

Using the Smart Phone Application (continued)

Device Details Screen

Shows a detailed view of the last reported status for the selected device. See figure 82-1.

- The information displayed is based on the type of device.
- N/A, indicates feature not installed or not applicable.
- All units of measure are displayed in English only. Metric is not available.

Diagnostics Screen

Displays diagnostic information for the selected device. See figure 82-2.

- The diagnostic information displayed is based on the type of device.
- N/A, indicates feature not installed or not applicable.
- All units of measure are displayed in English only. Metric is not available.

Send Commands Screen

Use to Send Commands to the selected device. See figure 82-3.

- All units of measure are displayed in English only. Metric is not available.

The selection of available commands is based on the type of control panel.

Pro, Pro2, Select, Select2 and AutoPilot Control Panels

- Status, RUN or STP (stop)
- Direction, FWD (Forward) or REV (Reverse)
- Water, ON or OFF
- SIS (Stop-In-Slot), ON or OFF
- AUX 1, ON or OFF
- Percent, 0% through 100%

Panel Link Control Panel

- Status, RUN or STP (stop)
- Direction, FWD (Forward) or REV (Reverse)
- Water, ON or OFF
- Percent, 0% through 100%

Use the Command Menus to select commands or enter a new percent, then press the Send Command button. See figure 82-3.

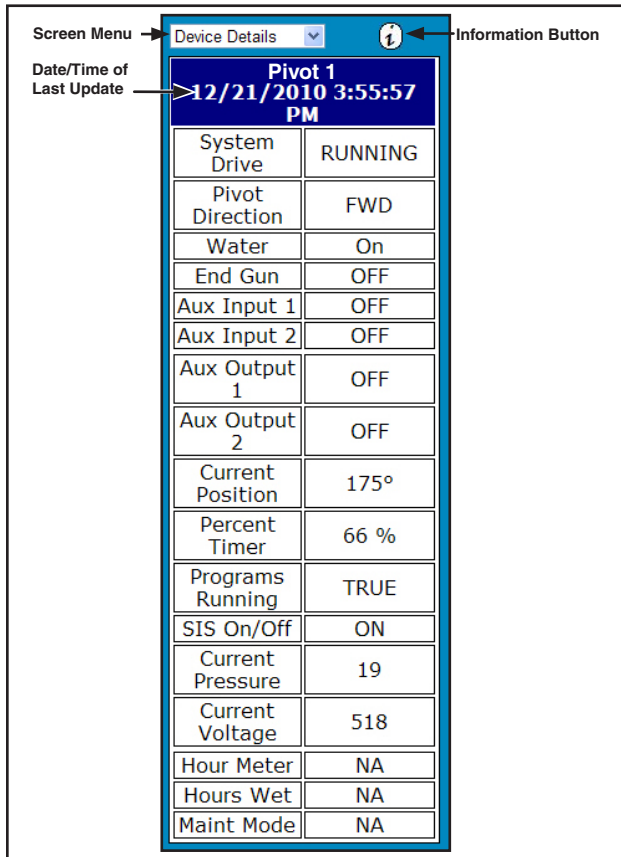


Figure 82-1 Device Details Screen

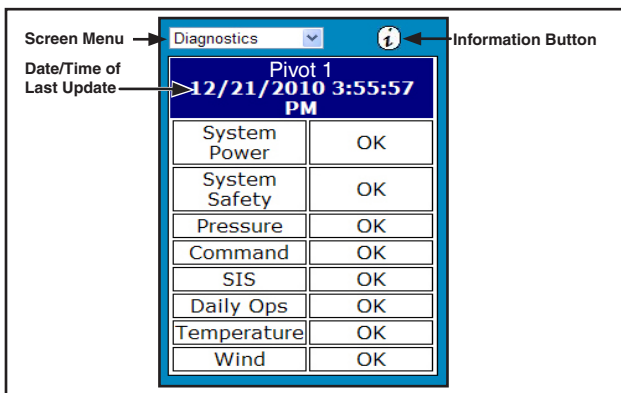


Figure 82-2 Diagnostics Screen

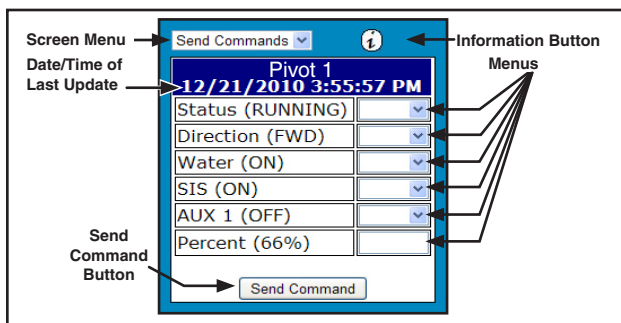


Figure 82-3 Send Commands Screen

Valley Web Using the Computer Application

NOTE

- To use Valley Web, the BaseStation computer must be on and the BaseStation program must be running.
- The user must have a BaseStation User Name with administrative privileges.
- Valley Web Smart Phone Application does not support Auxiliary Link, Remote Link or Soil Moisture Monitor.

Login Screen

1. Using a Computer go to:
<http://yourbasestationipaddress/vbw>
2. At the Login screen enter your User Name and Password. See figure 83-1-A.
3. Press Login button and the Device List is displayed. See figure 83-1-A.

Device List Screen

Shows the last reported status of each device for all machines or machines in a selected group. See figure 83-1-B.

- Use Group Menu to select and view a different group of devices if applicable.
- Use Map Draw - Edit Name in BaseStation to customize the Device Name so that it fits on the Device button.

STS	Status	Run or Wait = GREEN STP (Stop) = RED
DIR	Direction of travel	FWD (Forward, Green) REV (Reverse, Green)
WTR	Water	ON = GREEN OFF = RED
POS	Position in field	Pivot is displayed in degrees Linear is displayed in feet
ALM	Alarm condition	Normal Condition = GREEN Alarm Condition = RED

- Press a Device button to display the Device Status Tab for that device. See figure 83-1-C and 83-1-C.

A Login Screen

User Name: yourgroupname
Password: *****
Login
 Save Password

B Device List Screen

DEVICE	STS	DIR	WTR	POS	ALM
Select2	RUN	REV	ON	105°	●
AUL	STP	REV	ON	0 ft	●
AUX					●
Pro2 8.1	RUN	FWD	ON	55°	●

C Device Status Tab Summary Screen for Pivot Shown

Pro2 8.1
Program Running
Position :55'
Voltage :443 V

RUNNING
FWD ON
OFF
0.25 In
% 100
24 Hrs/Rev

Pressure :19 PSI
EndGun :ON
Aux1In :OFF
Aux2In :OFF
Aux1Out :OFF
Aux2Out :OFF
Prg Running :TRUE

2/11/2011 4:31:06 PM (PRO 8.1)

Refresh Request Update

Figure 83-1

OVERVIEW

Valley Web

Using the Computer Application (continued)

Device Summary Tab

Shows a summary of the last reported status for the selected device. See figure 84-1.

- The information displayed is based on the RTU type of device selected in BaseStation Remote Setup.
- Press a tab to view a different screen. See figure 84-1.
- Pivot Device Summary displayed is based on the RTU type selected in BaseStation Remote Setup.
- Linear Device Summary displayed is based on the RTU type selected in BaseStation Remote Setup.
- Auxiliary 1 Device Summary displayed is based on the Auxiliary Link features setup in BaseStation Remote Setup.
- All units of measure are displayed in English only. Metric is not available.
- The Device Summary tab does not update automatically.

To update the Device Summary Tab:

1. Press the Request Update button. See figure 84-1.

An acknowledgement appears above the button confirming that the Update Command was Sent to Panel.

2. Return to the screen a few minutes later and press the Refresh button to view the updated Device Summary. See figure 84-1.

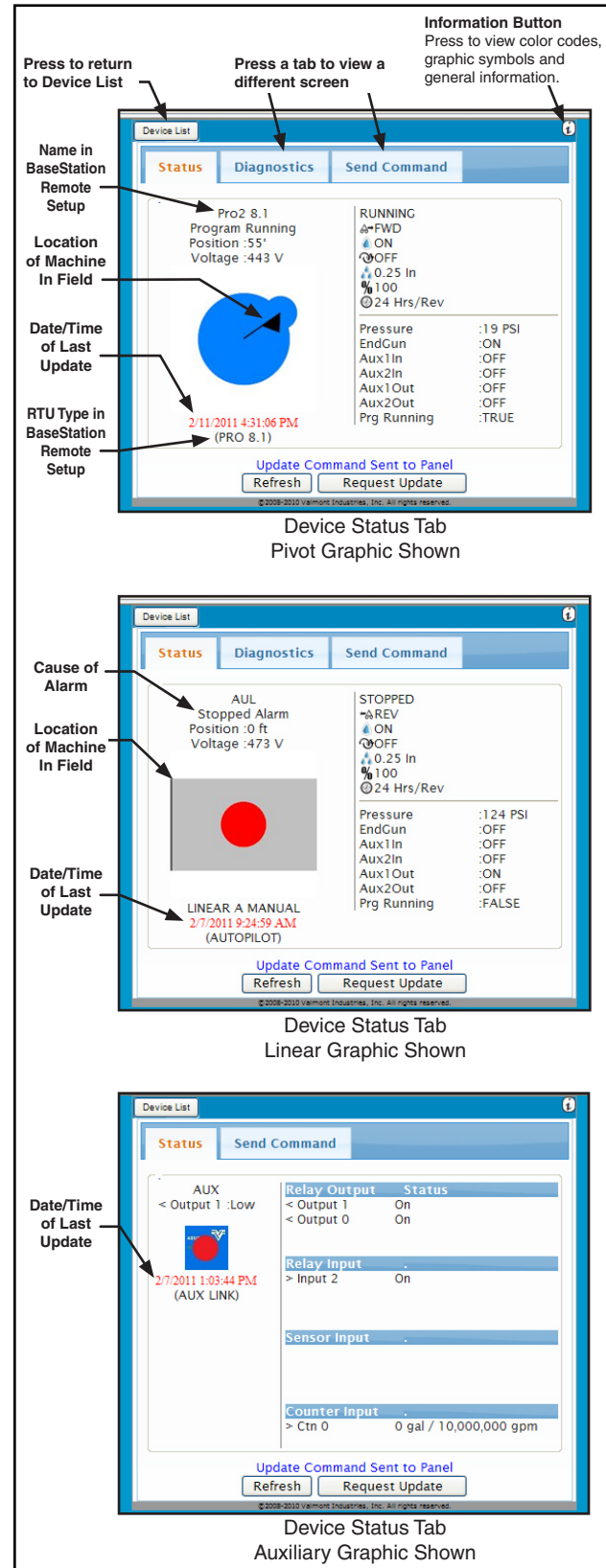


Figure 84-1

Valley Web

Using the Computer Application (continued)

Diagnostics Screen

Displays diagnostic information for the selected device. See figure 85-1.

- The diagnostic information displayed is based on the type of device.
- All units of measure are displayed in English only. Metric is not available.

Send Commands Tab

Use to Send Commands to the selected device. See figure 85-2.

- All units of measure are displayed in English only. Metric is not available.

Pro, Pro2, Select, Select2 and AutoPilot Control Panels

The selection of available commands is based on the RTU type selected in BaseStation Remote Setup.

Use the Command Menus to select commands or enter a new percent, then press the Send Command button. See figure 85-2.

- Status, RUN or STP (stop)
- Direction, FWD (Forward) or REV (Reverse)
- Water, ON or OFF
- SIS (Stop-In-Slot), ON or OFF
- AUX 1, ON or OFF
- Percent, 0% through 100%

Panel Link Control Panel

The selection of available commands is based on the RTU type selected in BaseStation Remote Setup.

Use the Command Menus to select commands or enter a new percent, then press the Send Command button. See figure 85-2.

- Status, RUN or STP (stop)
- Direction, FWD (Forward) or REV (Reverse)
- Water, ON or OFF
- Percent, 0% through 100%

Auxiliary Link Control Panel

The selection of available commands is based on the Auxiliary Link features setup in BaseStation Remote Setup.

Use the Command Menus to select commands or enter values, then press the Send Command button. See figure 85-2.

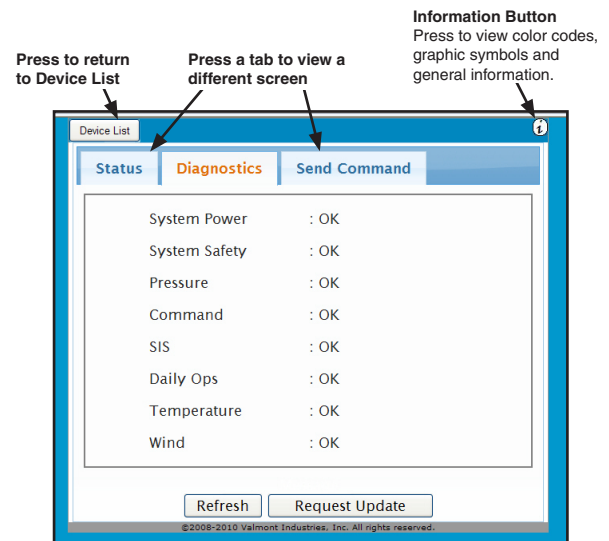


Figure 85-1 Diagnostics Tab
PRO 8.1 Graphic Shown

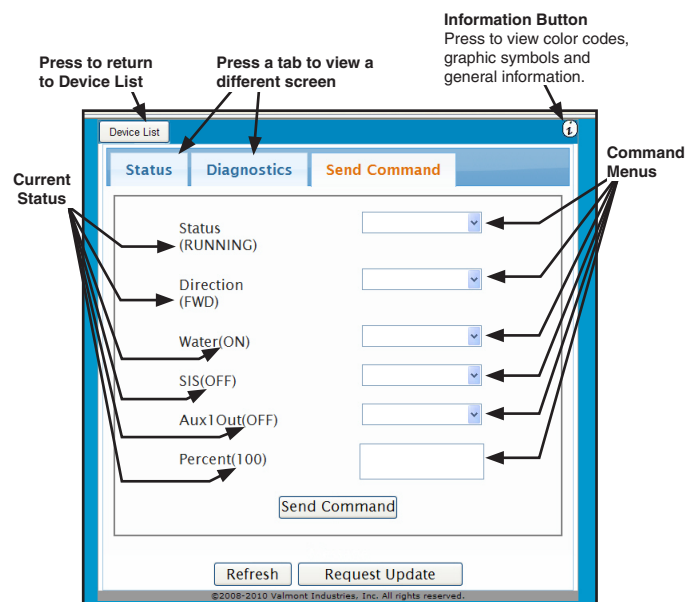


Figure 85-2 Send Command Tab
PRO 8.1 Graphic Shown

OVERVIEW

Valley Web Using the Computer Application (continued)

Information Screen

Displays color codes, graphic symbols and general information related to on screen graphics. See figure 86-1.

Press to go Back to Previous Screen

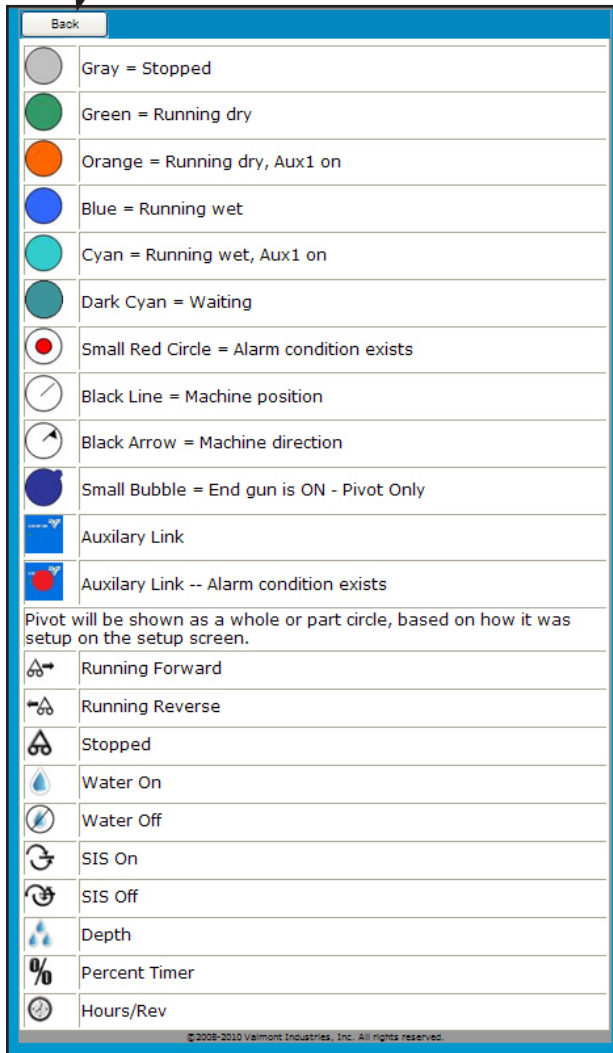


Figure 86-1 **Information Screen**
View color codes, graphic symbols and general information.

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Report

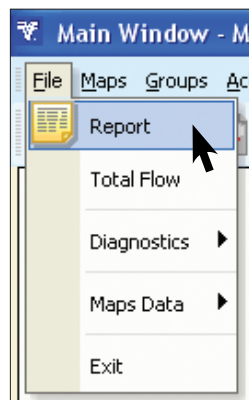
To obtain reports for Pro2, AutoPilot, Pro, Select, Select2, Panel Link, Or Remote Link panels individually, in a selected group, a saved group, or all of the machines, first select the desired machines by individually tagging them with the right mouse button, opening a select group, or using the select all feature. A black ring on a map item indicates that it has been selected.

or

To obtain reports for an Auxiliary Link panel, first select only one Auxiliary Link by individually tagging it with the right mouse button. A black ring on the map item indicates that it has been selected.

NOTE •Select only one machine when generating a report for Auxiliary Links. If multiple Auxiliary Link machines or a machine with a different type panel is tagged, the report feature is disabled. When the Auxiliary Link Export Window is open, all Auxiliary Link remotes are available for inclusion in a report.

After selecting a map item, click on File, then Report on the drop-down menu or click on the Report toolbar button.



OR



Toolbar Button

Reporting options:

- Totals - Time run and water discharge history from remote machine(s).
- Status Change - Status change history from remote machine(s).
- Current Status - Last reported status from remote machine(s).
- Configuration - BaseStation2-SM configuration for remote machine(s).

Auxiliary Link Export window reporting options:

- Configuration - BaseStation2-SM configuration for Auxiliary Link.
- Status Change - Status change history for Auxiliary Link.

MAIN WINDOW

File Menu

Totals Report

The totals logged by the BaseStation2-SM from polling, manual updates, and Real-Time updates for the selected remote(s), for the date range and time period specified. Details of each selected remote are displayed individually in a table with totals on Run Hours, Aux Hours, Wet Hours, Flow Meter(s), and Total Water for each machine. Grand Totals are shown as a sum of all remotes selected. Totals are displayed in millions of units (gallons or liters). Report formulas are determined by the Remote Setup configuration entered for Flowmeter and one of the following three methods:

- None - The sum of the recorded minutes that the machine has been running with water on, multiplied by the discharge rate.
- Water Hours - Uses wet hour meter differential × discharge rate.
- Flow Count - Uses flow meter count differential × flow meter multiplier.

To obtain a Totals Report for Pro, Pro2, AutoPilot, Select, Select2, Panel Link, Or Remote Link panels individually, in a selected group, a saved group, or all the machines, first select the desired machines by individually tagging them with the right mouse button or using a select group or select all feature. A black ring on a map item indicates that it has been selected. Then click on File, then Report on the drop-down menu or click on the Report toolbar button. The report can run slow if a report has not been ran for months or if their are many machines to acquire data from.

1. Click on the Totals radio button to select the Totals Report.
2. Enter a Start Date and Time for the report.
3. Enter an End Date and Time for the report.
4. Click on Run Totals Report to run and display the report in the Reports window.
 - Click on highlighted column headings to exclude the column after the report is generated.
 - Click the Edit Line button to enter a custom report header.
5. If desired, do any of the following:
 - If desired, do one or more of the following:
 - Click on Print to print the report to a default printer.
 - Click on Export to save the report.
 - Click on Exit to close the Reports window.

The screenshot shows the 'Totals Report' window. On the left, there are controls for selecting the report type, setting start and end dates and times, and a list of columns to be displayed. On the right, there is a table with report data and buttons for 'Print', 'Export', and 'Exit'. Callouts with numbered circles 1 through 5 point to these specific elements.

1. Click on the Totals button to select the Totals Report.

2. Enter a Start Date and Time for the report.

3. Enter an End Date and Time for the report.

4. If desired, click on highlighted column headings to exclude them from the report.

5. Click on Run Totals Report to run the report.

If desired, click on Print, to print the report to a default printer.

If desired, click on Export, to save the report.

If desired, click the Edit Line button to enter a custom report header.

Name	First Record	Last Record	Run Hours	Aux Hours	Wet Hours	Multiplier	Flow 1	Flow 2	Totals	Measure Method
802	8/10/2006 1:07:15 PM	8/10/2006 1:07:15 PM	0.00	0.00	0.00	800			0.0000	Polled Interval
806	8/10/2006 10:31:21 AM	8/10/2006 11:48:57 AM	1.28	0.00	1.28	800			0.0616	Polled Interval
Totals			1.28		1.28				0.0616	

Status Change Report

The status changes logged by the BaseStation2-SM from polling, manual updates, and Real-Time updates for the selected remote(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.

NOTE

• **BaseStation2 only shows Status Changes for the last 35 days. Status Changes that are older than 35 days are archived. For information about viewing Status Changes that are older than 35 days contact your local Valley Dealer.**

To obtain a Status Change report for Pro, Pro2, AutoPilot, Select, Select2, Panel Link, Or Remote Link panels individually, in a selected group, a saved group or all the machines, first select the desired machines by individually tagging them with the right mouse button or using a select group or select all feature. A black ring on a map item indicates that it has been selected. Click on File, then Report on the drop-down menu or click on the Report toolbar button to open the Reports window.

1. Click on the Status Change radio button to select the Status Change Report.
2. Enter a Start Date and Time for the report.
3. Enter an End Date and Time for the report.
4. Enter the Number of Rows for the report. The number of rows displayed and/or exported is limited to the number of rows specified.
5. Click on Run Status Change Report to run and display the report in the Reports window.
 - Click on highlighted column headings to exclude them from the report.
 - Click the Edit Line button to enter a custom report header.
6. If desired, do any of the following:
 - If desired, do one or more of the following:
 - Click on Print to print the report to a default printer.
 - Click on Export to save the report.
 - Click on Exit to close the Reports Window.

The screenshot shows the 'Status Change Report' window. On the left, there are six numbered callouts: 1. 'Click on the Status Change button to select the Status Change Report.' (points to the 'Status Change' radio button); 2. 'Enter a Start Date and Time for the report.' (points to the 'Start Date Time' field); 3. 'Enter an End Date and Time for the report.' (points to the 'End Date Time' field); 4. 'Enter the Number of Rows for the report.' (points to the 'Number Of Rows' field); 5. 'If desired, click on the highlighted column headings to exclude them from the report.' (points to the 'Un-select Columns To Hide' list); 6. 'Click on Run Status Change Report to run the report.' (points to the 'Run Status Change Report' button). Below these are two more callouts: 'If desired, click on Print, to print the report to a default printer.' (points to the 'Print' button) and 'If desired, click on Export, to save the report.' (points to the 'Export' button). A callout at the top right says 'If desired, click the Edit Line button to enter a custom report header.' (points to the 'Edit Line' button). The main window displays a table with columns: Name, Date & Time, Type, Direction, Position, End Gun, Status, Water, Pressure, Speed (%), Depth, Voltage, Aux1 Out, Aux1 In, Aux2, Counter 1. The table shows 21 rows of data for 'AutoPilot' on 10/14/2008. The 'Reports' window title bar is visible at the top right.

MAIN WINDOW

File Menu

Current Status Report

The last known status of the selected remote machine(s) obtained through polling, manual update, and Real-Time Update. The current status is shown in a table containing information including the Name (of machine(s) selected), Date, Time, Status (Stopped or Running), Position (in degrees), Direction (Forward or Reverse), End Gun (On or Off), Voltage, Water (Wet or Dry), Speed (expressed in hours to make one revolution), Pressure (psi), Depth (inches), Aux 1 Out, Aux 1 In, Aux 2 Out, Aux 2 In, Analog Value, Counter 1, and Hours Wet.

To obtain a Current Status report for Pro, Pro2, AutoPilot, Select, Select2, Panel Link, Or Remote Link panels individually, in a selected group, a saved group, or all the machines, first select the desired machines by individually tagging them with the right mouse button or using a select group or select all feature. A black ring on a map item indicates that it has been selected. Click on File, then Report on the drop-down menu or click on the Report toolbar button to open the Reports Window.

1. Click on the Current Status radio button to select the Current Status Report.
 - The Start and End Date/Time for the report is automatically set to the current date and default time of 12:00 A.M.
 - The Number of Rows for the report cannot be changed.
2. Click on Run Current Status Report to run and display the report in the Reports window.
 - Click on highlighted column headings to exclude them from the report.
 - Click the Edit Line button to enter a custom report header.
3. If desired, do any of the following:
 - If desired, do one or more of the following:
 - Click on Print to print the report to a default printer.
 - Click on Export to save the report to file C:\camsReports\CURSTATUS1212-1233.csv. The last eight digits of the file name will change according to the date and time of the file being saved. This example was completed on December 12 at 12:33 p.m.
 - Click on Exit to close the Reports window.

The screenshot shows the 'Current Status Report' window. On the left is a sidebar with radio buttons for 'Totals', 'Status Change', 'Current Status' (selected), and 'Configuration'. Below these are date and time pickers for 'Start Date Time' and 'End Date Time', both set to 12/12/2007 12:00:00 AM. A 'Number of Rows' field is set to 100. A list of columns is shown with 'Water' highlighted. At the bottom of the sidebar are buttons for 'Run Current Status Report', 'Print', 'Export', and 'Exit'. The main area displays a table with columns: Name, Date & Time, Direction, Position, End Gun, Status, Water, Pressure, Speed (%), Depth, Voltage, Aux1 Out, Aux1 In, Aux2 Out, Aux2 In. The table contains 16 rows of data. A callout points to an 'Edit Line' button in the top right. Another callout points to the 'Print' button.

1 Click on the Current Status button to select the Current Status Report.

The Start and End Date/Time for the report is automatically set to the current date and default time of 12:00 A.M.

The Number of Rows for the report cannot be changed.

2 If desired, click on highlighted column headings to exclude them from the report.

3 Click on Run Current Status Report to run the report.

If desired, click on Print, to print the report to a default printer.

If desired, click on Export, to save the report.

If desired, click the Edit Line button to enter a custom report header.

Name	Date & Time	Direction	Position	End Gun	Status	Water	Pressure	Speed (%)	Depth	Voltage	Aux1 Out	Aux1 In	Aux2 Out	Aux2 In
A1	1/30/2006 10:13:37 AM	FwD	110	Off	-Command-	Wet	43	100	00.25	513	Off	Off		
A2	10/4/2001 4:26:35 PM	FwD	110	Off	-Command-	Dry	15	45	00.56	537	Off	Off		
B1	10/24/2000 9:35:50 AM	FwD	289	On	Wait	Dry	48	100	00.25	476	Off	Off		
B2	8/26/2004 1:55:04 PM	Rev	268	Off	Wait	Wet	68	100	00.25	484	Off	Off		
B3	8/26/2004 2:01:20 PM	FwD	9	Off	-Command-	Wet	5	100	00.12	499	Off	Off		
C1	10/23/2000 1:00:34 PM	Rev	0	Off	Wait	Wet	(0v)	50	00.50	480	Off	Off		
C3	10/24/2000 10:34:45 AM	Rev	79	On	Wait	Wet	48	50	00.50	454	On	Off		
C4	9/7/2001 5:04:12 AM	Rev	294	Off	Wait	Wet	21	89	00.28	522	Off	Off		
D4	4/6/2006 10:10:10 AM	FwD	0	Off	-Safety-	Wet	0	50	00.50	480	Off	Off		
F1	10/23/2000 1:00:34 PM	Rev	0	Off	Wait	Wet	(0v)	50	00.50	480	Off	Off		
F2	10/23/2000 1:00:34 PM	Rev	0	Off	Wait	Wet	(0v)	50	00.50	480	Off	Off		
F3	10/23/2000 4:06:03 PM	Rev	0	Off	Wait	Wet	(0v)	50	00.50	480	Off	Off		
F4	10/24/2000 10:31:08 AM	Rev	79	On	Wait	Wet	48	50	00.50	458	Off	Off		
G1	10/23/2000 4:01:16 PM	Rev	0	Off	Wait	Wet	0	50	00.50	480	Off	Off		
G2	8/26/2004 2:12:44 PM	Rev	108	Off	Wait	Wet	43	100	00.25	483	Off	Off		
G5	10/23/2000 4:01:16 PM	Rev	0	Off	Wait	Wet	0	50	00.50	480	Off	Off		
H1	1/30/2006 10:14:57 AM	FwD	180	Off	Wait	Wet	34	30	00.83	474	On	Off		

Configuration Report

The configuration information of the remote panel is shown for the map items selected. The report shows a collection of data gathered from the database files based on information entered when drawing the map items, setting up the remote configuration in the Remote Setup window, and some of the control panel settings in the field.

- The Discharge is a value provided by the sprinkler package specifications.
- The Hrs/Rev and Minimum Application constants entered in Remote Setup must match the Constants in the panel in order for the depth calculation to match the panel.

To obtain a Configuration report for Pro, Pro2, AutoPilot, Select, Select2, Panel Link, Or Remote Link panels individually, in a selected group, a saved group or all the machines, first select the desired machines by individually tagging them with the right mouse button or using a select group or select all feature. A black ring on a map item indicates that it has been selected.

Click on File, then Report on the drop-down menu or click on the Report toolbar button to open the Reports window.

1. Click on the Configuration radio button to select the Remote Configuration Report.
 - If desired, click the Change Header button to enter a custom report header.
 - The Start and End Date/Time for the report is automatically set to the current date and default time of 12:00 A.M.
 - The Number of Rows for the report cannot be changed.
2. Click on Run Configuration Report to run and display the report in the Reports window.
 - If desired do one more of the following:
 - Click on Print to print the report to a default printer.
 - Click on Export to save the report to file C:\camsReports\CONFIG0305-0740.csv. The last eight digits of the file name will change according to the date and time of the file being saved. This example was completed on March 5 at 7:40 a.m.
 - Click on Exit to close the Reports window.

The screenshot shows the 'Remote Configuration Report' window. On the left, there are radio buttons for 'Totals', 'Status Change', 'Current Status', and 'Configuration'. Below these are 'Start Date Time' and 'End Date Time' fields, both set to 3/5/2008 12:00:00 AM. A 'Number of Rows' field is set to 100. At the bottom left are 'Print', 'Export', and 'Exit' buttons. At the bottom right is a 'Run Configuration Report' button. A callout points to an 'Edit Line' button in the top right corner. The main area contains a table with columns: Name, RTU ID, RTU Type, Poll Period, Phone #, Radio Path, Discharge, Water Measure, Multiplier, Min Hours, Min App, Restart, SIS, and Daily Op. The table lists 16 rows of data (A1 through H1).

Name	RTU ID	RTU Type	Poll Period	Phone #	Radio Path	Discharge	Water Measure	Multiplier	Min Hours	Min App	Restart	SIS	Daily Op
A1	303	PRO2	0		direct	800	Polled Interval	800	24.00	0.25	Off	Off	Off
A2	003	Select	0		direct	800	Polled Interval	800	24.00	0.25	On	On	Off
B1	402	PRO v4/5	10		direct	800	Polled Interval	800	24.00	0.25	On	On	Off
B2	403	PRO v4/5	180		direct	800	Polled Interval	800	24.00	0.25	Off	Off	Off
B3	410	PRO v7	0		direct	750	Polled Interval	750	9.50	0.12	Off	On	Off
C1	520	Rem Link	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
C3	420	Select	0		direct	800	Polled Interval	800	24.00	0.25	On	On	Off
C4	510	PRO v7	0		direct	800	PRO Wet Hours	800	24.00	0.25	Off	On	Off
D4	077	Select	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
F1	223	Rem Link	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
F2	222	Rem Link	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
F3	310	Rem Link	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
F4	601	PRO v7	60		direct	800	Polled Interval	800	24.00	0.25	On	On	Off
G1	219	PRO v6	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
G2	806	PRO v7	1		direct	800	Polled Interval	800	24.00	0.25	Off	Off	Off
G5	220	PRO v6	0		direct	800	Polled Interval	800	24.00	0.25	Off	On	Off
H1	802	PRO v7	10		direct	800	Polled Interval	800	24.00	0.25	Off	Off	Off

MAIN WINDOW

File Menu

Auxiliary Link Export Window

Two types of reports are available for the Auxiliary Link:

- The Configuration report captures and reports the configuration of selected Auxiliary Links.
- The Status Change report captures and reports the status changes of selected Auxiliary Links based on selected devices, date, and time.

To open the Auxiliary Link Export Window, select an Auxiliary Link map item. A black ring on a map item indicates that it has been selected. Click on File, then Report on the drop-down menu or click on the Report toolbar button.

NOTE •Only one Auxiliary Link map item can be selected when generating a report for Auxiliary Links. If multiple Auxiliary Link map items or a map item with a different type control panel is tagged, the report feature is disabled.

A list of Auxiliary Link panels is provided in the Auxiliary Link Export window for inclusion in the report. Clicking on an Auxiliary Link name highlights and selects it for inclusion in the report. Clicking on a highlighted Auxiliary Link name deselects that name. All Auxiliary Link names may be selected for inclusion in the report.

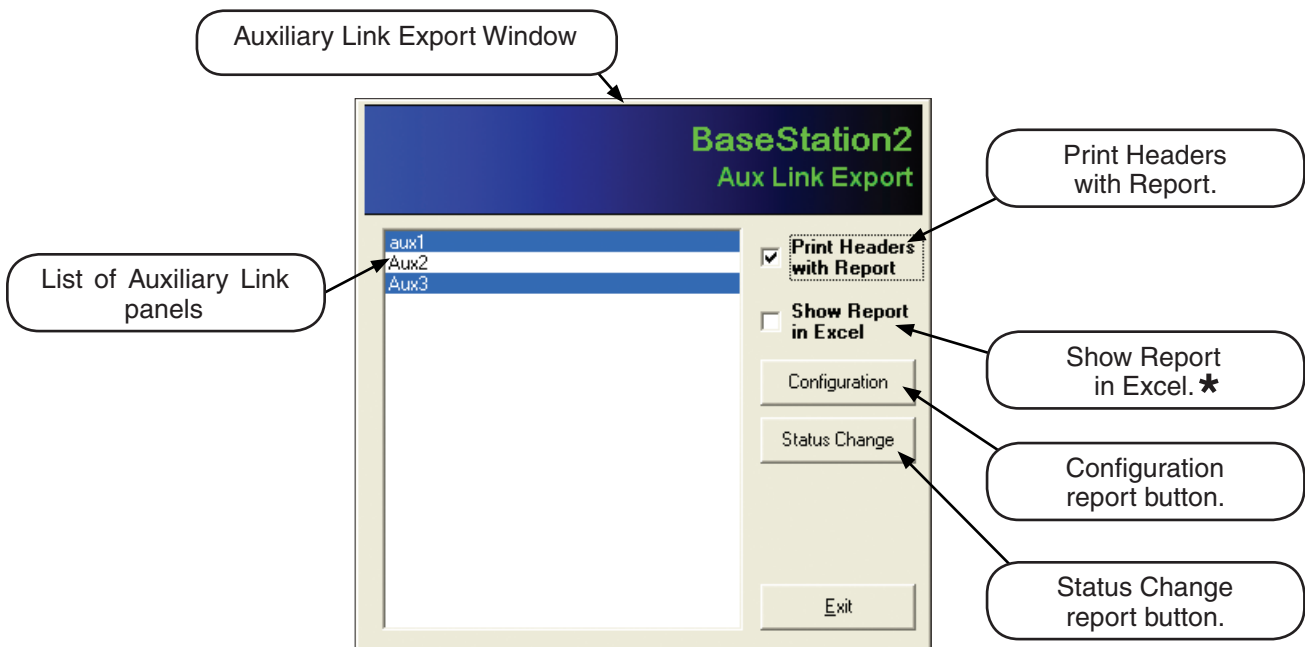
Including column headings in the report is optional, click a check mark in the Print Headers with Report check box to include column settings on the report.

If Microsoft Excel is installed on the computer the report can be automatically viewed in Excel after it is saved. To enable this option, click a check mark in the Show Report in Excel check box. *

The reports are saved as a comma delimited (.csv) file type to provide a flexible format for additional use. The path and file name can be edited to any path and file name that is compatible with Windows naming convention prior to saving the report.

To run the Auxiliary Link Export Configuration Report see page 77.

To run the Auxiliary Link Export Status Change Report see page 78.



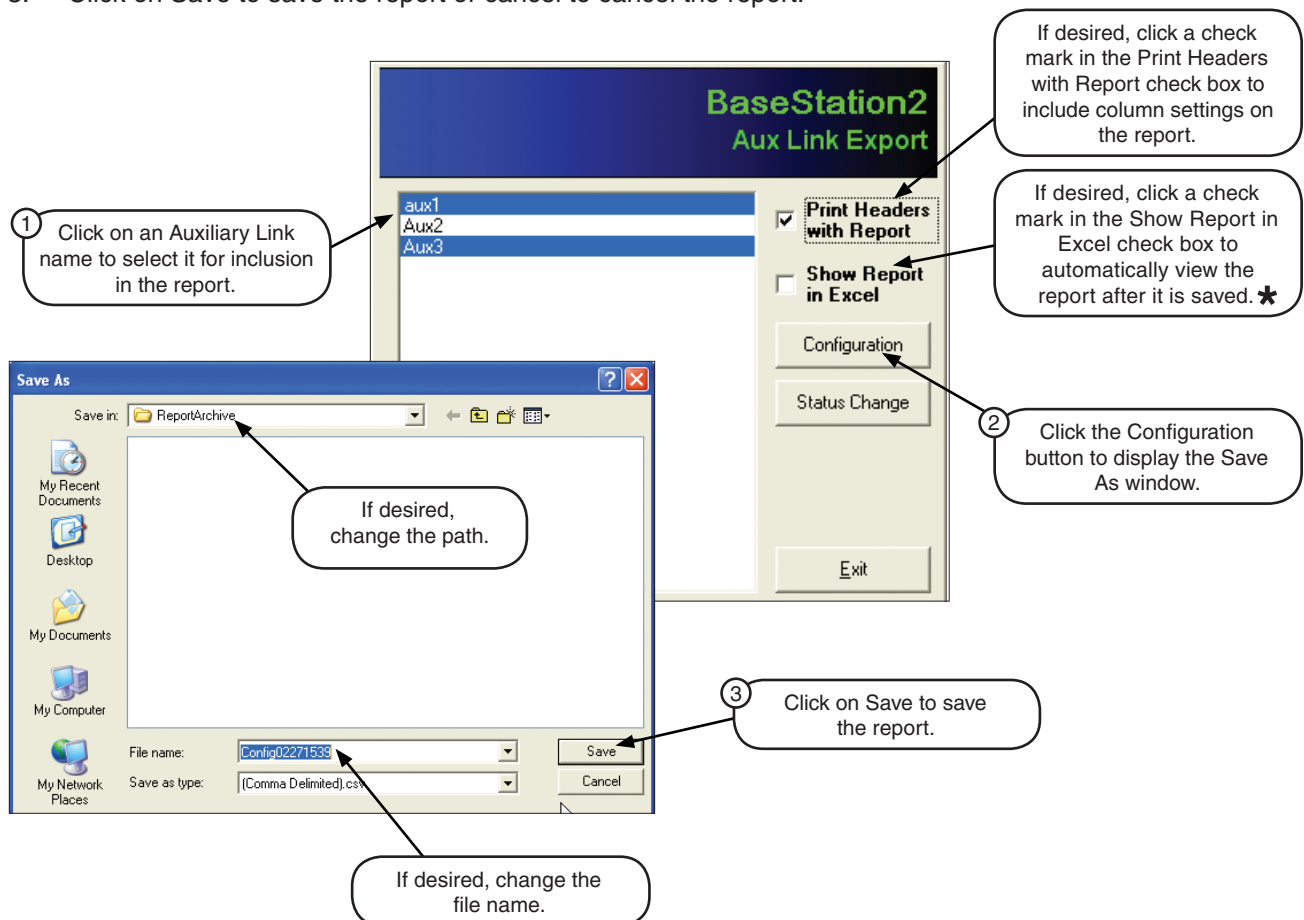
* Microsoft Excel must be installed on the computer to use this option.

Auxiliary Link Export Configuration Report

Select an Auxiliary Link map item, a black ring on a map item indicates that it has been selected. Click on File, then Report on the drop-down menu or click on the Report toolbar button to open the Auxiliary Link Export window.

NOTE •Only one Auxiliary Link map item can be selected when generating a report for Auxiliary Links. If multiple Auxiliary Link map items or a map item with a different type control panel is tagged, the report feature is disabled.

1. A list of Auxiliary Link panels is shown in the Auxiliary Link Export window for inclusion in the report. Clicking on an Auxiliary Link name will highlight it and mark it for inclusion in the report. All Auxiliary Link names may be selected for inclusion in the report.
 - If desired, do one or both of the following:
 - Click a check mark in the Print Headers with Report check box to include column headings in the report.
 - Click a check mark in the Show Report in Excel check box to automatically view the report in Excel after the report is saved. ★
2. Click on Configuration to display the Save As window. If desired, change the path or file name.
3. Click on Save to save the report or cancel to cancel the report.



★ Microsoft Excel must be installed on the computer to use this option.

MAIN WINDOW

File Menu

Auxiliary Link Export Status Change Report

Select an Auxiliary Link map item, a black ring on a map item indicates that it has been selected. Click on File, then Report on the drop-down menu or click on the Report toolbar button to open the Auxiliary Link Export window.

NOTE •Only one Auxiliary Link map item can be selected when generating a report for Auxiliary Links. If multiple Auxiliary Link map items or a map item with a different type control panel is tagged, the report feature is disabled.

1. A list of Auxiliary Link panels is shown in the Auxiliary Link Export window for inclusion in the report. Clicking on an Auxiliary Link name will highlight it and mark it for inclusion in the report. All Auxiliary Link names may be selected for inclusion in the report.
 - If desired, do one or both of the following:
 - Click a check mark in the Print Headers with Report check box to include column headings in the report.
 - Click a check mark in the Show Report in Excel check box to automatically view the report in Excel after the report is saved. ★

2. Click on Status Change to display the Status change window.

3. Select the devices to be included in the report or click the Select All button to include all devices.

4. The Status Change report requires that the date/time range be specified.

Specify the following:

- Start date and time.
- End date and time.

5. Click on OK to open the Save As window or click on Cancel to cancel the report without saving.

- If desired, change the path or file name.

6. Click on Save to save the report or Cancel to cancel the report.

The image shows two overlapping windows from the software. The top window is titled "BaseStation2 Aux Link Export". It has a list of auxiliary links: "aux1", "Aux2", and "Aux3". Below the list are "Select All" and "Clear All" buttons. To the right of the list are two checkboxes: "Print Headers with Report" (checked) and "Show Report in Excel" (unchecked). Below these are "Configuration" and "Status Change" buttons, and an "Exit" button at the bottom. The bottom window is a "Save As" dialog box. It shows a file explorer view with "ReportArchive" selected in the "Save in:" field. The "File name:" field contains "Config02271539" and the "Save as type:" is "[Comma Delimited].csv".

1. Click on an Auxiliary Link name to select it for inclusion in the report.

2. Click the Status Change button to display the Save As window.

3. Click on the devices to be included in the report. OR Click the Select All button to include all of the devices.

4. Specify the Start date and time. AND Specify the End date and time.

5. Click OK.

6. Click on Save to save the report.

If desired, click a check mark in the Print Headers with Report check box to include column settings on the report.

If desired, click a check mark in the Show Report in Excel check box to automatically view the report after it is saved. ★

If desired, change the path.

If desired, change the file name.

★ Microsoft Excel must be installed on the computer to use this option.

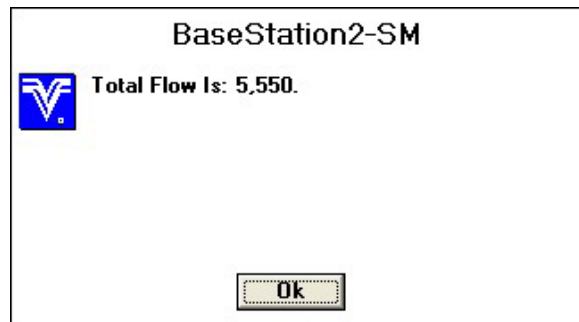
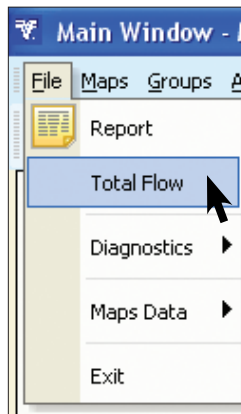
MAIN WINDOW

File Menu

Total Flow

Total Flow is the total flow of all the Pro, Pro2, AutoPilot, Select, Select2 or Remote Link panels being used that are currently running with water, based on the information entered for each pivot in the discharge line under Setup, then Remote Setup in the drop-down dialog box.

To display the Total Flow figure, click on File then Total Flow in the drop-down menu.



- NOTE**
- Changes in the actual flow that might occur due to situations such as pressure drop, etc., are not shown.
 - When a pump is associated with a remote panel and both are represented on the BaseStation as active remote devices, the Total Flow will include the discharge of both machines in the Total Flow calculation.

MAIN WINDOW

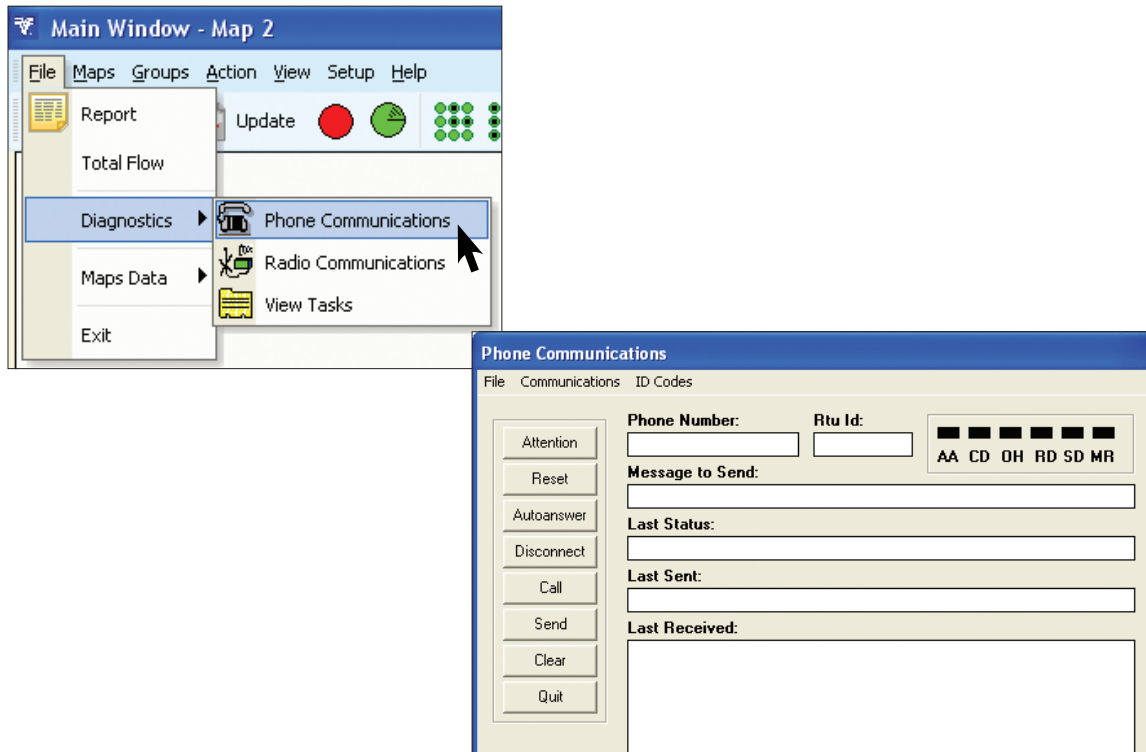
File Menu

Diagnostics

Phone Communications

The Phone Communications window allows advanced users and technical support persons to discretely send commands and monitor responses.

The Phone Communications diagnostics window can be accessed through the File menu by selecting Diagnostics, then Phone Communications.



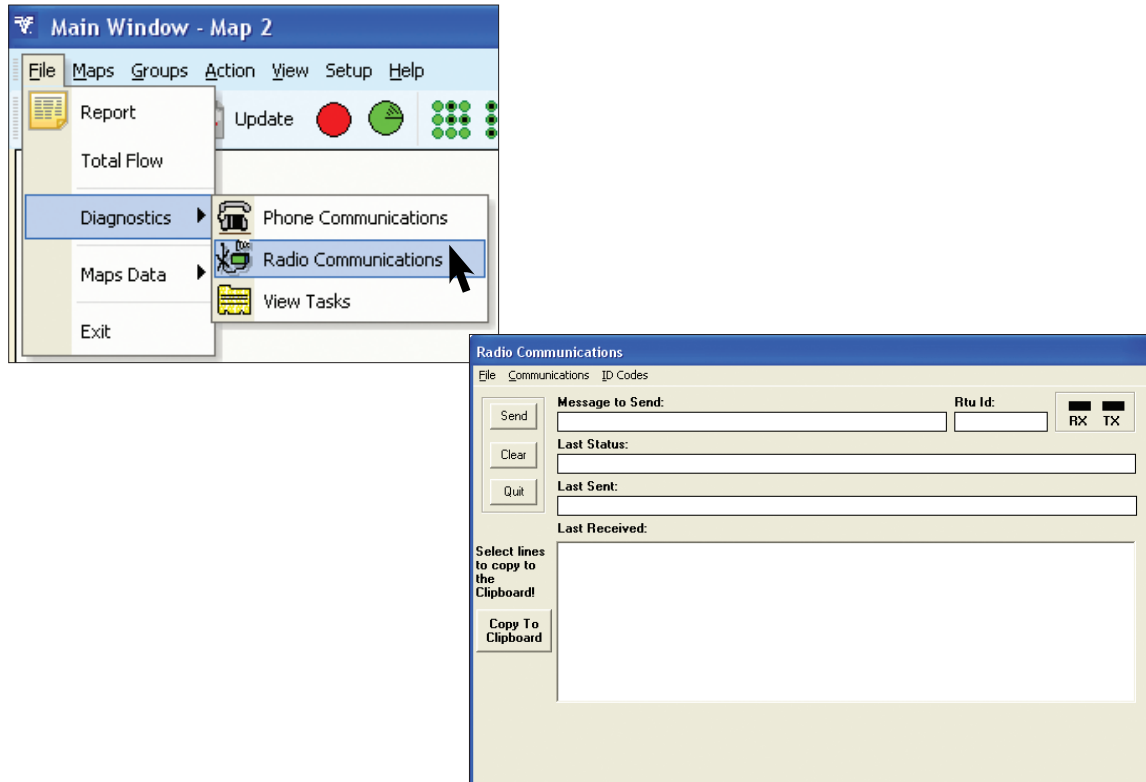
CAUTION

- Diagnostics should be used only as directed by a Valley support technician. Improper use could adversely affect the basestation or machine operation.

Diagnostics Radio Communications

The Radio Communications window allows advanced users and technical support persons to discretely send commands and monitor responses.

The Radio Communications diagnostics window can be accessed through the File menu by selecting Diagnostics, then Radio Communications.



CAUTION

- Diagnostics should be used only as directed by a Valley support technician. Improper use could adversely affect the basestation or machine operation.

MAIN WINDOW

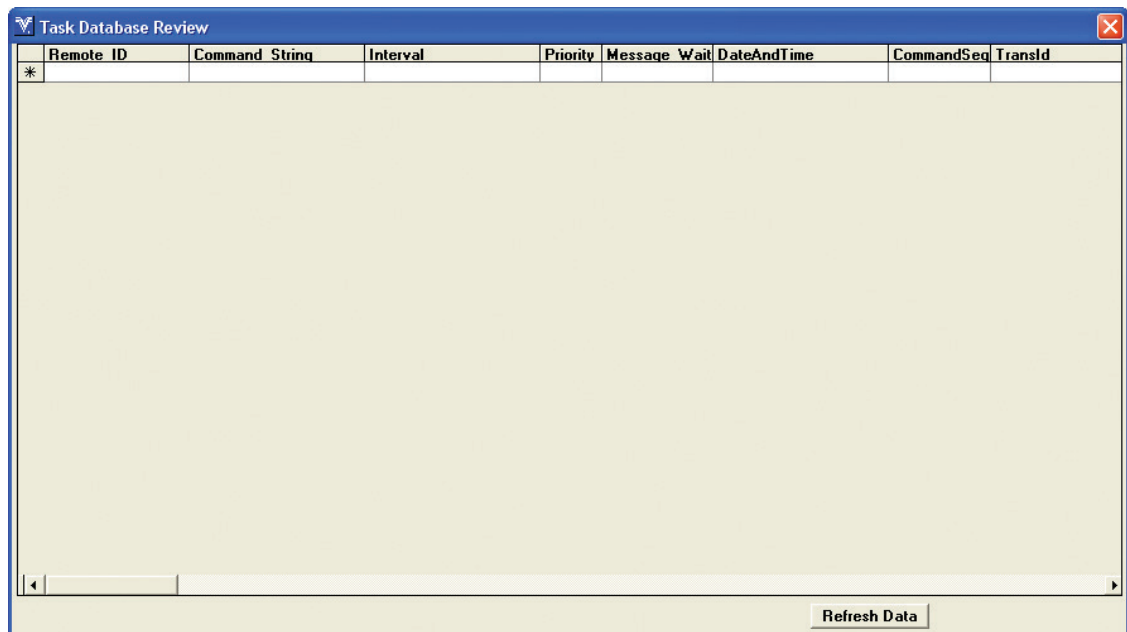
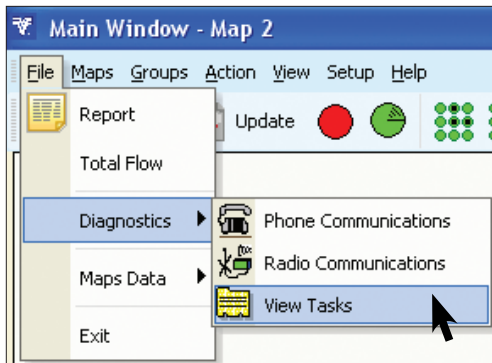
File Menu

Diagnostics

View Tasks

The Tasks Database Review window allows advanced users and technical support persons to review and edit the scheduled tasks, including the polling schedule and timed operations.

The Tasks Database Review window can be accessed through the File menu by selecting Diagnostics, then View Tasks.



CAUTION

•Diagnostics should be used only as directed by a Valley support technician. Improper use could adversely affect the basestation or machine operation.

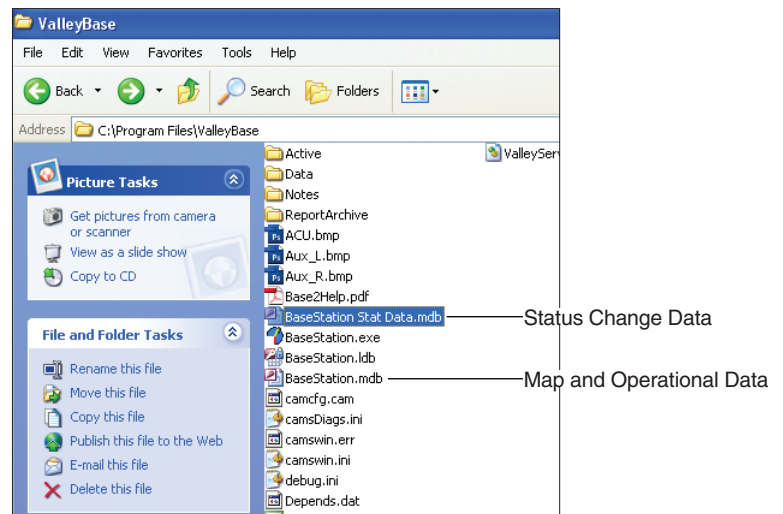
Maps Data Backup

Backup Maps Data is an archive function that copies BaseStation.mdb from the active database file to an offline database file. These backed up files can be used as points to be returned to by using the RESTORE function.

Status change and remote activity data accumulate automatically in the BaseStation_Stat_Data.mdb database file throughout the irrigation cycle(s). This file is located in the C:\Program Files\ValleyBase as shown below:

BaseStation2-SM version 7.0 and higher utilizes the Microsoft JET database engine to record map information and remote status data. Data is saved in Microsoft database (.mdb) files. The operational database, BaseStation.mdb is locked, available for secure BaseStation2-SM use only.

The status change history database, BaseStation Stat Data.mdb is not locked, making it available for external application visibility. User custom reporting utilities may access the database for collecting information.



The BaseStation software will automatically perform a backup of the activities during a major change such as the removal or addition of a pivot circle or auxiliary link. This database will contain the maps and remote setup settings. If an error is made during the editing of a map, the previous version can be returned by using the Restore function.

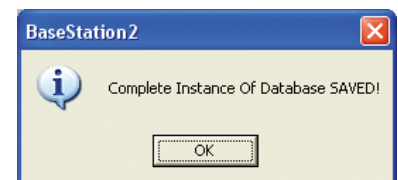
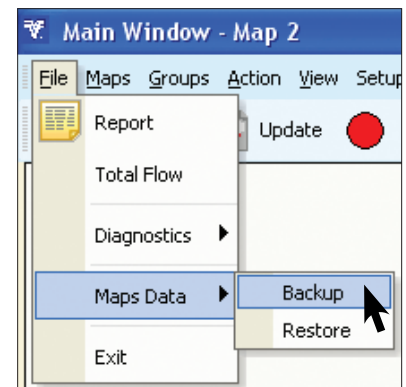
1. Click on File, then click on Database, and then Backup.
2. The backup will automatically store a file on the computer's hard drive. A window will appear to verify the backup completed stating: Complete Instance Of Database SAVED!
3. The file name will reflect the date and time of the archived process. In the following example the file name states that the backup was completed on December 18, 2007, at 12:19:58 P.M.

Example: BaseStation 2007_12_18 12_19_58.mdb

If the Status Change data was backed up, the file will be similar to the example that follows:

Example: BaseStation Stat Data 2007_12_18 12_19_58.mdb

The default location for the BaseStation backup file storage is:
C:\ValleyBaseDataVault



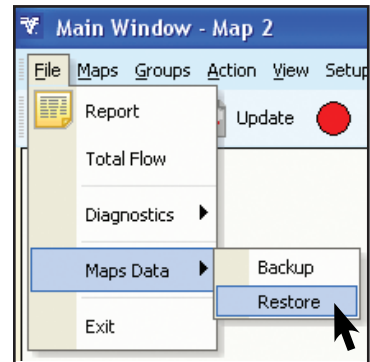
MAIN WINDOW

File Menu

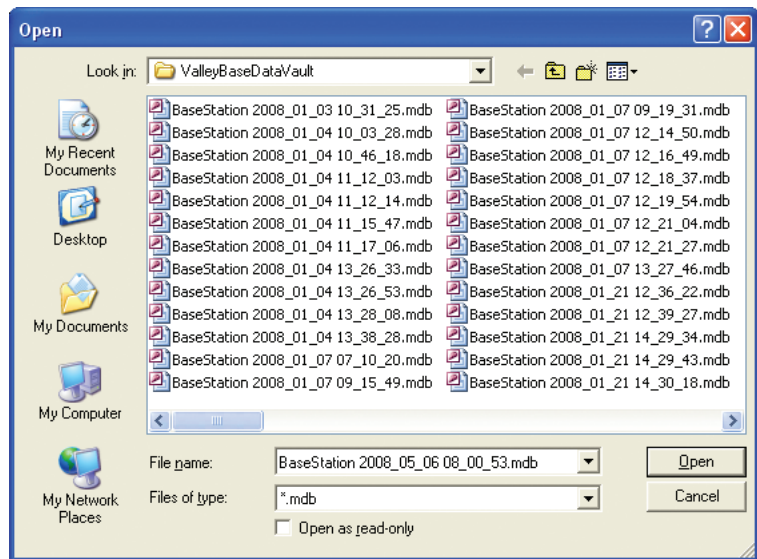
Maps Data

Restore

Restore Maps Data is a restore function that moves records of map items from an offline database file to an active database file. This includes the map and configuration only. Status change and remote activity data accumulate automatically in the BaseStation_Stat_Data.mdb database.

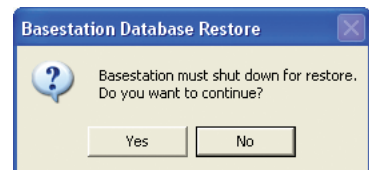


1. Click on File, then Database on the drop-down menu, and then Restore.

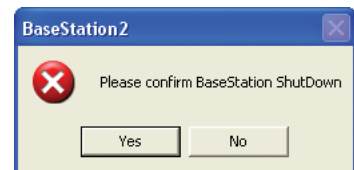


2. Choose the archived file to be restored and click the Open button.

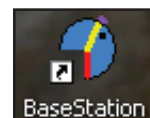
3. The BaseStation must be shutdown before the archived file can be restored. A window will warn the operator of the shutdown. Click Yes to continue with the restoration or No to cancel the operation.



4. The BaseStation will confirm that the operator wants to shutdown the BaseStation. A window will warn the operator of the shutdown. Click Yes to continue with the shutdown or No to cancel the shutdown.



5. Double-click on the BaseStation2-SM software icon on the desktop to restart the BaseStation with the archived file.



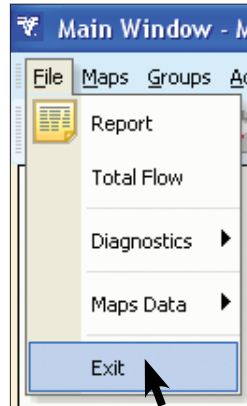
6. After logging in, BaseStation will open to the Map Draw window. Close the Map Draw window and go to Maps-Open Map and open the map to be restored.

MAIN WINDOW

File Menu

Exit Application

To exit the BaseStation2-SM program, click on File, then Exit in the drop-down menu or click the Close button on the toolbar.



OR



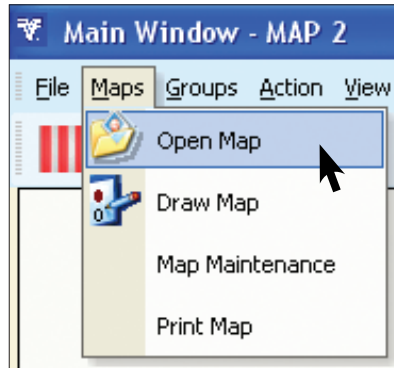
Toolbar Button

MAIN WINDOW

Maps Menu

Open Map

To view a different map in the Main Window click on Maps, then Open Map in the drop-down menu.



The Open Map window will open and a list of the maps that have been created and saved in the Map Draw program will be shown.

Open

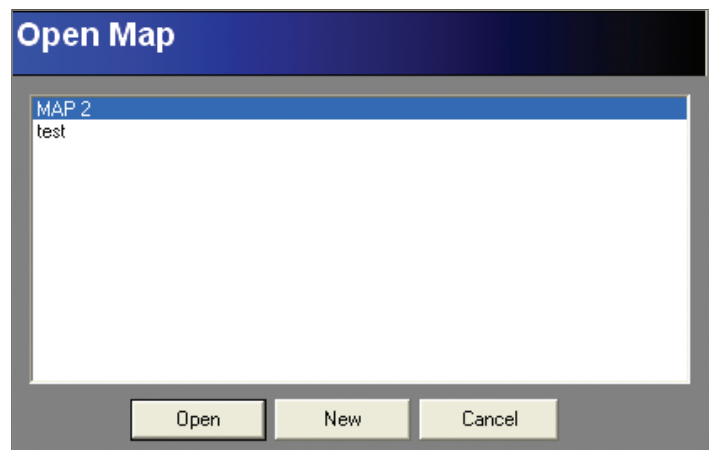
- Click on a map name to highlight it, then click on Open to use as the current active map. Only one map can be open at any time.

New

- Click on New to open the Map Draw window and create a new map.

Cancel

- Click on Cancel to close the Open Map window without viewing a different map.



MAIN WINDOW

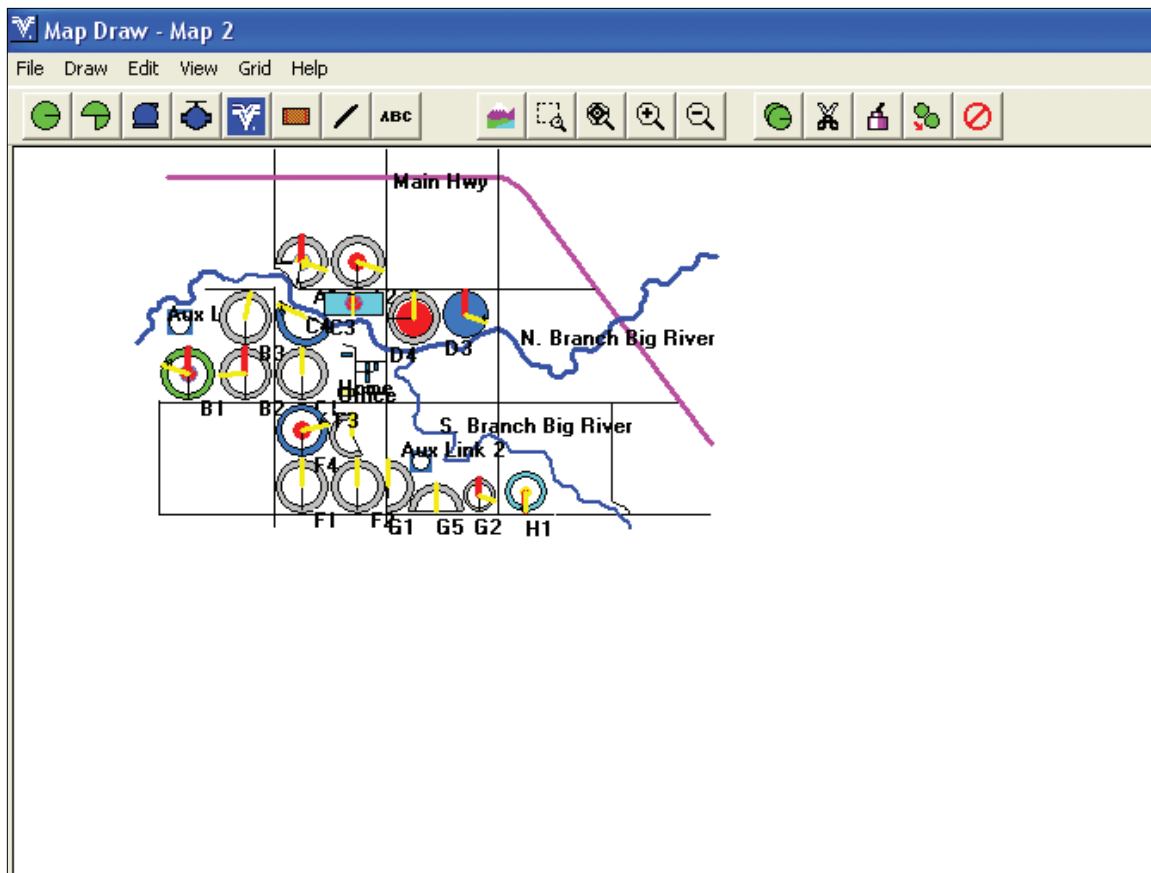
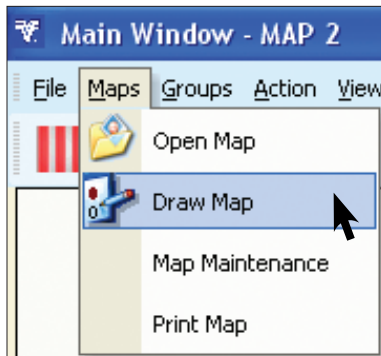
Maps Menu

Draw Map

Selecting Draw Map opens a separate program and the Map Draw window that allows the operator to draw a map of the property.

Full and part circle pivot machines, linear machines, Auxiliary Links, roads, property boundaries, text, buildings, pipelines, pumps, and valves can be included on the map.

From the Main Window, click on Maps, then on Draw Map in the drop-down menu to open the Map Draw window.



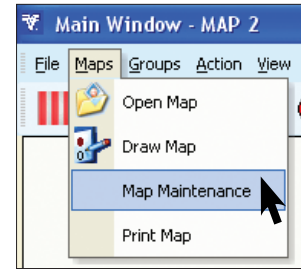
MAIN WINDOW

Maps Menu

Map Maintenance

BaseStation is able to save multiple maps or versions of the same map. For example, a new seasonal map may be created to partition recorded data. Map Maintenance functions assist with organizing the stored data. (Maps are stored as tables within the database file.) BaseStation2-SM automatically archives status data history that is three years old by moving it from the active BaseStation_Stat.mdb file to C:\ValleyBaseDataVault\BaseStation_Stat_BAK.mdb.

To open the Map Maintenance window, click on Maps, then Map Maintenance.



Map Maintenance Functions

Rename changes the description of a map.

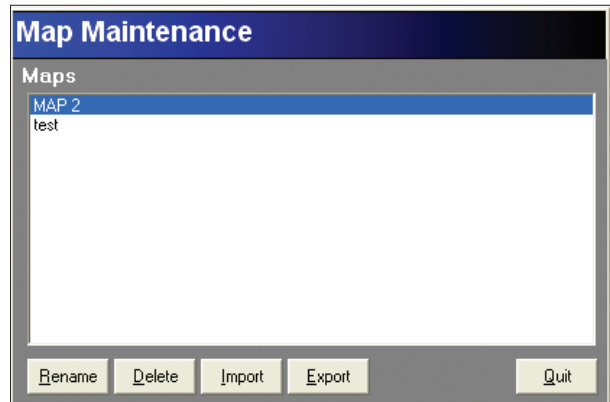
To rename a map:

- Select the map by clicking on the map name in the Map Maintenance window, then Rename.
- Enter the new map name and click OK to keep the change or Cancel to stop the change and return to the Map Maintenance window.

Delete removes a map table from the database file.

To delete a map:

- Select the map by clicking on the map name in the Map Maintenance window, then Delete to delete the map file. The Delete function is permanent and cannot be reversed.



NOTE •The user cannot rename or delete a map that is currently open.

Import moves a map into the database file. The Import function has the ability to translate a CAMSWIN Version 3.x, 5, or 6 map file to provide continuity of operations with an existing BaseStation.

To Import a map:

- Click on Import.
- Respond to the prompt for the type of map to import, from a Version 3 map. A Version 3 map is saved in a file with the .map file name extension.
- Locate the map to be imported and then select and open the current version map folder (or version 3 map file from the directory window) by double clicking the left mouse button on the desired map to open the folder. When the folder is open, the open folder icon is displayed.
(The default location for map storage is C:\Program Files\ValleyBase\Data.)
- Enter a description (same name or a new name) for the new map and click OK to Import, or Cancel to stop the Import and return to the Map Maintenance window.
- A confirmation message is shown for a successful import.

Export extracts the map design from a specified map and saves it in the Data folder. The machine status history is not included, so a map that is imported will not have any status change history used for reports. The exported files can be used by the Import function to insert an archived map.

To Export a map design:

- Select the map to export by clicking on the map name in the Map Maintenance window, then Export to open the directory window.
- Open the folder that the map will be exported to by double clicking the left mouse button. The default export path is C:\Program Files\ValleyBase\Data.
- A confirmation message is shown for a successful export.

Quit - Click on Quit to close the Map Maintenance window and return to the Main Window.

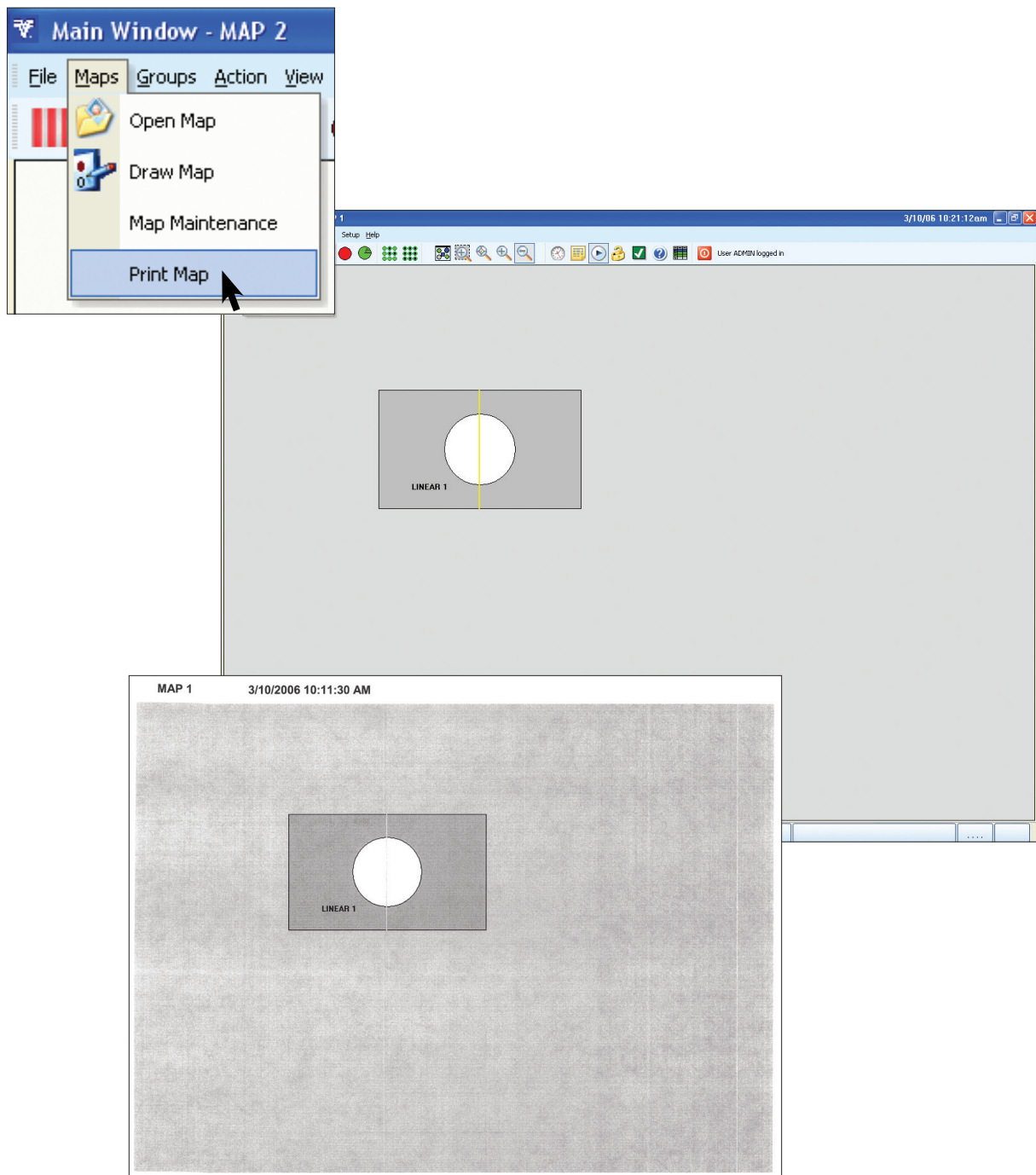
MAIN WINDOW

Maps Menu

Print Map

Selecting Print Map, sends a copy of the current map view on the Main Window to the default printer for printing. The map name, date, and time are automatically printed on the copy.

Zoom to the view for printing. Any data tables within the Main Window will not print. The display in the Main Window is what will print out, there is not a Print Preview option. To print the map: Click on Maps, then Print Map in the drop-down menu. Print Map will print a map while in the Graphic or Tabular View.



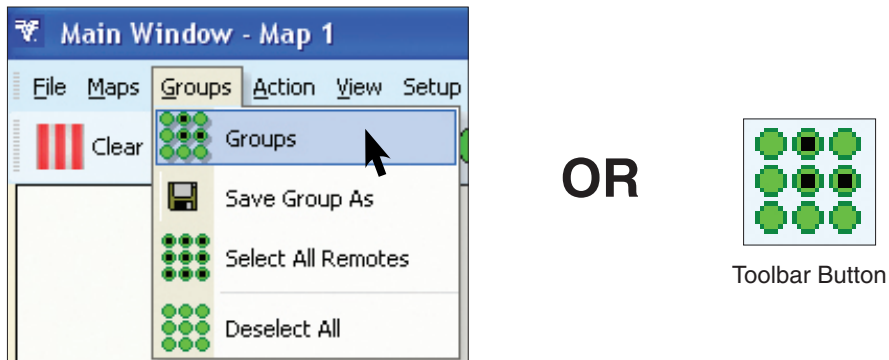
MAIN WINDOW

Groups Menu

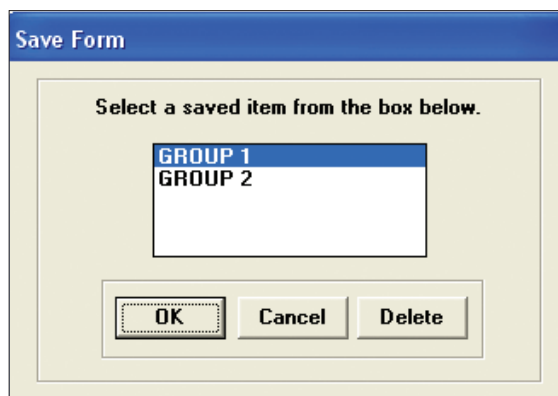
Groups

Use Groups to select all remotes in a previously saved group. Use this feature prior to performing a specific action like stopping, starting, updating, or obtaining reports for the group.

Click on Groups, then Groups or click on the Groups toolbar button.



A dialog box will open showing the available groups. Select a group by clicking on the group name to highlight it, then click on OK to select all remotes in the group or click on Cancel to close the dialog box without selecting the remotes. To delete a saved group, click on the group name to highlight it, then click on Delete to remove the group from the saved groups list.



NOTE

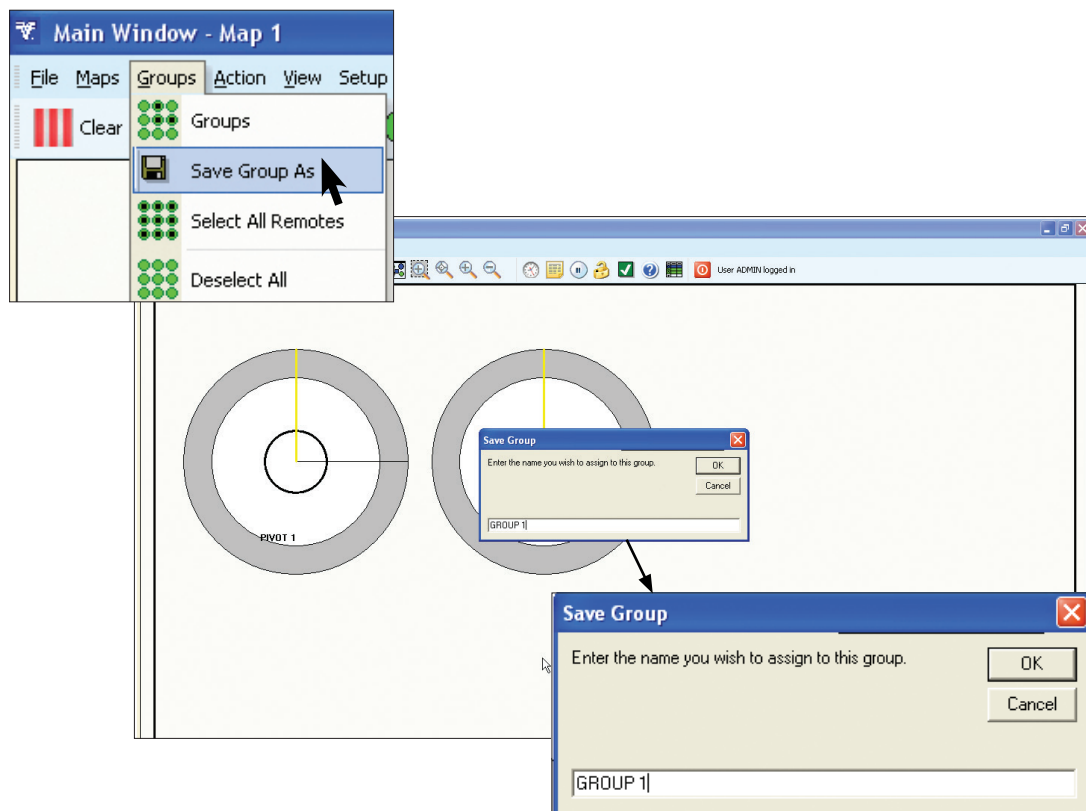
- Holding the Ctrl key while clicking the map item prevents the popup menu from appearing while selecting multiple map items.
- When selected, a black ring appears in the center of each remote that is part of the group. Deselect and/or select additional remotes by right clicking on a remote.

Save Group As

Use Save Group As to set up and work with a predetermined group of remotes. For example, a group of remotes can be associated for generating reports according to common irrigation schedules or crop types. Other groups can be organized based on geographic location or water supply source.

Select the remotes to be included in the group using the right mouse button, then click on Groups, and Save Group As in the drop-down menu. A dialog box will then ask you to name the group.

The group can be selected again by clicking on Groups, then Groups from the drop-down menu or by clicking on the Groups button on the toolbar.



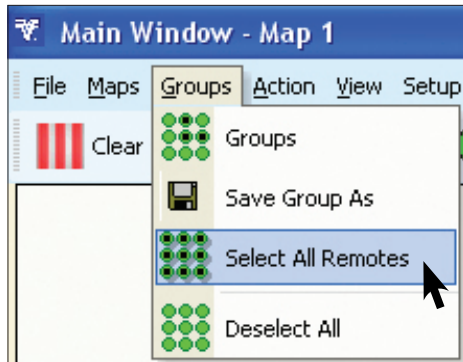
MAIN WINDOW

Groups Menu

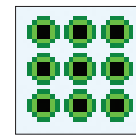
Select All Remotes

Select All Remotes places a black ring in the center of all remotes (except Auxiliary Link remotes) which identifies the remotes to be included in the next command or operation that is desired.

Click on Groups, then Select All Remotes in the drop-down dialog box or Click on the Select/Deselect all Remotes toolbar button.



OR



Toolbar Button

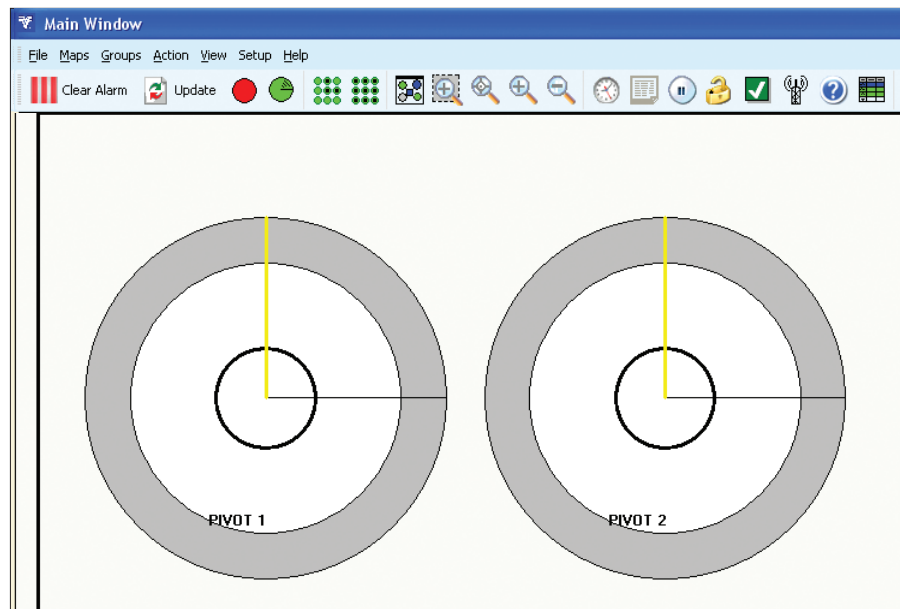
All remotes on the current map will show a black ring to indicate they are selected.

Select one of the following commands or operations:

- Report
- Polling
- Start
- Stop
- Timed Ops
- Save Group As
- Clear Alarms

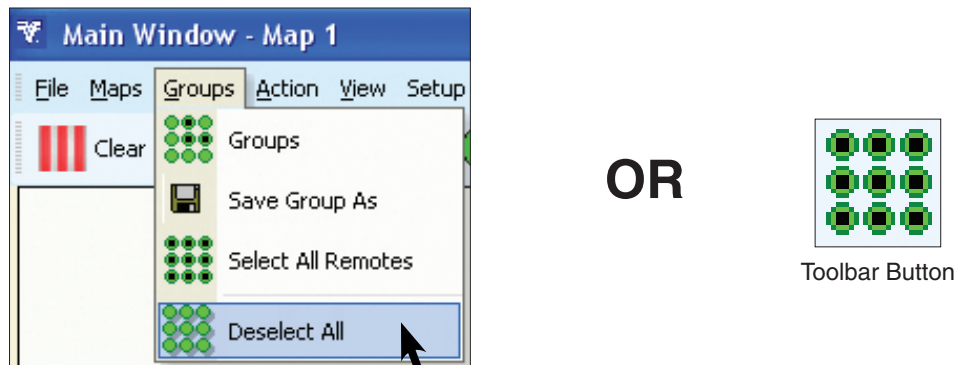
or

Click on Groups in the Main Menu then on Deselect All in the drop-down menu or click the Select/Deselect all Remotes button to deselect all.

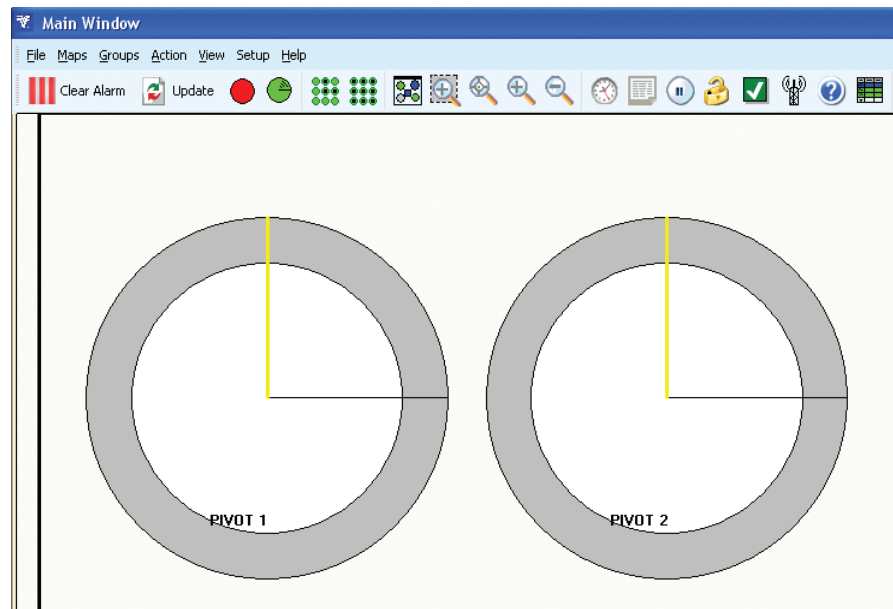


Deselect All

To deselect a group or all of the remotes currently selected, first click on Groups, then on Deselect All in the drop-down menu or click the Select/Deselect all Remotes button to deselect all.



After Deselecting All, the black ring on each of the remotes in the current map disappears indicating the remotes are NOT selected.



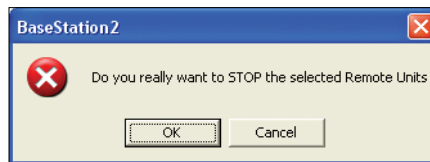
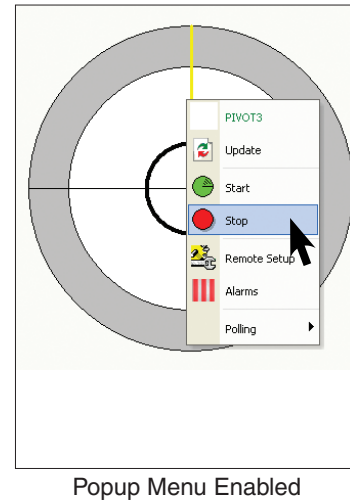
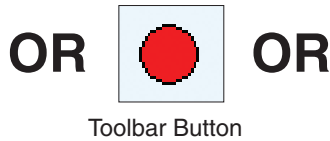
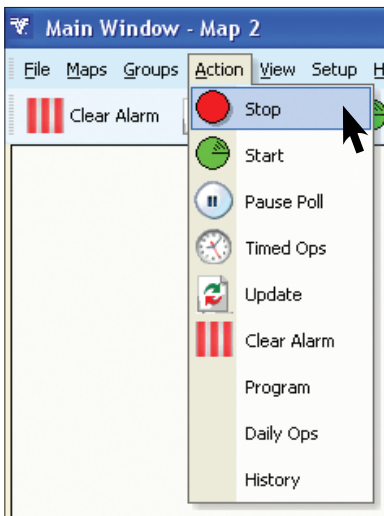
MAIN WINDOW

Action Menu

Stop

All remotes on the current map can be stopped collectively, in groups, or individually by selecting the desired remotes using the right mouse button or alternately using Select Saved Group or Select All Remotes. All selected remotes will show a black ring in the center.

To Stop a remote, right click on a remote to select it, a black ring will show in the center of the remote. Click on Action, then Stop in the drop-down dialog box or click on the Stop System toolbar button or click on Stop in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



Click OK to confirm and send the stop command to the selected remotes or click Cancel to cancel the action.

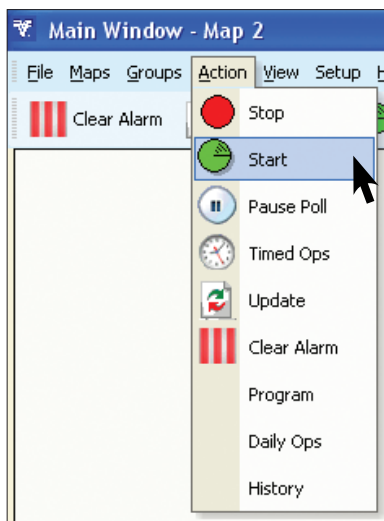
MAIN WINDOW

Action Menu

Start

All machines on the current map can be started collectively, in groups, or individually by selecting the desired machines using the right mouse button or alternately using Select Saved Group or Select All Remotes.

To start a remote, right click on a remote to select it, a black ring will show in the center of the remote. Click on Action, then click on Start in the drop-down dialog box or click on Start in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.

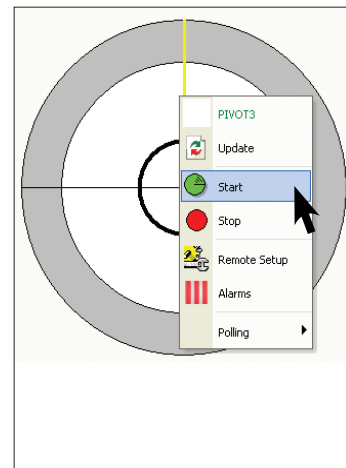


OR

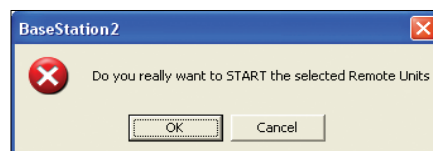


OR

Toolbar Button



Popup Menu Enabled



Click OK to confirm and send the Start command to the selected remotes or click Cancel to cancel the action.

MAIN WINDOW

Action Menu

Polling

Polling is the automatic, unattended process of periodically transmitting to each machine by either radio or phone modem to obtain information about the status of the machine(s). Each remote machine has its own polling period that is entered in the Remote Setup window. Remote machines are polled in the numerical order of the RTU ID.

The polling interval (in minutes) is set in the Remote Setup window for each remote. Setting the interval to zero (0) disables polling. The polling timer for each remote is reset when the BaseStation2-SM program first starts running or when the Remote Setup window for a particular remote is saved by clicking OK to close the Remote Setup window.

If more than one remote is selected when polling is paused or resumed, polling will be paused or resumed on all of the selected remotes.

To Pause or Resume polling:

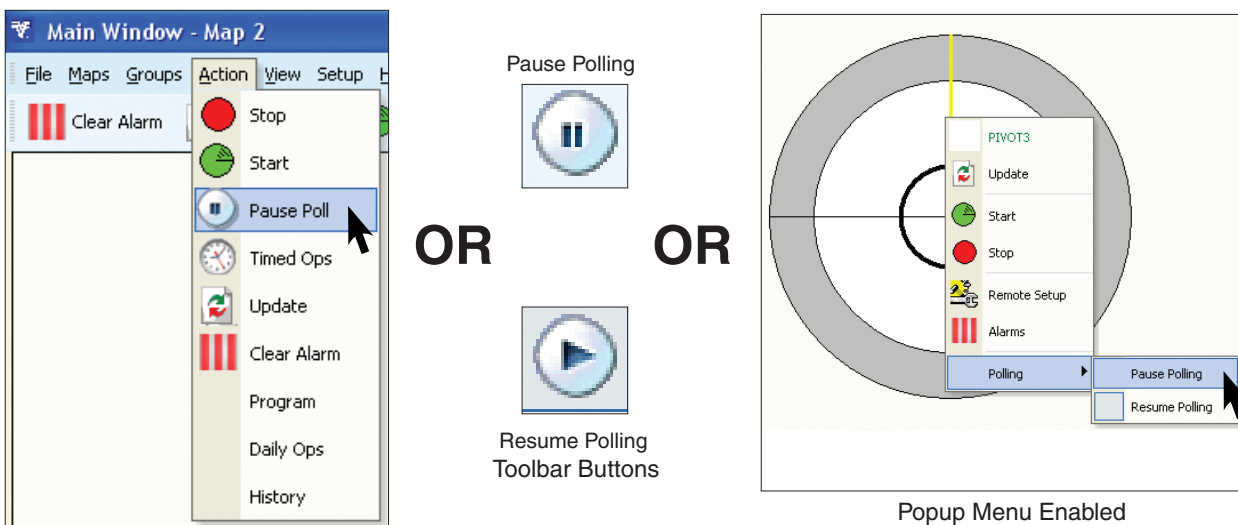
- Click on Action, then Pause Poll or Resume Poll.

or

- Click on the Pause Polling or Resume Polling toolbar button. The toolbar icon changes to reflect the action taken when the button is clicked.

or

- Click on Pause, then Pause Polling or Resume Polling in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



The map background color is white when polling is enabled; the map background color is gray when polling is paused.

A large white circle centered on a map item indicates that the polling interval in Remote Setup for the individual remote is set to zero, or polling for the individual remote is paused.

Polling is automatically paused when a control panel view is opened and automatically resumed when a control panel view is closed. When the control panel view is automatically closed, due to the panel view time out set in the Preferences Window, polling is automatically resumed.

Polling is automatically paused during a Call In or a Call Out session and resumes when the Voice call is complete.

Polling will remain paused indefinitely when manually selected and is not affected by control panel activity, voice activity, or other BaseStation activities that temporarily suspend polling.

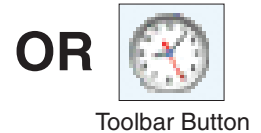
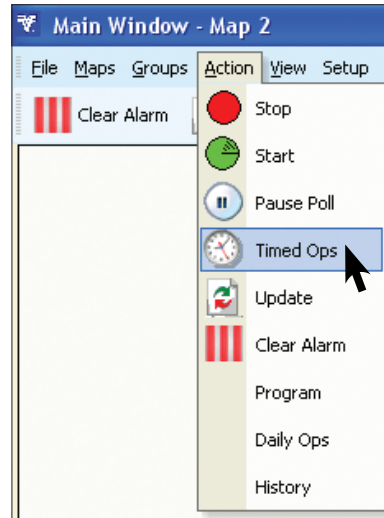
MAIN WINDOW

Action Menu

Timed Ops

Use Timed Ops 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.

1. Select a machine or group of machines that will be started or stopped. All selected machines will show a small black ring in the middle.
2. Click on Action, then on Timed Ops in the drop-down menu or click on the Timed Ops toolbar button to open the Timed Operations window.
 - If a group of machines are selected, all tasks programmed will apply to the entire group.
 - The data used when multiple remotes are selected is defaulted to the first remote selected.



Timed Operations Entry

Start Remote task and Stop Remote task, Date and Time fields become active when adding or editing a task.

When adding or editing a task, click in the Date or Time field to place the cursor in that field.

- Enter Dates in the following format: MM/DD/YYYY
- Enter Times in the following format: HH:MM:SS A.M. or P.M.

The Daily Repeat check box is available only when adding or editing a task.

The Edit button is used to edit task Date, Time, and Daily Repeat. Select task with arrow buttons.

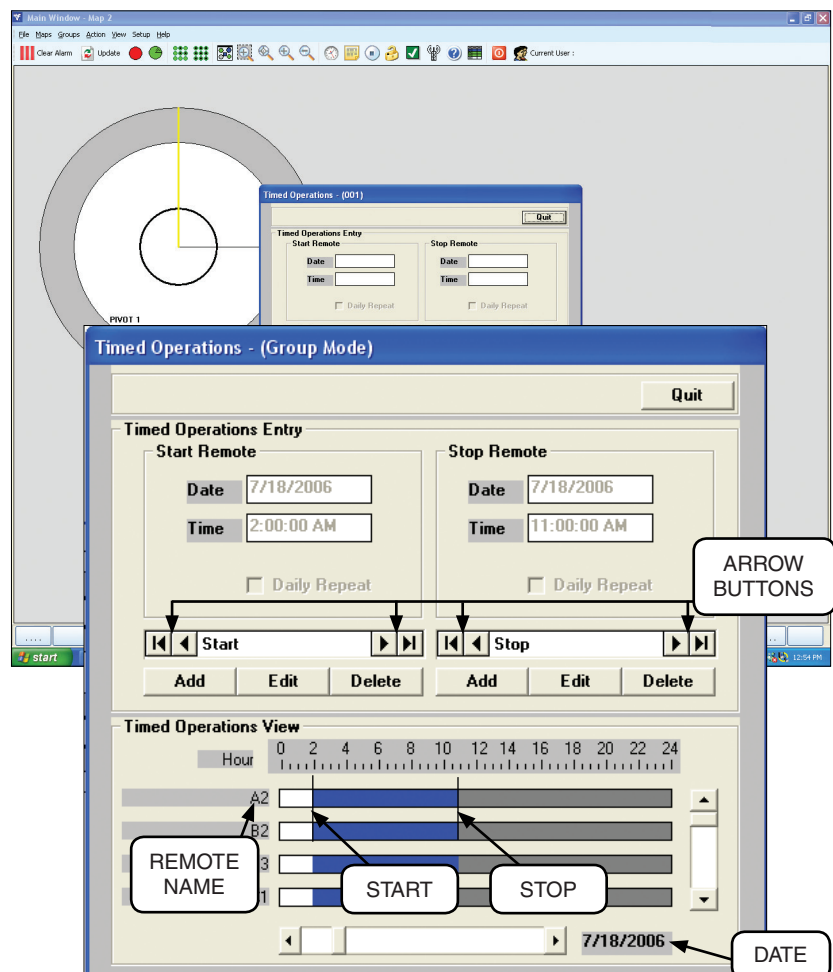
The Delete button is used to delete a Start or Stop task. Select task with arrow button.

Timed Operations View

The Timed Operations View highlights the Start to Stop time for each selected remote with a blue bar. The blue bar starts at the start time and ends at the stop time. The hours are listed above the bar.

Use the scroll bar at the bottom of the Timed Operations View to scroll up to 14 days into the future to verify timed operations settings.

Use the scroll bar at the side of the Timed Operations View to scroll through a group of selected remotes.



MAIN WINDOW

Action Menu

Timed Ops (Continued)

Entering Timed Operations

1. Select the remote(s) to be programmed for Timed Operations.
2. Click on the Add button under Start or Stop to add a new task.
 - Place the cursor in the date field and adjust as desired: MM/DD/YYYY
 - Place the cursor in the Time field and adjust as desired: HH:MM:SS A.M. or P.M.
 - Click on Daily Repeat check box to enable if desired.
3. Click on OK to add the task or Cancel to cancel the action.
 - If changes are desired:
 - Click the Edit button under Start or Stop, then use the arrow buttons to select the task Date and Time to be edited, then enter/adjust the date, time, or daily repeat of the task.

The screenshot shows the 'Timed Operations - (Group Mode)' window. It features a 'Quit' button in the top right. The 'Timed Operations Entry' section has two columns: 'Start Remote' and 'Stop Remote'. Each column contains 'Date' and 'Time' input fields, and a 'Daily Repeat' checkbox. Below these are navigation arrows and buttons for 'Add', 'Edit', and 'Delete' for both Start and Stop tasks. The 'Timed Operations View' section shows a horizontal timeline from 0 to 24 hours. Four tasks are listed: A2, B2, B3, and C1. Each task has a blue bar indicating its duration. A date field at the bottom right shows '7/18/2006'.

or

- Click on the Delete button under start or stop, then use the arrow buttons to select the task Date and Time to be deleted. Click Yes to confirm the delete or click No to cancel the action.

Add as many Start and Stop tasks as needed.

NOTE •Timed Ops only controls Start and Stop commands.

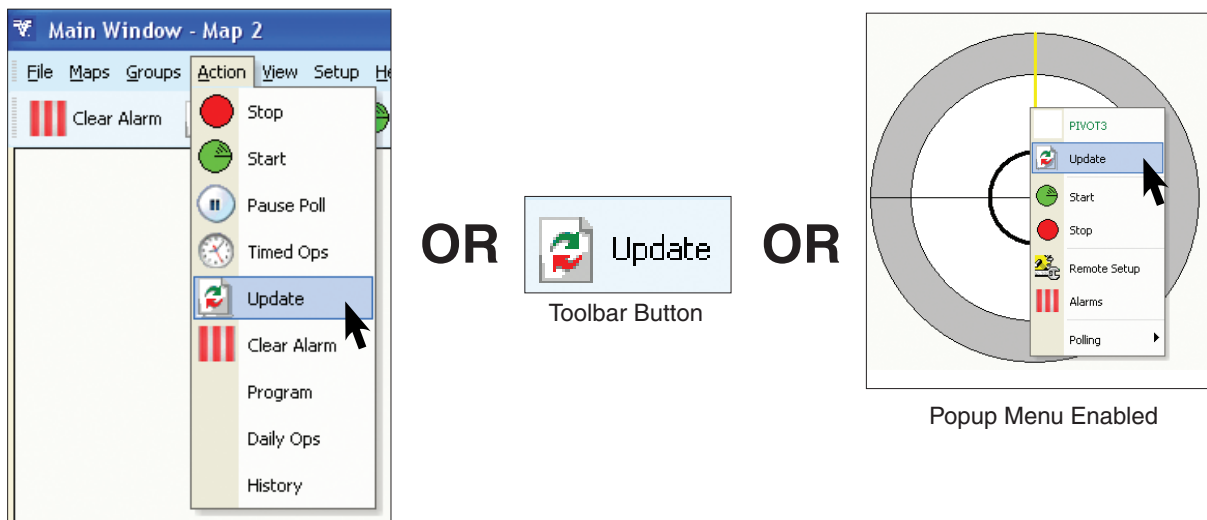
MAIN WINDOW

Action Menu

Update

Use this command to manually update a single, a group, or all the machines, pumps, and/or valves. Use the right mouse button to select each machine or group of machines or use the Select a Saved Group tool. Machine(s) will have a black dot in the center to indicate which are selected.

Then click on Action, then Update in the drop-down menu or click the Request Update toolbar button or click on Update in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



Each machine, pump, or valve will be contacted individually to obtain the current status of existing conditions. You will momentarily see the >>Sending>> and <<Receiving<< messages replace the Main Window while the data is processing. The number of attempts to transmit to each machine, if there is a failed communication, is determined in the Setup, Remote Setup window under Polling Tries.

If more than one machine is selected for updating, BaseStation will transmit to each machine in the order in numerical order according to the RTU ID.

MAIN WINDOW

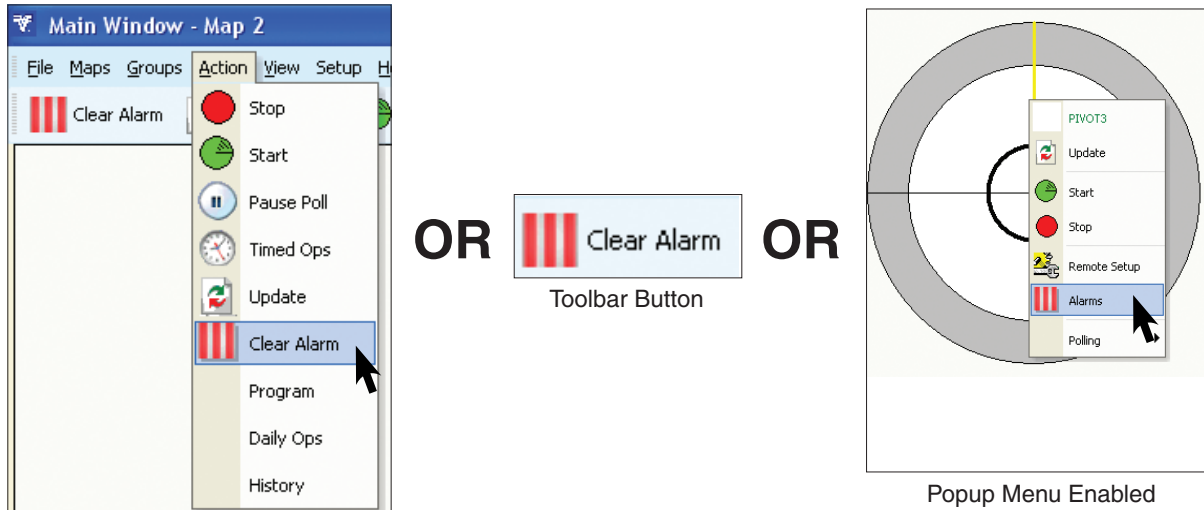
Action Menu

Clear Alarms

Alarm conditions can be cleared by first selecting, with the right mouse button, the remote(s) that have large or small inner red dots, or alternately using the Select Saved Groups or Select All Remotes Buttons.

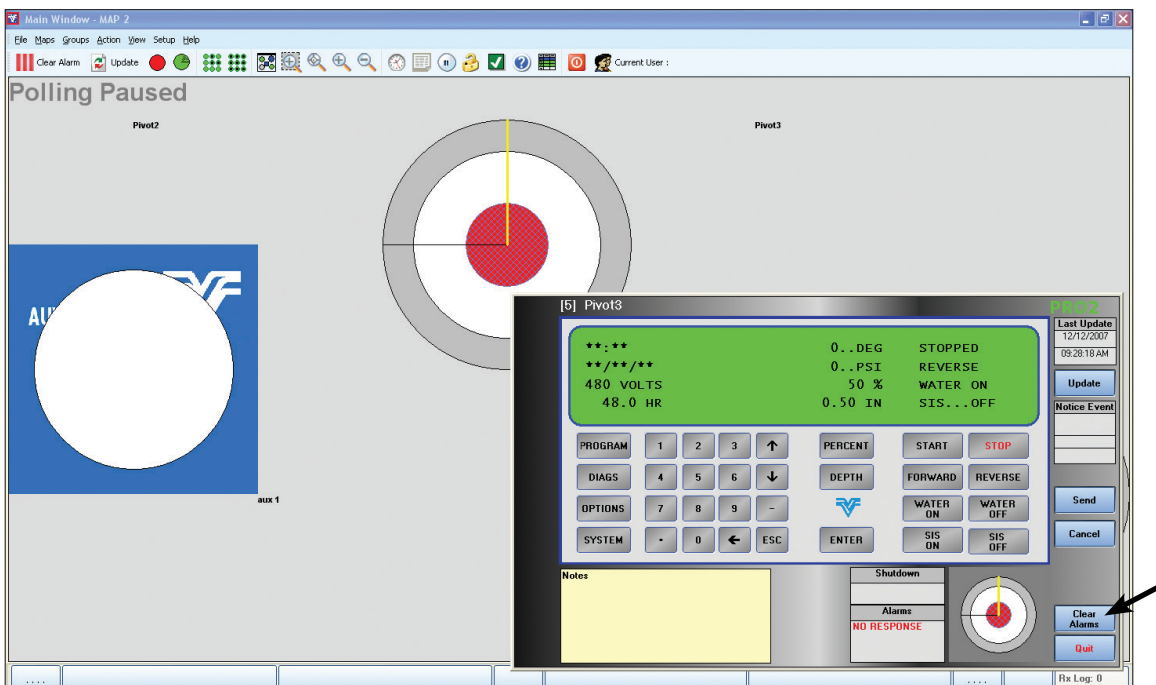
After selecting the remote(s), click on Action, then Clear Alarm in the drop-down menu or click on the Clear Alarm toolbar button or click on Alarms in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.

When the Call Out feature is enabled in Base Setup, clearing an alarm will cancel any Call Out attempts for the remotes with alarms that were cleared.



The machine experiencing the alarm condition will display a small or large red circle for pivots or linear machines.

An Alarm for an individual machine can be cleared in the panel view where the details of the alarm can be viewed. Click on the Clear Alarms button to clear this individual alarm.



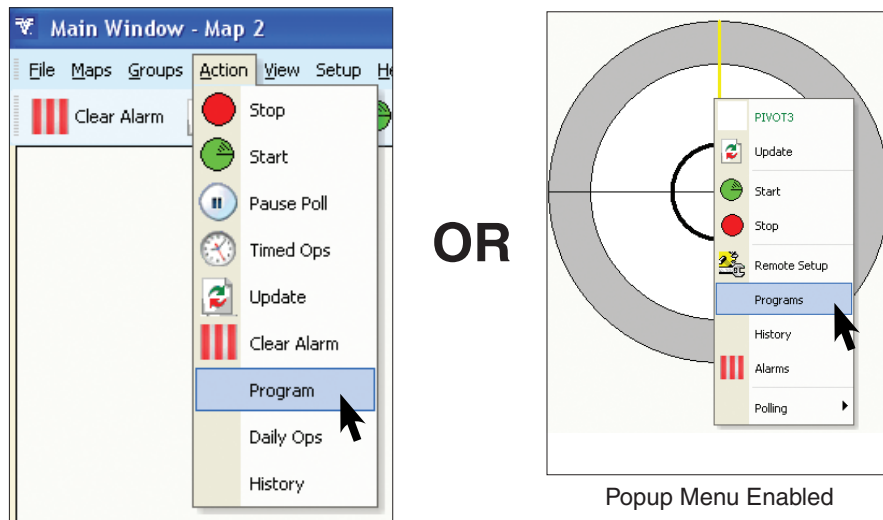
MAIN WINDOW

Action Menu

Programming

The Panel Programming window displays programs associated with an individual Pro v7 or Pro2 v8.0 and higher module. Individual programs can be saved to a file or opened from a file to save on another Pro v7 or Pro2 v8.0 and higher module.

Select one Pro v7 or Pro2 v8.0 and higher remote on the current map, then click on Action, then on Program in the drop-down menu or click on Programs in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



All programs for the selected remote are displayed in the Programs List. All of the programming functions that can be performed at the panel can be performed in the Panel Program window except Run Without Saving which is available only at the control panel.

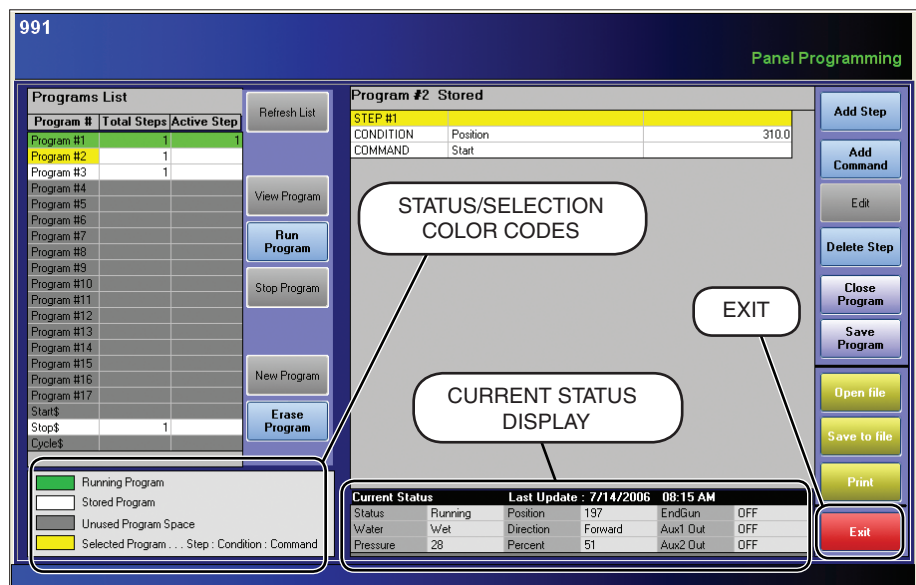
Panel Programming Window

Status and selection color codes define running, stored, selected, and unused programs. Total steps in the program and active steps are shown.

Programs List Highlights

- Green** = Running Program
- White** = Stored Program
- Gray** = Unused Program Space
- Yellow** = Selected Program, Step, Condition, or Command

Current Status display - The last recorded status of the selected remote displayed below the Program Editor.



- Closes the Panel Programming window without saving. Button is available whenever the Panel Programming window is open.

MAIN WINDOW

Action Menu

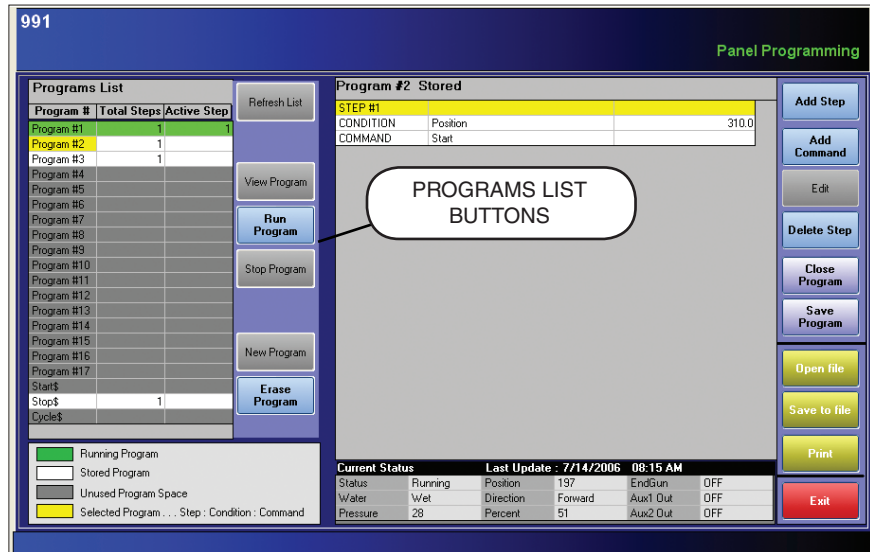
Programming (Continued)

Panel Programming Window (Continued)

Programs List Buttons

- Refresh List**
- Clicking on Refresh List updates the Programs List from the selected remote.

- View Program**
- Select a program by clicking on the program # (causing the line to be highlighted in yellow), then click on View Program to view the selected program in the Program Editor.



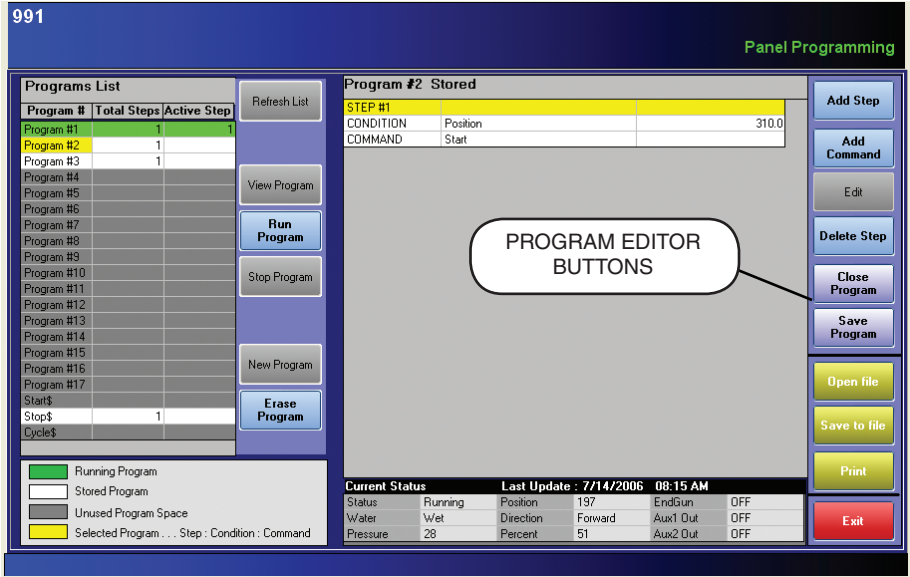
- Run Program**
- Select a program by clicking on the program # (causing the line to be highlighted in yellow), then click on Run Program. Confirm the action by clicking on Yes and a command to run the program is sent to the selected remote or click on No to cancel the action.

- Stop Program**
- Select a program by clicking on the program # (causing the line to be highlighted in yellow), then click on Stop Program. Confirm the action by clicking on Yes and a command to stop the program is sent to the selected remote or click on No to cancel the action.

- New Program**
- Select a program by clicking on the program # (causing the line to be highlighted in yellow), then click on New Program to open the selected program in the Program Editor.

- Erase Program**
- Select a program by clicking on the program # (causing the line to be highlighted in yellow), then click on Erase Program. Confirm the action by clicking on Yes and the program is erased from the selected remote's memory or click on No to cancel the action. Erasing a program will also stop that program if it is running.

Programming (Continued) Panel Programming Window (Continued) Program Editor Buttons

- Add Step** • Use to add a step to a stored or new program. Button is available after selecting a program # and clicking on View Program or New Program.
- Add Command** • Use to add a command to an existing step. Button is available after selecting a step, condition, or command in the Program Editor.
- 
- Edit Condition** • Use to edit a condition in an existing step. Button is available after selecting a condition within a step in the Program Editor.
- Edit Command** • Use to edit a command in an existing step. Button is available after selecting a command within a step in the Program Editor.
- Delete Step** • Use to delete a step from a program. Button is available after selecting a step within the program in the Program Editor.
- Delete Command** • Use to delete a command from an existing step. Button is available after selecting a command within a step in the Program Editor.
- Close Program** • Closes the program currently displayed in the program editor without saving. Button is available whenever a program is displayed in the Program Editor.
- Save Program** • Saves the program currently displayed in the program editor to the remote. Button is available whenever a program is displayed in the Program Editor.
- Open file** • Replaces or creates the steps of a stored or new program, with a previously saved .csv program file, that is usually located in C:\camsPrograms\ on the computer. Button is available whenever a program is displayed in the Program Editor.
- Save to file** • Saves the program currently displayed in the program, in the .csv file format, usually to C:\camsPrograms\ on the computer hard drive. The file is automatically named CAMSPROGRAM with a date and time identifier (example: CAMSPROGRAM0714-1120.csv). An operator can keep this file name or enter a different file name. Button is available whenever a program is displayed in the Program Editor.
- Print** • Prints the current program window view to a default printer. Button is available whenever a program is displayed in the Program Editor.

MAIN WINDOW

Action Menu

Programming (Continued)

Panel Programming Window (Continued)

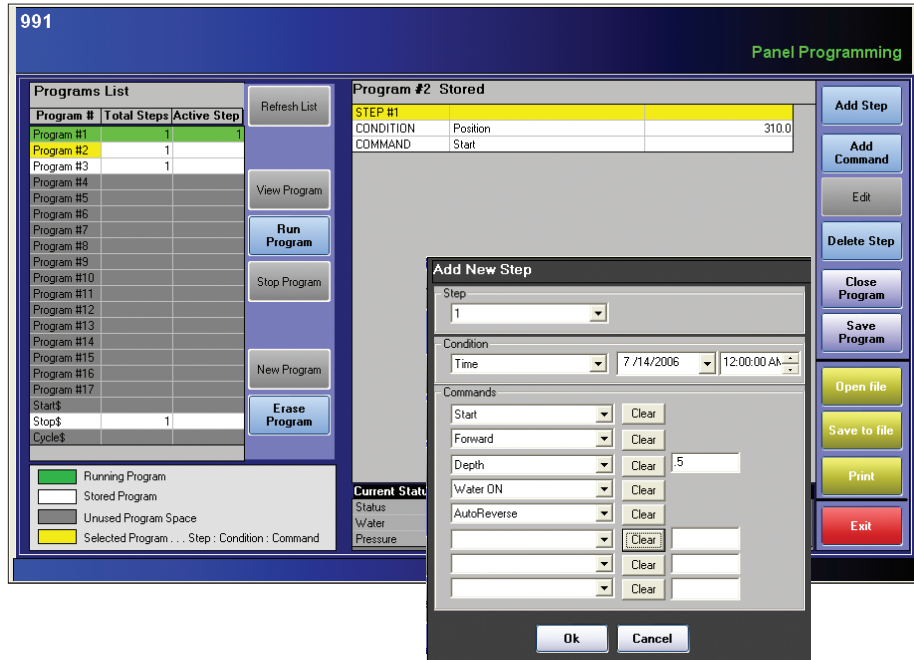
Creating Programs With Add Step

1. Select a running, stored, or unused program # then click on View Program or New Program.

2. Click on Add Step, then the Add New Step window opens OR Click on Open File and the Open Program window is displayed.

3. Select step 1 from the Step drop down list OR select the program file to open.

4. Select a condition from the Condition drop down list. Depending on the condition, additional fields may appear that need to be completed with information about the condition selected.



5. From the Commands drop down lists, select up to 8 different commands, one on each command line. Depending on the command, additional fields may appear that need to be filled with information about the command selected.
6. Add another step to program, add another command to a highlighted step or condition, edit a highlighted condition or command.
7. When the program is complete do one or more of the following:
 - Click on Save Program to save the program to the remote and close the program.
 - Click on Save to file to save the program file to the computer.
 - Click on Close Program to close program without saving program to the remote.

Creating Programs With Open File

1. Select a running, stored, or unused program #, then click on View Program or New Program.

2. Click on Open file and the Windows open file window is displayed.

3. Select the file to open. Click Yes to open the file and replace the program steps displayed in the Program Editor with the program steps in the selected file OR click No to cancel the action.

4. Add another step to the program, add another command to a highlighted step or condition, edit a highlighted condition or command, or delete a step or command.

5. When the program is complete do one or more of the following:
 - Click on Save Program to save the program to the remote and close the program.
 - Click on Save to file to save the program file to the computer.
 - Click on Close Program to close program without saving program to the remote.

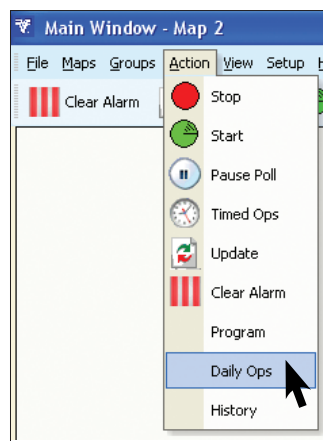
Daily Ops

The BaseStation2-SM Daily Ops Editor window can only be used with Pro2 v 8.10 and higher modules. Other CAMS and Pro modules must be accessed through the panel menus. Daily Ops allows the operator to stop and start the machine at regular predefined times for selected days of the week. See the Pro2 Control Panel Advanced Features Manual, Part Number 0997553 (English), for detailed information about Daily Ops.

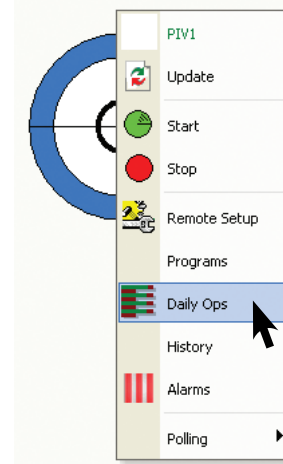
To receive the current Daily Ops panel settings and to send an update of the Daily Ops to the control panel click on Action, then Daily Ops or right click on the Pro2 v 8.10 and higher map item, then Daily Ops to view the Daily Ops window.

NOTE

- Daily Ops does not directly Start or Stop the machine.
- Daily Ops runs the START\$ program at the Start time.
- Daily Ops runs the STOP\$ program at the Stop time.



OR

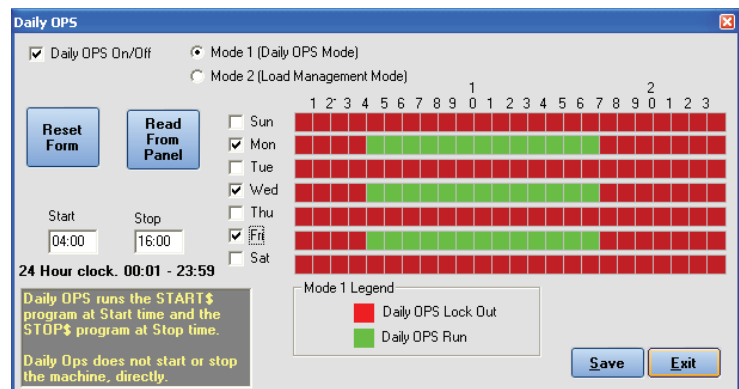


Popup Menu Enabled

Mode 1 - Daily Ops Mode

Provides a load management shutdown mechanism with a lockout feature for energy rate contract eligibility. Click on the Mode 1 (Daily Ops Mode) radio button to activate the Daily Ops Mode.

1. To turn Daily Ops On, click on the Daily Ops On/Off check box.
2. Click in the Start box and enter a time for starting the Daily Ops.
3. Click in the Stop box and enter a time for stopping the Daily Ops.
4. Click in the boxes next to each of the days that the Daily Ops will occur. Note that the graph will change accordingly.
5. Click the Reset Form button to clear and restart the Daily Ops setup. Repeat steps 2 through 5.



or

Click the Read From Panel button to refresh the display with the settings from the panel.

or

Click the Save button to send the information to the panel.

or

Click the Exit button to ignore any changes and return to the Main window.

MAIN WINDOW

Action Menu

Daily Ops (Continued)

Mode 2 - Load Management Mode

Provides a load management shutdown mechanism without a lockout feature. Click on the Mode 2 (Load Management Mode) radio button to activate the Daily Ops Load Management Mode.

1. To turn Daily Ops On, click on the Daily Ops On/Off check box.
2. To activate the Daily Ops, click on the Activate Daily Ops check box.
3. Click in the Start box and enter a time for starting the Daily Ops.
4. Click in the Stop box and enter a time for stopping the Daily Ops.
5. Click in the boxes next to each of the days that the Daily Ops will occur. Note that the graph will change accordingly.

6. Click the Reset Form button to clear and restart the Daily Ops setup.

Repeat steps 3 through 6.

or

Click the Read From Panel button to refresh the display with the settings from the panel.

or

Click the Save button to send the information to the panel.

or

Click the Exit button to ignore any changes and return to the Main window.

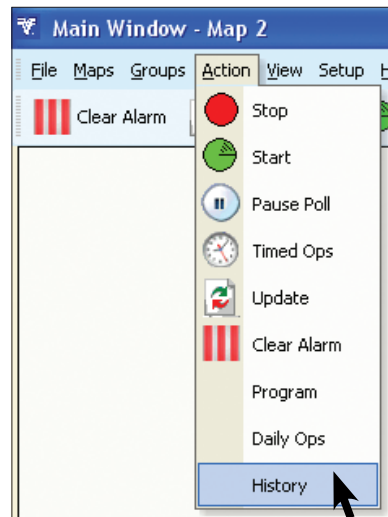
MAIN WINDOW

Action Menu

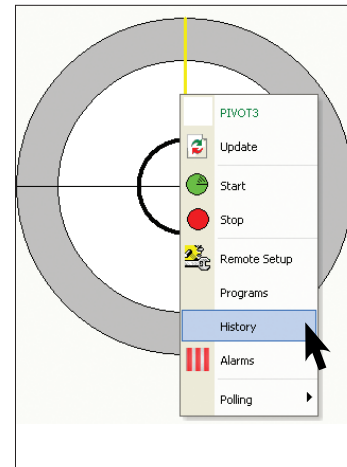
History

The History window displays event history that is stored in an individual Pro v7 or Pro2 v8.0 and higher or AutoPilot control panel. Control panel history contains machine status changes, logged with the date and time of the event. History can be saved to a comma separated values (.csv) file and viewed with Microsoft Excel. *

Select a Pro v7 or Pro2 v8.0 and higher or AutoPilot control panel remote on the current map, then click on Action, then History in the drop-down menu or click on History in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



OR



Popup Menu Enabled

When the History window is opened, the Review History Total is set to the number of history lines (maximum 50 lines) that exist in the module at that time.

When the maximum number of 50 history lines exist in the control panel module, any new event is added as history line number 1 and the oldest history line is discarded.

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Review History

Review History Total: 50 Get History: 50 Get All History Cancel Print Export Quit

#	Date	Time	Type	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/dry	Program	Restart	Aux1 Out	SIS
1	10/14/2008	13:56:51	LINEAR A	Running	500 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
2	10/14/2008	13:56:50	LINEAR A	Waiting	500 Ft	40	0.42	60	FORWARD	500	WATER ON	*PROGRAM*			SIS ON
3	10/14/2008	13:49:33	LINEAR A	Stopped	500 Ft	40	0.42	60	FORWARD	489	WATER ON	*PROGRAM*			SIS ON
4	10/14/2008	13:36:21	LINEAR A	Running	300 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
5	10/14/2008	13:36:21	LINEAR A	Waiting	300 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
6	10/14/2008	13:34:21	LINEAR A	Paused	500 Ft	40	0.42	60	FORWARD	492	WATER ON	*PROGRAM*			SIS ON
7	10/14/2008	13:34:21	LINEAR A	Running	500 Ft	40	0.42	60	FORWARD	492	WATER ON	*PROGRAM*			SIS ON
8	10/14/2008	13:16:26	PIVOT C	Running	26 Deg	40	0.25	100	FORWARD	489	WATER ON	*PROGRAM*			SIS ON
9	10/14/2008	13:02:32	PIVOT A	Running	26 Deg	40	0.25	100	FORWARD	487	WATER ON	*PROGRAM*			SIS ON
10	10/14/2008	13:00:26	PIVOT A	Running	26 Deg	40	0.25	100	FORWARD	485	WATER ON	*PROGRAM*			SIS OFF
11	10/14/2008	12:58:22	LINEAR A	Running	385 Ft	40	0.42	60	FORWARD	489	WATER ON	*PROGRAM*			SIS OFF
12	10/14/2008	12:55:15	LINEAR A	Running	450 Ft	40	0.42	60	FORWARD	491	WATER ON	*PROGRAM*			SIS ON
13	10/14/2008	12:55:13	LINEAR A	Waiting	450 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
14	10/14/2008	12:54:20	LINEAR A	Stopped	702 Ft	0	0.42	60	FORWARD	491	WATER ON	*PROGRAM*			SIS ON
15	10/14/2008	12:53:18	LINEAR A	Waiting	702 Ft	0	0.42	60	FORWARD	497	WATER ON	*PROGRAM*			SIS ON
16	10/14/2008	11:50:57	LINEAR A	Stopped	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
17	10/14/2008	11:49:57	LINEAR A	Waiting	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
18	10/14/2008	11:49:56	LINEAR A	Running	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
19	10/14/2008	11:49:51	LINEAR A	Running	700 Ft	0	0.25	100	FORWARD	488	WATER OFF	*PROGRAM*			SIS ON
20	10/14/2008	11:49:49	LINEAR A	Waiting	700 Ft	0	0.25	100	FORWARD	493	WATER OFF	*PROGRAM*			SIS ON
21	10/14/2008	11:49:38	LINEAR A	Stopped	700 Ft	0	0.25	100	FORWARD	493	WATER OFF	*PROGRAM*			SIS ON
22	10/14/2008	11:49:04	PIVOT C	Stopped	26 Deg	0	0.25	100	FORWARD	500	WATER OFF	*PROGRAM*			SIS ON
23	10/14/2008	11:46:14	LINEAR A	Stopped	520 Ft	0	0.25	100	FORWARD	486	WATER OFF	*PROGRAM*			SIS ON
24	10/14/2008	11:25:25	LINEAR A	Running	Ft	0	0.25	100	FORWARD	485	WATER OFF	*PROGRAM*			SIS ON

* Microsoft Excel must be installed on the computer to use this option.

MAIN WINDOW

Action Menu

History (Continued)

Review History Buttons

Review History Total

- When the Review history window is opened the Review History Total field is populated with the total number of history lines that exist in the control panel module. Click this button to refresh the total.

Get History

- Use Get History to display individual history lines selected by number from the selected Pro v7, Pro2 v8.0, Pro2 v8.1 or AutoPilot module. Use the arrow buttons to select a history line to display, then click Get History.

Get All History

- Use Get All History to display all the history lines in the selected Pro v7, Pro2 v8.0, Pro2 v8.1 or AutoPilot module. Starting with the current line number in the selection box. Click Get All History.

Cancel

- While Getting All History the cancel button is active. Click the Cancel button to cancel the action of Get All History.

Print

- Prints the current Review History window to a default printer. Click on Print, then Yes to confirm the action or click on No to cancel the action.

Export

- Exports the lines of history (without headings) in the .csv file format, usually to C:\camsReviewReports on the computer hard drive. The file is automatically named REVIEW HISTORY with a date and time identifier, (example: REVIEW HISTORY0717-1149.csv). You can keep this file name or enter a different file name.

The file can be viewed without headings using a spreadsheet application.

Quit

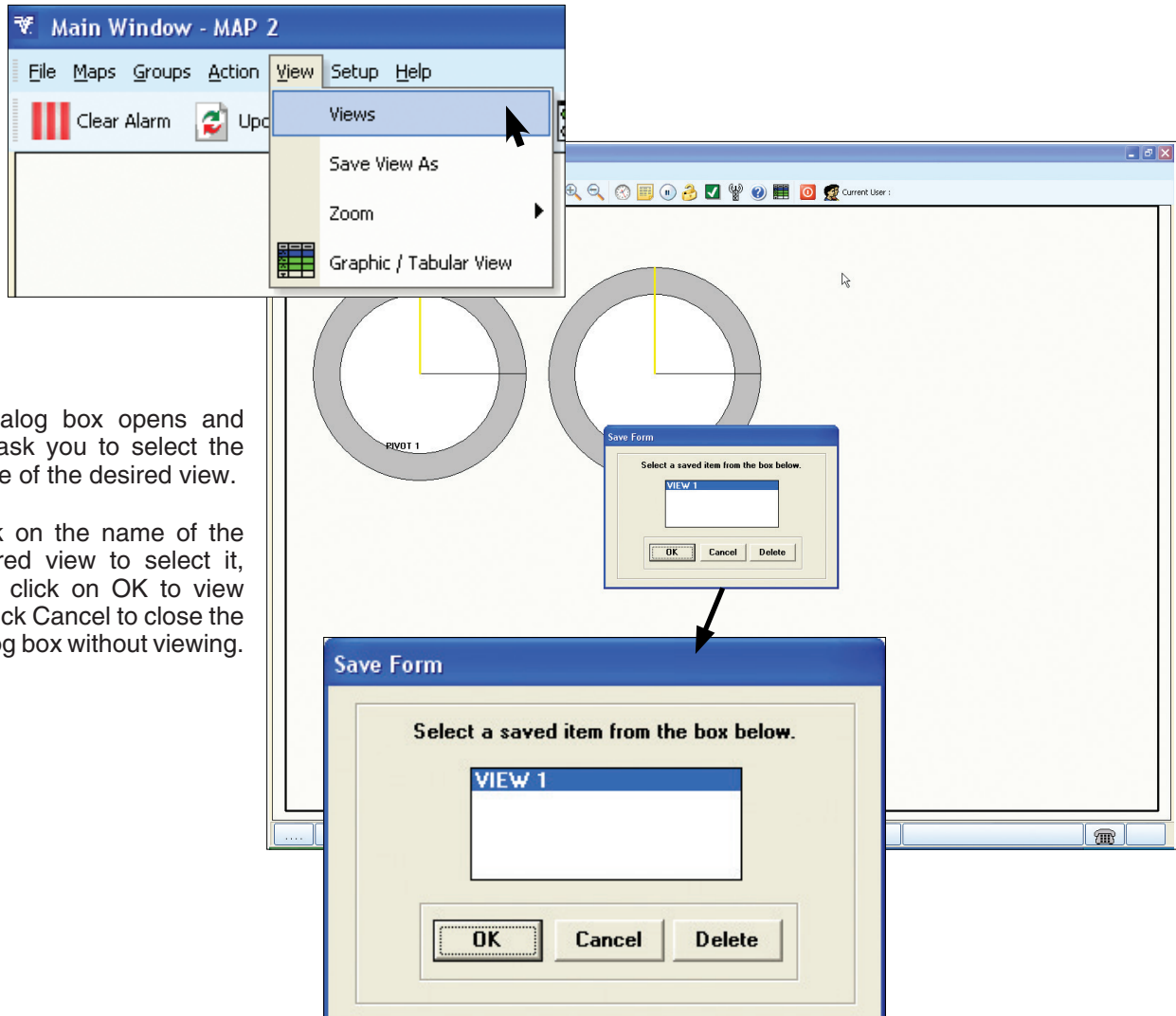
- Closes the Review History window.

#	Date	Time	Type	Status	Position	Pressure	Depth	Percent	Direction	Volts	Wet/dry	Program	Restart	Aux1 Out	SIS
1	10/14/2008	13:56:51	LINEAR A	Running	500 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
2	10/14/2008	13:56:50	LINEAR A	Waiting	500 Ft	40	0.42	60	FORWARD	500	WATER ON	*PROGRAM*			SIS ON
3	10/14/2008	13:49:33	LINEAR A	Stopped	500 Ft	40	0.42	60	FORWARD	489	WATER ON	*PROGRAM*			SIS ON
4	10/14/2008	13:36:21	LINEAR A	Running	300 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
5	10/14/2008	13:36:21	LINEAR A	Waiting	300 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
6	10/14/2008	13:34:21	LINEAR A	Paused	500 Ft	40	0.42	60	FORWARD	492	WATER ON	*PROGRAM*			SIS ON
7	10/14/2008	13:34:21	LINEAR A	Running	500 Ft	40	0.42	60	FORWARD	492	WATER ON	*PROGRAM*			SIS ON
8	10/14/2008	13:16:26	PIVOT C	Running	26 Deg	40	0.25	100	FORWARD	489	WATER ON	*PROGRAM*			SIS ON
9	10/14/2008	13:02:32	PIVOT A	Running	26 Deg	40	0.25	100	FORWARD	487	WATER ON	*PROGRAM*			SIS ON
10	10/14/2008	13:00:26	PIVOT A	Running	26 Deg	40	0.25	100	FORWARD	485	WATER ON	*PROGRAM*			SIS OFF
11	10/14/2008	12:58:22	LINEAR A	Running	385 Ft	40	0.42	60	FORWARD	489	WATER ON	*PROGRAM*			SIS OFF
12	10/14/2008	12:55:15	LINEAR A	Running	450 Ft	40	0.42	60	FORWARD	491	WATER ON	*PROGRAM*			SIS ON
13	10/14/2008	12:55:13	LINEAR A	Waiting	450 Ft	40	0.42	60	FORWARD	495	WATER ON	*PROGRAM*			SIS ON
14	10/14/2008	12:54:20	LINEAR A	Stopped	702 Ft	0	0.42	60	FORWARD	491	WATER ON	*PROGRAM*			SIS ON
15	10/14/2008	12:53:18	LINEAR A	Waiting	702 Ft	0	0.42	60	FORWARD	497	WATER ON	*PROGRAM*			SIS ON
16	10/14/2008	11:50:57	LINEAR A	Stopped	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
17	10/14/2008	11:49:57	LINEAR A	Waiting	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
18	10/14/2008	11:49:56	LINEAR A	Running	702 Ft	0	0.42	60	FORWARD	485	WATER ON	*PROGRAM*			SIS ON
19	10/14/2008	11:49:51	LINEAR A	Running	700 Ft	0	0.25	100	FORWARD	488	WATER OFF	*PROGRAM*			SIS ON
20	10/14/2008	11:49:49	LINEAR A	Waiting	700 Ft	0	0.25	100	FORWARD	493	WATER OFF	*PROGRAM*			SIS ON
21	10/14/2008	11:49:38	LINEAR A	Stopped	700 Ft	0	0.25	100	FORWARD	493	WATER OFF	*PROGRAM*			SIS ON
22	10/14/2008	11:49:04	PIVOT C	Stopped	26 Deg	0	0.25	100	FORWARD	500	WATER OFF	*PROGRAM*			SIS ON
23	10/14/2008	11:46:14	LINEAR A	Stopped	520 Ft	0	0.25	100	FORWARD	486	WATER OFF	*PROGRAM*			SIS ON
24	10/14/2008	11:25:25	LINEAR A	Running	Ft	0	0.25	100	FORWARD	485	WATER OFF	*PROGRAM*			SIS ON

Views

To view a previously saved and named view of a portion of your farm - for example, a group of map items in a certain area.

Click on View, then Views in the drop-down menu.



A dialog box opens and will ask you to select the name of the desired view.

Click on the name of the desired view to select it, then click on OK to view or click Cancel to close the dialog box without viewing.

- NOTE**
- The Main Window map view always defaults to Zoom to Full View when the BaseStation2-SM program is started.
 - The Main Window map view is refreshed every 5 minutes using the Zoom to Full View feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
 - If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

MAIN WINDOW

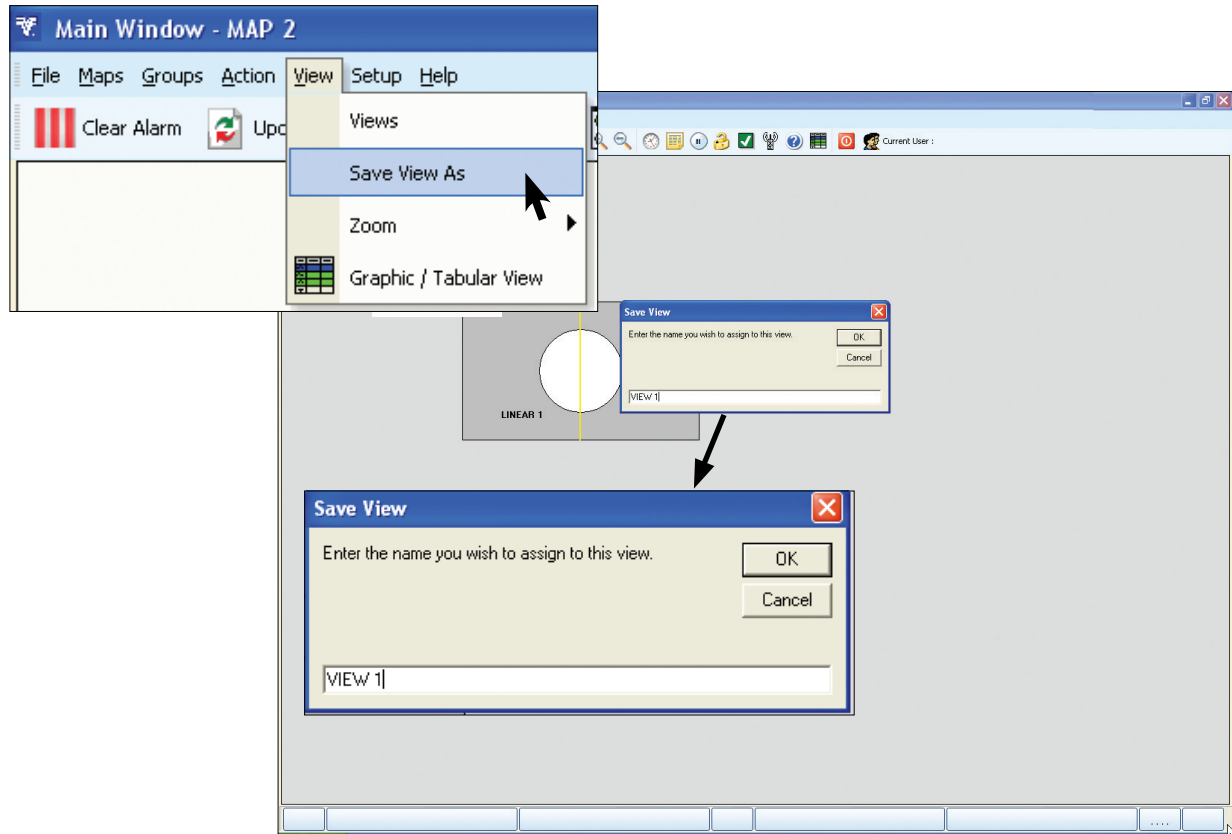
View Menu

Save View As

Different views of a map can be saved. For example, a certain portion of your farm or certain pivots.

Get to the view you wish to save by using the Zoom commands or buttons. Then click on File, then Save View As in the drop-down menu. A dialog box will open and ask you to name the view. Name the view and click OK to save the view or click Cancel to close the dialogue box without saving.

This view can be displayed at any time by clicking on View, then Views in the drop-down dialog box.



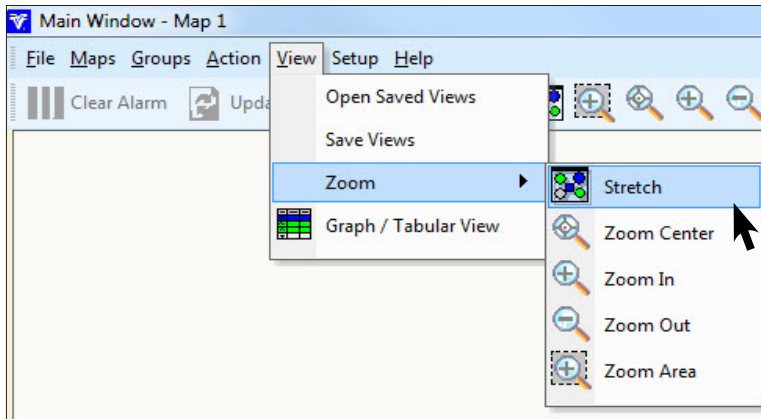
NOTE

- The Main Window map view always defaults to Zoom to Full View when the BaseStation2-SM program is started.
- The Main Window map view is refreshed every 5 minutes using the Zoom to Full View feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
- If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

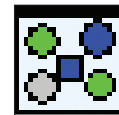
Zoom Stretch

Zoom Stretch changes the view to show the entire map centered in the viewing area. This is handy to get the map back to the center of the window after zooming in or out on a specific area.

Click on View, then click on Zoom, then on Stretch or click on the Stretch toolbar button.



OR



Toolbar Button

Use Zoom Stretch to:

- Return to normal size view window after using any of the other zoom tools.
- Return to the normal size view window and refresh the screen after making changes like copying, pasting, moving, or deleting items in the Map Draw window.
- Return the entire map back to the center of the window.

- NOTE**
- The Main Window map view always defaults to Zoom Stretch when the BaseStation2-SM program is started.
 - The Main Window map view is refreshed every 5 minutes using the Zoom Stretch feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
 - If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

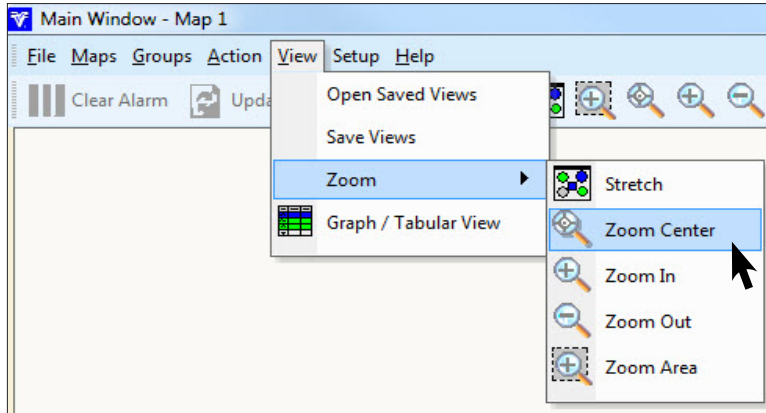
MAIN WINDOW

View Menu

Zoom Center

Zoom Center shifts the center of the viewed window to a specified point. The Zoom Center function is active until it is toggled back off.

Click on View, then Zoom, then Zoom Center or click on the Zoom Center toolbar button.



OR



Toolbar Button

Click at a new center point on the map. The screen will redraw so that the new center point is in the center of the viewing window.

An operator can continue to Zoom Center again by clicking at a new center point on the map without going back to the View Menu.

NOTE •Toggle the Zoom Center toolbar button to stop the function.

- NOTE**
- The Main Window map view always defaults to Zoom Stretch when the BaseStation2-SM program is started.
 - The Main Window map view is refreshed every 5 minutes using the Zoom Stretch feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
 - If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

MAIN WINDOW

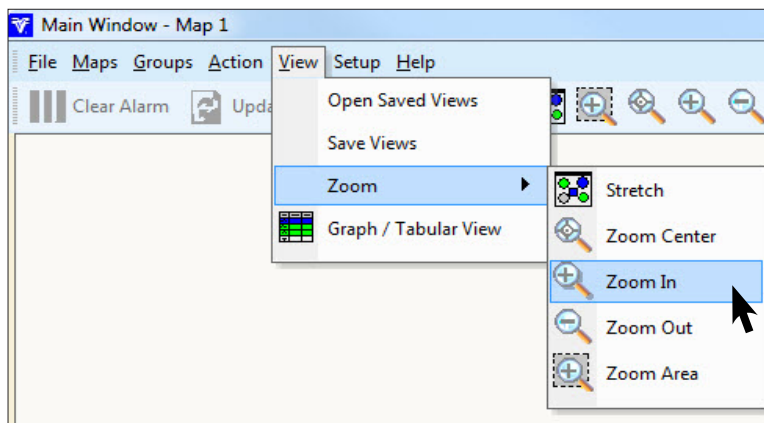
View Menu

Zoom In

Zoom In magnifies a section of the map. The center of the new view is redrawn using the spot where the mouse is clicked as the new center of the map. There are nine zoom levels.

The Zoom In function is active until it is toggled back off. While Zoom In is active, clicking the left mouse button will continue to step to the next greater level of magnification. Pressing the right mouse button will reverse the zoom direction and step the view back out a level of magnification.

Click View, then click on Zoom, then Zoom In or click on the Zoom In toolbar button.



OR



Toolbar Button

Click on the center point of the area in which to Zoom In on and update the view.

An operator can continue to zoom in closer by clicking again on the center point of the area to Zoom In on without going back to the View Menu.

- NOTE**
- Toggle the Zoom In toolbar button to stop the function.
 - Clicking the right mouse button will reverse the zoom direction and zoom out.

- NOTE**
- The Main Window map view always defaults to Zoom Stretch when the BaseStation2-SM program is started.
 - The Main Window map view is refreshed every 5 minutes using the Zoom Stretch feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
 - If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

MAIN WINDOW

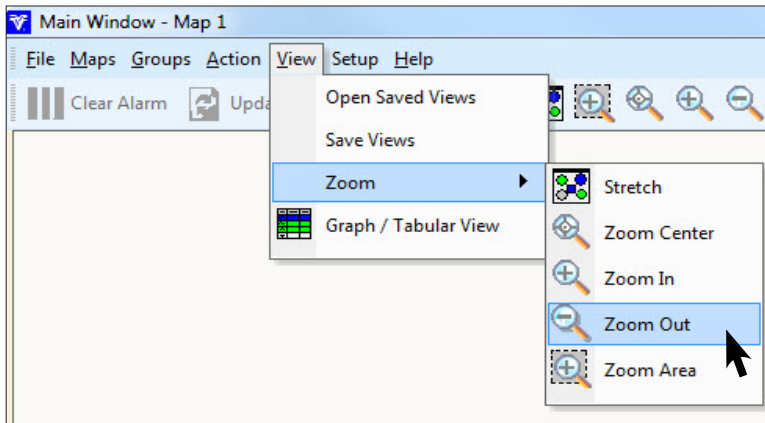
View Menu

Zoom Out

Zoom Out shows a larger portion of the map. The center of the new view is redrawn using the spot where the mouse is clicked as the new center of the map. There are nine zoom levels.

The Zoom Out function is active until it is toggled back off. While Zoom Out is active, clicking the left mouse button will continue to reduce the level of magnification. Clicking the right mouse button will reverse the zoom direction and step the view back in a level of magnification.

Click View, then click on Zoom, then Zoom Out or click on the Zoom Out toolbar button.



OR



Toolbar Button

Click on a center point of the area that you want to zoom out from and the view will update.

An operator can continue to zoom out by clicking again on the center point of the area to zoom out from without going back to the View menu.

NOTE

- Toggle the Zoom Out toolbar button to stop the function.
- Clicking the right mouse button will reverse the zoom direction and zoom in.

NOTE

- The Main Window map view always defaults to Zoom Stretch when the BaseStation2-SM program is started.
- The Main Window map view is refreshed every 5 minutes using the Zoom Stretch feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
- If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

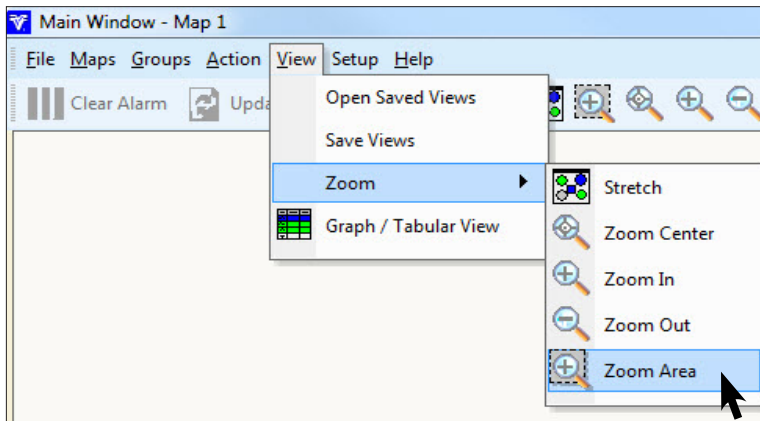
MAIN WINDOW

View Menu

Zoom Area

Zoom Area changes the Main Window view to show a defined viewing area. The Zoom Area function is active until it is toggled back off.

Click on View, then Zoom, then Zoom Area or click on the Zoom Area toolbar button.



OR



Toolbar Button

Click on the upper left corner of the area you wish to view, then click on the lower right corner. The screen will redraw to change the view and zoom in on the rectangle area you have designated.

An operator can continue to zoom area by clicking again on the upper left corner of the area to view, then click on the lower right corner, without going back to the View Menu.

- NOTE**
- Toggle the Zoom Area toolbar button to stop the function.
 - Clicking the right mouse button will reverse the zoom direction and show the previous view.

- NOTE**
- The Main Window map view always defaults to Zoom Stretch when the BaseStation2-SM program is started.
 - The Main Window map view is refreshed every 5 minutes using the Zoom Stretch feature. Refreshing the map view on a regular interval removes any excess text or graphics that may be left on the map from the polling process.
 - If the BaseStation2-SM program is shutdown after the Main Window map view has been adjusted with Zoom Center, Zoom In, Zoom Out, or Zoom Area the adjusted map view is not saved automatically and will not be displayed when the BaseStation2-SM program is started.
 - – To save a Main Window map view use Save View As.
 - – To display a saved Main Window map view use Views.

MAIN WINDOW

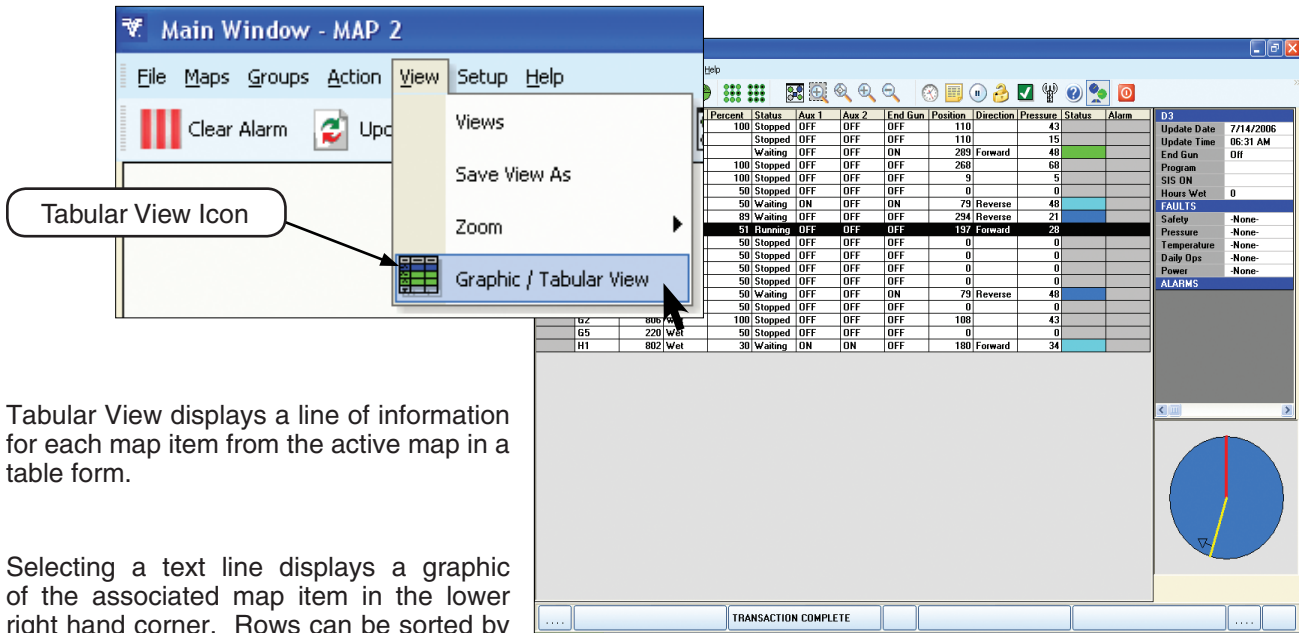
View Menu

Tabular and Graphic View

The Tabular and Graphic View icons toggle between the Tabular View and Graphic View. Click on View, then Graphic/Tabular View in the drop-down menu. The Tabular and Graphic View icons are also available on the Main Window tool bar.

Tabular View

When the Tabular View icon is displayed, clicking on Graphic/Tabular View toggles the map display to the Tabular View.



Tabular View displays a line of information for each map item from the active map in a table form.

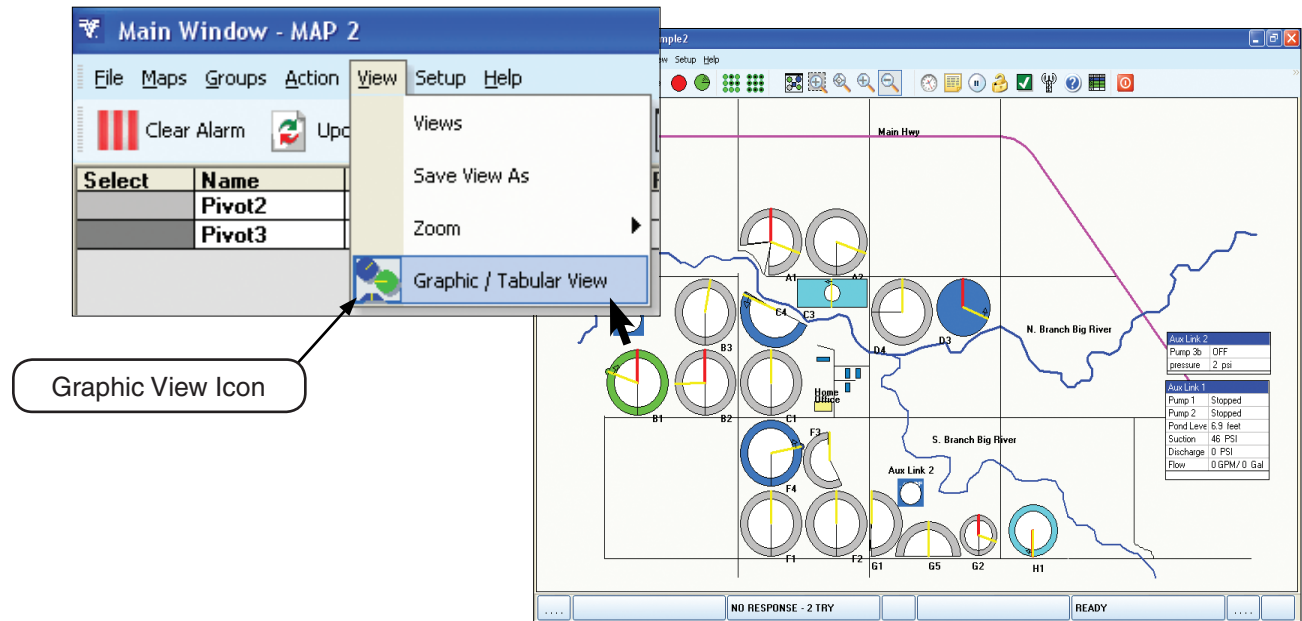
Selecting a text line displays a graphic of the associated map item in the lower right hand corner. Rows can be sorted by clicking on the column heading.

MAIN WINDOW

View Menu

Graphic View

When the Graphic View icon is displayed, clicking on Graphic/Tabular View toggles the map display to the Graphic View. Graphic View displays the active map in graphic form.

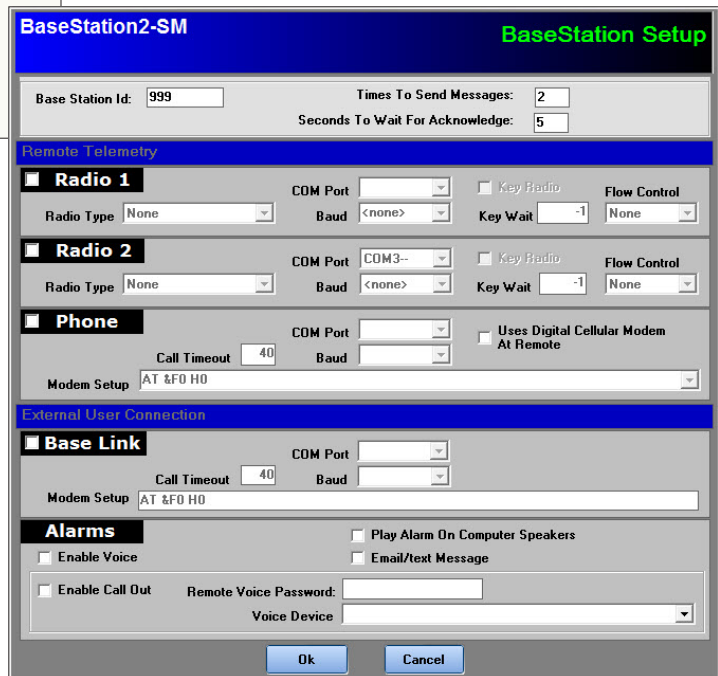
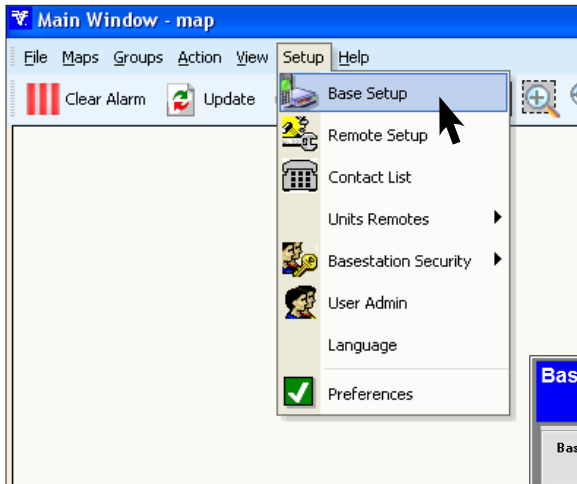


MAIN WINDOW

Setup Menu

Base Setup

Click on Setup, then Base Setup in the drop-down menu to display the Base Setup window.



The following settings for the BaseStation2-SM communications between the computer and the remote machine are made in the BaseStation Setup window:

BaseStation2-SM Constants

- BaseStation ID
- Times to Send Messages
- Time to Wait for Acknowledge

Remote Telemetry

- Radio 1
- Radio 2
- Phone

External User Connection

- Base Link
- Alarms

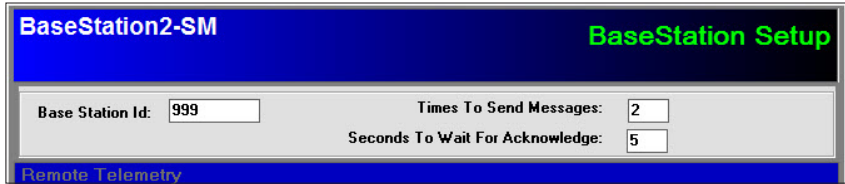
NOTE •The BaseStation2-SM program must be closed and restarted for some setting changes to take affect. Always restart the program to assure the new settings are utilized.

Base Setup (Continued) BaseStation ID

The BaseStation ID is a number used to identify the BaseStation.

The ID assigned can be numbers, characters, or a combination. It should be a unique identifier and must not match any other device.

Avoid using the sequence of "000" since Pro, Pro2, AutoPilot, Select and Select2 modules and Remote Links ship from Valmont with the default ID of "000".



NOTE •For users with a secondary computer with the BaseStation2-SM software or Smart Phone, use different Base IDs for each computer so that they do not attempt to respond to each other. It is suggested that the primary computer ID be set to "999" and the IDs for any secondary computers or smart phones be set to next lower number in numerical order (998, 997, etc.).

Times to Send Messages

The maximum number of attempts that will be made to communicate with the remote (default value is 2 tries). When a communication transaction is successful on the first attempt, the BaseStation2-SM will not continue with additional tries.

For remotes using radios that may be on the fringe of reliable communications, increasing the number of attempts may be necessary.

Time to Wait for Acknowledge

Time the BaseStation will wait for a response from a remote (default value is 5 seconds). Using radios, key wait delays, and/or trunking systems will delay the transmission of data. The Store and Forward feature also requires additional time for messages to reach their end destination.

If a returned message is not received by the BaseStation2-SM within the allowed response time, the BaseStation2-SM will retry the transaction for as many attempts as specified in the Times to Send Messages limitation.

See Delay Seconds chart for approximate Time to Wait for Acknowledge settings.

DELAY SECONDS

Baud Rate or Radio	Without Store and Forward	With Store and Forward
300 Baud	5	9
1200 Baud	4	8
Data Radio	2	4
SSR	2	4
Phone	2	-

NOTE •Settings may need to be increased to account for longer radio key wait times or unusually large amounts of data being sent to the remote.
•Setting the Time to Wait for Acknowledge for too long of a delay can corrupt the polling or update data being received from the remote.

NOTE •The BaseStation2-SM program must be closed and restarted for some setting changes to take affect. Always restart the program to assure the new settings are utilized.

MAIN WINDOW

Setup Menu

Base Setup (Continued)

Radio 1 / Radio 2

If one radio is connected to the primary computer, enable Radio 1 by clicking a check mark in the Radio 1 check box. If a second radio is connected to the primary computer, enable Radio 2 by clicking a check mark in the Radio 2 check box. Radio 1 must be enabled before Radio 2 can be enabled.

Radio Type

Select the type of radio (Radio & Modem, DataRadio, or SSR Link) connected to the BaseStation computer from the drop down list.

The screenshot shows the 'Remote Telemetry' configuration window. It has a blue title bar and two sections for 'Radio 1' and 'Radio 2'. Each section contains a 'Radio Type' dropdown menu (set to 'None'), a 'COM Port' dropdown menu (set to '<none>'), a 'Baud' dropdown menu (set to '<none>'), a 'Key Radio' checkbox (unchecked), a 'Key Wait' text box (set to '-1'), and a 'Flow Control' dropdown menu (set to 'None').

Baud

Select the baud rate that matches the modem communications data rate: 300, 1200, 4800, or 9600 Baud. The same settings should be used for the remote machine modem at each control panel.

Key Radio

Enable Key Radio by clicking a check in the Key Radio check box when using the 300 and 1200 baud radio modems. This enables the key wait function. Some configurations of DataRadios also require the radio to be keyed.

Key Wait

Key Wait controls the amount of time that the BaseStation2-SM waits after enabling the serial port Request To Send line (RTS) before sending data (default value is 1.0 second). Key Wait duration is affected by the type of radio and the repeater delay requirements. Valmont modems key the radio with the RTS line. VHF and UHF radios typically require a momentary delay from the instant the radio is keyed until the data is transmitted. Other types of radios, such as spread spectrum radios and digital data radios, often have programmable features for managing the transmission of data. They may require only a short key wait period or none at all.

- 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 until the data is sent.

Flow Control

Flow Control is set depending on the radio and/or modem capabilities and the use of Real-Time Updates. The 300 or 1200 baud radios should be set to None and do not typically support CTS or DCD.

- For DataRadio set the flow control to None, or DCD if using Real-Time Updates.
- For SSR link set the flow control to None.
- Valmont 300 and 1200 baud modems, analog radios, and radio harnesses sold before 2008 do not support CTS/DCD radio channel busy detection.

COM Port

Choose the appropriate serial communications port for the radio hardware connection. Unless the radio modem manufacturer supplies a Windows driver for the hardware, a communications port will not show a Windows device attached and is shown as only the COM port designator. The location can be identified by looking at the installed Windows components. In general, from the Start Menu, select Settings - Control Panel and navigate to the view for Modems or Ports to check the communications port settings. Verify that each modem does not have any port conflicts with other installed devices.

Close and restart the BaseStation2-SM program after making changes.

NOTE • BaseStation2-SM must be restarted after changes to Com Port settings are made.

Base Setup (Continued)

Phone

If an external phone modem is used at the BaseStation2-SM for communication to a Valmont PHONE LINK or digital cellular modem, enable Phone by clicking a check mark in the Phone check box.

NOTE •Poor connections will result in message corruption and communication errors. Valmont cannot assure reliable performance under these conditions.

Baud

Select the baud rate that matches the modem communications data rate: 1200 or 9600 Baud. The same settings should be used for the remote machine modem at each control panel. Remote Link and Auxiliary Link are not adjustable.

The screenshot shows the 'Phone' setup window. The 'Phone' checkbox is checked. The 'COM Port' is set to 'COM3--'. The 'Call Timeout' is set to '40'. The 'Baud' rate is set to '1200'. The 'Uses Digital Cellular Modem At Remote' checkbox is checked. The 'Modem Setup' dropdown menu is open, showing the string 'AT H0 &F0 &H0 &N2 &U2 &K0 &M0 X4 E0 S0=1 S15=255 S19=5'.

OR

Modem Setup

Configuration instructions sent to the modem when the BaseStation sends a reset command to the modem. Select the Modem setup string for the hardware that exists at the remote control panel from the Modem Setup drop down list.

The screenshot shows the 'Phone' setup window. The 'Phone' checkbox is checked. The 'COM Port' is set to 'COM3--'. The 'Call Timeout' is set to '40'. The 'Baud' rate is set to '9600'. The 'Uses Digital Cellular Modem At Remote' checkbox is checked. The 'Modem Setup' dropdown menu is open, showing the string 'AT H0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5'.

The Valmont remote phone modem does not use data compression or any error detection/correction.

U.S. Robotics External 56K Fax modem model USR5686D setup strings are shown below:

- For 1200 baud, connecting to the Valmont PHONE LINK phone modem use:
ATH0 &F0 &H0 &N2 &U2 &K0 &M0 X4 E0 S0=1 S15=255 S19=5
- For 9600 baud, connecting to the Valmont digital cellular modem use:
ATH0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5

A separate and dedicated phone line and modem is required for the Phone function because each phone modem for the BaseStation is dedicated to a specific function. While the BaseStation2-SM is running this phone modem is dedicated to the Phone function.

If applicable, the BaseStation will answer all incoming calls in response to Real-Time Updates from phone modems at the remote machines.

COM Port

Choose the appropriate installed modem. Available modems that the BaseStation has identified as installed and working properly in Windows are shown in the drop down list.

Call Timeout

The time allowed for an answering modem to respond to the sending modem (default 40 seconds). Additional delay time may be necessary for cellular phone connections. Weak signals or noisy phone lines may cause long connection times.

Uses Digital Cellular Modem at Remote

Check the box when a digital cellular modem is used in the phone link, whether at the base or the remote(s). When the box is checked, an additional delay of several seconds is added for the cellular service provider to establish a connection to the remote modem.

If digital cellular modems are used and the Uses Digital Cellular Modem at Remote box is not checked, then data will be sent before a complete connection is established with the remote. The message will not be received by the remote unless the number of Times To Send Message is greater than one.

NOTE •BaseStation2-SM must be restarted after changes to Com Port settings are made.

MAIN WINDOW

Setup Menu

Base Setup (Continued)

Base Link

A remote computer running a copy of the BaseStation2-SM can connect to the BaseStation2-SM using an additional phone modem connection. Enable Base Link by clicking a check mark in the Base Link check box.

A separate dedicated phone line and modem is required for Base Link because each phone modem for the BaseStation is dedicated to a specific function.

<input checked="" type="checkbox"/> Base Link	COM Port	COM3--	
Call Timeout	40	Baud	9600
Modem Setup	AT H0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5		

Baud

Select the baud rate, 1200 or 9600, that matches the modem communications data rate. The same settings should be used at the remote computer modem.

Modem Setup

Configuration instructions sent to the modem when the BaseStation sends a reset command to the modem.

Enter the following auto answer modem setup string:

```
ATH0 &F0 &H0 &N6 &U6 &K0 &M0 X4 E0 S0=1 S15=255 S19=5.
```

A separate and dedicated phone line and modem is required for the Base Link function because each phone modem for the BaseStation2-SM is dedicated to a specific function. This phone modem is dedicated to the Base Link function while the BaseStation is running. The modem is configured to auto-answer so that other BaseStation2-SM computers can connect to the primary BaseStation2-SM.

Call Timeout

The time allowed for an answering modem to respond to the sending modem (default 40 seconds). Additional delay time may be necessary for cellular phone connections.

COM Port

Choose the appropriate installed modem. Available modems that the BaseStation has identified as installed and working properly in Windows are shown in the drop down list.

NOTE •The BaseStation2-SM program must be closed and restarted for some setting changes to take affect. Always restart the program to assure the new settings are utilized.
--

Base Setup (Continued) Alarms

Voice

Voice is the Dual Tone Multi Frequency (DTMF) interface that allows the user to call the BaseStation2-SM to monitor and control remote machines by touch tone phone. If Call Out is enabled, Voice will work with the Contact List to call a user contact phone number when a high level alarm condition is detected. When a call is answered a voice message will specify which remote has an alarm condition. A voice prompt will direct you through the menu options. This feature requires that a Contact List and Call Out List be created. Enable Voice by clicking a check mark in the Voice check box.

Call In

Call In is enabled when Voice is checked, activating the ring detect and auto-answer feature.

Call Out

Check to enable. This activates the automatic dial and voice message play feature when a high level alarm has occurred.

The screenshot shows the 'Alarms' configuration window. It has a title bar 'Alarms'. Below the title bar, there are several options: 'Enable Voice' (checked), 'Enable Call Out' (checked), 'Remote Voice Password:' (empty text box), 'Voice Device' (dropdown menu), 'Play Alarm On Computer Speakers' (unchecked), and 'Email/text Message' (unchecked).

Remote Voice Password

This password consisting of up to 6 numbers (default password: none, the field is left blank) is used to access the voice messaging system and is a security feature to keep unauthorized callers from tampering with the BaseStation2-SM.

When calling in, the voice password, followed by the pound sign (#), will allow Call In access to the BaseStation2-SM. The caller is able to request transactions using the touch-tone keypad on the telephone for sending commands and requesting status information.

Voice Device

Choose the appropriate installed modem from the drop down list. Only devices that are recognized as voice compatible are listed. Data modems do not have the ability to exchange the analog signals (playing *.wav files and recognizing the touch tones from the phone keypad) required for the Alarms Voice Call In/Out feature.

A separate dedicated phone line and modem is required for the Voice function because each phone modem for the BaseStation is dedicated to a specific function. The phone modem dedicated to the Voice function cannot be used by any other function while the BaseStation2-SM is running. This phone modem will answer all incoming calls and attempt to dial a call when required to by an alarm.

NOTE •The BaseStation2-SM program must be closed and restarted for some setting changes to take affect. Always restart the program to assure the new settings are utilized.

Play Alarm on Computer Speakers

Check to enable.

When checked, the High Level Alarm message "There is a High Level Alarm" is played on the computer's default Windows speakers when there is a high level alarm.

The screenshot shows the 'Alarms' configuration window. It has a title bar 'Alarms'. Below the title bar, there are several options: 'Enable Voice' (unchecked), 'Enable Call Out' (unchecked), 'Remote Voice Password:' (empty text box), 'Voice Device' (dropdown menu), 'Play Alarm On Computer Speakers' (checked), and 'Email/text Message' (unchecked).

It is the same message that is played over the phone during a Call Out.

MAIN WINDOW

Setup Menu

Base Setup (Continued)

Alarms

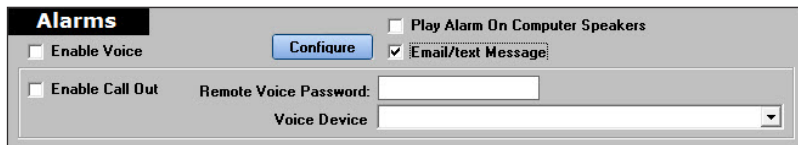
Email/Text Message

When the email software for the computer and BaseStation2-SM is installed, the BaseStation computer works with the Contact List to email and/or text message users when a high level alarm is triggered. This feature requires a dedicated email address for BaseStation and a high speed internet connection.

Enable Email/Text Message

a) Make sure email software for the computer and BaseStation2-SM have been installed.

b) Enable Email/Text Messaging by clicking a check mark in the Email/Text Message check box.



Configure Email/Text Message

c) Configure Email/Text Messaging by clicking the Configure button.

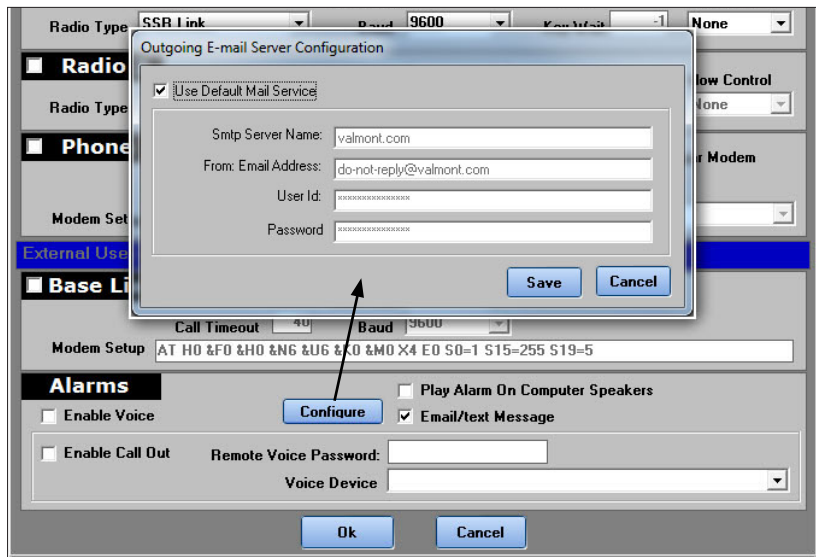
d) Enter the Simple Mail Transfer Protocol (SMTP) server name for your Internet Service Provider (ISP) in the SMTP Server Name field.

e) Enter the BaseStation dedicated email address (basestation2@yourisp.com) in the FROM: Email Address field.

f) Enter the ISP account user I.D. in the User I.D. field.

g) Enter the ISP account password in the Password field.

h) Click Save to save the settings or Cancel to close without saving.



Save Settings

After settings have been made to the Base Setup, click OK to save the settings, then close and restart BaseStation2-SM so that the changes take effect.

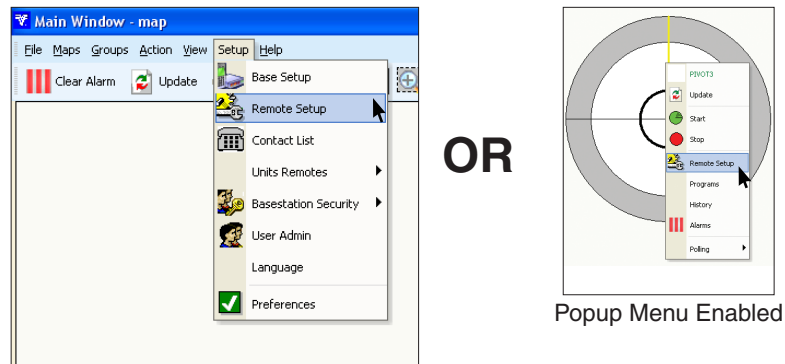
NOTE •If Voice Call Out or Email/Text message was enabled, the Contacts and Notice Groups must be setup/created in the CONTACT LIST.

NOTE •The BaseStation2-SM program must be closed and restarted for some setting changes to take affect. Always restart the program to assure the new settings are utilized.

Remote Setup for Control Panel

The BaseStation2-SM software requires user input of setup parameters for each remote machine that is controlled or monitored by the BaseStation2-SM.

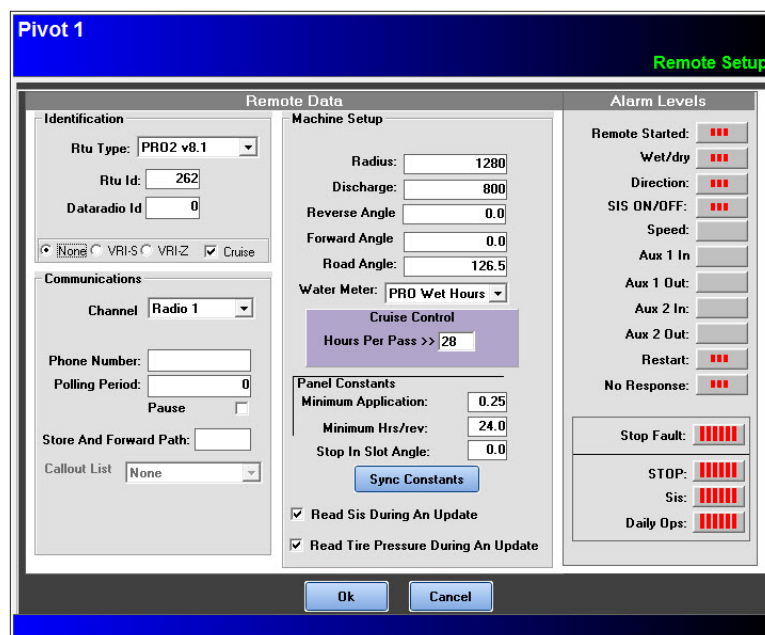
To open the Remote Setup window, first select a remote control panel from the current map, then click Setup, then Remote Setup or click on Remote Setup in the Popup Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



The Remote Setup window is for the selection and then setup of Pro v4/5, Pro v6, Pro v7, Pro2 v8.0 and higher, AutoPilot, Select, Select2, Remote Link, and Panel Link control panels for pivots, linears, pumps, and valves. Remote Setup Window is also used to configure Auxiliary Link panels and Irrrometer Soil Moisture Monitor.

The available settings on the Remote Setup window are determined by the machine, type of remotes, number of remote(s) being setup, and group or single remote selection.

Any changes to the values in the Remote Setup window will be indicated by a change in label color from black letters to blue letters. Clicking OK will close the window and save the new values. Clicking Cancel will close the window without saving the new values.



MAIN WINDOW

Setup Menu

Remote Setup for Control Panel (Continued) Identification

RTU Type

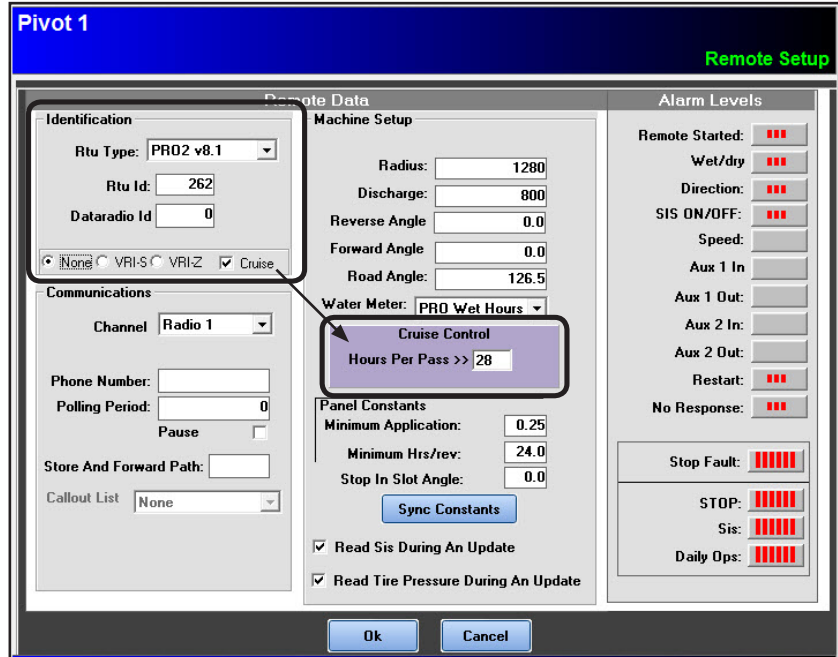
The RTU type must be set to the machine control panel type for appropriate data exchange and proper panel display on the BaseStation computer.

RTU ID

The RTU ID must be set to the machine control panel RTU ID so BaseStation communications can connect with the remote machine. The RTU ID must be unique and cannot match any other device.

DataRadio ID

The DataRadio ID field associates a DataRadio with a remote for Diagnostics use only and is not required for communication with the panel. DataRadio ID field is only shown when DataRadio is selected as the communications channel.



Variable Rate Irrigation

The Variable Rate Irrigation(VRI) feature is available on the remote setup screen when the RTU Type is set to either PRO2 v8.1 or Select2. The remote control panel must be equipped with VRI software and for VRI Zone additional hardware is required.

To enable VRI features in BaseStation for this remote do one of the following depending on RTU Type.

- PRO2 v8.1: Check either the VRI Speed check box or VRI Zone check box.
- Select2: Check the VRI Speed check box. VRI Zone is not available for Select2.

Cruise Control

The Cruise Control feature is available on the remote setup screen when the RTU Type is set to either PRO2 v8.1 or Select2. The remote control panel must be equipped with the Cruise Control software.

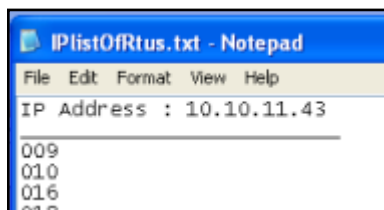
- To enable Cruise Control in BaseStation for this remote, check the Cruise check box and enter the Cruise Control Hours Per Revolution.

Remote Setup for Control Panel (Continued) Communications Channel

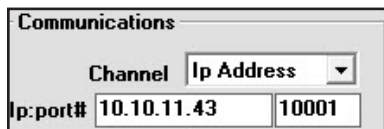
The channel used to communicate with the remote. Select Radio 1, Radio 2, Phone or IP Address from the drop down menu.

IP Address

To use IP Address a text file listing the IP address and a list of RTU IDs (IPlistOfRtus.txt) must be available on the BaseStation computer.



When IP Address is selected the IP Address/Port field appears. Enter the IP address and port number of the communication device being used. BaseStation must be restarted after setting the IP address.



Phone Number

A Phone Number entry is required when a phone modem is used to communicate with the remote.

- The number must be entered exactly as it is dialed; numbers without the dash (-).
- If the BaseStation phone line is through a switch board, enter the outside access number first.
- Special characters recognized by the phone modem can be used. The comma character adds a 2 second pause.

Polling Period

The time between polling tries for obtaining machine status (shown as minutes).

Pause

Pauses polling on the selected remote(s). Click a check mark in the check box, then click on OK.

Store and Forward Path

The Store and Forward Path is used for a Radio Hop function 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 later, Pro2 or AutoPilot.

Enter the RTU ID of the intermediate machine that is used as a relay point. Additional time will be required to relay the message. Increasing the Time to Wait for Acknowledge value in the Base Setup will be necessary (typically double the original Time to Wait), depending on the type of communications being used.

Call Out List

The Call Out List is used to assign a Notice Group Call Out List to be used if a high level alarm occurs on this machine. Used when Alarms Voice Call Out is enabled. A Contact List and Notice Group Call Out List must be created.



MAIN WINDOW

Setup Menu

Remote Setup for Control Panel (Continued)

Machine Setup - Pivot Only

Radius

The Radius value defines the radius of the wetted area of a center pivot machine in feet(ft) or meters(m). This is information only and does not change the size of the pivot circle on the map.

Discharge

The Discharge value in Gallons Per Minute (GPM) or Liters Per Second (LPS), is used when calculating water for the Total Flow.

Note: When a pump is associated with an irrigator and both are represented on the BaseStation as active remote units (such as a pump and a pivot), the Total Flow calculations will include both machine's discharge in the Total Flow calculation.

Pivot 1 Remote Setup

Remote Data

Identification
Rtu Type: PR02 v8.1
Rtu Id: 262
Dataradio Id: 0
 None VRI-S VRI-Z Cruise

Machine Setup
Radius: 1280
Discharge: 800
Reverse Angle: 0.0
Forward Angle: 0.0
Road Angle: 126.5
Water Meter: PRD Wet Hours

Communications
Channel: Radio 1
Phone Number:
Polling Period: 0
Pause
Store And Forward Path:
Callout List: None

Cruise Control
Hours Per Pass >> 28

Panel Constants
Minimum Application: 0.25
Minimum Hrs/rev: 24.0
Stop In Slot Angle: 0.0

Read Sis During An Update
 Read Tire Pressure During An Update

Alarm Levels
Remote Started: ■■■
Wet/dry: ■■■
Direction: ■■■
SIS ON/OFF: ■■■
Speed: ■■■
Aux 1 In: ■■■
Aux 1 Out: ■■■
Aux 2 In: ■■■
Aux 2 Out: ■■■
Restart: ■■■
No Response: ■■■
Stop Fault: ■■■■
STOP: ■■■■
Sis: ■■■■
Daily Ops: ■■■■

Reverse Angle

The Reverse Angle is the extreme counterclockwise movement boundary for a circle. This can be changed to adjust the part circle drawing on the main map.

Forward Angle

The Forward Angle is the extreme clockwise movement boundary for a circle. This can be changed to adjust the part circle drawing on the main map.

Road Angle

The Road Angle is the position of the road in the field.

Remote Setup for Control Panel (Continued)

Machine Setup - Linear Only

The machine setup screen varies depending on the system type selected. Shown below are both a Standard System Machine Setup Screen and a Universal System Setup Screen.

Machine Length

The length of linear machine in feet (ft) or meters (m).

Cart Position (Standard Linear Only)

The location where the cart path line is drawn on the map item, in relationship to the first corner of map item clicked when the map item was drawn. Enter the value in feet (ft) or meters (m).

Note: Cart Position is not available for Universal System Type. Universal Linear cart path location is automatically calculated at the center of the field.

Discharge

The Discharge value in Gallons Per Minute (GPM) or Liters Per Second (LPS), is used when calculating water for the Total Flow.

Note: When a pump is associated with an irrigator and both are represented on the BaseStation as active remote units (such as a pump and a linear), the Total Flow calculations will include both machine's discharge in the Total Flow calculation.

Linear Start

The starting position of the span icon on the linear map item and is usually set to zero(0). The value entered must match the value in the remote control panel for accurate calculation of span position. Enter the value in feet (ft) or meters (m).

Linear End

The ending position of the span icon on the linear map item and is usually set to the length of the field. The value entered must match the value in the remote control panel for accurate calculation of span position. Enter the value in feet (ft) or meters (m).

Marker Location

The marker location represents the hose coupler locations. Up to six (6) marker locations can be entered. Enter the values in feet (ft) or meters (m) (For display information only).

Standard System Machine Setup Screen

Universal System Setup Screen

MAIN WINDOW

Setup Menu

Remote Setup for Control Panel (Continued) Water Meter

The Water Meter selection provides three choices of water monitoring methods: None, Pro Wet Hours, and 1 or 2 Flowmeters. None is the default method. The method selected here determines the formula that is used in Reports. None is the only method available for Select and Panel Link panels.

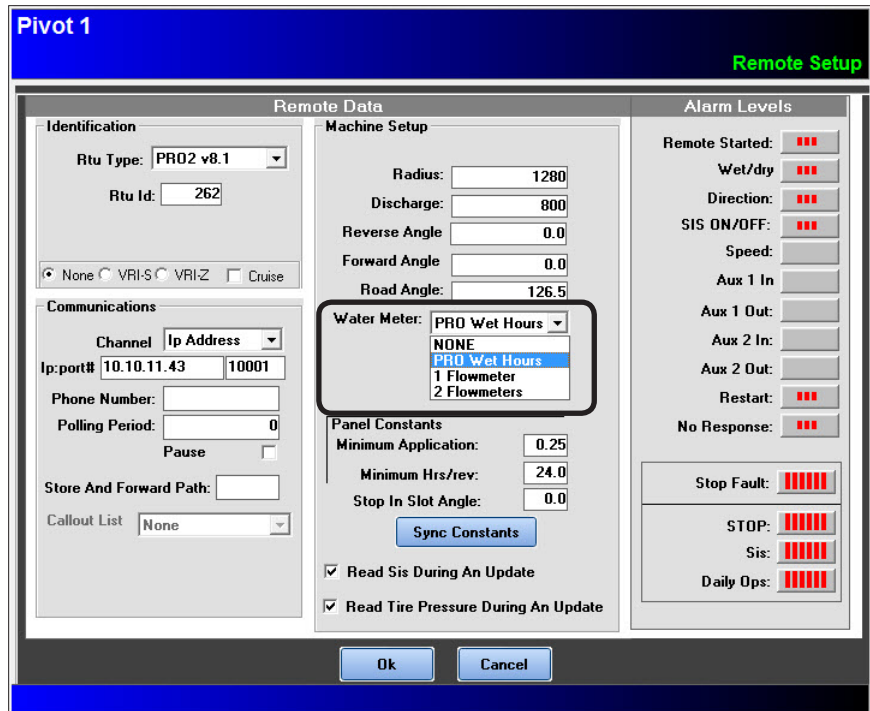
None

Dictates that water reports are based on calculated approximations of water discharge in Gallons Per Minute (GPM) or Liters Per Second (LPS).

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

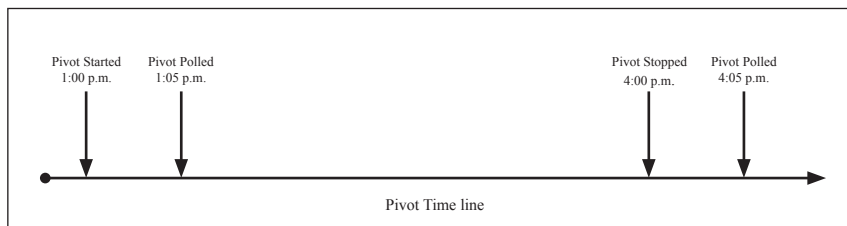
In this example, at a discharge rate of 170 gpm, the Totals Report will calculate the number of minutes that the machine was running wet during the report period and multiply that by 170.

The report is only as accurate as the status update records for logging start and stop times.



The BaseStation2-SM records actual start and stop times that are commanded through the BaseStation2-SM. 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.

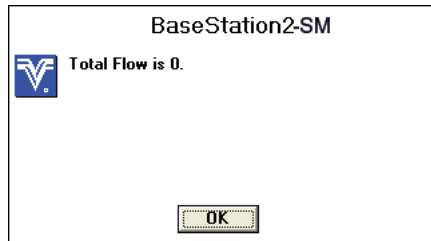
Example:



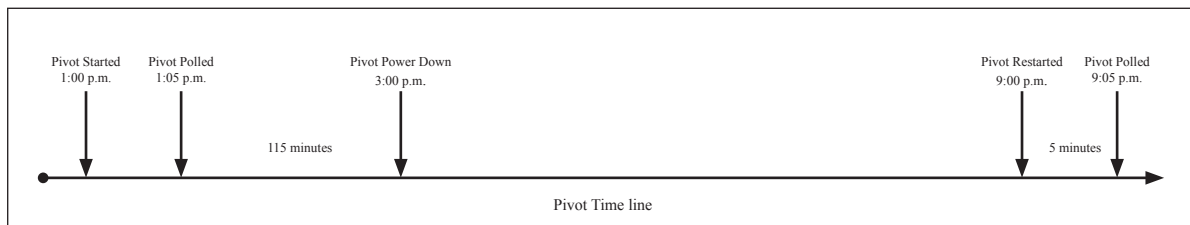
1. The discharge rate is set for 170 gpm and the pivot is started at 1:00 p.m. and polled at 1:05 p.m., then the BaseStation gets data that the pivot is running wet.
2. The pivot is stopped at 4:00 p.m. and polled at 4:05 p.m., then the BaseStation gets data that the pivot has stopped.
3. The flow rate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

Remote Setup for Control Panel (Continued) Water Meter (Continued)

- If you check the flow rate between 1:10 p.m. and 4:00 p.m. the flow rate would have shown 0 gpm as shown below.



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.



Example:

Calculated: $8 \text{ hours} \times 60 \text{ minutes/1 hour} \times 170 \text{ gpm} = 81,600 \text{ gallons}$
Actual: $120 \text{ minutes} \times 170 \text{ gpm} = 20,400 \text{ gallons}$
Error: $81,600 \text{ gallons} - 20,400 \text{ gallons} = +61,200 \text{ gallons}$

Pro Wet Hours

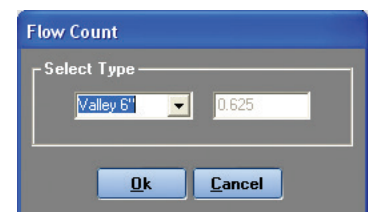
Causes the BaseStation2-SM to request the Wet Hours data from the remote control panel.

The Reports formula is the product of the discharge value in Gallons Per Minute (GPM) or Liters Per Second (LPS) entered and the actual accumulated wet hours as gathered from the control panel. The control panel can be either a Pro, Pro2 or AutoPilot module where Wet Hours are accumulated, or from a Remote Link where wet minutes are counted by the Pulse Count.

Flowmeters

Uses the pulse count value(s) from a Pro, Pro2 or AutoPilot module or Remote Link.

The Reports formula is the product of the periodic count total and the multiplier entered for the Flow Count device. The Flowmeters selection provides for the option of up to two pulse counter values for the Pro module. Both counts use the same multiplier value.



The operator will need to choose the flow count type from the drop-down menu, based on the pipe diameter, or enter a custom multiplier number.

MAIN WINDOW

Setup Menu

Remote Setup for Control Panel (Continued) Panel Constants

Minimum Application

The depth of water applied at a speed setting of 100 percent. The Minimum Application values are used calculate depth in inches (in) or millimeters (mm). Sync Constants with Pro, Pro2 and AutoPilot control panels only. Enter value manually for Select and Select2 control panels.

Minimum Hrs/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.

Sync Constants with Pro, Pro2 and AutoPilot control panels only. Enter value manually for Select or Select2 control panels.

Stop In Slot Angle

The position of Stop In Slot in degrees (pivot only). Displays a red line on the affected pivot where the stop in slot angle is set. Sync Constants with Pro, Pro2, AutoPilot, Select and Select2 control panels.

Panel Keywait

The Panel Keywait is the radio key delay used by the control panel. Sync Constants with Pro, Pro2, AutoPilot, Select and Select2 control panels.

Sync Constants Button

Clicking the Sync Constants button opens the Constants window. Use the Constants window to synchronize the BaseStation2-SM and remote constants. For accurate machine operation and reporting the control panel and BaseStation values must match.

Click the radio button associated with the desired function, enter constants if applicable, then click OK to synchronize constants or Exit to close the window without synchronizing constants.

- Get selected constants from the remote.
- Enter and then Send selected constants to the remote.
- Skip selected constants; do not Get or Send constants.

Read SIS During an Update

Used to verify SIS position of Pro, Pro2, AutoPilot, Select or Select2 panels automatically when a status update is received that shows SIS enabled without having to Sync Constants. To enable click a check mark in the check box, then click OK.

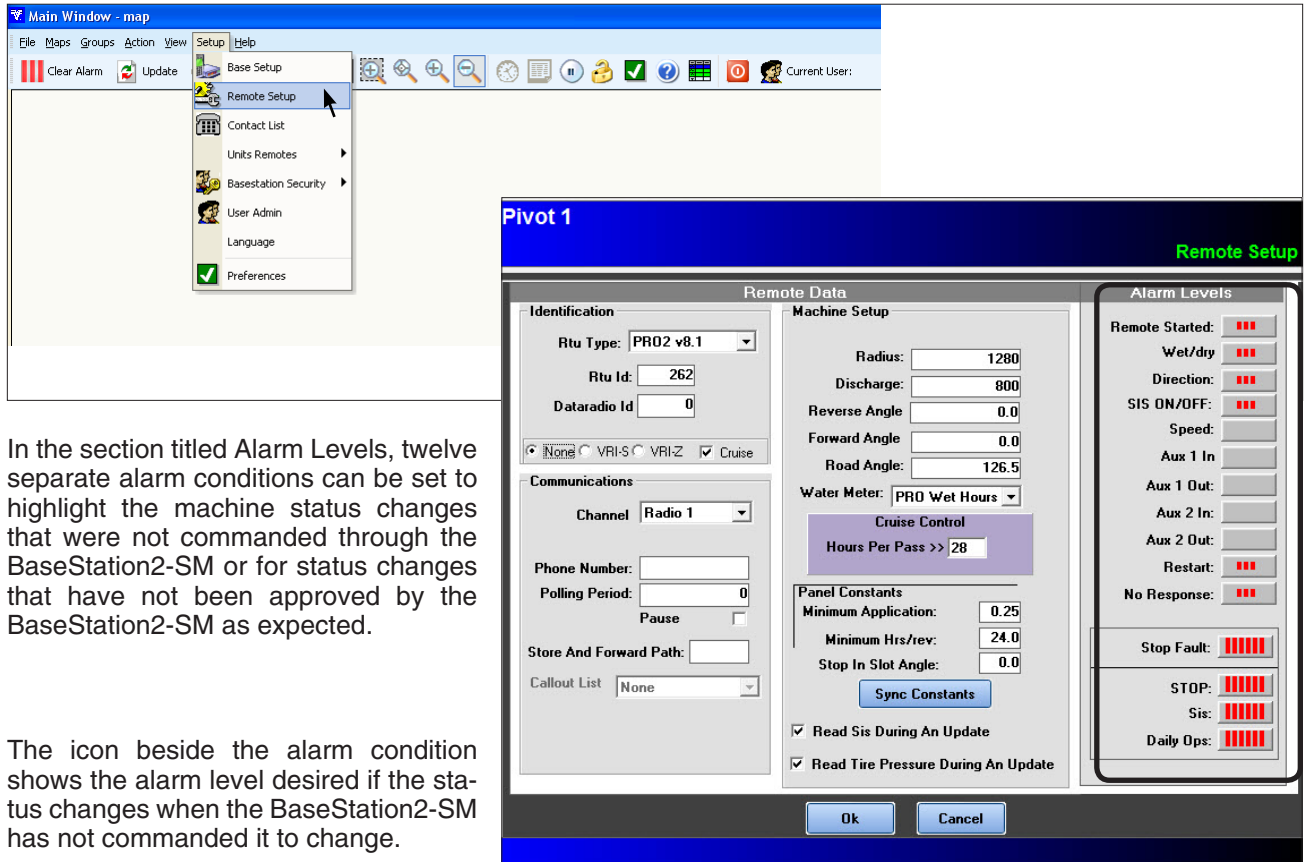
Read Tire Pressure During an Update

Tire pressure information is available on the remote setup screen when the RTU Type is set to PRO2 v8.1. To enable click a check mark in the check box, then click OK. The remote control panel and related machine must be equipped with the Tire Pressure Monitor Option.



Remote Setup for Control Panel (Continued) Alarm Level Settings





Alarms can be set for each machine to notify you of various conditions. To set up the alarms, first select a machine, click on Setup, then on Remote Setup in the drop-down menu. The Remote Setup dialog box will appear showing the name of the selected machine in the upper left corner. Remote Setup can also be accessed through the Pop-up Menu.



In the section titled Alarm Levels, twelve separate alarm conditions can be set to highlight the machine status changes that were not commanded through the BaseStation2-SM or for status changes that have not been approved by the BaseStation2-SM as expected.

The icon beside the alarm condition shows the alarm level desired if the status changes when the BaseStation2-SM has not commanded it to change.

The alarm level settings toggle between None, Low Level, or High Level. When you click on the icon, it will change. When the Voice Call Out feature is enabled in Base Setup, a high level alarm condition will trigger a Voice Call Out.

-  • Gray indicates None or no alarm level has been set.
-  • Three RED bars indicate Low alarm level.
-  • Six RED bars indicate High alarm level.
-  • Three YELLOW lines indicate a panel controlled stop alert (managed by the settings in the SETUP PREFERENCES window).

After configuring the alarm levels, save the settings by clicking OK or if a group is selected save the settings for that machine (Save One) or save the same settings for the entire group (Save All), if a group had been selected.

MAIN WINDOW

Setup Menu

Remote Setup for Control Panel (Continued)

Alarm Conditions

Listed below are the available alarm conditions:

- Remote Started - Remote was OFF and now is ON.
 - The Remote Started alarm level will generate an alarm only if the level is set to High.
 - When the Remote Started alarm level is set to Low or None, BaseStation will accept all machine status changes where the status is running and the expected status is started. This enables future stopped status changes to be handled appropriately
 - Setting the Remote Started alarm level to None may affect Stop Fault Alarm recognition.
- Wet/Dry - Status has changed.
- Direction - Status has changed.
- Stop in Slot - Status has changed.
- Speed - Setting has changed.
- Aux 1 In - Status has changed.
- Aux 1 Out - Status has changed.
- Aux 2 In - Status has changed.
- Aux 2 Out - Status has changed.
- Restart - Changed status.
- No Response - Remote has not responded after the selected number of attempts specified in the Base Setup window.
- Stop Fault - Machine stopped while commanded by the BaseStation2-SM to run.
 - STOP - Commanded stop from the control panel keypad, Program, or Auto Stop.
 - SIS - Commanded stop by Stop In Slot function.
 - Daily Ops - Commanded stop by the control panel Daily Ops function.
 - The three Stop Fault exceptions shown above; STOP, SIS, and Daily Ops are used to indicate a status change made locally at or by the control panel. The Main Map window uses a yellow circle to display the condition (when configured).
 - The action of the three Stop Fault exceptions is configured in the Preferences Window. The setting for each Stop Fault exception applies to all Pro, Pro2, AutoPilot, Select and Select2 control panel types. Through the Preferences Window, Stop fault exceptions can be configured to prevent undesirable Call Outs for expected machine stops.

Understanding Alarms

Alarm Recognition

An alarm is activated when Current Status is not the same as the Expected Status.

- Current Status is the last machine status known to the BaseStation2-SM having been received in a status update message from the machine.
- Expected Status is the last commanded status sent to the machine by the BaseStation2-SM or the acknowledged status as accepted by the operator when Clear Alarm is clicked.

The alarm level setting controls what action is taken by the BaseStation when an alarm is activated.

Remote Setup for Control Panel (Continued) Understanding Alarms (Continued)

Alarm Levels

When Current Status is not the same as Expected Status the BaseStation2-SM indicates the nonconformity by showing a red or yellow dot on the map item. The size and color of the dot are significant and may have different actions depending on the Alarm Setup in the Remote Setup form.

- Selecting None in the Alarm Setup allows any status to be acceptable and shows no red dot, even though the Current Status is not the same as the Expected Status.
- Selecting Low in the Alarm Setup causes a small red dot to be shown on the map item as a visual alert.
- Selecting High in the Alarm Setup causes a large red dot to be shown on the map item as a visual alert. When the Call Out option is enabled, a High level alarm will also be seen by the Call Out monitor and activate the Call Out process.
- When the Stop Alarms options in the Preferences window are selected, the BaseStation2-SM bypasses the settings for None, Low, and High by showing a yellow dot on the map item. This indicates that the BaseStation2-SM is recognizing the local machine controls that are used to stop a machine.

Clear Alarms Function

The Clear Alarms function can only be performed at a BaseStation2-SM computer. Clear Alarms sets all of the values for the Expected Status to match the Current Status for all the status monitored and clears the alarm graphics from the affected remote(s) on the Main Window Map.

Acknowledging An Alarm

Acknowledging an alarm over the phone through the Alarms Voice Call In/Out function will stop the Voice Call-Out process, but not remove the alarm graphics red dots from the affected remote(s) on the Main Window Map.

Causing an Alarm

An alarm occurs when the following steps take place:

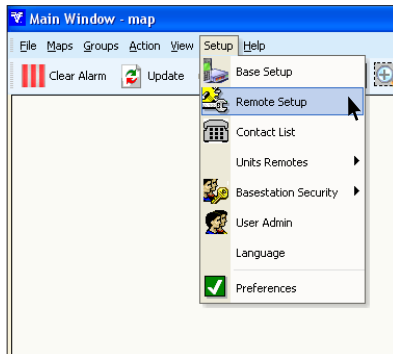
1. With an alarm condition enabled.
2. Two ways that the Expected Status is set in the BaseStation2-SM:
 - Send a command to the machine from the BaseStation2-SM. This automatically sets the Expected Status to be the same as what was just commanded.
 - Select a machine, then click Clear Alarm. This sets the Expected Status to be the same as the Current Status.
3. The machine status changes for the alarm condition in one of the following ways:
 - Use the keypad/switch at the panel to change the machine operation.
 - Write a program in the Pro v7, Pro2 or AutoPilot control panel that changes the machine operation.
 - Send a command from a secondary/mobile BaseStation2-SM that changes the machine operation.
4. Request a Status Update or enable polling from the BaseStation to read the Current Status. An alarm will be indicated on the affected map item based on the Alarms settings in the Remote Setup window.

MAIN WINDOW

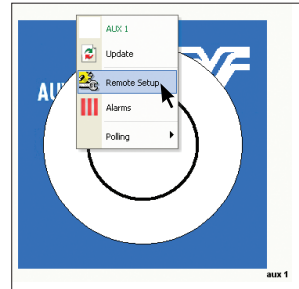
Setup Menu

Remote Setup for Auxiliary Link

To display the Auxiliary Link Setup window, select an Auxiliary Link remote, click on Setup, then Remote Setup or click on Remote Setup in the Action Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



OR



Popup Menu Enabled

The Auxiliary Link Setup window is not available when a group of Auxiliary Links are selected. The Auxiliary Link Setup window is for the setup of an individual Auxiliary Link. Multiple Auxiliary Links cannot be setup at the same time.

DataRadio ID

When Radio 1 or Radio 2 is selected from the Channel drop down box, the DataRadio ID appears on the Auxiliary Link Setup window. The DataRadio ID field is used to associate a DataRadio to a remote when using DataRadio Diagnostics.



Aux 1 **Auxiliary Link Setup**

RTU ID: 111 Channel: Radio 1

Polling Period: 0 Pause Store and Forward Path

Callout List: None

I/O Number	Enabled	Show Status	Name	Input Type
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Configure"/> -----	Counter
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Configure"/> -----	Counter
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Configure"/> -----	Relay
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Configure"/> -----	Relay
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="button" value="Configure"/> -----	Relay

Remote Setup for Auxiliary Link (Continued) RTU ID

To change the auxiliary link RTU ID, use the Change RTU ID button.

Polling Period

The polling period is the number of minutes between automated requests for a panel's status information.

The polling period should be determined based on the efficiency of the communications equipment and the need for current status information.

The amount of time to complete a full polling cycle of all remotes should be considered.

Setting the Polling Period to zero dictates that the remote will not be polled.

I/O Number	Enabled	Show Status	Name	Input Type
0	<input type="checkbox"/>	<input type="checkbox"/>	-----	Counter
1	<input type="checkbox"/>	<input type="checkbox"/>	-----	Counter
2	<input type="checkbox"/>	<input type="checkbox"/>	-----	Relay
3	<input type="checkbox"/>	<input type="checkbox"/>	-----	Relay
4	<input type="checkbox"/>	<input type="checkbox"/>	-----	Relay

Pause

Pauses polling on the selected Auxiliary Link. Click on the check box to place a check mark to activate pausing.

Callout List

When a Callout List is selected the BaseStation computer will call a user or users when a high level alarm is triggered.

Channel Selection

Select Radio 1, Radio 2, or Phone from the drop down list as the communications device to use.

NOTE •The channel selections (Radio 1, Radio 2, or Phone) appear in the Channel field drop down list if they are enabled in Base Setup.

Phone Number

When Phone is selected from the Channel drop down list, the phone number field appears on the Auxiliary Link Setup Window.

Enter the telephone number of the phone line installed at the remote panel. Enter the number exactly as it is dialed; special characters that meet telephone service requirements are allowed, but do not use hyphens.

If the BaseStation phone line is through a switch board, enter the outside access number first. Use 1 and the area code if required for dialing from the phone line connected to the BaseStation. A comma can be used to pause dialing for approximately 2 seconds.

MAIN WINDOW

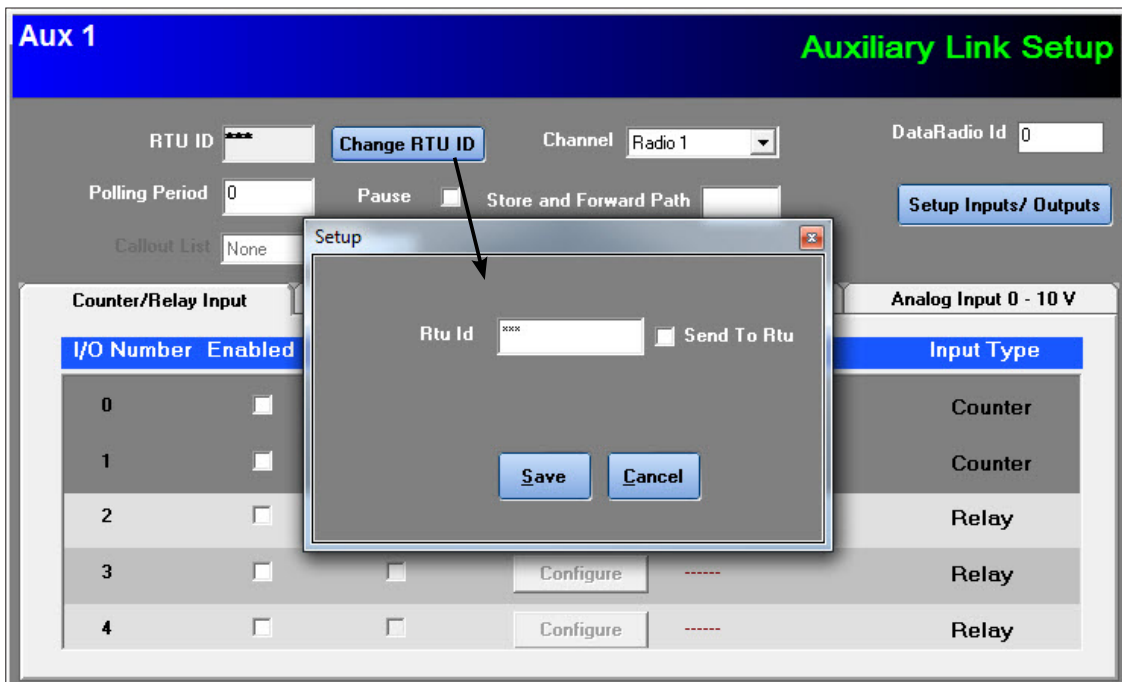
Setup Menu

Remote Setup for Auxiliary Link (Continued)

Change RTU ID Button

The ID of the Auxiliary Link in the panel is programmed to *** when shipped from the factory. When a new Auxiliary Link panel is added to the BaseStation map, the default ID is also ***.

- NOTE**
- As with other panel types, it is necessary to have any other remote(s) with the same ID (if using radio communications) to be powered off or disconnected while attempting to communicate with it.
 - If multiple new Auxiliary Link panels are being installed, the panels must be powered up one at a time. Only one Auxiliary Link panel with the default ID is allowed to be active when setting the ID.



When setting up a new Auxiliary Link that still has the default ID, the new ID needs to be saved in the BaseStation2-SM and sent to the Auxiliary Link panel.

Click on the Change RTU ID button. Enter the desired three-character ID, a combination of numbers and/or alphabetic characters, in the text box, check the box labeled Send to RTU, and click Save. 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 BaseStation2-SM database for Continued use.

When setting up a new map item object for an Auxiliary Link that already has a password assigned, enter its ID in the text box; do not check the box labeled Send to RTU, and click Save. The ID will be saved in the BaseStation2-SM database for Continued use.

Remote Setup for Auxiliary Link (Continued) Setup Inputs/Outputs Button

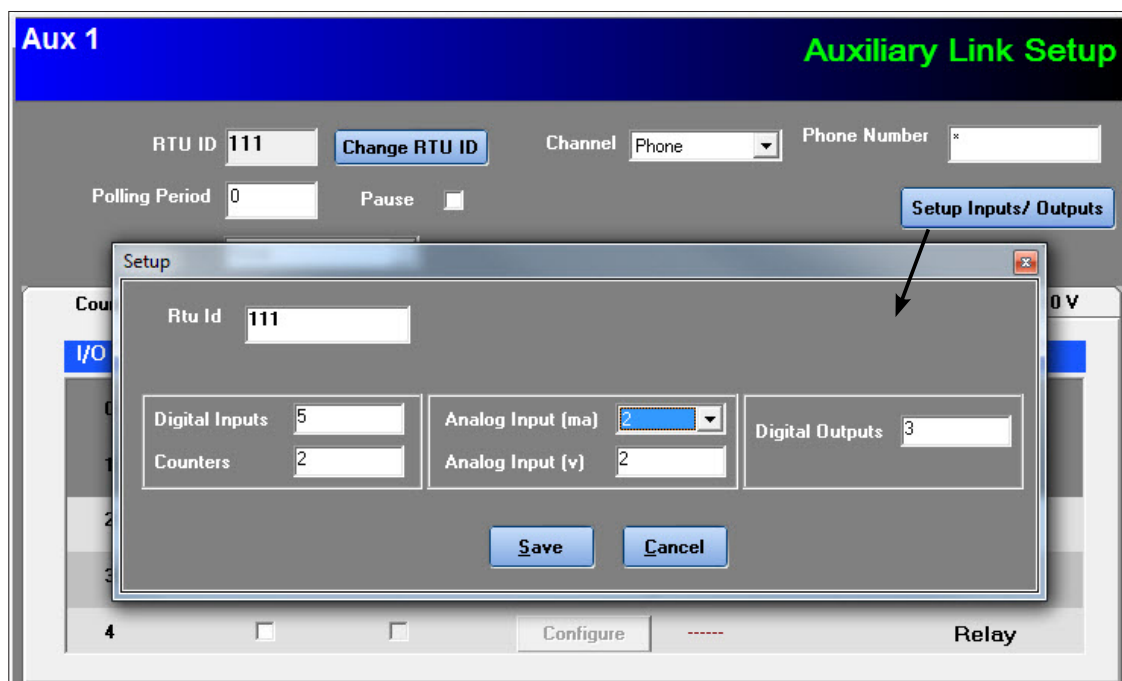
The Auxiliary Link has four analog inputs that can be used for sensor devices that have output signals of either -10 to +10 volts DC or 4 to 20 mA operating range.

Click on the Setup Input/Outputs button to open the Analog Inputs/Outputs Setup window. Use the drop down menu in the Analog Input (mA) field to change how the Analog Inputs are used.

- Setting the Analog Input (mA) to 0, assigns all four Analog Inputs to the Analog Input 0-10 V and removes the Analog Input 4-20 mA tab from the Auxiliary Link Setup window.
- Setting the Analog Input (mA) to 1, assigns three Analog Inputs to the Analog Input 0-10 V and assigns one Analog Input to the Analog Input (mA) to the Auxiliary Link Setup window.
- Setting the Analog Input (mA) to 2, assigns two Analog Inputs to the Analog Input 0-10 V and assigns two Analog Inputs to the Analog Input (mA) to the Auxiliary Link Setup window.
- Setting the Analog Input (mA) to 3, assigns one Analog Input to the Analog Input 0-10 V and assigns three Analog Inputs to the Analog Input (mA) to the Auxiliary Link Setup window.
- Setting the Analog Input (mA) to 4, assigns all four Analog Inputs to the Analog Input 4-20 mA and removes the Analog Input 0-10 V tab from the Auxiliary Link Setup window.

Each Auxiliary Link map item must be configured in its Remote Setup to match the hardware in the panel.

NOTE •The Auxiliary Link panel has a switch setting and a matching software version that sets the analog sensor type. The type of sensor output (V or mA) must be programmed in the Auxiliary Link panel's computer, either from the factory or by a Valley service representative.



Each sensor that is being monitored by the Auxiliary Link panel is individually configured in the BaseStation2-SM panel view for the Auxiliary Link. A Sensor Input setup window is opened when either the Voltage or mA Configure button is clicked.

MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued)

Counter/Relay Input Tab

The Auxiliary Link senses pulses and stores a total pulse count. It also computes the pulse count difference from the previous minute total to monitor a rate of change. Two of the Auxiliary Link Inputs can be used as high speed counters.

I/O Number

The I/O Number is the physical connection designator on the computer in the Auxiliary Link panel. This number is shown as a reference for matching the device in the panel with the BaseStation2-SM configuration.

- I/O number 0 and 1 are counter inputs.
- I/O numbers 2, 3, and 4 are relay inputs.

Enabled

The Input/Output device can be configured after the Enabled box is checked. If a device is configured and the box is unchecked, the device is no longer shown in the panel view or Main Window Map view.

Show Status

When the Show Status box is checked, the device status will be shown in the Status Table and pop-up status box on the Main Window Map.

Status Table

Aux Link 1	
Pump 1	Stopped
Pump 2	Stopped
Pond Level	6.9 feet
Suction	46 PSI
Discharge	0 PSI
Flow	0 GPM/ 0 Gal

Name

Displays the configured name of the counter or relay input (50 character limit).

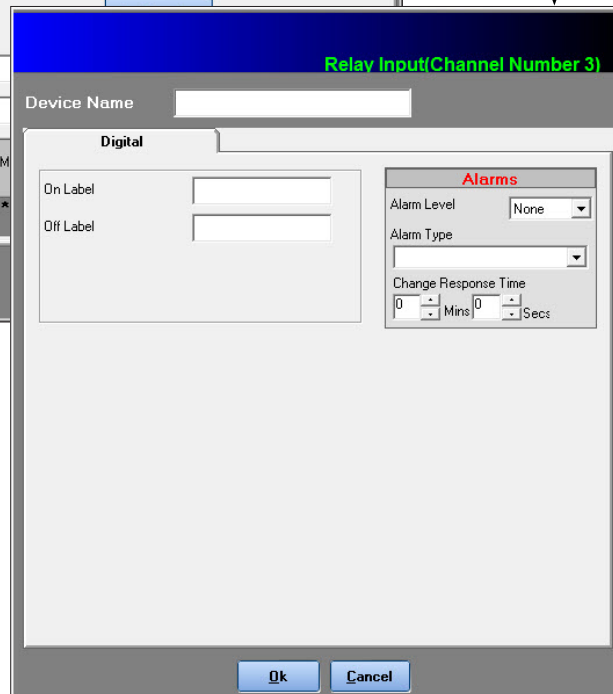
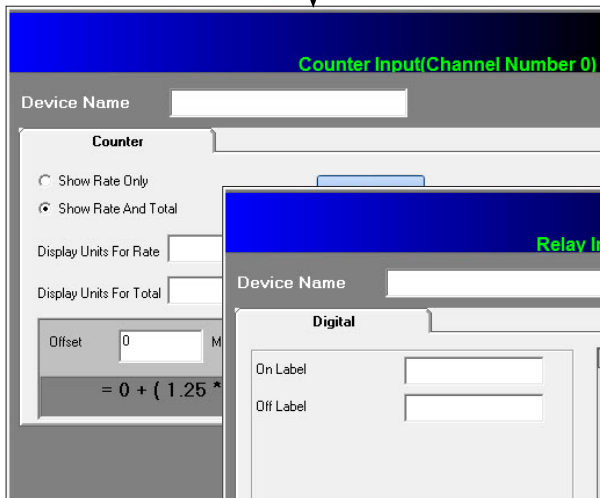
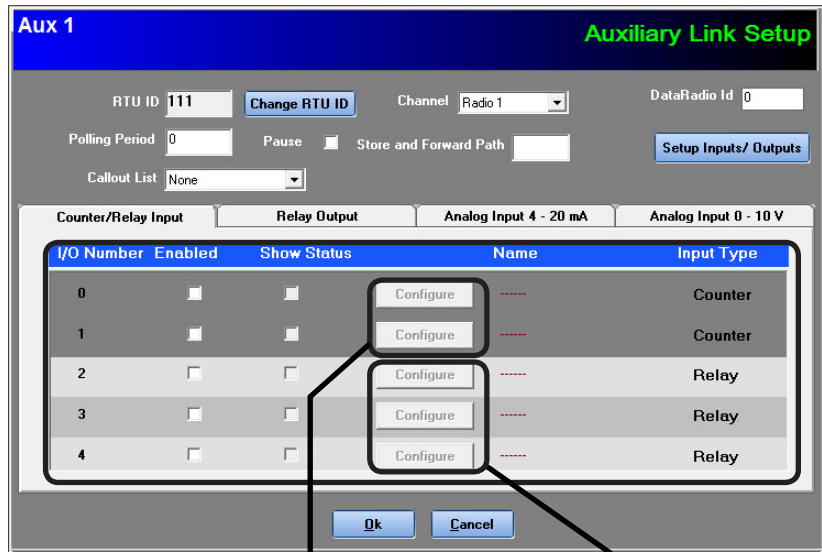
Input Type

The Input Type is shown as a reference to indicate how the input is used.

- The Counter inputs have a direct wire connection to the computer from a device that has a pulsing output.
- The Relay inputs have an isolated connection to the computer through a relay that is monitored for an open/closed relay contact position.

Configure Button

Click on the Configure button of the enabled I/O number (0 to 1) to display the Counter Input or (2 to 4) to display the Relay Input window.



Remote Setup for Auxiliary Link (Continued) Counter/Relay Input Tab (Continued)

Counter Input Window

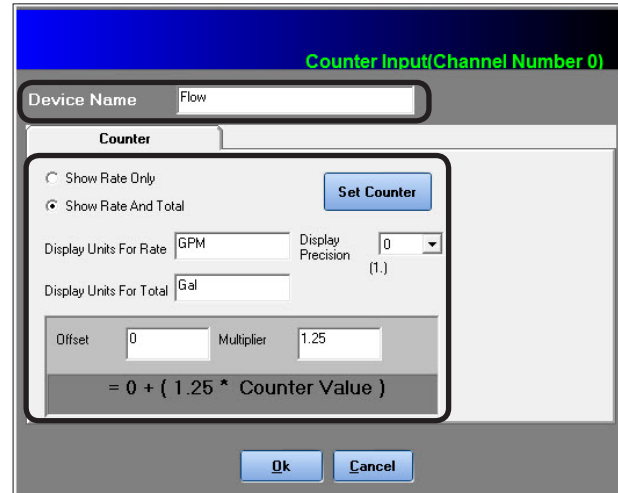
The Auxiliary Link Counter Input window allows each input to be labeled according to its use. Enter an appropriate name and label that describes the monitoring action.

Caption Bar

The caption bar at the top of the window shows the Auxiliary Link Input Type (Counter) and Channel Number 0 or 1 (I/O Number), matching the BaseStation2-SM configuration with the panel.

Device Name

A reference name to be used in the panel view, pop-up status display and reports. Use a short name, in consideration of the limited display width of the pop-up status and I/O status views on the Main Map. Experiment with phonetic spelling and spaces to improve clarity of voice messages from the Alarms Voice Call In/Out function.



Show Rate / Total

The display of a total value from the counter input of the Auxiliary Link panel is an option. 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. Select one of the options to set the display mode for the counter sensor.

Display Units

Display Units for 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.

Display Units for Total: The label for the calculated total based on the counter value.

NOTE

- Use a short label, in consideration of the pop-up status limited display width.
- Experiment with spelling and spaces to improve clarity of voice messages from the Alarms Voice Call In/Out function.
- The Auxiliary Link returns both the counter value and the difference from the previous minute with the status update message.
- Units (inches or metric) that are set in the Base Setup window do not affect Display Units.

Display Precision

The number of digits to be shown to the right of the decimal point.

Offset / Multiplier

The Offset/Multiplier is the conversion formula that is provided by the manufacturer of the pulse sensing device. The formula is used to convert a pulse count into a measurable unit.

Technical Note:

The input counts changes between a low pulse of 5 to 0 Volts DC and a high pulse of 14 to 26 Volts DC.

MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued) Counter/Relay Input Tab (Continued)

Counter Input Window (Continued) Set Counter Button

Click on the Set Counter button to open the Set Counter window.

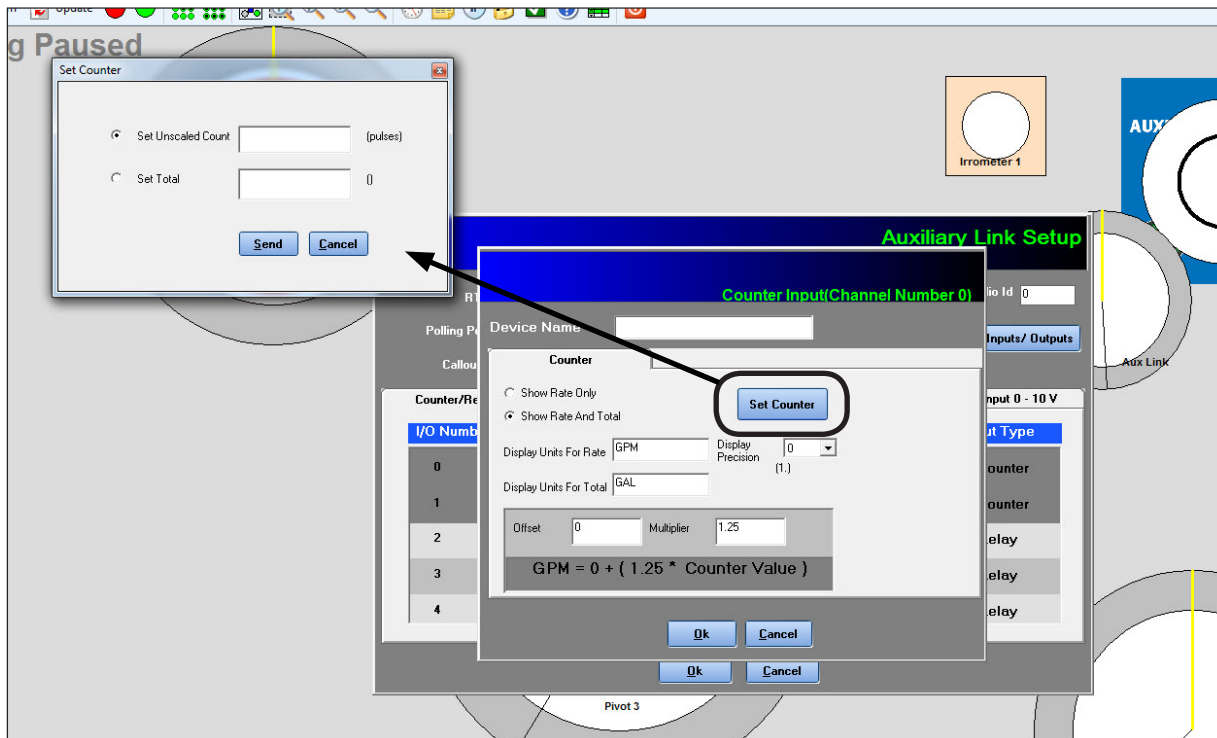
The counter in the Auxiliary Link can be set to a preset value. This can be done to initialize the Auxiliary Link count to match a meter reading that has been used prior to connecting it to the Auxiliary Link.

Two methods of initializing the count are by entering an actual pulse count number (the Unscaled Count) or by entering a scaled Total that uses the Offset/Multiplier conversion formula.

Entering a total value causes the BaseStation2-SM to calculate an equivalent count to be sent to the Auxiliary Link.

Check the appropriate method to set the counter and enter the value.

Click Send to send the value to the Auxiliary Link panel or click Cancel to close the Set Counter window without sending the value.



Remote Setup for Auxiliary Link (Continued) Counter/Relay Input Tab (Continued)

Relay Input Window

The Auxiliary Link Relay Input setup allows each input to be labeled according to its use. Enter an appropriate name and labels that describe the monitoring action.

Caption Bar

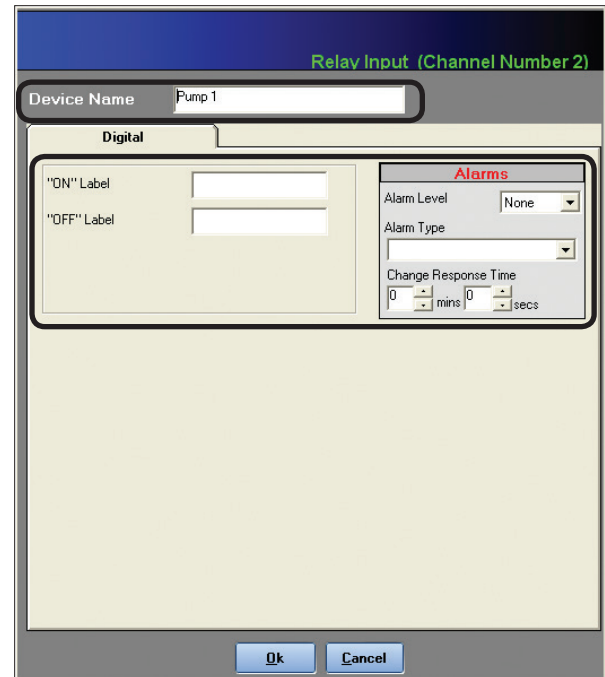
The caption bar at the top of the window shows the Auxiliary Link Input Type (Relay) and Channel Number 2, 3, or 4 (I/O Number), matching the BaseStation2-SM configuration with the panel.

Device Name

A reference name to be used in the panel view, pop-up status display, and reports.

Labels

A reference label to be used in the panel view, pop-up status display, and reports for the ON and OFF functions.



NOTE •Use a short label, in consideration of the pop-up status limited display width.
•Experiment with spelling and spaces to improve clarity of voice messages from the Alarms Voice Call In/Out function.

Alarms

Alarm Level - Set the desired Alarm Level, None, Low, or High.

Alarm Type - Select the Relay Output number to monitor None, -01, -02, -03. When None is selected the Change Response Time is disabled.

Change Response Time - 0-60 Min, 0-60 Sec.

Example: A Relay Input is monitoring the state of "Pump 1" with the ON Label as "Running" and the OFF Label as "Stopped".

Relay Output 0	Relay Input 2
Pump 1	Pump 1
ON	Running
OFF	Stopped

When Relay Output 0 is commanded ON, Relay Input 2 status should change to "Running" before the Change Response Time has elapsed. If at any time the Relay Input 2 changes to "Stopped" after the Change Response Time has elapsed, the designated alarm will be activated. The opposite applies when Relay Output 0 is commanded OFF.

MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued) Relay Output Tab

Configure Button

Click on the Configure button of the enabled I/O number (0 to 2) to display the Relay Output window.

Relay Output Window

The Auxiliary Link Relay Output window allows each output to be labeled according to its use. Enter an appropriate name and labels that describe the control action. The relay outputs function as simple switches.

To display the Relay Output window, open the Auxiliary Link remote setup window, enable an I/O number on the Relay Output tab, then click on the Configure button.

Caption Bar

The caption bar at the top of the Relay Output window shows the Auxiliary Link Output Type and Channel Number (I/O Number), matching the BaseStation2-SM configuration with the panel.

Device Name

A reference name to be used in the panel view, pop-up status display, and reports.

Labels

A reference label to be used in the panel view, pop-up status display, and reports for the ON and OFF functions.

Alarms

Command Alarm - Set the desired Alarm Level: None, Low, or High.

If Low or High is selected and the Auxiliary Link computer output status does not match the commanded state at the BaseStation2-SM an alarm is activated.

Listed below are situations that could cause an alarm:

- A secondary BaseStation has changed the commanded output.
- The Auxiliary Link resets and the outputs are not configured to automatically be restored to the last commanded state.
- A command message was sent to the Auxiliary Link and was executed, but the response from the Auxiliary Link was not received by the BaseStation2-SM. The BaseStation assumes that the command was not successful and does not change its commanded state.

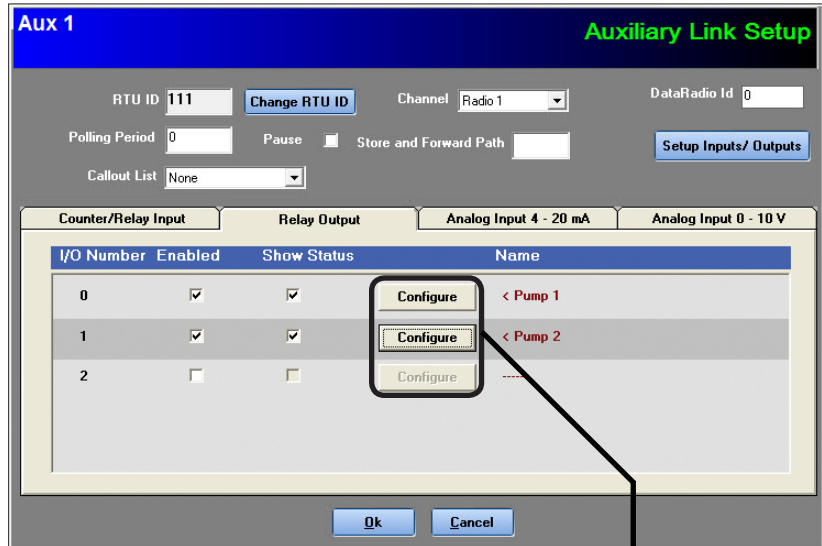
Example: A Relay Output is controlling “Pump 1” with the ON Label as “ON” and the OFF Label as “OFF”.

Relay Output 0

Pump 1
ON
OFF

Relay Input 2

Pump 1
Running
Stopped



Remote Setup for Auxiliary Link (Continued) Analog Input 4-20 mA Tab

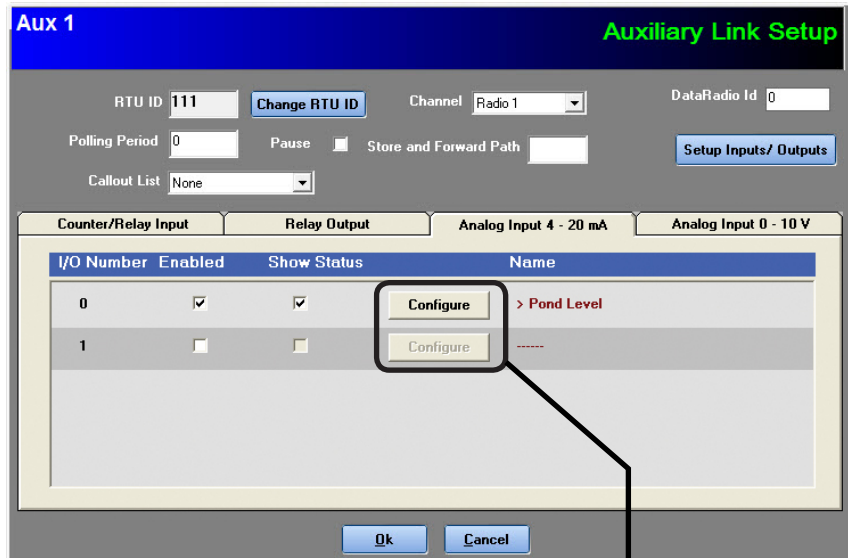
Configure Button

Click on the Configure button of the enabled I/O number (0 to 3) to display the Sensor Input window.

Sensor Input Window

Each sensor that is being monitored by the Auxiliary Link panel is individually configured in the BaseStation2-SM panel view for the Auxiliary Link.

To display the Sensor Input window, open the Auxiliary Link remote setup window, enable an I/O number on the Analog Input 4-20 mA tab, then click on the Configure button.



Caption Bar

The caption bar at the top of the window shows the Auxiliary Link Analog Input Type (Sensor) and I/O Number (Channel Number 0 or 3 depending on Input setting), matching the BaseStation2-SM configuration with the panel.

Device Name

A reference name to be used in the panel view, pop-up status display, and reports.

Units

An internal reference to specify the type of sensor being used.

Display Units

The measurement label to be used for the sensor.

Display Precision

The number of digits to be shown to the right of the decimal point.

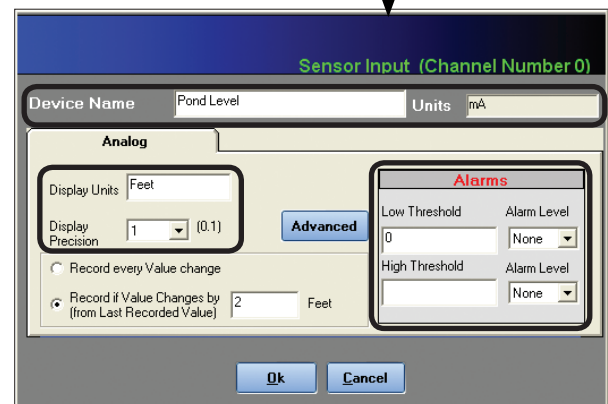
Alarms

Low Threshold - Set the Alarm Level to None, Low, or High.

- An alarm occurs when the sensors value is less than the low threshold.

High Threshold - Set the Alarm Level to None, Low, or High.

- An alarm occurs when the sensors value is greater than the high threshold.



MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued)

Analog Input 4-20 mA Tab (Continued)

Record Value Changes

The value (in this example, the pond level) of the sensor can be saved to the database. Depending upon the type of device and the requirements for recording the history of the device activity, the value can be recorded every time the BaseStation2-SM receives a status update or at a selectable change interval.

- Record every Value change - The BaseStation2-SM saves the value each time a status update is received from the Auxiliary Link panel.
- Record if Value Changes by - The BaseStation2-SM saves the value sent by the panel only when it has changed by the number entered in the box. The value that was last saved is used as the reference to determine if the new value will be saved.

Example: The last recorded Pond Level was 12.4 feet. The current level is 12.9 feet. The latest level is not recorded to the database because it is not 2 feet more or less than the reference, which is 12.4 feet. The level must drop to 10.4 feet or less, or raise to 14.4 feet or more, before the new level will be recorded and used as the reference value.

The screenshot shows a configuration window titled "Sensor Input (Channel Number 0)". At the top, "Device Name" is set to "Pond Level" and "Units" is set to "mA". Below this, there are two tabs: "Analog" and "Alarms". The "Analog" tab is active and contains the following settings: "Display Units" is set to "Feet", "Display Precision" is set to "1" (with "(0.1)" next to it), and there is an "Advanced" button. Under the "Analog" section, there are two radio buttons: "Record every Value change" (which is unselected) and "Record if Value Changes by (from Last Recorded Value)" (which is selected). The selected option has a value of "2" and the unit "Feet". To the right of the "Analog" section is the "Alarms" section, which has two rows: "Low Threshold" and "High Threshold", each with an "Alarm Level" dropdown menu set to "None". At the bottom of the window are "Ok" and "Cancel" buttons.

Remote Setup for Auxiliary Link (Continued) Analog Input 4-20 mA Tab (Continued)

Sensor Data Measurement Methods

Sensor Data Measurement Methods: The Auxiliary Link measures the voltage or current output from the sensor and sends a number value to the BaseStation2-SM. The manufacturer of the sensor provides an information sheet that specifies a method of interpreting the value into a meaningful measurement.

Range and Scale are the two methods of interpreting the data. Click on the Advanced button to display the Sensor Data Measurement methods.

Range - Low and High Value

The working range of the sensor has a low limit and a high limit for the operational range of the sensor. The output signal of the sensor has a constant rate of change that corresponds with the physical change that it is monitoring.

By entering the low/high limit of the output signal along with the corresponding low/high limit of the physical sensor, the BaseStation2-SM can calculate the scaled value to the appropriate units of measurement.

Scale - Offset and Multiplier

The sensor has a working range that is based on a starting reference value. 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.

The BaseStation2-SM applies the offset and multiplier specified in the manufacturers information sheet to calculate the appropriate units of measurement.

MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued) Analog Input 0-10 V Tab

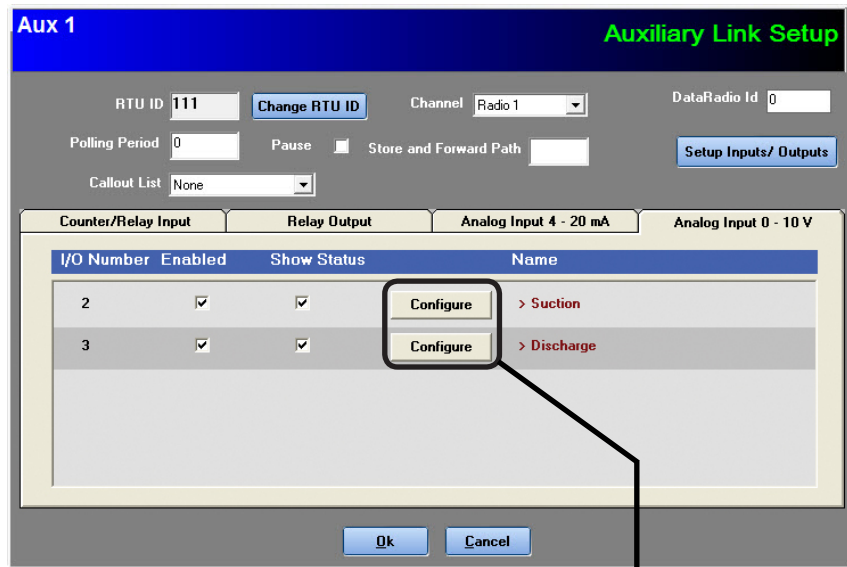
Configure Button

Click on the Configure button of the enabled I/O number (1 to 3) to display the Sensor Input window.

Sensor Input Window

Each Sensor that is being monitored by the Auxiliary Link panel is individually configured in the BaseStation2-SM panel view for the Auxiliary Link.

To display the Sensor Input window, open the Auxiliary Link remote setup window, enable an I/O number on the Analog Input 0-10 V tab, then click on the Configure button.



Caption Bar

The caption bar at the top of the window shows the Auxiliary Link Analog Input Type (Sensor) and I/O Number (Channel Number 1, 2, or 3 depending on Input settings), matching the BaseStation2-SM configuration with the panel.

Device Name

A reference name to be used in the panel view, pop-up status display, and reports.

Units

An internal reference to specify the type of sensor being used.

Display Units

The measurement label to be used for the sensor.

Display Precision

The number of digits to be shown to the right of the decimal point.

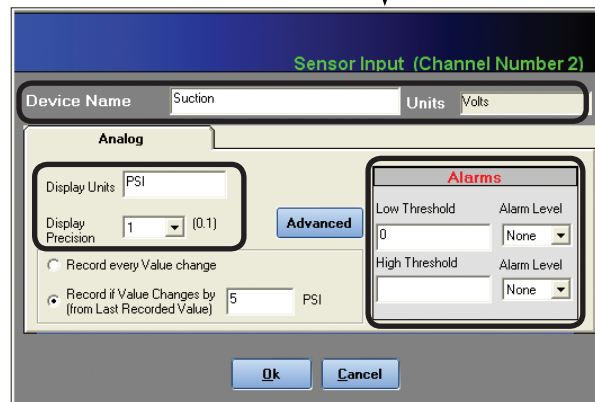
Alarms

Low Threshold - Set the Alarm Level to None, Low, or High.

- An alarm occurs when the sensors value is less than the low threshold.

High Threshold - Set the Alarm Level to None, Low, or High.

- An alarm occurs when the sensors value is greater than the high threshold.



Remote Setup for Auxiliary Link (Continued) Analog Input 0-10 V Tab (Continued)

Record Value Changes

The value (in this example, the pressure on the suction side of the booster pump) of the sensor can be saved to the database. Depending upon the type of device and the requirements for recording the history of the device activity, the value can be recorded every time the BaseStation2-SM receives a status update or at a selectable change interval.

- Record every Value change: The BaseStation2-SM saves the value each time a status update is received from the Auxiliary Link panel.
- Record if Value Changes by: The BaseStation2-SM saves the value sent by the panel only when it has changed by the number entered in the box. The value that was last saved is used as the reference to determine if the new value will be saved.

Example: Consider the last recorded pressure was 34 PSI. The current pressure is 37 PSI. The latest level is not recorded to the database because it is not 5 PSI more or less than the reference, which is 34 PSI. The level must drop to 29 PSI or less, or raise to 39 PSI or more, before the new level will be recorded and used as the reference value.

The screenshot shows a software window titled "Sensor Input (Channel Number 2)". At the top, there is a "Device Name" field containing "Suction" and a "Units" dropdown menu set to "Volts". Below this is the "Analog" tab, which contains several settings: "Display Units" is set to "PSI", "Display Precision" is set to "1" with a "(0.1)" label, and an "Advanced" button. Under the "Record Value Changes" section, two radio buttons are present: "Record every Value change" (unselected) and "Record if Value Changes by (from Last Recorded Value)" (selected). The selected option has a text input field containing "5" and a "PSI" label. To the right of the "Analog" tab is an "Alarms" section with two rows: "Low Threshold" and "High Threshold", each with a text input field containing "0" and an "Alarm Level" dropdown menu set to "None". At the bottom of the window are "Ok" and "Cancel" buttons.

MAIN WINDOW

Setup Menu

Remote Setup for Auxiliary Link (Continued)

Analog Input 0-10 V Tab (Continued)

Sensor Data Measurement Methods

Sensor Data Measurement Methods: The Auxiliary Link measures the voltage or current output from the sensor and sends a number value to the BaseStation2-SM. The manufacturer of the sensor provides an information sheet that specifies a method of interpreting the number value into a meaningful measurement.

Range and Scale are the two methods of interpreting the data. Click on the Advanced button to display the Sensor Data Measurement methods.

Range - Low and High Value

The working range of the sensor has a low limit and a high limit for the operational range of the sensor. The output signal of the sensor has a constant rate of change that corresponds with the physical change being monitored.

By entering the low/high limit of the output signal along with the corresponding low/high limit of the physical sensor, the BaseStation2-SM can calculate the scaled value to the appropriate units of measurement.

Use Low and High Value				
Low Value	1	Volts	0	PSI
High Value	4	Volts	200	PSI

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 volt DC and 200 PSI is at 4.000 volts DC.

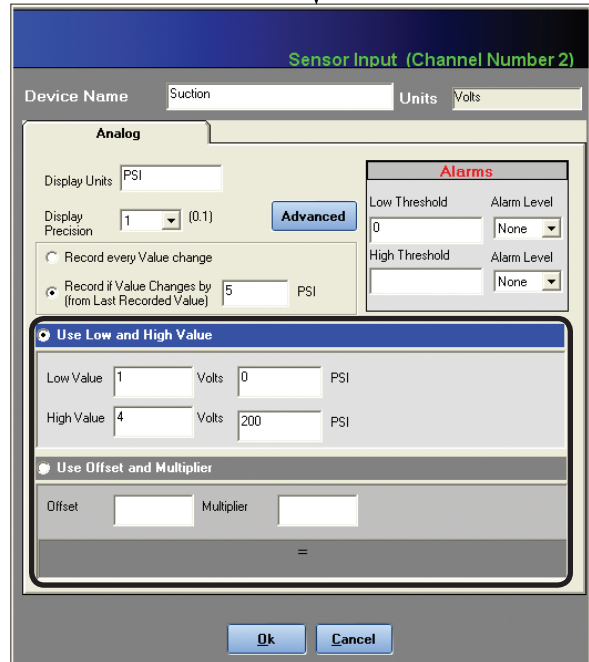
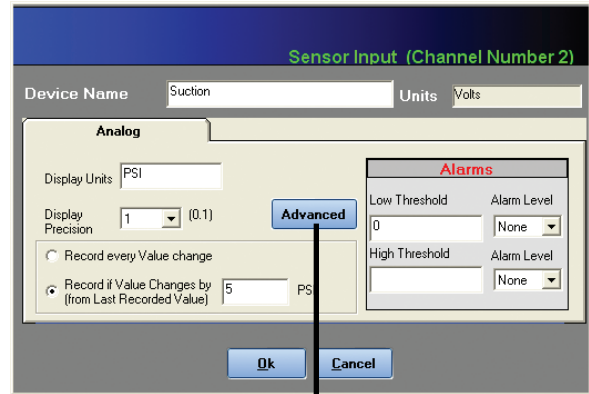
The BaseStation2-SM will calculate the equivalent PSI according to the voltage signal output of the transducer.

Scale - Offset and Multiplier

The sensor has a working range that is based on a starting reference value. 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.

The BaseStation2-SM applies the offset and multiplier specified in the manufacturers information sheet to calculate the appropriate units of measurement.

Use Offset and Multiplier			
Offset	.01175	Multiplier	.001
PSI = .01175 + (.001 * Volts)			



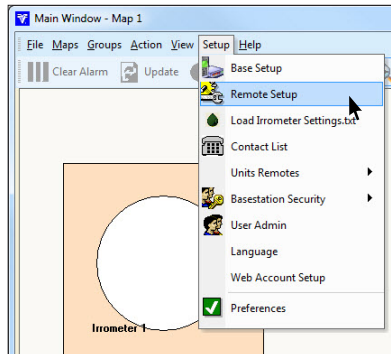
MAIN WINDOW

Setup Menu

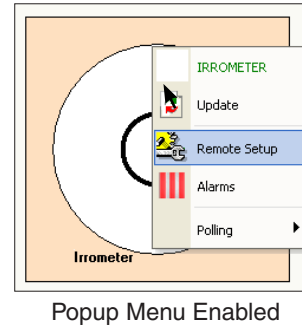
Remote Setup for Soil Moisture Monitor

Before setting up the Soil Moisture Monitor a Wireless Monitor must be configured with the WaterGraph program and the text file that is created must be copied from the lap top computer to the BaseStation computer.

To initially display the Soil Moisture Monitor Setup window, select a soil moisture monitor remote, click on Setup, then Remote Setup. After the initial setup, Remote Setup is also available in the Action Menu displayed on or near the selected remote when Show Popup Menu is enabled in the Preferences window.



OR



The soil moisture monitor Setup window is not available when a group of soil moisture monitor remotes are selected. The soil moisture monitor Setup window is for the setup of an individual soil moisture monitor remote. Multiple soil moisture monitor remotes cannot be setup at the same time.

A screenshot of the 'IrroMeter Remote Setup' window. The window has a blue header with the title 'IrroMeter Remote Setup'. It is divided into several sections:

- Identification:** RTU ID: Left Side (dropdown), Rtu Id: W04 (text field), Collect Rain Data (checkbox).
- Irrrometer Data Archiving:** Three radio buttons: Delete old file. Start with new empty file., Archive old file. Start with new empty File., Archive old file and continue adding to this file.
- Communications:** Channel: Radio 1 (dropdown), Polling Period: (text field), Pause (checkbox).
- Normal Thresholds:** A table with columns for sensor ranges (1-4, 5-8, 9-12, 13-16) and rows for Transmitter1 through Transmitter4. Each cell contains two input fields for values, with '0' and '239' shown as examples.

At the bottom are 'Save' and 'Cancel' buttons.

MAIN WINDOW

Setup Menu

Remote Setup for Soil Moisture Monitor (Continued)

Identification

Monitor Name

The Monitor Name links the soil moisture monitor remote to the correct WaterGraph database.

Select the monitor name from the drop down list. Information from the WaterGraph database is displayed on the soil moisture monitor screen.

RTU ID

The RTU ID is populated automatically when the monitor name is selected. BaseStation uses the RTU ID to communicate with the monitor.

Each monitor RTU ID must be a unique identifier and cannot match any other device. **The monitor RTU ID always begins with W followed by two characters 00 through 99. Example: W04**

Rain Data

To collect rain data a rain collection sensor must be installed and the Collect Rain Data check box must be checked.

Irrrometer Data Archiving

Delete or archive Irrrometer data. Click the radio button of the desired delete or archive function and then click Save.

Communications

Channel

The channel used to communicate with the remote data logger. Select Radio 1 or Radio 2 from the drop down menu. Communication by phone is not available.

Polling Period

The time between polling tries for obtaining machine status (shown as minutes). 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 desired number of minutes.

Pause

Pauses polling on the selected remote(s). Click a check mark in the check box, then click on Save.

Normal Thresholds

The Normal Thresholds setting determines the normal range shown for each sensor displayed on the soil moisture monitor screen. Normal thresholds are set individually for each sensor and are displayed in green on the soil moisture monitor 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.

Save Settings

When done click the Save button to save settings or click Cancel to cancel to close remote setup without saving.

Load Irrrometer Settings.txt

Use Load Irrrometer Setting.txt to update the Irrrometer Datalogger configuration in the BaseStation.

Before using Load Irrrometer Setting.txt, a settings.txt file of the Irrrometer Datalogger configuration must be created using the WaterGraph 4.1 version from the BaseStation CD usually loaded on a laptop computer.

After configuring the Irrrometer Datalogger(s), the settings.txt file must be placed on a flash drive or other storage device that the BaseStation computer can access. See Setup Irrrometer Soil Moisture Monitor Datalogger in the Base Setup section of this manual.

To update the Irrrometer Datalogger configuration in the BaseStation do the following:

1. At the BaseStation computer, insert the flash drive in the USB port. See figure 173-1.
2. Open the BaseStation2-SM application. See figure 173-2.
3. Click on Setup/Load Irrrometer Settings.txt. See figure 173-3.
4. Browse for the flash drive and select the settings.txt file. See figure 173-4.
5. Click the Open button to load the new settings. See figure 173-4.
6. Irrrometer Datalogger configuration is complete. To use Irrrometer an Irrrometer Remote must be drawn on the map and setup on the main window.



Figure 173-1 1. Flash Drive
2. USB Port



Figure 173-2 BaseStation2-SM Icon

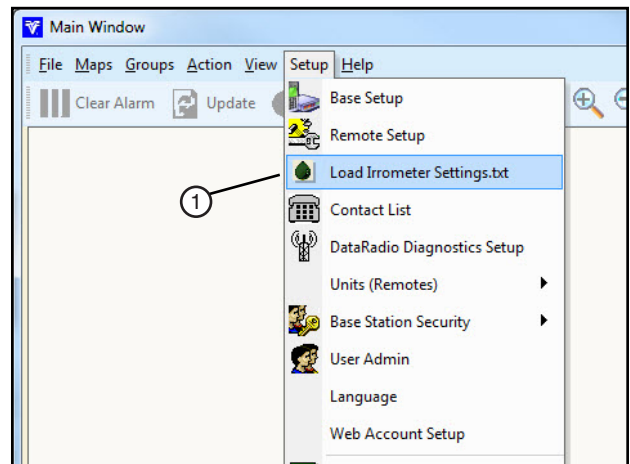


Figure 173-3 1. Load Irrrometer Setting.txt

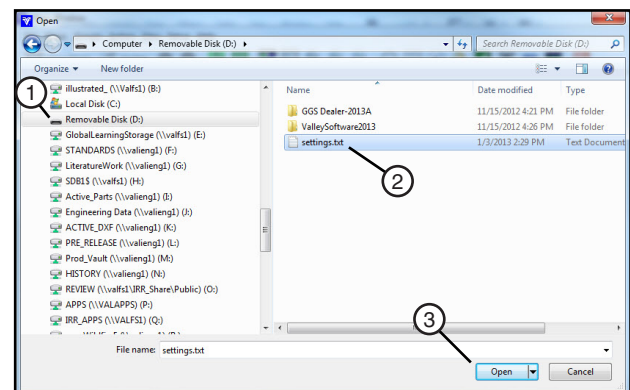


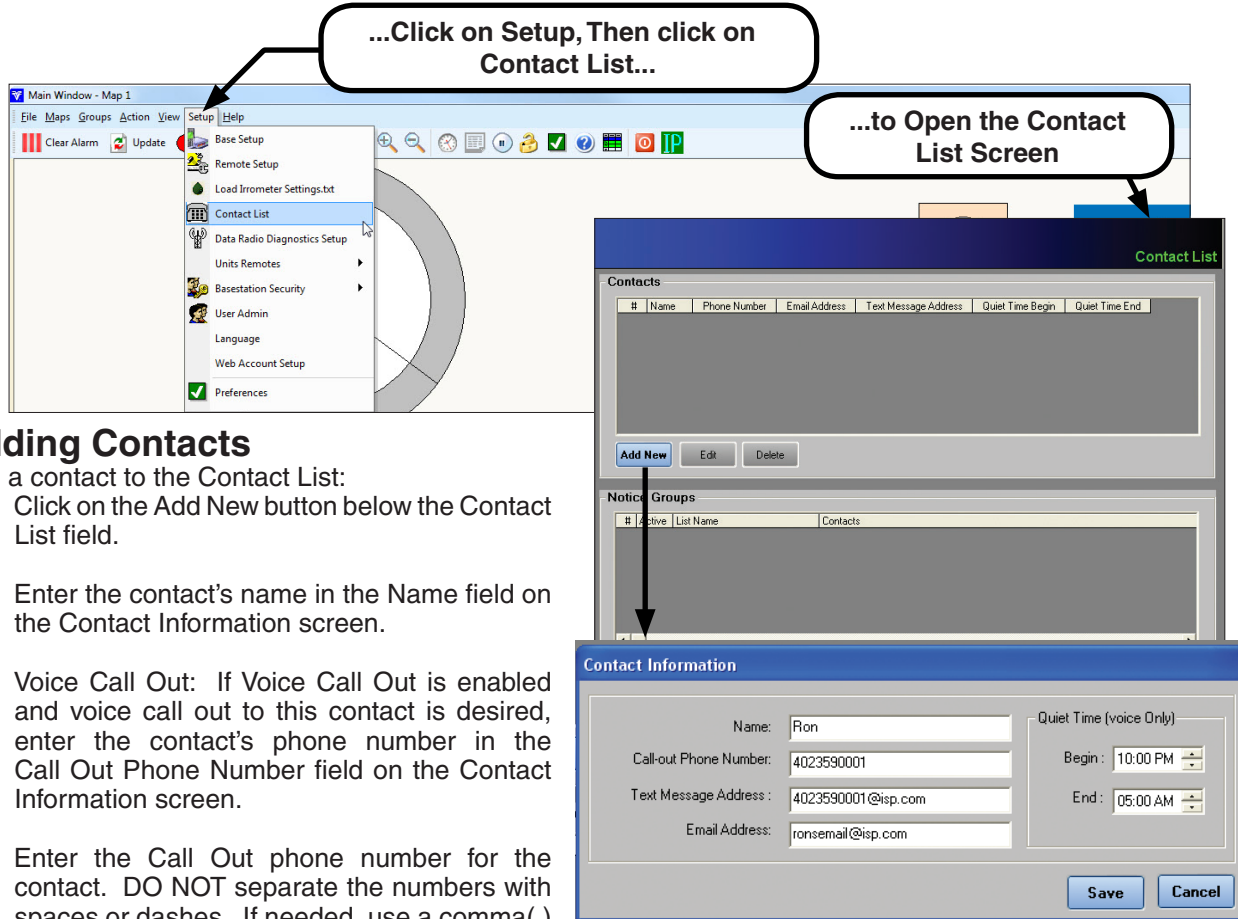
Figure 173-4 1. Flash Drive
2. Settings.txt File
3. Open Button

MAIN WINDOW

Setup Menu

Contact List (Required for Voice Call Out and/or Email/Text Message)

If the Voice Call Out and/or Email/Text Message feature in the BaseStation2-SM Setup screen is enabled, the Contact List Setup must be completed. To open the Contact List Setup screen click on Setup, then Contact List to display the Contact List screen.



Adding Contacts

Add a contact to the Contact List:

1. Click on the Add New button below the Contact List field.
2. Enter the contact's name in the Name field on the Contact Information screen.
3. Voice Call Out: If Voice Call Out is enabled and voice call out to this contact is desired, enter the contact's phone number in the Call Out Phone Number field on the Contact Information screen.

Enter the Call Out phone number for the contact. DO NOT separate the numbers with spaces or dashes. If needed, use a comma(,) after a number to pause for 1 second before dialing the remaining numbers.

The examples below illustrate the correct way to enter the phone number 1-402-359-2201 Extension 1234 based on the type of call.

- Local call, enter the seven digit phone number, 3592201.
- Long distance call, enter the eleven digit phone number, 14023592201.
- Phone system call with an outside access number, enter the outside access number, one comma (,) and the phone number. Local Calls 9,3592201 Long Distance Calls 9,14023592201
- Phone system call to an extension, enter the extension number with no spaces or dashes, 1234

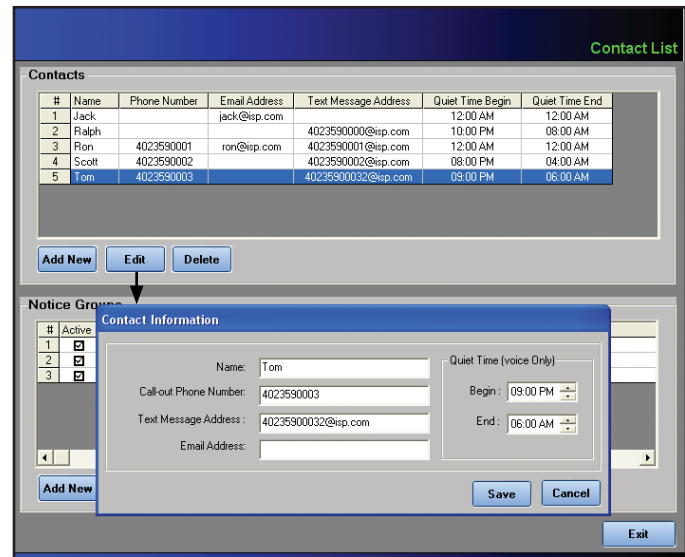
4. Text Message: If Email/Text Message is enabled and text messaging to this contact is desired, enter the contact's text phone number in the Text Msg # field on the Contact Information screen.
5. Email: If Email/Text Message is enabled and email messaging to this contact is desired, enter the contact's email address in the Email field on the Contact Information screen
6. Quiet Time: Use Quiet Time to block voice call out to the contact during a set period of time. Setting the begin and end times to the same time disables the Quiet Time feature.
- Set the Quiet Time Begin and End times as desired.
7. After entering information and making settings, click the Save button to save information or click Cancel to cancel without saving.

Contact List (Continued)

Edit Contact

Edit an existing contact from the Contact List:

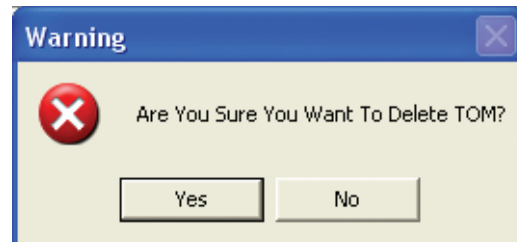
1. Click on the contact in the contact list to select the contact.
2. Click on the Edit button below the Contact List field to open the Contact Information screen.
3. Edit the contact information or quiet time settings as desired.
4. After editing information or settings, click the Save button to save information or click Cancel to cancel without saving.



Delete Contact

Delete an existing contact from the Contact List:

1. Click on a contact in the contact list to select the contact.
2. Click on the Delete button below the Contact List field.
3. Click the Yes button to delete the contact or click No to cancel without deleting.



NOTE •A contact cannot be deleted if the contact exists on a notice group call out list. Remove the contact from the call out list before deleting the contact.

MAIN WINDOW

Setup Menu

Contact List (Continued)

Notice Groups

Use Notice Groups to create Call Out Lists that contain at least one contact to respond to high level alarms. At least one contact must be in the contact list before a call out list can be added.

The Call Out List(s) are assigned to one or more machines using the Remote Setup screen.

When the Voice Call Out feature is enabled in the Base Setup screen and a high level alarm condition occurs in a machine that the Call Out List is assigned to, the BaseStation2-SM will do the following:

- Call the first contact phone number in the assigned Call Out List.
 - If the call is not acknowledged the next contact phone number on the in the assigned Call Out List is called.
 - If none of the calls are acknowledged BaseStation2-SM will retry each phone number in order until either the call is acknowledged or all the phone numbers have been retried one time.
- Send one text message to all the contacts on the assigned Call Out List with a Text Message Address.
- Send one email message to all the contacts on the assigned Call Out List with an Email Address.

When a call is answered a voice message will specify which remote has an alarm condition. A voice prompt will direct you through the menu options.

Add Notice Group

To add a Notice Group Call Out List do the following:

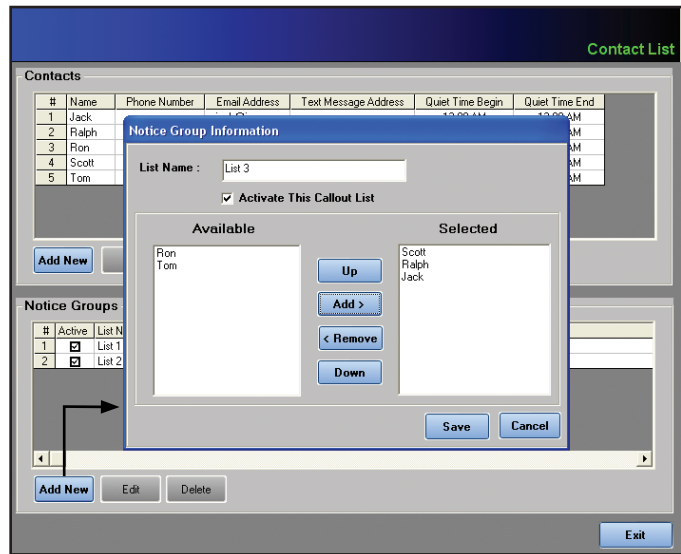
1. Click on the Add New button to open the Notice Group Information screen.

2. Enter the name of the list in the List Name field.

3. The Call Out List is by default activated when the Notice Group Information window is opened.

- If this is an active Call Out List, the Activate This Call Out List check box is checked by default and no action is needed.

- If this is a non-active Call Out List the, click the Activate This Call Out List check box to remove the check mark and de-activate the list.



4. Add, remove or position contacts in the list.

- To add a contact to the list, click on a contact in the Available column, then click the Add button to move the contact to the Selected column. Repeat this step as required to add the desired contacts to the Call Out List.
- To remove a contact from the list, click on a contact in the Selected column, then click the Remove button to move the contact to the Available column.
- To move a contact up in the list, click on a contact in the Selected column, then click the Up button to move the contact to the desired position in the list.
- To move a contact down in the list, click on a contact in the Selected column, then click the Down button to move the contact to the desired position in the list.

5. When done adding contacts click the Save button to save the Call Out List or click Cancel to close the screen without saving.

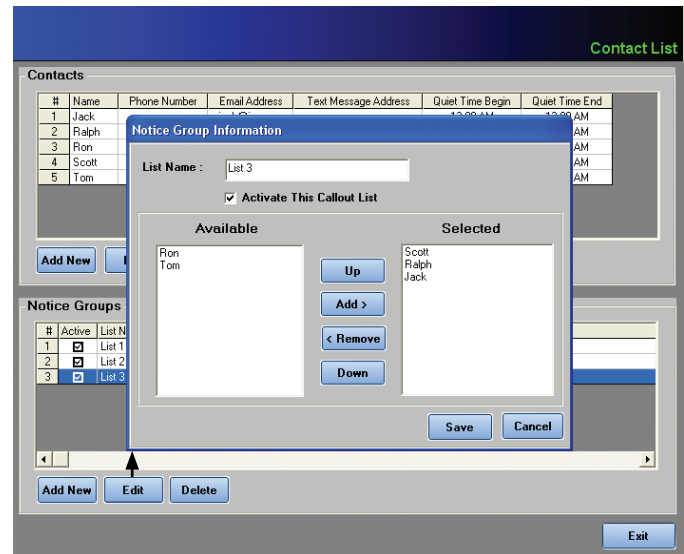
Contact List (Continued)

Notice Groups

Edit Notice Group

To edit a Notice Group Call Out List do the following:

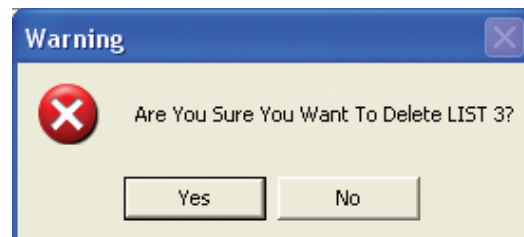
1. Click on the List Name in the Notice Groups list to select the list for editing.
2. Click on the Edit button below the Notice Group field to open the Notice Group Information screen..
3. If desired, activate or de-activate the The Call Out List.
 - To activate this Call Out List, click the Activate This Call Out List check box to add the check mark and activate the list.
 - To de-activate this Call Out List, click the Activate This Call Out List check box to remove the check mark and de-activate the list.
4. If desired, add, remove or position contacts in the Call Out List.
 - To add a contact to the list, click on a contact in the Available column, then click the Add button to move the contact to the Selected column.
 - To remove a contact from the list, click on a contact in the Selected column, then click the Remove button to move the contact to the Available column.
 - To move a contact up in the list, click on a contact in the Selected column, then click the Up button to move the contact to the desired position in the list.
 - To move a contact down in the list, click on a contact in the Selected column, then click the Down button to move the contact to the desired position in the list.
5. When done editing click the Save button to save the Call Out List or click Cancel to close the screen without saving.



Delete Notice Group

To delete a Notice Group Call Out List do the following:

1. Click on the List Name in the Notice Groups list to select the list for editing.
2. Click on the Delete button below the Notice Group field to open the Notice Group Information screen.
3. Click the Yes button to delete the contact or click No to cancel without deleting.



MAIN WINDOW

Setup Menu

Diagnostics Setup

DataRadio Diagnostics is used for diagnosing communication problems with DataRadios connected to the BaseStation2-SM and the remotes.

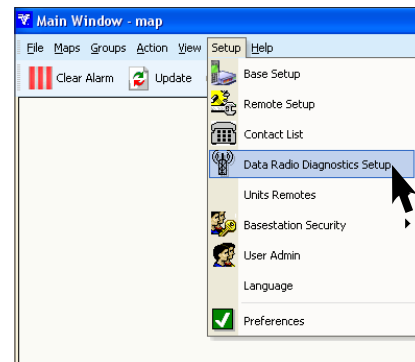
DataRadio Diagnostics also provides DataRadio signal strength information to the signal strength display in the panel views and popup status. DataRadio must be selected in Base Setup.

To use this feature:

- A 9-pin serial cable must be connected from the SETUP port on the front of the BaseStation2-SM DataRadio to an open 9-pin COM port on the BaseStation2-SM computer.
- One of the radios in Base Setup must be set to DataRadio.
- Diagnostics Active must be enabled.
- BaseStation2-SM DataRadio ID must be entered on the DataRadio Diagnostics Setup window.
- Remote DataRadio ID must be entered in the Remote Setup window.
- The correct COM port must be selected.

To display the Radio Diagnostics Setup window, click on Setup in the Main Window, then click on DataRadio Diagnostics Setup in the drop down menu.

Remote DataRadio information is not accessible when a repeater is used. Diagnostics data is only available with direct radio communications. Communications with the repeater can be monitored by setting up one remote with the DataRadio ID as the ID of the repeater radio ID.



Diagnostics Active

Click on the Diagnostics Active check box to enable diagnostics active.

DataRadio ID

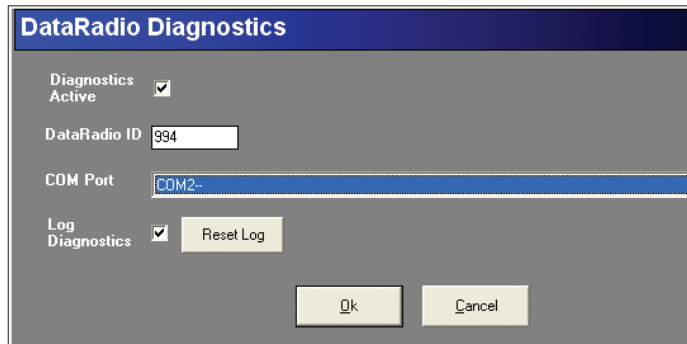
Enter the DataRadio ID number of the radio at the BaseStation.

COM Port

Select the COM Port from the drop down list that the DataRadio setup port is connected to.

Log Diagnostics

Log Diagnostics is only used for troubleshooting the DataRadios. To enable Log Diagnostics and capture DataRadio activity in the log file, click on the Log Diagnostics check box. When Log Diagnostics is enabled, all transmission diagnostics are saved to a file and the most recent diagnostics are displayed in the history section of the diagnostics window.



Enable Log Diagnostics only when troubleshooting communication problems.

NOTE

•Leaving Log Diagnostics enabled will create a large database and use up large amounts of disk space. This will cause a gradual reduction in performance caused by the increase in the Log File size.

Reset Log

To clear the log file click on Reset Log.

Click OK to save the settings and display the DataRadio Diagnostics button on the Main Window toolbar.



Toolbar Button

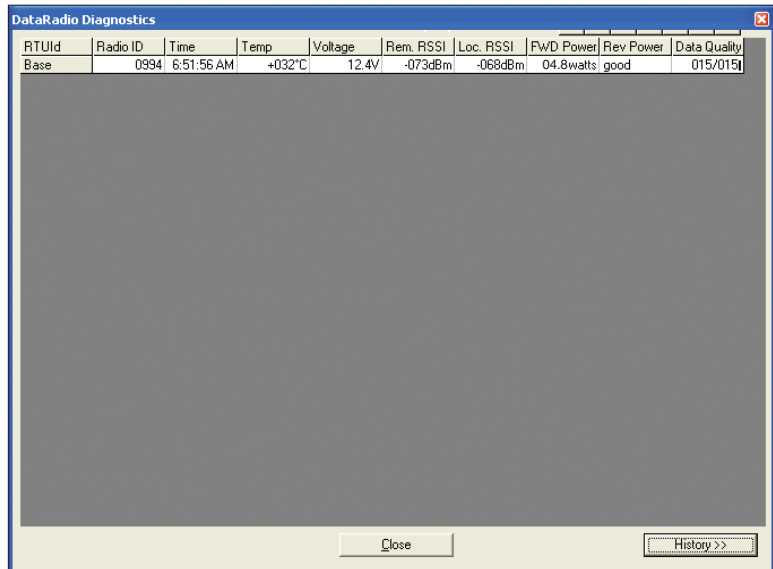
DataRadio Diagnostics Window

To open the DataRadio Diagnostics window click on the toolbar button.



Toolbar Button

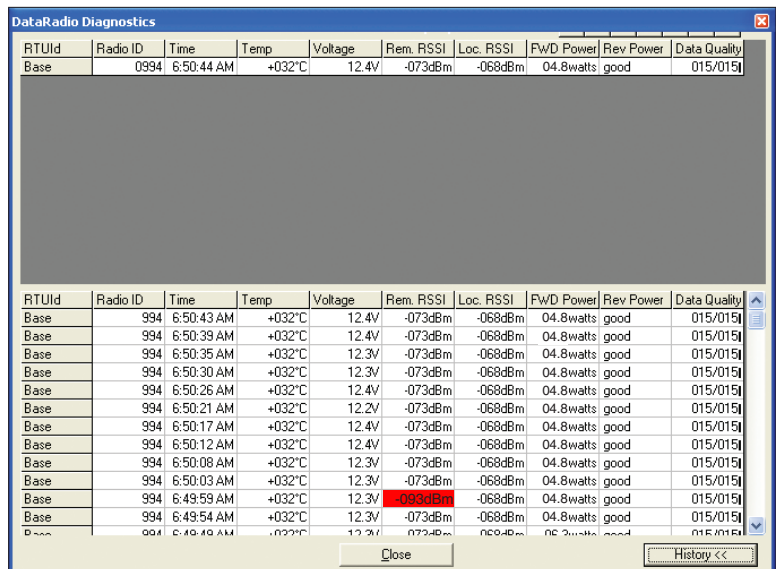
The DataRadio Diagnostics window displays a line of current diagnostic information for the BaseStation DataRadio and any other DataRadios that it communicates with.



When the History button is clicked, the upper portion of the window displays the current diagnostic information and the lower portion of the window displays each diagnostics report received by or created by the radio.

RSSI is a measurement of signal strength received by the radio. The highest value is -60.

RSSI Values		
-60 to -69	Excellent	No Highlight
-70 to -79	Very Good	
-80 to -89	Good	Red Highlight
-90 to -99	Low	
-100 and Below	Very Low	



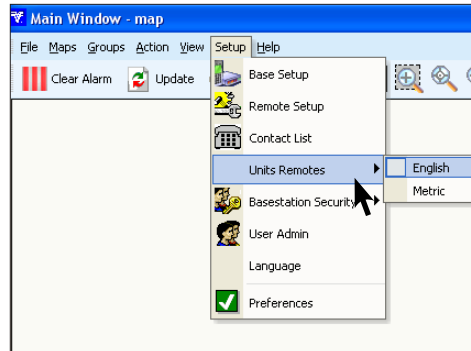
MAIN WINDOW

Setup Menu

Units (Remotes)

The information displayed in BaseStation2-SM is shown according to the units of measure selected, English or Metric. All control panel views, reports, and report displays will use the selected unit.

To change the Units setting, click on Setup, then Units (Remotes) in the drop-down menu, which will open a fly out menu. The current unit of measurement, English or Metric, will have a grey square in front of it. To change, select the unit of measurement by clicking on it.

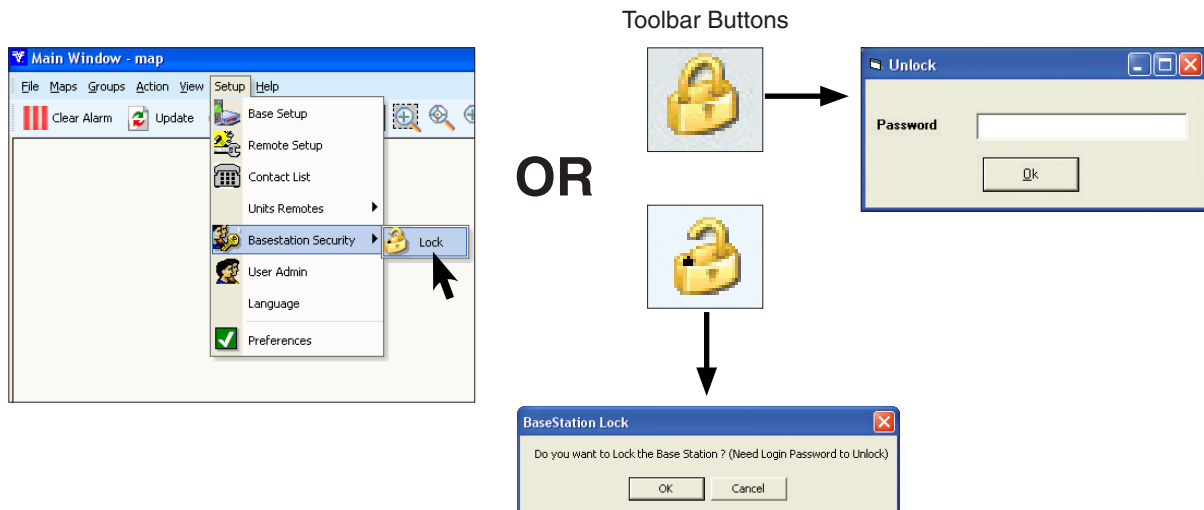


BaseStation Security

BaseStation Security can restrict access to the remote machine control functions. Monitoring activities are not affected, which allows the BaseStation's unattended polling and alarm utilities to continue to supervise the irrigation process. If the BaseStation is locked, no one can change any remote until they have entered the proper password to unlock the BaseStation.

To **LOCK** the BaseStation2-SM, click on Setup, then BaseStation Security in the drop-down menu, then click on Lock or click the Lock/Unlock BaseStation toolbar button. The padlock on the button will change to reflect the status of the machine, locked or unlocked.

To **UNLOCK** the BaseStation2-SM, click on Setup, then BaseStation Security in the drop-down menu, then click on Unlock or click the Lock/Unlock toolbar button. Enter the user password of the logged in user and click OK to unlock the BaseStation2-SM. The padlock on the button will change to reflect the status of the machine, locked or unlocked.



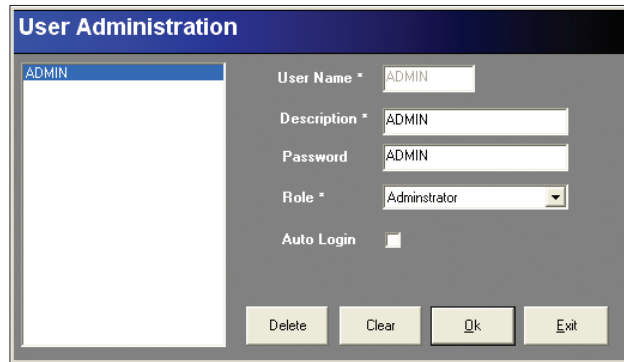
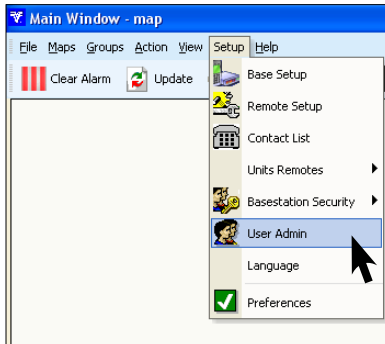
- NOTE**
- To change a user password, click on Setup, then on User Admin.
 - Only an Administrator can change user passwords.
 - ADMIN is the default password.

MAIN WINDOW

Setup Menu

User Admin

The User Administration window is used to setup or change User Name, Description, Password, Role, and Auto Login. During installation, the BaseStation2-SM is set to default: User Name ADMIN with password ADMIN. To open the User Administration window, click on Setup, then User Admin in the drop down menu. The ADMIN user and password can be deleted after assigning a new user with the Administrator role.



Creating/Editing User Profiles

User Name (Required)

Enter a User Name to be used at login or select an existing user to edit the User Name.

Description (Required)

Enter a Description for the User Name or select an existing user to edit the User Description.

Password

If desired, enter a password to be used at login or select an existing user to edit the Password. Limit password length to 30 characters. Password is not case sensitive.

Role (Required)

Select Role (Administrator or Operator) for the user from the drop down menu or select an existing user to edit the Role.

The Administrator role has full use of every function of the BaseStation.

The Operator role is limited and does not allow the use of the following functions: Maps Data, Draw Map, Map Maintenance, Base Setup, Remote Setup, User Admin, and Remote Voice Control Setup.

Auto Login

To enable BaseStation2-SM to automatically login for a selected user when the program is started, select the user from the list of users, click a check mark in the Auto Login check box then click OK. The user name is preceded by an asterisk (*) when Auto Login is enabled. Only one user name can be enabled for Auto Login.

Delete Button

Click on the Delete button after selecting an existing user to delete the selected user.

Clear Button

Click on the Clear button to clear the User Administration fields and set the Role field to Operator.

OK Button

Click on the OK button to save a new user profile or save changes to an existing user profile.

Exit Button

Click on the Exit button to close the User Administration window.

MAIN WINDOW

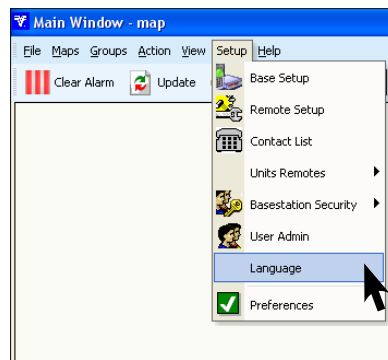
Setup Menu

Language

The Language menu is used to change the language of text that is displayed on screen. The default language is English.

NOTE •The Voice messaging system is in English for all languages

To open the Language menu, click on Setup, then Language in the drop down menu. Select the desired language from the Language menu or click Cancel.



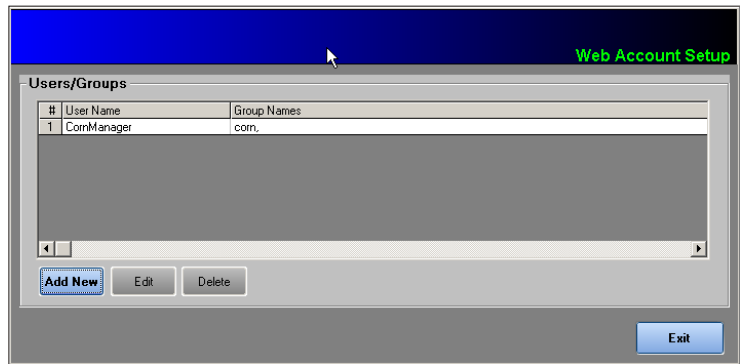
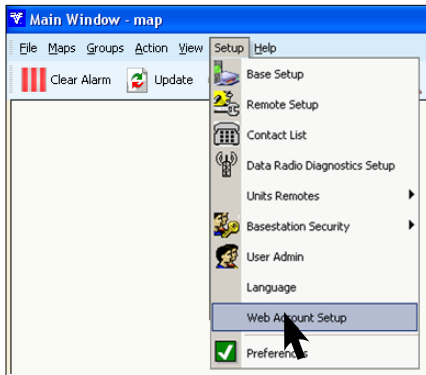
MAIN WINDOW

Setup Menu

Web Account Setup

The creation of a web account is separate and not associated with a BaseStation user name. The same name as a BaseStation user name can be created, for administration purposes, but there is no relationship between a BaseStation user name and a Web Account user name.

The Web Account Setup window is used to Add, Edit or Delete a User Name and group association to/from the web account. A web account user name is separate and not associated with an Admin user name. To open the Web Account Setup window, click on Setup, then Web Account Setup in the drop down menu.

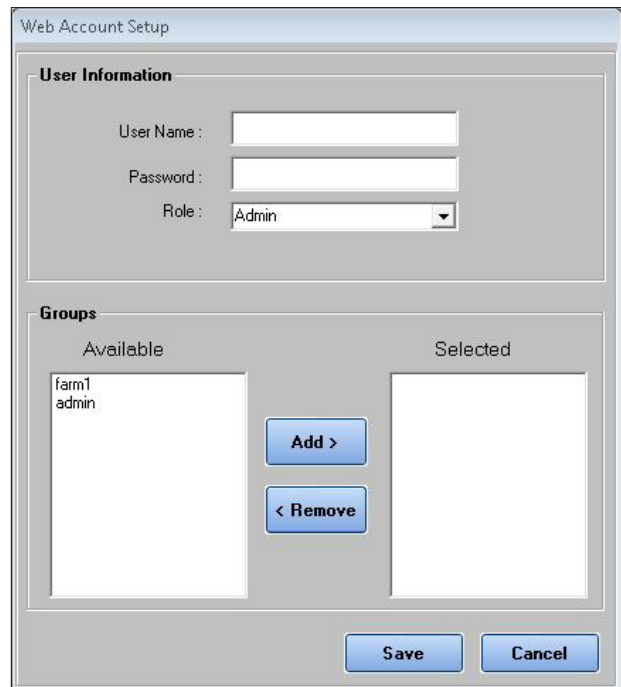


Web Account Window

Add New

Use to add a new User Name with group association to the web account. The Saved Group(s) must be setup prior to adding a user name to the web account. Each web account user name must be associated with at least one group.

- Click the Add New button.
- Enter the user name and password for mobile and web accounts. Limit password length to 30 characters. The password is not case sensitive.
- Select the role, either Admin or Operator.
 - » The Administrator role has full use of every function of the BaseStation.
 - » The Operator role has read only rights unless the “Send commands to remote panel” check box is checked. Then the operator is allowed to send commands to a remote panel.
- Select one group or multiple groups to associate with the user name and click Add. To remove a group association, select the group and click Remove.



Add New / Edit Window

Edit

Select a User Name from the web account window and click the Edit button to edit the User Name.

Delete

Select a User Name from the web account window and click the Delete button to delete a User Name.

Save Button

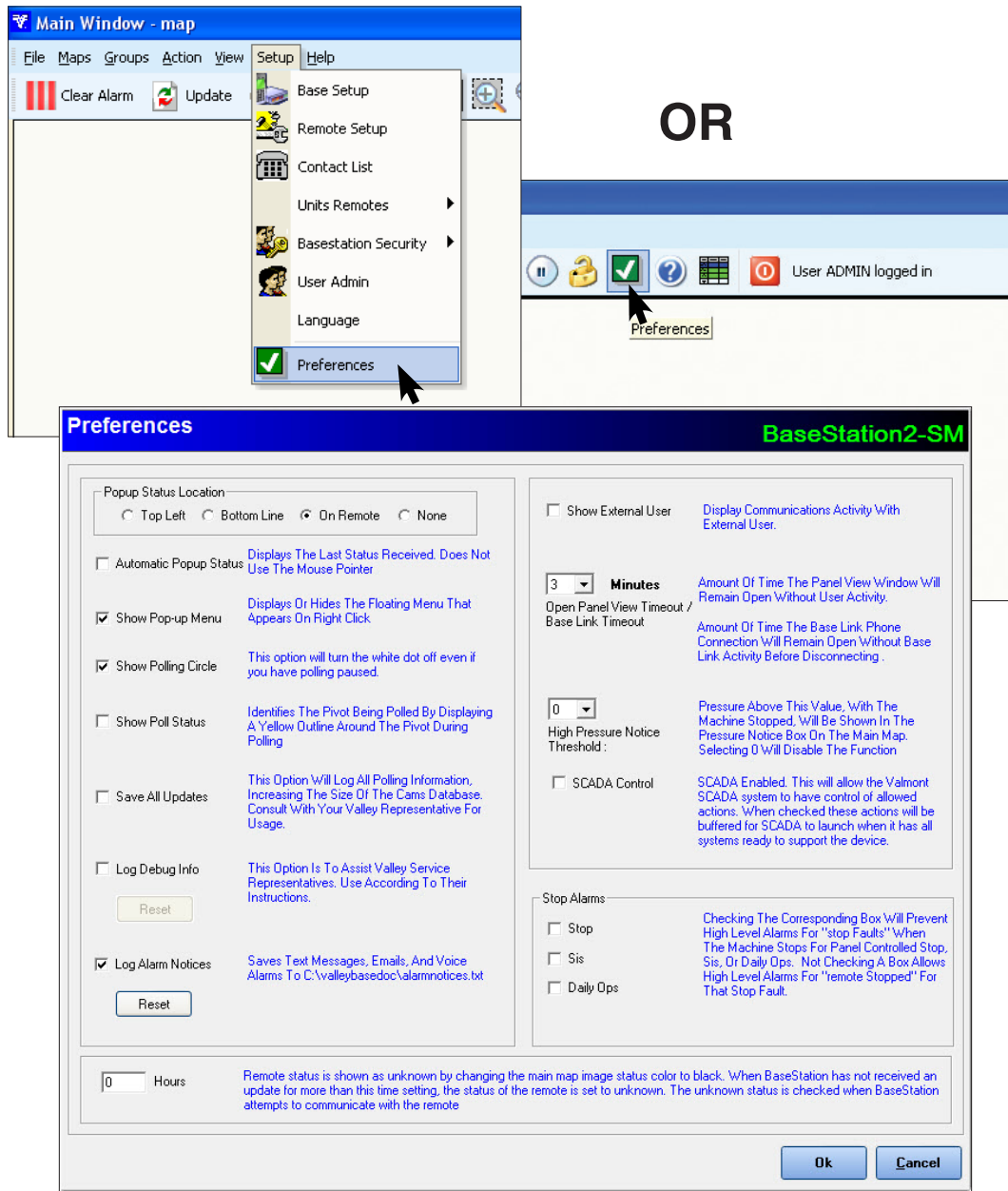
Click the Save button to save a new user profile or save changes to an existing user profile.

Exit Button

Click the Exit button to close the Web Account window.

Preferences

Customize features of the BaseStation2-SM in the Preferences window. To open the Preferences window, click on Setup, then Preferences OR click the Preferences button on the tool bar.



Features that appear within the Preferences window:

- Popup Status Location
- Automatic Popup Status
- Show Pop-up Menu
- Show Polling Circle
- Show Poll Status
- Save All Updates
- Log Debug Info
- Log Alarm Notices
- Show External User
- Open Panel View Timeout/Base Link Timeout
- High Pressure Notice Threshold
- SCADA Control
- STOP Alarms
- Unknown Status

Click OK to save changes and close the Preferences window or click Cancel to close the window without saving.

MAIN WINDOW

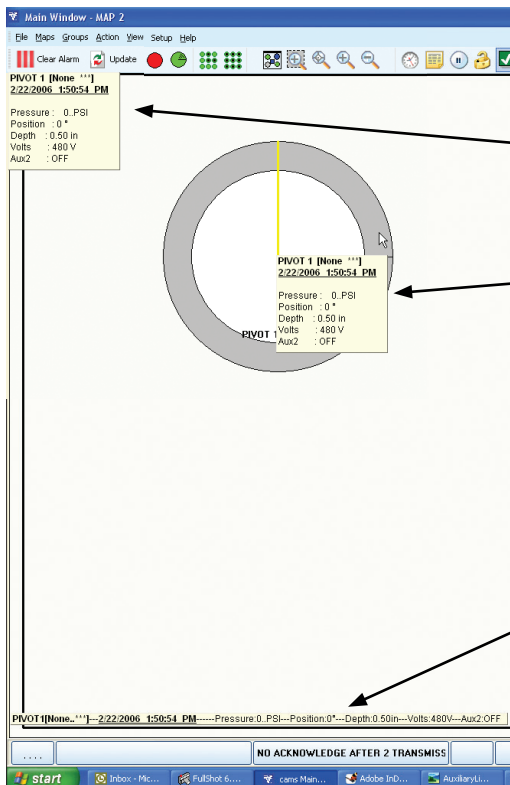
Setup Menu

Preferences (Continued)

Popup Status Location

Allows for selecting the preferred display location of the Current Status information of the machine under the mouse pointer.

To set the display location or prevent the display of the popup status box, click on the radio button next to the desired setting.



- Top Left
 - A fixed position popup box in the top left corner of the map.

- On Remote
 - The top left corner of popup box positioned on center of a map item.
 - If map item is at bottom edge of window; the popup box may not be completely displayed.
 - If map item is at right edge of window; the popup box text may wrap.

- Bottom Line
 - A narrow box located immediately above the communications status bar at the bottom of the map.

- None - Prevents display of the popup status box.

Preferences (Continued)

Automatic Popup Status

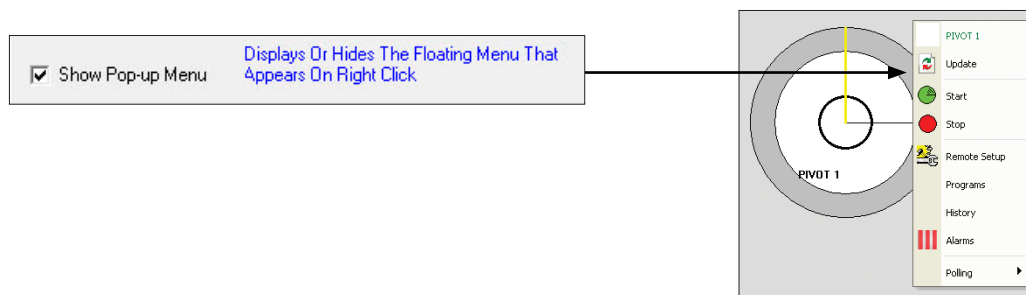
When checked, the pop-up status will display the information from the most recently updated remote.

To enable the automatic display of the popup status box whenever the status of a remote is reported to the BaseStation, click in the check box next to Automatic Popup Status. When the Automatic Popup Status is enabled, the mouse pointer activated popup status box is disabled.



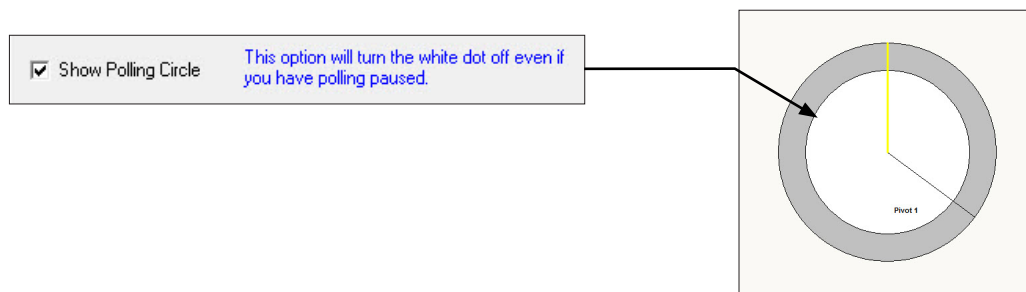
Show Popup Menu

To enable display of the popup menu whenever the user right clicks on a map item, click in the check box next to Show Popup Menu.



Show Polling Circle

When Show Polling Circle is enabled a white circle appears on a remote when polling for the remote is paused or when polling period for the remote is not set above zero. To enable Show Polling Circle, click in the check box next to Show Polling Circle.



Show Poll Status

When Show Poll Status is enabled the edge of the map item turns yellow during polling. To enable show poll status, click in the check box next to Show Poll Status.



MAIN WINDOW

Setup Menu

Preferences (Continued)

Save All Updates

When the box is checked, all status updates are recorded into a database file. Even a machine that is not running will have all updates saved. Every time that status is received from a remote, the data is stored in the database file.

This feature should be used for analyzing the characteristics of a machine. Various states that normally do not interrupt the operation but may affect the uniformity of water application can be studied. Running conditions that are recorded, such as pressure, voltage, and position can then be reviewed with the use of the Status Change Report.

Leaving Save All Updates checked for normal operation will result in development of a very large database file that can slow computer performance.

To enable save all updates, click in the check box next to Save All Updates. Please consult your Valley Service Representative for assistance with this feature.

<input type="checkbox"/> Save All Updates	This Option Will Log All Polling Information, Increasing The Size Of The Cams Database. Consult With Your Valley Representative For Usage.
---	--

Log Debug Info

Used for troubleshooting communications through the serial ports only. This should NOT be checked for normal operation because a very large file of data will be logged if left enabled. See Diagnostics Setup for more information.

To log debug info for problem diagnosis, click in the check box next to Log Debug Info. Log Debug Info creates a text file. Please consult your Valley Service Representative for assistance with this feature.

<input type="checkbox"/> Log Debug Info	This Option Is To Assist Valley Service Representatives. Use According To Their Instructions.
<input type="button" value="Reset"/>	

Log Alarm Notices

When Log Alarm Notices is enabled all text messages, emails and voice alarms are saved to C:\valleybasedoc\alarmnotices.txt. To enable Log Alarm Notices, click in the check box next to Log Alarm Notices.

<input checked="" type="checkbox"/> Log Alarm Notices	Saves Text Messages, Emails, And Voice Alarms To C:\valleybasedoc\alarmnotices.txt
<input type="button" value="Reset"/>	

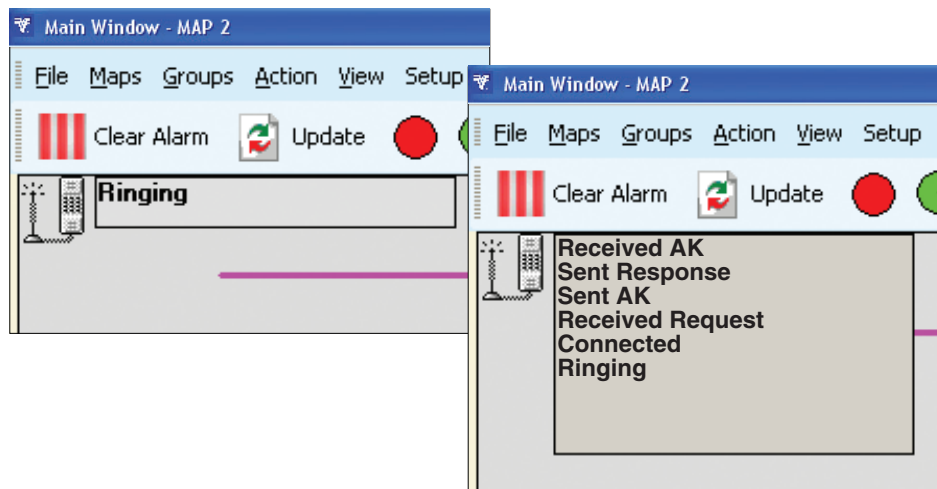
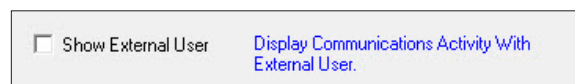
Preferences (Continued) Show External User

Enables a window to be shown on the BaseStation2-SM when an external user connection is active.

This feature requires a separate telephone line with a modem set for auto answer. The modem for this connection has the same requirements as the data telephone used to communicate with remotes. The secondary BaseStation2-SM is treated as if a panel view is open; polling is paused and commands are handled in real time.

If Show External User is enabled, an icon and status bar will appear near the top of the Main Window when a call is received. The External User activity is shown in the status bar. Clicking on the status bar to expand the status bar and view strings of activity.

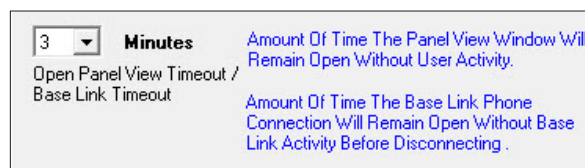
To show External User call status, click in the check box next to Show External User.



Open Panel View Timeout/Base Link Timeout

Sets the amount of time that the panel view window will remain open and/or the amount of time that the phone connection will remain open without user activity, before automatically closing and resuming unattended activity.

To change the time limit click on the down arrow and select a time limit between 1 and 10 minutes. The default time limit is 3 minutes.



MAIN WINDOW

Setup Menu

Preferences (Continued)

High Pressure Notice Threshold

When the High Pressure Notice Threshold is enabled, the pressure notice box will appear on the main map when a machine is detected with pressure above the selected limit, when the machine's status is Stopped or Dry. The threshold is a common reference value for all remotes monitoring pressure with a pressure transducer.

To enable the High Pressure Notice Threshold, click on the down arrow and select a pressure value between 5 and 25. Setting the reference value to zero disables the feature.

<input type="text" value="0"/>	Pressure Above This Value, With The Machine Stopped, Will Be Shown In The Pressure Notice Box On The Main Map. Selecting 0 Will Disable The Function
High Pressure Notice Threshold :	

SCADA Control

When SCADA Control is enabled, the control of allowed actions is given to the Valmont SCADA System. The allowed actions are buffered for the Valmont SCADA System to launch when all systems are ready to support the device.

To enable the SCADA Control, click in the check box next to SCADA Control.

<input type="checkbox"/> SCADA Control	SCADA Enabled. This will allow the Valmont SCADA system to have control of allowed actions. When checked these actions will be buffered for SCADA to launch when it has all systems ready to support the device.
--	--

STOP Alarms

Allows the user to prevent high level alarms for Remote Stopped when a machine stops for any of the following stop types:

- Stop - Local keypad stop, program stop, or secondary BaseStation stop command.
- Stop In Slot Stop (SIS)
- Daily Ops Stop

To bypass a high level alarm for a specific stop type and display the yellow alert dot, click in the check box next to that type of stop.

Stop Alarms	
<input type="checkbox"/> Stop	Checking The Corresponding Box Will Prevent High Level Alarms For "stop Faults" When The Machine Stops For Panel Controlled Stop, Sis, Or Daily Ops. Not Checking A Box Allows High Level Alarms For "remote Stopped" For That Stop Fault.
<input type="checkbox"/> Sis	
<input type="checkbox"/> Daily Ops	

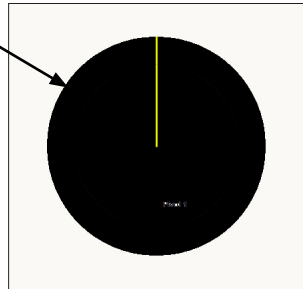
Preferences (Continued) Unknown Status

When BaseStation has not received an update from a remote for more than the time limit, the Remote Status is shown as unknown by changing the color of the remote to black on main window map. the unknown status is checked when BaseStation attamps to communicate with the remote.

To enable the Unknown Status, enter the number of hours in decimal format.
(example, four and one half hours = 4.5)

Setting the reference value to zero disables the feature.

<input type="text" value="0"/> Hours	Remote status is shown as unknown by changing the main map image status color to black. When BaseStation has not received an update for more than this time setting, the status of the remote is set to unknown. The unknown status is checked when BaseStation attempts to communicate with the remote
--------------------------------------	---

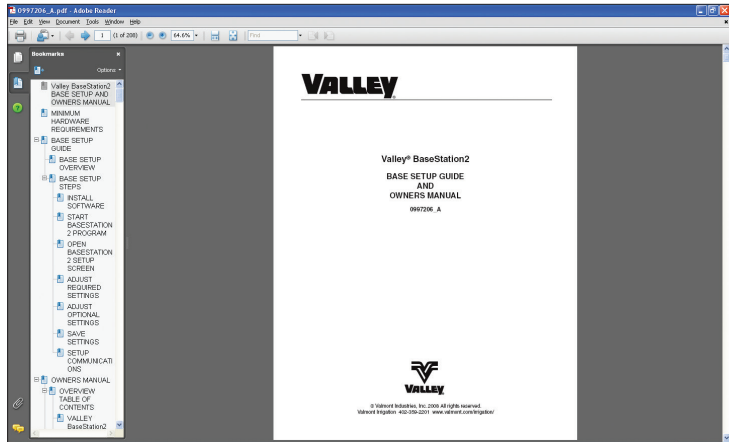
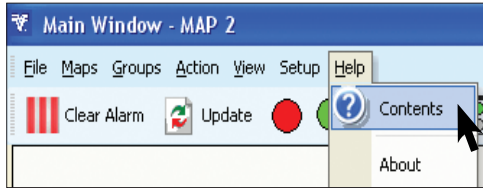


MAIN WINDOW

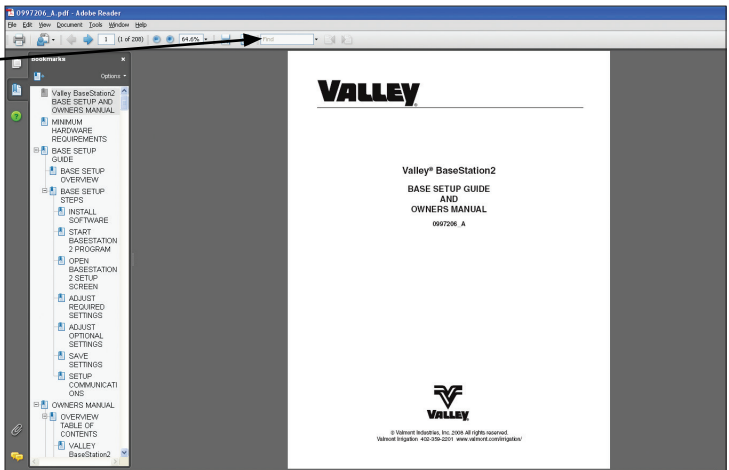
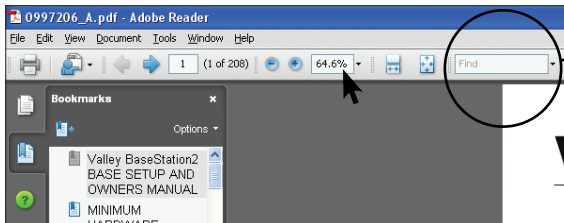
Help Menu

Contents

Displays the contents of the BaseStation2-SM Base Setup and Owners Manual in Adobe Reader.

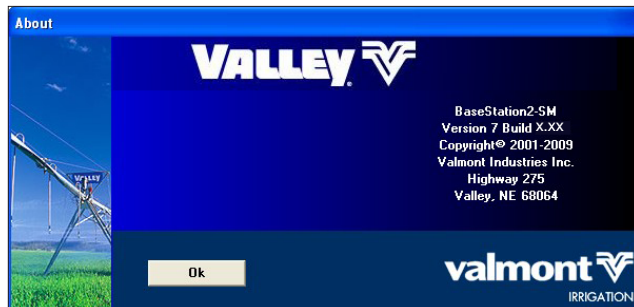
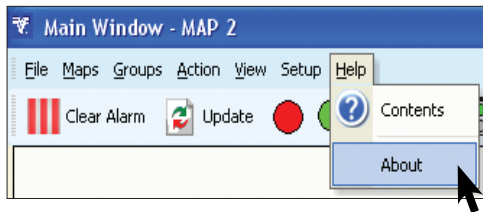


NOTE •Click within the Find box in Adobe Reader to search the Valley BaseStation2-SM Base Setup and Owners Manual using keywords.



About

Displays information about the BaseStation2-SM version.



MAP DRAW WINDOW

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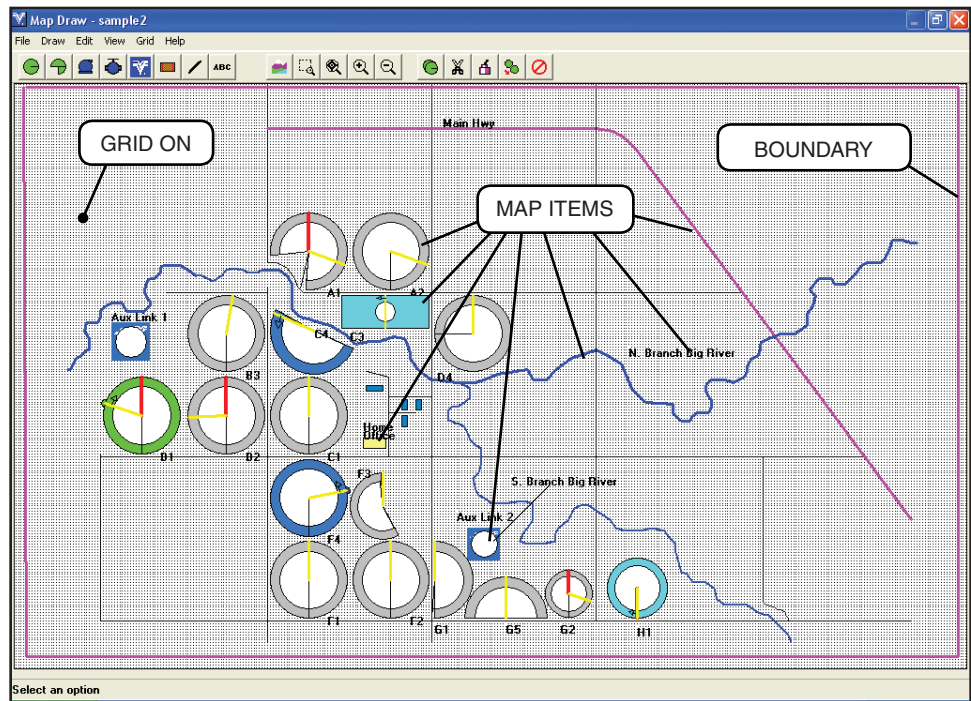
MAP DRAW WINDOW

MAP DRAW WINDOW

Drawing a Map

Use the Map Drawing feature to create your own map(s). Listed below is one way to create a map using the steps shown in the suggested order.

- To draw a map, open the Map Draw window.
 - The Map Draw window automatically opens if there are no saved maps when the BaseStation program is started.
 - If a map already exists, click on Maps Menu in the Main Window, then Draw Map in the drop down menu.
- From the Map Draw window, click on File, then New to start a new map.
- Toggle the grid to ON using the Grid Menu.
- Use the Draw Menu to draw a boundary around the edge of the screen to give the new map a reference point for the zoom all feature. The boundary can be changed or removed later if desired.
- Adjust the grid spacing to the desired view by using the View Menu, Zoom Out and Zoom In. A view where the grid dots are approximately 1/8" apart is suggested.
- Draw the desired map items on the map using the Draw Menu or toolbar buttons. After drawing the map items use the View menu to Zoom All or click the Zoom All toolbar button.
- Move or size the map items using the Edit Menu.
- Save the map using the File Menu, Save As command. Then close the Map Draw window.
- Open the new map in the Main Window using the Maps Menu. It may be necessary to close and then restart the BaseStation2-SM program if the map does not appear in the list of maps to open.
- After the map is open, setup the communications between each BaseStation map item and the remote panel in the field using the Setup Menu, Remote Setup.



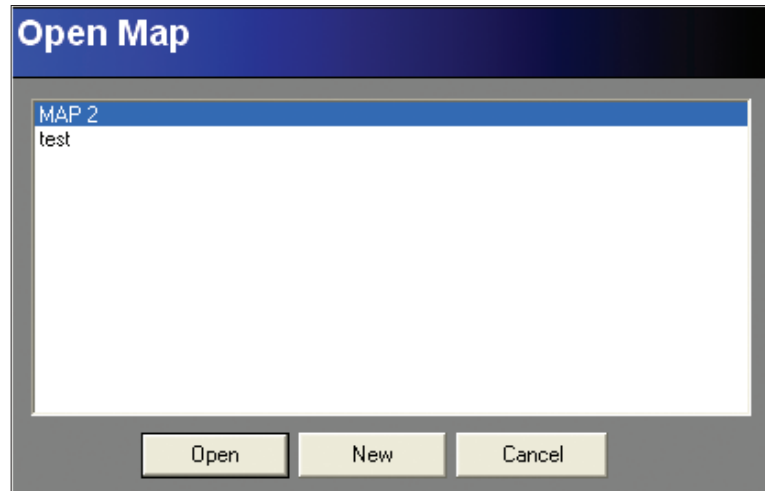
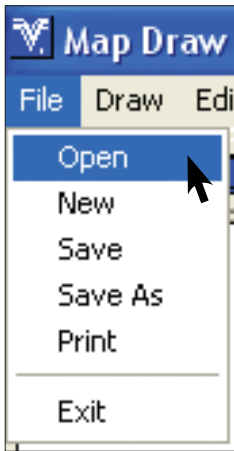
MAP DRAW WINDOW

File Menu

Open

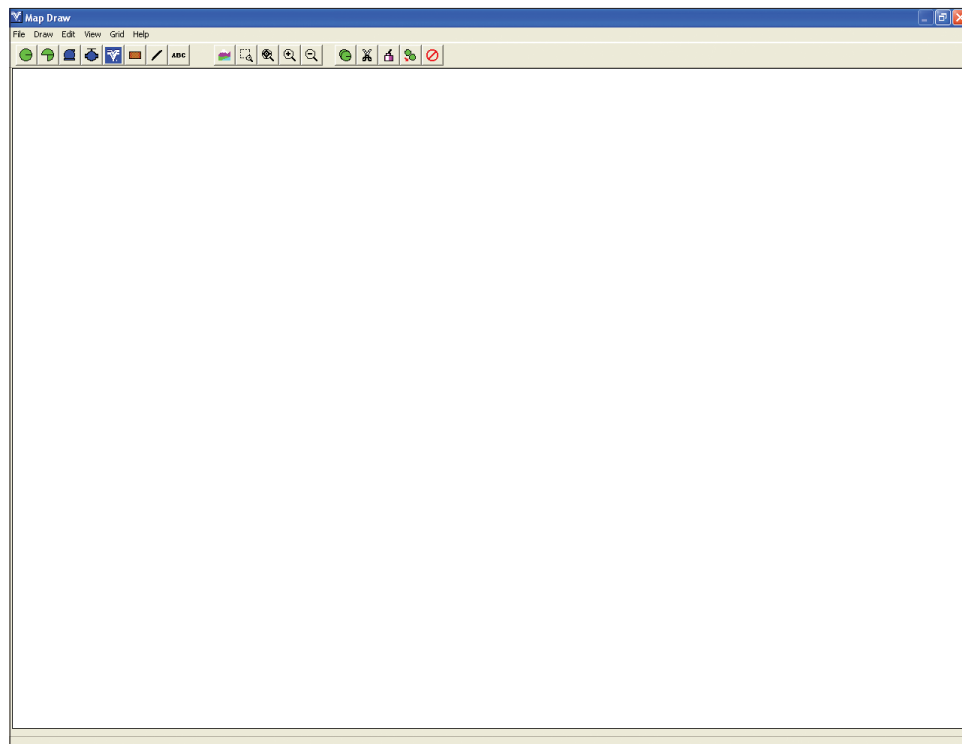
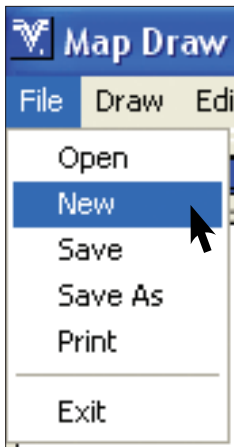
To view the Open Map screen, click on File, then on Open. This will show you the existing maps that are available.

To open an existing map, select the map, then click on Open. To create a new map, click on New.



New

Clicking on File, then New closes the current map and gives you a blank area to create a new map. The first thing you need to do is to save this file by clicking on Save As and typing in a new map file name.

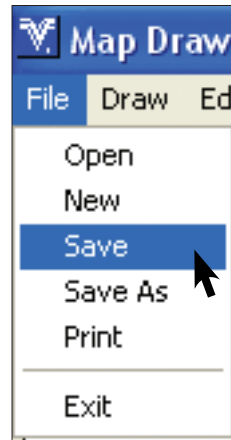


MAP DRAW WINDOW

File Menu

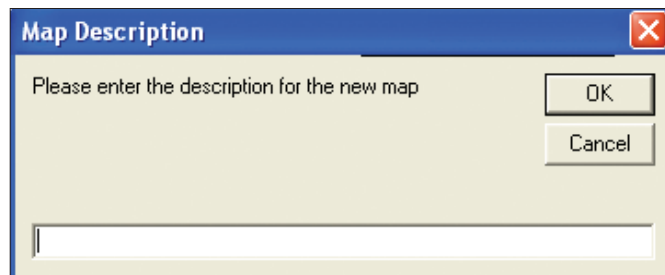
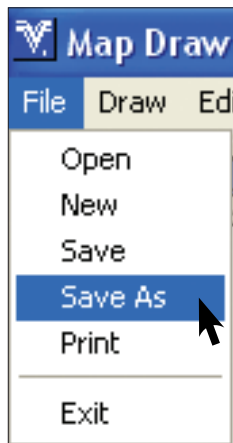
Save

Save the current map file with the same name, location, and file format as originally designated when it was saved for the first time using Save. When naming a map file it is recommended that only alpha numeric characters be used. Do not use any symbols other than hyphen (-) and underscore (_). If you want to change the name, location, or file format use Save As.



Save As

To save the current map with a new name, click on File, then Save As. When naming a map file it is recommended that only alpha numeric characters be used. Do not use any symbols other than hyphen (-) and underscore (_). In the Map Description box type in a new name, follow Windows file naming rules.

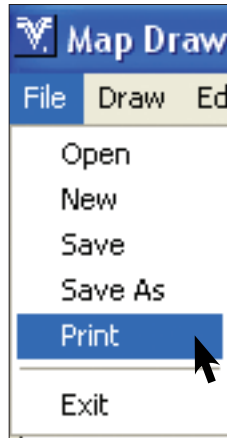


MAP DRAW WINDOW

File Menu

Print

To print the current view in the Map Draw Window, click on File, then Print in the drop-down menu. Prints the current view of the map to your default printer.



Exit

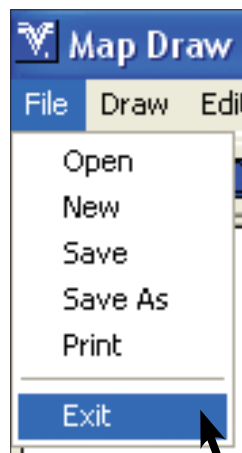
To exit the Map Drawing Program and return to the Main Window:

Click on File, then Exit or click the Exit Application button on the tool bar.

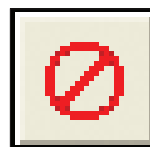
A pop-up dialog box will ask you if you wish to save your changes. Make your selection of Yes, No, or Cancel.

- Yes will save the changes and exit.
- No will exit without saving any changes, except cut.
- Cancel will keep you in the Map Drawing program and retain all changes until Exit is selected again.

From a new map, before returning to the Main Window, a dialog box will ask if you want to “Set this map to current map”. If you have created a new map, this new map can be set as the current map. The Map Drawing window will close and the Main Window is displayed.



OR



Toolbar Button

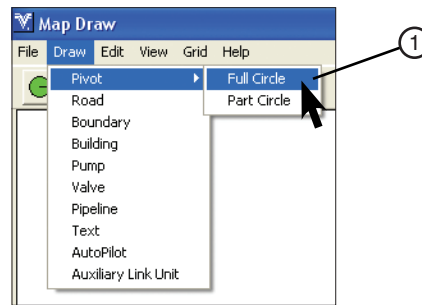
MAP DRAW WINDOW

Draw Menu

Full Pivot

To draw a new Full Circle pivot:

1. Click Draw, then Pivot, then Full Circle or click on the Draw Full Circle toolbar button.



OR

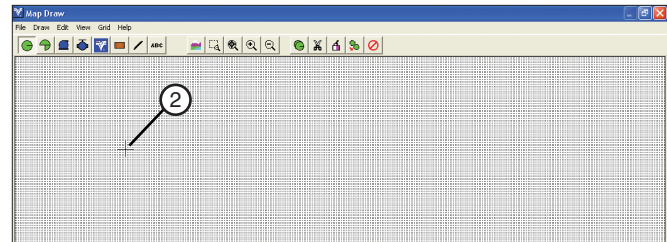


Toolbar Button

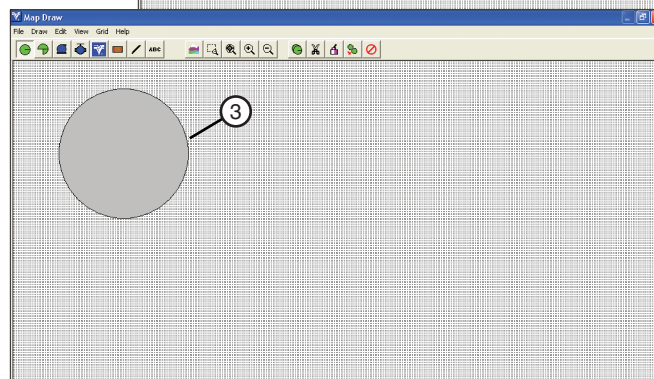
NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the pivot creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the pivot being drawn.
- A part circle pivot can be defined in the Remote Setup Window by specifying Forward and Reverse Limit angles.

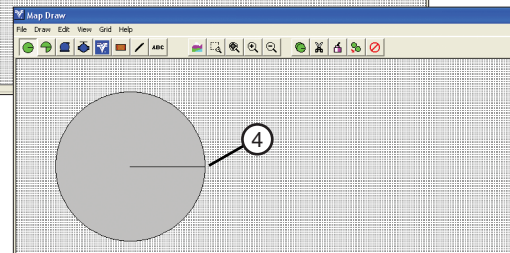
2. Click on the pivot center point.



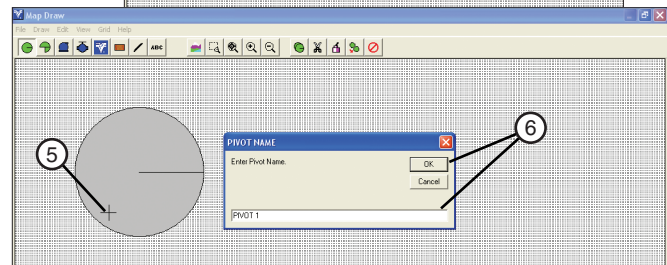
3. Click on the pivot radius location.



4. Click on the pivot road location. Click on the perimeter of the circle to draw a line from the center of the circle to that point to indicate the road to the pivot point.

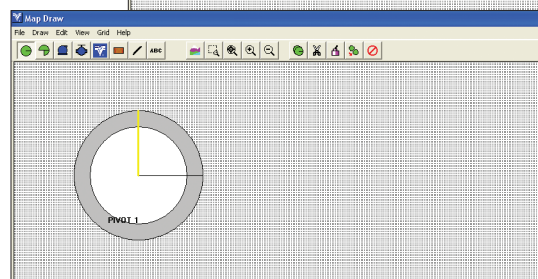


5. Click on the item name location. The point where you click will be the starting point (top left corner of the text) for the name you type when the Pivot Name dialog box opens.



6. Type a name in the dialog box (20 characters maximum) and click on OK. The name appears in the location that was selected.

7. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

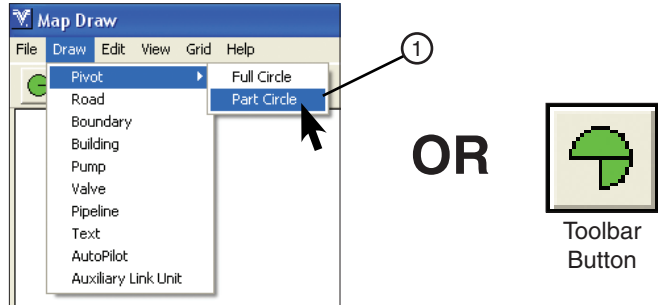
MAP DRAW WINDOW

Draw Menu

Part Pivot

To draw a new Part Circle pivot:

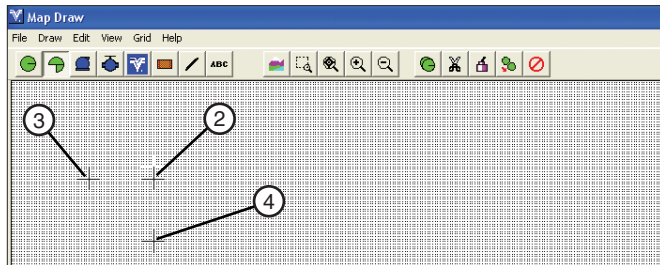
1. Click Draw, then click on Pivot, then Part Circle or click on the Draw Part Circle toolbar button.



NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the pivot creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current pivot being drawn.

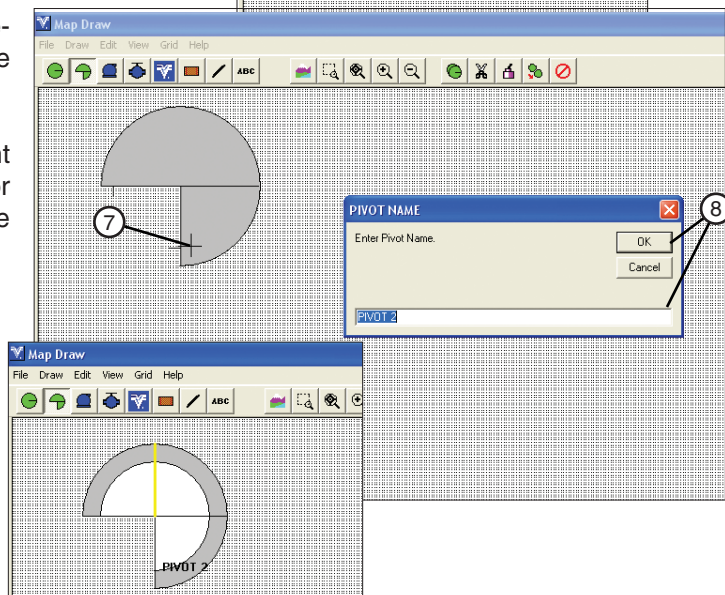
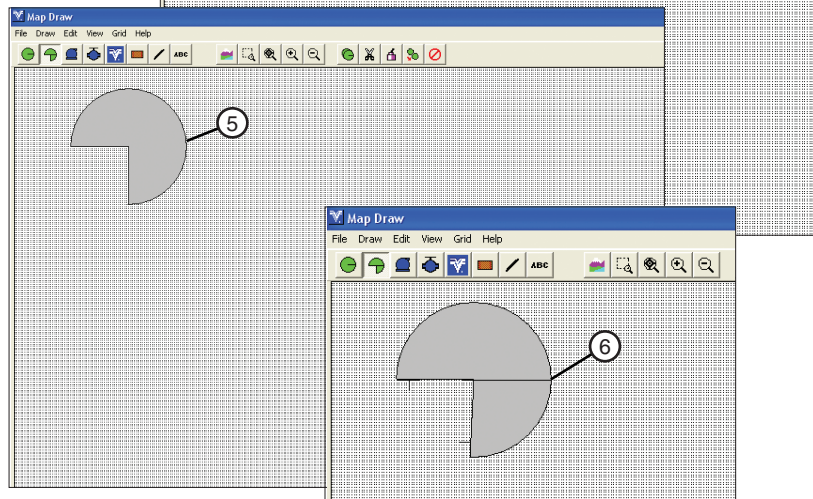
2. Click on pivot center point.
3. Click on pivot start angle. (Reverse Limit Angle)
4. Click on pivot end angle. (Forward Limit Angle)



NOTE

- Actual angle values in degrees can be specified in the Remote setup Window.

5. Click on pivot radius location.
6. Set the pivot road location. Click on the perimeter of the circle to draw a line from the center of the circle to that point.
7. Click on the item name location. The point where you click will be the starting point for the name you type when the Pivot Name dialog box opens.
8. Type a name in the dialog box (20 characters maximum) and click on OK. The name appears in the location that was selected.
9. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

MAP DRAW WINDOW

Draw Menu

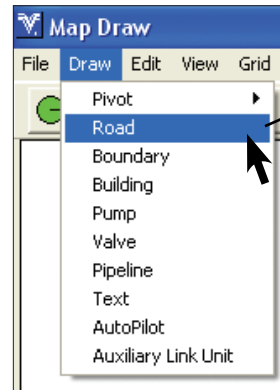
Road

To draw a road:

1. Click on Draw, then Road in the drop-down menu or click on the Draw Road toolbar button.

NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the road creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the end points will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current road being drawn.

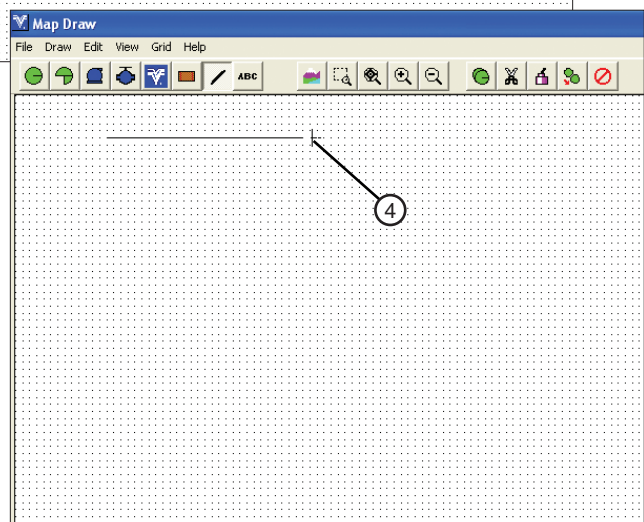
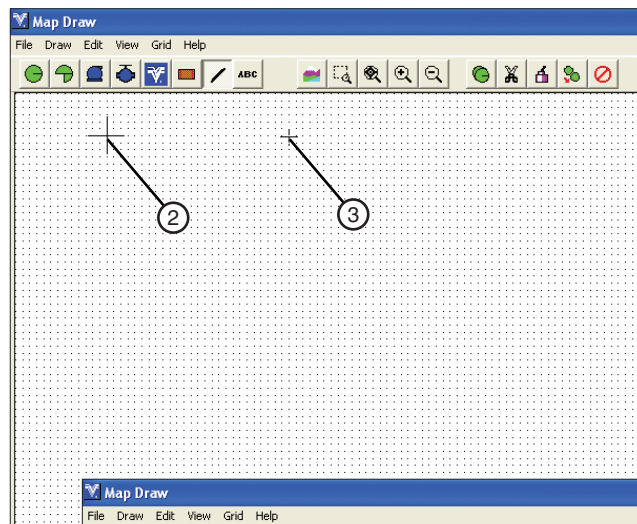


OR



Toolbar Button

2. Click on the starting point of the road.
3. Click on the end point of the road segment. The road segment will be drawn on the map.
4. Repeat step 3 to continue adding road segments.
5. To start a new unconnected line segment or to finish, choose another tool or menu item or click the right mouse button twice (will back up and delete the last line segment). The operator will be able to start a new line elsewhere if chosen.
6. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

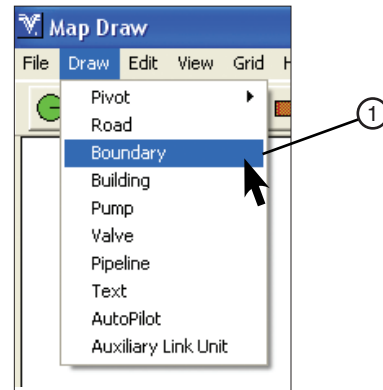
MAP DRAW WINDOW

Draw Menu

Boundary

To draw the farm boundary lines:

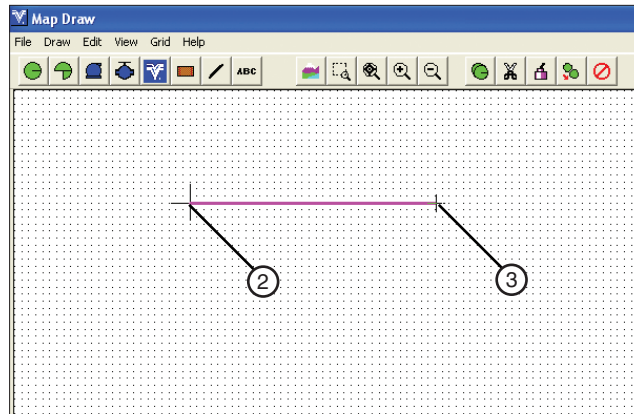
1. Click on Draw, then Boundary in the drop-down menu.



NOTE

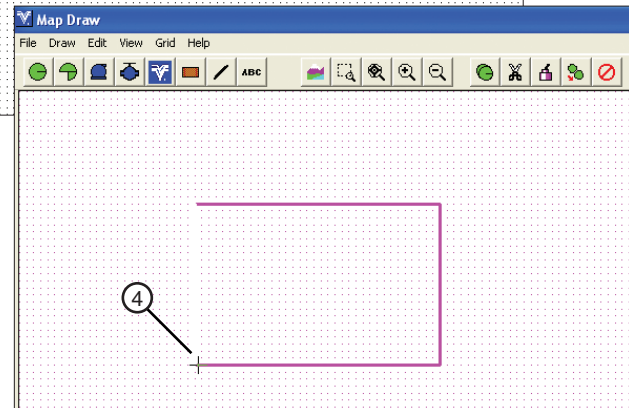
- Instructions are shown in the status bar on the bottom of the window to step you through the boundary creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the end points will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current boundary being drawn.

2. Click on the starting point of the boundary segment.



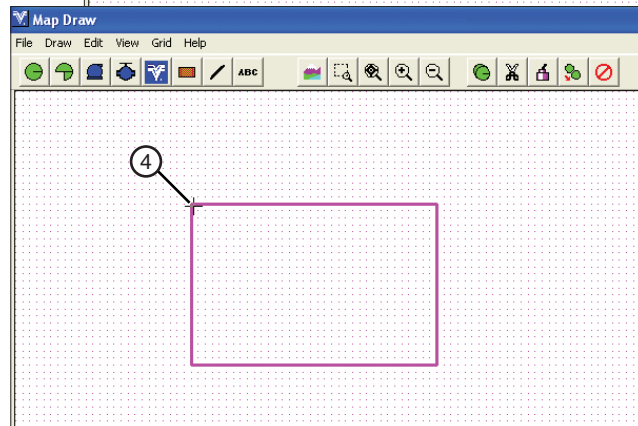
3. Click on end point of boundary segment. The boundary segment is drawn on the map.

4. Repeat step 3 to continue adding boundary segments.



5. To start a new unconnected boundary segment or to finish, either choose another tool or menu item or click the right mouse button twice, this will backup and delete the last line segment. The operator will be able to start a new line elsewhere if chosen.

6. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

MAP DRAW WINDOW

Draw Menu

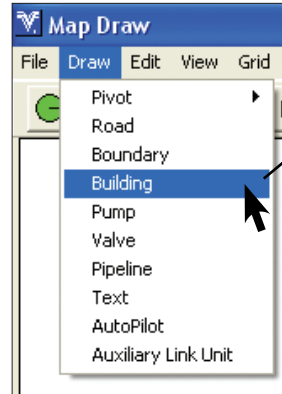
Building

To draw a building:

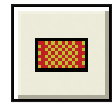
1. Click on Draw, then Building in the drop-down menu or click on the Draw Building toolbar button.

NOTE

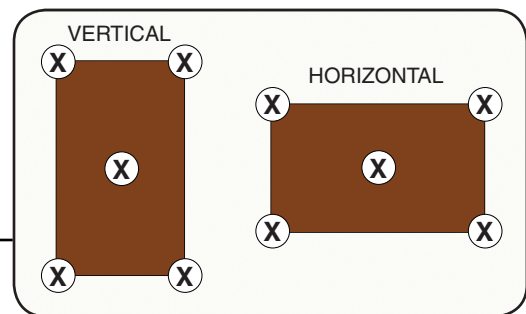
- Instructions are shown in the status bar on the bottom of the window to step you through the building creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point and size will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current building being drawn.



OR

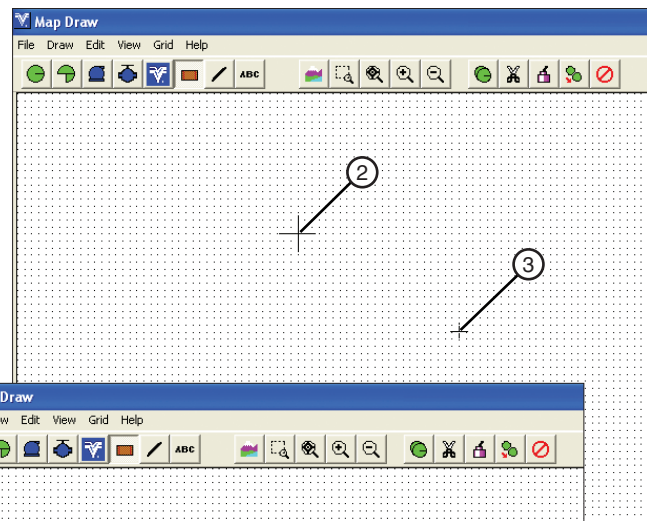


Toolbar Button



Buildings can be drawn either vertical or horizontal. When selecting the building corner, position the mouse pointer to create the desired building.

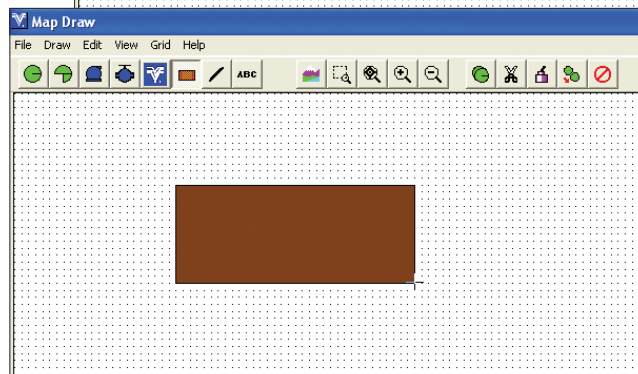
2. Click on the building center point.
3. Click on a building corner. A rectangle will be drawn around the center point reference.
4. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

NOTE

- With the Grid On, the minimum building size is 2 dots wide by 2 dots tall.



MAP DRAW WINDOW

Draw Menu

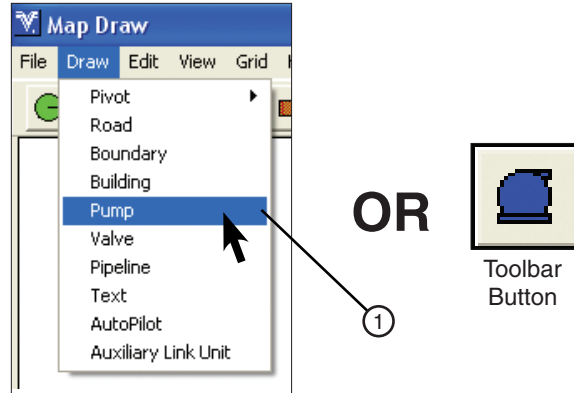
Pump

To draw a pump:

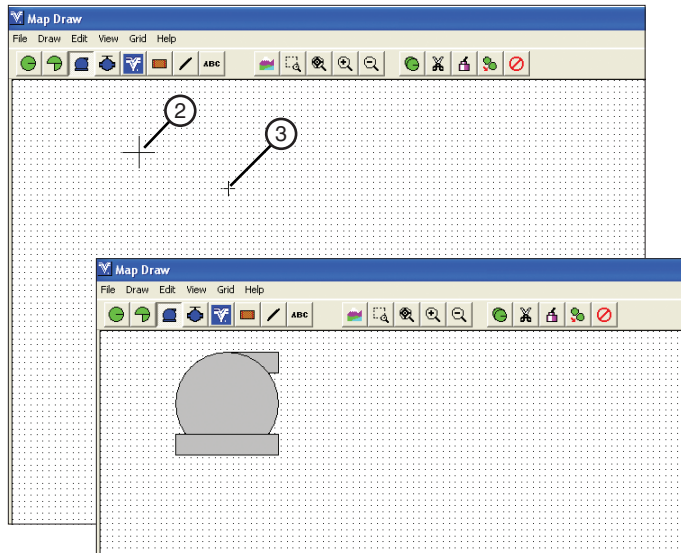
1. Click on Draw, then Pump in the drop-down menu or click on the Draw Pump toolbar button.

NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the pump creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current pump being drawn.



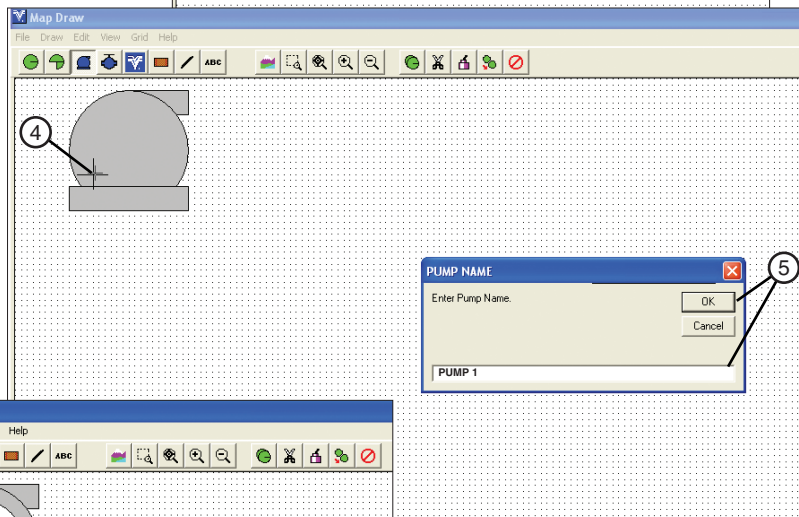
2. Click on the pump center point.
3. Click on the pump radius. A pump item will be drawn on the map.
4. Click on the item name location. The point where you click will be the starting point (top left corner of the text) for the name you type when the Pump Name dialog box opens.



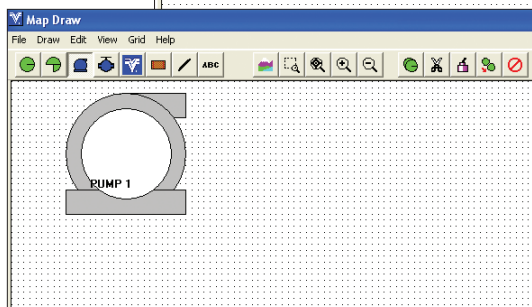
5. Type a name in the dialog box (20 characters maximum) and click on OK.

The name appears in the location that was selected.

6. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

Draw Menu

Valve

To draw a valve:

1. Click on Draw, then Valve in the drop-down menu or click on the Draw Valve toolbar button.

NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the valve creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current valve being drawn.

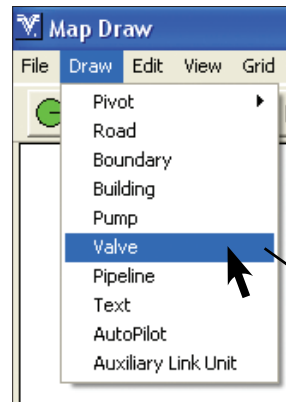
2. Click on the valve center point.
3. Click on the valve radius. A valve item will be drawn on the map.
4. Click on the item name location. The point where you click will be the starting point (top left corner of the text) for the name you type when the Valve Name dialog box opens.

5. Type a name in the dialog box (20 characters maximum) and click on OK.

The name appears in the location that was selected.

6. Save the map or continue making changes.

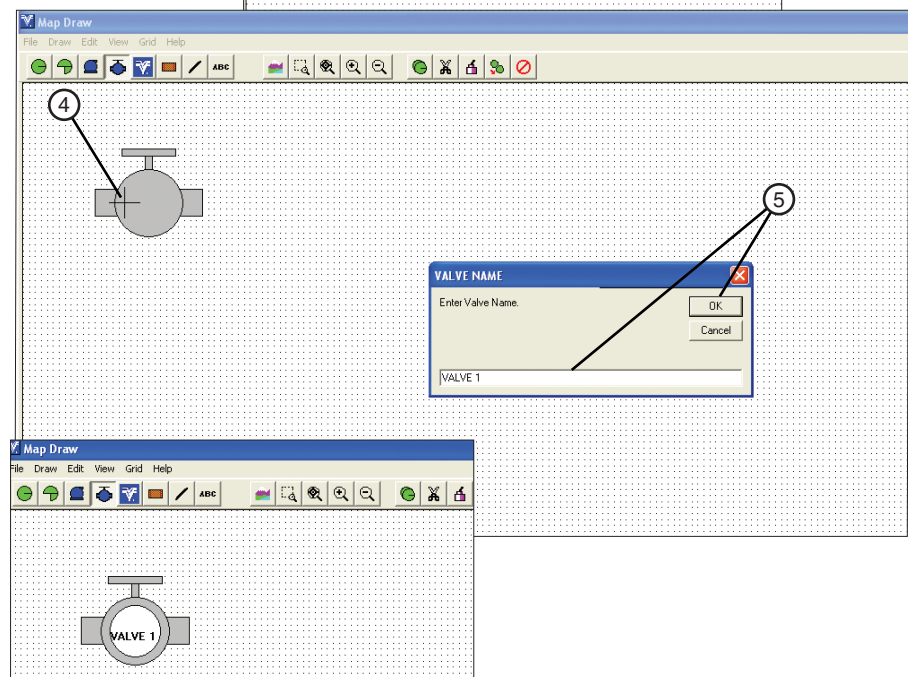
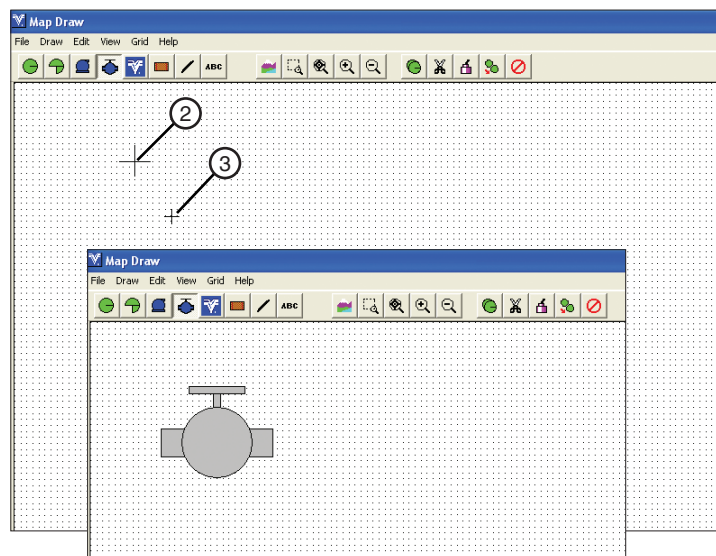
Click on the Zoom to Full View or Zoom To Center to refresh the screen.



OR



Toolbar Button



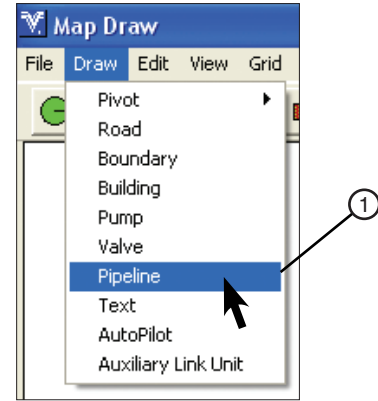
MAP DRAW WINDOW

Draw Menu

Pipeline

To draw the pipelines:

1. Click on Draw, then on Pipeline in the drop-down menu.



NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the pipeline creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the end points will be set to the nearest grid point.
- Click the right mouse button once, to go back one step. You can only back up to the point of erasing the current pipeline being drawn.

2. Click on starting point of pipeline segment.

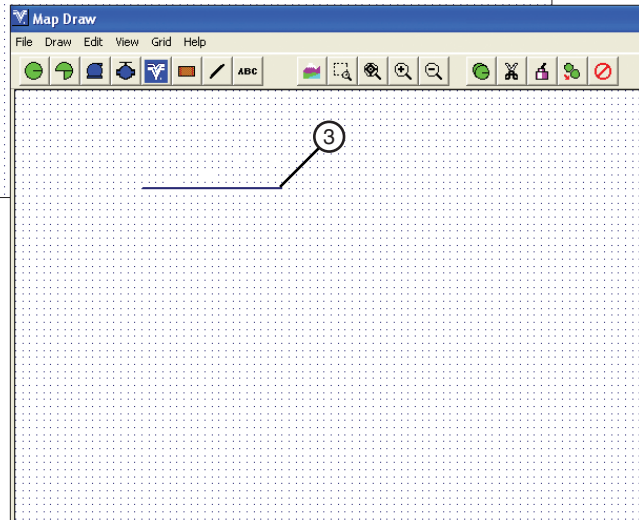
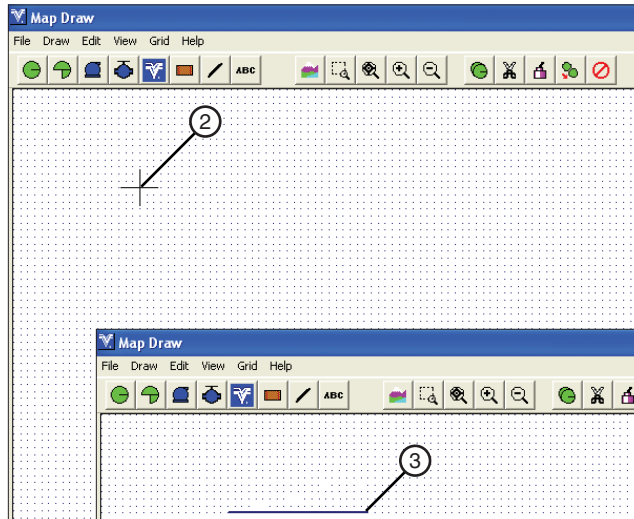
3. Click on the end point of the pipeline segment. A pipeline segment will be drawn on the map.

4. Repeat step 3 to continue adding pipeline segments.

5. To start a new unconnected pipeline segment or to finish, either choose another tool or menu item or click the right mouse button twice (will back up and delete the last line segment). An operator will be able to start a new line elsewhere if chosen.

6. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

Draw Menu

Text

To insert text on the map:

1. Click on Draw, then Text in the drop-down menu or click on the Text Label toolbar button.

NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the text creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the text location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current text being drawn.
- If text is not positioned as desired, Click the right mouse button once, to erase the text, then click the right mouse button again where you want the text to start.
- Text font type, size, and color cannot be modified.

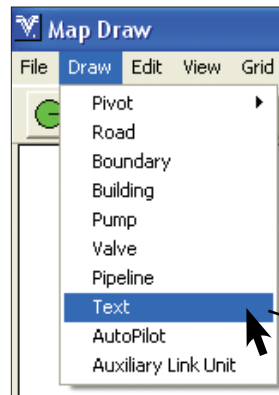
2. Click on the starting point for text. The start point is the top left corner of the text field to be entered. A Place Text dialog box will open.

3. Type desired text in the dialog box (20 characters maximum) and click on OK.

The text appears in the location that was selected.

4. Save the map or continue making changes.

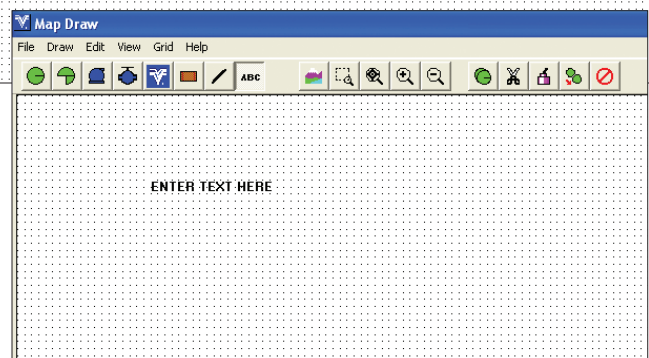
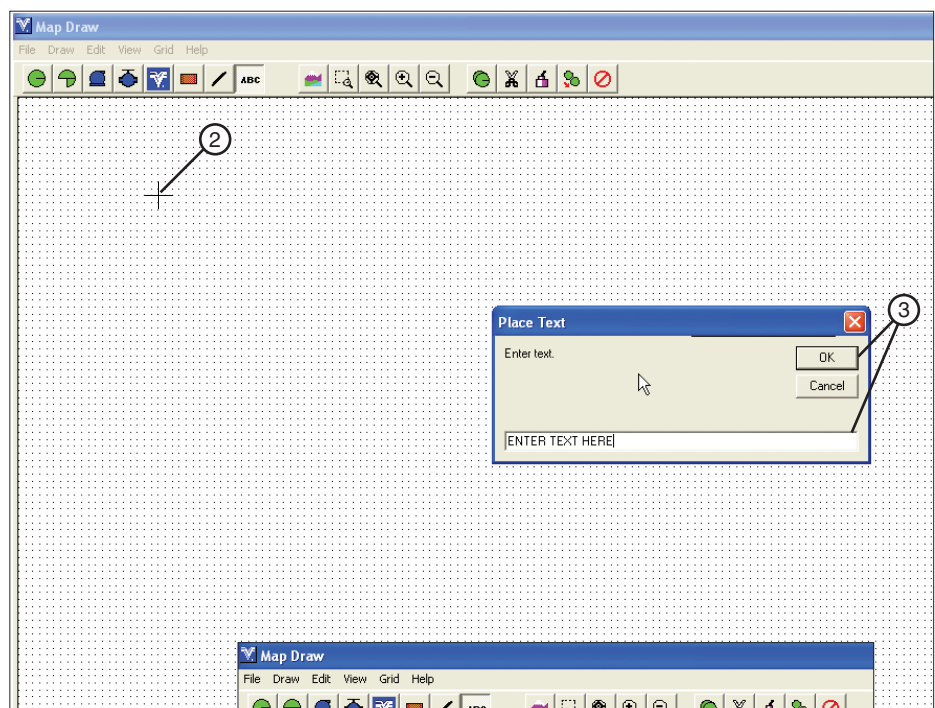
Click on the Zoom to Full View or Zoom To Center to refresh the screen.



OR



Toolbar Button



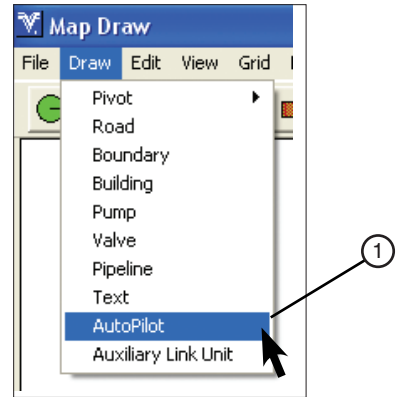
MAP DRAW WINDOW

Draw Menu

AutoPilot

To draw a new linear:

1. Click on Draw, then AutoPilot in the drop-down menu.

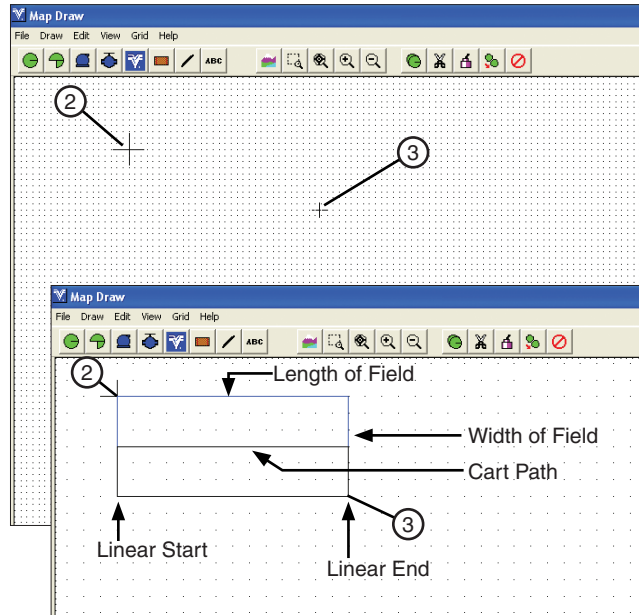


NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the linear creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current linear being drawn.

2. Move the cross hair cursor to a position on the map and left click to define the location of the first corner of the Linear.

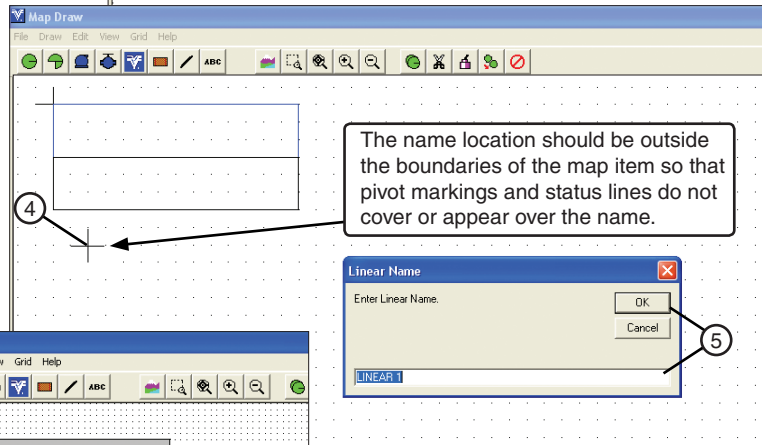
The first corner location selected represents the Linear Start location in relationship to the second corner location that represents the Linear End location. See Linear Position/ AutoPilot Zone Location on the next page.



3. Move the cross hair cursor to a position on the map and left click to define the location of the second corner of the linear. A rectangle box is automatically drawn on the map to represent the Linear machine.

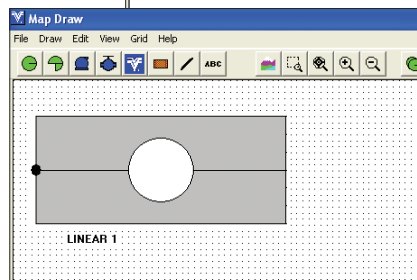
4. Move the cross hair cursor to a position close to the map item, where the item name will start, then left click. The Linear Name box will open.

5. Type a name in the dialog box (20 characters maximum) and click on OK. The name appears in the location that was selected.



6. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

Draw Menu

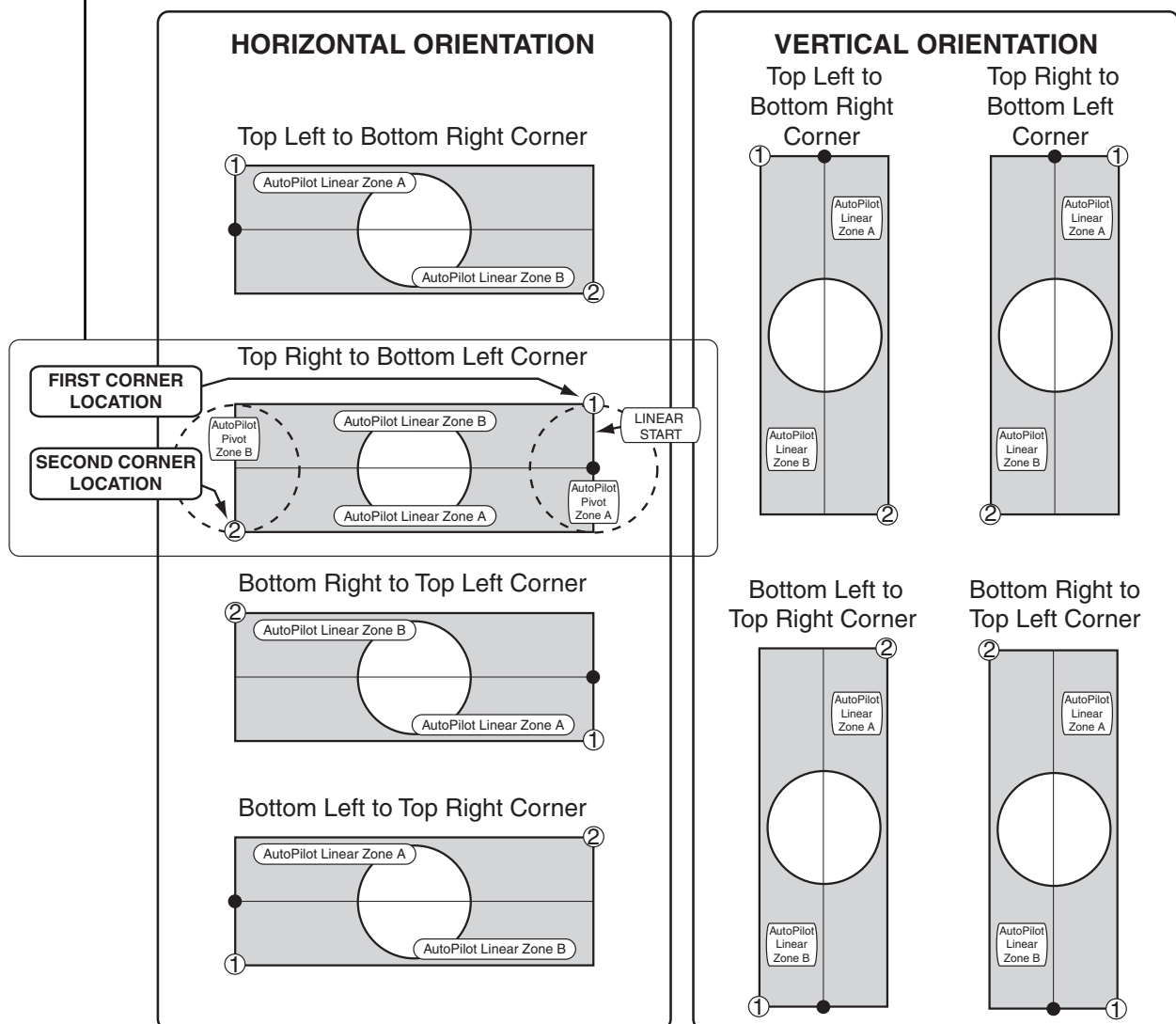
AutoPilot (Continued)

Linear Position/AutoPilot Zone Location

When creating the linear map item, the SECOND corner location selected in relationship to the FIRST corner location of the linear determines the horizontal and vertical orientation on the map, location of the machine and the location of AutoPilot linear zones A and B.

- The FIRST corner location represents the Linear Start location, sets location of machine on map, sets location of AutoPilot linear zone A and pivot zone A.
- The SECOND corner location represents the Linear End location, sets the horizontal or vertical orientation on the map and sets the location of AutoPilot linear zone B and pivot zone B.

For example: To create a horizontal AutoPilot map item that will have linear start on the right side with AutoPilot linear zone A on bottom half and AutoPilot pivot zone A on right end; draw the HORIZONTAL **Top Right to Bottom Left Corner** AutoPilot map item, select the FIRST (1) corner location, then select the SECOND (2) bottom left corner location.



MAP DRAW WINDOW

Draw Menu

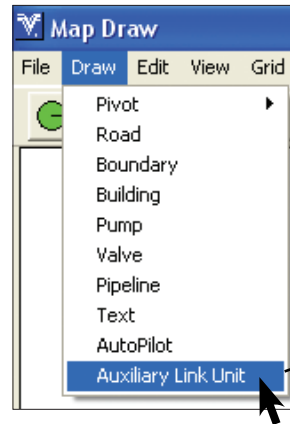
Auxiliary Link Unit

To draw a new Auxiliary Link:

1. Click on Draw, then on Auxiliary Link Unit in the drop-down menu or click on the Auxiliary Link toolbar button.

NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the Auxiliary Link creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current Auxiliary Link being drawn.

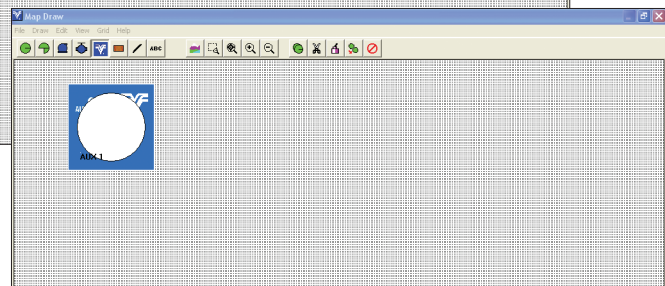
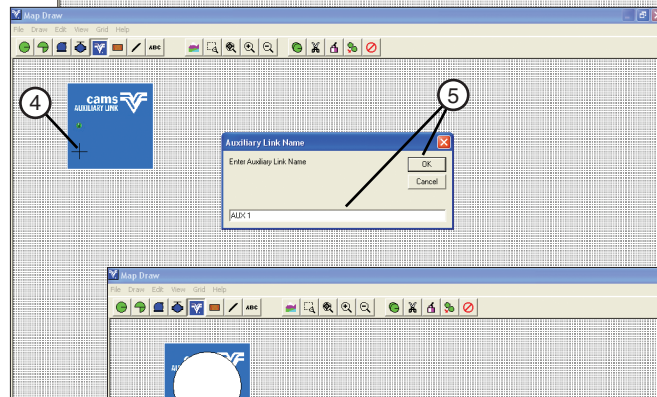
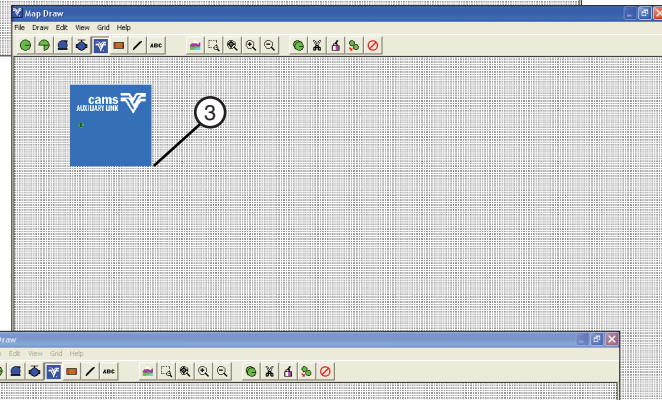
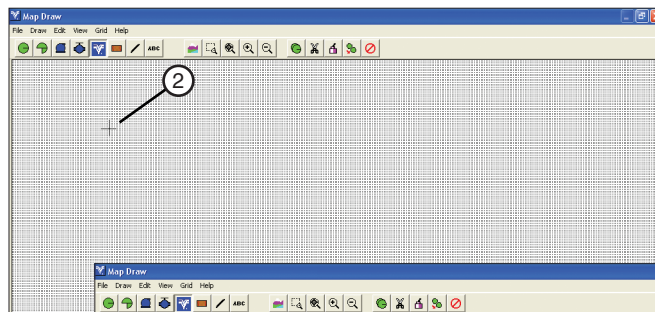


OR



Toolbar Button

2. Click on the auxiliary link center point location.
3. Click on the auxiliary link corner location. A auxiliary link item will be drawn on the map.
4. Click on the item name location. The point where you click will be the starting point (top left corner of the text) for the name you type when the Auxiliary Link Name dialog box opens.
5. Type a name in the dialog box (20 characters maximum) and click on OK. The name appears in the location that was selected.
6. Save the map or continue making changes.



Click on the Zoom to Full View or Zoom To Center to refresh the screen.

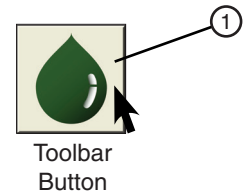
MAP DRAW WINDOW

Draw Menu

Irrrometer Soil Moisture Monitor

To draw a new Soil Moisture Monitor Item:

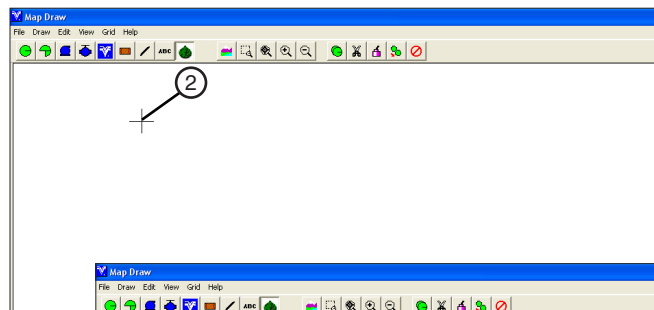
1. Click on the Soil Moisture toolbar button. The Soil Moisture toolbar button is shown on the toolbar after installing the Irrrometer WaterGraph software on the BaseStation computer.



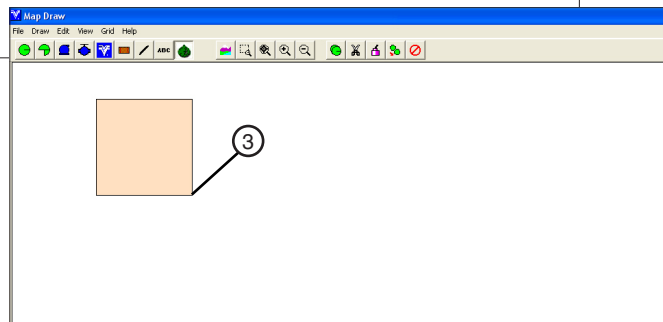
NOTE

- Instructions are shown in the status bar on the bottom of the window to step you through the soil moisture monitor creation process.
- Make sure all steps for drawing a map item are completed or the map item will not be saved to the map.
- If Snap to Grid is enabled, the center point, radius length, and name location will be set to the nearest grid point.
- Click the right mouse button once to go back one step. An operator can only back up to the point of erasing the current Irrrometer item being drawn.

2. Click on the soil moisture monitor item center point location.

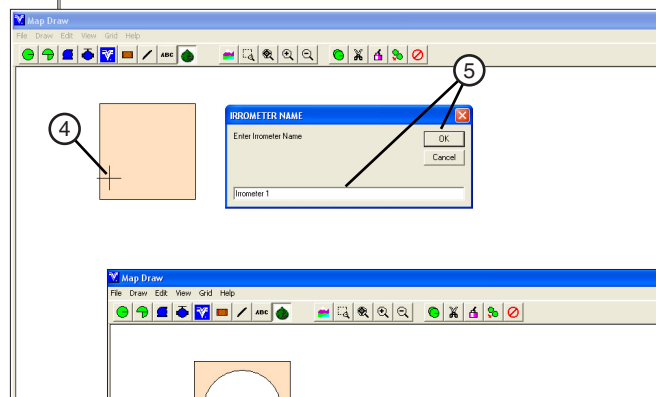


3. Click on the soil moisture monitor item corner location. A soil moisture monitor item will be drawn on the map.



4. Click on the item name location. The point where you click will be the starting point (top left corner of the text) for the name you type when the Irrrometer Name dialog box opens.

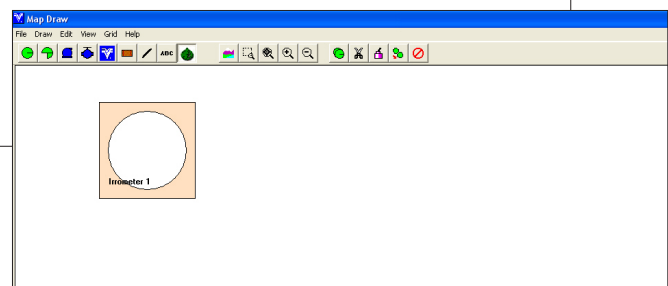
5. Type a name in the dialog box (20 characters maximum) and click on OK.



The name appears in the location that was selected.

6. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



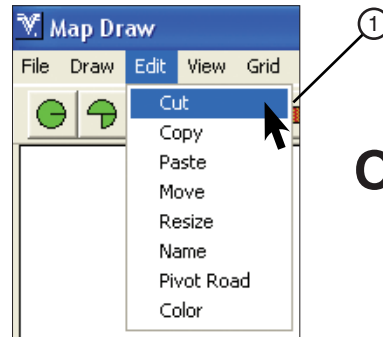
MAP DRAW WINDOW

Edit Menu

Cut

To cut an item from the map:

1. Click on Edit, then Cut from the drop-down menu or click on Cut an Item button on the toolbar to toggle the Cut tool ON.



OR



Toolbar Button

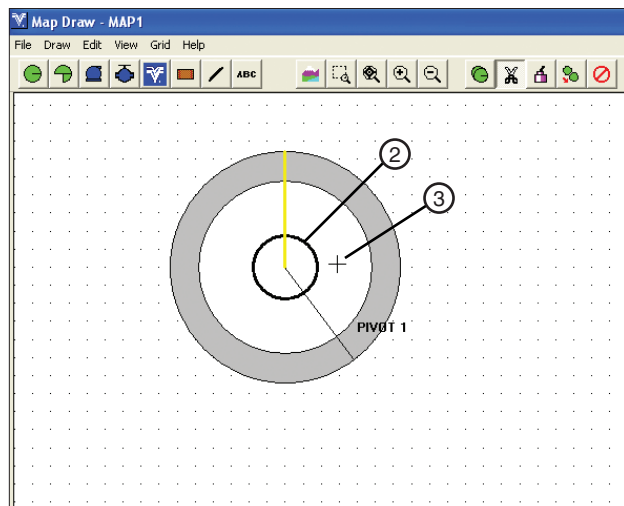
NOTE

- To toggle the Cut tool OFF, click on the Cut an Item button on the toolbar.
2. Left click on any item to select it. A black ring will appear on the selected item. If the wrong item was selected, right click on the wrong item to deselect it. Then select the correct item.
 3. Confirm the item to be cut by left clicking on the selected item again; the item will be cut. Right clicking on an item before confirming the cut deselects the item.

Confirming the cut will remove the item permanently from the database.

4. Select another item to cut, select another tool or menu item, or click on the Cut an Item button on the toolbar to toggle the Cut tool OFF.
5. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

Edit Menu

Copy

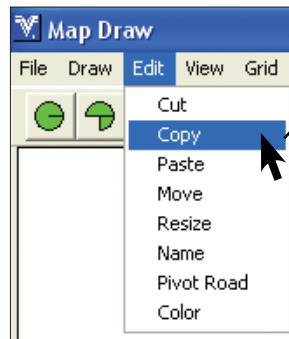
To copy an item on the map:

1. Click on Edit, then Copy from the drop-down menu or click on the Copy an Item button on the toolbar to toggle the Copy tool ON.

NOTE

- To toggle the Copy tool OFF, click on the Copy an Item button on the toolbar.
2. Left click on any item to select it. A black ring will appear on the selected item. If the wrong item was selected, right click on the wrong item to deselect it. Then select the correct item.
 3. Left click on the center point of the location for the new item and a copy of the selected item is pasted to the map at the center point location.
 4. Select another item to copy, select another tool or menu item, or click the Copy an Item button on the toolbar to toggle the Copy tool OFF.
 5. Save the map or continue making changes.

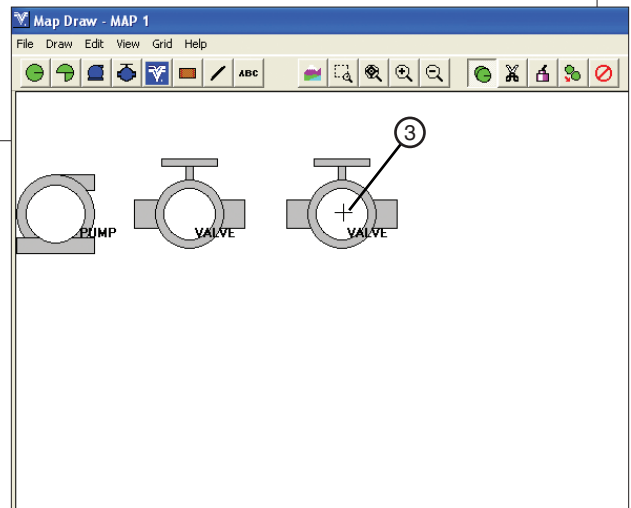
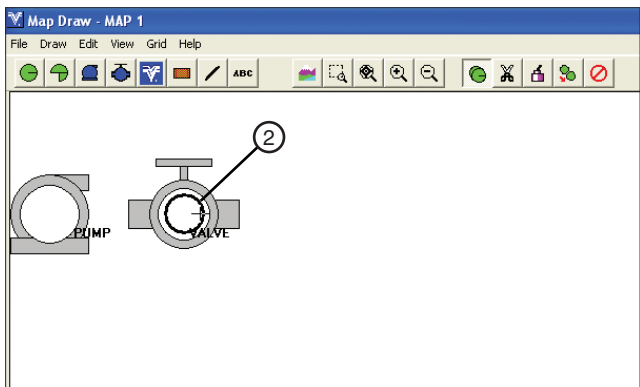
Click on the Zoom to Full View or Zoom To Center to refresh the screen.



OR



Toolbar Button



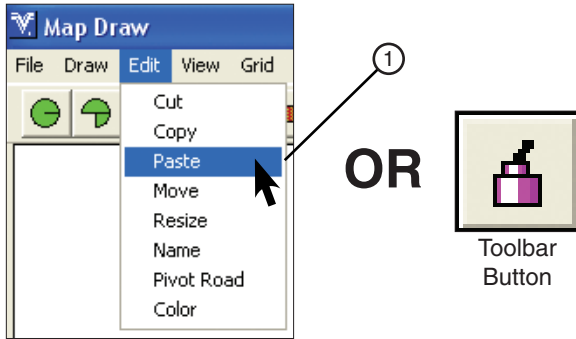
MAP DRAW WINDOW

Edit Menu

Paste

To paste an item that has just been copied or cut from a map:

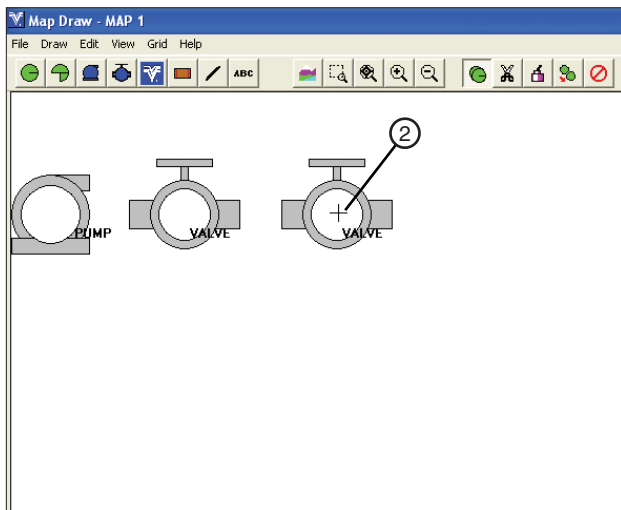
1. With the Map Draw window open, copy or cut an item from the map, then click on Edit, then Paste from the drop-down menu or click on Paste an Item button on the toolbar to toggle the Paste tool ON.



NOTE

- To toggle the Paste tool OFF, click on the Paste an Item button on the toolbar.
2. Left click on the center point for the new item location. The item will be pasted to the map centered at that point. If the location is not where you want it, click the right mouse button to backup and click on the new location. The item will be pasted to the map.
 3. Select another item to copy, select another tool or menu item, or click the Paste an Item button on the toolbar to toggle the Paste tool OFF.
 4. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

Edit Menu

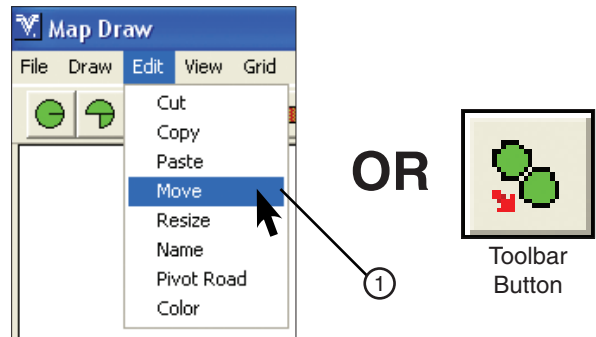
Move

To move an item on the map:

1. With the Map Draw window open, click on Edit, then on Move from the drop-down menu or click on the Move an Item toolbar button to toggle the Move tool ON.

NOTE

- To toggle the Move tool OFF, click on the Move an Item button on the toolbar.



2. Select the item to move by left clicking on the item. A small black ring will appear on the item selected.

If the black ring does not show on the item you want to select, click on the right mouse button and try again to select the correct item.

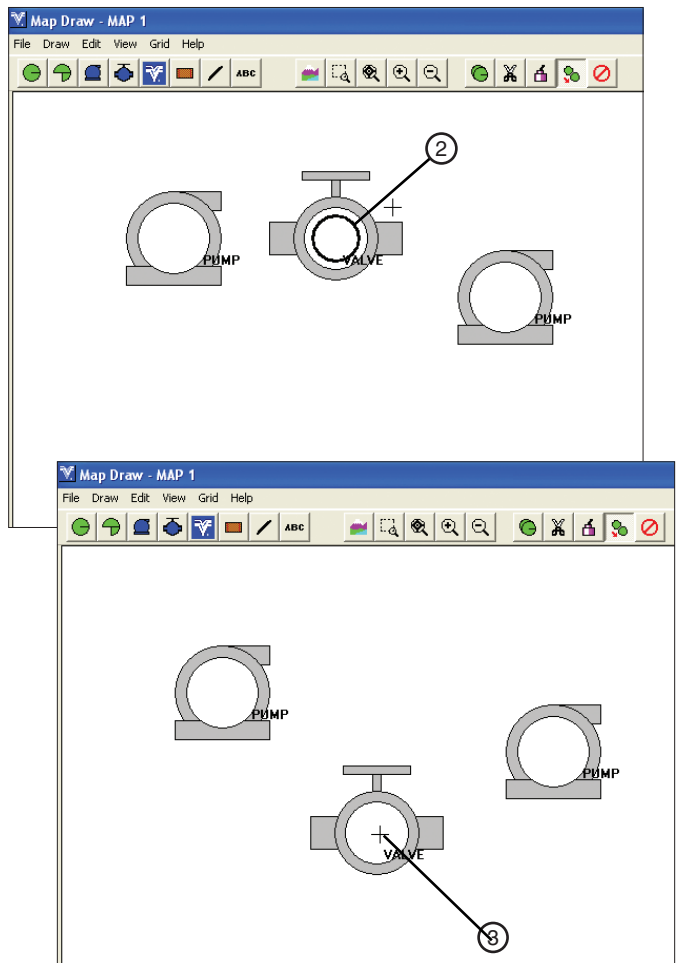
3. The item will be moved to the new center point where you click the left mouse button.

If the new location is not where you want it, click on the right mouse button and it will be back in its original position. Select and move again.

4. Select another item to move, select another tool or menu item, or click the Move an Item button on the toolbar to toggle the Move tool OFF.

5. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



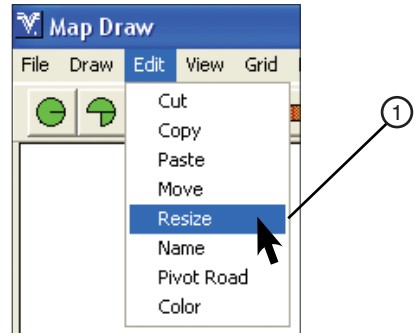
MAP DRAW WINDOW

Edit Menu

Resize

To resize an item on the map:

1. With the Map Draw window open, click on Edit, then on Resize from the drop-down menu.



NOTE

- Right click on a selected item to deselect that item.
- Text cannot be re sized.

2. Select the item to be re sized by left clicking on the item. A small black ring will appear on item selected. If the black ring does not show on item you want to select, click on right mouse button and try again to select correct item.

3. To increase size: Position cross hair mouse pointer farther away from the center of item and click left mouse button. The item will be re sized.

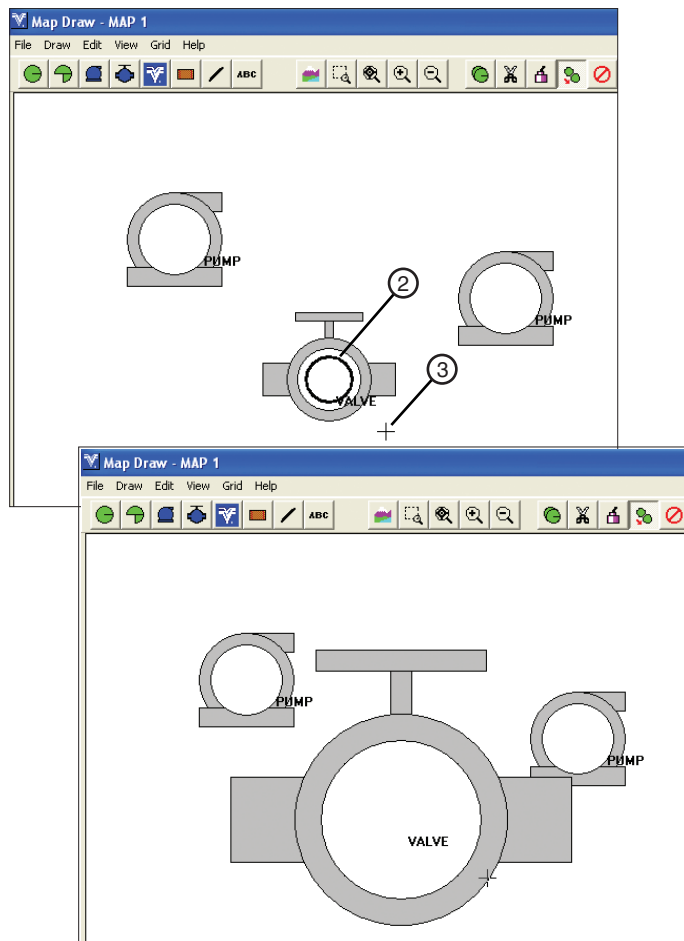
To reduce size: Position cross hair mouse pointer closer to the center of item and click left mouse button. The item will be re sized.

4. If the new size is not as desired, click on the right mouse button and it will be back at its original size. The operator can select and resize again.

5. Select another item to resize or select another tool or menu item to finish.

6. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



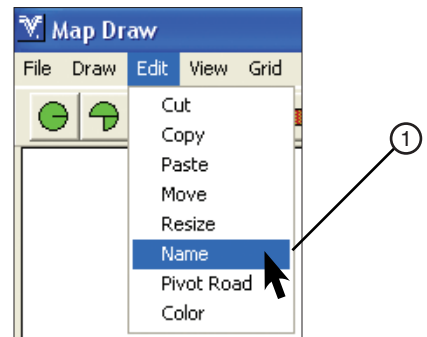
MAP DRAW WINDOW

Edit Menu

Name

To edit a name of an item or location of a name of an item on the map:

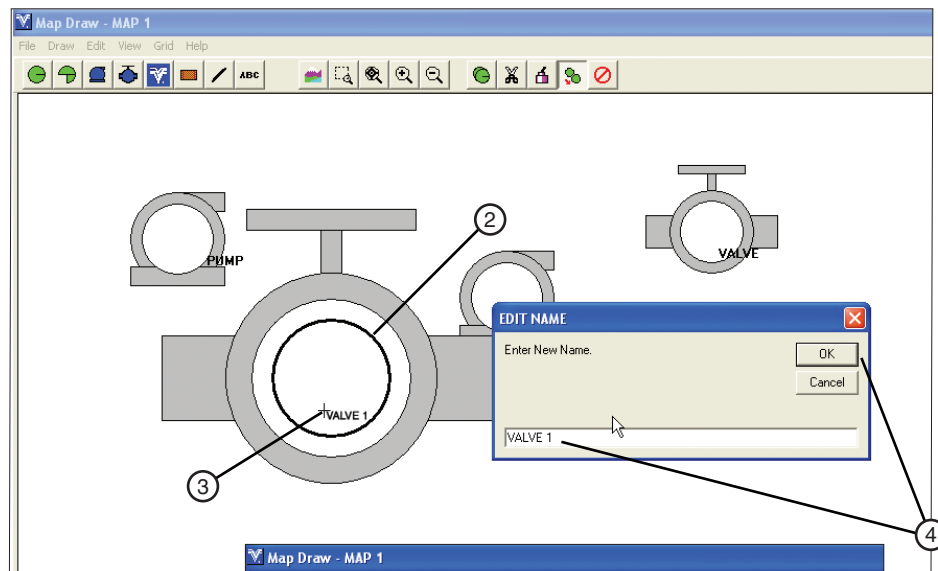
1. With the Map Draw window open, click on Edit, then on Name from the drop-down menu.



NOTE

- Click Cancel in the Edit Name dialog box to cancel the edit and deselect the map item or text line.
2. Left click on a map item that has text or the upper left corner of an independent line of text to select. A small black ring will appear on the item selected. If the black ring does not show on the item you want to select, click Cancel in the Edit Name dialog box and try again with the mouse pointer in a slightly different location to select the correct item.

3. Left click again either on the left upper corner of the existing text location or on a new text location and the Edit Name dialog box will open.

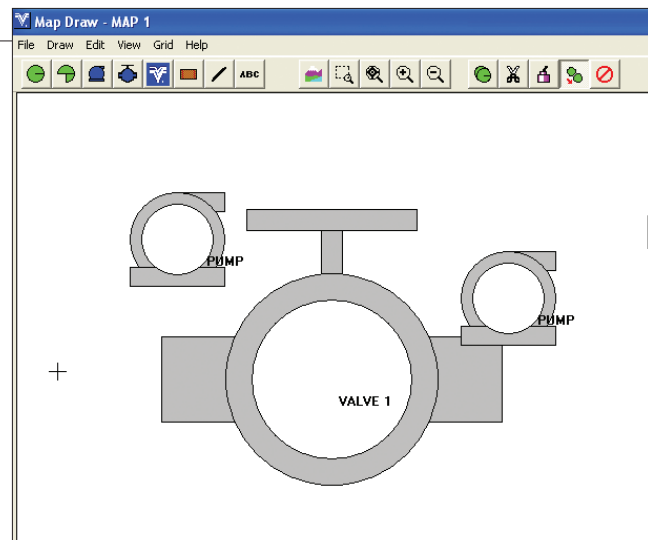


4. Type or edit the name (20 characters maximum). Click on OK and the name will change on the map.

5. Select another map item or text line to edit or select another tool or menu item to finish.

6. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



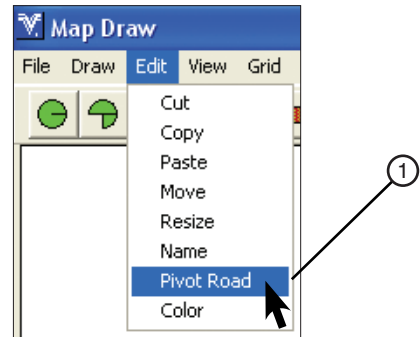
MAP DRAW WINDOW

Edit Menu

Pivot Road

To change the angle of the pivot road:

1. With Map Draw window open, click on Edit, then on Pivot Road in the drop-down menu.



NOTE

- Right click on the selected pivot to undo the pivot road move. Right clicking again on the selected pivot will deselect the pivot.

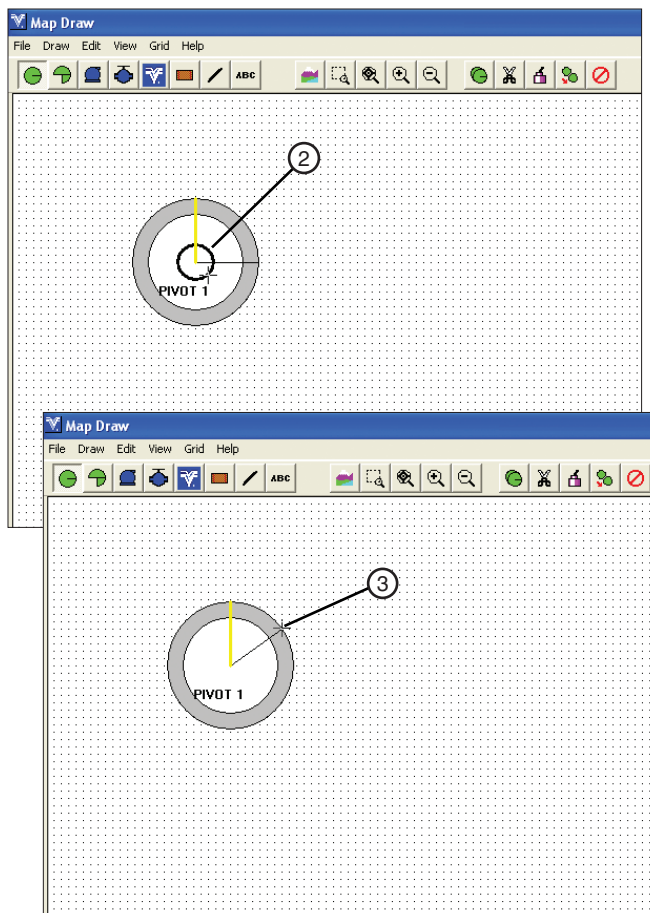
2. Select the pivot to edit by left clicking on the pivot.

3. Left click on the perimeter of pivot circle where you want the end of pivot road to be and the pivot road will be displayed in the new location.

4. Select another pivot to edit or select another tool or menu item to finish.

5. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



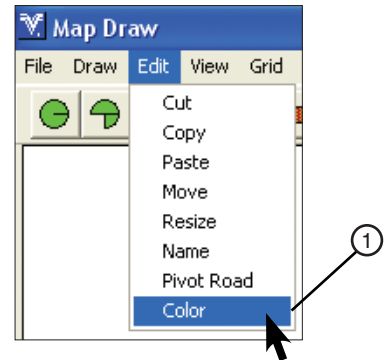
MAP DRAW WINDOW

Edit Menu

Color

To change the color of a line segment or building:

1. With the Map Draw window open, click on Edit, then Color in the drop-down menu.



NOTE

- Click on Cancel in the color palette to cancel the color change and deselect the line segment or building.
2. Select line segment or building by left clicking on the center of line segment or building. A black dot will appear on the item selected and the color palette will open.
 3. Left click on a new color, then left click on OK and the line segment or building selected will be changed to the new color.

- To choose a custom color:

A. Left click on Define Custom Colors.

B. The custom color palette will open with boxes where you can change attributes of colors by number or choose a new color on a sliding bar.

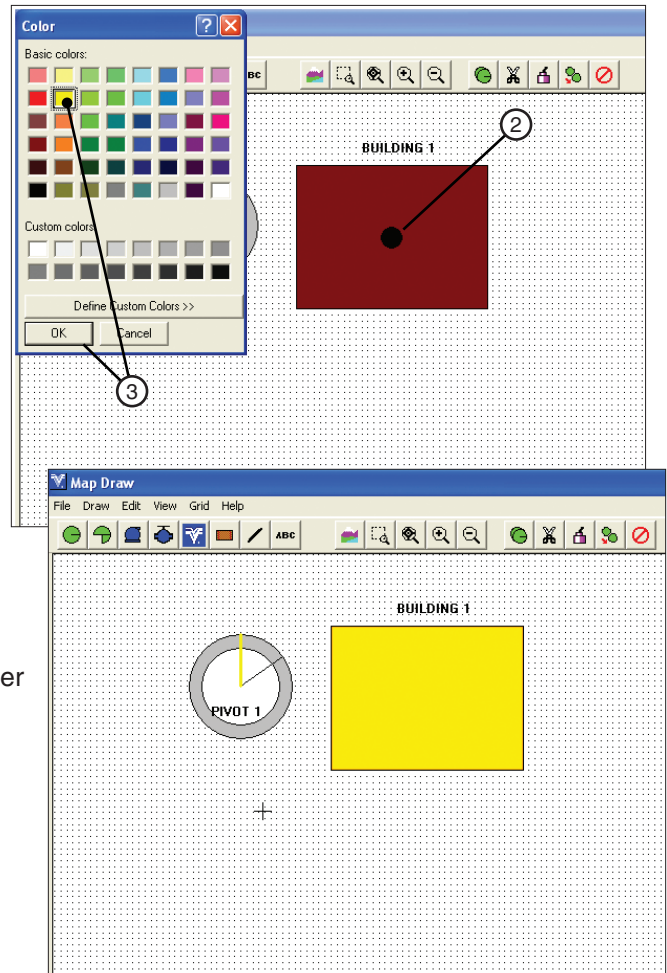
C. Select a custom color and left click on Add to Custom Colors box.

D. Left click on OK and the color of the line segment or building selected will be changed to the new custom color.

4. Select another line segment or building to edit or select another tool or menu item to finish.

5. Save the map or continue making changes.

Click on the Zoom to Full View or Zoom To Center to refresh the screen.



MAP DRAW WINDOW

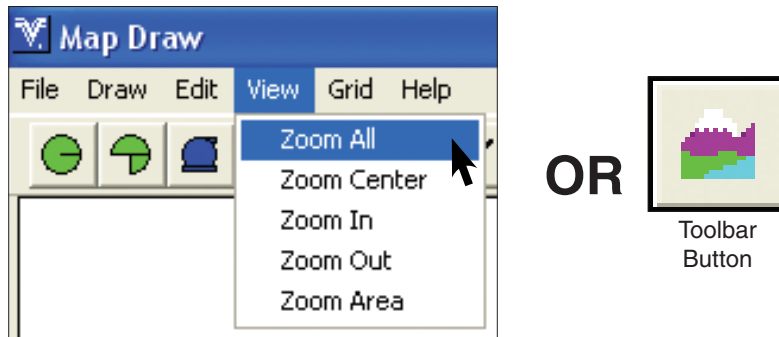
View Menu

Zoom All

Zoom All changes the Map Draw Window view to show the entire map in the viewing area. This refreshes the screen placing the map back to the center of the window after zooming in or out on a specific area.

The map is sized to the width and height limit of the map items on the map.

Click on View, then Zoom All or click on the Zoom to Full View toolbar button.



NOTE

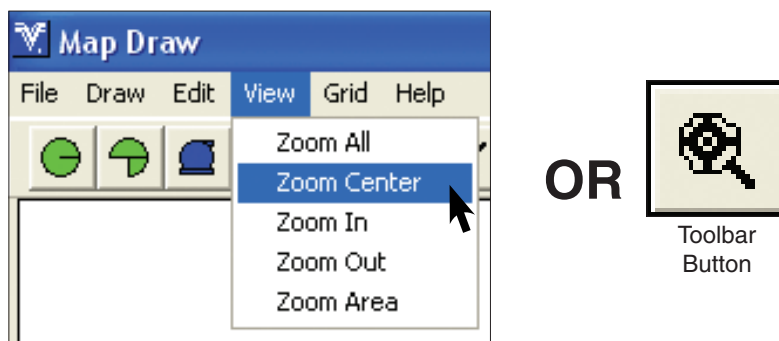
Use Zoom All to:

- Return to normal size view window after using any of the other zoom tools.
- Return to the normal size view window and refresh the screen after making changes like copying, pasting, moving, or deleting items.
- Return the entire map back to the center of the window.

Zoom Center

Zoom Center shifts the center of the viewed window to a specified point.

Click on View, then Zoom Center or click on Zoom to Center toolbar button.



Click at a new center point on the map. The screen will redraw to change the view so that point is in the center of the viewing window.

To zoom back and show the entire map in the center of the viewing window, select View, then Zoom All.

NOTE

- The Zoom Center function is active until it is toggled off or another command is selected.

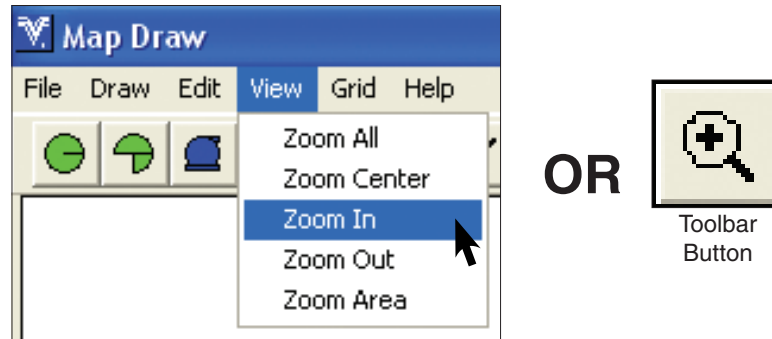
MAP DRAW WINDOW

View Menu

Zoom In

Zoom In magnifies a section of the map. The center of the new view is redrawn using the spot where the mouse is clicked as the new center of the map. There are nine zoom levels.

From the Map Draw screen click View, then Zoom In or click on the Zoom In toolbar button.



Click on a center point of the area to which you want to zoom in and the view will update. An operator can continue to zoom in closer by clicking again on the center point of the area you want in consecutive steps without going back to the menu. Toggle the Zoom In feature again to stop the function. Clicking the right mouse button will reverse the zoom direction and zoom out.

To zoom back and show the entire map in the viewing window, click on View, then Zoom All.

NOTE

- The Zoom In function is active until it is toggled off or when another command is selected.
- While Zoom In is active, clicking the left mouse button will continue to step to the next greater level of magnification.
- Pressing the right mouse button will reverse the zoom direction and step the view back out a level of magnification.

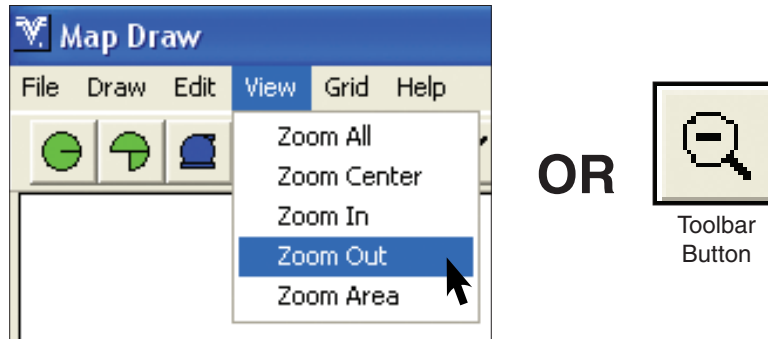
MAP DRAW WINDOW

View Menu

Zoom Out

Zoom Out shows a larger portion of the map. The center of the new view is redrawn using the spot where the mouse is clicked as the new center of the map. There are nine zoom levels.

Click View, then Zoom Out or click on the Zoom Out toolbar button.



Click on a center point of the area, with the left mouse button, to which you want to zoom out and the view will update. You can continue to zoom out by clicking again on the center point of the area you want in consecutive steps without going back to the menu. Toggle the Zoom Out feature again to stop the function. Clicking the right mouse button will reverse the zoom direction and zoom in.

To zoom back to show the entire map in the viewing window, click on View, then Zoom All.

NOTE

- The Zoom Out function is active until it is toggled off or another command is selected.
- While Zoom Out is active, clicking the left mouse button will continue to reduce the level of magnification.
- Pressing the right mouse button will reverse the zoom direction and step the view back in a level of magnification.

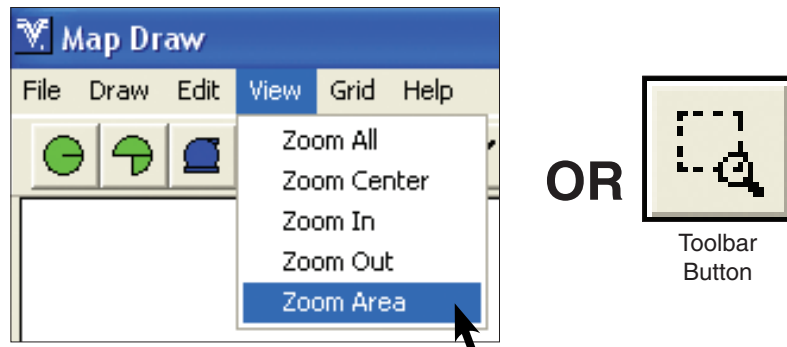
MAP DRAW WINDOW

View Menu

Zoom Area

Zoom Area changes the Map Draw Window view to show a defined viewing area.

Click on View, then Zoom Area or click on the Zoom to an Area toolbar button.



Then click on the upper left corner of the area you wish to view, then on the lower right corner. The screen will redraw to change the view and zoom in on the rectangle area you have designated.

To go back and show the entire map in the center of the viewing window, select View, then Zoom All.

NOTE

- The Zoom Area function is active until it is toggled off or another command is selected.

MAP DRAW WINDOW

Grid Menu

Grid On

A grid consists of a network of dots spaced an equal distance apart and is used to draw to scale and as a guide when drawing straight lines.

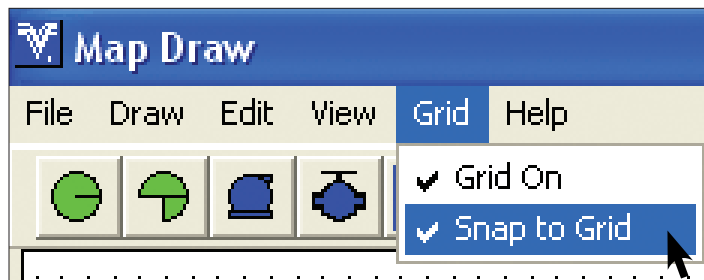
To change, click on Grid, then Grid On. This operates as a toggle switch, showing a check mark if the Grid is on or no check mark if the grid is off. By default, Grid On will be enabled when opening the Map Draw window.



Snap to Grid

The Snap To Grid feature locates the center points of pivots, size of map items, angle of pivot roads, angles of part circles, starting and ending points of roads/boundaries, and text locations at the nearest grid point. This is useful if an operator wishes to draw perfectly straight roads or draw pivots in a straight line.

To change, click on Grid, then Snap To Grid. This operates as a toggle switch, showing a check mark when the Snap to Grid is on or no check mark when it is off. Turning off Snap to Grid will allow precision placement of map items. By default, Snap to Grid will be disabled when opening the Map Draw window.

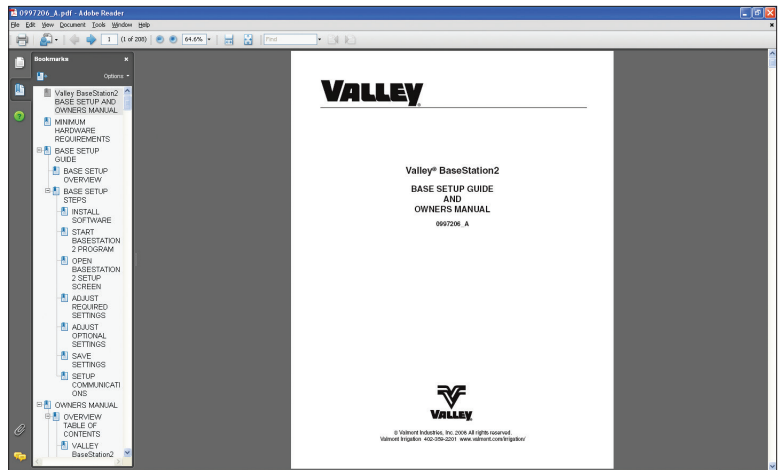
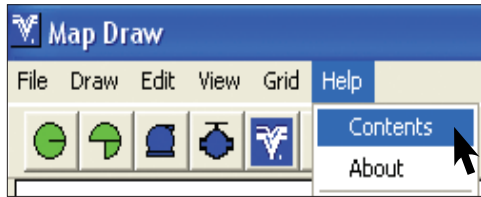


MAP DRAW WINDOW

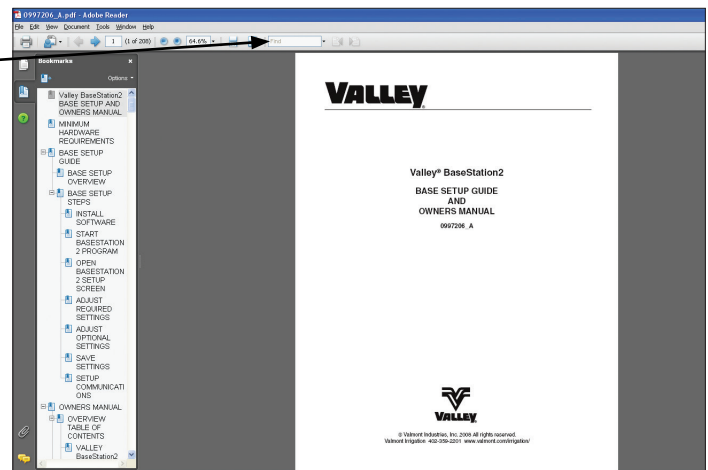
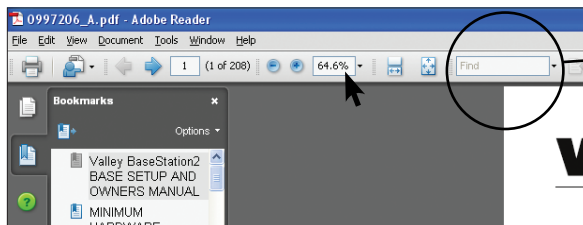
Help Menu

Contents

Displays the contents of the BaseStation2-SM Base Setup and Owners Manual in Adobe Reader.

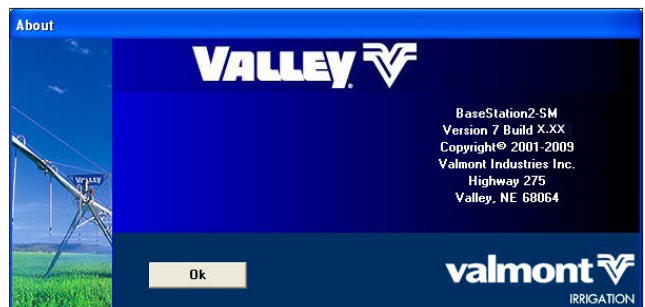
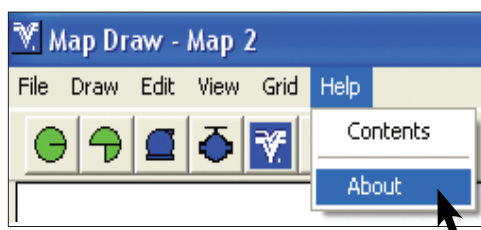


NOTE Click within the Find box in Adobe Reader to search the Valley BaseStation2-SM Base Setup and Owners Manual using keywords.



About

Displays information about the BaseStation2-SM version.



MAP DRAW WINDOW

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE / CORRECTIVE ACTION
Error message "Cannot Run Multiple Instances of the BaseStation" appears when trying to open the BaseStation program and there are not any BaseStation programs currently running.	View the Task Manager by pressing Ctrl-Alt-Del and pressing the Task Manager button. Highlight the BaseStation2-SM program shown in the Applications section. Press End Task to close the program.
	This can occur when the BaseStation2-SM program is closed while a Voice session is active.
BaseStation2-SM is communicating with remote but all or part of the command is not being executed.	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.
	In Base Setup, Phone, Call Timeout set too low. Increase Phone Call Timeout in 2 second increments until commands are executed correctly.
	Contact your local Valley dealer.
BaseStation2-SM is not communicating with a specific remote.	Verify that power is ON at remote.
	In Remote Setup, RTU ID does not match the actual remote/control panel RTU ID. Verify correct RTU ID.
	Communication hardware at remote not working. Verify proper operation of communication hardware at remote.
	In Remote Setup, Channel is set incorrectly. Verify correct Channel setting.
	In Remote Setup, Store and Forward Path set incorrectly. Verify correct Store and Forward Path.
	In Remote Setup, Phone Number set incorrectly. Verify correct phone number for remote control panel.
	Contact your local Valley dealer.
BaseStation2-SM can communicate with but will not Poll a specific remote.	In Remote Setup, Polling Period set to 0. Set Polling Period above 0.
	In Remote Setup, Polling Period Paused. Uncheck Pause check box.
	Contact your local Valley dealer.
BaseStation2-SM is communicating with remote but update information received from remote is corrupt.	In Base Setup, Time to Wait for Acknowledge 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.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE / CORRECTIVE ACTION
<p>BaseStation2-SM does not Call Out when there is a high level alarm.</p>	<p>In Base Setup, Voice and Enable Call Out are not enabled. Enable Voice and Enable Call Out.</p>
	<p>In Base Setup, Voice settings are incorrect. Verify correct Voice settings.</p>
	<p>The Contact Lists and/or Notice Groups are not setup. Contact Lists and Notice Groups must be entered by the user.</p>
	<p>Call Out List is not specified for each map item. Remote Setup for each map item must specify the Call Out List that is to be used.</p>
	<p>Contact your local Valley dealer.</p>
<p>BaseStation2-SM will not communicate with any remote.</p>	<p>Power to BaseStation communication hardware is OFF. Turn power ON to communication hardware.</p>
	<p>Serial or USB cable from BaseStation computer to communication hardware is not connected. Verify correct connection of cable.</p>
	<p>Phone modem Dip Switch setting incorrect. Verify dip switches are set correctly.</p>
	<p>Antenna not connected to radio. Verify antenna connection.</p>
	<p>In Base Setup, Radio or Phone not setup correctly or not enabled. Verify that setup of Radio or Phone is correct and make sure that it is enabled.</p>
	<p>Contact your local Valley dealer.</p>
<p>The BaseStation2-SM does not answer the phone when I Call In.</p>	<p>In Base Setup, Voice is not enabled. Enable Voice.</p>
	<p>In Base Setup, Voice settings are incorrect. Verify correct Voice settings.</p>
	<p>BaseStation phone modem power OFF. Turn power to the phone modem ON.</p>
	<p>Cable between BaseStation computer and phone modem disconnected. Verify cable connection.</p>
	<p>Verify dial tone and phone number to BaseStation2-SM with desk phone.</p>
	<p>Local problem with phone line. Contact your local phone service provider.</p>
	<p>Contact your local Valley dealer.</p>

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE / CORRECTIVE ACTION
Cannot connect to the Primary BaseStation2-SM from a Secondary BaseStation2-SM.	At Primary BaseStation2-SM, in Base Setup, Base Link is not enabled. Enable Base Link.
	At Primary BaseStation2-SM, in Base Setup, Base Link settings are incorrect. Verify correct Base Link settings.
	At Secondary BaseStation2-SM, in Base Setup, Phone not setup correctly or not enabled. Verify that setup of Phone is correct and make sure that it is enabled.
	Contact your local Valley dealer.
Minimum App (Application Rate) in BaseStation2-SM does not match the Application Rate at remote/control panel.	In Remote Setup, enter the correct Minimum App (Pro, Pro2, AutoPilot, Panel Link, or Select control panels) or click the Sync Constants button (Pro or Pro2 control panels ONLY) to get the correct Minimum App from the remote/control panel.
Hours/Rev in BaseStation2-SM does not match the Hours/Rev at remote/control panel.	In Remote Setup, enter the correct Hours/Rev (Pro, Pro2, AutoPilot, Panel Link, or Select control panels) or click the Sync Constants button (Pro, Pro2, AutoPilot, control panels ONLY) to get the correct Application Rate from the remote/control panel.
Stop-In-Slot Angle in BaseStation2-SM does not match the Stop-In-Slot Angle at the remote/control panel.	In Remote Setup, enter the correct Stop-In-Slot Angle or click the Sync Constants button to get the correct Stop-IN-Slot Angle from the remote/control panel.
	Check the box in Remote Setup to request SIS position after receiving Update with SIS enabled.
Voice Modem not working properly. No audio when connected to voice modem or audio is played through computer desktop speakers.	Voice modem drivers are not installed properly. Remove the drivers and reinstall.

TROUBLESHOOTING

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