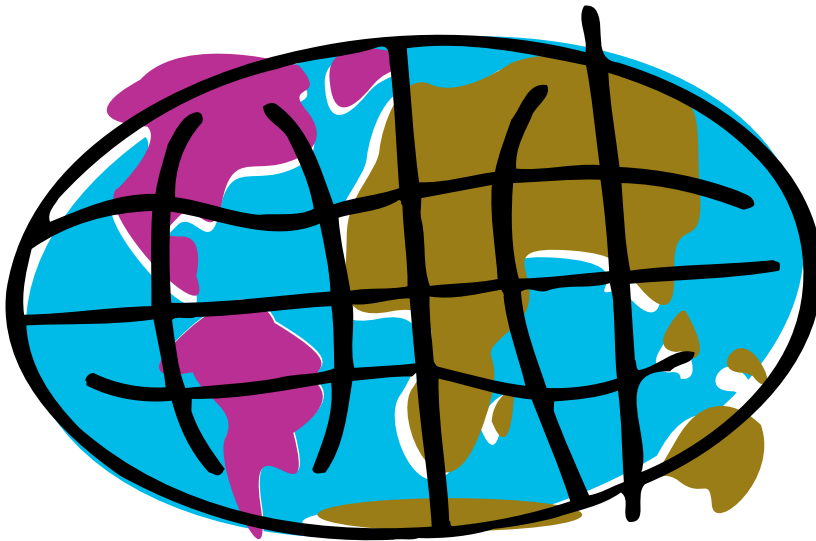




User Manual



m a x i c o m ²

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Introductionxi
Welcome to Maxicom ²xi
Overview of the Maxicom ² Systemxii
About this Manualxiv
Terminology Used in this Manualxv
Icons Used in This Manualxvi
Getting Started Right Awayxvi
1 Installing Maxicom²	1.1
System Requirements	1.1
Minimum Hardware and Software Requirements	1.1
Recommended Hardware and Software Requirements	1.2
Remote Access Requirements	1.2
Installing the Software	1.3
Installing the Maxicom ² Tour	1.4
Installing Adobe® Acrobat Software	1.5
Running the Upgrade Utility	1.5
2 Getting to Know Maxicom²	2.1
Starting Maxicom ²	2.1
Using the Windows	2.4
Standard Window and Dialog Box Features	2.4
Maxicom ² 's System Window and Central Window	2.7
System Window and Toolbar	2.7
Maxicom ² Central Window	2.10
Finding and Arranging Open Windows	2.11
Finding a Specific Window	2.11
Arranging Open Windows	2.11
Changing Your View of the Windows	2.11
Restoring a Window	2.12
Moving a Window	2.12
Resizing a Window	2.12
Closing a Window or Windows	2.12

Using the Main Menu Bar	2.13
Selecting a Menu Bar Option	2.13
Traditional Method	2.13
Accelerator Key Method	2.13
Menu Bar Options	2.14
System Menu (accelerator = Alt-Y)	2.14
Site Menu (accelerator = Alt-S)	2.16
Weather Menu (accelerator = Alt-W)	2.18
Report Menu (accelerator = Alt-R)	2.19
Window Menu (accelerator = Alt-N)	2.19
Help Menu (accelerator = Alt-H)	2.21
Entering and Editing Text	2.22
Positioning Your Cursor in a Text Field	2.22
Adding Text	2.22
Selecting Text	2.22
Deleting Text	2.23
Deleting All Text	2.23
Replacing Text	2.23
Cutting Text	2.23
Copying Text	2.24
Pasting Text	2.24
Using Maxicom ² On-line Help	2.25
Viewing the Help Contents	2.25
Viewing the Help Index	2.27
Finding a Particular Word in Help	2.29
Setting Find Options	2.32
Rebuilding the Find Word List	2.33
Using the Help Information Windows	2.34
Viewing Information about Your Version of Maxicom ²	2.35
Saving Your Work	2.35
Canceling Your Work	2.36
Exiting the Maxicom ² Interface	2.36
Turning Maxicom ² Control Off and On	2.36
Turning the Maxicom ² Control Engine On and Off	2.37

3	Setting System Properties	3.1
	Using the System Wizard for Interactive Setup	3.1
	Using the System Properties Setup Dialog Box for Setup	3.3
	Setting Communications Properties	3.4
	Setting Registration Properties	3.6
	Setting Passwords	3.7
	Changing the Master Password	3.8
	Changing Site Passwords	3.8
	Changing Weather Source Passwords	3.9
	Setting a FREEDOM Time Window	3.9
	Setting Preferences	3.11
	Setting Station Property Macros	3.12
	Setting the Database Service	3.14
4	Setting Site Properties	4.1
	Using the Site Wizard for Interactive Setup	4.2
	Using the Site Properties Setup Dialog Box for Setup	4.3
	Setting General Site Properties	4.4
	Setting the Site Password	4.5
	Setting the Site's Time Zone	4.5
	Setting Weather Sources for the Site	4.5
	Setting the Site Map File Location	4.6
	Setting Site Contact Properties	4.6
	Setting the Communication Port and Telephone Number	4.7
	Setting Times to Contact the Site's CCU	4.7
	Setting the Number of Failed Contacts and the Time Between Retries	4.8
	Setting Automatic or Manual Contact Priorities	4.8
	Setting Retrieval of Logs During Rain Shut Down	4.8
	Setting the FREEDOM Time Window	4.8
	Setting Site Irrigation Properties	4.9
	Setting the Site's Water Budget	4.9
	Setting the Default Daily ET Value	4.10
	Setting the Minimum Daily ET Value	4.10
	Setting the Maximum Daily ET Value	4.10
	Setting the Crop Coefficient	4.10
	Setting the Soil Moisture Holding Capacity	4.11
	Setting the Soil Moisture Refill Percentage	4.11
	Setting the Soil Infiltration Rate	4.11
	Setting the Currency	4.11
	Setting the Prefix	4.12
	Setting the Water Price	4.12

Setting Site FLO-MANAGER Properties	4.13
Setting the Point of Connection Name and Capacity	4.14
Setting FLO-MANAGER Flow Zones	4.14
Setting Site FLO WATCH Properties	4.15
Setting Site CCU Properties	4.16
Setting the CCU Type	4.17
Setting the CCU Call Handle	4.17
Editing CCU Properties	4.18
Setting Device Types	4.20
Setting Station Properties	4.21
Copying, Pasting, and Cutting Station Properties	4.22

5 Setting Weather Source Properties 5.1

Using the Weather Source Wizard for Interactive Setup	5.2
Using the Weather Properties Setup Dialog Box for Setup	5.3
Setting Weather Source Type Properties	5.4
Setting the Weather Source Password	5.5
Selecting the Type of Weather Source	5.5
Setting Rain Bird Weather Station Properties	5.6
Selecting the Time Zone	5.6
Setting Times to Receive Data	5.7
Setting the Elevation and Latitude	5.7
Setting the Weather Station's Default ET	5.7
Setting the Weather Station Password	5.7
Selecting the Contact Port and Telephone Number	5.8
Enabling or Disabling Automatic Contact	5.8
Setting a Manual Contact Time Out	5.8
Setting CIMIS Bulletin Board System Properties	5.9
Selecting the Time Zone	5.10
Setting Times to Receive Data	5.10
Setting the Elevation and Latitude	5.10
Setting the CIMIS Login Name	5.10
Setting the CIMIS Password	5.11
Setting the CIMIS Weather Station Number	5.11
Selecting the Contact Port and Telephone Number	5.11
Setting CCU-Based ET Gauge Properties	5.12
Selecting a Site and a Channel	5.13
Setting Times to Receive Data	5.13
Enabling or Disabling Automatic Contact	5.13
Setting the Weather Station's Default ET	5.13

Setting CCU-Based Site Rain Counter Properties	5.14
Selecting a Site and Channel	5.14
Setting Times to Receive Data	5.15
Enabling or Disabling Automatic Contact	5.15
Setting the Weather Station's Default ET	5.15
Setting Historical ET Database Properties	5.15
Setting User-Entered Weather Data Properties	5.17
6 Creating and Editing a Site Schedule	6.1
Using the Schedule Wizard for Interactive Setup	6.1
Creating a Schedule by Yourself	6.3
Creating a Schedule Using a Template	6.7
Copying an Existing Schedule	6.10
Using the Schedule Editor Window and Toolbar	6.14
Editing a Schedule	6.16
Auditing a Schedule	6.16
Setting Schedule Properties	6.17
Setting Execution Window Programmed Repeats	6.17
Setting Schedule Attributes	6.18
Selecting the Schedule Runtime Adjustment	6.18
Setting the Nominal ET	6.19
Performing a Flow-Cost Analysis	6.19
7 Viewing and Editing Site Data	7.1
Using the Site Window and Toolbar	7.1
Renaming a Site	7.3
Deleting a Site	7.4
Viewing and Editing General Site Data	7.4
Viewing and Acknowledging an Unacknowledged Alarm	7.5
Viewing Current Site Data	7.5
Viewing Projected Site Data	7.6
Viewing a Site's Log Data	7.7
Selecting the Time Period to View	7.8
Viewing the Data as a Flow Graph, Flow List or Runtime Roster	7.8
Viewing the Runtime Roster	7.9
Viewing the Entire Site or One FLOW WATCH Zone	7.9
Viewing Actual Log Data or Projected Data	7.9

Viewing and Editing a Site's Schedule Data	7.10
Viewing General Schedule Data	7.10
Adding a New Schedule	7.11
Editing a Schedule	7.11
Removing a Schedule	7.12
Viewing and Editing a Schedule's Properties	7.12
Previewing a Schedule	7.13
Viewing and Editing a Site's ET Data	7.13
Selecting the Time Period to View	7.14
Selecting to View Data as a Check Book, Log, Graph or Calendar	7.14
Selecting the Type of Data to View	7.14
Modifying the ET or Rainfall	7.15
Viewing and Editing a Site's Event Data	7.15
Setting No Watering Days	7.16
Setting Auto Pop-Up Memos	7.16
Setting Up and Viewing the Site Map	7.17
Joining the Site's Map File with Other Site Data	7.17
Changing the Size of the Map	7.18
Manually Contacting a Site's CCU	7.18
Adjusting the Amount of Time for Contact	7.19
Viewing Wireless Diagnostic Data	7.21
Setting Rain Shut Down for a Site	7.22
Manually Operating Site Schedules	7.23
Sending Schedules to the CCU	7.25
Sending Configuration Data to the CCU	7.25
Monitoring and Operating Site Channels	7.26

8 Viewing and Editing Weather Source Data	8.1
Using the Weather Source Window and Toolbar	8.1
Renaming a Weather Source	8.3
Deleting a Weather Source	8.3
Viewing Recent Weather Source Data	8.4
Viewing the Most Recent Statistics	8.5
Viewing and Editing the Sites Assigned to the Weather Source	8.5
Viewing and Acknowledging Unacknowledged Alarms	8.6
Viewing Historical Weather Source Data	8.6
Selecting a Time Period to View	8.7
Selecting to View Data as a Calendar, Graph or List	8.7
Selecting the Type of Data to View	8.7
Manually Contacting a Weather Source	8.8
Increasing the Amount of Time for Contact	8.9
Displaying Current Weather Source Data	8.9
Getting Logged Weather Source Data	8.10
Editing Weather Source Properties	8.10
Manually Updating Weather Data	8.11
Disconnecting from a Weather Source	8.12
9 Viewing the Event Log and Generating Reports	9.1
Using the Event Log Window and Toolbar	9.1
Filtering Data in the Event Log	9.2
Acknowledging Events in the Event Log	9.3
Clearing Events from the Event Log	9.4
Viewing Event Log Statistics	9.4
Refreshing Event Log Data	9.5
Creating a Report from the Event Log	9.5
Using the Report Wizard for Generating Reports	9.6
Creating a Field Device Report	9.7
Creating a Flow/Time/Cost Report	9.8
Creating a Schedule Report	9.10
Previewing and Printing Reports	9.11

10 Viewing Maxicom²'s Communication Status	10.1
Using the Communication Status Window	10.1
Viewing the Status of All Ports Simultaneously	10.2
Viewing One Port in Detail	10.2
Disconnecting from a Port	10.3
Viewing a FREEDOM Port in the Communication Status Window	10.4
11 Backing Up Data	11.1
12 Glossary	12.1
Index1.1
Service Information	inside back cover

Welcome to Maxicom²

Congratulations! By selecting the Maxicom² Central Control System from Rain Bird, you have chosen the finest Central Irrigation Control System available. Some of Maxicom²'s unique features include the ability to:

- customize the system to suit your needs
- operate multiple sites and controllers from one location
- respond automatically to weather conditions
- locate excessive flow problems
- manage water flow to prevent the system from exceeding hydraulic capacity
- adjust the water budget
- water only during predetermined time periods
- eliminate wasteful run-off and puddling
- record actual usage, allowing you to maintain usage records easily and efficiently
- create reports that display the information you need
- control all operations from one computer with an easy-to-use Windows[®] interface that does not require previous computer experience

The benefits you realize by using the Maxicom² system include: water savings, power savings, labor savings and increased irrigation system efficiency. All of these benefits add up to saving money!

This manual gives you step-by-step instructions for using the Maxicom² software so that you can make the most of these exciting features and benefits.



For the most efficient use of the Maxicom system, Maxicom² software and field equipment must be installed to Rain Bird's specifications. For a complete account of Rain Bird's Maxicom installation specifications, contact your local Maxicom distributor or any of the Maxicom support services listed on the inside back cover of this manual.

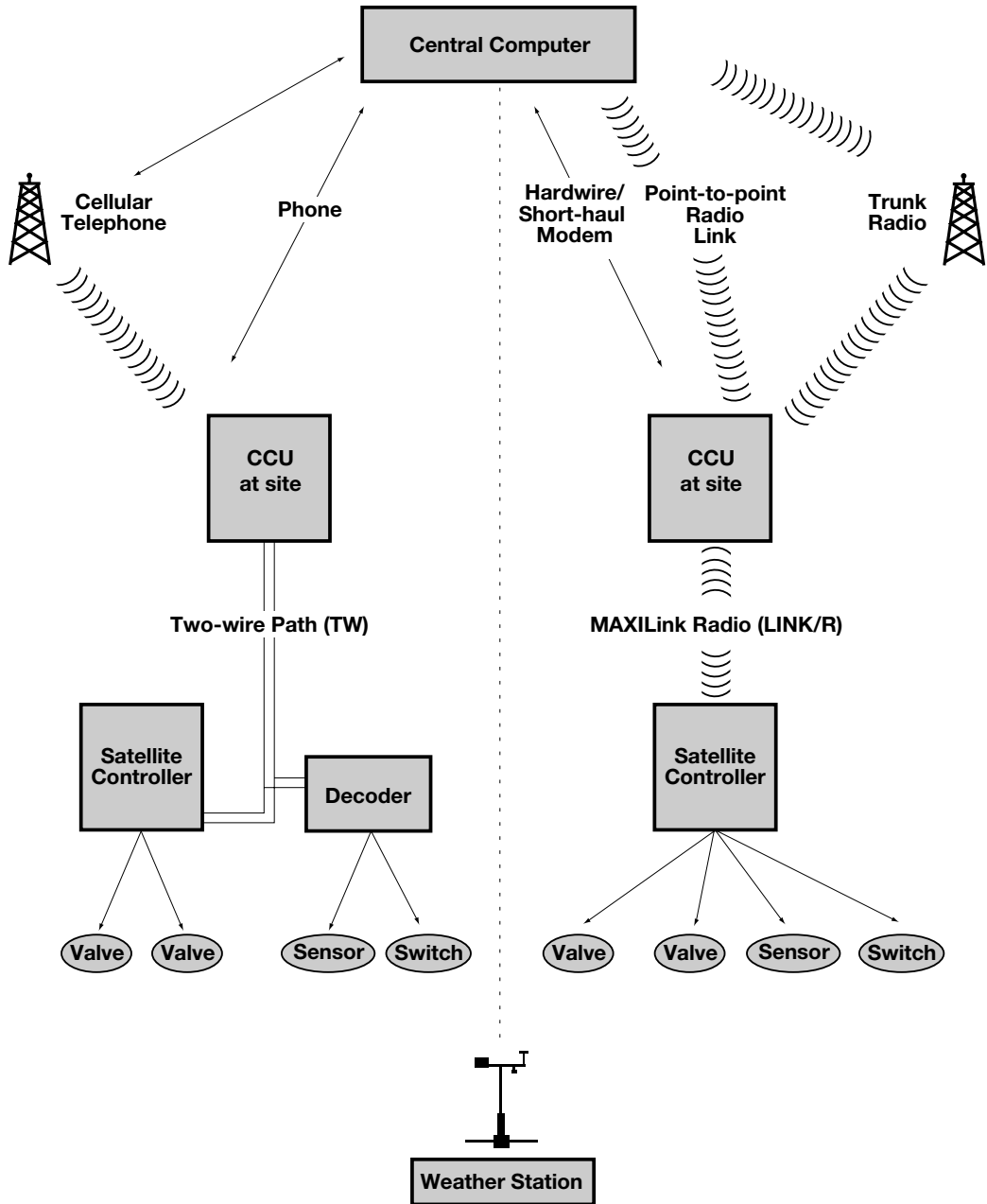
Overview of the Maxicom² System

The Maxicom² Central Irrigation System uses a central computer to send irrigation schedules and other data via telephone lines, cellular telephone, hardwire, point-to-point radio, trunk radio, or fiber optics to Central Control Units (CCUs) in the field.

A CCU communicates with up to 28 satellite controllers through a two-wire path or wireless radio link. The CCU monitors field conditions and reacts to problems such as excessive flow. When necessary, the CCU selectively turns off all or portions of a site's irrigation system. The CCU also reads and reacts to moisture sensors, wind sensors, and rain gauges. In this way, multiple remote sites can be controlled and monitored from a single central location at your personal computer.

The Maxicom Central Control System chiefly consists of seven parts. (See the illustration on the opposite page.)

- 1 Central Computer** — uses the Maxicom² software program to control the entire irrigation system.
- 2 Computer to CCU or computer to weather source data path** — transfers information from the central computer to the CCU or weather source by phone communication or by radio/direct communication.
- 3 Central Control Unit** — operates field devices by executing commands received from the central computer.
- 4 Satellite data path** — transfers information from the CCU to the field devices by a two-wire path or wireless radio link.
- 5 CCU-based field devices** — include satellite controllers, decoders, or sensors:
 - satellite controllers** send a 24 VAC power signal to each station;
 - decoders** control and monitor system functions;
 - sensors** monitor conditions in the field.
- 6 Stations** — consist of irrigation valves, sensors, or switch-operated devices.
- 7 Weather source/ET** — interprets weather conditions and/or evapotranspiration (ET) information and sends that information to the central computer.



About this Manual

This manual is divided into the following chapters:

- **Chapter One: Installing Maxicom²**
Tells you what hardware and software requirements you need to run Maxicom² on your personal computer and gives step-by-step installation instructions.
- **Chapter Two: Getting to Know Maxicom²**
Introduces the menus and windows with which you will be working. It also gives beginning users instructions on entering and editing text and canceling and saving work. In addition, this chapter tells you how to use Maxicom²'s on-line Help system.
- **Chapter Three: Setting System Properties**
Tells you how to configure the Maxicom² system for your specifications so that you can set such properties as computer communications ports, registration information, passwords and units of measure.
- **Chapter Four: Setting Site Properties**
Tells you how to set up a new Maxicom² site in your system. This chapter contains instructions on how to set the site's time zone, weather source, and password, as well as the site's CCU and irrigation requirements.
- **Chapter Five: Setting Weather Source Properties**
Tells you how to set up a new Maxicom² weather source in your system. This chapter contains instructions on how to set the type of weather source, and such particulars as the weather source's location, password, and communication requirements.
- **Chapter Six: Creating and Editing a Site Schedule**
Gives you instructions for creating a new schedule for a site or making changes to an existing schedule. Instructions in this chapter take you through the setup of each of the schedule functions as well as schedule properties, such as whether the schedule will be automatically sent to the CCU and whether it will be "FLO-MANAGED."
- **Chapter Seven: Viewing and Editing Site Data**
Tells you how to obtain and, in some instances, change various types of site data, such as flow data and weather data and how to contact a site's CCU manually.
- **Chapter Eight: Viewing and Editing Weather Source Data**
Tells you how to obtain various types of recent or historical weather source data and how to contact a weather source manually.
- **Chapter Nine: Viewing the Event Log and Generating Reports**
Guides you in using the Event Log to view the information you want and tells you how to generate various types of reports from Maxicom² data.

- **Chapter Ten: Viewing Maxicom²'s Communication Status**
Tells you how to view the status of all Maxicom² ports simultaneously, how to view a single port in detail, and how to disconnect a port from a field device.
- **Chapter Eleven: Backing Up Data**
Explains how Maxicom² backs up your data.
- **Chapter Twelve: Glossary**
Provides you with a handy glossary of terms.



Saving your work in Maxicom² is an automatic process that is different from other Windows applications. For more information, see "Saving Your Work" on page 2.35.

Terminology Used in this Manual

The following computer-usage terminology is used in this manual:

- **Click** means to place the cursor on an on-screen item and press the left mouse button.
- **Double-click** means to place the cursor on an on-screen item and quickly press the left mouse button twice.
- **Right-click** means to place the cursor on an on-screen item and press the right mouse button.
- **Select** means to place the cursor in a text field or on a menu option, checkbox, or radio button and press the left mouse button.
- **Check** means to click a checkbox so that a check mark appears in the checkbox.
- **Enter** means to type text. (If you are required to press the Enter key on the keyboard, the instructions will say, "Press the Enter key.")
- **Highlight** means to place the cursor on an item and press the left mouse button so that the item's background is displayed in a different color than the background of unselected items.
- **Drag** means to click on an item and hold the mouse button down while you drag the mouse (and the item) to the desired position on the screen.
- **Keyboard accelerators such as "Alt-S"** mean to hold down the Alt key and type an "S."



For a list of other terms used in this manual, see the Glossary on page 12.1.

Icons Used in This Manual

To help you understand and find the information you need, this manual uses three icons in the margins of its pages.



This icon is used to designate information that is not critical but that may be helpful to you.



This icon is used to designate a cross reference within the manual and lists page numbers where you can find information on the same or related topics.



This icon is used to designate very important warning information.

Getting Started Right Away

To get your system up and running, you must:

- 1 Install the Maxicom² software (described in Chapter One),
- 2 Set system properties (described in Chapter Three),
- 3 Set up your sites (described in Chapter Four),
- 4 Set up your weather sources (described in Chapter Five), and
- 5 Create schedules (described in Chapter Six).

If you are already familiar with computers and MAXICOM and would like to get started using Maxicom² right away, the chapters listed above can be used as a “quick start.” Follow the instructions in the sequence suggested above.



If you were using a previous version of MAXICOM software and you want to maintain your existing data, you must run the Upgrade Utility after installing the new software.



If you need more information about using windows and menus, see “Getting to Know Maxicom²,” which begins on page 2.1.

This chapter describes:

- minimum hardware and software requirements for running Maxicom²
- recommended hardware and software requirements for running Maxicom²
- remote access requirements
- how to install the software from a CD-ROM
- how to run the upgrade utility so that you can use data from an earlier version of the MAXICOM software

System Requirements

In order to run the Maxicom² software, your computer system must meet certain requirements. Below is a list of minimum hardware and software requirements. The recommended hardware and software requirements, also listed here, will maximize the speed of your Maxicom² software.

Minimum Hardware and Software Requirements

The personal computer you use to run the Maxicom² software must meet or exceed the following minimum requirements:

- Intel® Pentium® 166 MHz or faster processor
- 32 megabytes RAM
- standard SVGA monitor (800 x 600, 256 colors)
- mouse
- 101-key standard keyboard
- 2 GB hard disk drive
- 3.5 inch floppy disk drive
- CD-ROM drive
- one free serial port for communication with Rain Bird Cluster Control Units (CCUs)
- Windows95/98 or NT software
- printer

Maxicom² does not require more than 100 megabytes of hard disk space above the operating system for a full installation. Actual disk space requirements may be greater with use, depending upon the amount of logged historical data and the number of sites. Maxicom² is not designed to operate on a computer with a non-Intel Pentium-based microprocessor for the primary central processing unit.

Recommended Hardware and Software Requirements

The following are the recommended requirements for running Maxicom²:

- Pentium® III 450 MHz or faster processor
- 64 megabytes RAM
- VGA monitor
- 101-key standard AT keyboard
- 4 GB hard disk drive
- 3.5 inch floppy disk drive
- CD-ROM drive
- mouse
- 56 K telephone modem
- four free serial ports
- Windows95/98 or NT software
- sound card and speakers
- printer

Remote Access Requirements

If you want to access Maxicom² from a remote computer, you will need:

- PC Anywhere32
- a dedicated modem

All Maxicom² functionality available on the central computer is available on the remote computer via PC Anywhere32. PC Anywhere32 is the only remote access method supported by Maxicom². PC Anywhere32 is provided when you purchase Maxicom².

Installing the Software

The installation procedure is nearly the same for new Maxicom² users as for users who are upgrading from an older version of the software. However, users who are upgrading from another version of MAXICOM should back up the old MAXICOM software and data before installing the new Maxicom² software. The installation procedure will transfer your data to the new Maxicom² software, but in the event that something should go wrong, you should have a backup of your most current data.

Users who are upgrading and want to use existing data must run the Upgrade Utility after installing the new Maxicom² software. In addition, users who are upgrading from an older version should check that database items and schedules were converted properly. Because Maxicom² now allows you to identify sites, devices, and other field items with a name of your choice, you may want to change these.

Upgrading users should also make sure that field hardware is updated to work with Maxicom². The CCUs' EPROM must be version 5.2R or higher for the system to operate properly.

To install Maxicom² on your computer:

- 1 Turn on your computer and start Windows95/98.
- 2 Make sure that no other applications are running. (Active applications appear in the Windows95/98 taskbar.)
- 3 Insert the CD-ROM into your computer's CD-ROM drive.

The Installation wizard's main menu is displayed. Click on Install Maxicom² and then follow the instructions in the wizard.



For more information about using the Upgrade Utility, see "Running the Upgrade Utility" on page 1.5.



Some virus-protection programs can interfere with installation. Before you install Maxicom², turn off any virus protection programs that may be running on your computer.



Maxicom² Installation Wizard

- 4 After finishing each section of the wizard, click the Next button.
The next section of the wizard is displayed.
- 5 When you have finished the last section of the wizard, click the Finish button.
When you restart your computer, Maxicom² will be available from the Windows95/98 Start menu. The control engine installs automatically in your Startup Folder so that when you restart your computer, it begins to run automatically.



The second screen of the wizard makes assumptions about where the old MAXICOM data files are located. If the directories listed are not the actual location of the files you want to convert, you must enter the path to the correct directories. You may want to use the Browse buttons to the right of the text fields to help you.

Installing the Maxicom² Tour

If you would like an on-line overview of the Maxicom² software, install the Maxicom² Tour.

To install the Maxicom² tour:

- 1 From the main menu of the Maxicom² installation CD, click the Maxicom² Tour button.
The installation wizard will install the Maxicom² Tour on your hard drive.
- 2 Select Maxicom² Software Tour from the Windows95/98 start menu.
Follow the on-screen instructions for viewing the tour.

Installing Adobe® Acrobat Software

Rain Bird offers many resources to their customers at the website www.rainbird.com, such as technical updates and on-line user manuals. This information has been stored in .pdf (portable document format), which can be read by almost any computer that has Adobe Acrobat Reader software installed. While this software is not required to operate the Maxicom² software, Rain Bird recommends that you install Acrobat Reader on your computer.

To install Acrobat Reader:

From the main menu of the Maxicom² installation CD, click the Install Acrobat Reader button.

The installation wizard will install the software on your hard drive. Please see the Acrobat Reader “readme” file for operating instructions

Running the Upgrade Utility

If you are upgrading from an earlier version of the MAXICOM software and want to maintain your existing data, you must run the Upgrade Utility after you install the new Maxicom² software.

To run the Upgrade Utility:

- 1 Use the Windows95/98 Start menu (as described in the Windows95/98 Users manual) to start the Upgrade Utility. The Upgrade Utility was automatically installed when you installed Maxicom².

The Maxicom² Upgrade Utility wizard will be displayed.

- 2 Follow the instructions in the wizard to upgrade the software.
- 3 After finishing each section of the wizard, click the Next button.

The next section of the wizard will be displayed.

- 4 When you have finished the last section of the wizard, click the Finish button.

A message will be displayed, “Upgrade Installed Successfully.” You may also get a message that some issues were encountered with the conversion.

- 5 If necessary, click the View Issues button to view issues that must be resolved. If you have trouble fixing any issues that may be listed, contact your Rain Bird Distributor for help.



The Upgrade Utility wizard offers you the option of upgrading all of the sites or just some of the sites.

This chapter will help you to become familiar with the Maxicom² interface. This chapter describes:

- how to start the Maxicom² application
- standard features of the windows and dialog boxes
- features of the System window and Central window
- how to use the Main menu
- how to enter and edit text
- how to use Maxicom² Help
- how to save or cancel your work
- how to exit Maxicom²

Starting Maxicom²

Once you have installed Maxicom², there are three ways you can start the Maxicom² interface.

To start Maxicom²:

Double-click the Rain Bird icon in the tray in the right bottom corner of your screen.

Or

Right-click the Rain Bird icon in the tray in the right bottom corner of your screen and select the Launch Maxicom² option.

Or

Use the Windows95/98 Start menu as described in the Windows95/98 Users Manual.

The Maxicom² splash screen is displayed while the program launches.



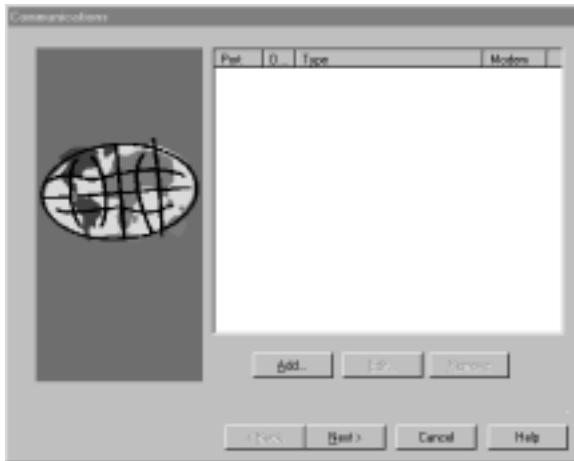
The Rain Bird icon appears in the tray whenever the Maxicom² controls are running.



Splash Screen

When the application is finished launching, the Splash screen closes and the System window is displayed.

If this is the first time you have used Maxicom² (you did not upgrade a previous version when you installed the software), the System wizard, which guides you through a series of steps to set up your system, runs automatically and displays the Communications dialog box.



System Wizard with Communications Dialog Box

If you have used a previous version of Maxicom² and ran the Upgrade Utility after installing the Maxicom² software, the System window is displayed.

If you launched the program from the Rain Bird icon in the tray and there is an unacknowledged alarm (the icon has an exclamation mark on it), the Event Log is displayed within the System window; if you launched the program from



You can close the Splash screen by clicking anywhere on the screen.



For more information, see "System Window and Toolbar" on page 2.7.



For more information, see "Using the System Wizard for Interactive Setup" on page 3.1.

the Windows95/98 Start menu, the Maxicom² Central menu is displayed within the System window.



System Window with Maxicom² Central Menu Displayed

It is not necessary to run the Maxicom² interface for the Maxicom² controls to run; only the application needs to be active. This means that you do not have to dedicate a computer to Maxicom². You can do word processing or other tasks while Maxicom² runs in the background. When the Rain Bird icon appears in the tray at the right bottom corner of your screen, you know Maxicom² is active. If the application is not active, the icon turns blue on a red background. If an unacknowledged alarm is present, an exclamation point is next to the Rain Bird icon.



Rain Bird Icon in the Tray — Maxicom² Active



Rain Bird Icon Turns Blue — Maxicom² Not Active



Rain Bird Icon with Exclamation — Alarm Present



For more information, see “Turning Maxicom² Controls Off and On” on page 2.36 and “Acknowledging Events in the Event Log” on page 9.3.

While you may want to go ahead and start setting up your system, Rain Bird recommends that you read the remainder of this chapter to learn more about how to use the software.

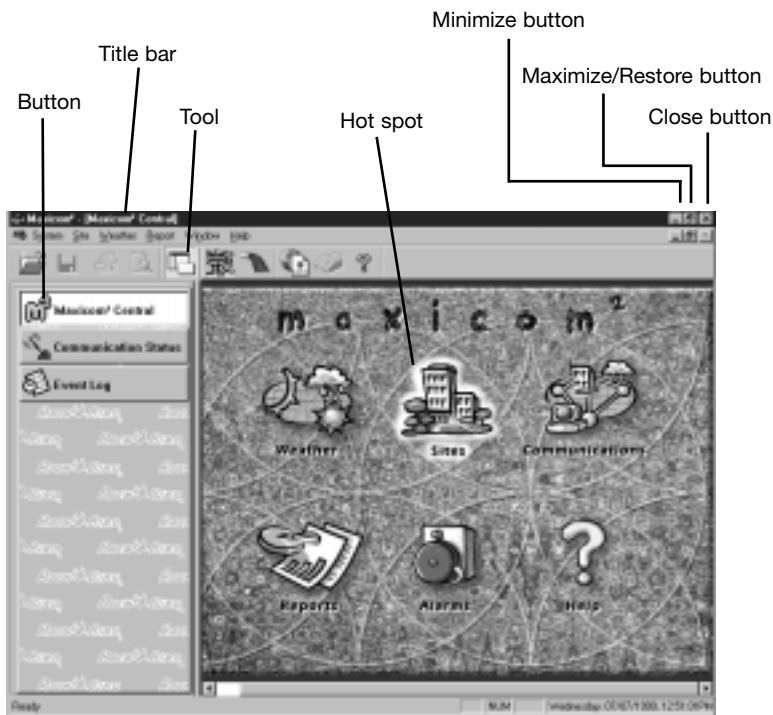
- To continue learning about the Maxicom² software before setting up your system, click the Cancel button on the System Wizard.
- To proceed with setting up your system, turn to “Setting System Properties,” page 3.1.

Using the Windows

You will perform all the tasks described in this manual in windows and dialog boxes. It may help you to take a few minutes to familiarize yourself with the standard features of windows and dialog boxes and the specific features of the System window and Central window which are described in this section.

Standard Window and Dialog Box Features

Maxicom² windows and dialog boxes, like the one shown here, contain certain standard elements. These elements are described on the following pages.



Windows allow you to work continuously; dialog boxes require you to click OK or Cancel before going on to the next task.

System Window with Maxicom² Central Window

- **Title bar**
Contains the title of the window or dialog box. When the window is active, the title bar changes color. Click in a window to make the window active.
- **Close button**
Allows you to close the window or dialog box and automatically save changes you have made. (The Maxicom² Central window, Communications Status window, and Event Log window do not have Close buttons separate from the System window because they are always part of the System window.)

- **Minimize button**

Converts the window to an icon at the bottom of your screen. Once a window has been minimized, the Minimize button is replaced by a Restore button. Dialog boxes do not have minimize buttons.

- **Maximize button**

Maximizes the size of the window on your screen. Once a window has been maximized, the Maximize button is replaced by a Restore button. Dialog boxes do not have Maximize buttons.

- **Restore button**

Restores the window to its previous size after you have maximized or minimized it. Dialog boxes do not have Restore buttons.

- **Horizontal and vertical scroll bars**

Allows you to display data that cannot fit in the window or dialog box. Click the up or down arrows in the horizontal scroll bars or the left and right arrows in the vertical scroll bars to move a line at a time, or drag the bar within the scroll bars to move in larger increments.

- **Buttons**

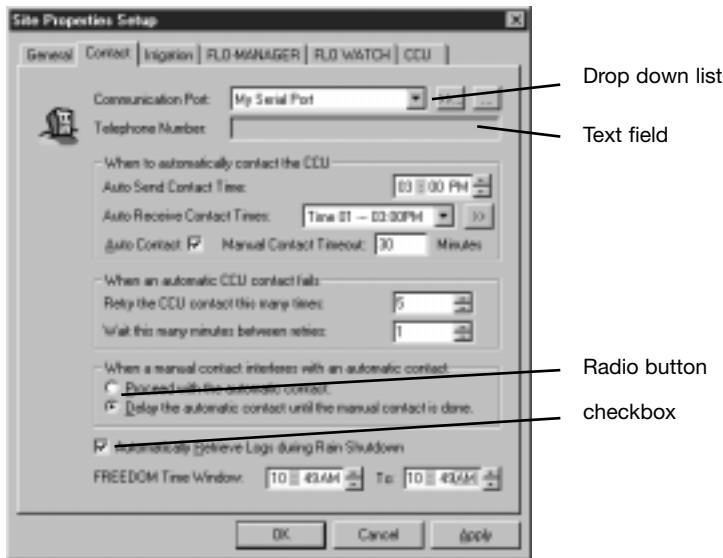
Allow you to perform an action or display a dialog box. Click a button to activate it. (Or type the accelerator key that corresponds to the button; the accelerator key letter is underlined on the on-screen button. Not all buttons have accelerator keys.)

- **Hot spots**

Allow you to display a window or dialog box. Click a hot spot to activate it.



Saving your work in Maxicom² is an automatic process that is different from other Windows programs. For more information, see “Saving Your Work” on page 2.35.



Typical Dialog Box

- **Checkboxes**

Allow you to select items. A selected checkbox has a check inside it; a deselected checkbox is empty. More than one checkbox may be selected in a given area of a window or dialog box. Click a checkbox to select it; click it again to deselect it.

- **Radio buttons**

Allow you to select one item from a group of items. A deselected radio button is the same color as the window or dialog box's background; a selected radio button appears to be pressed and is displayed in a different color. Click a radio button to select it; click a different radio button to deselect the first.

- **Text fields**

Allow you to enter and select values. Click in a field and then type the value. In fields with scroll buttons, you may enter the value or click the up or down arrows to select a value without typing.

- **Drop down lists**

Allow you to select an item or value from a list. Click an item on a drop down list to select it; a selected item appears highlighted.

- **Display areas**

Allow you to view data. Display areas cannot be edited.

- **Tooltips**

Display the name or function of an icon in the status bar when the icon has no text label. Place the mouse cursor over an icon to display the Tooltip for that icon.



*For more information, see
"Entering and Editing Text"
on page 2.22.*

Maxicom²'s System Window and Central Window

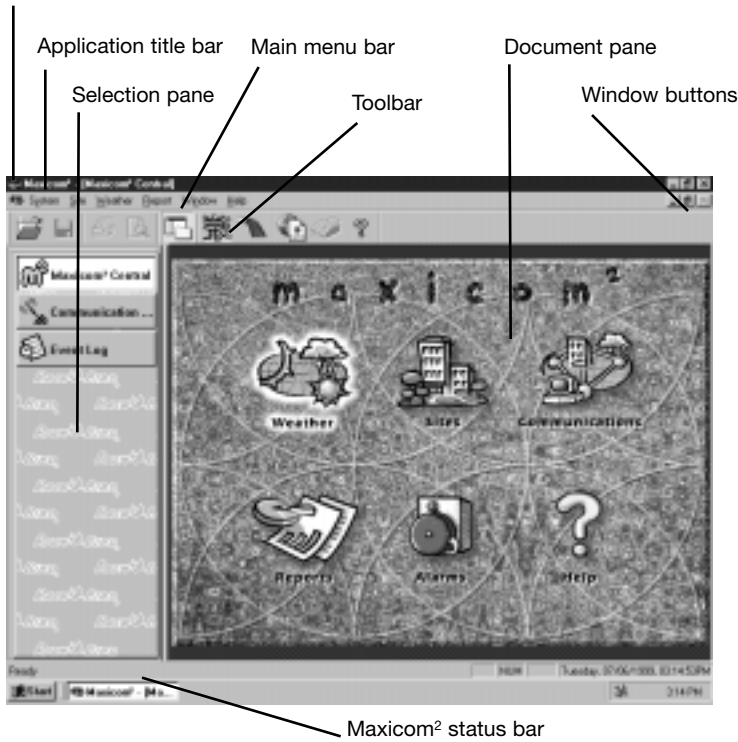
The System window is the parent window of the entire Maxicom² interface. The Maxicom² Central window, Communication Status window, and Event Log window are always present in some form within the System window. All four of these windows are open whenever the Maxicom² interface is running.

The System window and Maxicom² Central window are described in detail in this section because all other windows and dialog boxes come from these two important windows. Other windows used in Maxicom², including the Communication Status window and the Event Log window, are described in the sections of this manual where they are used.

System Window and Toolbar

Whenever the Maxicom² user interface is open, the System window is displayed. The System window is the base window from which all other interface activity takes place.

Application icon and menu



System Window

The System window contains the following features:

- **Application title bar**

The application title bar contains the application icon at the far left, the application name, the name of the current active window if there is one, and the window buttons. Right-clicking the title bar anywhere except for on the window buttons displays the drop-down Application menu. For more information about the Application menu, application icon, and the window buttons, see the items below.

- **Application icon and Application menu**

Click the application icon or right-click the application title bar to display the Application menu. The Application menu contains options that allow you to terminate the application or change the way you view the windows.

Restore returns the window to its previous size after it has been maximized or minimized.

Move allows you to use the arrow keys to move the window and the Enter key to end the operation.

Size allows you to use the arrow keys to resize the window and the Enter key to end the operation.

Minimize minimizes the size of the window to an icon.

Maximize maximizes the size of the window on your screen.

Close closes the application.

- **Window buttons**

Allow you to change the size of the windows or close them. Click the left window button to minimize the window; click the middle window button to toggle between maximized and normal; click the right window button to exit the application.

- **Main menu bar**

The Main menu bar contains the drop-down menus described on pages 2.13 through 2.21 of this manual: System, Site, Weather, Report, Window, and Help.

- **Toolbar**

The System window displays its own toolbar and, underneath that, the toolbar for the active window, if there is one. The System toolbar contains the following icon buttons, most of which perform the same tasks as options available from the Main menu:



Main Toolbar



Double-clicking the application icon in the title bar exits Maxicom².



For more information about using the window buttons, see “Changing Your View of the Windows” on page 2.11.

Create or Open allows you to create new or open existing sites and weather sources.

Save allows you to save the current active window.

Print allows you to print the data from the current active window without going through the Print dialog box.

Print Preview allows you to see what the currently selected document will look like when it is printed.

Toggle Selection Pane allows you to toggle between an open Selection Pane or a closed Selection Pane.

Rain Shut Down allows you to start or cancel a site's Rain Shut Down for all the active sites.

Flow/Runtime Logs shows flow and station runtime data for all sites.

Rain Bird Web Page offers you a short cut for connecting to the Rain Bird World Wide Web page if you have an Internet browser set up on your computer.

Fax Rain Bird allows you to quickly dial and fax directly to Rain Bird if you have a fax modem connected to your computer.

Help allows you to view Maxicom² Help files.

- **Selection pane**

The selection pane contains buttons that allow you to select any open window. The Maxicom² Central window button, the Communication Status window button, and the Event Log window button are permanently displayed on the selection pane along with buttons for any other open windows (such as sites and weather sources). You can resize the selection pane by clicking the side of the pane and dragging the side in or out.

- **Document pane**

The document pane provides a view of the currently active window. Windows automatically default to the size of the document pane; you cannot enlarge a window beyond the boundaries of the document pane. When no Site, Weather Source or Schedule window is open, the document pane contains the Maxicom² Central window, the Communication Status window or the Event Log window. The default window displayed is the Central window.

- **Maxicom² status bar**

The status bar is a horizontal bar across the bottom of the System window. It displays helpful text messages that correlate with the active on-screen item or mouse cursor position.

Maxicom² Central Window

The Maxicom² Central window appears in the System window when no other windows are open. It also appears as a button in the selection pane of the System window. In addition, the Maxicom² Central window can be displayed by selecting the Maxicom² Central option from the Window menu on the Main menu bar. When selecting items from the Maxicom² Central window, you are not limited to a single function — if you click the Maxicom² Central window button and restore the Maxicom² Central window, you can open new windows without closing the first.

In addition to having the standard window features, the Maxicom² Central window contains six hot spots. Click a picture/hot spot to activate it.



Central Window

- **Weather**
Allows you to view weather source information. Click the Weather hot spot to display the Create or Open a Weather Source dialog box from which you can create a new or open an existing weather source. For more information, see “Using the Weather Source Window and Toolbar” on page 8.1.
- **Sites**
Allows you to view site information. Click the Sites hot spot to display the Create or Open a Site dialog box from which you can create a new or open an existing site. For more information, see “Using the Site Window and Toolbar” on page 7.1.
- **Communication**
Allows you to view your communication status. Click the Communication hot spot to display the Communication Status window. For more information, see “Viewing Maxicom²’s Communication Status” on page 10.1.

- **Reports**

Allows you to create a report. Click the Reports hot spot to display the Generate a Report dialog box from which you can select the type of report you want. For more information, see “Viewing the Event Log and Generating Reports” on page 9.1.

- **Alarms**

Allows you to view the Event Log. Click the Alarms hot spot to display the Event Log window filtered for alarms. For more information, see “Using the Event Log Window and Toolbar” on page 9.1.

- **Help**

Allows you to view Maxicom² Help files. Click the Help hot spot to display the Help Topics window. For more information, see “Using Maxicom² On-line Help” on page 2.25.



If unacknowledged alarms are present, the Alarms hot spot will be highlighted to let you know.

Finding and Arranging Open Windows

In Maxicom², it is possible to have many windows open at the same time. Because having many windows open can become confusing, Maxicom² offers you ways to find and arrange these open windows.



The Maxicom² Central window, Communication Status window and Event Log window are always available directly from the selection pane of the System window or from the Window menu.

Finding a Specific Window

To find the open window you want:

Select the icon for the window you want to see from the selection pane of the System window.

Or

Select the name of the window you want to see from the Window menu.

The window you have selected comes to the front of the stack.

Arranging Open Windows

To tile all the open windows on your screen:

Select the Arrange All option from the Window menu.

The open windows are tiled on your screen.

Changing Your View of the Windows

Maxicom² allows you to change the way the windows appear on screen. You can move the windows, change their size and even close them by using the Application menu or the window buttons.

Restoring a Window

The Restore option and Restore button allow you to return the window to its previous size after the window has been maximized or minimized.

To restore the window:

Click the Restore window button or select the Restore option from the Application menu.

The window returns to its previous size.



Using the Application menu or the window buttons on the System window affects the entire application.

Moving a Window

You can use the Move option or the mouse to change the position of a window on your screen.

To move the window:

- 1 Select the Move option from the Application menu, then with the arrow positioned over the title bar, drag the window or use the arrow keys to move the window to the desired position on your screen.
- 2 Press the Enter key to end the operation.

Resizing a Window

The Restore, Maximize, and Minimize options and the Maximize and Restore window buttons allow you to change the size of the windows on your screen.

To change the size of the window:

Select the Restore, Maximize, or Minimize option from the Application menu or click the Maximize or Restore window buttons.

The size of the window changes according to your choice.



If the window is maximized (it fills the entire screen), the Move option is not available on the Application menu.

Closing a Window or Windows

To close the window:

Click the Close button on the window or select the Close option from the appropriate menu. (Site and Weather menus have close options).

The active window closes.

To close all open windows:

Select the Close All option from the Window menu.

All windows close except the System window, Central window, Communications window and Event Log window.



If the System, Maxicom² Central, Communications Status and Event Log windows are the only windows open, the Close All option is not available on the Window menu.

Using the Main Menu Bar

The Maxicom² Main menu bar appears on the System window. (For more information about other features of the System window, see page 2.7.) The Main menu bar contains seven drop-down menus that let you perform various tasks within Maxicom².



Main Menu Bar

Selecting a Menu Bar Option

There are two methods for selecting a menu bar option: the traditional method uses the mouse and the accelerator key method uses the keyboard.

Traditional Method

To select an option from the Main menu bar:

- 1 Select an item in the Main menu bar.
A submenu is displayed.
- 2 Highlight and click on an option on the submenu.
The option is executed and a window or dialog box is displayed.

Accelerator Key Method

Accelerator keys allow you to select an option from the Main menu bar quickly and without using the mouse.

To select an option from the Main menu bar by using the accelerator keys:

- 1 Press and hold down the Alt key, then, while holding down the Alt key, type the letter that corresponds to the option you want. (The letter that corresponds to the option is underlined on the on-screen menu.)
The option is highlighted and the submenu is displayed. Each submenu option has one letter underlined; this letter is the accelerator key for the option.
- 2 While the submenu is displayed, type the letter that corresponds to the submenu option you want.
The submenu option is executed and a window or dialog box is displayed.



Accelerator keys for each menu and submenu option are listed on pages 2.13 through 2.21.



Not all submenu options have accelerator keys.

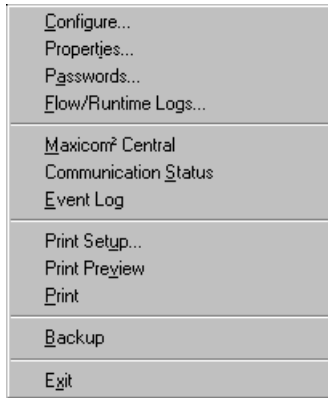


Accelerator keys can also be used to replace some buttons in some windows and dialog boxes. The accelerator key letter is underlined on the on-screen button.

Menu Bar Options

The following is a description of each of the menu items and their submenu options. Accelerator keys for each option are noted next to the option.

System Menu (accelerator = Alt-Y)

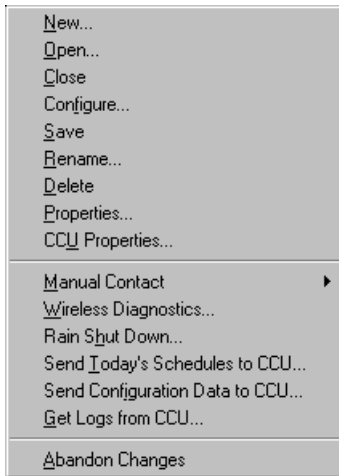


System Menu

- **Configure** (accelerator = C)
Allows you to set (with the System Configuration wizard) communication preferences and registration properties. For more information, see “Setting System Properties” on page 3.1.
- **Properties** (accelerator = I)
Allows you to set (without the System Configuration wizard) the following properties: communications, preferences, registration, station property macros, database service, passwords and FREEDOM. For more information, see “Setting System Properties” on page 3.1.
- **Passwords** (accelerator = A)
Allows you to change the master, site, or weather source passwords. For more information, see “Setting Passwords” on page 3.7.
- **Flow/Runtime Logs** (accelerator = F)
Allows you to view flow data and station runtime logs (both actual and projected) for sites and FLO-WATCH zones. For more information, see “Viewing a Site’s Log Data,” on page 7.7.
- **Maxicom² Central** (accelerator = M)
Displays the Maxicom² Central window; allows you to select information about weather, sites, communications, reports, alarms and help. For more information, see “Maxicom² Central Window” on page 2.10.

-
- **Communication Status** (accelerator = S)
Allows you to view the status of communication on any port configured for Maxicom². For more information, see “Viewing Maxicom²’s Communication Status” on page 10.1.
 - **Event Log** (accelerator = E)
Allows you to view event log data that you can sort, filter and use to create a report. For more information, see “Viewing the Event Log and Generating Reports” on page 9.1.
 - **Print Setup** (accelerator = U)
Allows you to change printer parameters such as paper size, orientation, and properties for the selected printer. For more information about printing, see your Windows95/98 user manual.
 - **Print Preview** (accelerator = V)
Allows you to see what the currently selected document will look like when printed. For more information about printing, see your Windows95/98 user manual.
 - **Print** (accelerator = P)
Allows you to select the number of copies, the printer, and other printing options. For more information about printing, see your Windows95/98 user manual.
 - **Backup** (accelerator = B)
Allows you to backup the current data to the hard drive. For more information, see “Backing Up Data” on page 11.1.
 - **Recently opened sites, weather sources and reports**
Allows you to quickly open up to nine existing sites, weather sources or reports. When you initially open a site, weather source or report, it is automatically appended to the System menu and is automatically assigned an accelerator key (1, 2, 3, etc.). The most recently opened site, weather source or report is assigned the “1” accelerator key and the other recently opened items on the menu move down one position.
 - **Exit** (accelerator = X)
Exits the Maxicom² interface and terminates any manual connections. For more information, see “Exiting the Maxicom² Interface” on page 2.36.

Site Menu (accelerator = Alt-S)

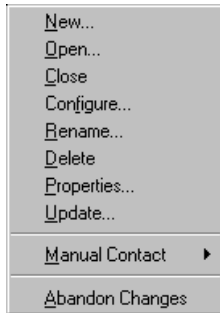


Site Menu

- **New** (accelerator = N)
Allows you to create a new site in Maxicom² using the Site wizard, which guides you through a series of steps necessary to set up the site. For more information, see “Setting Site Properties” on page 4.1.
- **Open** (accelerator = O)
Allows you to open an existing Maxicom² site.
- **Close** (accelerator = C)
Allows you to close the currently active Site window, saving any changes that have been made.
- **Configure** (accelerator = F)
Allows you to configure the active site by using the Site wizard, which automatically fills in any information that may already exist for the open site and guides you through a series of steps necessary to configure the site. For more information, see “Setting Site Properties” on page 4.1.
- **Save** (accelerator = S)
Allows you to save the changes you made to the active site.
- **Rename** (accelerator = R)
Allows you to rename the active site. For more information, see “Renaming a Site” on page 7.3.
- **Delete** (accelerator = D)
Allows you to delete the active site. For more information, see “Deleting a Site” on page 7.4.

-
- **Properties** (accelerator = P)
Allows you to set general, contact, irrigation, FLO-MANAGER, FLO WATCH and CCU properties. For more information, see “Setting Site Properties” on page 4.1.
 - **CCU Properties** (accelerator = U)
Allows you to set the site properties for the active site by attaching specific field devices to specific CCU channels. Once the field devices are attached to the channels, you are able to view various types of station data, such as landscape coefficients, cycle times, soak times, flow rates, and precipitation rates. For more information, see “Setting Site CCU Properties” on page 4.16.
 - **Manual Contact** (accelerator = M)
Allows you to contact a site manually. For more information, see “Manually Contacting a Site’s CCU” on page 7.18.
 - **Wireless Diagnostics** (accelerator = W)
Allows you to monitor the communication status of the CCU and field devices by displaying the results of the diagnostics messages sent by Maxicom to the devices via MaxiLINK. For more information, see “Viewing Wireless Diagnostics Data” on page. 7.21.
 - **Rain Shut Down** (accelerator = H)
Allows you to turn Rain Shut Down on or off for any site or sites. For more information, see “Setting Rain Shut Down for a Site” on page 7.22.
 - **Send Today’s Schedules to CCU** (accelerator = T)
Allows you to send schedules to a site’s CCU manually. For more information, see “Sending Schedules to the CCU” on page 7.25.
 - **Send Configuration Data to CCU** (accelerator = I)
Allows you send the configuration data that you have set up to the currently active site. For more information, see “Sending Configuration Data to the CCU” on page 7.25.
 - **Get Logs from CCU** (accelerator = G)
Allows you to collect logs from the CCU (site) that is active. For more information, see “Sending Schedules to the CCU” on page 7.25.
 - **Abandon Changes** (accelerator = A)
Allows you to close the active Site window without saving changes you have made.

Weather Menu (accelerator = Alt-W)



Weather Menu

- **New** (accelerator = N)
Allows you to set up a new weather source in Maxicom² using the Weather Source wizard, which guides you through a series of steps necessary to set up the weather source. For more information, see “Setting Weather Source Properties” on page 5.1.
- **Open** (accelerator = O)
Allows you to open an existing Maxicom² weather source. For more information, see “Using the Weather Source Window and Toolbar” on page 8.1.
- **Close** (accelerator = C)
Allows you to close the currently active Weather Source window, saving any changes that have been made.
- **Configure** (accelerator = F)
Allows you to configure the active weather source by using the Weather Source wizard, which automatically fills in any information that already exists for the open weather source and guides you through a series of steps to configure the weather source. For more information, see “Setting Weather Source Properties” on page 5.1.
- **Rename** (accelerator = R)
Allows you to rename the currently active weather source. For more information, see “Renaming a Weather Source” on page 8.3.
- **Delete** (accelerator = D)
Allows you to delete the currently active weather source. For more information, see “Deleting a Weather Source” on page 8.3.
- **Properties** (accelerator = P)
Allows you to set the type of weather source and such particulars as location, password and communications requirements. For more information, see “Setting Weather Source Properties” on page 5.1.

- **Update** (accelerator = U)
Allows you to enter weather data that changes daily. This option is available only for user-entered weather sources. For more information, see “Manually Updating Weather Data” on page 8.11.
- **Manual Contact** (accelerator = M)
Allows you to contact a weather source manually. For more information, see “Manually Contacting a Weather Source” on page 8.8.
- **Abandon Changes** (accelerator = A)
Allows you to close the currently active Weather Source window without saving changes you have made.

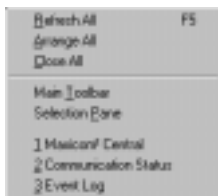
Report Menu (accelerator = Alt-R)



Report Menu

- **Field Device** (accelerator = D)
Allows you to create a report that tells how the CCU and its attached field devices are configured. For more information, see “Creating a Field Device Report” on page 9.7.
- **Flow/Time/Cost** (accelerator = F)
Allows you to create a report that displays flow, time, and cost data. For more information, see “Creating a Flow/Time/Cost Report” on page 9.8.
- **Schedule** (accelerator = S)
Allows you to create a report on the schedules you select. For more information, see “Creating a Schedule Report” on page 9.10.

Window Menu (accelerator = Alt-N)



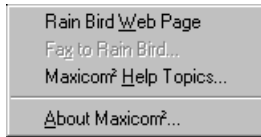
Window Menu

- **Refresh All** (accelerator = R or F5)
Allows you to refresh the data on the active screen or window. When you

select this option, Maxicom² accesses its databases and then displays the most current data.

- **Arrange All** (accelerator = A)
Allows you to tile the open windows. For more information, see “Arranging Open Windows” on page 2.11.
- **Close All** (accelerator = C)
Allows you to close all open windows except the System, Maxicom² Central, Communication Status and Event Log windows.
- **Main Toolbar** (accelerator = T)
Allows you to toggle between displaying and hiding the System window Main toolbar. A check in front of this option means that the toolbar is currently displayed; no check means the toolbar is hidden.
- **Selection Pane** (accelerator = P)
Allows you to toggle between displaying and hiding the selection pane of the System window. A check in front of this option means that the selection pane is currently displayed; no check means the selection pane is hidden.
- **Maxicom² Central** (accelerator = 1)
Allows you to bring the Maxicom² Central window to the front of your screen. The Central window is always listed on the Window menu and its accelerator is always 1. For more information, see “Maxicom² Central Window” on page 2.10.
- **Communication Status** (accelerator = 2)
Allows you to bring the Communication Status window to the front of your screen. The Communication Status window is always listed on the Window menu and its accelerator is always 2. For more information, see “Viewing Maxicom²’s Communication Status” on page 10.1.
- **Event Log** (accelerator = 3)
Allows you to bring the Event Log window to the front of your screen. The Event Log window is always listed on the Window menu and its accelerator key is always 3. For more information, see “Viewing the Event Log and Generating Reports” on page 9.1.
- **Open sites, weather sources and reports**
If sites, weather sources or reports are open, they will also appear on the Window menu and will automatically be assigned accelerator keys (4, 5, 6, etc.) in the order in which you opened them.

Help Menu (accelerator = Alt-H)



Help Menu

- **Rain Bird Web Page** (accelerator = W)
Allows you to connect directly to the Rain Bird World Wide Web page if you have a modem connected to your computer.
- **Fax to Rain Bird** (accelerator = X)
Allows you to quickly dial and fax directly to Rain Bird if you have a fax modem connected to your computer.
- **Maxicom² Help Topics** (accelerator = H)
Allows you to view the Help Topics window, which contains a Contents sheet, an Index sheet, and a Search sheet. For more information, see “Viewing the Help Contents” on page 2.25 or “Viewing the Help Index” on page 2.27.
- **About Maxicom²** (accelerator = A)
Allows you to view information about your version of Maxicom². For more information, see “Viewing Information about Your Version of Maxicom²” on page 2.35.

Entering and Editing Text

To set up and use the Maxicom² system, you will need to enter text in window text fields and dialog boxes. This section describes how to edit text fields in windows and dialog boxes.

Positioning Your Cursor in a Text Field

To position your cursor in a field:

Move the cursor to the desired position and click the left mouse button.

The cursor blinks at its position in the text field.

Adding Text

To add text:

- 1 Position your cursor at the point at which you want to add text.
- 2 Enter the text by typing.

Selecting Text

Once you have selected text, you can delete, replace, cut, or copy it.

To select a word:

- 1 Position the cursor anywhere in the word.
- 2 Double-click the left mouse button.

The word is highlighted.

To select any piece of text or all text in a field:

- 1 Position the cursor in front of the first character you want to select.
- 2 Press the left mouse button and hold it down.
- 3 While you continue to hold down the left mouse button, move the cursor to the last character that you want to select.

As you move the cursor, selected characters are highlighted.

- 4 When all the characters you want to select are highlighted, release the mouse button.

The characters remain highlighted.

Deleting Text

To delete text:

- 1 Select the text you want to delete.
The text is highlighted.
- 2 Press the Backspace key. Or, if you are working in a window, select the Clear option from the Edit menu; if you are working in a dialog box, press the right mouse button and select Delete from the pop-up menu.
The text is deleted.

Deleting All Text

To delete the text in all fields of a dialog box or window:

- 1 Click the window or dialog box to make it active.
The title bar changes color.
- 2 Press the right mouse button and select Select All from the pop-up menu, then bring up the pop-up menu again and select Delete.
All of the text fields are cleared and set to their default values.

Replacing Text

To delete text and replace it with new text:

- 1 Select the text you want to delete.
The text is highlighted.
- 2 Enter the new text.
The new text replaces the old text.

Cutting Text

Cutting text is different from deleting it because when you cut text, it is automatically copied to the system's clipboard so that you can paste it.

To cut text:

- 1 Select the text you want to cut.
The text is highlighted.
- 2 Press the right mouse button and select Cut from the pop-up menu.
The text is cut from the document and pasted to the system clipboard. The cut text stays on the clipboard until it is replaced by other text or you exit the application.

Copying Text

To copy text:

- 1 Select the text you want to copy.

The text is highlighted.

- 2 Press the right mouse button and select Copy from the pop-up menu.

A copy of the selected text is sent to the system clipboard. The copied text stays on the clipboard until it is replaced by other text or you exit the application.

Pasting Text

To paste text that you have cut or copied:

- 1 Position the cursor where you would like to paste the cut or copied text.

- 2 Press the right mouse button and select Paste from the pop-up menu.

The text is pasted into the document. A copy of the text remains on the clipboard so that you may paste it again.

Using Maxicom² On-line Help

Maxicom² on-line Help is available to you in three ways: from the Help menu on the Main menu bar, from Tooltips, and from Help buttons that are available on some dialog boxes. The Help menu is the most commonly used way to get help. This section describes how to use the Help menu. For information about using Tooltips, see page 7.1.



If, after checking Maxicom² on-line Help, you still need assistance, see “Service Information” on the inside back cover of this manual.

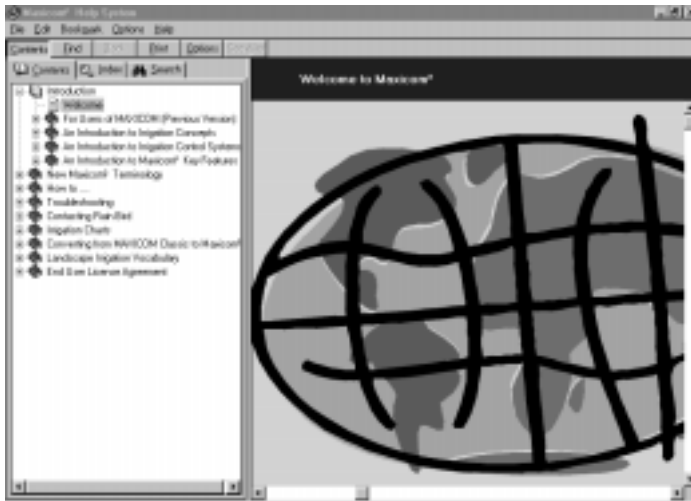
Viewing the Help Contents

The Help Contents is a listing of general topics and subtopics available from Maxicom² on-line Help. (The subtopics in the Table of Contents are the same as the topics on the Index list.)

To see the Help Contents and then read the associated Help files:

- 1 Select the Maxicom² Help Topics option from the Help menu or click the Help hot spot on the Maxicom² Central window or click on the question mark button on the Main toolbar.

The Help Topics window is displayed on the left and the Help Information window is displayed on the right. The Help Topics window includes a Contents, an Index and a Search tabbed sheet.



Help Topics Window and Help Information Window

- 2 If the Contents tab is not already selected, click on the Contents tab to bring the sheet to the front.

The Contents sheet is displayed.

- 3 Select the topic you want by clicking on it.

A list of subtopics is displayed.



Help Topics Contents Sheet with Subtopics Displayed

- 4 Select the subtopic you want by clicking on it. (Some topics have two levels of subtopics which you must open before you can read the associated Help file.)

The information you have selected is displayed in the Information window.



List of Subtopics



Help Information



The Information window sometimes contains highlighted words that are links to other topics. Click a highlighted word to find out more about it.

- 5 When you are finished reading the Help Information window, select a new Help topic to read or select Exit from the File menu to exit Help.

Viewing the Help Index

To see the an alphabetical listing of Help topics and then read the associated Help files:

- 1 Select the Maxicom² Help Topics option from the Help menu or click the Help hot spot on the Maxicom² Central window or click on the question mark button on the Main toolbar.

The Help Topics window is displayed on the left and the Help Information window is displayed on the right. The Help Topics window includes a Contents, an Index and a Search tabbed sheet.

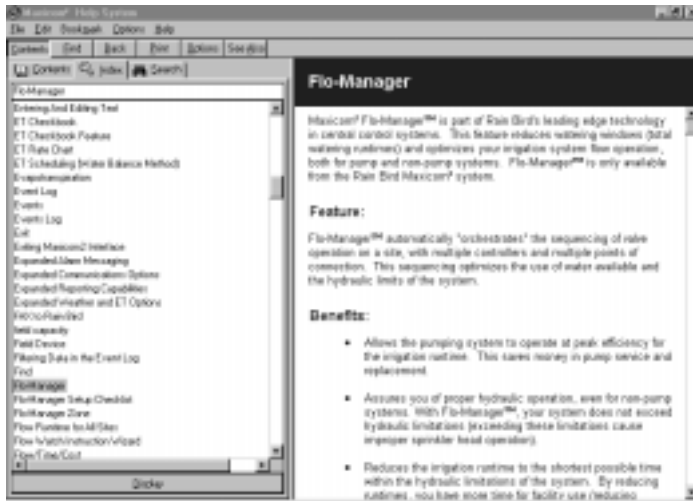
- 2 Select the Index tab.

The Index sheet is displayed.



Help Window with Index Sheet Displayed

- 3 Scroll through the alphabetical list and click on the topic you want.
The information you selected is displayed in the Help Information window.



Help Topics Index Sheet with Help Information Displayed

- 4 When you are finished reading the Information window, select a new Help Index entry or select Exit from the File window to exit Help.

Finding a Particular Word in Help

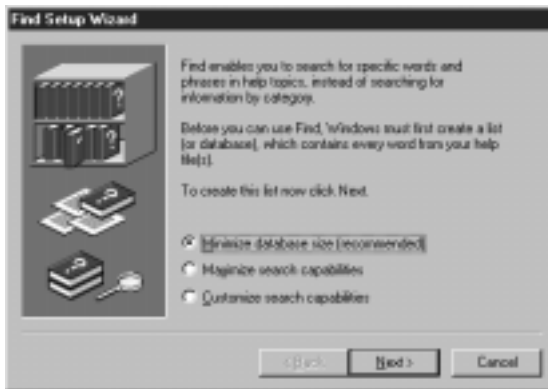
The Find feature in Maxicom² Help gets a list of every topic where the word you are searching for appears.

To search for a particular word in a Help file:

- 1 Select the Maxicom² Help Topics option from the Help menu or click the Help hot spot on the Maxicom² Central window or click on the question mark button on the Main toolbar.

The Help Topics window is displayed on the left and the Help Information window is displayed on the right. The Help Topics window includes a Contents, an Index and a Search tabbed sheet.

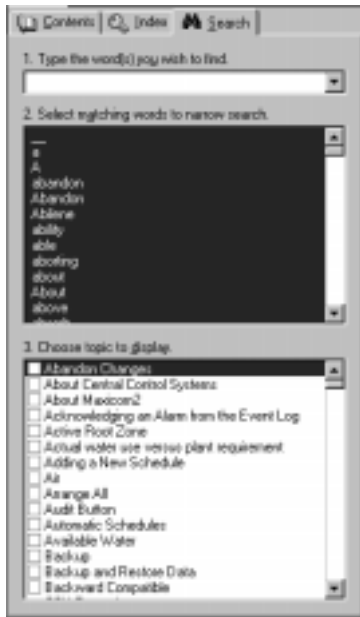
- 2 Select the Search tab.
 - If this is the first time you selected the Search tab, the Find Setup wizard appears.



Find Setup Wizard

Follow the instructions on the Find Setup wizard to configure the Search help. When the wizard has finished building the Find Word list, the Search sheet is displayed.

- If you have previously selected the Search tab and completed the Find Setup wizard, the Search sheet is displayed.



Help Window with Search Sheet Displayed



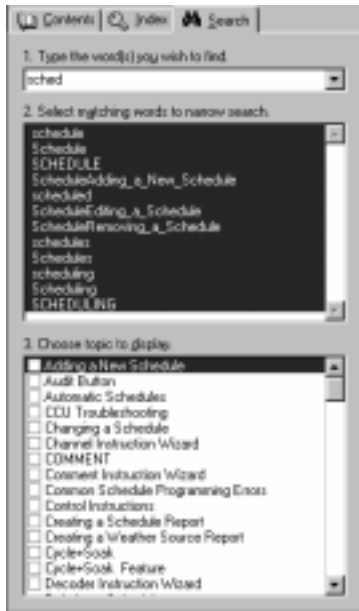
If the word string you enter is too specific, the list will appear blank.



If the word you enter does not appear anywhere in the Help files, the list will appear blank.

- 3 Enter the word you want in the text field or scroll the matching word list to narrow the search and highlight the word you want.

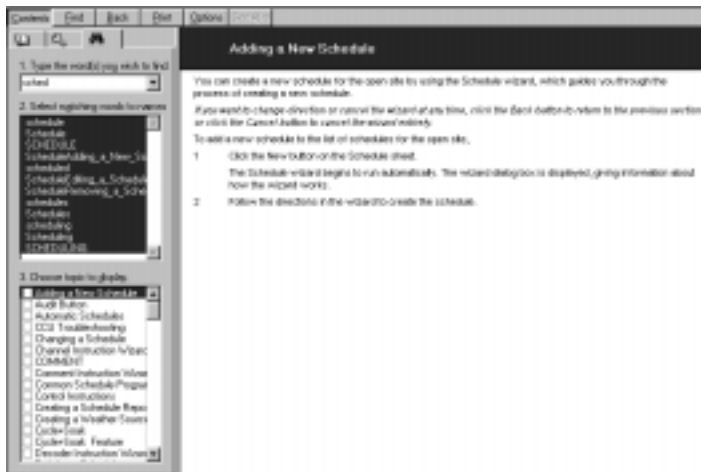
As you enter the word, the application searches for matching words in the word list and highlights the topic closest to the word you have typed or chosen.



Help Window with Search Sheet Text Matches

- 4 When the topic you want is displayed, double-click the topic.

The information you have selected is displayed in the Help Information window.



The Information window sometimes contains highlighted words that are links to other topics. Click a highlighted word to find out more about it.

Help Information Window

- 5 When you are finished reading the Help Information window, perform a new Search or select Exit from the File menu to exit Help.

Setting Find Options

You can set how the system will search for the word you want to find.

To set Find options:

- 1 With the Search sheet displayed, select Option from the Search menu.

The Find Options dialog box is displayed.



Find Options Dialog Box

- 2 Select one of the following radio buttons in the “Search for topics containing” area:

- **All the words you typed in any order** — specifies that you want to find all Help topics containing all of the words you typed.
- **At least one of the words you typed** — specifies that you want to find all Help topics containing at least one of the words you typed.
- **The words you typed in exact order** — specifies that you want to find all Help topics containing exactly the phrase you typed. If this option is not available, it means that your word list was not set up to support phrase searching. In this case, you can recreate the word list (using the Rebuild option) and specify that you want to include phrase searching. For more information, see “Rebuilding the Find Word List” on page 2.33.

- 3 Check the “Display matching phrases” checkbox to narrow the search by displaying the words that follow the words you entered; uncheck the “Display matching phrases” checkbox to not show the words that follow the words you entered. If your word list has not been set up to support phrase searching, this option is not available.



If you did not select the maximum database size for Maxicom² Help, all of the options may not be available. For more information, see “Rebuilding the Find Word List” on page 2.33.



Checking the “Display matching phrases” checkbox can slow down the search.

-
- 4 Select one of the following items from the “Show words that” drop-down list:
 - begin with the characters you type
 - contain the characters you type
 - end with the characters you type
 - match the characters you type
 - have the same root
 - 5 Check the “Wait for pause before searching” checkbox if you want to begin searching after a pause in your typing; uncheck the “Wait for a pause before searching” checkbox if you want to search as you type.
 - 6 When you are finished setting Find options, click OK to save your changes and close the Find Options dialog box or click Cancel to cancel your changes.

Rebuilding the Find Word List

You can minimize, maximize, or customize the Find word list. The default setting is minimum, which is also the recommended setting because maximizing or customizing the list can slow the search process. The rebuilding feature uses a wizard to guide you through the process of creating the Find word list. The wizard runs automatically the first time you select the Search tab.

To rebuild the Find word list:

- 1 With the Search sheet of the Help Topics window open, select Rebuild from the Search menu.

The Find Setup wizard is displayed giving information about how the wizard works.
- 2 Select one of the following radio buttons:
 - Minimize database size (recommended)
 - Maximize search capabilities
 - Customize search capabilities
- 3 Follow the instructions in the wizard. After finishing each section of the wizard, click the Next button to proceed to the next section of the wizard.
- 4 When you have finished the last section of the wizard, click the Finish button.

The rebuild is completed and your work is saved.

Using the Help Information Windows

The Help Information windows are windows in which the Help files appear.



The Help Information window sometimes contains highlighted words that are links to other topics. Click a highlighted word to find out more about it.

Help Information Window

The buttons available to you on a Help window depend upon what type of Help window is open. The following is a list of buttons that may be available:

- **Contents** — opens the Help Topics dialog box and displays the Contents, Index and Find tabbed sheets.
- **Find** — opens the Help Topics dialog box and displays the Contents, Index and Find tabbed sheets.
- **Back** — allows you to return to the Help Information window you were in previously.
- **Print Topic** — prints the entire topic.
- **Options**
 - Annotate** — allows you to type additional information you want associated with the active Help Information window. When a topic is annotated, a paper clip icon appears at the top of the topic. Click the paper clip icon to display your annotation.
 - Copy** — copies the entire topic to the system clipboard.
 - Print Topic** — prints the entire topic.
 - Font** — allows you to select small, normal, or large size font for the active Help Information window.
 - Keep Help on Top** — allows you to select Default, On Top, which keeps the Help Information window on top of other windows, or Not on Top, which allows the Help Information window to go to the background.
 - Use System Colors** — allows you to change the interface colors.
- **See Also** — displays a list of Help topics related to the content of the current Help Information window.

Viewing Information about Your Version of Maxicom²

You can quickly see the following information about your version of Maxicom²:

- **version number**
- **copyright notice**
- **registered user information**
This section will remain blank until you enter your registration information. See “Setting Registration Properties,” page 3.6.
- **system resource information**

To see this information:

- 1 Select the About Maxicom² option from the Help menu.

The About Maxicom² dialog box is displayed.



About Maxicom² Dialog Box

- 2 When you are finished reading the information, click the OK button.

The About Maxicom² dialog box closes.

Saving Your Work

In most Windows software programs, it is assumed that you do not want to save your work, so saving work is an extra step. Maxicom² is different. To ensure that your work is saved and to save you the extra step of saving your work, Maxicom² assumes that you want to save the work you have done, unless you select to cancel it.

To save the work you have done:

Click the OK button on the window or dialog box in which you are working to save your work and close the window or dialog box. Or, click the Apply button on the window or dialog box in which you are working to save your work without closing the window or dialog box.

Canceling Your Work

All of the dialog boxes and wizards in which you can enter text in Maxicom² have Cancel buttons that allow you to cancel the work you have done since you opened the dialog box or wizard. Site windows and Weather Source windows allow you to select the Abandon Changes option to cancel changes.

To cancel the work you have done in a dialog box or wizard:

Click the Cancel button or, if you are working in a Site or Weather Source window, select the Abandon Changes option from the Site menu or Weather menu.

The window or dialog box reverts to the state in which it was last saved.

Exiting the Maxicom² Interface

It is not necessary to run the Maxicom² interface for the Maxicom² controls to run; only the application needs to be active. This means that you do not have to dedicate a computer to Maxicom². You can do word processing or other tasks while Maxicom² runs in the background.

To exit the interface:

Select the Exit option from the System menu, double-click the Maxicom² icon on the application title bar, or click the Close button on the application title bar.

The interface closes and your work is saved.



If you close the entire interface, Maxicom² automatically saves your changes.



To back up Maxicom² data, see “Backing Up Data” on page 11.1.

Turning Maxicom² Control Off and On

To turn off Maxicom² control:

- 1 Right-click the Rain Bird icon in the tray at the right bottom corner of your screen.

The Rain Bird icon menu is displayed.

-
- 2 Select the Disable Auto Contacting option.

The Rain Bird icon turns blue on a red background, the interface closes and Maxicom² controls are turned off.



Maxicom² Control Off

To turn the controls back on again:

- 1 Right-click the Rain Bird icon in the tray at the right bottom corner of your screen.

The icon menu is displayed.

- 2 Select the Enable Communications option.

The Rain Bird icon turns green again and Maxicom² controls are turned back on.



Maxicom² Control On

Turning the Maxicom² Control Engine On and Off

To turn off the Maxicom² control engine:

- 1 Exit the Maxicom² interface. See “Exiting the Maxicom² Interface,” above.
- 2 Right click the Rain Bird icon in the tray at the lower right corner of the screen.
The Rain Bird icon menu is displayed.
- 3 Select the Exit Maxicom² Control Engine option.

The Rain Bird icon disappears from the tray and the Maxicom² Control Engine shuts down.

To turn on the Maxicom² control engine:

Select Maxicom² Control Engine from the Windows95/98 Start menu.

The Rain Bird icon menu reappears in the tray and the Maxicom² control engine starts.

To use your Maxicom² system, you must first describe to Maxicom² how you would like your system to work, or “set system properties.” This chapter describes how to set the system properties that are required to operate your system.

There are two ways to set system properties:

- You can set system properties by using the System Configuration wizard, which guides you through a series of steps in which required properties are set. The wizard presents each property to you, gives an explanation of the property, and a default value. You can move forward or backward within the wizard, or even cancel the wizard at any time. The System wizard runs automatically the first time you open Maxicom².
- Or, you can set system properties by using the System Properties Setup dialog box without the wizard. The System Property Setup dialog box contains more properties than the System wizard outlines for you.

Each way to set system properties is described in this chapter.

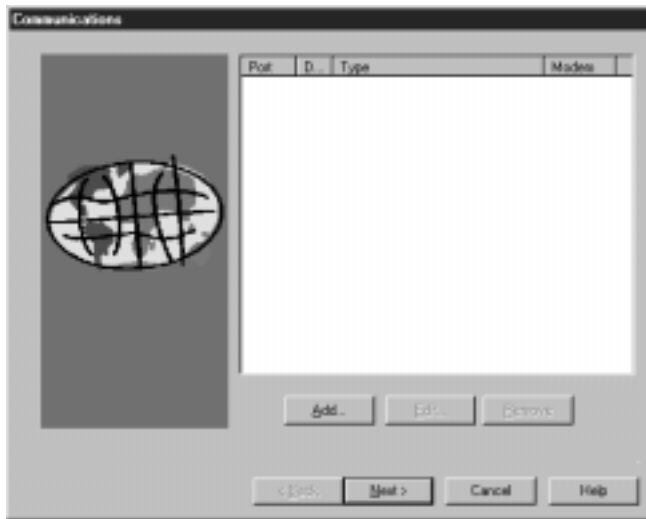
Using the System Wizard for Interactive Setup

The System wizard is an easy, interactive guide that helps you to set up your system properties. The System wizard runs automatically the first time you open Maxicom².

To use the System wizard at any other time:

- 1 Select the Configure option from the System menu.

The System wizard begins to run automatically. The Communication dialog box is displayed first, which allows you to setup Communication ports.



System Wizard

- 2 Follow the instructions in the wizard. If you need more help, read “Using the System Properties Setup Dialog Box for Setup” on the next page.
- 3 After finishing each section of the wizard, click the Next button.
The next section of the wizard will be displayed.
- 4 When you have finished the last section of the wizard, click the Finish button.
System setup is completed and your work is saved.



If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section, or click the Cancel button to cancel the wizard entirely.

Using the System Properties Setup Dialog Box for Setup

To use the System Properties Setup dialog box to set up your system:

- 1 Select the Properties option from the System menu.

The System Properties Setup dialog box is displayed.



System Properties Setup Dialog Box

- 2 Select any of the tabbed sheets to bring that sheet to the front of the stack. Available sheets are: Communications, Registration, Passwords, FREEDOM, Preferences, Station Property Macros and Database Service.
- 3 Follow the instructions in this chapter for the sheet you have selected.
- 4 When you are finished working with the System Property Setup dialog box, click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.



You must click OK or Cancel in the System Properties Setup dialog box before you will be able to work in another Maxicom² window or dialog box.

Setting Communications Properties

The Communications sheet lists all communications configured for use with Maxicom². Each has a Port Name assigned by the system. The Device Name is the name you give the port to make it easy for you to remember. The Type is the kind of port, for instance, direct hardwire or radio. If the port is a telephone port, it also has a Modem designation.

To set system communications properties:

- 1 With the System Properties Setup dialog box open, select the Communications tab.

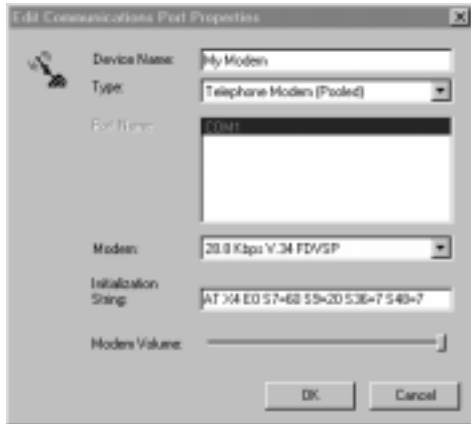
The Communications sheet comes to the front of the stack.



Communications Sheet

- 2 If the port you want to set properties for is already listed, double-click the port name. Or, if it is not listed, click the Add button.

The Edit Communications Port Properties dialog box is displayed.



Edit Communications Port Properties Dialog Box

- 3 Enter a device name you want to give the port in the Device Name field.
- 4 Click the drop-down list arrow on the Type field and select one of the following types:
 - Direct Cable Connection
 - FREEDOM — You may assign a maximum of one port as a FREEDOM Remote device type.
 - Spread Spectrum Radio
 - Point-to-Point Radio
 - Telephone Modem (Dedicated)
 - Telephone Modem (Pooled)
 - Trunk Radio
- 5 If necessary, enter the port name in the Port Name field.
- 6 If the Type is:
 - **Point-to-Point or Spread Spectrum Radios**, enter the radio delay (in milliseconds) in the Radio Delay field
 - **Telephone Modem** (Dedicated or Pooled)
 - click the arrow next to the Modem field to view and select the modem type from the drop-down list
 - enter the initialization string for your modem in the Initialization String field
 - adjust the modem volume with the Modem Volume grab bar



If the selected port is configured with a modem in the Windows95/98 operating system, you will be permitted to choose only Telephone Modem for the port's device type. Similarly, if the selected port is configured without a modem, you will not be permitted to select Telephone Modem as your device type.



Pooled modem is the best choice for most systems. It is recommended for single modem systems.

- **Trunk Radio**

- click the radio button to choose the signal selection manner DSR (Data Set Ready) or CTS (Clear to Send)
- enter the radio delay (in milliseconds, 500 is the default) in the Radio Delay field

- 7 Click the OK button.
- 8 Repeat steps 1 through 7 for each of the ports that you would like to define.
- 9 When you are finished setting communications properties, select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting Registration Properties

The data entered on the Registration sheet is used by the system to record your Maxicom² software ownership.

To set registration properties:

- 1 With the System Properties Setup dialog box open, select the Registration tab.

The Registration sheet comes to the front of the stack.



The screenshot shows a dialog box titled "System Properties Setup" with a tabbed interface. The "Registration" tab is selected. The form contains the following fields and values:

Field	Value
Name	Joe Green
Title	Principal Engineer
Company	South County Club
Address Line 1	Operations Department
Address Line 2	22 Fairway Drive
City	Mesa
State/Province	AZ
ZIP/Postal Code	85204
Country	USA
Telephone	602-955-2222
Fax	602-955-3333
E-mail Address	jgreen@sccc.com

At the bottom of the dialog box are three buttons: "OK", "Cancel", and "Apply".

Registration Sheet

- 2 Enter the name, company, title, address, telephone, fax, and address information.
- 3 When you are finished setting registration properties, select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting Passwords

Setting passwords and changing them periodically protects your system from unauthorized use.

To set passwords:

- 1 With the System Properties Setup dialog box open, select the Passwords tab.

Or

Select the Passwords option from the System menu.

The Passwords sheet comes to the front of the stack.



If you have already entered a master password in the system, the Password sheet is initially unavailable except for the field in which you must enter the master password.



Passwords Sheet

- 2 If necessary, enter the master password.
The Password sheet becomes accessible.
- 3 Set each of the passwords as described in this section.

- 4 When you are finished setting passwords, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Changing the Master Password

To change the master password:

- 1 Enter the old password in the Master Password field, then click the Change Master Password button.

For security purposes, the password characters appear on your screen as asterisks (*). The Change Password dialog box is displayed.



Change Password Dialog Box

- 2 Enter the old password in the Old Password field.
- 3 Enter the new password in the New Password field. The new password must be alphanumeric (composed of letters and/or numbers) and may be up to ten characters long.
- 4 Re-enter the new password in the Confirm New Password field.
- 5 Click the OK button.

Your new password is saved.

Changing Site Passwords

Each time you select a site to work with from the Site menu, if there is a site password you will be prompted for the password for the site. You can use the master password as the site password, or you can set different passwords for the sites. From the Passwords sheet, you can change all of the site passwords, but you must change them one at a time.



The master password is also a valid password for any Site or Weather Source window or for editing the password assigned to each site or weather source.



If you have not entered the passwords correctly, a message will be displayed asking you to repeat the process.



You can also set site passwords for each site from that site's Site Property Setup dialog box. For more information, see "Using the Site Properties Setup Dialog Box for Setup" on page 4.3.

To change the site password from the Password sheet:

- 1 On the Site Passwords list, select the name of the site you want to change and click the Change Password button, or double-click the name of the site.

The Password dialog box is displayed.

- 2 Enter the old password in the Old Password field.
- 3 Enter the new password in the New Password field.

The new password must be alphanumeric (composed of letters and/or numbers) and may be up to ten characters long.

For security purposes, the password characters appear on your screen as asterisks (*).

- 4 Click the OK button.

The new site password is saved.

Changing Weather Source Passwords

Each time you select a weather source to work with from the Weather menu, if there is a weather source password you will be prompted for the password for the weather source. You can use the master password as the weather source password, or you can set different passwords for the weather sources. From the Passwords sheet, you can change all of the weather source passwords, but you must change them one at a time.

To change the weather source password from the Password sheet:

- 1 On the Weather Source Passwords list, select the name of the weather source you want to change and click the Change Password button, or double-click the name of the weather source.

The Password dialog box is displayed.

- 2 Enter the old password in the Old Password field.
- 3 Enter the new password in the New Password field.

The new password must be alphanumeric (composed of letters and/or numbers) and may be up to ten characters long.

For security purposes, the password characters appear on your screen as asterisks (*).

- 4 Click the OK button.

The new weather source password is saved.

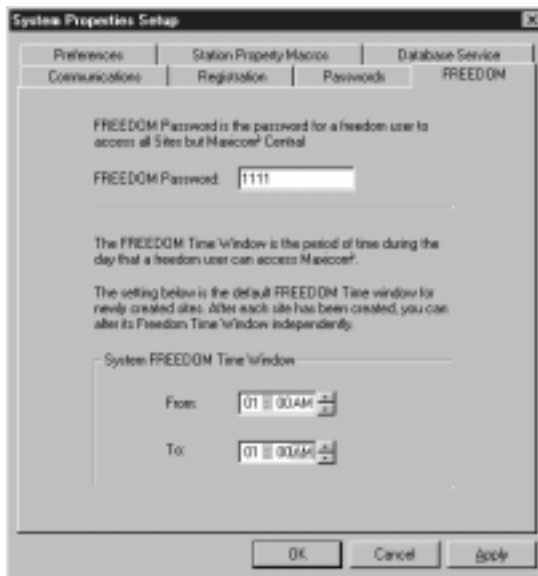
Setting a FREEDOM Time Window

The FREEDOM Remote System allows you to send commands to Maxicom² via a touch-tone telephone or radio and a special modem assigned to a specific serial port on your computer. To avoid the possibility of the FREEDOM Remote System inadvertently interfering with the schedules you set up in Maxicom², you will probably want to limit the time frame (window) during which the FREEDOM System can send commands to Maxicom².

To set a FREEDOM Time Window,

- 1 With the System Properties Setup dialog box open, select the FREEDOM tab.

The FREEDOM sheet comes to the front of the stack.



FREEDOM Sheet

- 2 To change the FREEDOM password, enter the password in the Password field. If there is already a password in the field, replace it by typing over it. The password must be alphanumeric (composed of letters and/or numbers) and may be up to ten characters long.

3 Set the FREEDOM Time Window:

- Enter the start time in the From field or use the scroll buttons on the right side of the field to enter the time without typing.
- Enter the end time in the To field or use the scroll buttons on the right side of the field to enter the time without typing.

4 When you are finished setting FREEDOM properties, select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

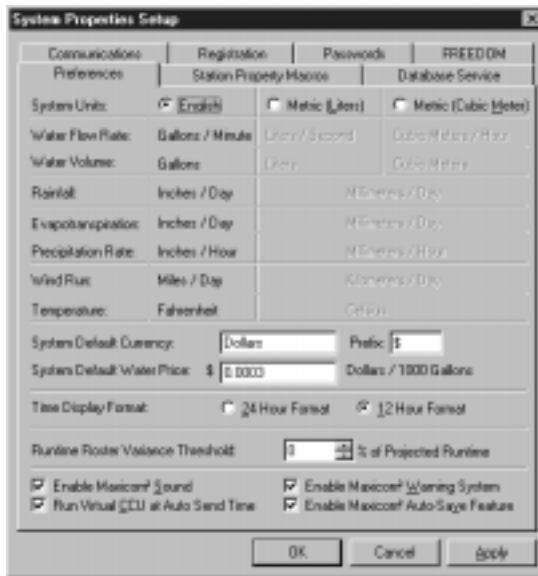
Setting Preferences

The Preferences sheet allows you to select a variety of preferences, including units of measure, currency types, default water price and time display format.

To set preference properties:

1 With the System Properties Setup dialog box open, select the Preference tab.

The Preferences sheet comes to the front of the stack.



Preferences Sheet

2 For the items listed (water flow rate, water volume, rainfall, evapotranspiration, precipitation rate, wind run, and temperature), select the radio button for the type of units you want to display: English, Metric Liters, or Metric Cubic Meters.

-
- 3 Enter the type of currency in the System Default Currency field.
 - 4 Enter the prefix for the currency (e.g., \$) in the Prefix field.
 - 5 Enter the water price (between 0.00 and 9999.99) in the System Default Water Price field.
 - 6 Click on the preferred time format: 24 or 12 hours.
 - 7 Select any other preferences you would like to choose: Enable Maxicom² Sound, Run Virtual CCU at Auto Send Time and Enable Maxicom² Warning System.
 - 8 When you are finished making your Preference selections, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.



Setting the estimated cost per unit of water allows Maxicom² to calculate water costs for you.

Setting Station Property Macros

Macros allow you to create shortcuts for certain items and their values that you use often in Maxicom². Once you enter a macro, Maxicom² will automatically remember it the next time you need to enter it.

To set a station macro:

- 1 With the System Properties Setup dialog box open, select the Station Property Macros tab.

The Station Property Macros sheet comes to the front of the stack.



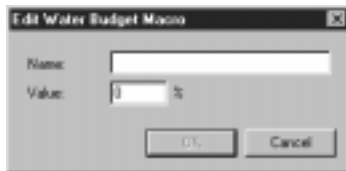
Station Property Macros Sheet

- 2 Select the macro you want by clicking the radio button associated with it. (You can choose from Water Budget, Precipitation Rate, Flow Rate, Cycle, Soak or Landscape Coefficient.)

The list displays all existing macros for the selection you have made.

- 3 If you want to edit an existing macro, select the macro on the list and click the Edit button. Or, if you want to add a new macro, click the Add button.

The Edit Water Budget Macro dialog box is displayed.



Edit Water Budget Macro Dialog Box

- 4 Enter the name and value you want to give the macro in the Name and Value fields.
- 5 Click the OK button.

The new macro is edited or added to the list.

- 6 When you are finished setting station property macros, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply



If you want to remove a macro from the list, select the macro from the list and click the Remove button.

to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting the Database Service

The system database retains the historical data until it is purged. You can set the Database Service to purge and back up data automatically or manually. You can also choose to back up the purged data into a historical database.

To open the Database Service sheet:

With the System Properties Setup dialog box open, select the Database Service tab.

The Database Service sheet comes to the front of the stack.



Database Service Sheet

To purge and back up data automatically:

- 1 Select the database purge time length by either entering the number of months (1-24) or use the scroll buttons on the right side of the field to enter a number without typing.

The purge date automatically changes below.

- 2 Click the checkbox next to the “Automatically purge the data...” if you want the system to automatically purge data.

-
- 3 Click on the checkbox next to “Backup purged data into historical database” if you want the system to automatically back up the purged data into an historical database.

To purge and back up data manually:

- 1 Select the database purge time length by either entering the number of months (1-24) or use the scroll buttons on the right side of the field to enter a number without typing.

The purge date automatically changes below.

- 2 Press the “Manually purge the data...” button.

The system purges the data older than the date you selected in step 1.

- 3 Press the “Back up current database to historical database now” button.

The system backs up the current database to a historical database.

To set up a site in your Maxicom² system, you must describe the site to Maxicom², or “set the site’s properties.” This chapter describes how to set the properties that are required to operate the site.

Many of Maxicom²’s features and benefits are dependent upon the detail and accuracy of the site information you enter. Therefore, it is important that you enter accurate information about site characteristics.

There are two ways to set site properties:

- You can set site properties by using the Site wizard, which guides you through a series of steps in which all required properties are set. The wizard presents each property to you, gives an explanation of the property, and a default value. You can move forward or backward within the wizard, or even cancel the wizard at any time. The Site wizard runs automatically when you select the New option from the Site menu. If you already have a site open, you can run the wizard for the currently active Site window by selecting the Configure option from the Site menu.
- You can set site properties by using the Site Properties Setup dialog box. The Site Properties Setup dialog box contains more properties than the Site wizard outlines for you. Even if you use the Site wizard to set site properties, you will need to set some properties from the Site Properties Setup dialog box.

Each way to set site properties is described in this chapter.

Using the Site Wizard for Interactive Setup

The Site wizard is an easy, interactive guide that helps you to set up your site properties.

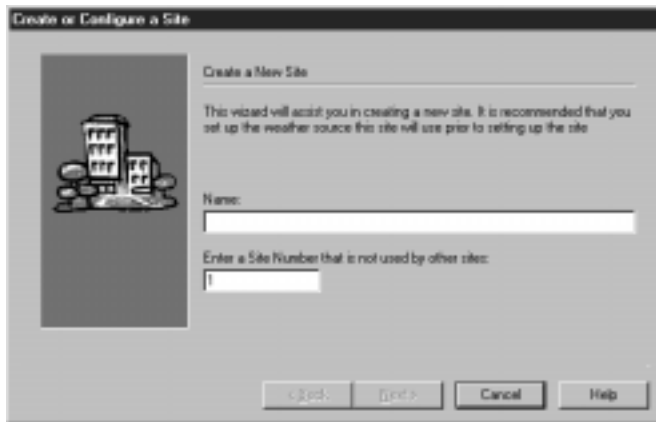
To use the site wizard:

- 1 Select the New option from the Site menu.

Or

If you have a site already open, select the Configure option from the Site menu.

The Site wizard begins to run automatically. The Wizard dialog box is displayed, giving information about how the wizard works.



Site Wizard

- 2 Follow the instructions in the wizard. If you need more help, read “Using the Site Properties Setup Dialog Box for Setup” on page 4.3.
- 3 After finishing each section of the wizard, click the Next button.
The next section of the wizard will be displayed.
- 4 When you have finished the last section of the wizard, click the Finish button.
Site setup is completed and your work is saved.



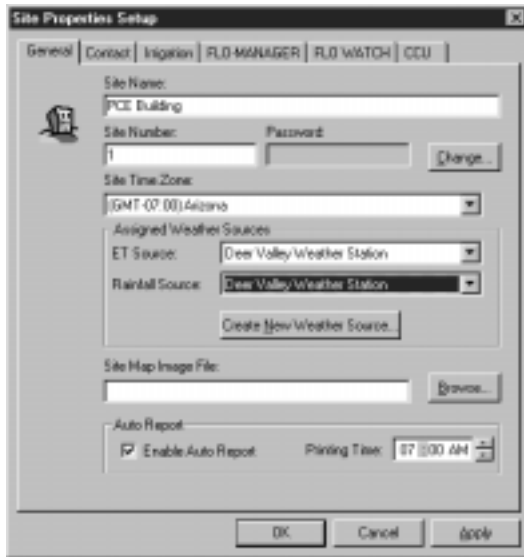
If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section, or click the Cancel button to cancel the wizard entirely.

Using the Site Properties Setup Dialog Box for Setup

To use the Site Properties Setup dialog box to set up your site:

- 1 Select the Properties option from the Site menu. (If the active window is not a Site window, the Properties option is not available.)

The Site Properties Setup dialog box is displayed.



Site Properties Setup Dialog Box

- 2 Select any of the tabbed sheets to bring that sheet to the front of the stack. Available sheets are: General, Contact, Irrigation, FLO-MANAGER, FLO WATCH and CCU.
- 3 Follow the instructions in this chapter for the sheet you have selected.
- 4 When you are finished working with the Site Properties Setup dialog box, click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.



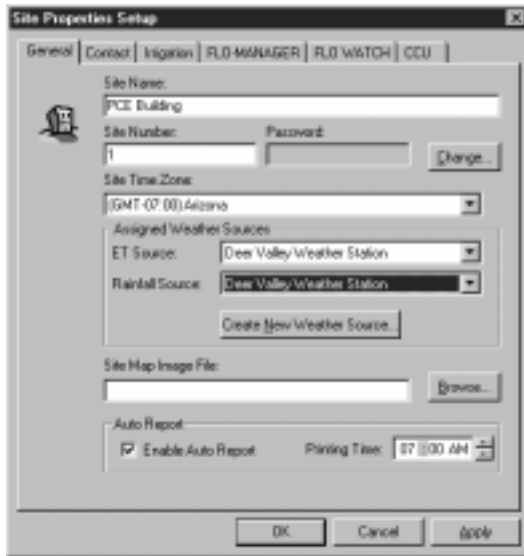
You must click OK or Cancel in the Site Properties Setup dialog box before you will be able to work in another Maxicom² window or dialog box.

Setting General Site Properties

To set general site properties:

- 1 With the Site Properties Setup dialog box open, select the General tab.

The General sheet comes to the front of the stack with the site name already displayed in the Site Name field.



General Sheet

- 2 Set the general site properties as described in this section.
- 3 When you are finished setting general site properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting the Site Password

Setting site passwords and changing them periodically protects your system from unauthorized use. Each time you select a site to work with from the Site menu, you will be prompted for a password for the site. You can use the master password as the site password, or you can set different passwords for the sites.

To change the site password:

- 1 Click the Change button next to the Password field.

The Change Password dialog box is displayed.

- 2 Enter the old password in the Old Password field. If you have not yet set a password for that site, leave the field blank.

For security purposes, the password characters appear on your screen as asterisks (*).

- 3 Enter the new password in the New Password field. The new password must be alphanumeric (composed of letters and/or numbers) and may be up to ten characters long.

- 4 Re-enter the new password in the Confirm New Password field.

- 5 Click the OK button.

The new site password is saved.



You can also change site passwords from the Passwords sheet of the System Properties Setup dialog box. For more information, see “Setting Passwords” on page 3.7.



If you have not entered the passwords correctly, a message will be displayed asking you to repeat the process.

Setting the Site’s Time Zone

The time zone is used to calculate evapotranspiration (ET) and rainfall data regardless of the relative location of the central computer to the site’s CCU.

To set the site’s time zone:

Select the time zone name from the drop-down list provided.

Setting Weather Sources for the Site

You must select the site’s evapotranspiration (ET) and rainfall sources from a list of weather sources configured for Maxicom².

If you have not set up weather sources yet, you can still continue to set site properties. Simply use the default historical weather source until you set up the real weather source for the site. After you have set up the real weather source, return to the Site Properties Setup dialog box and enter the real weather source for the site.

To select the site's ET (evapotranspiration) and rainfall sources:

- 1 Select the ET source from the drop-down list of sources configured in Maxicom² as ET sources.
- 2 Select the rainfall source from the drop-down list of sources configured in Maxicom² as rainfall sources.

Setting the Site Map File Location

If you have site map image files, you can link the image files to Maxicom² and view the site maps with the other site data. The image files must be in .bmp format for Maxicom² to recognize them and display them.

To locate the site's default map image file for Maxicom²:

Enter the name of the file in the Site Map Image File field.

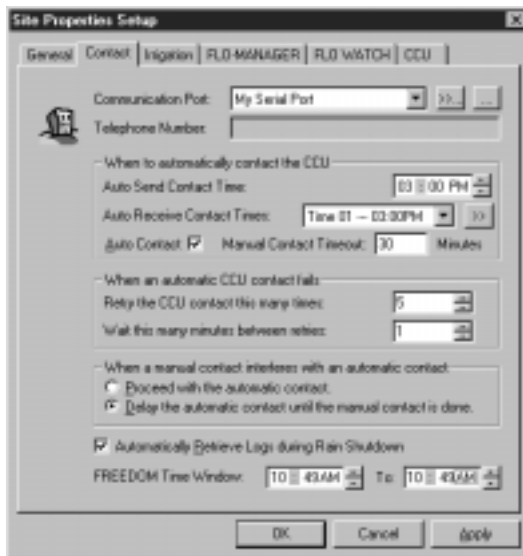
Setting Site Contact Properties

Contact properties dictate how the central computer will contact the site's CCU.

To set contact properties for the site:

- 1 With the Site Properties Setup dialog box open, select the Contact tab.

The Contact sheet comes to the front of the stack.



Contact Sheet



You can select the same source for rainfall that you selected for ET, provided that the source has been properly configured. For more information about configuring weather sources, see “Setting Weather Source Properties” on page 5.1.



If you do not know the location of the map image file, click the Select button to display a listing of image files in your system. Then either double-click the file name or select the file name and click the Open button. The file name will be automatically entered in the field.



You can also set the map file location from the Site window. For more information, see “Joining the Site’s Map File with Other Site Data” on page 7.17.

- 2 Set the site contact properties as described in this section.
- 3 When you are finished setting site contact properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Selecting the Communication Port and Telephone Number

To select the communication port you will use for communication with the site:

- 1 Select a port name from the drop-down list of communication ports that have been configured for use with Maxicom². Choose First Available Modem if you want to use the first modem that becomes available when contact takes place.
- 2 If you have selected a communications port that is a telephone modem, enter the area code and telephone number in the Telephone Number field.

Setting Times to Contact the Site's CCU

You set the time of day when you want to send schedules to the site's CCU automatically and when you want to receive logs of activity at the CCU automatically. You can also set the maximum amount of time for these contacts.


To set automatic send and receive times:

- 1 Enter the time to send schedules in the Auto Send Contact Time field. Or, use the scroll buttons on the right side of the field to enter the time without typing. You can enter only one send time.
- 2 Enter the time to receive logs in the Auto Receive Contact Times field. Or, use the scroll buttons on the right side of the field to enter the time without typing. You can enter up to 24 times to receive logs.
- 3 Check the Auto Contact checkbox to enable automatic contact with the CCU or uncheck the checkbox to disable automatic contact.
- 4 Enter the maximum number of minutes for these contacts in the Manual Contact Timeout field.



For more information about configuring ports, see "Setting Communications Properties" on page 3.4.



If communications on this port fail consistently, click the  button to check the settings for the port. You should not normally need to change these settings.




For recommended times to contact the CCU, see Maxicom² on-line Help.



When setting automatic send and receive times, be sure to select the times based on the site's time zone, not the computer's time zone.



Click on the fields to display the times available from the drop-down menu. to add additional times to the drop-down menus, click the  button and enter additional times.

Setting the Number of Failed Contacts and the Time Between Retries

You can set the maximum number of contact attempts the system will allow before it gives up and issues an alarm. You can also set the amount of time between failed contact attempts.

To set the maximum number of attempts and minutes between:

- 1 Enter the maximum number of failed attempts (from 0 to 100) in the Retry the CCU Contact field or use the scroll button on the right side of the field to select a number without typing.
- 2 Enter the number of minutes between failed attempts (from 0 to 1000) in the Wait This Many Minutes field or use the scroll button on the right side of the field to select a number without typing.

Setting Automatic or Manual Contact Priorities

You can choose whether automatic or manual contact will take priority on your system.

To set the contact priority:

If you want automatic contact to take priority, select the Proceed with the Automatic Contact radio button; if you want manual contact to take priority, select the Delay Automatic Contact radio button.

Setting Retrieval of Logs During Rain Shut Down

You can set your system to retrieve logs as scheduled during a Rain Shut Down, or to suspend retrieval of logs until the Rain Shut Down is over.

To set retrieval of logs in the event of Rain Shut Down:

Check the Automatically Retrieve Logs During Rain Shut Down checkbox to continue to retrieve logs during Rain Shut Down; uncheck the checkbox to suspend retrieval during Rain Shut Down.



For more information about Rain Shut Down, see “Setting Rain Shut Down for a Site” on page 7.22.

Setting the FREEDOM Time Window

You can set your system to allow contact from a FREEDOM System during a specific time frame (window).

To set the FREEDOM time window:

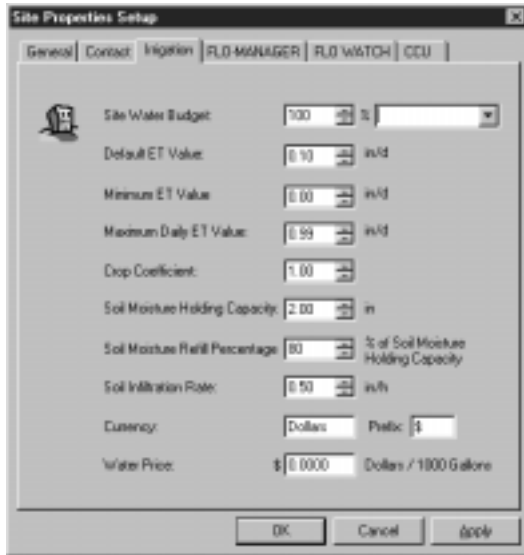
- 1 Enter the time to start the time window in the FREEDOM Time Window field. Or, use the scroll buttons on the right side of the field to enter the time without typing.
- 2 Enter the time to end the time window in the To field. Or, use the scroll buttons on the right side of the field to enter the time without typing.

Setting Site Irrigation Properties

To set site irrigation properties:

- 1 With the Site Properties Setup dialog box open, select the Irrigation tab.

The Irrigation sheet comes to the front of the stack.



The screenshot shows the 'Site Properties Setup' dialog box with the 'Irrigation' tab selected. The dialog box has a title bar with a close button and a tabbed interface with 'General', 'Contact', 'Irrigation', 'FLD-MANAGER', 'FLD-WATCH', and 'CCU'. The 'Irrigation' tab is active. The fields are as follows:

Field	Value	Unit
Site Water Budget	100	%
Default ET Value	0.10	in/d
Minimum ET Value	0.00	in/d
Maximum Daily ET Value	0.99	in/d
Drop Coefficient	1.00	
Soil Moisture Holding Capacity	2.00	in
Soil Moisture Refill Percentage	00	% of Soil Moisture Holding Capacity
Soil Infiltration Rate	0.50	in/h
Currency	Dollars	Prefix: \$
Water Price	\$ 0.0000	Dollars / 1000 Gallons

Buttons at the bottom: OK, Cancel, Apply.

Irrigation Sheet

- 2 Set the irrigation properties as described in this section.
- 3 When you are finished setting irrigation properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting the Site's Water Budget

Adjusting the water budget allows you to increase or decrease watering time in increments of 1% without having to reset schedules. The default percentage is 100%.

To set the water budget percentage:

Enter the percentage (from 0 to 999) in the Site Water Budget field or use the scroll buttons on the right side of the field to select a percentage without typing.

Setting the Default Daily ET Value

The daily evapotranspiration (ET) value can be calculated by the computer with information from a weather source or entered in the system manually. In the event that no other ET value is given for the site, the default value is used. The default ET value is 0.10 inches per day.

To set the default ET value:

Enter the value (from 0 to 5.00) in the Default ET Value field or use the scroll buttons on the right of the field to select a value without typing.

Setting the Minimum Daily ET Value

The evapotranspiration (ET) value can be calculated by the computer with information from a weather source or entered in the system manually. If the ET for a given day is below the Minimum Daily ET Value, then Irrigation ET will be set to 0 and the ET value will be postponed until the next day.

To set the minimum ET value:

Enter the value (from 0 to 5.00) in the Minimum ET Value field or use the scroll buttons on the right of the field to select a value without typing.

Setting the Maximum Daily ET Value

The evapotranspiration (ET) value can be calculated by the computer with information from a weather source or entered in the system manually. The Maximum Daily ET Value is the maximum ET that can be applied in one day.

To set the maximum daily ET value:

Enter the value (from 0 to 5.00) in the Maximum ET Value field or use the scroll buttons to the right of the field to select a value without typing.

Setting the Crop Coefficient

The crop coefficient is the evapotranspiration (ET) adjustment factor for the type of plant at the site. This adjustment factor is necessary because certain types of plants require more water than others. The default crop coefficient is 1.0.

To set the crop coefficient:

Enter the value (from 0.00 to 9.99) in the Crop Coefficient field or use the scroll buttons on the right side of the field to select a value without typing.

Setting the Soil Moisture Holding Capacity

The moisture holding capacity is the total amount of water the soil can hold. This value can be calculated by the computer with information from a weather source or entered in the system manually. The default value is 2.0 inches.

To set the soil moisture holding capacity:

Enter the value (from 0 to 9.98) in the Soil Moisture Holding Capacity field or use the scroll buttons on the right side of the field to select a value without typing.

Setting the Soil Moisture Refill Percentage

The moisture refill percentage is a percentage of the soil moisture holding capacity. The default value is 80%, allowing an additional 20% available for excessive rainfall. If you typically experience large amounts of rainfall, you can either lower this percentage or raise the soil moisture capacity setting. The ET Checkbook will always set the Irrigation ET to refill the soil to the percentage you select.

To set the soil moisture refill percentage:

Enter the value (from 0 to 100) in the Soil Moisture Refill Percentage field or use the scroll buttons on the right side of the field to select a value without typing.

Setting the Soil Infiltration Rate

The soil infiltration rate is how fast the soil can absorb water. This value can be calculated by the computer with information from a weather source or entered in the system manually. The default value is .50 inches per hour.

To set the soil infiltration rate:

Enter the value (from 0 to 9.98) in the Soil Infiltration Rate field or use the scroll buttons on the right side of the field to select a value without typing.

Setting the Currency

The currency is the monetary value you want to assign to this site. The computer will use this information to evaluate costs and generate reports. The system default value is dollars, but you must specify the currency for individual sites.

To set the currency:

Enter the value (e.g., dollars) in the Currency field.

Setting the Prefix

The prefix is the symbol for the currency you assigned to a particular site. This value must be entered into the system manually. The system default prefix is \$, but you must specify the prefix for individual sites.

To set the prefix:

Depending on the selection you made in the currency field, enter a corresponding symbol (e.g., \$) in the Prefix field.

Setting the Water Price

The water price is the cost per unit of water. Setting the estimated cost per unit allows Maxicom² to calculate your water costs. The default price is 0.00. You must specify the price for individual sites.

To set the water price:

Enter the value (0.00 to 9999999.99) in the Water Price field.

Setting Site FLO-MANAGER Properties

Maxicom²'s FLO-MANAGER allows your system to run at peak efficiency by determining the best sequence for operation, based upon the hydraulic capacity of the system. You set up the FLO-MANAGER by specifying a point of connection capacity then creating one or more flow zones that use the point of connection(s). Maxicom² then calculates the best sequence for the schedule operations you program. You can create up to 20 FLO-MANAGER flow zones.

To set FLO-MANAGER properties for the site:

- 1 With the Site Properties Setup dialog box open, select the FLO-MANAGER tab.

The FLO-MANAGER sheet comes to the front of the stack.

Points of Connection (POC)		Unit: gallons per minute (gpm)	
Name	Capacity		
Meter	750		

Zone	Name	Capacity	POC
01	North Side	200	Meter
02	South Side	250	Meter
03			
04			
05			
06			
07			
08			
09			
10			



To delete a flow zone, click on the zone to select it and then click on the Delete button.

FLO-MANAGER Sheet

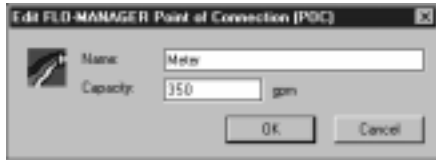
- 2 Set the FLO-MANAGER properties as described in this section.
- 3 When you are finished setting FLO-MANAGER properties, you can select another tabbed sheet or click OK to save changes and close the dialog box, Apply to save changes without closing the dialog box, or Cancel to cancel changes and close the dialog box.

Setting the Point of Connection Name and Capacity

To set the point of connection name and capacity:

- 1 Double-click a column of cells in the Point of Connection table.

The Edit FLO-MANAGER Point of Connection (POC) dialog box is displayed.



Edit FLO-MANAGER POC Dialog Box

- 2 Enter the name of the point of connection in the Name field.
- 3 Enter the capacity, expressed in water units, in the Capacity field.
- 4 Click the OK button.

The information you entered is displayed in the FLO-MANAGER sheet.

Setting FLO-MANAGER Flow Zones

You can enter the flow zone name, capacity and point of connection for each zone.

To set up the flow zones associated with the FLO-MANAGER point of connection:

- 1 Double-click the row of cells that corresponds to the zone number you want to set.

The Edit FLO-MANAGER Flow Zone dialog box is displayed.



Edit FLO-MANAGER Flow Zone Dialog Box

- 2 Enter the name of the zone in the Name field.
- 3 Enter the zone's capacity, expressed in water units, in the Capacity field.
- 4 Use the drop-down list in the Point of Connection field to select one of the POCs that you already defined.
- 5 Click the OK button.

The information you entered is displayed in the FLO-MANAGER sheet.

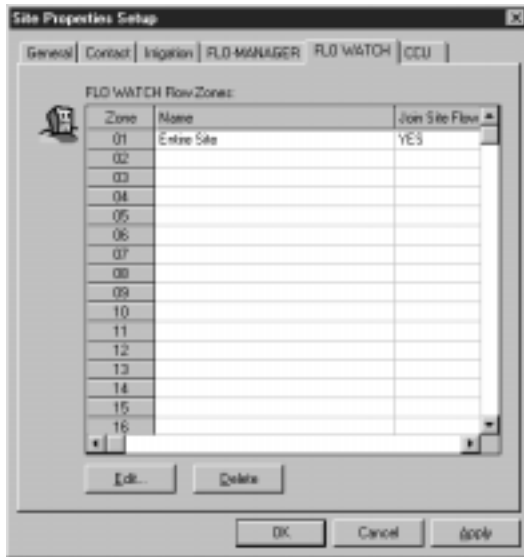
Setting Site FLO WATCH Properties

Maxicom's FLO WATCH watches your system for signs of leaks or other hydraulic problems. To do so, FLO WATCH uses flow zones you define. (These flow zones do not have to be the same as those defined in the FLO-MANAGER sheet.) FLO WATCH uses these flow zones to measure flow by arriving at an average for the stations in the flow zone. You can create up to 20 FLO WATCH zones.

To set up FLO WATCH zones:

- 1 With the Site Properties Setup dialog box open, select the FLO WATCH sheet.

The FLO WATCH sheet comes to the front of the stack.

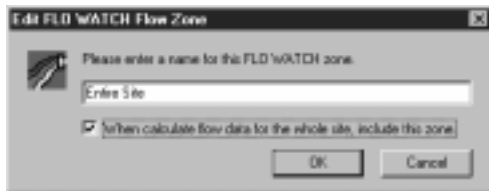


Each flow meter for a site must have a FLO WATCH name.

FLO WATCH Sheet

- 2 Double-click the rows of cells that correspond with the zone number you want to set.

The Edit FLO WATCH Flow Zone dialog box is displayed.



Edit FLO WATCH Flow Zone Dialog Box

- 3 Enter the name of the FLO WATCH flow zone.
- 4 Check the When Calculating Flow Data box if you would like this zone to be included when calculating the flow data for the whole site.
- 5 Click the OK button.

The FLO WATCH flow zone name is displayed on the FLO WATCH sheet.

- 6 When you are finished setting FLO WATCH properties, you can select another tabbed sheet or click OK to save changes and close the dialog box, Apply to save changes without closing the dialog box, or Cancel to cancel changes and close the dialog box.

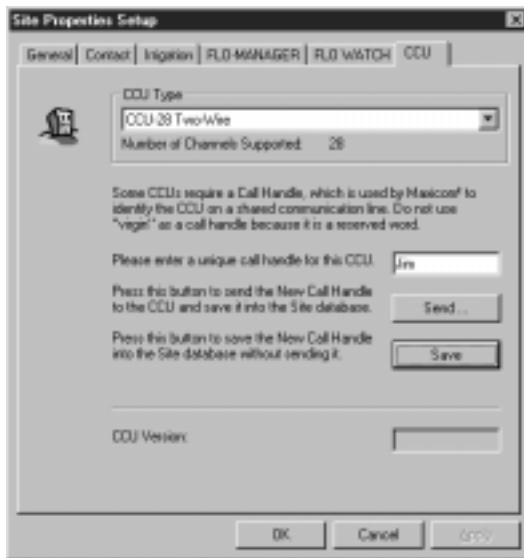
Setting Site CCU Properties

The CCU sheet allows you to select and set up the CCU for the site.

To set site CCU properties:

- 1 With the Site Properties Setup dialog box open, select the CCU tab.

The CCU sheet comes to the front of the stack.



CCU Sheet

- 2 Set the CCU properties as described in this section.
- 3 When you are finished setting CCU properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting the CCU Type

For the site, you can select from a list of CCU types configured in your system.

To set the CCU type:

Use the drop-down list on the CCU Type field to select a type of CCU for the site.

The text line beneath the field shows the number of channels supported by the CCU you have selected.

Setting the CCU Call Handle

Non-telephone CCUs require a call handle, which is used by Maxicom² to identify the CCU on a shared communication line.

To set the CCU's call handle:

- 1 Enter the call handle in the CCU Call Handle field.
- 2 Click the:
 - **Send** button to send the new call handle to the CCU and save it into the site database.

OR

- **Save** button to save the new call handle into the site database without sending it.



If you have a ESP-Site Satellite CCU, you must reinitialize the CCU before sending a new call handle by pressing the RESET button on the Site-SAT Interface board set.



If you update a call handle and do not save it before exiting the Site Properties Setup dialog box, Maxicom² will not update the site database and you will lose the new call handle.

Editing CCU Properties

Setting CCU properties is accomplished in the CCU setup spreadsheet, which lists the devices controlled by the CCU and the stations for each of those devices. Before you begin to fill in the CCU setup spreadsheet, it is helpful to obtain the following information:

- types of controllers used with the CCU and the channel number for each
- types of decoders used with the CCU and the channel numbers for each
- landscape coefficient for each station on each satellite
- maximum cycle and minimum soak time for each station on each satellite
- precipitation rate for each station on each satellite
- flow rate for each station on each satellite
- which stations are in each FLOW WATCH zone
- which stations are in which FLO-MANAGER zone

When setting up a site's CCU, it is also helpful to number channels in a systematic way. Some examples of systematic organization for channel numbers are:

- by flow zone
- by controller identification numbers on irrigation drawings
- by device type

To display the CCU Setup spreadsheet:

- 1 Select CCU Properties from the Site menu.

The CCU Setup spreadsheet is displayed.



Device columns contain the number of editable cells corresponding to the number of stations available on that type of device. For example, if the device is a Site Rain Counter, no cells in that column are editable; if the device type is a 24-station satellite controller, 24 cells in the column are editable.

CCU Setup Spreadsheet

- 2 Set up the device types and station properties as described in this section.
- 3 When you are finished setting up device types and station properties, click OK to save your changes to the CCU Setup spreadsheet and close the spreadsheet or click Cancel to cancel your changes and close the spreadsheet.

The CCU Setup spreadsheet is designed so that you can set up the CCU station by station, one device (channel) at a time. The radio buttons at the top of the CCU Setup spreadsheet allow you to select what property is displayed on the spreadsheet. You can choose to display any one of the following properties:

- flow rate
- cycle time
- soak time
- landscape coefficient
- precipitation rate
- FLO WATCH zone
- FLO-MANAGER zone
- Decoder/Sensor setting

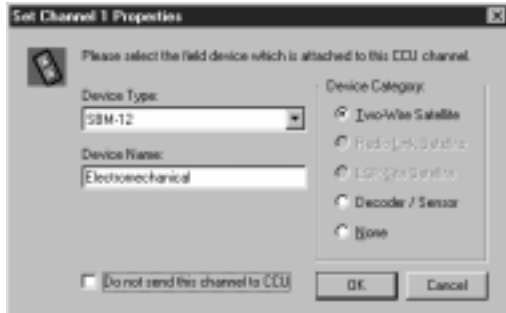
We recommend that you fill in the spreadsheet one device at a time. You can elect to fill in all the properties for a particular station before moving on to the next station or you can fill in all the stations for a particular property before moving on to the next property, whatever works best for you.

Setting Device Types

To set the type of device for a given column:

- 1 Double-click the Device cell. (The Device cells are the first cells under the channel numbers.)

The Set Channel Properties dialog box is displayed.



Set Channel Properties Dialog Box

- 2 Select the device category you want: Two-Wire satellite, Radio Link Satellite, ESP-Site Satellite, Decoder or Sensor or none.

If you have already entered CCU device data in the Site Properties CCU sheet, then some Device Category options will not be available. For example, if you had selected a two-wire CCU (as opposed to a radio link CCU), then the radio link satellite and ESP-Site Satellite options will not be available on the Set Channel Properties dialog box.

- 3 Select the Device Type from the drop-down list.
- 4 Enter the name of the device in the Device Name field.
- 5 If you do not want this channel sent to the CCU, check the Do Not Send This Channel checkbox.
- 6 Click the OK button.

The device type you have selected is displayed in the cell in the CCU setup spreadsheet.

Setting Station Properties

To view and set the properties for each station:

- 1 Select the type of property you want to enter or display from the list of radio buttons at the top of the CCU setup spreadsheet.

The spreadsheet displays only the property you have selected.

Or

Double-click the cell to display the Set Station Properties dialog box which contains all properties for that cell. (Or right-click the cell and select the Properties option from the pop-up menu to display the Set Station Properties dialog box.)

Attribute	Value	Macro
Landscape Coefficient	105	Sunny
Cycle Time (Minute)	15	Sprayheads
Soak Time (Minute)	45	Sprayheads
Precipitation Rate (in/h)	1.45	Sprayheads
Flow Rate (gpm)	45	1-1/2" FIB Valve
FLD-MANAGER Zone	2: South Side 250.0 gpm	
FLD-WATCH Zone	1: Entire Site	

Set Station Properties Dialog Box

- 2 Enter the appropriate value for each of the properties displayed.
- 3 Click the OK button.

Copying, Pasting, and Cutting Station Properties

Maxicom² allows you to cut, copy, or paste any amount of property information in one cell to another cell or group of cells; you can also copy entire channels — and you can do so between different sites (by copying information to the system's clipboard and then pasting to another site).

To copy, clear, or cut property information in the CCU setup spreadsheet:

- 1 Select the cell or cells from which you want to copy, clear, or cut information.
- 2 Click the right mouse button to display a pop-up menu or use the Clipboard Operations buttons at the top right of the spreadsheet. The following options are available:
 - **Cut** — cuts property information from the selected cell and pastes it on the system clipboard.
 - **Clear** — clears the selected cell of property information. The cell then reverts to default values.
 - **Copy** — copies the property information in the selected cell to the system clipboard.
 - **Paste Special** — allows you to select which property items in the cell to copy to the system clipboard.
 - **Paste All** — pastes all property information from the system clipboard to the selected cell.
- 3 Select the option you want to perform.

To paste the information from the clipboard into a new cell:

- 1 Select the cell or cells into which you want to paste.
- 2 Right click to display the pop-up menu or use the Clipboard Operations buttons at the top right of the spreadsheet and select the Paste option.

The information from the clipboard is entered into the selected cell.



You can set macros for properties and their values. For more information, see “Setting Station Property Macros” on page 3.12.



You can only copy and paste property values between devices that are in the same device category (e.g., CCU to CCU, sensor to sensor, etc.).



You will receive an error message if the number of cells you copy is different than the number of cells you attempt to paste.

To set up a weather source in Maxicom², you must describe the weather source properties to Maxicom². This chapter describes how to set the properties that are required to operate a weather source.

There are two ways to set weather source properties:

- You can set weather source properties using the Weather Source wizard, which guides you through a series of steps in which all required properties are set. The wizard presents each property to you, gives an explanation of the property, and a default value. You can move forward or backward within the wizard, or even cancel the wizard at any time. The Weather Source wizard runs automatically when you select the New option from the Weather menu. If you already have a weather source open, you can also run the wizard for the currently active Weather Source window by selecting the Configure option from the Weather menu.
- You can set weather source properties using the Weather Source Property Setup dialog box without the wizard. The Weather Source Property Setup dialog box contains more properties than the Weather Source wizard outlines for you. Even if you use the Weather Source wizard to set weather source properties, you will need to set some properties from the Weather Source Property Setup dialog box.

Both ways to set weather source properties are described in this chapter.

Using the Weather Source Wizard for Interactive Setup

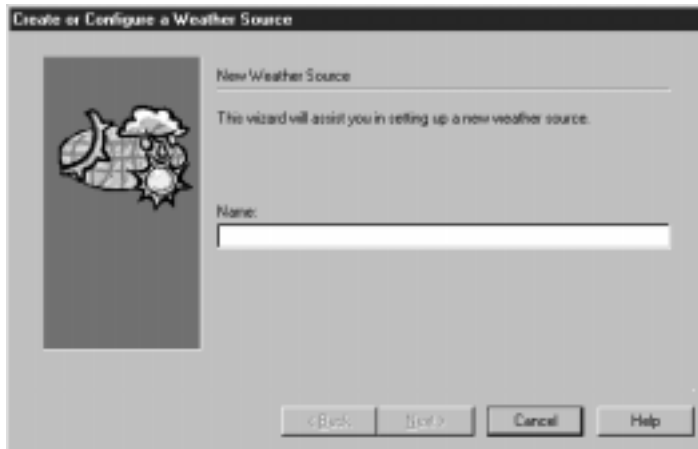
To use the Weather Source wizard:

- 1 Select the New option from the Weather menu.

Or

If you have a weather source already open, select the Configure option from the Weather menu.

The weather source wizard begins to run automatically. The Wizard dialog box is displayed, giving information about how the wizard works.



Weather Source Wizard

- 2 Follow the instructions in the wizard. If you need more help, read “Using the Weather Source Properties Setup Dialog Box for Setup” on the next page.
- 3 After finishing each section of the wizard, click the Next button.
The next section of the wizard will be displayed.
- 4 When you have finished the last section of the wizard, click the Finish button.
Weather source setup is completed and your work is saved.



If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section, or click the Cancel button to cancel the wizard entirely.

Using the Weather Properties Setup Dialog Box for Setup

To use the Weather Source Properties Setup dialog box to set up your weather source:

- 1 Select the Properties option from the Weather menu. (If the active window is not a Weather Source window, the Properties option is not available.)

The Weather Source Properties Setup dialog box is displayed.



Weather Source Properties Setup Dialog Box

- 2 Select either of the tabbed sheets to bring that sheet to the front of the stack. Available sheets are the Weather Source Type and one of the following, depending upon what type of weather source is selected on the Type sheet:
 - Rain Bird Weather Station
 - CIMIS Bulletin Board System (California only)
 - CCU-Based ET Gauge
 - CCU-Based Site Rain Counter (SRC)
 - Historical ET Database
 - User-Entered Weather Data
- 3 Follow the instructions in this chapter for the sheet you have selected.

- 4 When you are finished working with the Weather Source Properties Setup dialog box, click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.



You must click OK or Cancel before you will be able to work in another Maxicom² window or dialog box.

Setting Weather Source Type Properties

The Weather Source Type sheet allows you to set the weather source name and password and the type of weather source.

To set the weather source type properties:

- 1 With the Weather Source Properties Setup dialog box open, select the Weather Source Type tab.

The Weather Source Type sheet comes to the front of the stack with the weather source name displayed.



Weather Source Type Sheet

- 2 Set the weather source type properties as described in this section.
- 3 When you are finished setting weather source type properties, you can select the other tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Setting the Weather Source Password

Setting weather source passwords and changing them periodically protects your system from unauthorized use. Each time you select a weather source to work with from the Weather menu, you will be prompted for a password for the weather source. You can use the master password as the weather source password, or you can set different passwords for the weather sources.

To change the weather source password:

- 1 Click the Change Password button.

The Change Password dialog box is displayed.

- 2 Enter the Old password in the Old Password field. If you have not yet set a password for that weather source, leave the field blank.

For security purposes, the password characters appear on your screen as asterisks (*).

- 3 Enter the new password in the New Password field. The new password must be alphanumeric (composed of letters and/or numbers) and may be up to 10 characters long.
- 4 Re-enter the new password in the Confirm New Password field.
- 5 Click the OK button.

The new weather source password is saved.

Selecting the Type of Weather Source

You can select one of the following six types of weather sources:

- **Rain Bird Weather Station** — a hardware item made by Rain Bird that collects weather data from sensors and transmits that data to the central computer.
- **CIMIS Bulletin Board System** — (California Irrigation Management Information System) an electronic bulletin board system that collects weather station data from around California for use by the irrigation industry.
- **CCU-Based ET Gauge** — an evapotranspiration (ET) weather source that is directly connected to the CCU.
- **CCU-Based Site Rain Counter (SRC)** — site rain counter that is directly connected to the CCU.
- **Historical ET Database** — a database containing weather data for particular cities.
- **User-Entered Weather Data** — data the user enters.

To select the type of weather source:

Click the radio button for one of the types of weather sources listed.



You can also change weather source passwords from the System Properties Setup dialog box. For more information, see “Setting Passwords” on page 3.7.



If you have not entered the passwords correctly, a message will be displayed asking you to repeat the process.

Setting Rain Bird Weather Station Properties

If you selected Rain Bird Weather Station as the type of weather source, you will need to complete the Rain Bird Weather Station sheet.

To set Rain Bird weather station properties:

- 1 With the Weather Source Property Setup dialog box open, select the Rain Bird Weather Station tab.

The Rain Bird Weather Station sheet comes to the front of the stack.



The line at the bottom of the Weather Source Type sheet tells you if the weather source type you chose provides ET data, rainfall data, or both.

Rain Bird Weather Station Sheet

- 2 Set the Rain Bird weather station properties as described in this section.
- 3 When you are finished setting Rain Bird weather station properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Selecting the Time Zone

The time zone you select is used to calculate the ET and rainfall log data regardless of the relative location of the central computer to the weather source.

To select the time zone:

From the drop-down list on the Weather Station Time Zone field, select the time zone that applies to your weather station.

Setting Times to Receive Data

You can set up to 24 times for the database to receive data from the weather station.

To set times to receive data:

- 1 Select the number of the time (1-24) from the drop-down list on the first Data Receive Times field. To create a new time, click on the button on the right side of the field.
- 2 A new dialog box is displayed that allows you to edit, delete, select all or select no items. Select the number of the time you want to change, and click on the Edit button.
- 3 Enter the time or use the scroll buttons on the right of the fields to set the time without typing.
- 4 Repeat steps 1 through 3 to enter up to 24 times to receive data.

Setting the Elevation and Latitude

To set the elevation and latitude of the weather station:

- 1 Enter the elevation (from -30,000 to 30,000) in the Geographical Elevation field.
- 2 Enter the latitude (from -90 to 90) in the Geographical Latitude field.

Setting the Weather Station's Default ET

The system uses the weather station default evapotranspiration value (ET) when an actual ET cannot be obtained.

To set the default ET:

Enter the value in the Default ET field.

Setting the Weather Station Password

When the system contacts a weather station, it must provide the weather station with a password before data will be made available. The default password is 0000.

To set the weather station's password:

Enter the password in the Weather Station password field. The password must be numeric (composed of numbers) and may be up to 4 characters long.

Selecting the Contact Port and Telephone Number

The Contact Port drop-down list contains all communications ports that have been configured to operate with Maxicom².

To select the contact port:

- 1 Select the port you want from the drop down list on the Contact Port field. Select First Available Modem if you want to use the modem that becomes available first when a contact takes place.
- 2 If you select a contact port that is a modem, you must provide the telephone number to reach the Rain Bird weather station.

Enabling or Disabling Automatic Contact

Selecting automatic contact means that the weather source will be contacted automatically for new data when the old data expires.

To enable or disable automatic contact:

Check the Auto Contact checkbox to enable automatic contact; uncheck the checkbox to disable automatic contact.

Setting a Manual Contact Time Out

You can set the amount of time allotted for manual contact with the weather station.

To set a manual contact time out:

Enter the number of minutes allotted for the contact in the Manual Contact Time Out field.



For more information about setting contact ports, see "Setting Communications Properties" on page 3.4.



Ports configured for use with the Freedom System do not appear on the list.



If communications on this port fail consistently, click the Settings button to check the settings for the port. You should not normally need to change these settings.

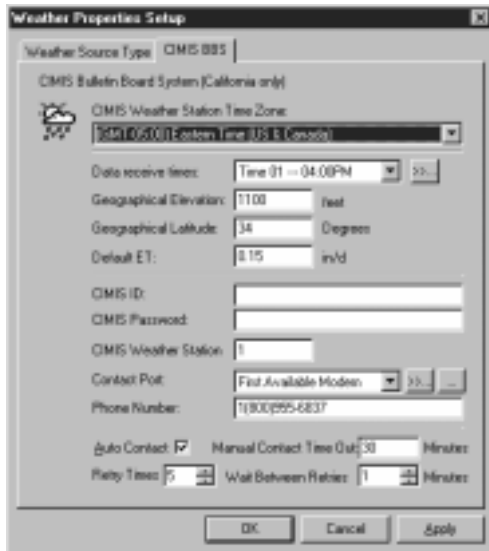
Setting CIMIS Bulletin Board System Properties

CIMIS (California Irrigation Management Information System) is an electronic bulletin board system that collects weather station data from across California for use by the irrigation industry. If you have selected your weather source to be a CIMIS Bulletin Board System, you will need to complete the CIMIS sheet.

To set CIMIS properties:

- 1 With the Weather Source Properties Setup dialog box open, select the CIMIS BBS tab.

The CIMIS BBS sheet comes to the front of the stack.



The screenshot shows the 'Weather Properties Setup' dialog box with the 'CIMIS BBS' tab selected. The 'Weather Source Type' is set to 'CIMIS BBS'. Below this, there is a section for 'CIMIS Bulletin Board System (California only)' which includes a weather icon and a dropdown menu for 'CIMIS Weather Station Time Zone' set to 'Pacific Standard Time (US & Canada)'. Other fields include: 'Date receive times' set to 'Time 01 -- 04:00PM', 'Geographical Elevation' at '1100 feet', 'Geographical Latitude' at '34 Degrees', 'Default ET' at '0.15 in/d', 'CIMIS ID', 'CIMIS Password', 'CIMIS Weather Station' at '1', 'Contact Port' set to 'First Available Modem', and 'Phone Number' at '1800995-6837'. At the bottom, there are checkboxes for 'Auto Contact' (checked) and 'Manual Contact Time Out' set to '30 Minutes', along with 'Retry Times' at '5' and 'Wait Between Retries' at '1 Minutes'. 'OK', 'Cancel', and 'Apply' buttons are at the bottom.

CIMIS BBS Sheet

- 2 Set the CIMIS properties as described in this section.
- 3 When you are finished setting CIMIS properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Selecting the Time Zone

The time zone you select is used to calculate the ET and rainfall log data regardless of the relative location of the central computer to the weather source.

To select the time zone:

From the drop-down list on the Weather Station Time Zone field, select the time zone that applies to your weather station.

Setting Times to Receive Data

You can set up to 24 times for the database to receive data from the CIMIS Bulletin Board System.

To set times to receive data:

- 1 Select the number of the time (1-24) from the drop-down list on the first Data Receive Times field. To create a new time, click on the button on the right side of the field.
- 2 A new dialog box is displayed that allows you to edit, delete, select all or select no items. Choose the number of the time you want to change, and click on the Edit button.
- 3 Enter the time or use the scroll buttons on the right of the fields to set the time without typing.

Repeat steps 1 through 3 to enter up to 24 times to receive data.

Setting the Elevation and Latitude

To set the elevation and latitude of the weather station:

- 1 Enter the elevation (from -30,000 to 30,000) in the Geographical Elevation field.
- 2 Enter the latitude (from -90 to 90) in the Geographical Latitude field.

Setting the CIMIS Login Name

The CIMIS login name is sent to the CIMIS Bulletin Board System when contact is established.

To set the login name:

Enter the login name in the CIMIS Login Name field.

Setting the CIMIS Password

You must set a CIMIS password in order to gain access to the CIMIS Bulletin Board System.

To set the CIMIS password:

Enter the password in the CIMIS Password field.



For more information about the CIMIS Bulletin Board System, see your CIMIS manual or CIMIS website.

Setting the CIMIS Weather Station Number

CIMIS has 158 weather stations across California, each of which is numbered. You must choose the station you want by its number.

To set the number of the CIMIS weather station:

Enter the number of the weather station (from 0 to 135) in the CIMIS Weather Station field.



For more information, see "Setting Communications Properties" on page 3.4.

Selecting the Contact Port and Telephone Number

The Contact Port drop-down list contains all communications ports that have been configured to operate with Maxicom². If you select a contact port that is a telephone modem, you must provide the phone number to reach the CIMIS Bulletin Board System. The default phone number is 1(800)955-6837 to reach the CIMIS Bulletin Board System.

To select the contact port:

- 1 Select the port you want from the drop-down list on the Contact Port field. Select First Available Modem if you want to use the modem that becomes available first when a contact takes place.
- 2 If you selected a contact port that is a telephone modem, enter the number in the Telephone Number field.



Ports configured for use with the Freedom System will not appear on the list.

Setting CCU-Based ET Gauge Properties

If you have selected your weather source to be a CCU-based evapotranspiration (ET) gauge, you will need to complete the CCU-based ET gauge sheet. To set CCU-based ET gauge properties, you must have set up an ET gauge for a site or sites through the CCU properties sheet.

To set CCU-based properties:

- 1 With the Weather Source Properties Setup dialog box open, select the CCU-based ET Gauge tab.

The CCU-based ET Gauge sheet comes to the front of the stack.



CCU-Based ET Gauge Sheet

- 2 Set the CCU-Based ET gauge properties as described in this section.
- 3 When you are finished setting the CCU-Based ET gauge properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.



If communications on this port fail consistently, click the Settings button to check the settings for the port. You should not normally need to change these settings.



For more information, see "Setting Site CCU Properties" on page 4.16.

Selecting a Site and a Channel

To select a site and a channel:

- 1 Select a site name from the list provided. The list contains the names of all sites that have ET gauges.

A list of channels with ET gauges is displayed at the bottom of the sheet.

- 2 Select the channel you want from the list.

Setting Times to Receive Data

You can set up to 24 times for the database to receive data from the CIMIS Bulletin Board System.

To set times to receive data:

- 1 Select the number of the time (1-24) from the drop-down list on the first Data Receive Times field. To create a new time, click on the button on the right side of the field.
- 2 A new dialog box is displayed that allows you to edit, delete, select all or select no items. Choose the number of the time you want to change, and click on the Edit button.
- 3 Enter the time or use the scroll buttons on the right of the fields to set the time without typing.
- 4 Repeat steps 1 through 3 to enter up to 24 times to receive data.

Enabling or Disabling Automatic Contact

Selecting automatic contact means that the weather source will be contacted automatically for new data when the old data expires.

To enable or disable automatic contact:

Check the Auto Contact checkbox to enable automatic contact; uncheck the checkbox to disable automatic contact.

Setting the Weather Station's Default ET

The system uses the weather station default evapotranspiration value (ET) when an actual ET cannot be obtained.

To set the default ET:

Enter the value in the Default ET field.

Setting CCU-Based Site Rain Counter Properties

If you have selected your weather source to be a CCU-based rain counter, you will need to complete the CCU-Based Rain Counter sheet. To set CCU-based rain counter properties, you must have set up a rain counter for a site or sites through the CCU properties sheet.

To set CCU-based rain counter properties:

- 1 With the Weather Source Properties Setup dialog box open, select the CCU-Based Rain Counter tab.

The CCU-Based Rain Counter sheet comes to the front of the stack.



CCU-Based Site Rain Counter Sheet

- 2 Set the CCU-Based Site Rain Counter properties as described in this section.
- 3 When you are finished setting CCU-based rain counter properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

Selecting a Site and Channel

- 1 Select a site name from the list provided. The list contains the names of all sites that have rain counters.

A list of channels with rain counters is displayed at the bottom of the sheet.

- 2 Select the channel you want from the list.



*For more information, see
"Setting Site CCU
Properties" on page 4.16.*

Setting Times to Receive Data

You can set up to 24 times for the database to receive data from the CCU-based Site Rain Counter.

To set times to receive data:

- 1 Select the number of the time (1-24) from the drop-down list on the first Data Receive Times field. To create a new time, click on the button on the right side of the field.
- 2 A new dialog box is displayed that allows you to edit, delete, select all or select no items. Choose the number of the time you want to change, and click on the Edit button.
- 3 Enter the time or use the scroll buttons on the right of the fields to set the time without typing.
- 4 Repeat steps 1 through 3 to enter up to 24 times to receive data.

Enabling or Disabling Automatic Contact

Selecting automatic contact means that the weather source will be contacted automatically for new data when the old data expires.

To enable or disable automatic contact:

Check the Auto Contact checkbox to enable automatic contact; uncheck the checkbox to disable automatic contact.

Setting the Weather Station's Default ET

The system uses the weather station default evapotranspiration value (ET) when an actual ET cannot be obtained.

To set the default ET:

Enter the value in the Default ET field.

Setting Historical ET Database Properties

If you have selected your weather source to be a historical evapotranspiration (ET) database, you will need to complete the Historical ET Database sheet. The Country, State/Province, and City Names lists contain the names of all cities that have historical data entries in Maxicom².

To set historical data properties:

- 1 With the Weather Source Properties Setup dialog box open, select the Historical Data tab.

The Historical ET Database sheet comes to the front of the stack.



Historical ET Database Sheet

- 2 Select the country from the drop-down list on the Country field.
- 3 Select the state/province name from the drop-down list on the State/Province field.
- 4 Select the city from the drop-down list on the City field.

The historical ET data for the location you have chosen is displayed at the bottom of the sheet.

- 5 When you are finished setting historical ET database properties, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

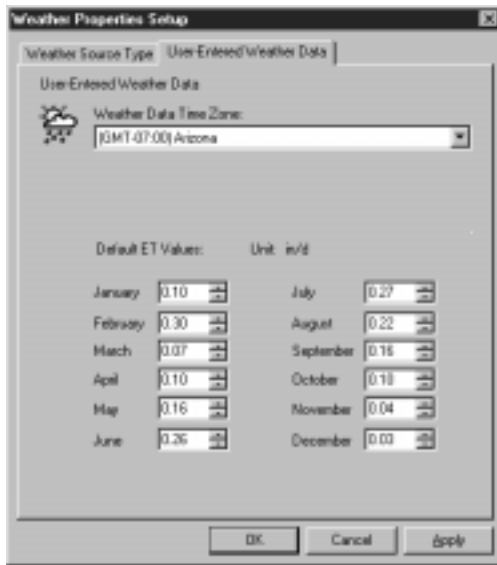
Setting User-Entered Weather Data Properties

If you have selected your weather source to be a user-entered weather source, you will need to complete the User-Entered Weather Data sheet. You can change the user-entered data as often as necessary.

To set user-entered weather data properties:

- 1 With the Weather Source Properties Setup dialog box open, select the User-Entered Weather Data tab.

The User-Entered Weather Data sheet comes to the front of the stack.



User-Entered Weather Data Sheet

- 2 From the drop-down list on the Weather Data Time Zone field, select the time zone that applies to your weather station. The time zone you select is used to calculate the ET and rainfall log data regardless of the relative location of the central computer to the weather source.
- 3 Enter the ET value (from 0 to 1.00) in the fields for each month, or use the scroll buttons on the right of each field to set the ET values without typing.
- 4 When you are finished setting user-entered ET values, you can select another tabbed sheet or click OK to save your changes and close the dialog box, Apply to save your changes without closing the dialog box, or Cancel to cancel your changes and close the dialog box.

-
- 5 After exiting the Weather Properties Setup dialog box, click on the Update User-Entered Weather Source button on the Weather Source Window toolbar.
The Update User-Entered Weather Source Data dialog box is displayed.
 - 6 Enter the weather source data you desire and click OK to save your changes and exit the dialog box.

To run Maxicom² automatically, you must create an irrigation schedule. This chapter describes how to create and edit a schedule for a site.

The Schedule Editor window is where you to create, edit and analyze a schedule for a particular site. After you create the schedule, it is automatically sent to the CCU at the site, if you have chosen for the schedule to be sent automatically.

Using the Schedule Wizard for Interactive Setup

When you create a new schedule, you must do so using the Schedule wizard. The Schedule wizard runs automatically when you create a new schedule.

To create a new schedule for a particular site:

- 1 If the site is not already open, select Open from the Site menu or click the Open button on the System toolbar and select Site.

A dialog box is displayed, listing all the sites configured in Maxicom².

- 2 Select the name of the site you want to open and click the Open button or double-click the name of the site.

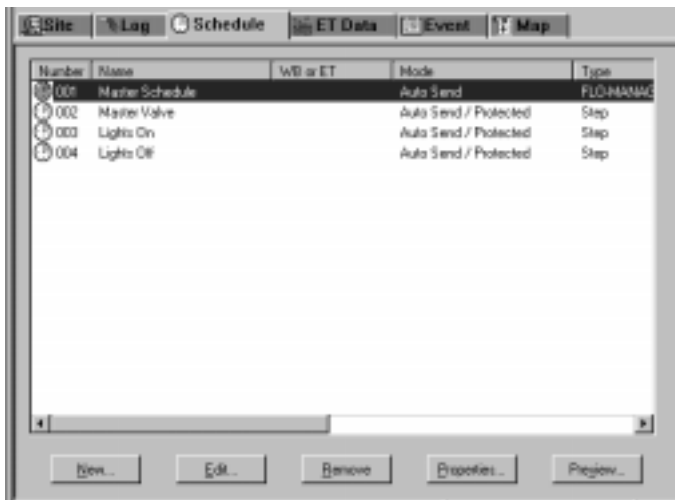
A Site window opens for the site you have selected.

- 3 In the Site window, select the Schedule tab.

The Schedule sheet comes to the front of the stack.



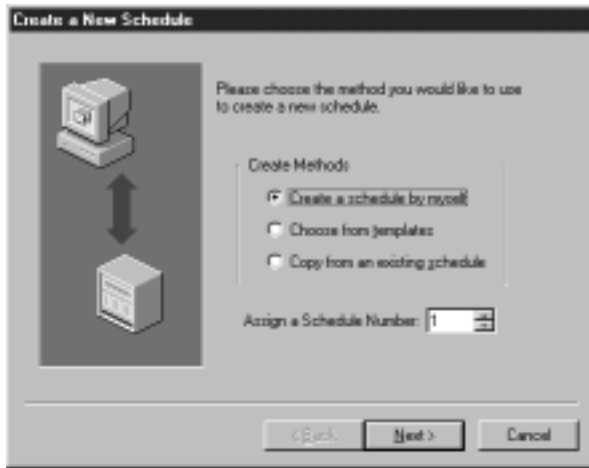
To monitor a schedule at the site, see “Manually Operating Site Schedules” on page 7.23.



Schedule Sheet

- 4 On the Schedule sheet, click the New button.

The Schedule wizard begins to run automatically. The Wizard dialog box is displayed, giving you information about how the wizard works.



If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section or click the Cancel button to cancel the wizard entirely.

Schedule Wizard

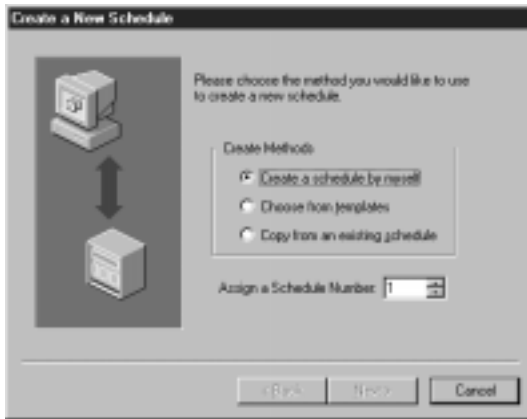
- 5 Follow the directions in the wizard. If you need more help, read “Creating a Schedule by Yourself” on page 6.3, “Creating a Schedule Using a Template” on page 6.7 or “Copying an Existing Schedule” on page 6.10.
- 6 After finishing each section of the wizard, click the Next button.
The next section of the wizard is displayed.
- 7 When you finish the last section of the wizard, click the Finish button.
The Schedule Editor window opens with the new schedule displayed.
- 8 Follow the instructions in “Editing a Schedule” on page 6.16.

Creating a Schedule by Yourself

You can create a new schedule from scratch using the Schedule Wizard. When you begin a schedule, as described in the previous sections, the Schedule wizard asks how you would like to create the schedule: by yourself, from a template or copy an existing schedule.

To create a schedule by yourself:

- 1 Open the Schedule wizard and click on the Create a Schedule by Myself radio button.

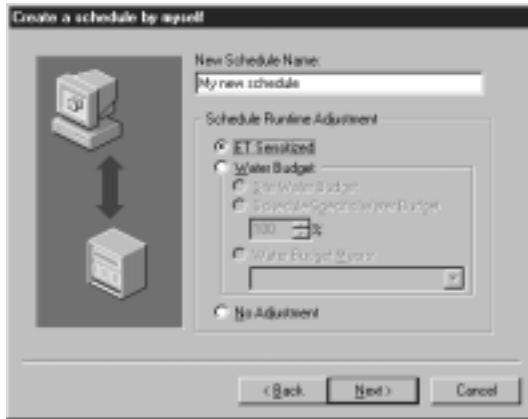


Schedule Wizard

- 2 Enter a schedule number in the Assign a Schedule Number field or use the scroll buttons to the right of the field to select the number without typing

The default number assigned by the Schedule wizard is based upon the number of schedules previously created. So if there are no other schedules, the Schedule wizard will automatically enter “1” in the field. If you selected a schedule number already in use, the Schedule wizard will not let you continue until you enter a number not yet assigned to another schedule.

Click the Next button to display the next page of the Schedule wizard.



Schedule Wizard



You can change the parts of the schedule that are already filled in after the schedule is in the Schedule Editor window. For more information, see “Using the Schedule Editor Window and Toolbar” on page 6.14.

- 3 Enter a name for your new schedule in the New Schedule Name field.
- 4 Select a schedule runtime adjustment for your schedule by clicking the radio button for one of the following options:

- **ET Sensitized**
- **Water Budget**

Select a water budget for the runtime adjustment by clicking on the radio button for one of the following options:

- **Site Water Budget**
- **Schedule Water Budget**

Enter a percentage number in the Schedule-Specific Water Budget field or use the scroll bars to the right of the field to select the percentage without typing.

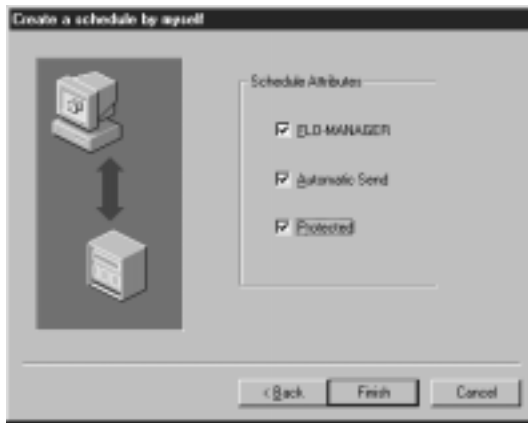
- **Water Budget Macro**
Click on the drop down menu to select from the list of water macros you have already created.
- **No adjustment**

For more information on scheduling runtime adjustments, see “Selecting the Schedule Runtime Adjustment” on page 6.18.

Click the Next button to display the next page of the Schedule wizard.

5 Select the Schedule Attributes you would like for the new schedule by placing checks in the checkboxes next to the following options:

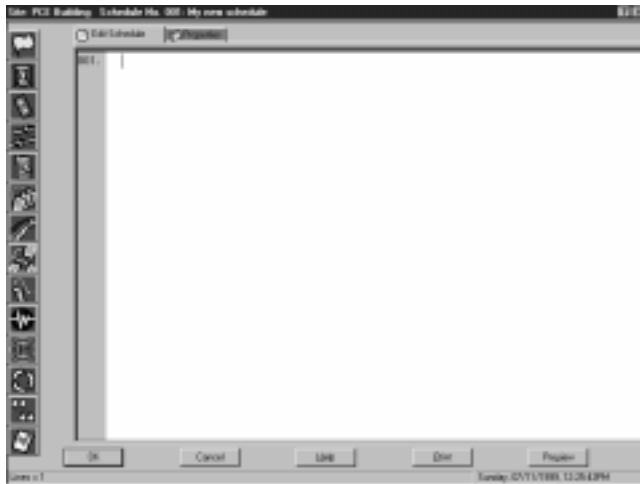
- **FLO-MANAGER**
Maxicom² will calculate the optimum sequence for each station based upon the system's hydraulic capacity.
- **Automatic Send**
Maxicom² will automatically send the schedules to the CCU(s) at a predetermined time each day.
- **Protected**
Does not allow Maxicom² to erase this schedule when performing a SEND or a Rain Shut Down. This setting is good for non-irrigation schedules.



Schedule Wizard

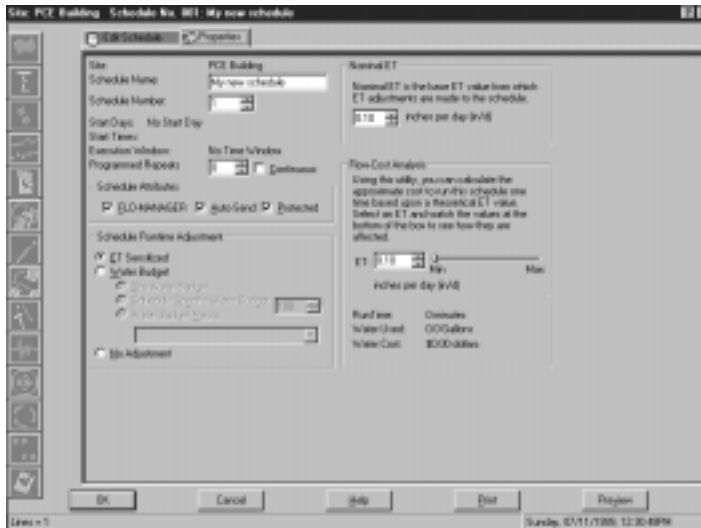
Click on the Next button.

The Schedule Editor window is displayed.



Schedule Editor

- To view the properties of the schedule, click on the Properties tab at the top of the Schedule window. The Schedule Properties sheet moves to the front of the stack.



Schedule Properties Sheet

See “Using the Schedule Editor Window and Toolbar,” page 6.14, to learn how to write the schedule for your site.

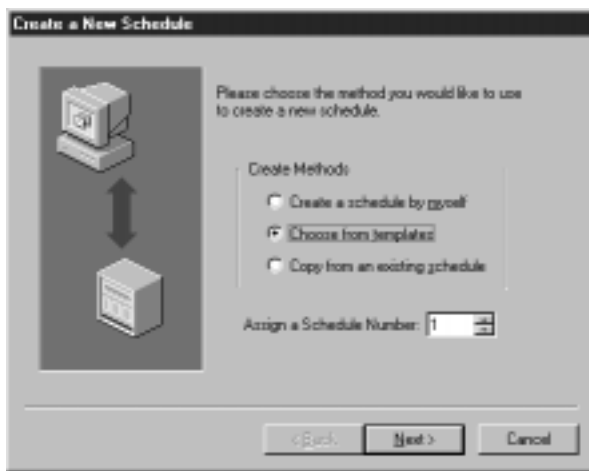
Creating a Schedule Using a Template

Schedule templates are partially completed schedules that save you from doing the work of creating a new schedule from scratch. The schedule templates can be customized to fit your particular site.

When you begin a new schedule, as described in “Using the Schedule Wizard for Interactive Setup,” page 6.1, the Schedule wizard asks you how you would like to create the schedule: by yourself, from a template or copy an existing schedule.

To create a schedule using a schedule template:

- 1 Open the Schedule wizard and click on the Choose from Templates radio button.



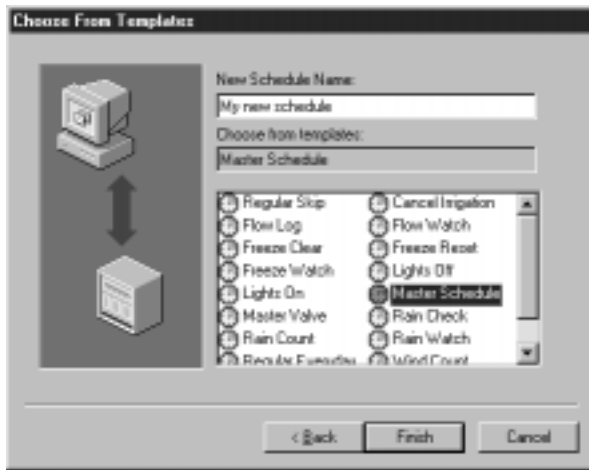
Schedule Wizard

- 2 Enter a schedule number in the Assign a Schedule Number field or use the scroll buttons to the right of the field to select the number without typing.

The default number assigned by the Schedule wizard is based upon the number of schedules previously created. So if there are no other schedules, the Schedule wizard will automatically enter “1” in the field. If you select a schedule number already in use, the Schedule wizard will not let you continue until you enter a number not yet assigned to another schedule.

Click the Next button to display the next page of the Schedule wizard.

- 3 Enter a name for the new schedule in the New Schedule Name field.



Schedule Wizard Template Options

- 4 Select a schedule template from the list. The template options are:
 - Regular Skip
 - Flow Log
 - Freeze Clear
 - Freeze Watch
 - Lights On
 - Master Valve
 - Rain Count
 - Regular Everyday
 - Wind Watch
 - Cancel Irrigation
 - Flow Watch
 - Freeze Reset
 - Lights Off
 - Master Schedule
 - Rain Check
 - Rain Watch
 - Wind Count

Click on the Finish button.



You can change the parts of the schedule that are already filled in after the schedule is in the Schedule Editor window. For more information, see “Using the Schedule Editor Window and Toolbar” on page 6.14.

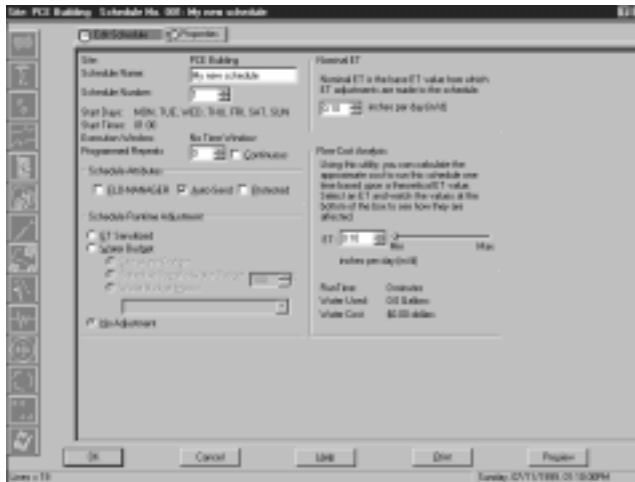
The Schedule Editor window is displayed with the schedule information entered from the template you selected.



Edit Schedule Sheet

- To view the properties of the schedule, click on the Properties tab at the top of the Schedule Editor window.

The Schedule Properties sheet moves to the front of the stack.



Properties Sheet

See "Using the Schedule Editor Window and Toolbar," page 6.5, to learn how to customize the template for your site.

Copying an Existing Schedule

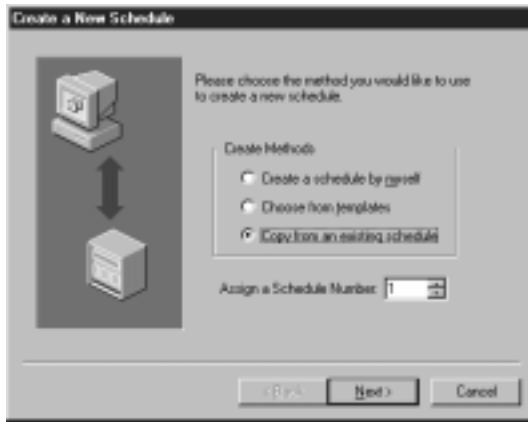
Using an existing schedule that you previously created as the basis for a new schedule saves you from doing the work of creating a new schedule from scratch. Once you create the new schedule, you can modify it to fit your particular site or operation.

For example, if you have already created a schedule that turns the lights on, it is very simple to modify that schedule so that it turns the lights off.

When you begin a new schedule, as described in “Using a Schedule Wizard Interactive Setup,” page 6.1, the Schedule wizard asks how you would like to create a new schedule: by yourself, from a template or copy an existing schedule.

To create a schedule based upon an existing schedule:

- 1 Open the Schedule wizard and click on the Copy From an Existing Schedule radio button.



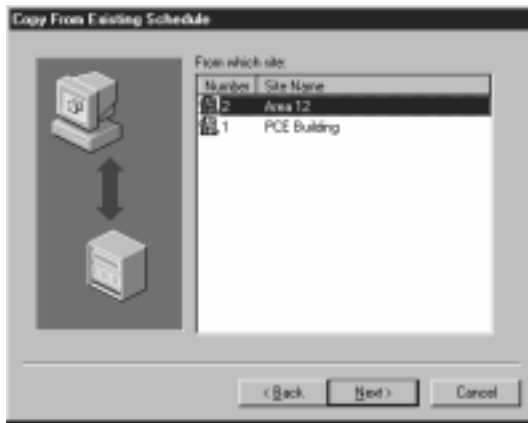
Schedule Wizard

- 2 Enter a schedule number in the Assign a Schedule Number field or use the scroll buttons to the right of the field to select the number without typing.

The default number assigned by the Schedule wizard is based upon the number of schedules previously created. So if there are no other schedules, the Schedule wizard will automatically enter “1” in the field. If you select a schedule number already in use, the Schedule wizard will not let you continue until you enter a number not yet assigned to another schedule.

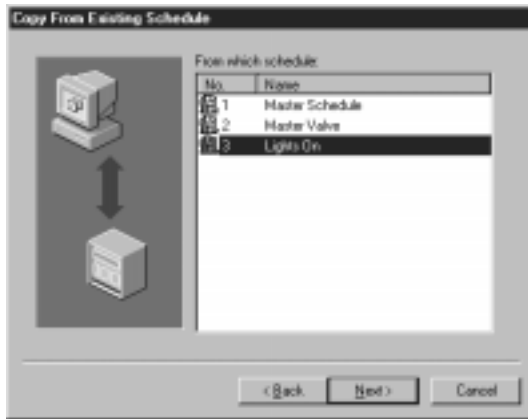
Click the Next button to display the next page of the Schedule wizard.

- 3 Select the site from which you would like to copy a schedule and then click the Next button.



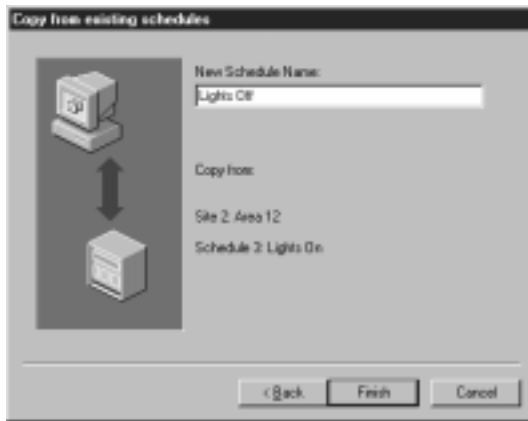
Select a Site

- 4 Select a schedule from that site that you would like to copy and click the Next button.



Select a Schedule to Copy

- 5 Enter a name for the new schedule in the New Schedule Name field and click on the Finish button.



Name the New Schedule

The Schedule Editor window is displayed with the schedule information from the schedule you copied displayed.



Edit Schedule Sheet

- To view the properties of the schedule, click on the Properties tab at the top of the Schedule Editor window.

The Schedule Properties sheet moves to the front of the stack.



Properties Sheet

See “Using the Schedule Editor Window and Toolbar,” page 6.14, to learn how to modify the schedule you have copied to make it appropriate for the new site or operation.

Using the Schedule Editor Window and Toolbar

When the Schedule wizard is finished setting up a new schedule (whether it is a new schedule you started from scratch, from a template or copied from an existing schedule), the new schedule appears in the Schedule Editor window. Also, when you want to edit an existing schedule, you do so from the Schedule Editor window.

To open the Schedule Editor window:

- 1 If the site is not already open, select Open from the Site menu or click the Open button on the System toolbar and select Site.

A dialog box is displayed, listing all the sites configured in Maxicom².

- 2 Select the name of the site you want to open and click the Open button or double-click the name of the site.

A Site window opens for the site you have selected.

- 3 In the Site window, select the Schedule tab.

The Schedule sheet comes to the front of the stack.

- 4 On the Schedule sheet, select the name of the schedule you want to edit then click the Edit button.

The Schedule Editor window opens, displaying two tabbed sheets: the Edit Schedule sheet and the Properties sheet.

- 5 Follow the instructions in this section to edit the schedule and to set schedule properties.

- 6 When you are finished editing the schedule, click OK.

The Schedule Editor window closes and the schedule is saved.

When the Schedule Editor sheet is displayed, the Schedule Editor window toolbar is available. The icons on the toolbar allow you to edit the schedule. Each schedule icon represents a particular schedule function:



Start Day and Time — allows you to specify a day and time when the schedule will start.



Watering Time Window — allows you to place a watering time window constraint on the schedule. Any irrigation scheduled to occur outside the allowable time window will not occur.



Channel — allows you to specify on which CCU channel you want events to occur.



For more information about using the icons and editing a schedule, see “Editing a Schedule” on page 6.16.



Certain conditions of the schedule make some icons unavailable.



Station — allows you to specify the CCU station for which you want to set a runtime.



Sensor — allows you to specify what the schedule should do in the event of certain conditions at sensors.



Skip — allows you to skip a group of instructions in the schedule when certain conditions are met.



FLO WATCH Zone — allows you to set up FLO WATCH Zone monitoring instructions.



Link — allows you to link two different schedules to one another so that the execution of one (the master) causes the execution of the other (the dependent).



Decoder — allows you to set an output decoder to either ON or OFF, causing the device attached to the decoder to operate or stop operating.



Pulse Count — allows you to define an event that will occur when a pulse decoder reaches a specified number of counts. Possible events include schedule stopping, irrigation turning off, lights turning on, etc.



Time and Pause — allows you to specify a period of time delay for the schedule.



Loop — allows you to identify a group of instructions that must be repeated in a loop fashion, causing the same set of instructions to be repeated over and over until a condition is met.



Comment — allows you to place a line of text in the schedule to explain why the schedule is set up as it is.



Audit — allows you to check the schedule for errors and validates the schedule against the configuration of the CCU.



To see Tooltip information about an icon, place the cursor over the icon.

Editing a Schedule

The Schedule sheet of the Schedule Editor window allows you to edit a schedule. You do so by using the icons on the left of the Schedule Editor window, described in the previous section. Each icon represents a particular schedule function. When you select an icon, a wizard begins automatically. The wizard guides you through the creation of schedule instructions for the function you have selected. When the wizard is finished, the schedule instructions appear in the edit box on the right of the Edit Schedule sheet.

To edit a schedule:

- 1 With the Schedule Editor window open, select the icon for the type of function you want to edit. A list of icons and their functions appear in the previous section.

The wizard runs automatically and guides you through editing that function.

- 2 Follow the instructions in the wizard. After finishing each section of the wizard, click the Next button.

The next section of the wizard is displayed.

- 3 When you finish the last section of the wizard, click the Finish button.

The wizard closes.

- 4 When you are finished editing the schedule, click OK.

When the Edit Schedule sheet closes, the schedule is audited automatically. If any problems or inconsistencies are detected in the schedule, you will see an error message. For more information, see “Auditing a Schedule,” below.

Auditing a Schedule

When a schedule is saved, the schedule is validated against the configuration of the CCU at the site. If a channel referenced in the schedule is not assigned at the CCU, the configuration of the CCU is automatically changed to accommodate the schedule without interrupting you. If the schedule and the CCU are in direct conflict, however, you are notified by an error message.

You can also use the Audit icon to audit the schedule without saving it or closing the Schedule sheet.

To audit the schedule:

Click the Audit icon.

The schedule instructions are checked, then validated against the configuration of the CCU, and checked across the links to and from other schedules for the site. The audit feature also checks spelling errors, syntax errors and proper command line sequence.



You can enter and delete instructions directly in the edit box rather than using the icons or you can use a combination of both methods. However, when you enter instructions directly into the edit box, the instructions must be in the correct place and must be formatted appropriately. We recommend that all but expert users use the icons, which place and format instructions for you automatically.

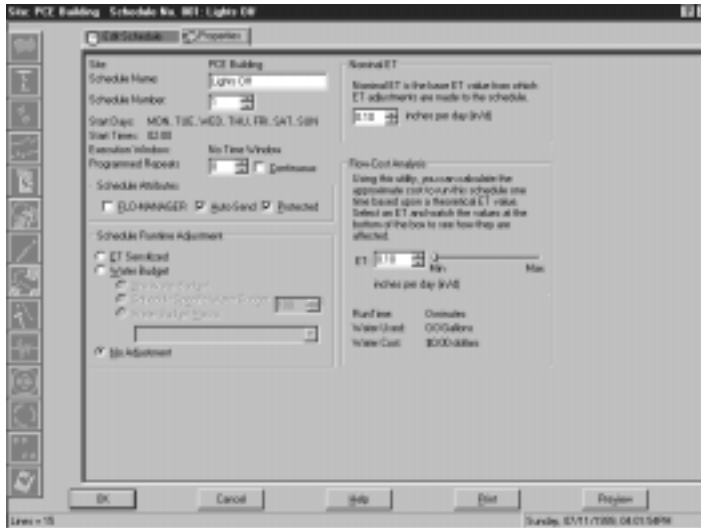
Setting Schedule Properties

The Properties sheet of the Schedule Editor window allows you to set schedule properties.

To set Schedule properties:

- 1 With the Schedule Editor window open, select the Properties sheet.

The Properties sheet comes to the front of the stack.



The first section of the Schedule Properties sheet, which contains the site name, the schedule name, schedule number, start days, start times, etc. is filled in automatically by Maxicom² from information you entered when you created the schedule.

Properties Sheet

- 2 Set schedule properties as described in this section.
- 3 When you are finished setting schedule properties, click OK.

Setting Execution Window Programmed Repeats

You can set up to nine times for the schedule to repeat itself automatically after it has finished running. This is called Programmed Repeats.

To set programmed repeats:

Enter the number of repeats in the Programmed Repeats field or use the scroll buttons on the right side of the field to set the number without typing.

OR

Check the Continuous checkbox to have Maxicom² run the schedule continuously.

Setting Schedule Attributes

You can set the schedule to have any of the following attributes:

- **FLO-MANAGER** — the schedule is automatically optimized based on flow resources. Maxicom² will adjust station start times and change the order of the stations to maximize efficiency.
- **Auto-Send** — the schedule will be included in the automatic send contact to the CCU. If you do not select this option, you must send the schedule manually.
- **Protected** — the schedule will not be erased when a new send is performed. If the schedule is not protected, it is automatically erased when a new send is performed.

To set schedule attributes:

Check the checkboxes for the attributes you want; uncheck the the checkboxes for the attributes you do not want. You can check as many attributes as necessary.

Selecting the Schedule Runtime Adjustment

Various settings in Maxicom² allow you to adjust the runtime of a schedule. You can choose one of the following ways to adjust the schedule:

- **ET Sensitized** — the sum of water used by the plant material and water evaporated from the soil surface. The computer uses the ET value to recalculate runtimes.
- **Site Water Budget** — a percentage number that causes all site runtimes to be adjusted by that percentage.
- **Schedule-Specific Water Budget** — a percentage number set for each station so that each station's runtime is adjusted by the set percentage.
- **Water Budget Macro** — a water budget macro you have created in Maxicom².
- **No Adjustment** — no adjustment will be made to this schedule, including ET, Water Budget and Cycle + Soak.

To select the source:

- 1 Select the radio button for the source you want.
- 2 If you select Schedule-Specific Water Budget or Water Budget Macros, enter the value or name of the macro in the appropriate field or use the scroll buttons or drop-down list to select a value without typing.

Setting the Nominal ET

The nominal evapotranspiration (ET) value is the base value from which ET adjustments are made to the schedule. You can set a nominal ET from 0.01 to 5.00.

To set the nominal ET:

Enter the value in the Nominal ET field or use the scroll buttons on the right of the field to set the value without typing.

Performing a Flow-Cost Analysis

The Flow-Cost Analysis section of the Properties sheet is used to do a “what if” analysis. You can change the evapotranspiration (ET) value and see the associated cost to run the schedule at different ET values.

To set the ET for flow-cost analysis:

Click the grab bar on the Minimum/Maximum scale and drag it to the desired position or click the up or down arrow buttons to display the desired number of inches per day.

The information displayed at the bottom of this section changes based upon the ET you select.



Flow-Cost Analyses are for ET-based schedules only.

This chapter describes how to view and edit various types of information about a site such as alarms, flow data, schedule data, evapotranspiration (ET) data, and communication, event, and map data. This chapter also describes how to contact the site's CCU manually. All of these tasks are performed from the Site window.

Using the Site Window and Toolbar

The Site window allows you to see six different types of data about a single site, including general site data, flow data, schedules, ET data, event data, and a site map. Each type appears on a different tabbed sheet. Each tabbed sheet allows you to specify the presentation of the data you are viewing, but usually does not allow you to modify the data directly. Direct changes to the data must be carried out in the Site Property Setup dialog box.

The Site window toolbar allows you to perform the manual operations, create a site report, or configure site properties for the open site. Toolbar button functions are as follows:



Site Window Toolbar

- **Connect** — allows you to contact the open site's CCU manually. For more information, see “Manually Contacting a Site's CCU” on page 7.18.
- **Manual Site Operations** — allows you to open the Manual Schedule Operations dialog box for the open site, from which you can perform various manual operations. For more information, see “Manually Operating Site Schedules” on page 7.23 and “Monitoring and Operating Site Channels” on page 7.26.
- **Disconnect** — allows you to discontinue manual contact with the open site's CCU. For more information, see “Manually Contacting a Site's CCU” on page 7.18.
- **Rain Shut Down** — allows you to set Rain Shut Down for any site. For more information, see “Setting Rain Shutdown for a Site” on page 7.22.
- **Send Schedules** — allows you to send today's schedules to the CCU for the currently active site. For more information, see “Sending Schedules to the CCU” on page 7.25.



For more information about the Site Property Setup dialog box, see “Setting Site Properties” on page 4.1.



To see Tooltip information about a toolbar button, place the cursor over the button. A brief description will appear at the bottom of your screen.

-
- **Send Configuration** — allows you to send the site's configuration data to the CCU. For more information, see "Setting Times to Contact the Site's CCU" on page 4.7
 - **Get Logs** — allows you to retrieve logs from the sites.
 - **Wireless Diagnostics** — allows you to view the log of wireless diagnostics data gathered by MaxiLINK for the open site. For more information, see "Viewing Wireless Diagnostics Data" on page 7.21.
 - **Site Properties** — allows you to open the Site Properties Setup dialog box for the open site. For more information, see "Setting Site Properties" on page 4.1.
 - **CCU Properties** — allows you to open the CCU Properties spreadsheet, from which you can view and edit CCU properties. For more information, see "Setting Site CCU Properties" on page 4.16.

To open a Site window for a new site:

Select the New option from the Site menu.

The Site wizard begins to run automatically. Follow the directions "Using the Site Wizard for Interactive Site Setup" on page 4.2. At the completion of the wizard, a Site window opens for the new site.

To open a window for an existing site:

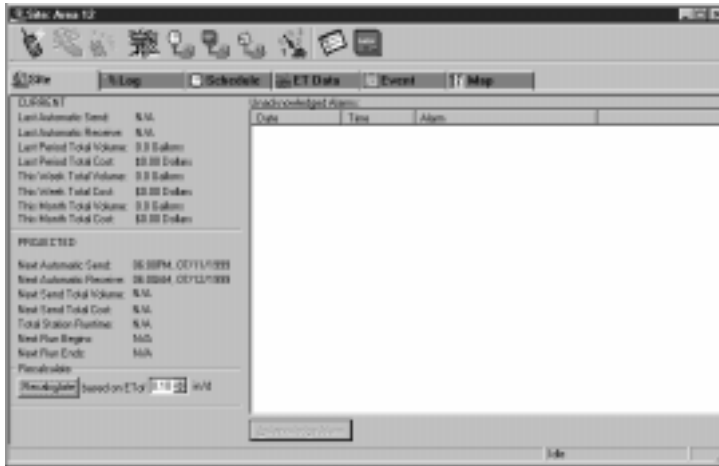
Select Open from the Site menu or click the Open button on the System toolbar. Then select the name of the site you want and click the Open button.

A Site window opens for the site you have selected.

To open a window for a site that has been recently used:

- 1 Select the name of the site from the list of recently used sites at the bottom of the Windows menu. (Up to nine previously used sites are listed on the Site menu.)

A Site window opens for the site you have selected.



Site Window



The contact region at the left of the Site window shows the time of the last contact and the time of the next scheduled contact.

- 2 View or edit site data as described in this chapter.
- 3 When you are finished viewing and editing site data, select the Close option from the Site menu or click the Close button on the Site window to close the window and save your changes. Or, select the Abandon Changes option from the Site menu to close the Site window without saving your changes.



You can work in other windows and dialog boxes while the Site window remains open.

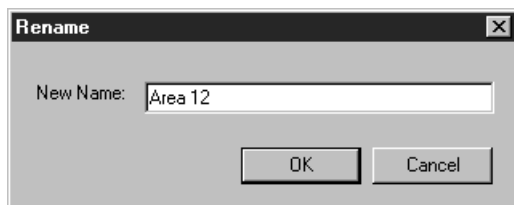
Renaming a Site

Maxicom² allows you to change an existing site's name.

To rename a site:

- 1 With the site you want to rename open in the Site window, select the Rename option from the Site menu.

A Rename dialog box is displayed with the current name of the site in the text field.



Rename Dialog Box

- 2 Enter the new name and click the OK button.
The new name replaces the old name.

Deleting a Site

You can delete an existing site in Maxicom².

To delete an existing site:

- 1 With the site you want to delete open, select the Delete option from the Site menu.

A dialog box is displayed asking you to confirm that you want to delete the site.

- 2 Click the OK button.

The site is deleted.

Viewing and Editing General Site Data

General site data appears on the Site sheet of the Site window and consists of a listing of current data, projected data and unacknowledged alarms. The Site sheet is automatically displayed when the Site window opens.

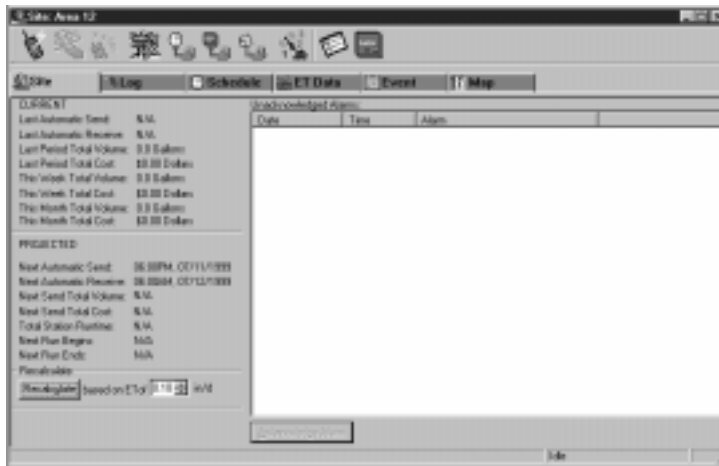
To view and edit general site data:

- 1 With the Site window open, select the Site sheet.

The Site sheet comes to the front of the stack.



If log data arrives while the Site window is open, the data on the Site sheet will change accordingly.



Site Sheet

- 2 View or edit the general site data as described in this section.
- 3 When you are finished viewing and editing general site data, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Viewing and Acknowledging an Unacknowledged Alarm

Unacknowledged alarms for the site are listed on the right side of the Site sheet. The date, time, and type of alarm are shown.

To acknowledge an alarm:

- 1 Click on the alarm to select it.
- 2 Click the Acknowledge Alarm button.

The alarm is removed from the list.

Viewing Current Site Data

Current site data is in the upper left portion of the Site sheet. Current site data can not be edited. The data displayed in this area includes

- **Last Automatic Send** — the time and date.
- **Last Automatic Receive** — the time and date.
- **Last Period Total Volume** — the water volume applied during the last irrigation period in the type of units selected in the System Property Setup dialog box.
- **Last Period Total Cost** — the total cost of water applied during the last irrigation period based upon the cost of water defined in the System Property Setup dialog box
- **This Week Total Volume** — the total volume of water used since the previous Auto-Send time, in the type of units selected in the System Property Setup dialog box.
- **This Week Total Cost** — the total cost of the water used since the previous Auto-Send time, based upon the cost of water defined in the System Property Setup dialog box.
- **This Month Total Volume** — the total volume of water used since the previous Auto-Send time, in the type of units selected in the System Property Setup dialog box.
- **This Month Total Cost** — the total cost of the water used since the previous Auto-Send time, based upon the cost of water defined in the System Property Setup dialog box.



To sort the alarm list by date, time, or alarm type, click the corresponding heading button.



You can also acknowledge an alarm from the Event Log window. For more information, see “Acknowledging Events in the Event Log” on page 9.3.

Viewing Projected Site Data

Projected site data is in the lower left portion of the Site sheet. Projected data is editable only in that you may select a different evapotranspiration (ET) value than that chosen by Maxicom². The ET value chosen by Maxicom² is calculated from the assigned weather source since the last automatic send. Projected site data includes:

- **Next Automatic Send** — the time and date for the next scheduled automatic send.
- **Next Automatic Receive** — the time and date for the next scheduled automatic receive.
- **Next Send Total Volume** — the expected total water volume for the next automatic send based on 100% water budget and affected by the ET value that appears at the bottom of the sheet.
- **Next Send Total Cost** — the total cost of the expected total water volume based on the cost of water defined in the System Property Setup dialog box.
- **Total Station Runtime** — the total expected runtime of all stations in all schedules which will be included for the next irrigation period.
- **Next Run Begins** — the time and date of the next runtime.
- **Next Run Ends** — the time and date the next runtime ends.
- **Based on ET** — the evapotranspiration (ET) value used to calculate the projected site data.

Changing the ET Value for Projected Site Data

The evapotranspiration (ET) value in the Based on ET field is used to calculate the projected site data.

To change the evapotranspiration (ET) value:

- 1 Enter the value in the Based on ET field or use the scroll buttons on the right of the field to select the ET value without typing.
- 2 Click on the Recalculate button.

The projected site data changes based upon the new evapotranspiration (ET) value you entered.

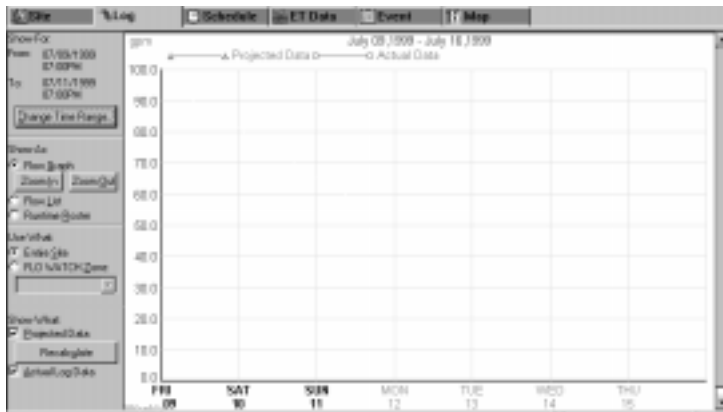
Viewing a Site's Log Data

Log data is information about the hydraulics of the site system. A site's log data appears on the Log sheet of the Site window. From the Log sheet, you can select the time period for which you want to view the data and how you want to display the data, as well as whether you want to view data about the entire site or just one Flo-Watch zone. In addition, you can select to view projected data or actual log data. All of these settings affect what is displayed in the depiction area on the right side of the sheet.

To view log data:

- 1 With the Site window open, select the Log tab.

The Log sheet comes to the front of the stack.



The data in the depiction region uses the units you selected on the System Property Setup dialog box. For more information, see "Setting Preferences" on page 3.11.

Flow Sheet

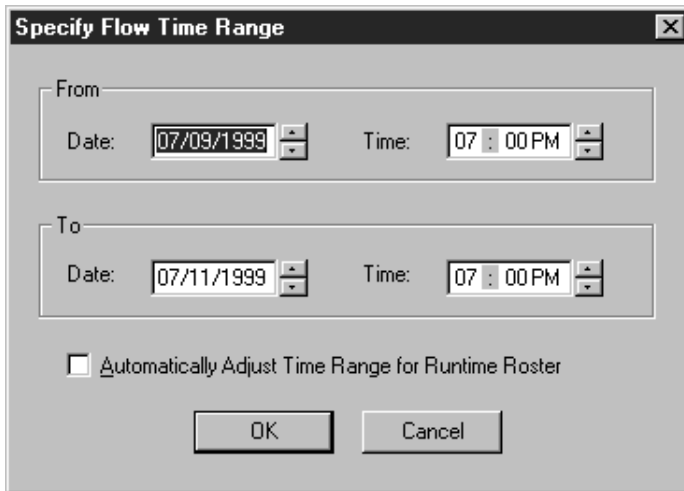
- 2 Select the type of data you would like to view, as described in this section.
Your selection appears in the depiction area on the right side of the Log sheet.
- 3 When you are finished viewing log data, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Selecting the Time Period to View

You can select the time period for which you want to view flow data. The area in which you select the time period is in the upper left portion of the Flow sheet and is entitled “Show For.”

To select the time period:

- 1 Click on the Change Time Range button to display the specific Flow Time Range dialog box.



The dialog box titled "Specify Flow Time Range" has a title bar with a close button. It contains two sections: "From" and "To". Each section has a "Date:" field with a scrollable date picker (showing 07/09/1999) and a "Time:" field with a scrollable time picker (showing 07 : 00 PM). Below these fields is a checkbox labeled "Automatically Adjust Time Range for Runtime Roster" which is currently unchecked. At the bottom are "OK" and "Cancel" buttons.



If you try to enter an end time that is earlier than the start time, you will see an error message.

Log Sheet

- 2 Enter the start date and time of the time period in the From field or use the scroll buttons on the right of the fields to select the date without typing. Enter the date in the format 07/16/1999; enter the time in the format 08:30 pm.
- 3 Enter the date and time for the end of the time period in the To field or use the scroll buttons on the right of the fields to select a date without typing. Enter the date in the format 07/16/1999.



The Log sheet provides you with Zoom In and Zoom Out buttons so that you can enlarge your view of a graph in the depiction area.

Viewing the Data as a Flow Graph, Flow List or Runtime Roster

You can select to view the flow data in either graph or log format. The area in which you make this selection is on the right side of the Flow sheet and is entitled “Show As.”

To select the format:

Select either the Flow Graph, Flow List, or Runtime Roster radio button.

Viewing the Runtime Roster

The Runtime Roster displays flow data broken down by device, channels and stations. Numbers displayed in red indicate that the projected data does not match the actual data.

CHANNEL	Channel 01	Channel 02	Channel 03	Channel 04	Channel 05
DEVICE	Electromechanical	02:5dec			
Sensor (A)		0.0m			
Sensor B					
Station 01	0m				
Station 02	0m				
Station 03	0m				
Station 04	0m				
Station 05	0m				
Station 06	0m				
Station 07	0m				
Station 08	0m				
Station 09	0m				
Station 10	0m				
Station 11	0m				
Station 12	0m				
Station 13					
Station 14					
Station 15					
Station 16					
Station 17					
Station 18					
Station 19					



For more information, see “Setting Site FLO WATCH Properties” on page 4.15.



Projected data calculated for the depiction area takes into account all linked schedules and other complexities prior to displaying the data.

Runtime Roster

Viewing the Entire Site or One FLO WATCH Zone

You can select to view log data for the entire site, which includes data for all stations at the site, or you can view data for just one FLO WATCH zone (by the name of the zone).

To select the entire site or one FLO WATCH zone:

- 1 Under the Use What section, select the Entire Site or FLO WATCH Zone radio button.
- 2 If you choose the FLO WATCH Zone radio button, select the name of the zone from the drop-down list.

Viewing Actual Log Data or Projected Data

Depending upon the time range you have selected, you may wish to display either projected data or actual log data. The area where you make this selection is the bottom left corner of the Log sheet and is entitled “Show What.”

To select projected data and/or actual log:

Click on the Projected Data and/or Actual Log checkboxes.

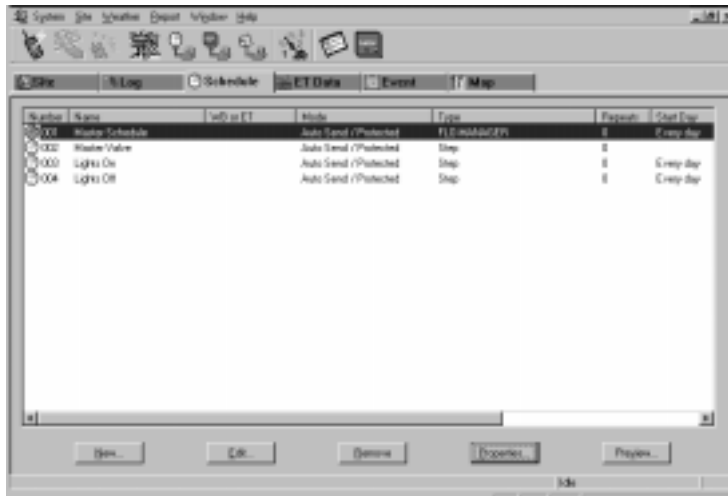
Viewing and Editing a Site's Schedule Data

The site's schedule data appears on the Schedule sheet in the Site window. From the Schedule sheet, you can add a new schedule, edit an existing schedule, remove an existing schedule, view the properties of an existing schedule and preview an an existing schedule.

To view schedule data:

- 1 With the Site window open, select the Schedule tab.

The Schedule sheet comes to the front of the stack.



To sort the list of schedules by any of the characteristics, click the corresponding heading button.

Schedule Sheet

- 2 Select the type of data you would like to view, as described in this section.
- 3 When you are finished viewing schedule data, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Viewing General Schedule Data

The Schedule sheet contains a list of all schedules assigned to the site. Each schedule is listed by the following characteristics:

- **Number** — the number assigned to the schedule in the Schedule wizard.
- **Name** — the name you give the schedule in the Schedule wizard.
- **(WB) Water Budget or (ET) Evapotranspiration** — the water budget percentage or base ET assigned to the schedule. For more information, see “Setting Site Irrigation Properties,” on page 4.9.

- **Mode** — Auto Send and protected. Auto Send schedules are sent to the CCU automatically; non-Auto Send must be sent manually. Protected schedules are not erased when a new send is performed; unprotected schedules are erased automatically. For more information, see “Setting Schedule Attributes,” on page 6.10.
- **Type** — Step or Flo-Managed. Step schedules progress line by line; Flo-Managed schedules can be re-ordered by the system to maximize efficiency. For more information, see “Setting Schedule Attributes,” on page 6.18.

To view more schedule data:

Select a schedule on the list and click the Edit button or double-click the schedule.

The Schedule Editor window is displayed.



For more information about using the Schedule Editor window, see “Using the Schedule Editor Window and Toolbar” on page 6.14.

Adding a New Schedule

You can create a new schedule for the open site by using the Schedule wizard, which guides you through the process of creating a new schedule. This is the same process that is described in “Creating and Editing a Site Schedule” on page 6.1.

To add a new schedule to the list of schedules for the open site:

- 1 Click the New button on the Schedule sheet.
The Schedule wizard begins to run automatically. The wizard dialog box is displayed, giving information about how the wizard works.
- 2 Follow the directions in the wizard to create the schedule. If you need more help, read “Creating and Editing a Site Schedule” on page 6.1.



If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section or click the Cancel button to cancel the wizard entirely.

Editing a Schedule

You can edit existing schedules from the Schedule sheet in the Site window.

To edit a schedule:

- 1 From the list of schedules, select the schedule you want to edit and click the Edit button or double-click the schedule.
The Schedule Editor window opens with the schedule ready to be edited.
- 2 Follow the directions in “Editing a Schedule” on page 6.16.

Removing a Schedule

You can remove a schedule from the site's list of schedules. This does not erase or destroy the schedule.

To remove a schedule:

From the list of schedules, select the schedule you want to remove and click the Remove button

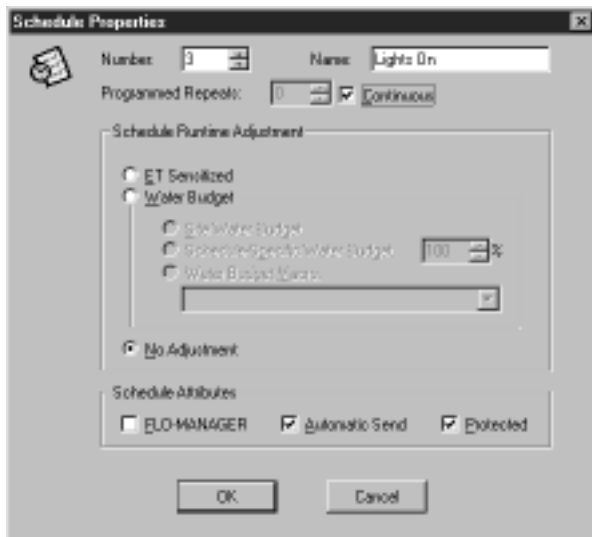
The schedule is removed from the list.

Viewing and Editing a Schedule's Properties

You can view and edit the properties of a schedule from the Schedule sheet in the Site window.

To view and edit the schedule properties:

- 1 Select the schedule you would like to view or edit from the Schedule Sheet and click on the Edit button. The Schedule Properties dialog box is displayed.



Schedule Sheet

- 2 View or modify the schedule's properties. Click the OK button to save your changes and return to the Schedule Sheet.

Previewing a Schedule

You can preview the contents of a schedule from the Schedules Sheet in the Site window.

To preview a schedule:

- 1 Select the schedule you would like to preview from the Site window and click on the Preview button. The Preview dialog box is displayed.
- 2 Click the Print button if you would like to print the schedule and the Close button to return to the Schedule sheet.

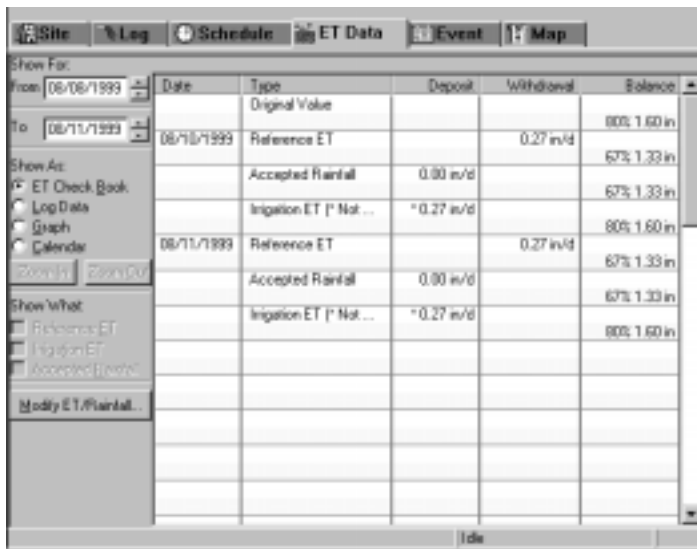
Viewing and Editing a Site's ET Data

The site's evapotranspiration (ET) data appears on the ET Data sheet. From the ET Data sheet, you can view any combination of actual ET, irrigation, and accepted rainfall data in the form of a check book, log, graph, or calendar — and for the time period you specify.

To view ET data:

- 1 With the Site window open, select the ET Data tab.

The ET Data sheet comes to the front of the stack.



Date	Type	Deposit	Withdrawal	Balance
	Original Value			800: 1.60 in
06/08/1999	Reference ET		0.27 in/d	67% 1.33 in
	Accepted Rainfall	0.00 in/d		67% 1.33 in
	Irrigation ET (Nat ...	*0.27 in/d		80% 1.60 in
06/11/1999	Reference ET		0.27 in/d	67% 1.33 in
	Accepted Rainfall	0.00 in/d		67% 1.33 in
	Irrigation ET (Nat ...	*0.27 in/d		80% 1.60 in

ET Data Sheet

- 2 Select the type of data you would like to view, as described in this section.

Your selection appears in the depiction area on the right side of the ET Data sheet.



The depiction area has scroll bars that allow you to see data that does not fit in the window.



To increase display resolution, consult your Windows95/98 user manual.

- 3 When you are finished viewing ET data, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Selecting the Time Period to View

You can select the exact time period for which to view ET data. The area in which you select the time period is in the upper left portion of the ET Data sheet and is entitled “Show For.”

To select the time period:

- 1 Enter the start date in the From field or use the scroll buttons on the right of the field to select a date without typing. Enter the date in the format 07/11/1999.
- 2 Enter the end date in the To field or use the scroll buttons on the right of the field to select a date without typing. Enter the date in the format 07/11/1999.

Selecting to View Data as a Check Book, Log, Graph, or Calendar

You can select to view ET data in check book, log, graph, or calendar format. The check book option allows you to see moisture deposits (rainfall and irrigation) and withdraws (evapotranspiration). The area in which you make this selection is on the right side of the ET Data sheet and is entitled “Show As.”

To select the format:

Select the ET Check Book, Log Data, Graph or Calendar radio button.

Selecting the Type of Data to View

Depending upon the selection you make in the “Show As” area, you can select any combination of actual ET data, irrigation data, and accepted rainfall data. Certain selections in the “Show As” area make some “Show What” checkboxes unavailable.

To select the type of data you would like to view:

Select any combination of checkboxes labeled Rainfall ET, Irrigation ET and Accepted Rainfall.



If you try to enter an end date that is earlier than the start date, you will see an error message.



The ET Data sheet provides you with Zoom In and Zoom Out buttons in the Graph format so that you can view the data by week, month, or year.

Modifying the ET or Rainfall

You can modify the ET and Rainfall for a specific day. This information will apply only to the day you select. The other site values for ET and rainfall will remain the same.

To modify the ET or rainfall:

Enter the date in the Modify for field or use the scroll buttons on the right of the field to select a date without typing. Enter the date in the format 07/11/1999.

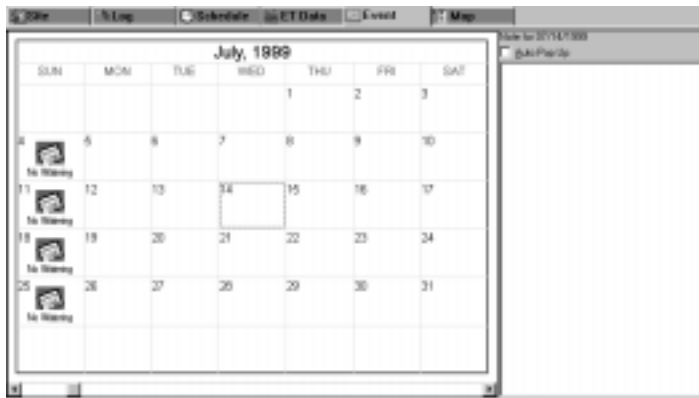
Viewing and Editing a Site's Event Data

The Event sheet displays a calendar for the open site. The calendar is displayed based upon the current date, but you can scroll forward to the first month of the next calendar year or back to the last month of the previous calendar year.

To view and edit event data:

- 1 With the Site window open, select the Event tab.

The Event sheet comes to the front of the stack.



Event Sheet

- 2 If necessary, make changes to the sheet, as described in this section.
- 3 When you are finished viewing and editing event data, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Setting No Watering Days

You may want to prevent the system from automatically sending schedules to the CCU on specific days, thus suspending the watering schedule during these days. You can do this from the Event sheet. The default for each day is automatically sending the schedules.



You can also double-click on the day to make it a No Water day.

To set no water days:

- 1 Select the day you want.

The day is highlighted.

- 2 Right-click.

A pop-up menu is displayed.

- 3 Select No Watering Day.

A No Auto Watering icon is displayed on the selected day and automatic sends for that day will be skipped for that day only.

Setting Auto Pop-Up memos

You can write memos that will automatically pop-up on the day you select.

To write an Auto Pop-Up memo:

- 1 Select the day you want.

The day is highlighted.

- 2 Check the Auto Pop-Up checkbox.

- 3 Enter your memo in the box below the Auto Pop-Up checkbox.

Your memo will automatically pop up on the day you selected.

Setting Up and Viewing the Site Map

The Site window's Map sheet allows you to join the site's image file with other site data so that you can see the site map quickly and easily.

To view the site map:

- 1 With the Site window open, select the Map tab.

The Map sheet comes to the front of the stack.



Map Sheet with Site Map Image File

- 2 If you need to join the site's image file with other site data, follow the directions in this section.
- 3 When you are finished viewing the site map, you can select another tabbed sheet, close the Site window, or leave the Site window open while you work in another area of Maxicom².

Joining the Site's Map File with Other Site Data

To see the site map when you open the Map sheet, you have to tell Maxicom² where to find the image file.

To join the site's map image with other Site data:

- 1 Click the Select Map button at the bottom of the Map sheet.
The Open dialog box is displayed.
- 2 Enter the pathname to the site map image file in the File name field. If you are unsure of the file's location, click one of the other files displayed (only image files are displayed by default), then double-click the name of the file.
- 3 Click the Open button.
The map image is located and displayed on the Map sheet.



Scroll bars on the Map sheet allow you to scroll to see parts of the map that may not fit in the window.



The Map sheet provides you with Zoom In and Zoom Out buttons so you can enlarge your view of the map.

Changing the Size of the Map

A set of radio buttons on the Map sheet allows you to size the map to normal size or to fit in the window. To select the size of the map:

Click either the Normal Size or Fit In Window radio button.

The map adjusts to the size you specify.

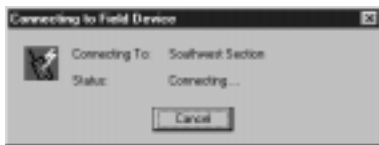
Manually Contacting a Site's CCU

You can contact the site's CCU manually at any time to check schedule progress or status.

To contact the site's CCU:

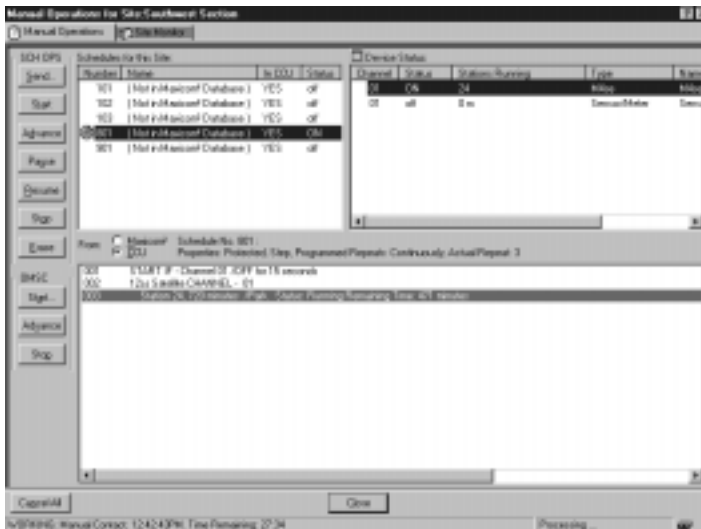
- 1 With the Site window open, click the Connect button on the Site window toolbar. Or select Manual Contact from the Site menu, then select Connect.

Maxicom² displays a status dialog box as it attempts to contact the CCU.



Connecting to Field Device Dialog Box

If Maxicom² successfully contacts the CCU, the Manual Operations for Site window opens, with the Manual Operations sheet displayed.



Manual Operations Window with Manual Operations Sheet Displayed



For more information about using the Manual button, see “Manually Operating Site Schedules” on page 7.23 and “Monitoring and Operating Site Channels” on page 7.26.

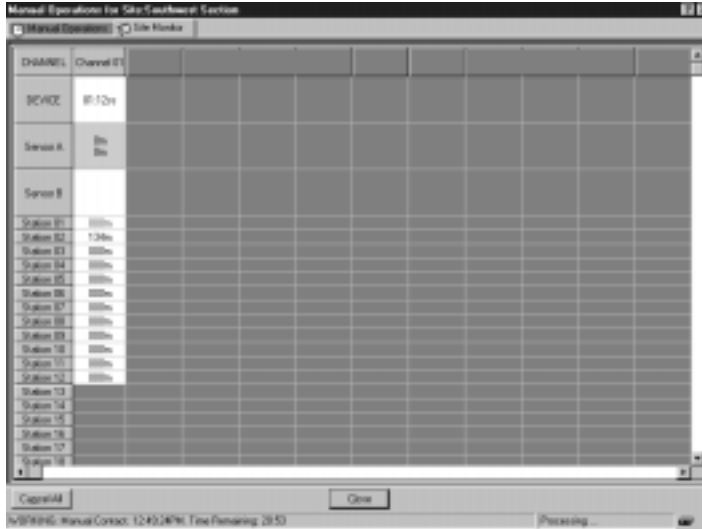


For more information about communication, see “Viewing Maxicom²'s Communication Status” on page 10.1.

If Maxicom² cannot contact the CCU because the line is busy, a dialog box is displayed that gives you the option of interrupting the process on the line, receiving notice when the line is available, or aborting the attempt.

- 2 To see more information, select the Site Monitor tab to display the Site Monitor sheet or select Manual Contact from the Site menu and then select Monitor Site.

The Site Monitor sheet is displayed.



Manual Operations Window with Site Monitor Sheet Displayed

- 3 To close the Manual Operations for Site window, click on Close to save your changes and close the window or click on Cancel to close the window without saving your changes.
- 4 When you are finished with the connection, click the Disconnect button on the Site window toolbar or choose Disconnect from the Site menu.

The contact is discontinued.

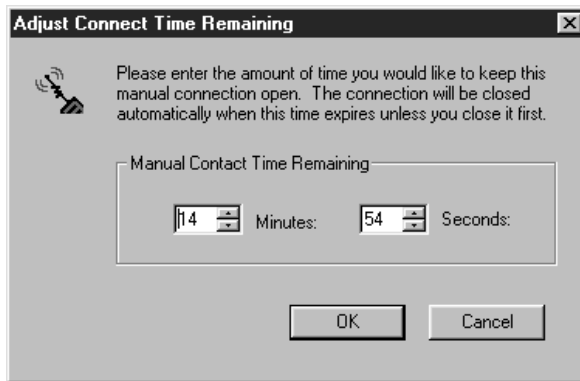
Adjusting the Amount of Time for Contact

When you contact the CCU manually, you may find that the normal time-out period specified for communication is not enough. You can, however, increase the amount of time allotted.

To increase the amount of time remaining for a manual contact:

- 1 Double click the value in the Time Left field at the bottom of the Site window or select Manual Contact from the Site menu and then select Adjust Remaining Time.

The Adjust Connect Time dialog box is displayed.



Adjust Connect Time Remaining Dialog Box

- 2 Enter the number of minutes you want to keep the connection open or use the scroll buttons on the right side of the Minutes field to enter a number without typing. You must enter a number between zero and 1600. While usually not necessary, you may also enter the number of seconds you want to keep the connection open or use the scroll buttons on the right side of the Seconds field to enter a number without typing. You must enter a number between 0 and 59.
- 3 Click OK to save the time you selected or Cancel to exit the dialog box without saving your changes..

The Time Remaining value changes to the amount you have specified

Viewing Wireless Diagnostic Data

You can view data about contact between a site and the CCU using the Wireless Diagnostics dialog box. The box displays messages answered and received, the number of packets sent, the number of busy times and available times and the MaxiLINK used.

To view wireless diagnostics:

- 1 With a site open, select Wireless Diagnostics from the Site menu.

The Wireless Diagnostics dialog box is displayed.

Wireless Diagnostics					
Show For:	CCU	Channel 1	Channel 2	Channel 3	Channel 4
DEVICE	CCU4 Radio Link	Flex 11rd Controller	NOA		
Log 1	(M)0 Busy:8 Free:34749 Lnk:1291	MA:100% MR:99%	NOA		
Log 2	(M)0 Busy:8 Free:34753 Lnk:1287	MA:NA MR:NA	NOA		
Log 3	(M)0 Busy:8 Free:34742 Lnk:1290	MA:NA MR:NA	NOA		
Log 4	(M)0 Busy:8 Free:34754 Lnk:1240	MA:NA MR:NA	NOA		
Log 5	(M)0 Busy:8 Free:34741 Lnk:1299	MA:NA MR:NA	NOA		
Log 6	(M)0 Busy:8 Free:34746 Lnk:1290	MA:NA MR:NA	NOA		
Log 7	(M)0 Busy:8 Free:34743 Lnk:1297	MA:NA MR:NA	NOA		
Log 8	(M)0 Busy:8 Free:34746 Lnk:1290	MA:NA MR:NA	NOA		
Log 9	(M)0 Busy:8 Free:34749 Lnk:1291	MA:NA MR:NA	NOA		
Log 10	(M)0 Busy:8 Free:34746 Lnk:1294	MA:NA MR:NA	NOA		
Log 11	(M)0 Busy:8 Free:34729 Lnk:1281	MA:NA MR:NA	NOA		
Log 12	(M)0 Busy:8 Free:34747 Lnk:1293	MA:NA MR:NA	NOA		
Log 13	(M)0 Busy:8 Free:34746 Lnk:1294	MA:NA MR:NA	NOA		
Log 14	(M)0 Busy:8 Free:3387 Lnk:128	MA:NA MR:NA	NOA		

Wireless Diagnostics Dialog Box

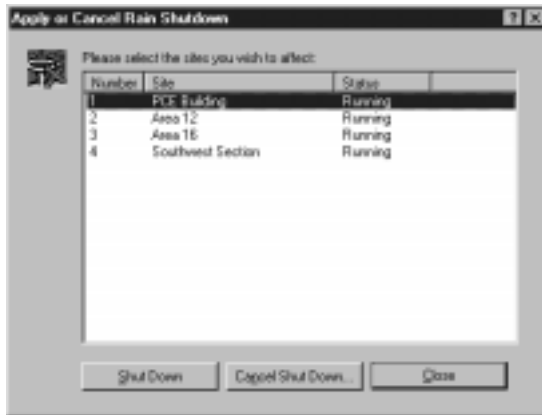
- 2 Click the Print button to print the sheet.
- 3 Click the Close button when you are finished.

Setting Rain Shut Down for a Site

The Rain Shut Down feature allows you to turn off all irrigation for the site until you turn it back on. To set Rain Shut Down:

- 1 Click the Rain Shut Down icon on the Site window toolbar or select Rain Shut Down from the Site menu.

The Rain Shut Down dialog box is displayed.



To sort the sites in the Rain Shut Down dialog box by the name of the site or by Rain Shut Down status, click the corresponding heading button.

Rain Shut Down Dialog Box

- 2 Select the site(s) you want to affect.
- 3 Click the Shut Down button to place Rain Shut Down into effect or click the Cancel Shut Down button to cancel a Rain Shut Down. Click Close to return to the Site window.

Manually Operating Site Schedules

You can use the Manual Operation dialog box to operate a site's schedules manually. The Manual Operations dialog box has two sheets; the Manual Operations sheet is for manually operating schedules. The left side of the Manual Schedule Operations sheet displays a list of all schedules assigned to the site by number, name, whether they are in the CCU, and whether or not they are currently active. Clicking on a schedule displays the currently executing step of the selected schedule in a window below the Manual Operations sheet.

From the Manual Operations sheet of the Manual Operations dialog box, the following manual Schedule Operations (SCH OPS) buttons are available:

- **Send** — sends the selected schedule to the CCU.
- **Start** — starts the selected schedule.
- **Advance** — advances the selected schedule to the next step in that schedule.
- **Pause** — pauses the selected schedule temporarily until you resume it manually.
- **Resume** — resumes the selected schedule at the point where it was paused.
- **Stop** — stops the selected active schedule from executing during the present run only.
- **Erase** — erases the selected schedule from the CCU's memory.

To operate schedules manually:

1 If you are:

- **not currently connected to a site;** with the Site window open, click the Connect button on the Site window toolbar. Or select Manual Contact from the Site menu, then select Connect.

Maxicom² contacts the CCU and the Manual Operations for Site window opens, with the Manual Operations sheet displayed.

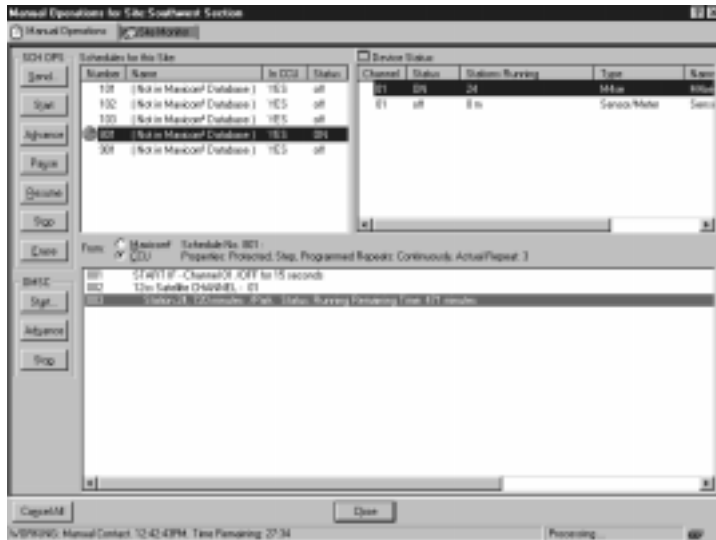
- **currently connected to a site but the Manual Operations for Site window is not open:**

With the Site window open, click on the Manual Site Operations button on the Site Window toolbar. Or select Manual Contact from the Site menu and then select Manual Operations.

The Manual Operations for Site window opens, with the Manual Operations sheet displayed.

2 Select the Manual Operations tabbed sheet and click on the number of the schedule you want to manually control.

The properties of the schedule will appear in a window below.



To advance the activity you have set up to the next station, click the Advance button; to stop the activity you have set up, click the Stop button.

Manual Operations Dialog Box

- Use the SCHED OPS buttons to the left of the window to control schedule operations manually.
- When you are finished operating schedules manually, click the Close button to close the dialog box or monitor the site as described in “Monitoring and Operating Site Channels,” on page 7.26.

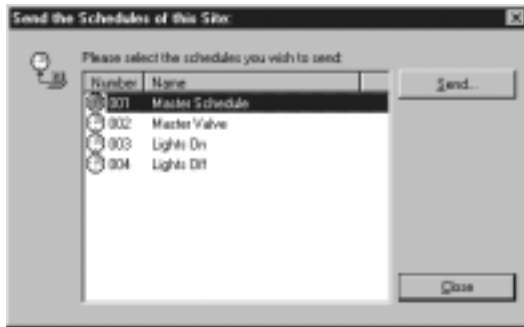
Sending Schedules to the CCU

You can manually send the day's schedules all at once to the CCU at any time.

To send the day's schedules to the CCU:

- 1 With the site open, select Send Today's Schedules to CCU from the Site menu or click the Send Schedules button on the Site toolbar.

The Send the Schedules of this Site dialog box appears.



Send the Schedules of this Site Dialog Box

- 2 Choose the schedule or schedules you wish to send to the CCU and click the Send button.
- 3 If you are not already connected to the CCU, clicking the Send button will automatically connect you. All of the schedules you selected will be sent.
- 4 After you are finished, click the Close button to close the dialog box.

Sending Configuration Data to the CCU

After you have entered new configuration data for a site, you can manually send that data to the CCU.

To send configuration data to the CCU:

- 1 With the site open, select Send Configuration Data to CCU from the Site menu or click the Send Configuration button on the Site toolbar.

A dialog appears that shows the new information being sent.

- 2 If you are not already connected to the CCU, clicking the Send button will automatically connect you.

If you wish to stop sending the configuration data before the dialog box closes, click Cancel.

The dialog box will automatically close after your new information has been sent to the CCU.



If you select Site Monitoring on the Manual Operations sheet, you can sort the list of channels by channel number, device name, name, status, or stations running by clicking the corresponding heading.



To sort the list of schedules by number, name, whether it is in the CCU, or whether it is active, click the corresponding heading button.

Monitoring and Operating Site Channels

The Manual Operations dialog box allows you to monitor a site and operate selected channels. You do so from the Manual Operations tabbed sheet in the Site Monitoring and OMSC (On-line Manual Station Control) windows. With these functions, you can start, advance, or stop activity on a selected channel.

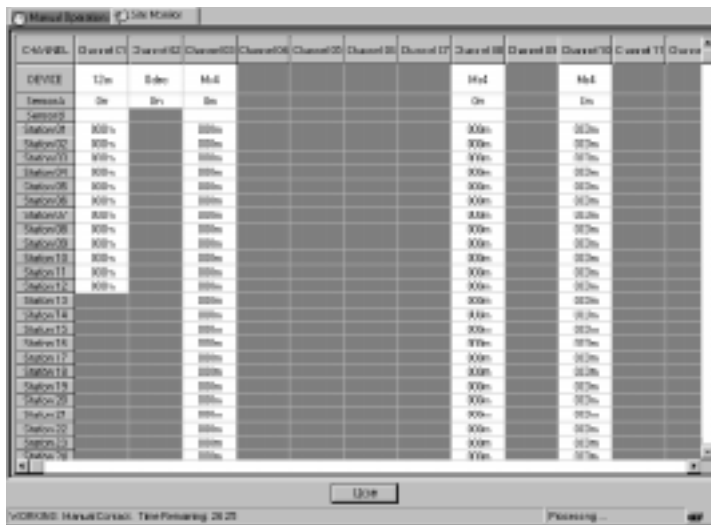
To monitor site channels:

- 1 With the Site window open, click the Manual button on the Site window toolbar. Or, select Manual Contact from the Site menu then select Monitor Site.

The Manual Operations dialog box is displayed. If you are not already on line with the CCU, Maxicom² establishes contact with the CCU and continues contact for as long as the Manual Operations dialog box remains open.

- 2 To view the status of the channels, device name, sensors and station, click on the Site Monitor tab.

The Site Monitor sheet is displayed. You can monitor the activities of the channels by their device name, status, and stations running.



The screenshot shows a window titled "Manual Operations" with a "Site Monitor" tab selected. The window displays a table with columns for "DEVICE", "Channel 01", "Channel 02", "Channel 03", "Channel 04", "Channel 05", "Channel 06", "Channel 07", "Channel 08", "Channel 09", "Channel 10", "Channel 11", "Channel 12", "Channel 13", "Channel 14", "Channel 15", "Channel 16", "Channel 17", "Channel 18", "Channel 19", "Channel 20", "Channel 21", "Channel 22", "Channel 23", "Channel 24", "Channel 25", "Channel 26", "Channel 27", "Channel 28", "Channel 29", "Channel 30", "Channel 31", "Channel 32", "Channel 33", "Channel 34", "Channel 35", "Channel 36", "Channel 37", "Channel 38", "Channel 39", "Channel 40". The table contains data for various stations, with some cells containing blue numbers (e.g., 100%, 50%, 20%) indicating active status. A "Close" button is visible at the bottom of the dialog box.



Blue numbers on the Site Monitor sheet indicate stations that are currently operating.

Site Monitor Sheet-

- 3 Click on the Close button to close the dialog box, or click on the Manual Operations tab to manually operate the site's channels.

To manually operate site channels:

- 1 In the Device Status window of the Manual Operations sheet, click on the the channel you want.

The OMSC window displays the currently executing steps of the channel.

- 2 Click the Start button on the left side of the OMSC window.

The Start Stations dialog box for the channel you selected appears.



Start Stations Dialog Box

- 3 The Run Time window allows you to adjust the time by either entering the number of minutes or using the scroll buttons to enter a number without typing.
- 4 With the station you want to affect selected, click the Apply button to apply the runtime you entered for the station.
- 5 Click the Send Command button to instruct the CCU to turn the station on immediately for the runtime you entered.

The stations you selected run for the amount of time you specified.

- 6 Click the Close button to exit the Start Stations dialog box and return to the Manual Operations sheet.
- 7 When you are finished manually operating the site, click the Close button to close the Manual Operations for Site dialog box and select Disconnect from the Site Window toolbar to disconnect from the site.

Weather source data is used for analysis of site requirements and for maintenance of a historical database. After you have set up a weather source, you may want to view historical or recent data from the weather source, contact the weather source manually, or monitor the weather source. This chapter describes how to do so.

Using the Weather Source Window and Toolbar

The Weather Source window allows you to view historical and recent data from the weather source and contact the weather source manually. The Weather Source window has two tabbed sheets: Historical and Recent, which are described in the following sections. In addition, the Weather Source toolbar contains six buttons that allow you to perform the following operations:



Weather Source Window Toolbar

- **Connect**— allows you to contact a weather source manually. For more information, see “Manually Contacting a Weather Source” on page 8.8.
- **Monitor Weather**— allows you to view the current data from the weather source, see “Displaying Current Weather Source Data” on page 8.9.
- **Get Logged Data**— retrieves logged weather data from the weather source, see “Getting Logged Weather Source Data” on page 8.10.
- **Disconnect** — allows you to end manual contact with a weather source. For more information, see “Disconnecting from a Weather Source” on page 8.12.
- **Weather Properties** — displays the Weather Properties Setup dialog box so you can change a weather source name, password and type.
- **Update User-Entered Weather Source** — displays a dialog box so you can change information about temperature, rainfall, humidity, solar radiation, wind direction, and wind speed for the open weather source.

To open a Weather Source window for a new weather source:

Select the New option from the Weather menu.

The Weather Source wizard begins to run automatically. Follow the directions in “Using the Weather Source Wizard for Interactive Setup” on page 5.2. At the completion of the wizard, a Weather Source window opens for the new weather source.



For information about setting up a new weather source or changing an existing weather source's properties, see “Setting Weather Source Properties” on page 5.1.



The Update User-Entered Weather Source option is only available for User-Entered Weather Sources, not any other type of weather source.

To open a Weather Source window for an existing weather source:

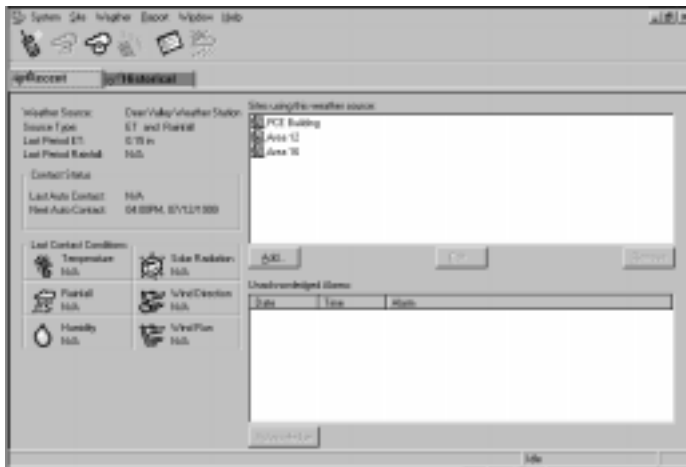
Select Open from the Weather menu or click the Open button on the System toolbar. Then select the name of the weather source you want and click the Open button.

A Weather Source window opens for the weather source you have selected.

To open a window for a weather source that has been recently used:

- 1 Select the name of the weather source from the Weather menu. (Up to nine previously used weather source files are listed on the Weather menu.)

A Weather Source window opens for the weather source you have selected.



The contact region on the bottom of the Weather Source window displays the time of the last contact with the open weather source, the time of the next scheduled contact, and the amount of time left until the current data expires.

Weather Source Window

- 2 View or edit the weather source data as described in this chapter.
- 3 When you are finished viewing and editing weather source data, select the Close option from the Weather menu or click the Close button on the Weather Source window to close the window and save your changes or select the Abandon Changes option from the Weather menu to close the window without saving your changes.

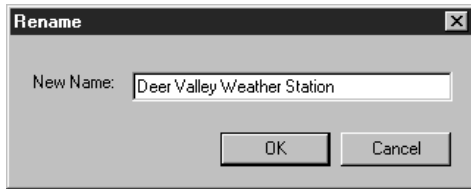
Renaming a Weather Source

Maxicom² allows you to change an existing weather source's name.

To rename a weather source:

- 1 With the weather source you want to rename open, select the Rename option from the Weather menu.

The Rename dialog box is displayed with the current name of the weather source in the text field.



Rename Dialog Box

- 2 Enter the new name and click OK.

The new name replaces the old name.

Deleting a Weather Source

You can delete an existing weather source in Maxicom².

To delete an existing weather source:

- 1 With the weather source you want to delete open, select the Delete option from the Weather menu.

A dialog box is displayed asking you to confirm that you want to delete the weather source.

- 2 Click the OK button.

The weather source is deleted.

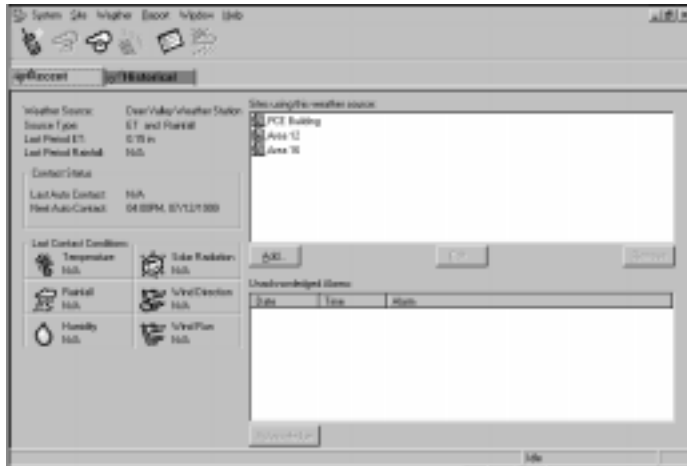
Viewing Recent Weather Source Data

The Recent sheet of the Weather Source window contains the most recent weather statistics, a list of sites assigned to the weather source, and any unacknowledged alarms associated with the weather source.

To view recent weather source data:

- 1 With the Weather Source window open, select the Recent tab.

The Recent sheet comes to the front of the stack.



If data arrives while the Weather Source window is open, the window will change accordingly.

Recent Sheet

- 2 View or edit the recent weather source data as described in this section.
- 3 When you are finished viewing and editing recent weather source data, you can select another tabbed sheet, close the Weather Source window, or leave the Weather Source window open while you work in another area of Maxicom².

Viewing the Most Recent Statistics

The summary of recent weather source data appears on the left side of the Recent sheet. It includes:

- **Weather Source** — the name of the weather source.
- **Source Type** — the type of weather source.
- **Last Period ET** — the latest value for evapotranspiration.
- **Last Period Rainfall** — the latest value for rainfall.
- **Contact Status** — the time of the last contact and the time of the next scheduled contact.
- **Last Contact Conditions** — a summary of data from the last contact including temperature, rainfall, humidity, solar radiation, wind direction, and wind run.

Viewing and Editing the Sites Assigned to the Weather Source

The upper right portion of the sheet Recent sheet contains a list of all sites assigned to the weather source. You can add, edit, and remove sites on this list.

To add a site to the list:

- 1 Click the Add button.

The Select Sites dialog box is displayed containing a list of all sites configured in Maxicom².

- 2 Enter or select the name of the site you want to assign to the open weather source and click OK.

The site you have chosen is assigned to the open weather source.



For more information about using the Site window, see “Using the Site Window and Toolbar” on page 7.1.

To remove an assigned site:

- 1 Select the name of the site you want to remove.
- 2 Click the Remove button.

The site you have chosen is removed from the open weather source. However, the site is not erased or destroyed.

To edit the properties associated with a site assigned to the weather source:

- 1 Select the site you want to edit.
- 2 Click the Edit button.

A Site window opens for the site you have selected.

Viewing and Acknowledging Unacknowledged Alarms

The Unacknowledged Alarms area of the Recent sheet is in the lower right portion of the sheet and lists the date, time, and type of alarm.

To acknowledge an alarm,

- 1 Select the alarm you want to acknowledge.
- 2 Click the Acknowledge button.



To sort the unacknowledged alarm list by date, time, or type of alarm, click the corresponding heading button.

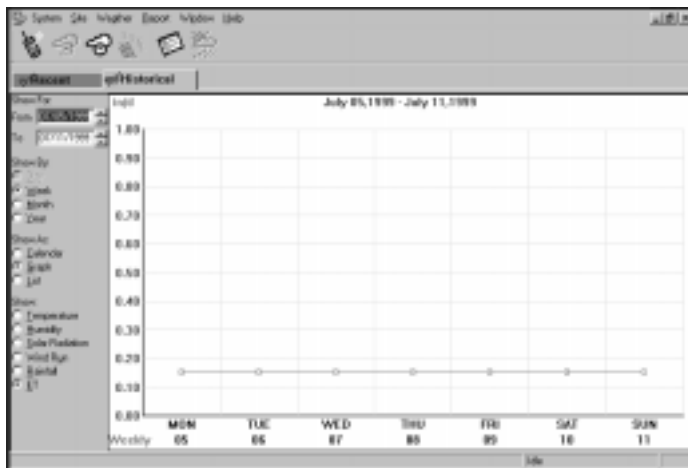
Viewing Historical Weather Source Data

The Historical sheet contains a definition area in which you select what type of information you want to view and a display area which shows the type of information you have chosen.

To view historical weather source data:

- 1 With the Weather Source window open, select the Historical sheet.

The Historical sheet comes to the front of the stack.



Scroll bars are provided on the Historical sheet so that you can view information that does not fit in the window.

Historical Sheet

- 2 View historical weather source data as described in this section.

Your selection appears in the depiction area on the right side of the Historical sheet.

- 3 When you are finished viewing historical weather source data, you can select another tabbed sheet, close the Weather Source window, or leave the Weather Source window open while you work in another area of Maxicom².

Selecting a Time Period to View

You can display historical weather source information for a particular period of time by day, week, or month. The areas in which you make this selection are in the upper left portion of the Historical sheet and are entitled Show For and Show By.

To select the time period you want:

- 1 In the Show For area, enter the dates for the time period in the From and To fields or use the scroll buttons on the right of the fields to select dates without typing. Use the format 07/11/1999.
- 2 In the Show By area, select the Day, Week, Month or Year radio button.

Selecting to View Data as a Calendar, Graph or List

You can display the data in the form of a calendar, graph, or list. The Show As area in which you make this selection is on left side of the Historical sheet.

To select how you want to display the data:

In the Show As area, click the Calendar, Graph, or List radio button.

Selecting the Type of Data to View

You can display any one of six different types of historical weather source data:

- Temperature
- Humidity
- Solar Radiation
- Wind Run
- Rainfall
- ET (evapotranspiration)

You can do so in the Show area of the Historical sheet, which is in the lower left portion of the sheet.

To select the types of data you want to display:

In the Show area, select the radio button for the type of data you want to display.

Manually Contacting a Weather Source

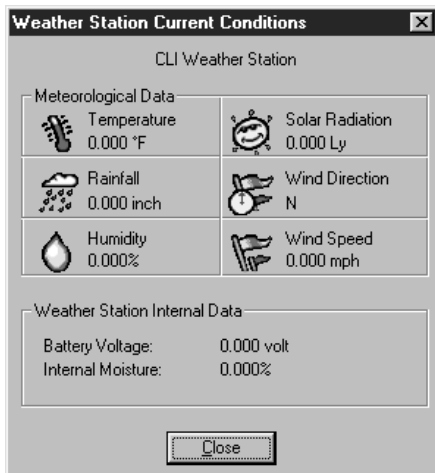
You can manually contact a weather source at any time.

To contact a weather source manually:

- 1 With the Weather Source Window open, click the Connect icon on the toolbar. Or select the Manual Contact option from the Weather menu and then select Connect.

If the assigned communications device is available, you are connected; if the device is unavailable, you are notified. If the device is busy, you are given the options of interrupting the ongoing process, receiving notice when the device is available, or aborting the contact.

The Weather Station Current Conditions dialog box appears.



Weather Station Current Conditions Dialog Box

- 2 When you are finished viewing the weather conditions, click the Close button to close the dialog box.
- 3 When you are finished with your contact, click the Disconnect button.

Contact is discontinued.



For more information about the toolbar buttons, see "Using the Weather Source Window and Toolbar" on page 8.1.



For more information about communication, see "Viewing Maxicom²'s Communication Status" on page 10.1.

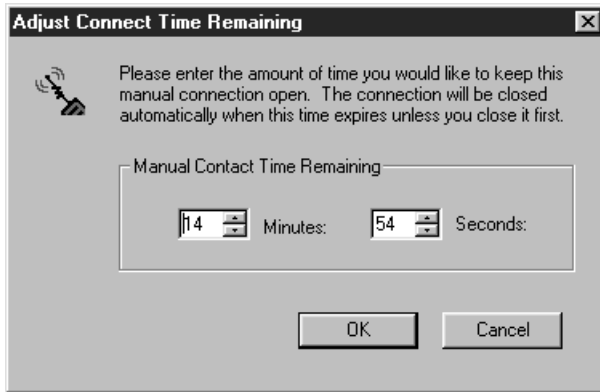
Increasing the Amount of Time for Contact

During a manual contact of a weather source, you may find that the normal time-out period specified for communications is not enough. However, you can increase the amount of time allotted.

To change the amount of time:

- 1 Click the Time Left field at the bottom of the Site window.

The Adjust Connect Time dialog box is displayed.



Adjust Connect Time Dialog Box

- 2 Manually enter the amount of time you want to keep the connection open or use the scroll buttons on the right of the field to enter a time without typing. You must enter a number between 0 and 16. Click OK.

The Time Left value changes to the amount you have specified.

Displaying Current Weather Source Data

You can view the current conditions of a weather station including the temperature, rainfall, humidity, solar radiation, wind direction, and wind speed. The dialog box also allows you to monitor the battery voltage and internal moisture of a weather station.

To monitor a weather source:

- 1 Contact the weather source. With the Weather Source window open, select Manual Contact, then select Monitor Weather.

The Weather Station Current Conditions dialog box appears.

- 2 After you are finished viewing the current conditions, click the Close button to close the dialog box.

Getting Logged Weather Source Data

You can receive logged information from a weather source to update your site's weather source database before the scheduled automatic contact.

To get logged data:

- 1 With the Weather Source window open, select Get Logged Data from the Weather menu.

The Get Weather Logs dialog box is displayed.

- 2 You can specify how many days of weather data you want to retrieve from the weather source in two ways.
 - Check the Auto Detected checkbox if you would Maxicom² to retrieve all the data since the last weather source contact. If no contact has ever been made, Maxicom² will gather 30 days of data.
 - Enter the number of days of weather data you would like to retrieve in the Days field. Or, use the scroll buttons on the right side of the field to select the days without typing.
- 3 Click the OK button.

The dialog box shows you the progress of the update of your database. You can interrupt the update at any time by clicking the Close button.

The dialog box will automatically close when it is finished transferring information.

Editing Weather Source Properties

The Weather Properties Setup dialog box has two tabbed sheets that allow you to edit the properties of a weather source, including its name, password and type.

To edit the weather source properties:

- 1 Select Properties from the Weather menu or click the Weather Source Properties button on the Weather Source toolbar.

The Weather Properties Setup dialog box opens.
- 2 Follow the directions in "Using the Weather Properties Setup Dialog Box for Setup" on page 5.3 for help in editing the properties.

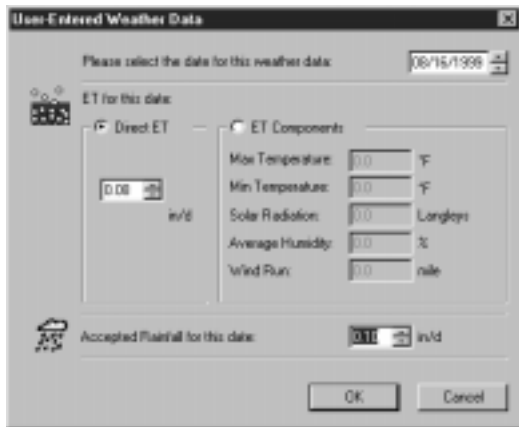
Manually Updating Weather Data

You can update weather data manually rather than gathering data from a site.

To enter weather conditions manually:

- 1 With the User-Entered Weather Source window open, select Update from the Weather menu or click the Update User Entered Weather Source button on the Weather Source toolbar.

The User-Entered Weather Data dialog box is displayed.



User-Entered Weather Data Dialog Box

- 2 Enter the date for the weather data in the Date field or use the scroll buttons on the right of the field to select a date without typing.
- 3 Select either the Direct ET or ET Components radio button.
- 4 If you selected Direct ET, enter the ET value in the appropriate field or use the scroll buttons on the right of the field to select a value without typing.
- 5 If you selected ET Components, enter values for each component listed.
- 6 Enter a value in the Accepted Rainfall field or use the scroll buttons to the right of the field to enter a value without typing.
- 7 Click the OK button.

The data you entered is added to the system.

Disconnecting from a Weather Source

You can manually disconnect from a weather source at any time.

To manually disconnect from a weather source:

With the Weather Source window open, select the Manual Contact option from the Weather menu and then select Disconnect. Or click the Disconnect icon on the toolbar.

Contact is disconnected.

This chapter describes how to view different types of information in the event log and how to generate reports from the log and other sources.

Using the Event Log Window and Toolbar

The Event Log window allows you to view Maxicom² events and alarms. It also allows you to sort, filter, and clear entries in the event log and to create reports from event log data. The Event Log window shows the following information about all events in the system that have not been cleared:

- **Type** — shows alarm, warning, or event.
- **Date** — shows the date of the event.
- **Description** — shows a short description of the event.
- **From** — shows where the event occurred.
- **Acknowledged** — shows whether or not the event has been acknowledged.

The Event Log window toolbar contains the following icons, which are described in detail in this section:



Event Log Window Toolbar

- **Acknowledge** — allows you to acknowledge an alarm.
- **Acknowledge All** — allows you to acknowledge all the alarms in the Event Log window.
- **Clear** — allows you to clear entries from the log.
- **Delete All** — Deletes all events from the Event Log.
- **Statistics** — Shows specific event statistics for all sites or weather sources.
- **Filter** — allows you to select which events to display in the Event log window.
- **Refresh** — allows you to update the data displayed in the Event Log window.
- **Report** — allows you to create a report from the event log.

You can change how you view the data in the event log, but you cannot edit the information in the log.



If there are alarms present in the Event Log window, Maxicom² will display an alarm in the Selection Pane and you will hear an alarm bell. There are four ways turn off the alarm(s):

- *select the alarm in the Event Log window and click on the Acknowledge button to acknowledge the alarm*
- *click on the Acknowledge All button to acknowledge all of the events in the Event Log window*
- *select the alarm in the Event Log window and then click on the Clear button to delete the entry from the Event Log window*
- *click on the Delete All button to delete all Event Log entries*

To open the Event Log window:

- 1 Click the Event Log icon in the Selection pane. Or, if the Maxicom² Central menu is displayed, click the Alarms hot spot.

The Event Log window is displayed.



To sort the information according to the type, date, source, or whether or not the event has been acknowledged, click the corresponding heading.

Type	Date	Description	From	Acknowledged
Warning	08/10/1999 10:34:04	Remote modem did not answer. (COM1)	PC2 Building	YES
Event	08/10/1999 11:4:37	Maxicom ² Control Engine launched	LocalMachine	YES
Warning	08/10/1999 09:08:04	Invalid phone number. (COM1)	Southwest Weather Station	YES
Alarm	08/10/1999 09:28:04	Invalid Source/Automatic Receive-Contact failed. (COM1)	CL1 Weather Station	YES
Warning	08/10/1999 06:03:04	Incomplete contact in Schedule 1.	Area 12	YES
Warning	08/10/1999 06:03:04	Missing channel number in Schedule 2. Schedule not sent.	Area 12	YES
Event	08/10/1999 03:02:04	Site/Automatic Send-Contact was successful. (COM1)	PC2 Building	YES
Event	08/10/1999 06:13:04	No schedule sent today.	Area 16	YES
Alarm	08/10/1999 06:13:04	Site-Automatic Send-Contact failed. (COM1)	Area 16	YES
Event	08/10/1999 08:07:04	Not enough data for VisualCC3 to perform schedule operation.	Area 12	YES
Alarm	08/11/1999 08:05:04	Site-Automatic Receive-Contact failed. (COM1)	Area 12	YES
Event	08/11/1999 10:30:04	Maxicom ² Control Engine launched	LocalMachine	YES
Event	08/11/1999 08:43:04	Site manual contact was successful. (COM1)	Southwest Section	NO
Event	08/11/1999 08:53:04	Site manual contact was successful. (COM1)	Southwest Section	NO

Event Log Window

- 2 Filter or clear data, or create a report from the event log as described in this section.

Filtering Data in the Event Log

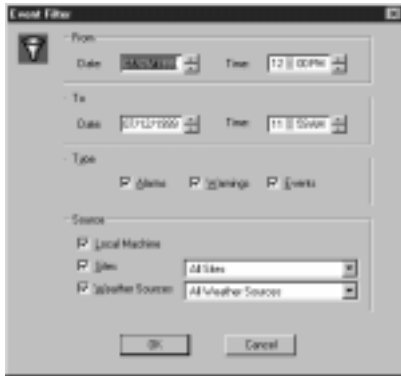
You can filter data in the Event Log window so that you view only the data most important to you. You can filter data to include or exclude any combination of the following:

- **Alarms** — a notice concerning system integrity either at the pc or in the field.
- **Warnings** — any contact or cancellation with the site or the weather station.
- **Events** — any action to or by Maxicom².

To filter data in the Event Log window

- 1 Click the Filter icon on the toolbar.

The Event Filter dialog box is displayed.



Select Events Dialog Box

- 2 Check the items you want to display, then click the OK button.

The Event Log window reflects your selection.

Acknowledging Events in the Event Log

You can acknowledge events in two ways:

- **Acknowledge** — allows you to acknowledge a single event.
- **Acknowledge All** — allows you to acknowledge all events at once.

To acknowledge an event:

- 1 Click on the event that you would like to acknowledge.
- 2 Click on the Acknowledge button on the Event Log toolbar.

The event is acknowledged.

To acknowledge all events at once:

- 1 Click on the Acknowledge All button on the Event Log toolbar.

A dialog box appears asking you to confirm that you want to acknowledge all of the events.

- 2 Click the Yes button to acknowledge all the events.

All events are acknowledged.



You can preview and print out a report of the Event Log window. For more information, see “Creating a Report from the Event Log,” page 9.5.



You can also acknowledge an alarm from the Site window. For more information, see “Viewing and Acknowledging an Unacknowledged Alarm” on page 7.5.

Clearing Events from the Event Log

You can clear events in two ways:

- **Clear** — allows you to clear a single event.
- **Delete** — allows you to clear all events at once.

To clear an event:

- 1 Click on the event that you would like to clear.
- 2 Click on the Clear button on the Event Log toolbar.

The event is cleared.

To clear all events at once:

- 1 Click on the Delete All button on the Event Log toolbar.

A dialog box appears asking you to confirm that you want to clear all of the events.

- 2 Click the Yes button to clear all the events.

All events are cleared.



Once entries in the Event Log window are cleared, you cannot retrieve them.

Viewing Event log Statistics

The event log statistics shows you the following information for all sites and weather sources:

- Site/Weather Source Number
- Site/Weather Source Name
- The number of occurrences of each of the following events for each Site/Weather Source:
 - Auto Send
 - Auto Receive
 - Rain Shutdown
 - Site Rain Counter (SRC) or Site ET Counter (SETC) Contacts
 - Manual Contacts
 - Warnings
 - Alarms

To view the Event Log Statistics:

Click on the Statistics button on the Event Log toolbar.

The Event Log Statistics dialog box is displayed.

Refreshing Event Log Data

You can update (refresh) the data displayed in the Event Log window.

To update the data in the Event Log window:

Click on the Refresh button.

The Event Log data is updated.

Creating a Report from the Event Log

You can create a hard copy report from the data in the event log.

To create a report:

- 1 With the Event Log window open, click the Report button on the Event Log window toolbar.

A preview of the Event Log Data report is displayed.

- 2 To view and print the report; click the:
 - **Print** button to print the report
 - **Next Page** button to view the next page
 - **Two Page** button to view the report in the two page format
 - **Zoom In/Zoom Out** buttons to resize the report view
 - **Close** button to close the Event Log Dialog Report window



For more information about printing and emailing, see your Windows95 user manual.

Using the Report Wizard for Generating Reports

The Report wizard is an easy, interactive guide that helps you to generate reports on field devices, flow/time/costs and schedules.

To use the Report wizard:

- 1 Select the type of report you want from the Report menu.

The Report wizard begins to run automatically. The Wizard dialog box is displayed, giving information about how the wizard works.



Report Wizard

- 2 Follow the instructions in the wizard.
- 3 After finishing each section of the wizard, click the Next button. The next section of the wizard will be displayed.
- 4 When you have finished the last section of the wizard, click the finish button.

The wizard will generate the report you requested and display it. See “Previewing and Printing Reports,” for more information on previewing and printing your reports.



For more information about printing and emailing, see your Windows95 user manual.



If you want to change direction or cancel the wizard at any time, click the Back button to return to the previous section, or click the Cancel button to cancel the wizard entirely.

Creating a Field Device Report

You can create a field device report that tells how the CCU and its attached field devices are configured.

To create a field device report:

- 1 From the Reports menu, select the Field Device option.

The Create a Field Device Report Wizard begins.



Create a Field Device Report Wizard

- 2 Enter a date and time for the report in the Date and Time fields or use the scroll buttons on the right of the fields to select a date and time without typing. Use the date format 07/11/99; use the time format 04:00 PM.
Click the Next button.
- 3 From the list of sites, select the sites you want to include in the report or, if you want to include more than one site, hold down the shift key while you select the sites.
- 4 Click the Finish button.
The report you created is displayed in a Field Device Report window.
- 5 The wizard will generate the report you requested and display it. See "Previewing and Printing Reports," for more information on previewing and printing your reports.

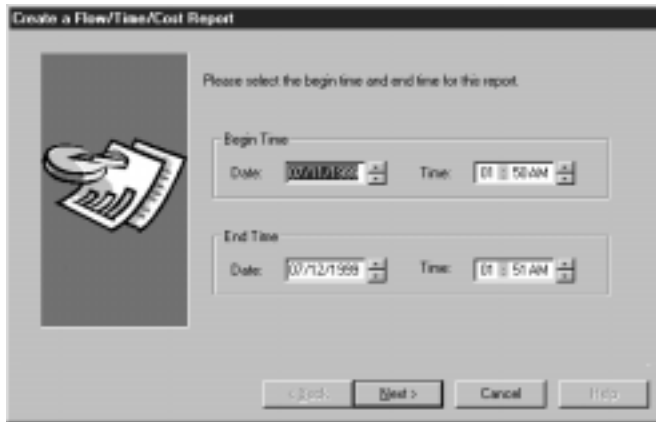
Creating a Flow/Time/Cost Report

You can quickly and easily create a report that compares flow/time/cost values for a particular site or sites.

To generate a flow/time/cost report:

- 1 From the Report menu, select the Flow/Time/Cost option.

The Create a Flow/Time/Cost Report Wizard begins.



Create a Flow/Time/Cost Report Wizard

- 2 Enter the date for which you want to begin data collection in the Start Date field or use the scroll buttons on the right of the field to select a date without typing. Use the format 07/11/1999.
- 3 Enter the time for which you want to begin data collection in the Start Time field or use the scroll buttons on the right of the field to select a time without typing. Use the time format 04:00 PM.
- 4 Enter the date for which you want to end data collection in the End Date field or use the scroll buttons on the right of the field to select a date without typing. Use the format 07/11/1999.
- 5 Enter the time for which you want to end data collection in the End Time field or use the scroll buttons on the right of the field to select a time without typing. Use the time format 04:00 PM.
Click the Next button.
- 6 Select the site you want to include in the report.

7 Choose the sections you would like to include in the report by placing a check in the checkboxes for the following options:

- Flow/Cost Section
- Station Runtime Sections

If you would like the time range for the Station Runtime automatically adjusted, check the Automatically Adjust Time Range option.

8 Click the Finish button.

The report you created is displayed in a Flow/Time/Cost Report window.

9 The wizard will generate the report you requested and display it. See “Previewing and Printing Reports,” for more information on previewing and printing your reports.

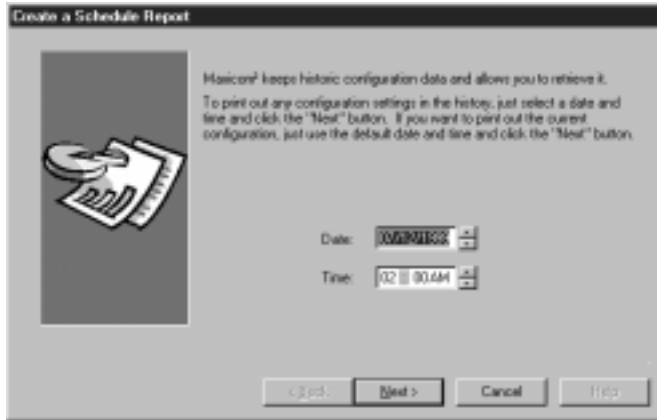
Creating a Schedule Report

You can create a report about a selected schedule or schedules.

To create a schedule report:

- 1 From the Reports menu, select the Schedule option.

The Create a Schedule Report Wizard begins.



Create a Schedule Report Wizard

- 2 Enter a date and time for the report in the Date and Time fields or use the scroll buttons on the right of the fields to select a date and time without typing. Use the date format 07/11/1999; use the time format 04:00 PM.
Click the Next button.
- 3 From the list of sites, select the sites you want to include in the report or, if you want to include more than one site, hold down the shift key while you select the sites.
- 4 From the list of schedules, select the schedule you want to include in the report, or if you want to include more than one schedule, hold down the shift key while you select the sites.
- 5 Click the Finish button.

The report you created is displayed in a Schedule Report window.

- 6 The wizard will generate the report you requested and display it. See "Previewing and Printing Reports," for more information on previewing and printing your reports.

Previewing and Printing Reports

After you have created a report using the Report wizard, Maxicom² will display the report preview.

Channel ID	Latency Coefficient	Cycle Time (min)	Stop Time (min)	Precipitation Rate (in)	FlowRate (GPM FLOWMETER ZONE)	FID	FLD
01. 000%	0	0	0	0.00	0.00	South Side	000
02. 000%	0	0	0	0.00	0.00		
03. 000%	0	0	0	0.00	0.00		
04. 000%	0	0	0	0.00	0.00		
05. 000%	0	0	0	0.00	0.00		
06. 000%	0	0	0	0.00	0.00		
07. 000%	0	0	0	0.00	0.00		
08. 000%	0	0	0	0.00	0.00		
09. 000%	0	0	0	0.00	0.00		
10. 000%	0	0	0	0.00	0.00		
11. 000%	0	0	0	0.00	0.00		
12. 000%	0	0	0	0.00	0.00		

Previewing a Report

From this dialog box, you have the following options for previewing and printing your reports:

- **Print**
Click on this button to print out the report you are previewing; the Print dialog box will allow you to specify which pages you would like to print.
- **Next Page**
Click on this button to preview the next page of a multi-page report.
- **Prev Page**
Click on this button to preview the previous page of a multi-page report.
- **Two Page**
Click on this button to display two pages at a time of a multi-page report in the preview window.
- **Zoom In**
Click on this button to increase the screen size of the report you are previewing.

- **Zoom Out**

Click on this button to decrease the screen size of the report you are previewing.

- **Close**

Click on this button to close the preview dialog box.

The Communication Status window allows you to view the activity on the communication devices that are configured for Maxicom². In addition, you can view background and statistical data about communication ports. The Communication Status window also lets you disconnect from a port at any time.

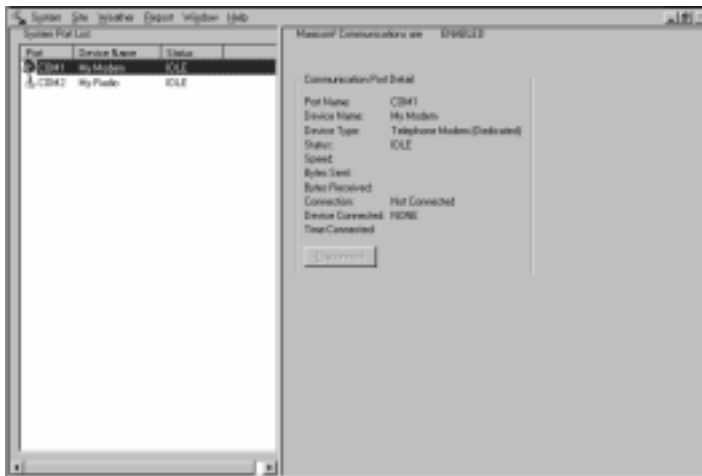
Using the Communication Status Window

The Communication Status window displays a list of all communications ports and the status of each on the right side of the window and more detailed information about the selected port on the left side of the window. If the port you are viewing is a FREEDOM communication port, please see “Viewing a FREEDOM Communication Status Window,” on page 10.4.

To open the Communication Status window:

- 1 Click the Communication Status icon on the Selection pane of the System window.

The Communication Status window is displayed.



Communication Status Window

- 2 View the communications data as described in this chapter.

Viewing the Status of All Ports Simultaneously

The area in which the status of all ports is displayed is on the left side of the Communication Status window and contains the following information:

- **Port** — shows the icon for the types of device connected to the port and the port name.
- **Device name** — shows the device name you gave the port.
- **Status** — shows the current condition on the line (idle, connected, pre-processing or initializing).



For more information about communication port properties, see “Setting Communication Properties” on page 3.4.

Viewing One Port in Detail

The area in which one port is described in detail is on the right side of the Communications Status window. None of the fields in the detail section of the Communications Status window are editable. This portion of the window contains the following information:

- **Port Name** — shows the port name. (This is the same information that appears in the all ports area on the left side of the window.)
- **Device Name** — shows the device name you gave the port. (This is the same information that appears in the all ports area on the left side of the window.)
- **Device Type** — shows the type of device connected to the port. (This corresponds to the icon that appears in the all ports area on the left side of the window.)
- **Status** — shows the current condition on the line. (This is the same information that appears in the all ports area on the left side of the window.)
- **Speed** — shows the baud rate at which communication on the line is processed.
- **Bytes Sent and Bytes Received** — shows the count of characters sent and received during the current communication session.
- **Connection** — shows either Manual or Automatic, depending on how the communication was originated. If there is no connection, this field shows Not Connected.
- **Device Connected** — shows the type and name of the device to which the line is connected.
- **Time Connected** — shows the total elapsed time since the line was connected to the site or weather source.



To sort the ports list by port, device name, or status, click the corresponding heading.

Disconnecting from a Port

The Disconnect button on the Communications Status window allows you to immediately halt communications over a line.

To disconnect from a port:

- 1 With the Communications Status window open, highlight the name of the port from which you want to disconnect.

The highlighted port appears in the detail area of the Communications Status window.

- 2 Click the Disconnect button.

A dialog box is displayed asking you to confirm that you want to disconnect.

- 3 Click Yes to disconnect or Cancel to allow communication to continue.

If you have disconnected the communication, a manual disconnect entry is recorded in the system operations log.

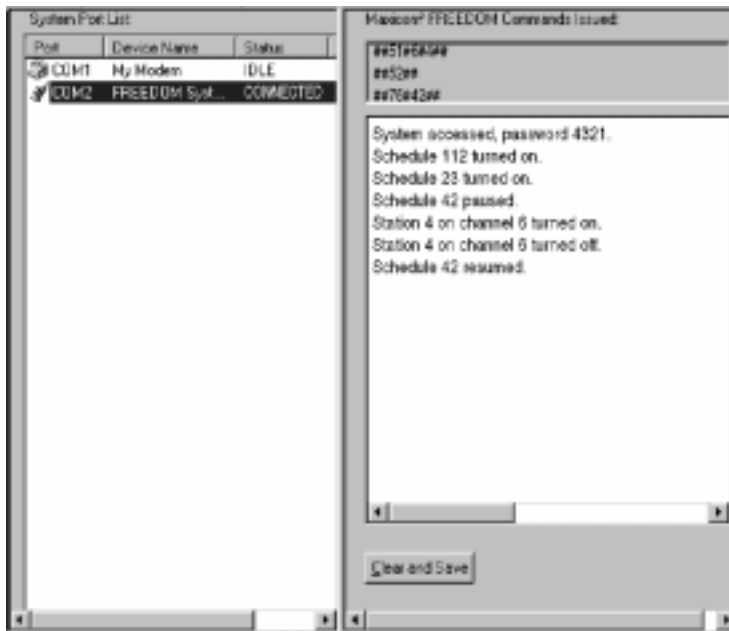
Viewing a FREEDOM Communication Status Window

The Communication Status window for FREEDOM ports displays numerical commands as they are entered by the FREEDOM port user and also translates the numerical commands into words so that you can monitor the FREEDOM port user's actions.

To view a FREEDOM port's status:

With the Communication Status window open, highlight the FREEDOM port you would like to view.

The FREEDOM port status is displayed on the right side of the window.



Viewing a FREEDOM Port in the Communication Status Window

If a FREEDOM user is entering numerical commands, they will be displayed in the top right of the Communication Status window. A word description of the numerical commands is displayed beneath the commands.

Every FREEDOM port access is recorded by Maxicom² and is saved to a file. The file is named according to the date of access and is stored in the FREEDOM folder created by Maxicom² on your hard drive.

This chapter explains how Maxicom² backs up (makes copies) of your data.

Maxicom² automatically backs up the database and schedules on the first day of each month. The back up is stored into the following location:

X (your drive):\Maxicom2\Backup

You can also manually back up your data. If you choose to do so, Maxicom² will store the back up in the same location as the automatic back up.

To back up data manually:

- Select Backup from the System menu.

- MAXICOM2 data is backed up to your hard drive.

accelerator keys

Sets of key strokes that allow you to select an option from the interface quickly and without using the mouse.

alarm

Warning notices concerning system integrity at the computer and in the field.

automatic(ally)

Performed by the PC rather than by hand.

baud rate

The speed at which the modem sends and receives data. Divide by ten to get the approximate count of the characters (bytes) transmitted or received per second. 300 and 1200 baud modems can be used with Maxicom².

byte

A unit of information. Each byte usually represents a character, letter, or a symbol.

CCU (cluster control unit)

This is the middle manager of the MAXICOM System. The CCU interfaces between the central computer and field devices. An actual computer itself, the CCU has all the monitoring and control capabilities of the pc with the scope of only one site. A CCU can communicate with up to 28 devices in the field.

central computer

The IBM-compatible personal computer you use to control and monitor the Maxicom² irrigation system.

channel

Each of the field devices connected to the CCU is assigned a number, or channel.

cluster control unit

See CCU.

CIMIS (California Irrigation Management Information System)

An electronic bulletin board service that collects weather station data from around the state of California for use by the irrigation industry.

COM port

A hardware port used by the central computer to transmit and receive data.

computer data path

The phone or radio/direct communication path by which the information from the central computer is transferred to the CCU.

crop coefficient

The evapotranspiration (ET) adjustment factor for the type of plant being watered. Since some plants require more water than others, the system provides for this adjustment factor.

Cycle + Soak

The process of applying water at the same rate as the soil is capable of accepting it. Total station runtime is split up into smaller cycle (station on) and soak (station off) segments that add up to the total runtime.

decoder

A system device that can monitor or control different parts of the irrigation, lighting, or security.

default setting

The start-up settings for Maxicom². Default settings can be changed.

dialog box

A message box that is displayed in the Maxicom² software user interface. A dialog box asks the user to select certain options or answer questions before a requested function can proceed.

elevation

The height above or below sea level at which the weather station is located.

ET (evapotranspiration)

Usage of water by plant material combined with evaporation of water from the soil surface.

ET (evapotranspiration) adjustment factor

The amount an irrigation schedule is adjusted, measured in inches per hour, based on a determined ET rate.

ET (evapotranspiration) gauge

An ET weather source directly connected to the CCU.

ET (evapotranspiration) rate

The amount of water used by the plant material in a landscape plus the amount of water evaporated from the soil surface. This value is calculated by the computer with information from a weather station or entered into the system manually. ET rate is used to calculate watering times and amounts.

ET (evapotranspiration) sensitized

State of a schedule that is modified automatically based on ET value. An ET-sensitized schedule does not use the water budget feature.

ET (evapotranspiration) source

A type of weather source that collects data useful in calculating and storing ET values.

event

Actions to or by Maxicom².

event log

A list of all actions to or by Maxicom².

FLO-MANAGER

A Maxicom² feature that allows the computer to calculate the optimum sequence for each station on a CCU, based on the hydraulic capacity of the system.

FLO WATCH

A Maxicom² feature that causes the computer to instruct the CCU to watch for flow problems while schedules are running at the CCU.

flow rate

The rate at which water is used by the system.

flow zone

Specified portions of an irrigation system's main line system grouped by valves and monitored by a flow sensor. All valves designated in a flow zone must be downstream of the flow sensor that is monitoring the flow zone.

flow/time/cost

The relationship between the rate of flow, the amount of time, and the water cost.

FREEDOM System

A system that sends Maxicom² commands from a remote location via a touch-tone phone or radio to your personal computer.

GPM

Gallons per minute.

historical data

Data gathered over the years as a benchmark.

irrigation period

The period of time between one Send Schedules to CCU contact and the next.

landscape coefficient

See crop coefficient.

link

To attach one schedule to another so that the execution of one (the master) results in the execution of the other (the slave).

log

A record of Maxicom² system performance. Maxicom² allows you to view various types of logs and create reports from them.

macro

A shortcut for a set of steps or commands.

manual(ly)

Done by hand rather than automatically by the PC.

MAXICOM

The old, DOS version of the software for the MAXICOM system.

MAXICOM Central Control System

The network of computers, field devices, CCUs, and other components that make up an entire irrigation system.

Maxicom²

Windows-based software for controlling the MAXICOM system.

menu

An on-screen list of available functions or procedures for you to choose from.

modem

The component used to send data to and from the central computer and field equipment.

nominal ET (evapotranspiration)

The base value from which ET adjustments are made to a schedule.

MRU (Most Recently Used)

A list of objects in the order in which they were most recently used.

operating system

The software that controls the way your PC operates and the flow of data to and from the central processing unit.

PC (personal computer)

IBM-compatible computer used to control and monitor the Maxicom² system.

point of connection (POC)

A water source where the irrigation system obtains its water. POCs are needed to set up Flo-Manager.

port

A connection device between a computer and another component such as a printer or modem. Also see COM port.

precipitation rate

The amount of water the irrigation system applies to an area over time.

protected schedule

A schedule that is not erased from the CCU when a new contact is made.

pulse decoder

A field device that measures dry contact “pulses” and sends them to the CCU. Pulse decoders are commonly used on flow and rain sensors.

Rain Shut Down

A feature that cancels all current irrigation and puts the system or selected site in OFF mode. Rain Shut Down remains on until it is manually turned off again.

rainfall source

A type of weather source that collects data useful in calculating the total rainfall for a site.

runtime

The amount of time a schedule or station is set to execute.

runtime adjustment source

The type of value used to adjust a schedule's runtime, such as ET or water budget.

satellite

A controller in the field that is capable of communicating with the CCU.

satellite data path

The two-wire or wireless radio link path by which data is transferred from the CCU to the field devices.

schedule

A clock, calendar, and condition sensitive program in the Maxicom² system used to control or monitor irrigation, lighting, and types of equipment. A schedule may be linked to other schedules or it may stand alone. A schedule that controls the operation of all other schedules at the CCU is called the Master Schedule.

schedule linking

A procedure that allows the user to tie schedules together and control the order in which they occur.

SEEF (search and eliminate excessive flow)

A feature that monitors the gallons per minute of flow in a flo-zone and automatically takes action if excessive flow is detected. You can define a percentage of flow that Maxicom² will react to and an amount of time before action is taken.

sensitize

To become sensitive to a certain condition. For example, an ET-sensitized schedule is programmed to be sensitive to current ET and will adjust the schedule appropriately.

sensor

A field device that monitors an area and reports current conditions back to the CCU. Flow sensors, soil moisture sensors, wind sensors, weather stations, and rain sensors are a few of the many types of sensor options available in Maxicom².

sensor decoder

A field device used to interface moisture sensors and other dry contact switch closure sensors to the CCU.

site

A single geographical irrigation area that is controlled by a single controller device such as a CCU.

site rain counter

A rainfall data weather source directly connected to the CCU.

soil infiltration rate

A measure of how rapidly a particular soil type accepts water. Soil infiltration rate is used to determine maximum hourly flow rate and cycle and soak times.

soil moisture holding capacity

The amount of water the soil can hold before it is totally saturated. This is a function of the soil type, root zone depth, and slope.

solar radiation

A source of energy used in the evaporation of water from the soil and in plant transpiration. It is measured in terms of its intensity and duration.

station

Irrigation valve, sensor, or switch operated device.

telephone modem

See modem.

template

A partially completed setup for a schedule.

time window

Designated hours between which watering may take place.

trunk radio

Radio communication system that uses a trunking tower. Information from the central computer is sent via radio to the trunking tower, then to the CCU. Trunk radio allows greater communication distances than point-to-point radio.

warning

A message displayed in the Event Log dialog box when communication with a site or weather source has failed or been cancelled.

water budget

A percentage setting that adjusts water application times without the need to reprogram each station or irrigation schedule.

water window

A period of time during which irrigation is permitted.

weather source

A source of weather data. Weather data comes in two types of concern to irrigation: evapotranspiration (ET) and rainfall. Taken together with the soil type of the landscape, a reasonably accurate figure of the amount of water to apply can be calculated. Weather sources include weather stations, CCU based sources such as ET gauges and site rain counters, CIMIS, and historical ET data.

weather station

A hardware item that collects weather data from sensors and transmits the data to the central computer.

window

A box or overlay that appears on top of a previous screen layer to display a menu, additional information, a place to enter information, etc.

wizard

An automatic software feature that interactively guides the user through a particular task.

A

- accelerator keys2.13
 - properties, setting3.4
- Adobe Acrobat Reader1.5
- alarms
 - acknowledging7.5, 8.6
 - unacknowledged2.2, 8.6
- application
 - icon2.8
 - menu2.8
 - title bar2.8
- automatic send6.5, 6.18

B

- backing up data
 - automatically11.1
 - before upgrading1.3
 - manually11.1
- buttons
 - close2.4
 - maximize2.5
 - minimize2.5
 - restore2.5

C

- canceling your work2.36
- CCU
 - call handle, setting4.17
 - configuration data, sending7.25
 - contacting manually7.18
 - properties, editing4.18
 - properties, setting4.16
 - schedules, sending7.25
 - type, setting4.17
- central
 - menu2.3
 - window2.6, 2.10
- channels, operating7.26
- close button2.4
- communication status
 - ports
 - all, viewing simultaneously10.2
 - disconnecting from10.3
 - FREEDOM, viewing10.4
 - one, viewing in detail10.2
 - window10.1

- communications properties, setting3.4
- crop coefficient4.10
- currency3.12, 4.11
- cursor2.22

D

- database
 - backing up1.3, 3.14, 11.1
 - purging3.14
- display areas2.6
- document pane2.9
- drop down lists2.6

E

- evapotranspiration (ET)
 - daily default value4.10
 - ET source for site4.5
 - maximum daily value4.10
 - minimum daily value4.10
 - nominal6.19
 - viewing a site's data7.13
- event log
 - data
 - filtering9.2
 - refreshing9.5
 - events
 - acknowledging9.3
 - clearing9.4
 - report, creating9.5
 - statistics, viewing9.4
 - toolbar9.1
 - window9.1

F

- FLO WATCH4.15, 4.18, 7.9
- FLO-MANAGER4.13, 4.14, 6.5, 6.18
- flow-cost analysis6.19
- FREEDOM
 - communication status, viewing10.4
 - password, setting3.10
 - port properties, setting3.5
 - time window, setting3.10, 4.8

G

- glossary12.1

H

hardware	
minimum requirements	1.1
recommended requirements	1.2
help	
contents, viewing	2.25
find options, setting	2.32
find setup wizard	2.29
find word list	2.29
find word list, rebuilding	2.33
finding a word in	2.29
index, viewing	2.27
information windows, using	2.34
menu	2.21
on-line, using	2.25
hot spots	2.5, 2.10

I

installing	
Adobe Acrobat Reader	1.5
Maxicom ²	1.3
Maxicom ² tour	1.4

M

main menu bar	2.13
Maxicom ²	
control engine, turning on and off	2.37
control, turning on and off	2.36
exiting	2.36
installing	1.3
irrigation system overview	xii
starting	2.1
status bar	2.9
tour, installing	1.4
maximize button	2.5
menus	
application	2.8
central	2.3
help	2.21
report	2.19
site	2.16
system	2.14
weather	2.18
window	2.19
minimize button	2.5
modem, telephone	
dedicated	3.5
pooled	3.5

N

no watering days, setting	7.16
nominal ET	6.19

P

passwords	
CIMIS	5.11
FREEDOM, setting	3.10
master, changing	3.8
setting	3.7
site, changing	3.8, 4.5
weather source	3.9, 5.5
point of connection	4.14
port, communications	3.4, 4.7, 10.1
preferences	
currency	3.12
default water price	3.12
setting	3.11
time format	3.12
printing	
event log	9.5
reports	9.11
programmed repeats	6.17

R

radios	
point-to-point	3.5
spread spectrum	3.5
trunk	3.6
rain shut down	
log retrieval during	4.8
setting	7.22
registration properties, setting	3.6
remote access requirements	1.2
report(s)	
field device, creating	9.7
flow/time/cost, creating	9.8
menu	2.19
previewing	9.11
printing	9.11
schedule, creating	9.10
wizard	9.6
restore button	2.5
runtime adjustment	
ET sensitized	6.4, 6.18
water budget	6.4, 6.18
water budget macro	6.4, 6.18

S

saving your work.....	2.35
schedule	
adding.....	7.11
auditing.....	6.16
copying.....	6.10
creating.....	6.1
editing.....	6.16, 7.11
editor.....	6.14
manual operation.....	7.23
programmed repeats.....	6.17
properties.....	6.13, 6.17
removing.....	7.12
report, creating.....	9.10
template.....	6.7
toolbar.....	6.14
wizard.....	6.1
scroll bars.....	2.5
selection pane.....	2.9
site	
CCU call handle, setting.....	4.17
CCU properties.....	4.16, 4.18
CCU type, setting.....	4.17
contact priorities (auto/manual).....	4.8
contact properties.....	4.6
contact time.....	4.7
crop coefficient, setting.....	4.10
deleting.....	7.4
ET	
default daily value.....	4.10
maximum daily value.....	4.10
minimum daily value.....	4.10
ET and rainfall sources.....	4.5
event data.....	7.15
irrigation properties, setting.....	4.9
log data.....	7.7
map.....	4.6, 7.17
menu.....	2.16
passwords.....	3.8, 4.5
properties, setting.....	4.1, 4.3
rain shut down.....	4.8, 7.22
renaming.....	7.3
time zone, setting.....	4.5
toolbar.....	7.1
water budget.....	4.9
weather sources, setting.....	4.5
wizard.....	4.2
software	
installing.....	1.3
minimum requirements.....	1.1
recommended requirements.....	1.2
version.....	2.35

soil

infiltration rate.....	4.11
moisture holding capacity.....	4.11
moisture refill percentage.....	4.11
sound.....	3.12
station properties.....	4.21
station property macros	
cycle.....	3.13
flow rate.....	3.13
landscape coefficient.....	3.13
precipitation rate.....	3.13
setting.....	3.12
soak.....	3.13
water budget.....	3.13
status bar.....	2.9
system	
menu.....	2.14
properties, setting.....	3.1, 3.3
toolbar.....	2.7, 2.8
window.....	2.6
wizard.....	3.1

T

terminology.....	xv
text	
adding.....	2.22
copying.....	2.24
cutting.....	2.23
deleting.....	2.23
deleting all.....	2.23
editing.....	2.22
entering.....	2.22
pasting.....	2.24
replacing.....	2.23
selecting.....	2.22
time	
CCU contact, setting.....	4.7
format.....	3.12
zone.....	4.5
title bar.....	2.4
tooltips.....	2.6

U

upgrade utility.....	1.3, 1.5
----------------------	----------

V

virtual CCU.....	3.12
------------------	------

W

warning system.....	3.12
water	
budget.....	4.9, 6.4
price.....	3.12, 4.12
weather menu	2.18
weather source	
alarms, viewing and acknowledging	8.6
CCU-based ET gauge	5.3, 5.12
CCU-based site rain counter.....	5.3, 5.14
CIMIS bulletin board system	5.3, 5.9
contacting manually.....	8.8
contact time, increasing.....	8.9
data	
current, displaying.....	8.9
logged, retrieving.....	8.10
manually updating.....	8.11
recent, viewing	8.4
viewing and editing	8.1
deleting	8.3
disconnecting	8.12
historical data	
calendar, graph or list, view	8.7
time period, selecting.....	8.7
type of data, selecting.....	8.7
viewing	8.6
historical ET database	5.3, 5.15
password	3.9, 5.5
properties.....	5.1, 8.10
Rain Bird weather station	5.3, 5.6
renaming	8.3
sites assigned, viewing and editing.....	8.5
sites, setting for	4.5
toolbar.....	8.1
user-entered weather data	5.3, 5.17
window.....	8.1
wizard.....	5.2

window(s)	
central	2.6, 2.10
changing your view of	2.11
closing.....	2.12
event log	9.1
finding	2.11
help information	2.34
menu	2.19
moving	2.12
resizing.....	2.12
restoring.....	2.12
system	2.6
using	2.4
weather source	8.1
wireless diagnostic data	7.21
wizards	
find setup.....	2.29, 2.33
installation.....	1.3
report	9.6
schedule	6.1
site	4.2
weather source	5.2

Before contacting Rain Bird Software Support Services, please try to resolve the problem by referring to Maxicom² on-line Help or this instruction manual. You must be a registered user to access Rain Bird Software Support Services. These services are subject to Rain Bird software prices, terms, and conditions in place at the time the service is used. If you need service, you should try the following in the order listed here:

- 1** Contact your local Authorized Maxicom Distributor. A list of distributors is available from Maxicom² on-line Help.
- 2** Contact us by email at maxicom_support@rainbird.com and we will respond to you via email.
- 3** Visit the Rain Bird web site for current information at www.rainbird.com.
- 4** Fax us at (520) 741-6146 and you will receive a reply via fax.
- 5** Call Rain Bird Technical Support between 7:30 a.m. and 4:00 p.m. Monday — Friday Mountain Standard Time at (520) 434-6262. When you phone, make sure you have the following information ready:
 - Product serial number used for registration.
 - Product version number. You can find the version number by selecting About from the Help menu.
 - The type of computer hardware you are using.
 - The software version numbers from Windows and Microsoft Word.
 - Exact wording of any messages that appear on your screen.
 - What you were doing when the problem occurred.
 - How you tried to solve the problem.
- 6** Contact your Rain Bird Maxicom Sales Specialist.
- 7** Contact your local Rain Bird Sales Representative.



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