BarVision™ 1.0 for Palm OS®

User's Guide

Draft for Reseller Review Only
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BAR™ Vision

A Division of Nuvo Technologies, Inc.

BarVision™ 1.0 for Palm OS®

User's Guide

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BarVision for Palm OS® User's Guide.

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Preface

Welcome, and thank you for purchasing the BarVision wireless, free-pour liquor management system. BarVision is an automatic, real-time inventory management solution. It replaces your need to do physical inventory by tracking every pour from every container, automatically and wirelessly.

BarVision provides full accountability over your liquor inventory. By monitoring the time, portion size, location, price category, cost, and brand of every pour, it effortlessly equips you with the data you need to manage your pour costs, inventory, and revenue. And BarVision's extensive reporting capabilities help you organize and utilize that data. A BarVision custom report can easily be compared to your point-of-sale or cash register report. Plus, with the BarVision Conduit for Palm HotSync installed, you can download comprehensive BarVision data to your desktop or laptop computer for further analysis and safekeeping.

In short, BarVision frees you to do what is most important—manage your establishment for increased profits.

Registration

Nuvo Technologies is confident that the BarVision wireless, free-pour liquor management system will greatly improve the effectiveness and efficiency of your establishment's inventory- and revenue-management procedures. So that we may continue to provide you with the highest quality service, please register your product by filling out and returning the warranty registration card provided.

Registering your system enables us to inform you about upgrades, offer you newly developed products and technologies, and provide you with effective and efficient warranty support should the need arise.

Important: *You must register your BarVision system to activate the manufacturer's warranty. Warranty claims on unregistered products will not be honored.*

Using this guide

The *BarVision for Palm OS® User's Guide* provides detailed information about the operation and maintenance of the system. It is designed to be used both as an instructional guide to help you learn how to use the system and as a reference tool in your everyday work.

To locate a particular topic of interest, consult the table of contents or index. In addition to these resources, each chapter begins with a brief summary of the information contained in that section. Use these overviews to help orient yourself and to survey the material covered there.

For new users of BarVision, the following sections contain important information you should review before you begin working with the system:

- "Understanding how the system works" on page 1
- "Understanding the system components" on page 1
- "Understanding the BarVision for Palm OS® Software" on page 21

Experienced BarVision users might want to jump straight to the "Overview of using the BarVision system" on page 8. This section is intended to get you up and running and using the system quickly. For this reason, some familiarity with the equipment, the software, and the way the system operates is assumed.

What is in this guide?

This *User's Guide* describes the hardware, software, terminology, and concepts that, together, constitute the BarVision wireless, free-pour liquor management system. In addition, this document provides both novice and experienced users of BarVision with step-

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by-step, task-oriented procedures. These procedures guide you through the processes of configuring, using, and maintaining the BarVision system.

This *User's Guide* contains the following chapters:

- Chapter 1, "Understanding the BarVision System"
- Chapter 2, "Installing the BarVision Software"
- Chapter 3, "Understanding the BarVision for Palm OS® Software"
- Chapter 4, "Working with Categories"
- Chapter 5, "Working with Containers"
- Chapter 6, "Working with Serving Sizes"
- Chapter 7, "Working with Reports"
- Chapter 8, "Using the BarVision System"
- Chapter 9, "Working with Data"
- Chapter 10, "Maintaining the BarVision System"
- Chapter 10, "Common Questions"

Conventions used in this guide

This guide uses the following conventions:

Table 1: User's guide conventions

Convention	Use
Bold	Highlights items you can select or modify in the BarVision software, including buttons, menus, and text boxes.
`Fixed width`	Highlights default system values and variable items intended as placeholders. For example, "in the **Category name** text box, enter `New Category Name`" means "in the **Category name** text box, enter a name of your choosing for the new category."
Italic	Highlights book titles, items that require special attention, and terms that are defined in the glossary.
>	Indicates a menu choice or button selection. For example, "choose **Mgr** > **Setup** > **Categories**" means "tap the **Mgr** button, tap the **Setup** button, and then tap **Categories**."
	Highlights information that provides time- or effort-saving advice and tips for novel ways of doing things.
	Highlights specific actions and information that require careful attention. These explanatory messages are intended to eliminate confusion or unexpected consequences.

Default starting point for software procedures All of the software-related procedures in this guide use the Activity screen (see "About the Activity screen" on page 23) as a default starting point. To avoid confusion, please navigate to the Activity screen before attempting to perform these procedures.

About security codes Many of the BarVision for Palm OS® screens are security code protected in the system's standard configuration. For instance, to access the Options, Categories, or Containers screens of a typically configured system, you must enter the manager security code. You might choose, however, to disable this security (see "About security codes" on page 26). For that reason—and for the sake of simplicity—the procedures in this guide do not attempt to identify those steps that may require you to enter a security code. If the Enter Security Code screen appears while you are performing a procedure, simply enter the security code, tap **Enter**, and then continue with the remainder of the procedure.

For example, if a procedure instructs you to choose the sequence "**Mgr** > **Setup** > **Options**," the system may request the manager security code after you tap **Mgr**. Simply enter the security code, tap **Enter**, and then continue with the procedure sequence by tapping **Setup** and then tapping **Options**.

Finding additional resources

If you require assistance using the BarVision system, and cannot find the information you need in these pages, please contact the dealer who sold you your

system. Their familiarity with the details of your particular installation and configuration will ensure that you get the support you need.

If you require assistance with the basic operation of your Palm® handheld computer (such as help entering characters using PalmSource™ Graffiti®), please refer to the documentation that accompanied your hardware or contact the manufacturer directly.

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Chapter 1: Understanding the BarVision System

This chapter provides a brief introduction to the BarVision system. It is intended to familiarize you with the hardware and concepts that are vital to understanding how BarVision works. This chapter describes the function of each BarVision component, introduces vocabulary and concepts unique to BarVision, and outlines the procedures involved in using the system. It contains the following sections:

- "Understanding how the system works" on page 1
- "Understanding the system components" on page 1
- "Understanding unit-free operation" on page 7
- "Understanding pour rates" on page 7
- "Overview of using the BarVision system" on page 8

Understanding how the system works

After the BarVision system is properly installed, it unobtrusively monitors your establishment's free-pour liquor usage. Each pour results in a wireless transmission that identifies its volume, time, brand—even the bottle from which it was dispensed. These wireless transmissions ultimately end up as data entries displayed on a handheld computer. This data can then be used to help you with the day-to-day operation of your establishment. For example, you can generate custom reports for shift close outs, inventory status, or to identify and manage procurement requirements. And you can export the data to a personal computer for in-depth analysis.

To help you further understand the system's operation, let's consider a single pour from a single bottle and follow the wireless data—from its moment of generation to its final display on the handheld's screen.

When a bartender pours from a liquor container equipped with a BarVision pour spout, the spout detects the bottle's tilt, measures the duration of the pour, and then generates a wireless signal that contains various details describing the pour. The pour spout's wireless signal is received by a BarVision active antenna. The active antenna acts primarily as a relay station and is used to increase the system's wireless coverage area. It relays the pour spout's transmission to the BarVision data receiver. The data receiver collects the data from the active antenna and downloads it, via serial cable connection, to a handheld computer running the BarVision for Palm OS® software. Finally, the BarVision software organizes and formats the data for display on the handheld's screen, enables you to generate and print reports from that data, and gives you the ability to download the data to a personal computer.

Understanding the system components

The BarVision wireless, free-pour liquor management system comprises five key components. At a minimum, the system consists of:

- A wireless, free-pour spout
- Two active antennas
- A data receiver
- A Palm® handheld computer
- The BarVision for Palm OS® software

The following sections describe the functions of these components in detail.

Pour spout

The BarVision wireless, free-pour spout is composed of a wireless transmitter tag, a plastic cork, a metal nozzle, and an optional twist-lock collar. The transmitter tag is one of the components that makes the BarVision pour spout unique. It houses the electronics that detect important data and that generate the wireless signals used to transmit the data to the rest of the system.

BarVision wireless, free-pour spout (Model SPT-101-20)

The BarVision pour spout serves four primary functions: it measures the duration of each pour dispensed from the container, it identifies any pours that occur at a less than optimal bottle tilt angle, it senses when it has been removed from one bottle and attached to another, and it generates the wireless signals that communicate the details of each of these events to the rest of the system. Every open liquor container in your establishment, whose contents you wish to track, should be equipped with a BarVision wireless pour spout. BarVision uses the term *container* to refer to an open bottle of a particular brand at a particular location.

Each BarVision pour spout is factory programmed with its own unique identification number. The user then programs the system to associate a uniquely numbered pour spout with a specific liquor container. This association is typically established during the container addition process (see "Adding containers" on page 51) when the system is initially installed. After such a relationship has been established, it is important that when the spout is removed from an empty bottle it be attached to a replacement bottle of identical brand and size at the same storage location. If necessary, the association between a specific pour spout and a specific brand of liquor can be removed or changed [see "Assigning a new pour spout to (or removing the current pour spout assignment from) a container" on page 57]. This might be required, for example, if a pour spout is misplaced or damaged.

BarVision pour spouts communicate using wireless transmissions. As a result, their communication range is limited. The range is maximized when there is a clear line of sight between a pour spout and an active antenna. Range may be limited or communications even impossible when there is no clear line of sight. If necessary, the system's wireless coverage range can be expanded by adding additional active antennas. Refer to the *BarVision Hardware Installation Guide* for details.

BarVision pour spouts are equipped with built-in memory. This memory enables the spout to store information about the sixteen most recently occurring events. For example, each time a serving is poured or the pour spout is removed from or attached to a bottle, a new event record is generated and stored in the pour spout's memory. Pour spouts periodically transmit the list of events stored in their memory. This means that each stored event gets transmitted multiple times. This redundancy helps ensure the reliability of the system and protects against data loss and missed communications.

If a total of more than sixteen events occur while the pour spout and data receiver are unable to communicate (for example, if the pour spout is out of wireless range or the data receiver has lost power), the pour spout's sixteen event data storage limit will be exceeded and data will be lost. If this is to happen, the BarVision software will indicate that events were lost and identify the number of lost events.

The BarVision for Palm OS® software enables you to view communications statistics for all of the wireless pour spouts at a glance. This can be done from the Hardware screen after system installation is complete. From the Hardware screen you can view the product name that has been assigned to each pour spout, the

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amount of time elapsed since the last transmission was received from each pour spout, the signal strength level of those transmissions, and the average recent strength of the signals each pour spout has generated.

Hardware screen, all wireless pour spouts shown

Note: *For information about accessing and using the Hardware screen to view pour spout communications details, see "Scanning for weakest spouts" on page 117.*

The transmitter tag portion of the wireless pour spout assembly is equipped with a spring-loaded bottle detect button. This button is located on the underside of the tag and senses when the pour spout is attached to, or removed from, a bottle. A second, recessed button is also located on the bottom of the tag. This button requires a tool (such as the tip of a pencil) to press and acts as a resume button. You use the resume function anytime you want to remove the pour spout from a bottle that is not yet empty (for example, for cleaning) and then reattach it to that same bottle. Initiating the transmitter tag's resume function enables the system to track the remaining contents of the partially empty bottle.

Each transmitter tag is also equipped with two LEDs, one red and one green. These LEDs flash to indicate the pour spout's status and to provide bartenders and managers with visual feedback. When you attach the pour spout to a bottle, the green LED flashes once to indicate that the spout is properly seated. When you pour a drink from a bottle, the red LED begins to flash at half-second intervals as soon as the bottle reaches a ninety degree tilt. When the bottle reaches an angle of 135 degrees, the red LED stops flashing and the green LED begins to flash. This periodic flashing can help bartenders time the size of their pours. And, finally, when you remove a pour spout from a bottle, the red LED flashes. It flashes once each second for three minutes or until the pour spout is placed back on a bottle. The flashing red LED can help bartenders and managers identify a pour spout that is not securely attached to a bottle and locate a spout that is accidentally misplaced.

BarVision pour spouts are battery operated and expire after a specific time period or a specified number of pours, whichever occurs first. For detailed expiration information for your particular model of spout, refer to the documentation that accompanied your hardware.

Active antenna

The BarVision active antenna performs a role similar to that of any other antenna—it gathers airborne wireless communications and transforms them into signals capable of being conducted (down a wire, for example).

BarVision active antenna (Model ANT-101)

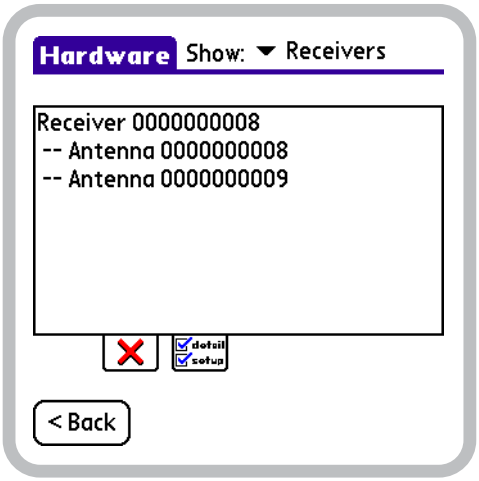
The active antenna's primary function is to collect and decode the wireless signals that the pour spouts generate. It then relays these signals to the data receiver. Up to four active antennas can be connected to a single data receiver in daisy chain configuration. An antenna can be mounted in a strategic remote location and then hardwired back to the data receiver (or the antenna

that precedes it in the chain). This helps increase the system's effective communication range. Typically, one active antenna is installed at each bartending station (well) and back bar area.

Because as many as four antennas can be connected, in series, to a single data receiver, it is possible for two or more antennas to receive and relay the same pour spout transmission to the data receiver. If such a situation occurs, the data receiver will recognize this redundancy and ignore one of the communications.

Maximum range between an active antenna and a BarVision pour spout is achieved when there is a clear line of sight. Range may be severely limited or communications impossible when there is no clear line of sight (refer to the *BarVision Hardware Installation Guide* for details). By contrast, the communications between the active antennas and the data receiver travel by way of a cable. As a result, no line of sight between the two components is required. Antennas can be installed at locations far removed from the data receiver (refer to the *BarVision Hardware Installation Guide* for details), enabling a single antenna to monitor a geographically isolated container storage location. The same cable that is used as a communications link between the active antenna and the data receiver is also used to supply power to the antenna.

The BarVision for Palm OS® software enables you to verify that the active antennas are properly connected to, and communicating with, the rest of the system. You can do this from the Hardware screen after system installation is complete.



Hardware screen, data receiver and active antennas shown

This screen displays the identification number of each active antenna currently communicating with the BarVision data receiver.

Note: *For information about accessing and using the Hardware screen to view active antenna communications details, see "Checking communication statistics" on page 118.*

BarVision active antennas do not require any software setup or configuration. After an antenna is connected to a powered data receiver, communications should be automatically initiated.

Data receiver

The BarVision data receiver can gather transmissions from up to four active antennas. The receiver then stores those transmissions as event records in its built-in memory. The model RCV-101 data receiver's memory is capable of storing up to 6,144 event records. These event records are then downloaded, by way of a serial cable connection, to a Palm® handheld computer running the BarVision software.

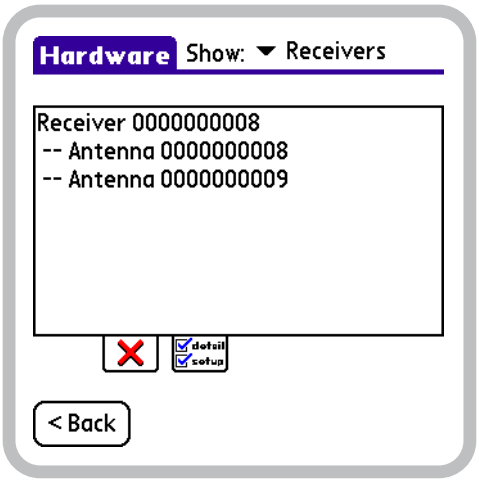
BarVision data receiver (Model RCV-101)

The BarVision data receiver requires a constant power source. It should be connected to an AC adapter plugged into a powered electrical outlet. In addition, six AA batteries should be installed in the data receiver's battery backup. In the event of a loss of AC power, the internal batteries will automatically power the equipment, providing an uninterrupted source of energy.

If the data receiver loses power completely (both AC and DC), the events in its built-in memory are cleared. Typically, those events will already have been transferred to the Palm® handheld computer and be stored there. In addition, each pour spout stores and periodically retransmits its sixteen most recent events. So a loss of power to the data receiver will normally only result in lost data if more than sixteen events occur to a container before power is restored to the data receiver. If data loss occurs, BarVision will indicate that events were lost and identify the number of lost events. To minimize the risk of data loss, be sure to check and replace the data receiver's batteries as recommended (see "Batteries" on page 117).

Typically, one data receiver should be installed at each bar area. The BarVision system uses the term *bar area* to identify any distinct section of an establishment's property or building specifically set aside for preparing and serving alcoholic beverages. A single room may contain more than one bar area—one at each end, for example—and a single bar area usually comprises one or more bartending stations (wells) and a back bar. The data receiver can be positioned in any out-of-the-way location in the bar area, so long as it can be properly connected to an electrical outlet and to the Palm® handheld's serial cable.

The BarVision for Palm OS® software enables you to verify that the data receiver is properly connected to, and communicating with, the rest of the system. You can do this from the Hardware screen after system installation is complete.



Hardware screen, data receiver and active antennas shown

This screen displays the identification number of the BarVision data receiver and each active antenna currently communicating with it.

Note: *For information about accessing and using the Hardware screen to view data receiver communications details, see "Checking communication statistics" on page 118.*

BarVision data receivers do not require any software setup or configuration. When the data receiver is supplied with a power source and connected to both an active antenna and a Palm® handheld running the BarVision for Palm OS® software, communications should be automatically initiated.

Palm® handheld computer

The BarVision system uses a Palm® handheld computer to run the BarVision for Palm OS® software.

Palm® handheld computer

Your Palm® handheld is equipped with a touch-sensitive screen and special stylus. You use these features of the handheld computer to interact with the BarVision for Palm OS® software by entering and viewing data. The handheld also acts as a data storage tool and gives you the ability to back up, export, and beam that data to external hardware devices (such as SD memory cards, personal computers, and printers). Cables provide the handheld computer with both a power source and a communications connection to the data receiver. The handheld's AC adapter must be plugged into a working electrical outlet and its serial cable/Palm® multiconnector adapter connected to the data receiver.

After the BarVision system has been installed and configured, you will generally want to leave your handheld attached to the data receiver so that your bartending staff can use the handheld's display for feedback. When the handheld is attached to the data receiver's serial cable and the BarVision for Palm OS® software is running, any transmissions collected by the data receiver are downloaded to the handheld and displayed on screen.

Temporarily detaching your Palm® handheld from the data receiver's serial cable will not disrupt the system's data collection activities. However, if communications between the BarVision for Palm OS® software and the data receiver are disrupted for an extended period of time, there could be a possibility of data loss. If more than 6,144 systemwide events occur before communications are reestablished, the data receiver's storage limit will be exceeded and data will be lost. To eliminate the risk of data loss, Nuvo Technologies recommends that you not remove the Palm® handheld from the serial cable for an extended period of time. In addition, Nuvo Technologies recommends that you not exit the BarVision for Palm OS® program except to install an updated version of the software or perform a HotSync® operation. These safeguards will help eliminate the possibility of accidental data loss.

In establishments where multiple data receivers and handheld computers are installed, it is important that a one-to-one association between a handheld and a data receiver be maintained. Only the Palm® handheld used to add and configure a container can be used to download the information collected for that container from a data receiver. For that reason, attaching a Palm® handheld to the incorrect data receiver's serial cable could potentially lead to data loss. The BarVision software provides a **Terminal ID** on the Security Options screen that enables you to uniquely identify each handheld. This helps you ensure that its association with a particular data receiver can be easily maintained. (For instructions on setting the **Terminal ID** value, see "Configuring the BarVision for Palm OS® software" on page 14.)

For more detailed information regarding the operation of your handheld computer, refer to "Using a Palm® handheld" on page 21.

BarVision for Palm OS® software

The BarVision for Palm OS® software provides the system with a user-friendly graphical interface. It enables you to observe, interact with, and configure the system.

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BarVision for Palm OS® software

The BarVision for Palm OS® software is responsible for formatting and displaying the transmissions downloaded to the handheld computer from the data receiver. Each transmission ultimately results in an event record displayed on the Activity screen (see "About the Activity screen" on page 23). Each event record briefly summarizes the action or event that generated the record. For example, each time a drink is poured, a pour spout is removed from a bottle or attached to one, or the handheld is attached to or detached from the data receiver's serial cable, a new event record appears on the Activity screen.

The Palm® handheld's Date & Time and Formats preference settings (both display format and current time) are used by BarVision to display date and times and to format numbers. Refer to the documentation that accompanied your hardware for information on changing these settings.

In addition to allowing you to monitor system events, the BarVision for Palm OS® software enables you to configure the system's operation. You can control access to management functions. You can edit system settings. You can enable or disable public access to reports. And you can add, edit, and delete system items including categories, containers, serving sizes, and reports.

In addition, the BarVision software gives you the ability to organize and print system data (using its built-in reporting features) or export data for analysis (via the BarVision Conduit for Palm HotSync).

Understanding unit-free operation

The BarVision system does not specify (nor does it limit) the unit of measure for numeric values. As a result, you are free to use the system of weights and measures, as well as the monetary unit, of your choice. However, you must enter values consistently. For example, if you decide to use metric units, you must enter both **Empty weight** and **Unit weight** values in the same metric unit of weight.

Nuvo Technologies, Inc. recommends the use of the following metric units: grams, milliliters, and milliliters per second.

All predefined values of volume and weight have been entered in units of the U.S. Customary System. The following table identifies the unit of measure for each default system value.

Table 1: Unit of measure for predefined system values

System value	Unit of measure
Serving sizes	U.S. fluid ounces
Max allowed pour size	U.S. fluid ounces
Default container size	U.S. fluid ounces
Container size	U.S. fluid ounces
Empty weight	Ounces
Unit weight	Ounces
Default pour rate	U.S. fluid ounces per second
Expected pour rate	U.S. fluid ounces per second
Actual pour rate	U.S. fluid ounces per second

Understanding pour rates

A pour spout's pour rate is a measure of the amount of liquid it dispenses each second. In BarVision, pour rates are typically expressed in fluid ounces (or milliliters) per second. Each type (both brand and model)

of pour spout has an average pour rate. This average rate identifies the amount of liquid the typical pour spout of that brand and type will dispense. However, the *actual pour rate* of a specific pour spout is likely to be faster or slower than the average. This variability results from several factors. The main factor is the pour spout manufacturing process. The difference in actual pour rates between two identical pour spouts from the same manufacturer can be 20% or more. In addition, a number of other factors affect the actual pour rate of a specific pour spout, including the viscosity of the liquor, the temperature, and the barometric pressure.

The actual pour rate accounts for all the factors that cause the pour rate of a specific pour spout to vary from the average. BarVision uses the actual pour rate of a specific pour spout to calculate the actual portion size of each drink that is poured with that specific pour spout.

Bartenders free-pour drinks by time (how long a bottle is tipped) or by volume (to a certain level in a glass). Bartenders cannot be expected to adjust the timing of their pours based on the actual pour rate of the specific pour spout on a particular bottle. There is no way for a bartender to know that, for example, a specific pour spout pours 5% faster or slower than the average. What bartenders can do, however, is develop accuracy and consistency in their timing. For instance, a bartender can pour all half ounce drinks based on a two count and all one ounce drinks based on a four count, regardless of what pour spout they are using (adjustments may be made in the pour count for thicker liquors or liquor kept in a freezer).

As a result, a bartender's pour count should be based on the average pour rate of the pour spout type being used, not on the actual pour rate. This average pour rate is called the *expected pour rate* in BarVision. BarVision uses the expected pour rate to calculate the expected portion size, which is the amount of liquor that is expected to be dispensed based on the average pour rate of that pour spout type. Unless you know a specific pour spout pours faster or slower than average, you would expect it to pour based on the average.

The expected portion size (and expected pour rate) is used by BarVision to give feedback to bartenders about how accurately and consistently they are timing their pours (based on the one factor—timing—that they can control). It can be compared to a stopwatch. The actual portion size (and actual pour rate) is used by BarVision to determine how much liquor was actually poured in a particular drink for purposes of tracking inventory usage.

Overview of using the BarVision system

The following procedure provides a high-level overview of the major steps required to install, configure, and use the BarVision system. Each step provides a cross-reference to the location in this *User's Guide* that describes, in detail, the activities required to perform the identified action.

To use the BarVision system:

1 Conduct a site survey, determine the most appropriate locations for the system's hardware components (the data receiver, active antennas, and Palm® handheld computer), make the required cable and electrical connections for the components, and permanently mount them.

For details, refer to the *BarVision Hardware Installation Guide*.

2 Install the BarVision for Palm OS® software on your Palm® handheld computer.

For details, refer to the *BarVision Hardware Installation Guide*.

3 Modify the default category names so that they correspond with the liquor price category designations your establishment uses. This will ensure that all of the categories you intend to use are available for selection during container addition.

For details, see "Working with Categories" on page 37.

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4 Adjust the default serving size values to match your establishment's desired pour volumes. This will enable BarVision to accurately assign each pour to the appropriate serving size.

For details, see "Working with Serving Sizes" on page 71.

5 Configure each of the open bottles in your establishment as a BarVision container. Configuring a BarVision container requires you to enter characteristics of the bottle (including its brand, size, location, category, and cost) using the BarVision for Palm OS® software and associate the bottle with a BarVision wireless pour spout.

For details, see "Working with Containers" on page 43.

6 Back up the system configuration data to an SD memory card. When you create a backup, the system's databases are copied to the SD memory card located in the handheld's expansion card slot. Should the need arise, those databases can then be restored to the handheld (see "Restoring data" on page 111). This can spare you from having to recreate all of the categories, serving sizes, and containers you just created.

For details, see "Backing up data" on page 110.

7 Pour drinks for your customers. When pouring from containers equipped with BarVision wireless pour spouts, you should tilt the bottle, quickly but smoothly, to at least a 135 degree angle. This ensures an efficient pour and maximizes productivity.

For details, see "Pouring" on page 105.

8 Change out empty bottles as required. Be sure to return bottles to an upright position immediately after they are emptied on the final pour. This helps maximize the accuracy of their reported yields. Then, simply remove the BarVision pour spout and attach it to a full bottle. Each defined container is matched with a specific wireless pour spout during the container addition process. As a result, it is important that when a pour spout is removed from an empty bottle it be attached to a replacement bottle of identical brand and size.

For details, see "Changing bottles" on page 105.

9 Configure and run reports. For example, you might want to create a close out report that is run at the end of each bartender's shift. Properly configured, you could use such a report to reconcile the number of drinks poured (as reported by BarVision) to the number of drinks rung up (as recorded on your point-of-sale or cash register system).

For details, see "Working with Reports" on page 79.

10 Periodically, back up the BarVision system data to an SD memory card. You can manually back up the system to a memory card via the **Back up to SD card** utility, or you can configure the system to generate a memory card backup automatically each time you run a report (see "Editing journal options" on page 91). In either case, a copy of the system's databases, along with all your customized settings, will be created on the handheld's removable SD memory card.

For details, see "Backing up data" on page 110.

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Chapter 2: Installing the BarVision Software

This chapter provides detailed instructions for installing the BarVision software and configuring it for use with any peripheral systems and devices (such as printers). It contains the following sections:

- "Installing the software" on page 11
- "Configuring the BarVision for Palm OS® software" on page 14
- "Configuring peripheral systems and devices" on page 16

Installing the software

The following procedures lead you through the installation of the BarVision for Palm OS® software on your Palm® handheld computer and, optionally, the BarVision Conduit for Palm HotSync on your personal computer.

Installing the BarVision for Palm OS® software

The BarVision for Palm OS® software is provided on both CD-ROM and SD memory card. Depending upon your hardware configuration,

Installing the BarVision for Palm OS® software to your Palm® handheld computer requires one of the following:

- A properly formatted BarVision for Palm OS® installation SD memory card
- A personal computer equipped with a Palm® USB sync cable and PalmSource™ Desktop software, and the BarVision for Palm OS® installation application (on CD-ROM)

If you received the BarVision for Palm OS® software on an SD memory card, refer to the procedure "To install the BarVision for Palm OS® software from an SD memory card:" on page 11. If you received the BarVision for Palm OS® software on CD-ROM, refer to the procedure "To install the BarVision for Palm OS® software from a computer using a Palm® USB sync cable:" on page 12.

To install the BarVision for Palm OS® software from an SD memory card:

1 With your Palm® handheld turned on, insert the BarVision for Palm OS® software SD memory card into your handheld's expansion slot.

2 The installation process will automatically be initiated and the software will be installed.

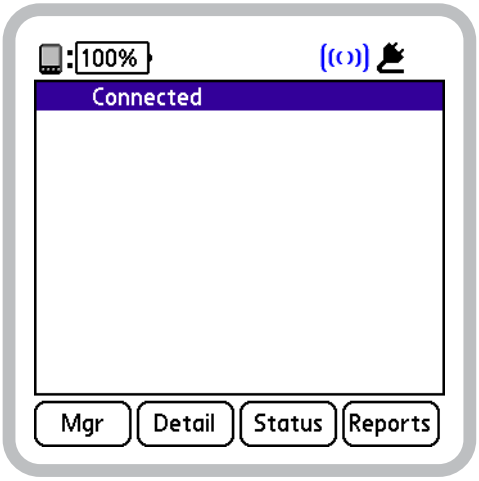
3 After the installation is complete, the end user license agreement will be displayed.

BarVision for Palm OS® end user license agreement

4 You must read and agree to the terms of the license in order to use the software. Tap **PgUp** or **PgDn** to navigate up or down through the pages of the license. Or, if you prefer, you can read the agreement included

with this *User's Guide* (see "BarVision License Agreement" on page 127). After you have read the license, tap **Agree** to accept its terms.

5 The BarVision for Palm OS® software will initialize and the Activity screen will be displayed.



Activity screen

To install the BarVision for Palm OS® software from a computer using a Palm® USB sync cable:

1 If you have not already done so, connect the Palm® USB sync cable to your personal computer and install the PalmSource™ Desktop software. Refer to the documentation that accompanied your handheld hardware for details.

2 Do one of the following:

- If you received the BarVision software on CD-ROM, insert the CD-ROM into your computer's CD-ROM drive.
- If you downloaded the BarVision software, locate the `BarVisionSetup.exe` file you downloaded to your computer and double-click it.

3 Follow the on-screen installation instructions.

Note: *This installation method enables you to install both the BarVision for Palm OS® software to your handheld computer and the BarVision Conduit for Palm HotSync to your personal computer. Refer to the on-screen instructions for details.*

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4 After the installation is complete, turn on your Palm® handheld and attach it to the USB sync cable.

5 Press the HotSync® button on the USB sync cable to transfer the BarVision for Palm OS® software to your handheld computer.

6 After the synchronization is complete, press or tap Home on your Palm® handheld to display the Applications View.

Applications View

7 Tap the BarVision for Palm OS® software icon.

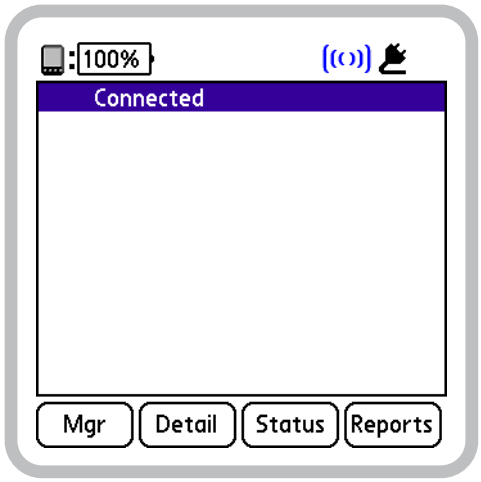
BarVision for Palm OS® icon

8 The BarVision for Palm OS® end user license agreement will be displayed.

BarVision for Palm OS® end user license agreement

9 You must read and agree to the terms of the license in order to use the software. Tap **PgUp** or **PgDn** to navigate up or down through the pages of the license. After you have read the license, tap **Agree** to accept its terms.

10 The BarVision for Palm OS® software will initialize and the Activity screen will be displayed.



Activity screen

Installing the BarVision Conduit for Palm HotSync

The BarVision Conduit for Palm HotSync gives you the ability to export BarVision journal and report data from your Palm® handheld to a personal computer. This allows you to view, store, and print BarVision data using your PC. When installed, the conduit software resides on your desktop or laptop computer. It then works in the background each time you synchronize your handheld. (For information about synchronizing your Palm® handheld computer, refer to the documentation that accompanied your hardware.)

The BarVision Conduit for Palm HotSync lets you export two separate types of data: journal data and report data. These two types of data are saved in different file formats and to different locations on the target computer's hard drive.

During synchronization, the conduit creates a comma separated value (.csv) file containing BarVision journal data on the computer connected to the handheld. All of the data collected since the last time you synchronized your handheld is exported. The exported file is then stored in the default location: `C:\Documents and Settings\User Name\My Documents\BarVision\Journal`. The file's name identifies its creation date and the terminal from which it was exported. The exported file can then be analyzed using any spreadsheet, database, or report design program (such as Microsoft® Excel®, Lotus® 1-2-3, or Crystal Reports®).

Similarly, the conduit exports report data in ASCII text file (.txt) format. When you run a report that has been configured for export (see "Export" on page 81), the system stores the generated report information. The next time you synchronize your handheld, the system creates a text file version of the report on the computer connected to the handheld. Exported reports are stored in the default location: `C:\Documents and Settings\User Name\My Documents\BarVision\Reports`. Once those text files have been created, they can be printed, e-mailed, or archived for permanent storage and record keeping.

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For more information, see "Exporting data" on page 107.

System requirements In order to install the BarVision Conduit for Palm HotSync, your system must meet the following minimum requirements:

- PC running Microsoft Windows 2000 or XP
- PalmSource™ Desktop software installed

Installation of the BarVision Conduit for Palm HotSync cannot occur until the PalmSource™ Desktop software is installed on your system.

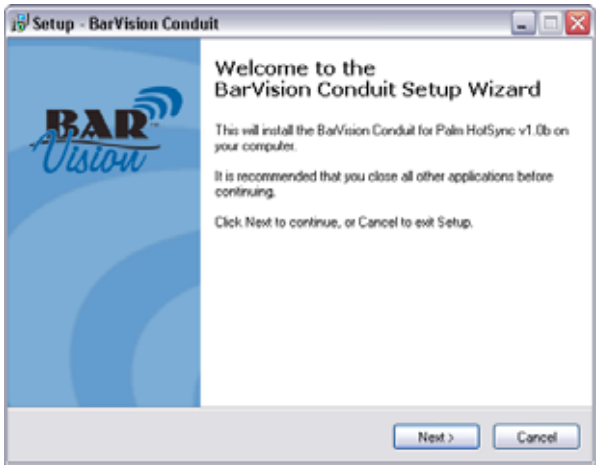
To install the BarVision Conduit for Palm HotSync on your personal computer:

1 Place the BarVision Software Installation CD-ROM in your CD-ROM drive.

2 Pause briefly while the CD-ROM's autoplay menu loads automatically.

3 After the menu appears, click **Install the BarVision Conduit for Palm HotSync**.

4 The BarVision Conduit Setup Wizard will be displayed. Follow the instructions that appear on the screen.



BarVision Conduit Setup Wizard

The setup program requires you to accept the terms of the BarVision license agreement, prompts you to choose installation and export directories, gives you the opportunity to create a Start Menu folder for the program's shortcuts, lets you select whether to create desktop and Quick Launch program icons, and then performs the software installation.

Configuring the BarVision for Palm OS® software

After you have installed the BarVision for Palm OS® software, you need to customize some of its default settings. For example, if you prefer to use metric measurements, you need to edit the system's predefined volume, weight, and pour rate values. During the software configuration process, you fine-tune the system for your particular installation, your preferred method of working, and the way your business operates.

To configure the BarVision for Palm OS® software:

1 Optionally, set the **Terminal ID**. If more than one BarVision system is to be installed in your business (or if you are adding another one), you need to pair each handheld computer with a specific data receiver and maintain that pairing. You can do this by setting each handheld computer's **Terminal ID** security option to a unique number and then labeling each data receiver with the number you assigned to its corresponding handheld. You can choose any unique number between `0` and `99`. A separate BarVision system is typically installed at each bar area. But only the Palm® handheld used to configure a container can be used to download the information collected for that container by the data receiver. The **Terminal ID** value on the Security Options screen enables you to uniquely identify each handheld. This helps ensure that its association with a particular data receiver can be easily maintained.

For details, see "Editing the Terminal ID" on page 20.

2 Set the time marker interval. Time marker event records are time stamps that are inserted periodically on the Activity screen to help you locate and review

data. You can adjust the frequency with which time marker event records appear by modifying the value of the **Add time marker every** field. You set this value from the Security Options screen.

For details, see "Time marker" on page 29.

3 Verify or edit the **Max allowed pour size**. This value defines the pour volume above which BarVision identifies pours as *exceptions* rather than allocating them to the largest serving size. This ensures that pours of an unusually large volume are readily identifiable and separated out for reporting purposes. You edit the **Max allowed pour size** from the Security Options screen.

For details, see "Editing the Max allowed pour size" on page 75.

4 Verify or edit the default serving sizes. You may need to adjust the default serving size values to match your establishment's desired pour volumes. This will enable BarVision to accurately assign each pour to the appropriate serving size. And that will ultimately enable you to calculate the amount of revenue that should be collected based on the number of pours per serving size. You edit serving sizes from the Serving Sizes screen.

For details, see "Working with Serving Sizes" on page 71.

5 Verify or edit the default categories. You may need to modify the default price categories to align them with the designations your business actually uses. This will ensure that all of the categories you intend to use—and only those categories you intend to use—are available for selection during container addition. You edit categories from the Categories screen.

For details, see "Working with Categories" on page 37.

6 Verify or edit the default container options. When you add a new container to BarVision, several of the container's details are initially set to default values. You may want to adjust these defaults. For example, you may need to standardize them to your preferred unit of measure. You edit these values from the pages of the Container Options screen.

For details, see "Editing container options" on page 63.

7 Configure each open container in your establishment. Configuring a container requires that you define the characteristics of the bottle (including its brand, size, location, category, and cost) via the BarVision for Palm OS® software and equip the bottle with a BarVision wireless pour spout. You add containers from the Containers screen.

For details, see "Adding containers" on page 51.

8 Verify or edit the default journal options. The Journal Options screen enables you to configure several data maintenance-related report options. From this screen, you can configure: the age at which obsolete data can be deleted during report-initiated maintenance, the level of user interaction required during report-initiated maintenance, and the creation of a system backup on the Palm® handheld's SD memory card during report-initiated maintenance.

For details, see "Editing journal options" on page 91.

9 Configure any reports. For example, you might want to create a close out report that is run at the end of each bartending shift. Properly configured, you can use such a report to reconcile the number of drinks poured (as reported by BarVision) to the number of drinks rung up (as recorded on your POS system or cash register). You add reports from the Reports screen.

For details, see "Adding reports" on page 84.

10 Optionally, configure a printer. The BarVision for Palm OS® software enables you to print directly from your Palm® handheld via network or IR (infrared) connection. To print BarVision data, you must either export the data to a personal computer and print it from there, or configure BarVision for Palm OS® to print directly from your handheld to a printer. The Printer Options screen lets you configure BarVision for use with your particular hardware setup. Depending upon the equipment and type of connection you intend to use, you may need to adjust the default printer options settings.

For details, see "Configuring printers" on page 16.

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11 Enable the **Mgr security code**. You can set the security code to any numeric sequence of up to twelve digits. After you change the code, record the new one in a secure location and limit the number of people you entrust with the code. You edit the **Mgr security code** from the Security Options screen.

For details, see "Editing the manager security code" on page 26.

12 Back up the system configuration data to an SD memory card. You can do this from the Diagnostics & Utilities screen by selecting **Back up to SD card**. When you create a backup, the system's databases are copied to the SD memory card located in the handheld's expansion card slot. Should the need arise, those databases can then be restored to the handheld (see "Restoring data" on page 111). This can spare you from having to recreate all of the categories, serving sizes, containers, and reports you just created.

For details, see "Backing up data" on page 110.

Configuring peripheral systems and devices

If you would like to print BarVision reports directly from your handheld computer, you need to adjust BarVision's default printer options. Similarly, if more than one BarVision system is installed in your place of business, you need to configure each Palm® handheld for use in a multiple-system environment.

Configuring printers

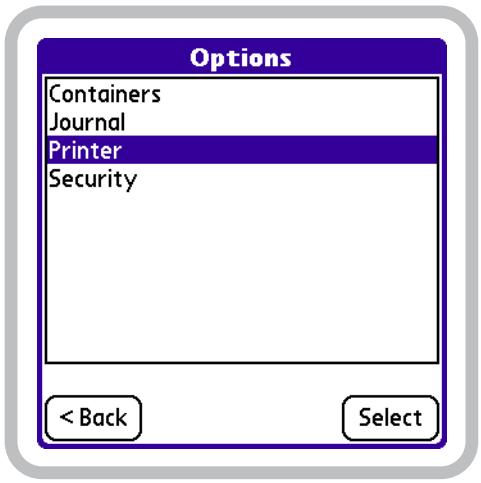
The BarVision for Palm OS® software enables you to print directly from your Palm® handheld computer via network or IR (infrared) connection. To print to a network printer, you must have access to a properly configured wireless network, and your Palm® handheld must be equipped to access that network (typically using Wi-Fi technology). Infrared printing requires a printer equipped with an IrDA-compliant infrared port.

Configuring an infrared printer If your printer is equipped with an IrDA-compliant infrared port, you can send BarVision report information directly to the printer from your Palm® handheld computer. To do so, you need to configure the BarVision software for infrared printing.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

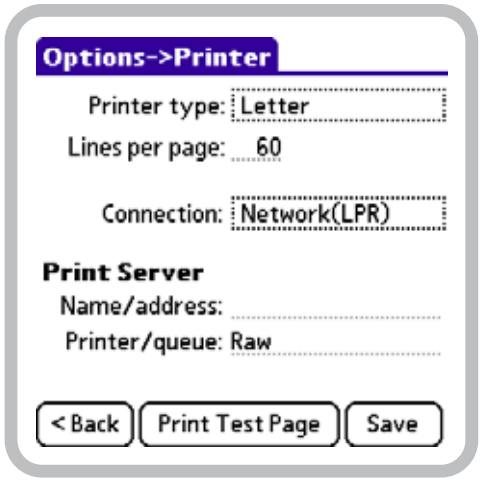
To configure an infrared printer:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



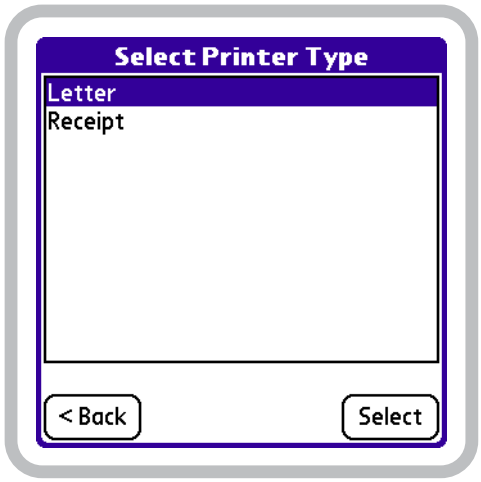
*Options screen, **Printer** selected*

2 In the option list, tap **Printer**, and then tap **Select** to display the Printer Options screen.



Printer Options screen

3 Tap the **Printer type** field to display the Select Printer Type screen.

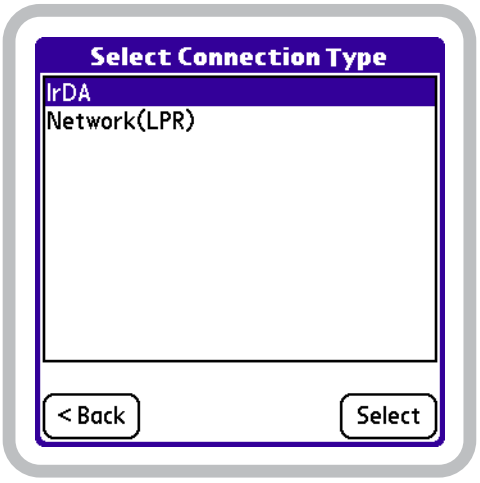


Select Printer Type screen, `Letter` selected

4 Select a printer type from the list. If your printer is a standard 8½" by 11" printer, tap `Letter`. If your printer is a roll-fed receipt printer, tap `Receipt`.

5 Tap **Select**. The chosen printer type is assigned and now appears in the **Printer type** field on the Printer Options screen.

6 Tap the **Connection** field to display the Select Connection Type screen.



Select Connection Type screen, `IrDA` selected

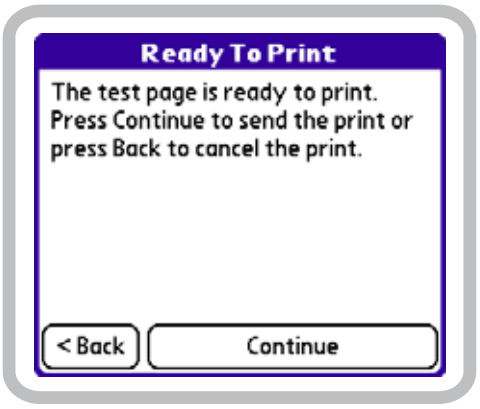
7 Tap `IrDA` in the connection type list to select it.

8 Tap **Select**. The chosen connection type is assigned and now appears in the **Connection** field on the Printer Options screen.

9 Turn the printer on if it is not already.

10 Be sure the IR port of your handheld is aligned directly opposite to, and within a few inches of, the infrared port of your printer, and then tap **Print Test Page**.

11 The Ready to Print screen is displayed. Tap **Continue** to print the test page.



Ready to Print screen

12 After the test page has printed, do one of the following:

- If you printed to a `Letter` type printer, verify that the last number printed at the bottom left-hand side of the page is `60`. If it is not, adjust the **Lines per page** value on the Printer Options screen by following the instructions provided on the test page.
- If you printed to a `Receipt` type printer, verify that the last number printed at the top right-hand side of the page is `0` (the fortieth digit). If it is not, adjust the **Columns** value on the Printer Options screen by following the instructions provided on the test page.

If you experience any problems while attempting to print, see "Printing problems" on page 119.

13 Tap **Save** to store your changes and return to the Options screen.

Configuring a wireless network printer If your Palm® handheld computer is equipped with the appropriate wireless communications capabilities, you can use it to connect to your wireless network and print to any available network printer. To do so, you need to establish a connection to your network and configure the BarVision software for network printing.

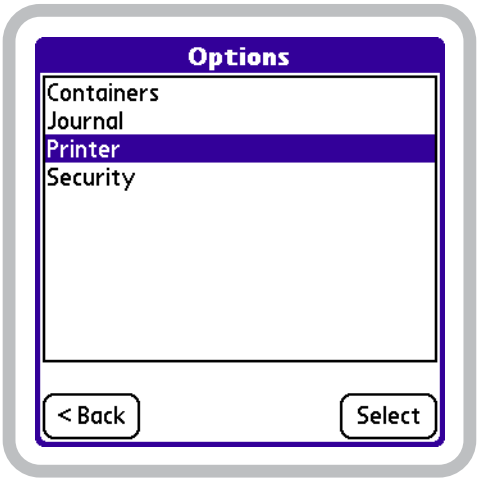
For information on establishing a wireless connection to your network, refer to the documentation that accompanied your handheld.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To configure a wireless network printer:

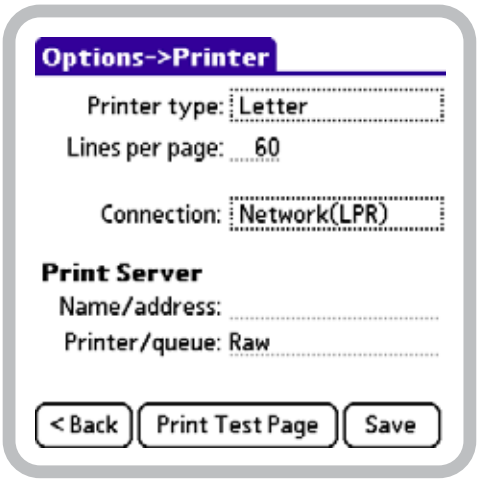
1 If you have not already done so, establish a connection to your wireless network. For details, refer to the documentation that accompanied your Palm® handheld computer.

2 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



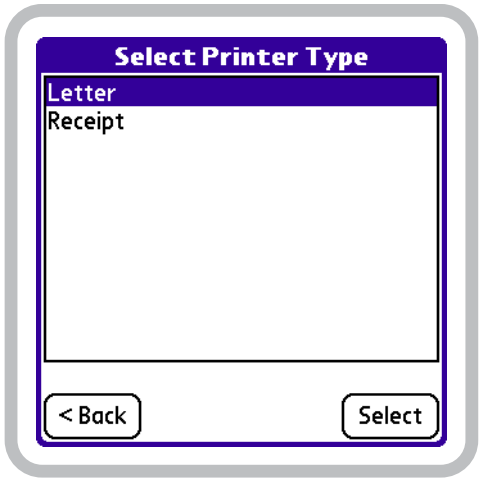
*Options screen, **Printer** selected*

3 In the option list, tap **Printer,** and then tap **Select** to display the Printer Options screen.



Printer Options screen

4 Tap the **Printer type** field to display the Select Printer Type screen.

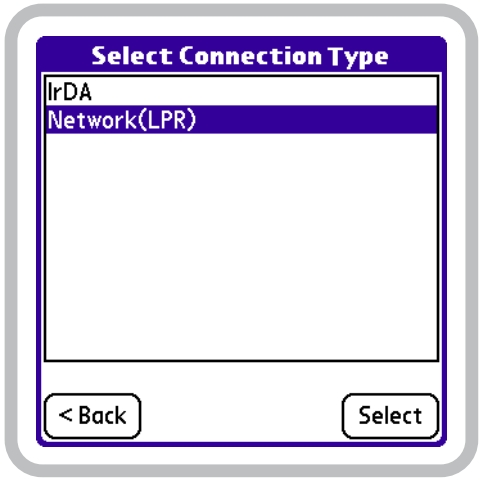


Select Printer Type screen, `Letter` selected

5 Select a printer type from the list. If your printer is a standard 8½" by 11" printer, tap `Letter`. If your printer is a roll-fed receipt printer, tap `Receipt`.

6 Tap **Select**. The chosen printer type is assigned and now appears in the **Printer type** field on the Printer Options screen.

7 Tap the **Connection** field to display the Select Connection Type screen.



Select Connection Type screen, `Network (LPR)` selected

8 Tap `Network (LPR)` in the connection type list to select it.

9 Tap **Select**. The chosen connection type is assigned and now appears in the **Connection** field on the Printer Options screen.

10 Tap the **Name/address** text box and enter either the printer name or the IP address of the printer you want to print to.

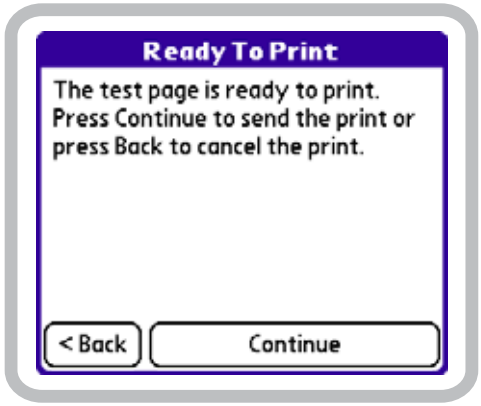
Your network's configuration determines whether a printer name or an IP address must be entered. Consult your network administrator.

11 Tap the **Printer/queue** text box and enter the name of either the printer or the queue you want to print to.

Your network's configuration determines whether a printer or queue name must be entered. Consult your network administrator.

12 Turn the printer on if it is not already.

13 Tap **Print Test Page**. The Ready to Print screen is displayed.



Ready to Print screen

14 Tap **Continue** to print the test page.

15 After the test page has printed, do one of the following:

- If you printed to a `Letter` type printer, verify that the last number printed at the bottom left-hand side of the page is `60`. If it is not, adjust the **Lines**

per page value on the Printer Options screen by following the instructions provided on the test page.

- If you printed to a `Receipt` type printer, verify that the last number printed at the top right-hand side of the page is `0` (the fortieth digit). If it is not, adjust the **Columns** value on the Printer Options screen by following the instructions provided on the test page.

If you experience any problems while attempting to print, see "Printing problems" on page 119.

16 Tap **Save** to store your changes and return to the Options screen.

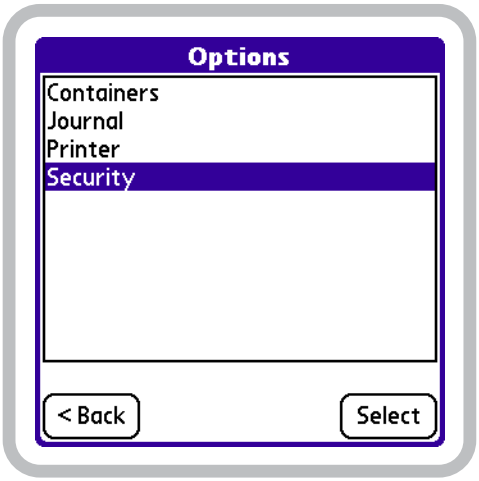
Editing the Terminal ID

If more than one BarVision system is to be installed in your business (or if you are adding another one), you need to pair each handheld computer with a specific data receiver and maintain that pairing. You can do this by setting each handheld computer's **Terminal ID** security option to a unique number and then labeling each data receiver with the number you assigned to its corresponding handheld. You can choose any unique number between `0` and `99`. A separate BarVision system is typically installed at each bar area. But only the Palm® handheld used to configure a container can be used to download the information collected for that container by the data receiver. The **Terminal ID** value on the Security Options screen enables you to uniquely identify each handheld. This helps ensure that its association with a particular data receiver can be easily maintained.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

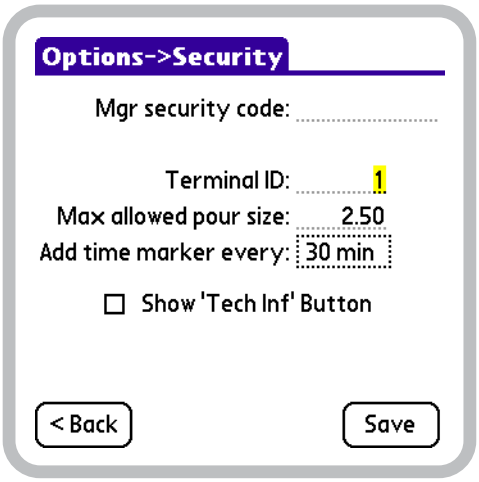
To set the Terminal ID value:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



*Options screen, **Security** selected*

2 In the option list, tap **Security,** and then tap **Select** to display the Security Options screen.



*Security Options screen, **Terminal ID** selected for editing*

3 Drag (or double-tap) to select the current **Terminal ID**. The value should appear selected, as does `0` in the figure above.

4 Enter a new **Terminal ID** value. Permissible values are from `0` to `99`.

5 Tap **Save** to store your changes and return to the Options screen.

Chapter 3: Understanding the BarVision for Palm OS® Software

Using BarVision requires you to interact with the BarVision for Palm OS® software by way of a Palm® handheld computer. This chapter provides tips for entering text, making selections, and navigating in the BarVision for Palm OS® software using your handheld. It also includes discussion of essential elements of the software, such as the Activity screen, Event Detail screen, and common on-screen controls. In addition, this chapter includes an overview of the software's organization. It contains the following sections:

- "Using a Palm® handheld" on page 21
- "Starting BarVision for Palm OS®" on page 22
- "About the Activity screen" on page 23
- "Navigating the BarVision software" on page 25
- "Viewing event details" on page 28
- "Exiting BarVision for Palm OS®" on page 35

Using a Palm® handheld

This section provides tips for using your Palm® handheld computer with the BarVision for Palm OS® software. If you have not already installed the BarVision software, please refer to the *BarVision Hardware Installation Guide*. If you have not yet familiarized yourself with the basic functionality of your handheld, please refer to the *User Guide* which accompanied your hardware.

Using the handheld's serial cable

After you have properly set up and configured the BarVision system, you should generally leave your Palm® handheld attached to the serial cable that connects it to the data receiver. The serial cable provides the handheld with both a power source and a data connection so that it can collect any transmissions received by the data receiver. When your handheld is properly attached to the data receiver, its battery should charge and communication between the data receiver and the BarVision for Palm OS® software should be automatically intiated.

Temporarily disconnecting your Palm® handheld from the serial cable will not disrupt the system's data collection activities. All the BarVision wireless pour spouts will continue to track pours and broadcast information to the active antennas. The antennas, in turn, will continue to relay information to the data receiver. And, finally, the data receiver will continue to gather and store the data transmissions passed on by the active antennas. When you reattach the handheld computer to the serial cable that connects it to the data receiver, all of the stored transmissions are collected from the data receiver by the handheld and appear as event records on the Activity screen.

The BarVision Model RCV-101 data receiver has a storage limit of 6,144 event records. If more than that number of events occur, systemwide, before communications are restored between the handheld and the data receiver, the data receiver's storage limit will be exceeded and information will be lost.

Using the stylus to navigate, scroll, and select

Like using a mouse to click elements on a computer screen, using the stylus to tap elements on your handheld screen is the basic action that gets things done. You tap the handheld screen to perform a number of operations, such as:

- Navigating from one BarVision screen to another
- Selecting or reordering the items in a list
- Choosing commands
- Selecting options in dialog boxes

To tap, you press the screen of the handheld with the stylus tip and then lift it back up. To double-tap, perform the same procedure two times in rapid succession. To triple-tap, do it three times. A double-tap enables you to select a word or number so that it can be edited. Triple-tapping enables you to select an entire line of text for editing. The procedures in the remaining sections of this guide frequently refer to these actions.

Just as you can drag the mouse to select text or move objects on your computer, you can also drag the stylus to select text or activate the scroll arrows of any scrollable list. To drag, you press the stylus on the handheld's screen and then move across, up, or down the screen without lifting the stylus tip.

Entering text and numbers

You can quickly enter text or numbers in the BarVision for Palm OS® software using your handheld's stylus. Some of BarVision's data entry fields allow you to enter both text and numbers. Generally, these fields are the ones that enable you to name newly created items, such as categories, containers, and reports. But a vast majority of BarVision's fields—such as **Container size**, **Expected pour rate**, **Terminal ID**, and **Mgr security code**—permit numeric entries only. When editing these fields, only numeric values are allowed.

Note: *The BarVision for Palm OS® software does not allow the entry of special characters (such as, !@#$%*<>?).*

Starting BarVision for Palm OS®

After you have properly installed the BarVision for Palm OS® software, the program launches and continues to run until you intentionally exit (see "Exiting BarVision for Palm OS®" on page 35). Nuvo Technologies, Inc. recommends that you not exit the BarVision for Palm OS® program except to install an updated version of the software or perform a HotSync® operation. This is to help eliminate the possibility of accidental data loss.

If you do exit the BarVision for Palm OS® software, you will have to manually launch the program to use it again. You start BarVision for Palm OS® just as you would any other Palm OS® application—by tapping its icon.

Note: *The following procedure assumes that the BarVision for Palm OS® software is currently installed on your handheld. If it is not, refer to the* BarVision Hardware Installation Guide.

To start BarVision for Palm OS®:

1 Press or tap Home on your Palm® handheld to display the Applications View.

Applications View

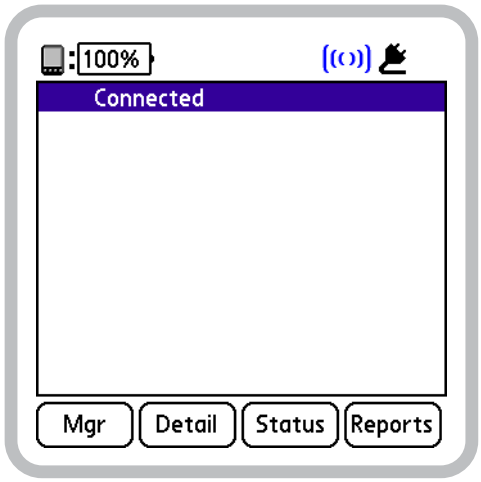
2 Tap the BarVision for Palm OS® software icon.

BarVision for Palm OS® icon

3 The BarVision splash screen will be momentarily displayed as the system initializes each of its databases.

BarVision for Palm OS® splash screen

4 After the system initialization is complete, the Activity screen will be displayed and the system will be ready for you to use once again.



Activity screen

About the Activity screen

The Activity screen is BarVision's default starting point and the place from which all the system's functions can be accessed. From this screen you can see event records added to the activity list in real time, view the status of defined containers, run public reports, and access management setup and configuration functions.

The following graphic symbols and controls appear on the Activity screen.

Table 1: Activity screen buttons and icons

Button/ Icon	Function
100%	The **Handheld battery level** icon indicates the current charge of the handheld's battery. The handheld battery charges when the Palm® handheld is properly connected to a powered data receiver.
	The **Connected** icon indicates that the handheld computer is properly connected to, and communicating with, the data receiver.
	The **Disconnected** icon indicates that the handheld computer is not communicating with the data receiver. For troubleshooting information, see "Data receiver problems" on page 117.
	The **Data receiver AC power** icon indicates that the data receiver is being powered by an electrical outlet via its AC power adapter.
	The **Data receiver battery level** icon indicates the current charge of the data receiver's batteries. This icon only appears when the data receiver is being powered by the installed batteries. If this icon appears, check the AC power adapter's connections.
Mgr	The **Mgr** button navigates to the Manager Functions screen. This screen provides access to system setup and configuration functions and typically requires a security code to access.
Detail	The **Detail** button navigates to the Event Detail screen. This screen provides in-depth information about the event record selected on the Activity screen. This information can be useful for troubleshooting or diagnostic purposes. For information, see "Viewing event details" on page 28.

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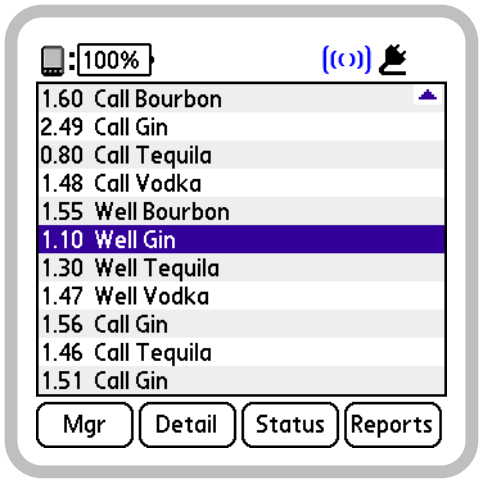
Button/ Icon	Function
Status	The **Status** button navigates to the Container Status screen. This screen provides information about the container (if any) associated with the event record selected on the Activity screen. The Container Status screen typically requires a security code to access and enables you to conduct a spot check of open containers. For information, see "Viewing container status information" on page 67.
Reports	The **Reports** button navigates to the Public Reports screen. Public reports can be run, viewed, and printed from this screen without entering a security code. For information, see "Running public reports" on page 92.

A large portion of the Activity screen is dedicated to the event record list. This scrollable list of up to thirty thousand records provides a real-time display of every recordable event that occurs to each of the BarVision system components. For example, each time a drink is poured from a container equipped with a BarVision pour spout or the Palm® handheld is attached to or detached from the serial cable that connects it to the data receiver, a new event record appears in the list.



Activity screen, `1.10 Well Gin` event record selected

The event record list provides bartenders with a valuable resource. They can use the list as a memory aid should they ever lose track of what drinks have been poured. They can use the pour size information to help them regulate their pour counts in an effort to achieve consistent pour volumes. And they can use the event record list information to verify that every drink they poured resulted in a point-of-sale or register transaction.

The following list identifies each of the events that are recorded on the Activity screen:

- Establishing communications between the BarVision for Palm OS® software and the data receiver. (For more information, see "Receiver connected" on page 29.)
- Disrupting communications between the BarVision for Palm OS® software and the data receiver. (For more information, see "Receiver disconnected" on page 29.)
- Elapsing of the period set for the time marker interval. (For more information, see "Time marker" on page 29.)
- Attaching a wireless pour spout to a container. (For more information, see "Container open" on page 31.)
- Removing a wireless pour spout from a container. (For more information, see "Container empty" on page 31.)
- Pouring from a container equipped with a wireless pour spout. (For more information, see "Container pour" on page 32.)
- Moving a container equipped with a wireless pour spout outside the system's transmission range for a duration longer than the value set for the **Report missing after** container option. (For more information, see "Container missing" on page 32.)
- Returning a container equipped with a wireless pour spout into the system's transmission range. (For more information, see "Container found" on page 33.)

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- Manually adjusting the value for either a container's current volume of liquid or current weight. (For more information, see "Container variance" on page 33.)
- Generating more events for a single container than the pour spout's tag is capable of storing, while that container is outside the system's wireless transmission range. (For more information, see "Events lost" on page 34.)

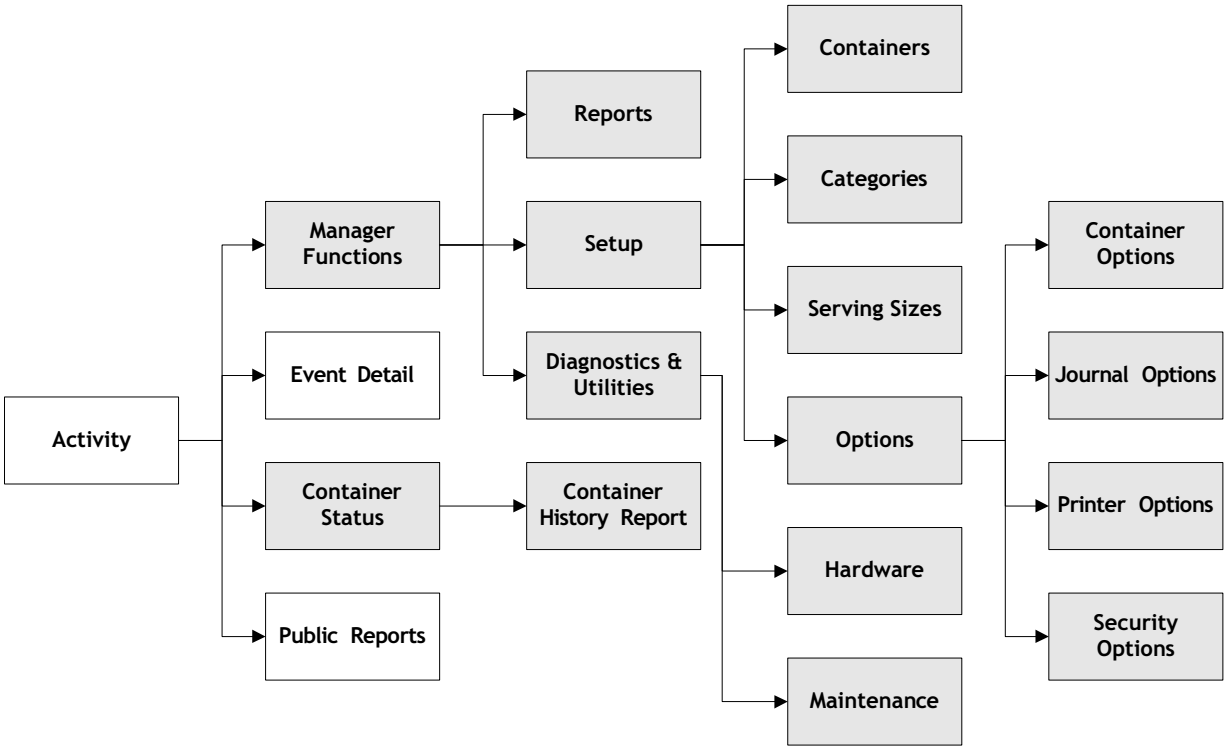
For information about viewing the details for a specific event record, see "Viewing event details" on page 28.

Navigating the BarVision software

To help you use BarVision more effectively, this section describes the organization of the BarVision for Palm OS® software. All navigation begins from the Activity screen. It provides access to every other screen. Occasionally, such access is security code protected.

Software screen hierarchy

The following chart identifies the navigation path you must follow to access each of the BarVision for Palm OS® software screens.



BarVision for Palm OS® software screen hierarchy—shaded boxes identify screens that are typically security code protected

About security codes

In its standard configuration, the BarVision for Palm OS® software limits access to system setup and configuration functions. These capabilities can only be accessed from the Manager Functions screen—which can typically only be viewed by entering the manager security code. This protects your categories, serving sizes, containers, and reports from inadvertent or unauthorized changes and deletion. In addition, it provides a way to limit access to confidential business data.

On a typically configured system, only three of the BarVision for Palm OS® software screens can be viewed without entering the manager security code:

- The Activity screen (see "About the Activity screen" on page 23)
- The Event Detail screen (see "About the event types" on page 29)
- The Public Reports screen (see "About reports" on page 79)

Entering the manager security code Attempting to access any of the other software screens will require you to enter the manager security code.

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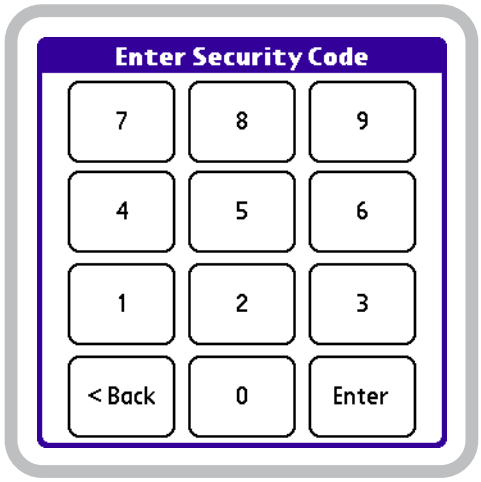
*Note: If the manager security code has been disabled (by clearing the **Mgr Security Code** text box on the Security Options screen), the Enter Security Code screen will not be displayed during the following procedure.*

To enter the manager security code:

1 The manager security code is only requested when you attempt to access a security code protected screen. You can do so by performing any one of the following actions:

- Tap **Mgr**.
- Select any container-related event record in the Activity screen's event record list, and then tap **Status**.

2 The Enter Security Code screen will be displayed. Tap the appropriate keys to enter the numeric sequence of your security code, and then tap **Enter**.



Enter Security Code screen

3 One of the following two things will occur:

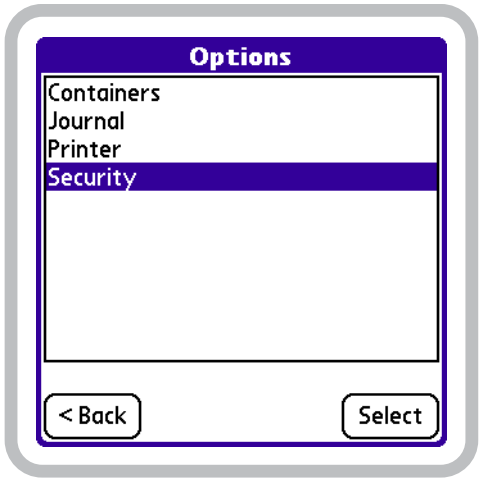
- If the security code you entered is correct, the system will display the screen you attempted to access.
- If the security code you entered is incorrect, a message will display indicating this fact. Tap **OK** and return to step 2.

Editing the manager security code The **Mgr security code** field on the Security Options screen displays the current manager security code. By default, the manager security code is disabled (that is, the field is blank). Be sure to enable the security code by entering a combination of digits. Then record the new code in a secure location and limit the number of people you entrust with it. Permissible values for a security code include any numeric sequence of up to twelve digits.

Note: Performing the following procedure typically requires the manager security code.

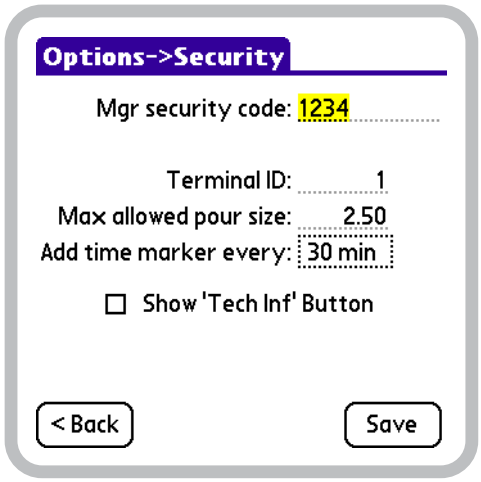
To edit the manager security code:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



Options screen

2 In the option list, tap **Security,** and then tap **Select** to display the Security Options screen.



*Security Options screen, **Mgr security code** selected for editing*

3 Drag (or double-tap) to select the current **Mgr security code** (if any). The value should appear selected, as does `1234` in the figure above.

4 Enter a new security code value.

*Clearing the **Mgr security code** field disables this security feature. This may be useful during system installation and configuration. However, Nuvo Technologies, Inc. discourages you from operating the system on a continuing basis without a security code in place.*

5 Tap **Save** to store your changes and return to the Options screen.

Common on-screen controls

The BarVision for Palm OS® software employs several standardized on-screen controls. These controls perform consistent functions regardless of the screen on which they are located. Each of the standard controls is identified in the table below and presented alongside a definition of the function that it performs.

Table 2: Functions of on-screen controls

Control	Function
+	Tap **Add** to add new system items including categories, serving sizes, containers, and reports.
✕	Tap **Delete** to delete system items including categories, serving sizes, containers, and reports.
detail setup	Tap **Detail** to view and edit detailed configuration information for system items including categories, serving sizes, containers, and reports.
↑	Tap **Move up** to shift an item up in any list that permits reordering.
↓	Tap **Move down** to shift an item down in any list that permits reordering.
⇕	Drag the **Scroll arrows** to cause the contents of a displayed list or other scrollable field to move up or down the handheld's screen in order to view additional items.
< Back	Tap **< Back** to return to the previously viewed screen without saving any of the changes you may have made.

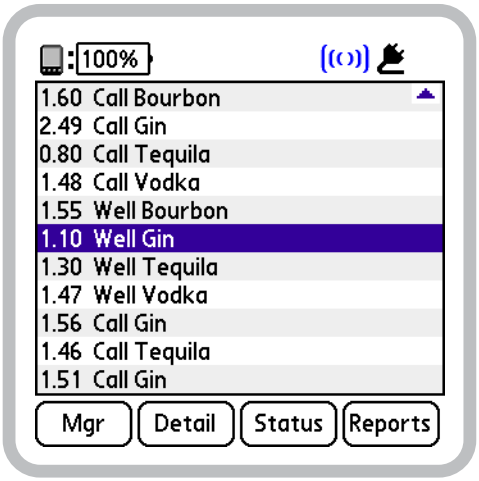
Control	Function
Save	Tap **Save** to store any changes you have made and return to the previously viewed screen.
Page: 1 2	Tap the **Page selectors** to display additional pages of multipage screens. The number that appears selected indicates the page currently being viewed. In the example, page 1 is selected.

Viewing event details

You might want to view detailed information or communication-related data for one of the event records that appears in the Activity screen's event list. The Event Detail screen enables you to do so. This screen provides event-specific data such as the date and time at which the event occurred. This screen can also be useful for troubleshooting or diagnostic purposes. The amount and type of information provided on the Event Detail screen depends on the type of event record selected in the list. For information, see "About the event types" on page 29.

To view event details:

1 In the Activity screen list, tap the event whose details you want to view. The event record should appear selected, as does `1.10 Well Gin` in the figure below. If the event record whose details you want to view is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.



Activity screen, `1.10 Well Gin` event record selected

2 Tap **Detail** to display the Event Detail screen.

Container Pour Event Detail screen

__Note:__ The amount and type of information provided on the Event Detail screen depends on the type of event record you selected in the Activity screen's list. For more information, see "About the event types" on page 29.

3 Optionally, do either of the following:

- To view details for the previous event record in the activity list, tap **Prev.**
- To view details for the next event record in the activity list, tap **Next**.

4 After you have finished viewing event record details, tap < **Back** to return to the Activity screen.

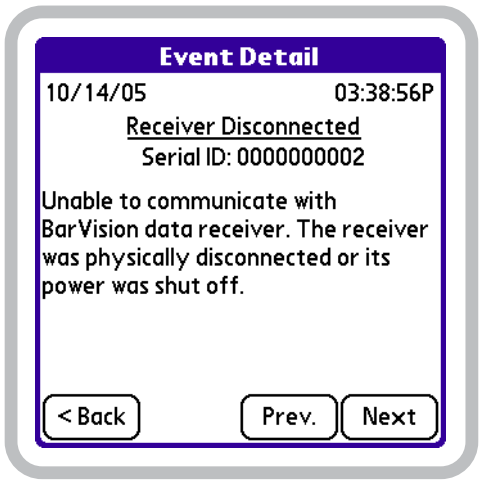
About the event types

BarVision's Activity screen can list up to thirty thousand event records of twelve different types. Some of these event types provide system information. They indicate whether or not the system's components are communicating. Other event records provide container-related information. These identify pour, open, and empty container events, warn you when the communications with a container's wireless pour spout are interrupted, and notify you when a container's contents level is manually adjusted. The following sections describe each of the event record types in detail.

Receiver connected The system records a `Connected` event when communications between the data receiver and the BarVision for Palm OS® software are established. This occurs when you connect the handheld's serial cable to an operating data receiver, power up an already connected data receiver, or attach the handheld to a serial cable connected to an operating data receiver. The Event Detail screen for this type of event record provides the following information: the date and time communications were established, the identification number of the connected data receiver, and the number of events the data receiver has collected since it was last powered on.

Receiver Connected Event Detail screen

Receiver disconnected The system records a `Disconnected` event when communications between the data receiver and the BarVision for Palm OS® software are disrupted. This occurs when you disconnect the handheld's serial cable from an operating data receiver, power down an already connected data receiver, or detach the handheld from a serial cable connected to an operating data receiver. The Event Detail screen for this type of event record provides the following information: the date and time communications were disrupted and the identification number of the data receiver that was disconnected.



Receiver Disconnected Event Detail screen

Depending upon the reason and the amount of time for which the data receiver is disconnected, there could be a possibility of data loss. If the data receiver is not operating and more than sixteen events occur for any single container, the transmitter tag's storage limit will be surpassed and data will be lost. If the data receiver is still operational but disconnected and more than 6,144 systemwide events occur before communications are reestablished with the BarVision software, the data receiver's storage limit will be exceeded and data will be lost.

Time marker Time markers provide visual segmentation of the activity list, dividing events into chunks separated on the quarter-hour, half-hour, or hour. You can adjust the frequency with which time marker event records appear by modifying the value of the **Add time**

marker every field. This value can be set from the Security Options screen. The default system setting for this option is `30 min`. Available settings are `Never`, `15 min`, `30 min`, and `60 min`. The Event Detail screen for this type of event record provides the following information: the date and time the time marker was recorded.

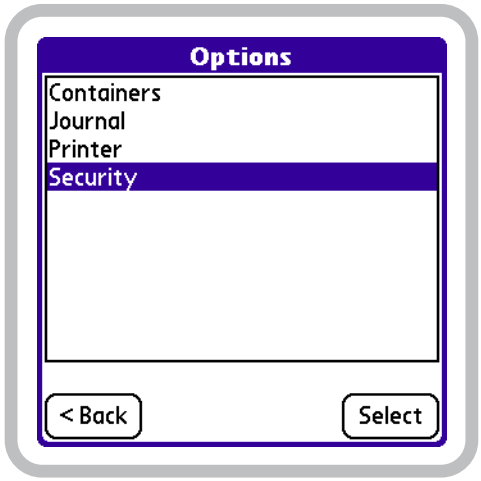
Time Marker Event Detail screen

You may want to change the value of the **Add time marker every** field to control the frequency with which time marker event records appear. Or, you may want to disable the time marker feature altogether.

Note: *Performing the following procedure typically requires the manager security code.*

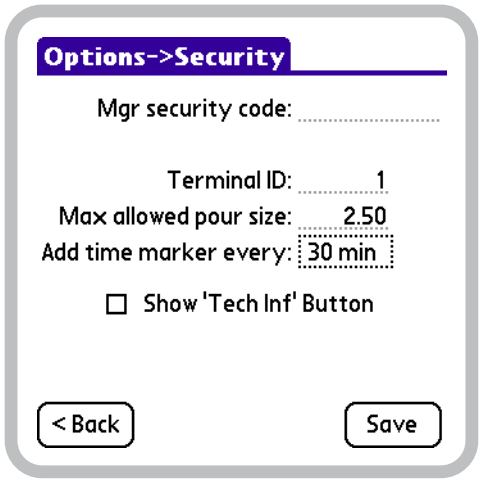
To set the time marker interval:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



Options screen

2 In the option list, tap **Security**, and then tap **Select** to display the Security Options screen.



Security Options screen

3 Tap the **Add time marker every** field to display the Select Time Marker Interval screen.

Select Time Marker Interval screen, `30 min` interval selected

Container Open Event Detail screen

4 Tap the time marker interval you want to assign. The value should appear selected, as does `30 min` in the figure above.

5 Tap **Select**. The chosen value is assigned and now appears in the **Add time marker every** field on the Security Options screen.

6 Tap **Save** to store your changes and return to the Options screen.

Container open Each time a BarVision pour spout is mounted on a container, the system records a container open event, such as: `Well Gin Open`. The Event Detail screen for this type of event record provides the following information: the date and time the wireless pour spout was attached to the container, the signal strength of the transmission that relayed the event, the container's assigned name and location, the amount of time for which the pour spout was unattached, and the identification number of the wireless pour spout.

Container empty Each time a BarVision pour spout is removed from a container, the system records a container empty event, such as: `Well Gin Empty`. The Event Detail screen for this type of event record provides the following information: the date and time the wireless pour spout was removed from the container, the signal strength of the transmission that relayed the event, the container's assigned name and location, the total volume of all the pours from the container (additionally expressed as a percentage of the container's total volume), the amount of time for which the wireless pour spout was attached to the container, the number of pours dispensed from the container, and the identification number of the wireless pour spout.

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Container Empty Event Detail screen

Container Pour Event Detail screen

Container pour Each time a serving is poured from a container equipped with a BarVision pour spout, the system records a container pour event, such as: `1.49 Well Gin Tilt?`. This event record indicates that a pour of 1.49 volumetric units was made from the Well Gin container. The word Tilt followed by a question mark will only appear if a pour was made at a lower than optimal (less than 135 degree) bottle tilt angle (see, "Pouring" on page 105). Because of the improper bottle tilt, the provided volume should be considered a rough approximation. The Event Detail screen for this type of event record provides the following information: the date and time the pour occurred, the signal strength of the transmission that relayed the event, the container's assigned name and location, both the expected and actual volume of the pour, the duration of the pour (expressed in seconds), and the identification number of the container's wireless pour spout.

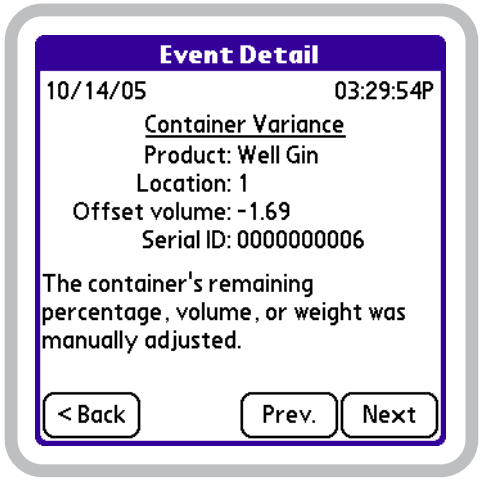
Container missing Each time a container equipped with a BarVision pour spout is moved outside the system's transmission range for a duration longer than the value set for the **Report missing after** container option, the system records a container missing event, such as: `Well Gin Missing`. The **Report missing after** interval can be set from page 1 of the Container Options screen (see "Editing container options" on page 63). The default system setting for this option is `15` minutes. The Event Detail screen for this type of event record provides the following information: the date and time the container was determined to be missing, the container's assigned name and location, the time the data receiver last received an event transmission from the container, the time the data receiver last received a transmission of any sort from the container, and the identification number of the container's wireless pour spout.

Container Missing Event Detail screen

Container found When the data receiver receives a transmission from a container currently classified as missing, it generates a container found event, such as: `Well Gin Found`. The Event Detail screen for this type of event record provides the following information: the date and time the container was found, the signal strength of the transmission the data receiver received, the container's assigned name and location, and the identification number of the container's wireless pour spout.

Container Found Event Detail screen

Container variance Any time you manually adjust a container's **Remaining %**, **vol.**, or **wt.** values (see "Editing container details" on page 61), the system records a container variance event, such as: `1.30 Well Gin Var(-)`. You might want to directly edit these container values to add a partially empty bottle as a new container. For example, to add a half-empty bottle of vodka as a new container, you might weigh the bottle and then edit the **wt.** value to allow BarVision to accurately track the remaining contents. The Event Detail screen for this type of event record provides the following information: the date and time the container was edited, the container's assigned name and location, the volume of the variance (a negative number indicates the container's volume was manually decreased; a positive number indicates it was increased), and the identification number of the container's wireless pour spout.



Container Variance Event Detail screen

Spout removed Any time you remove a pour spout and then press its recessed function button (see "Cleaning pour spouts" on page 106), the system records a spout removed event, such as: `Well Gin Rmv`. By pressing the recessed function button, you indicate to the BarVision software that you intend to reattach the pour spout to the bottle you just removed it from. This enables you to remove and reattach a pour spout from an active bottle without resetting any values for the container (such as the container's current volume and weight). You might do this, for example,

to clean the pour spout. Pressing the function button allows BarVision to accurately track the container's remaining contents. The Event Detail screen for this type of event record provides the following information: the date and time the pour spout was removed, the container's assigned product name and location, the container's current volume, and the identification number of the container's wireless pour spout.

Note: *When the spout is first removed from the bottle, the system assumes the container is empty and a container empty event is written to the activity list. After you press the spout's recessed function button, the container empty event is replaced by a spout removed event.*

Spout Removed Event Detail screen

Spout reattached When you reattach a pour spout, after removing it and pressing its recessed function button (see "Spout removed" on page 33), the system records a spout reattached event, such as: `Well Gin Reattch`. The system will resume monitoring the container from the point at which the pour spout was removed. That is, the system will use as a starting point all of the container values (such as volume, weight, number of pours, and so forth) that were applicable when the spout was detached. The Event Detail screen for this type of event record provides the following information: the date and time the pour spout was reattached, the container's assigned product name and location, the amount of time the pour spout was off the container, and the identification number of the container's wireless pour spout.

Spout Reattached Event Detail screen

Events lost If a total of more than sixteen pour, open, or empty container events occur while a container is missing, the transmitter tag's sixteen event data storage limit will be surpassed and data will be lost. This data loss is indicated by an events lost record in the activity list, such as: `(3) Well Gin EvtLost`. The numeral indicates the number of lost events. The Event Detail screen for this type of event record provides the following information: the date and time the system determined that events were lost, the container's assigned name and location, the number of lost events, and the identification number of the container's wireless pour spout.

Events Lost Event Detail screen

Exiting BarVision for Palm OS®

It may be necessary to exit the BarVision for Palm OS® program. For example, you might need to install an updated version of the BarVision software or perform a HotSync® operation.

Temporarily exiting the BarVision for Palm OS® software will not disrupt the system's data collection activities. All BarVision wireless pour spouts will continue to track pours and broadcast information to the active antennas. The antennas, in turn, will continue to transmit information to the data receiver. And, finally, the data receiver will continue to gather and store the data transmissions passed on by the antennas. After you restart the BarVision for Palm OS® software and reestablish communications with the data receiver, all of the stored transmissions will be downloaded from the data receiver to the handheld and appear as event records on the Activity screen.

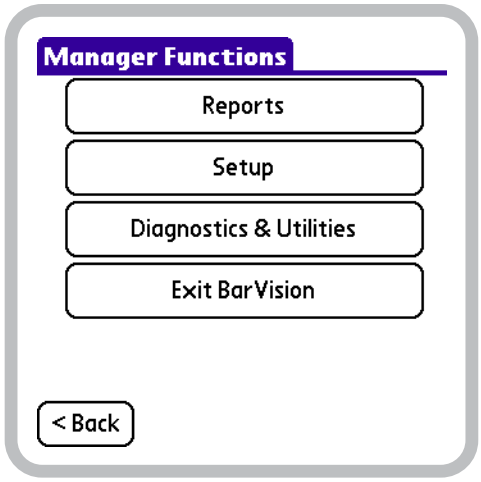
Depending upon the amount of time for which the BarVision for Palm OS® software and the data receiver do not communicate, there could be a possibility of data loss. If more than 6,144 systemwide events occur before the software is restarted and communications with the data receiver are restored, the data receiver's storage limit will be exceeded and data will be lost.

Nuvo Technologies, Inc. recommends that you not exit the BarVision for Palm OS® program except to install an updated version of the software or perform a HotSync® operation. This is to help eliminate the possibility of accidental data loss.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To exit BarVision for Palm OS®:

1 Choose **Mgr** to display the Manager Functions screen.



Manager Functions screen

2 Tap **Exit BarVision** to quit the BarVision for Palm OS® program and display the Applications View.

Applications View

Chapter 4: Working with Categories

The BarVision system uses *categories* to identify and organize liquor price classifications. This chapter explains how the system uses categories and describes how to add, delete, rename, and reorder them. It contains the following sections:

- "About categories" on page 37
- "Adding categories" on page 38
- "Editing categories" on page 39
- "Deleting categories" on page 40

About categories

The BarVision software lets you classify your liquor inventory into price categories. This arrangement mirrors the way you probably already organize your liquor for pricing purposes. As an example, if your establishment is typical, you charge different amounts for identically sized servings of vodka, depending on the brand served. However, to simplify your pricing structure, you probably do not charge a different price for every single brand of vodka served. Rather, you organize your inventory under three or four categories and price servings based on that categorization.

For example, a typical bar might organize their inventory under the designations `well`, `call`, and `premium` and charge $3, $4, and $5, respectively, for an identically sized serving from each of those groupings. BarVision refers to these liquor price classifications as *categories*.

Regardless of the particular names your establishment uses to identify liquor price levels, you will want to re-create your establishment's pricing structure in the BarVision software using categories. Ideally, you will want to define a category for each liquor price classification that your establishment uses. For example, if your establishment charges different amounts for superpremium liquors than for premium liquors, you can add a pricing category to reflect that difference.

Then, you simply classify each liquor container under the appropriate pricing category during the container addition process (see "Adding containers" on page 51).

Properly categorizing your inventory helps you to reconcile BarVision's reported pour totals to your point-of-sale (POS) or cash register reports. For example, you could generate a BarVision report that provides the total number of pours for each category. Comparing these totals against your point-of-sale or cash register report figures will help you verify that each pour resulted in an equivalent POS or register transaction. If you find discrepancies, you can generate more detailed reports to isolate the mismatch to a particular container or time period. (For information, see "Working with Reports" on page 79.)

The Categories screen (see example below) displays a list of the currently defined liquor price categories. To access the Categories screen, choose **Mgr** > **Setup** > **Categories**. BarVision is initially configured with four predefined categories: `Well`, `Call`, `Premium`, and `Top Shelf`. You can modify the list in a number of ways. You can add up to a total of one hundred categories. You can delete categories so long as at least one category remains. You can rename categories to any name of up to fifteen characters in length. And you can rearrange the order in which categories appear in the category list. The remaining sections of this chapter explain how to perform these modifications.

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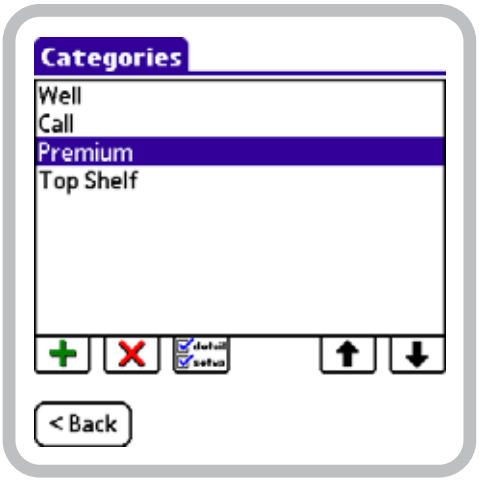


Categories screen

If possible, make all category changes before adding containers. This will ensure that the categories you intend to use are available for selection when you define new containers (see "Adding containers" on page 51). This can eliminate the necessity of having to individually recategorize containers later on.

Adding categories

BarVision ships preconfigured with four defined categories: `Well`, `Call`, `Premium`, and `Top Shelf`. But the software can store and track as many as one hundred different categories.

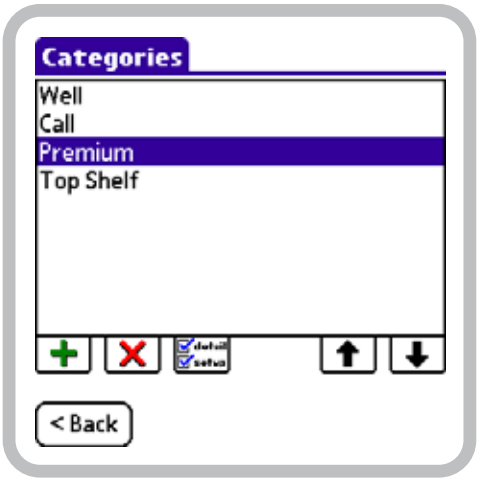
You may want to add additional categories to align the BarVision software with the particular liquor price categories your establishment uses. You may also want to add categories to track the usage of nonalcoholic beverages.

For example, if your establishment makes a distinction between premium and superpremium liquors, and prices those items differently, you might want to add a `SuperPremium` category. Or, if you decide to track the consumption of juices and mixers by pouring those items using BarVision wireless pour spouts, you might want to add both `Juices` and `Mixers` categories.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

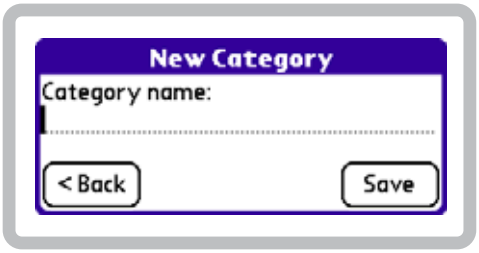
To add a category:

1 Choose **Mgr** > **Setup** > **Categories** to display the Categories screen.



Categories screen

2 Tap **Add** (+) to display the New Category screen. The **Category name** text box will contain the insertion point (cursor).



New Category screen

3 Enter a name for the new category (up to fifteen characters in length) in the **Category name** text box.

4 Tap **Save** to store your changes and return to the Categories screen.

Editing categories

You can modify each category in the category list. For example, you can rename categories to match the names your establishment uses. You can also reorder the category list to suit your needs: from least to most expensive, alphabetically, or however you choose. Modifying the order of the categories also rearranges the order in which the category information will appear on your reports.

Renaming categories

You may want to rename a category to make it more accurately reflect your establishment's naming conventions. For example, if your establishment refers to its most expensively priced liquor as `Top Grade` rather than `Top Shelf`, you can rename the `Top Shelf` category to match your establishment's terminology.

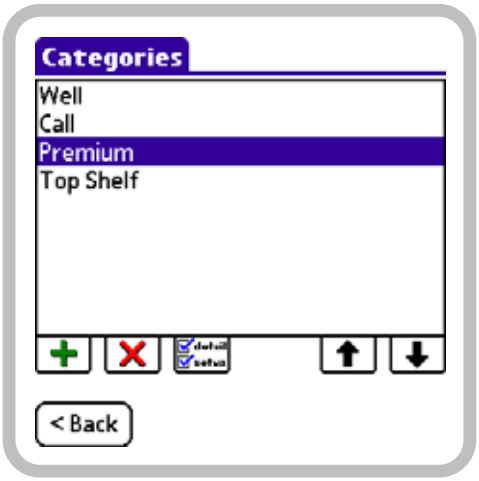
When you rename a category, every container assigned to that category assumes the new, modified category name. In addition, all of the journal event records associated with those containers take on the new category name. These recategorized containers and events will be listed on all subsequent reports under the modified category designation.

The software permits category names of up to fifteen characters in length.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To rename a category:

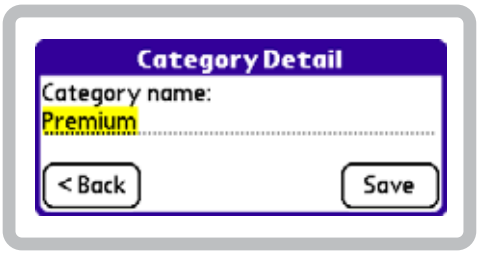
1 Choose **Mgr** > **Setup** > **Categories** to display the Categories screen.



Categories screen, `Premium` category selected

2 In the category list, tap the category you want to rename. The category should appear selected, as does `Premium` in the figure above. If the category you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (detail setup) to display the Category Detail screen.



*Category Detail screen, **Category name** selected for editing*

4 Drag (or triple-tap) to select the current **Category name**, and then enter a new one (up to fifteen characters in length).

5 Tap **Save** to store your changes and return to the Categories screen.

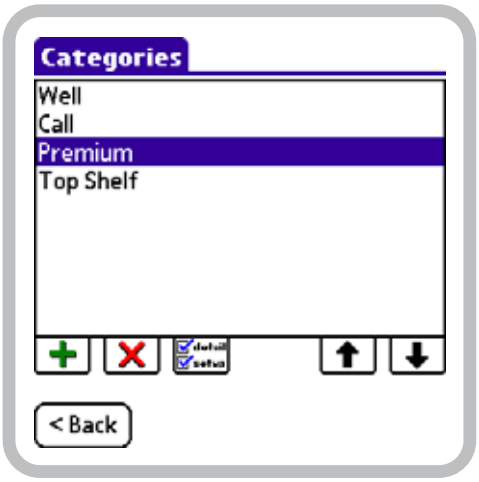
Reordering categories

You may want to reorder the categories. By doing so, you can rearrange the order in which category information appears on your reports. For example, you might want to reorder the categories so that `Premium` appears at the top of the category list. This reordering would also place the Premium category data at the top of any report containing category-related information.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To reorder categories:

1 Choose **Mgr** > **Setup** > **Categories** to display the Categories screen.



Categories screen, `Premium` *category selected*

2 In the category list, tap the category you want to reorder. The category should appear selected, as does `Premium` in the figure above. If the category you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Do one of the following:

- To shift the selected category up in the list, tap **Move Up** (⬆). Tap as many times as necessary to properly position the category.
- To shift the selected category down in the list, tap **Move Down** (⬇). Tap as many times as necessary to properly position the category.

4 If necessary, repeat steps 2 and 3 to reorder any additional categories.

Deleting categories

You may want to delete unused or unwanted categories. This can simplify the container editing procedure by limiting the number of available category selections. Eliminating unused categories can also help minimize the chance of accidentally miscategorizing containers during system configuration or operation.

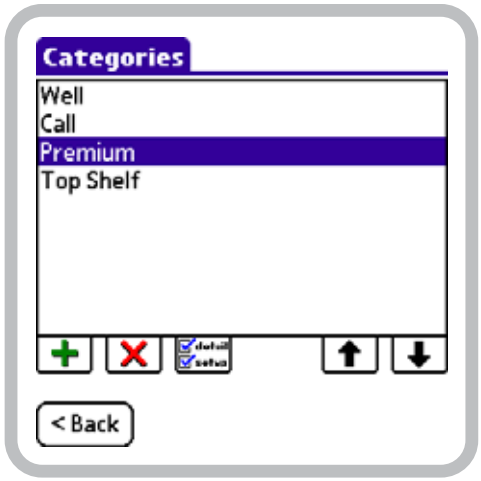
For BarVision to function properly, at least one category must exist. For that reason, if only a single category remains, the software will not allow you to delete it.

If you choose to delete a category that containers are assigned to, you will be prompted to reclassify those containers under another category before the deletion takes place. During this process, all of the journal event records associated with those containers will also be reclassified. These recategorized containers and events will be listed on all subsequent reports under their newly assigned category name.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To delete a category:

1 Choose **Mgr** > **Setup** > **Categories** to display the Categories screen.



Categories screen, `Premium` category selected

2 In the category list, tap the category you want to delete. The category should appear selected, as does `Premium` in the figure above. If the category you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

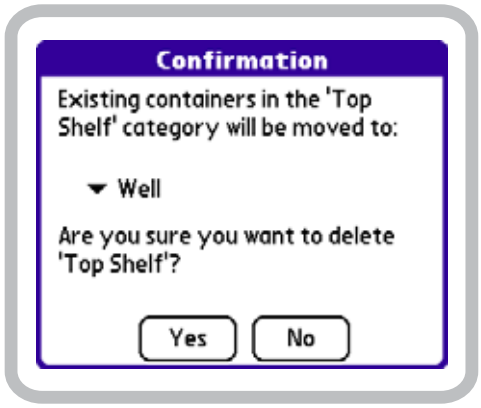
3 Tap **Delete** (✕).

4 One of the following two Confirmation screens will be displayed:

- If no containers have been assigned to the category you chose to delete, a Confirmation screen similar to the one below will be displayed. Proceed to step 5.

Category deletion Confirmation screen for an unused category

- If containers have been assigned to the category you chose to delete, a Confirmation screen similar to the one below will be displayed. Select a category to assign to the affected containers by tapping the **Drop-Down List Arrow** (▼) and selecting a category from the list. Proceed to step 5.



Category deletion Confirmation screen for a used category

5 Tap **Yes** to delete the category and return to the Categories screen.

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Chapter 5: Working with Containers

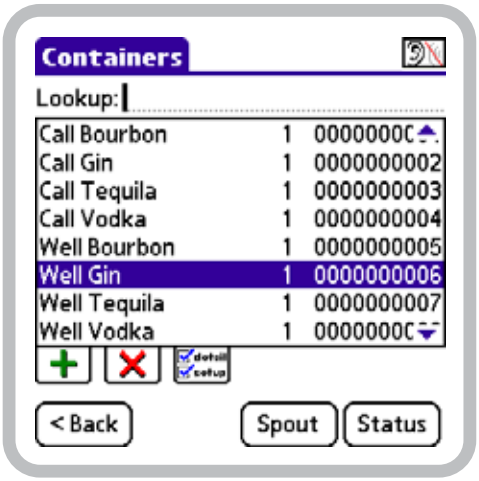
In the BarVision system, the term *container* refers to any liquor or beverage bottle that has been defined in the BarVision software and equipped with a BarVision wireless pour spout. Each properly configured container is continually monitored by the BarVision system, ensuring that every pour gets tracked and that running inventory totals are constantly maintained. This chapter explains how the system uses containers and describes how to add, edit, delete, and monitor them. It contains the following sections:

- "About containers" on page 43
- "Adding containers" on page 51
- "Editing containers" on page 54
- "Deleting containers" on page 64
- "Viewing pour spout hardware details" on page 65
- "Viewing container status information" on page 67

About containers

For BarVision to accurately track your establishment's liquor usage, you must define each open liquor bottle as a container. To configure a BarVision container, you enter characteristics of the bottle (including its brand, size, location, category, and cost) and equip the bottle with a BarVision wireless pour spout. (For details, see "Adding containers" on page 51.)

The Containers screen (see example below) displays a list of all currently defined containers. It also indicates each container's assigned location (see "Location" on page 45) as well as the unique identification number of the wireless pour spout associated with each container. From this screen, containers can be added, deleted, edited, and monitored.

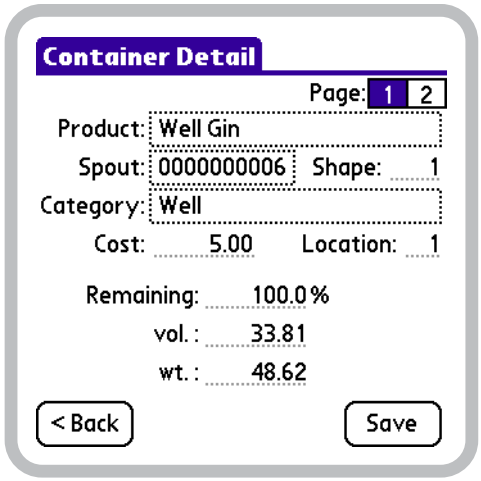


Containers screen

Each BarVision container is matched with a single, specific wireless pour spout. This association is generally created during the container addition process. For instance, in the example screen above, the `Well Gin` container is associated with the pour spout whose identification number is `0000000006`. As a result, it is important that when this pour spout is removed from an empty bottle of `Well Gin` it be attached to a replacement bottle of identical brand and size. (To help eliminate the possibility for error, refer to the procedure "Changing bottles" on page 105.)

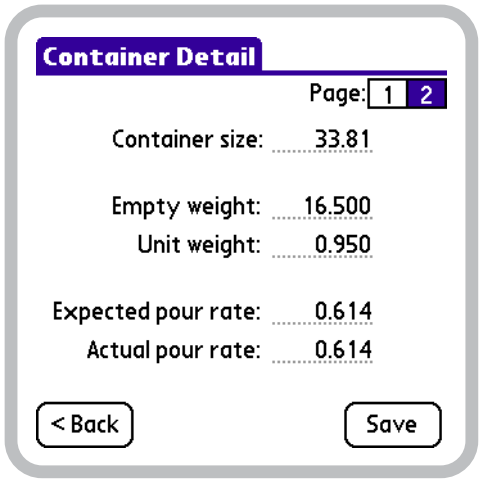
Container details

The pages of the Container Detail screen list the values that define an individual container, including its brand, location, current volume, size, weight, shape, and pour rates. You can access page 1 of the Container Detail screen (see example below) by choosing **Mgr** > **Setup** > **Containers**, selecting a container, and then tapping **Detail** (detail setup).



Container Detail screen, page 1

To access page 2 of the Container Detail screen, tap **2** ([2]).



Container Detail screen, page 2

The following sections define the values provided on the pages of the Container Detail screen. These settings are container specific. Setting the item only adjusts the value for the container currently being edited.

Product This field enables you to identify the brand of liquor, wine, or other beverage inside the container. You can select a brand name from a predefined list or enter any name you prefer. However, you cannot give the same **Product** name to two containers assigned to the same location (see "Location" on page 45). For example, you can only add one container named `Well Gin` assigned to location `1`. To add a second container of Well Gin to location `1`, modify the container's **Product** name to a unique value (such as `Well Gin B`). For information, see "Assigning a new product name to a container" on page 55.

*If possible, select one of the provided product names rather than entering a unique one. Many of the most common products are associated with predefined container values (such as **Shape**, **Empty weight**, and **Unit weight**) that will automatically be set for you.*

Spout This field displays the identification number of the pour spout (if any) associated with the container. The transmitter tag portion of each BarVision pour spout arrives factory programmed with a unique identification number. That number displays here after the pour spout and container have been properly associated. For more information, see "Adding containers" on page 51.

Shape This field displays the ID number that corresponds to the bottle shape graphic associated with the container. This graphic is displayed on the Container Status screen (see "Viewing container status information" on page 67) and provides a visual depiction of the container's contents level. When you add a new container, this field's value is typically set to the preprogrammed ID number associated with the **Product** name (see "Product" on page 44) you assign to the container. However, if no specific preprogrammed shape ID is associated with the **Product** name you assign to the container, the **Default shape** value is used (see "Default shape" on page 47). You can edit the **Shape** value to associate a specific bottle shape with a container. For information, see "Assigning a new bottle shape to a container" on page 60.

Category This field displays the price category assigned to the container. BarVision uses categories (see Chapter 4, "Working with Categories") to classify containers for pricing purposes. After you assign a category to a container (see "Assigning a new category to a container" on page 59), that category name

displays here. By default, new containers are assigned to the category currently positioned at the top of the category list.

Cost This field enables you to enter the wholesale price paid for the bottle. Providing a **Cost** value allows BarVision to automatically estimate the cost of each pour based on its estimated portion size. This information can then be used to calculate your pour cost percentages—by category, location, brand, shift, container, or even bottle. By default, this setting contains no value for new containers. Permissible values are from `0.00` to `99999.99` in the monetary unit of your choice.

Location This field enables you to uniquely identify the place where the container is stored. This setting can enable a single data receiver to track an entire bar area. Because a bar area typically includes several bartending stations (or wells) and a back bar, you should define each of those places as a separate **Location** so that the inventory at each is independently tracked. The default system value for this setting on all new containers is `1`. Permissible values are from `1` to `99`.

Remaining % This field indicates the estimated percentage of liquid remaining in the container. BarVision calculates and updates this value after each pour based on the **Container size** (see "Container size" on page 45) and the estimated actual volume of the pour. It is possible to edit the **Remaining %** value directly. You might want to do this to track a partially empty bottle. For example, to add a half-empty bottle of vodka as a new container, you might edit the **Remaining %** to a value of `50` to enable BarVision to accurately track the contents. Manually editing this field will cause the system to record a container variance event in the activity list (see "Container variance" on page 33). The default system value for this setting on all new containers is `100.0`. Permissible values are from `0.0` to `99999.0` percent.

vol. This field indicates the estimated volume of liquid remaining in the container. BarVision estimates and updates this value after each pour based on the **Container size** (see "Container size" on page 45) and the estimated ctual size of the pour. It is possible to edit the **vol.** value directly. You might want to do this to track a partially empty bottle. For example, to add a half-empty bottle of vodka as a new container, you might edit the **vol.** to a value of `16.90` to enable BarVision to accurately track the contents. Manually editing this field will cause the system to record a container variance event in the activity list (see "Container variance" on page 33). The default system value for this setting on all new containers is the **Default container size** option value (see "Default container size" on page 47). Permissible values are from `0.00` to `9999.99`.

wt. This field displays the current estimated weight of the container. BarVision estimates and updates this value after each pour based on the **Empty weight** (see "Empty weight" on page 45), the **Unit weight** (see "Unit weight" on page 46), and the estimated weight of the pour. It is possible to edit a container's **wt.** value directly (so long as both the **Empty weight** and **Unit weight** have been defined). You might want to do this to track a partially empty bottle. For example, to add a half-empty bottle of vodka as a new container, you might weigh the bottle and then edit the **wt.** value to enable BarVision to accurately track the contents. Manually editing this field will cause the system to record a container variance event in the activity list (see "Container variance" on page 33). The default system value for this setting on all new containers is `0.00`. Permissible values are from `0.00` to `9999.99`.

Container size This field indicates the volume of liquid that the container holds at full capacity. When you add a new container, this field's value is automatically set to the **Default container size** value (see "Default container size" on page 47). If you add a new container that is not of default size, you can manually edit the **Container size** value. After editing, be sure to reset the container's **Remaining %** to a value of `100.0` or else a container variance event will be recorded in the activity list (see "Container variance" on page 33). Permissible values are from `0.10` to `9999.99`.

Empty weight This field displays the weight of the container when it holds no liquid. The most common **Product** names are already associated with an **Empty weight** value. If you select one of these **Product** names

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from the preset list when adding a new container, this value will automatically be set. Otherwise, this field will be empty. To edit, enter a value in the unit of weight of your choice. Permissible values are from `0.000` to `9999.999`.

Empty weight and Unit weight values must be entered in the same unit of measure.

Unit weight This field indicates the weight of one volumetric unit of the liquor, wine, or other beverage in the container. For example, if you choose to enter volumes in fluid ounces, the **Unit weight** should represent the weight of one fluid ounce of the liquid (typically, about 0.95 ounces for eighty-proof liquor). If you prefer to enter volumes in metric units, set the **Unit weight** equal to the weight of one milliliter of the liquid (typically, about 0.95 grams for eighty-proof liquor). The most common **Product** names are already associated with a **Unit weight** value. If you select one of these **Product** names from the preset list when adding a new container, this value will automatically be set. To edit, enter a value in the unit of weight of your choice. Permissible values are from `0.000` to `9999.999`.

Empty weight and Unit weight values must be entered in the same unit of measure.

Expected pour rate The average pour rate of the pour spout type being used. The **Expected pour rate** value is used to calculate the amount of liquor a bartender expected to dispense when pouring a drink (based on the average pour rate of the type of pour spout that is used, as opposed to the specific pour spout on the container). This value is then displayed on the system's Activity screen to give feedback to bartenders about how accurately and consistently they are timing their pours. For more information, see "Understanding pour rates" on page 7.

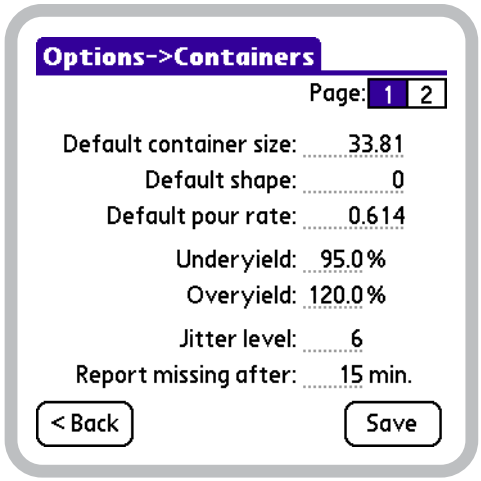
When you add a new container, this field's value is automatically set to the **Default pour rate** value (see "Default pour rate" on page 47). To edit, enter a volume-based flow rate value in the unit of volume of your choice per second. Permissible values are from `0.100` to `999.999`.

Actual pour rate The **Actual pour rate** accounts for many of the factors that cause the pour rate of a specific pour spout to vary from the average (or expected). These factors include such variables as the viscosity of the liquor, the temperature, and the barometric pressure. BarVision uses this value to calculate how much liquor was actually poured from a specific pour spout during a particular pour for purposes of tracking inventory usage. For more information, see "Understanding pour rates" on page 7.

When you add a new container, this field's value is automatically set to the **Default pour rate** value (see "Default pour rate" on page 47). To edit, enter a volume-based flow rate value in the unit of volume of your choice per second. Permissible values are from `0.100` to `999.999`.

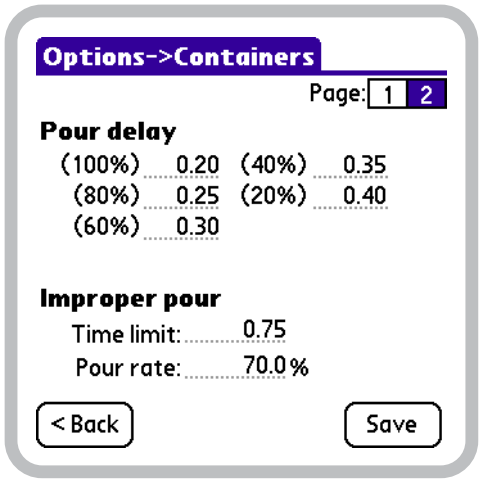
Container options

When you add a new container to BarVision, several of the container details (defined above) are initially set to default values. You may want to adjust these defaults. For example, you may need to standardize them to your preferred unit of measure. You can do this from the pages of the Container Options screen. To access page 1 of the Container Options screen, choose **Mgr** > **Setup** > **Options** > **Containers** > **Select**.



Page 1 of the Container Options screen

To access page 2 of the Container Options screen, tap 2 ([2]).



Page 2 of the Container Options screen

The following sections explain the function of each setting provided on the pages of the Container Options screen. Any changes you make to the three default container options (**Default container size**, **Default Shape**, and **Default pour rate**) will only affect the containers you add to the system from that point forward. Existing containers are not affected by changes made to the default container options. By contrast, all of the other settings on the Container Options screen will affect not only containers added in the future but also all current containers. In other words, editing those items sets the value of the option for the entire system.

Default container size This is the default value automatically assigned to a new container's **Container size** field (see "Container size" on page 45). This default value should be set to the volume of liquid your containers typically hold at capacity. The preset system value for this option is `33.81` (the volume, expressed in U.S. fluid ounces, of a one liter bottle). To edit, enter a value in the volumetric unit of your choice. Permissible values are from `0.10` to `9999.99`.

Default shape This is the default value automatically assigned to a new container's **Shape** field (see "Shape" on page 44). This value should be set to the number on the Bottle Shape Graphic Contact Sheet that corresponds to the bottle shape graphic you want to use as a default. Each number corresponds with one of the unique bottle shape graphics used to portray bottles on the Container Status screen (see "Viewing container status information" on page 67).

The **Default shape** value is only used if the **Product** name (see "Product" on page 44) you assign to the container is not associated with a bottle shape graphic. For example, you might assign a generic name like `Well Gin` to a container instead of choosing one of the defined names from the product list. In that case, the **Default shape** will be used as the bottle shape graphic for that container on the Container Status screen. The default system value for this option is `0` (which displays no bottle image).

Default pour rate This is the default value automatically assigned to a new container's **Expected pour rate** (see "Expected pour rate" on page 46) and **Actual pour rate** fields (see "Actual pour rate" on page 46). These values are then used to estimate both an *expected* and an *actual* pour size each time a bartender pours a drink. This value is set to the *average* dispense rate for BarVision pour spouts. For more information, see "Understanding pour rates" on page 7.

The default system value for this option is `0.614` (the average flow rate, expressed in U.S. fluid ounces per second, of a standard BarVision pour spout). To edit,

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enter a flow rate value in the unit of volume of your choice per second. Permissible values are from `0.100` to `999.999`.

Underyield This option defines the percentage at which a bottle's yield is considered unacceptably low and the container is flagged as irregular. For example, if the **Underyield** value is set to `95.0` percent and the accumulated volume of the pours from a 33.81 fluid ounce bottle is less than 32.11 fluid ounces, the yield is considered exceptionally low and the container designated as irregular (see "Irregular Empty Containers" on page 82). A low container yield might indicate that the pour spout was removed before the container was emptied, that the container was not full when the pour spout was attached, that the container's **Actual pour rate** was not accurately set, or that the container was tampered with. The default system value for this option is `95.0`. Permissible values are from `0.0` to `500.0` percent.

Overyield This option defines the percentage at which a bottle's yield is considered unusually high and the container is flagged as irregular. For example, if the **Overyield** value is set to `120.0` percent and the accumulated volume of the pours from a 33.81 fluid ounce bottle is more than 40.56 fluid ounces, the yield is considered exceptionally high and the container designated as irregular (see "Irregular Empty Containers" on page 82). An exceptionally high container yield might indicate that the container was not returned to an upright position immediately after it was emptied on the last pour, that several pours from the container were made at an improper bottle tilt angle, that the container's **Estimated pour rate** was not accurately set, or that the container was tampered with. The default system value for this option is `120.0`. Permissible values are from `0.0` to `500.0` percent.

Jitter level This option specifies the value BarVision uses to determine whether to classify a bottle tilt event as a pour or an accidental *jitter*. If a container is tilted past ninety degrees but does not remain so for a duration longer than the amount of time represented by the **Jitter level**, the system designates the motion inadvertent and no container pour event (see "Container pour" on page 32) is recorded. The **Jitter level** is expressed in sixteenths of a second. As a result, if the **Jitter level** is set to `8` and the container is tipped for less than one-half of a second (8/16), the system assumes the container's motion accidental and no pour is recorded. The default system value for this option is `6`. Permissible values are from `0` to `16` sixteenths of a second.

Report missing after This option defines the amount of time the system can go without receiving a signal from a container's wireless pour spout before the system classifies the container as missing. At that point, a container missing event record appears in the activity list (see "Container missing" on page 32). For example, if **Report missing after** is set to `5` and a container is taken outside of the system's wireless range for six minutes, the system will record a container missing event in the activity list. When the system next hears from that missing container, the system records a container found event in the activity list (see "Container found" on page 33). The default system value for this option is `15`. Permissible values are from `1` to `200` minutes.

Pour delay This option specifies the values used to compensate for the delay between tipping a container and dispensing liquid from the pour spout. This allows BarVision to more accurately estimate the amount of liquor dispensed during a pour. This delay results from the time it takes for the fluid to travel down the neck of the bottle and out the spout. The delay varies depending upon the volume of liquid in the container: the fuller the bottle, the shorter the delay and vice versa. For that reason, the BarVision system defines separate delays for several different percentages of container volume: 100, 80, 60, 40, and 20. If the bottle is between 100 and 81 percent full, the 100 **Pour delay** value is in effect. If the bottle is between 80 and 61 percent full, the 80 **Pour delay** value is used. And so on. The default system values for this option are `0.20`, `0.25`, `0.30`, `0.35`, and `0.40` seconds (from 100 to 20 percent, respectively). These values have been derived and optimized through exhaustive testing, and Nuvo Technologies, Inc. strongly recommends that they not be altered. Permissible values are from `0.00` to `64.00` seconds.

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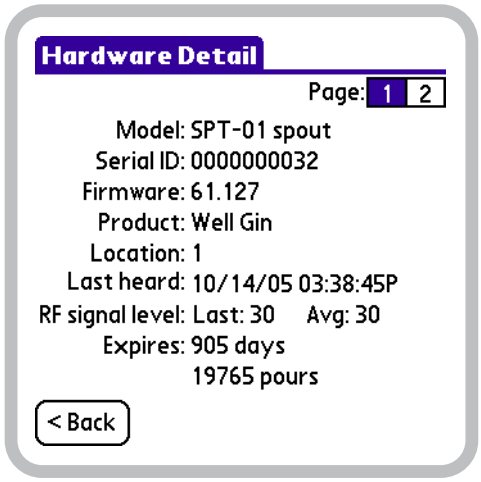
Improper pour time limit This option defines the maximum amount of time a container may spend at a greater than 90 but less than 135 degree bottle tilt angle during a pour. If this limit is surpassed, the pour is classified as improper. This value functions to ensure that bartenders tilt bottles quickly when they pour (and also that they return bottles quickly to an upright position). For example, assume that the **Improper pour time limit** is set to `0.50` seconds. If it takes the bartender 0.26 seconds to invert the bottle from 90 to greater than 135 degrees, and 0.25 seconds to return the bottle from 135 to less than 90 degrees, the system classifies the pour as improper. The system identifies such pours as improper because quickly but smoothly inverting the bottle ensures an efficient pour and maximizes the accuracy of the pour sizes that BarVision reports. The default system value for this option is `0.75`. Permissible values are from `0.00` to `64.00` seconds.

Improper pour pour rate This option defines the pour rate percentage used to estimate the volume of liquor dispensed when, during a pour, the bottle is tilted at a greater than 90 but less than 135 degree angle. Until the bottle is fully inverted, the pour spout will not achieve its maximum flow. The **Improper pour pour rate** compensates for this decreased flow. It scales down the value of the container's pour rates. This enables BarVision to more accurately estimate the amount of liquid dispensed during those times when the container is tilted at a less than optimal angle. The default system value for this option is `70.0`. Permissible values are from `0.0` to `100.0` percent.

Pour spout hardware details

The pages of the pour spout Hardware Detail screen provide detailed hardware and communication information for the wireless pour spout. This information can be useful for troubleshooting and diagnostic purposes. For example, you might want to view these screens to gauge the signal strength of the pour spout's most recent communication with the data receiver, to ensure that the spout has not passed its expiration, or simply to view the date and time the data receiver last received a transmission from the pour spout. You can access page 1 of the pour spout Hardware Detail screen by choosing **Mgr** > **Setup** > **Containers**, selecting a container, and then tapping **Spout**.



Page 1 of the pour spout Hardware Detail screen

To access page 2 of the pour spout Hardware Detail screen, tap 2 (2).

Page 2 of the pour spout Hardware Detail screen

Model Displays the model number of the transmitter tag. This information is provided for identification and troubleshooting purposes.

Serial ID Displays the factory programmed serial identification number of the BarVision transmitter tag. (For more information, see "Spout" on page 44.)

Firmware Displays the version number of the programming instructions stored in the transmitter tag's read-only memory. This information is provided for troubleshooting and customer support purposes.

Product Identifies the liquor, wine, or other beverage assigned to the container that the pour spout has been associated with. (For more information, see "Product" on page 44.)

Location Displays the numeric value used to identify the place where the container is stored. (For more information, see "Location" on page 45.)

Last heard Displays the date and time of the most recent communication the data receiver received from the transmitter tag. This information is provided for troubleshooting purposes.

RF signal level Identifies the strength of the signal being received by the data receiver from the transmitter tag. Both the most recent and the average signal strength are displayed. This information is provided for troubleshooting purposes.

Expires Indicates the number of days and pours remaining until the transmitter tag reaches its expiration. BarVision transmitter tags expire after a specified number of days or pours, whichever occurs first.

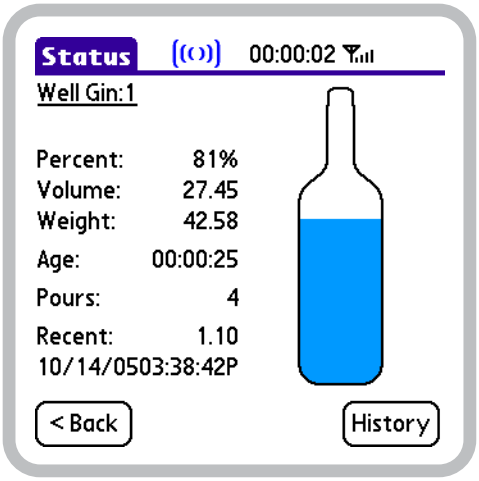
Event # Indicates the last event number the system has registered from the transmitter tag. A transmitter tag increments this value each time it senses a pour, as well as each time it is attached to or removed from a container. The BarVision system uses this value for error-checking purposes and to ensure against data loss.

Age Indicates the amount of time (in hours or days) the BarVision wireless pour spout has been attached to the current container. Each time the spout is removed from an empty bottle and attached to a new one this field's value is reset to `0`.

Container status information

The Container Status screen can assist you in the performance of a weight-based or visual inventory. It can also be used to conduct a random spot check of the bottles in your open stock. This screen provides a summary of vital statistics about the container (including its current volume, weight, number of pours, and age) along with a graphic representation of the bottle's current fluid level. In addition, from this screen you can generate a printable container history report that details every event recorded for the container.

You can access the Container Status screen in two ways: from the Activity screen by selecting an appropriate event record in the activity list and then tapping **Status**; or by choosing **Mgr** > **Setup** > **Containers**, selecting the name of a container, and then tapping **Status**. A manager security code is typically required in both cases.



Container Status screen

Percent Indicates the estimated percentage of liquid remaining in the container. (For more information, see "Remaining %" on page 45.)

Volume Indicates the estimated volume of liquid remaining in the container. (For more information, see "vol." on page 45.)

Weight Displays the current estimated weight of the container—that is, the weight of the bottle plus any remaining liquid. (For more information, see "wt." on page 45.)

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Age Indicates the amount of time (in hours or days) the BarVision wireless pour spout has been attached to the current bottle. Each time the spout is removed from an empty bottle and attached to a new one this field's value is reset to `0`.

Pours Displays the number of pours dispensed from the container since the BarVision wireless pour spout was attached. The system registers a pour each time the container is tilted past ninety degrees for a duration greater than the **Jitter level**. For example, if the **Jitter level** is set to `8` and the container is tipped for more than one half of a second (8⁄16), the system registers a pour.

Recent Displays the size, date, and time of the most recent pour dispensed from the container. If no pours have been made from the bottle since it was added to the system, this field will not be displayed.

Signal strength (▼ıll) Depicts the signal strength of the most recent transmission received from the container's attached wireless pour spout.

Bottle graphic Graphically depicts the current fluid level of the container using blue shading. It provides a convenient way to perform a visual inventory. The image enables you to verify that the fluid level reported by BarVision matches the actual level of liquid in the bottle. If the pour spout for the container currently being viewed is removed (to be cleaned, for example), the fluid level indication (if any) will transition from blue to red.

Adding containers

Typically, every open liquor bottle in your establishment should be defined as a container using the BarVision software. You add a new container to the BarVision system by defining some basic characteristics of the bottle (for example, its brand, location, category, and cost) and associating the bottle with a wireless pour spout. After a container has been configured, the system will record every event that occurs to that container. Each time a serving is poured, each time the pour spout is removed or reattached, and each time wireless communication with the container is lost or regained, an event record appears in the activity list (see "About the event types" on page 29).

The container addition process is a one-time setup procedure. You do not need to add a new container each time a bottle is emptied and a replacement bottle put into service. Under those circumstances, you simply remove the wireless pour spout from the empty bottle and attach it to a new one (see "Changing bottles" on page 105). After the initial system setup, you should only need to add a new container when you decide to add a new brand of liquor, wine, or other beverage to your product offering.

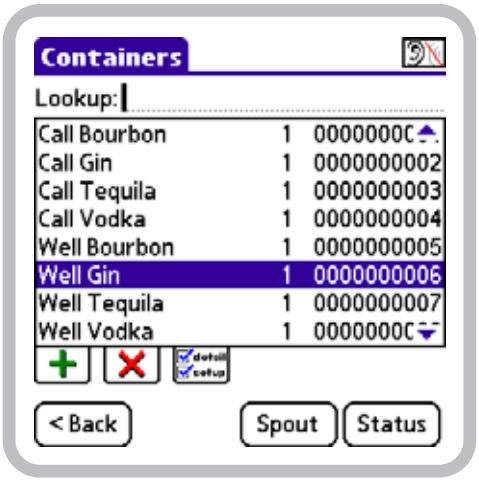
If possible, make all category changes (see "Editing categories" on page 39) before adding containers. This will ensure that the categories you intend to use are available for selection when you define new containers. This can eliminate the necessity of having to individually recategorize containers later on.

For best results, make any container option edits (see "Editing container options" on page 63) before adding containers. Providing appropriate default option values can eliminate the necessity of having to individually edit containers later on.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

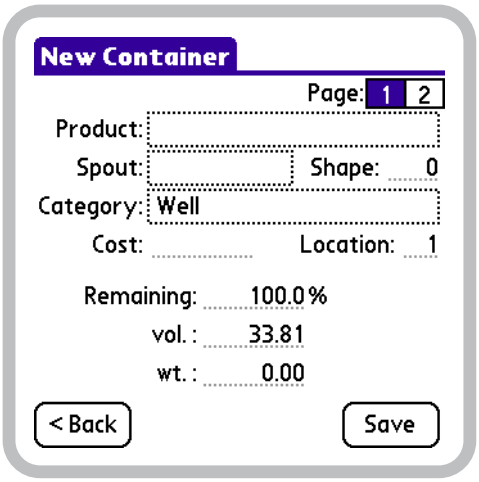
To add a container:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.



Containers screen

2 Tap **Add** (+) to display page 1 of the New Container screen.



Page 1 of the New Container screen

3 Tap the **Product** field to display the Select a Product screen. The **Enter** text box will contain the insertion point (cursor).

Select a Product screen

4 Select or enter a product name to assign to the container by doing one of the following:

- Begin entering the name of the product in the **Enter** field until the appropriate item becomes selected in the scroll list. Then, tap the selection so that the complete product name displays in the **Enter** field.
- Tap the name of the product in the scroll list. If the product you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.
- Enter a product name in the **Enter** field.

*If possible, select one of the provided product names rather than entering a unique one. Many of the most common products are associated with predefined container values (such as **Shape**, **Empty weight**, and **Unit weight**) that will automatically be set for you.*

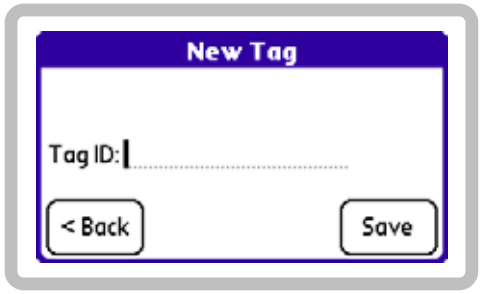
5 Tap **Select**. The chosen product name is assigned to the container and now appears in the **Product** field on page 1 of the New Container screen.

6 Tap the **Spout** field to display the Select Pour Spout screen.

Select Pour Spout screen

7 Do one of the following:

- Attach the BarVision wireless pour spout you want to associate with the container to the mouth of the bottle.
- Tap **Add tag manually** to display the New Tag screen.

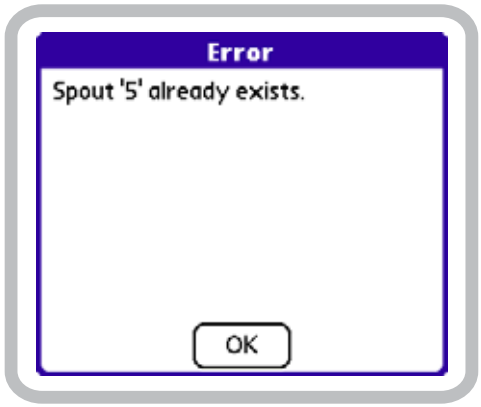


New Tag screen

In the **Tag ID** text box, enter the identification number of the pour spout you want to associate with the container.

8 One of the following two things will occur:

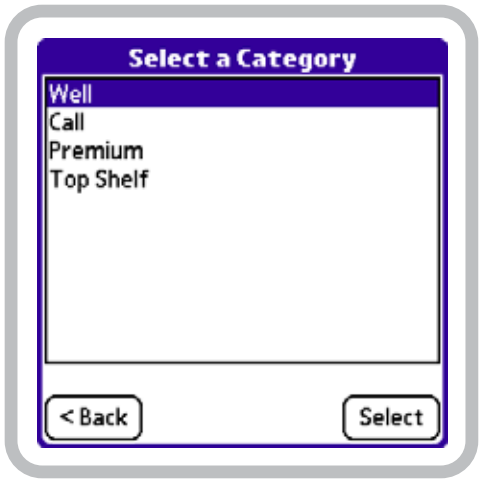
- If the pour spout you attach to the container (or whose identification number you enter) is not already associated with another container, page 1 of the New Container screen will be displayed. The **Spout** field will contain the pour spout's identification number. Proceed to step 9.
- If the pour spout you attach to the container (or whose identification number you enter) is already associated with another container, a pour spout selection Error screen similar to the one below will be displayed.



Pour spout selection Error screen

Tap **OK**, remove the wireless pour spout from the bottle (if applicable), and then return to step 7.

9 Tap the **Category** field to display the Select a Category screen.



Select a Category screen

10 In the category list, tap the name of the category you want to assign to the container. The category should appear selected, as does `Well` in the figure above. If the category you want to select is not

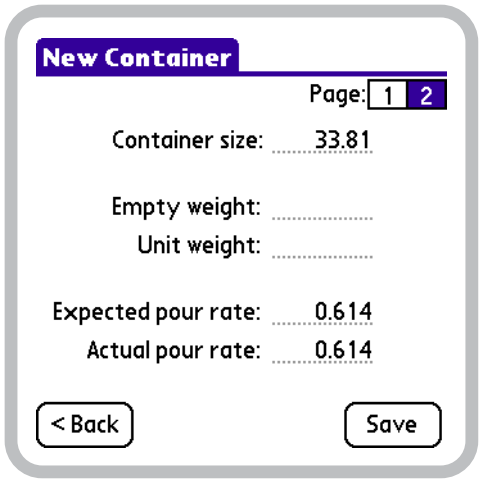
displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

11 Tap **Select**. The chosen category is assigned to the container and now appears in the **Category** field on page 1 of the New Container screen.

12 Edit the remaining page 1 container details (**Shape**, **Cost**, **Location**, **Remaining %**, **vol.**, and **wt.**) as desired. To edit these container details, drag (or double-tap) to select the current value (if any), and then enter a new one.

For information about the functions of these values, see "Container details" on page 43.

13 Tap 2 (2) to display page 2 of the New Container screen.



Page 2 of the New Container screen

14 Edit the page 2 container details (**Container size**, **Empty weight**, **Unit weight**, **Expected pour rate**, and **Actual pour rate**) as desired. To edit these container details, drag (or double-tap) to select the current value (if any), and then enter a new one.

For information about the functions of these values, see "Container details" on page 43.

__Empty weight__ and __Unit weight__ values must be entered in the same unit of measure.

15 Tap **Save** to store your changes. One of the following two things will occur:

- If the product name you selected is not currently assigned to a container at the specified location, the Containers screen will be displayed. The container list will now include the newly added container.
- If the product name you selected is already assigned to a container at the specified location, a container addition Error screen similar to the one below will be displayed.

Container addition Error screen

— Tap **OK** to return to the Container Detail screen.

— Edit either the container's **Product** name or **Location** to a unique value. For example, to add a second container named Well Gin to a location where a Well Gin container already exists, modify the container's **Product** name to a unique value (such as `Well Gin B`).

— Tap **Save** to store your changes.

Editing containers

Each of the details provided on the pages of the Container Detail screen can be edited. For example, you can rename a container. You can disassociate the container from its currently assigned pour spout or associate the container with a new one. You can assign a container to a different category. You can modify its

location or cost. And you can edit its size, weight, volume, or pour rates. In addition, you can change the systemwide container options. The remainder of this section contains detailed procedures that explain how to perform these modifications.

This section contains the following editing procedures:

- "Assigning a new product name to a container" on page 55
- "Assigning a new pour spout to (or removing the current pour spout assignment from) a container" on page 57
- "Assigning a new category to a container" on page 59
- "Editing container details" on page 61
- "Editing container options" on page 63

Assigning a new product name to a container

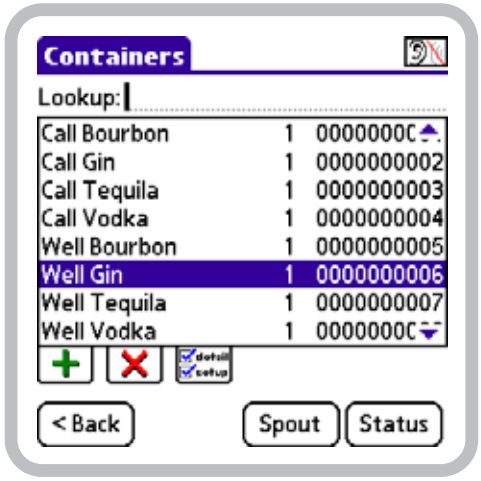
If you need to edit the product name assigned to a container, attempt to do so by selecting one of the provided product names rather than entering a unique one. Many of the most common products in the product list are associated with predefined container values (such as **Shape**, **Empty weight**, and **Unit weight**). When you select a name from the product list, all of the preset values associated with that name are automatically set for the container. Alternatively, if you edit the **Product** field by entering a new name (not choosing one from the list), all the other container settings will retain their currently assigned values.

Assigning a new name to a container will also reassign each of the existing event records in the activity list associated with that container. This is done so that no pour information will be lost.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To assign a new product name to a container:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

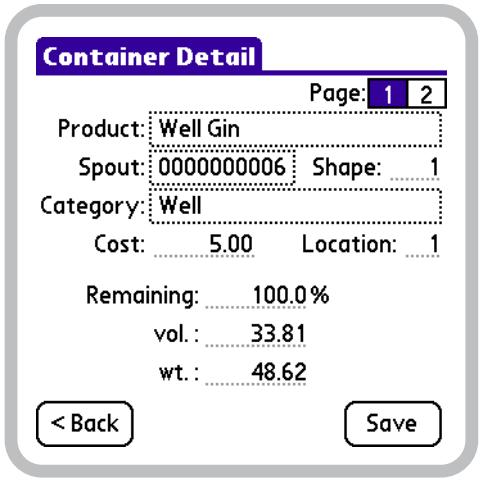


Containers screen, `Well Gin` container selected

2 Select a container to assign a new product name to by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Detail** ( ) to display page 1 of the Container Detail screen.



Page 1 of the Container Detail screen

4 Tap the **Product** field to display the Select a Product screen with the current product name selected for editing.

Select a Product screen, product name selected for editing

5 Select or enter a new product name to assign to the container by doing one of the following:

- Begin entering the name of the product in the **Enter** field until the appropriate item becomes selected in the scroll list. Then, tap the selection so that the complete product name displays in the **Enter** field.
- Tap the name of the product in the scroll list. If the product you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.
- Enter a product name in the **Enter** field.

*If possible, select one of the provided product names rather than entering a unique one. Many of the most common products are associated with predefined container values (such as **Shape**, **Empty weight**, and **Unit weight**) that will automatically be set for you.*

6 Tap **Select** to assign the new product name to the container and return to page 1 of the Container Detail screen.

7 Tap **Save** to store your changes. One of the following two things will occur:

- If the product name you selected is not currently assigned to a container at the specified location, the Containers screen will be displayed. The container list will now include the newly named container.
- If the product name you selected is already assigned to a container at the specified location, a container edit Error screen similar to the one below will be displayed.

Container edit Error screen

— Tap **OK** to return to page 1 of the Container Detail screen.

— Edit either the container's **Product** name or **Location** to a unique value. For example, to add a second container named Well Gin to a location where a Well Gin container already exists, modify the container's **Product** name to a unique value (such as `Well Gin B`).

— Tap **Save** to store your changes.

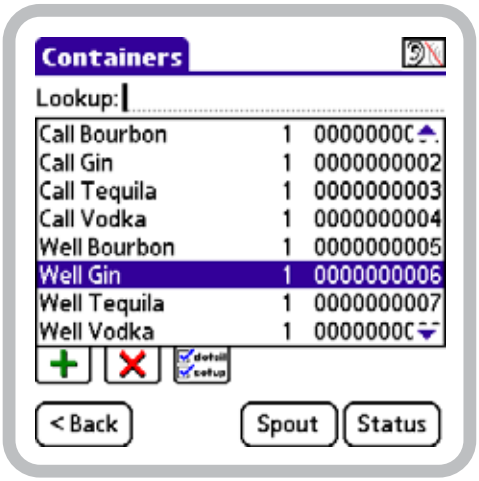
Assigning a new pour spout to (or removing the current pour spout assignment from) a container

You may want to associate a new pour spout with a container. For example, you may need to do this if the pour spout is lost, expires, or malfunctions. Or you might want to disassociate a pour spout from its current container so that it can be used elsewhere. For example, you might want to move the pour spout from one seasonal product to another. Dissociating a pour spout from a container, or associating a different one with it, will not affect any existing events in the activity list that were recorded for the container.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To assign a new pour spout to (or remove the current pour spout assignment from) a container:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

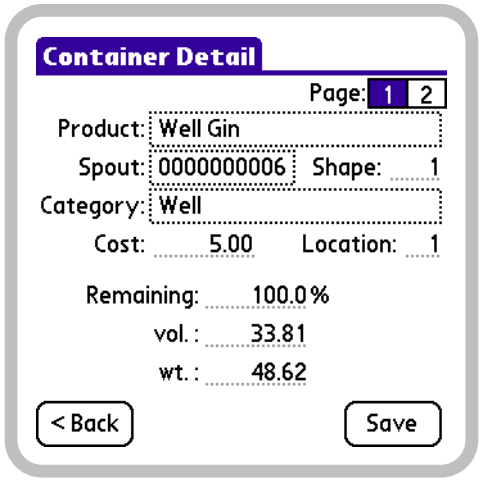


Containers screen, `Well Gin` container selected

2 Select the container to associate a new pour spout with (or disassociate the current pour spout from) by doing one of the following:

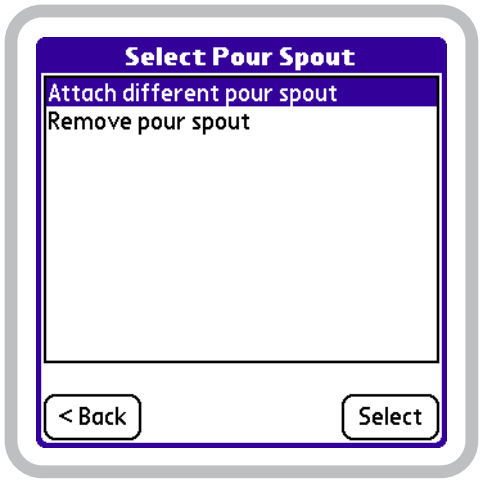
- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Detail** ( ) to display page 1 of the Container Detail screen.



Page 1 of the Container Detail screen

4 Tap the **Spout** field to display the Select Pour Spout screen.



Select Pour Spout screen

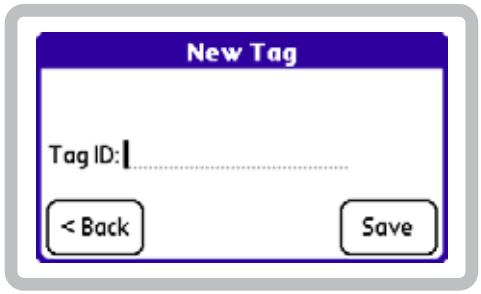
5 Do one of the following:

- To disassociate the current pour spout from the container, select **Remove pour spout**, physically remove the pour spout from the bottle, and then tap **Select**. Page 1 of the Container Detail screen will be displayed with the **Spout** field now empty. Proceed to step 8.
- To associate a different pour spout with the container, select **Attach different pour spout**, physically remove the pour spout from the bottle, and then tap **Select**. The Select Pour Spout screen will be displayed. Proceed to step 6.

Select Pour Spout screen

6 Do one of the following:

- Attach the BarVision wireless pour spout you want to associate with the container to the mouth of the bottle.
- Tap **Add tag manually** to display the New Tag screen.



New Tag screen

In the **Tag ID** text box, enter the identification number of the pour spout you want to associate with the container.

7 One of the following two things will occur:

- If the pour spout you attach to the container (or whose identification number you enter) is not already associated with another container, page 1 of the New Container screen will be displayed. The **Spout** field will contain the pour spout's identification number. Proceed to step 8.
- If the pour spout you attach to the container (or whose identification number you enter) is already associated with another container, a pour spout selection Error screen similar to the one below will be displayed.

Pour spout selection Error screen

Tap **OK**, remove the wireless pour spout from the bottle (if applicable), and then return to step 6.

8 Tap **Save** to store your changes and return to the Containers screen.

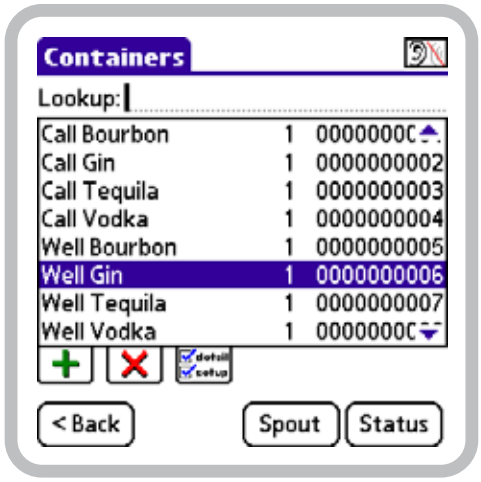
Assigning a new category to a container

You may want to reassign a miscategorized container. Doing so will also reassign any existing event records in the activity list that are associated with the container. For example, if you discover that a `Premium` bottle of vodka has been mistakenly categorized as `Top Shelf`, you can reassign it. During this process, each of the existing event records associated with that container, which were originally assigned to the `Top Shelf` category, are reclassified as `Premium`.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To assign a new category to a container:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

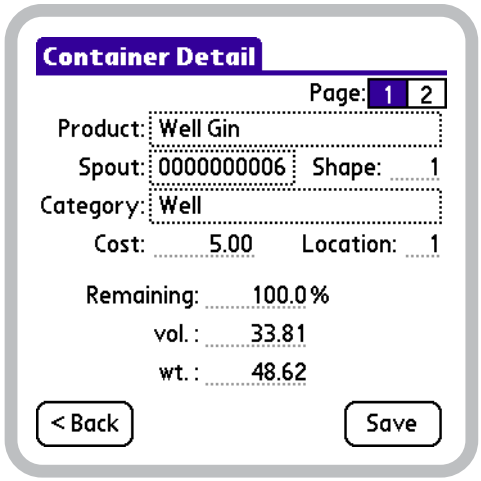


Containers screen, `Well Gin` container selected

2 Select the container to assign a new category to by doing one of the following:

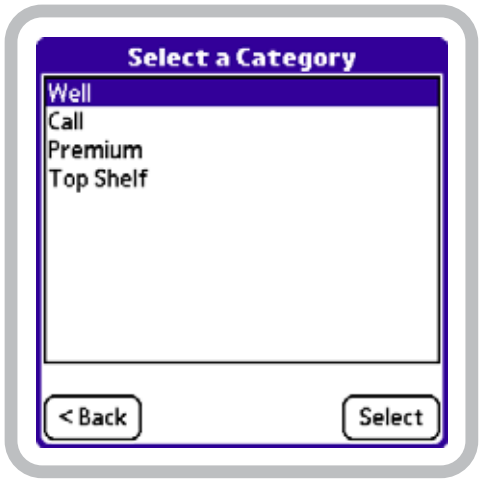
- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Detail** ( ) to display page 1 of the Container Detail screen.



Page 1 of the Container Detail screen

4 Tap the **Category** field to display the Select a Category screen.



Select a Category screen, `Well` category selected

5 In the category list, tap the name of the category you want to assign to the container. The category should appear selected, as does `Well` in the figure above. If the category you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

Assigning a different category to a container will also reassign each of the event records in the activity list that are associated with that container.

6 Tap **Select**. The chosen category is assigned to the container and now appears in the **Category** field on page 1 of the Container Detail screen.

7 Tap **Save** to store your changes and return to the Containers screen.

Assigning a new bottle shape to a container

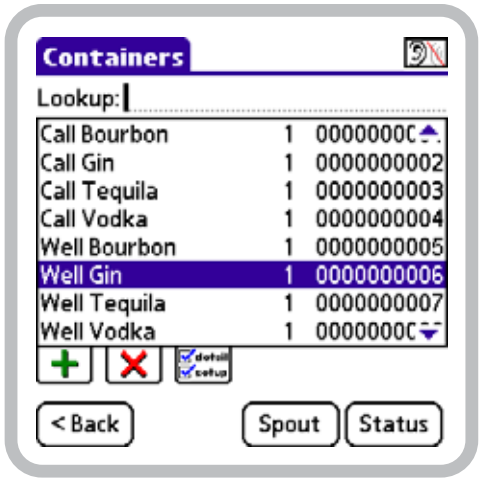
You may want to assign a new bottle shape graphic to a container. For example, you may have assigned a generic name like `Well Gin` to a container rather than having chosen one of the defined names from the product list. In that case, the **Default shape** value would have been assigned to the container's **Shape** field and used to provide a bottle shape graphic for that container on the Container Status screen. But the graphic associated with the **Default shape** value may not accurately represent the shape of a specific bottle. In that case, you might want to review the Bottle Shape Graphic Contact Sheet, locate the graphic that most closely resembles the bottle, and assign that graphic's ID number to the container's **Shape** field. This will enable you to more accurately check the status of the container, providing you with the ability to compare the container's contents level to BarVision's graphic representation of the container's level.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

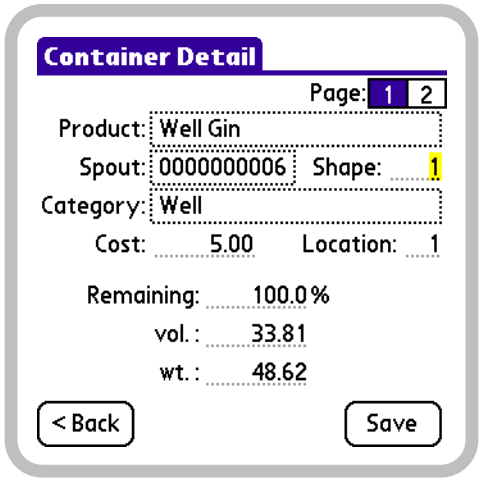
To assign a new bottle shape to a container:

1 Review the Bottle Shape Graphic Contact Sheet to locate the graphic that most closely resembles the bottle. Note the graphic's ID number.

2 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.



Containers screen, `Well Gin` container selected



*Page 1 of the Container Detail screen, **Shape** selected for editing*

3 Select the container to assign a new bottle shape to by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

4 Tap **Detail** ( ) to display page 1 of the Container Detail screen.

5 Drag (or double-tap) to select the current **Shape** value, and then enter the ID number of the graphic selected in step 1.

6 Tap **Save** to store your changes and return to the Containers screen.

Editing container details

You can change the detail settings for each individual container by editing the numeric values on the Container Detail screens. By altering the appropriate container details, you can:

- Edit the container's per-bottle cost
- Change the container's location
- Modify the container's current fluid level by editing the **Remaining %**, **vol.**, or **wt.** fields
- Configure the container's size
- Define the weight of the container when empty and the weight of one volumetric unit of the container's contents
- Adjust the container's pour rates

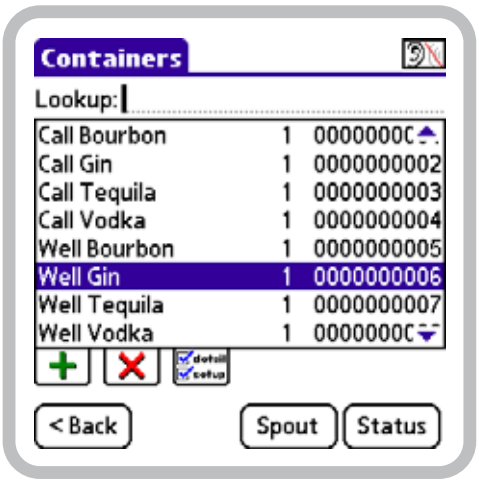
For more information about the functions of these settings, see "Container details" on page 43.

For information about editing a container's **Product** name, see "Assigning a new product name to a container" on page 55. For information about modifying a container's **Spout** assignment, see "Assigning a new pour spout to (or removing the current pour spout assignment from) a container" on page 57. For information about editing a container's **Category**, see "Assigning a new category to a container" on page 59. For information about editing a container's **Shape**, see "Assigning a new bottle shape to a container" on page 60.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To edit a container's details:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

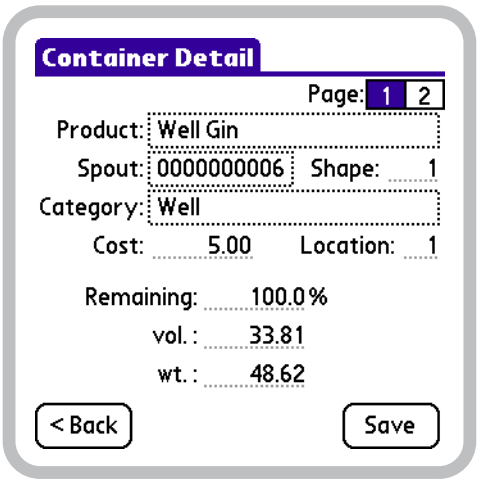


Containers screen, `Well Gin` container selected

2 Select the container whose details you want to edit by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Detail** ( ) to display page 1 of the Container Detail screen.

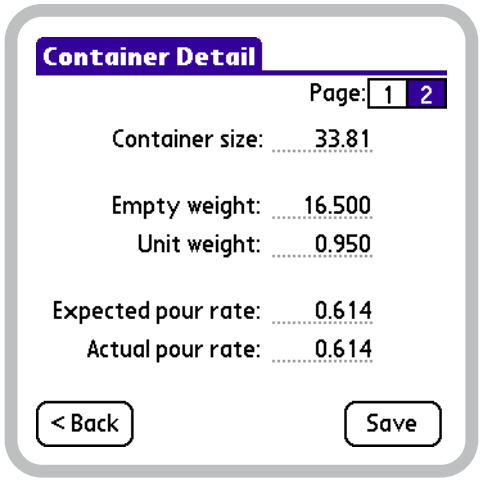


Page 1 of the Container Detail screen

4 Edit the page 1 container detail fields (**Location**, **Cost**, **Remaining %**, **vol.**, and **wt.**) as desired. To edit these container details, drag (or double-tap) to select the current value (if any), and then enter a new one.

For information about the functions of these values, see "Container details" on page 43.

5 Tap 2 ( ) to display page 2 of the Container Detail screen.



Page 2 of the Container Detail screen

6 Edit the page 2 container detail fields (**Container size**, **Empty weight**, **Unit weight**, **Expected pour rate**, and **Actual pour rate**) as desired. To edit these container details, drag (or double-tap) to select the current value (if any), and then enter a new one.

For information about the functions of these values, see "Container details" on page 43.

Empty weight and Unit weight values must be entered in the same unit of measure.

7 Tap **Save** to store your changes and return to the Containers screen.

Editing container options

You can change the default and systemwide container options by editing the numeric values on the Container Options screen. By altering the appropriate container option, you can:

- Adjust the default values assigned to the settings of new containers
- Modify the bottle yield percentages at which containers are flagged as exceptions
- Configure the amount of time for which a container can be out of contact with the data receiver before it is reported missing
- Set the values used to compensate for the delay between tipping a container and dispensing liquid from the pour spout

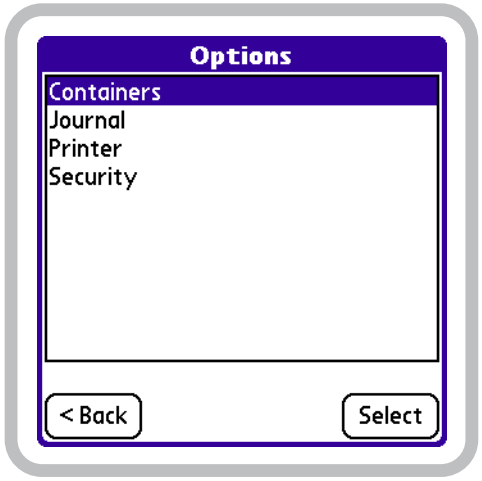
For more information about the functions of these options, see "Container options" on page 46.

*Changes made to the default container options (**Default container size**, **Default Shape**, and **Default pour rate**) will only affect the containers you add to the system from that point forward. Existing containers are not affected by changes to these options. The remaining container options have a global effect. Editing these items sets the value for that option systemwide.*

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

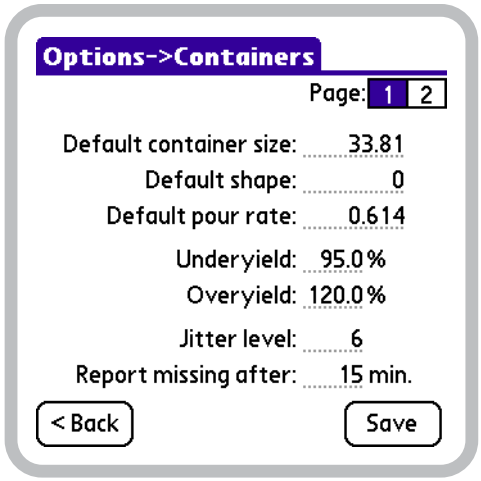
To edit the container options:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



Options screen

2 In the option list, tap **Containers**, and then tap **Select** to display page 1 of the Container Options screen.

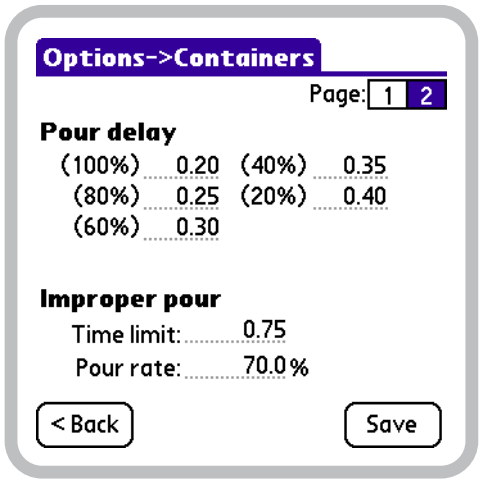


Page 1 of the Container Options screen

3 Edit the page 1 container option fields as desired. To edit an option, drag (or double-tap) to select the current value, and then enter a new one.

For information about the functions of these values, see "Container options" on page 46.

4 Tap 2 ([2]) to display page 2 of the Container Options screen.



Page 2 of the Container Options screen

5 Edit the page 2 container option fields as desired. To edit an option, drag (or double-tap) to select the current value, and then enter a new one.

For information about the functions of these options, see "Container options" on page 46.

6 Tap **Save** to store your changes and return to the Options screen.

Deleting containers

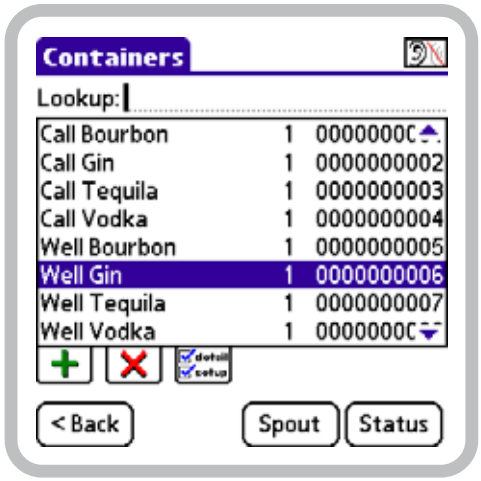
You may want to delete unused or unwanted containers. For example, you might have added a container by mistake, a product may have been discontinued, or a seasonal product's phase might be over. Removing an unused container can help simplify the information that appears on screen and on reports.

Deleting a container will remove all of the event records associated with that container from the activity list. If the information captured for the container is of use, be sure to run any needed reports (see, "Running, viewing, and printing reports" on page 92) or export system data (see, "Exporting data" on page 107) before deleting the container.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To delete a container:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.



Containers screen, `Well Gin` container selected

2 Select a container to delete by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

Deleting a container will remove all of the event records associated with that container from the activity list. Be sure to run any needed reports or export system data before deleting the container.

3 Tap **Delete** ( ).

4 A Confirmation screen similar to the one below will be displayed. Tap **Yes** to delete the container and return to the Containers screen.

Container deletion Confirmation screen

Viewing pour spout hardware details

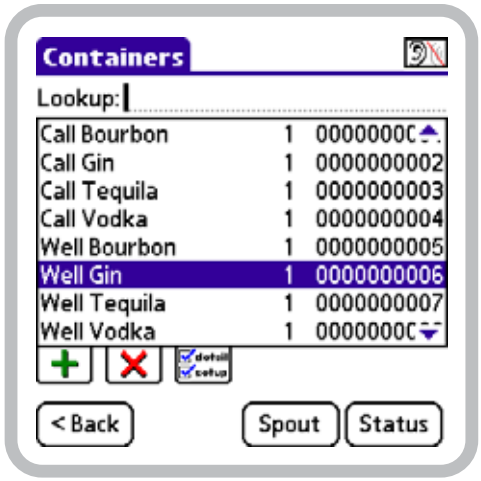
The pour spout Hardware Detail screen provides detailed troubleshooting and diagnostic information for the wireless pour spout associated with a container. This screen identifies the pour spout's communication statistics, such as: the strength of the signal being received from the transmitter tag, the version number of the firmware stored in the transmitter tag's read-only memory, and the date and time the data receiver last received a transmission from the tag. In addition, because BarVision transmitter tags expire after a specified number of days or pours (whichever occurs first), the Hardware Detail screen identifies the pour spout's expiration information.

For information about the details provided on the Hardware Detail screen, see "Pour spout hardware details" on page 49.

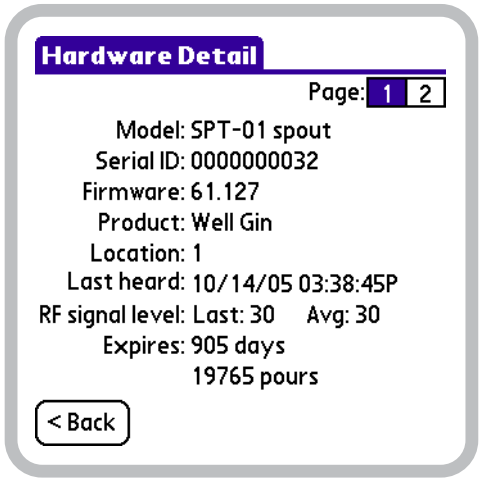
***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To view a pour spout's hardware details:

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.



Containers screen, `Well Gin` container selected



Page 1 of the pour spout Hardware Detail screen

2 Select the container whose pour spout hardware details you want to view by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Spout** to display page 1 of the pour spout Hardware Detail screen.

For information about the details provided on this screen, see "Pour spout hardware details" on page 49.

4 To access page 2 of the pour spout Hardware Detail screen, tap 2 ( ).

Page 2 of the pour spout Hardware Detail screen

5 After you have finished viewing the pour spout's hardware details, tap **< Back** to return to the Containers screen.

Viewing container status information

The container status function provides a convenient way to conduct a simple spot check of the open containers in your bar. You might want to view a container's status information to compare the container's contents level to BarVision's graphic representation of the container's estimated level, to view BarVision's estimated container weight to compare that value to a scale-obtained weight, to monitor the container's age, or to verify that a container has been fitted with the appropriate wireless pour spout.

You can access the container **Status** function from either the Activity or Containers screen. Each status screen provides identical information. However, from the Activity screen, you can only view the status of those containers for which there is a current event record in the activity list. By contrast, the Containers screen permits you to view the status for any defined container. After you have viewed a container's status (regardless of from which screen), you can choose to generate a viewable and printable container history report.

For information about the details provided on the Container Status screen, see "Container status information" on page 50.

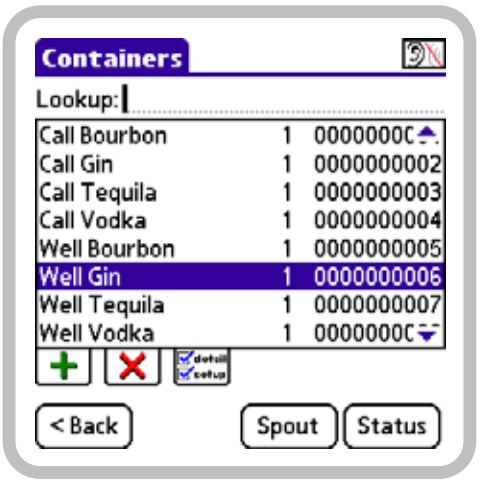
Viewing container status information from the Containers screen

From the Containers screen, you can view the status of any container. You might want to do this to visually verify that the current fluid level as estimated by BarVision closely matches the actual amount of liquid in the container.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To view container status information (from the Containers screen):

1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

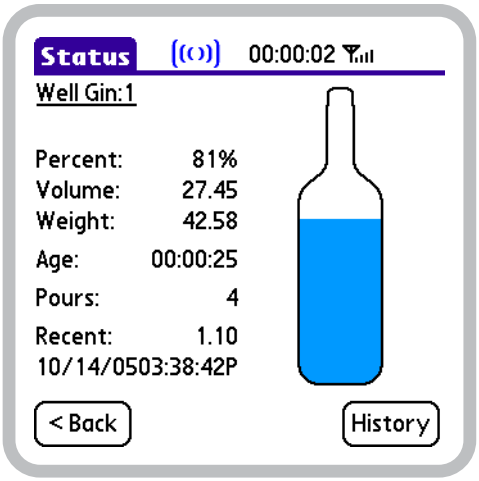


Containers screen, `Well Gin` container selected

2 Select the container whose status information you want to view by doing one of the following:

- Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen. With active listening mode enabled ( ), tilt the container until the appropriate item becomes selected in the scroll list.
- Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.
- Tap the name of the container in the scroll list. If the container you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (and) at the right-hand side of the list.

3 Tap **Status** to display the Container Status screen.



Container Status screen

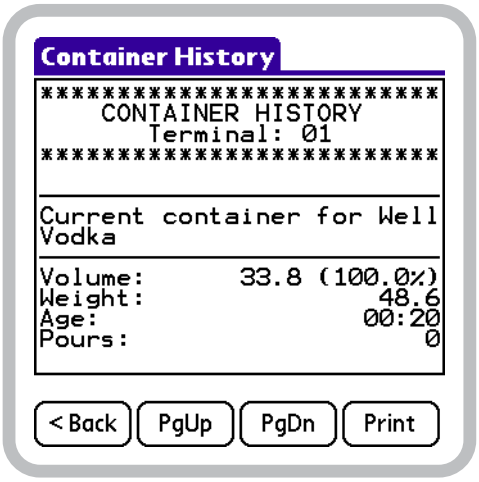
For information about the details provided on this screen, see "Container status information" on page 50.

Note: *If you are viewing the status for a container whose* ***Shape*** *is 0, no bottle shape image will be displayed. For more information, see "Default shape" on page 47.*

---

4 To generate a viewable and printable container history report including all container-related events, tap **History**.

5 The Container History screen will be displayed. It provides an on-screen preview of the container history report.



Container History screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

After you have finished viewing the history report, tap < **Back** to return to the Container Status screen.

6 When you have finished viewing the container's status, tap < **Back** to return to the Containers screen.

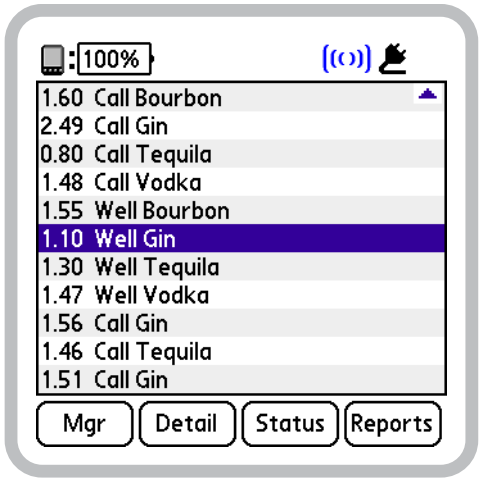
Viewing container status information from the Activity screen

From the Activity screen, you can inspect the status of those containers for which there is a current event record in the activity list. This gives you the ability to spot check recently used containers to verify their volumes, the number of pours, and so forth. Typically, access to container status information from the Activity screen is security code protected. This protection is unique in that if the manager security code has been entered in the last three minutes, the system does not require you to reenter it. This enables you to check the status of several containers from the Activity screen without having to continually reenter the security code. Because the Container Status screen does not permit any editing, all system data, settings, and information are secure.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

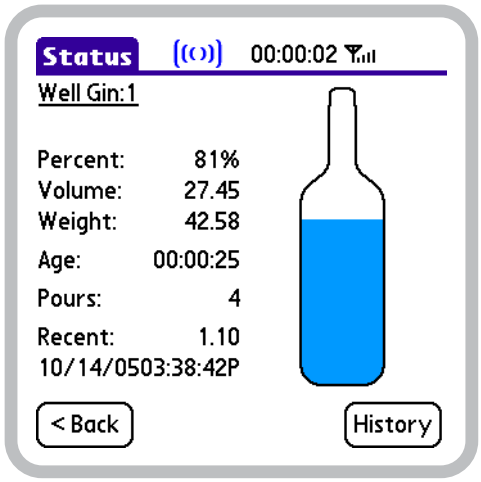
To view container status information (from the Activity screen):

1 On the Activity screen, select an event record in the activity list that is associated with the container whose status information you want to view.



Activity screen, `1.10 Well Gin` event record selected

2 Tap **Status** to display the Container Status screen.



Container Status screen

For information about the details provided on this screen, see "Container status information" on page 50.

Note: *If you are viewing the status for a container whose* ***Shape*** *is `0`, no bottle shape image will be displayed. For more information, see "Default shape" on page 47.*

---

3 To generate a viewable and printable container history report including all container-related events, tap **History**.

4 The Container History screen will be displayed. It provides an on-screen preview of the container history report.

Container History screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

After you have finished viewing the history report, tap **< Back** to return to the Container Status screen.

5 When you have finished viewing the container's status, tap **< Back** to return to the Activity screen.

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Chapter 6: Working with Serving Sizes

The BarVision system uses *serving sizes* to represent your establishment's desired pour volumes. This chapter explains how the system uses serving sizes and describes how to add, edit, and delete them. It also includes discussion of a feature closely related to serving sizes—the **Max allowed pour size**. This chapter contains the following sections:

- "About serving sizes" on page 71
- "Adding serving sizes" on page 73
- "Editing serving sizes" on page 74
- "Editing the Max allowed pour size" on page 75
- "Deleting serving sizes" on page 76

About serving sizes

In the BarVision system, serving sizes refer to the volumes of your establishment's desired portion sizes. That is, a serving size represents the amount of liquor you would like to serve in a perfectly poured drink. For example, a typical bar might determine that an exactly measured shot of liquor should contain 1 fluid ounce, that a rocks drink ought to contain 1.5 fluid ounces, and that a precisely poured martini should contain 2 fluid ounces of liquor. BarVision identifies these desired pour volumes as *serving sizes*.

Because different types of alcoholic beverages require different quantities of liquor, BarVision enables you to define up to five serving sizes. For example, BarVision's default serving sizes include the following: `0.20` U.S. fluid ounces for a splash of liquor, `0.50` U.S. fluid ounces for one ingredient of a multi-ingredient drink, `1.00` U.S. fluid ounce for a shot, `1.50` U.S. fluid ounces for an on-the-rocks drink, and `2.00` U.S. fluid ounces for a martini or highball drink.

The BarVision software does not specify (nor does it limit) the unit of measure for numeric values. However, all predefined values of volume and weight have been entered in ounces of the U.S. Customary System. For a discussion of BarVision's unit-free operation, see "Understanding unit-free operation" on page 7.

Regardless of the standard pour volumes or unit of measure your establishment uses, you should duplicate those standards in the BarVision software using serving sizes. Ideally, you should define a serving size for each desired pour volume that your establishment offers and delete any unnecessary ones. For example, if your establishment uses the same desired pour volume for shots and rocks drinks (for instance, 1.25 fluid ounces), you may want to edit the predefined `1.00` serving size to `1.25` and delete the `1.50` serving size.

Adjusting the serving sizes to match your desired pour volumes enables BarVision to as accurately as possible assign each pour to the appropriate serving size. This, in turn, enables you to estimate the amount of revenue that should have been generated based on the number of pours for each serving size. BarVision allocates pours to serving sizes by establishing ranges based on the midpoints of the serving sizes. For example, assume that serving sizes of `1.00` and `1.50` have been defined. If BarVision calculates a pour's volume as 1.26, the pour is allocated to the `1.50` serving size. If the pour volume is calculated to be 1.25, the pour is allocated to the `1.00` serving size.

BarVision calculates pour volumes based on the container's pour spout pour rates (see "Expected pour rate" on page 46 and "Actual pour rate" on page 46). A pour rate is a measure of the amount of liquid a pour spout dispenses each second. Each type (both brand and model) of pour spout has an average pour rate. This average rate identifies the amount of liquid the typical pour spout of that brand and model will dispense. However, the *actual pour rate* of a specific pour spout is likely to be faster or slower than the average. This variability results from several factors. The main factor is the pour spout manufacturing

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process. The difference in actual pour rates between two identical pour spouts from the same manufacturer can be 20% or more. In addition, a number of other factors affect the actual pour rate of a specific pour spout, including the viscosity of the liquor, the temperature, and the barometric pressure.

The actual pour rate accounts for all the factors that cause the pour rate of a specific pour spout to vary from the average. BarVision uses the actual pour rate of a specific pour spout to calculate the actual portion size of each drink that is poured with that specific pour spout.

Bartenders free-pour drinks by time (how long a bottle is tipped) or by volume (to a certain level in a glass). Bartenders cannot be expected to adjust the timing of their pours based on the actual pour rate of the specific pour spout on a particular bottle. There is no way for a bartender to know that, for example, a specific pour spout pours 5% faster or slower than the average. What bartenders can do, however, is develop accuracy and consistency in their timing. For instance, a bartender can pour all half ounce drinks based on a two count and all one ounce drinks based on a four count, regardless of what pour spout they are using (adjustments may be made in the pour count for thicker liquors or liquor kept in a freezer).

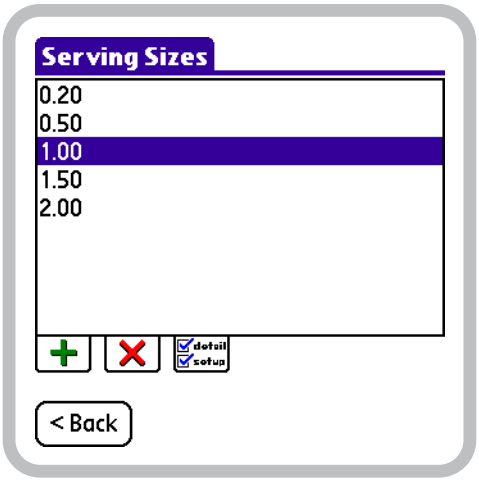
As a result, a bartender's pour count should be based on the average pour rate of the pour spout type being used, not on the actual pour rate. This average pour rate is called the *expected pour rate* in BarVision. BarVision uses the expected pour rate to calculate the expected portion size, which is the amount of liquor that is expected to be dispensed based on the average pour rate of that pour spout type. Unless you know a specific pour spout pours faster or slower than average, you would expect it to pour based on the average.

The expected portion size (and expected pour rate) is used by BarVision to give feedback to bartenders about how accurately and consistently they are timing their pours (based on the one factor—timing—that they can control). The expected portion size is also used for the purpose of assigning a pour to a serving size. The actual portion size (and actual pour rate) is used by BarVision to determine how much liquor was actually poured in a particular drink for purposes of tracking inventory usage.

By assigning each pour to a serving size, BarVision enables you to do the following:

- Evaluate the pouring accuracy and consistency of your bartending staff
- Analyze the number of drinks poured by serving size
- Calculate expected revenue based on the number of pours per serving size

The Serving Sizes screen (see example below) displays a list of the currently defined serving sizes. To access the Serving Sizes screen, choose **Mgr** > **Setup** > **Serving Sizes**. From this screen, you can modify the serving size list in a number of ways. You can add a serving size—assuming that at least one of the predefined serving sizes has been deleted. You can edit the serving sizes to match them to your establishment's desired pour volumes. And you can delete as many of the serving sizes as you like—though by deleting them all, you will disable the serving size feature and lose the benefits described above.



Serving Sizes screen

About the Max allowed pour size

A feature closely related to serving sizes is the **Max allowed pour size** option. The **Max allowed pour size** defines the expected pour volume above which BarVision identifies pours as *exceptions* rather than allocating them to the largest serving size. For example, if your largest defined serving size is `1.50` and the **Max allowed pour size** is set to `2.20`, all pours of an expected volume less than 2.20 will be allocated to the `1.50` serving size, while pours of an expected volume greater than or equal to 2.20 are flagged as exceptions. This ensures that pours of an unusually large expected volume are easily identifiable and separated out for reporting purposes.

You can edit the **Max allowed pour size** from the Security Options screen. To access the Security Options screen, choose **Mgr** > **Setup** > **Options** > **Security** > **Select**. The default system value for the **Max allowed pour size** is `2.50` U.S. fluid ounces. Permissible values are from `0.01` to `9999.99` in the volumetric unit of your choice. To view details of those pours identified as exceptions, include the report section **Exceptions** on any report. (For information, see "Working with Reports" on page 79.)

Adding serving sizes

BarVision ships preconfigured with five defined serving sizes: `0.20`, `0.50`, `1.00`, `1.50`, and `2.00`. This is the maximum number of serving sizes allowed by the system. As a result, a new serving size can only be added if one of the predefined serving sizes has been deleted.

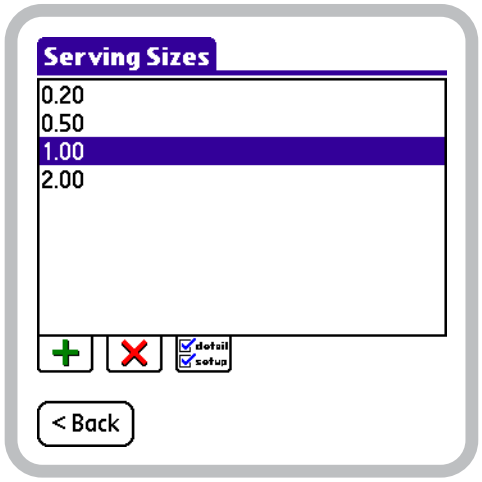
You may want to add a serving size to align BarVision with a new desired pour volume you have decided to use in your establishment. Or you may want to add a serving size to re-create a mistakenly deleted one.

Please note that any serving size value you enter must be less than or equal to the **Max allowed pour size**. As a result, you may need to edit the **Max allowed pour size** before adding a serving size. For information, see "Editing the Max allowed pour size" on page 75.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

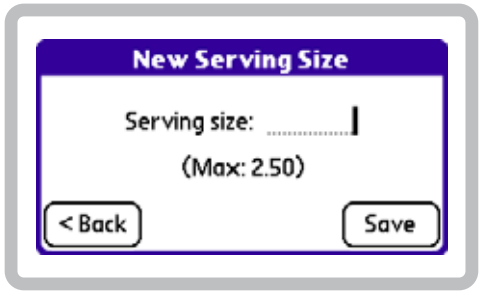
To add a serving size:

1 Choose **Mgr** > **Setup** > **Serving Sizes** to display the Serving Sizes screen.



Serving Sizes screen

2 Tap **Add** (+) to display the New Serving Size screen. The **Serving size** text box will contain the insertion point (cursor).



New Serving Size screen

3 Enter a value for the new serving size in the **Serving size** text box. The value you enter must be less than or equal to the **Max allowed pour size**, which is shown on screen for your reference.

If you enter a value with a precision greater than hundredths of a unit, the software will trim the number at the second decimal place. For example, if you enter the value `1.357`, the serving size will be set to `1.35`.

4 Tap **Save** to store your changes and return to the Serving Sizes screen.

Editing serving sizes

You can modify each serving size in the serving size list. You may want to edit serving sizes to standardize them to your preferred unit of measure or match them to your establishment's desired pour volumes.

For example, if you choose to use metric measurements, you may want to edit the predefined serving sizes to values of `6`, `15`, `30`, `44`, and `59`—the equivalents, in milliliters, of the default serving size values.

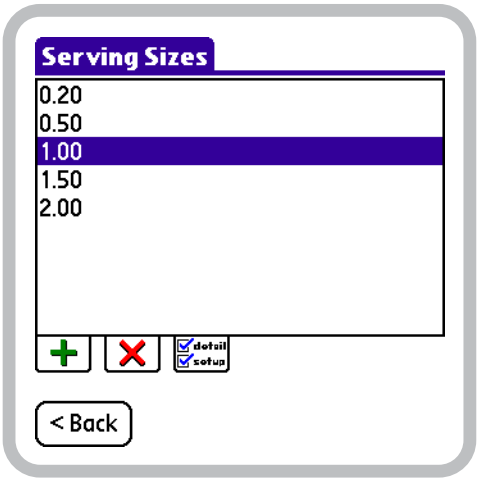
Be aware that BarVision will only allow you to enter serving size values less than or equal to the **Max allowed pour size**. As a result, you may need to edit the **Max allowed pour size** before you alter the serving sizes. For information, see "Editing the Max allowed pour size" on page 75.

Editing a serving size that pours have already been allocated to will not affect the journal event records for those pours. Existing pour events will be listed on all subsequent reports under the serving size they were originally assigned to by the system, whether or not that serving size currently exists.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To edit a serving size:

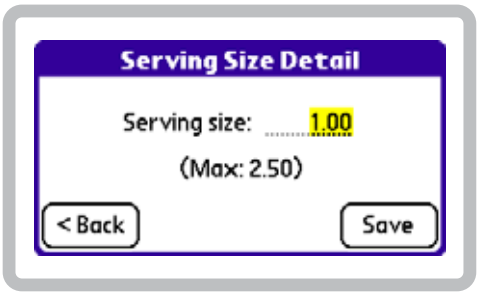
1 Choose **Mgr** > **Setup** > **Serving Sizes** to display the Serving Sizes screen.



Serving Sizes screen, `1.00` serving size selected

2 In the serving size list, tap the serving size you want to edit. The serving size should appear selected, as does `1.00` in the figure above.

3 Tap **Detail** (detail setup) to display the Serving Size Detail screen.



*Serving Size Detail screen, **Serving size** selected for editing*

4 Drag (or double-tap) to select the current **Serving size**, and then enter a new one. The value you enter must be less than or equal to the **Max allowed pour size**, which is shown on screen for your reference.

If you enter a value with a precision greater than hundredths of a unit, the software will trim the number at the second decimal place. For example, if you enter the value `1.357`, the serving size will be set to `1.35`.

5 Tap **Save** to store your changes and return to the Serving Sizes screen.

Editing the Max allowed pour size

You may want to edit the **Max allowed pour size** to adjust the expected pour volume above which BarVision identifies pours as exceptions. Or you may need to modify the value to accommodate your preferred unit of measure.

For example, if your establishment's largest defined serving size is `1.50`, you may want to decrease the **Max allowed pour size** from its default value of `2.50` so that pours of an expected volume greater than 2.00 get flagged as exceptions. Or, if you choose to use metric measures, you may need to increase the **Max allowed pour size** from its default value to enter serving sizes in milliliters.

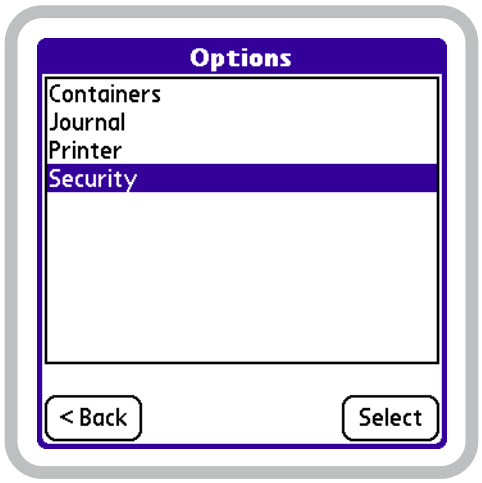
Please note that if you attempt to reduce the **Max allowed pour size** to a value less than that of an existing serving size, the system will prompt you for verification before the change takes place. If you confirm the change, all serving sizes greater than the newly entered **Max allowed pour size** will be deleted. This action will not delete or in any way affect the journal event records for any existing pours.

For example, assume that serving sizes of `1.75`, `2.00`, and `2.25` are currently defined. If you choose to edit the **Max allowed pour size** to a value of `2.00`, the `2.25` serving size will be deleted. All the journal event records for pours that were assigned to the `2.25` serving size will still exist and will be listed on all subsequent reports under the `2.25` serving size.

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

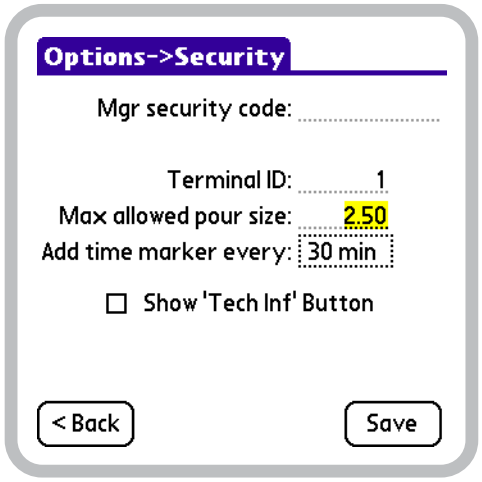
To edit the Max allowed pour size:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



Options screen

2 In the option list, tap **Security**, and then tap **Select** to display the Security Options screen.



*Security Options screen, **Max allowed pour size** selected for editing*

3 Drag (or double-tap) to select the current **Max allowed pour size**, and then enter a new one.

If you enter a value with a precision greater than hundredths of a unit, the software will trim the number at the second decimal place. For example, if you enter the value `2.357`*, the* ***Max allowed pour size*** *will be set to* `2.35`*.*

4 Tap **Save** to store your changes.

5 One of the following two things will occur:

- If the value you entered in step 3 is greater than or equal to the largest serving size, the new **Max allowed pour size** will be saved and the Options screen displayed.
- If the value you entered in step 3 is less than the largest serving size, a Warning screen similar to the one below will be displayed.

Serving size deletion Warning screen

— Tap **Yes** to confirm your change to the **Max allowed pour size**, to delete the affected serving size(s), and to return to the Options screen.

— Tap **No** to cancel any change and return to the Security Options screen.

To edit the **Max allowed pour size** to an alternate value, return to step 3. Otherwise, tap **< Back** to return to the Options screen.

Deleting serving sizes

You may want to delete unused or unwanted serving sizes. This can eliminate the possibility of BarVision allocating pours to a serving size your establishment does not use. Also, removing unused serving sizes will simplify the serving size information that appears on reports.

For example, if your establishment uses the same desired pour volume for shots and rocks drinks (for instance, 1 fluid ounce), you may want to delete the predefined `1.50` serving size intended to represent a uniquely sized rocks pour. Deleting the unused serving size removes the possibility that BarVision will assign over- or underpours to a serving size that is, for your establishment, not applicable. This will help ensure that BarVision generates useful and usable serving size report information.

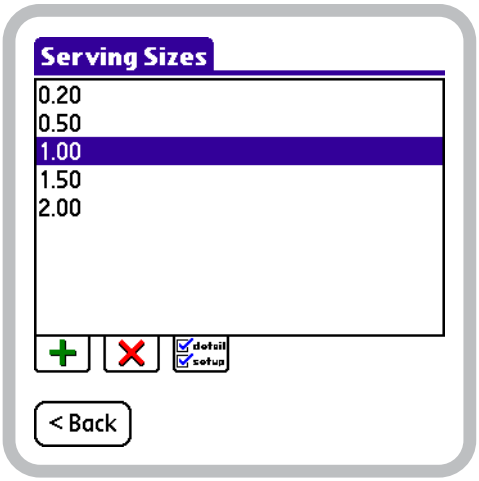
Deleting a serving size that pours have been previously allocated to will not delete or in any way affect the journal event records for those pours. Existing pour events will be listed on all subsequent reports under the serving size they were originally assigned to by the system, whether or not that serving size currently exists.

If you choose to delete all of the existing serving sizes, you will, in effect, disable the serving size feature. This will diminish your ability to use BarVision to evaluate the pouring accuracy and consistency of your bartending staff. In addition, it will hinder your ability to calculate expected revenue, as the system will assign all pours to an `Unknown` serving size.

Note: *Performing the following procedure typically requires the manager security code. See* *"About security codes" on page 26.*

To delete a serving size:

1 Choose **Mgr** > **Setup** > **Serving Sizes** to display the Serving Sizes screen.



Serving Sizes screen, `1.00` serving size selected

2 In the serving size list, tap the serving size you want to delete. The serving size should appear selected, as does `1.00` in the figure above.

3 Tap **Delete** (✕).

4 A Confirmation screen similar to the one below will be displayed. Tap **Yes** to delete the serving size and return to the Serving Sizes screen.

Serving size deletion Confirmation screen

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Chapter 7: Working with Reports

Reports help you to organize and utilize the data that the BarVision system captures during the day-to-day operation of your establishment. This chapter provides information about using reports and explains how to add, edit, delete, run, view, and print them. It contains the following sections:

- "About reports" on page 79
- "Adding reports" on page 84
- "Editing reports" on page 86
- "Running, viewing, and printing reports" on page 92
- "Deleting reports" on page 102

About reports

The BarVision system provides comprehensive reporting capabilities. You can create a virtually unlimited number of reports (65,535) and populate them with simple, predesigned *report sections*. Report sections are built-in subreports that help you quickly add and organize the data that will appear on your report. Sections vary in content. Some provide a high-level summary, while others provide event-specific detail. (For more information, see "Report sections" on page 81.) Sections can be added and arranged in any order, enabling you to easily create reports that make sense for your establishment: a shift close-out, a weekly inventory audit, or an up-to-the-minute sales snapshot.

BarVision allows you to create two different types of reports: *public reports* that all users can view and print, and *management reports* that typically require the entry of a security code to access. You configure a report as either public or management by selecting or clearing the report's **Public** report setting (see "Public" on page 80).

Public reports are available for viewing and printing from the Public Reports screen (see example below). You can access this screen from the Activity screen by choosing **Reports**. Public reports can be run, viewed, and printed—but not added, edited, or deleted—from the Public Reports screen. This enables you to provide your bartending staff with the ability to run reports without having to give them unlimited access to the system.

Public Reports screen—provides view and print access to public reports

By contrast, the Reports screen (see example below) provides unlimited access to all your BarVision reports. On a typically configured BarVision system, accessing the Reports screen (by choosing **Mgr** > **Reports**) requires the entry of a security code. This protects your reports from inadvertent or unauthorized changes and deletion, and provides a way to limit access to sensitive data.

Reports screen—provides unlimited access to all reports

BarVision includes two predefined reports named `Configuration` and `Quick View`. The built-in `Configuration` report provides a summary of your current system setup and configuration information (see "Running the Configuration report" on page 98). The `Quick View` report lets you define its contents, on the fly, each time you run it (see "Running the Quick View report" on page 99).

BarVision reports can be viewed directly on your Palm® handheld or printed via network or infrared connection (see "Configuring printers" on page 16). With the BarVision Conduit for Palm HotSync installed, you can export report data in ASCII text file (.txt) format to your desktop or laptop computer. Once those text files have been created, they can be printed, e-mailed, or archived for permanent storage and record keeping. (For information, see "Exporting data" on page 107.)

When you run a BarVision report, you typically define the range of data you want to include based on the date and time of its collection. In BarVision, three data range options are available. You can choose to include all existing collected data, data collected since the last time the report was run, or data collected during any user-specified date and time range. The date/time range option allows you to isolate distinct time spans corresponding to shifts, promotional events, or inventory audits. It also enables easy comparison of various time periods, such as week-to-week or month-to-month.

Report settings

As mentioned above, the reports you create can be individually configured for public access. You enable or disable public access to a report from page 1 of the Report Detail screen (see example below). To access the Report Detail screen, choose **Mgr** > **Reports**, select a report, and then tap **Detail** (). From this screen, several report-specific configuration settings can be enabled or disabled, including public access to the report. Each of the settings available on page 1 of the Report Detail screen is specific to that individual report. Selecting the item only enables the function for the report currently being edited. Clearing the item only disables the function for the current report.

Page 1 of the Report Detail screen

Public When selected, this setting enables public access to the report. Public reports can be run, viewed, and printed from the Public Reports screen without entering a security code. By default, this setting is enabled when you create a new report.

Disable date/time range When selected, this setting eliminates access to the report's date/time configuration when the report is run from the Public Reports screen. If the date/time range is disabled, running the report

from the Public Reports screen automatically includes all data collected since the last time the report was run. For example, you might want to create a shift close-out report that your bartenders run at the end of their shift. By enabling the report's **Disable date/time range** setting, you can ensure that the report will include all of the data collected since the last time the report was run (assumedly, at the end of the previous bartender's shift). By default, this setting is disabled when you create a new report.

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*Note: When you run reports from the Reports screen, the **Disable date/time range** setting is ignored and full access to date and time configuration is permitted.*

Perform maintenance When selected, this setting enables report-initiated data maintenance. During report-initiated maintenance, the system removes obsolete data older than the value set for the **Minimum days in journal** option (see "Minimum days in journal" on page 84). By default, the **Perform maintenance** setting is disabled when you create a new report.

For more information regarding report-initiated data maintenance, see "Journal options" on page 83.

Export When you run a report that has the **Export** setting enabled, the system designates the report for export to a text file. The next time you synchronize your handheld, the system creates an ASCII text file (.txt) version of the report on the computer connected to the handheld. Exported reports are stored in the default location: `C:\Documents and Settings\User Name\My Documents\BarVision\Reports`. Use of the export function requires installation of the BarVision Conduit for Palm HotSync. (For information, see "Installing the BarVision Conduit for Palm HotSync" on page 13.) By default, the **Export** setting is enabled when you create a new report.

Report sections

BarVision reports are composed of sections—simple, built-in subreports. The sixteen predefined report sections vary in the information that they contain. Some provide high-level summaries, while others provide pour-specific details. Sections can be added to or removed from any report and arranged in any order, enabling you to easily customize every report you create.

Page 2 of the Report Detail screen (see example below) enables you to view a list of the sections that have been added to a report. You can access page 2 of the Report Detail screen by choosing **Mgr** > **Reports**, selecting a report, tapping **Detail** (), and then tapping **2** (2).

Page 2 of the Report Detail screen

The paragraphs below describe the content of each report section.

Empty Containers This section provides details of each liquor bottle emptied during the reporting period. An asterisk (*) indicates those bottles whose yield was irregular. This means the container's yield was outside the parameters set for either the **Underyield** (see "Underyield" on page 48) or **Overyield** (see "Overyield" on page 48) container option setting. (See "Irregular Empty Containers" on page 82.) Information provided for each empty container includes: date and time the bottle's pour spout was removed, product name, total number of pours dispensed from the container, total number of improper pours dispensed from the container, and the container's yield percentage.

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Empty Containers Count This section lists the number of bottles emptied during the reporting period, summarized by product name. In addition, an average bottle yield for each product is calculated and displayed in this section. Information provided includes: product name, empty bottle count, average yield percentage, standard deviation of the yields, and the combined cost of the emptied containers.

Exceptions This section contains a chronological list of the irregular events that occurred during the reporting period. Irregular events include: oversized pours that could not be assigned to a defined serving size, container missing and found events, lost container events, pours made at a less than optimal bottle tilt angle, manual container variances, and each time a pour spout was removed from a bottle for cleaning or maintenance purposes.

Expiring Hardware This section provides a list of the pour spouts that are nearing their expiration. Information provided for each expiring pour spout includes: model number, firmware revision number, identification number, number of days and pours remaining until expiration, and the product name and location assigned to the pour spout.

Hardware This section provides detailed hardware information for each data receiver, active antenna, and wireless pour spout that has been added to the system. Information provided includes: hardware model and firmware revision numbers, identification number for each component, number of days and pours remaining until each pour spout expires, and the product name and location assigned to each wireless pour spout.

Irregular Empty Containers This section provides details for those empty bottles with a final yield outside your limitations. Containers are considered irregular if their yield is outside the parameters set for either the **Underyield** (see "Underyield" on page 48) or **Overyield** (see "Overyield" on page 48) container option setting. This report section lists all of the events recorded for each irregular bottle so that you can diagnose the cause of the irregular yield. Information provided for each container event includes: date and time the event occurred, type of event, and both the expected and actual volume recorded for any pour event.

Journal Detail This section contains full detail of every event recorded in the system's journal during the reporting period, organized chronologically. Event totals for each event type are also displayed. Information provided for each recorded event includes: date and time the event occurred, product name (where applicable), description of the event type, and both the expected and actual volume recorded for the event (where applicable).

Missing Hardware This section provides detailed communications information for each container the system has identified as missing (see "Container missing" on page 32). The system classifies a container as missing if no transmission is received from the container's wireless pour spout for a period longer than the value set for the **Report missing after** container option. Information provided for each missing container includes: product name, location, pour spout identification number, date and time the data receiver last received a transmission from the spout, number of days and pours remaining until the pour spout expires, and the number of communication errors reported for the spout.

Open Containers This section provides a summary for each bottle in open inventory, organized by container location. Information provided for each open container includes: product name, number of pours dispensed, estimated volume of liquid remaining, estimated percent of liquid remaining, estimated current weight, current age, and the percentage by which the container's **Actual pour rate** (see "Actual pour rate" on page 46) varies from its **Expected pour rate** (see "Expected pour rate" on page 46).

Pour Detail This section contains full detail of every container-related event recorded in the system's journal during the reporting period, organized chronologically. Event totals for each type of container-related event are also displayed. Information provided for each event includes: date and time the event occurred, product name, description of the event type, and both the expected and actual volume recorded for the event.

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Pours by Category This section provides a summary of the pours that occurred during the reporting period, organized by category. Information provided for each category includes: category name, total number of pours, total expected volume of fluid dispensed, and the total cost of the expected volume of fluid dispensed.

Pours by Location This section provides a summary of the pours that occurred during the reporting period, organized by location. Information provided for each location includes: location designation, total number of pours, total expected volume of fluid dispensed, and the total cost of the expected volume of fluid dispensed.

Pours by Product This section provides a summary of the pours that occurred during the reporting period, organized by product. Information provided for each product includes: product name, total number of pours, total expected volume of fluid dispensed, and the total cost of the expected volume of fluid dispensed.

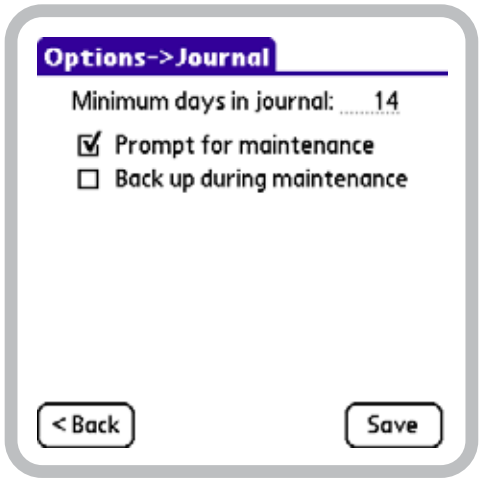
Serving Sizes This section provides detailed pour information for each serving size, organized by category and location. Information provided for each serving size includes: total number of pours, average expected pour volumes, standard deviation of the expected pour volumes, and the total cost of the expected volume of fluid dispensed.

Serving Sizes by Category This section provides pour totals for each serving size, organized by category. Information provided for each serving size in each category includes: total number of pours, average expected pour volumes, standard deviation of the expected pour volumes, and the total cost of the expected volume of fluid dispensed.

Serving Sizes by Location This section provides pour totals for each serving size, organized by location. Information provided for each serving size at each location includes: total number of pours, average expected pour volumes, standard deviation of the expected pour volumes, and the total cost of the expected volume of fluid dispensed.

Journal options

The Journal Options screen (see example below) enables you to configure several data maintenance-related report options. You can access the Journal Options screen by choosing **Mgr** > **Setup** > **Options** > **Journal** > **Select**. Current Palm® handheld hardware constraints limit the size of the system journal to a maximum of thirty thousand event records. To remain under that limit, BarVision must periodically delete some of the oldest obsolete records to make room for new ones. Because reports are generally run at regular intervals, the system uses the generation of a report as a trigger for performing data maintenance.



Journal Options screen

During maintenance, the system purges the oldest obsolete event records from the journal. For an event record to be considered obsolete, it must meet two criteria: it must be older than the **Minimum days in journal** value, and it must pertain to a bottle whose pour spout has been removed (presumably, because the bottle was empty). The system uses this method of defining data as obsolete to ensure that no active data gets removed.

Each of the options available on the Journal Options screen has a global effect. Selecting an item enables the option systemwide. Clearing the item disables the option systemwide. The Journal Options screen enables you to configure:

- The age at which obsolete data can be deleted during report-initiated maintenance
- The level of user interaction required during report-initiated maintenance
- The generation of a system backup on the Palm® handheld's SD memory card during report-initiated maintenance

Minimum days in journal This option enables you to specify the number of days' worth of journal data you want to exclude from maintenance. For example, assume that the **Minimum days in journal** value is set to `14`. During report-initiated maintenance, the most recent fourteen days' worth of event records will be kept in the journal, whether or not those records relate to a bottle that is currently in use. Obsolete data older than fourteen days will be removed. The default system value for this option is `14`. Permissible values are from `1` to `365`.

The status of an individual report's **Perform maintenance** report setting (see "Perform maintenance" on page 81) determines whether or not a report initiates maintenance after it has been run.

Prompt for maintenance When this option is selected, BarVision prompts you to manually initiate maintenance after you run a report that has its **Perform maintenance** setting enabled (see "Perform maintenance" on page 81). This provides users the opportunity to either accept or decline report-initiated data maintenance. When this option is cleared and you run a report that has its **Perform maintenance** setting enabled, data maintenance is automatically performed without any user interaction. The **Prompt for maintenance** option is enabled in the default BarVision configuration.

Back up during maintenance When this option is selected, BarVision creates a backup copy of all your data and system settings before performing report-initiated maintenance. The system creates the backup on the SD memory card currently located in the Palm® handheld's expansion slot. If there is no SD memory card in the expansion slot, no system backup is created. This option is disabled in the default BarVision configuration.

The status of an individual report's **Perform maintenance** report setting (see "Perform maintenance" on page 81) determines whether or not a report initiates maintenance after it has been run.

Adding reports

BarVision ships preconfigured with two defined reports (`Configuration` and `Quick View`), but the system can store and track a virtually unlimited number (65,535).

You will likely need to add additional reports and configure them to meet your specific business needs. For example, you might want to create reports expressly designed to be used as shift close-out reports, inventory audit reports, and purchasing requirements reports. After you have added and properly configured a report, you can run it over and over again without having to spend time on setup.

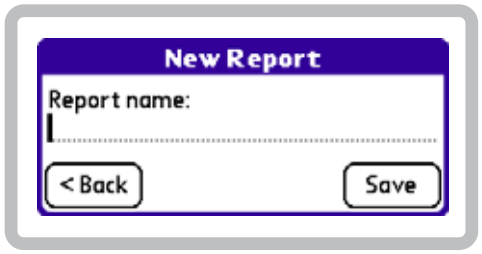
Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To add a report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen

2 Tap **Add** (+) to display the New Report screen. The **Report name** text box will contain the insertion point (cursor).



New Report screen

3 Enter a name for the new report (up to twenty-two characters in length) in the **Report name** text box.

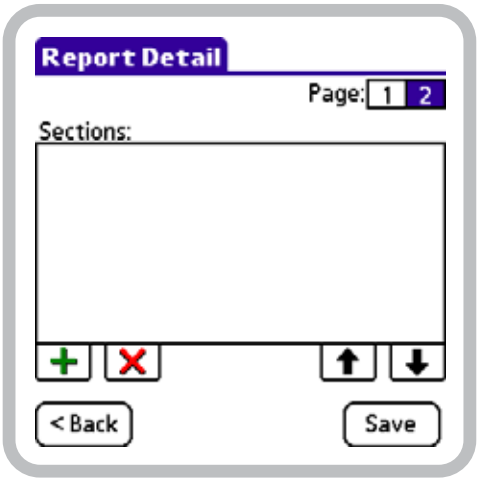
4 Tap **Save** to store your changes and display page 1 of the Report Detail screen.

Page 1 of the Report Detail screen

5 Select or clear the **Check Boxes** (☑) to set the **Public**, **Disable date/time range**, **Perform maintenance**, and **Export** report settings to your desired configuration.

For information about the functions of these settings, see "Report settings" on page 80.

6 Tap 2 (2) to display page 2 of the Report Detail screen.



Page 2 of the Report Detail screen

7 Tap **Add** (+) to display the Add Sections screen.

*Add Sections screen, **Pour Detail** section selected for adding*

8 In the section list, tap the sections you want to add to the report. Each section's **Check Box** (☑) should appear selected, as does the **Pour Detail** section's in the figure above. If a section you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

For information about the content of each section, see "Report sections" on page 81.

9 Tap **Add**. The selected sections are added to the report and now appear in the **Sections** list on page 2 of the Report Detail screen.

You can rearrange the order in which sections appear on a report. For information, see "Reordering report sections" on page 89.

10 Tap **Save** to store your changes and return to the Reports screen.

Editing reports

You can modify any report in the report list (excluding the built-in `Configuration` and `Quick View` system reports) to customize it to your establishment's particular needs. For example, you can rename a report. You can add, delete, or reorder report sections. You can reconfigure a report's settings. And you can change the systemwide journal options. The remainder of this section contains detailed procedures that explain how to perform these modifications.

This section contains the following editing procedures:

- "Renaming a report" on page 86
- "Editing report settings" on page 87
- "Adding report sections" on page 88
- "Reordering report sections" on page 89
- "Deleting report sections" on page 90
- "Editing journal options" on page 91

Renaming a report

You may want to rename reports to make the names reflect their purpose, the time of day they should be run, or the employee responsible for running them. Regardless of the naming convention you choose, you can easily rename any report (except for the built-in `Configuration` and `Quick View` system reports).

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

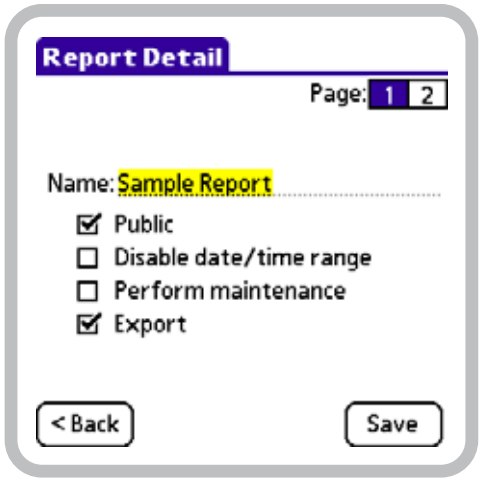
To rename a report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to rename. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (detail setup) to display page 1 of the Report Detail screen.



Page 1 of the Report Detail screen, report name selected for editing

4 Drag (or triple-tap) to select the current report **Name**, and then enter a new one (up to twenty-two characters in length).

5 Tap **Save** to store your changes and return to the Reports screen.

Editing report settings

You can change a report's settings by selecting or clearing the check boxes on page 1 of the Report Detail screen. By editing the appropriate report setting, you can:

- Enable or disable public access to the report
- Permit or restrict access to the report's date and time configuration when the report is run from the Public Reports screen
- Enable or disable report-initiated data maintenance
- Configure the report's export setting

For more information about the functions of these settings, see "Report settings" on page 80.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

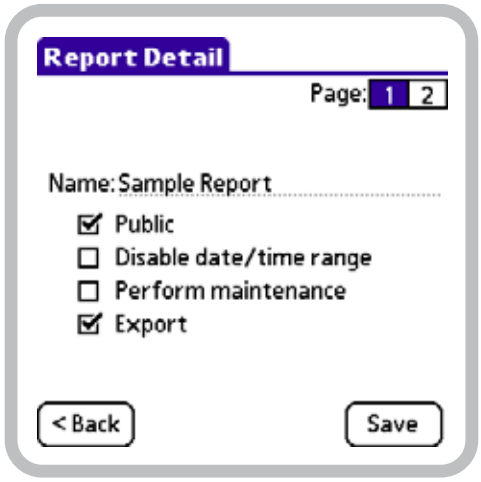
To edit a report's settings:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report whose settings you want to edit. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (detail setup) to display page 1 of the Report Detail screen.



Page 1 of the Report Detail screen

4 Select or clear the **Check Boxes** (☑) to set the **Public**, **Disable date/time range**, **Perform maintenance**, and **Export** report settings to your desired configuration.

For information about the functions of these settings, see "Report settings" on page 80.

5 Tap **Save** to store your changes and return to the Reports screen.

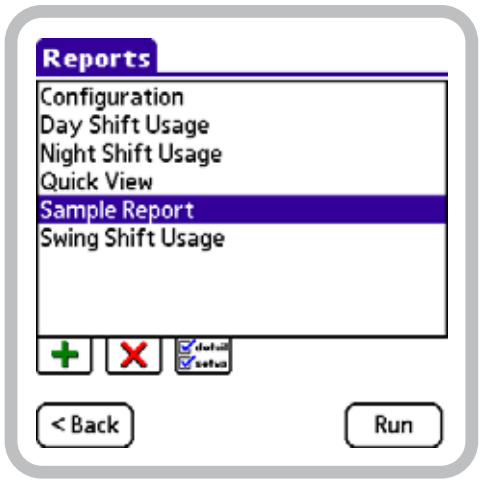
Adding report sections

You may want to add sections to a report. By adding sections, you can increase both the amount and variety of data that the report provides. BarVision does not limit the number of sections you can add to a report, nor does it limit the number of reports to which you can add a section. You can add all sixteen sections to every one of your reports if that suits your needs.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To add sections to a report:

1 Choose **Mgr** > **Reports** to display the Reports screen.



Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to add sections to. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (☑detail ☑setup) to display page 1 of the Report Detail screen.

Page 1 of the Report Detail screen

4 Tap 2 (2) to display page 2 of the Report Detail screen.

Page 2 of the Report Detail screen

5 Tap **Add** (+) to display the Add Sections screen.

*Add Sections screen, **Pour Detail** section selected for adding*

6 In the section list, tap the sections you want to add to the report. Each section's **Check Box** (☑) should appear selected, as does the **Pour Detail** section's in the figure above. If a section you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

For information about the content of each section, see "Report sections" on page 81.

7 Tap **Add**. The selected sections are added to the report and now appear in the **Sections** list on page 2 of the Report Detail screen.

You can rearrange the order in which sections appear on a report. For information, see "Reordering report sections" on page 89.

8 Tap **Save** to store your changes and return to the Reports screen.

Reordering report sections

You may want to reorder a report's sections. By doing so, you modify the order in which the data appears on the resulting report—both on screen and in print. This gives you the ability to organize the data so that it is most useful for you and your employees.

As an example, assume you create a shift close-out report containing several report sections. For the convenience of your bartending staff, you might want to arrange the report sections so that **Pours by Category** appears at the very top. This would enable bartenders to reconcile BarVision's category totals to a point-of-sale or cash register report without having to scan through several pages of a detailed document.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To reorder the sections in a report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report whose sections you want to reorder. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (☑detail ☑setup) to display page 1 of the Report Detail screen.

Page 1 of the Report Detail screen

4 Tap 2 (2) to display page 2 of the Report Detail screen.

*Page 2 of the Report Detail screen, **Pour Detail** section selected*

5 In the **Sections** list, tap the section you want to reorder. The section should appear selected, as does **Pour Detail** in the figure above. If the section you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

6 Do one of the following:

- To shift the selected section up in the list, tap **Move Up** (⬆). Tap as many times as necessary to properly position the section.
- To shift the selected section down in the list, tap **Move Down** (⬇). Tap as many times as necessary to properly position the section.

7 If necessary, repeat steps 5 and 6 to reorder any additional sections.

8 Tap **Save** to store your changes and return to the Reports screen.

Deleting report sections

You may want to delete sections from a report to simplify the information that the report provides or to limit access to sensitive business information. BarVision does not specify a minimum number of sections that a report must contain. As a result, it is possible to create an empty report by deleting all of a report's sections.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

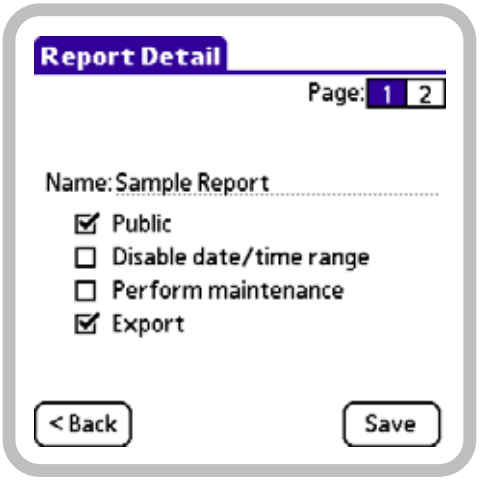
To delete sections from a report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to delete sections from. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Detail** (detail setup) to display page 1 of the Report Detail screen.



Page 1 of the Report Detail screen

4 Tap 2 (2) to display page 2 of the Report Detail screen.

*Page 2 of the Report Detail screen, **Pour Detail** section selected*

5 In the report **Sections** list, tap the section you want to delete. The section should appear selected, as does **Pour Detail** in the figure above. If the section you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

6 Tap **Delete** (✕) to remove the selected section from the report.

7 If necessary, repeat steps 5 and 6 to delete any additional sections.

8 Tap **Save** to store your changes and return to the Reports screen.

Editing journal options

You can change the systemwide journal options by selecting or clearing the check boxes or editing the numeric value on the Journal Options screen. By editing the appropriate journal option, you can:

- Limit the amount of data removed from the journal during report-initiated maintenance
- Enable or disable the data maintenance prompt that can appear after running a report
- Configure whether or not the system will back up all of its databases and system settings to the handheld's SD memory card during data maintenance

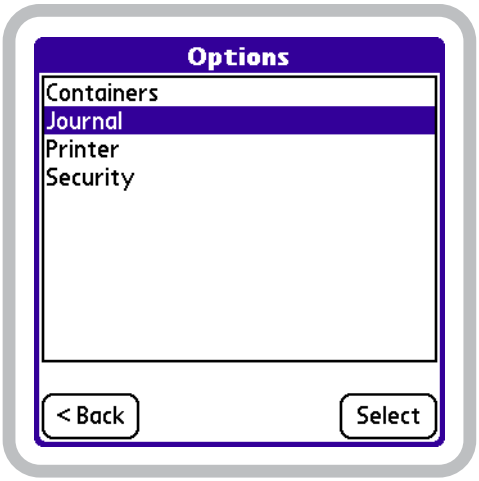
For more information about the functions of these options, see "Journal options" on page 83.

Each of the journal options has a global effect. Selecting an item enables the option systemwide. Clearing the item disables the option systemwide.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

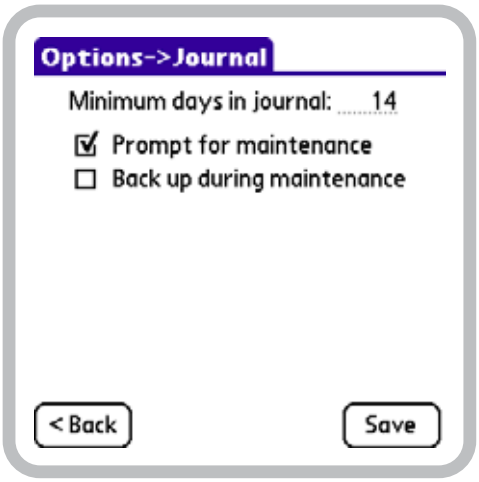
To edit the journal options:

1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.



*Options screen, **Journal** option selected*

2 In the option list, tap **Journal**, and then tap **Select** to display the Journal Options screen.



Journal Options screen

3 Do any of the following:

- Select or clear the **Check Boxes** (☑) to set the **Prompt for maintenance** and **Back up during maintenance** journal options to your desired configuration.
- Drag (or double-tap) to select the current **Minimum days in journal** value, and then enter a new one. The value you enter must be greater than or equal to 1 and less than or equal to 365.

For information about the functions of these options, see "Journal options" on page 83.

4 Tap **Save** to store your changes and return to the Options screen.

Running, viewing, and printing reports

BarVision enables you and your staff to run, view, and print reports at your convenience—without disrupting the system's data collection operations. No matter the time of day or how busy your place of business, you can run reports and access mission-critical information without fear of data loss. You can run reports at the end of the day, after every shift, or even during a shift. Reports will contain all of the events that the system has received as of the time the report is run, giving you real-time, up-to-date inventory information.

Depending on whether you want to run a public report, a management report, or the built-in `Configuration` or `Quick View` system reports, there are four slightly different report-running methods. The following sections explain the procedures for running, viewing, and printing each of these types of reports:

- "Running public reports" on page 92
- "Running management reports" on page 95
- "Running the Configuration report" on page 98
- "Running the Quick View report" on page 99

For information about configuring your handheld to print via network or infrared connection, see "Configuring printers" on page 16. For information about exporting reports to your personal computer, see "Exporting data" on page 107.

Running public reports

This *User's Guide* employs the term *public report* to designate any report explicitly configured for public access. That is, a public report is one whose **Public**

report setting (see "Public" on page 80) has been selected. Public reports are listed on the Public Reports screen and can be run without entering a security code.

You can access the Public Reports screen from the Activity screen by choosing **Reports**. This screen provides view and print access to public reports only. No report editing is allowed. When you access reports from the Public Reports screen, any date/time restriction (see "Disable date/time range" on page 80) enabled during the report's configuration cannot be overridden. Public reports can be viewed on screen or printed via network or infrared connection (see "Configuring printers" on page 16).

To run a public report:

1 Choose **Reports** to display the Public Reports screen.

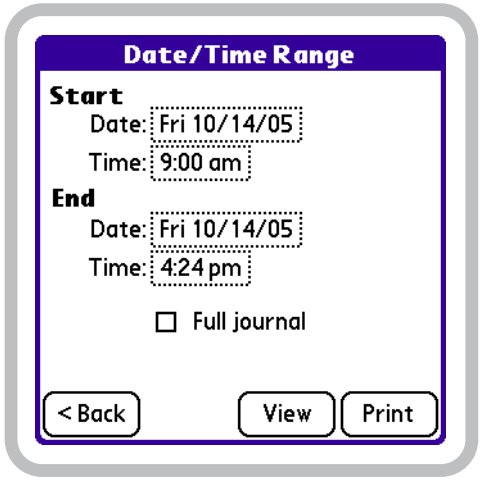
Public Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to run. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Run**.

4 One of the following two things will occur:

- If the report's date and time were restricted during the report's configuration, the report will be generated and displayed on screen. Proceed to step 8.
- If the report's date and time were not restricted during the report's configuration, a Date/Time Range screen similar to the one below will be displayed. Proceed to step 5.



Date/Time Range screen

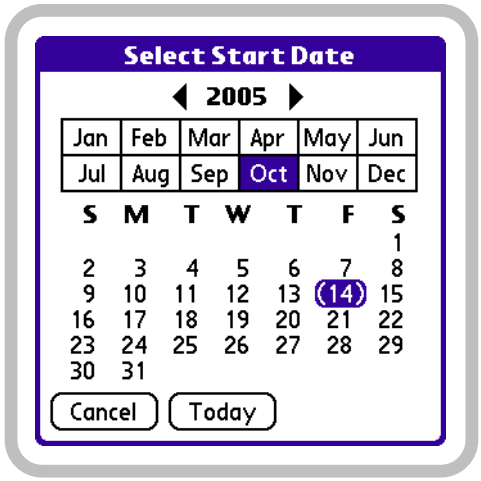
The Start Date and Start Time values default to the End Date and End Time values you selected the last time you ran the report. The End Date and End Time values default to the current date and time.

5 Do one of the following:

- To run a report for all of the event record data in the system journal (regardless of when the data was collected), select the **Full journal Check Box** (☑) and proceed to step 7.
- To run a report for a specific data collection period, which you want to define, proceed to step 6.

6 Specify the date and time range of the data to be included in the report by doing any of the following:

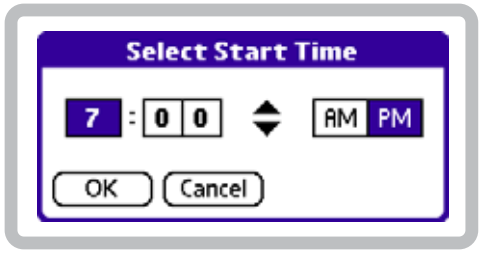
- To adjust the start date for the report, tap the **Start Date** field. The Select Start Date screen will be displayed. Select a starting year, month, and date for the report by tapping the appropriate items.



Select Start Date screen

To quickly select the current year, month, and date, tap ***Today****.*

- To adjust the start time for the report, tap the **Start Time** field. The Select Start Time screen will be displayed. Select a start time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.



Select Start Time screen

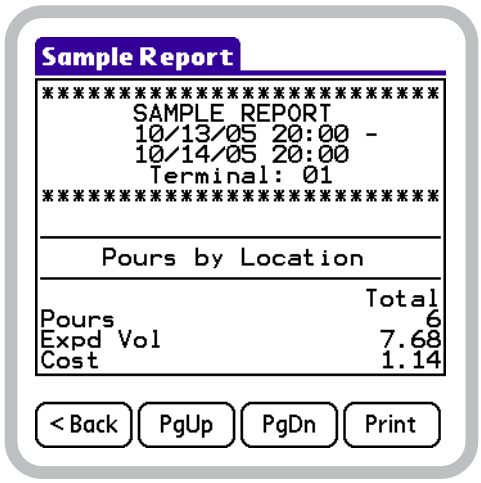
- To adjust the end date for the report, tap the **End Date** field. The Select End Date screen (similar to the Select Start Date screen shown above) will be displayed. Select an ending year, month, and date for the report by tapping the appropriate items.
- To adjust the end time for the report, tap the **End Time** field. The Select End Time screen (similar to the Select Start Time screen shown above) will be displayed. Select an end time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.

7 With the Date/Time Range screen now appropriately configured, do one of the following:

- To print the report, tap **Print**. A **Printing** confirmation message will be displayed. After printing has finished, tap < **Back** to return to the Date/Time Range screen. Proceed to step 9.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.
- To preview the report, tap **View**. Proceed to step 8.

8 A View Report screen, similar to the one below, will be displayed. It provides an on-screen preview of the chosen report.



View Report screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed. After printing has finished, tap < **Back** to return to the View Report screen.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

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After you have finished viewing the report, tap < **Back** to return to the Date/Time Range screen.

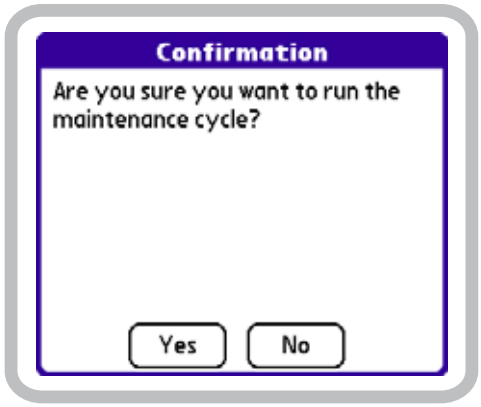
9 Tap < **Back** on the Date/Time Range screen.

10 One of the following three things will occur:

- If the **Perform maintenance** report setting (see "Perform maintenance" on page 81) is disabled, the Reports screen will be displayed.
- If the **Perform maintenance** report setting (see "Perform maintenance" on page 81) is enabled and the **Prompt for maintenance** journal option (see "Prompt for maintenance" on page 84) is disabled, data maintenance will be performed and a Maintenance status screen similar to the one below will be displayed. Tap < **Back** to return to the Reports screen.

Maintenance status screen

- If both the **Perform maintenance** report setting (see "Perform maintenance" on page 81) and **Prompt for maintenance** journal option (see "Prompt for maintenance" on page 84) are enabled, the confirmation message below will be displayed.



Maintenance cycle Confirmation screen

— To perform data maintenance, tap **Yes**. After the maintenance cycle has completed, tap < **Back** to return to the Reports screen.

— To return to the Reports screen without performing data maintenance, tap **No**.

Running management reports

This *User's Guide* employs the term *management report* to designate any report not explicitly configured for public access. That is, a management report is one whose **Public** report setting (see "Public" on page 80) has not been selected. Management reports are not listed on the Public Reports screen. They can only be viewed from the Reports screen.

On a typically configured BarVision system, accessing the Reports screen (by choosing **Mgr** > **Reports**) requires the entry of a security code. This protects your management reports from unauthorized use and provides a way to restrict access to sensitive data.

The Reports screen provides unlimited access to both public and management reports. When you run a public report from the Reports screen, the system overrides any date/time restriction (see "Disable date/time range" on page 80) that may have been enabled during the report's configuration. From the Reports screen, both public and management reports can be viewed on screen or printed via network or infrared connection (see "Configuring printers" on page 16).

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

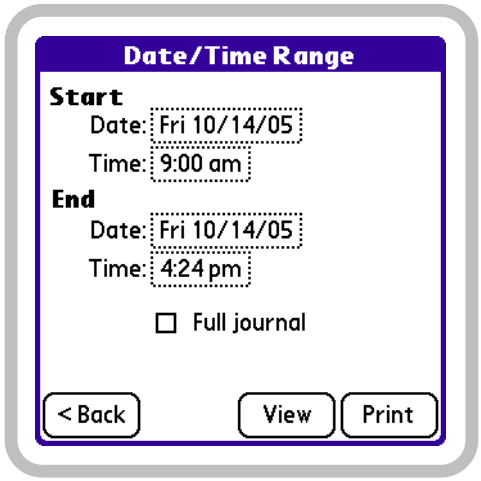
To run a management report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to run. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Run** to display the Date/Time Range screen.



Date/Time Range screen

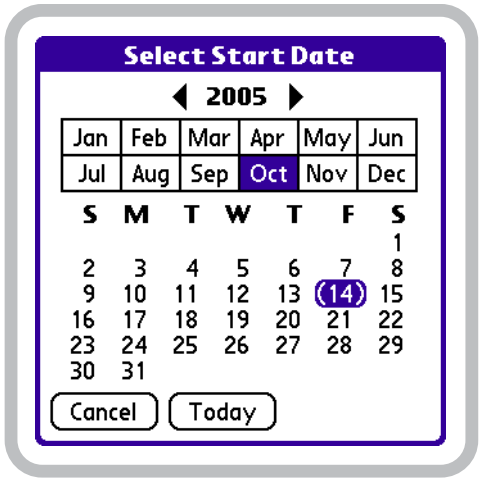
The Start Date and Start Time values default to the End Date and End Time values you selected the last time you ran the report. The End Date and End Time values default to the current date and time.

4 Do one of the following:

- To run a report for all of the event record data in the system journal (regardless of when the data was collected), select the **Full journal Check Box** (☑) and proceed to step 6.
- To run a report for a specific data collection period, which you want to define, proceed to step 5.

5 Specify the date and time range of the data to be included in the report by doing any of the following:

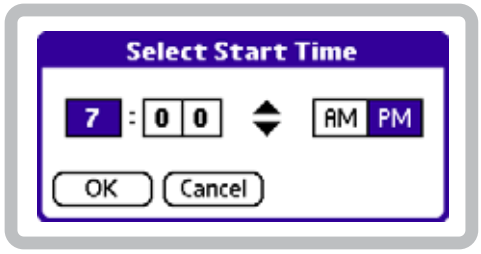
- To adjust the start date for the report, tap the **Start Date** field. The Select Start Date screen will be displayed. Select a starting year, month, and date for the report by tapping the appropriate items.



Select Start Date screen

To quickly select the current year, month, and date, tap ***Today****.*

- To adjust the start time for the report, tap the **Start Time** field. The Select Start Time screen will be displayed. Select a start time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.



Select Start Time screen

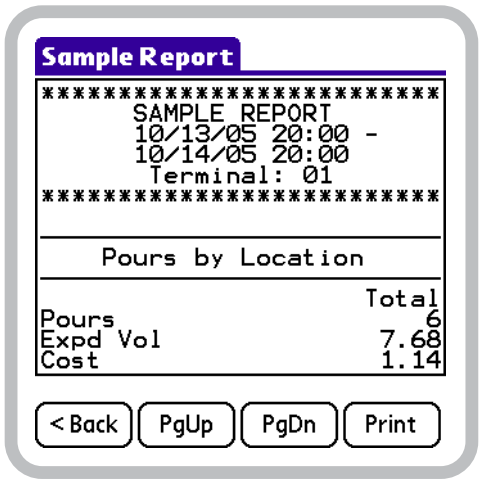
- To adjust the end date for the report, tap the **End Date** field. The Select End Date screen (similar to the Select Start Date screen shown above) will be displayed. Select an ending year, month, and date for the report by tapping the appropriate items.
- To adjust the end time for the report, tap the **End Time** field. The Select End Time screen (similar to the Select Start Time screen shown above) will be displayed. Select an end time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.

6 With the Date/Time Range screen now appropriately configured, do one of the following:

- To print the report, tap **Print**. A **Printing** confirmation message will be displayed. After printing has finished, tap < **Back** to return to the Date/Time Range screen. Proceed to step 8.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.
- To preview the report, tap **View**. Proceed to step 7.

7 A View Report screen, similar to the one below, will be displayed. It provides an on-screen preview of the chosen report.



View Report screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed. After printing has finished, tap < **Back** to return to the View Report screen.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

After you have finished viewing the report, tap < **Back** to return to the Date/Time Range screen.

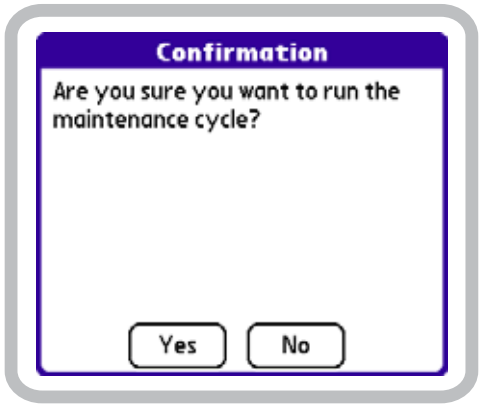
8 Tap < **Back** on the Date/Time Range screen.

9 One of the following three things will occur:

- If the **Perform maintenance** report setting (see "Perform maintenance" on page 81) is disabled, the Reports screen will be displayed.
- If the **Perform maintenance** report setting (see "Perform maintenance" on page 81) is enabled and the **Prompt for maintenance** journal option (see "Prompt for maintenance" on page 84) is disabled, data maintenance will be performed and a Maintenance status screen similar to the one below will be displayed. Tap < **Back** to return to the Reports screen.

Maintenance status screen

- If both the **Perform maintenance** report setting (see "Perform maintenance" on page 81) and **Prompt for maintenance** journal option (see "Prompt for maintenance" on page 84) are enabled, the confirmation message below will be displayed.



Maintenance cycle Confirmation screen

— To perform data maintenance, tap **Yes**. After the maintenance cycle has completed, tap < **Back** to return to the Reports screen.

— To return to the Reports screen without performing data maintenance, tap **No**.

Running the Configuration report

The `Configuration` report is an unmodifiable, built-in system report. It provides a summary of your current system setup and configuration information. This report lists the current values for all container and printer option settings and itemizes the configuration information for each currently defined container. Configuration data provided for each container includes: product name, pour spout identification number, location, category, cost, container size, shape, empty weight, unit weight, expected pour rate, and actual pour rate.

The `Configuration` report can only be accessed from the Reports screen. On a typically configured BarVision system, accessing the Reports screen (by choosing **Mgr** > **Reports**) requires the entry of a security code. This protects the `Configuration` report from unauthorized use and provides a way to restrict access to system setup information. The `Configuration` report can be viewed on screen or printed via network or infrared connection (see "Configuring printers" on page 16).

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To run the Configuration report:

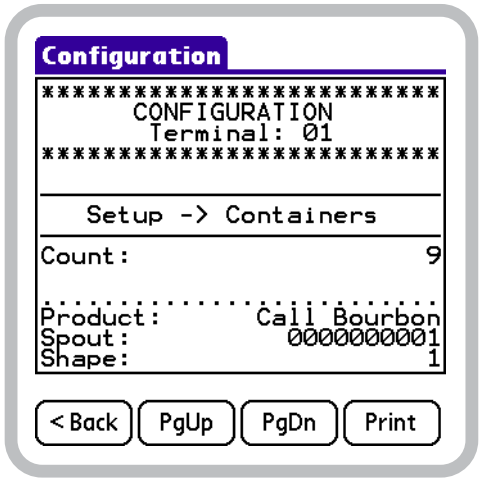
1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Configuration` report selected

2 In the report list, tap the `Configuration` report. The report should appear selected, as it does in the figure above. If the `Configuration` report is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Run**.

4 A View Report screen, similar to the one below, will be displayed. It provides an on-screen preview of the `Configuration` report.



View Report screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed. After printing has finished, tap **< Back** to return to the View Report screen.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

After you have finished viewing the report, tap **< Back** to return to the Reports screen.

Running the Quick View report

The `Quick View` report is a flexible, built-in system report whose contents you configure, on the fly, each time the report is run. The adaptability of this report makes it ideal for viewing infrequently referenced information (such as hardware model and firmware revision numbers) or for checking up-to-the-minute sales information (for instance, to help you assess the popularity of new liquor products, the effectiveness of an advertising campaign, or the revenue generated by a special promotion) without having to add and configure reports specific to these purposes.

The `Quick View` report can only be accessed from the Reports screen. On a typically configured BarVision system, accessing the Reports screen (by choosing **Mgr** > **Reports**) requires the entry of a security code. This protects the `Quick View` report from unauthorized use and provides a way to limit access to sensitive data. The `Quick View` report can be viewed on screen or printed via network or infrared connection (see "Configuring printers" on page 16).

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To run the Quick View report:

1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Quick View` *report selected*

2 In the report list, tap the `Quick View` report. The report should appear selected, as it does in the figure above. If the `Quick View` report is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

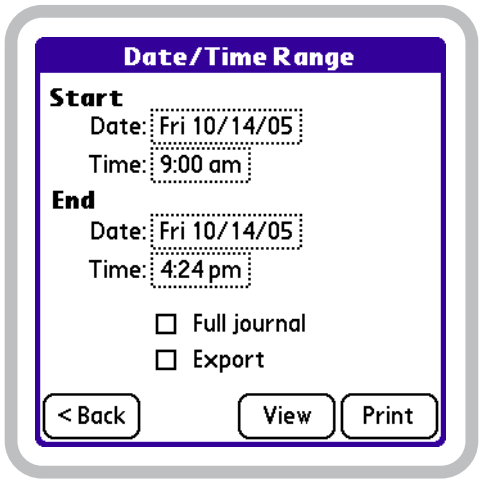
3 Tap **Run** to display the Add Sections screen.

Add Sections screen, ***Pour Detail*** *section selected for adding*

4 In the section list, tap the sections you want to add to the report. Each section's **Check Box** (☑) should appear selected, as does the **Pour Detail** section's in the figure above. If a section you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

For information about the content of each section, see "Report sections" on page 81.

5 Tap **Add**. The selected sections are added to the report and the Date/Time Range screen is displayed.



Date/Time Range screen

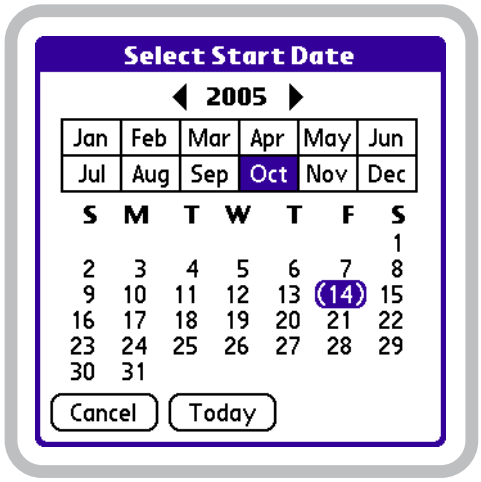
The Start Date and Start Time values default to the End Date and End Time values you selected the last time you ran the report. The End Date and End Time values default to the current date and time.

6 Do one of the following:

- To run a report for all of the data in the activity list (regardless of when the data was collected), select the **Full journal Check Box** (☑) and proceed to step 8.
- To run a report for a specific data collection period, which you want to define, proceed to step 7.

7 Specify the date and time range of the data to be included in the report by doing any of the following:

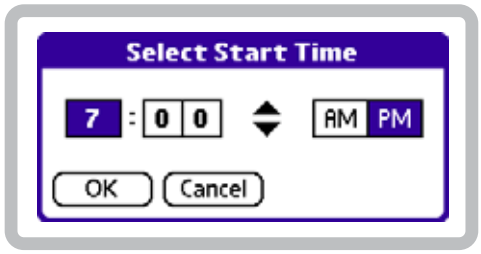
- To adjust the start date for the report, tap the **Start Date** field. The Select Start Date screen will be displayed. Select a starting year, month, and date for the report by tapping the appropriate items.



Select Start Date screen

*To quickly select the current year, month, and date, tap **Today**.*

- To adjust the start time for the report, tap the **Start Time** field. The Select Start Time screen will be displayed. Select a start time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.



Select Start Time screen

- To adjust the end date for the report, tap the **End Date** field. The Select End Date screen (similar to the Select Start Date screen shown above) will be displayed. Select an ending year, month, and date for the report by tapping the appropriate items.
- To adjust the end time for the report, tap the **End Time** field. The Select End Time screen (similar to the Select Start Time screen shown above) will be displayed. Select an end time for the report by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.

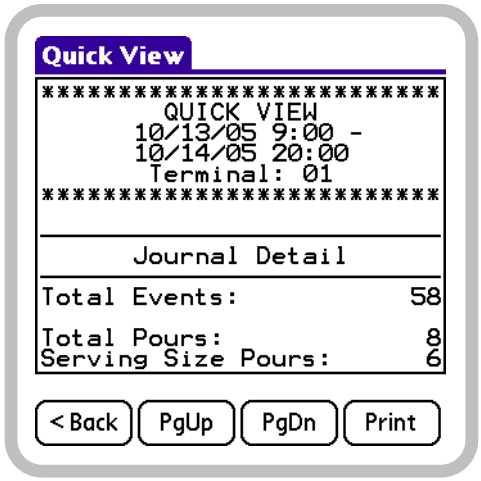
8 Optionally, select the **Export Check Box** (☑) if you would like to designate the resulting report data for export to a text file.

9 With the Date/Time Range screen now appropriately configured, do one of the following:

- To print the report, tap **Print**. A **Printing** confirmation message will be displayed. After printing has finished, tap **< Back** to return to the Date/Time Range screen. Proceed to step 11.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.
- To preview the report, tap **View**. Proceed to step 10.

10 A View Report screen, similar to the one below, will be displayed. It provides an on-screen preview of the `Quick View` report.



View Report screen

Do any of the following:

- Tap **PgUp** or **PgDn** to navigate up or down through the pages of the report.
- Tap **Print** to print the report. A **Printing** confirmation message will be displayed. After printing has finished, tap **< Back** to return to the View Report screen.

  If you experience any problems while attempting to print a report, see "Printing problems" on page 119.

After you have finished viewing the report, tap **< Back** to return to the Date/Time Range screen.

11 Tap **< Back** on the Date/Time Range screen to return to the Reports screen.

Deleting reports

You may want to delete unused or unwanted reports. This can simplify the report running process by limiting the number of selections that appear on the report screens.

You can delete any existing report (excluding the built-in `Configuration` and `Quick View` system reports). Deleting a report does not affect any existing data and will not remove any recorded events from the activity list.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To delete a report:

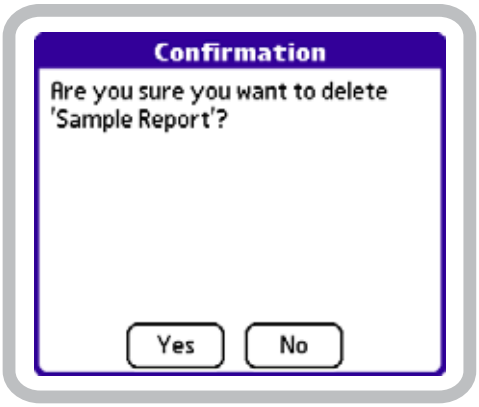
1 Choose **Mgr** > **Reports** to display the Reports screen.

Reports screen, `Sample Report` selected

2 In the report list, tap the report you want to delete. The report should appear selected, as does `Sample Report` in the figure above. If the report you want to select is not displayed among the currently visible items, drag the **Scroll Arrows** (▲ and ▼) at the right-hand side of the list.

3 Tap **Delete** (✕).

4 A Confirmation screen similar to the one below will be displayed. Tap **Yes** to delete the report and return to the Reports screen.



Report deletion Confirmation screen

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Chapter 8: Using the BarVision System

This chapter provides instruction for completing those routine procedures you or your staff will perform on a continuing basis. It contains tips to help ensure that simple day-to-day activities, such as pouring and changing empty bottles, are performed both efficiently and in compliance with the requirements of the system. It contains the following sections:

- "Pouring" on page 105
- "Changing bottles" on page 105
- "Cleaning pour spouts" on page 106

Pouring

To ensure the efficiency of each pour, as well as the accuracy of the pour sizes BarVision reports, a few basic pouring strategies should be observed. The goal of these strategies is to help eliminate any pour spout gurgling and ensure a constant, unrestricted flow of liquid. To accomplish this, you should tilt the bottle at the same rate as the liquid travels down the neck toward the spout, and then take care to fully invert the bottle.

To help provide bartenders with feedback on their pouring style, BarVision flags inefficient pours. All pours that occur at a bottle tilt angle of less than 135 degrees are identified on the activity list by the word Tilt followed by a question mark (`Tilt?`). These pours are also itemized on any report that includes the **Exceptions**, **Irregular Empty Containers**, **Journal Detail**, or **Pour Detail** report sections.

Adhering to the following pouring procedure will help ensure an efficient pour and maximize a bartender's productivity.

To pour a serving:

1 Grab the bottle by the neck.

2 Tip the bottle at the same rate as the liquid travels down the neck toward the pour spout.

3 Invert the bottle as quickly as possible to at least a 135 degree angle.

4 After the proper amount of liquid has been dispensed, return the bottle to an upright position.

Changing bottles

BarVision wireless pour spouts can be easily attached or removed. When a bottle runs empty, the bartender needs simply remove the pour spout from the empty bottle and attach it to a full one. The pour spout will automatically sense the removal and reattachment and send signals communicating those events to the rest of the system. There are no buttons to press or procedures to perform.

While changing bottles does not require any unusual or extraordinary actions on the user's part, the following precautions should be observed:

- Do not tilt an empty bottle to ninety degrees while attempting to remove the pour spout. Doing so will cause an unintended pour to be registered.
- Avoid removing more than one pour spout at a time. This will help ensure that pour spouts are not inadvertently placed on incorrect bottles.
- After the pour spout has been removed from a bottle, refrain from pressing the transmitter tag's recessed resume button. The resume button should only be pressed when you want to remove the pour spout from a bottle that is not yet empty (for example, for cleaning) and then reattach it to that same bottle. For more information about the function of the resume buttons see "Pour spout" on page 2.
- Be sure to attach the pour spout to a replacement bottle of the same brand and size.
- Securely attach the pour spout to the new bottle, both to protect against leakage and to ensure that the transmitter tag's buttons become fully pressed in.

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Cleaning pour spouts

To maintain sanitary conditions and to ensure consistent pour spout pour rates, it will occasionally be necessary to clean the pour spouts. Cleaning all the pour spouts from every liquor bottle in your bar on a routine scheduled basis could be a very time-consuming process. Generally, such an undertaking should not be necessary. However, BarVision wireless pour spouts can accommodate whatever regimen or schedule your establishment currently adheres to, whether you clean a pour spout each time a bottle runs empty, or clean each pour spout on a weekly basis. Careful warm-water rinsing should remove any residue that has built up in the nozzle and help minimize any pour rate degradation.

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Chapter 9: Working with Data

To effectively manage your establishment, you need access to timely, accurate data. BarVision supplies that data. This chapter provides you with tips for using, safeguarding, and maintaining your BarVision data. It contains the following sections:

- "About BarVision data" on page 107
- "Exporting data" on page 107
- "Backing up data" on page 110
- "Restoring data" on page 111
- "Maintaining the journal" on page 113
- "Erasing the journal" on page 115

About BarVision data

As BarVision monitors the events that occur to the open bottles in your establishment, it generates and stores detailed data about the specifics of those events. These data records are then saved in the system's journal, and a summary of each event record is displayed on the Activity screen.

BarVision's built-in reports enable you to organize, view, and print the collected data. But you might want to interact with the data more directly. For example, you might want to export BarVision's raw journal data so that you can analyze it, use it to generate charts and graphs, or evaluate it to track trends. You might want to back up the system data for archival and system recovery purposes. Or you might want to delete all of the collected data to simplify your ability to track liquor usage during a special event or at a seldom-used remote bartending location. BarVision allows you to do all of these things, and the following sections of this chapter explain how.

Exporting data

You can export BarVision journal and report data from your Palm® handheld to a laptop or desktop computer. You might want to do this in order to print, e-mail, archive, or analyze the data. To export BarVision data, you must have the BarVision Conduit for Palm HotSync installed on the target PC (refer to "Installing the BarVision Conduit for Palm HotSync" on page 13). With the conduit installed, you can export BarVision data simply by synchronizing your Palm® handheld to your personal computer. (For information about synchronizing, refer to the documentation that accompanied your handheld.)

Each time you synchronize your handheld to a computer equipped with the BarVision Conduit for Palm HotSync, a new journal data file is created. This export occurs automatically and requires no action on your part, other than to initiate the synchronization. Report data, by contrast, is only exported if a report has been run since the last time you performed a synchronization, and only if the report that was run had its **Export** setting (see "Export" on page 81) enabled at the time. These two types of data (journal and report) are saved in different file formats and to different locations on the target computer's hard drive, as explained below.

Journal data

BarVision journal data is exported to a comma separated value (.csv) file. This export occurs automatically each time you synchronize your Palm® handheld (with BarVision for Palm OS® software installed) to a personal computer (with BarVision Conduit for Palm HotSync software installed). Each exported file contains all of the journal data collected since the last time you synchronized your handheld. The data file's name identifies its creation date and the handheld terminal from which it was exported. Exported journal data files are stored on the target PC in the default location: `C:\Documents and Settings\User Name\My`

`Documents\BarVision\Journal`. The comma delimited files can then be viewed and manipulated using any spreadsheet, database, or report design program (such as Microsoft® Excel®, Lotus® 1-2-3, or Crystal Reports®).

Exported journal data files contain information in columnar format. Each row provides information for a single journal event record. The table below identifies the data provided for each event record.

Table 1: Data provided in exported .csv journal data files

Data Label	Explanation
Date	The date on which the event occurred.
Time	The time at which the event occurred.
Location	The location number assigned to the container.
EventType	The type of event that occurred.
ItemCount	For events of EventType "Lost," this column identifies the number of lost events.
SerialID	The serial identification number of the wireless pour spout.
Product	The product name assigned to the container.
Category	The price category assigned to the container.
PourTime	The duration, in seconds, for which the bottle was tilted past 90 degrees during a pour.
Tilt90_Time	The duration, in seconds, for which the bottle was tilted between 90 and 135 degrees during a pour.
Volume	The volume of liquid dispensed during a pour.
Cost	The wholesale cost of the volume of liquid dispensed.
ServingSize	The serving size that the pour was allocated to.
Over_Under	Indicates if the pour was an over- or undersized pour.
ImproperTilt	Identifies pours made at an improper bottle tilt angle. A value of `1` indicates an improper tilt angle.
ContainerSize	The volume of liquid the container holds at capacity.
YieldVolume	The total volume of liquid dispensed from the container.

Report data

BarVision report data is exported in ASCII text file (.txt) format. When you run a report that has been configured for export (see "Export" on page 81), the system stores the generated report information. The next time you synchronize your handheld (with BarVision for Palm OS® software installed) to a personal computer (with BarVision Conduit for Palm HotSync software installed), a text file version of the report is created on the target PC. Each exported report file's name identifies the date and time the report was run and the handheld terminal on which it was run. Exported reports are saved to the default location: `C:\Documents and Settings\User Name\My Documents\BarVision\Reports`. After those text files have been created, they can be printed, e-mailed, or archived for permanent storage and record keeping.

Current handheld hardware limitations restrict the amount of stored BarVision report data to three megabytes. If you reach this limit and do not export the report data from the handheld, any report you run afterward will overwrite the oldest saved report information. To avoid this potential for loss, be sure to regularly synchronize your handheld.

Export procedure

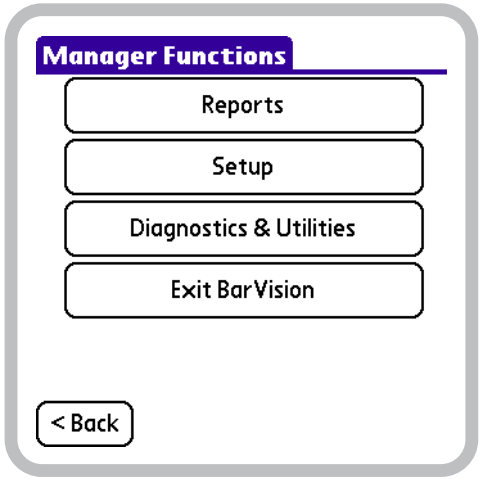
To export BarVision data from your handheld to a personal computer, the BarVision Conduit for Palm HotSync software must be installed on the target PC. For information, see "Installing the BarVision Conduit for Palm HotSync" on page 13.

To synchronize a handheld to a personal computer, HotSync® Manager must be active. HotSync® Manager is installed when you install the PalmSource™ Desktop software. If you did not install PalmSource™ Desktop, you do not have HotSync® Manager on your computer. Refer to the documentation that accompanied your handheld.

***Note:** Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To export data from your Palm® handheld to a personal computer:

1 Choose **Mgr** to display the Manager Functions screen.



Manager Functions screen

2 Tap **Exit BarVision** to quit the BarVision for Palm OS® program and display the Applications View.

Applications View

3 Synchronize your Palm® handheld and personal computer. Depending upon your hardware configuration and network setup, this can be done in any one of four ways:

- Wirelessly using Bluetooth® technology on your handheld
- Using the USB sync cable by attaching it to your handheld and your computer
- Using your handheld's infrared port
- Connecting to your wireless (Wi-Fi) network

Refer to the *User Guide* that accompanied your Palm® handheld for details.

4 After the synchronization process is complete, navigate on your personal computer's file system to the location: `C:\Documents and Settings\User Name\My Documents\BarVision`. This folder should contain subfolders named `Journal` and `Reports`. The `Journal` folder contains the exported journal data file in .csv format. The `Reports` folder contains any exported report data files in .txt format.

5 After you have finished exporting data, be sure to restart the BarVision for Palm OS® software and connect the handheld to the BarVision data receiver.

Backing up data

Regularly backing up the BarVision for Palm OS® data provides you with a clear recovery path in the event of a disaster (for example, if the Palm® handheld should be lost and replaced, erased, or if a hard reset is performed). When you create a backup, each of the system's databases is copied to the SD memory card located in the handheld's expansion card slot. Should the need arise, those databases can then be restored to the handheld (see "Restoring data" on page 111). This will return the system to the state it was in at the time the backup was created. All of the categories, serving sizes, containers, and reports you have created, as well as all of the events recorded in the activity list, will be restored.

You can create a system backup in three different ways: by running a properly configured report (see "Back up during maintenance" on page 84), by selecting the **Back up to SD card before doing maintenance** option when performing journal maintenance (see "Maintaining the journal" on page 113), or by choosing the **Back up to SD card** utility function. Regardless of which method initiates the back up, the BarVision for Palm OS® databases are copied to the SD memory card location `Palm\BarVision\Backup`. Each time you initiate a back up, the existing database files stored on the memory card at that location are overwritten.

To minimize the possibility of data loss, Nuvo Technologies recommends using two SD memory cards on a daily rotating basis, or, alternatively, copying the backed up databases from the SD memory card to your personal computer's hard drive. These safeguards will help protect your data should a memory card malfunction or become lost or misplaced.

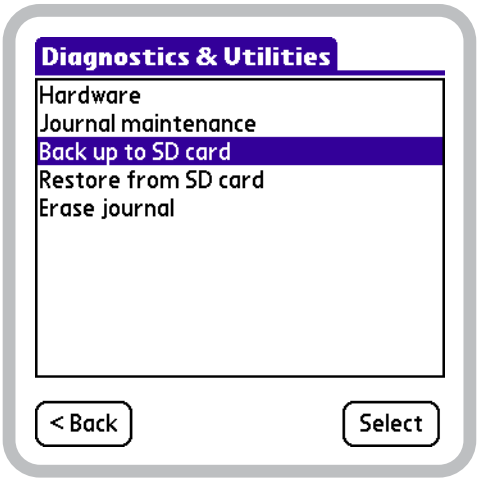
Note: *The following procedure describes the process of manually backing up the system's databases. For information on creating a backup while running a report, see "Back up during maintenance" on page 84. For information on backing up during journal maintenance, see "Maintaining the journal" on page 113.*

Note: *Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.*

To back up the BarVision for Palm OS® databases:

1 Verify that the SD memory card you want to back up to is located in the handheld's expansion slot. If it is not, insert it.

2 Choose **Mgr** > **Diagnostics & Utilities** to display the Diagnostics & Utilities screen.

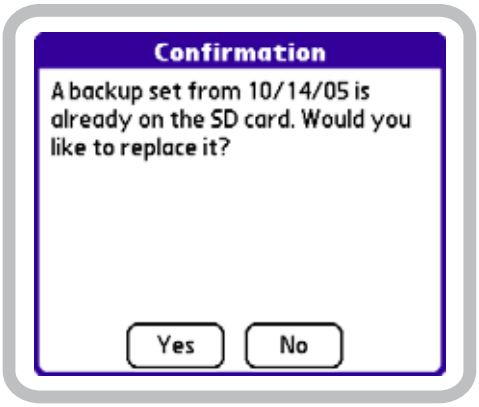


Diagnostics & Utilities screen, ***Back up to SD card*** *selected*

3 In the utilities list, tap **Back up to SD card** to highlight it, and then tap **Select**.

4 One of the following two things will occur:

- If the SD memory card in the handheld's expansion slot does not already contain a backup of BarVision's databases, the Maintenance status screen will be displayed. Proceed to step 5.
- If the SD memory card in the handheld's expansion slot already contains a backup of BarVision's databases, a Confirmation screen similar to the one below will be displayed.



Back up to SD card Confirmation screen

Do one of the following:

— Tap **No** to cancel the backup operation. Remove the SD memory card, insert a different one, and then return to step 3.

— Tap **Yes** to replace the existing backup. Proceed to step 5.

5 The Maintenance status screen will be displayed. This screen indicates the progress as each of the system's databases is copied to the SD memory card.

Maintenance status screen

If the system is unable to create a backup (for instance, if the SD card is unformatted, write-protected, or has not been fully inserted), that information will display in the status message area of the Maintenance screen. Be sure to review the status message to verify that a system backup was successfully created.

After all operations are complete and you have finished viewing the screen, tap **< Back** to return to the Diagnostics & Utilities screen.

6 Optionally, remove the SD memory card from the handheld's expansion slot and copy its contents to your personal computer's hard drive.

Restoring data

In the event of a disaster to your handheld computer (for example, if it should be lost and replaced, erased, or if a hard reset is performed), you can restore the most recent backup to minimize the possibility of data loss. When you create a backup (see "Backing up data" on page 110), each of the system's databases is copied to the SD memory card in the handheld's expansion slot. Should the need arise, those databases can then be restored to the handheld (see "Backing up data" on page 110).

When you restore the system's databases from a backup, the system is returned to the state it was in at the time the backup was created. All of the categories, serving sizes, containers, and reports you have created, as well as all of the events recorded in the activity list, are restored. After the restoration is complete, additional event records may be downloaded from the data receiver. Any event stored in the data receiver's memory that was received after the date and time the backup was created, and that pertains to a container defined in the restored database, is downloaded.

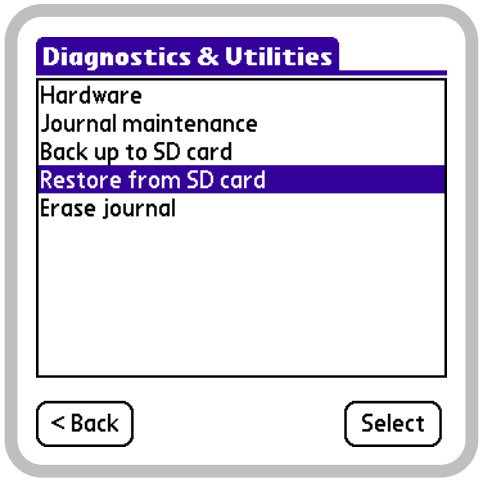
If more than 6,144 events have occurred, systemwide, since the system backup was created, the data receiver's storage limit will have been exceeded and information will have been lost.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

To restore the BarVision for Palm OS® databases:

1 Verify that the SD memory card containing the system backup you want to restore is located in the handheld's expansion slot. If it is not, insert it.

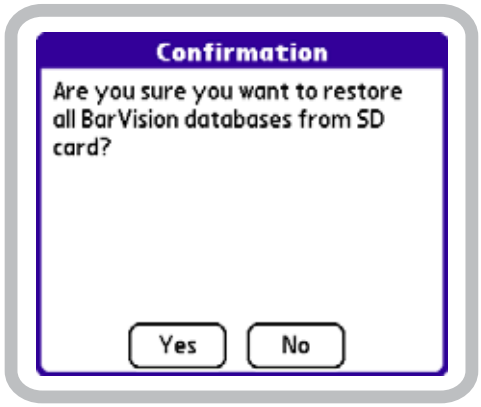
2 Choose **Mgr** > **Diagnostics & Utilities** to display the Diagnostics & Utilities screen.



*Diagnostics & Utilities screen, **Restore from SD card** selected*

3 In the utilities list, tap **Restore from SD card** to highlight it, and then tap **Select**.

4 The following Confirmation screen will be displayed.



Confirmation screen

Tap **Yes** to copy the databases located on the SD memory card to the Palm® handheld.

5 The Maintenance status screen will be displayed. This screen indicates the progress as each of the system's databases is restored from the SD memory card.

Maintenance status screen

6 After the databases have been restored, the handheld will reset. The BarVision for Palm OS® software will restart, and the Activity screen will be displayed.

7 If the handheld is not already connected to the BarVision data receiver, connect it. Any events stored in the data receiver's memory that were received after

the date and time the backup was created, and that pertain to a container defined in the restored databases, will be downloaded and appear in the activity list.

Maintaining the journal

You may want to perform maintenance on the journal's list of events on a periodic basis. When you perform journal maintenance, you define the age of the obsolete events you want removed from the journal. An obsolete event is one that pertains to an empty bottle no longer in use (that is, a bottle whose pour spout has been removed). Performing journal maintenance will not eliminate any events for bottles currently in use, no matter the age of the event.

By maintaining the journal, you control the amount of historical data available to end users on the Activity screen. This can help you and your bartending staff locate a particular event, should the need arise, by reducing the number of existing event records.

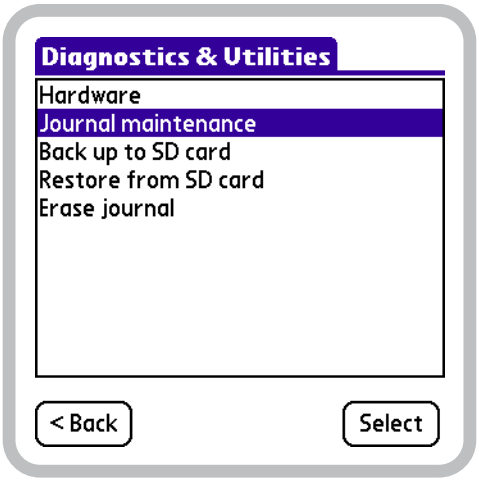
You can initiate journal maintenance in two different ways: by running a properly configured report (see "Perform maintenance" on page 81), or by manually selecting the **Journal maintenance** utility function. Because reports are generally run at regular intervals, the system can use the generation of a report as a trigger for performing data maintenance. During report-initiated maintenance, the system deletes obsolete events older than the **Minimum days in journal** value (see "Minimum days in journal" on page 84). When you conduct maintenance manually, you define which obsolete events are to be deleted by selecting a date and time. All obsolete events older than the date and time you select are then removed from the journal.

Note: The following procedure describes the process of manually performing journal maintenance. For information on enabling report-initiated maintenance, refer to "Perform maintenance" on page 81.

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

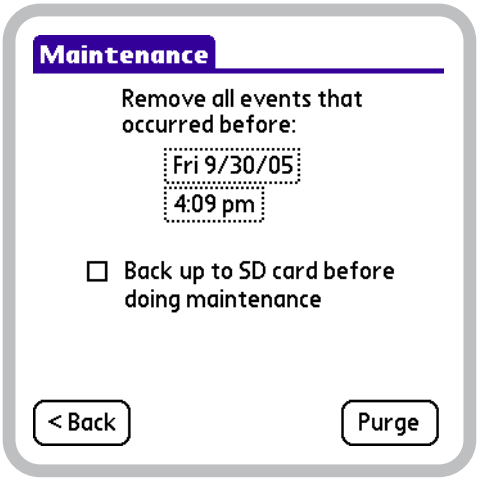
To manually perform journal maintenance:

1 Choose **Mgr** > **Diagnostics & Utilities** to display the Diagnostics & Utilities screen.



*Diagnostics & Utilities screen, **Journal maintenance** selected*

2 In the utilities list, tap **Journal maintenance** to highlight it, and then tap **Select** to display the Maintenance screen.



Maintenance screen

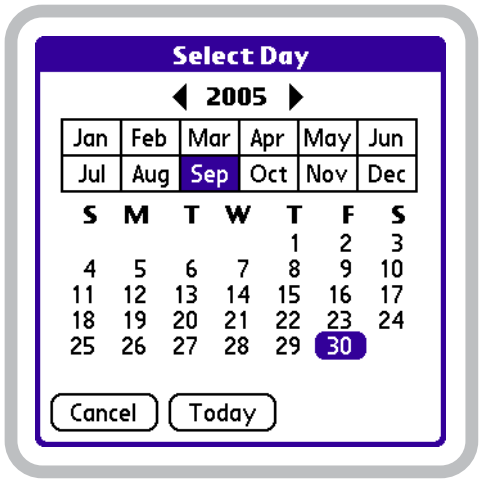
3 The Maintenance screen's **Date** field will default to the date that corresponds with the value set for the **Minimum days in journal** report option. For example, if the **Minimum days in journal** report option is set to `14`, the Maintenance screen's date field will be set to the date fourteen days prior to the current date. The **Time** field value will default to the current time.

Do one of the following:

- To remove all obsolete events generated before the default **Date** and **Time** values, proceed to step 5.
- To specify alternative **Date** and **Time** values before which obsolete events will be removed, proceed to step 4.

4 Specify the date and time before which obsolete events will be removed by doing any of the following:

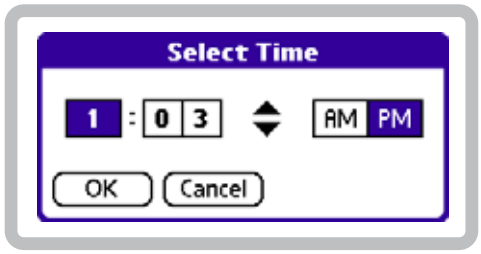
- To adjust the remove events date, tap the **Date** field. The Select Day screen will be displayed. Select a year, month, and date by tapping the appropriate items.



Select Day screen

To quickly select the current year, month, and date, tap ***Today****.*

- To adjust the remove events time, tap the **Time** field. The Select Time screen will be displayed. Select a time by tapping a digit, using the **Selection Arrows** (⬍) to set the numeral, selecting either **AM** or **PM**, and then tapping **OK**.



Select Time screen

5 Optionally, to back up the system's databases before journal maintenance is performed (see "Backing up data" on page 110), tap **Back up to SD card before doing maintenance**. The **Check Box** will appear selected (☑) when the option is enabled.

- If you chose to back up the databases, verify that an SD memory card is located in the handheld's expansion slot. If there is not, insert one.

6 Tap **Purge**.

7 The Maintenance status screen will be displayed. This screen indicates the number of obsolete events removed from the journal.

Maintenance status screen

After you have finished viewing the screen, tap < **Back** to return to the Diagnostics & Utilities screen.

Erasing the journal

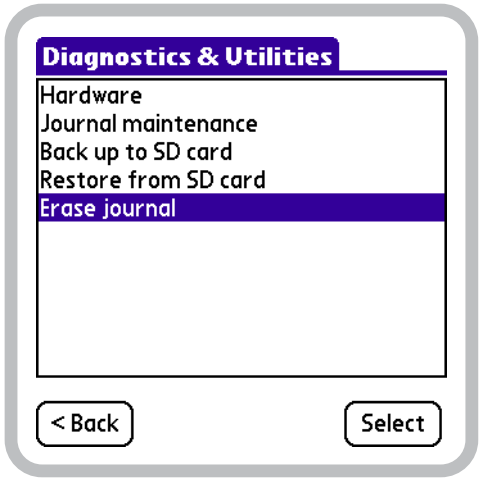
You may want to erase the journal to remove all of the event records from the list. For example, you might want to erase the journal in preparation for tracking usage at a specific social event (such as a catered party or reception). When you erase the journal, all event records are deleted, regardless of their age. Even those event records that pertain to a bottle currently in use are deleted. This has the effect of resetting each container's **Remaining** % to `100`. Because of this, the yield values provided for any partially empty bottles after the journal has been erased should be ignored.

*Erasing the journal will reset the **Remaining** % value for all containers to `100`.*

Note: Performing the following procedure typically requires the manager security code. See "About security codes" on page 26.

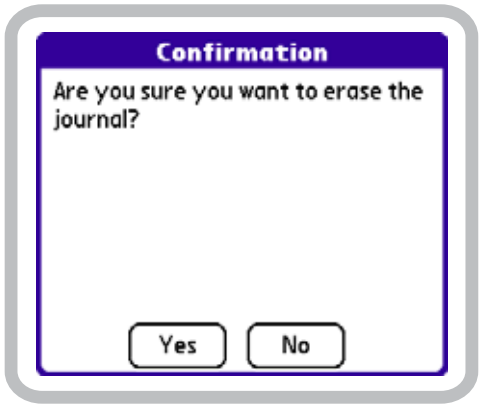
To erase the journal:

1 Choose **Mgr** > **Diagnostics & Utilities** to display the Diagnostics & Utilities screen.



*Diagnostics & Utilities screen, **Erase journal** selected*

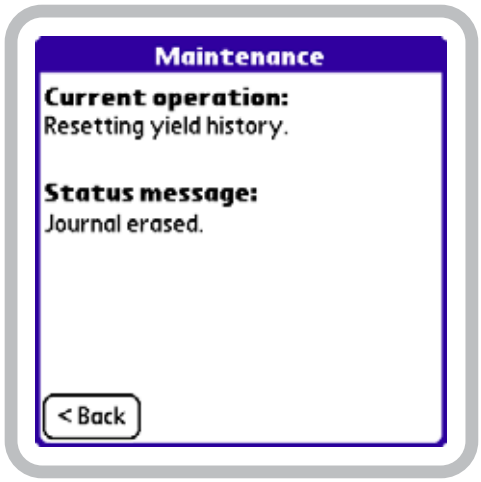
2 In the utilities list, tap **Erase journal** to highlight it, and then tap **Select** to display the erase journal Confirmation screen.



Erase journal Confirmation screen

3 Tap **Yes** to erase the journal.

4 The Maintenance status screen will be displayed. This screen identifies the current system operation and notifies you when the journal has been successfully erased.



Maintenance status screen

After you have finished viewing the screen, tap < **Back** to return to the Diagnostics & Utilities screen.

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Chapter 10: Common Questions

Should you encounter a problem while using the BarVision system, please review this appendix before requesting assistance. This portion of the guide provides troubleshooting tips, techniques, and information designed to help you eliminate or rule out the most common sources of difficulty. It contains the following sections:

- "Palm® handheld problems" on page 117
- "Data receiver problems" on page 117
- "Pour spout problems" on page 118
- "Printing problems" on page 119
- "Security code problems" on page 120
- "Data loss problems" on page 120
- "Disaster recovery" on page 121
- "Customer support" on page 122

Palm® handheld problems

The green "charging" indicator light does not come on when the handheld is connected to the data receiver via serial cable.

Try each of these in turn:

- Attach your handheld firmly to the serial cable.
- Connect the power adapter securely to the data receiver.
- Check that the power adapter is plugged into a working electrical outlet.

The handheld does not turn on when you press the power button.

Try each of these in turn:

- Perform a soft reset:

  1 Use the tip of your stylus to gently press the reset button inside the hole on the back panel of your handheld.

- Charge your handheld for two full hours.

  1 Attach your handheld to its AC charger.

  2 Make sure the green indicator light is on.

The handheld keeps turning itself off.

When the handheld is not properly supplied with power, it will automatically turn itself off after a period of inactivity (depending on preference settings, this period can be from thirty seconds to three minutes).

Try each of these in turn:

- Attach your handheld firmly to the cable.
- Connect the power adapter securely to the data receiver.
- Check that the power adapter is plugged into a working electrical outlet.

For all other Palm® handheld issues:

- Refer to the *User Guide* which accompanied your hardware.

Data receiver problems

The BarVision activity list indicates that the data receiver has been disconnected.

Try each of these in turn:

- Verify that the data receiver's power switch is in the "on" position.
- Attach your handheld firmly to the serial cable.
- Connect the serial cable securely to the back of the data receiver.
- Connect the power adapter securely to the data receiver.
- Replace the data receiver batteries:

  1 Remove the data receiver cover.

  2 Remove the six currently installed AA batteries.

3 Install six new AA batteries, taking care to properly orient them.

4 Replace the data receiver cover.

Pour spout problems

Pouring from a container does not generate an event record in the activity list.

Try each of these in turn:

- Confirm communications between the Palm® handheld and the data receiver:

  1 Temporarily detach the Palm® handheld from the serial cable, and then firmly attach it to the serial cable again.

  2 Verify that a `Receiver connected` event record exists in the activity list. If you cannot locate one, refer to "Data receiver problems" on page 117.

- Confirm the pour spout is properly attached to the neck of the bottle:

  1 Attach the pour spout tightly to the bottle neck.

  2 Verify the transmitter tag's bottle detect button (located on the underside of the tag) is fully pressed in.

- Verify that the pour spout attached to the container is the one that was associated with it during the container addition process:

  1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

  2 Put the data receiver in active listening mode by tapping **Listen** ( ) in the upper right-hand corner of the screen.

  3 Tilt the bottle until an item becomes selected in the container scroll list.

  4 If the container selected is not the one anticipated, pour spouts have been inserted into incorrect bottles. Proceed to the next step.

  If no container is selected, the pour spout may not be communicating. Skip to the step entitled, "Confirm that the pour spout has not expired:" on page 118.

  5 Physically locate the container whose entry was selected in the container scroll list during the previous step.

  6 Swap the pour spouts between the two containers.

  7 Repeat this procedure with the original container to verify that it is now equipped with the appropriate pour spout.

- Confirm that the pour spout has not expired:

  1 Choose **Mgr** > **Setup** > **Containers** to display the Containers screen.

  2 Begin entering the name of the container in the **Lookup** field until the appropriate item becomes selected in the scroll list.

  3 Tap **Spout** to display the page 1 of the pour spout Hardware Detail screen.

  4 View the pour spout's expiration information to verify it has not expired. If the spout has expired, replace it with a new one. See "Assigning a new pour spout to (or removing the current pour spout assignment from) a container" on page 57.

- You may need to add an active antenna to increase the wireless coverage area of your BarVision system. Contact the dealer who sold you your system for details.

Pour spout not recognized when attached to a bottle during the container addition procedure.

- Confirm that the pour spout's transmitter tag battery still retains a charge:

  1 Fully press in the transmitter tag's bottle detect button (located on the underside of the tag).

  2 Verify that the red and green LEDs (located on top of the transmitter tag at the edge farthest away from the metal nozzle) illuminate. If they do not, the transmitter tag's battery has likely lost its charge. Replace the tag with a new one.

Printing problems

Cannot print to a network printer.

Try each of these in turn:

- Verify your handheld's Wi-Fi or VPN connections. Refer to the *User Guide* which accompanied your hardware.
- Verify the printer option settings:

  1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.

  2 In the option list, tap **Printer** and then tap **Select** to display the Printer Options screen.

  3 Confirm the **Connection** option is set to `Network (LPR)`.

  4 Confirm the **Print Server Name/address** value matches your printer's host name or IP address. (Refer to the documentation that accompanied your printer for instructions on how to locate the value of this setting.)

  5 Verify the **Printer/queue** value matches the value of your printer's queue. (Refer to the documentation that accompanied your printer for instructions on how to locate the value of this setting.)

  6 If you still experience problems, consult your network administrator.

Cannot print to a printer equipped with an infrared port.

Try each of these in turn:

- Verify the **Connection** printer option setting:

  1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.

  2 In the option list, tap **Printer** and then tap **Select** to display the Printer Options screen.

  3 Confirm the **Connection** option is set to `IrDA`.

- Be sure the infrared port of your handheld is aligned directly opposite to, and within a few inches of, the infrared port of your printer.

Printed report appears on only the left-hand side of the page.

- Verify the **Printer type** printer option setting:

  1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.

  2 In the option list, tap **Printer** and then tap **Select** to display the Printer Options screen.

  3 Confirm the **Printer type** option is set to `Letter`.

Page numbers on printed reports appear in improper locations.

- Verify the **Lines per page** printer option setting:

  1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.

  2 In the option list, tap **Printer** and then tap **Select** to display the Printer Options screen.

  3 For printing on 8½-by-11-inch paper, the **Lines per page** value should typically be set to `60`. However, you may need to adjust this value to accommodate either a specific printer or page sizes other than U.S. Letter.

Line breaks occur in improper locations when printing receipts.

- Verify the **Printer type** printer option setting:

  1 Choose **Mgr** > **Setup** > **Options** to display the Options screen.

  2 In the option list, tap **Printer** and then tap **Select** to display the Printer Options screen.

  3 Confirm the **Printer type** option is set to `Receipt`.

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Security code problems

The Manager security code has been forgotten.

The following procedure may result in data loss. If more than 6,144 events have occurred, systemwide, since the most recent system backup was created, the data receiver's storage limit will have been exceeded and information will have been lost.

- Reset the handheld, delete the BarVision for Palm OS® software, and then reinstall it to set the security code to the system default:

  1 Use the tip of your stylus to gently press the reset button inside the hole on the back panel of your handheld.

  2 After the system has reset, verify or set the location, date, and time, and then tap **Done**.

  3 Press or tap Home on your Palm® handheld to display the Applications View.

  4 Tap the date in the upper left-hand corner of the handheld's screen to display the **App** menu.

  5 From the **App** menu, select **Delete**.

  6 Tap **BarVision** to select the software for deletion.

  7 Tap **Delete**.

  8 Tap **Yes**.

  9 Tap **Done**.

  10 Restore available system data by performing the procedure described under "Disaster recovery" on page 121.

Data loss problems

Event records have been removed from the activity list.

A number of different circumstances and operations have the potential to result in event records being removed.

- Running a report that has the **Perform maintenance** setting enabled will remove all obsolete container event records older than the **Minimum days in journal** report option value.
  - — To modify the amount of data retained during report-initiated data table maintenance, edit the **Minimum days in journal** report option value. See "Editing journal options" on page 91.
  - — To disable report-initiated data table maintenance, clear the **Perform maintenance** setting for all applicable reports. See "Editing report settings" on page 87.
- Running the **Erase journal** utility from the Diagnostics & Utilities screen will clear all existing event records from the journal.
  - — Accessing this function typically requires the entry of the manager security code. If you suspect that the security code has been compromised, change it. If the security code has been disabled, enable it. See "About security codes" on page 26.
- Running the **Journal maintenance** utility from the Diagnostics & Utilities screen will remove all obsolete container pour (see "Container pour" on page 32) and container empty (see "Container empty" on page 31) events received before the date and time selected on the Maintenance screen.
  - — Accessing this function typically requires the entry of the manager security code. If you suspect that the security code has been compromised, change it. If the security code has been disabled, enable it. See "About security codes" on page 26.

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- Running the **Restore from SD card** utility from the Diagnostics & Utilities screen could result in lost event records. When this utility is run, it returns the activity list to the state it was in at the time the backup was created. Then, additional event records may be downloaded from the data receiver. Any event stored in the data receiver's memory that was received after the date and time the backup was created, and that pertains to a container defined in the restored database, is downloaded.

If more than 6,144 events have occurred, systemwide, since the system backup was created, the data receiver's storage limit will have been exceeded and information will have been lost.

  — Accessing this function typically requires the entry of the manager security code. If you suspect that the security code has been compromised, change it. If the security code has been disabled, enable it. See "About security codes" on page 26.

  — Be sure to create frequent, up-to-date system backups. You can create backups manually via the **Back up to SD card** utility (see "Backing up data" on page 110). Or you can configure the system to generate a backup when you run a report. To do so, you must enable the **Back up during maintenance** report option as well as a specific report's **Perform maintenance** setting. See "Editing journal options" on page 91 and "Editing report settings" on page 87.

- The BarVision for Palm OS® data table that stores events can hold a maximum of thirty thousand records. When the system approaches this limit, it must create enough data table space to allow the system to function properly. To do so, it will delete the oldest one thousand event records. If possible, the system will delete only those records that pertain to bottles no longer in use. However, if this is not possible, some of the oldest event records for currently active bottles will be deleted.

  — Be sure to create frequent, up-to-date system backups. You can create backups manually via the **Back up to SD card** utility (see "Backing up data" on page 110). Or you can configure the system to generate a backup when you run a report. To do so, you must enable the **Back up during maintenance** report option as well as a specific report's **Perform maintenance** setting. See "Editing journal options" on page 91 and "Editing report settings" on page 87.

Reports designated for export cannot be located after synchronizing the handheld and PC.

- When you run a report that has the **Export** setting enabled, the system designates the report for export to a data file. The next time you synchronize your handheld and personal computer, the system creates a text file version of the report on the computer connected to the handheld. BarVision for Palm OS® can store up to three megabytes (MB) of report information for export. After this limit has been reached, the oldest exported report information will be overwritten by the most recently generated exported report. (Use of the export function requires installation of the BarVision Conduit for Palm HotSync.)

  — Be sure to regularly synchronize your handheld to your PC. (For information about synchronizing your Palm® handheld computer, refer to the documentation that accompanied your hardware.)

Disaster recovery

Palm® handheld lost and replaced, erased, or a hard reset performed.

- Install the BarVision for Palm OS® software and restore the most current BarVision data backup:

  1 Install the BarVision software. Refer to the *BarVision Hardware Installation Guide*.

2 Insert the SD memory card containing the most recent system backup into the handheld's expansion slot.

3 Choose **Mgr** > **Diagnostics & Utilities** to display the Diagnostics & Utilities screen.

4 In the utilities list, select **Restore from SD card** and then tap **Select**.

5 A database restoration Confirmation screen will be displayed. Tap **Yes** to restore the most recent backup from the SD memory card.

6 After the restoration is complete, the system will reset and BarVision for Palm OS® will be restarted.

7 Attach the Palm® handheld to the serial cable that connects it to the data receiver (if it is not already). So long as the data receiver has not lost power, its memory will contain the 6,144 events most recently received. Any event stored in the data receiver's memory that was received after the date and time the backup was created, and that pertains to a container defined in the restored database, will be downloaded.

If more than 6,144 events have occurred, systemwide, since the system backup was created, the data receiver's storage limit will have been exceeded and information will have been lost.

8 If any items were added or edited (including reports, containers, categories, and serving sizes) since the last system backup was generated, those additions and edits will have to be manually recreated.

Problems with third-party products

If you require assistance with the operation of your Palm® handheld, printer, personal computer, or any third-party software:

- Refer to the documentation that accompanied your product or contact the manufacturer directly. Nuvo Technologies, Inc. does not provide technical assistance for third-party hardware or software.

Customer support

If you require assistance using the BarVision system that cannot be found in these pages:

- Contact the dealer who sold you your BarVision system and who is familiar with the details of your particular installation and configuration.

Appendix A: Product Regulatory Information

FCC statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits of Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Responsible Party:
Nuvo Technologies, Inc.
6060 East Thomas Road
Scottsdale, Arizona 85251, USA
phone: +1 480.222.6000

Tested to Comply
With FCC Standards

Canadian ICES-003 statement

This Class B digital apparatus complies with Canadian ICES-003.

CE compliance statement

CE indicates compliance with European requirements for safety, health, environment, and customer protection. Assessment of compliance with the requirements relating to electromagnetic compatibility and safety were based on the standards referenced in the following Declarations of Conformity:

Declarations of conformity

Nuvo Technologies, Inc. Declares the Product: Pour Spout

Model Name: BarVision Pour Spout

Manufacturer's Name: Nuvo Technologies, Inc.

Manufacturer's Address: 6060 East Thomas Road, Scottsdale, Arizona 85251, USA

Conforms with the following specifications:

- EN 50082-1, EN 61000-4-2: Electrostatic Discharge (ESD)
- EN 50082-1, EN 61000-4-3: Radiated Electromagnetic Field (EMF)
- EN 55022-1998 with Amendment A1: 2000 (CISPR-22)

Nuvo Technologies, Inc. Declares the Product: Active Antenna

Model Name: BarVision Active Antenna

Manufacturer's Name: Nuvo Technologies, Inc.

Manufacturer's Address: 6060 East Thomas Road, Scottsdale, Arizona 85251, USA

Conforms with the following specifications:

- EN 50082-1, EN 61000-4-2: Electrostatic Discharge (ESD)
- EN 50082-1, EN 61000-4-3: Radiated Electromagnetic Field (EMF)
- EN 55022-1998 with Amendment A1: 2000 (CISPR-22)

Nuvo Technologies, Inc. Declares the Product: Data Receiver

Model Name: BarVision Data Receiver

Manufacturer's Name: Nuvo Technologies, Inc.

Manufacturer's Address: 6060 East Thomas Road, Scottsdale, Arizona 85251, USA

Conforms with the following specifications:

- EN 50082-1, EN 60000-3-2: Current Harmonics
- EN 50082-1, EN 60000-3-3: Voltage Fluctuations and Flicker
- EN 50082-1, EN 61000-4-2: Electrostatic Discharge (ESD)
- EN 50082-1, EN 61000-4-3: Radiated Electromagnetic Field (EMF)
- EN 50082-1, EN 61000-4-4: Electrical Fast Transient/Burst (EFT)
- EN 50082-1, EN 61000-4-5: Surge Immunity (Mains)

Draft for Reseller Review Only
Not for Distribution to End Users

- EN 50082-1, EN 61000-4-11: Voltage Dips and Interruptions
- EN 55022-1998 with Amendment A1: 2000 (CISPR-22)

Battery warning

Do not mutilate, puncture, or dispose of batteries in fire. The batteries can burst or explode, releasing hazardous chemicals. Discard used batteries according to the manufacturer's instructions and in accordance with your local regulations.

Draft for Reseller Review Only
Not for Distribution to End Users

Draft for Reseller Review Only
Not for Distribution to End Users

Appendix B: Legal Notices

BarVision License Agreement

IMPORTANT NOTICE!
PLEASE READ THIS BEFORE USING THE PRODUCT

PLEASE READ THIS ENTIRE BARVISION LICENSE AGREEMENT ("AGREEMENT") CAREFULLY BEFORE USING OR INSTALLING THE BARVISION PRODUCT (INCLUDING EQUIPMENT AND/OR SOFTWARE). BY USING OR INSTALLING THE PRODUCT AND/OR BY TAPPING/CLICKING THE "AGREE" BUTTON WHEN ACCESSING A PRODUCT ELECTRONICALLY, YOU ARE AGREEING TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, DO NOT USE OR INSTALL THE PRODUCT OR ANY PART OF THE PRODUCT, AND YOU MAY RETURN THE UNUSED PRODUCT WITHIN THIRTY (30) DAYS OF PURCHASE AND YOUR MONEY WILL BE REFUNDED.

This is a legal agreement between you and Nuvo Technologies, Inc. and its affiliates ("Nuvo"). By continuing with the installation and/or use of the Product (defined below), you understand and agree to be bound by the terms of this Agreement. If you do not agree to the terms of this Agreement, do not install or use the Product.

Definitions. For purposes of this Agreement, the "Software" includes all BarVision software (for PDAs, Windows® and other platforms, devices, etc.), firmware, and documentation, whether on disk, in read only memory, on any other media or hardware, or in any other form, licensed from Nuvo or an authorized BarVision dealer or distributor. The "Equipment" includes all BarVision hardware and equipment, other than Software, including, without limitation, BarVision radio and/or data transmitting and/or receiving hardware and equipment and any other equipment incorporating BarVision technology licensed from Nuvo or an authorized BarVision dealer or distributor. The "Product" includes the Software and the Equipment. "Third-Party Products" includes products manufactured by third parties.

General. You are hereby granted a nonexclusive, limited and revocable right and license to use the Product at a single location ("Site"). You may change the Site only upon written notice to and approval by Nuvo or an authorized BarVision dealer or distributor. The Product may be used only in the country of original purchase. The Product is licensed, not sold, to you by Nuvo for use only under the terms of this Agreement. The Product contains Nuvo's proprietary technology protected by copyright, patent and other intellectual property laws and treaties. Nuvo owns and retains all right, title, interest, copyright and other intellectual property rights in and to the Product. The Product is designed to be used with certain Third-Party Products designated by Nuvo. You own any Third-Party Products that you might have purchased, such as personal computers or PDAs. Any Equipment that you subsequently acquire or any software or firmware updates and upgrades that replace and/or supplement the original Software or Equipment are subject to the terms of this Agreement, unless such new Equipment, update or upgrade contains a separate agreement or license. Nuvo reserves all rights not expressly granted to you in this Agreement.

Permitted Uses. The Software and the Equipment are licensed as a unitary product. You agree that you will not use the Software or the Equipment with any other software or equipment, except for Third-Party Products designated by Nuvo. Without limiting the generality of the foregoing, you agree that you will use only the Equipment to transmit, receive and/or process radio transmissions from other Equipment. You agree that you will use the Software only with the Equipment and the Equipment only with the Software. You agree that you will use the

Equipment only to the extent (amount of usage and/or time period) that you have paid Nuvo or an authorized BarVision dealer or distributor for its use. You can install and use the Software on more than one PDA or PC, as applicable, provided each PDA or PC is located and used at the Site. You may not make the Software available over a network. You may make only one copy of the Software in machine-readable form for backup purposes; provided that the backup copy includes all copyright and other proprietary notices contained on the original.

Restrictions. You acknowledge and agree that the Product contains copyrighted, patented or patent pending material, trade secrets and other proprietary and confidential information and material which is the property of Nuvo. You agree to take all reasonable steps to protect Nuvo's proprietary interest in the Product and to prevent unauthorized use of the Product. You agree that you will not, directly or indirectly, or permit anyone else to, copy (except as expressly permitted in this Agreement), reproduce, reprogram (except for installing any Software updates or upgrades provided by Nuvo or an authorized BarVision dealer or distributor, as long as the installation conforms with all instructions and the applicable license agreement for such update or upgrade), disassemble, take apart, dismantle, decompile, duplicate, translate, reverse assemble, reverse translate, reverse engineer, modify, create derivative works, or in any manner decode all or any part of the Product for any purpose including, without limitation, to derive any source code therefrom or to ascertain the construction or operation of the Product. You shall not, or permit anyone else to, (1) modify, alter or deface all or any part of the Product or (2) remove, deface, alter or modify any descriptive or identifying markings, labels or notices on the Product. You shall not network, rent, lease, loan, license, re-license, sublicense, sell, resell or distribute the Product, nor permit anyone else to do so. You shall not transfer the Product without Nuvo's prior written consent. You shall not electronically transmit the Software from one computer to another or over a network, nor permit anyone else to do so (except and only to the extent expressly permitted in this Agreement).

Termination. This Agreement is effective until terminated. You may terminate this Agreement at any time by delivering the Product (including, without limitation, the Equipment, the Software and all copies, full or partial, of the Software) to Nuvo or the authorized BarVision dealer or distributor from which it was obtained. This Agreement will terminate immediately and automatically without notice if you breach or fail to comply with any term of this Agreement. Upon termination of this Agreement, you must immediately cease all use of the Product and deliver the Product (including, without limitation, Equipment, Software, and all copies, full or partial, of the Software) to Nuvo or the authorized BarVision dealer or distributor from which it was obtained. If this Agreement is terminated, you agree that Nuvo or an authorized BarVision dealer or distributor can access your premises, physically or electronically, to retrieve and/or disable the Product or its operation, including, if necessary, installing equipment to disable the Product. In the event the Agreement is terminated, all restrictions related to the Product shall remain in force.

Export Law Assurances. You agree that neither the Product nor any technical data received from Nuvo will be shipped, transferred, exported or re-exported into any country except as authorized and as permitted by the laws and regulations of the United States and the laws and regulations of any jurisdiction in which you obtained the Product. You agree that you will not export the Product out of the country of original delivery.

Governmental End Users. The Software is "commercial computer software" and "restricted computer software" within the meaning of FAR Part 12 and FAR § 52.227-19, and the Government's rights therein are set forth in the regulation. To the extent that any portion of the Product is deemed not to constitute commercial computer software, all such material was developed exclusively at private expense, and the government receives "limited rights" in such material.

No Warranties on Third-Party Products. Nuvo does not provide, and fully disclaims, any warranties on Third-Party Products. Third-Party Products may be warranted by their respective manufacturers. Nuvo shall have no responsibility or liability for Third-Party Products.

DISCLAIMER OF WARRANTIES. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF THE PRODUCT IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU. THE EQUIPMENT IS WARRANTED ONLY TO THE EXTENT OF AND IN ACCORDANCE WITH THE CONDITIONS SET FORTH IN AN APPLICABLE WRITTEN WARRANTY STATEMENT, IF ANY, WHICH MAY BE PUBLISHED BY NUVO WITH RESPECT TO PARTICULAR EQUIPMENT. EXCEPT FOR ANY SUCH SEPARATE WRITTEN WARRANTY STATEMENTS THAT MAY BE APPLICABLE, TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THE PRODUCT IS PROVIDED "AS IS", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND NUVO AND ITS EMPLOYEES, OFFICERS, SHAREHOLDERS, AND AGENTS HEREBY DISCLAIM ALL WARRANTIES AND CONDITIONS WITH RESPECT TO THE PRODUCT, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR A PARTICULAR PURPOSE, OF ACCURACY, OF QUIET ENJOYMENT, QUIET POSSESSION, CORRESPONDENCE TO DESCRIPTION, CONFORMITY TO SAMPLES AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. NUVO DOES NOT WARRANT AGAINST INTERFERENCE (RADIO OR OTHERWISE) WITH YOUR ENJOYMENT OF THE PRODUCT, AGAINST LACK OF NEGLIGENCE, AGAINST LACK OF VIRUSES, THAT THE FUNCTIONS CONTAINED IN THE PRODUCT WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF THE PRODUCT WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN THE PRODUCT WILL BE CORRECTED. FURTHERMORE, NUVO DOES NOT WARRANT OR MAKE ANY REPRESENTATIONS REGARDING THE USE OR THE RESULTS OF THE USE OF THE PRODUCT IN TERMS OF THEIR CORRECTNESS, ACCURACY, RELIABILITY, OR OTHERWISE. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY NUVO (OR A NUVO EMPLOYEE, AGENT, DEALER OR DISTRIBUTOR) SHALL CREATE A WARRANTY OR IN ANY WAY INCREASE THE SCOPE OF ANY WARRANTY. SHOULD THE PRODUCTS BE DEFECTIVE, YOU (AND NOT NUVO OR ITS EMPLOYEES OR AGENTS) ASSUME THE ENTIRE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS AGREEMENT. TO THE EXTENT PERMISSIBLE, ANY IMPLIED WARRANTIES, IF APPLICABLE, ARE LIMITED TO THIRTY (30) DAYS.

EXCLUSION OF INCIDENTAL, CONSEQUENTIAL AND CERTAIN OTHER DAMAGES. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL NUVO (OR ITS EMPLOYEES, OFFICERS, SHAREHOLDERS OR AGENTS) BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE, OR CONSEQUENTIAL DAMAGES WHATSOEVER (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFITS OR DATA OR CONFIDENTIAL OR OTHER INFORMATION, FOR LOSS OF BUSINESS OR GOODWILL, FOR BUSINESS INTERRUPTION, FOR PERSONAL INJURY, FOR LOSS OF PRIVACY, FOR FAILURE TO MEET ANY DUTY INCLUDING OF GOOD FAITH OR OF REASONABLE CARE, FOR NEGLIGENCE, AND FOR ANY OTHER PECUNIARY OR OTHER LOSS WHATSOEVER) ARISING OUT OF OR IN ANY WAY RELATED TO THE USE OF OR INABILITY TO USE THE PRODUCT, THE PROVISION OF OR FAILURE TO PROVIDE SUPPORT OR OTHER SERVICES OR INFORMATION, OR OTHERWISE ARISING OUT OF THE USE OF THE PRODUCT, OR OTHERWISE UNDER OR RELATING TO THIS

AGREEMENT, EVEN IN THE EVENT OF THE FAULT, TORT (INCLUDING NEGLIGENCE), MISREPRESENTATION, STRICT OR PRODUCT LIABILITY, BREACH OF CONTRACT OR BREACH OF WARRANTY OF NUVO OR ANY DEALER OR DISTRIBUTOR, AND EVEN IF NUVO (OR A NUVO EMPLOYEE, AGENT, DEALER OR DISTRIBUTOR) HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. UNDER NO CIRCUMSTANCE SHALL NUVO (OR ITS EMPLOYEES, OFFICERS, SHAREHOLDERS OR AGENTS) BE LIABLE FOR ANY CLAIMS BY ANY THIRD PARTY.

LIMITATION OF LIABILITY AND REMEDIES. WITH THE SOLE EXCEPTION OF THE TERMS OF ANY APPLICABLE LIMITED WARRANTIES FOR EQUIPMENT, IF ANY, NOTWITHSTANDING ANY DAMAGES THAT YOU MIGHT INCUR FOR ANY REASON WHATSOEVER (INCLUDING, WITHOUT LIMITATION, ALL DAMAGES REFERENCED ABOVE AND ALL DIRECT OR GENERAL DAMAGES (IN CONTRACT OR TORT OR ANYTHING ELSE)), THE ENTIRE CUMULATIVE LIABILITY OF NUVO (AND ITS EMPLOYEES, OFFICERS, SHAREHOLDERS AND AGENTS) RELATING TO THIS AGREEMENT AND NUVO'S PRODUCTS, AND YOUR EXCLUSIVE REMEDY FOR ALL OF THE FOREGOING, SHALL BE LIMITED TO THE LESSER OF (A) THE ACTUAL DAMAGES YOU INCUR IN REASONABLE RELIANCE ON THE PRODUCTS, (B) THE MAXIMUM AMOUNT ACTUALLY PAID BY YOU FOR THE PRODUCTS, OR (C) $1,000. THE FOREGOING LIMITATIONS, EXCLUSIONS AND DISCLAIMERS SHALL APPLY TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, EVEN IF ANY REMEDY FAILS ITS ESSENTIAL PURPOSE. You acknowledge that Nuvo has set its prices and entered into this Agreement in reliance on the disclaimers of liability, the disclaimers of warranty and the limitations of liability set forth in this Agreement, and that the same form an essential basis of the bargain between the parties.

Controlling Law and Severability. This Agreement shall be governed by and construed in accordance with the laws of the United States and the State of Arizona, as applied to agreements entered into and to be performed entirely within Arizona between Arizona residents, and excluding the application of conflicts of law rules. Exclusive jurisdiction and venue for all matters relating to this Agreement shall be in a court located in the State of Arizona, USA, and you consent to such jurisdiction and venue. Notwithstanding the foregoing, if you are located outside of the United States and have no property in or relationship with the United States, you agree that any legal action arising out of or relating to this Agreement shall be submitted to arbitration in Phoenix, Arizona, USA or such other location mutually agreed to by the parties under the rules of the International Chamber of Commerce. Any proceeding shall be conducted in English. This Agreement shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods, the application of which is expressly excluded. If for any reason a court of competent jurisdiction finds any provision of this Agreement, or portion thereof, to be unenforceable, that provision of the Agreement shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this Agreement shall continue in full force and effect.

Miscellaneous. This Agreement constitutes the entire agreement between the parties with respect to the use of the Products, and it supersedes all prior or contemporaneous understandings or agreements, written or oral, regarding such subject matter (including purchase orders). No amendment to or modification of this Agreement will be binding unless in writing and signed by an authorized officer of Nuvo. There are no third party beneficiaries to this Agreement. No waiver shall be effective unless in writing, and any waiver by Nuvo of any violation of this Agreement by you shall not constitute, or contribute to, a waiver by Nuvo of any other or future violation of the same provision, or any other provision, of this Agreement. This Agreement may not be assigned or transferred without Nuvo's prior written consent. Subject to the foregoing, this Agreement shall be binding upon you and your

representatives, successors and permitted assigns. Any translation of this Agreement is done for local requirements and in the event of a dispute or inconsistency between the English and any non-English versions, the English version of this Agreement shall govern.

Notice. Nuvo, Nuvo Technologies, the Nuvo Technologies logo, BarVision, the BarVision logo, and all Nuvo product names, product numbers and slogans are trademarks of Nuvo Technologies, Inc. BarVision is protected by multiple patents pending. All rights reserved.

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phone: +1 480.222.6000
fax: +1 480.222.6001

www.nuvoinc.com
www.barvision.com

BarVision Limited Warranty (Active Antenna/Data Receiver)

(UNITED STATES AND CANADA ONLY)

IMPORTANT NOTICE: THIS WARRANTY APPLIES ONLY TO THE ORIGINAL PURCHASER FOR END USE WHO COMPLETES AND FILES A WARRANTY REGISTRATION FORM WITHIN THIRTY (30) DAYS OF PURCHASE OR INSTALLATION, WHICHEVER IS EARLIER.

Who is covered:

—This limited warranty ("warranty") is given only to the original end-user licensee (referred to in this warranty as "Original Purchaser") of a BarVision Active Antenna and/or BarVision Data Receiver (collectively referred to in this warranty as "Product") sold by Nuvo Technologies, Inc. ("Nuvo") or an authorized BarVision dealer.

—If you purchased the Product from someone other than an authorized BarVision dealer or Nuvo in the United States or Canada, or if the Product was used before your purchase, you are not the Original Purchaser and the Product that you purchased is not covered under this warranty.

What is the length of the warranty period:

—The warranty period is one year from the date of original purchase or installation, whichever is earlier. The Product is not covered under this warranty if you have not agreed to the terms of the applicable BarVision license agreement.

What is covered:

—Except as otherwise provided herein, Nuvo warrants that the Product will be free from defects in materials and workmanship when used normally and under normal circumstances.

—This warranty applies only to this Product. It does not apply to any other product or service.

What is NOT covered:

—This warranty does NOT cover:

(1) Physical damage to this Product;

(2) Damage caused by improper installation, improper or abnormal use, improper or abnormal storage, fire, power change, misuse, abuse, mishandling, misapplication, tampering, neglect or accident;

(3) Damage which occurs in shipment or damage that is attributable to acts of nature;

(4) Damage caused by another device or software used with this Product; and

(5) Problems arising from other than defects in materials or workmanship.

—This limited warranty is VOID:

(1) If the Product has been altered or modified in any way (including but not limited to attempted repair without authorization from Nuvo);

(2) If the Product's original label or trademark, patent, serial number or other markings or identifications have been defaced, altered, modified or removed;

(3) If the Product is used contrary to the instructions in the user's manual or the applicable BarVision license agreement;

(4) If the Product is used with equipment or software not supplied by Nuvo or an authorized dealer; or

(5) If the Product is exported out of the country of original purchase.

What to do if you think your Product is eligible for warranty service:

—Report your issue to Nuvo at +1 480.222.6000 within the applicable warranty period. Have the serial number of the Product ready. You may be asked to provide a copy of your original proof of purchase and/or other information.

—After contacting Nuvo, you may be required to deliver or send the Product, properly packaged, freight prepaid, to Nuvo within seven days. You may be required to complete a claim form. You are responsible for the cost of shipping (including duties), packing and insurance (if you desire insurance). You are also responsible for loss or damage to this Product in shipping.

What Nuvo will do:

—If the problem concerning your Product is covered by this warranty and you first reported the problem to Nuvo within the applicable warranty period, Nuvo will repair or replace the Product at no charge to you for parts and labor. The decision as to whether to repair or replace the Product is made by Nuvo in its sole discretion. Nuvo reserves the right to supply a refurbished or remanufactured replacement Product and to use refurbished parts. The repaired or replacement Product will be returned to you freight prepaid or made available for you to pick up at Nuvo. Product/parts that are replaced by Nuvo shall be kept by Nuvo. If Nuvo elects to replace the Product, the replacement Product you receive (even if refurbished or remanufactured) will be covered by the balance of the limited warranty period remaining on the original Product.

—If the Product is not covered by this warranty, you will be charged for shipping the Product back to you.

—The foregoing are your sole (i.e., only) and exclusive remedies under this warranty.

Limitations:

—This limited warranty becomes effective only after (1) payment in full for all products sold by Nuvo or an authorized BarVision dealer, (2) consent to the terms of the applicable BarVision license agreement and (3) only if a warranty registration form is properly completed and sent to Nuvo within thirty days of purchase or installation, whichever is earlier.

—This limited warranty may not be sold, transferred or assigned without Nuvo's prior written approval.

—Nuvo shall not be liable for any loss or damage from delay or failure to perform resulting directly or indirectly from fire, flood, strike, accident, civil commotion, labor difficulties, equipment failure, late deliveries by suppliers, riot, war, regulations, priorities, government intervention, acts of nature, embargoes, shortage of labor, transportation, facilities, fuel, energy, materials or supplies, or any circumstances (whether or not similar to the foregoing) that are beyond the control of Nuvo.

—Nuvo is not responsible for damage to or loss of any equipment, media, programs or data related to the use of this Product.

—THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES. TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW, NUVO EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES AND/OR CONDITIONS, EXPRESS OR IMPLIED, WHETHER ARISING BY STATUTE, BY LAW, BY COURSE OF DEALING OR USAGE OF TRADE, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS LIMITED WARRANTY.

—NUVO SHALL HAVE NO LIABILITY FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES WHATSOEVER, OF ANY KIND (INCLUDING LOSS OF BUSINESS OR PROFITS OR DATA) OR ARISING UNDER ANY LEGAL THEORY (INCLUDING NEGLIGENCE OR BREACH OF CONTRACT OR WARRANTY) EVEN IF NUVO (OR A NUVO EMPLOYEE, AGENT, DEALER OR DISTRIBUTOR) HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NUVO NEITHER ASSUMES NOR AUTHORIZES ANY DEALER, DISTRIBUTOR OR OTHER PERSON TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY OTHER THAN SUCH AS IS EXPRESSLY SET FORTH HEREIN.

—NUVO'S LIABILITY IS LIMITED AS SET FORTH IN THIS WARRANTY AND THE REMEDY PROVIDED HEREIN SHALL BE THE SOLE AND EXCLUSIVE REMEDY. THE ENTIRE CUMULATIVE LIABILITY OF NUVO RELATING TO THIS WARRANTY SHALL BE LIMITED TO THE LESSER OF (A) THE REMEDY SET FORTH IN THIS WARRANTY, OR (B) THE MAXIMUM AMOUNT ACTUALLY PAID FOR THE PRODUCT.

—This limited warranty is the only warranty that Nuvo is giving for this Product. It is the final expression and the exclusive and only statement of Nuvo's obligations to you for this Product. It replaces all other agreements and understandings about warranty obligations for this Product that you may have with Nuvo or its representatives.

—This limited warranty may not be changed in any way unless you and Nuvo sign the same piece of paper in which we (1) refer to the Product by serial number and to your bill of sale date, (2) describe the change to this warranty, and (3) agree to make that change.

—This limited warranty shall be governed and construed by the laws of the State of Arizona, U.S.A., in all respects, without regard to conflicts of law rules.

Contact information:

To determine an applicable warranty period or to report a problem, please contact Nuvo as follows:

Nuvo Technologies, Inc.
Nuvo Corporate Center
6060 East Thomas Road
Scottsdale, Arizona 85251, USA
Attn.: Warranty Services

phone: +1 480.222.6000
fax: +1 480.222.6001

www.nuvoinc.com
www.barvision.com

BarVision Limited Warranty (Tag)

(UNITED STATES AND CANADA ONLY)

IMPORTANT NOTICE: THIS WARRANTY APPLIES ONLY TO THE ORIGINAL PURCHASER FOR END USE WHO COMPLETES AND FILES A WARRANTY REGISTRATION FORM WITHIN THIRTY (30) DAYS OF PURCHASE OR INSTALLATION, WHICHEVER IS EARLIER.

Who is covered:

—This limited warranty ("warranty") is given only to the original end-user licensee (referred to in this warranty as "Original Purchaser") of a BarVision Tag ("Tag") licensed by Nuvo Technologies, Inc. ("Nuvo") or an authorized BarVision dealer.

—If you purchased a Tag from someone other than an authorized BarVision dealer or Nuvo in the United States or Canada, or if the Tag was used before your purchase, you are not the Original Purchaser and the Tag that you purchased is not covered under this warranty.

What is the length of the warranty period:

—The warranty period starts from the date of purchase or installation, whichever is earlier, and ends based on the warranty period applicable to the particular Tag. To determine the applicable warranty period for a particular Tag, please contact Nuvo or an authorized BarVision dealer. The Tag is not covered under this warranty if you have not agreed to the terms of the applicable BarVision license agreement.

What is covered:

—Except as otherwise provided herein, Nuvo warrants that the Tag will be free from defects in materials and workmanship for the number of pour events specified for the particular Tag, during the applicable warranty period, when the Tag is used normally and under normal circumstances. For liquor bottle Tags, a pour event occurs when a Tag is placed on a bottle (or the bottle attach button is pressed) and the Tag is tilted more than 90 degrees, whether or not any liquid is dispensed from the bottle. To determine the number of pour events specified for a particular Tag, please contact Nuvo or an authorized BarVision dealer.

—This warranty also covers physical damage to the Tag, whether caused intentionally or accidentally, unless such damage prevents Nuvo from determining how many pour events occurred in connection with the particular Tag.

—This warranty applies only to this Tag. It does not apply to any other product or service. It also does not apply to damage caused by another device or software used with this Tag.

When is the warranty VOID:

—This limited warranty is VOID:

(1) If there is damage to the Tag (that occurs for any reason whatsoever) that prevents Nuvo from determining how many pour events occurred in connection with the Tag;

(2) If the Tag's original label or trademark, patent, serial number or other markings or identifications have been defaced, altered, modified or removed;

(3) If the Tag is used contrary to the instructions in the user's manual or the applicable BarVision license agreement;

(4) If the Tag is used with equipment or software not supplied by Nuvo or an authorized dealer; or

(5) If the Tag is exported out of the country of original purchase.

What to do if you think your Tag is eligible for a warranty claim:

—Report your issue to Nuvo at +1 480.222.6000 within the applicable warranty period. Have the serial number of the Product ready. You may be asked to provide a copy of your original proof of purchase and/or other information.

—After contacting Nuvo, you may be required to deliver or send the Tag, properly packaged, freight prepaid, to Nuvo within seven days. You may be required to complete a claim form. You are responsible for the cost of shipping (including duties), packing and insurance (if you desire insurance). You are also responsible for loss of the Tag in shipping.

What Nuvo will do:

—If the problem concerning the Tag is covered by this warranty and you first reported the problem to Nuvo within the applicable warranty period, Nuvo will credit you with a discount on the purchase price of a replacement Tag with a similar or greater number of specified pour events. Nuvo reserves the right, in its sole discretion, to supply a refurbished, repaired or remanufactured replacement Tag. If the percentage of warranted life of the Tag that is used is greater than the percentage of specified pours that are used, then the discount will be pro-rated based on the unexpired warranty period of the Tag ("Time-Based Discount"). Alternatively, if the percentage of specified pours of the Tag that are used is greater than the percentage of warranted life that is used, then the discount will be pro-rated based on the number of unused specified pour events for the Tag ("Pour-Based Discount"). Only one discount shall apply. The Time-Based Discount shall be calculated as follows: (a) the weekly cost, based on Nuvo's then-current retail list price for the replacement Tag, multiplied by (b) the number of unused warranted weeks for the Tag (from the date the problem is reported, as long as the Tag is returned to Nuvo within seven days). The Pour-Based Discount shall be calculated as follows: (a) the price per pour event, based on the number of specified pour events for the replacement product and Nuvo's then-current published retail list price for the replacement Tag, multiplied by (b) the number of unused specified pour events for the Tag.

—You will be required to pay the difference between the discount and the then-current retail list price of the replacement product, FOB Nuvo's facility, plus shipping (including duties), handling and insurance, and any applicable taxes, before the replacement Tag is sent to you. Any Tag that is replaced by Nuvo shall be kept by Nuvo. If a Tag is replaced by Nuvo under the terms of this warranty, the replacement Tag (even if refurbished, repaired or remanufactured) shall be covered by the terms of whatever warranty may be applicable to the replacement Tag and not by the terms of this warranty.

—If the Tag is not covered by this warranty, you will be charged for shipping the Tag back to you.

—The foregoing are your sole (i.e., only) and exclusive remedies under this warranty.

Limitations:

—This limited warranty becomes effective only after (1) payment in full for all products sold by Nuvo or an authorized BarVision dealer, (2) consent to the terms of the applicable BarVision license agreement and (3) only if a warranty registration form is properly completed and sent to Nuvo within thirty days of purchase or installation, whichever is earlier.

—This limited warranty may not be sold, transferred or assigned without Nuvo's prior written approval.

—Nuvo shall not be liable for any loss or damage from delay or failure to perform resulting directly or indirectly from fire, flood, strike, accident, civil commotion, labor difficulties, equipment failure, late deliveries by suppliers, riot, war, regulations, priorities, government intervention, acts of nature, embargoes, shortage of labor, transportation, facilities, fuel, energy, materials or supplies, or any circumstances (whether or not similar to the foregoing) that are beyond the control of Nuvo.

—Nuvo is not responsible for damage to or loss of any equipment, media, programs or data related to the use of this Tag.

—THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES. TO THE FULLEST EXTENT ALLOWED BY APPLICABLE LAW, NUVO EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES AND/OR CONDITIONS, EXPRESS OR IMPLIED, WHETHER ARISING BY STATUTE, BY LAW, BY COURSE OF DEALING OR USAGE OF TRADE, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THERE ARE NO WARRANTIES THAT EXTEND BEYOND THIS LIMITED WARRANTY.

—NUVO SHALL HAVE NO LIABILITY FOR ANY SPECIAL, INCIDENTAL, INDIRECT, PUNITIVE OR CONSEQUENTIAL DAMAGES WHATSOEVER, OF ANY KIND (INCLUDING LOSS OF BUSINESS OR PROFITS OR DATA) OR ARISING UNDER ANY LEGAL THEORY (INCLUDING NEGLIGENCE OR BREACH OF CONTRACT OR WARRANTY) EVEN IF NUVO (OR A NUVO EMPLOYEE, AGENT, DEALER OR DISTRIBUTOR) HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. NUVO NEITHER ASSUMES NOR AUTHORIZES ANY DEALER, DISTRIBUTOR OR OTHER PERSON TO ASSUME FOR IT ANY OBLIGATION OR LIABILITY OTHER THAN SUCH AS IS EXPRESSLY SET FORTH HEREIN.

—NUVO'S LIABILITY IS LIMITED AS SET FORTH IN THIS WARRANTY AND THE REMEDY PROVIDED HEREIN SHALL BE THE SOLE AND EXCLUSIVE REMEDY. THE ENTIRE CUMULATIVE LIABILITY OF NUVO RELATING TO THIS WARRANTY SHALL BE LIMITED TO THE LESSER OF (A) THE REMEDY SET FORTH IN THIS WARRANTY, OR (B) THE MAXIMUM AMOUNT ACTUALLY PAID FOR THE TAG.

—This limited warranty is the only warranty that Nuvo is giving for this Tag. It is the final expression and the exclusive and only statement of Nuvo's obligations to you for this Tag. It replaces all other agreements and understandings about warranty obligations for this Tag that you may have with Nuvo or its representatives.

—This limited warranty may not be changed in any way unless you and Nuvo sign the same piece of paper in which we (1) refer to the Tag by serial number and to your bill of sale date, (2) describe the change to this warranty, and (3) agree to make that change.

—This limited warranty shall be governed and construed by the laws of the State of Arizona, U.S.A., in all respects, without regard to conflicts of law rules.

Contact information:

To determine the applicable warranty period or the number of pour events specified for a particular Tag, or to report a problem, please contact Nuvo as follows:

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Nuvo Technologies, Inc.
Nuvo Corporate Center
6060 East Thomas Road
Scottsdale, Arizona 85251, USA
Attn.: Warranty Services

phone: +1 480.222.6000
fax: +1 480.222.6001

www.nuvoinc.com
www.barvision.com

Glossary

Active antenna

A BarVision system component that receives wireless data signals generated by the pour spouts and then relays those signals to the data receiver. Active antennas are used to increase BarVision's wireless coverage area. Typically, one active antenna is installed at each bartending station (or well) and one at the back bar, with at least two antennas per *bar area*.

Active listening mode

A BarVision for Palm OS® software function that simplifies the process of selecting a container in the container list. You enable active listening mode by tapping the **Listen** ( ) icon in the upper right-hand corner of the Containers screen. After this mode has been enabled, momentarily tilting a bottle equipped with a wireless pour spout (but without pouring from it) selects that container in the list. This can simplify the process of editing a container or checking a container's status. You can disable active listening mode by tapping the icon again or exiting the Containers screen.

Actual pour rate

The actual dispense rate for a specific individual pour spout. The actual pour rate of each specific pour spout will vary due to manufacturing tolerances, liquor viscosity and temperature, bottle shape, and so forth. This value is used to calculate *actual serving sizes* and can be manually set. These values help account for the variability factors affecting that specific pour spout on that specific container poured at that specific location.

Actual serving size

The amount of liquor a bartender actually dispensed during a pour. BarVision calculates this value by factoring in a **Pour delay** (based on the current volume of the container), and then multiplying the amount of time for which the bottle was tipped by the container's **Actual pour rate** value. This amount is used to derive such values as the volume of liquor remaining in the container and the container's current weight.

Bar area

A distinct section of an establishment's property or building specifically set aside for preparing and serving alcoholic beverages. A single room may contain more than one bar area—one at each end of the room, for example—and a single bar area usually comprises one or more bartending stations (or wells) and a back bar.

Category

Used to classify liquor for pricing purposes. The BarVision system uses categories to identify and organize liquor price classifications. Examples of commonly used categories include Well, Call, Premium, and Top Shelf.

Container

Any liquor or beverage bottle that has been defined via the BarVision software and associated with a BarVision wireless pour spout. Each container is continually monitored by the BarVision system, ensuring that every pour gets tracked and that running inventory totals are constantly maintained.

Data receiver

A BarVision system component that collects data from active antennas and downloads it to the connected Palm® handheld. The data receiver can store up to 6,144 events before it must download the gathered information to a handheld or else data will be lost. Typically, one data receiver is installed at each *bar area*.

Double-tap

To press the stylus tip down on, and then lift it up from, the screen of a Palm® handheld two times in rapid succession. Performing this action selects a word or number so that it can be edited.

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Drag

To press the stylus to the Palm® handheld's screen and then move across, up, or down the screen to select a field's value or scroll a scrollable list.

Exception

Used to identify events or data that are either of an irregular nature or outside established parameters. For example, any pour of a volume larger than the **Max allowed pour size** is classified by the system as an exception. Likewise, any bottle whose yield is less than the **Underyield** value is flagged as an exception. Exceptions are identified and detailed on appropriately configured system reports.

Expected pour rate

The average dispense rate for a pour spout type. BarVision uses this value, in conjunction with the measured bottle tilt time, to calculate the *expected serving sizes* displayed on the Activity screen. An average dispense rate is used (rather than an exactly-measured actual pour rate for a specific individual pour spout), because pour spouts can have more than a 20% variability in their dispense rates. Because the ultimate purpose of this value is to help bartenders achieve consistent pour counts (after it has been used to calculate an expected serving size), entering spout-specific values would frustrate that goal. It would result in providing the bartender with feedback that indicated inconsistent pour counts—even in cases when the bottle tilt times were exactly the same. To avoid this, an average dispense rate is used.

Expected serving size

The amount of liquor a bartender expected to pour based solely on the duration for which the liquor bottle was tilted. BarVision calculates this value by multiplying the tilt time by the **Expected pour rate** (the average pour rate for the pour spout type). No other variability factors enter into the equation. After the value is calculated, the expected serving size is then displayed on the Activity screen. Based on the serving size displayed, bartenders can get feedback about the accuracy of their pour counts and can regulate them accordingly. Because all the other variables that can affect the serving size (such as pour spout variability, liquor viscosity and temperature, and bottle shape) are outside the bartender's control, helping them regulate their pour counts is the only way to help them reliably free-pour the most uniform amounts (by time) on average.

Jitter

Designates any inadvertent bottle tilt that cannot be classified as a pour. For a BarVision wireless pour spout to register a pour and generate a pour event transmission, a container must be tilted past ninety degrees for a duration longer than the amount of time represented by the **Jitter level** container option. If a bottle is tilted past ninety degrees but does not remain tilted for the defined amount of time, the system assumes that the tilt was unintended and that no liquid was actually dispensed. As a result, the action is not registered as a pour and no pour event record appears on the Activity screen.

Journal

Term used to designate BarVision's running list of events that appears on the Activity screen. Events recorded and displayed in the system's activity list include such occurrences as: connecting or disconnecting the data receiver, moving a container equipped with a wireless pour spout into or out of transmission range, manually adjusting a container's contents level, pouring from a container, and attaching or removing a pour spout from the mouth of a bottle. Each of these events is recorded in BarVision's journal and displayed on the Activity screen.

Line of sight

An unobstructed path between transmitter and receiver. BarVision wireless pour spouts and active antennas generally require a clear line of sight to communicate with each other.

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Location

A container value used to uniquely identify the place where a container is stored. This setting can enable a single data receiver to track an entire *bar area*. Because a bar area may include several bartending stations (or wells) and a back bar, you should define each of those places as a separate **Location** so that the inventory at each is independently tracked.

LPD/LPR

Line Printer Daemon/Line Printer Remote. A printing protocol that uses TCP/IP (communication protocols) to establish connections between the printers and computers on a network. This technology is the most common cross-platform printing protocol. The LPD software is usually stored in the printer or print server and the LPR software installed in the client device. The LPR client sends a print request to the IP address of the LPD printer/server, which in turn queues the file and prints it when the printer becomes available.

Management report

Term used to designate any report not explicitly configured for public access and therefore not available on the Public Reports screen. Specifically, a management report is one whose **Public** report setting has not been selected. Management reports typically require a security code to access.

Palm® Handheld

A handheld personal computer designed to run the Palm OS®. These handhelds usually combine personal organizer, Web browsing, e-mail, and networking features. A properly configured Palm® handheld running the BarVision for Palm OS® software is an integral component of the BarVision system. Palm® handhelds typically use a special stylus for input. BarVision data files located on your Palm® handheld can be transferred to a desktop or laptop computer using a Palm® USB sync cable.

POS

Point of Sale. Point of Sale systems used in the bar and restaurant industry generally employ a touch-screen interface, record food and beverage sales in detail, and provide basic reporting and data exporting capabilities.

Pour count

To achieve a measure of consistency in their serving sizes, bartenders often time their pours. This is typically done by using a rhythmic pour count. For example, some bartenders use a four-count ounce. That is, they count to four at a rate that corresponds to the time it takes to dispense one ounce of liquor through an average pour spout. Due to several factors (such as pour spout variability, liquor viscosity and temperature, and bottle shape), the actual amount of liquor dispensed may be less than or greater than one ounce. But these variables are beyond a bartender's control. As a result, the best way for bartenders to produce the most accurate timed pours *on average* is for them to stringently regulate the accuracy and consistency of their pour counts.

Public report

Term used to designate any report explicitly configured for public access and therefore available on the Public Reports screen. Specifically, a public report is one whose **Public** report setting has been selected. Public reports do not require a security code to access.

Radio frequency (RF)

Used to identify a class of electromagnetic signals intended to be radiated as waves. RF signals are used to transmit AM and FM radio station broadcasts, VHF and UHF television broadcasts, and cellular phone calls. RF signals are also used to transmit data between components of the BarVision system.

Receiver

See Data receiver.

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SD memory card

An SD (secure digital) memory card is a highly secure stamp-sized flash memory card. SD memory cards provide portable data storage and feature fast transfer rates. SD memory cards use non-volatile solid-state memory so that data is not lost when power is turned off. Palm® handhelds are generally equipped with an SD memory card expansion slot.

Serving size

The volume of one of an establishment's desired portion sizes. A serving size value represents the amount of liquor intended to be served in a precisely poured drink. Different types of alcoholic beverages require different amounts of liquor. As a result, a serving size must be configured for each of the desired quantities.

Terminal ID

A BarVision for Palm OS® software field used to uniquely identify a Palm® handheld in a multiple data receiver BarVision implementation. In such an installation, it is important that a one-to-one association between a handheld and a data receiver be maintained. Only the Palm® handheld used to configure a container can be used to download the information collected for that container from a data receiver. For that reason, attaching a Palm® handheld to the incorrect data receiver's serial cable could potentially lead to data loss.

Transmitter Tag

One of the three components that, together with a plastic cork and metal nozzle, compose a BarVision wireless, free-pour spout. The transmitter tag is the component in the assembly that houses the wireless hardware. It generates wireless signals and broadcasts them to the active antennas. To prevent the possibility of data loss, each transmitter tag stores and periodically retransmits its sixteen most recently recorded events. Typically, every open liquor bottle in a bar should be equipped with a BarVision wireless, free-pour spout.

Triple-tap

To press the stylus tip down on, and then lift it up from, the screen of a Palm® handheld three times in rapid succession. Performing this action selects a line of text so that it can be edited.

Yield

The total accumulated amount of liquid dispensed from a container expressed as a percentage of the container's capacity. For example, if BarVision calculates that the pours from a 33.81 ounce bottle total 37.19 ounces, the yield is 110%. For the same bottle, if the pours total 30.42 ounces, the yield is 90%. A yield significantly greater than or less than 100% might indicate that the container has been tampered with or that the pour spout's dispense rate deviates significantly from the average pour rate (in which case the container's **Actual pour rate** value would need to be adjusted).

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