MIDTRONICS

*Battery Management Innovation*

# *PowerSure*™

## The Complete Power System Management Database

# USER'S GUIDE

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# INTRODUCTION

## *Overview*

***PowerSure***™ is a relational database application that allows you to easily keep track of the state of your entire power system by organizing and managing your test results.

By compiling multiple battery test readings, ***PowerSure*** gives you a clear picture of how continual jar and strap test results relate to strings, and how multiple strings relate to your system and sites.

## *What Can PowerSure™ Do?*

As a fully functional desktop database application, ***PowerSure*** can be adapted and customized for client-server environments, or even the Internet. The "Power" comes from the ***PowerSure*** relational database design, offering a full, user-friendly tool to manage and enhance maintenance procedures while reducing costs.

***PowerSure*** provides all the tools you need to organize your or your clients' power system maintenance data—from tables of site, system, string, battery and technician information, to running a variety of standard and exception-based professional quality graphical reports.

## *What is a Relational Database?*

Data, or floating bits of random information, mean little by themselves. For example, "John, Atlanta, ABC Batteries, XYZ Batteries, Mary, Des Moines" don't tell us much. However, if you have:

| ***Company*** | ***Location*** | ***Contact*** |
|---|---|---|
| XYZ Batt | Des Moines | John |
| ABC Batt | Atlanta | Mary |

...you can now form a perspective of what the data means, and how it fits together. By manipulating data, we can obtain even more information. This could be considered a "flat-file" database.

A relational database, however, can go beyond this. For example, if XYZ Batteries has locations in several states and are bought by ABC Batteries, you would typically have to change the name in every single record. A relational database allows you to change the name once, and it will reflect in every record that contains "XYZ Batteries."

By further relating data to create graphs and reports, ***PowerSure*** can help you see the big picture of your power system as a whole, so you can spot patterns and trends to quickly find areas that need attention.

## *How to Build Your Database*

The hierarchy of information goes as follows:

***Company/Region*** → ***Site*** → ***System*** → ***String***
(Strings are named in the tester)

Thus, you build a foundation for your database by entering Company/Region information first, then add information about Sites at the company, Systems within the sites, and Strings within the systems.

## *Features:*

- Installs quickly and easily, even without PC expertise
- *New User Wizard* gives beginning users access to major system functions without prior training
- Can download and capture test data as well as select site, system, and string identifiers from Midtronics Stationary Battery testers via memory cards or Midtronics infrared receiver
- Relational database offers a simple way to view, compare and trend historical data on batteries, strings, and sites
- Keeps key network data records centralized, including site installation/commissioning, last maintenance visit and more
- Customizes reports with corporate logo or service provider branding
- Manages technician system assignments and documents test history
- Fully edits and updates all data with audit recording to validate data integrity
- Tracks and manages service history for all test equipment and analyzers, improving overall asset management
- Easily produces a variety of professional quality graphical reports, including exception reports for warning level or failed sites, systems or batteries

- Permits quick file exchange via e-mail or disk
- Compatible with previous Midtronics software file formats (inFORM® files)

## *System Requirements*

The minimum system requirements for the ***PowerSure*** database are:

- **CPU**: P2 350MHz or better
- **RAM**: 512 MB or better
- **Video**: Card/monitor support for 1024x768 resolution or better
- **OS**: Windows™ 98, 2000, XP, or better
- **Disk**: At least 25 MB free hard drive space (15 MB program; 10 MB data); CD-ROM drive, if installing from CD

## *Installation Procedure*

Use the following instructions to install new software or to upgrade from a previous version (proof of ownership may be required for upgrades). If you purchased ***PowerSure*** as a download, Midtronics recommends that you backup your download package, preferably to a CD.

***To install PowerSure in Windows®:***

**1** — Restart Windows and turn off any antivirus software.

**2** — Do one of the following:

- If you purchased ***PowerSure*** on a CD, insert the CD into your CD drive
- If your PC is setup for Autoplay, follow the on-screen instructions. **If Your PC does not support Autoplay,** click the Start Menu, choose *Run* from the pop-up menu, choose *Browse* in the dialog box, click the "*Look in*" drop-down menu and select your POWERSURE CD. Double-click to open, then double-click the "Setup" icon.
- If you purchased ***PowerSure*** as a download, double-click the setup.exe file.

**3** — In the ***PowerSure*** dialog box, click *Next*. Follow the on-screen instructions to read the introduction, and accept the license agreement.

**4** — Enter your name, your organization (optional), and the serial number for your copy of the program (located on the CD case, or on the receipt page for web purchases).

***To uninstall PowerSure:*** From the Start menu, choose Settings > Control Panel > Add/Remove Programs (Windows 2000) or Add Or Remove Programs (Windows XP). Select ***PowerSure*** and then click Change/Remove.

# GETTING STARTED IN *POWERSURE*

## *Starting PowerSure*

To run ***PowerSure***, you must first install the files from the CD onto your local hard drive. Click the *Start Menu*, choose *Programs* > *PowerSure*. You can also double-click the ***PowerSure*** icon on your desktop. Follow the on screen instructions.

## *The Log-In Screen*

To log into ***PowerSure***, type the word "user" for both the User ID and password.

To change your password, see *Manage Your User Profile* on page 21.

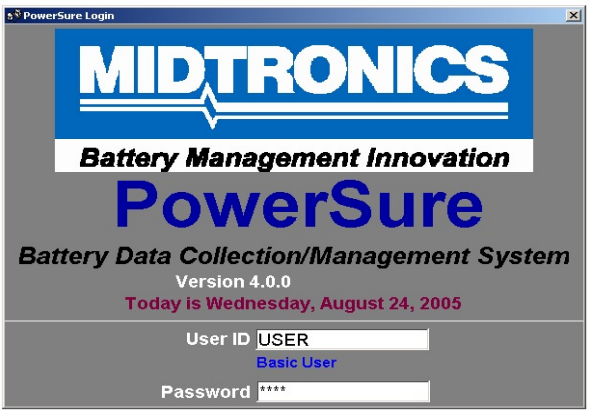



*Figure 1a. The Log-In screen*

## *New User Wizard*

When starting ***PowerSure*** for the first time, the *New User Wizard* screen will appear:

This screen guides you to four basic functions of the database.

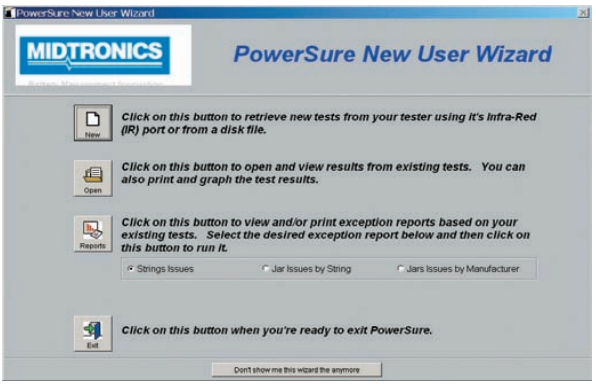
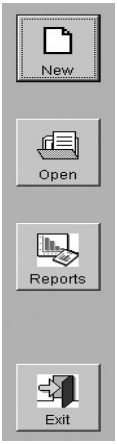



*Figure 1b. The New User Wizard screen*




Click **NEW** to retrieve new tests from your tester.

Click **OPEN** to view, print, or create a graph from existing test results.

Click **REPORTS** to view and/or print exception reports from exisitng test results. You can choose to run exception reports for string issues, jar issues by string, or jar issues by manufacturer.

Click **EXIT** when you're finished and ready to leave ***PowerSure***.

## *The Opening Screen*

Exiting the *New User Wizard* takes you to the opening screen. Move the cursor over each button for a description of that button's function.

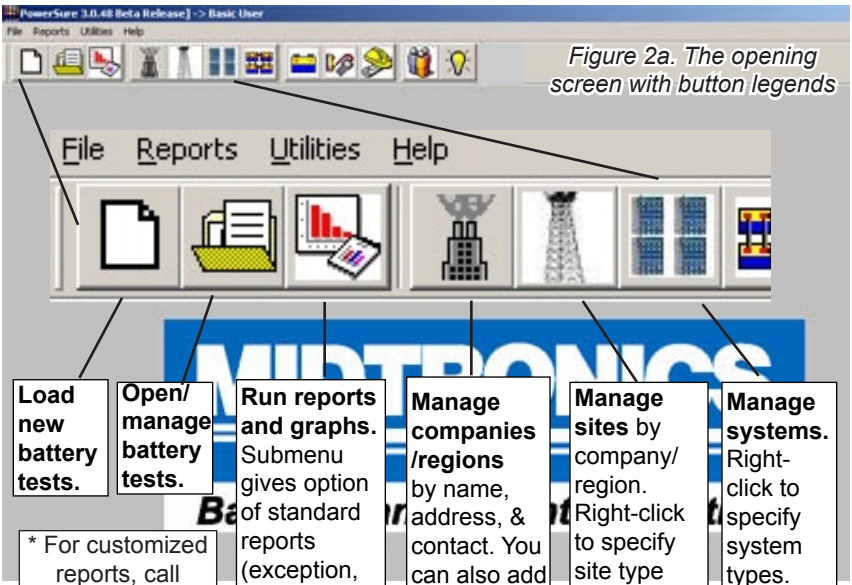
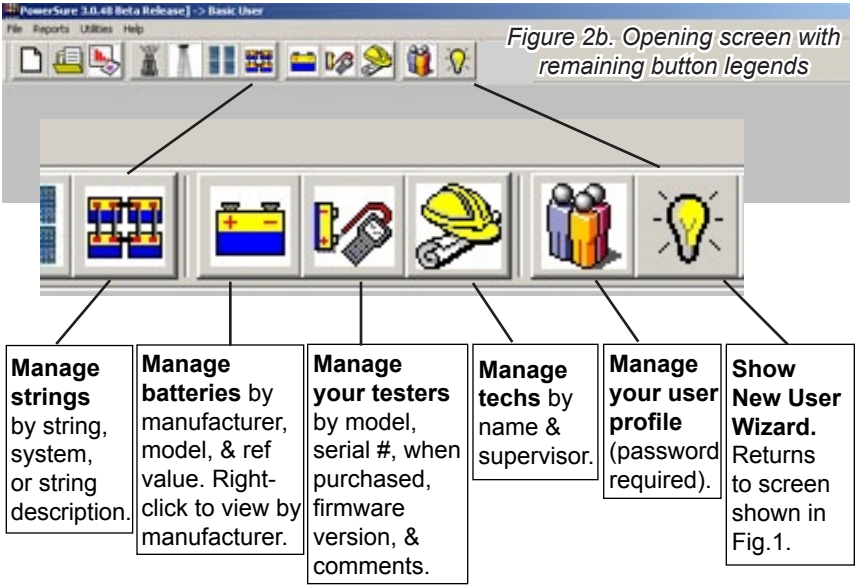



*Figure 2a. The opening screen with button legends*




# INDIVIDUAL BUTTON FUNCTIONS

## *Load New Battery Tests*

The **Load New Battery Tests** button takes you to the Select File Source screen. Here you have the option to load new test data from your analyzer into your PC. You can transfer a single disk file, or load ALL test files from your tester by either beaming to Midtronics infrared receiver, or loading file batches from the SD memory card. Remove it from your tester, insert into the SD card reader attached to your PC, and click *Batch File Load*. Locate the card reader drive and click OK. Records will transfer directly into your ***PowerSure*** database, and any unspecified data can then be filled in.

If errors occur, the log file found in your ***PowerSure*** Directory folder will show if any records contained invalid data.

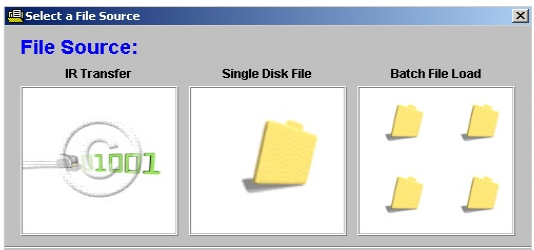



*Figure 3. Select File Source screen*

## *Open/Manage Battery Tests*

The **Open/Manage Battery Tests** button gives a full record of battery tests that have already been loaded, such as the one below. This data can be viewed, edited, or printed.

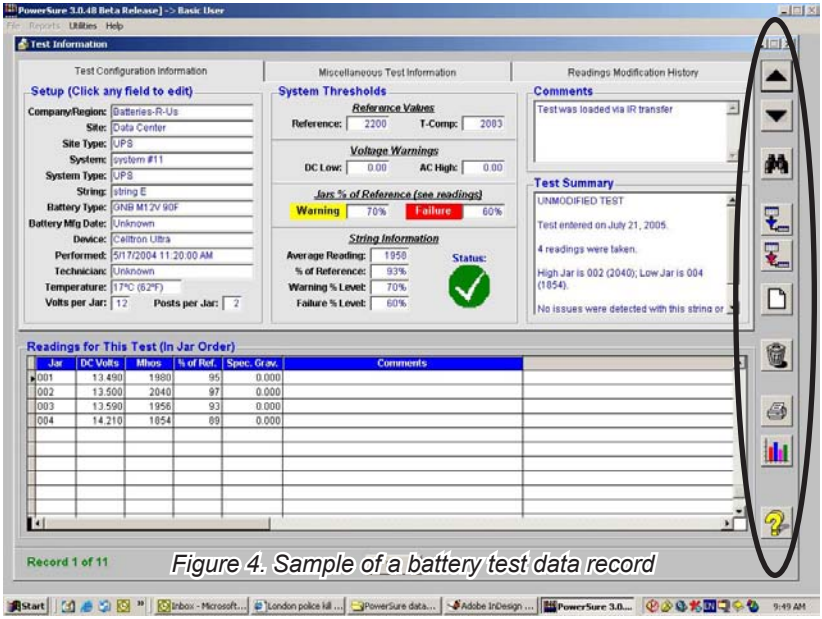


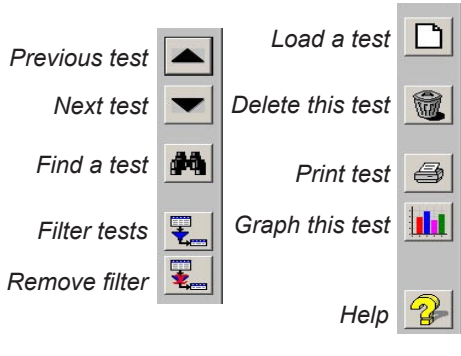

*Figure 4. Sample of a battery test data record*

## A NOTE ABOUT HELP

Click the yellow ? for **Help** with loading tests, or whenever you see it for contextual help with whatever screen you happen to be in.

***TIP:*** For instant access to this manual while in ***PowerSure***, copy the *PowerSure.pdf* on your CD-ROM into your ***PowerSure*** Directory folder. Then just hit the **F1** key at any time to view the manual.

The buttons circled along the edge of the screen are described below:



## *Run Reports and Graphs*

The **Run Reports and Graphs** button lets you create a visual of the state of your power system, allowing you to instantly spot the strongest and weakest jars, as illustrated in the graph below:

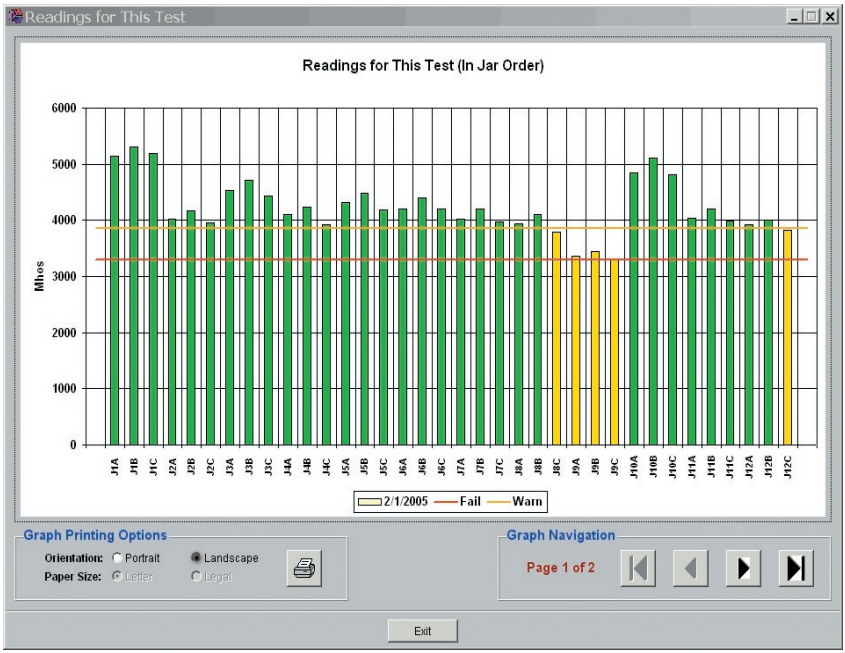



*Figure 5. Sample of a graph*

For information on generating reports, see ***Running a Report in PowerSure*** on page 23.

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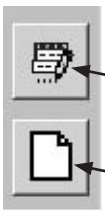


*Click here to edit info.*

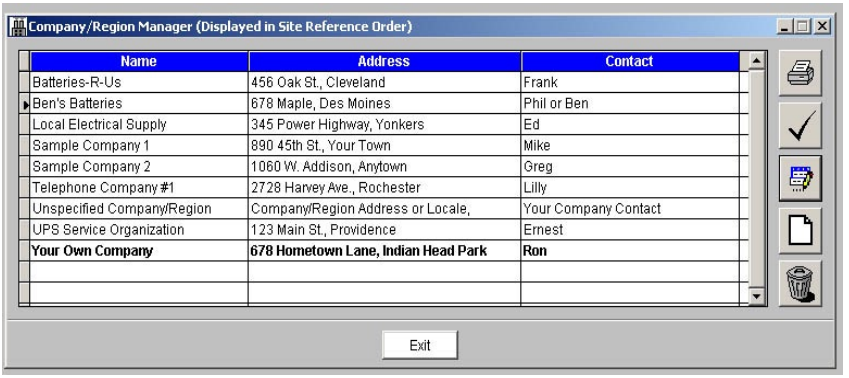
*Click here to add new info.*

## *Manage Companies/Regions*

Use the **Manage companies/ regions** button to load or manually enter data about your clients or your company's regions as illustrated in Figure 6.

***NOTE**: Information can be edited or added to any of the data screens, as shown at left.*

*Figure 6. Company/Region Manager screen*




The Name column can list the company name or location, depending on how you prefer to organize your data.

## *Adding a Logo to Reports*

You can also add a company logo to your printed reports in **Manage Companies/Regions**. Click the *Edit Selected Company/Region* button in the center of the right edge of the screen to choose your logo:

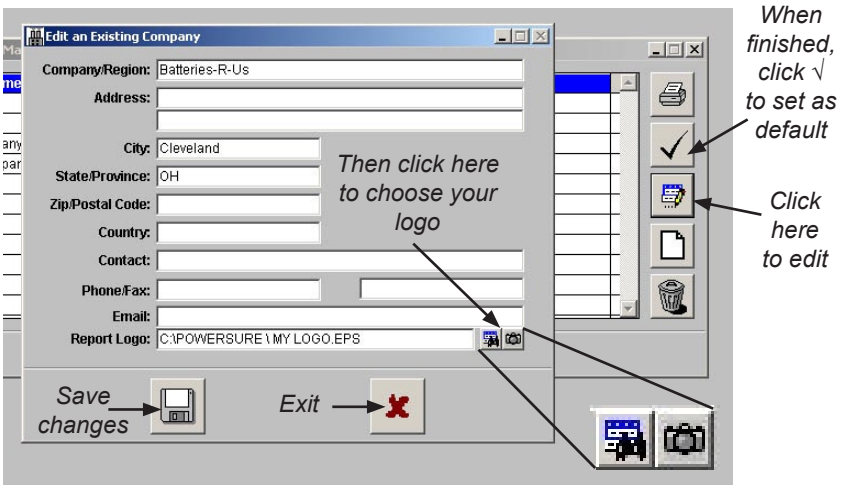



*Figure 7. Edit an Existing Company screen*

## *Adding A Logo to Reports (con't.)*

Click the ***binoculars button*** to locate a logo to insert. This will become the default logo that will appear in all reports for that company. Click the ***camera button*** to view the logo that ***PowerSure*** is currently using:

*Figure 7a. Clicking the camera button displays the current default logo for the selected company*

In the *Logo File Selection* window, click on the logo you want, and click ***Open*** (Figure 8 below). Check that the file chosen is correct, and click the ***disk button*** to save your changes (Figure 9).

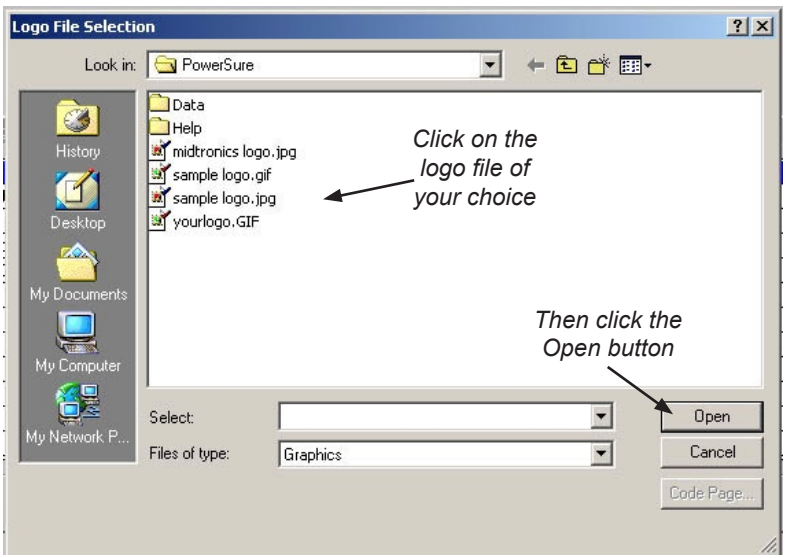



*Figure 8. Logo File Selection screen*

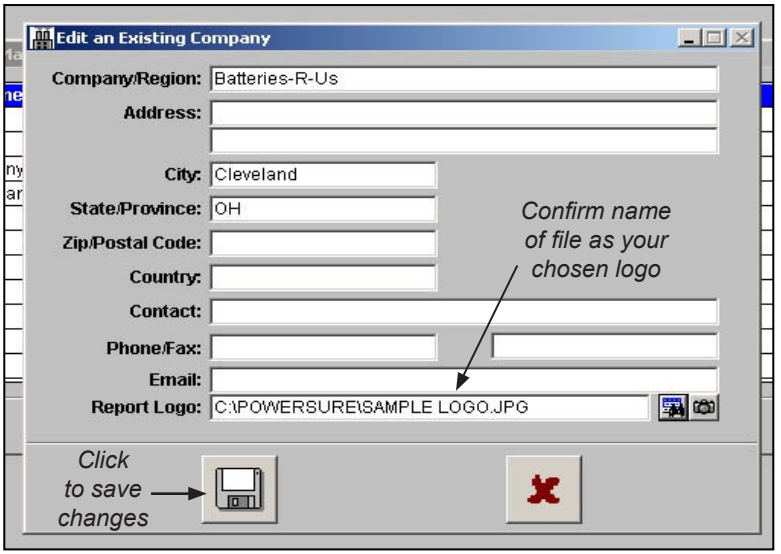



*Figure 9. Logo Confirmation screen*

## A NOTE ABOUT LOGO CONVERSION

***PowerSure*** accepts logos in the ***.gif*** and ***.jpg*** formats. If the logo is in a different format, such as ***.eps*** or ***.tif,*** it will not appear in the *Logo File Selection* window.

To convert your logo, open it as you normally would, then do a ***Save As...*** to a ***.gif*** or ***.jpg*** format. If your graphics program does not offer that option, then select the logo image by clicking or drawing a marquee around it, copy it to your computer's memory (Ctrl-C), open a ***New*** document in a photo editing application, paste it in (Ctrl-V), and ***Save*** it as a ***.gif*** or ***.jpg***.

## *Setting a Default Logo*

After clicking the ***disk button*** to save your changes, be sure to click on the ***checkmark button*** on the main *Managing Companies/Regions* screen (shown in Figure 7) to confirm that logo as the default for that company.

You may proceed to choose a logo for each company in your list, which will then appear on the header of every report run for that company as shown in Figure 10 below:

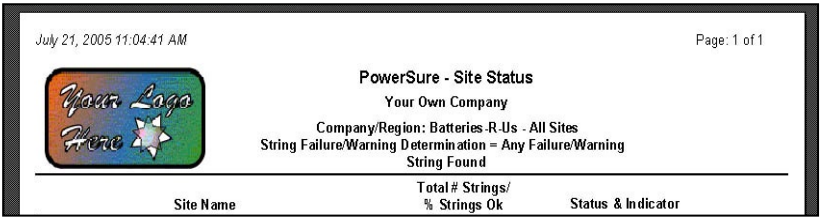



*Figure 10. Sample report header, showing logo*

## A NOTE ABOUT MANAGING SYSTEMS & SITES

Sites may have more than one System, and different System Types may be found in the same location. Being able to create your own descriptions lets you add more detail to your Site and System Types, and gives you an extra layer for filtering your records (see page 27).

### *Manage Sites*

The **Manage Sites** button works much the same way as *Manage Companies/Regions*, and lets you enter a description of the site:

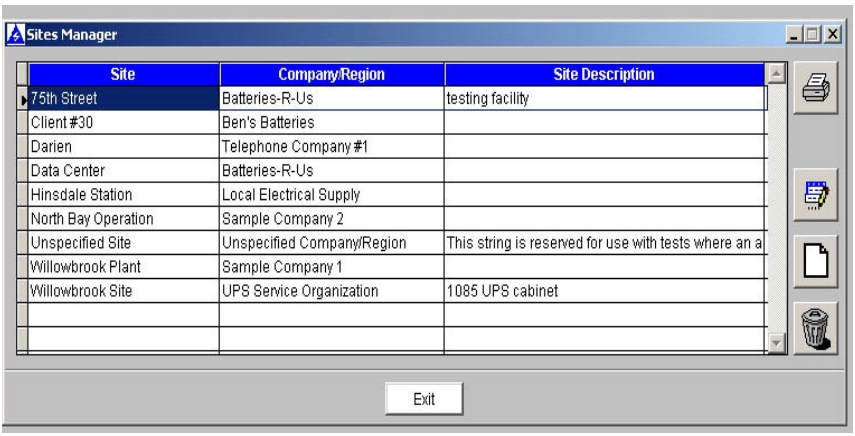



*Figure 11. Sites Manager screen*

Right-click the **Manage Sites** button for the *Site Types Manager*, which allows you to create your own description of sites. This makes it easy to find specific sites by visual keywords you are likely to remember:

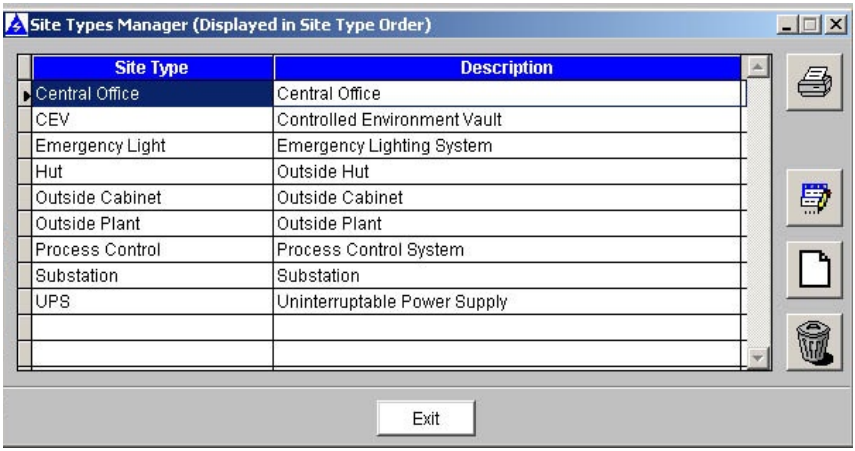



*Figure 12. Site Types Manager screen*

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## *Manage Systems*

Use the **Manage Systems** button to view data about your systems by system, site and system description, as illustrated below:

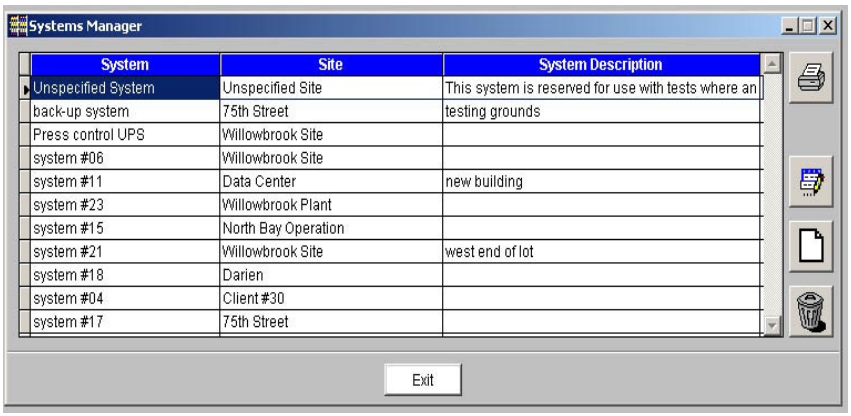


*Figure 13. System Manager screen*

Right-click the **Manage Systems** button for the *System Types Manager:*

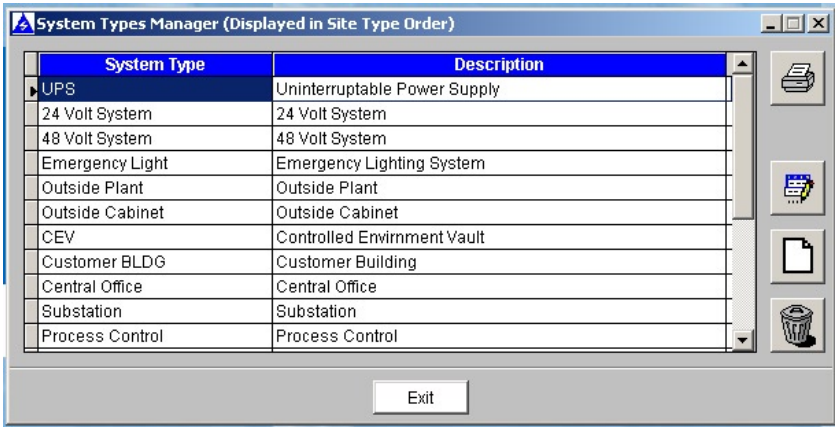


*Figure 13a. System Types Manager screen*

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## *Manage Strings*

Use the **Manage Strings** button to view data about your strings by string, system, and string description, as shown below:

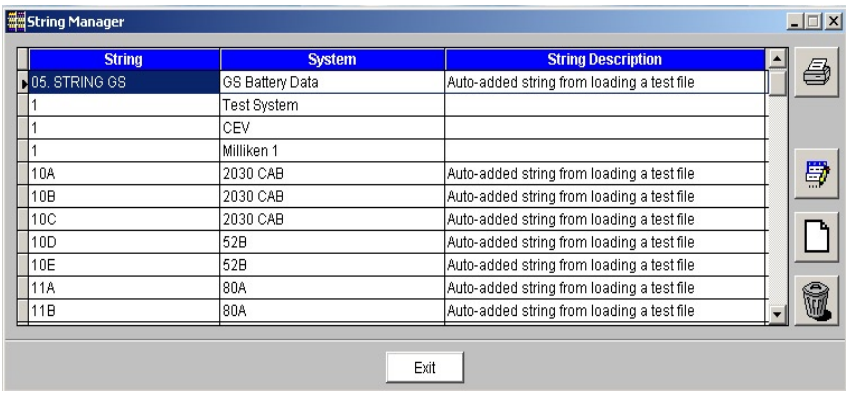


*Figure 14. String Manager screen*

## *Manage Batteries*

Click the **Manage Batteries** button to view data about your jars by manufacturer, model, and reference value. Here you can also add a new model, or edit an existing one.

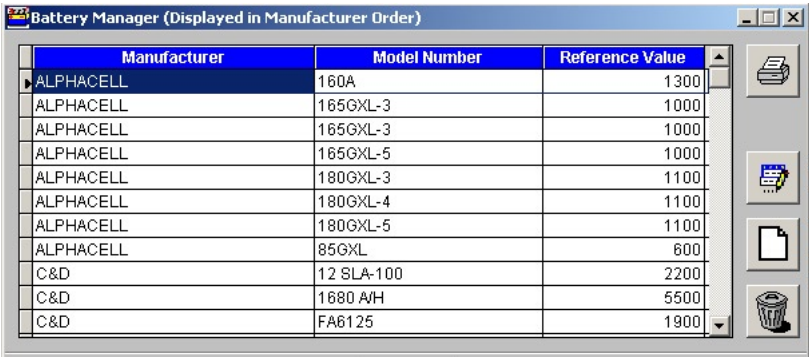


*Figure 15. Battery Manager screen*

Right-click the **Manage Batteries** button to see a list sorted by manufacturer name. You can also add a new manufacturer, or edit an existing one.

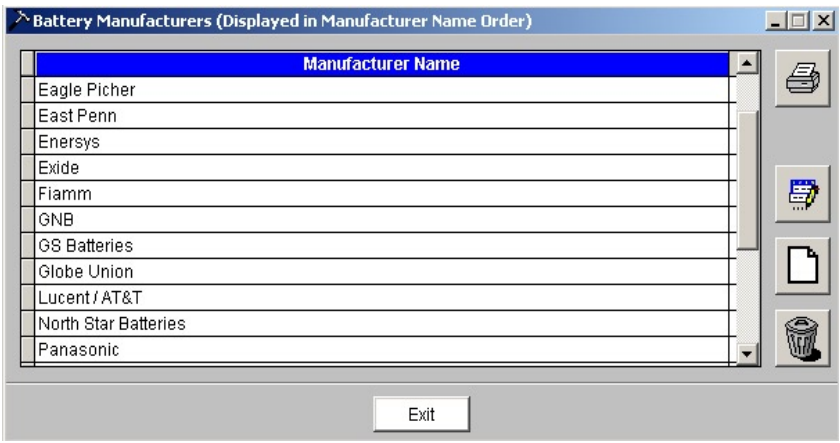


*Figure 15a. Battery Manager screen, sorted*

## *Manage Testers*

Click the **Manage Testers** button to view data about your analyzers by model, serial number, date of purchase, firmware version, and comments:

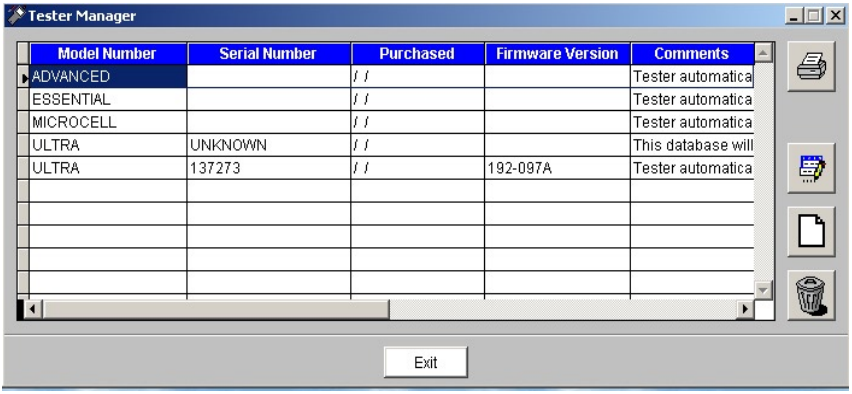


*Figure 16. Tester Manager screen*

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## *Manage Techs*

Click the **Manage Techs** button to view data about your personnel by name and supervisor:

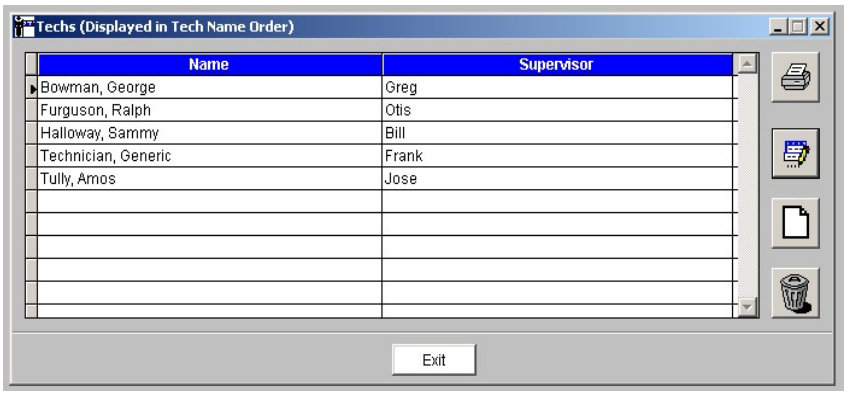


*Figure 17. Techs Manager screen*

## *Manage Your User Profile*

Click this button to perform administrative tasks such as changing your password, and to customize ***PowerSure***.

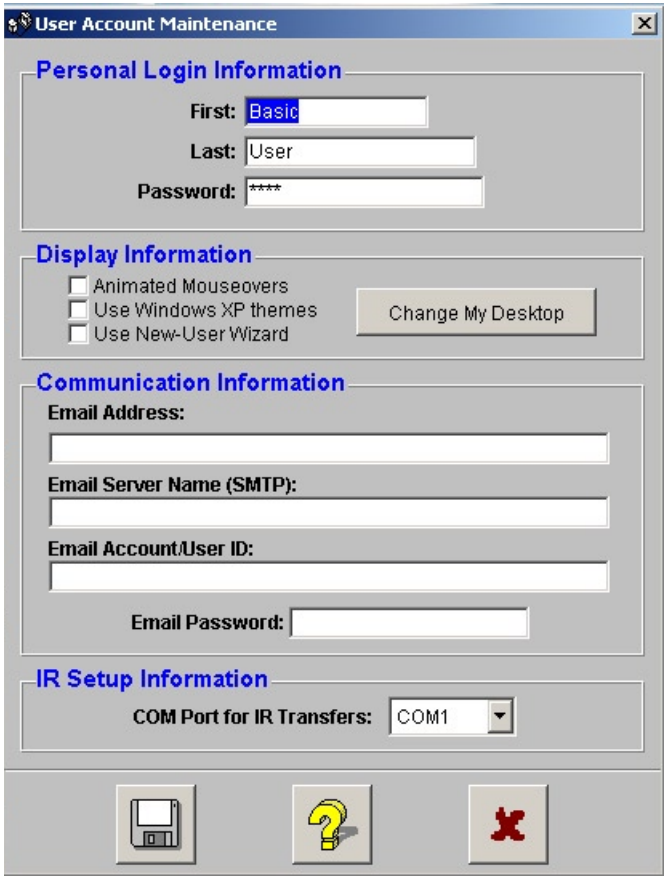


*Figure 18. User Account Maintenance screen*

## *To Change Your Personal Login Information*

1) Enter the desired name and/or password.

2) Click on the Save button to save your changes.

** PLEASE NOTE ** You CANNOT change your login ID.

## *To Change Your PowerSure Display Background*

1) To change your desktop background, click the **Change My Desktop** button. In the dialog box that appears, you can select from a number of images, or change your ***PowerSure*** desktop to any color by choosing the *Standard (No Image)* option. Click the small icon for a palette of colors, and click on the color of your choice.
2) To display animated mouseovers when you move your cursor over an action button, check the Animated Mouseovers box.
3) To make ***PowerSure*** use your current XP theme, check the Use Windows XP Themes box.
4) To toggle between the ***PowerSure*** *New User Wizard* and power desktop, check on the Use New User Wizard box.
5) Click the **SAVE** button to save your changes.

## *To Change Your Communication Information*

1) This information is not required unless you intend to use the integrated outbound email capabilities of ***PowerSure***.
2) The Email Server Name (SMTP) corresponds to your outbound email server name, which is also called your SMTP server.
3) The Email Account/User ID is required only if your email server requires outbound server authentication.
4) The Email Password is required only if your email server requires outbound server authentication.
5) Click on the Save button to save your changes.

## *To Change Your COM Port for IR Transfers*

1) Select the COM port to which your IR receiver is attached. If you don't know your COM port, do the following:
    a) Open Windows Control Panel and select the System Option.
    b) In the dialog that appears, select the Hardware tab and then click on the **Device Manager** button.
    c) In the dialog that appears, locate the Port entry and verify to which COM port your IR receiver is connected.
2) Click the **Save** button to save your changes.

### *Show New User Wizard*

This button takes you back to the first-time user screen, as shown in Figure 1 on page 7:

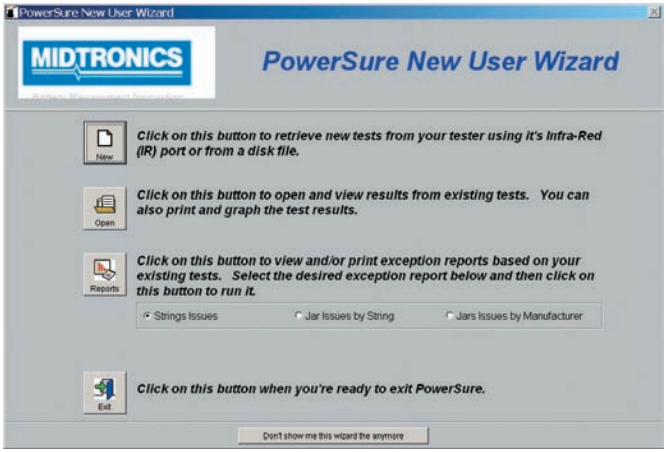


*Figure 19. New User Wizard screen*

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## RUNNING A REPORT IN POWERSURE

***PowerSure*** makes it simple to run several types of comprehensive reports, including pie charts and bar graphs that make it even easier to analyze data.

To generate a report, click the *Run Reports & Graphs* button. Slide your cursor across the various sub-menus to see the wide variety of reports from which you can choose:

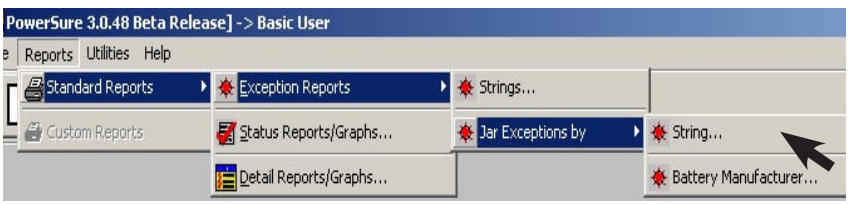
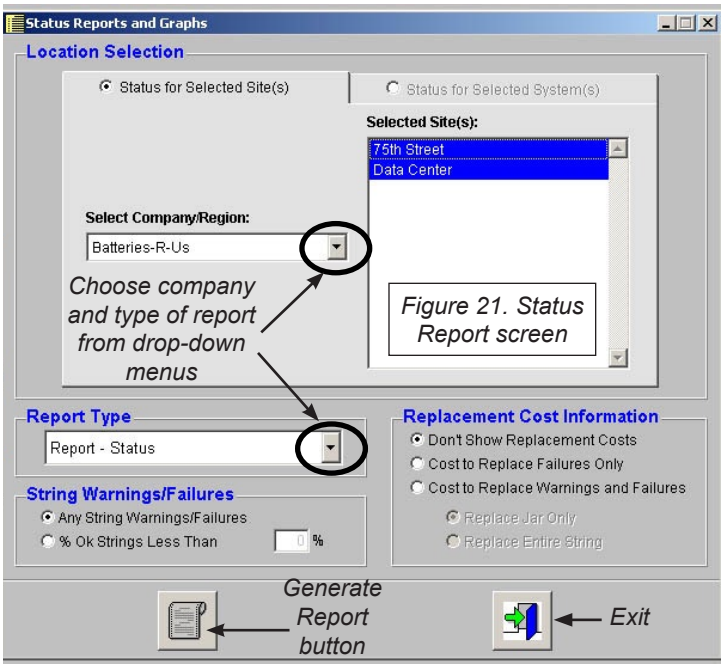



*Figure 20. Run Reports & Graphs sub-menus*

## *Generating a Status Report*

To create a basic Status Report on Batteries-R-Us, choose *Status Report* in the sub-menu. The following screen will appear:




Handy drop-down menus let you quickly choose the company and type of report. Click the ***Generate Report button***. The following *Print Destination* screen appears, from which you can send your report directly to a Printer, take a look at it first in Preview, or Export the data as a text, Excel, or DBase file:

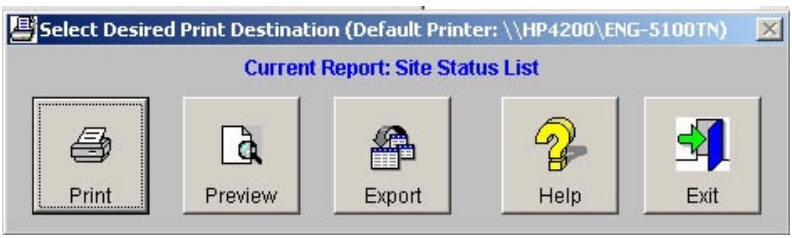
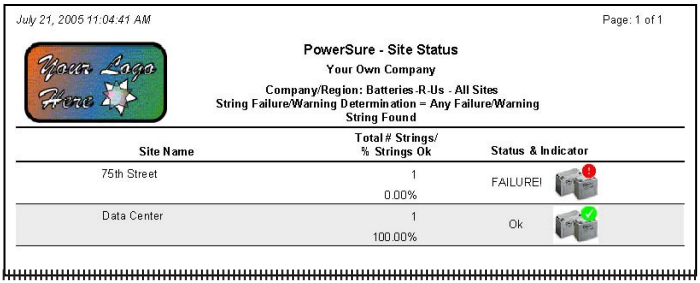



*Figure 22. Print Destination screen*

Clicking the ***Preview*** button shows you what the report will look like:


July 21, 2005 11:04:41 AM Page: 1 of 1

Your Logo Here

PowerSure - Site Status

Your Own Company

Company/Region: Batteries-R-Us - All Sites
String Failure/Warning Determination = Any Failure/Warning String Found

| Site Name | Total # Strings/ % Strings Ok | Status & Indicator |
|---|---|---|
| 75th Street | 1<br>0.00% | FAILURE! |
| Data Center | 1<br>100.00% | Ok |

*Figure 23. Preview of a Status Report*

## A NOTE ABOUT PDF'S

You can also create a PDF of a report by clicking Print and choosing a PDF writer from the Printer drop-down menu. If none appear on the list, several freeware or shareware PDF writers are available for download on the internet.

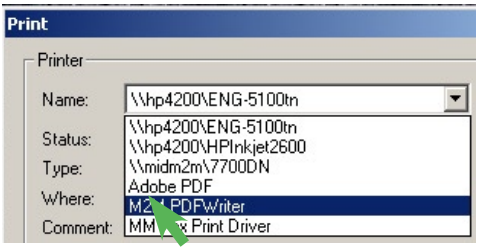



*Figure 24. Printer drop-down menu*

## *Creating a Pie Chart*

While the above Status Report shows that half of the batteries are good and half are in failure, choosing ***Pie Chart*** in the *Report Types* drop down menu produces a more visual interpretation.

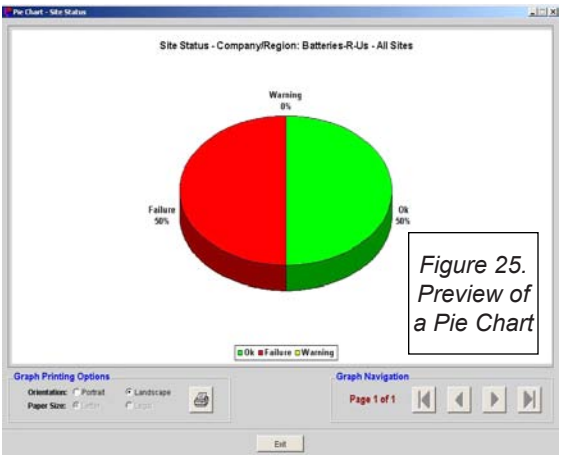
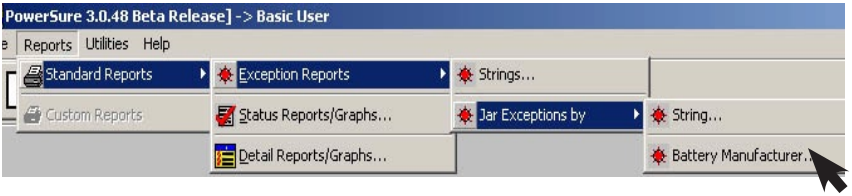



*Figure 25. Preview of a Pie Chart*

## *Creating a Jar Exceptions by Battery Manufacturer Report*

You can quickly generate the above report by following the sub-menus to the very end, as follows:




Choose from the options to include Warnings & Failings, Warnings Only, or Failures Only. Then click the ***Generate Report*** button:

*Figure 26. Sample report set-up screen*

...to create the following report:

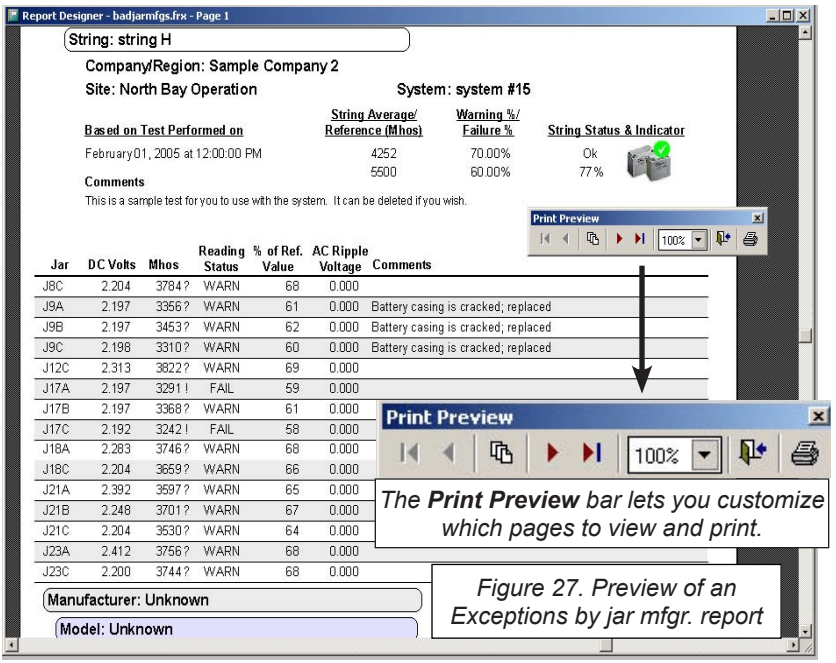



*Figure 27. Preview of an Exceptions by jar mfgr. report*

# ANALYZING DATA IN POWERSURE

***PowerSure*** lets you see the state of your or your clients' systems, sites and strings in several easy-to-interpret forms.

## *Using the Filter Feature*

The Filter buttons, located along the right edge of the battery test data record screen (see Figure 4, p. 11), allow you to choose only the records you want to see, by Company/Region, Site, System, or String.

You can also filter Test Location types by Site or System, and Test Performance results by Battery, Technician, Test Dates, String Failures or String Warnings.

After selecting your filter type, click as shown below to accept the filter, and then click to apply filter.

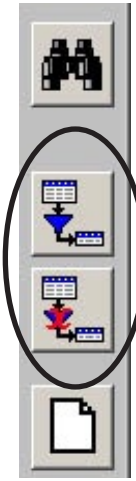


*Figure 28. The Filter & Remove Filter buttons*

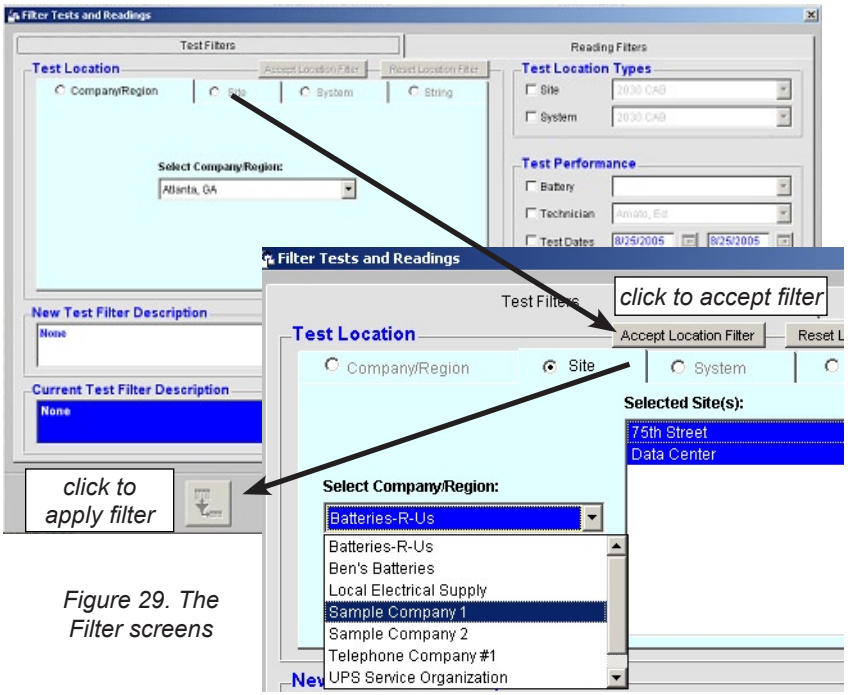



*Figure 29. The Filter screens*

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