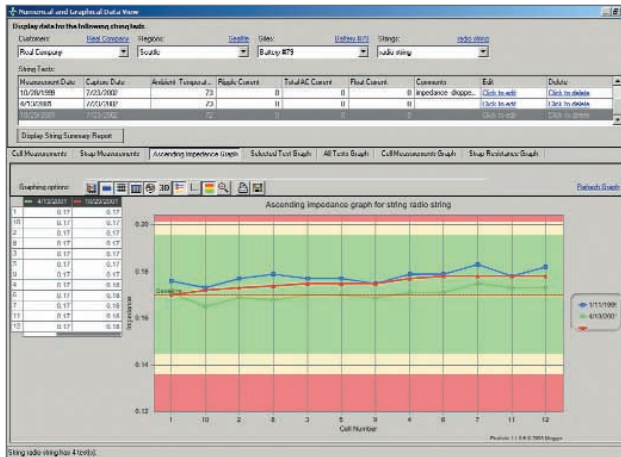# ProActiv™
Battery Database Management Software

- **Organizes and manages battery data**
- **Performs trending analysis**
- **Utilizes a standard MS Access database format**
- **Assists the user to manage multiple batteries**
- **Easy-to-use graphical navigation**
- **Uses various data import and data entry wizards**
- **Prints basic reports**

DESCRIPTION

The first of its kind, ProActiv is a new, powerful, easy to use battery database management software designed to analyze each individual battery in a battery system.

Battery testing is crucial to ensure a battery system provides standby and emergency power to operate devices such as emergency lighting, UPSs, operating controls, switchgear components, protective relays and continuous process systems. Failure of a battery system within environments such as utilities, hospitals or manufacturing plants can result in operational failure of the devices connected to it. ProActiv assists the user to avoid battery failures, budget for future battery string and cell replacements, and plan battery changeouts in an orderly manner.

ProActiv utilizes a standard MS Access database format. It allows the user to organize and manage battery data such as voltages, impedance, intercell connection resistance, ripple current, specific gravity, IR thermographs and more.

APPLICATIONS

It is known that impedance is correlated to battery capacity and there has been a long-standing question as to when a user should replace a cell. Recent studies by EPRI* and other organizations indicate that when the impedance of a sealed battery increases by 50% from its baseline value, the cell has degraded to less than about 70% capacity. ProActiv allows the user to trend data and to enter baseline values for comparison purposes and to

Stationary Battery Monitoring by Internal Ohmic Measurements
EPRI, Palo Alto, CA: 2002. 1002925

make decisions. ProActiv's graph clearly shows whether a cell is outside the normal boundaries based on user-entered allowable changes in cell impedance.
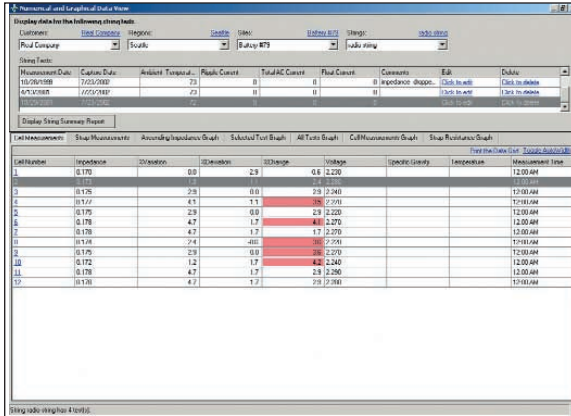
Configuring database

There are three basic steps to setting up the database:

- Configuring/establishing the database structure
- Entering data
- Performing data analysis

ProActiv is configured by entering and setting up each battery manufacturer and battery model type used in a dc network. Optionally, other information such as sales contact names, purchase order numbers or technical support contact names may be added. Extensive model information may be entered including model type, plate count, rating, charger type, baseline impedance value as well as warning and fail percentages. Limits on other parameters can also be set such as upper and lower float voltage limits and specific gravity limits.

All of the individual battery cell information can then be configured under a specific site name, string ID, battery model, installation date, and charger information. If a cell needs to be replaced, but the same model is not available, ProActiv will allow it to be replaced with another manufacturer or model. ProActiv keeps track of cell-level information and data and this is reflected when viewing information and data for that string. In instances where there is such a large installed battery base and a string is replaced, some of the better cells may be used in other strings to replace weak cells. ProActiv allows the user to keep track of these movements.

Entering data

Data entry is easy using three methods: direct import of test data from a BITE, manual entry or via browsing for a file within the PC's hard drive, floppy disk or out on the network. A simple wizard facilitates data entry.

Performing data analysis

The last step is "analyze." Using both numerical data displays and graphs, the user can see how the batteries in the dc network are performing based on the user-entered limits for each parameter. Graphs can be printed and saved as bitmaps to import into other programs for written reports.

A summary report may be printed which lists all cells' data and each cell's status.

FEATURES AND BENEFITS

- No programming skills required. ProActiv is an easy to use, fully functional battery database capable of storing as much information and data as your hard drive (or network) has memory to store.

- As with most Windows applications, there are several ways to get to a screen: by the right mouse button, the menu bar or the Quick Start Menu.

- One has the ability to import images such as IR thermographs, diagrams or photographs. This helps to document visual inspections, string configurations, installation techniques, or for any other reason for documenting aspects of battery systems. Images and data are stored together, providing convenient and easy access.

- The software accommodates multiple languages.

SYSTEM REQUIREMENTS

Processor
300 MHz Pentium II or better

Operating System
Windows 98
Windows Me
Windows NT 4.0 (SP6a required)
Windows 2000 (SP2 recommended)
Windows XP
Note: Windows 95 is not supported

Software
Microsoft® Internet Explorer 5 or later
Microsoft .Net Framework
   Will be automatically installed by ProActiv if it is not already installed on your computer. For additional information about Microsoft .Net Framework please visit: www.microsoft.com/net

Hard Drive Space
100 MB

System Memory (RAM)
64 MB (128 MB recommended)

Other Drives
CD-ROM (used only for installation)

Communications Port
COM (used only for importing data from test equipment or to download information to the BITE 3)
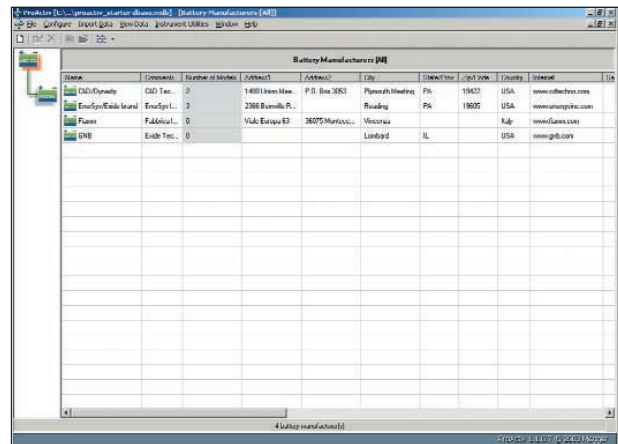
Monitor/Display
True color, 800 x 600 resolution

Additional Information
For improved usage, an internet connection will make it easy to get automatic ProActiv software updates.
The user should have Microsoft Excel 9.0, or later, to import AVOLink or COMLink files into ProActiv.

ORDERING INFORMATION

Item (Qty)	Cat. No.
ProActiv Battery Database Management Software	BI-90001