PowerDB™

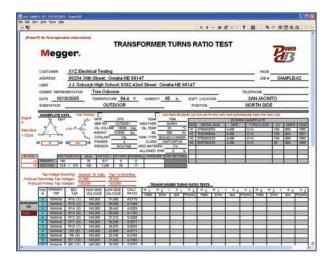## Acceptance & Maintenance Test Data Management Software

- **200+ industry standard test forms are provided**
- **Data trending for predictive failure analysis**
- **Built-in information processing: equation calculations, temperature correction factors and charting**
- **Create new forms or customize our forms**
- **One-step generation of test documentation package**
- **Import data from other sources**
- **Test instrument control and data acquisition**

DESCRIPTION

PowerDB is a powerful software package providing data management for each of your acceptance and maintenance testing jobs. Customer and contract information is quickly sorted and searched. Opening a specific record shows detailed information about the job, such as type of service, order date, sales contact, and invoice information. Job information and related test results can be transferred between field-use databases and a master database. Job and Device Productivity Reports track the time spent testing, which aids in bidding future jobs as well as personnel evaluation.

Test Forms

Designed from a ground up approach, PowerDB utilizes over 200 industry standard test forms that have been developed and used over 20 years by industry specialists. Test data entry screens and printed forms are identical allowing intuitive operation. What you see on the screen is what is printed in the reports. Entire test documentation packages consisting of test reports, comment & deficiency summaries, table of contents and field service reports are created with a single step. Once created, reports can be delivered electronically via email, CD-ROM, web server or Adobe® Acrobat®.

Test forms are designed for the majority of the electrical apparatus on the market today. PowerDB currently supports the following devices:

- Batteries
- Cables
- Circuit Breakers
- Coordination Data
- Disconnects
- Generators
- Ground Fault Tests
- Ground Mat/Grid Tests
- Instrument Transformers
- Power Transformers

- Insulation Fluids
- Loadbreak Switches
- Motor Control Centers
- Power Factor Tests
- Relays
- Switchboards
- Transfer Switches
- Watthour Meters
- Transducers

The software will perform extensive information processing including equation calculations, temperature correction factors and charting. Data trending for predictive failure analysis is accomplished by charting historical results, stored in PowerDB or imported from other party's proprietary database software, for any piece of equipment.

PowerDB provides a powerful editor to create or customize forms. No database knowledge is required. Simply drag-and-drop tables, text boxes, images, charts, and more into a form. VBScript® can be used to define calculations, use lookup tables, and even interface with other applications. Sections common to multiple forms, such as logos, headers and footers, can be defined once
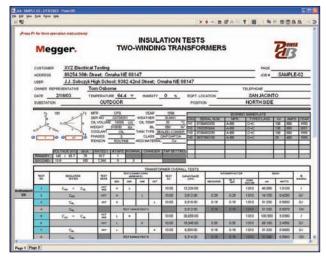

Figure 2: Trending (On-the-fly)

Figure 1: Data Entry & Automated Control of Megger DELTA-2000

and included in many forms. Also, one change updates all forms where it is used.

PowerDB further provides test instrument control as well as data acquisition and supports many popular Megger products including:

- DELTA 2000, Power Factor Test Set
- TTR, Transformer Turns Ratio Test Set
- DLRO-200, Low Resistance Ohmmeter
- PULSAR and MPRT, Protective Relay Test Sets
- S1-5005, S1-5010, 5 kV Insulation Resistance Test Sets
- MEG10, 10 kV Insulation Resistance Test Set

Test Documentation

Test documentation in PowerDB is accomplished in three ways:

- Manual data entry
- Importing data from other sources
- Data acquisition from test instruments

Manual data entry is done on screens identical in layout to the printed test forms. Importing data can be done from files designed for PowerDB by an equipment manufacturer or analysis laboratory. PowerDB test forms can also be designed to interact with other testing applications, such as Megger's Advanced Visual Test Software, AVTS. This interaction allows the population of test forms in PowerDB as tests are performed by the other application. Finally, data fields can also be populated by direct communication with popular Megger instruments as well as other brands of test equipment.
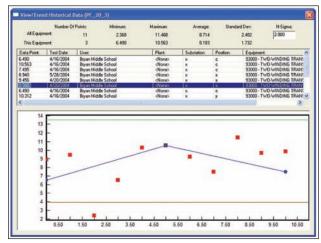
Trending

PowerDB allows on-the-fly trending of any test point. See Figure 2. Historical values for the particular equipment are shown in blue with connecting lines. All values for similar equipment are shown in red. A 2-sigma band is shown in green. A table above the trend chart lists all of the data values, as well as the test date and equipment location. Any record in this list may be selected to open the associated form with the detailed test results. This can be used to identify stray test values and review the test form to see what corrective actions were taken.

PowerDB can also import historical values for a piece of equipment from other third party proprietary database software allowing a seamless transition across software packages and/or test and measurement equipment.
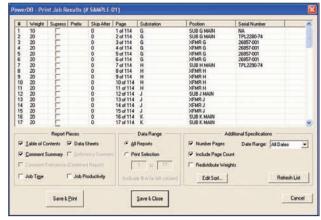

Figure 3: Results Ordering and Printing

Report Generation

Report generation in PowerDB for a group of tested equipment is done in one simple step. Customizable sorting allows adjustment of the test form order. Forms can be suppressed and page numbering adjusted. Supporting reports, such as the comment and deficiency summaries, can also be selected for printing at the same time. All test forms and supporting reports are sent to the printer in a single print job. Figure 3 shows the results ordering and print dialog.
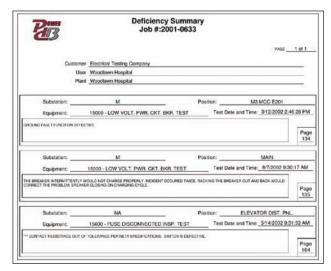
Figure 4: Deficiency Summary Report

Comment and deficiency summary reports provide quick access to information collected across all equipment tested on a job. It also allows managers to review work without looking at hundreds of pages of test sheets. An example of a deficiency summary is shown in Figure 4.

In addition to generating reports directly through PowerDB, a web server is available which allows users to view reports on demand from anywhere. Only information pertinent to the particular web-access user is presented online.

COMPUTERIZED MAINTENANCE MANAGEMENT SYSTEM SUPPORT

Many electrical utilities and other company operations have invested in sophisticated CMMS systems, such as Digital Inspection's Cascade and MRO Software's MAXIMO. However, due to test instrument specific software packages and hand-written test results, these firms often struggle to get test data into their systems. One electric utility even referred to getting data into the CMMS as 'feeding the monster'. PowerDB's specialty IS 'feeding the monster'.

PowerDB allows you to link easily with the CMMS system so that the system can pre-populate the PowerDB equipment database, send PowerDB all work orders, add forms based on the job plans, and even return the measurement points, obtained from a multitude of test sets, back to the CMMS system.

Furthermore, Megger will work directly with your CMMS personnel to integrate your data into your internal CMMS system.

FEATURES AND BENEFITS

- **200+ Industry Standard Test Forms Are Provided:** developed and used over 20 years by industry specialists

- **Data Trending for Predictive Failure Analysis:** chart historical results for any piece of equipment

- **Built-in Information Processing:** equation calculations, temperature correction factors, charting

- **Create New Forms or Customize Our Forms:** powerful forms editor is integrated, no database knowledge needed

- **One-Step Generation of Entire Client Documentation Package:** test forms, comment & deficiency summaries, table of contents, field service reports

- **Deliver Reports Electronically:** via email, via cd, via web server, via Adobe® Acrobat®

- **Test Data Entry Screens and Printed Forms Are Identical:** what you see on the screen is what is printed in the reports, streamlines data entry

- **Job Tracking to Organize Contract Information:** job test data, reports, quickly search and sort historical data

- **Distributed Data Management:** create subsets of data for field testing, merge results with another database

- **Powerful Results Report Ordering:** sort by standard fields, sort by any fields you define, easy manual page ordering

- **Work Order Generation:** trigger work orders through test schedule reports

- **Import Data From Other Sources:** Weidmann-ACTI, Doble, Oncor, TJH2b, Megger AVTS, Enoserv RTS, and more

- **Test Instrument Control and Data Acquisition:** Megger PULSAR, MPRT, DLRO 200, DELTA 2000, 3 Phase TTR, 5 and 10kV Megger Insulation Test Sets, Doble F2000, SMC Relay Test Set, Phenix, ETI-20, Fluke ScopeMeter, and more.

Optional Add-ons

PowerDB Web Server

The PowerDB Web Server allows you to deliver job documentation to your clients via your Microsoft Web Server. The entry screen for the PowerDB Web Server may also be used to deliver information promoting your company's services. The web server can also pass the web link to the actual test form to a CMMS system. This allows anyone viewing the work order in the CMMS system to click on the link and to transparently view their actual data sheet.

Any user can log into the PowerDB Web Server by providing a user name and password. They are then able to view each of their jobs, while other jobs are hidden from view. Job equipment information is presented in a tree hierarchy similar to how it is presented in PowerDB. Test reports of recent or historical data for any piece of equipment can be viewed individually. The PowerDB Web Server also allows you to deliver any other electronic documents that you submit for a job, such as a job-documentation package.

Microsoft SQL Server Upgrade

The SQL Server upgrade option functions identically to the Access version but supports larger databases and provides a substantial performance increase. PowerDB can seamlessly interact with Access field databases and SQL master databases.

On Site Training

A two day training course can be provided at your facility. Training includes data entry, trending, report generation, data synchronization and forms design.

CMMS Integration

For a flat fee, a PowerDB programmer will aid you in integrating a data exchange service between PowerDB and your CMMS system (or any other system). This service includes up to one week of on-site integration.

MINIMUM PC SYSTEM REQUIREMENTS

Processor
300 MHz Pentium Class processor minimum, 1 GHz or better recommended

Operating Systems Supported
Windows® Vista, 2000 and XP

System Memory (RAM)
64 MB RAM minimum, 512+ MB RAM recommended

Other Drives
CD ROM Drive

Monitor/Display
800 x 600 resolution color monitor

Languages
English

PowerDB is a trademark of PowerDB, Inc., a subsidiary of Megger

ORDERING INFORMATION	
Item (Qty)	**Cat. No.**
PowerDB Software – 1st copy	DB1001
PowerDB Software – 1st copy w/usb	DB1001S
PowerDB Software – 2-5 ea copy	DB1002
PowerDB Software – 2-5 ea copy w/usb	DB1002S
PowerDB Software – 6+ ea copy	DB1003
PowerDB Software – 6+ ea copy w/usb	DB1003S
PowerDB Web Server Version	DB1004
PowerDB SQL Server Version	DB1005
PowerDB Software Support	DB2000
PowerDB Custom Forms – per page	DB2001
PowerDB CMMS Integration	DB2002
PowerDB Software Training	DB3000