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Automates, Integrates

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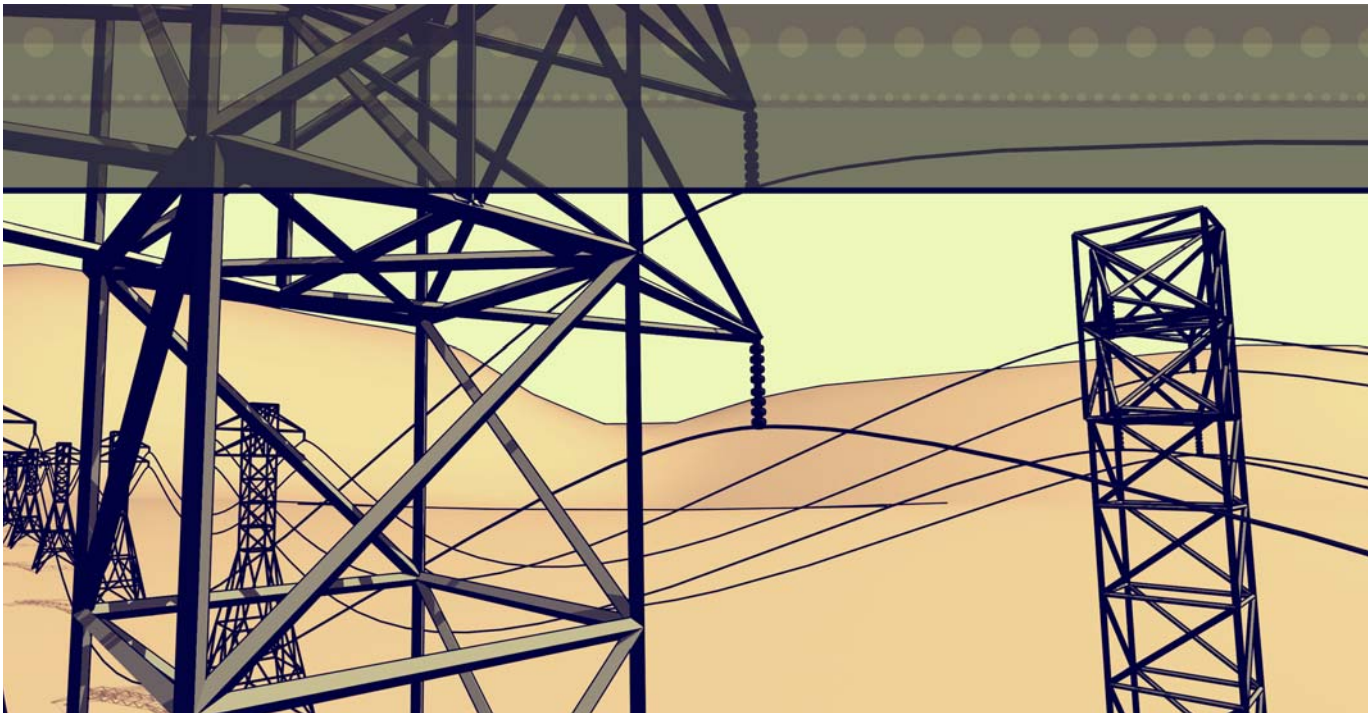
BY JOE STEVENSON



Power engineers and field technicians that happen to know how to program code lead ENOSERV. This point alone distinguishes ENOSERV from other software companies as the leader in the electric power industry when it comes to developing technology that integrates and automates protective relay testing. What began over 13 years ago as a concept to control 2 different test sets with the same software has turned into a flourishing independent business that supports clients all over the world today.

ENOSERV produces software tools specifically for O&M relay engineering and field testing groups. The product line includes RTS-FasTest™ for automated relay testing, PowerBase™ a relay settings management application, and Vector™ (pending release) for multi-state, dynamic and end-to-end testing. The software also includes PowerBridge™, a bridge utility for automating communication between PowerBase and RTS and other applications like ProTest (Doble Engineering), CAPE (Electrocon) and SEL 5010 (Schweitzer Engineering Laboratories).

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THE AUTHOR

Joe Stevenson has been with ENOSERV since January, 2003. Today, he is the Director of Sales and Marketing. His administrative duties include overseeing accounts management and collaborating with applications personnel to assist both prospective and current clients. He promotes ENOSERV while attending industry conferences and exhibiting at trade shows. Within this scope, he develops strategies that strengthen and communicate the position of ENOSERV as a technological leader in the area of protective relay testing and maintenance. He earned his Bachelor of Arts in English from Central Methodist College with a minor in Business Administration.

ENOSERV PowerBase (ENOSERV) The PowerBase substation settings management system is designed to help power companies aggregate, customize and securely store & deliver critical engineering data & field service records. Access to data via an identity-enabled portal can facilitate User management. Organize & track all substation asset data including relay settings while automating with other programs like Aspen 1-Liner, CAPE, Cascade, SEL and RTS. *www.enoserv.com*

ENOSERV RTS (ENOSERV) This software gives reliablility and maintenance professionals tools to accurately monitor and access equipment performance and lifescycle. *www.digitalinspections.com*

Maximo ITSM (MRO Software) With five key management systems — asset management, service management, work, contract and procurement management - Maximo ITSM efficiently captures and reconciles asset, configuration, contract, financial, resource and service data. *www.mro.com*

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PowerBase also has a module for bi-directional communication with Cascade (Digital Inspections). ENOSERV has also recently developed a link between PowerBase and Maximo (MRO) and is planning integration with SAP. PowerBase will operate on both Oracle and Sybase and is even web enabled.

ENOSERV's RTS-FasTest is software that actually controls test sets from AVO (Epoch & Pulsar), Doble (F2000 & F6000 series) Manta, Megger (MPRT), Omicron and SMC. RTS-FasTest includes a library of test routines for over 400 relays and has a method of standardizing new test creation with a module that requires no programming code from the end User. There is also a feature of automated bi-directional communication with Schweitzer relays that instantly populates the system with an SEL's settings.

These features combined create tremendous timesavings, but the software has even more power when it comes to testing a relay. Since choosing a relay from the library of pre-built test routines actually replaces most of the preparation work a technician has had to do with other systems, the rest is simply a matter of inputting the relay's settings and choosing the appropriate test parameters of the tests that need to be run. Each step along the way is automated in the sense that the software understands the relay that's being tested because it is programmed based on the particular manufacturer's standards and the system will only allow logical choices and parameters applicable to that particular relay with the test set that's in use. All the technician sees is a straightforward, Windows-based graphical interface but behind the scenes, the software is communicating with the test set and performing a powerful, fast, and accurate test.

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Once the test is run, the software generates a report that can be saved, printed, or e-mailed. The overall benefits of reports in an electronic format are not only the elimination of the paper handling between both the field and the office, but also the promotion of a much easier way to review tests and relay settings and keep an accurate and up-to-date database.

With RTS-FasTest, ENOSERV has developed a technology that has given power companies the advantage of standardizing on software, not test sets. This solution of standardizing relay testing addresses many of the problems the industry has faced while it has moved forward with technology. Not only do companies with test sets from different manufacturers have two or more different sets of testing devices, they also have two or more different databases, testing methodologies, and groups of field technicians schooled differently on how to test relays.

This scenario is very common and usually forces companies into ultimatums of choosing one device over another for the benefit of having standardized procedures, test plans, and associated results. The good news with ENOSERV is that with RTS-FasTest, it doesn't matter what test sets a company has, it can standardize with this software and save itself additional equipment expenditures and eliminate its dependence on disparate software systems. Standardizing on RTS-FasTest saves thousands over standardizing on test sets. Beyond that, ENOSERV's level of understanding of the test sets RTS-FasTest supports is to the extent that it has positioned itself as a central player in providing high-level customer service. Standardizing on RTS-FasTest therefore includes the loaded benefit of having a knowledgeable staff available whenever its customers need support.

ENOSERV has developed solutions for automated relay testing but also has tools in place for other aspects of the whole process of system reliability. One critical gap that existed between engineering and the field had to do with the information exchange regarding relays, particularly with relay settings.

ENOSERV developed PowerBase to be a complete relay settings lifecycle management system to address the needs of engineers who deal with data that exists in several different locations because of outdated paper filing systems or disparate test set software systems.

PowerBase is essentially a database that holds, tracks and manages all critical relay information. Other products on the market exist that will house physical relay information such as nameplate, location, and settings, but the difference with PowerBase is that with this application, the data isn't static: it's dynamic in the sense that all relay information can be moved in and out to other asset management systems and can even populate relay testing systems like RTS and ProTest.

The strength of PowerBase is in its ability to manage and maintain relay settings. Whether with electromechanical relays that have around 5 settings each or with microprocessor relays that typically have more than 300 settings, PowerBase can handle not only the volume of fields required, but it also has the programmed intelligence to help an engineer make sense of the nomenclature associated with settings of relays from different manufacturers. Once again, the solution is to integrate all the devices a company has into one system for the benefit of making the whole process manageable. PowerBase has extensive features that allow Users to determine how they would like to use the system—not the other way around.

With PowerBase, the industry has an "off-the-shelf" application that will manage relays and relay settings plus share that information with other applications like Cascade and Maximo for total system-wide asset management. Today, companies are looking for ways of integrating and ENOSERV has the solutions when it comes to tying together relays with overall asset management.

ENOSERV continues to develop new products for the market while it enhances and updates the software it currently supports. With RTS-Vector (to be released Fall, 2004), technicians will have the ability to perform dynamic tests, multi-state fault tests, and satellite-synchronized end-to-end tests. The software will even feature a manual interface for some of the newer test sets RTS supports. Development is slated for RTS-FasTest to include 3 more microprocessor-based relays later this Fall and PowerBase to include automated update features.