

GROUP, INC. | Employee Owned

Power Systems: Field Controls Upgrade Process



DVL Group

DVL Group, Inc. has decades of knowledge in designing and supplying innovative, highly reliable, electrical control systems for switchgear, generator systems, UPS systems and wherever maximum reliability is required. This starts at the programmable logic controller (PLC), but equally includes generator controllers and synchronizers, protective relays, power quality devices, and every other item and detail that makes up a "rock solid" electrical control.

A substantial amount of the basic "building blocks" of electrical control systems are now becoming "mature" and are not supported, or have become obsolete. GE has obsoleted most of its popular 9030 line of PLCs, Woodward has done the same with its DSLCs and MSLCs, and there is an extensive obsolescence list.

DVL Group has been offering total control systems upgrades (hardware, software, and HMI graphics), not only on DVL supplied switchgear, but on all other manufacturers' equipment as well. We have performed these services on all four of the major switchgear OEMs as well as all of the leading Generator switchgear control OEMS. Our control experience includes GE, Allen Bradley, Woodward, Basler, Siemens, Modicon, Caterpillar, Onan, Generac, and many other leading manufacturers.

What Our Controls Partners Say About Us

DVL Group is a Solution Provider of GE Intelligent Platforms, and in a recently published case study, GE looked at how DVL improves efficiency & reliability through smart infrastructure, labeling DVL as "an innovative leader in applying redundant PLC systems to the most demanding critical and reliable power applications for more than two decades." **To read the study in full, please visit:** *www.geautomation.com/download/dvl-group*



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DVL makes use of very intuitive and user-friendly HMI screens to allow for confident local manual operation or control as well as for aided phone support for troubleshooting in the rare circumstances that it might be required. To accomplish this, DVL's highly trained and experienced power systems engineers fully wrap themselves around each and every job, including initial design objectives, all the way through final commissioning, owner training and ongoing preventative maintenance & testing activities.

-General Electric

Typical DVL intelligent switchgear installation

Considerations for a Controls Upgrade

The Controls upgrade is so much more than "just replacing components." These are the "DVL Baker's Dozen" extra considerations to account for:

- 1. Are all the control components looked at for obsolescence or performance reasons?
- 2. Does the system have a Human Machine Interface (HMI), does it need upgrading, enhancements, can it be more informative, helpful, or intuitive?
- 3. Will the new components fit in the old spaces, and how can we minimize control wiring disruption?
- 4. Can we perform this upgrade while keeping a "minimum number" of generators ready for service? What are the "creative" options here?
- 5. Do we have a simplex PLC system and does it make sense to upgrade to redundant systems?
- 6. Are there "as builts" of the existing system? If so, are they accurate? Does the existing documentation need to be updated or does a new set need to be generated from scratch?
- 7. Is the system sequence of operational fully documented and understood? Is it optimized, and can we improve it?
- 8. Will your service provider provide significantly detailed Methods of Procedures (MOPs)? What about the testing and commissioning script ahead of time for the team to review?



Typical obsolete PLC control system requiring an upgrade

9. Are there interfaces to the building BMS, SCADA, and EPMS systems? Will they still work as before, or do they need to be optimized?



Highly Integrated DVL Power Systems control application

- 10. Is an experienced and knowledgeable Project Manager required, in addition to the Engineers performing the upgrades, to ensure a smooth and timely project completion?
- 11. Should other upgrades also be considered such as hardening the controls critical power transfer scheme (86 scheme), replacing older analog protective relays, generator synchronizers and control devices, etc.?
- 12. Are the power meters now obsolete? Do you want to upgrade them to "transient capture" meters for enhanced PQ analysis?
- 13. Are the circuit breakers obsolete? DVL can supply full assembler that is simply built into the existing cells for all major breaker manufacturers.

Call DVL for a FREE comprehensive evaluation of your Power Controls System

Can you afford to find out when a component fails, that it is obsolete or unrepairable?

A substantial amount of the basic "building blocks" within your electrical control systems are now becoming "mature, not supported or obsolete. GE has obsoleted most of its popular 9030 and 9070 lines of PLCs, Woodward has done the same with its DSLCs and MSLCs, and there is an extensive obsolescence list from all manufacturers.

Call DVL Group for a free consultation on your Electrical Control System today.

Bob Gusciora President, Strategic Accounts Services 215.785.5950

What Top Clients Are Saying About Us

Personally and professionally I wanted to thank DVL and the team for their outstanding effort for the Generator PLC migration at [our facility] this past week. There was an incredible amount of work done in a very short amount of time. Most persons will never understand what it took to accomplish what was done. The complexity and sheer number of connections was staggering. So many elements of leadership, commitment, teamwork, persistence, and determination were shown throughout the entire process. My words simply don't reflect my heartfelt thank you for a job done extremely well.

-From a Senior Facilities Specialist at an International Fortune 100 Client

DVL Group is proud to be partnered, approved, certified and proficient with the following control systems by General Electric, Honeywell, Schneider Electric, and more.



Honeywell Building Control Specialist



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