Modern industrial process and manufacturing facilities are heavily dependent on electrical distribution networks to respond to increasing demands for production efficiency and reliability. The majority of these distribution networks have grown without the benefit of ever having a complete design review and are routinely comprised of both modern and legacy component equipped segments. Today the complexity of these distribution networks necessitates the use of advanced analytical tools to identify problem areas before they become disruptive events affecting continuous operations.

Some larger industries have invested extensively in the purchase of electrical engineering software and training of technical resources to enable in-house analysis on an on-going basis. For smaller operations and engineering firms it is difficult to commit to these levels of expense. Furthermore, these software systems can be very complex to configure when faced with a variety of bus design structures and protective device configurations in a facility so extensive experience in working with these systems is required to assure consistent and confident results.

ADM uses ETAP® software’s set of core tools, embedded analysis modules, and engineering libraries to allow us to create, configure, customize, and manage system models. These core tools enable ADM to quickly and easily build 3-phase and 1-phase AC and DC network one-line diagrams with unlimited buses and elements including detailed instrumentation and grounding components.

In addition to the core tools provided by the Base Package of ETAP® software, ADM has the following modules available:

1. Load Flow
2. Short Circuit
3. Device Coordination
4. Arc Flash
5. Harmonic Analysis
6. Ground Grid Design
7. Transformer Sizing
8. DC Load Flow
9. DC Short Circuit

Although ADM is not limited to the above, these modules provide a powerful set of analytical tools that allow simulation, prediction, design and planning of system behavior utilizing an intelligent one-line diagram and the flexibility of a multi-dimensional database for nearly any network configuration or industry sector.
ADM confirms its commitment to obtaining maximum benefit on the investment in ETAP® software by maintaining the User Support & Upgrades subscription annually. This means that we are continuously up to date with new releases of library and module databases as well as unlimited access to technical support resources provided by ETAP®.

Knowledge Base

ADM engineers work daily with ETAP® software to deliver designs and solutions which help our clients to operate more efficiently and safely. ADM has developed expertise and provided distribution system analysis to a variety of industrial sectors including:

1. Pulp & Paper
2. Marine
3. Food & Beverage

If you have purchased an electrical engineering software system like ETAP® and would like to get accurate results more quickly, then ADM can help you. Using ADM's experience to configure and analyze your electrical distribution networks can significantly lower your software learning curve time and maximize the return on your asset investment.

Conclusions

Power systems are never stagnant; they evolve with time, change in their nature, extend processes, become modified, and impose new and different constraints on the components and system make-up. Computer modelling by ADM using electrical engineering software combined with live field measurements and detailed data logging should be a regular part of your operational effectiveness planning each year. Whether you currently have your own electrical engineering software and would like to take advantage of ADM's experience or you require a complete analysis using our ETAP® software system, we can help. Please visit our website at www.admse.com to contact one of our representatives so that we can help you determine which option to complete your needs.