POWER ENGINEERING SOFTWARE SOLUTIONS

CYME INTERNATIONAL T&D

TRANSMISSION & INDUSTRIAL SYSTEM ANALYSIS

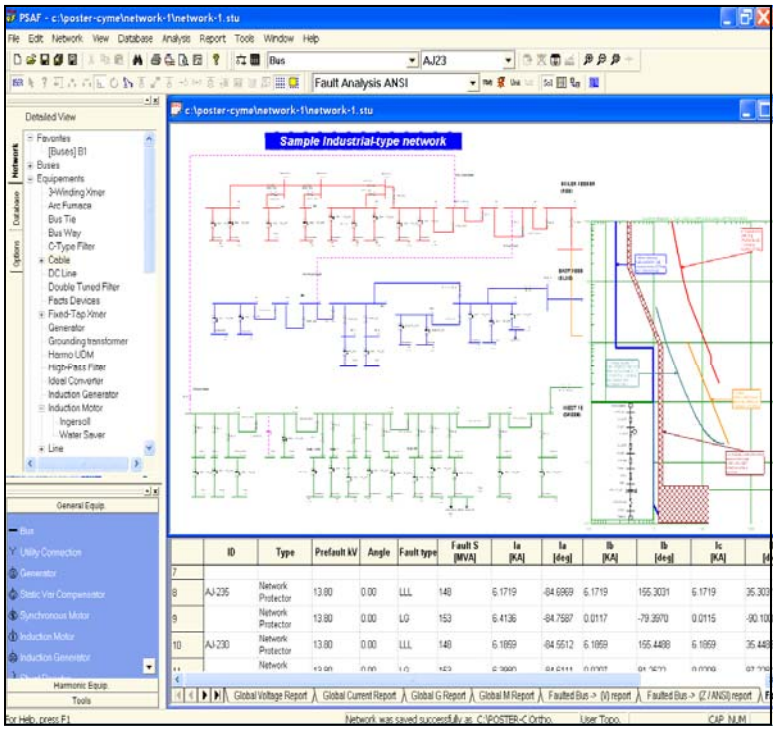
Short-Circuit | Power Flow | Harmonic Analysis | Transient Stability | Motor Starting | And more...

CYMFAULT, Short-Circuit Analysis

CYMFAULT is the PSAF analysis module dedicated to simulating fault conditions in three-phase electric power systems. User friendly data entry, a multitude of reports and flexibility in applying all industry-accepted standards are features that make CYMFAULT an Indispensable tool for these very common and important system studies.

Program Features

CYMFAULT adheres to North American ANSI C37.5, ANSI C37.010, ANSI C37.13 and International IEC-60909 guidelines. It also supports conventional short-circuit studies without reference to any particular standards .



The program interfaces with:

- CYMFLOW, for fault studies taking into account pre-fault system loading.
- CYMSTAB to communicate the necessary data for single pole switching simulations.
- CYMTCC for protective device coordination settings.
- ARC Flash Hazard for Electrical Safety Criteria.

Analytical Capabilities

- Three-phase Line to Ground, Line to Line and Double Line to ground shunt faults.
- Series faults (one-phase open, two-phase open and three-phase series unbalance).
- Separate network reduction for ANSI X/R ratios.
- Arcing Faults through user-defined fault impedance.
- Mutual Coupling in Zero Sequence.
- Three-winding transformers modeling in positive and zero sequence.
- Phase shifts in Δ-Y transformer banks.
- Close In and Line-End fault conditions.
- Interrupting Device adequacy evaluation.
- Automated Sliding Fault option on a transmission line and/or cable.
- System wide voltage, current and machine contribution reports. (Phase and Sequence Values).

ANSI Short-Circuit Studies

CYMFAULT adheres to North American ANSI C37.5, ANSI C37.010, ANSI C37.13 for all duty types that are of interest to industrial fault studies:

- Time Delayed.
- Contact Parting.
- Closing / Latching.
- Low Voltage Circuit Breaker.

IEC Short-Circuit Studies

CYMFAULT adheres to the international IEC-60909 guidelines and supports all four types of fault currents that are of interest to industrial fault studies.

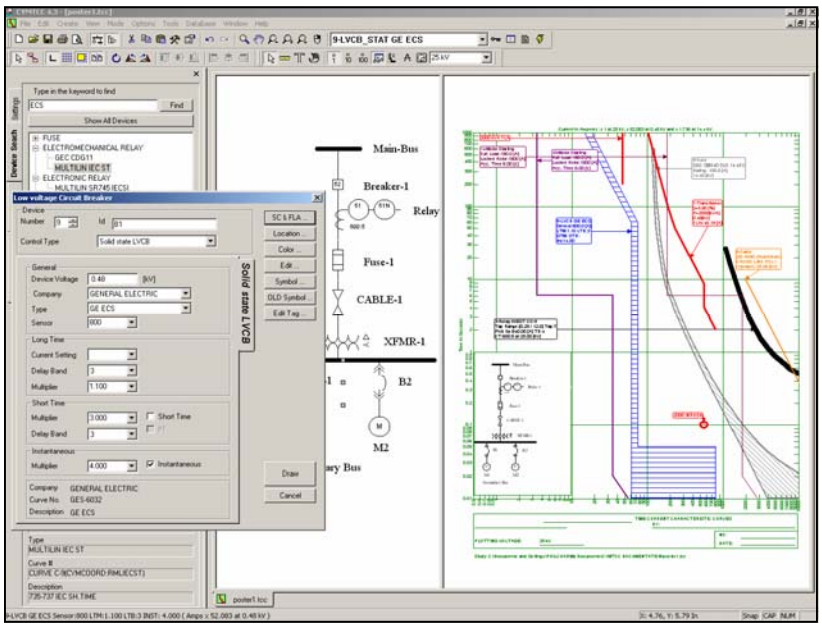
- Initial Short-Circuit Current **(*I"k*)**.
- Maximum Asymmetrical Fault or Peak Current **(*Ip*)**.
- Breaking Fault Current **(*Ib*)**.
- Steady State Fault Current **(Ik)**.

CYMFAULT / CYMTCC Interface

CYMFAULT includes an interface module to our Protective Device Coordination Program CYMTCC.

This interface provides CYMFAULT user's with full access to the complete library of over 5000 protective devices available in the CYMTCC program. The user simply has to define the coordination path of the feeder on the one-line diagram of PSAF and export to CYMTCC.

CYMTCC will automatically generate the Device Time / Current curves for any devices setting adjustments along with the selected feeder one-line diagram.



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