CYME xpress

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Special Points of Interest:

- CYMCAP Version 5.0 with the new cable parameters and cables in troughs modules is released this month.
- Soon to be released, version 4,8 of CYMDIST featuring the Network Forecaster and the Load Profiles modules.
- The next CYMDIST-CYMTCC training is scheduled to take place in October in Montreal, Canada.
- Don't miss our 2-day CYMCAP training in Arizona, USA, next November 8 and 9; right after the PES-Insulated Conductors Committee Meeting. Register on our web site.
- Visit us at:
  - EDIST, January 18 to 20, 2008, in Markham, Ontario, Canada.
  - DISTRIBUTECH, January 22 to 24, 2008, in Tampa, Florida, USA.

CYME Users Group 2007 : Another Great Conference

Last June, CYME hosted its yearly Users Group conference that gathered over one hundred customers. During this five-day program, the attendees gained new insight into the advanced functions of the CYME software and its flexibility to apply to specific (and evolving) power engineering needs.

The week started with the CYMCAP Users Group that was the largest so far with two days of presentations and workshops. Attendees were pleased to see that the features that are important to them get implemented as best as can possibly be done. CYME demonstrated the new cable parameters and cables in troughs add-ons included in the Version 5.0 of CYMCAP to be released this September. The cables in casing feature, to be included later this year was also presented.

Three days of the conference were dedicated to the demonstration and dialogue on the enhancements recently introduced in CYMDIST and CYMTCC; the most important additions being load profiles, network forecaster and arc flash analysis. The stability module, to be released at a later date, was also presented and discussed. And as always, an open forum was on the agenda to discuss current issues and ways of further enhancing the CYME solutions. John Bowen of Southern Company (USA): "They listen to their clients to produce applications that will bring both improved software and provide necessary engineering tools for today's complex distribution system issues."

The special presentations and case studies programmed for the CYMDIST-CYMTCC Users Group addressed the implementation of the CYMDIST Gateway and its potential to leverage distribution network model data, the analysis of secondary networks, and an overview of a recent study for Natural Resources Canada on the dynamic behavior of distribution systems with distributed generation.

The very popular CYMDIST-CYMTCC training sessions on the last day of the conference focused on the features of the CYME software with knowledge directly applicable to the power engineering daily work and plans; and included sessions on the newest features and capabilities of the software. David Dewulf of Hydro One (Canada) comments: "I also look forward to obtaining the newest release of CYMDIST specifically for the network forecasting module, which seems like it will provide us with an organized structure for our recommended projects, load transfers and planned studies."

A one-day seminar on Power Quality and Systems Harmonics was also offered during the week. More than basic, this course by Eng. Roger Bergeron, a renowned expert in power quality (PQ), power system design, and workers safety, covered the major aspects of PQ issues for power transmission and distribution sectors, including mitigation strategies. Using case studies of actual PQ problems, methods of modeling and simulation of power systems for power quality studies were also presented.

CYME thanks each of the attendees and the speakers involved in the various activities and presentations of the CYMDIST-CYMTCC Users Group, the CYMCAP Users Group and the Power Quality and Systems Harmonics seminar.

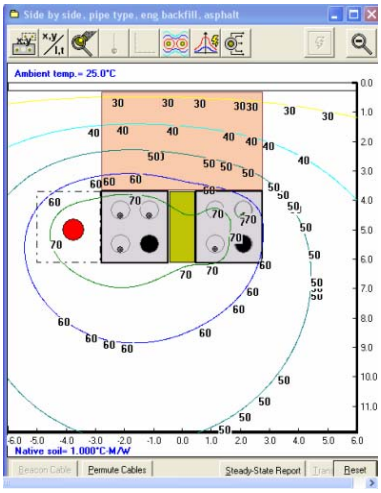
CYME INTERNATIONAL T&D

Essential Analytical Tools—Temperature and Magnetic Fields

Earlier this year we have released the newest version of CYMCAP that has many new facilities. Among these, one of them focuses on the estimation of temperature and another one on the estimation of magnetic fields for underground cable installations to further assist engineers and operators in optimizing designs.

- Function to graphically display the isotherms of any underground cable installation.
- Magnetic Fields Calculation add-on module to compute the magnetic flux density at any point on or above the surface of an underground cable installation.

Both facilities rely on the infinite-length thin-wire two-dimensional approach. For the temperature field we use the Kennely hypothesis. Each cable is replaced by two filaments, one representing the actual heat source and another its image. The method implemented for the calculation of the magnetic fields is as presented in 1988 by the Magnetic Fields Task Force of the AC Working Group on the Corona and Field Effects Subcommittee of the Transmission and Distribution Committee of the IEEE.



Real-Time Thermal Rating (RTTR)

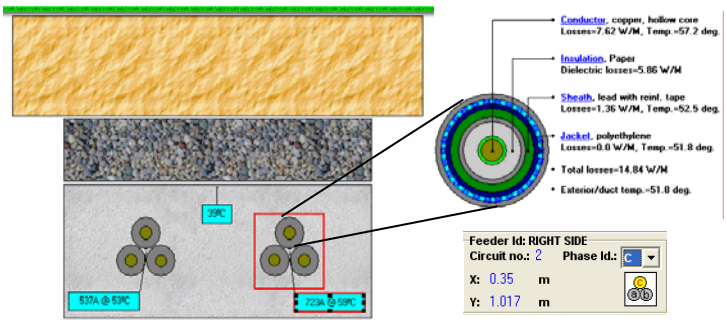
Another calculation facility completes the newest developments to cable ampacity calculation with CYMCAP that is used in conjunction with temperature sensing systems. The Real-time Temperature Rating computes future cable ampacity and has two modes of operation:

- Estimating the conductor temperature from the fiber measured temperature.
- Performing emergency ratings with the transient engine provides the following information:
  - Given the operating temperature and the applied (over) load, the RTTR software predicts the temperature of the cable in the future.
  - Given the operating temperature and the applied (over) load, the RTTR gives the time that it will take to the cable to reach a specified emergency temperature.
  - Given the operating temperature and a time frame for an over load, the RTTR computes the maximum current that the circuit can carry to reach certain emergency temperature.

RTTR can be used in the course of normal operations and for emergency ratings from 10 minutes to 2000 hours.

More information on:

www.cyme.com/software/cymcap/



CYMCAP model and results for a multi-layer installation

CYME International T&D is a world-class Power Engineering Solutions provider with an established reputation for customer responsiveness and technical expertise. Our solutions stand behind thousands of T&D projects in over 100 countries around the world.

CYME offers an extensive line of Power Engineering Software that feature some of the most advanced analysis tools for transmission, distribution and industrial power systems. We offer comprehensive services in order for our customers to fully benefit from the CYME applications in their specific IT environment and to address their engineering analysis needs. This includes engineering studies, assistance to integration and comprehensive training.

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