CYME xpress

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Special Points of Interest:

- CYMDIST 5.0 to be released early in 2009 with several new modules including Dynamic Motor Starting and enhanced Harmonic Analysis (featured in this issue), along with Transient Stability Analysis.
- Available soon, four new modules for CYMCAP; including computation of electrical parameters, analysis of cables in multiple casings and cable crossings, transient analysis for multiple duct banks.
- To be released shortly, CYMGRD 6.3 featuring an improved GUI and enhanced performance.
- The next CYMDIST-CYMTCC training is scheduled to take place in December in Atlanta, Georgia, USA.
- Visit us at:
  - EDIST, January 14 to 19, 2009, in Markham, Ontario, Canada.
  - DISTRIBUTECH, February 3 to 5, 2009, in San Diego, California, USA.

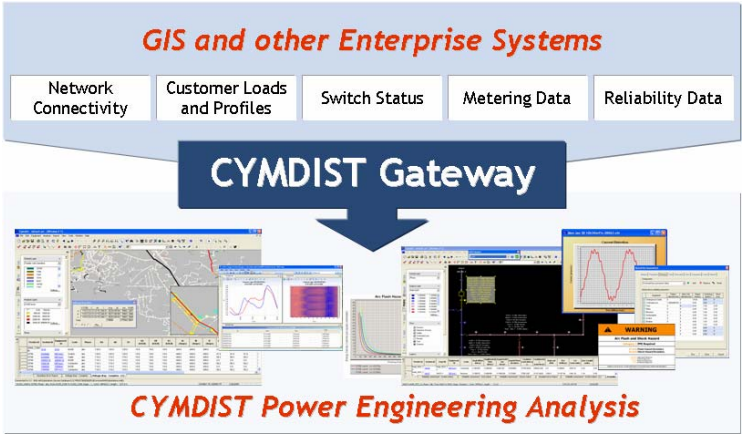
The CYMDIST Gateway: Get all your Distribution Network Data

The first version of CYMDIST was released over 15 years ago. Since then, CYME has always offered solutions to import data from different systems in order to build the distribution network model used by CYMDIST in order to help the planning engineers in all sorts of engineering projects. Over three years ago, following requests from several customers, CYME embarked in the development of a generic interfacing platform: the CYMDIST Gateway. Now, over 20 installations are either in production or in development.

"The CYMDIST Gateway allows us to extract data from four different systems to allow us to build an accurate engineering model. The import of a circuit and related attributes now literally takes seconds and is much more accurate with the integration of other systems." Bob Manning, P.Eng., Manager – System Integrity at The United Illuminating Company, user of the CYMDIST Gateway with an ESRI GIS since 2006.

The CYMDIST Gateway is basically an interface to GIS systems used to extract topology data of the distribution network as most of the network information necessary for the CYMDIST applications typically resides in the GIS. Additional data residing in other systems can be very useful to complete the model and enhance its accuracy. For example, the load information (kWh monthly consumption, kVA peak demand, etc.) can reside in a CIS or a SmartMeter database. For example, the feeder demands might be kept in a database populated by a SCADA system, updated device settings can be found in a PI or Asset Management system, etc. The CYMDIST Gateway can interface as well with other sources of data such as these. Furthermore, the Gateway can run engineering analyses to validate the model and it automatically generates reports.

The flexibility of the CYMDIST Gateway solution allows interfacing transparently to any system in order to extract all the relevant information about your distribution network. The network model is therefore more complete, leading to a more effective use of CYMDIST and more accuracy in the simulation results of its various modules.



CYMDIST Gateway interfaces with any ESRI-based GIS, Intergraph G/Technology and now with GE Smallworld

Whether you are simply looking for an interface to extract network information from your GIS or looking for an advanced tool able to manage extracts from different systems and run engineering analysis automatically, a CYMDIST Gateway solution can be scaled to your needs.

Read more : www.cyme.com/software/cymdistgateway/

Or contact us at: info@cyme.com

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Static and Dynamic Motor Starting Analysis for Distribution

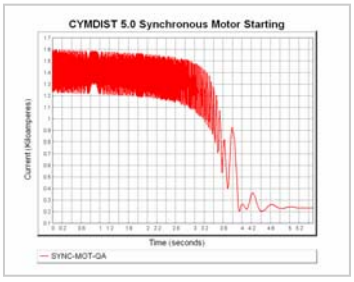
The upcoming version 5.0 of CYMDIST features a new add-on module dedicated to simulating the effects of induction and synchronous motor starting in electric power systems. The Dynamic Motor Start Analysis module is a reliable and easy to use tool for assessing system voltage dips and acceleration times of motors, using a variety of starting methods.

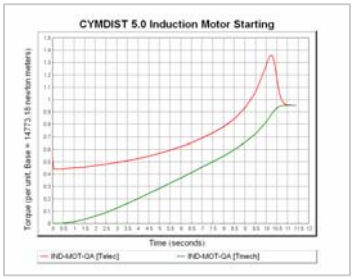
Both induction and synchronous motor starting are supported taking into account the inertial effects of the motor, user-defined load curves and several starting methods are supported.

Induction motor starting methods include across the line, shunt capacitor-assisted, resistor and/or inductor, open or closed transition auto-transformer starting, variable frequency drives, slip ring resistor insertion, star-delta, soft starters and manufacturer data input files.

Synchronous motor starting methods include across the line, shunt capacitor-assisted, resistor and/or inductor-assisted and open or closed auto-transformer starting.

This new module from CYME will allow to fully evaluate the dynamic behavior of the motor during starting and its ability to pick up the load of the various mechanical drive systems (pumps, fans, etc.) along with the selection of the appropriate starter for that purpose.





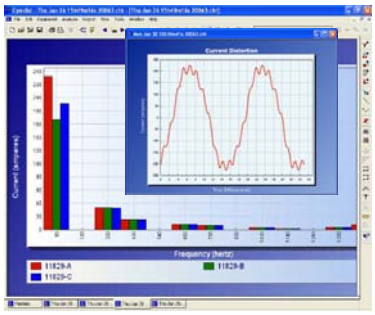
Simulate Harmonics Directly on your Distribution System Model

CYMDIST 5.0 features several enhancements to CYMDIST-Harmo, its harmonic analysis add-on module, taking it to a higher level of completeness.

The module will provide to the user additional features and analytical functionality to better evaluate the damaging effects of harmonics on the network components directly on the distribution model data. An example of this would be the capability to identify potential stressed capacitors due to the presence of harmonics in the system and implement corrective measures to avoid capacitor failures.

Analytical capabilities include:

- Simultaneous voltage and current distortion analysis on nodes, buses and overhead lines and cables.
- Voltage distortion limits that can be as per the IEEE 519-1992 Standard or user-defined.
- A capacitor rating program that will flag capacitors that are overloaded due to the presence of harmonic currents in the network. The thresholds are either user-defined or as per the IEEE 18 -1992 Standard.
- Detailed modeling of the utility harmonic impedance envelope by defining the harmonic order, impedance magnitude and angle; in addition to the standard representation based on the short circuit level at the substation.



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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