



### Energy Profile Manager

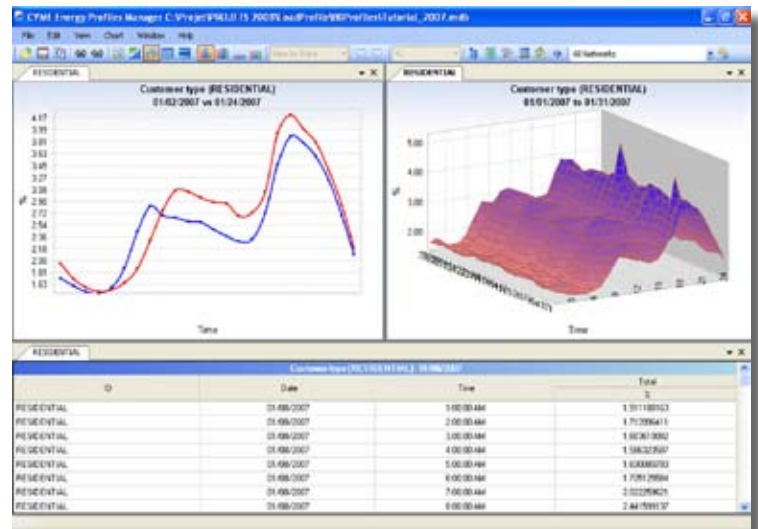
With the integration of automated meter reading (AMR) telemetry in distribution systems, short-term load forecast calibrated by AMR telemetry data and energy billing records, new tools are necessary to help the distribution utilities exploit this data. The Energy Profile Manager module is the CYME optional planning tool that assists users in performing accurate time range analysis based on AMR data and combination of historical consumption patterns and real-time monitoring.

### Program Features

The Energy Profile Manager module comes with its own user interface and wizard for the optimal viewing, editing and importing of load profiles and metering demands from various types of data sources.

More specifically, the module:

- Allows the creation of profiles (load curves) for customer loads, customer types, meter demands, network demands and generators.
- Facilitates the management of the import of interval and non-interval metering data such as the data obtained from automated meter reading systems, customer billing information systems and load research.
- Simplifies the creation of profiles by proposing templates for the standard profile types such as the “8760 profile” and “day-type” (Typical week-day and week-end).
- Supports the import of profiles from ASCII format (.csv).
- Allows specifying user-defined intervals for the profiles (15-min., hourly, etc.)
- Supports various units for the profiles: Average Demand kW, Amps-PF, kW & kVAR, kVA & PF, %, p.u. (by-phase or total).
- Provides the functionality for the creation, viewing, and editing of profiles for a specific customer, or by customer type, meter demand, network demand or generator. The profiles are available in tabular and graphical form.
- Provides a tool to import and synchronize the devices that are kept in the CYME databases.
- Allows the visualization of 2D, 3D and isoline plots.
- Supports the creation of profiles for holidays and special days.



## Voltage Drop Analysis with Profiles

The Energy Profile Manager includes a *Load Flow with Profiles* analysis functionality that utilizes the data organized with the module. When running a voltage drop simulation for a specified period, it produces significant information for the system planners about the network conditions.

This analysis allows the users to:

- Run a voltage drop analysis as a day-type or as a time-range simulation.
- Use the historical data to validate the network model.
- Accurately model the loading conditions (load curves) at any moment in time at strategic points on the networks.
- Identify off-peak overloads and abnormal voltage conditions that often go undetected using traditional peak condition system analysis.
- Evaluate actual kW using customer consumption profiles and customer type load curves.
- Verify device settings adjustments such as voltage regulators, switching capacitors and load tap changers over a period of time and loading.
- Verify capacitor placement recommendations over a period of time and loading.

## Charts and Reports

Using the Load Flow with Profiles analysis, the user can generate several reports and charts based on monitored device and summary networks results. Users can generate reports and charts such as:

- Network summary reporting total system losses, peak voltage and peak power.
- Abnormal conditions reporting overloads and abnormal voltage conditions in duration and percentage of a period, such as the number of hours/days that an equipment has been overloaded.
- Tabular reports with customized values for monitored devices.
- Load duration curves for a distribution transformer or any monitored devices displaying the loading of the device in percentage.

