

OpenSTLF

Short-Term Load Forecast

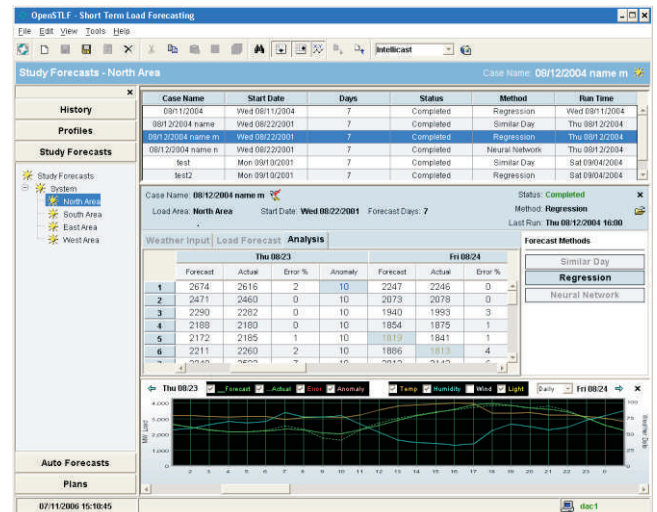
With the seemingly continuous changes instigated by utility deregulation, accurately forecasting area loads will continue to become increasingly important. From a system economics view, the forecast has a direct impact on costly generating unit startups and shutdowns, energy purchases, as well as planning for load management activities. Also, the accuracy of most network-related applications hinges on forecast accuracy for short-term studies.

OSI's Short-Term Load Forecast package, **OpenSTLF™**, is ideal for utilities requiring a reliable, yet simple, tool for forecasting short-term future loads. The key word is "simple". While many forecasting packages offer complex algorithms with lofty claims of accuracy (at the expense of constant "tuning"), the **OpenSTLF** package relies on simple and proven pattern-matching techniques to correlate multiple input variables (e.g., forecasted weather conditions) and historical facts (load and weather). Through this approach, the forecast model is reconstructed with each execution.

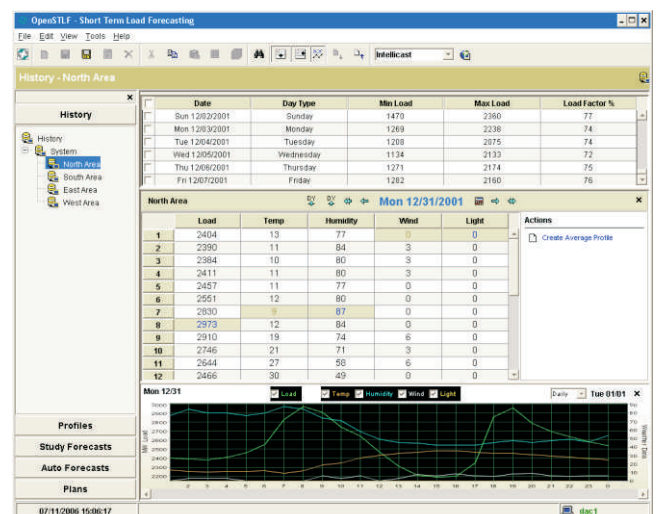
Through OSI's various application interfaces (APIs), access by external applications is provided such that software packages requiring the forecast may be easily integrated.

OpenSTLF's rich set of features include:

- Support for multiple load areas. Individual areas are also summed to compute the system-wide forecast.
- Capability to forecast up to 35 days into the future using 15, 30 or 60 minute intervals.
- Study forecast capability for formulating and finalizing the forecast prior to acceptance as an official operating plan.
- The user easily controls inclusion of available weather variables into the forecast model.
- Once the forecast is constructed, tools are available for manually changing and maintaining the forecast. For example, a change in minimum and/or maximum forecast for a given day results in an overall reshaping of the forecast.
- Automatic adjustment of the accepted near-term forecast, given actual load at the end of each hour.



- An after-the-fact analysis is available for verifying the accuracy of the forecast model. Excessive hourly deviations may be automatically alarmed to alert the operator that a new forecast model should be considered.
- A feature-rich user interface is provided, consisting of various tabular and graphical representations of the forecast information.



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OpenSTLF delivers simplicity and predictability, providing accurate algorithms that are easy to understand and a system that is easy to maintain.

OpenSTLF is built on the principle that the user should “use” the algorithm and not “teach” it. As with other OSI applications, **OpenSTLF** is designed and implemented with openness in mind. From comprehensive APIs to portability and platform-independent APIs, **OpenSTLF** can satisfy your operational and integration needs.

Economic growth in a utility's service territory results in an ever increasing growth in residential and commercial electricity demands. In a competitive electricity market, utilities must accurately match their expected demand for electricity to available generation resources in a diligent manner. Errors or discrepancies in expected demand versus supplies can result in heavy price penalties or missed financial opportunities for utilities.

