OpenLM

Load Management

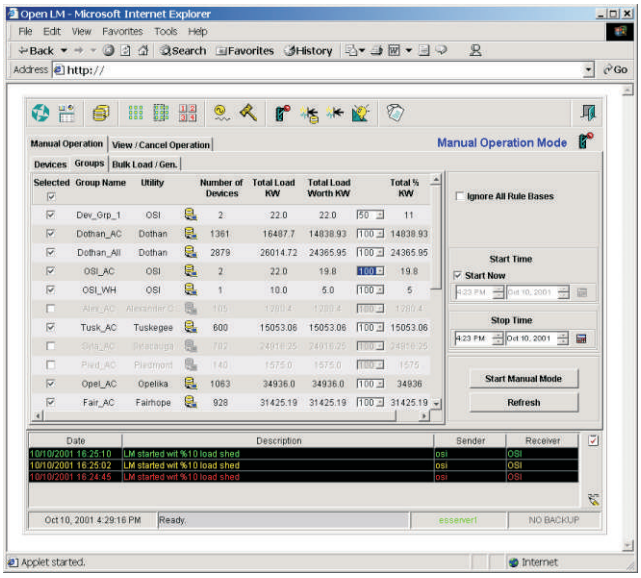
The Load Management subsystem, **OpenLM™** is a comprehensive application for implementing effective load management strategies for electric distribution systems. This software will calculate a strategy to curtail an expected load peak and avoid excess demand and energy charges from power supplying resources.

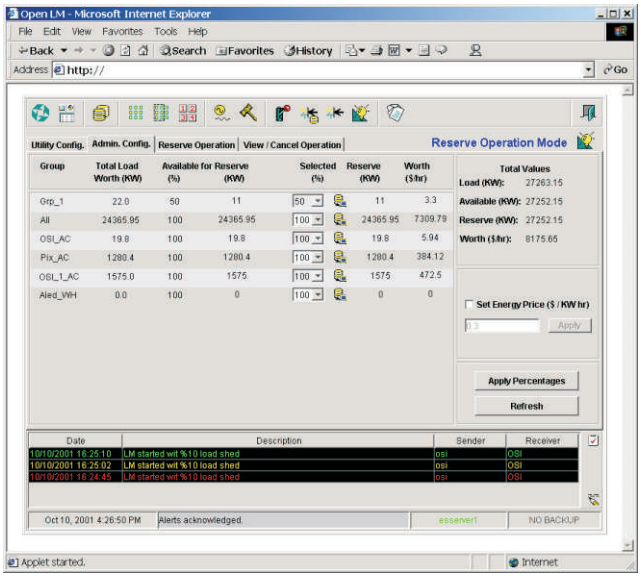
OpenLM is a generic application, not specific to any one load management hardware, and can be extended easily to interface with a variety of load management hardware. The **OpenLM** application is Web-enabled. Its back-end database is relational and a Web browser is used as the operator interface. Hence, **OpenLM** may be provided using the Internet or an Intranet for data transport.

There are three primary components in **OpenLM**:

- **OpenLM Server:** Controls the execution of Load Management programs, handles the database interactions, and records all events in the system.
- **OpenLM Controller:** Accepts execution commands from the OpenLM Server and passes them to the RTU/transmitter.
- **OpenLM Client (GUI):** Used by the operator to access the system and perform data entry, administer data maintenance, and control tasks.

A SCADA interface exists to retrieve the data needed for load management operation and to send control signals for bulk power and generator operations. Monitoring of real-time load management variables is continuous. **OpenLM** retrieves real-time load information from SCADA and determines appropriate action through comparison with predefined load reduction plans that include load thresholds and available sheddable devices (end-users). Device controls are automatically delivered to the load end-users, implementing the predefined plan. A history of the operations is automatically maintained within the **OpenLM** relational database for easy access.





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A study mode feature is also available, enabling the user to evaluate the effectiveness of various load management strategies. Associated with each strategy is a payback model, including the effect of an accumulated power surge if controlled devices remain off for extended time periods. Different scenarios may be stored and compared to determine the best possible load management solution. Once determined, the result can be used as input to the control component as a scheduled control operation.