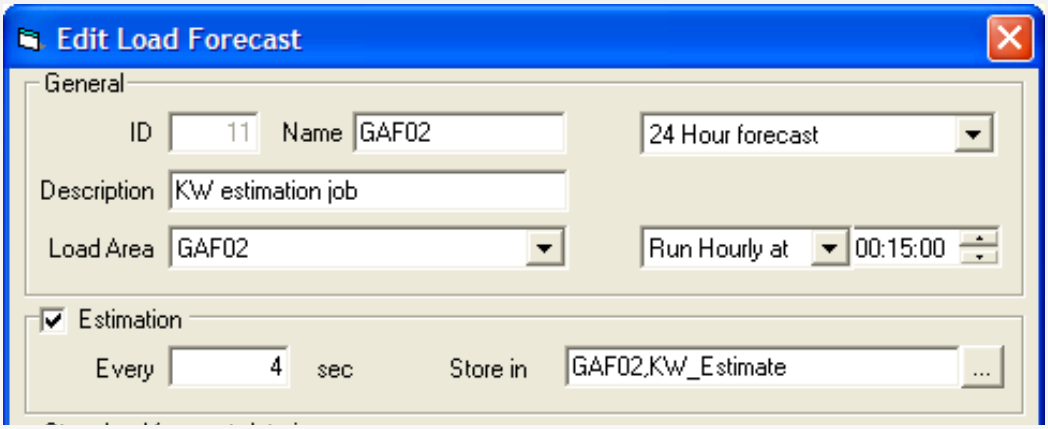
Survalent Technology

SMART SCADA
SUPERVISORY CONTROL & DATA ACQUISITION

Load Estimation

Load Estimation, an optional extension to Short-term Load Forecasting, that uses your scheduled load forecast to continually estimate the present value of the load point. By means of a special calculation function, the estimated value can be used to substitute for the actual telemetered value during periods where telemetry has failed.

The result (estimated value) is stored in a point that you provide for this purpose. This allows you to view the estimated value alongside the actual value (while the actual value is available), or to select between the actual and estimated value to be transferred to an "output" point to be used by the operators or by other programs or calculations.



The load forecast will yield an estimate of the load point's value at each hour going forward from the time of the forecast. To produce a periodic estimate of this value, the Load Estimation program first determines how long it has been since the most recent load forecast was performed. It selects the next two load forecast values in time, and the preceding two actual historical values. The program uses these four values to produce a curve that represents the recent past and near future behavior of the load value. A cubic curve-fitting algorithm is used to produce a curve that is guaranteed to pass through the four chosen points. The load estimator then locates the present time on this curve and the value at this point is output as the estimated load.

This entire estimation process is repeated every few seconds, at the interval you specify. Each hour, new points are chosen from the 24-hour forecast and historical data.

Load Estimation can be used to provide an ongoing estimate of any forecast value that the Load Forecasting application produces.

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