

Appendix B: Memory Considerations

Overall Memory

Trend plotting is a memory-intensive application. To use the available resources most effectively, NetPower Trend has several limits.

NetPower Trend assumes that it has 8MB of memory available. Before building your plot, NetPower Trend calculates how much memory it needs based on the following:

- ◆ Number of energy users or meters
- ◆ Size of logging interval or the number of billing periods
- ◆ Time period

If the estimate exceeds the 8MB limit, NetPower Trend advises you to reduce the time period/number of users. However, because the logging interval can be changed over the period of a requested plot, the actual memory requirements can exceed the estimated requirements, in which case, you will not get a chance to revise your original plot settings before NetPower Trend attempts to build the plot.

Data Points

NetPower Trend also limits the number of data points per meter or energy user that you can display. For a line graph, you can display up to 64,000 data points. For a bar graph, 64,000 is the limit for the total number of data points, regardless of the number of meters or energy users. Therefore, when the program estimates the amount of memory it needs, it also estimates the number of data points. If the estimate for data points exceeds the limit for the type of plot, NetPower Trend advises you to reduce the time period or compress the data.

Note

As with the estimate for memory requirements, the data points estimate can be low due to changes to the logging interval.

If you choose to compress the data, the system displays a dialog box, prompting you for a data compression method. NetPower Trend offers you several compression types. For each meter or energy user, NetPower Trend calculates a compression factor (c) by dividing the number of data points by 64,000 and rounding up (if it is not evenly divisible) to ensure that the new total number of data points is less than or equal to 64,000. This compression factor is then used with each of the compression types:

- ◆ Skip

If the compression type is skip, the program displays one out of every c data points on the plot.

- ◆ Average

If the compression type is Average, the new data points are the average of c consecutive data points.

- ◆ Maximum

If the compression type is Maximum, NetPower Trend displays the maximum of every c data points.

- ◆ Minimum

If the compression type is Minimum, NetPower Trend displays the minimum of every c data points.

For compression types Maximum and Minimum, the new data point's x-axis value is that of the first of every c th data point.

Display Range

NetPower Trend assumes that your system has 8M of memory available. The range that NetPower Trend displays must contain data that does not exceed these resources. When the type of trending is demand and the type of plot is a line graph, the number of data points per Meter or Energy User and the approximate time periods that can be displayed for the corresponding number of meters or energy users are shown in the following table:

Number of Meters or Energy Users	Number of Data Points	Display Range with 1-minute Logging	Display Range with 15-minute Logging
1	262,144	26 weeks	7 years and 25 weeks
2	174,762	17 weeks	5 years
3	131,072	13 weeks	3 years and 38 weeks
4	104,857	72 days	3 years
5	87,381	60 days	2 years and 25 weeks
6	74,898	52 days	2 years
7	65,536	45 days	1 year and 45 weeks
8	58,254	40 days	1 year and 34 weeks
9	52,428	36 days	1 year and 26 weeks
10	47662	33 days	1 year and 18 weeks
11	43,690	30 days	1 year and 13 weeks
12	40,329	28 days	1 year and 8 weeks

Important

Bar graph plots require more memory than line graph plots.

