

Resolution- what is that all about?

When a graph is plotted, the value of  $x$  is incremented in small jumps, the expression evaluated at that value of  $x$ , and the point plotted on the graph. The size of the small jumps is chosen to give a good tradeoff between speed of plotting and the smoothness of the curve.

Normally, Graphplot will choose a value which gives good results in most cases while plotting reasonably quickly. In some cases, you may wish to increase the resolution to get a smoother curve, although this will result in the plot taking longer to complete.

If you uncheck the 'Auto Resolution' command, you can then insert a value for the  $x$  increment manually using the 'Resolution' dialog. Graphplot will initially suggest a value which is the one it would have used if Auto Resolution was on. A figure of a half to a third of the suggested value should be as low as you need to go to get very smooth curves. The effect of this can be most clearly seen when plotting functions such as the ones in the Modulation menu, which contain high frequency components.