Plotting Your Data

The process of constructing a basic graph to meet your presentation graphics requirements is outlined in the following table. The table shows seven typical steps and some example code for each.

If you are performing analysis only, you may want to view various graphs just to explore your data. In this case, steps 1 and 3 may be all you need. If you are creating presentation graphics, you may want to fine-tune your graph by positioning it on the page, setting line styles and colors, adding annotations, and making other such improvements.

Step	Typical Code

1. Prepare your data	`x = 0:0.2:12;`
	`y1 = bessel(1,x);`
	`y2 = bessel(2,x);`
	`y3 = bessel(3,x);`

2. Select a window and position a plot region within the window	`figure(1)` `subplot(2,2,1)`
3. Call elementary plotting function	`h = plot(x,y1,x,y2,x,y3);`
4. Select line and marker characteristics	`set(h,'LineWidth',2,{'LineStyle'},{'--';':';'-.'})` `set(h,{'Color'},{'r';'g';'b'})`
5. Set axis limits, tick marks, and grid lines	`axis([0 12 -0.5 1])` `grid on`

6. Annotate the graph with axis labels, legend, and text	`xlabel('Time')`
	`ylabel('Amplitude')`
	`legend(h,'First','Second','Third')`
	`title('Bessel Functions')`
	`[y,ix] = min(y1);`
	`text(x(ix),y,'First Min \rightarrow',...`
	`              'HorizontalAlignment','right')`

7. Export graph	`print -depsc -tiff -r200 myplot`