

legendreA

This is an additional form of the /H flag. The *legendSymbolWidth* parameter works the same as described above.

The *minThickness* and *maxThickness* parameters allow you to create a legend whose line and marker thicknesses are different from the thicknesses of the associated traces in the graph. This can be handy to make the legend more readable when you use very thin lines or markers for the traces.

minThickness and *maxThickness* are values from 0.0 to 10.0. Also, setting *minThickness* to 0.0 and *maxThickness* to 0.0 (default) uses the same thicknesses for the legend symbols as for the traces.

/J Disables the default legend mechanism so that a default legend is not created even if *legendStr* is an empty string ("") or omitted.

Window recreation macros use /J in case *legendStr* is too long to fit on the same command line as the Legend operation itself. In this case, an AppendText command appears after the Legend command to append *legendStr* to the empty legend. For really long values of *legendStr*, there may be multiple AppendText commands.

/M[=saMeSize] /M or /M=1 specifies that legend markers should be the same size as the marker in the graph.

/M=0 turns same-size mode off so that the size of the marker in the legend is based on text size.

See the **TextBox** operation for documentation for all other flags.

Examples

The command `Legend` (with no parameters) creates a default legend. A default legend in a layout contains a line for each wave in each of the graphs in the layout, starting from the bottom graph and working toward the front.

The command:

```
Legend/C/N=name ""
```

changes the named existing legend to a default legend.

You can put a legend in a page layout with a command such as:

```
Legend "\s(Graph0.wave0) this is wave0"
```

This creates a legend in the layout that shows the symbol for wave0 in Graph0. The graph named in the command is usually in the layout but it doesn't have to be.

See Also

TextBox, Tag, ColorScale, AnnotationInfo, AnnotationList.

Annotation Escape Codes on page III-53.

Legend Text on page III-42.

Trace Names on page II-282, **Programming With Trace Names** on page IV-87.

Color as f(z) Legend Example on page II-301 for a discussion of creating a legend whose symbols match the markers in a graph that uses color as f(z).

legendreA

```
legendreA(n, m, x)
```

The `legendreA` function returns the associated Legendre polynomial:

$$P_n^m(x)$$

where *n* and *m* are integers such that $0 \leq m \leq n$ and $|x| \leq 1$.

References

Arfken, G., *Mathematical Methods for Physicists*, Academic Press, New York, 1985.