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PLOT (BAND=STANDARD or *series name*,BMEAN,BMID,BOX,HEADER,ID,INTEGER,
LINES=(*list of values*),MAX=*value*,MEAN,MIN=*value*,ORIGIN,RESTORE,VALUES,
series name   plotting character
[*series name   plotting character.........*] ;

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Function:

PLOT produces a plot of one or more series versus the observation number (usually in units of time). The series are plotted on the horizontal axis and time on the vertical axis. The user has a good deal of freedom in formatting this plot with options. For a PC with the graphics version of TSP, see the entry for PLOT <graphics version>.

Usage:

PLOT is followed by a series name, the character to use in plotting the series, possibly a second series name and a second character, and so on. Up to nine series may be plotted. The characters may be anything except $; . ' " : .

Parameters that control the appearance of the plot may be specified in an options list in parentheses following the word PLOT. These parameters all have default values, so you do not need to specify them if you just want a simple plot.

Any observations with missing data are excluded from the plot.

Options:

BAND= STANDARD or *seriesname* specifies the name of a series which is used as the width of a band to be printed around the observations of the first series to be plotted (usually this series is a set of computed standard errors). The keyword STANDARD will cause the standard deviation of the series to be used as the band. The default is not to plot a band.

BMEAN/**NOBMEAN** causes the band to be printed about the series mean.

BMID/**NOBMID** causes the band to be printed about the midpoint of the plot.

BOX/NOBOX draws a box around the plot.

HEADER/**NOHEADER** causes the horizontal axis to be labelled at equispaced intervals.

ID/NOID causes a vertical ("time") axis to be labelled on the left hand side with the ID series.

INTEGER/**NOINTEGER** causes the numeric labels on the horizontal axis to be rounded to the nearest integer value; this improves readability of the plot.

LINES= (*list of up to 9 numeric values*) - specifies points along the horizontal axis at which vertical lines will be drawn.

MAX= the maximum value on the horizontal axis. If not specified, the maximum value of all the series to be plotted is used.

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MEAN/**NOMEAN** draws a vertical line from the mean of the series on the horizontal axis.

MIN= the minimum value on the horizontal axis. If not specified, the minimum value of all the series to be plotted is used.

ORIGIN/**NOORIGIN** causes a vertical line to be drawn starting at zero on the horizontal axis.

VALUES/NOVALUES causes the value of each observation of the first series to be printed on the right hand side of the plot.

The list of options is obviously extensive and, to make things easier for the user, a set of default options has been chosen which produce a plot of attractive appearance. These options are

       PLOT(LINES=none,BAND=none,NOORIGIN,BOX,NOMEAN,ID,NOINTEGR,VALUES,NOHEADER)

For convenience, the options of PLOT which are set by you are retained in the next PLOT(s) until they are overridden either explicitly or by including the option RESTORE in the list. RESTORE causes the options to be reset at their default values.

Examples:

       PLOT GNP,*,CONS,X;
       PLOT(MIN=500,MAX=1500,LINES=(1000)) GNP G GNPS H CONS C CONSS D;
       PLOT(MIN=-25.,MAX=25.,BMEAN,HEADER,VALUES,BAND=STANDARD,INTEGR) RESID * ;

Output:

PLOT prints a title, followed by the names of all the series being plotted and the characters used to plot them. If there are lines drawn on the plot, a message giving the locations of the lines is printed.

The plot itself is labelled at its four corners with the horizontal minima and maxima; the axes are labelled at several points if the HEADER option was specified, and the mean is marked with an M if a line at the mean was requested. The ID series labels the left hand side of the vertical axis and the values of the first series are on the right hand side if the VALUES option was specified.

If more than one series is being plotted, any points which are superimposed are plotted with the number of series which have that value instead of the plotting character. The plotting characters of the duplicate series are shown on the right hand side of the plot.

PLOT uses the LIMPRN option to decide how wide to make the plot, so you have some control over the format by use of the OPTIONS command.