

**MULTILOT****PURPOSE**

Specifies the number of rows and columns in the “matrix of plots” that is to be formed by subsequent plot commands.

**DESCRIPTION**

The MULTILOT command, though simple, is one of the most powerful and most commonly used recent (since 1988) enhancements to DATAPLOT. Generating multiple plots per page is an extremely important exploratory data analysis tool. The MULTILOT command does all the behind-the-scenes scaling of the plots, the erase for the first plot, the non-erase for subsequent plots, etc. It is frequently used to examine 1 variable by many different plot techniques. It is also used to examine many variables by a single plot technique. The MULTILOT command should receive routine usage.

The MULTILOT command divides the plot area into equal size rows and columns. As the next plot is generated, it is moved into the next row and column position. The sub-area is given its own 0 to 100 coordinate system and all commands until the next plot command are based on this scaled down plot area. That is, sizes are automatically scaled relative to the sub-area and diagrammatic graphics are plotted in this sub-area. Normally, plots move sequentially through the row and column positions. However, syntax 2 or syntax 3 below can be used to move to a specific location.

**SYNTAX 1**

MULTILOT <rows> <columns>

where <rows> is a number or parameter that specifies the desired number of rows of plots to subsequently appear;

and <columns> is a number or parameter that specifies the desired number of columns of plots to subsequently appear.

This syntax does a screen erase before the next plot. This is the most common syntax for MULTILOT.

**SYNTAX 2**

MULTILOT <rows> <columns> <start>

where <rows> is a number or parameter that specifies the desired number of rows of plots to subsequently appear;

<columns> is a number or parameter that specifies the desired number of columns of plots to subsequently appear;

and <start> is a number or parameter that specifies the index of the next plot to generate (i.e., the first <start> - 1 plots are skipped).

This syntax does not do a screen erase before the next plot. It is typically used to skip one or more plots and is almost always preceded by a MULTILOT command using syntax 1.

**SYNTAX 3**

MULTILOT <rows> <columns> <row 0> <column 0>

where <rows> (a number or parameter) is the desired number of rows of plots to subsequently appear, and

<columns> is a number or parameter that specifies the desired number of columns of plots to subsequently appear;

<row 0> is a number or parameter that specifies the desired row where the next plot should appear;

and <column 0> is a number or parameter that specifies the desired column where the next plot should appear.

This syntax does not do a screen erase before the next plot. It is typically used to skip one or more plots and is almost always preceded with a MULTILOT command using syntax 1. It is similar to syntax 2. The distinction is that the position of the next plot is specified by a specific row and column id rather than a count.

**EXAMPLES**

MULTILOT 2 2

MULTILOT 4 5

MULTILOT 10 10

MULTILOT 3 3 5

MULTILOT 3 3 2 1

**NOTE 1**

The END OF MULTILOT command is used to terminate a multiplot sequence of plots and revert the plot area back to the full screen.

**NOTE 2**

By default, the MULTILOT command divides the current plot area ((15,20), (85,90) by default). The MULTILOT COORDINATES command can be used to specify the portion of the screen to use for MULTILOT.

NOTE 3

There is no restriction on the type of plot that can be used in conjunction with the MULTILOT command.

DEFAULT

None

SYNONYMS

None

RELATED COMMANDS

- All graphics commands
- END OF MULTILOT = Terminate a multiplot sequence.
- MULTILOT COORDINATES = Specify coordinates for the area to use for multi-plot.
- FRAME COORDINATES = Specify the coordinates of the plot frame.

APPLICATIONS

Multiple plots per page

IMPLEMENTATION DATE

88/9

PROGRAM

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MULTILOT 3 4
LET THETA = SEQUENCE 0 1 380; LET X = SIN(THETA)
FRAME OFF; PRE-SORT OFF
XLABEL SIZE 4
LOOP FOR K = .1 .1 1.2
    LET Y=SIN(K*THETA)
    XLABEL ^K
    PLOT Y X
END OF LOOP
END OF MULTILOT
    
```

