

REGION PATTERN SPACING

PURPOSE

Specifies the spacing to be used between lines when generating cross-hatch pattern fills of regions on subsequent plots or for certain types of diagrammatic graphics.

DESCRIPTION

On a plot, a region is defined as the figure formed by the line connecting points belonging to a common trace and a region base (typically zero). The REGION FILL and REGION PATTERN commands can be used to generate a solid fill or a cross-hatch fill of this region. The REGION PATTERN SPACING controls the spacing between lines for cross-hatch fills. Other attributes of the fill are set with additional REGION commands (see the RELATED COMMANDS section below). The attributes of the region border are set with LINE, LINE COLOR, and LINE THICKNESS commands.

The diagrammatic graphics commands CIRCLE, CUBE, DIAMOND, ELLIPSE, HEXAGON, PYRAMID, SEMI-CIRCLE, and TRIANGLE can be filled using the REGION FILL command. The BOX command has its own attribute setting commands.

The region pattern spacing is given in 0 to 100 DATAPLOT units. A value of 0.1 gives a solid fill on most devices. Typical values are between 1 and 5.

SYNTAX

REGION PATTERN SPACINGS <number> <number> <number> etc.

where <number> is a number or parameter that specifies the desired region pattern spacing. Up to 100 region pattern spacings can be specified.

EXAMPLES

REGION PATTERN SPACINGS 1.0 0.5 3.0 5.0

REGION PATTERN SPACINGS 1.0 ALL

REGION PATTERN SPACINGS ALL 1.0

REGION PATTERN SPACINGS

NOTE 1

The diagrammatic graphics commands use the first setting of the REGION PATTERN SPACING command only.

NOTE 2

The REGION PATTERN SPACING command with no arguments sets the region pattern spacing to default for all regions. The REGION PATTERN SPACING command with the word ALL before or after the specified pattern spacing assigns that pattern spacing to all regions; thus REGION PATTERN SPACING 1.0 ALL or REGION PATTERN SPACING ALL 1.0 uses a pattern spacing of 1.0 for all regions on the plot.

DEFAULT

All region pattern spacings are 1.0.

SYNONYMS

None

RELATED COMMANDS

PLOT	=	Generates a data or function plot.
REGION BASE	=	Sets the base locations for plot regions.
REGION FILL	=	Sets the on/off switches for region fills.
REGION FILL COLOR	=	Sets the color for region solid fills.
REGION PATTERN	=	Sets the types for region fill patterns.
REGION PATTERN COLOR	=	Sets the color for region hatched fills.
REGION PATTERN LINE	=	Sets the line types for region fill patterns.
REGION PATTERN THICKNESS	=	Sets the line thickness for region fill patterns.
LINE COLOR	=	Sets the color for region border lines.
LINE	=	Sets the types for region border lines.
LINE THICKNESS	=	Sets the line thickness for region border lines.

APPLICATIONS

Statistical maps, area charts, filled 2d polygons

IMPLEMENTATION DATE

Pre-1987 (the ability to generate cross-hatch fills for non-rectangular regions was added 93/10)

PROGRAM

```

LET C = 1
LET FUNCTION F1 = C
LET FUNCTION F2 = -1.5*X + 9
LET FUNCTION F3 = 6
LET FUNCTION F4 = 1+0.3*X**2
.
XMINIMUM 0
YLIMITS 0 10
TITLE PLOT INEQUALITY REGIONS
TITLE SIZE 5
.
REGION FILL ON ALL
REGION BASE 0 10 10 0
REGION PATTERN D1 HORI D2 VERT
REGION PATTERN SPACING 10 2 6 3
.
PLOT F1 FOR X = 0 5 5 AND
PLOT F2 FOR X = 0 5 5 AND
PLOT F3 FOR X = 0 5 5 AND
PLOT F4 FOR X = 0 0.01 5
    
```

