

REGION PATTERN THICKNESS

PURPOSE

Specifies the thickness of lines used when generating cross-hatch pattern fills of regions on subsequent plots or for certain 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 or cross-hatch fill of this region. The REGION PATTERN THICKNESS command is used to specify the line thickness for a cross-hatch pattern. 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 line thickness is specified in vertical DATAPLOT 0 to 100 units. Typical values are between 0.05 and 0.3.

SYNTAX

REGION PATTERN THICKNESS <thick> <thick> <thick> etc.

where <thick> is a number or parameter that specifies the desired thickness. Up to 100 region pattern line thicknesses can be specified.

EXAMPLES

```
REGION PATTERN THICKNESS 0.1 0.2 0.1 0.2
REGION PATTERN THICKNESS 0.2 0.2 0.1
REGION PATTERN THICKNESS 0.1 ALL
REGION PATTERN THICKNESS ALL 0.1
REGION PATTERN THICKNESS
```

NOTE 1

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

NOTE 2

The REGION PATTERN THICKNESS command with no arguments sets the region pattern line thickness to default for all regions. The REGION PATTERN THICKNESS command with the word ALL before or after the specified thickness assigns that region pattern line thickness to all regions; thus REGION PATTERN THICKNESS 0.1 ALL or REGION PATTERN THICKNESS ALL 0.1 plots region pattern fills with a line thickness of 0.1 for all regions on the plot.

DEFAULT

All region pattern line thicknesses are 0.1.

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 SPACING	=	Sets the line spacing 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 of 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 5 ALL
REGION PATTERN THICKNESS 0.1 0.3 0.1 0.5
.
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
    
```

