# CHARACTER JUSTIFICATION

## PURPOSE
Specifies the justification of the characters to appear at the plot points of each trace on subsequent plots.

## DESCRIPTION
The following justifications are available:

| | | |
|---|---|---|
| LEFT | - | left horizontally, bottom vertically |
| CENTER | - | center horizontally, bottom vertically |
| RIGHT | - | right horizontally, bottom vertically |
| LECE | - | left horizontally, center vertically |
| CECE | - | center horizontally, center vertically |
| RICE | - | right horizontally, center vertically |
| LETO | - | left horizontally, top vertically |
| CETO | - | center horizontally, top vertically |
| RITO | - | right horizontally, top vertically |

## SYNTAX
CHARACTER JUSTIFICATION <justification> <justification> etc.

where <justification> is a string that specifies the desired justification. Up to 100 justifications can be listed.

## EXAMPLES
CHARACTER JUSTIFICATION CECE CECE LEFT LEFT
CHARACTER JUSTIFICATION CECE CECE CECE CECE CECE CECE
CHARACTER JUSTIFICATION CECE ALL

## NOTE 1
Although the CHARACTER command can be used to label plot points, be aware that it has some serious limitations in this regard. The most important limitation is that character labels are limited to 4 characters. If you need more than 4 characters, you have to use the TEXT or LEGEND commands to specify the labels. However, this is more difficult since the coordinates for the TEXT and LEGEND coordinates are given in DATAPLOT 0 to 100 screen units rather than the data units. The MOVEDATA command can be used with the TEXT command (MOVEDATA is an alternate version of MOVE that uses the coordinates of the most recent plot).

## NOTE 2
The CHARACTER JUSTIFICATION command with no arguments sets the character justification to default for all traces. The CHARACTER JUSTIFICATION command with the word ALL before or after the specified justification assigns that justification to the characters on all traces. Thus CHARACTER JUSTIFICATION CECE ALL or CHARACTER JUSTIFICATION ALL CECE specifies center justification both horizontally and vertically for the characters on all traces.

## NOTE 3
The vertical size of the character box is comprised of the actual character and a gap. For most devices, the vertical justification is based on the size of the actual character, not on the gap. Normally, the size of the character and the size of the gap are fixed independent of the particular character plotted and are known for a given device. However, certain characters such as the "." do not use the entire character area. This can make the vertical justification appear to be slightly off. An analogous situation applies to the character width and the horizontal justification. The CHARACTER OFFSET command can be used to compensate for this type of problem.

The postscript device presents a problem in that DATAPLOT does not a have a convenient way of distinguishing between the actual character area and the gap area. For this reason, the vertical justification is based on the full character box rather than just the actual character area. Again, the CHARACTER OFFSET can be used to compensate.

## DEFAULT
All characters are center justified both horizontally and vertically (i.e., CECE).

## SYNONYMS
None

## RELATED COMMANDS
| | | |
|---|---|---|
| PLOT | = | Generates a data or function plot. |
| CHARACTER | = | Sets the types for plot characters. |

| | | |
|---|---|---|
| CHARACTER ANGLE | = | Sets the angles for plot characters. |
| CHARACTER AUTOMATIC | = | Specifies a variable to be used as the arguments to the CHARACTER command. |
| CHARACTER CASE | = | Sets the cases for plot characters. |
| CHARACTER COLOR | = | Sets the colors for plot characters. |
| CHARACTER FILL | = | Sets the fill switches for plot characters. |
| CHARACTER FONT | = | Sets the fonts for plot characters. |
| CHARACTER HW | = | Sets the heights and widths for plot characters. |
| CHARACTER OFFSET | = | Sets the offsets for plot characters. |
| CHARACTER SIZES | = | Sets the sizes for plot characters. |
| CHARACTER THICKNESS | = | Sets the thicknesses for plot characters. |
| CHARACTER WIDTH | = | Sets the widths for plot characters. |
| JUSTIFICATION | = | Sets the justification for the TEXT command. |

APPLICATIONS

Presentation Graphics

IMPLEMENTATION DATE

Pre-1987

PROGRAM

LEGEND 1 PRESENTATION GRAPHICS; LEGEND 2 3-D BAR HISTOGRAM
LET Y = DATA 392 341 307 203 115 59 38 32 29 28
LET N = NUMBER Y; LET X = SEQUENCE 1 1 N
LINES BLANK ALL; BAR ON ALL
BAR WIDTH .5 ALL; BAR DIMENSION 3 ALL; BAR FILL ONTS ALL
CHARACTER JUSTIFICATION CEBO
CHARACTERS APOL SUN HP DEC SYM SG IBM DG TI XER
CHARACTER OFFSET 0 1 ALL; CHARACTER SIZE 3.5 ALL
YMAX 600; XMAX 12
TITLE DEMONSTRATE CHARACTER JUSTIFICATION; TITLE SIZE 5
PLOT Y X X