

# GRZAX\$ - Define GRAPH\$ Z-axis Item

The GRZAX\$ routine is used within a GRAPH\$ Call-Back routine to define an item on the Z-axis.

## 1. Invocation

To set a Z-axis label code:

```
CALL GRZAX$ USING za
```

where *za* is a control block of the following format:

```

01  ZA
02  ZAINX          PIC 9(2) COMP      * Z-item index
   02  ZATEXT      PIC PTR           * Pointer to a NULL terminated string
                                       * containing the label text or #FFFFFFFF
                                       * if there is none
02  ZAFM           * field format
   03  ZABDP      PIC 9(2) COMP      * Number of places before the decimal
                                       * point for computational fields
   03  ZAADP      PIC 9(2) COMP      * Number of places after the decimal
                                       * point for computational fields
02  ZAICLR        * Z-item colour
                                       * HIGH-VALUES use default
   03  ZAIRE      PIC 9(4) COMP      * Red component 0-255
   03  ZAIGRN     PIC 9(4) COMP      * Green component 0-255
   03  ZAIBLU     PIC 9(4) COMP      * Blue component 0-255
02  ZAB           * Z-item brush
   03  ZABSTY     PIC 9(2) COMP      * Z-item brush style
                                       * -1 use default for brush
                                       * style and pattern
                                       * 0 = Null (no brush)
                                       * 1 = Solid
                                       * 2 = Pattern
                                       * 3 = Hatched
   03  ZAPTYP     PIC 9(2) COMP      * pattern for z-item brush style
                                       *
                                       *   Patterns
                                       *
                                       * 0 = 94 per cent
                                       * 1 = 88 per cent
                                       * 2 = 75 per cent
                                       * 3 = 50 per cent
                                       * 4 = 25 per cent
                                       * 5 = Bold horizontal
                                       * 6 = Bold vertical
                                       * 7 = Bold down diagonal
                                       * 8 = Bold up diagonal
                                       * 9 = Checks
                                       * 10 = Weave
                                       * 11 = Horizontal
                                       * 12 = Vertical
                                       * 13 = Down diagonal
                                       * 14 = Up diagonal
                                       * 15 = Grid
                                       * 16 = Trellis
                                       * 17 = Inverted trellis
                                       *
                                       *   Hatches
                                       *
                                       * 0 = Horizontal
                                       * 1 = Vertical
                                       * 2 = Down diagonal
                                       * 3 = Up diagonal
                                       * 4 = Cross
                                       * 5 = Diagonal cross
                                       * 6 = Count
02  ZAIPCL        * Z-item pattern colour

```

03 ZAIPRD	PIC 9(4) COMP	* HIGH-VALUES if default
03 ZAIPGR	PIC 9(4) COMP	* Red component (0-255)
03 ZAIPBL	PIC 9(4) COMP	* Green component (0-255)
		* Blue component (0-255)

## 2. STOP Codes and Exception Conditions

The following STOP codes may be generated by GRZAX\$:

STOP code	Description
14402	The Z-axis index is not positive
14403	The ZAADP value is illegal
14406	The X-axis index has not increased by 1 from the last call of GRZAX\$

The following EXIT codes may be returned by GRZAX\$:

EXIT code	\$\$COND	Description
14401	1	Unable to allocate temporary data page
14402	2	The total length of the GX command block has exceeded 8192.

## 3. Programming Notes

GRZAX\$ is only useful when running on GX and when used in conjunction with GRAPH\$ etc. Furthermore, GRZAX\$ should only be used within a GRAPH\$ Call-Back routine (i.e. after GRAPH\$) has been used to define the graph.

Normally, GRZAX\$ will be called repeatedly within a program loop. The first call of GRZAX\$ should set ZAINX to 1 to define the first Z-axis item. This field should be increased sequentially for further calls as each new Z-axis item is defined.

## 4. Examples

None.

## 5. Copy-Books

See copy-book "Z\$" in copy-library S.SYS32. Note that this copy-book **MUST** be expanded using a SUBSTITUTING clause. For example:

```
COPY "Z$" USING "ZA"
```

## 6. See Also

GRINI\$	Initialise GRAPH\$ GR Block With Default Settings
GRAPH\$	Main graph build routine
GRXAX\$	Define Z-axis graph details
GRPLT\$	Plot data item on graph