Parameter
n_beam … !NEW

Parameter-Script
VALUES "n_beam" 1,2,3,4 !NEW

```
IF GLOB_MODPAR_NAME = "dx0" OR GLOB_MODPAR_NAME = "dy0" OR GLOB_MODPAR_NAME = "dz0" OR
GLOB_MODPAR_NAME = "dx1" OR GLOB_MODPAR_NAME = "dy1" OR GLOB_MODPAR_NAME = "dz1" THEN

  IF ABS ( dx ) < eps THEN
    IF ABS ( dy ) < eps THEN
      IF dz > 0 THEN ang3d = 90
      IF dz < 0 THEN ang3d = -90
    ELSE
      IF dy > 0 THEN ang2d = 90
      IF dy < 0 THEN ang2d = -90
      ang3d = ATAN ( dz / len2d )
    ENDIF
  ELSE
    ang3d = ATAN ( dz / len2d )
    IF ABS ( dy ) < eps THEN
      IF dx > 0 THEN ang2d = 0
      IF dx < 0 THEN ang2d = 180
    ELSE
      ang2d = ATAN ( dy / dx )
      IF dx > 0 AND dy > 0 THEN
        ang2d = 0 + ang2d !I. quadarant
      ENDIF
      IF dx < 0 AND dy > 0 THEN
        ang2d = 180 + ang2d !II. quadarant
      ENDIF
      IF dx < 0 AND dy < 0 THEN
        ang2d = 180 + ang2d !III. quadarant
      ENDIF
      IF dx > 0 AND dy < 0 THEN
        ang2d = 0 + ang2d !IV. quadarant
      ENDIF

    ENDIF
  ENDIF
  PARAMETERS ang2d = ang2d , ang3d = ang3d

ENDIF

LOCK "ang2d","ang3d"
```

3D-Script

```
RESOL res

GOSUB "set_fmt_3d"

IF fc_c THEN
  SECT_FILL fc_c_id
ENDIF

IF fc_f THEN
  SECT_FACESTYLE fc_f_id
ENDIF

IF fc_h THEN
  SECT_HATCHING fc_h_id
ENDIF

IF fc_p THEN
  SECT_PATTERN fc_p_id
ENDIF

id = 1
HANDLE 0 , dy0 , dz0 , id , "dx0" , 1
HANDLE dx0 , dy0 , dz0 , id , "dx0" , 2
HANDLE -1 , dy0 , dz0 , id , "dx0" , 3

HANDLE dx0 , 0 , dz0 , id , "dy0" , 1
HANDLE dx0 , dy0 , dz0 , id , "dy0" , 2
HANDLE dx0 , -1 , dz0 , id , "dy0" , 3

HANDLE dx0 , dy0 , 0 , id , "dz0" , 1
HANDLE dx0 , dy0 , dz0 , id , "dz0" , 2
HANDLE dx0 , dy0 , -1 , id , "dz0" , 3
id = id + 1

HANDLE 0 , dy1 , dz1 , id , "dx1" , 1
HANDLE dx1 , dy1 , dz1 , id , "dx1" , 2
HANDLE -1 , dy1 , dz1 , id , "dx1" , 3

HANDLE dx1 , 0 , dz1 , id , "dy1" , 1
HANDLE dx1 , dy1 , dz1 , id , "dy1" , 2
HANDLE dx1 , -1 , dz1 , id , "dy1" , 3

HANDLE dx1 , dy1 , 0 , id , "dz1" , 1
HANDLE dx1 , dy1 , dz1 , id , "dz1" , 2
HANDLE dx1 , dy1 , -1 , id , "dz1" , 3
id = id + 1

TRANS dx0 , dy0 , dz0

ROTZ -90 + ang2d
ROTX -90 + ang3d

IF show_axis THEN
  GOSUB "set_fmt_axs"
```

```
  LINE 0 , 0 , 0 , 0 , 0 , len3d
  GOSUB "set_fmt_3d"
ENDIF

IF std_col_3d_bly THEN
  COLOR BY_LAYER
ELSE
  COLOR std_col_3d
ENDIF


HANDLE 1 , 0 , len3d / 2 , id , "ang_axs" , 4
HANDLE COS ( ang_axs ) * wdt / 2 , SIN ( ang_axs ) * wdt / 2 , len3d / 2 , id , "ang_axs" , 5
HANDLE 0 , 0 , len3d / 2 , id , "ang_axs" , 6
HANDLE 0 , 0 , len3d , id , "ang_axs" , 7
id = id + 1

HANDLE 0 , 0 , len3d + .25 , id , "n_beam" , 8 !NEW

ROTZ ang_axs

FOR n = 1 TO n_beam !NEW
  TRANS -wdt / 2 , 0 , 0
  BOX wdt , hgt , len3d
  RESTORE 1 !NEW
  TRANS 0,0,len3d !NEW
NEXT !NEW
RESTORE ALL

END
```