

PARAMETER

p	[5][2]	length	Profile point	...
p_cnt		integer	Number profile points	4
p_del		integer	Del point	0
p_ins		integer	Insert point	0
ref_x		length	Measure x	100
ref_y		length	Measure y	100
ref_z		length	Measure z	100

MASTER SCRIPT

```
eps = 0.00001
```

```
x = 1
```

```
y = 2
```

```
z = 3
```

PARAMETER SCRIPT

```
!!!get insert index
```

```
IF GLOB_MODPAR_NAME = "p_ins" THEN
```

```
  IF p_ins > 0 THEN
```

```
    i = p_ins
```

```
    GOSUB "ins_pnt_p"
```

```
  ENDIF
```

```
  !!!reset flag
```

```
  p_ins = 0
```

```
  PARAMETERS p_ins = p_ins
```

```
ENDIF
```

```
!!!get delete index
```

```
IF GLOB_MODPAR_NAME = "p_del" THEN
```

```
  IF p_del > 0 THEN
```

```
    i = p_del
```

```
    GOSUB "del_pnt_p"
```

```
  ENDIF
```

```
  !!!reset flag
```

```
  p_del = 0
```

```
  PARAMETERS p_del = p_del
```

```
ENDIF
```

```
END
```

```
"reset_p":
```

```
!!!reset point count
```

```
p_cnt = 4
```

```
PARAMETERS p_cnt = p_cnt
```

```
!!!reset point position
```

```
REDIM p [ 4 ] [ 2 ]
```

```
PARAMETERS p = p
```

```
p [ 1 ] [ x ] = x1
```

```
PARAMETERS p [ 1 ] [ x ] = p [ 1 ] [ x ]
```

```
p [ 1 ] [ y ] = y1
```

```
PARAMETERS p [ 1 ] [ y ] = p [ 1 ] [ y ]
```

```
p [ 2 ] [ x ] = x2
```

```
PARAMETERS p [ 2 ] [ x ] = p [ 2 ] [ x ]
```

```
p [ 2 ] [ y ] = y2
```

```
PARAMETERS p [ 2 ] [ y ] = p [ 2 ] [ y ]
```

```
p [ 3 ] [ x ] = x3
```

```
PARAMETERS p [ 3 ] [ x ] = p [ 3 ] [ x ]
```

```
p [ 3 ] [ y ] = y3
```

```
PARAMETERS p [ 3 ] [ y ] = p [ 3 ] [ y ]
```

```

p [ 4 ] [ x ] = x4
PARAMETERS p [ 4 ] [ x ] = p [ 4 ] [ x ]
p [ 4 ] [ y ] = y4
PARAMETERS p [ 4 ] [ y ] = p [ 4 ] [ y ]

RETURN

"ins_pnt_p":
!!!move points above
FOR j = p_cnt + 1 TO i + 1 STEP -1
  p [ j ] [ x ] = p [ j - 1 ] [ x ]
  p [ j ] [ y ] = p [ j - 1 ] [ y ]
  PARAMETERS p [ j ] [ x ] = p [ j ] [ x ],
  p [ j ] [ y ] = p [ j ] [ y ]
NEXT j
!!!calc new position
x1 = p [ i ] [ x ]
y1 = p [ i ] [ y ]
IF i = p_cnt THEN
  x2 = p [ 1 ] [ x ]
  y2 = p [ 1 ] [ y ]
ELSE
  x2 = p [ i + 2 ] [ x ]
  y2 = p [ i + 2 ] [ y ]
ENDIF
cx = x1 + ( x2 - x1 ) / 2
cy = y1 + ( y2 - y1 ) / 2
!!!insert point
p [ i + 1 ] [ x ] = cx
p [ i + 1 ] [ y ] = cy
PARAMETERS p [ i + 1 ] [ x ] = p [ i + 1 ] [ x ],
p [ i + 1 ] [ y ] = p [ i + 1 ] [ y ]
!!! increment point count
p_cnt = p_cnt + 1
PARAMETERS p_cnt = p_cnt
RETURN

```

```

"del_pnt_p":
!!!move points above
FOR j = i TO p_cnt - 1
  p [ j ] [ x ] = p [ j + 1 ] [ x ]
  p [ j ] [ y ] = p [ j + 1 ] [ y ]
  PARAMETERS p [ j ] [ x ] = p [ j ] [ x ],
  p [ j ] [ y ] = p [ j ] [ y ]
NEXT j
!!!decrement point count
p_cnt = p_cnt - 1
PARAMETERS p_cnt = p_cnt
RETURN

```

3D SCRIPT

ROTZ 180

```

GOSUB "put_pnts_p"
GOSUB "ins_hnd_p"

```

```

GROUP "pri"
PRISM p_cnt + 1 , REF_Z ,
GET ( NUM_SP )
GROUP_END
!GROUP_PLACE pri

```

RESTORE 1

```

GROUP "mat"
BOX REF_X , REF_Y , REF_Z

```

```

GROUP_END
!GROUP_PLACE mat

res = ""
res = GROUP_DIFF ( "pri" , "mat" )
GROUP_PLACE res

END

"ins_hnd_p":
FOR i = 1 TO p_cnt
x1 = p [ i ] [ x ]
y1 = p [ i ] [ y ]
IF i = p_cnt THEN
  x2 = p [ 1 ] [ x ]
  y2 = p [ 1 ] [ y ]
ELSE
  x2 = p [ i + 1 ] [ x ]
  y2 = p [ i + 1 ] [ y ]
ENDIF
cx = x1 + ( x2 - x1 ) / 2
cy = y1 + ( y2 - y1 ) / 2

IF no_prof = 0 THEN
  HANDLE cx , cy , 0 , id , "p_ins" , 10 , i
ENDIF

id = id + 1
NEXT i
RETURN

"put_pnts_p":

FOR i = 1 TO p_cnt
cx = p [ i ] [ x ]
cy = p [ i ] [ y ] !!!delete handles only if more than 3 points
IF p_cnt > 3 THEN

  HANDLE2 0 , 0 , id , p [ i ] [ x ] , 1
  HANDLE2 cx , cy , id , p [ i ] [ x ] , 2
  HANDLE2 -1 , 0 , id , p [ i ] [ x ] , 3

  HANDLE2 0 , 0 , id , p [ i ] [ y ] , 1
  HANDLE2 cx , cy , id , p [ i ] [ y ] , 2
  HANDLE2 0 , -1 , id , p [ i ] [ y ] , 3

  id = id + 1

  HANDLE2 cx , cy , id , "p_del" , 10 , i
  id = id + 1
ENDIF
! PUT p [ i ] [ x ] , p [ i ] [ y ]
NEXT i

RETURN

```