

# Select points for curves prior to calculation directly in Input

Using the `__selectcurvepoints` command in Plaxis Input in PLAXIS 2D 2016 and PLAXIS 3D 2016

Latest version of this document available online:

<http://kb.plaxis.com/tips-and-tricks/select-points-curves-prior-calculation-directly-input>

Normally, the Output program is needed to select specific nodes and stress points for which data will be stored during the calculation. This data can be used to generate curves. Alternatively, it is also possible to select points for curves prior to the calculation by using the command line in PLAXIS 2D AE Input and PLAXIS 3D Input. This can be useful when using commands in the commands runner for example.

## `__selectcurvepoints` (Input only)

Note this command is deprecated and will be removed in future versions of PLAXIS 2D and PLAXIS 3D.

### `__selectcurvepoints`

This command will do the following:

1. it will clean all prior selected points for curves
2. for each set of coordinates it will find the closest node and closest stress point in the generated mesh and select those as pre-calculation selected nodes and stress points
3. the maximum number of coordinates is 10

Note:

- the command will remove any existing selection
- if the point does not exist, it will take the nearest one. When the mesh is changed, the exact location of this selected node could change from the earlier made selection. To force a specific point to be in the generated mesh: add a point at this location and refine it appropriately (e.g. a factor of 0.25 when close to other geometry).
- Stress points are internal points inside an element, so it is not possible to force a specific location for stress points
- when specifying a point on a boundary, the nearest stress point will be based on the local element distribution and element size
- when interfaces are involved, the selected node cannot be predicted. It can be part of the positive interface, of the negative interface or of the plate element in between, because all these nodes have the same coordinates.
- and the command currently only works in mesh mode.

## Examples

### To select just one coordinate in PLAXIS 2D

```
__selectcurvepoints 5 0
```

This will result in selecting node A and stress point K nearest to  $(x, y) = (5, 0)$

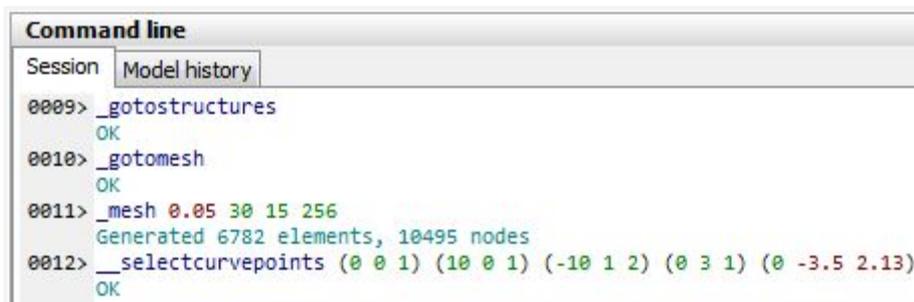
### To select just one coordinate in PLAXIS 3D

```
__selectcurvepoints 0 3 5
```

This will result in selecting node A and stress point K nearest to  $(x, y, z) = (0, 3, 5)$

### To select multiple coordinates in PLAXIS 3D

```
__selectcurvepoints (0 0 1) (10 0 1) (-10 1 2) (0 3 1) (0 -3.5 2.13)
```



```

Command line
Session | Model history
0009> _gotostructures
      OK
0010> _gotomesh
      OK
0011> _mesh 0.05 30 15 256
      Generated 6782 elements, 10495 nodes
0012> __selectcurvepoints (0 0 1) (10 0 1) (-10 1 2) (0 3 1) (0 -3.5 2.13)
      OK
  
```

This will result in selecting

- node A and stress point K nearest to  $(x, y, z) = (0, 0, 1)$
- node B and stress point L nearest to  $(x, y, z) = (10, 0, 1)$
- node C and stress point M nearest to  $(x, y, z) = (-10, 1, 2)$
- node D and stress point N nearest to  $(x, y, z) = (0, 3, 1)$
- node E and stress point O nearest to  $(x, y, z) = (0, -3.5, 2.13)$

Note, the brackets in the command are not necessary, but help to read the line.

See also the Command Reference via the Help menu in these versions..