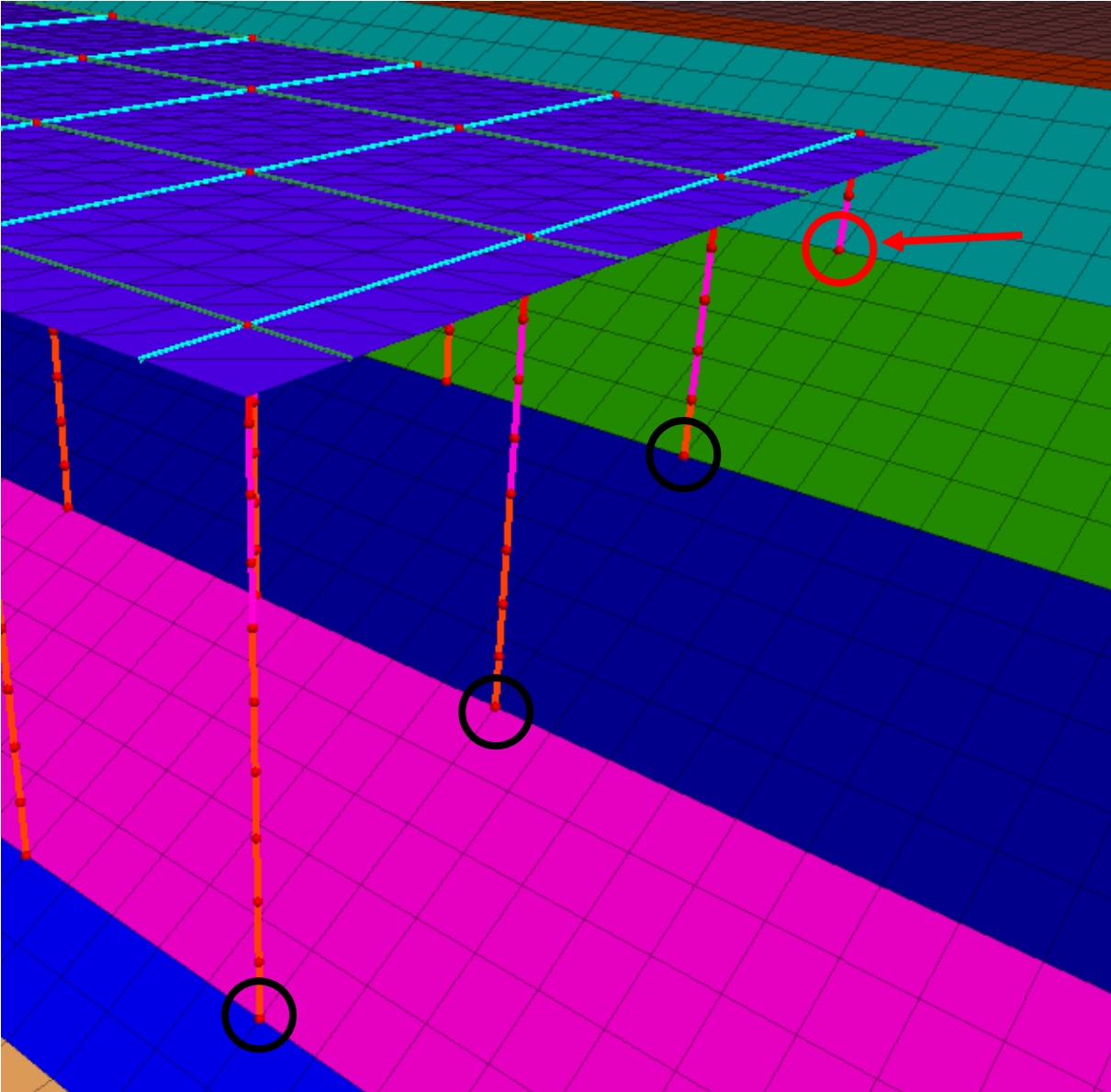


Question by CGulenc

19 10 2023

Why doesn't the pile node create a p-y or a t-z link at which the pile elements and the zone elements are intersected?

The following figure shows a wharf model. Only the node with red marked below does not have a pile link although its coordinates are exactly the same with the adjacent zones' coordinates.



There is no link at Node-118. It starts from Node-119.

The image displays two screenshots from the flac3d900 software interface, illustrating the configuration of pile structural elements in a 3D model.

**Top Screenshot: Pile Structural Element 110**

- Component ID: 110
- Group: Default=composite
- Location: (88.715, 70, -0.446235)
- Nodes: 117, 118
- Mark: false
- Local X: (0, 0, -1)
- Local Y: (0, 1, 0)
- Local Z: (1, 0, 0)
- Prop coupling-cohesion-normal: 0
- Prop coupling-cohesion-shear: 0
- Prop coupling-cohesion-table:
- Prop coupling-confining-flag: off
- Prop coupling-confining-table:
- Prop coupling-friction-normal: 30
- Prop coupling-friction-shear: 30
- Prop coupling-friction-table:
- Prop coupling-gap-normal: off
- Prop coupling-stiffness-normal: 100000
- Prop coupling-stiffness-shear: 100000
- Prop cross-sectional-area: 0.0687003
- Prop density: 7.849
- Prop direction-v: (0, 1, 0)

**Bottom Screenshot: Pile Structural Element 111**

- Component ID: 111
- Group: Default=compositeinarmour
- Location: (88.715, 70, -1.71729)
- Nodes: 118, 119
- Mark: false
- Local X: (0, 0, -1)
- Local Y: (0, 1, 0)
- Local Z: (1, 0, 0)
- Prop coupling-cohesion-normal: 0
- Prop coupling-cohesion-shear: 0
- Prop coupling-cohesion-table:
- Prop coupling-confining-flag: off
- Prop coupling-confining-table:
- Prop coupling-friction-normal: 30
- Prop coupling-friction-shear: 30
- Prop coupling-friction-table:
- Prop coupling-gap-normal: off
- Prop coupling-stiffness-normal: 100000
- Prop coupling-stiffness-shear: 100000
- Prop cross-sectional-area: 0.0687003
- Prop density: 7.849
- Prop direction-v: (0, 1, 0)

The 3D model shows a vertical pile structure with nodes 117, 118, and 119. Node 118 is highlighted with a black box, and Node 119 is also highlighted with a black box. Red arrows point from the dialog boxes to the corresponding nodes in the model.

flac3d900

## SEL Node 118

Position: ( 88.3684, 69.9997, -1.13331)  
 Ref. position: ( 88.715, 70, -1.14247)  
 Displacement: (-0.346632, -0.00025901, 0.00916194)  
 Velocity: (-0.0064763, -0.000782574, -0.00137384)  
 Acceleration: ( 6.09085, -2.02986, 0.387048)  
 Out-of-balance force: ( 4.1746, -1.39124, -0.255278)  
 Applied force: ( 0, 0, 0)  
 Angular displacement: (-7.48401e-05, -0.0022266, 6.29821e-06)  
 Angular velocity: ( 0.00026255, 0.00199694, -3.46573e-06)  
 Angular acceleration: ( 3.91231, 48.5702, -1.17587)  
 Applied moment: ( 0, 0, 0)  
 Local X: ( 0, 0, -1)  
 Local Y: ( 0, 1, 0)  
 Local Z: ( 1, 0, 0)  
 Fix: ---:--  
 Mass: ( 0.685388, 0.685388, 0.685388)  
 Angular mass: ( 0.0131481, 0.0131481, 0.0131481)

SEL Links: 

null	null	null	null	null	null	null	null	null	null	null	null	null
null	null	null	null									

Connected to SELs: 

111	110
-----	-----

Surface System: Invalid  
Groups: Default=Pile Benin

New Log Add to Log Copy All OK

No link!

flac3d900

## SEL Node 119

Position: ( 88.3711, 69.9997, -2.28291)  
 Ref. position: ( 88.715, 70, -2.29211)  
 Displacement: (-0.343879, -0.00032978, 0.00919769)  
 Velocity: (-0.00649142, -0.000117913, -0.000265768)  
 Acceleration: ( 2.73191, 3.0381, 1.63715)  
 Out-of-balance force: ( 1.69356, 1.88337, 1.0149)  
 Applied force: ( 0, 0, 0)  
 Angular displacement: (-4.85831e-05, -0.00255251, 6.02827e-06)  
 Angular velocity: ( 0.000356428, 0.00277596, -3.64526e-06)  
 Angular acceleration: ( 1.26382, 69.8101, -0.681845)  
 Applied moment: ( 0, 0, 0)  
 Local X: ( 0, 0, -1)  
 Local Y: ( 0, 1, 0)  
 Local Z: ( 1, 0, 0)  
 Fix: ---:--  
 Mass: ( 0.619917, 0.619917, 0.619917)  
 Angular mass: ( 0.0110661, 0.0110661, 0.0110661)

SEL Links: 

89	null	null	null	null	null	null	null	null	null	null	null	null
null	null	null	null									

Connected to SELs: 

112	111
-----	-----

Surface System: Invalid  
Groups: None

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