

# ANSYS - Force Reaction Probe (Contact)

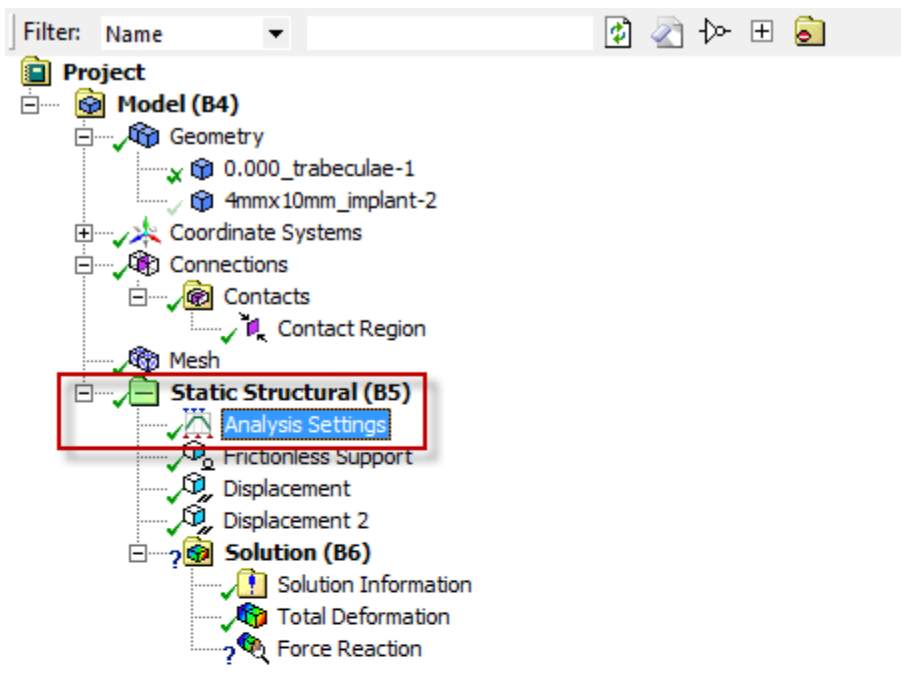
When selecting Force Reaction Probe, there are several options for location, as shown below;

Details of "Force Reaction"	
<b>Definition</b>	
Type	Force Reaction
Location Method	Boundary Condition
Boundary Condition	Contact Region
Orientation	Remote Points
Suppressed	Beam
	Spring
	Mesh Connection
	Surface
<b>Options</b>	
Result Selection	All
<input type="checkbox"/> Display Time	End Time
<b>Results</b>	
<b>Maximum Value Over Time</b>	
<input type="checkbox"/> X Axis	
<input type="checkbox"/> Y Axis	
<input type="checkbox"/> Z Axis	
<input type="checkbox"/> Total	
<b>Minimum Value Over Time</b>	
<input type="checkbox"/> X Axis	
<input type="checkbox"/> Y Axis	
<input type="checkbox"/> Z Axis	
<input type="checkbox"/> Total	
<b>Information</b>	

The options, in order, are

- Boundary Condition
- Contact Region
- Remote Points
- Beam
- Spring
- Mesh Connection
- Surface

In order to include a reaction probe for a Contact region, you must first add an Output Control, under Analysis Settings back up under Static Structural. Set 'Nodal Forces' to 'Yes' as shown below;



Details of "Analysis Settings"	
[-] <b>Step Controls</b>	
Number Of Steps	1.
Current Step Number	1.
Step End Time	1. s
Auto Time Stepping	Program Controlled
[-] <b>Solver Controls</b>	
Solver Type	Program Controlled
Weak Springs	Program Controlled
Solver Pivot Checking	Program Controlled
Large Deflection	Off
Inertia Relief	Off
[+] <b>Restart Controls</b>	
[+] <b>Nonlinear Controls</b>	
[-] <b>Output Controls</b>	
Stress	Yes
Strain	Yes
Nodal Forces	Yes
Contact Miscellaneous	No
General Miscellaneous	No
Store Results At	All Time Points
[+] <b>Analysis Data Management</b>	
[+] <b>Visibility</b>	

 Also, set 'Contact Miscellaneous' to 'Yes' as well

Then you must RE-SOLVE THE SOLUTION, or the new output control that you included will not be taken into effect. To do this, delete the probe and then rerun. Once complete, you may re-insert the reaction probe and select Contact, and you will no longer get an error from Output Controls.

