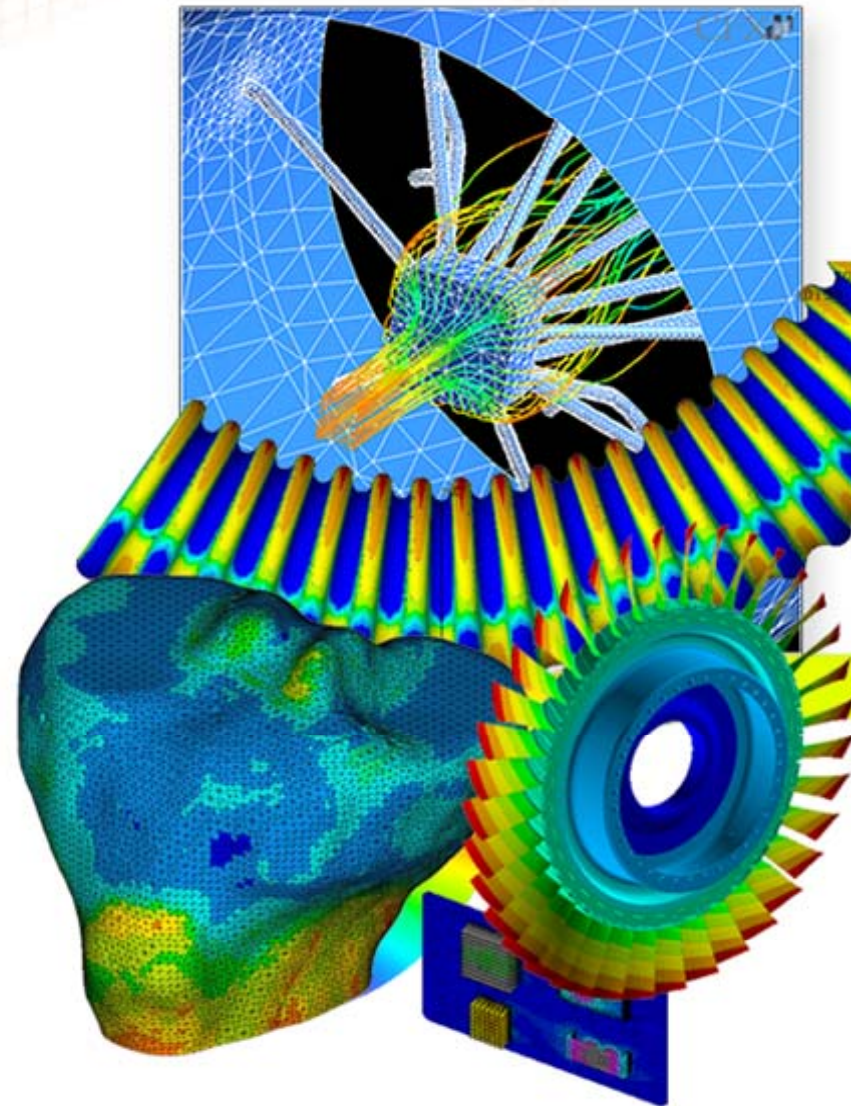
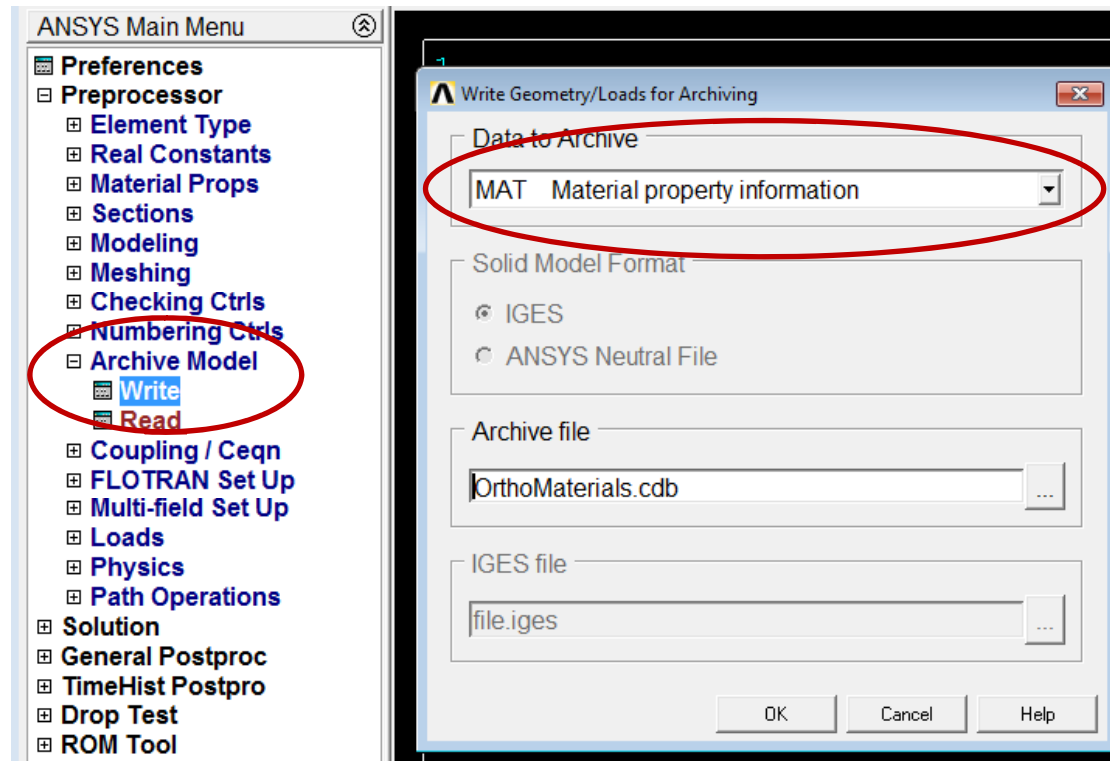


Importing ANSYS Mechanical APDL Materials into Workbench



Importing MAPDL Materials into WB

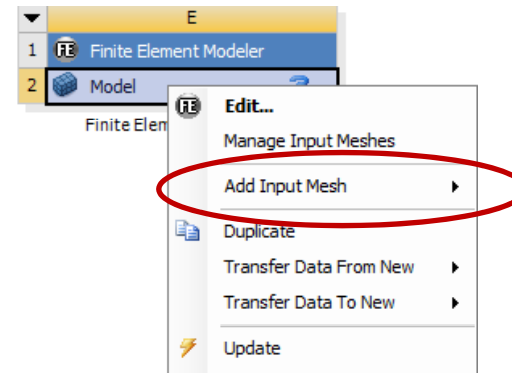
- ANSYS MAPDL material properties can be imported into Workbench Engineering Data for application in Mechanical.
- **Step 1:** Export the material properties in archive file format (.cdb)
 - Temperature dependent orthotropic properties used in this example, “MaterialImport.wbpj”



Importing MAPDL Materials into WB

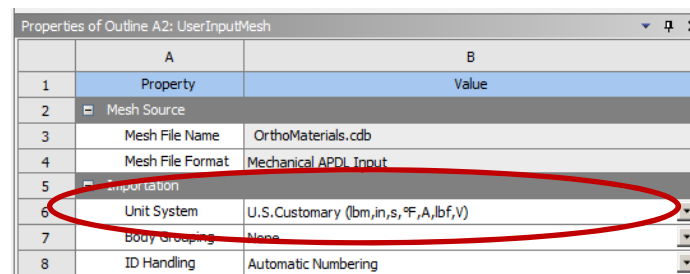
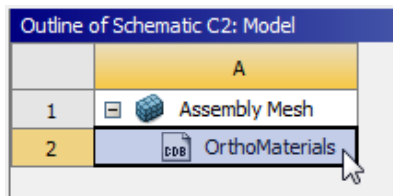
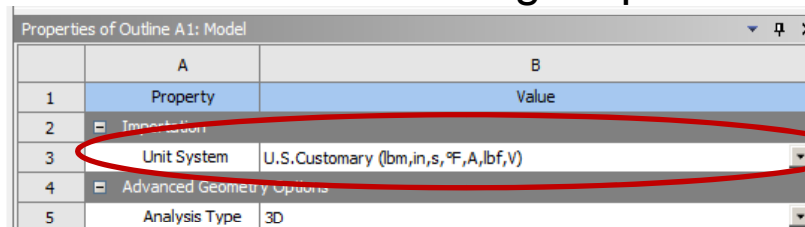
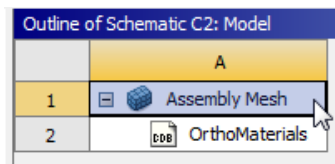
- **Step 2:** Insert a Finite Element Modeler component into your project Schematic.

- RMB Click and “Add Input Mesh”
- Browse for your materials .cdb file.



- **Step 3:** Select proper units for FE Modeler

- RMB Click on FE Modeler and select “Manage Input Meshes”

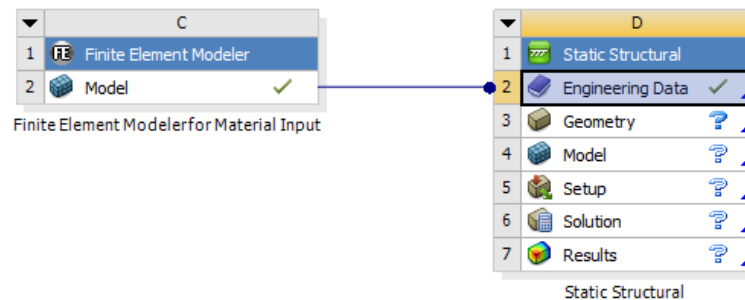


Click on **both** “Assembly mesh” **and** .cdb file to ensure the proper units.

Importing MAPDL Materials into WB



- **Step 3:** Update FE Modeler to process .cdb file.
 - Link FE Modeler to your Engineering Data in your Analysis System.
 - Refresh and open Engineering Data to confirm material import.



Outline of Schematic D2: Engineering Data			
A	B	C	D
1	Contents of Engineering Data	source	Description
2	Material		
3	Structural Steel		Fatigue Data at zero mean stress comes from 1998 ASME BPV Code, Section 8, Div 2, Table 5-110.1
4	Unnamed		
5	Unnamed 2		
*	Click here to add a new material		

Table of Properties Row 9: Orthotropic Elasticity				
A	B	C	D	E
1	Temperature (F)	Young's Modulus X direction (psi)	Young's Modulus Y direction (psi)	Young's Modulus Z direction (psi)
2	72	1.7889E+07	1.12839E+06	1.12839E+06
3	300	1.5E+07	1E+06	1E+06
*				

Properties of Outline Row 4: Unnamed				
A	B	C	D	E
1	Property	Value	Unit	
2	Density	0.000123329	lbm in^-3	
3	Orthotropic Secant Coefficient of Thermal Expansion			
9	Orthotropic Elasticity	Tabular		