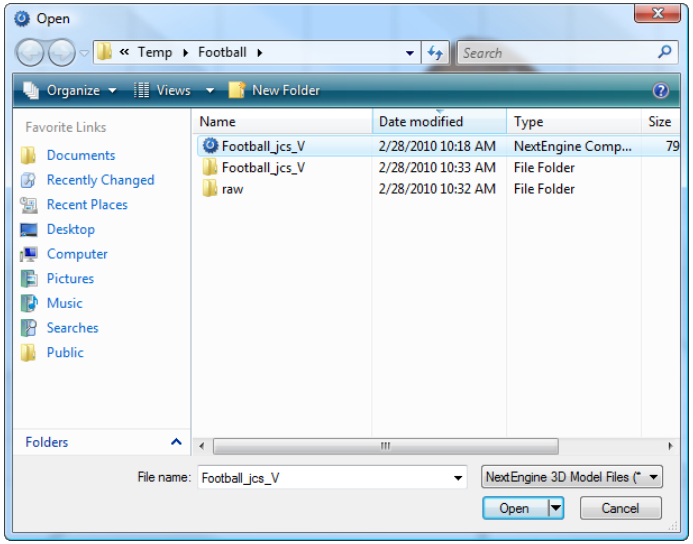
Scanner – Inventor

Jcs – 9/28/2012

Startup

1. Start Scanstudio

2. Open the previously saved file

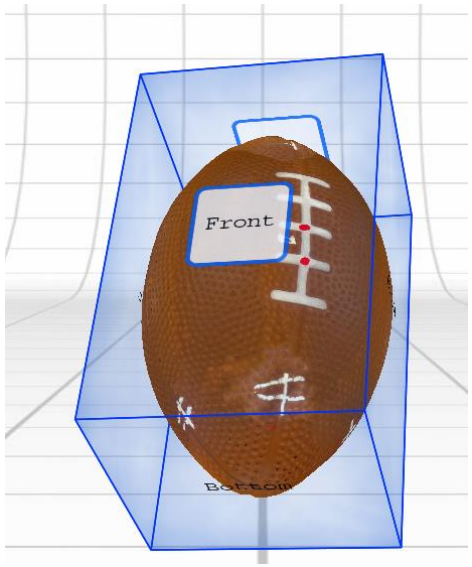


3. Select: 

Orient

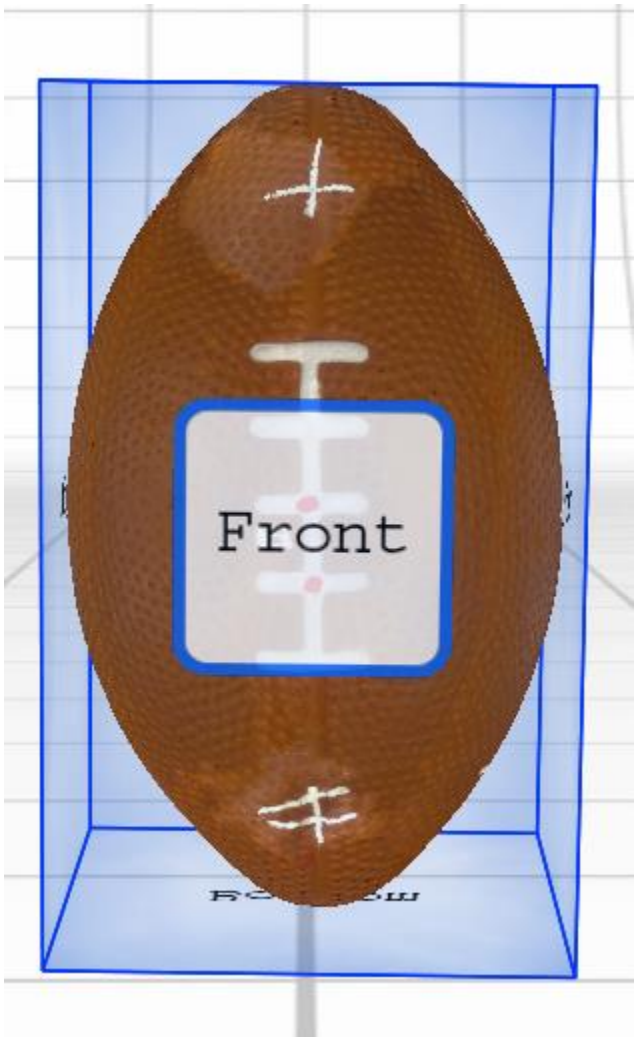
1. Select: 

2. Select: 



3. Use the following, to orient the foot ball to the faces

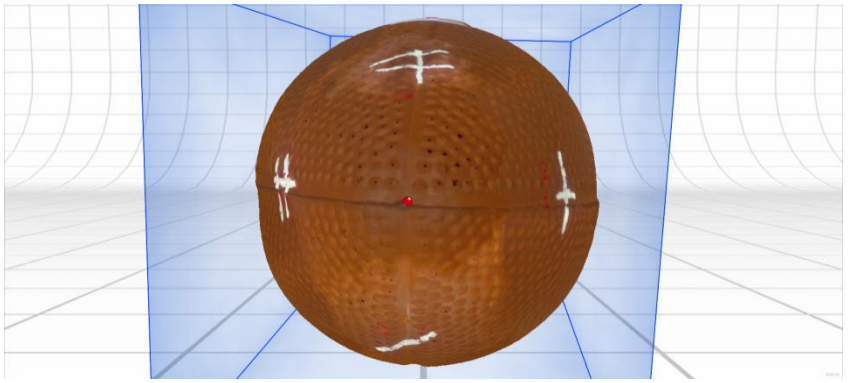
- Rotate Object and Box 
- Rotate Box 
- Rotate Object 
- Constrain rotation to the y-axis 
- Constrain rotation to the x-axis 
- Constrain rotation to the z-axis 



4. Select: 

(Note: this feature may not work)

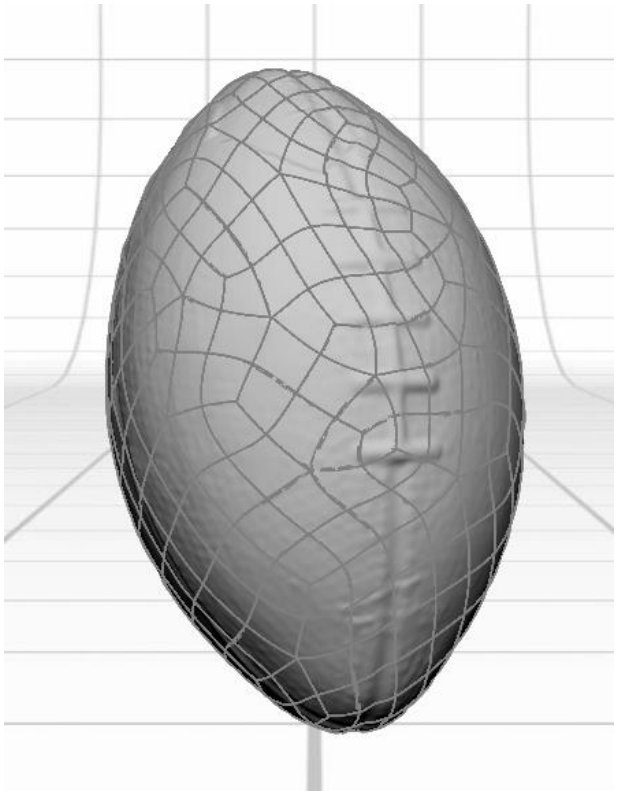
5. Place the red dot



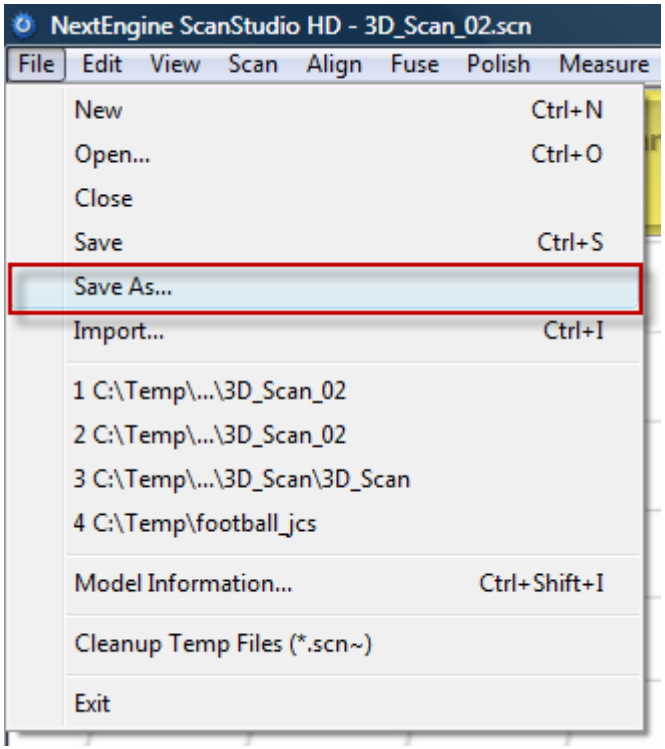
Surface (Generate a NURBS surface)

6. Select: 

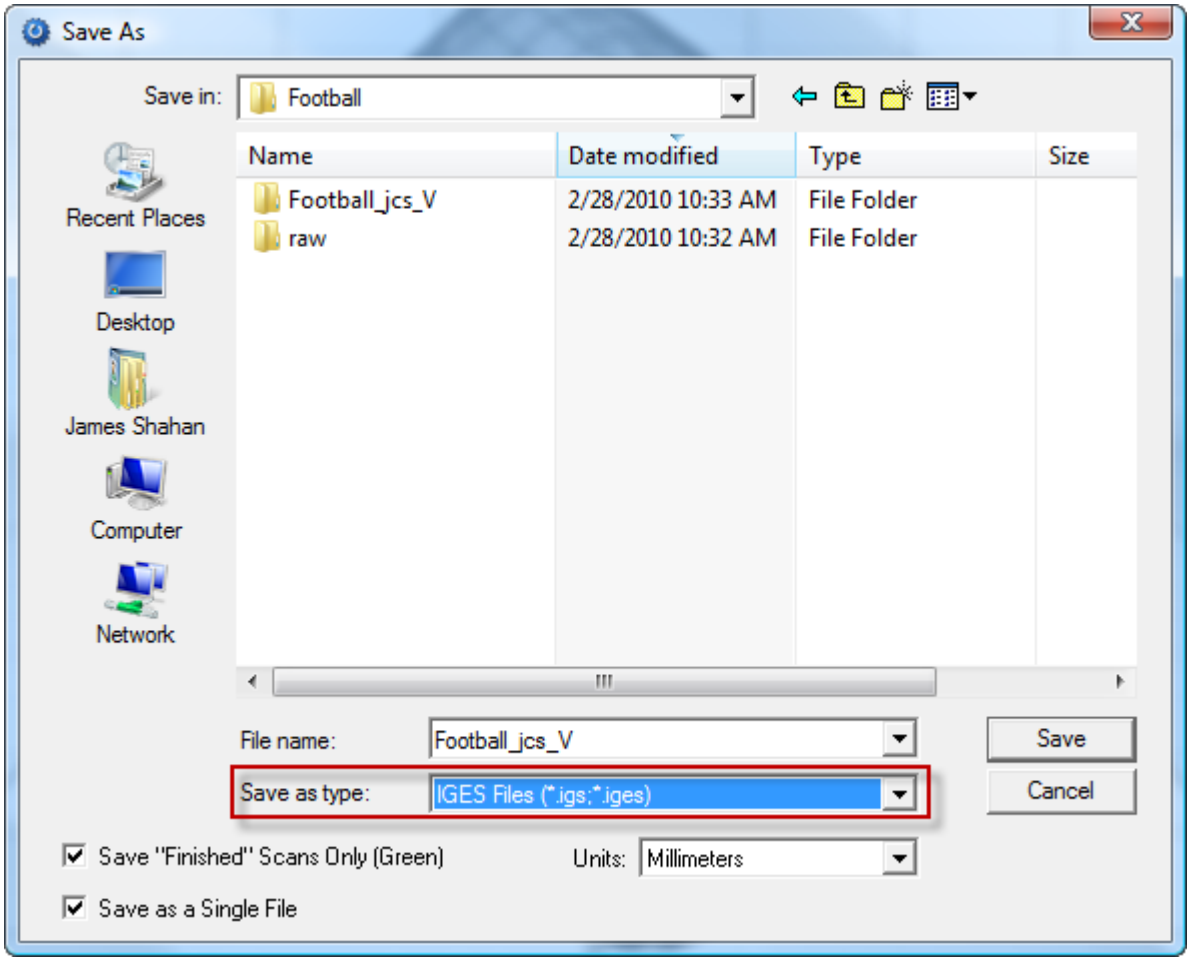
Verify: that only the fused model is in the green portion of the screen	
7. Select: Surface	

Result	

Export

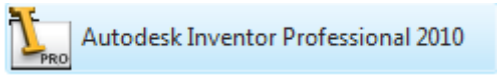
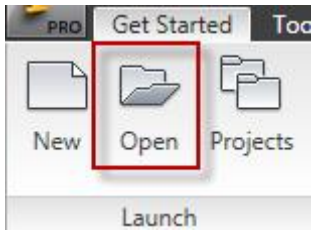
1. Select: File | Save-AS	
Verify: that only the surfaced model is in the green portion of the screen	

2. Select – Save as type: IGES

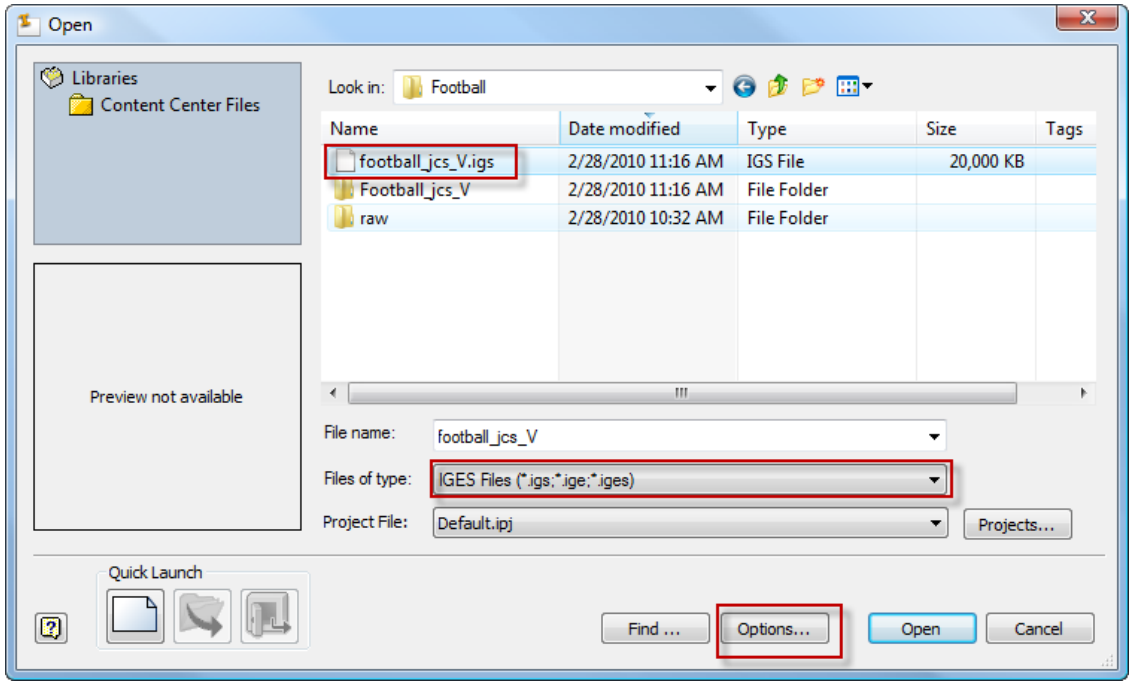


3. Select:

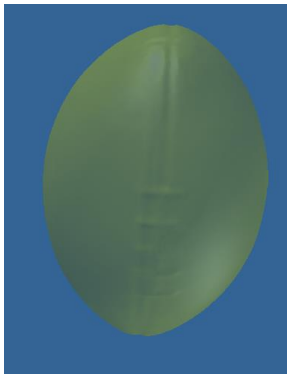
Open Inventor / Import the IGES file

1. Start: Autodesk Inventor	
2. Select: Open	

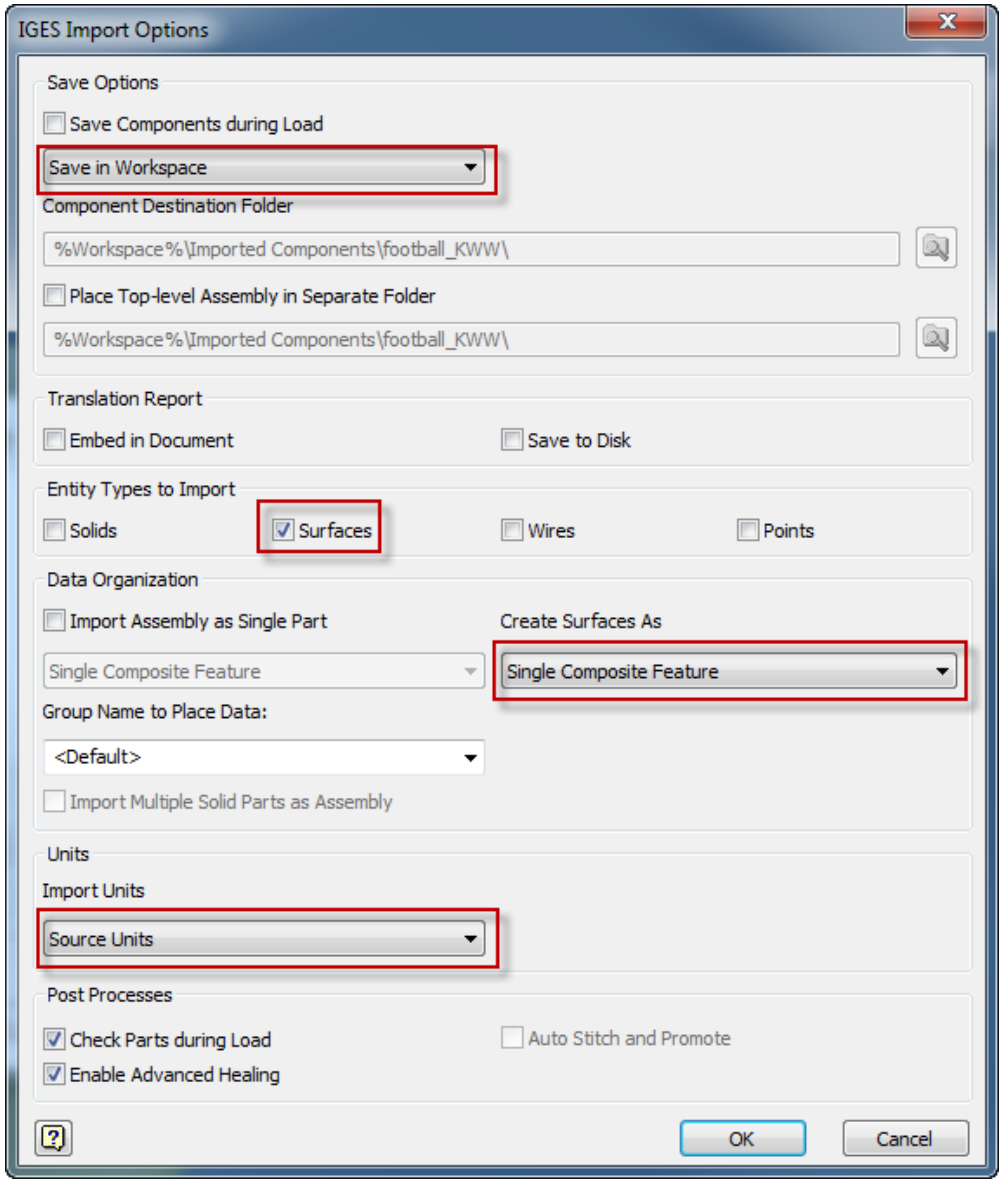
3. Select
    a. Files of type: IGES
    b. File name: preveiously saved
    c. Options



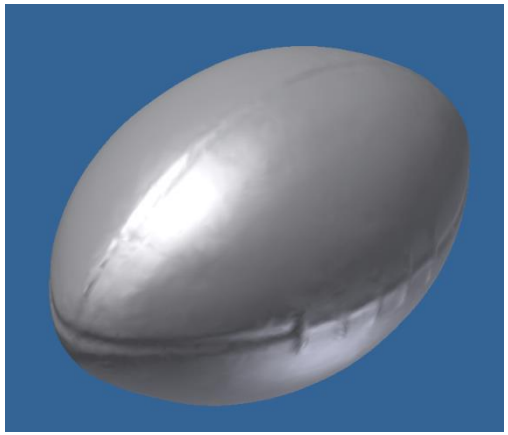
4. Create a Surface Model

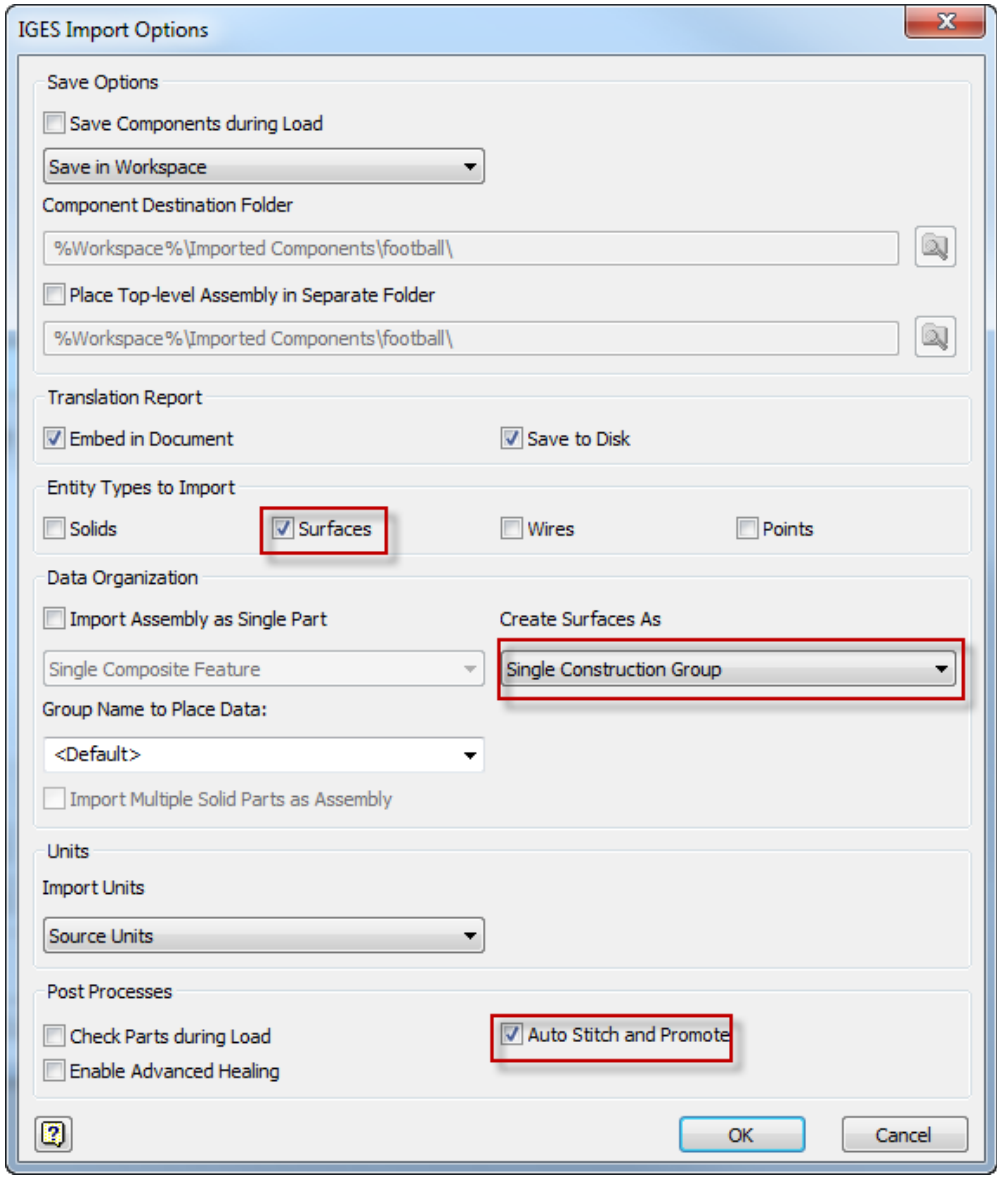


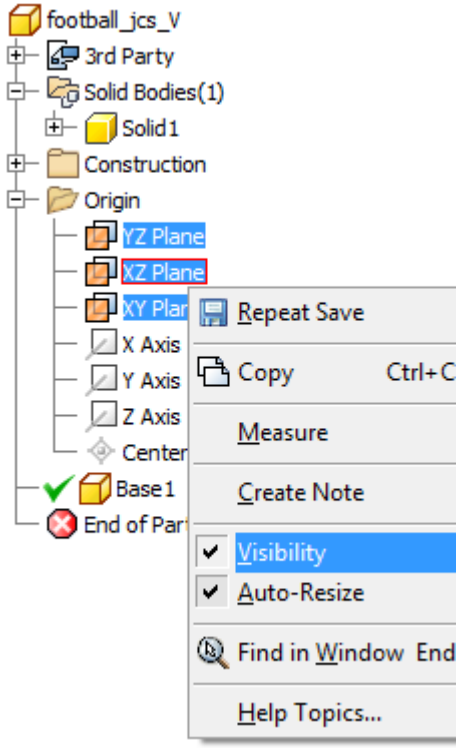
5. Save the file.

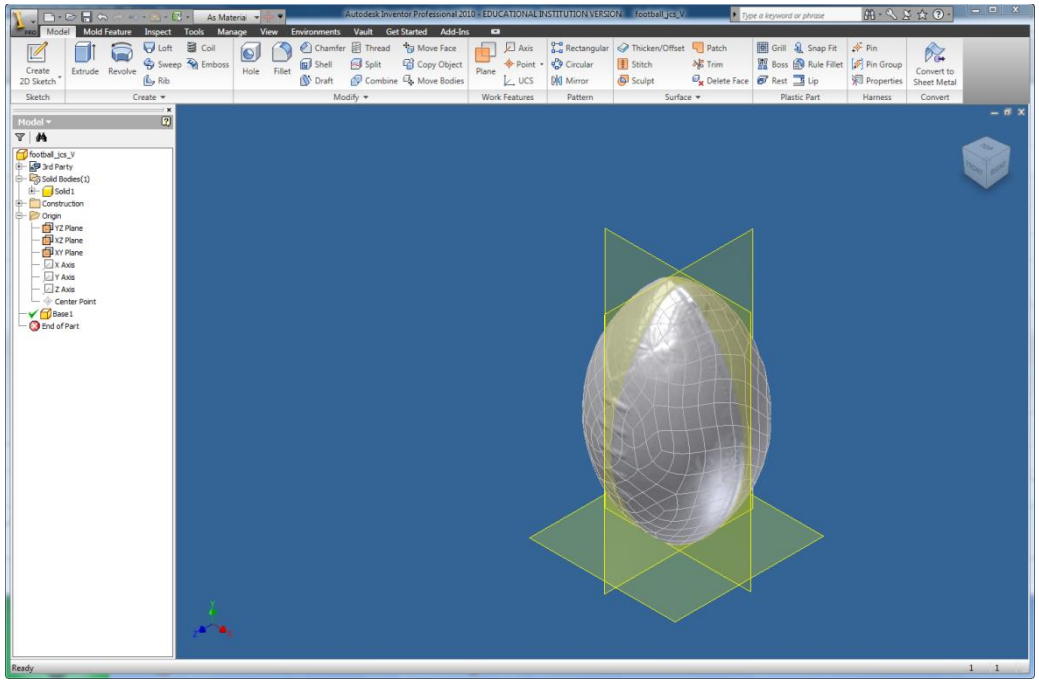


6. Repeat steps 3-5. Create a solid model. Use appropriate filenames





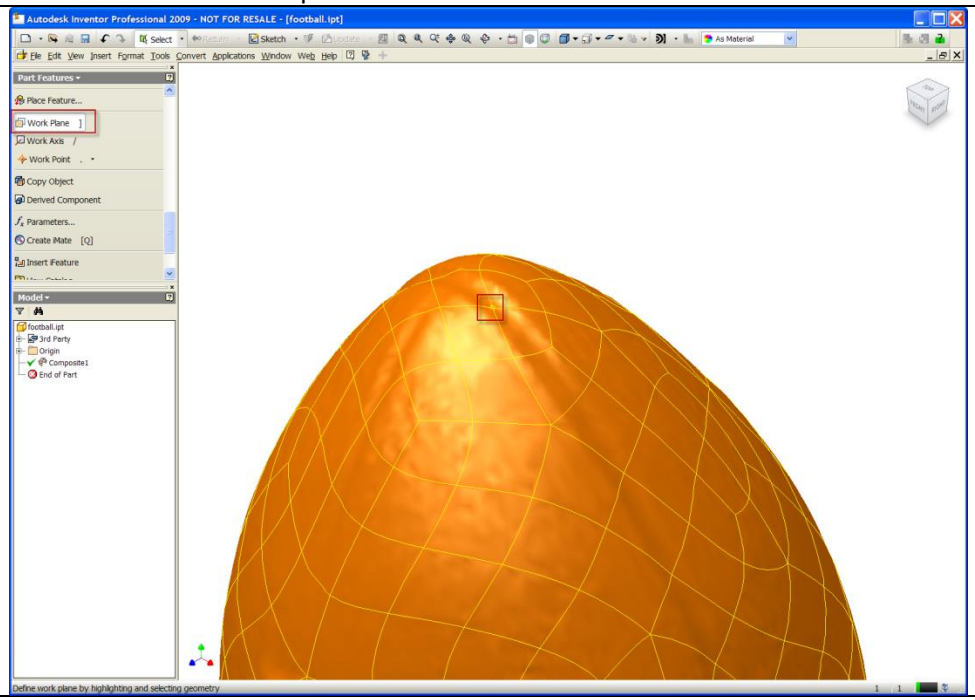
7. Display the XYZ reference planes.	

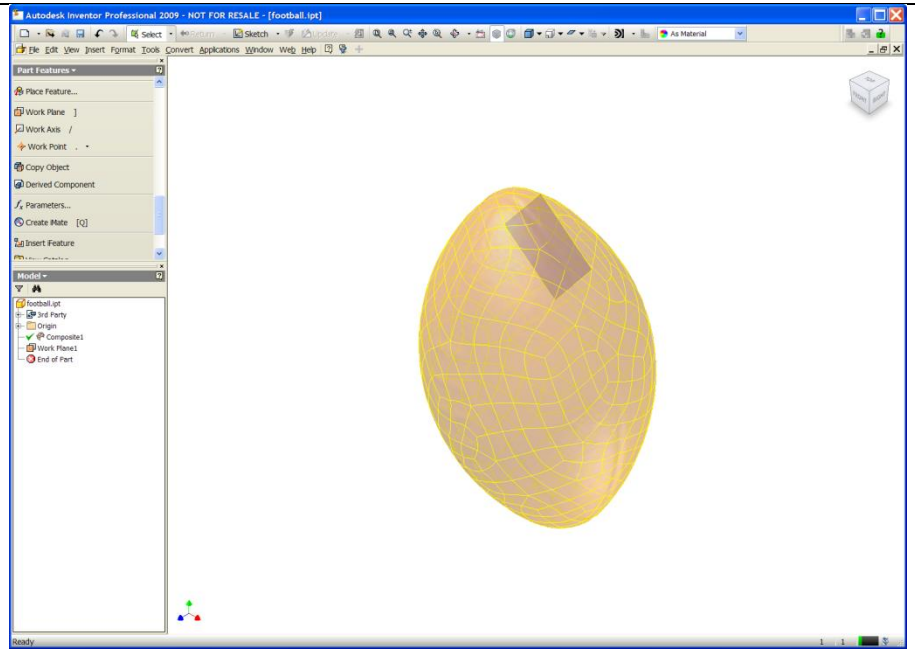
8. Verify	
9. Save the .ipt file	

10. Add reference geometry to the football. (If needed)
    - Establish the orientation of the football
    - The reference geometry will be used to locate the part in an assembly

Note: The football doesn't require "precise" alignment. Therefore the following quick steps will work to get started. Additional accuracy requires more time.

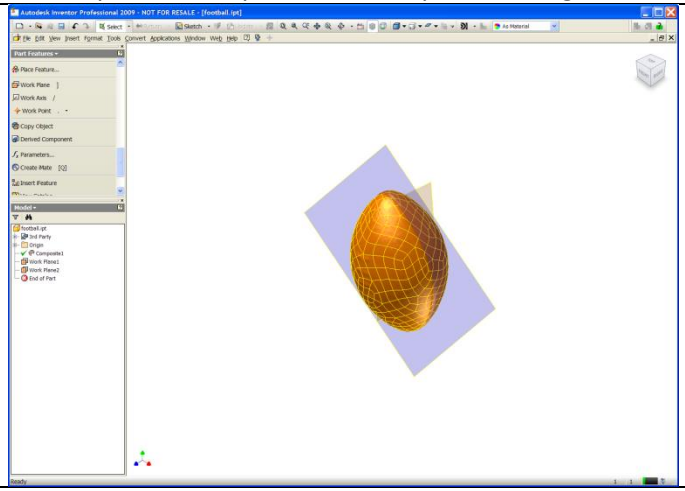
a. Add a work plane through one of the seams in the model.
    a. Select the workplane feature
    b. Select 3 points that are on the seam





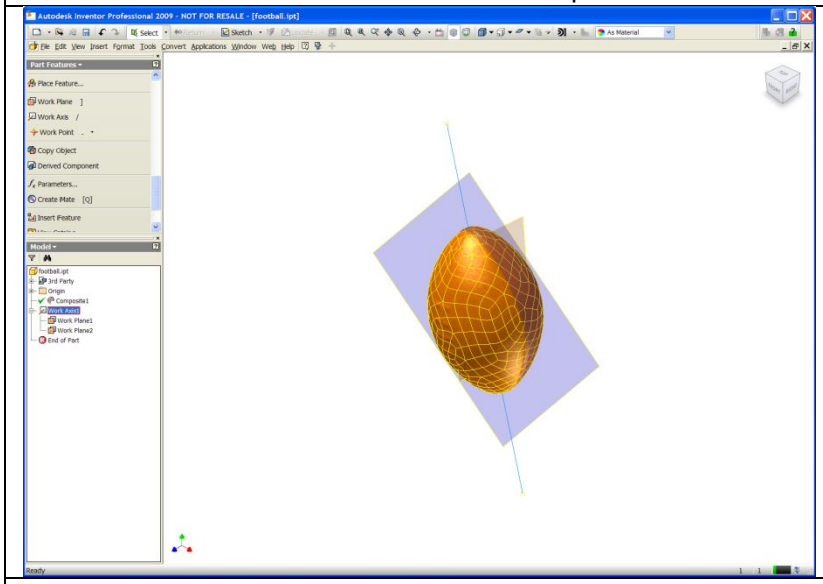
A work plane is added through one of the seams. Rotate the model to verify the position.

b. Repeat the previous steps, add a work plane through the other seam.



c. Add a work axis, located at the intersection of the two planes

- Select the work axis feature
- Select one of the work planes
- Select the other work plane



d. Save the part. It is now ready to use in an assembly