

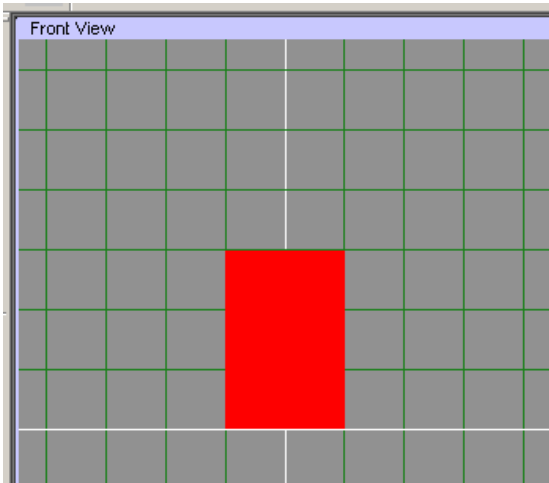
Create an Arch Using Boolean Union & Extractions In FLUX3D

Objective:

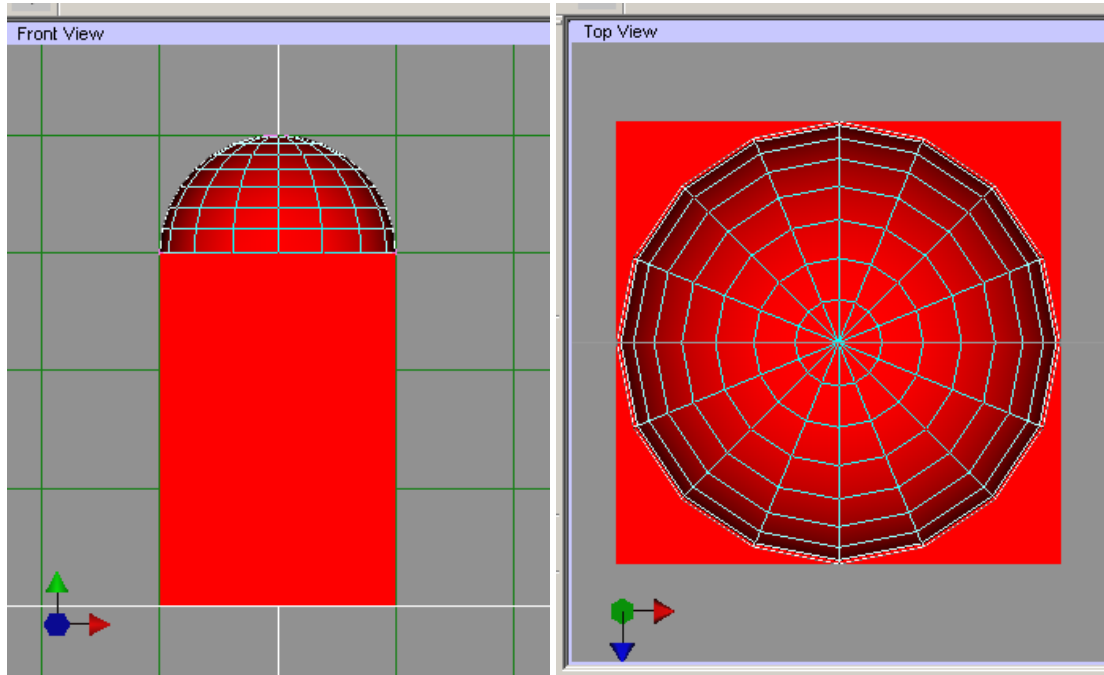
To create an arch that you can walk thru.

Actions:

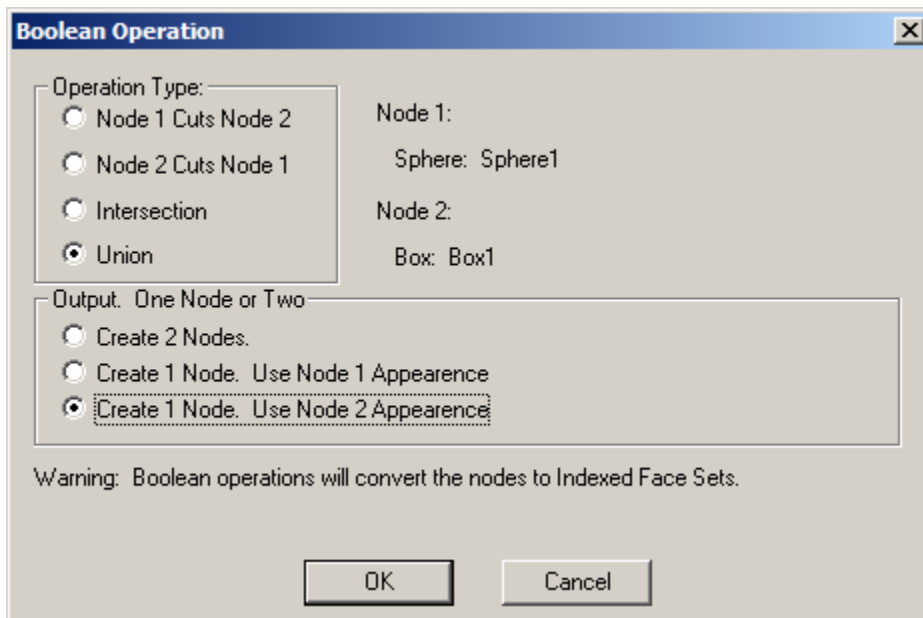
1. Use Top View
2. Place a box and zero it for all 3 axis.
3. Switch to Front View.
4. Do a uniform scale to about 2.
5. Change to non-uniform scale and set the Y axis to 3.
6. Move Y Translation to 1.5 (this should move it to ground level).



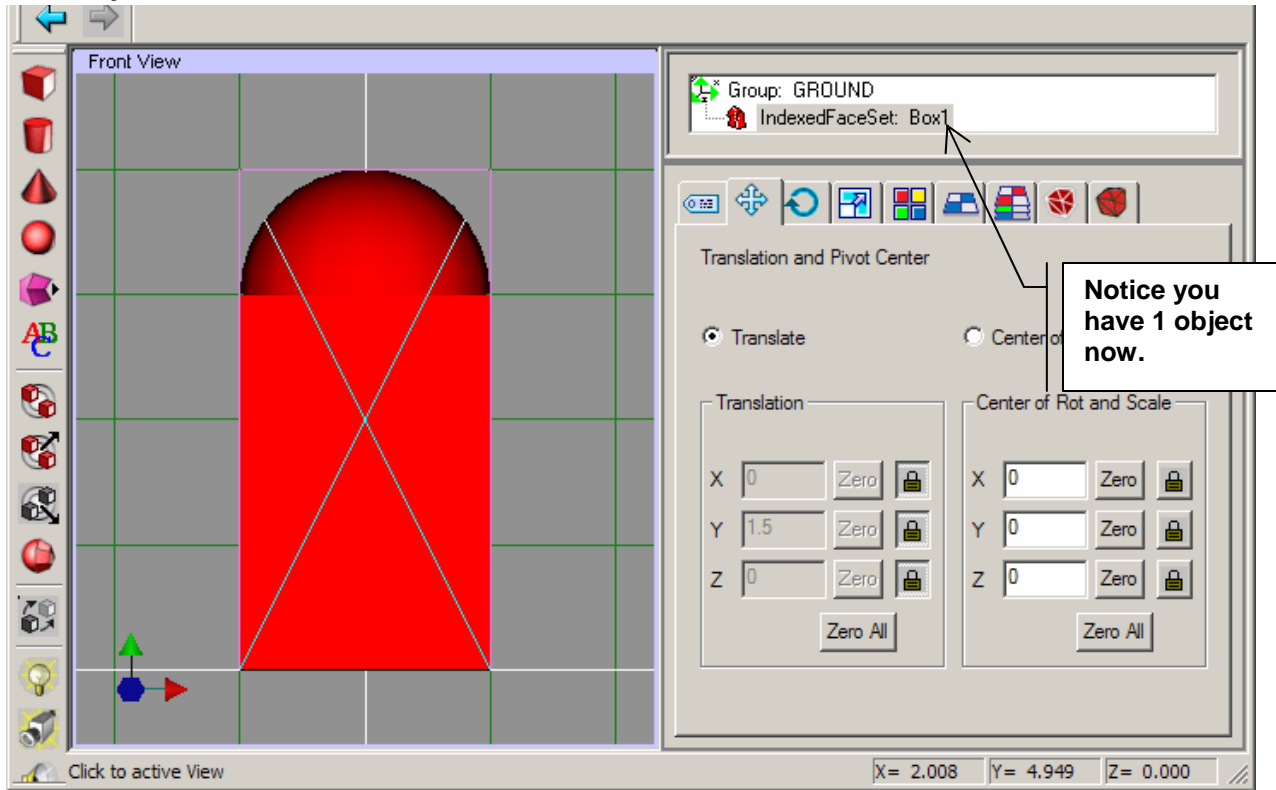
7. Switch back to Top View.
8. Add a Sphere on top of the box and zero it on all 3 axis
9. Go to Translation palette and lock X and Z axis.
10. Switch to Front View and raise the sphere (Y axis) until it is halfway on top of the box. (My setting was Y=3.00533)



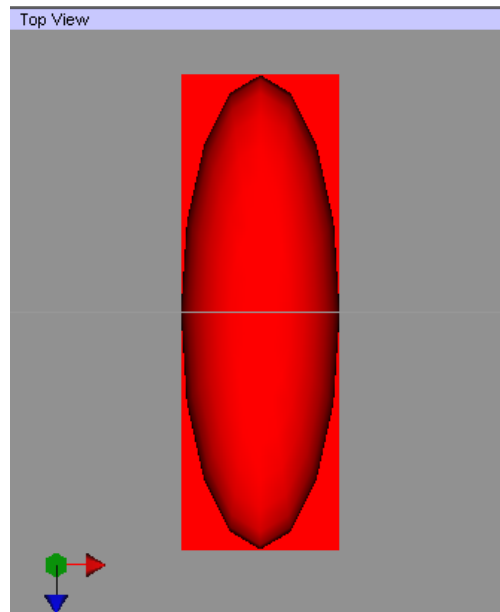
11. Go to **TOOLS > BOOLEAN OPERATIONS > UNION**



12. Choose **UNION > CREATE 1 NODE. USE NODE 2 APPEARANCE** and click **OK**.

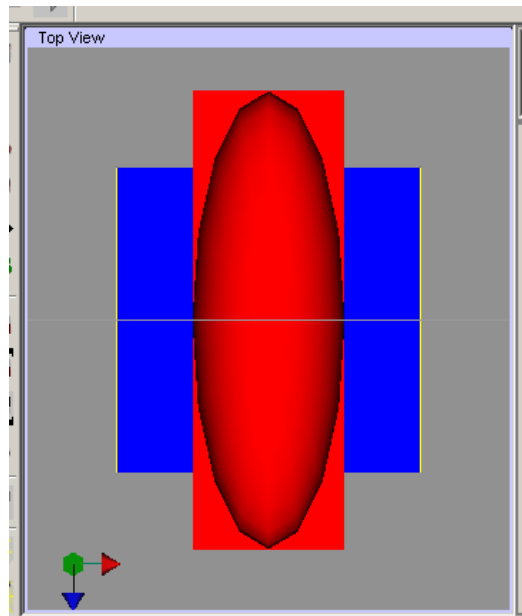


- 13. This is your shape to cut out of the main arch.
- 14. Switch back to Top View.
- 15. Change Z axis to 4.

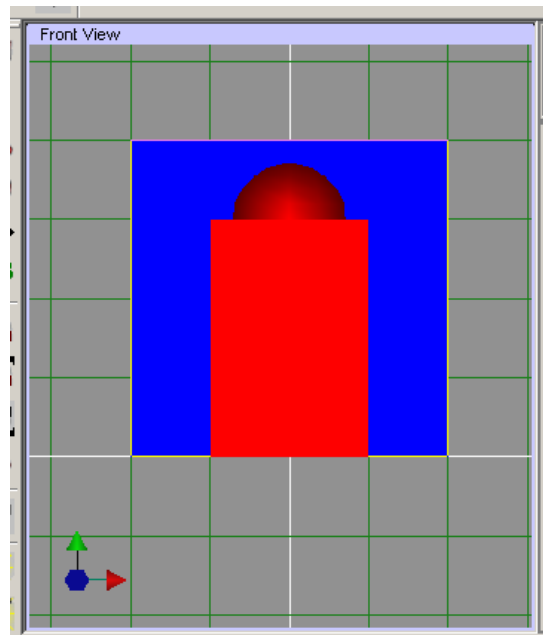


- 16. Still in Top View place a box at 0 0 0.

17. Uniform scale the box to 4 and change its color so you can keep track of it.

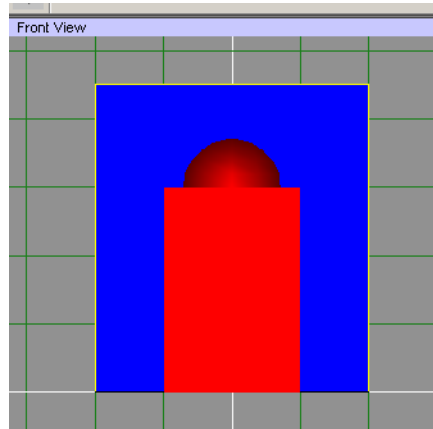


18. Change to Front View and raise the box along its Y axis (lock the X and Z translations) to about 2.

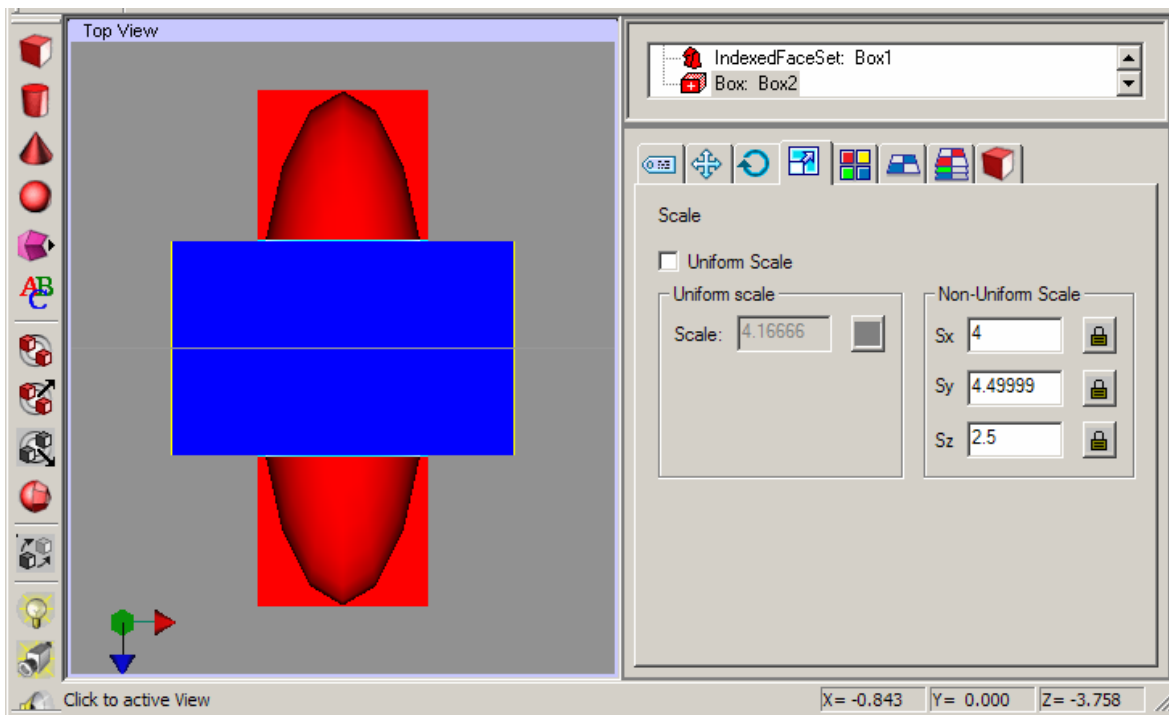


19. You now have an outside and an inside.

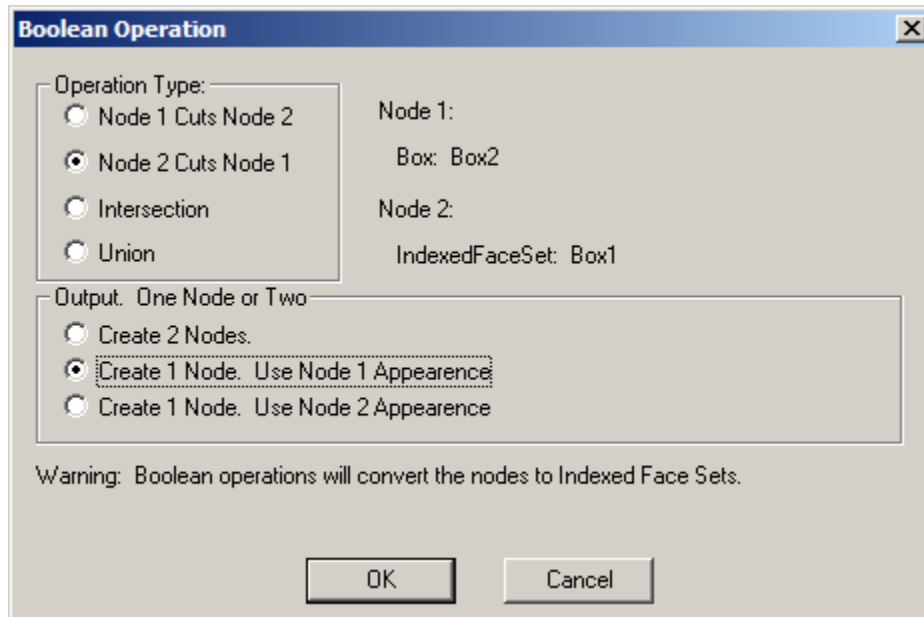
20. In this case the arch could be a bit taller so scale it along its Y axis to about 4.5 (you will need to raise it some more depending on how much taller you make it). Both pieces should be evenly on the X axis.



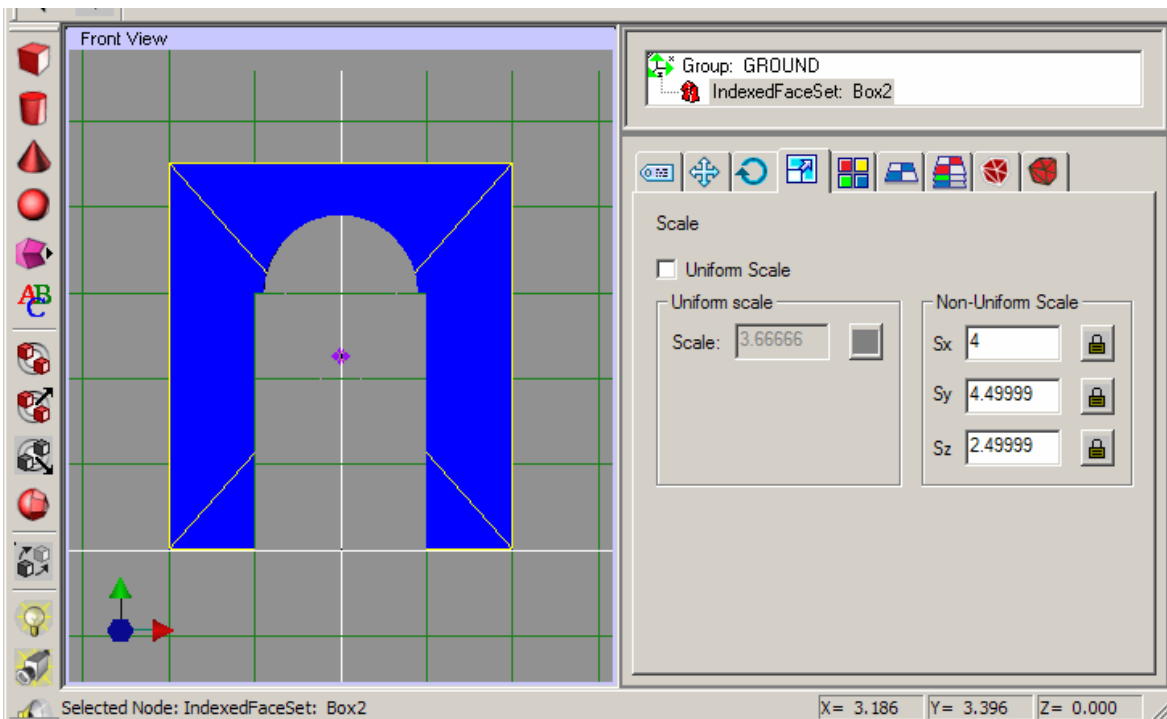
21. Switch to Top View and if arch is too deep or not deep enough – change it to what you want.



22. Go to **TOOLS > BOOLEAN OPERATIONS > EXTRACTION**



- 23. Choose **NODE 2 (indexedFaceSet) CUTS NODE 1 > CREATE 1 NODE. USE NODE 1 APPEARANCE** and click **OK**. **NOTE:** what cuts what will vary depending on what you clicked on last.
- 24. And WAA LAA – you have ARCH!!



Summary:

Do the unions first and then extract the complete union (indexedFaceSet) from the non IFS object.

TaaDaa!!

