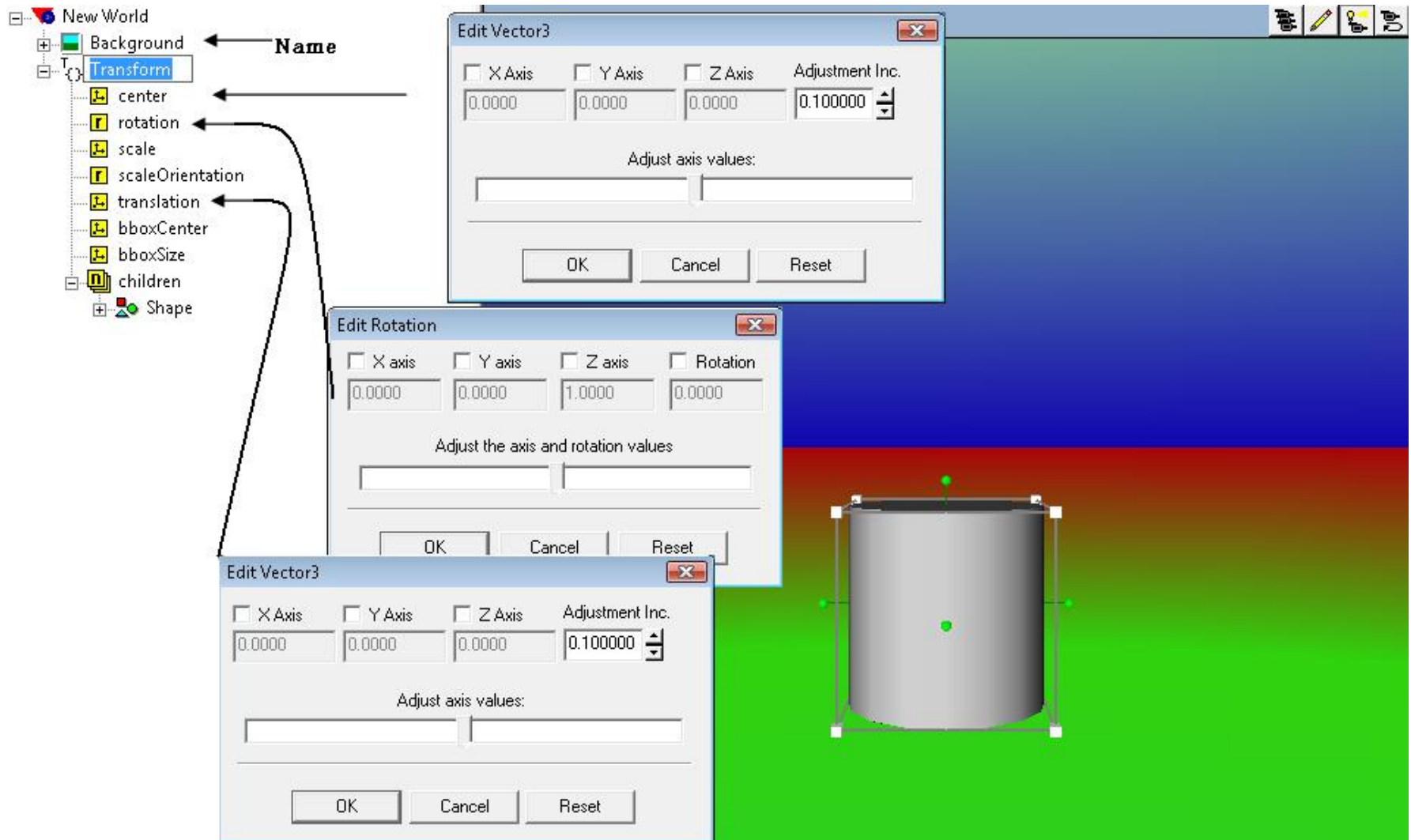


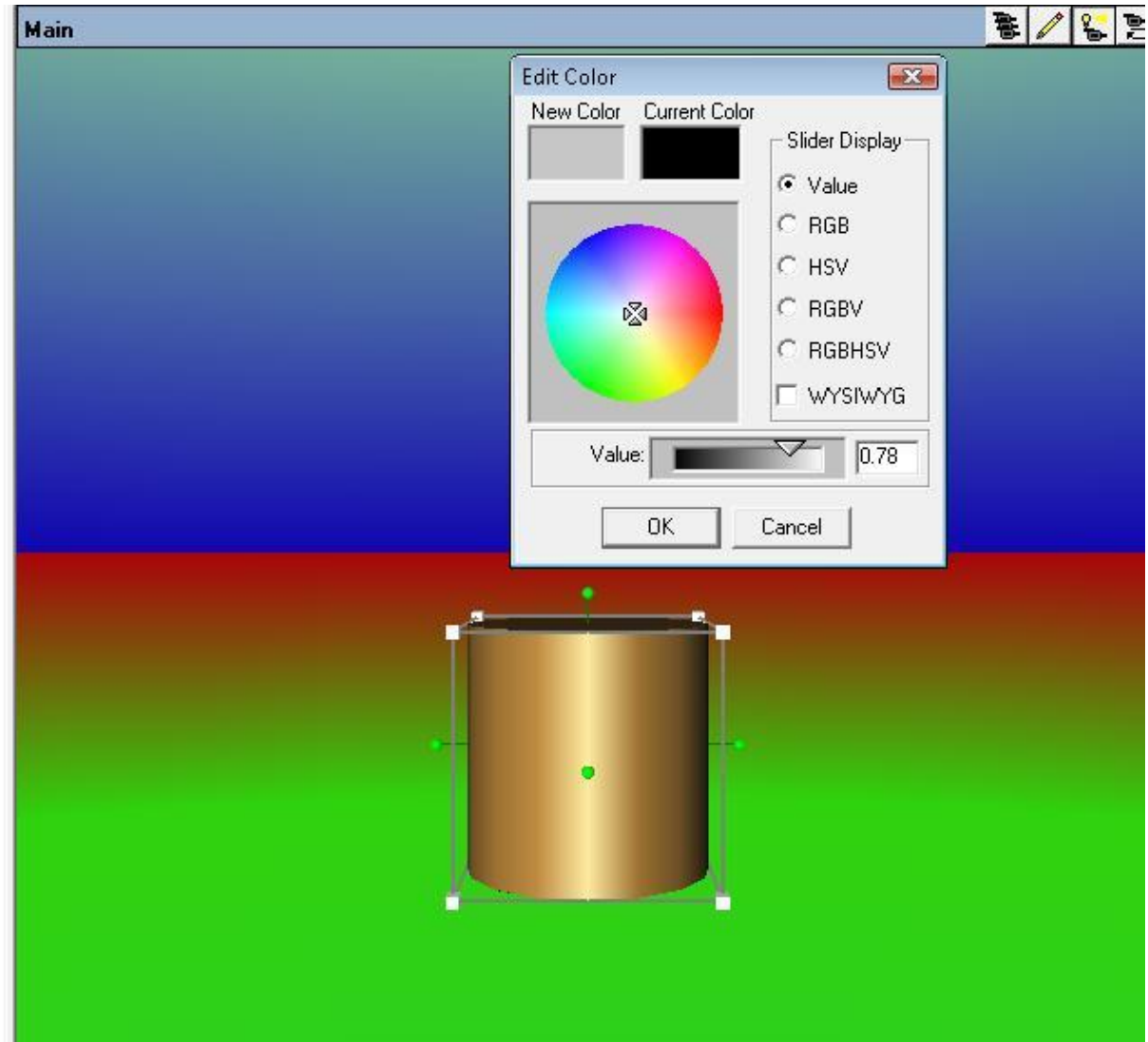
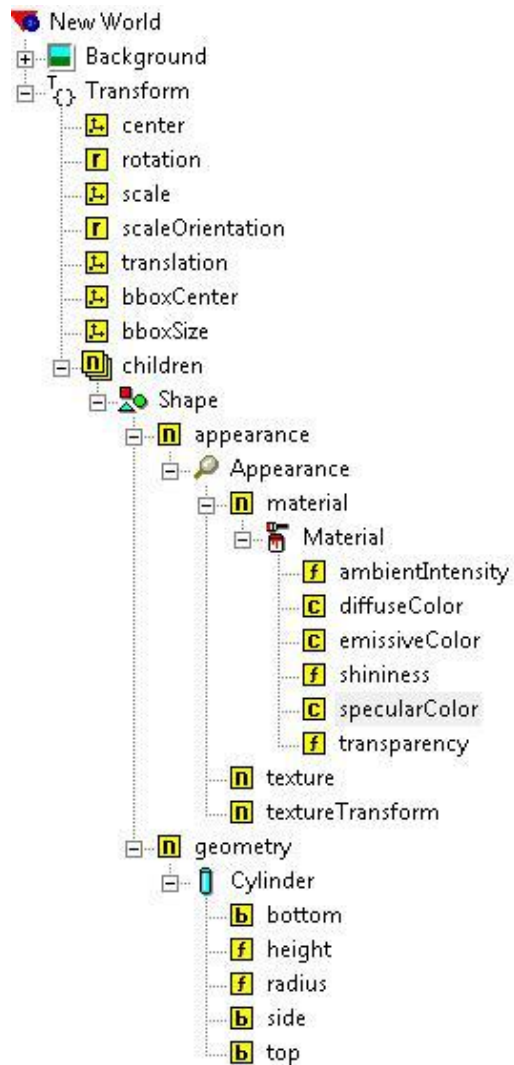
3D-Virtual Reality

Who do I Direct MATLAB to use OpenGL
on MATLAB environment

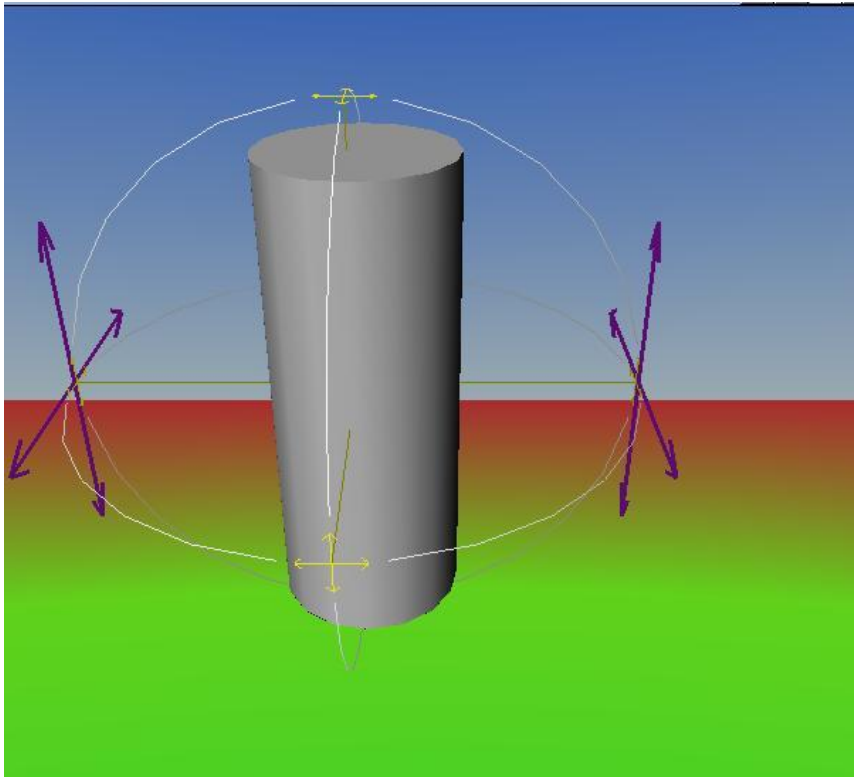
Add an Object TO VR Environment



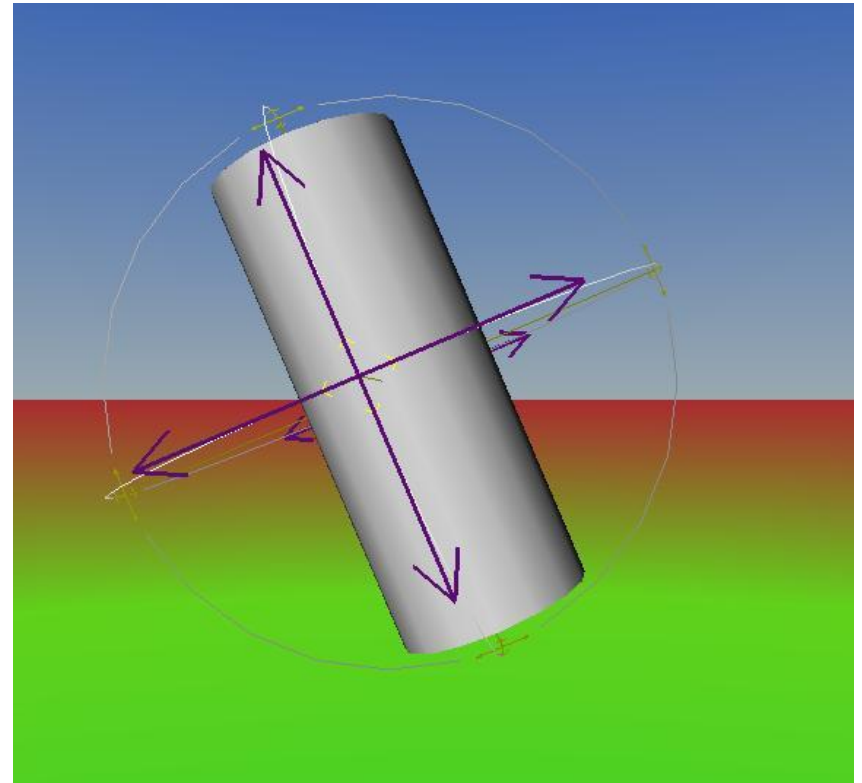
SpecularColor and DifuseColor Property



X, Y, and Z axes of Rotation

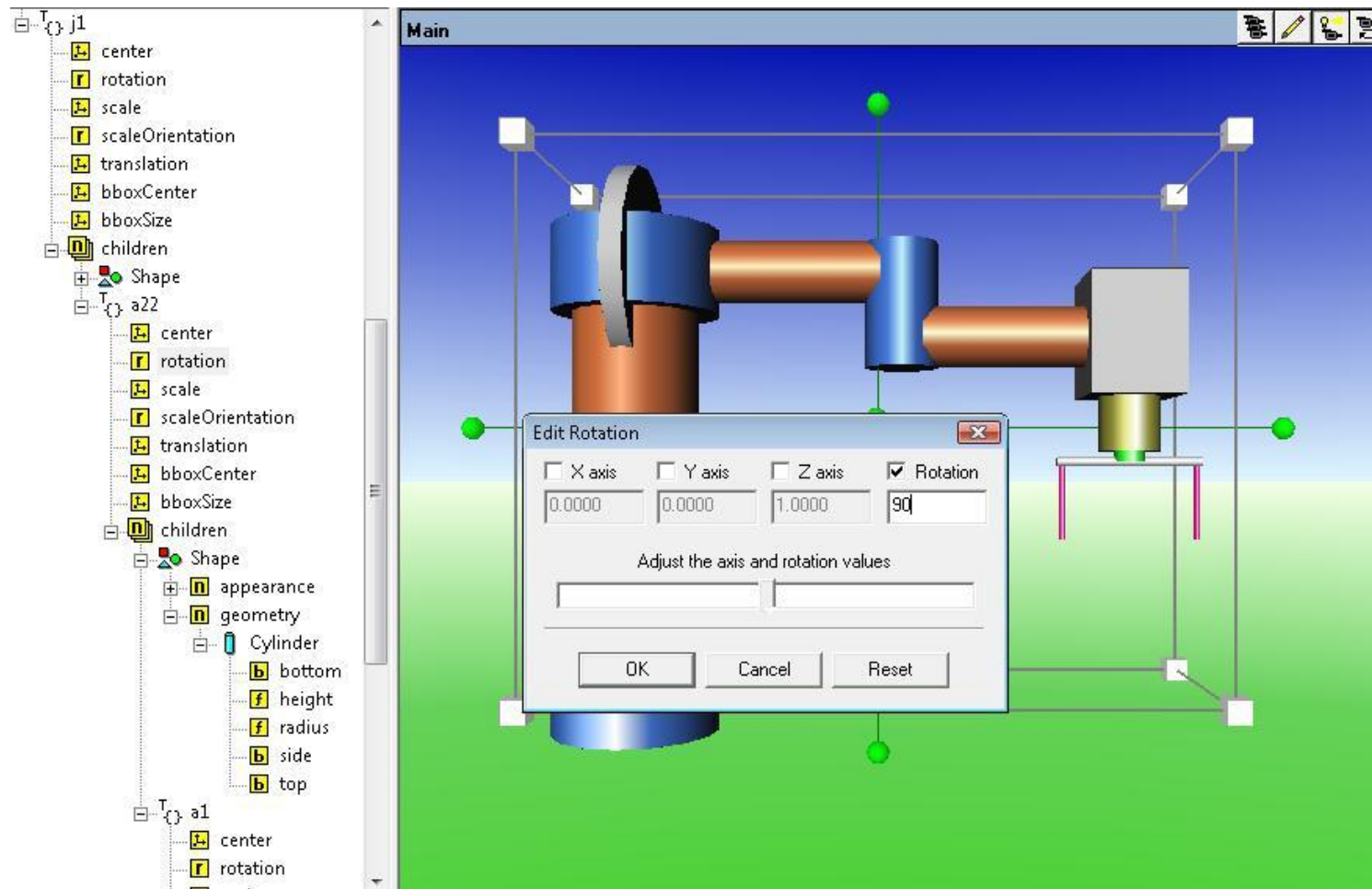


Rotation about X-Axis

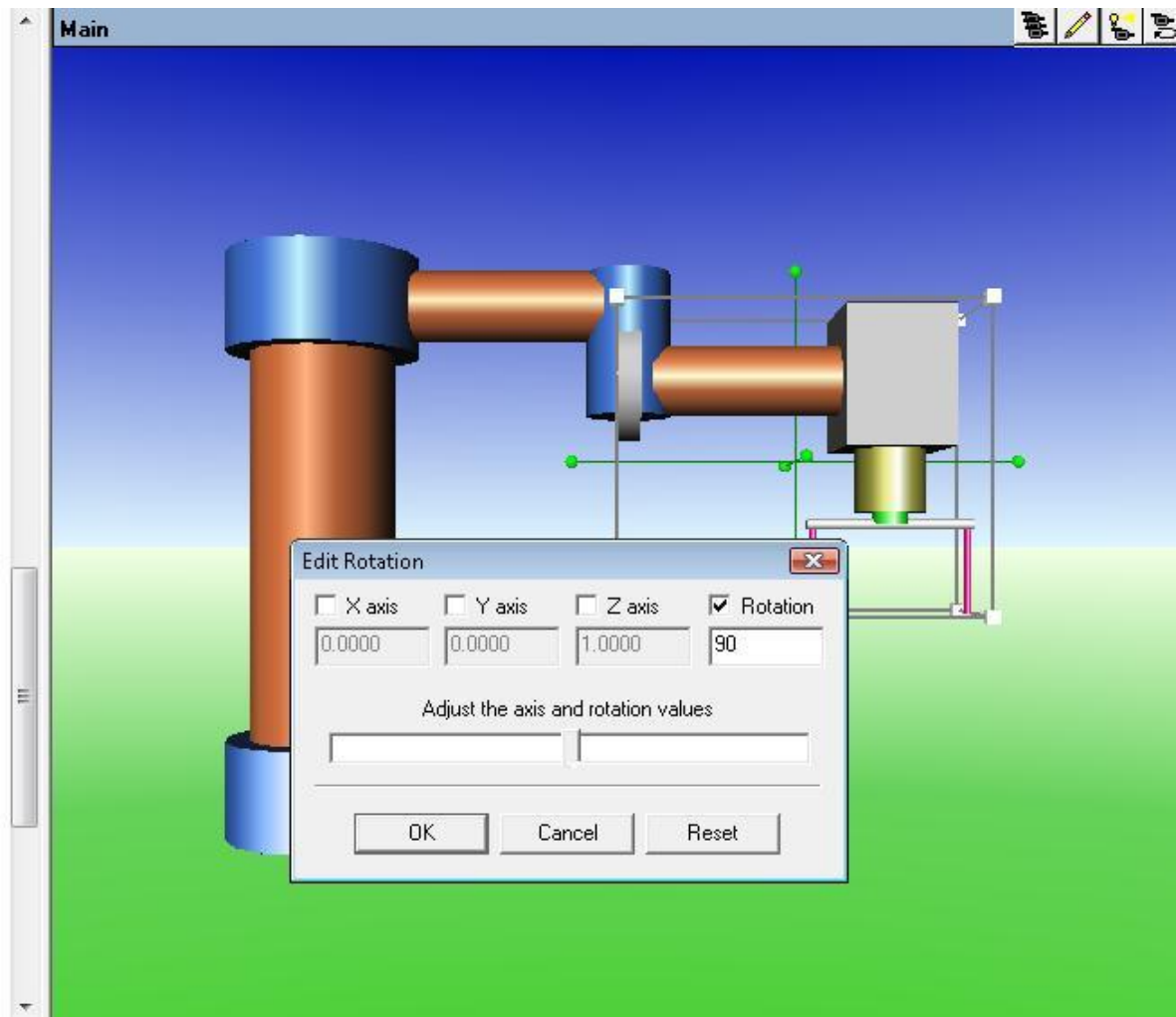
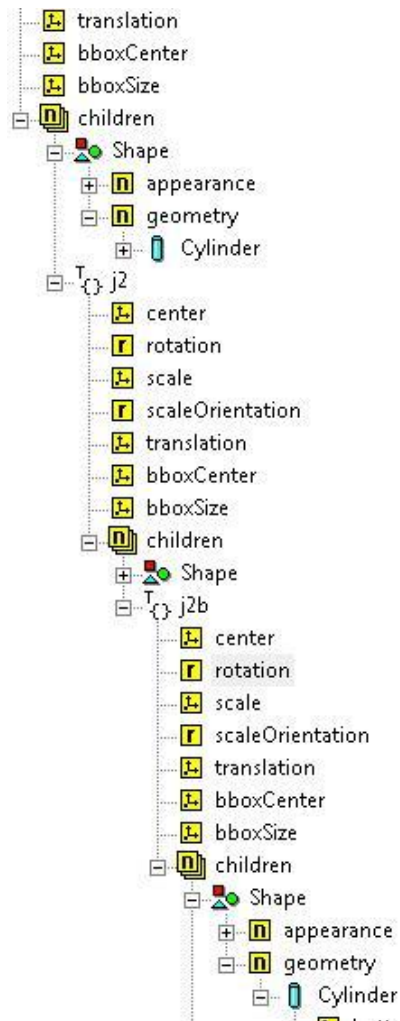


Rotation about Z-Axis

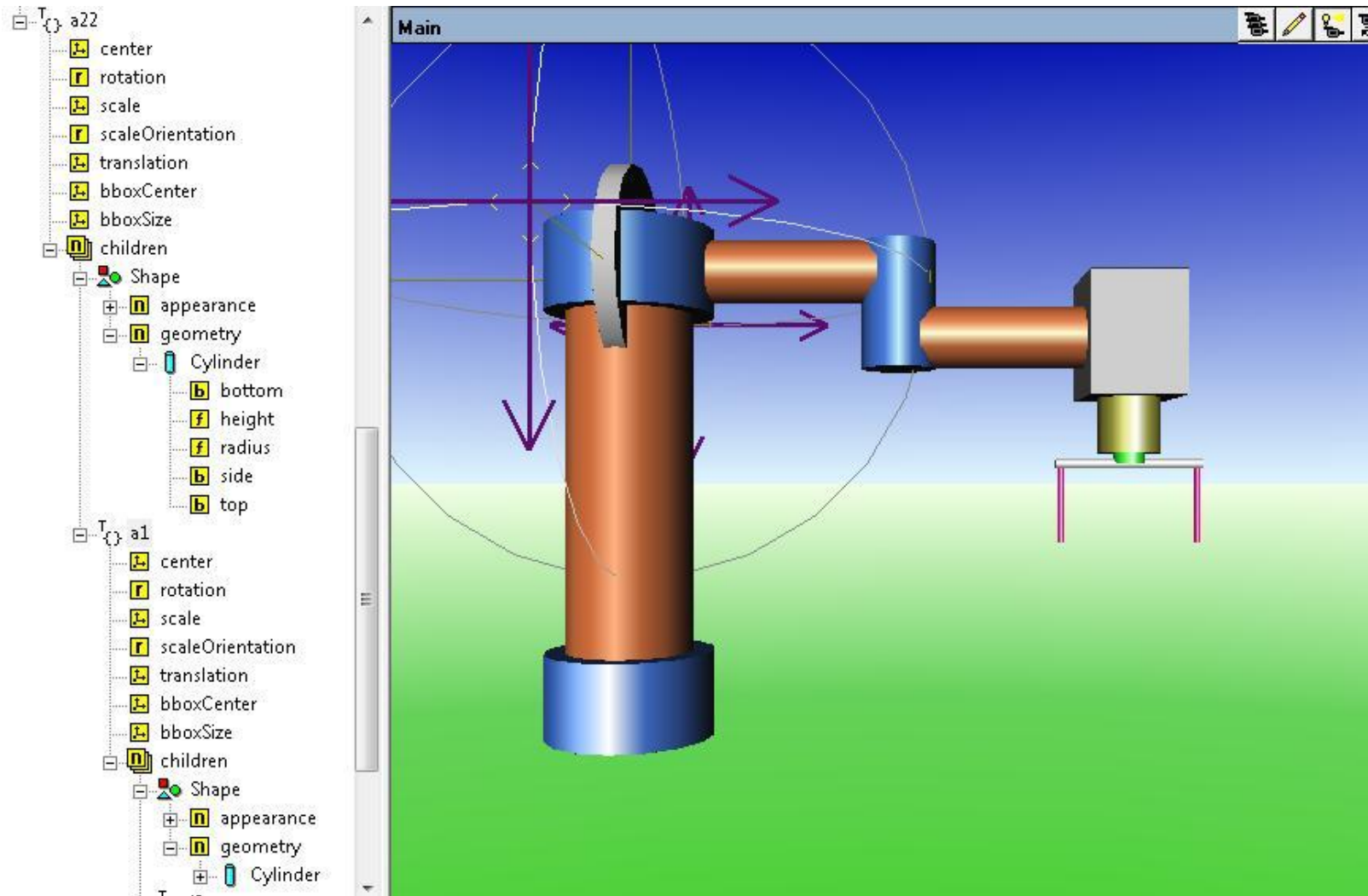
Rotation's hidden object for a1



Rotation's hidden object for a2

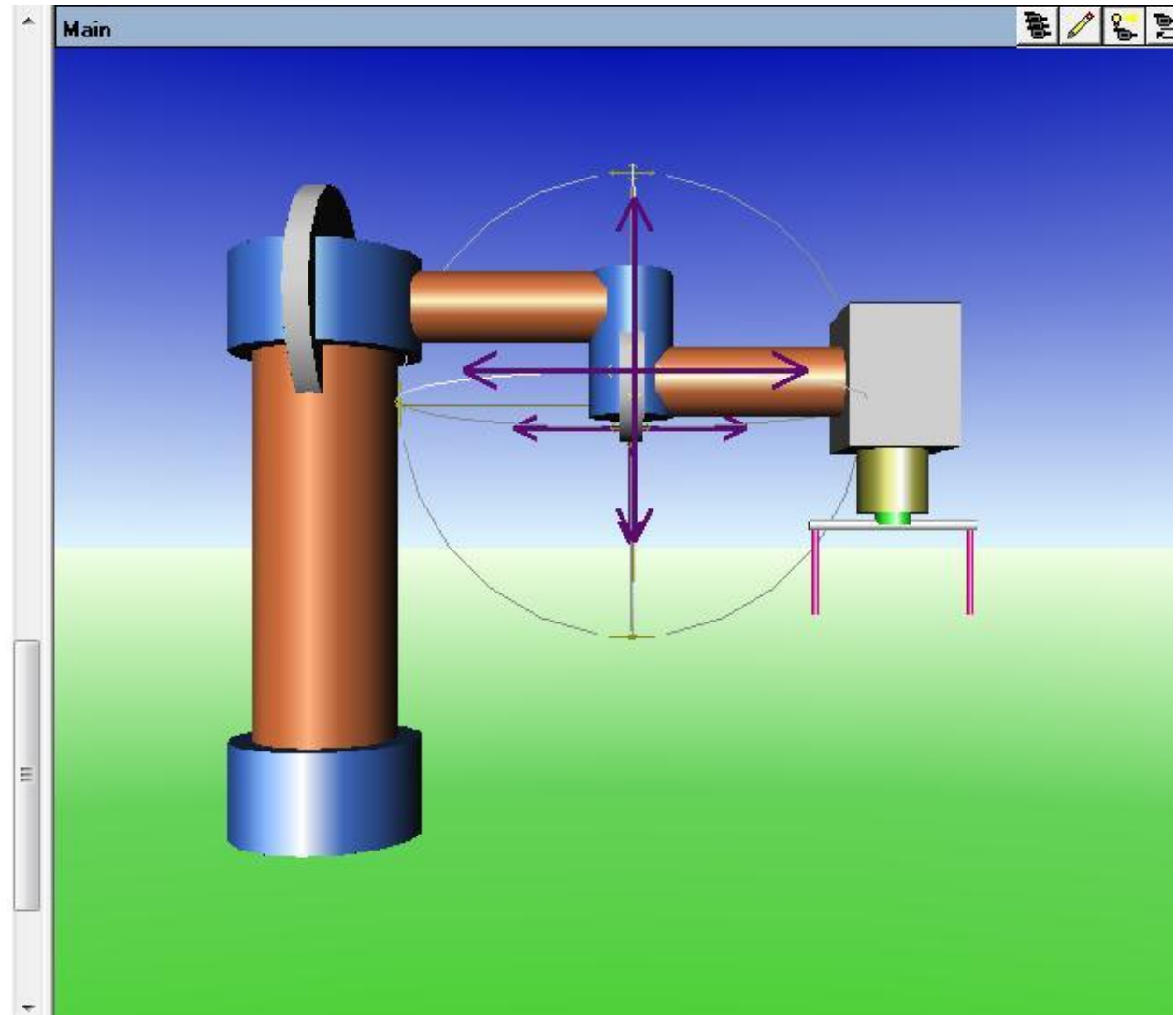


Axis of rotation for a1

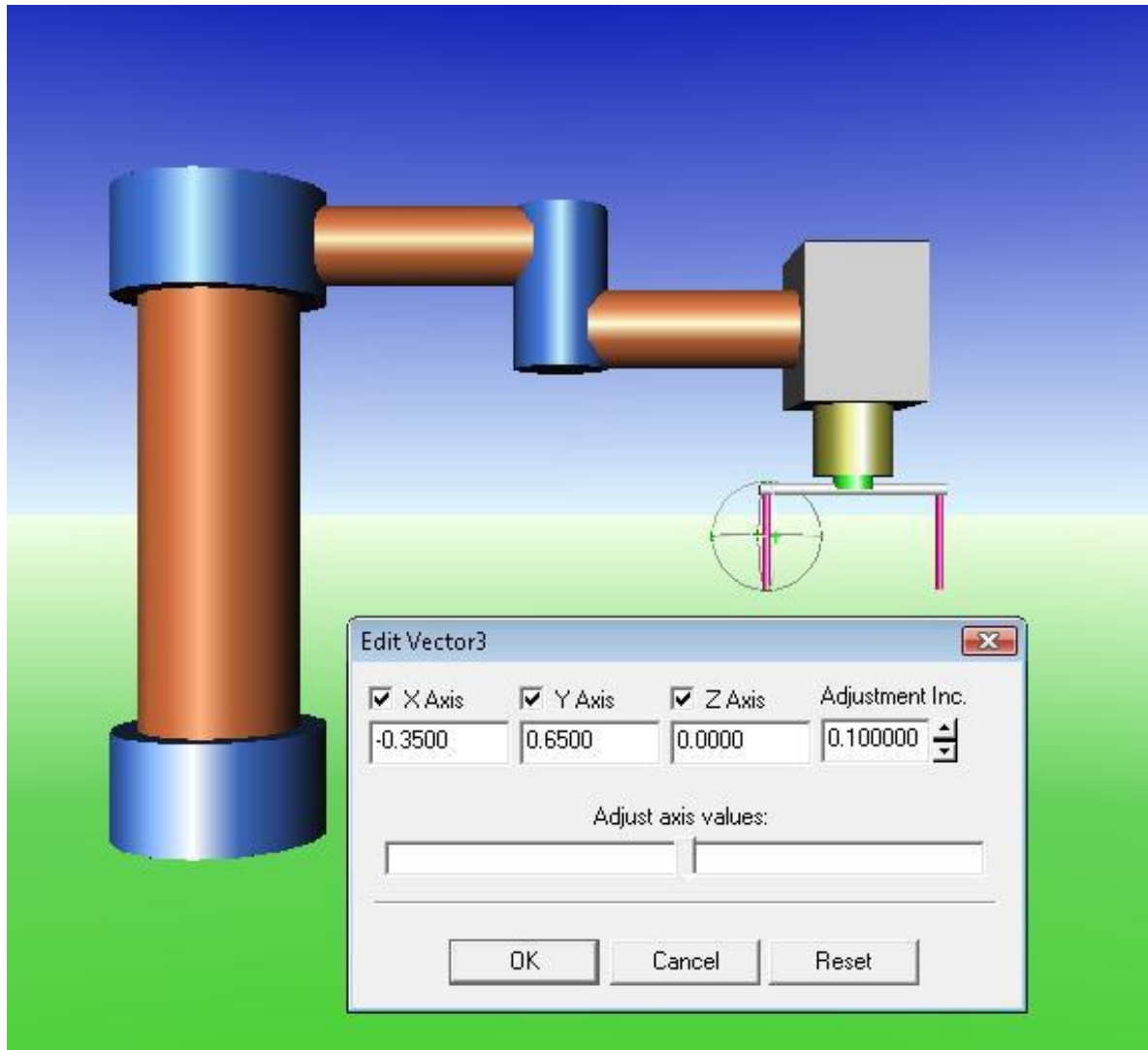


Axis of Rotation for a2

- rotation
- scale
- scaleOrientation
- translation
- bboxCenter
- bboxSize
- children
 - Shape
 - j2b
 - center
 - rotation
 - scale
 - scaleOrientation
 - translation
 - bboxCenter
 - bboxSize
 - children
 - Shape
 - appearance
 - geometry
 - Cylinder
 - bottom
 - height
 - radius
 - side
 - top
 - a2
 - center
 - rotation
 - scale
 - scaleOrientation



EndEffector



Controlling by commands

- **SCARA30 = vrworld('SCARA30.wrl');**
- **open(SCARA30)**
- **View(SCARA30)**
- **radian=T1*pi/180, radian=-T2*pi/180,**
radian=T4*pi/180;
- **SCARA30.a1.rotation = [1, 0, 0, radian]**
- **SCARA30.a2.rotation = [1, 0, 0, radian];**
- **SCARA30.d4b.rotation = [0, 1, 0, radian]**
- **SCARA30.d4b.translation = [0, d4b, 0];**
- **EndV1=SCARA30.EndV1.translation;**
- **EndV2=SCARA30.EndV2.translation;**
- **x1=EndV1(1);**
- **x2=EndV2(1);**
- **y1=-.5*dist;**
- **y2=.5*dist;**
- **SCARA30.EndV1.translation = [x1, y1, 0];**
- **SCARA30.EndV2.translation = [x2, y2, 0];**

