Speeding Up Visualization Workflow with Autodesk® 3ds Max® Design

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What is a "good" 3ds Max Design scene?



Attributes of a "good" scene:

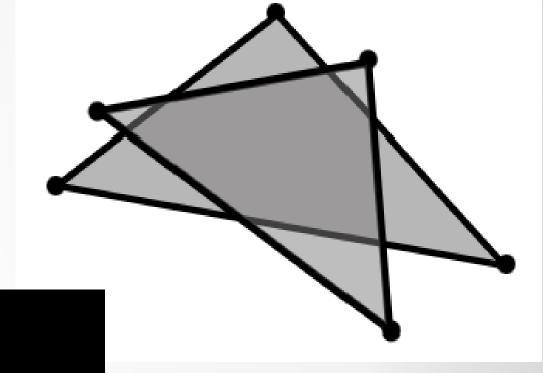
- Correct scale
- No artifacts
- Easy to edit, retexture
- Organized

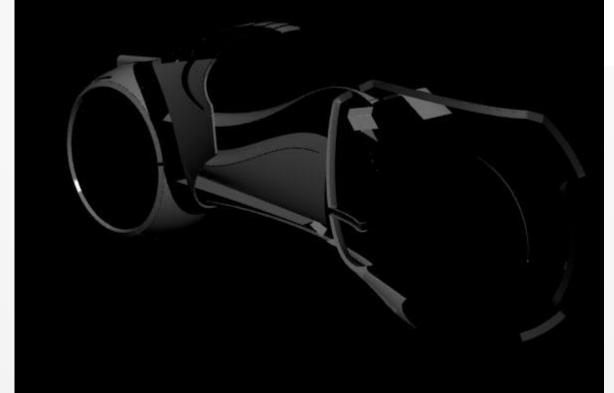




Issues with faces

- Coincident
- Overlapping
- Flipped
- Missing



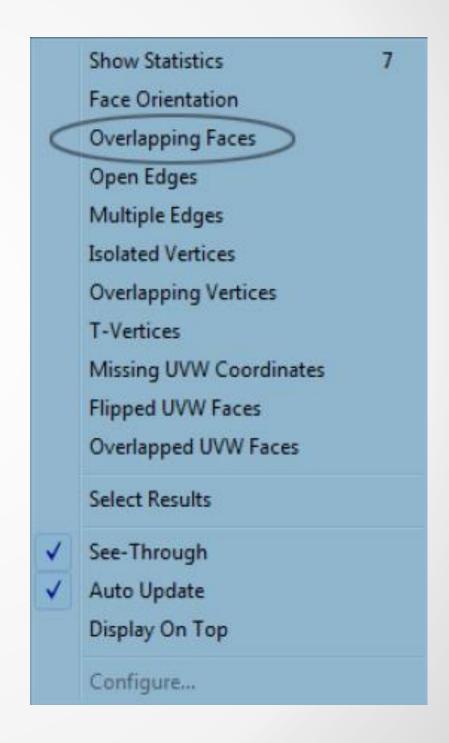




Xview: The magic bullet

- Detects
- Selects

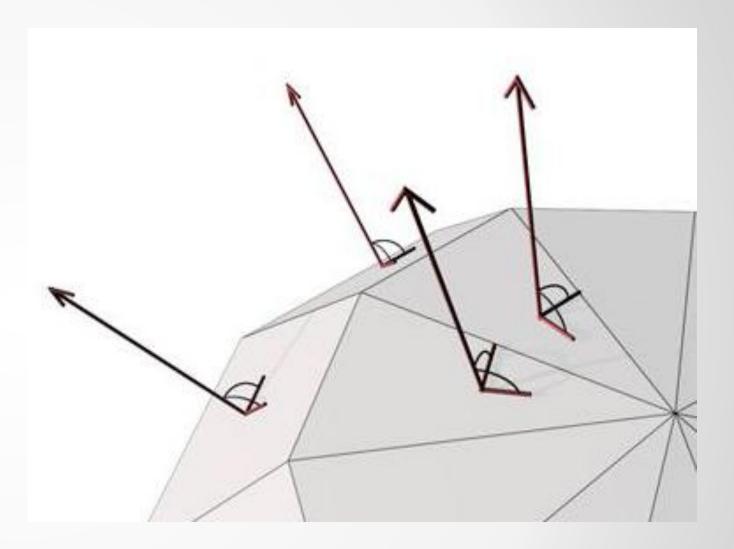
Views menu > XView





Normals

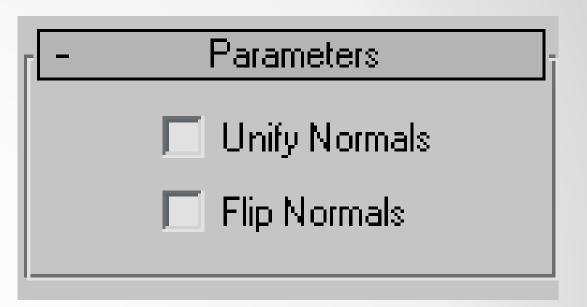
 Determines the "outside" of faces for rendering



Normal modifier: The other magic bullet

Works on Editable Mesh only

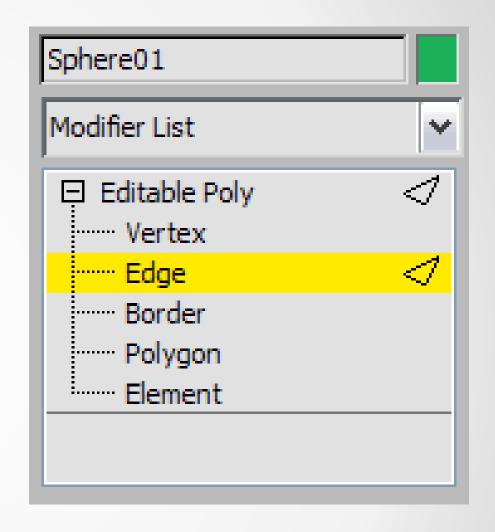
Modify panel > Add Modifier > Normal



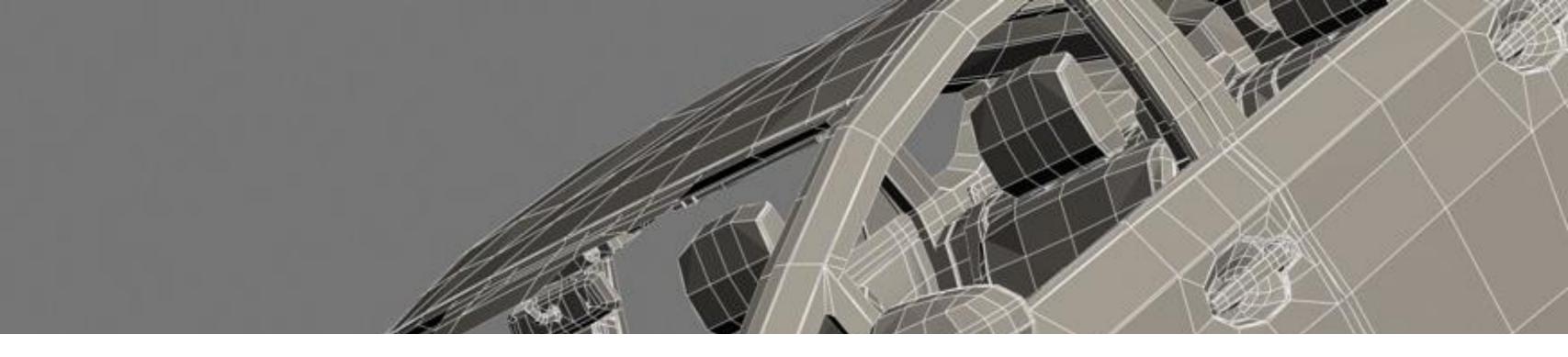


Fixing Scale

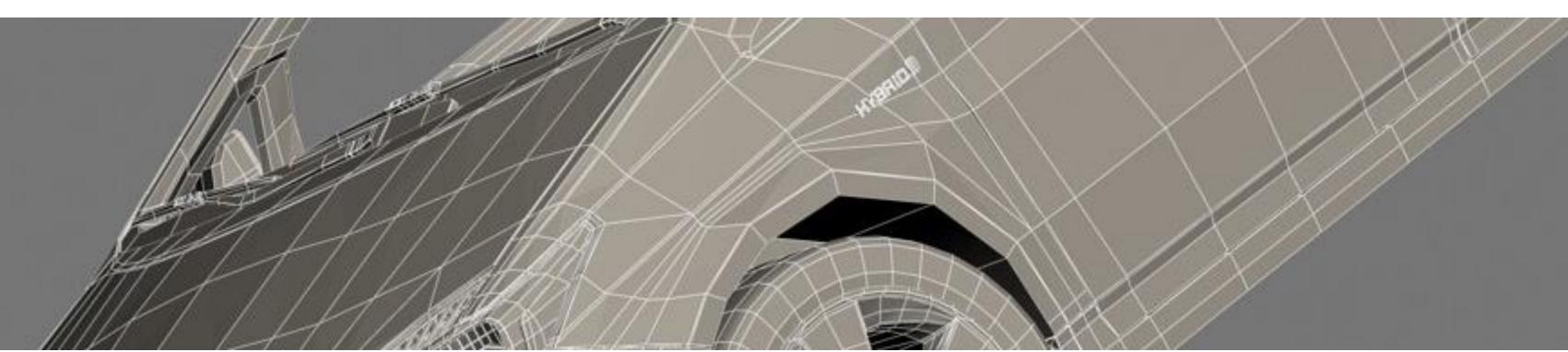
- Scale objects at sub-object level only!
- Scale at object level = weird results in animation.







Topology: Not the GIS kind



Topology (3D modeling): Structure/flow of wireframe



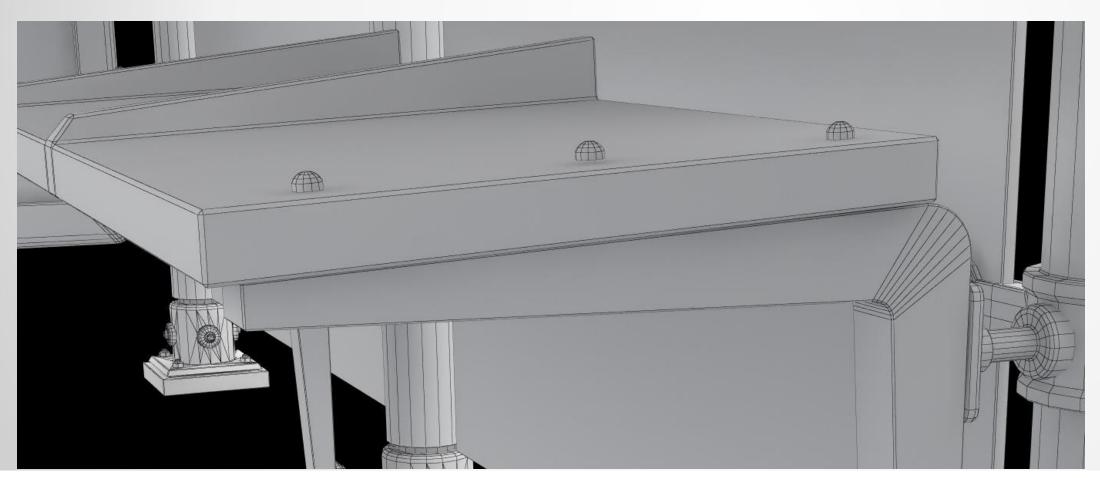
Good vs. bad topology

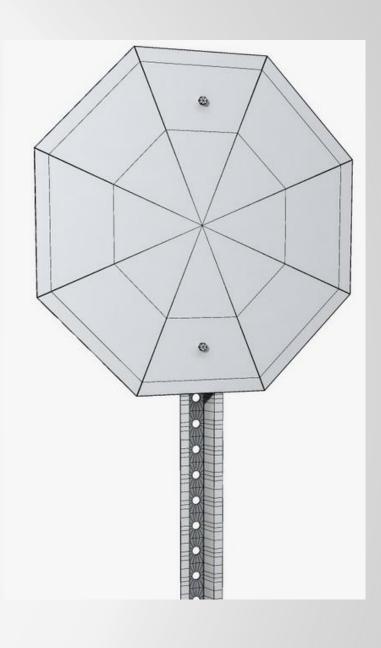
- Good topology
 - Highlights behave as expected
 - Easy to select faces/edges for editing
 - Easy to retexture, lay out UVs
- Bad topology
 - Choppy highlights
 - Difficult to edit model, textures, UVs



Good topology

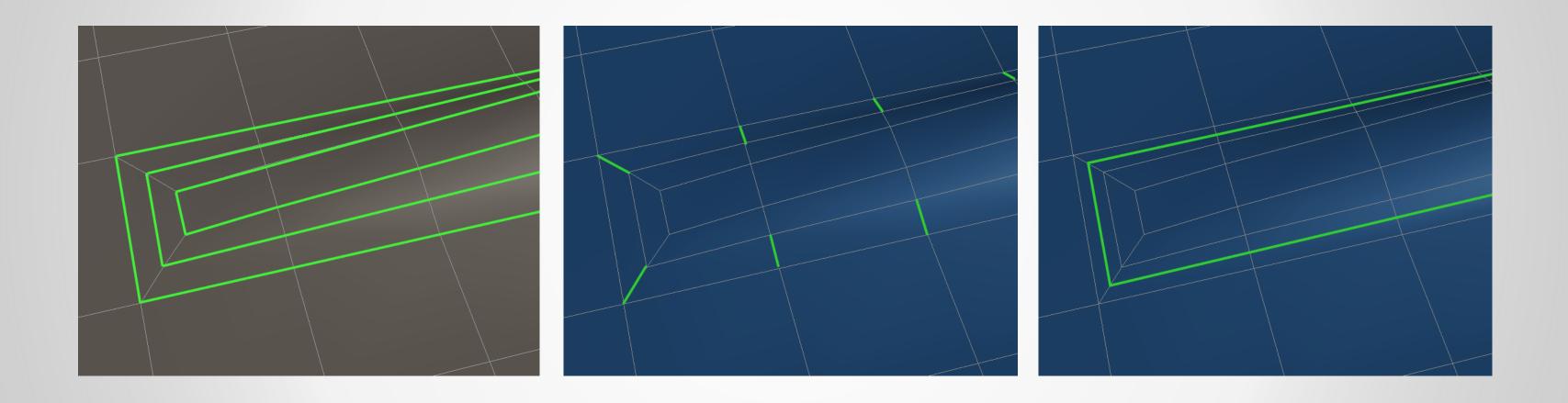
- Quad polygons
- Edge loops
- Just enough detail to set the shape







Edge loops





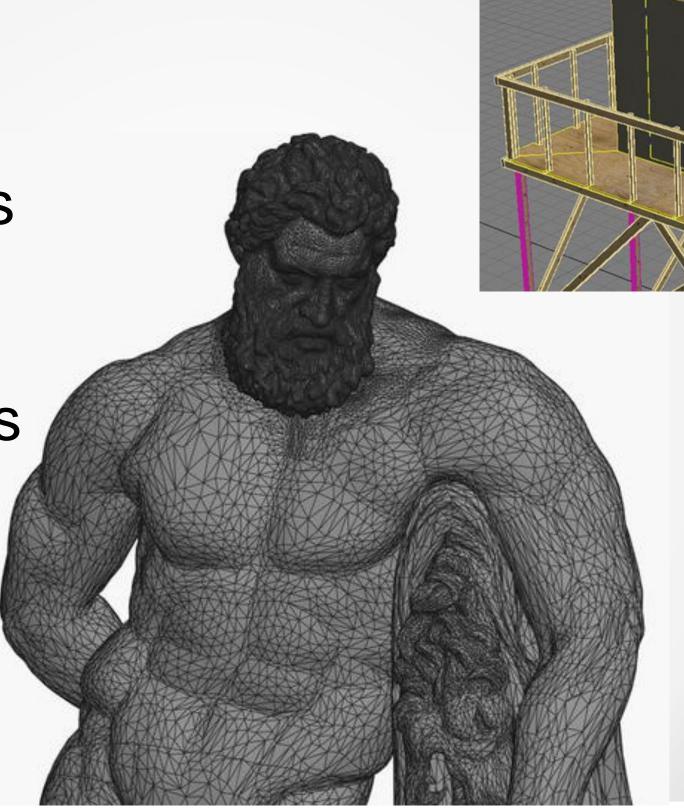
Bad topology

Ngons

Excessive triangles

Excessive edges

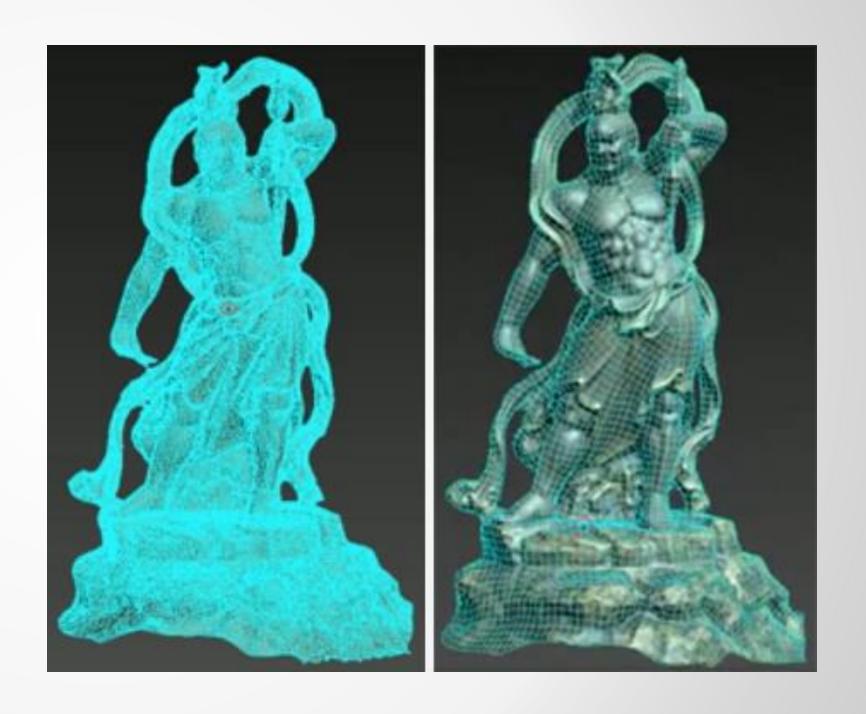
Haphazard edge arrangements





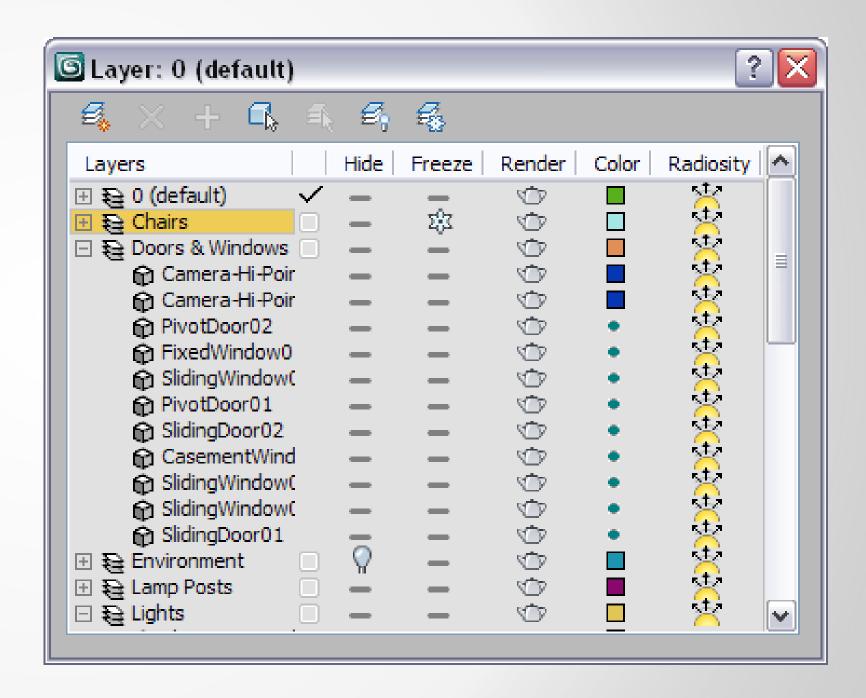
Messy scans vs. clean quads

- Retopo tools in Mudbox, Zbrush
- Retains textures and overall shape



Scene organization

- Name all objects
- Organize layers by material or object type
- Position scene near origin

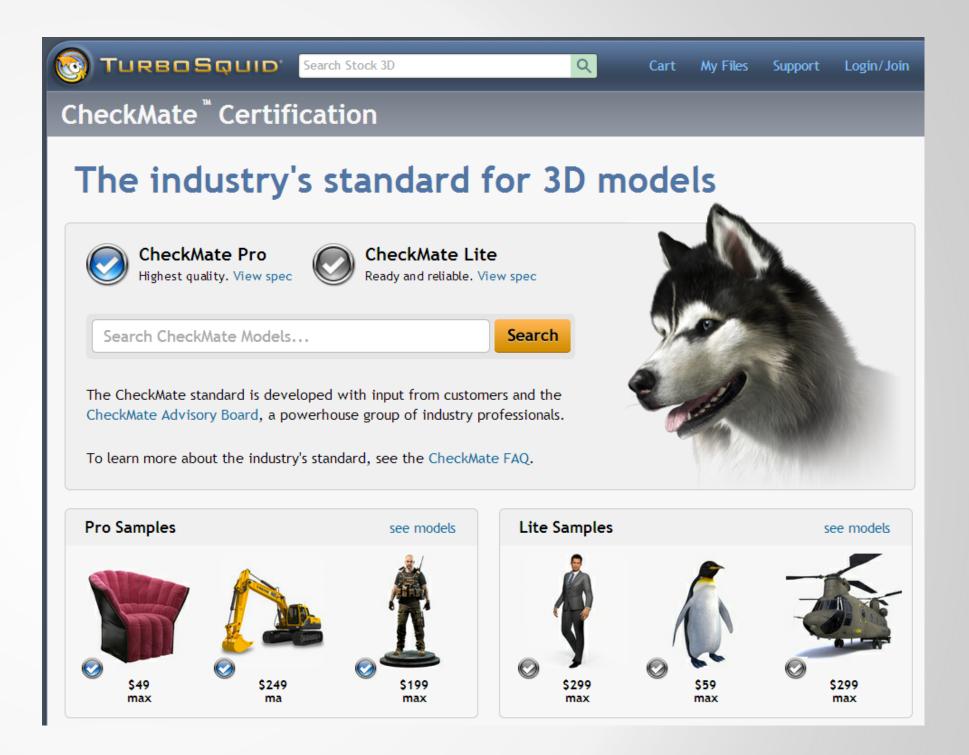




CheckMate Standard

Free at TurboSquid:

- Standard specification
- Training videos and tutorials for designers
- Scripts to check topology and scene organization



www.turbosquid.com/CheckMate





