The No-Joke Topology Guide for Serious 3D Modelers

Release 1.0.0.1 :: By Megamorph and any contributors (referenced if present) :: Best viewed with Microsoft Internet Explorer 7, though will work in Mozilla Firefox / Minefield also, with slight inconsistencies. I am currently working on proper Mozilla browser viewing. Entire site (every page) validates as XHTML 1.1.

Note on the Application of the Guide

This guide is designed to assist any 3D modeler, from the beginning level through moderate and down to the experienced, as well as some of the experts.

Several common topology conventions are presented, as well as their uses, flaws, and advantages. Generally, the conventions vary by different amounts and strictness of rules. The descriptions are arranged from the most "free" and allowing down to the most restrictive conventions. An exception is the classic game modeling topology, which is taken from the olden days when 3D engines needed the content to be much more controlled and software-compatible rather than visually pleasing, mostly due to technological limitations and resulting need for optimization. This convention you will probably find the least useful, since it is applicable to neither modern 3D game engine nor the hardware considerations.

Also note this: despite all the improving technology, the conventions are sometimes becoming stricter with time. Though it wouldn't be unreasonable to assume that the rapidly-advancing technology would allow 3D experts to relax about some of the rules which were so necessary to adhere back in the days of Quake I and II, like polygon convexity as an example, the golden advice is that, in order to utilize the extra kick that you get from each new technological advancement to the maximum level, the topology should be clean. The more flawless it is, the better quality your final model will be. There are exceptions from this, however, like the high-polycount character modeling for baking and detail simulation, which, ever since the poly cap on high-res modeling skyrocketed, has and ever will remain immune to many things that would be considered mistakes in other stages of production.

In any case, here is the guide, and I hope you find it useful.

- High Polycount / High Resolution Topology
- Classic (Limited) Game Modeling Topology
- Animation Modeling Topology
- Revised / Modern (Base) Game Modeling Topology
- (Strict) Quad Topology
- Box (Box-Cage) Topology

This Guide is FREE for every one TO SHARE. If you don't think something's correct, or have doubts

and/or questions about anything, feel free to email me (Megamorph) at this address (click on it). I will review your email and, if necessary, make changes to this website. If I disagree, I will still respond to your email and tell you why.