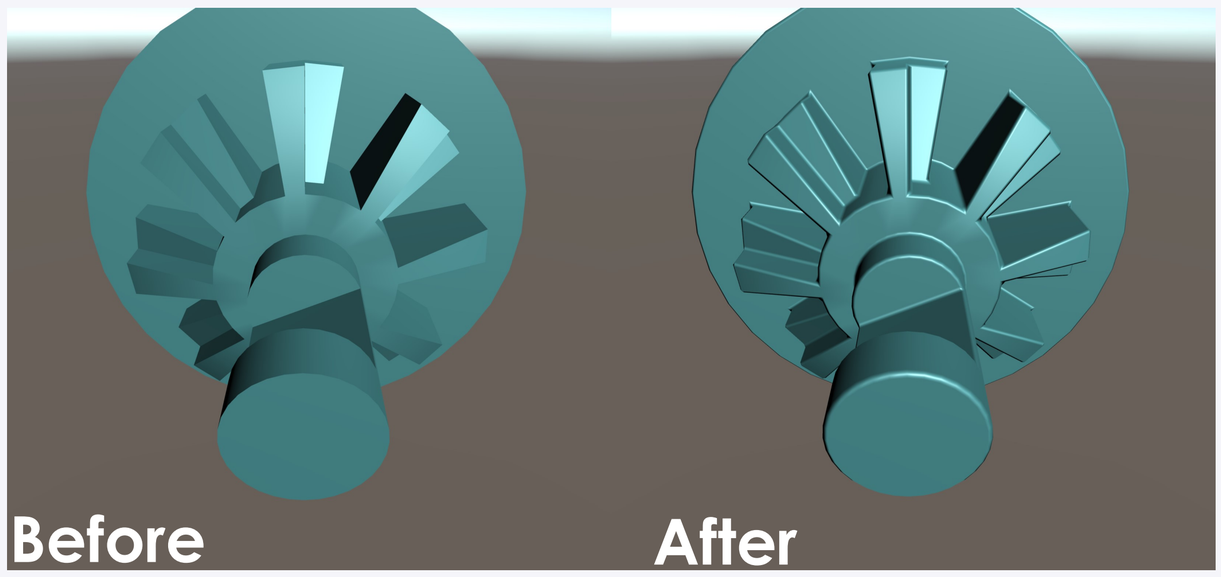
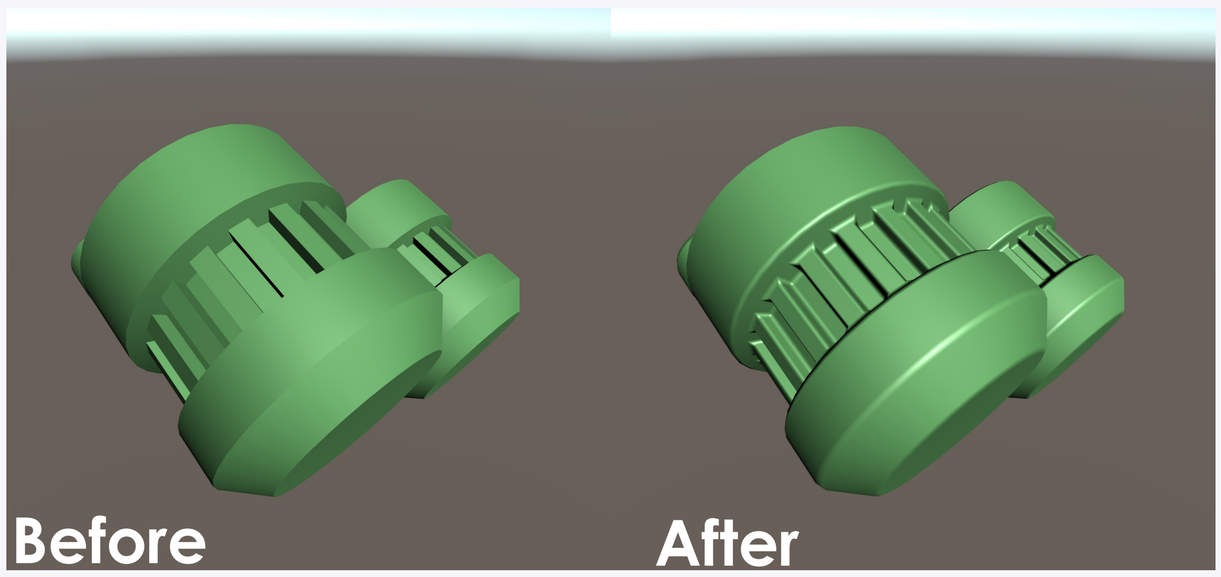
EDGE CHAMFERING ALGORITHM

MAKING HARD SURFACE 3D MODELS LOOK MORE REALISTIC WITH ONLY A FEW CLICKS

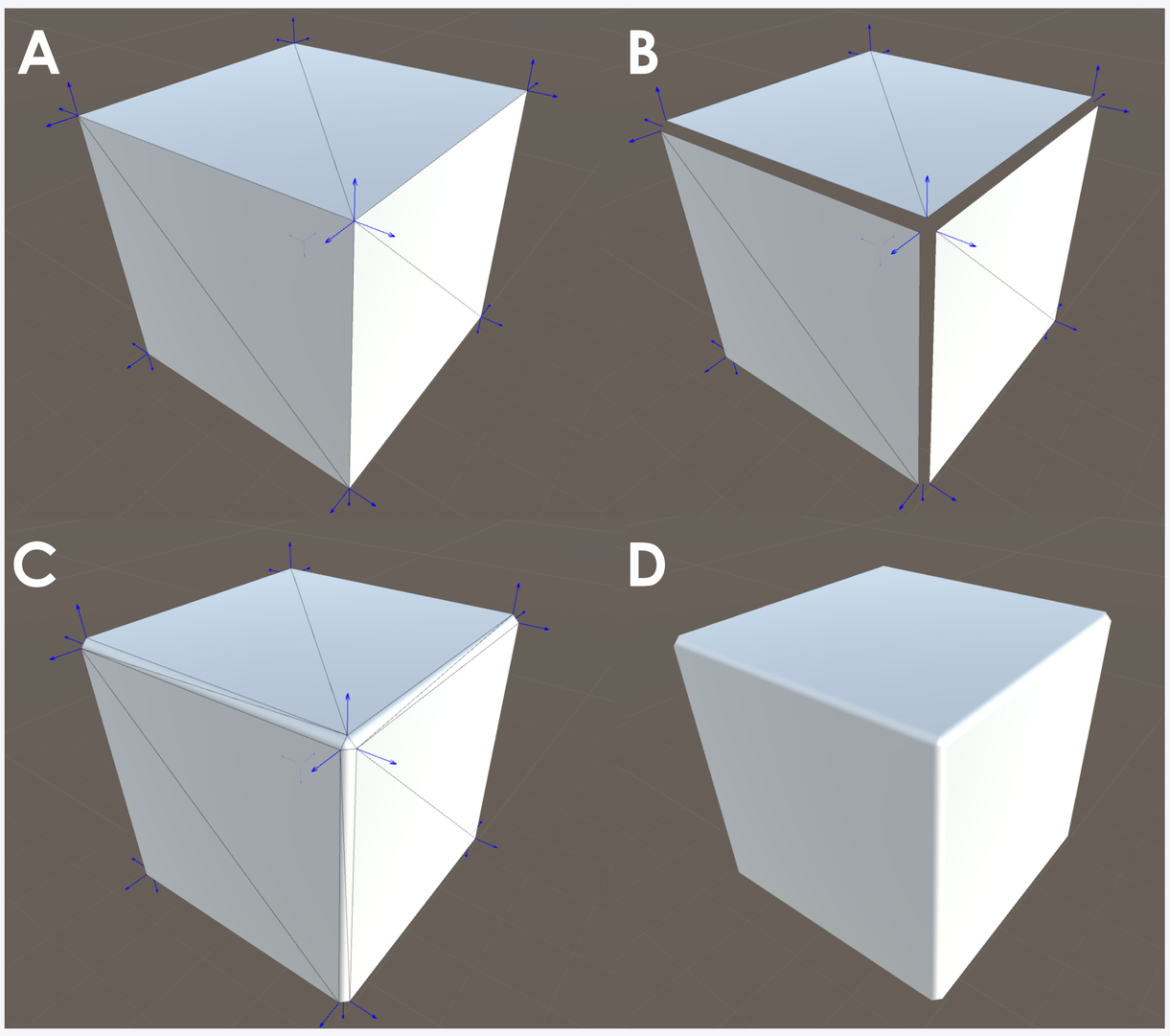
Low-poly hard surface 3D models (like models of furniture or machinery) **do not look realistic**, often because of their extremely **sharp edges**. There are many ways to soften the edges of a model, including subsurface modifiers and normal maps, but one good way that does not affect performance or memory efficiency considerably is edge chamfering. **Edge chamfering** is usually done in modelling software with either special tools or multiple steps. To make this method **more accessible for game developers** not familiar with modelling software, an algorithm and a **Unity asset** were created that **automatically** chamfer the edges of a mesh.



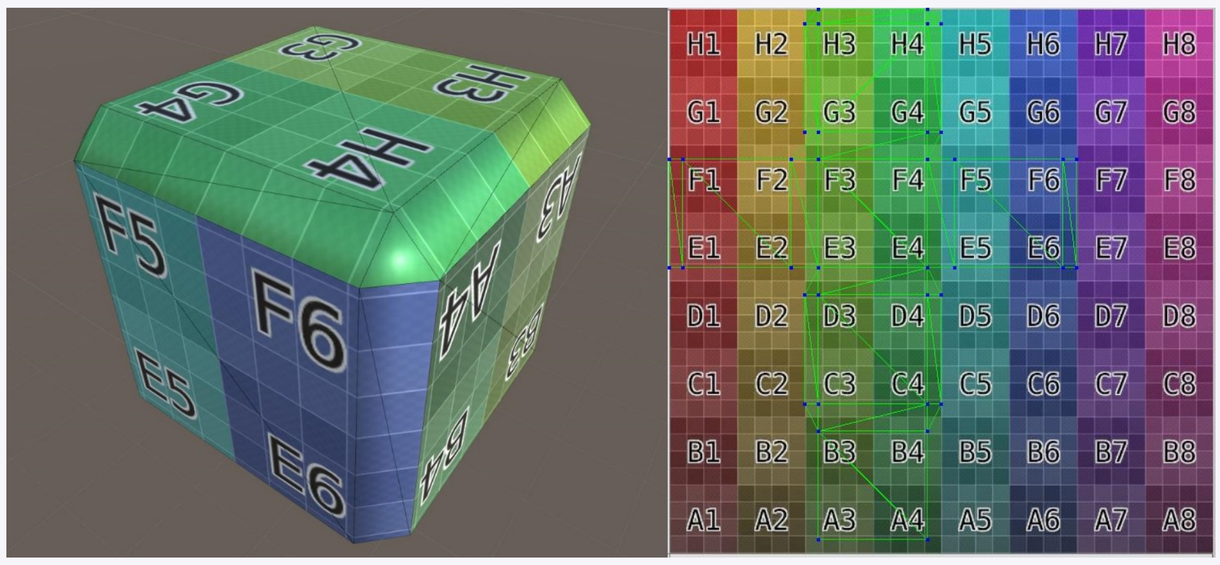


Algorithm

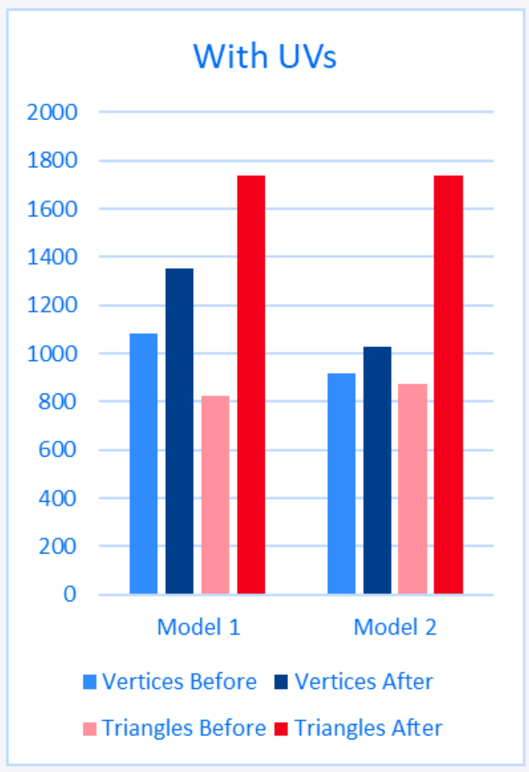
Given a mesh (**A**), vertices on hard edges are moved (**B**) and new faces are created between them (**C**) which are already smooth-shaded since no vertex normals are changed (**D**).

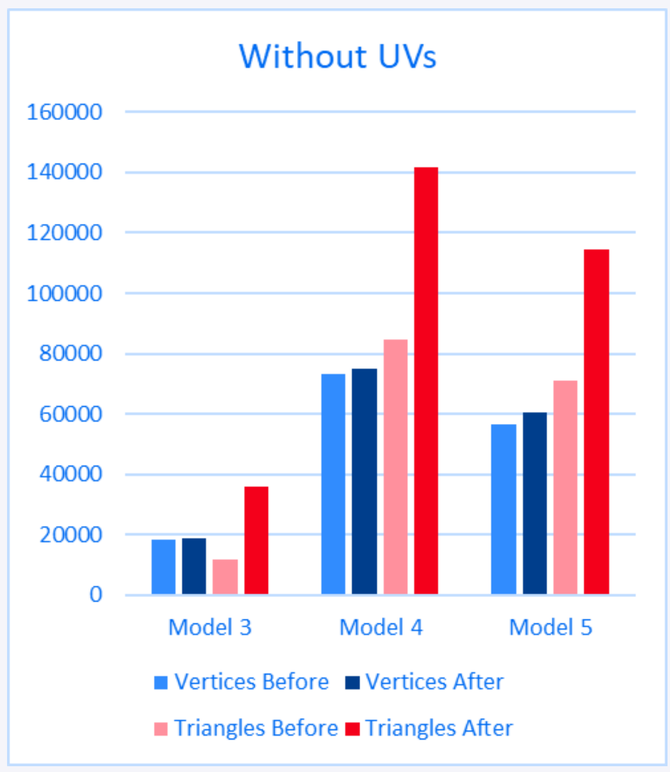


UVs



Vertex & Triangle Counts





UNIVERSITY OF TARTU
Institute of Computer Science
1632

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https://github.com/dianx93/EdgeChamferingDemo

Diana Algma, MSc student of Computer Science
Institute of Computer Science, University of Tartu
Supervisor: Jaanus Jaggo