

# Optimization

Optimization is incredibly important for VRChat. Being in VR, it should run at a high frame rate so the users can play the game comfortably. I've experienced many times when my friends or I had to quit because we were feeling too nauseous.

## Material Slots

Each material slot incurs a draw call on the CPU. Ideally on an avatar or 3D model you will have 1 material slot per each mesh that requires a different shader.

Lowering the number of draw calls is one of the most effective ways to increase performance.

Merging multiple material slots into 1 is done through texture atlasing. This can be automated in the CATS Blender Plugin.

## Polygon/Triangle count

Keeping this number low without terribly sacrificing quality is the balancing act you will have to perform in developing content for this game. Reducing the number of polygons is done through decimation; in Blender this is mostly done through the decimate modifier.

[Setting Up For Quest Creation](https://docs.vrchat.com)[docs.vrchat.com]

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