Soil – model guidelines

Format

Currently, you can import models into editor only in collada file format (.dae). If your software has problems exporting in collada, it is possible to add support for another file format provided it contains vertex positions, normals, texture coordinates and pivot positions for objects.

Mesh basics

- file units are assumed to be in meters (1 unit = 1 meter)

- X axis is front, Y axis left and Z axis up direction

- only one material per mesh/object is supported, with only 1 UV channel

- pivot point must be inside object (turrets aim at pivots)

Recommendations

It is advised to keep your models 2-manifolds. This basically means that every edge must have exactly 2 faces. This isn't required by the game, but it will greatly help when you or someone else will be creating damage models, where boolean operations usually require this.

It is also advised that you UV map base mesh (and preferably create textures) before creating damage models, unless damage models are temporary and not meant as final product.

Textures

Mesh materials:

- *Colour* (RGB, no transparency)

- *Normal map* (RGB, Y axis goes up)

- *Player colour mask* (greyscale) – determines coloration based on player's colour

- *Specular reflectivity* (greyscale) – reflectiveness(intensity) of material (Cook-Torrance shading)

- *Specular roughness* (greyscale) – roughness(hardness) of material (Cook-Torrance shading)

- *Self-illumination/Glow* (RGB)

- *Self-illumination/Glow mask* (greyscale, gets thresholded to binary) – determines which parts of previous map are self-illumination and which are glow. Glow is always active, self-illumination only when ship part is powered. (e.g. self-illumination for windows, lights, etc.; glow for burning/smoldering damaged parts)

Particles:

- TODO: