ℒagrangian Geology module
Ref

August 24, 2022

Fully custom generation support.

Pos lower 0 and above 256 not supported (extremely hard and complex to implement).

Just one step of generation is not enough.

Flexible generation API (Abstraction layer on top of Feature and Biome)

GenFeature - a zone of crust, with 3D complex form, 3D position and many IDs support For example Oceans, Orogens etc.

Biome - biological purpose GenFeature. For example Deadlands (by default), Microb mats, Boreal forests etc.

pre GenFeature -> Biome -> post GenFeature

MapChunk structure 2x2x2 to 8x8x8 blocks(”chunks”) (32 to 128 nodes(”blocks”)) used only for generation.

MapGen interface with makeChunk(BlockMake) method for generation.

World divided by tectonic plates (getted post-factum (tricky) in predefined generations).

Rocks

Can generate rocks on predefined and custom generations.

Giant impact hypothesis (true - igneous rocks, false - metamorphic dominant).

Dominant elements is oxygen and silicon in vanilla generation.

Main types of rocks

- Igneous intrusive, extrusive
- Sedimentary Clastic, Chemical, Clay, Othersedimentary para or igneous meta

- Metamorphic meta if knowntexture: Schists, Gneisses, Granofels

//Dominant minerals ionic.
Trace and antitrace element
Crust types

- Continental
- Subcontinental
- Suboceanic
- Oceanic

Volcano
World layers
sediments, evaporite

1. Regolith (soil)
2. Bedrock layers
3. ”Bedrock” and Void (instead of a mantle, as the height is too small)

Bedrock parts

1. Country rocks - oxides, silicates, carbonates, aluminates (?) etc - compounds of most abundant elements.
2. Igneous intrusives, rare/valuable rocks (pipes, veins, VMS, BIF, skarn etc) on country rocks.