InfiniteObjects Reference

Version 1

For InfObject-0.0.1-SNAPSHOT

2013

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# Overview

InfiniteObjects uses number of components to represent the various steps and concepts necessary to generate complex world generator objects. They are three main components, each having any number of types, which provide specific functionality. InfiniteObjects includes some basic types for each component. The list of components and provided types may be found bellow. Types can be added by external plugins, and may be used exactly like the provided ones.

1. Material setter
   1. Simple
   2. Random simple
   3. Inner-outer
   4. Random inner-outer
2. Condition
   1. Cuboid
   2. Sphere
3. Instruction
   1. Shape
   2. Block
   3. Repeat

Generation of a world generator object (which in this document will be referred to as a WGO) is done in four steps.

1. Evaluate the main variables
2. Evaluate each condition, terminating if any return false
3. Execute each instruction

Defining an InfiniteObjects WGO (which in this document will be referred to as an iWGO) is done using a YAML configuration. YAML is used as many Minecraft sever owners maybe familiar with it. It is also easy to read, and the Bukkit and SpoutAPI APIs provide an API to work with it.

# iWGO configuration format

Format:

name: [name]

setters:

[name]:

type:

properties:

(properties)

*{…}*

conditions:

*[name]:*

*shape: [shape]*

*mode: [“include” | “exclude"]*

*size:*

*(size)*

*position:*

*x: [****x****]*

*y: [****y****]*

*z: [****z****]*

*check:*

*- [material]*

*{…}*

*{…}*

instructions:

[name]:

type: [type]

*variables:*

*[name]: [expression]*

(properties)

Formatting key:

* Elements in italics are optional
* Bold elements must be mathematical expressions
* Elements between brackets are to be defined by the user, unless between quotes. The “|” character means that one, but not both, of the quoted terms must be used.
* Elements between parentheses represent a section of the configuration, which cannot be defined as it depends on the type of component.
* An ellipsis between braces mean that the key above at the same rank and its children are to be repeated (unless in italics). For lists, it means that more items can be added to the list

# Expressions

Expressions are used to provide dynamic numeric quantities to the various properties. They are two types of expressions, mathematical expressions; the first is a generic way to define value through scalars, variables, operators and functions. The second is used to provided faster calculation of random numbers, and can only be used for generating a random integer or floating point number between a maximum and a minimum.