Plans for map format that project-d will be using.

We will be using blender as our map editor. However this requires a way to export our map into the game. This is why we need a custom map format.

Blender

We could use the Custom Properties in for setting tags.
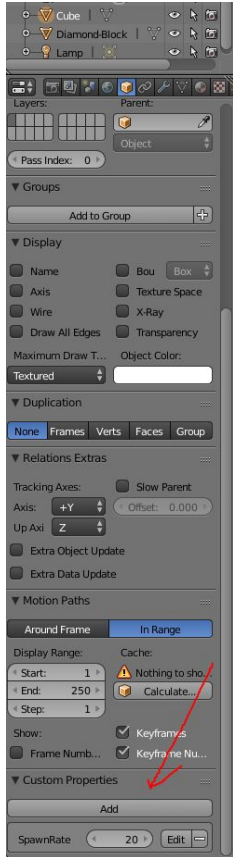
We generally want to use linked models when building the map. However by doing that we cannot really change any kind of data. Apparently you can still keep the linked data by turning it into an proxy object. (Ctrl + Alt + P)

https://wiki.blender.org/index.php/Doc:2.4/Manual/Data_System/Linked_Libraries#Proxy_Objects

Tags

We will be using tags just like html.

```
<Type value="foo">
```

So one example for creating a model that exists in the game would be:

```
<Model model="machine.obj" className="Machine" x="20" y="30" z="3" scalex="1" scaley="3",
scalez="3">
```

For spawning in entities in a certain area we could use:

```
<Spawn entity="Npc" spawnRate="20" aliveLimit="10" x="3" y="5" z="3" width="3" height="5"
depth="3">
```

Or using the polygon, ex create a 10x10x10 cube but could be other shapes aswell:
```
<Spawn entity="Npc" polygon="[5, 0, -5][-5, 0 -5][-5, 0 5][5, 0, 5]" height="10">
```

One map tag can also be used:
```
<Map className="EpicMap" gameTime="120">
```

Light can also be used:
```
<Light x="20 y="30" z="1" brightness="1">
```

One camera can be defined:
```
<Camera x="20 y="30" z="1>
```


Proposal:
A id system.

Position:
```
x // x coordinate, default 0
y // y coordinate, default 0
z // z coordinate, default 0
```

Scale for model:
```
scalex // scale in x direction, default 1
scaley // scale in y direction, default 1
scalez // scale in z direction, default 1
```

Areas for ex spawn or ai:
```
width // width in x coordinates relative to position, default 1
height // height in y coordinates relative to position, default 1
depth // depth in z coordinates relative to position, default 1
polygon // [x,y,z], [x,y,z] list of points for polygon, may be combined with width, height,
depth, default none
```

Spawn:
```
spawnRate // in seconds, default 1
spawnRateRandom // true or false, default false
spawnDelay // min delay between spawns, default 0
aliveLimit // amount of entities that can be alive, default 10
```

Blender only tags:

```
convertToPolygon // converts object into a polygon, true or false, default true
```

Attach class:
```
className // className to attach, default depending on tag, for Map: basicMap
```

Map:
```
gametime // game time in sec, default 300
playerSpeed // speed multiplier, default 1
```

Camera:

Flow diagram for workflow and map loader:

Flow Diagram

Blender → Export Script → Map File ⇄ getsMap ⇄ Maphoader

Which map to load by filename

Returns a map object

Map

FileLoader
Load(fileName)
getLineIterator

MapLoader

MapParser
convert(String line)