SOLIPSIS beta-version

Scene requirements and Import

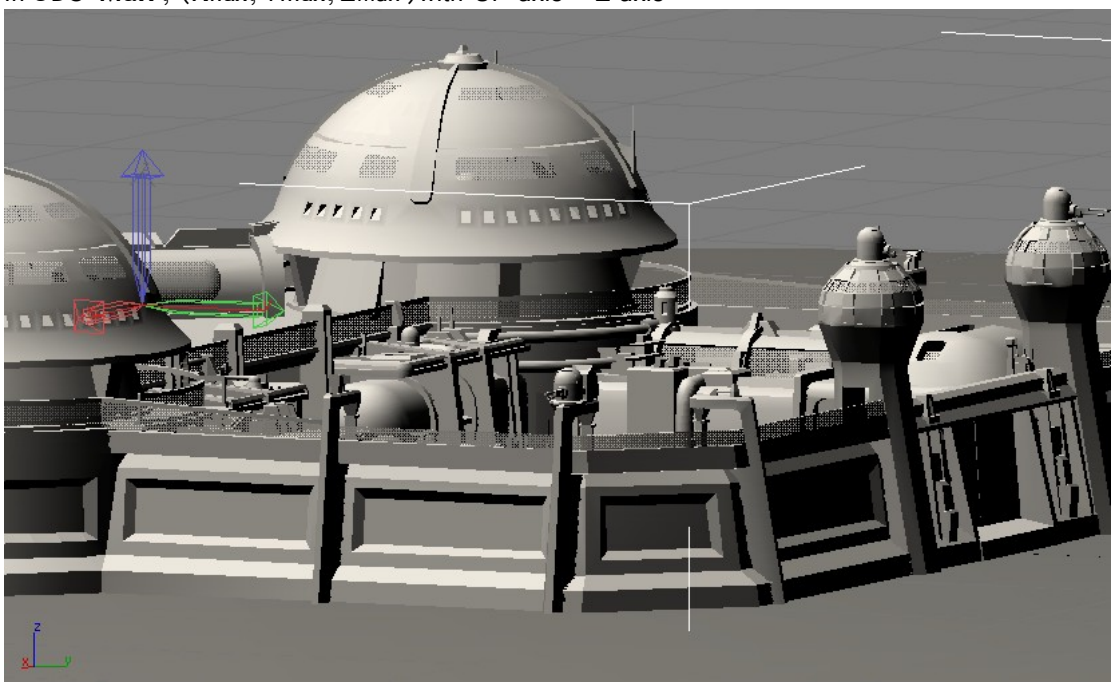
Exporter plugin

For instance oFusion plugin for 3DS Max 7/8/9is used to export the .osm and .mesh files. You can download the plugin on http://www.ofusiontechnologies.com.

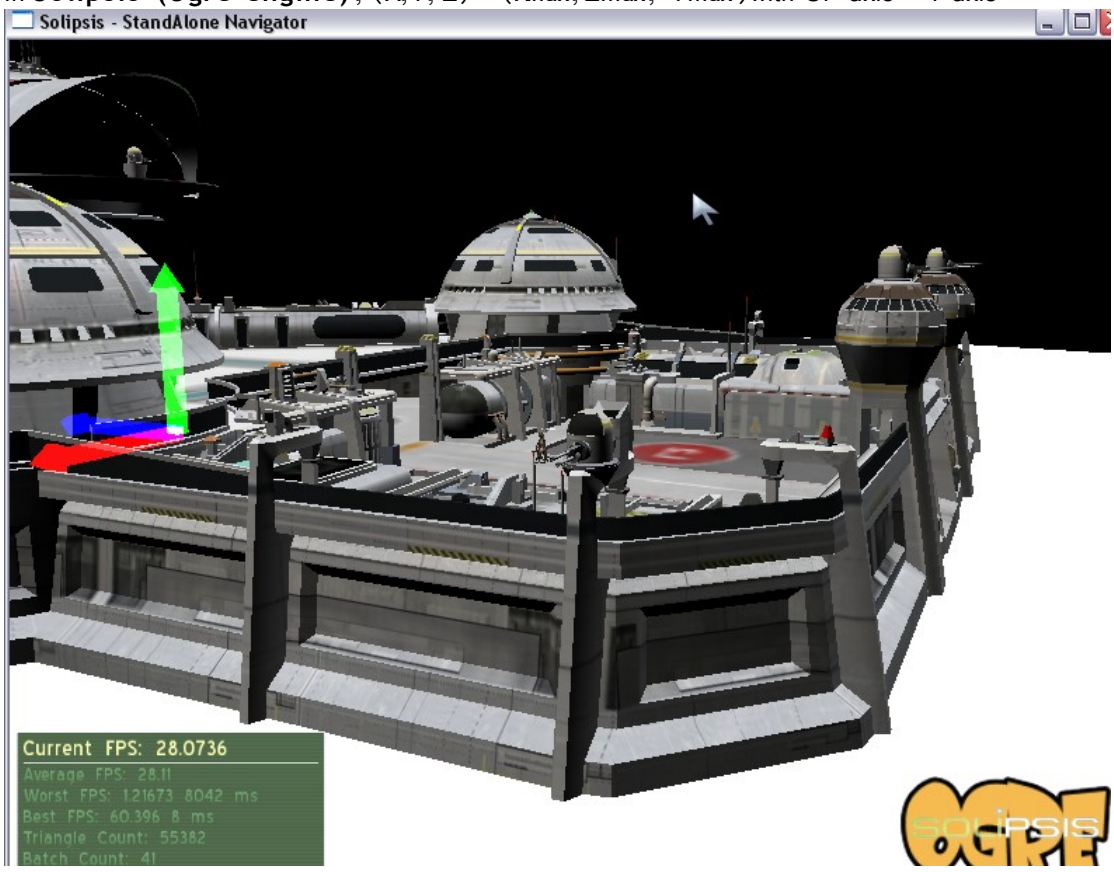
Requirements

Scene must respect the standard meter unit (scale)
(0,0, 1) is 1 meter vector on the UP-axis (Zin 3DSMax)

In **3DS Max**, (*Xmax*, *Ymax*, Zmax)with UP axis = Z axis



In **Solipsis (Ogre engine)**, (X,Y, Z) = (*Xmax*, *Zmax*, -*Ymax*)with UP axis = Y axis



Step 1 : Create your scene in 3DS Max

meshs, materials, textures ...

Step 2 : Create the collision mesh of the scene

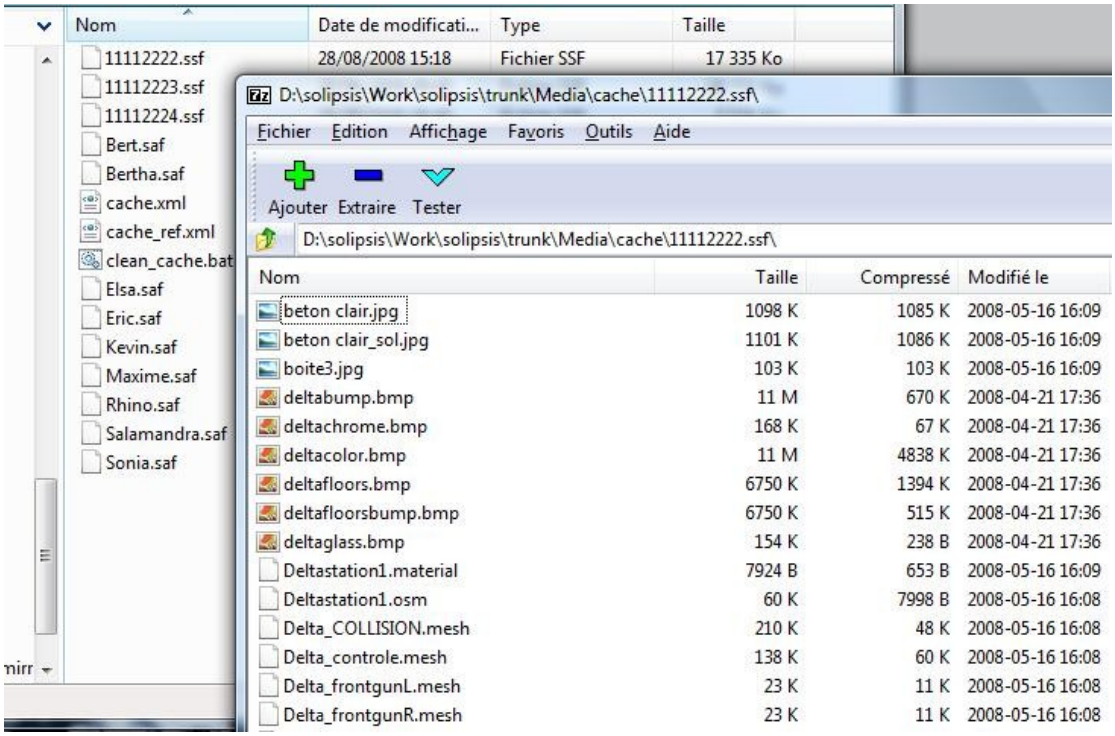
floor, walls, stairs, ...
Keep it as simple as possible, avoid too much tesselation
Give it a specific name (COLLISION_mesh for example)
Choose the position where new incoming avatars will be dropped (the entry gate)

Step 3 : Export your Max scene with the oFusion plugin

You will have a .OSM file with all associated files (meshs, materials, textures)

Step 4 : Build your Solipsis Scene File (SSF)

The SSF file is a simple ZIP file renamed in SSF and contains all exported files :
-.OSM : the oFusion scene file
-.mesh : OGRE mesh files
-.material : OGRE material files
-.bmp, .jpg, ... : textures files



Step 5 : Create the XML scene description file

The final step is the creation of the XML file describing your scene.
In this example the XML file 00001111.xml looks like :

```
<node>
    <entity uid="11112222" owner="00000001" type="1" name="Deltastation1"
version="00000000">
        <position x="18" y="-58" z="133" />
        <orientation x="0" y="0" z="0" w="1" />
        <aabb>
            <min x="0" y="0" z="0" />
            <max x="0" y="0" z="0" />
        </aabb>
        <content>
            <sceneContent>
                <entryGate gravity="true">
                    <position x="17" y="-50" z="115" />
                </entryGate>
            </sceneContent>
            <lod level="0">
                <sceneLodContent mainFilename="Deltastation1.osm"
collision="Delta_COLLISION" />
                <files>
                    <file name="11112222.ssf" version="00000000" />
                </files>
            </lod>
        </content>
    </entity>
</node>
```

00001111 is the unique node identifier (***nodeId***)and 11112222 is the unique entity identifier (***entityUID***).
Owner is the node identifier of the creator avatar.
Adjust if necessary ***position*** and ***orientation*** of the scene.
Define the ***entryGate*** attribute : position of new incoming avatars and the flag indicating if the gravity is activated.
Define the ***mainFilename*** attribute with the OSM file present in the SSF archive.
Define the ***collision*** attribute with the name of the collision mesh present in the SSF archive.
Finally define the SSF archive file into the ***files*** tag.

Server administrator tasks

The server administrator can now integrate the scene into the dedicated RakNet server. He will just have to copy the SSF file and the <nodeId>.xml file into the server Media/cache directory.
To simplify clean up of cache, copy the <nodeId>.xml file into <nodeId>_ref.xml file and update the clean_cache.bat.
Finally launch the RakNet server with argument -s <nodeId>.