



OpenSpace3D Editor version Alpha

OpenSource Collaborative Platform for 3D environments

OpenSpace3D Editor Alpha version is the first step of the OpenSpace3D Project (OpenSource and online collaborative Platform for the development of real time and interactive 3D project. This first version of the editor run as a local and mono user software. Based on the 3D Engine : "Ogre 3D", OpenSpace3D allows you to create full 3D applications by assembling functions to create interactions. A player is available to distribute created applications using the OpenSpace3d player.

3D Editor :

The 3D Editor allows you to transform 3D Objects by modifying : position, rotation and scale.

Editing Functions :

The editing functions interface allows to make link between functions to create interactions into the 3D Environment.

As we call a link is a sort of connection of an event function to an action of another or the same function.

Available Functions in the OpenSpace3D Editor :

Object Link	allows to create a click on an object
Open Url	allows to open an url
Flash	allows view Flash content on a 3D object.
Basic Navigation	allows to activate the movement of the camera in first person mode.
Set active camera	allows to change the camera used.
Animation	allows to read or stop an animation.
Distance	allows to trigger an event when one enters or leaves an area around an object.
Timer	allows to trigger two events as alternative.
Sound	permet de déclencher un son au lancement de l'application ou lors de l'action « play ».
Rotate	allows to apply a rotation on an object or a node.
Light	allows to activate or deactivate a light dynamically.
Hide	allows to hide or show an element in the 3d.



OpenSpace3D Editor version Alpha

OpenSource Collaborative Platform for 3D environments

SCOL/Ogre : 3D Rendering and 3D Management

Technical features of the SO3Engine possibilities based on the Ogre 3D Engine

N.B : All this features have been integrated in SCOL Language, only the features in **Bold** are available into the OpenSpace3d Editor (alpha version).

<i>General Features</i>	<p>Architecture and MiddleWare</p> <ul style="list-style-type: none"> ▪ Full Compatibility DirectX/OpenGL ▪ Dynamic Resource Management
<i>Scene Management</i>	<p>Scene Graph Management</p> <ul style="list-style-type: none"> ▪ Hierarchical scene graph and Scene Node Management ▪ Scene querying features ▪ XML format .scene to describe Scene or Object Groups : easy to merge
<i>Physics</i>	<p>Newton Physics</p> <ul style="list-style-type: none"> ▪ Collision detection, Gravity, forces, inertia and velocity
<i>Lighting</i>	<p>Realistic Lighting</p> <ul style="list-style-type: none"> ▪ Can have an unlimited number of lights in the scene ▪ Supported through vertex and fragment programs ▪ Lightmap
<i>Shadows</i>	<p>Shadow Mapping, Shadow Volume</p> <ul style="list-style-type: none"> ▪ Shadow Techniques supported: modulative stencil, modulative projective ▪ Multiple stencil shadow optimisations, including vertex program extrusion, zpass and zfail methods, Texture shadows fade out at far distance
<i>Texturing</i>	<p>Textures Features</p> <ul style="list-style-type: none"> ▪ Unlimited multitexturing ▪ Automatic Texture Compression ▪ Supports PNG, JPEG, TGA, BMP and DDS image files and Video Textures
<i>Shaders</i>	<p>Vertex, Pixel, High Level</p> <ul style="list-style-type: none"> ▪ Supports vertex and fragment programs (shaders), both low-level programs (assembler), and high-level programs (Cg,DirectX9 HLSL or GLSL)
<i>Animation</i>	<p>Animations into Scene</p> <ul style="list-style-type: none"> ▪ Skeletal animations, variable bone weight skinning, Unlimited bones per skeleton ▪ Node Animations ▪ Vertex Animations and Facial animations
<i>Meshes</i>	<p>Mesh Loading, Skinning, Progressive</p> <ul style="list-style-type: none"> ▪ Hardware-accelerated skinning ▪ Automatic Mesh LOD ▪ Flexible mesh data formats accepted ▪ Export from many modelling tools including Sketchup, 3D Studio Max, Maya, Blender and Wings3D.
<i>Special Effects</i>	<p>Usual effects for realistic rendering</p> <ul style="list-style-type: none"> ▪ Special Effects : Environment Mapping, Water effect, Cartoon.. ▪ Fog, skyboxes, skyplanes and skydomes Management
<i>Rendering</i>	<p>Rendering features</p> <ul style="list-style-type: none"> ▪ Loader for material Scripts and Scriptable multipass rendering for materials ▪ Transparent objects automatically managed ▪ Fullscreen rendering and Anti Aliasing