
Subject: Re: Command and Conquer Online?

Posted by [icedog90](#) on Wed, 02 Aug 2006 22:50:23 GMT

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SuperFlyingEngi wrote on Fri, 31 March 2006 10:27 Also, does anyone know the general specifications of this game engine yet? (Like, poly limits on models and texture sizes) And does anyone know how to do normal mapping? And has Unreal released a toolset for U3 yet?

Quote: Visual Features

- * 64-bit color High Dynamic Range rendering pipeline. The gamma-correct, linear color space renderer provides for immaculate color precision while supporting a wide range of post processing effects such as light blooms, lenticular halos, and depth-of-field.

- * Support for all modern per-pixel lighting and rendering techniques including normal mapped, parameterized Phong lighting; custom artist controlled per material lighting models including anisotropic effects; virtual displacement mapping; light attenuation functions; pre-computed shadow masks; directional light maps; and pre-computed bump-granularity self-shadowing using spherical harmonic maps.

- * Advanced Dynamic Shadowing. Unreal Engine 3 provides full support for four shadowing techniques:

- Dynamic stencil buffered shadow volumes supporting fully dynamic, moving light sources casting accurate shadows on all objects in the scene.

- Dynamic characters casting dynamic soft, fuzzy shadows on the scene using 16X-oversampled shadow buffers.

- Ultra high quality and high performance pre-computed shadow masks allow offline processing of static light interactions, while retaining fully dynamic specular lighting and reflections.

- Directional Light Mapping enables the static shadowing and diffuse normal-mapped lighting of an unlimited number of lights to be precomputed and stored into a single set of texture maps, enabling very large light counts in high-performance scenes.

- * All of the supported shadow techniques are visually compatible and may be mixed freely at the artist's discretion, and may be combined with colored attenuation functions enabling properly shadowed directional, spotlight, and projector lighting effects.

- * Powerful material system, enabling artists to create arbitrarily complex realtime shaders on-the-fly in a visual interface that is comparable in power to the non-realtime functionality provided by Maya.

- * The material framework is modular, so programmers can add not just new shader programs, but shader components which artists can connect with other components on-the-fly, resulting in dynamic composition and compilation of shader code.

- * Full support for seamlessly interconnected indoor and outdoor environments with dynamic per-pixel lighting and shadowing supported everywhere.

- * Artists can build terrain using a dynamically-deformable base height map extended by multiple layers of smoothly-blended materials including displacement maps, normal maps and arbitrarily complex materials, dynamic LOD-based tessellation, and vegetation layers with procedurally-placed meshes. Further, the terrain system supports artist-controlled layers of procedural weathering, for example, grass and vegetation on the flat areas of terrain, rock on high slopes, and snow at the peaks.

- * Volumetric environmental effects including height fog.

* Extensible particle system with visual editor, supporting particle physics and environmental effects.
