Major features of V-Ray RT ver 1.5 SP3a for 3dsmax™

Overview
Created with the busy and rigorous 3D artist in mind, this topnotch raytracing technology allows immediate interaction between the user and the virtual environment. V-Ray RT follows the user's actions while working on the scene and automatically and progressively generates a photorealistic preview of the scene. It is designed to improve and fasten the artist's work on the Texturing and Lightening stage.

Estimate Price: RM 2,100/unit

- must run on top of V-ray Advanced *

Availability
V-Ray RT for Autodesk®3dsmax® will officially be out on 1st of June 2009. It will be available for purchase through our resellers network.

General
The V-Ray RT interactive rendering system has many advanced features; here only some of them are listed. Note that all features are subject to change without special notice.

Currently it is CPU-based. Does NOT require special graphics cards
Currently the V-Ray RT technology is based on CPUs - it does **NOT** require any special or expensive graphics cards. All V-Ray RT needs is CPUs. As usual - we will use ALL of your CPUs and cores at no extra license cost. However, the V-Ray RT architecture is very robust and if needed - it can seemlessly be implemented to allow new hardware acceleration technologies in the future.

Distributed rendering
V-Ray RT supports distributed rendering across multiple machines in the local network.

Integration with 3ds Max
V-Ray RT is an ActiveShade renderer in 3ds Max, separate from the production V-Ray renderer. V-Ray RT does not introduce new plugins other than the interactive renderer itself. Instead, the existing 3ds Max and V-Ray materials, textures, lights, cameras etc. are used.

V-Ray RT consists of two major components:

- V-Ray RT interactive renderer in 3ds Max;
- One or more V-Ray RT render servers.

V-Ray RT performs the actual rendering outside of 3ds Max itself, with the help of the V-Ray RT render server(s), which can run either locally on the same machine, or on other machine(s) in the local network. The renderer plugin in 3ds Max only relays the scene changes to the render servers and displays the final result.

Interactivity
A major feature of V-Ray RT is its ability to track changes to the scene performed by the user and automatically update the ActiveShade preview. The following scene changes are supported:

- Create/delete objects (geometry, lights, cameras, etc.);
- Modify object parameters;
- Move/rotate/scale objects;
- Apply/remove/edit object modifiers;
- Hide/unhide objects;
- Apply materials on objects;
- Modify material properties like textures, colors etc;
- Modify light properties (like position, color, etc.)
- Animation of cameras, objects, lights and materials (scrubbing the time slider);
- Render settings change;
- Camera/view orientation change;
- Modify camera/view parameters;
- Environment change (color, texture etc).

Geometry
The following geometric objects are supported by V-Ray RT:

- Triangle meshes;
- All other primitives that are convertible to triangle meshes (NURBS surfaces, patches, etc.);
- VRayPlane objects.

Materials
The following materials are supported by V-Ray RT

- V-Ray materials: VRayMtl, VRayBlendMtl, VRayOverrideMtl, VRayLightMtl and VRay2SidedMtl;
- 3ds Max materials: Multi/sub-object, Standard, Shellac and Blend;
- VRayWrapperMtl material is only partially supported.

Textures
The following textures are supported by V-Ray RT:

- Bitmap textures: PNG, BMP, TGA, JPG, EXR, HDR, SGI, PIC and TIFF file formats;
- Procedural textures: Checker, Noise, Falloff, Speckle, Cellular, Gradient Ramp, Tiles etc;
- Utility textures: Output, Normal bump, Mix, Mask, RGB Multiply, RGB Tint etc;
- V-Ray textures: VRayColor, VRayCompTex, VRayEdgesTex, VRayHDRI, VRaySky and VRayBmpFilter;
- 3rd party textures: the ColorCorrect texture is partially supported (the Gamma and Source parameters).

Illumination
The following methods for illumination are supported by V-Ray RT:

- Indirect (global) illumination:
  - Progressive path tracing as global illumination solution.
- Direct illumination:
  - Standard lights: Spot, Omni and Direct;
    - VRayShadow shadow type for hard and soft shadows;
  - Photometric lights;
  - V-Ray lights: VRayLight (Plane, Sphere and Dome types), VRaySun and VRayIES.
- Environment illumination and image-based lighting (IBL):
  - Either through GI or
  - with a VRayLight in Dome mode with a texture map.

Shading
The following shading effects are supported by V-Ray RT:

- Diffuse materials;
- Bump and normal mapping;
- Transparency;
- Clear reflections and refractions;
- Blurry reflections/refractions:
    - Phong, Blinn and Ward reflection models;
    - Anisotropy;
- Absorption (fog) for refractive materials;
- Layered materials;
- Two-sided (translucent) materials;
- Self-illuminated materials.

Camera effects
V-Ray RT supports the following camera types and camera effects:

- Camera types:
    - Perspective views;
    - Standard cameras;
    - VRayPhysicalCamera.
- Camera effects:
    - Depth-of-field with bokeh effects;
    - Exposure settings and vignetting.
    - Camera distortion

Animation
V-Ray RT supports and reacts to the following animation types:

- Camera animation;
- Object animation (move/rotate/scale; deformations);
- Material animation;
- Lights animation.

Render settings from V-Ray Production
V-Ray RT takes some of the render settings from the production V-Ray renderer, if present:

- Color mapping;
- Override material;
- Camera settings for depth of field (when using perspective views or standard cameras);
- Environment overrides.