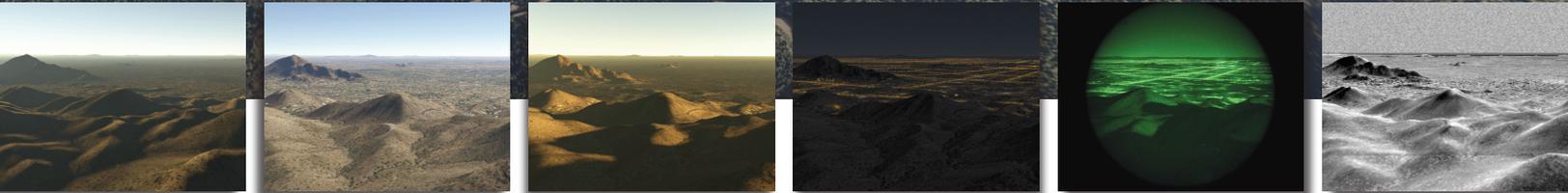


SimHDR™



Real-time Multispectral Scene Signature SDK



SimHDR provides plug-in modeling and shader-based rendering of physically-accurate illumination, atmospheric, and cultural lighting.

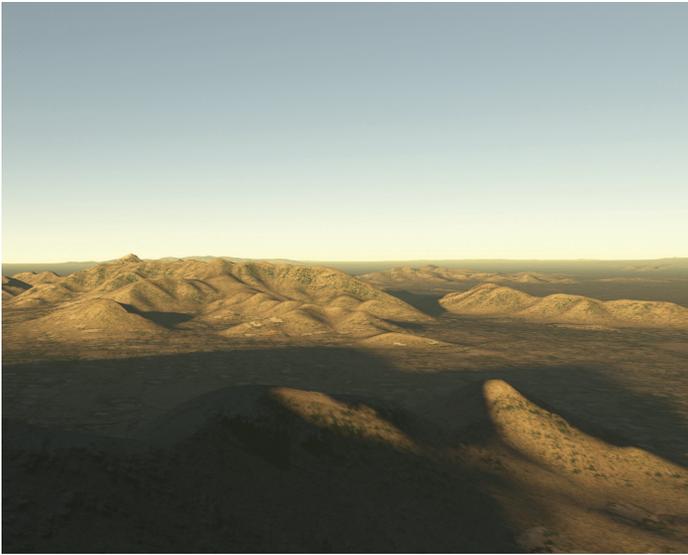
Standards-based SDK for high-fidelity, real-time visual simulation.

SimHDR by Renaissance Sciences Corporation is a Software Development Kit (SDK) adding physics-based signature modeling and high-dynamic range rendering capabilities to existing visualization applications. SimHDR combines signature predictions anchored in the physical sciences with the expanding power of commercial graphics hardware technologies to deliver complex GPU-based physical effects in real-time. SimHDR's open API and minimally-invasive GPU shader management technology provides portability to any existing OpenGL-based application.

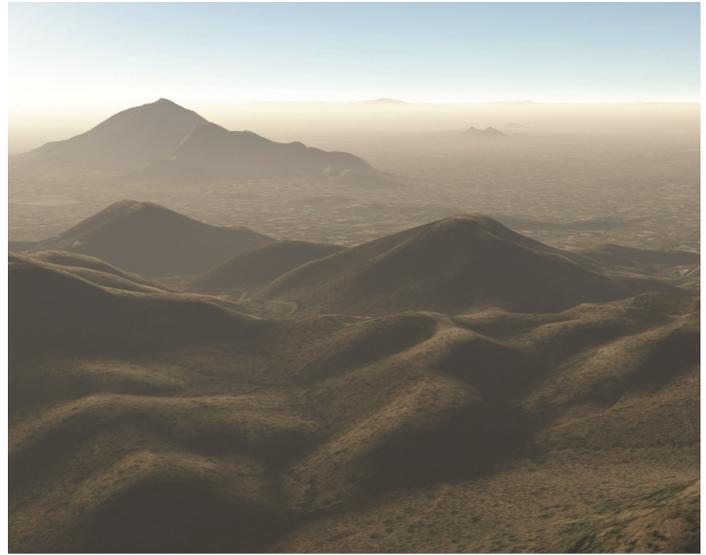
High dynamic range treatment of entire scenes SimHDR's illumination and parametric atmospheric effects are provided for all scene surfaces. When combined with SimHDR's fully-featured sky, ephemeris, and cultural lighting rendering models, SimHDR provides high dynamic range rendering in natural radiometric units for your entire scene.

Cross-platform, correlated, multispectral virtual environments SimHDR's portability, ease of integration, and multispectral operation provide a key enabler of next-generation common virtual environments within cross-platform distributed visual and sensor simulation architectures.

SimHDR™



Natural solar/lunar illumination SimHDR's high-dynamic range lighting dramatically improves the realism of virtual environments.



Realistic atmospheric SimHDR predicts and renders the effects of directional scattering and absorption for aerosol, gas, and hydrometeor layers.



Cultural lighting Through the employment of physics-based light maps and light point models, SimHDR provides next generation realism and density of urban environments.



Waveband selectable SimHDR supports selectable wavebands including visible, near-infrared, short-wave infrared, and long-wave infrared.

Renaissance Sciences Corporation is a privately-held, entrepreneurial technical services firm committed to excellence, agility, and a customer-oriented culture. Our Modeling and Simulation Services business unit combines a broad range of scientific and engineering disciplines to deliver synthetic environments, virtual training, and mission rehearsal solutions.

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