DreamWorks Animation's OpenVDB 1 ushers in a new era of volumetric storage and processing

OpenVDB Version 1 is adopted by industry leaders including Side Effects' Houdini and Pixar's RenderMan

Glendale, CA – April 12, 2013– DreamWorks Animation SKG, Inc. (Nasdaq: DWA) releases OpenVDB 1 (openvdb.org), an open source framework developed by DWA engineers for sparse volume data. Initially released in Beta August 2012, OpenVDB 1 delivers a complete API for application developers, a suite of tools that implement core volume processing algorithms, improvements in runtime and I/O performance, and production quality data sets to demonstrate the capabilities of the library.

The use of DreamWorks Animation's OpenVDB technology in Side Effects' Houdini visual effects package was a key component to producing the many environmental effects in DreamWorks Animation's latest release, *The Croods*, now in theaters. "The complexity of our clouds, explosions, and other volumetric effects could not have been done without the VDB Tools in Houdini," said Matt Baer, Head of Effects for *The Croods*.

"The response to OpenVDB is overwhelmingly positive," said Lincoln Wallen, Chief Technology Officer at DreamWorks Animation. "Feedback from our partners and the community has helped the team refine the toolset and create a robust release that is poised to set an industry standard."

Integration of and support for OpenVDB 1 will be available in several widely used commercial products:
- Houdini 12.5, Side Effects Software's award-winning 3D animation and visual effects package.
- The next major release of Pixar's award-winning RenderMan software
- Solid Angle's upcoming releases of Arnold core and Houdini-to-Arnold supports OpenVDB 1 through a set of volume shaders, including advanced effects such as volumetric indirect lighting.
- A reference implementation for Maya import/export of OpenVDB 1 will be available from OpenVDB.org later this year.

"The tight integration of OpenVDB into Houdini 12.5 provides artists with fast, compact and explosive power over their volume effects," said Cristin Barghiel, Director of Product Development at Side Effects Software.

"The ease of integration was a huge factor in enabling us to introduce OpenVDB support," added Chris Ford, RenderMan Business Director at Pixar Animation Studios. "The API is well thought out and enabled us to support the rendering requirements we think our customers need. The performance from threading and compact memory footprint is icing on the cake."

"In addition to our Arnold core and Houdini-to-Arnold support of OpenVDB, we're also pleased to announce planned support in Maya-to-Arnold and Softimage-to-Arnold package plugins," said Marcos Fajardo, Founder of Solid Angle.

Further details on OpenVDB will be presented at SIGGRAPH 2013 and published in Volume 32, Issue 3 of the ACM journal *Transactions on Graphics*.

About OpenVDB
OpenVDB is a hierarchical data structure and suite of tools for the efficient manipulation of sparse volumetric data. Developed by Dr. Ken Museth at DreamWorks Animation, OpenVDB stores sparse three-dimensional voxel grids in a compact form. It offers an effectively infinite index space, compact storage in memory and on disk, and fast random and sequential data access. OpenVDB contains a collection of algorithms designed for important operations such as filtering, constructive solid geometry, compositing, sampling and voxelization from other geometric representations.

About DreamWorks Animation
DreamWorks Animation creates high-quality entertainment, including CG animated feature films, television specials and series and live entertainment properties, meant for audiences around the world. The Company has world-class creative talent, a strong and experienced management team and advanced filmmaking technology and techniques. DreamWorks Animation has been named one of the "100 Best Companies to Work For" by FORTUNE® Magazine for five consecutive years. In 2013, DreamWorks Animation ranks #12 on the list. All of DreamWorks Animation's feature films are produced in 3D. The Company has theatrically released a total of 26 animated feature films, including the franchise properties of *Shrek, Madagascar, Kung Fu Panda, How to Train Your Dragon* and *Puss In Boots*.

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