



# LightWave™ IO



# LightWave™ 10

## Count on it.

**NewTek LightWave™** is the backbone of fast, efficient 3D pipelines. Day in and day out, LightWave artists deliver stunning graphics and animation on time and on budget. LightWave artistry is everywhere, from blockbuster feature films and primetime television, to the cover of Rolling Stone. The result of the collaboration between artists and LightWave is that more Emmy® Awards for visual effects and animation sit on the mantels of LightWave artists than any others.

Today, that mighty collaboration between artists and NewTek has created a new LightWave. LightWave 10 is innovative, interactive and immersive. Built on a NewTek tradition of pioneering ground-breaking 3D capabilities, LightWave 10 maintains the fast, efficient workflow and powerful, proven render engine you've come to depend on, with seamless integration into diverse pipelines.

**LightWave 10** benefits artists with unique features not found in any other 3D application, like Viewport Preview Renderer (VPR) and CG hardware enhancements that give you an immediate look at changes to your rendered scenes, plus Stereoscopic Anaglyph and HDRI background images.

LightWave 10 delivers the power of Modeler and Layout with next generation CORE technologies, such as immersive real-time and game tools.

**LightWave 10 will breathe new life into your pipeline. Count on it.**

## Model on it. Animate on it. Render on it.

"WE USE LIGHTWAVE BECAUSE IT'S THE BEST OPTION, PLUS IT'S THE PLATFORM WHICH BEST COMBINES TIME AND PERFORMANCE. WE CAN ALWAYS COUNT ON IT TO GET US THE BEST RESULTS IN THE LEAST AMOUNT OF TIME."

— MAURO CORVELONI, ARTIST, BITT ANIMATION & VFX

**LightWave 10** offers a new off-axis stereoscopic camera rig option; improved VPR; advanced import and export capabilities; a new Skin Shader node, and more. Now, artists have the ability to include or exclude models, morphs, animations, cameras, and lights, upon export. Other workflow enhancements offer the ability to import joints as LightWave bones for greater compatibility with other programs; multi-threaded mesh evaluation optimization and sub-d mesh freezing acceleration; linear color space workflow improvements, including new support for .ICC/.ICM monitor profiles, and more.

Luis Santos

Khalid Al-Muharrqi

Near MacCormack







# Television

LightWave is used consistently on Emmy® Award-winning shows. Teams of artists from LightWave facilities have taken home ten Emmy® Awards in the last decade for their stellar work in television shows such as: *Battlestar Galactica*, *CSI: Crime Scene Investigation*, *Lost*, *Star Trek: Enterprise*, *Firefly*, *Frank Herbert's Children of Dune*, *Star Trek: Voyager*, and *Frank Herbert's Dune*. The winning trend continued in 2010, with Emmy® nominations for LightWave artists working on *Caprica*, *CSI: Crime Scene Investigation*, *National Geographic Channel Alien Earths* and *V*.

CSI — image courtesy of Zoic Studios

## Win on it.

Production for television extends beyond Emmy®-winning shows, to the creation of commercials and music videos, where time and budgets can be incredibly short and tight. Here, the value, speed and flexibility of LightWave really shines. LightWave artists prove time and again that they deliver for their clients on projects from the latest ads, such as Volkswagen Amarok, featuring realistic LightWave elephants, to the newest music videos like Red's *Ordinary World*, and Iron Maiden's *The Final Frontier*.



**“WITH LIGHTWAVE, WE DON'T HAVE TO SACRIFICE QUALITY FOR SPEED. THE SPEED AT WHICH YOU CAN GENERATE CONTENT WITH LIGHTWAVE MAKES IT OUR TOOL OF CHOICE. THE DIRECTOR NEVER HAS TO FEEL A NEED TO SACRIFICE IDEAS, DUE TO SCHEDULE OR BUDGET CONSTRAINTS.”**

**— ERNEST CHAN, POST-PRODUCTION CG SUPERVISOR, NICK DIGITAL**



The Fairly OddParents — image courtesy of Nickelodeon

Ordinary World — image courtesy of Elevate Pictures



V — image courtesy of Zoic Studios

Volkswagen Amarok — image courtesy of Bitt Animation and VFX



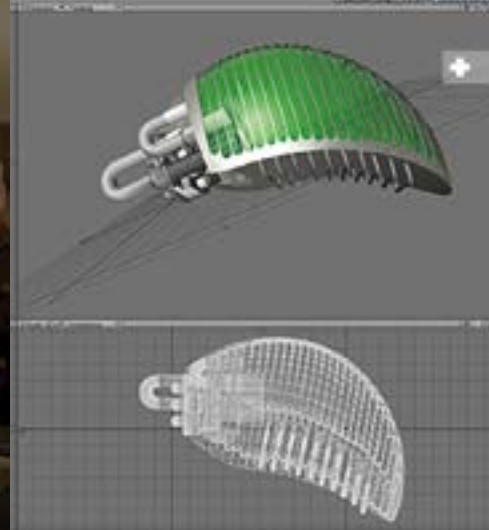


LightWave 10

MARINA BROH MARTIN RAPOLD



Repo Men — images courtesy of Universal Pictures



## Innovate on it.

The Virtual Art Department (VAD) for James Cameron's *Avatar* was conceived and created using LightWave as the primary tool for the modeling and creation of the virtual environments, providing Cameron with a virtual 3D set and the ability to view and control the action in real time.

Now, with **LightWave 10**, all 3D artists have the unique ability to create your own VAD with full support for the InterSense VCam™, a virtual camera system built right into LightWave. Immerse yourself fully into LightWave scenes with real-time control of the camera, objects and light placement.



**"LIGHTWAVE IS EXTREMELY EASY TO USE. IT HAS A FULL-FEATURED MODELER, SOLID ANIMATION TOOLS, AND WHAT I THINK IS THE BEST INTEGRATED RENDER ENGINE OUT THERE ... I'M ABLE TO GET AN EXTREMELY PROFESSIONAL RESULT ... IF YOU SPEND AS MUCH MONEY AS I DO KEEPING A STUDIO AFLOAT, WITH THE DOZENS OF SOFTWARE LICENSES, HAVING FREE RENDER NODES IS A BIG DEAL!"**

**– ANDREW CLEMENT, OWNER AND FOUNDER, CREATIVE CHARACTER ENGINEERING, SPECIAL MAKEUP EFFECTS DESIGN/CREATOR, REPO MEN**



Cargo — Images courtesy of Atlantis Pictures



CARGO

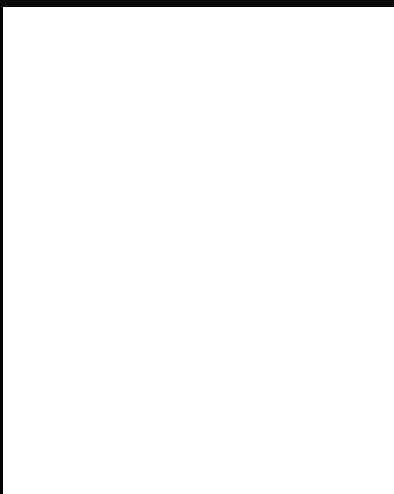


Image © Twentieth Century Fox

AVATAR





# Visualization and Design

The powerful renderer and precision modeler make LightWave a natural for visualization and design. From early sketches, to finished print resolution renders, the unique workflow in LightWave provides unmatched creative flexibility.

LightWave 10 extends the functionality of the Viewport Preview Renderer (VPR) with the support of clip maps in the VPR render, the addition of object and distance dissolve, and improved nodal shaders, like the new Skin material node.

## Build on it.

The Skin Shader node works fully with the VPR, and uses a proprietary model for subsurface scattering for an easier method of replicating realistic skin textures. Artists can now adjust lights, textures, volumetrics and more, easily—right within the viewport.

LightWave 10 also provides FiberFX. The hair and fur shader includes improved speed, stability and displacement handling, and now supports the VPR. Artists can also move between applications easily, using MDD with powerful, new capabilities that include support for FBX® and integrated Autodesk® Geometry Cache. Expand the reach of your 3D pipeline with easy transfer of camera data, lights, objects placement, image and UV maps, parenting hierarchies and more.

Christian Schrul

Cesar Alejandro Montero

Bill Plewes

Khalid Al-Muharraqi

Larry Vasquez





## Short Film

As an independent short filmmaker, you want to see your vision on-screen, without compromise. LightWave gives you the ability to control every aspect of your production, so you may realize your dreams on your own or with a small production team. From the visually striking, emotionally-charged short film *Urs*, to the kinetic, action-packed *THE RAVEN*, independent filmmakers find that LightWave delivers the perfect solution.

The Raven — Images courtesy of Pixelhanger



### Dream on it.

**LightWave 10** presents a virtual soundstage with real-world camera and lights, allowing you to create your universe and direct the action, all from an elegant interface. With Virtual Studio Tools that support an InterSense Virtual Camera Tracking System (VCam™) and 3Dconnexion SpaceNavigator™ 3D mouse that allows you to interact with your models and scenes in real time, you can deliver your masterpiece on time and on budget.



**"LIGHTWAVE WON ME OVER WITH ITS POWERFUL MODELING TOOLS AND REALLY FAST NAVIGATION. I LOVE TO DO CAMERAWORK IN IT, SINCE IT IS INCREDIBLY INTUITIVE AND FUN TO WORK WITH. THE SHADING SYSTEM AND RENDERING POSSIBILITIES ARE ABSOLUTELY FANTASTIC, MAKING LIGHTWAVE THE MOST RELIABLE TOOL IN MY PIPELINE."**

— MORITZ MAYERHOFER, ARTIST/DIRECTOR, *URS*



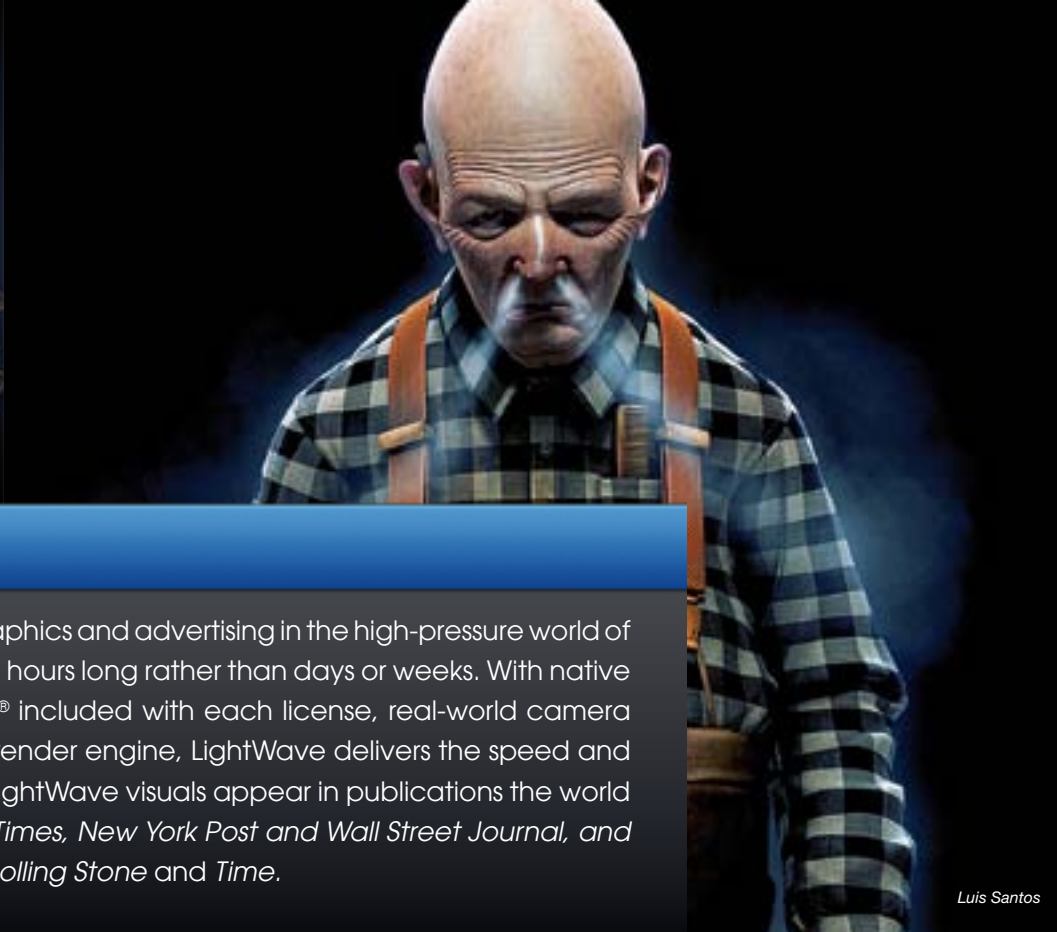
Urs — Images courtesy of Moritz Mayerhofer



The Good Knight Story — Image courtesy of Shoham Blau



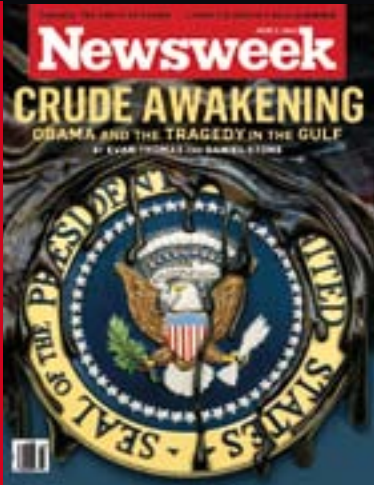




# Print Graphics

## Design on it.

LightWave is used for informational graphics and advertising in the high-pressure world of publishing, where deadlines are often hours long rather than days or weeks. With native support for both Windows® and Mac® included with each license, real-world camera and lighting effects, and a powerful render engine, LightWave delivers the speed and flexibility perfect for graphic design. LightWave visuals appear in publications the world over, in daily newspapers like the *LA Times*, *New York Post* and *Wall Street Journal*, and magazines like *Fortune*, *Newsweek*, *Rolling Stone* and *Time*.



Time, Newsweek,

Entertainment Weekly — images courtesy of Joe Zeff Design

based on photograph by Gavin Bond

William Vaughan

"WE HAVE USED LIGHTWAVE TO CREATE COVERS FOR DOZENS OF MAGAZINES FROM ROLLING STONE AND FORTUNE, TO IT IS THE MOST RELIED-UPON PIECE OF SOFTWARE IN OUR STUDIO. WE COULDN'T

TIME AND NEWSWEEK, AS WELL AS ADVERTISING IMAGES FOR PORSCHE, M&M'S, PEPSI AND MERCEDES-BENZ. IMAGINE WORKING WITHOUT IT." — JOE ZEFF, JOE ZEFF DESIGN





Khalid Al-Muharraqi

Neal MacCormack



# LightWave 10 Facts

**LightWave 10** provides a motion-picture-quality render engine that supports Windows® 64 and 32-bit and Mac® UB 64 and 32-bit, and is a leader in multi-core technology support. In addition, LightWave offers free, 999 cross-platform render nodes, making it the highest quality, most affordable, and efficient render pipeline in the 3D market.



Chris Lomaka



Antonis Kotzias

LightWave 10

## New Feature Benefits

| Feature  | Benefit  |
|--|--|
| Interactive Display and Rendering Tools  |  |
| Viewport Preview Renderer (VPR) enhancements   | Support for Clip Maps in the VPR render, Object Dissolve and Distance Dissolve in VPR, and Nodal Shaders, plus Limited Region enhancements                               |
| New Skin Shader node   | Simplified method for replicating realistic skin with a proprietary model for subsurface scattering that works fully with the VPR  |
| New Off-Axis Camera rig option   | Supports all three of the major stereoscopic camera rig types (Parallel, Toe-in and Off-axis)  |
| Linear workflow  | Supports consistent gamma, color space, and custom Look Up Tables (LUTs) for more realistic lighting, and to maximize compositing flexibility in a professional pipeline |
| Data Interchange Enhancements  |  |
| MDD with powerful new enhancements include support for integrated Autodesk Geometry Cache                | Freedom to move deformations and transforms between applications allowing for an extremely flexible, extensible pipeline for animation, dynamics, effects, and rendering |
| FBX  | Load and save camera data, lighting, objects with UV maps and image maps, parenting hierarchies, etc.  |
| COLLADA  | Easy transfer of camera data, lights, object placement, image maps, etc., from one application to another  |
| Improved ZBrush Interchange  | Easy transfer and manipulation of UV maps from ZBrush  |
| Improved OBJ UV Support  | Delivers the ability to import and export any number of UV maps  |
| New Immersive, Real-Time and Game Tools  |  |
| Support for the InterSense VCam virtual camera system used in feature film Virtual Art Departments (VAD) | Gain a true “on location” experience through interaction with massive 3D scenes in real time with control of light placement and camera directly in your 3D application  |
| Support for 3Dconnexion line of 3D mouse   | Move through the virtual world and interact with models and scenes controlling cameras and lights in real time   |
| SpriteGen  | Automates creation of sprite animation images for real-time and game engines   |

“MY CONFIDENCE IN LIGHTWAVE AND ITS RENDERING SPEED IS WHAT MADE ME FEEL LIKE IT WAS REALISTIC TO TACKLE ‘ORDINARY WORLD’ UNDER SUCH A TIGHT DEADLINE ... THERE IS NO OTHER SOFTWARE OUT THERE THAT CAN DO AS MUCH AS LIGHTWAVE.” – JEREMY HUGHES, DIRECTOR, ELEVATE PICTURES







**Model on it.  
Animate on it.  
Render on it.  
Win on it.  
Innovate on it.  
Build on it.  
Dream on it.  
Design on it.  
Count on it.**

**"IN LIGHTWAVE 10, VPR ALLOWS ME TO SEE THE COMPLEX CREATURE RIGGING DEFORMATIONS IN A BEAUTIFUL REAL TIME RENDER. IT'S INCREDIBLE TO BE ABLE TO WORK ON THE CHARACTER RIG AND GET THIS ADVANCED LEVEL OF VISUAL FEEDBACK! INTERACTIVE LIGHTING, PROCEDURAL TEXTURES, REFLECTIONS, TRANSPARENCY, RADIOSITY, IT'S ALL THERE!"**

**- LINO GRANDI, FEATURE FILM CREATURE RIGGING  
AND VISUAL EFFECTS SUPERVISOR**



You've read the brochure, now try LightWave 3D for yourself with our free 30-day trial version, 200MB of royalty-free content and over 24 hours of training here: [www.lightwave3d.com/lwtrial](http://www.lightwave3d.com/lwtrial)

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