

FAST

FLEXIBLE

INTUITIVE



### Do it in 3D

Nuke's powerful 3D workspace supports OBJ import, projection mapping, geometry modifiers, and more. This true 3D environment creates powerful workflows and exciting new ways to approach compositing.

### Experience multi-channel, high dynamic range compositing

Nuke delivers the industry's broadest support for EXR images. Read, process and write over a thousand channels, improving data management and workflow.

### Powerful keying technology

Nuke's exclusive Image Based Keyer (IBK) gives artists powerful tools for dealing with uneven backings.

### Have it your way

Saveable layouts, GUI customization capabilities, and features like the 'bullseye' and 'input' buttons, make managing large, complex composites easier than ever.

### The need for speed

Even when processing high resolution footage at 32-bit floating point precision on modest hardware, Nuke's multi-threaded, scanline-based rendering engine gives rapid feedback.

### Tailored to suit you

Nuke offers an extremely open architecture. Both its node graph and user interface are accessible through the Python scripting language, making it possible to customize Nuke in innumerable ways. If you really want to drill down, Nuke supports the industry standard OFX plug-in API as well as a native developers' kit (NDK) for creating your own tightly integrated plug-ins.

### Use your favourite plug-ins

All of The Foundry's OpenFX™ (OFX) plug-ins are fully compatible with Nuke. Currently, the Keylight keyer, the Tinder collection (which includes lens flares, warpers, and lens blurs), and the Furnace collection (which includes motion vector retiming, wire removal, clean plate creation, grain, and texture tools) are available for OFX, with more collections added all the time.

### Work on your platform of choice

Nuke is available on Windows®, Linux® and Mac OS X® platforms – all at equal cost. Licenses float across operating systems, so every artist can work where they are most comfortable and creative.

### A cost effective solution

Not only does Nuke run on relatively modest hardware it comes with an economical \$3,500 / £1,750 price tag, so even on a fairly tight production budget you can gain access to a functional, fast and intuitive compositing solution.

Call us on +44 (0)20 7434 0449 or +1 310 399 4555, contact [sales@thefoundry.co.uk](mailto:sales@thefoundry.co.uk) or visit [www.thefoundry.co.uk](http://www.thefoundry.co.uk) for more information and fully functioning evaluation licenses.



# THE FOUNDRY

Established in 1996, The Foundry is a leading developer of visual effects and image processing technologies that boost productivity and workflow in film and video post production.

The Foundry has grown considerably since its early days, we now successfully license our sophisticated image processing technology to third parties, hold a portfolio comprising three Academy Award® winning products including high-end compositing application Nuke and operate offices in London and Los Angeles. Our innovative products are renowned worldwide and support a wide range of host platforms including After Effects, Autodesk® Media and Entertainment Systems, Avid DS, Baselight, Film Master, Fusion, Scratch, and of course our own Nuke.

In addition to product development The Foundry has used its considerable influence to drive the development of an open standard for visual effects plug-ins known as OpenFX. OpenFX is gaining wide acceptance by host and plug-in developers, such as Autodesk®, Assimilate, Digital Vision, eyeon Software, FilmLight, Grass Valley, Soluciones Graficas por Ordenador (S.G.O.), Proton and others.

Other products from The Foundry... Take a look at **Furnace**: wire, rig and flicker removal, a world-class retimer, grain management, dust-busting, image stabilisation, auto rotoscoping, image segmentation and much more. **Furnace** features a whole host of plug-ins, which you'll find yourself using on a daily basis. If you are looking for a stunning collection of 2D visual effects look no further than **Tinder** and **Tinderbox**: incredibly versatile collections featuring a vast array of fast, organic effects, a bunch of everyday tools and a host of blurs, generators and warpers. If it's a superior blue/green/screen keyer that you are after, check out **Keylight**.

THE FOUNDRY  
1 Wardour Street  
London  
W1D 6PA  
United Kingdom

T: +44 (0)20 7434 0449  
F: +44 (0)20 7434 1550  
E: [info@thefoundry.co.uk](mailto:info@thefoundry.co.uk)  
W: [www.thefoundry.co.uk](http://www.thefoundry.co.uk)

PICTURE CREDITS:

FANTASTIC FOUR: RISE OF THE SILVER SURFER – © 2007 Twentieth Century Fox Film Corporation. All rights reserved. Image courtesy of Image Engine.  
KING KONG – © 2006 Universal Studios. All rights reserved. Image courtesy of Weta Digital Ltd.  
FLASHS OF OUR FATHERS – © 2006 Dreamworks LLC and Warner Bros, Inc. All rights reserved. Images courtesy of Digital Domain.  
MERCEDIS CL – © DaimlerChrysler/Mercedes-Benz. All rights reserved. Images courtesy of galerie der medien and Makevision Media. Design GmbH.  
TRANSFORMERS – © 2007 Dreamworks LLC/Paramount. All rights reserved. Images courtesy of Digital Domain.  
WATERFALL – © Herbert Reah, Softmachine. All rights reserved. Image courtesy of Herbert Reah.

THE FOUNDRY  
618 Hampton Drive  
Venice  
CA 90291  
USA

T: +1 310 399 4555  
F: +1 310 450 4516  
E: [info@thefoundry.co.uk](mailto:info@thefoundry.co.uk)  
W: [www.thefoundry.co.uk](http://www.thefoundry.co.uk)

# NUKE

FROM THE FOUNDRY



ADVANCING THE ART OF DIGITAL COMPOSITING

For Windows®, Linux® and Mac OS X®

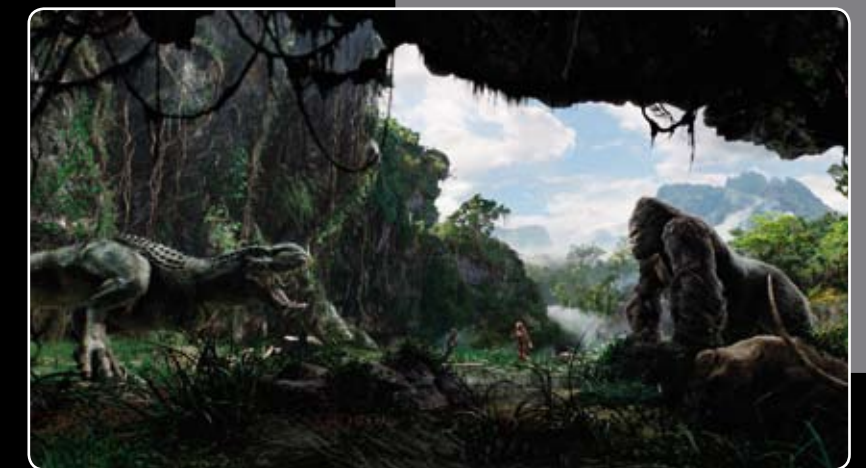
## ADVANCING THE ART OF DIGITAL COMPOSITING

Nuke is a powerful compositing application that delivers unparalleled speed, an efficient multi-channel scanline rendering engine, and a first-class feature set that is unrivalled in the desktop market. If you are in the business of creating high-quality digital images Nuke is a production proven visual effects tool that brings speed, functionality and flexibility to your VFX pipeline.

“Nuke is a complete pipeline tool. We created a pipeline for a job within days that would not have been possible with any other software. Within three days of getting our license we generated over 85,000 frames of data that equalled 350 variations for the client. Nuke's support for OpenEXR is so effortless that our renders come in and we just work.”  
ROBERT NEGERHORST, VFX Supervisor at SpeedShape's Los Angeles studio

Nuke began as the in-house compositing and effects application at Digital Domain. The visual effects artists at DD found that the existing commercial solutions simply weren't flexible or fast enough to do what they needed to do, in the way that they needed to do it. In 1994 Digital Domain brought together a team of highly talented engineers and visual effects artists to create a solution to meet the growing requirements of a leading post production facility, and so, the Nuke application started to take shape. For more than a decade, visual effects artists at Digital Domain have been tasked with pushing the boundaries of visual effects technology and the evolution of Nuke has been closely linked with the pioneering techniques developed by this talented pool of industry professionals.

© 2006 Universal Studios. All rights reserved. Image courtesy of Weta Digital Ltd.



“We find Nuke to be a powerful tool that has become an important part of the Weta Digital pipeline. We had the task of building a number of complex environments and creating sky domes for King Kong. Nuke was a huge asset in this part of our pipeline allowing us to create the environments before completing the final composite.”

MATT WELFORD, Head of Compositing, Weta Digital

The innovation of the Digital Domain team has culminated in an application focused on solving real issues faced by post production facilities all over the world. However, their core speciality and passion lies within realizing the vision of some of the industry's most forward-thinking commercial, music video and film directors. To continue to do this while being at the forefront of compositing

application development is a formidable task for even the most talented group of people, therefore in 2007 Nuke became part of

The Foundry's product portfolio.

The Foundry remains committed to the original concept of developing a compositing application designed by artists for artists and many of the Nuke team are from a production background. In addition Nuke's core engineering team is working from The Foundry's HQ in London, which is just a stone's throw away from a number of leading visual effects studios. Nuke's development has greatly benefited from having close relationships with customers and The Foundry has maintained these relationships as well as developing new ones, to ensure that Nuke continues to deliver real, workable solutions and cutting-edge technology for the post production industry.

## ARCHITECTURE

» Scanline-based image processing engine. Waiting for entire frames to render to see the effects of your changes is a thing of the past. Nuke's scanline rendering engine only renders the part of the frame you are looking at, giving faster feedback and making interaction with large images a much more manageable task.

» 1023 channels of 32-bit floating point colour data, organised into user-definable layers. Work on up to 1023 individual channels, keeping your multi-pass renders together in a single stream for a clean and readable composite.

» Multiple images of varying resolutions? No problem... Nuke is resolution independent so you can read them, do your thing then output at the resolution/s of your choice.

» Plug-in support... enhance Nuke with third party plug-ins or utilise the NDK or OFX API to develop your own.

» Highly multi-threaded on all supported platforms to take full advantage of multiple processor systems and multi-core CPUs.

The level of customisability via the TCL scripting and NDK is fantastic; we were quickly able to integrate Nuke very tightly into our production process. From network rendering with Backburner to custom plug-ins to handle specific tasks everything is possible with Nuke. As you would expect there is a learning curve but it is relatively quick and once you've mastered it the workflow is amazing and comping is so much faster, quite simply Nuke is everything you want and more!

JOACHIM LINCKE, Creative Director/CEO, galerie der medien



© DaimlerChrysler / Mercedes-Benz. All rights reserved. Images courtesy of galerie der medien and Mackevision Medien Design GmbH.

## WORKFLOW

» Customise your compositor... take advantage of Nuke's extensive customisation capabilities to make complex procedural effects accessible at the touch of a button.

» Plain-text project files for easy external editing and processing.

» Expression support throughout the interface.

» User-definable format support... Nuke features a handy drop down menu which lists image formats by name along with the corresponding resolution and pixel aspect ratio. Faster rendering with project-wide proxies plus a per-viewer proxy scale for handling very large background plates.

» Automatic update based on the visibility in the viewer. Nuke's intelligent updating is a much more efficient way of working with images as it only computes what you are looking at.

» Built for HDRI... give attention to every detail with Nuke's 32-bit floating point quality scanline rendering.



In creating the imagery for Michael Bay's TRANSFORMERS, Nuke gave us the ability to build environments in a three dimensional space. Using partial 3D geometry and matte painting work – in conjunction with rendered elements and live action plates – Nuke allowed us to quickly identify which elements would work in 2D and which would require a 3D approach. As a result, Nuke saved a lot of time.

DAVID PRESCOTT, Visual Effects Supervisor, Digital Domain



## USER INTERFACE

» Advanced window management. Saveable layouts, GUI customisation capabilities and quick-access features such as the 'bullseye' and input buttons make navigating large projects easier than ever.

» Node-based workspace enables rapid construction and editing of complex 2D and 3D composites. Offers a variety of node annotations, grouping (with export), coloured backdrops, thumbnail images and more.

» A comprehensive 3D workspace... create complex virtual environments in the OpenGL accelerated 3D workspace using built-in primitives, geometry imported from .OBJ files and camera projections.

» One or many viewers can be used, showing the output of any node. All viewers support OpenGL 3D scene viewing, wiping between multiple sources, custom LUTs and more.

» Multiple image outputs from the same script.

» Graphical and command line interfaces enable you to interact with Nuke in the interface that is most efficient for you.

» Nuke is supported by many third-party render queuing applications and offers a straightforward command line rendering interface for easy integration with bespoke systems.

## VIEWERS & FLIPBOOKING

» 2D and 3D viewer modes (with OpenGL™ preview).

» Multiple, concurrent image viewers.

» User-definable Region of Interest (ROI).

» Support for input A/B comparison on every viewer.

» Integrated FrameCycler™ Professional for frame-rate accurate playback.

On Clint Eastwood's FLAGS OF OUR FATHERS, Nuke's integrated 3D tools allowed us to recreate Times Square circa 1945 much faster than if we had used an alternative software solution. Furthermore, as we received client feedback, Nuke gave us the flexibility to make major 3D modifications right there in the comp.

LOU PECORA, Compositing Supervisor, Digital Domain



## MAJOR FEATURES

» Four-point 2D tracking/stabilization.

» Per-session undo/redo history throughout UI with user-definable autosave intervals.

» Colour correction: offset, gain, gamma, hue, saturation and contrast controls (per shadow, midtone and highlight region); full histogram control; spline-based curve control; look up tables (LUTs); hue correction and conversions among industry standard colourspaces.

» Support for industry standard file formats including up to 1023 channels from OpenEXR files.

» Extensive set of image processing tools like noise, Gaussian blur, vector blur, defocus, dilate/erode, keying, Bezier matte tools, grid and spline warping, and a variety of image merge methods.

» Concatenated 2D and 3D transforms with user-selectable filtering methods for producing the best possible end result.

» Fully-fledged animation editor.

» Drag and drop parameter linking saves typing expressions.

» Advanced motion-analysis based retiming.

» Rotoscope shapes supporting per-point feathering, delivering increased flexibility when rotoing elements with motion blur.

» Highly customisable layout – save and restore up to six custom layouts of tabbed panels or floating windows.

Nuke was instrumental in our workflow for FANTASTIC FOUR: RISE OF THE SILVER SURFER at Image Engine. Our greatest challenge on the show was an all-CG tracking shot in outer space that captured the movement of a communications satellite. The foreground element of the shot was created using Autodesk's Maya and DNA Research's 3Delight, but the entire background element was generated using Nuke's 3D tools.

SHAWN WALSH, Visual Effects Executive Producer, Image Engine | Film Division



## SHAPES AND DRAWING

» Support for an unlimited number of fully animatable spline-based masks.

» Vector-based, anti-aliased text generator.

» Noise, grids, linear and radial gradients.

## 3D TOOLS AND FEATURES

» 3D scene scanline renderer with multi-sampled motion blur.

» OBJ import with UV preservation.

» Texturable cards, bicubic and bilinear meshes, and standard geometric primitives.

» Projection mapping capabilities.



©Heribert Raab, Softmachine. All rights reserved. Images courtesy of Heribert Raab.

The speed at which Nuke handles 4K and 8K images is incredible, the 3D features are really impressive and it fits perfectly into our render pipeline, the workflow is fantastic and I just love the way it handles EXR files. Since purchasing Nuke there's been no looking back.

HERIBERT RAAB, Lead Visual Effects TD, Softmachine

## KEYERS

» Advanced Image Based Keyer (IBK).

» Integrated Primatte™ keyer.

» Hue and Luma/channel keyers and spill suppression tools.

» The OFX Keylight for Nuke plug-in is available as an optional extra.

## CURVES AND EXPRESSIONS

» Powerful curve editor for visualizing and editing curves and expressions.

» Interactive curve sketching.

» Robust expression language offering a wide variety of mathematical functions.

## NODES

» Grouping functions: create reusable setups from node clusters; selectively expose parameters from nodes within groups; create custom parameters and populate them with values via expressions.

» Clone function: create node instances that maintain dynamic links with parents.

» Annotation tools: name and colour individual nodes; insert resizable and colour-coded backdrops.

» Filtering: find and select nodes and groups according to name or comment.



Call us on +44 (0)20 7434 0449 or +1 310 399 4555, contact sales@thefoundry.co.uk or visit www.thefoundry.co.uk for more information and fully functioning evaluation licenses.