

Headlines and key quotes of several pieces of coverage that appeared as a result of the announcement around Network.com rendering

Headlines

- *Grid Goes to the Movies – Grid Computing Blog, 5/4
- *Sun Announces Online Release of 3D Animation Film – redOrbit, 5/4
- *Sun announces online release of 3D animation film – Info About Computers Blog, 5/4
- *Big Buck Bunny: An Open Source Success Story – insideHPC.com, 5/3
- *Sun's Network.com Renders Computer-Animated Movie 'Big Buck Bunny' – Supercomputing Online, 5/2
- *Rendering in the Cloud... or Not – HPCwire, 5/2
- *Big Buck Bunny: Check This Open Source Movie Out – Ostatic, 5/2

Key Quotes

If you've worked with Blender at all, you know that one of its strengths is creating eye-popping, lifelike characters... It's really gorgeous to look at, though, and it points to a strong future for open source 3D animated filmmaking. -- Ostatic

One of the big advantages of Sun's service is they use a 64bit operating system, this means Blender can use more than 2 gig of ram which is really important to render characters with millions of hairs. Other offers for rendering only ran 32bit systems. -- HPCwire

The best part of this story is the distribution. Sun volunteered to host the electronic distribution of the film as well as the entire studio database of assets and files used to make the movie. This means that everyone will have access to the models and scripts used to make the film as well as the final film itself. -- insideHPC

Sun could end up adding GPU-accelerated nodes (and GPU-enabled application software) to its current Network.com x86-only setup, giving it the best of both worlds." -- HPCwire

The movie promotes open content creation as it is not only developed using open source software but also distributed under an open license that gives artists free access to the entire studio database of assets and files used to make the movie. -- Supercomputing Online

Full Text

Grid Goes to the Movies
Grid Computing Blog
June 4, 2008
<http://gridtrends.com/?q=node/125>

Sun Microsystems's Network.com grid computing service played a key role in a new open source animated film.

Blender Institute B.V. Studio for Open 3D Projects

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The 3D animation film "Big Buck Bunny" was rendered using the Sun Grid compute utility service, and the movie was created using the open source 3D software suite Blender, available from blender.org and the Network.com Application Catalog, a collection of on-demand grid-enabled applications.

Network.com is also one of the hosting locations for the online release, which can be downloaded here .

Ton Roosendaal, producer and Blender Institute director, said the point of the movie "was to stimulate the development of open source 3D software, but the quality of Big Buck Bunny on an artistic level as well as on technical ingenuity is what you would expect from large animation studios."

The movie promotes open content creation by the use of open source software, and it is also distributed under an open license that gives artists free access to the entire studio database of assets and files used to make the movie.

Network.com provided the more than 50,000 CPU-hours of compute time needed to speed up the movie rendering process, sparing the project the need for its own compute infrastructure.

"Even though the Blender team did not have the support of a big studio, they succeeded with the community support, an open source rendering software and an on-demand computing platform," stated David Folk, group manager of Network.com marketing.

Big Buck Bunny is a comedy "about a well-tempered rabbit" named Big Buck, "who finds his day spoiled by the rude actions of the forest bullies, three rodents," and plots revenge. The creative team for the movie was brought together by the Blender Institute from all over the world, including Australia, Belgium, Denmark, Germany, Italy, Netherlands and USA. In addition to the online release, Big Buck Bunny has been released in 35mm film format on DVD and Blu-ray.

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Sun Announces Online Release of 3D Animation Film

redOrbit

June 4, 2008

http://www.redorbit.com/news/technology/1414739/sun_announces_online_release_of_3d_animation_film/

Sun Microsystems has announced the online release of the 3D animation film 'Big Buck Bunny' rendered using Network.com's Sun Grid compute utility service.

The movie is created using open source 3D software suite Blender, available from blender.org as well as Network.com Application Catalog, a collection of online grid-enabled applications that can be used in an on-demand basis. Additionally, Network.com is one of the web hosting locations for the online release.

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Sun has said that the movie promotes open content creation as it is not only developed using open source software but also distributed under an open license that gives artists free access to the entire studio database of assets and files used to make the movie.

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Sun announces online release of 3D animation film

Info About Computers Blog

June 4, 2008

<http://info-computer.co.cc/2008/06/sun-announces-online-release-of-3d.html>

Sun Microsystems has announced the online release of the 3D animation film 'Big Buck Bunny' rendered using Network.com's Sun Grid compute utility service.

The movie is created using open source 3D software suite Blender, available from blender.org as well as Network.com Application Catalog, a collection of online grid-enabled applications that can be used in an on-demand basis. Additionally, Network.com is one of the web hosting locations for the online release.

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Big Buck Bunny: An Open Source Success Story

insideHPC

John Leidel

June 3, 2008

<http://insidehpc.com/2008/06/03/big-buck-bunny-an-open-source-success-story/>

No, this article has absolutely nothing to do with buckyballs. Instead, it involves how one group was able to pull together an international group of artists and developers, make a movie and distribute it for free. Hollywood, are you listening? As a follow-on to the widely acclaimed project Orange, the Blender Foundation, proprietors of the widely used open source 3D animation application, began work on a second open movie project. Aptly named project Peach, the goal was to develop a freely distributable, yet funny 3D animated movie [short]. The result was Big Buck Bunny.

Computer generated animated films have become all the rage lately. My media closet is full of titles ranging from Shrek to Madagascar. Anyone with young ones in the household knows all too well the scene I'm trying to convey. Interestingly enough, much of the humor in these films are directed specifically at an adult audience. Finally, parents can actually enjoy watching the same films as their kiddos. [Sorry Dora, you've been overruled].

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Why do we, the HPC industry, care about animated furry animals? These animated furry animals require an immense number of computational cycles to render each cuddly frame. Not to mention the physics attributed to creating realistic natural effects such as water, fur and grass. Unfortunately, as we all know in HPC, cycles cost dollars. These are dollars that many grassroots/open source efforts do not have access to.

How did they do it? Sun Microsystems to the rescue. Sun's Network.com volunteered themselves as the prime rendering sponsor. With the strike of a key, the animators now had access to countless cpu resources to get their precious frames rendered into sweet 1080p. After it was all said and done, project Peach consumed over fifty thousand cpu-hours of compute time on Network.com. This roughly equates to 1024 cores rendering frames for over two straight days.

The best part of this story is the distribution. Sun volunteered to host the electronic distribution of the film as well as the entire studio database of assets and files used to make the movie. This means that everyone will have access to the models and scripts used to make the film as well as the final film itself.

For those interested in watching Big Buck Bunny, its available in a variety of media formats via several download options. I've personally downloaded the full 1920x1080 version and was quite pleased by the quality of the video and the humor.

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Sun's Network.com Renders Computer-Animated Movie 'Big Buck Bunny'
Supercomputing Online
June 2, 2008
<http://www.supercomputingonline.com/article.php?sid=1567>

Sun hosts Blender Institute's open movie project for online distribution: Sun Microsystems today announced the online release of the 3D animation film "Big Buck Bunny" rendered using Network.com's Sun Grid compute utility service. The movie is created using open source 3D software suite Blender, available from blender.org as well as Network.com Application Catalog, a collection of online grid-enabled applications that can be used in an on-demand basis with "Click and Run" ease. Additionally, Network.com is one of the web hosting locations for the online release, and the movie can be downloaded from www.bigbuckbunny.org/index.php/download

"The Big Buck Bunny movie project demonstrates that the barriers to entry in the 3D animation world can be lowered tremendously using on-demand computing platforms. Even though the Blender team did not have support of a big studio, they succeeded with the community support, an open source rendering software and an on-demand computing platform," said David Folk, Group Manager of Network.com Marketing, Sun Microsystems, Inc. "With a growing collection of applications, a host of new developer tools and worldwide availability, Network.com is attracting more developers and end-users to use, build and share new services for a wide range of industries."

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The movie promotes open content creation as it is not only developed using open source software but also distributed under an open license that gives artists free access to the entire studio database of assets and files used to make the movie. "The primary intent of the movie was to stimulate the development of open source 3D software, but the quality of Big Buck Bunny on an artistic level as well as on technical ingenuity is what you would expect from large animation studios," said Ton Roosendaal, producer and Blender Institute director. "We needed over fifty thousand CPU-hours of compute time, and Sun's Network.com grid service provided us a very powerful platform where we could use hundreds of CPUs simultaneously to significantly speed up the movie rendering process without needing to own the compute infrastructure."

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Rendering in the Cloud... or Not

HPCwire

Michael Feldman

June 2, 2008

http://www.hpcwire.com/topic/systems/Rendering_in_the_Cloud_or_Not.html

The democratization of digital content creation may be getting closer. Sun Microsystems and the Blender Institute have completed a proof-of-concept project that resulted in the production of a short animation feature using Sun's Network.com compute grid. The idea is to demonstrate how animation developers can make use of on-demand computing and Blender software, an open source content creation suite, to create professional looking 3D animation.

The animation feature movie created by the collaboration -- "Big Buck Bunny" -- runs about ten minutes and according to the guys at Sun, took about 50,000 CPU-hours to render on their x86-based grid. At the standard Network.com cost of \$1/CPU-hour, that would have run the developers \$50K. But for the purpose of the demo, Sun donated the compute time. Blender is one of Network.com's hosted applications, but because it's open source software, it doesn't incur an additional licensing fee.

The YouTube video of the movie is below. If you have decent network bandwidth, a higher quality version can be downloaded from the movie website.

I spoke with Craig Hubbard, Network.com's group marketing manager about the animation project. According to him, with the Blender-Network.com offering, Sun is looking to tap into a whole new range of content creation users and markets. He says the setup allows all sorts of creative people to get access to the kind of high powered rendering platform that was previously only available to big animation studios. Smaller studios, film schools, designers, and advertising organizations that currently can't afford to buy and maintain expensive computing infrastructure may see rendering on-demand as the way to go.

"It's really the market that we think may end up grabbing on to this and using it in very innovative ways," said Hubbar.

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The on-demand platform can also be used to create feature length films. But at the standard Network.com burn rate, a 100 minute feature film would cost around half a million dollars, although with a tight rendering workflow, you might be able to do it for a quarter of that.

This is the first animation feature produced by the Blender Institute team. The Institute is a division of the Blender Foundation, the group that developed the Blender software. Campbell Barton, the team's technical director wrote about how the feature was rendered on the Sun grid, noting a few problems along the way:

One of the big advantages of Sun's service is they use a 64bit operating system, this means Blender can use more than 2 gig of ram which is really important to render characters with millions of hairs. Other offers for rendering only ran 32bit systems.

On the flipside, network.com hadn't ever been used for rendering anything on this scale, the admins at sun weren't familiar with problems related to this task. Peach [the movie's code-name] is a good way to stress their systems infrastructure.

The real competition for the Sun Grid-Blender platform is not users buying their own render farms -- only the big studios like Pixar and DreamWorks can afford to do that. On the other hand, digital content creation (DCC) workstations are getting more powerful with each new processor generation and already offer the computing power of a small cluster today.

With the emergence of GPU computing, DCC workstations can leap ahead of their CPU-bound brethren. Not only can rendering be accelerated considerably on a GPU, but the performance disparity between CPUs and GPUs is growing. According to NVIDIA, "For the past few years, graphics hardware has been doubling in speed every 6-12 months, whereas CPUs have been doubling in speed roughly every 18 months. So renderers based on graphics hardware will not only perform well now, but will rapidly outstrip the performance of CPU-only renderers over time."

NVIDIA developed Gelato, its GPU-accelerated rendering software to take advantage of the company's high powered Quadro and GeForce offerings. Just last month, NVIDIA made its Gelato Pro rendering software freely available. Prior to that, the company charge \$1500/node for the application, although a basic version could be had for the taking. With NVIDIA's next generation GPUs probably only a few months away, it's not hard to imagine a small cluster of GPU-equipped workstations or nodes with the rendering power of hundreds of x86-based nodes.

Of course, Sun could end up adding GPU-accelerated nodes (and GPU-enabled application software) to its current Network.com x86-only setup, giving it the best of both worlds. And since GPU computing accelerates a range of data-parallel technical applications, Sun might consider the wider possibilities. All they would have to do is determine what to charge for a GPU-hour.

Whatever platform is chosen, sophisticated digital content creation is quickly becoming an option for a lot more people. The large animation studios will continue to push the envelope at the high-end, but for the thousands of designers and film professionals, 3D digital content creation seems destined for the mainstream.

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Big Buck Bunny: Check This Open Source Movie Out

Ostatic

Sam Dean

June 2, 2008

<http://ostatic.com/163744-blog/big-buck-bunny-check-this-open-source-movie-out#rss>

If you pay any attention at all to the movie industry, you've no doubt noticed the tremendous success that Pixar has had with largely computer-generated animated films. "They've got a pretty good track record," singer/songwriter Randy Newman quipped when he accepted a Best Song award at the Oscars for Monsters, Inc. If you take a look at Big Buck Bunny, though, a 3D animated movie created by open source contributors and just released for free online, it looks like Pixar may eventually have some competition. I say eventually because Big Buck Bunny isn't perfect, but it is surprisingly good.

Big Buck Bunny was not only developed using open source software but is also distributed under an open license that gives artists free access to the entire studio database of assets and files used to make the movie. The Blender Foundation initiated this open source movie project, and it follows the 2007 released Elephant's Dream. Blender is open source software for 3D modeling, animation, rendering, post-production, interactive creation and playback. Big Buck Bunny was primarily created using Blender.

Sun Microsystems contributed to the open source effort behind Big Buck Bunny, as well. The company rendered the film using Network.com's Sun Grid compute utility service, and hosts it.

"The Big Buck Bunny movie project demonstrates that the barriers to entry in the 3D animation world can be lowered tremendously using on-demand computing platforms. Even though the Blender team did not have support of a big studio, they succeeded with the community support, and open source rendering software and an on-demand computing platform," said David Folk, Group Manager of Network.com Marketing at Sun Microsystems, in a statement.

If you've worked with Blender at all, you know that one of its strengths is creating eye-popping, lifelike characters. These abound in Big Buck Bunny, as do strong animated backgrounds and effects (look at how perfect the creek looks near the beginning of the movie). I would give it an overall great review, but it is noticeable that there were no Hollywood-class writers behind the film. It's really gorgeous to look at, though, and it points to a strong future for open source 3D animated filmmaking.

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