IBC 2012 graphics guide

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Create next-generation CG & motion graphics

Want to create cutting-edge animations that will dazzle viewers? Then you need MAXON's just-released CINEMA 4D R14 3D suite powered by AMD's brand new 'W-series' FirePro workstation-class graphics cards

Whether you're designing dynamic motion graphics for broadcast, producing stunning animations or building explosive VFX, you need to right tools to create your best work. You need a CG suite capable of rendering outstanding imagery, powered by a workstation-class graphics card that enables you to model and animation at slick framerates. And for our money, this means you need MAXON CINEMA 4D R14 Studio and an AMD FirePro 'W-series' graphics card.

AMD's latest line of FirePro graphics cards include both the most powerful mid-range and high-end workstation-class boards on the market. The range offers up to 6GB of error-correcting ECC RAM to efficiently deal with even the most complex models and textures – with support for Partially Resident Textures, allowing textures of any size up to 32TB to be used (well beyond what you would ever likely need. They use Geometry Boost technology to process twice as much geometry data per clock cycle, doubling performance with the increasingly complex meshes you work with.

CINEMA 4D R14 Studio also sees an overall power boost that allows you to create animations that look and feel more realistic than ever – at a faster pace than before. The brand new Sculpt system allows more organic modeling for better-looking models.

The new Motion Camera system makes camera animation easier to create, with natural results. New physics tools make the effects of aerodynamic forces and springiness look more authentic. Faster Global Illumination gives you more accurate lighting, while new shaders provide better simulations of wood and weathering effects.

Of course, your 3D suite is just part of your creative ecosystem, and both CINEMA 4D R14 and AMD's new FirePro cards are designed to make working with the rest of your toolset as easy and creative as possible. The FirePro cards tap AMD's Graphics Core Next (GCN) architecture to produce exceptional performance in intensive non-3D tasks such as effect processing and video rendering – without having to buy an additional board.

CINEMA 4D R14 meanwhile can seamlessly exchange project files and individual elements with key post-production tools such as Adobe After Effects and Photoshop, and The Foundry's Nuke (with multi-layer OpenEXR support for the highest standard of imagery).

See over to learn more about how these tools can transform your creative output.

The power to make your CG better

To create your best possible CG, VFX and motion graphics, you need to be working on previews that are as near to the final animation as possible – so you can model and animation efficiently, and produce renders that are exactly as you want them to be. To do this, you need a workstation-class graphics card that will give you faster framerates and higher-quality previews – and AMD's new 'W-series' boards offer the best bang for your buck around.

There are four cards in AMD's new lineup: including the most powerful mid-range and ultra high-end cards ever released, the FirePro W5000 and W9000. The W5000 can process up to four times the triangles per second of its nearest competitor, and it features twice the RAM (2GB).
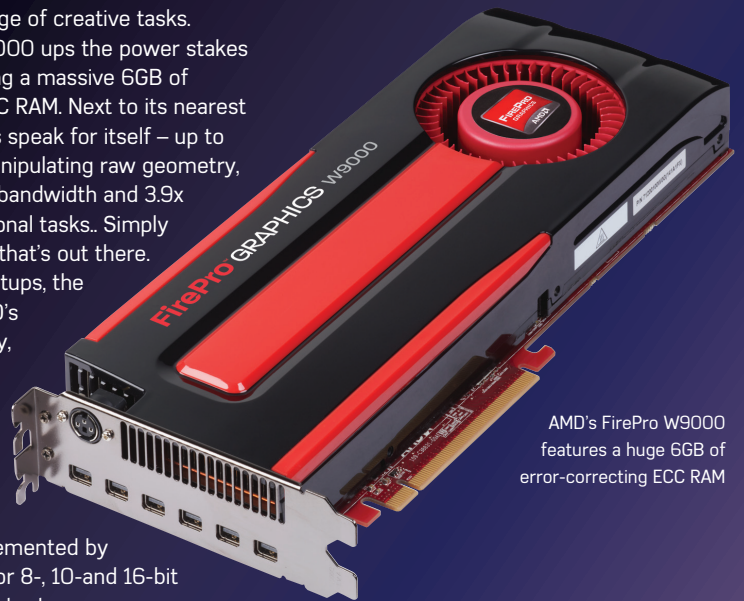
For more demanding users, the W7000 has 4GB of RAM and has a geometry engine that's over twice as powerful as its nearest rival. The W8000 adds 4GB of ECC RAM to ensure performance is always flawless, and its powerful engine has been tuned to deliver as much as 4.5x the power of competitive cards in computational performance – so it

will fly in a wide range of creative tasks.

The flagship W9000 ups the power stakes even further, offering a massive 6GB of error-correcting ECC RAM. Next to its nearest competitor, its stats speak for itself – up to 1.5x faster when manipulating raw geometry, 1.8x wider memory bandwidth and 3.9x faster at computational tasks.. Simply put, this is the best that's out there.

For broadcast setups, the 'W-Series' uses AMD's EyeFinity technology, which enables you to connect up to six 30-inch monitors to a single card. 30-bit colour support on-screen is complemented by advanced support for 8-, 10-and 16-bit component video output.

Framelock and Genlock are built-in as standard in the W7000 model and above, while Video Codec Engines in every model enable hardware-powered H.264 hardware encoding at a blisteringly fast pace.

AMD's FirePro W9000 features a huge 6GB of error-correcting ECC RAM

Discover how AMD's FirePro line of graphics cards can transform the way you create at *amdcom/firepro*

Get real with CINEMA 4D R14

The secret to the best CG is realism. Even if you're creating the most abstract motion graphics or cartoon-like 3D, physically accuracy in lighting and motion makes a piece feel right and more appealing to viewers. The brand-new CINEMA 4D R14 is packed with new features across its modelling, animation and rendering tools that deliver more realistic results – and work faster to boot.

The new Sculpt system found within CINEMA 4D R14 and its companion 3D texture painting tool BodyPaint 3D allows you to treat your models like virtual clay: pulling, pinching, smoothing and scraping just like the real thing. You can even take a digital knife to cut out areas, and brand it with stamps and stencils. This organic modelling process produces results that have an authentic solidity to them that mirrors materials from skin to stone to wood.

You can model faster in CINEMA 4D R14 too. The Snap system has been redesigned to make positioning and aligning objects easily – and there's composition helpers based on grids, the golden spiral and other geometric principles from the history of art. Other workflow-boosting interface enhancements

include more responsive 3D viewports with improved OpenGL shadows.

CINEMA 4D's physics engine has been given a tune-up, gaining more accuracy in the way it modes aerodynamic forces, springs and breaks – plus greater control over the application's full set of dynamics.

The final piece in the realism puzzle is rendering. New shaders accurately simulate

wood and the weather effects – and GI has been made faster and more accurate through support for Multiple Important Sampling. For finishing touches, there are more options for colour grading in the Picture Viewer.

Learn how CINEMA 4D R14 can help you produce more realistic and appealing CG, VFX and motion graphics at *maxon.net*