



Power up your 3D renders

Fly through the most technical and demanding CG tasks with Dell Precision 15 5000 Series workstations and Windows 10

If you're into 3D design, you already know that you need a powerful computer to handle everything you throw at it, from working with high-poly scenes in 3ds Max to rendering out a long animation in Maya. Improved processing power and professional graphics allow you to achieve levels of unprecedented efficiency, especially if you're used to working on a dusty old machine at home, and both of these can be found in professional workstations like the Dell Precision 15 5000 Series.

Mobile Intel Xeon processors give you the confidence to push complex scenes through mental ray or Iray without needing to factor in hours of render time, and Nvidia Quadro graphics cards are powerful enough to breeze through GPU rendering tasks. Quality comes first in CG, but

speeding up the process can't hurt, can it? Dell Precision 15 5000 Series workstations have been designed with your busy workflow in mind and house enough high-end tech to make your life easier. If you're a student, a busy freelancer or a studio looking to diversify, you need to know you're making the right hardware choice.

EASY TO PROCESS

As you know, the CPU is the nucleus of any computer. What you won't find in normal PCs are processors with high clock speeds that have been specifically developed for the most intense computing tasks inherent in the 3D pipeline - much like the mobile Intel Xeon CPU sat at the heart of Dell Precision 15 5000 Series





Why choose Windows 10?

Microsoft's new OS offers all the flexibility you need

Windows 10 is a significant step towards your operating system integrating seamlessly into your busy creative schedule. Sporting everything you could ever need to keep yourself organised and working at maximum efficiency, it's an operating system with your personal needs at heart.

By taking advantage of exciting new functions like the Snap feature, which allows you to snap up to four different apps into the four corners of the screen, you'll discover new ways to streamline your workflow. Approaching deadline? Snap your emails to the corner of the screen and remain client-facing, while still getting the job done in Photoshop. Illustrating from reference? Snap your web browser and illustrate away without the need for switching between windows. As creatives, we're always looking for ways to improve our workflow - features like this one have been built with this need for exciting, unimpeded productivity in mind.

On top of this, Cortana is always on hand for whatever you need, from managing your personal calendar at crunch time, to digging out old designs you thought you'd forgotten about, to searching the web for all the inspiration you need to unleash your creativity.

So why choose Windows 10? It's simple - whatever your discipline, whatever your interests, Windows 10 offers the definitive 21st Century solution for creatives with busy work lives, and busy social lives too. Blending typical Microsoft ease of use with new, forward-thinking productivity aids like Cortana, the Snap feature and much more, Windows 10 is the perfect way to augment your creative life, keeping you organised while allowing you to let your imagination run as wild as you need it to.

workstations. With a clock speed of 2.8GHz, the Intel Xeon E3-1505M v5 is built on Intel's latest architecture, Skylake. This is a brand new processor for a brand new age of power and productivity in CG.

How many times have you come up against a massively subdivided asset that slows your system down? How many times have you attempted to create simulations or use intensive modifiers in 3ds Max only to find that your computer can only manage it at a crawl? By becoming a part of the workstation family, you can attack any complex scene with confidence, and at the heart of this is this new generation of Intel Xeon processors.

rendering. It can easily support your CPU as it chugs through a complex underwater scene in Maya or materials and lighting rigs in Nvidia Iray. If you've been to any conferences like SIGGRAPH over the past 12 months, you might've seen Iray's incredibly realistic materials and lighting in action - this is all part of Nvidia's wider ecosystem, that includes the powerful Quadro M1000M.

But the need for professional GPUs doesn't stop there. For one, professional cards, like those in the Nvidia Quadro range, are fully certified for use with popular 3D programs published by well-known vendors like Autodesk and Dassault Systemes, whereas gaming cards aren't. This means higher levels of support from software

“It's always useful to have a second monitor running, as it allows you to keep active while your machine is idling during a render”

GO PROFESSIONAL

It's amazing how many artists still use gaming cards in their workstations. The thing is, what a lot of artists don't realise is that professional GPUs, like the Nvidia Quadro M1000M that comes as standard in Dell Precision 15 5000 Series workstations, have been built to cope with the high demands of CG work. Their power consumption is lower than normal retail cards, meaning you can rely on its pace and power for hours on end - perfect at crunch time.

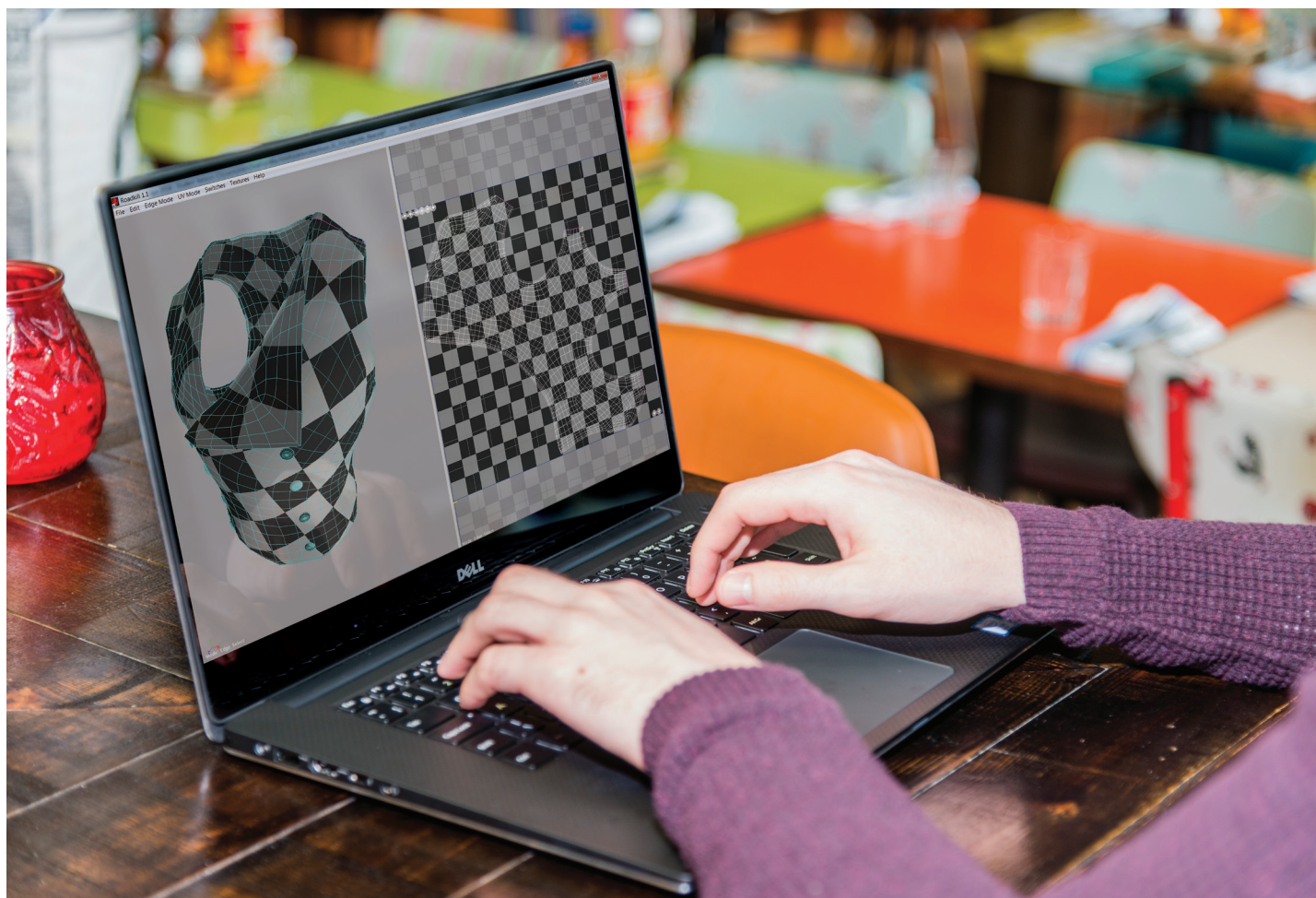
These graphics cards are built on Maxwell architecture - Nvidia's most advanced GPU architecture to date. They also come with 2GB of VRAM and boast 512 CUDA cores, which is perfect for those of you that are getting into GPU

vendors if you go for a professional GPU and a better optimised experience overall - if you're a Maya or 3ds Max user, your preferred app will perform better when coupled with a professional GPU. Pro cards like the Nvidia Quadro M1000M will significantly outperform their gaming equivalents when used for 3D work. They're also extensively tested to ensure that they can perform for hours without any down time.

QUALITY IS KEY

And as if performance and low power consumption weren't enough, modern professional GPUs like the Nvidia Quadro M1000M were designed with running multiple monitors in mind. It's always useful to have a





Style and substance

It's not enough for a mobile workstation to look good - it's performance where workstations prove their worth, so we put the Dell Precision 5510 to the test

PERFORMANCE COMPARISON

SPECVIEWPERF 12.0 AUTODESK MAYA FACE-OFF



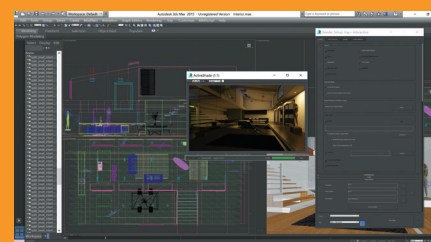
DELL PRECISION 5510

• Intel Xeon E3-1505M v5 @ 2.8GHz • NVIDIA Quadro M100M • 16GB DDR4 RAM • 512GB SSD • Windows 10



DELL PRECISION M4800

• Intel Core i7-47930 MX @ 3.0GHz • NVIDIA Quadro K2100M • 32GB DDR3 RAM • 1TB HDD • Windows 7



CINEBENCH 15

OPENGL

40.05fps

3DS MAX UNDERWATER RENDER

04:06

second monitor running, as it allows you to keep active while your machine is idling during a render or assigning materials to a mesh. Organisation is key in 3D, and getting a new screen is a tried and tested way to keep your workspace clear.

Whether you're painting textures, fiddling with FK and IK handles in Maya or setting up lighting for an arch-vis scene in 3ds Max, resolution is important. It goes without saying that, nowadays, anything less than full HD (1920x1080) just won't do. Why not dream bigger? Dell Precision 15 5000 Series workstations sport 4K UHD displays – that's a resolution of 3840x2160 pixels. The term '4K' has been banded around for ages, but now you can finally see it in action on a screen smaller than 60". Plus, it's touch sensitive, meaning you can have all of the haptic feedback of a tablet but with the knowledge that the machine in your hands boasts the power of a workstation.

This hunt for unfathomable display quality can extend further. You've always got the option to pair Dell Precision 15 5000 Series workstations with a larger external monitor, like the Dell UltraSharp UP3216Q – a 32-inch behemoth that boasts PremierColor, ensuring that your material presets and textures are exactly the tones you want, every time. When it comes to screen real estate, bigger is better – by getting those intricate environments, high-poly assets or game engine experiments up on a display like the Dell UltraSharp UP3216Q, you may as well be in the scene yourself.

A NEW WINDOWS

But what use is all of this precision and power without a solid backbone to hold it all together? Luckily, Dell workstations are powered by Windows 10, which has been designed to work hand in hand with your favourite 3D software like Autodesk Maya or 3ds Max. Windows 7 has been pretty much the standard in the 3D world for a long time, and Windows 8 followed with a sleek, app-based approach. Windows 10 combines the forward-thinking style of Windows 8 with the stability and ease-of-use of Windows 7, resulting in an intuitive, responsive operating system that is more than ready for anything you throw at it.

Additionally, it's bolstered by several new features that will become a natural part of your workflow. There's Cortana; your personal assistant for Windows 10. Just say "Hey Cortana", followed by whatever you're after (online references, documents and more) and it'll be there in seconds. There's also the Task View button, allowing you to access all of your open windows in a neat and tidy workspace – this is perfect if you're an artist that uses multiple tools in your workflow. Then there's the Snap feature; just drag any windows you want to the corners of the screen and they'll snap in place, allowing you the freedom to create your own workspace and keep on top of your busy work life. All of these features combine to build an OS that's perfect for a 3D artist like you to thrive in.



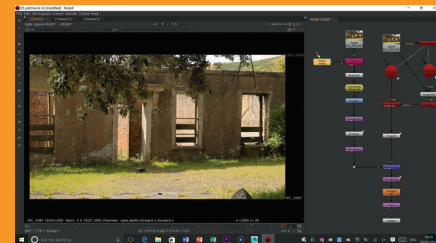
Expert opinion: Paul Champion

The VFX trainer and freelancer measures the Dell Precision 5510's post-production prowess

"If you are looking for a viable hardware solution for everyday post-production tasks such as green screen, colour match and retouching, you need more than the average office notebook screen.

"Dell has delivered an exceptional 15.6-inch, 4K UHD multi-touch backlit display with incredible viewing angles, a large colour gamut, great brightness and contrast levels and colour accuracy that makes it an ideal choice for compositing.

"For intensive shots it doesn't disappoint either, blasting through 4K footage stabilisation, handling roto and paint-heavy shots with ease and making short work of tracking. Shots I have created in the past that NUKE 9 has struggled with, were little obstacle. I ran identical camera solves on both my brand new desktop workstation and the Dell Precision 5510, and when the Dell finished



first I started to seriously re-evaluate my new desktop purchase.

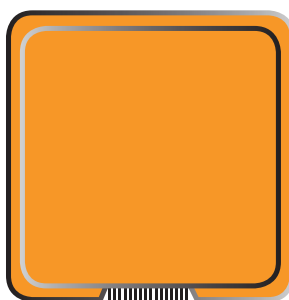
"Windows 10 brings another layer of productivity by offering native support for Thunderbolt 3. At 40 GB/s transfer speeds anyone transferring large amounts of data or footage such as animators and compositors will recognise the importance of faster rates. The other advantage for me is multi-touch. As a trainer I often have to point out tools and menu items – now I just tap the screen."

Supercharge your 3D workflow

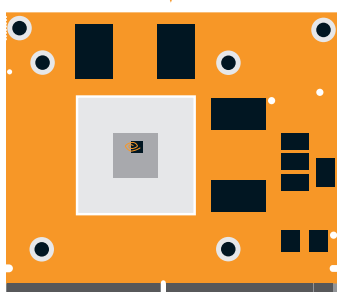
Unleash your creative potential today by upgrading to a professional workstation and Windows 10



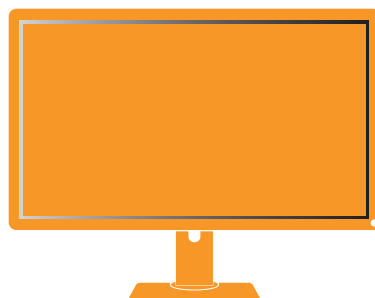
WINDOWS 10 The handy Snap feature, Cortana's upgraded functionality and Task View will keep your workspace easy to navigate and far more efficient to work with.



INTEL XEON E3-1505M As a 3D artist, you should feel confident enough to work with even the most extreme scenes. With Intel Xeon processors, you can.



NVIDIA QUADRO M1000M 2GB of GDDR5 VRAM. 512 CUDA cores. Unimaginable performance resides in professional graphics solutions like this one.



DELL ULTRASHARP UP3216Q No more squinting at 3D viewports - get yourself hooked up to a second screen and experience your scenes as if you're really there.



TIME SAVED Even more so than in most other creative industries, working without delays in visual effects is paramount. Every second you waste is money down the drain. Upgrade to a professional workstation today and you'll be amazed at the speed and quality of its performance. This incredible combination of power and portability means that you can operate at maximum efficiency wherever you are, safe in the knowledge that every shot you deliver is the very best it can be.



Expert opinion: Gordon Dunn

The trainer and freelance artist gets to grips with Windows 10

"While a book shouldn't be judged by its cover, it has to be said that the Dell Precision 5510 does have a great looking cover. Its dark aluminium finish and skinny design serves as a good introduction for what is a textbook example of a well manufactured product. As an animator and VFX trainer it suits my requirements of being easily portable and robust for visiting clients and students while packing plenty of punch to cope with demanding work.

"For animation, viewport playback performance with complex rigs and several characters is important. Features such as Vertex Caching and drawing on the GPU for Parallel Rig Evaluation with Maya 2016 helps accelerate playback to view in real time. In the shots I've been working on, this hasn't caused the laptop to break much of a sweat.

"To assist in visualising my animations and often with tutoring I rely on the Grease Pencil tool. Thanks to the multi-touch screen, when I don't have my Wacom or just need to make a few marks, I really like that I can just use my finger directly on screen. The 4K UHD touchscreen is sensitive and responsive and uses almost the whole of the screen.

"I found the 4K resolution of great use, especially as it helped me to improve my workflow by using the display as a dual monitor. This enables me to have high-res reference footage playing while I am animating, and I can quickly produce playblasts for final comparisons utilising the power of the Intel Xeon processor."