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# UPGRADE THE QUALITY OF YOUR DESIGN EXPERIENCE WITH SOLIDWORKS 2011 AND NVIDIA QUADRO

The latest NVIDIA Quadro professional graphics solutions allow engineers and designers to take full advantage of SolidWorks 2011 and interact with complex 3D CAD models in real-time. With Quadro, your models are shown on screen as intended without simplifying geometries or lowering rendering quality. Zoom, rotate and manipulate large datasets with ease without compromising image details or your standards.

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The new Quadro 2000, Quadro 4000 and Quadro 5000 solutions, based on the Fermi architecture, deliver over 3X the performance compared to previous generations as shown in the SPECViewperf 11 benchmarks for SolidWorks. With up to 2.5GB of frame buffer to tackle the largest models, you can solve the toughest engineering and design problems faster.

## MODELS COME TO LIFE WITH REAL-TIME RENDERING

The latest Quadro professional graphics solutions support and enhance SolidWorks RealView in ways others cards can't. With RealView, your 3D models come to life and interact with their environments. And with NVIDIA Quadro under the hood they do it in real-time. You can assign various appearances, change materials, textures or surroundings, and your model will instantly appear the way a real world product should. All the correct shadows and reflections will render without delay. With SolidWorks RealView and NVIDIA Quadro, you will be able to see and share your designs with greater realism and accuracy, faster than ever before.



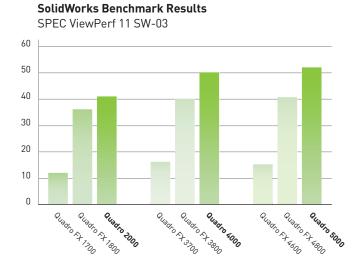
Standard 3D Mode



RealView 3D Mode Images courtesy of Ian McElroy



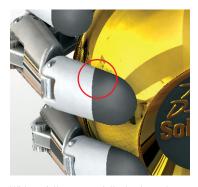
SOLIDWORKS | DATASHEET | OCT10



NV\_DS\_QUADRO\_SOLIDWORKS\_Oct10\_FINAL.indd 1

### FSAA FOR BETTER IMAGE QUALITY

For sleeker, smoother looking models, NVIDIA Quadro also delivers full scene antialiasing (FSAA) in SolidWorks 2011. FSAA removes jagged edges from contours of geometries in real-time, producing higher quality, more realistic images.



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Without full scene antialiasing jagged edges are visible and produce lower quality results.



With full scene antialiasing, edges are smoother for a more realistic and more detailed model.

|                                | Quadro 2000  | Quadro 4000   | Quadro 5000   |
|--------------------------------|--|---|---|
| SolidWorks Usage               | Occasional - Small/Medium<br>assembly  | Intensive - Large assembly  | Expert - Highly detailed multi-<br>bodied parts   |
| Benefit                        | <ul> <li>Smooth 3D screen rotations</li> <li>Large 2-D drawings with<br/>excellent response time to pan,<br/>zoom, redraw</li> </ul> | <ul> <li>&gt; Effortless rotations and pans</li> <li>&gt; Large assembly capable with<br/>RealView enabled</li> <li>&gt; Large 2D drawings with excellent<br/>response in shaded or hidden<br/>line mode</li> </ul> | <ul> <li>Complex surface models</li> <li>Work in full detail in assembly<br/>mode</li> <li>Large 2D drawings with multiple<br/>section views, cross-hatching</li> </ul> |
| CUDA Parallel Processing cores | 192  | 256   | 352   |
| Frame Buffer Memory            | 1 GB GDDR5   | 2 GB GDDR5  | 2.5 GB GDDR5  |
| Memory Interface               | 128-bit  | 256-bit   | 320-bit   |
| Memory Bandwidth               | 41.6 GB/s  | 89.6 GB/s   | 120 GB/s  |
| Max Power Consumption          | 62 W   | 142 W   | 152 W   |
| Graphics Bus                   | PCI Express 2.0 x16  | PCI Express 2.0 x16   | PCI Express 2.0 x16   |
| Display Connectors*            | DVI-I (1) and DP (2)   | DVI-I (1), DP (2), Stereo (1 optional)  | DVI-I (1), DP (2), Stereo (1)   |
| Thermal Solution               | Active   | Active  | Active  |
| HD SDI Capture /Output         | N/A  | Compatible  | Compatible  |

# CERTIFIED AND RECOMMENDED NVIDIA GPUs



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The latest generation of NVIDIA Quadro professional graphics solutions based on the Fermi architecture are certified and recommended by DS SolidWorks Corp. Quadro graphics solutions are engineered, built, and tested by NVIDIA. And with a three year warranty, plus direct support from NVIDIA you'll have the performance and reliability you need.

# **QUADRO**<sup>fermi</sup> | Exponentially better for SolidWorks

#### To learn more, visit www.nvidia.com/solidworks

\* Two out of any three connectors can be active at a time required

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