

Why Choose a Workstation?

The term “professional workstation” implies many things to many people. However, it usually translates to expectations of high quality, excellent reliability, responsive support, and high performance. Not to mention leading-edge technology—although not at the expense of quality and reliability.

These expectations exist because workstation users have specific goals in mind—goals that are ultimately critical to success. The goal may be designing a revolutionary car or spacecraft, or it may be creating key animated scenes in the next blockbuster film. Each goal has a level of investment and expectation of success. The quality, reliability, support, and performance that define a workstation ensure this success.

When NVIDIA introduced the GPU in 1998, it created a discontinuity in graphics price performance and turned the traditional workstation marketplace upside down. Although NVIDIA offers the workstation-branded NVIDIA Quadro and the consumer-branded GeForce GPUs, many consumers were unclear about the benefits of a professional workstation over a consumer PC. The workstation/consumer distinction was clouded by that fact that, prior to the price-performance discontinuity, a workstation cost tens of thousands of dollars, whereas a PC could cost less than \$5K. With the introduction of the NVIDIA GPUs, these costs dropped dramatically and it became more difficult to distinguish the two classes of systems on price alone.

This document describes in detail the features and benefits offered by the NVIDIA Quadro brand of workstation GPUs, and places them into the context of the professional user. It highlights the hardware features and benefits of the workstation GPU family over the consumer GPU family, and provides details on application support, hardware and driver features, and value-added applications targeted at specific workstation markets.