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Windows Vista  
Microsoft

## [DirectX 10.1 in Windows Vista SP1 - The Evolution](#)

### *Under the hood*

As Windows Vista brought to the table the exclusive DirectX 10, the first service pack for the operating system will evolve Microsoft's graphics technology to version 10.1. DirectX 10.1 is already available to over 12,000 testers via the first beta of Vista Service Pack 1, concomitantly with the official release of Build 6001.16659. Although the testing milestones of Vista, Windows Server 2008 and Windows XP SP3 Beta, are officially limited in terms of access, a [hack is available](#) designed to permit the download of [Windows Vista SP1 Beta Build 6001.16659](#) straight from Microsoft, and simultaneously test drive DirectX 10.1. However, Vista users have to understand that DirectX 10.1, as well as DirectX 10 is a technology intimately connected with the underlying graphics card, such as the upcoming ATI Radeon HD 3800 Series. According to an AMD whitepaper focused on the implementation of DirectX 10.1 in the ATI Radeon HD 3800 Series, the latest application programming interface from Microsoft, manages to "unlock the state of the art in GPU technology." "DirectX 10.1 maintains the overall structure and programming model of DirectX 10, while providing numerous enhancements. The vertex, geometry, and pixel shader instruction sets have been updated to Shader Model 4.1. The new features of DirectX 10.1 can be divided into three general categories: new shading and texturing capabilities, anti-aliasing improvements, and tighter specifications. The following table highlights some of the key features in each of these categories, as well as some of the benefits they provide," states an excerpt of the [ATI whitepaper](#) on DirectX 10.1, via [TeamATI](#). There is little doubt over at AMD on the evolution represented by the move from DirectX 10 to DirectX 10.1. The fact of the matter is that, Vista SP1 in combination with DirectX 10.1 will bring to the table the next generation of interactive 3D graphics. Vista SP1 is currently planned for availability in the first quarter of 2008, following the launch of Windows Server 2008, formerly codenamed Longhorn. Still, one relevant aspect of DirectX 10.1 is the fact that, in order to enjoy the enhanced shader model, anti-aliasing support, and the increased flexibility of data access, Vista users will not only have to deploy SP1 but also upgrade to DirectX 10.1 ready graphics cards, even though they have moved for less than a year to DirectX 10 compatible hardware. "DirectX 10.1 offers incremental improvements to the programming interface that address limitations of DirectX 10, and unlock new graphical techniques that will take the quality of 3D graphics to the next level in 2008 and beyond. Advantages include global illumination delivering lighting and shadow quality in real-time that matches the ray tracing techniques used in CG films, improved anti-aliasing techniques to clean up distracting shimmering artifacts, and tighter specifications for improved compatibility", reads the conclusion of the ATI whitepaper.