



## PCI-SIG Overview

Formed in 1992, PCI-SIG (originally formed as the Peripheral Component Interconnect Special Interest Group) is the industry organization chartered with the development and management of the PCI bus specification, the industry standard for a high-performance I/O interconnect to transfer data between a CPU and its peripherals. As part of that charter, the organization aims to do the following:

- Support new requirements
- Preserve backward compatibility for all PCI revisions
- Maintain the specification as an easy-to-implement, stable technology
- Contribute to the technical longevity of PCI
- Support the establishment of PCI as an industry-wide standard.

The PCI-SIG currently has more than 800 member companies, and effectively places the ownership and management of the PCI specification in the hands of the developer community. By adding new features and functionality to the base PCI bus specification, the PCI-SIG is enabling it to adapt to evolving industry needs.

Through technical seminars and the PCI Compliance Program, the PCI-SIG seeks to educate the industry on the latest developments of the PCI bus architecture. The PCI Compliance Program encourages compliance with the PCI specification, and helps members minimize interoperability issues by promoting interaction between OEMs, system vendors, and add-in card vendors. The program includes the following:

- Compliance Workshops (Plugfests) — forums for testing the interoperability of the many PCI-related products in the market. Workshops are held three times a year in the United States, once a year in Taipei, Taiwan, and once a year in Tokyo, Japan.
- The Compliance Checklist — members must complete this list. The checklist is updated with new Engineering Change Notices (ECNs) voted on and approved by the PCI-SIG membership.
- The PCI Integrator's list — a list of products that have successfully completed the Compliance Workshops and Compliance Checklist.

The PCI-SIG is a useful source of developer information, offering white papers, technical overviews, product implementation guidelines and links to other PCI product and technology information.

### **The PCI in PCI-SIG**

The PCI bus is one of the most successful standards in history, serving as the main general-purpose bus in virtually every desktop computer throughout the world. Through wide industry support and active developer participation, the PCI bus specification is a well-maintained, open and non-proprietary solution. A great deal of its success can be attributed to PCI's forward-thinking design, which includes:

- Processor independence
- Low pin-count interface
- Implementation based on common ASIC technologies
- Scalability

The flexible design of PCI has allowed it keep pace with increases in CPU performance and data capacity. It addresses all areas of I/O, providing increased performance for a full range of network, disk drive, video, graphics and other high-speed peripheral devices.

PCI's standardized components and silicon have enabled huge economies of scale that make PCI products easy and inexpensive to develop. As a result, PCI has become the universal connection standard for all types of PC peripherals.

### **Continuing PCI Success Through Evolution**

By working to provide new features, formats and enhancements of the PCI bus specification, the PCI-SIG has kept pace with changing industry needs and the new applications and technologies utilizing the PCI standard. The organization's educational efforts, along with its ongoing research and development of new PCI bus functionality, are driving the continued evolution of an I/O standard that will continue to serve the industry for years to come.

For more information on PCI-SIG and/or the PCI specification, please visit the PCI-SIG Web site at [www.pcisig.com](http://www.pcisig.com).