

THE VESA MONITOR

A MONTHLY NEWSLETTER

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■ VESA Announces Plan to Develop New Digital Display Interface Standard

Open standard to unify internal and external interfaces for all display applications

On May 9, VESA announced the development of a new digital display interface specification for broad application within most forms of displays, including LCD, plasma, CRT and projection displays, as well as PCs and other sources of image content.

The interface specification, branded under the name DisplayPort™, will accelerate the adoption of protected digital outputs on PCs to broadly support viewing of high definition and other types of protected content through an optional content protection capability, while enabling higher levels of display performance.

A group of industry leading companies, ATI Technologies Dell Inc., Genesis Microchip, Hewlett-Packard, Molex Incorporated, NVIDIA, Royal Philips Electronics, Samsung Electronics, and Tyco Electronics are close to completing the development of a detailed proposal. It is the goal of this group to submit a comprehensive version of the DisplayPort interface proposal to VESA in the third quarter of 2005. Pending ratification and adoption by VESA, the group intends that the DisplayPort interface standard be available to the industry as an open, extensible standard. Administration by VESA, a recognized industry standards organization, will ensure that the specification is maintained and will provide a forum for future standard revisions.

“The member companies of VESA have worked exceptionally well together over many years to develop a significant and important set of standards for the industry, and we will approach this new proposal with the same high level of energy and expertise,” said Ian Miller, chairman, VESA.

The standard will be designed to enable a common interface approach across both internal and external display connections. Internal connections include display interfaces within a notebook PC or within an LCD display. External display connections include the interface between a source device such as a desktop PC, set-top box, DVD player or game console, and a display device such as a direct view flat panel or projection display for viewing video and graphics.

The DisplayPort standard will also include an optional digital audio capability allowing streaming of high definition digital audio-video content over the interface, and provides performance scalability to enable the next generation of displays featuring higher color depths, refresh rates, and display resolutions.

The DisplayPort standard will feature a small, user-friendly connector that is optimized for use on thin profile notebooks in addition to allowing multiple connectors on a graphics card.

General Overview

The DisplayPort standard will provide a high-quality digital interface for video and audio content with optional secure content protection, in a highly extensible format. This will enable a wide range of source and display devices to be simply and securely connected.

The PC industry needs a ubiquitous digital interface with optional content protection that may be deployed widely at minimum cost to enable broad access to premium content. The DisplayPort standard addresses this need by providing an optional secure method to protect both image and audio content.

The DisplayPort standard is designed to be usable in all digital source display connections, whether these connections are embedded within a device, such as a notebook PC, or via an external cable between a source device and a display device.

As higher performance display and source technologies are introduced, the demands on interface bandwidth expand significantly. This problem will become even more acute in the future with demands for more colors, higher resolutions, and higher refresh rates. The DisplayPort standard will have a

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high initial bandwidth and is designed to scale to even higher bandwidths to accommodate future display requirements.

Delivering audio to a multimedia monitor has generally been provided by a dedicated cable, increasing cost and desktop clutter. With the introduction of the DisplayPort standard, high-quality audio will be available to the display device over the same cable as the video signal.

The display connectors used today by the computer industry are relatively large; leading to a conflict with the trend towards small, slim form factors. The DisplayPort standard recognizes this problem and will introduce a small connector that is simple to use. This makes display connections to all source and display devices easier to implement, reducing constraints on the industrial design for a wide range of products. Small portable devices such as notebook PCs will find this to be a significant benefit.

■ EnTech Taiwan Creates softMCCS Compliance Tool

EnTech Taiwan has developed the ultimate diagnostics and compliance software for designing displays compatible with VESA's DDC/CI and MCCS standards.

softMCCS is a purpose-built tool implemented on top of EnTech's next-generation softOSD communications engine. As a result, softMCCS is not only the fastest and most efficient tool of its kind - it's also the most compatible. The underlying softOSD engine provides communication through the widest variety of GPUs, is completely driver-independent and is compatible with all x86 and x64 versions of Windows - from the original retail release of Windows 95 onward.

As a diagnostics tool, softMCCS simultaneously reports the status of over 150 VCP code locations in a tested display, provides full control over each supported command, and reacts in real-time to events such as hot-plugging, orientation changes (portrait or landscape) and any use of the display's conventional OSD.

For troubleshooting and analysis softMCCS allows a host to send individual datagrams across the DDC/CI channel while responses received from a tested display are viewed and logged. softMCCS also provides a robust command language and direct access to the underlying softOSD communications engine.

A wizard is provided for easy, step-by-step compliance testing and useful reports can be generated to assess standards compliance and to improve the display's overall performance. softMCCS is also the first tool in the world to be able to flash a display's EEPROM entirely through the use of software. The display does not need to be DDC/CI compatible and there are no jigs or programming fixtures required to update the EDID of most tested displays. softMCCS is the ultimate tool for hardware designers, firmware engineers and other industry professionals involved in the creation of softControllable computer displays.



To acquire a free copy of softMCCS send an email request to mail to: mccs@entechtaiwan.com. For more information on EnTech Taiwan's family of softControllable display software visit <http://www.entechtaiwan.com>. VESA makes no warranties, expressed or implied, of functionality or suitability of this software for any purpose.

■ VESA Features DisplayPort™ at 2005 SID International Symposium

The pre-show press release on DisplayPort and 20-member company exhibits made the annual Society for Information Display (SID) International Symposium a major success for VESA.

Held at the Hynes Convention Center in Boston, from May 24 -26, the annual SID Symposium brought a record number of display leaders together from around the world. The premier worldwide event in the display industry, SID 2005 attracted 7,650 total attendees (an 18 percent increase over last year), according to Palisades Convention Management Inc. (PCM), the show's manager, making it the second-best attended event in the Society's history. New features introduced for the 2005 show, such as the expanded Business Enterprise with a new Investors Conference, as well as the extension of the Technical Symposium from three to four days, were key reasons behind the increased interest, along with the continuing strength of the display industry.

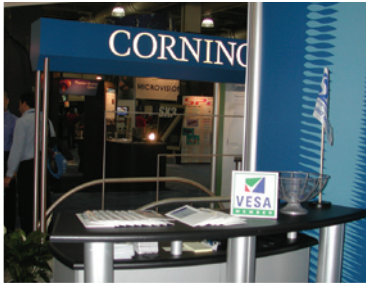
Often a highlight of the show, the three-day exhibition did not disappoint, as large crowds flocked to the two floors of the latest, most innovative display products in the world. This year's exhibition was the largest in SID history, with 254 companies occupying 555 booths in more than 55,000 square feet of exhibition space, according to PCM.

Nearly 1,800 people attended solely the exhibition portion of the event, up from the 1,334 who did so in Seattle. Since registration at any part of SID 2005 also included admission to the exhibit floor, most if not all of the 7,650 attendees at SID 2005 visited the exhibition.

Twenty VESA member companies exhibited at the symposium in addition to VESA's 10 x 10 foot booth. The VESA booth featured information about standards development, membership opportunities, mounting compliance program and DisplayPort. DisplayPort was a popular subject at the VESA booth with the press, analysts and display manufacturers. "There is great interest in the industry surrounding DisplayPort and its potential," stated Bill Lempeis, executive director, VESA. "It definitely put VESA on the must "talk with" list of editors and industry analysts at this year's symposium."

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Twenty VESA Member Company placards were distributed at SID with many of them prominently displayed in many of the member company's exhibits.



■ Portrait Displays DT Toolbox™ Provides Comprehensive Diagnostic and Testing Tool for VESA MCCS Specification

DT Toolbox™ from Portrait Displays, Inc. is designed to assist with the development and testing of displays and display firmware that aim to be compatible with the MCCS specification for software controllable monitors generally, and Portrait



Displays' Display Tune® software specifically.

It enables direct communication between the user and monitor firmware via the graphics controller's (GPU) proprietary I2C bus, with a minimum dependence on the window manager (WM) and on the display driver (DDI). The list of supported graphics controllers is extensive: practically every GPU with a bi-directional serial clock and serial data line is supported, including those with dual and triple "heads". And while designed to promote compliance with the latest MCCS V2 specifications, DT Toolbox is also backwardly compatible with older, pre-MCCS, and semi-proprietary DDC/CI firmware implementations from several major display manufacturers.

DT Toolbox includes both simple, self-explanatory controls for ease of use, as well as a powerful and flexible VCP command-line editor for the experienced engineer - all in a simple, compact and conservative package. VESA makes no warranties, expressed or implied of functionality or suitability of this software for any purpose.



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VESA ANNOUNCEMENTS

DisplayPort Clarification

VESA would like to clarify a misunderstanding that has unfortunately appeared in several publications, following the recent announcement of the DisplayPort digital display interface proposal having been accepted for VESA development by the Board of Directors. Some have reported that the development of this proposal to date has been conducted by a Special Interest Group (SIG), working under the auspices of VESA. This is incorrect. The development of the DisplayPort proposal, which was first presented to the VESA Board in March of this year, is being completed by a separate, ad-hoc group of companies operating under their own mutually-agreed-to organization. VESA was in no way involved with the effort prior to the presentation to the Board of Directors on behalf of that group of companies. The DisplayPort proposal will be brought to VESA, under the process outlined in VESA Policy 235 (in effect since late 2003), by that group, and we welcome such initiatives on the parts of member companies or groups of companies. The group, which is developing the DisplayPort proposal, recognizes the advantages of industry standards efforts being conducted under the auspices of an established standards organization such as VESA, as this provides the best forum for all interested parties to be heard prior to the final release of a standard. The VESA Board of Directors is looking forward to the introduction of this proposal to VESA later this year so that all VESA members have the opportunity to comment and offer contributions before DisplayPort is finalized as a standard.

VESA Offices Relocated to New Location as of June 1

Effective June 1 VESA's new address will be 860 Hillview Court, Suite 150, Milpitas, CA 95035. Our phone number and fax number remains the same.

VESA Annual Meeting to be Held June 15

The VESA annual meeting will be held on Wednesday, June 15 at 10:00 am (PDT) following the Display Systems Committee meeting. Please stop by and see the new offices and join us for lunch at noon.