



## Hardware

### **Plasma HDTVs Plug-and-Play**

Microtek announced the launch of high-definition flat-panel TVs designed for video enthusiasts who want plug-and-play simplicity. The first two HDTVs are the 42-inch MHP1-HDI plasma HDTV and the 50-inch P50TX1A plasma HDTV.

Microtek's HDTVs offer a full array of input options that allow connection of several devices to the HDTV to create a comprehensive media center. These input connections include antenna ports for analog NTSC and digital ATSC tuners, composite video, S-video, component video, and 100-percent digital data transmission.

The 42-inch MHP1-HDI model has  $1024 \times 768$  native resolution and a 10,000:1 contrast ratio. The 50-inch P50TX1A model has a  $1366 \times 768$  native resolution and an 8,000:1 contrast ratio. For more information visit <http://www.microtekusa.com>.



Microtek's new line of HDTVs are designed for video enthusiasts who want plug-and-play simplicity

### **External Multidisplay Computer Upgrades**

Matrox Graphics announced the DualHead2Go Digital Edition. This external multidisplay upgrade device connects to the VGA output of compatible notebook or desktop computers and through patent-pending technology uniquely expands the desktop across two digital displays. DualHead2Go Digital Edition also enables support for high-resolution panels, offering a stretched desktop of up to  $3840 \times 1200$  (or dual  $1920 \times 1200$ ) across two displays.

The multidisplay configuration delivered by DualHead2Go lets users work with multiple full-screen documents or applications simultaneously, eliminating the need to constantly open, close, or minimize applications.

The Digital Edition of DualHead2Go lets users connect two digital or analog displays to compatible notebook and desktop systems. In addition, through the Matrox PowerDesk SE interface, users benefit from the flexibility to select a wider range of resolutions, including support for both widescreen and standard aspect ratios.

DualHead2Go Digital Edition has a manufacturer's suggested retail price of \$229.

For more information visit <http://www.matrox.com/graphics>.



DualHead2Go Digital Edition connected from a laptop to two monitors

### **Compact, Single-Panel Microdisplays**

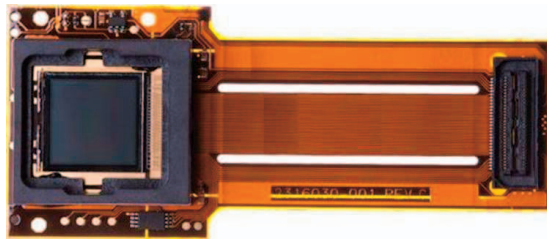
Displaytech announced the development of the LightView VGA, WVGA, and SVGA single-panel microdisplays that could be implemented in microprojectors, head-mounted displays, and mobile communications devices.

The microdisplays feature benefits such as use of the company's ferroelectric liquid crystal on silicon technologies, the ability to display full-color video images without motion smearing, low-power consumption, and support for industry standard digital interfaces.

The LV-VGA offers  $640 \times 480$  full-color pixels with a 9.2-mm active-area diagonal; the LV-WVGA offers 852

× 480 resolution with an 11.25-mm active-area diagonal; and the LV-SVGA features 800 × 600 with an 11.5-mm active-area diagonal. The three products support consumer product temperature ranges with integrated temperature compensation, operate at 100 milliwatts or better, run with a 60-hertz frame rate, and feature adjustable brightness and gamma settings.

For more information visit <http://www.displaytech.com>.



Displaytech's LightView single-panel microdisplay

### Easy Access to Online Content

Quartics and Addlogix announced a joint video processor solution. Addlogix will embed Quartics' PC2TV chip in its products, allowing users easy access to online content wherever they are. Quartics PC2TV technology lets users wirelessly stream content from their PC or laptop to the display of their choice. The Quartics box is hooked up to the televi-

sion, projector, or monitor using standard cable wires and has a WiFi radio embedded in the box. As a user's PC or laptop with a WiFi connection picks up the signal from the box, it can download the Quartics software onto the computer, enabling the user to wirelessly send the content to the display without buffering.

Addlogix has already begun embedding the PC2TV chip within its products, giving users a variety of online content on their own screen, including YouTube videos, independent movies, or basketball clips. For more information visit <http://www.quartics.com>.

### Subsystem Supports HD Video Cards

Infortrend's EonStor S12F-G1420 4-Gbyte RAID subsystem qualifies for use with high-definition video cards from Bluefish444, a division of Bluefish Technologies. The ES S12F is certified for broadcast-quality applications such as postproduction, HDTV, 2K film, digital cinema, near-line digital content, and broadcast server archives.

The ES S12F features a single controller, fibre channel to a serial attached SCSI subsystem; a system throughput greater than 1,000 megabits per second; 12 dedicated point-to-point drive channels; and hot-swappable, redundant field units.

For more information, including the Bluefish444 report of the product's performance results, visit [http://www.infortrend.com.tw/main/2\\_product/s12f-r-g1420.asp](http://www.infortrend.com.tw/main/2_product/s12f-r-g1420.asp).



Infortrend's EonStor S12F-G1420 4-Gbyte RAID subsystem works with Bluefish444's HD video cards

### Digital Video Solution for Modular Cable System

Cables to Go announced RapidRun Digital system, the latest addition to the RapidRun modular cable system. The system exceeds standard length limitations of HDMI and DVI signals while delivering dependable performance, ease of installation, flexibility, versatility, and value.

The Rapid Run Digital system overcomes normal length limitations of video signals by providing signals more than 80 feet from the source to display. The system features the RapidRun Digital Active Wall Plate, with its integrated equalizer/extender. The extender corrects for attenuation and impedance so the signal can be transmitted over the Digital Runner, the system's base cable, as long as 65 feet at 1080-pixel resolution. Using the 65-foot runner, an active wall plate with a standard 2-meter cable, and a 10-foot flying lead, the total end-to-end length is more than 80 feet.

The RapidRun Digital is centered on the runner base cable, which is specifically designed to provide a reliable pathway for uncompressed high-definition video. For more information visit <http://www.cablestogo.com>.

### Open-Source Software

The following open-source software might be of interest to readers.

### 3D Mobile Performance Benchmark Suite

Kinoshi Informatics announced the general availability of GLBenchmark 1.0, a 3D performance benchmark suite for OpenGL ES-compatible software on mobile devices using the following platforms: Brew, Linux, Symbian, and Microsoft Windows. The benchmark not only measures OpenGL ES 1.0 and 1.1 application performance, it also provides a direct comparison of native Open GL ES and Java-based mobile 3D implementations.

An important part of the suite is its inclusion of GLBenchmark HD, which uses the same graphical scenes and resources as Jbenchmark HD (the 3D benchmark for Java Mobile 3D Graphics, or M3G). These two applications can be used to compare the real-world performance of native and Java-based 3D implementations. As the high-performance mobile M3G engines use OpenGL ES for underlying rendering, these measurements will also help to find bottlenecks in current Java 3D implementations.

Kinoshi Informatics' GL Benchmark 1.0 is available for free at <http://www.glbenchmark.com>.

### Real-Time Rendering

Bunkspeed announced the release of HyperShot, a real-time rendering solution. The software reportedly delivers photographic imagery instantly and accurately without requiring special expertise or knowledge.

The product can create results from 3D data in minutes rather than hours. It reportedly takes advantage of the computing power provided, so that it can run on entry-level machines, but it also scales linearly in performance as more CPUs are available in a system.

Pricing for the Bunkspeed's HyperShot starts at \$495. For more information visit <http://www.bunkspeed.com/hypershot>.



Screen shot of Bunkspeed's HyperShot real-time rendering software in action, using 600 Mbytes of geometry and 5.5 million triangles

### Painting Tool for Children

Moko Interactive's Creative Painter is a Windows-based program that lets children paint pictures on-screen. The software lets children work with colorful background pictures and cartoon characters as well as add animated pictures such as barking dogs or swaying flowers to their designs. The program's 20 drawing tools include paintbrush, pencil, marker pen, crayon, spray paint, and chalk. According to the company, the interface makes it easy for children to select a tool, adjust its width, and pick its colors. The software also supports drawing devices such as the Wacom tablet. Children can import the artwork into other applications.

Windows 95/98/Me/2000/XP/Vista compatible, the software costs \$29.95. A free trial version is also available. Visit <http://mokosystems.com> for more information.

### One-Click Color Editing

PictoColor released CorrectPhoto 20.0, an upgrade to their digital photo editor. The latest version includes a one-click color correction feature.

The software automatically fixes the white balance, corrects the exposure, and improves the vibrancy of digital images. It also integrates well with Microsoft Windows Explorer so that users can easily transfer, perfect, organize, manage, view, share, and print their digital photos.

Other capabilities of the software include manually adjusting brightness and contrast; independently adjusting shadows, highlights, and saturation; and rotating, cropping, resizing, reducing red eye, and sharpening.

PictoColor costs \$29.95. For more information visit <http://www.correctphoto.com>.

### Standards and Specifications

The following standards and specifications are of interest to the computer graphics community.

#### Standard for Embedded Flash Memory

The MultiMedia Card Association (MMCA) and Jedec Solid State Technology Association (JEDEC) announced their joint adoption of *e* MMC as the trademark and product category of a class of embedded memory module products built on the joint MMCA/JEDEC MMC Standards specification.

As a standard, *e* MMC describes an architecture that comprises an embedded storage solution with an MMC interface as well as a flash memory and controller in a small ball grid array package. With interface speeds of up to 52 Mbytes per second, this standard provides fast scalable performance. It also allows for an interface voltage of either 1.8 or 3.3 volts. Accordingly, it supports a wide range of applications in consumer electronics, wireless, navigation, industrial uses, and other areas.

With this in mind, *e* MMC makes it easy to embed mass-storage flash memory on host systems. It has a standardized protocol interface that offers designers high performance while still allowing for technological complexities (such as functional differences among suppliers).

For more information visit <http://www.mmca.org>.

#### Adobe Releases PDF for Industry Standardization

Adobe is releasing the full Portable Document Format (PDF) 1.7 specification to the Enterprise Content Management Association for publication by the International Organization for Standardization.

The significance of this act to the computer graphics community is that it contains a specification that references open raster, 2D, and 3D graphics specifications. Sample raster specifications include JPEG, TIFF, and GIF; 2D SVG; and 3D U3D. The 3D is of particular interest as 3D documents gain popularity. (There will be a special issue on 3D documents in the July/August 2007 issue of *IEEE Computer Graphics & Applications*.)

For more information on this specification visit <http://www.adobe.com>.