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KioskCom 2004 IN REVIEW

KioskCom 2004 Tradeshow Review

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I attended this years KioskCom tradeshow in sunny Las Vegas, held at the luxurious Mandalay Bay Resort and Casino Convention Center. There were over one hundred vendors at the show, most of them showing off new kiosk designs or kiosk-related hardware. According to the vendors that I spoke with, the quality of the attendees was greatly improved over last years show, and the industry seems to be experiencing growth despite a less than optimal world economic scenario. The first day of the show was the most crowded, with attendance tapering off the final day of the show (allowing me to speak with everybody!). The show was also about 40% larger than last years show at the Las Vegas Riviera Hotel.

In general, the hardware manufacturers who were not selling actual kiosk design or fabrication services (like wild injection-molded kiosks from a single 3D file) were selling products that allow kiosk end-users to better interface with the kiosk systems hardware. Most of this show review will cover these outstanding new hardware technologies presented at the show, as these are the technologies that will allow kiosk developers to interface seamlessly with our daily routines.

One of the largest genres of kiosk-related hardware represented at the show were displays, with touch-screen vendors Tyco ([ELO Touch](#)) and 3M ([MicroTouch](#)) showing innovation in both products and product configuration flexibility. 3M was showing their new M170 SXGA touch-screen LCD display, with snap-on perimeter mounting allowing anything from high fidelity speakers to digital cameras to be easily assimilated into a kiosk design. This 3M model has a 450:1 contrast ratio, DVI and analog inputs, 3 year LCD warranty, and a 5 year warranty on the touch screen sensor and related components.

More along the lines of their film and media research and development roots, 3M Touch Systems also announced the MicroTouch Near Field Imaging Touch Screens, which feature an imbedded Vikuiti Solar Reflecting Film. As you might have guessed, this product is targeted at heavy outdoor use in direct sunlight. Another interesting tidbit, this is also the first product to incorporate a 3M film product with the MicroTouch product line, which 3M acquired a couple of years ago with that exact product synergy in mind. MicroTouch is now a 3M Brand, competing directly with the other main touchscreen brand, ELO.

Not to be outdone by any monolithic R&D giant, industry stalwart ELO Touch had one of the coolest display products at their booth, in the form of a Plexiglas "info-table," where people could sit around and use any application (I liked the game) on the surface of the table. A projector in the base and touch-screen film on the surface created the futuristic image in the surface of the table, which looked like something out of the first Star Wars' memorable bar scene. Imagine having these in the corporate cafeteria for videoconferencing lunches between corporate state or worldwide branches! ELO was also showing a line of touch screen LCDs for kiosk applications that had optional integral credit card swipe units and other useful kiosk peripherals that could be ordered as seamlessly integrated data input or output options.

A new touch screen manufacturer from Korea, Digitech Systems was showing their patented new EST Capacitive Touch Screen technology which uses no film - the technology is right in the glass! Digitech's amazing demo at their booth was dropping a steel ball onto their glass screens from about four feet in the air. These screens are the clearest touch screens I have ever seen; the

touch screen looks more like the protective glass kiosk manufacturers use to protect their LCD screens, except that here, the glass is also functional.

Projector, LCD and Plasma display vendors were also prevalent at the show, with Smarttech and ActiveLight sharing a booth to demonstrate their large screen displays in use as (and with) kiosk displays. ActiveLight, a display reseller, and NEC sponsor a cool website called www.digitalsignagedirectory.com that addresses the closely related digital signage and kiosk phenomenon.

Smarttech on the other hand, is famous for their industry-leading whiteboard products and technology, which several other vendors were trying to emulate around the show. Smart can overlay this digital whiteboard technology on any regular plasma or LCD display (hence their alliance with ActiveLight) to allow the user to utilize their finger to interact with the display without ever touching it! As this real-time finger-detection technology gets more pervasive within the industry, it will give us content designers the opportunity to create much cooler interactive multimedia and games for kiosks in retail and other environments.

Another large LCD display industry player, [Planar Systems](http://www.planarsystems.com), was showing "bare bones" displays at their booth! According to Planar Executives, kiosk designers were buying their displays and removing the casings to get at the internals, spurring the company to offer bezel-free "open frame" displays, ready for kiosk internal mounting. Great product, great idea! And a cost saver as well, especially when LCD "glass" prices go down. Currently there is a 15" XGA version, as well as 17" and 19" SXGA resolution versions.

The most interesting "future" kiosk display technology at the tradeshow was a 3D display created by OPD Corporation, a company with 29 worldwide patent applications (some still pending approval) on their method of simulating 3D using conventional (and thus more affordable) 2D display technology in conjunction with their patented lens matrix system. OPD makes a 3D technology and hardware that kiosk designers can use to make their own kiosk designs more compelling, via 3D objects that seem to hang in mid-air, but can also move around, and even zoom in and out of view. What's more, you don't need any 3D glasses to view the effect! I spoke with the OPD team, a family operation out of Elmira, New York, and they have plans to also support interactive 3D (i3D) technologies in the future with their display hardware, so even more fun is sure to come! I was mildly surprised to see the absence of 3D display technologies from DDD, X3D and Kodak at the show; however, I'm sure they will be present at next years show, if it keeps growing at a 40% annual rate!

The counterpart to 3D video is, of course, 3D audio, and the Brown Innovations team was at the show with their space-age Plexiglas "Localizer" audio isolation hardware. Brown's patented hemispherical Plexiglas dome reflects audio into the users' headspace, keeping it away (and private) from other customers and the public at large. There is a 20" model (one person) and a 32" model (1, 2 or 4 persons) that would be perfect for adding that high-tech flair and clear as a bell 3D audio to any kiosk design. A variety of mounting and audio processing technologies are also available, allowing the Localizer to fit any interior or exterior environment. Oh, and they have cool colored Plexiglas domes available now, and I put in a request for mirrored domes and the newer prismatic Plexiglas materials as well.

Once you've walked up and heard and seen your fill, the time will come to interact with the kiosk in some fashion. One of the most profitable means of interaction between any two parties (like man and kiosk) is cash exchange. I saw several automated coinage solutions at the show, but only one that dealt with cold, hard (soft, actually) cash! [JCM American Corporation](#) (based in Las Vegas and dealing with cash; imagine that!) was showing their recently available cash acceptor/dispenser unit, which can handle up to seven denominations. But the real humdinger on this product is that you can stick a 20 note stack of bills in this puppy, and it feeds itself! Yes, it also calculates and gives change in the expected denominations.

If you're not dealing with cash, chances are you are dealing with some kind of automated credit or product identification scenario, and there were vendors with credit card scanners, barcode readers and laser scanners. Metrologic was showing an impressive slim-line laser barcode scanner that's about half the size of your fist, uses a single cable interface, and is fully automatic and Flash-ROM upgradeable! What's more, the Quantum-E is a combination of an omni directional scanner and a single-line laser bar code scanner, so you can kick in this feature to deal with products with multiple bar codes or printed product lists containing bar code data.

The flip-side of scanning is printing, and a number of label, receipt and ticket printers were present on the show floor this year. One especially durable thermal ticket printer from [FutureLogic](#) can operate from -30 degrees Celsius to 70 degrees Celsius, perfect for snowbound and desert areas (like Las Vegas!) and foreign countries with even more extreme weather than Vermont and Arizona. FutureLogic's new PSA series of ruggedized Kiosk Printers are only 5 inches square and less than 15 inches high, and three models accept standard 60, 80 and 112mm paper widths. The printers have good resolution 8 dots/mm and take only 24 volts of DC power to operate, perfect for those solar-powered kiosks out there!

Innovative ideas were everywhere at the KioskCom show this year, with two of the best ideas for POS and retail kiosks coming from Digit Professional. Digit's Video Chameleon is an interactive MPEG Player with no moving parts, MPEG2 quality DVD video, S-Video output and stereo 16-bit audio (which with new 5.1 via stereo technology can be extremely impactive these days). Add to this the compact size, low power consumption and ability to incorporate interactive control devices such as touch screens and you have a product that will interest quite a few kiosk designers.

Digit's second innovation is their impressive Osprey 6.8" LCD mini-kiosk POS display system. Content can be loaded via Compact Flash cards or remotely via Ethernet, and buttons or a touch screen can be added for interactive purposes if needed. Inside the bezel behind the LCD is the Video Chameleon MPEG2 player, so all of those features mentioned previously also hold true for the Osprey product. Digit also has an attractive modular kiosk product as well, so they make both tiny and large kiosk products!

Speaking of attractive kiosk offerings, Norwegian company NIT was showing their new "Vision" chrome plated internet and telephony kiosk, and a vision of modern design it is indeed. Sleek curves and minimalist design allow the Vision to stand out in the public environment without looking out of place or ugly in hip retail environments. Vision has a waterproof steel keyboard and trackball, built-in video camera, separate numeric keypad for telephony features, and speakers/microphone (hands-free) if you don't want to use the hygienic handset. I'd like to see one of Brown Innovations' 20" Localizers hooked up to one of these Vision kiosks; it would be the ultimate product synergy fit!

Not to neglect the software vendors at the show, [NetKey](#) Incorporated was showing their CRM (customer relations management) software solutions for stand-alone and networked kiosks. This product is a robust software development platform for the management and operation of networks of unattended kiosks, and draws upon three patents on implementing self-service technology to

implement over 25,000 self service devices worldwide to date. After a successful KioskCom, this number is sure to increase.

In summary, this years KioskCom was a positive showing for the Kiosk Industry, with attendees with buying power, vendors with bullet-proof products, sexy new technologies looming on the horizon, and growing interest and acceptance by the public of the kiosk paradigm. Congratulations to all.

This document was modified to highlight the paragraph regarding OPD and it's technology.

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