New Products

Editors: Maria Ebling ■ IBM T.J. Watson Research Center ■ ebling@us.ibm.com
Mark Corner ■ University of Massachusetts Amherst ■ mcorner@cs.umass.edu

EDITORS' INTRO

In this issue, we cover an implantable medical device, currently available in Europe and expected to be released to the US market in early 2008. We also highlight the latest wrist phone to capture center stage and a new OLED TV. Anyone visiting Japan will want to check out the new dynamic train information, and those doing home remodeling might want to try a new camera-phone-based measurement tool. Finally, mashmakers will be interested in a new tool that will make mashing easier.

Please continue to send pointers to upcoming products with exciting possibilities, your feedback on existing products, and your personal experiences with them (your name will be included with your review). Email us at pvcproducts@computer.org.

—Maria Ebling and Mark Corner

DEVICES

IMPLANTABLE INSULIN PUMP

Medtronic Diabetes has announced a new meter that will communicate wirelessly with the MiniMed Paradigm insulin pump and the Guardian Real-Time continuous glucose-monitoring system. The monitoring system measures glucose levels thousands of times each day and communicates those readings to the insulin pump. The pump dispenses insulin with the help of a mathematical model based on the insulin action curve and helps protect the patient from hypoglycemia. The glucose-monitoring system provides a continuous stream of glucose readings to help patients more closely monitor their diabetes.

Although researchers haven't quite reached the point of an implantable pancreas, they're moving in that direction. Medtronic expects the meter to be available in the US in 2008.

WRIST PHONE

Although it's not yet implantable, it is wearable. Hyundai's W-100 Wrist Phone, or Personal Mobile Gateway, is a full-featured GSM phone in a watch form factor. It comes loaded with a 1.3-megapixel camera, an MP3 player, a video player, a MicroSD slot, and a touch screen. It also has Bluetooth so that you don't have to walk around holding your arm to your ear to hear. Instead, you can look really cool with your little blue ear bug. Oh yes—it also gives the time. It's currently available only in China, and there's no mention as to whether or when it might be available in the US.

Now, if they could just downsize from clunky men's watch sizes to dainty women's watch sizes.

THIN TV

Sony Electronics released the first organic light-emitting diode (OLED) television in Japan on 1 December 2007, just in time for the winter shopping season. The Sony XEL-1 is a 3-mm razor-thin beauty with a diagonal size of 11 inches and a contrast ratio of 1 million to 1 (see figure 1). OLED displays have already crept into a few portable phones and are just now reaching appropriate sizes for use in television and laptop displays.

OLED technology's primary advantage is that it doesn't require a backlight, substantially reducing the amount of power required to run the screen. With current laptop displays consuming upwards of a third of the total power budget, the estimated 40 percent decrease in power consumption will be a big boon for battery lifetime. Also, OLED televisions reportedly have clearer and brighter pictures than their LCD rivals. OLED displays could potentially be manufactured using a process similar to that used by ink-jet printers, another key advantage over LCD and plasma displays. While 200,000 yen (approximately US$1,800) might seem a bit steep, look to other manufacturers, such as Toshiba, to drive the price down substantially in coming years.

APPLICATIONS

DYNAMIC TRAIN INFO

JR East and Mitsubishi Electric have developed a system that downloads extensive train information to a passenger's cell phone when the phone is held within about a centimeter of a special panel inside the train. The system uses Sony's Felicia near-range communication, which many cell phones in Japan already include. The train information should be of particular interest to passengers who don't read or understand Japanese or English, the languages currently used on these trains, because the information can be downloaded in many other languages. The system was demonstrated in early October at CEATEC Japan 2007, and a deployment schedule is currently under discussion. For any foreigner who has ever resorted to counting stops and pattern matching on the fly, this sounds like a major improvement.

DYNAMIC MEASUREMENTS WITHOUT A RULER

Hardware stores are full of people trying to remember measurements

Figure 1. Sony's XEL-1 is the first OLED television to hit the market.

Figure 2. The iPhotoMeasure lets you measure distances between any two points in a photo.

Figure 3. Mash Maker lets users combine the data and presentation of multiple Web sites.

from windows, doors, and walls. The iPhotoMeasure should help (see figure 2). The process is straightforward: First, print out a sheet of paper with a black and white box. Put the paper on the surface you want to measure and take a photo. Then, import that photo into the iPhotoMeasure program, which lets you measure the distance between any two points in the photo. This makes it easier to measure distances in hard-to-reach places such as roofs and second-story windows. It also removes some of the cumbersome process of using a tape measure. While the process probably isn't accurate enough for cutting lumber, it could be a great help in getting a rough estimate. And if they port this thing to the iPhone, we could spend a lot less time in hardware stores.
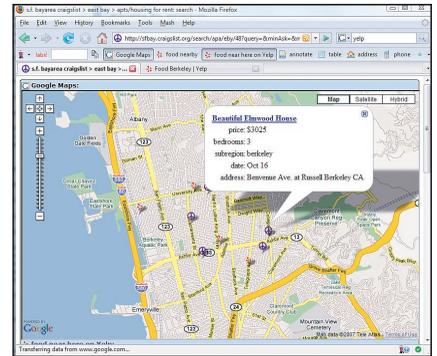
MASH MAKER, MAKE ME A MASH

Led by researcher Robert Ennals, Intel Research has released a great new tool for automating the creation of mashups of Web sites and the data they present. The Intel Mash Maker promises to let Web users and experts alike combine the data and presentation of multiple Web sites (see figure 3). For instance, one Intel demo suggests grabbing the locations of CNN stories and the locations of your friends on Facebook and displaying both together on a Google map.

Mash Maker understands the structure of the data that Web pages present, but it also provides a way to tell it about pages it doesn't understand. Using a simple set of X-Path queries and a bit of poking around the Web page source code, an expert user can scrape the data out of any well-structured page. Even better, Mash Maker lets you share your extraction with other users so they can create their own mashups using the same data.

Many expert users have been doing this for years, but the process has been cumbersome and fragile. The combination of a user interface for programming and collaborative tools promises to greatly accelerate the mashup process. The program is still in beta testing, but you can sign up for a wait list to try it out at http://mashmaker.intel.com. **P**