News release

HP and Partners Build on HP’s Pocket PC Platform to Bring Assistive Technology Advances to People with Disabilities

Wireless mobility technologies on HP iPAQ devices range from learning robotics for children to networked devices for people with sight and speech disabilities.

PALO ALTO, Calif., Oct. 15, 2003 – Marking National Disability Employment Awareness Month, HP today highlighted the many advances HP and its assistive technology partners have made in helping people with disabilities achieve a better quality of life using the HP iPAQ Pocket PC as a platform.

Through its Accessibility Program Office, HP builds relationships with assistive technology companies to meet its goal of designing, producing and marketing products and services that can effectively be used by everyone, including people with disabilities. Using their free membership in the HP Developer and Solution Partner Program (www.hp.com/dspp), assistive technology companies can use HP technologies, platforms and operating systems to create their own innovative solutions. The program also offers technical, sales and marketing support.

“HP is an excellent partner to the assistive technology industry,” said David Dikter, executive director, Assistive Technology Industry Association. “Their leadership in developing quality products and their commitment to accessibility set them apart. This commitment extends to many areas of the disability community, including HP’s significant work in providing technologies and partnering with assistive technology manufacturers in product development.”

HP integrates accessibility features, including access to the Web, into the design of all its products. It is the only information technology manufacturer to have the accessibility features of all its products documented and available online. The National Federation for the Blind recently named HP one of the first national recipients of its Non-visual Accessibility Web Application certification.

“HP is proud of our relationship with our assistive technology partners as we bring mainstream technology advances to people with disabilities,” said Duane Zitzner, executive vice president, Personal Systems Group, HP. “We’re combining our strengths to shorten what has traditionally been a large gap in time between the introduction of the latest technologies and when they become available to people with disabilities.”

The following products and projects illustrate how HP and its partners are using the HP iPAQ Pocket PC to make technology a fabric of the everyday life of people with disabilities:

- CosmoBot – AnthroTronix (www.anthrotronix.com) in College Park, Md., designed this robotic rehabilitation toolkit for children with disabilities. CosmoBot runs on Linux, using the HP iPAQ as a platform. The HP iPAQ is embedded in CosmoBot’s square body and, together with a custom-developed card, directs CosmoBot’s interaction with children. CosmoBot responds to the children’s body movements and voice commands, and through an interactive control device. By exploring and
manipulating their environment with CosmoBot, children gain a position of independence and control, which in turn can result in motivation to succeed. CosmoBot is currently being tested in both clinical and educational settings.

- **Employee Handheld Adaptive Device** – Utilizing the HP iPAQ, the employee handheld adaptive device is central to Project SEARCH, a joint project currently being piloted at the Cincinnati Children’s Hospital (www.cincinnatichildrens.org/ps) and aimed at increasing the national employment of people with disabilities. The device, with software developed by 4M Automation, is a networked job training and coaching solution that taps the HP iPAQ Pocket PC’s expandability, memory capacity and multimedia capabilities. Project SEARCH employees can refer to the device for an audio or graphics-based step-by-step instruction on how to complete a job and also to check progress to completion. The device also includes a calendar that can alert the employee of an appointment and provide directions to the next destination. Job coaches and family members also may relay messages and reminders to the person through it.

- **Mobility Agents** – AgentSheets (www.agentsheets.com) and the Coleman Institute of the University of Colorado at Boulder (www.cs.colorado.edu/~l3d/clever/assets/flyer/mfa.pdf) joined on this project using the HP iPAQ as the platform for a prompting device to aid people with disabilities using public transit systems. The system tracks global positioning system-equipped buses, alerts the passenger when the correct bus approaches, helps the passenger on board through audio and visual cues and reminds the passenger when the bus reaches the destination stop. It also connects caregivers to the passenger through a digital map that pinpoints the passenger’s location. The HP iPAQ was selected for this project because it provides the optimum combination of the computational power necessary to run complex simulations and animations and out-of-the-box wireless networking, including Wi-Fi (wireless fidelity) and Bluetooth™ wireless technology. 

- **PAC Mate** – HP and Freedom Scientific (www.freedomscientific.com) launched their relationship with Freedom Scientific’s best-selling screen-reading software, JAWS® for Windows®, which runs on HP desktop PCs. St. Petersburg, Fla.-based Freedom Scientific used the HP iPAQ as the model of functionality to develop the world’s first wireless Pocket PC handheld computer for people who are blind or who have low vision. PAC Mate users can surf the Internet, send and receive e-mail, and manage data with ease. PAC Mate runs JAWS for Pocket PC. Among other accessibility features included is an Eloquence speech synthesizer with a dual-channel sound card so the speech function can be used while listening to Internet broadcasts.

- **Palmtop Impact** – Enkidu Research (www.enkidu.net) in Spencerport, N.Y., and Saltillo Corporation (www.saltillo.com) in Millersburg, Ohio, worked together to develop Palmtop Impact using the HP iPAQ as its core. The Palmtop Impact is a portable communication device designed to give people who are unable to speak a convenient and powerful way to be heard. The user can touch letters, words, phrases or even picture symbols on the HP iPAQ touchscreen, which are then converted into loud, clear speech. The HP iPAQ screen can easily be seen even in bright light. The expandability of the device allowed the integration of a powerful built-in amplifier and speaker, as well as an additional battery, providing extended usage without recharging. A rubberized case provides added durability, a feature designed for the many children
who use Palmtop Impact.

- **Trekker** – From VisuAide ([www.visuaide.com](http://www.visuaide.com)) in Quebec, Canada, Trekker is a lightweight travel tool for the blind that uses the HP iPAQ as a platform to provide the user with a talking personal guide. Weighing 1.3 pounds and equipped with an onboard microphone and a Braille touch screen, Trekker is the first global positioning system-based portable product offering digital maps for the visually impaired. It keeps pace with the user, announcing street names, intersections, addresses, stores and businesses, restaurants and area attractions as they come. Pressing the “Where am I?” key pinpoints the user’s location. An offline browser allows the user to explore a route in advance.\(^1\)

“Our assistive technology partners are crucial to meeting the needs of a dynamic market,” said Michael Takemura, director, Accessibility Program Office, HP. “These achievements with the HP iPAQ Pocket PC not only open doors for the more than 500 million people worldwide with disabilities, they also form the cornerstone for mainstream solutions that benefit everyone.”

**About HP**

HP is a technology solutions provider to consumers, businesses and institutions globally. The company’s offerings span IT infrastructure, personal computing and access devices, global services and imaging and printing for consumers, enterprises and small and medium businesses. For the last four quarters, HP revenue totaled $71.3 billion. More information about HP is available at [www.hp.com](http://www.hp.com).

\(^1\) A standard WLAN infrastructure, other Bluetooth enabled devices, separately purchased hardware and a service contract with a wireless airtime provider may be required for applicable wireless communication. Wireless Internet use requires a separately purchased service contract. Check with service provider for availability and coverage in your area. Not all Web content available. Bluetooth is a trademark owned by its proprietor and used by Hewlett-Packard Company under license. Windows is a U.S. registered trademark of Microsoft Corp.