

HumanWare's Trekker GPS system
creates handheld personal guide
with HP iPAQ Pocket PC

The HP logo is displayed in white on an orange background. It consists of a stylized 'h' and 'p' where the 'h' is formed by a vertical bar and a horizontal bar that extends to the right and then down to form the 'p'.

“HP has demonstrated leadership in making technology accessible. They have provided strong support to HumanWare as we strive to make the HP iPAQ Pocket PC more accessible to the visually impaired.”
– Yvan Lagacé, Vice President of Sales and Marketing, HumanWare

The HumanWare logo features the word 'Humanware' in a sans-serif font. The 'u' in 'Human' has a small orange smile-like shape above it. The 'ware' part is in orange, while 'Human' is in dark grey. A trademark symbol (TM) is at the end.



When they say the future is here, they're not kidding — and nothing proves it better than HumanWare's Trekker GPS system — as enthusiastic user Doug Wakefield of Arlington, Virginia would agree.

An Information Technology Accessibility Specialist for the government, Wakefield has seen many a technological aid for the blind appear on the horizon over the years. Some impress him, some don't. When he saw Trekker demonstrated at a conference, there was no hesitation:

"This," he said, "I want." And after using Trekker his initial reaction was more than confirmed:

"I love it, pure and simple... I don't usually get this high on a product, but Trekker really deserves it. It's tremendous!"

Your own personal guide

Trekker is HumanWare's revolutionary new travel tool for the blind that uses GPS, talking digital maps and talking menus to provide real-time information on surroundings and pinpoint user location — like having a personal guide on hand.

Operating on the highly accessible and flexible HP iPAQ Pocket PC, the compact, lightweight Trekker system is comfortably worn over the neck or shoulder on a supplied strap. As you walk along with your white cane or guide dog, Trekker keeps pace with you, announcing street names, intersections, addresses, stores and businesses, restaurants and area attractions as they come. The search function can also be used for an exhaustive database of point of interests.

Lost your bearings for a moment? Press the "Where am I?" key to pinpoint your position. Trekker will even advise you if you turn into a dead end. Got a comment? Activate the onboard mike and speak a quick note for future reference, or enter it in Braille on the touch-screen.

Expands the freedom to explore

Obviously the high-tech but friendly Trekker is a boon when entering an unfamiliar area, like on a business trip. But it also increases accessibility and enjoyment of the most useful and interesting opportunities in your own neck of the woods.

"My wife and I love to walk and to try different routes," explains Wakefield. "But we don't have talking signs here, and in the suburbs it is not always easy to find another pedestrian to tell you what street you're on. With Trekker we never get lost, so we go exploring in areas we probably wouldn't otherwise. My wife says it's like having your own talking signs."

Trekker performs non-intrusively

Trekker also accompanies Wakefield on familiar routes, such as his mile-long walk to and from the office. Trekker keeps him automatically and continuously advised of where he is on the route, freeing part of his attention to consider the day's schedule or other matters.

"You always know where you are. That means you have one less thing to worry about. It's also non-intrusive. It talks to you but you're not required to answer back," he said.

At a glance

- **Company:** HumanWare
- **Headquarters:** Montréal, Canada
- **Founded:** 1988
- **Size:** 70
- **Telephone:** 819.471.4818
- **URL:** www.HumanWare.com
- **Primary business:**
HumanWare is the leading innovation firm in providing high-tech solutions for the blind and visually impaired. HumanWare is the world leader in digital audio book solutions for the print disabled. It develops and manufactures the Victor Reader line of hardware and software audio players. HumanWare is also the leader in the adaptation of software products for French-speaking countries. HumanWare is the largest distributor of computer aids for the visually disabled in Canada.

The clip-on speaker position and volume are adjustable and Trekker can be set to do its job while remaining discreetly in the background. This adds up to what the Wakefields have dubbed a "subtle" quality they both appreciate.

Virtual touring

Wakefield cites Trekker's Browsing Offline mode as a major advantage. Using this feature you can explore an area to be traveled while in the peace and quiet of your home, hotel room, or wherever. Among other things, this allows you to organize your route ahead of time, avoiding potential problems.

"With the off-line browsing feature, I can virtually tour an area before traveling it. If I'm going to run into an intersection with seven different streets, I want to know about it beforehand. Trekker lets me plan my route in advance," Wakefield explains.

Trekker delivers the goods

Trekker is a full-featured standalone orientation product for the blind with a low acquisition cost. It is the first GPS based product to offer digital maps to the visually impaired in a fully portable application.

Wakefield notes that many technological aids for the blind end up "simply occupying shelf space" after purchase because they don't work right. Not so with Trekker, says Wakefield. "Trekker definitely works! It really does."

Another aspect that Wakefield finds particularly gratifying is Trekker's speech synthesis quality. "I was very surprised and pleased when I heard the voice," he says. "It was much better than I anticipated."

Why HP

Trekker's digital maps are provided by Navigation Technologies and are similar to those used in car navigation systems — except it's hard to fit a car in the palm of your hand. The Trekker system, operating with the iPAQ Pocket PC from HP, weighs in at mere 600 grams (1.3 lbs).

The HP iPAQ Pocket PC was chosen for the Trekker system for the following advantages:

- Excellent accessibility, efficient keyboard layout, central navigation key required for Trekker and one-button recording
- Greater connectivity than the average Pocket PC, via USB or serial port. Most others offer GPS only on flash cards
- The right processing power for operating Trekker and flash card access
- Uses a standard platform, Windows CE, more flexible than a dedicated OS

"HP has demonstrated leadership in making technology accessible," said Yvan Lagacé, VP of Sales and Marketing at HumanWare. "They have provided strong support to HumanWare as we strive to make the HP iPAQ Pocket PC more accessible to the visually impaired."

Trekker gets you where you're going

Trekker provides information in the most natural way possible, with continually growing precision, and a wide variety of maps covering most Western countries. Maps can be bought online and downloaded,



Challenge

- To develop a fully portable talking system using cutting edge technologies that would offer blind persons the ability to instantly and continuously pinpoint their position and have a complete range of information in the context of their surroundings anywhere in the world.

Solution

- The Trekker GPS System based on an HP iPAQ Pocket PC and talking GPS maps. Total system weight: 600 grams (1.3 lbs).

Results

- Continuous position-feedback allowing greater confidence and new freedom
- Provides information on street names, intersections, addresses and points of interest in the context of user travel
- Allows virtual touring of an area for planning the most efficient routes in advance
- Allows recording of notes on points of interest
- Pleasant, non-intrusive spoken information.

or ordered and delivered on CD or Compact Flash™ cards. The system employs off-the-shelf hardware for GPS input. Trekker is fully upgradeable, so it can expand to accommodate new hardware platforms and more detailed geographic information.

In addition to its many orientation advantages, the system is just plain fun to use. The Wakefields maintain they never go out without it. Trekker's maker, HumanWare Inc., describes the system as a complement to the traditional tools of white cane and guide dog.

For more information on how working with HP can benefit you, contact your local HP service representative, or visit us through the Internet at our world web address: <http://www.hp.com>