

Ability Newsletter

Product and Service News

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Head control options

Ability test results

Ability staff have recently undertaken detailed in-house comparisons of the three main head-pointing systems currently available: the **HeadMouse Extreme**, **Tracker One** and **SmartNAV 3**. These tests were conducted in a range of circumstances.

What did we find? The full results are available in an Ability Research Report (email us for a copy). But some of the highlights are as follows:

- * The **SmartNAV** has improved its performance indoors, even next to windows, but does not work outdoors, even in the shade. The other two work in all situations we tested.
- * The **Tracker One** has the smoothest operation of the three.
- * Only the **SmartNAV** comes with software that provides dwell-clicking and a host of customising options. The other two are "plug n play" but you may need extra software.
- * The **SmartNAV** can operate from up to 3 metres - twice the range of the other two.
- * The **SmartNAV** can only be used on a computer, whereas the other two can also be used on dedicated communication devices.
- * In general, each device is effective. They all offer USB connection and high accuracy.

There is also a considerable variation in cost: **SmartNAV \$495**, **Tracker One \$1550** and **HeadMouse Extreme \$1934**.

Mouse Options

Switch-Adapted Trackball

Novitatech in Sth Australia will modify a trackball of your choice to enable control by switches. The cost is \$45, which doesn't include the cost of the trackball or the switches.

The pictures shows a KidTRAC trackball with three switches, for control of the left click, right click and click-drag functions of the trackball. The colour of the switches has been matched to the colour of the KidTRAC buttons.



SAM Joystick from RJ Cooper

This joystick comes with click, double click and drag switch inputs. It also comes with *Joystick-to-Mouse* software.

It costs US\$199 plus shipping from RJ Cooper.



X-Arcade Game Controller



Can be used as a mouse or to control games on PC, XBox, PlayStation 1 or 2 or Dreamcast. Dual joystick model also available. Unit costs \$236.50 (\$356.40 for dual joystick) plus game device adaptor (\$45.10 each) and PS/2 to USB adaptor (\$65). Switch-adaptation available for \$45.



Software

Clicker 5 New version of popular program

Clicker 5 is the latest version of the Clicker program, which some of you may be familiar with. Clicker is an onscreen keyboard with speech. Each key (or cell) can hold a letter, word, phrase or picture. When you click on a cell in a Clicker grid, the text and graphic in the cell is sent into the built-in word processor or alternative word processor (if using the Windows version). Cells can also speak their text using the built-in software speech, and you can record your own voice directly into a cell. The grids can be customised (created from scratch) and there is a large internet community that shares grids from around the world (called Learning Grids). The latest features include:

- Realistic UK English Speech, with text highlighted when spoken
- PopUp grids
- The ability to search 'Learning Grids' from within Clicker
- Master Grids – edit more than 1 grid at a time
- Clicker Explorer for managing grids
- Improved editing mode
- New picture library
- Support for MP3 sound files and MPEG video files

The cost is \$279 from Ability.



Jigworks Puzzles for all ages

We have recently been asked to work with a client (22 year old man) to develop their ability to use a switch scanning process to access a computer. Unfortunately we ran into a small problem – finding age and gender appropriate switch training software. In my research I found Jigworks. While developed with children in mind, this program enables you to develop customised activities. There are a couple of activity options – jigsaws, shape matching and labelling objects. Using this program I was able to develop graded jigsaws (6, 9 and 15 pieces) using pictures of my clients rugby team (Canterbury Bulldogs). So far it has proven to be a great motivation for him. There is one downside though, I have found that the user guide is not really that useful, and for most users you will probably need to also purchase the Jigworks Training Booklet (an extra \$42.90). Price: \$149



Software

Co:Writer Solo

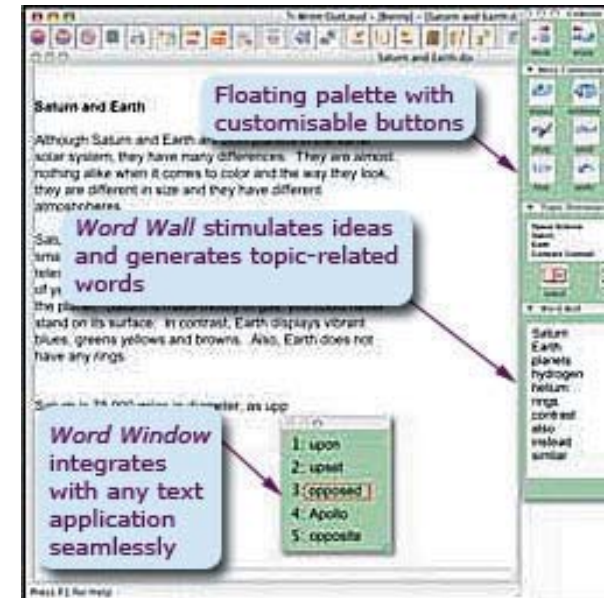
A linguistic word prediction program that can be used with any word processing or e-mail program. It provides vocabulary, spelling, composition and revision.

- FlexSpell provides support for phonetic spelling patterns, accommodates users who spell words like they sound
- Topic Dictionaries provide users the supports they need to write what they know and what they're learning. Hundreds of topic dictionaries are included. Topic dictionaries can be created by the user.
- Profile Wizard helps educators modify and customise the way information is presented to each user.

Unlike the older version of Co:Writer, Co:Writer SOLO gives you greater flexibility in the style of word prediction window you wish to use. The options are:

- Word Window – sentences are written directly into a text document, and a word prediction box appears.
- Sentence Window – a sentence and word prediction are in a separate Co:Writer window. When the sentence is finished (using punctuation, ie, fullstop) it is entered in the text document.
- Paragraph Window – similar to sentence window, but sentences will not be sent to the text document until you select the 'Send Text' command. This means you can write several sentences at a time.

The cost is \$525 from Ability.



Australian RealSpeak Voices Bonza mate!

textHELP Read n Write programs now come with RealSpeak voices, including new Australian voices (you can hear samples of these at: www.scansoft.com/speechworks/realspeak/languages/)

Handheld options

Voice Dialing

This program by VoiceSignal allows you to place calls on a Treo 650 by voice. The Treo integrates your Contacts with the phone function, so this software enables you to call anyone in your address book. For instance, you could say "Call Bob Jones at home". Or you can speak the digits to call any number. The software is described as "speaker independent" but we have not tested it with Australian voices. The new version 2.0 of the software costs US\$19.99.

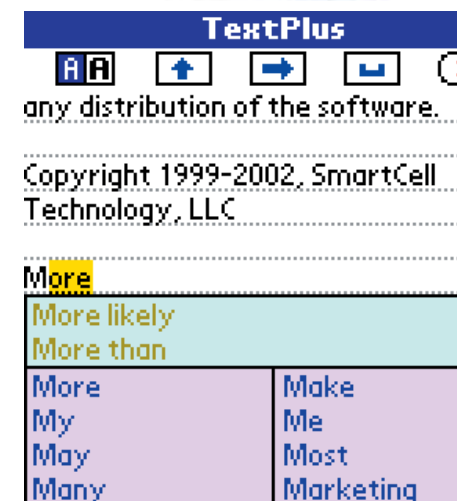
The same technology is incorporated into phones such as the Samsung SPH-A800, Motorola A840 and Nokia 7610.



TextPlus word prediction for Palms

TextPlus offers predicted words and phrases in any Palm application with text fields. You can customise where the window appears and how many guesses it makes. You can create your own "abbreviation expansion" with the TextPlus Editor. It incorporates a frequency-based intelligent search engine. Works with Graffiti handwriting recognition or keyboard input options.

The cost of the program is US\$19.95



Using handhelds for portable speech recognition

It is possible to use a Palm or Pocket PC device as a portable recorder when using Dragon Naturally Speaking speech recognition software. You train a user by nominating the particular device as the input device. At least 12 Mb is required for storage. It can take up to 60 minutes for voice adaptation. A restricted command set is available for mobile recording. The dictation files are then transcribed to the computer and corrections made.



ECU

Sicare Light II With a heavier price

The new Sicare Light II provides a basic voice or switch controlled ECU option. It replaces the Sicare Light, but somehow the price has almost doubled in the process (from \$1,110 to \$2,159). We find this strange, as the Sicare Light II uses the same chassis as the Sicare Pilot; one would have thought this would have reduced costs.

A device such as the Sicare Light II gives the user both visual (display) and auditory feedback. It comes with a large library of infrared codes. However you can train in your own codes from an infrared remote control - this is a major improvement over the previous model, where you had to send the device away to have any new codes installed. Codes are installed for the X-10 Infrared receiver, Rehaphone and many other devices. The device comes with set commands, which have included "DVD" but not "Door" or "Air Conditioner". Although you can use any command for any device, it will sound strange to say "Satellite On" to turn on your air conditioner.

We are awaiting a trial of the device, after which we can give you more information regarding its accuracy and performance.



Radio Frequency Identification Device

This is an innovative electronic security lock that combines secure entry with ease of use. The Radio Frequency Identification Device (RFID) technology means that no actual contact or card swiping is required as the lock will recognise an RFID card within a range of 100mm. The system can be expanded from a single standalone lock to a network of locks and administered from a central location. The reader is splash-proof and can be used in a sheltered outdoor environment. Cost is \$199.



Other Technology

Global Positioning System (GPS)

The following story from a client might interest some of you. He has a brain injury:

I was working in the Transport Delivery Industry. It was a "pressure cooker" environment, where time was the essence. I used a large laminated map of the Sydney Region, to mark each of the delivery pick-up & drop off destinations. This allowed me to determine the order in which to calculate my route. I then used the UBD to actually navigate the route.

When I actually commenced the journey, I was continuously looking at the UBD, because I just couldn't remember where to turn etc.. This was incredibly frustrating because I constantly lost my place on the map because of the driving. Inevitably, this became a major hazard on the road as I lost my focus on the driving, & wound up driving into several other motorists. At one stage, this led to me being refused Comprehensive Insurance, because of the number of claims that I made where I had "run into" another Motorist.

My then EDO organised for me to trial a Satellite Navigation System. All I had to do was program the Street number, name, & Suburb, press "route to it", then the System would give me visual AND verbal directions for my route. It took me to within 20M of my desired destination. If I missed a turn, or the road was blocked, it would instantly re-calculate a new route within seconds. During the time I had the navigation system, I made only 1 Insurance claim ! Its speed & efficiency brought me near the top of the 150 Car fleet in terms of productivity. It also made me into a much safer & confident driver, as 100% of my focus was on the road, & not on the UBD on the passenger seat.

Wireless internet access

We recently tried several systems to enable us to access the internet when undertaking our trips. Our first attempt involved using a Palm Treo 600 as a modem for our laptop computer. This involved connecting through Telstra's GPRS system. A simple call to check a few emails end up costing over \$70! It was also painfully slow. We decided to look further!

We had much better success through "wireless hotspots". These are now available at some restaurants, hotels and McDonalds restaurants. A similar session from a McDonalds restaurant cost \$9. When in NZ recently I was able to access hotspots through NZ Telecom for a minimal fee.



Ability News

Training Seminar - Assistive Technology

These seminars are proving very popular with health and education professionals. The next one is scheduled for **16 September 2005** and will cover all aspects of computer access (including speech recognition). The seminars go for a full day and include a quality lunch. Places are strictly limited - call the office very soon if you are interested.

Internal Procedures

We have undertaken significant internal changes to keep our operation efficient and streamlined. These include a *Microsoft Sharepoint* information network.

University course

This is exciting! Staff from Ability Technology are set to conduct a Professional Elective one semester course in assistive technology for final year Occupational Therapy students at Sydney University. The course will commence in 2006.

Projects

We have recently completed a project for the State Government regarding IT for seniors.

New staff

We welcome Lucy Acheson to our occupational therapy staff and Jeffrey Taylor to our technical team. We have had one OT student placement and are about to commence another.

Trips and Talks

Graeme Smith presented the opening address and a paper at the Assistive Technology Alliance of New Zealand (ATANZ) annual conference in Wellington in July. He has been invited to present two papers at an assistive technology research forum in Singapore in September 2005.

Other recent (more local) trips include Kincumber, Coffs Harbour, Bowral, Toowoomba and Cairns.



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