

## Product Evaluation

### The First Accessible Windows-Based Notetaker: A Review of the Braille Note

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Certainly one of the most interesting new products to arrive on the assistive technology scene this year is the BrailleNote from Pulse Data International, distributed in the United States by HumanWare. A full-service braille-with-speech notetaker, this attractive unit began shipping in June. We spent some time with the BrailleNote and, as is typically the case with any new product in this field, we found many positive points, as well as some issues for concern.

The overall package is ergonomically designed and esthetically pleasing to both sight and touch. The unit is gray, and the braille keys are green. On the top surface of the unit, which measures 9.5 inches x 5 inches x 1 inch (the 32-cell model weighs 2 lb, 9 oz) are nine keys (representing an eight-dot braille keyboard plus space bar) arranged on a curve for comfort. At the front of the unit is an 18-or 32-cell refreshable braille display, and below that, on the narrow edge facing the user are four "thumb keys" used for progressing forward and back through documents and menus. The 18-cell and the 32-cell units each come in the same size case, and it is possible to upgrade from 18 cells to 32 cells. Above each braille cell is a touch cursor which, when pressed, routes the cursor instantly for ease in editing. Other physical features of the unit include a PCMCIA slot (through which the optional disk drive accessory and other devices can be attached), serial port, parallel port, modem connection, AC adapter, earphone jack, and infrared port. The BrailleNote also includes a rechargeable nickel metal hydride battery.

For a braille user, an initial test drive of the BrailleNote is both fun and intuitive. It is built on the Windows CE operating system—the "brains" behind Pocket PCs such as the Hewlett-Packard Jornada 690, reviewed elsewhere in this issue. The BrailleNote offers quick response and access to most basic computing functions in a small package. Word processing, an appointment calendar, an address book, and access to E-mail are the highlights of this notetaker, and most proved relatively easy to activate. Users of the KeyNote or other HumanWare products will recognize the KeySoft suite of applications with its proprietary KeyWord word processor, KeyPlan appointment calendar, and so on. Although the fact that these applications are proprietary could be a drawback, KeyWord files can be converted and exported to be read as Microsoft Word documents on another computer, and Word documents can be imported and read as KeyWord files. One important distinction about the BrailleNote, however, is that although Word files can be imported and read easily, no conventional Windows programs can actually be loaded and run on the BrailleNote.

Composing on the BrailleNote is a real treat for the rapid typist, accustomed to losing characters or running words together on other notetakers. The speech is another pleasant surprise—delightfully clear and crisp when heard either through the unit's own speaker (approximately 2 inches wide on the top of the unit) or through the provided headphones. The speech quality is high enough to make listening to lengthy documents or books tolerable. One quirk is that the speech synthesizer has its own abbreviations dictionary, which cannot be edited. (So, for example, when you write "St. Louis" the BrailleNote says "Street Louis.") Speech and braille are independent of one another, so that one or the other or both can be active at any time. We found working in all three modes completely satisfactory.

The BrailleNote is menu driven, with quick access to all menus available from anywhere within the unit. For example, if you are in a word processing document and want to insert an appointment, the calendar is just a few keystrokes away. Action menus and commands within various functions are often issued by key combinations, or chords, involving holding down some of the braille keys along with the backspace or space bar; other functions are activated using combinations of the four thumb keys.

The online manual is easy to use and can be accessed quickly by holding down the letter o and pressing the letter u from any

application. You are then given the choice of Table of Contents or Index. Once a choice is made, you can easily zip through the topics listed, respectively, by chapter or alphabetical listing. If you have already accessed the manual, you will first be asked if you'd like to continue reading where you last left off.

Although moving through action menus and sets of instructions in the BrailleNote is relatively straightforward, we did find the inconsistency of methods somewhat disconcerting. In some instances, the space bar advances through a menu. In others, the Enter key is required. In some places, we were stuck for some time until we realized that the dots 3-4-chord (dots 3-4 with the spacebar) was required for going forward. On the other hand, help (the letter h plus the space bar) is available throughout BrailleNote's functions, and was generally useful and reliable.

## You've Got Mail

One of the most appealing features of the BrailleNote is its capacity for sending and receiving E-mail, including messages from Windows-style accounts accessed using Microsoft's Outlook or Qualcomm's Eudora. The unit is equipped with an internal "soft" modem, as well as the option of connecting a PCMCIA modem or external modem to the serial port.

By switching over to the online user's manual, selecting Index and then KeyMail, we found step-by-step instructions for establishing a dial-up connection that were both easy to follow and effective. Within a very short time, we were able to attach the BrailleNote's modem connection cable to a phone line and hear the gratifying sounds of dialing and a solid modem connection through the BrailleNote speaker.

Although establishing the connection was refreshingly simple, it did take a bit of work to set up the system to send and receive mail. Once done, however, the E-mail capability of this notetaker is a real plus. The usual array of E-mail functions are available here—replying, forwarding, sending, and receiving attachments. We experienced difficulty, however, in copying E-mail messages to the external disk drive for transporting to another computer.

## Taking Notes

Writing on the BrailleNote is a pleasant experience. The feel of the keyboard is solid, though the keys are noisy. BrailleNote does not drop letters or dots, even when you type very quickly. The presence of a Backspace key and an Enter key means faster typing and fewer multiple-key commands. Speech rate, pitch, and volume can be adjusted from the keyboard without using a menu.

Some of the BrailleNote's speech review and edit commands will be familiar to users of other notetakers. However, the BrailleNote's default is insert mode. So when you find a typo, you can simply type the correct character and it will be inserted on the spot. When you give the command to delete a sentence, paragraph, or other large block of text, the BrailleNote asks if you are sure you want to do that. This useful feature prevented us from deleting important information a few times.

The Key Announce feature lets you review BrailleNote commands quickly. The context-sensitive help is very effective in the word processor and throughout the BrailleNote. The spell checker works well; you can review the misspelled word with speech or braille and choose typical spell-checking options from a menu. The BrailleNote has a limited spelling dictionary and does not recognize many technology-related words, including its own name.

The BrailleNote can import and read Word 2000 and WordPerfect 5.1 files. There was a serious problem with the Save command during our testing, so we were unable to save files in formats other than the unit's default KeyBraille format. Files could be converted and exported in other formats through the file manager.

Block commands are easy to use and effective. It was surprisingly easy to copy a name and address from a file in the word processor and paste it into the address book. A handy feature is the "Read Block" command, which does just that. However, there is no indication on the braille display of where the text you have selected in a file begins or ends.

## Getting the Word Out

It was simple to set the BrailleNote up to emboss and print documents. The BrailleNote's menus lead you through the process of establishing communication with your embosser or printer. The BrailleNote we tested came with a serial cable to connect to its standard serial port, and it worked with the parallel cables that came with our Port-a-Thiel embosser and HP laser printer.

The braille translator is problematic. It does some nonstandard things, such as leaving a space between the words "to" and "by" and the following word.

## Planning Your Life

The KeyPlan planner lets you schedule, reschedule, and set alarms to remind you of appointments. You are simply asked to enter the day, time, and name of an appointment, and you are then asked whether or not you want to set an alarm to remind you of that appointment. Appointments are stored and can be reviewed, in chronological order by appointment, no matter what order you schedule them in.

Here, as in some other places in the BrailleNote, you access the Appointment menu by pressing the spacebar with dots 3 and 4, rather than with some more easily remembered command.

## Little Black Book

The KeyList address list lets you maintain your phone book of contacts. Data entry is straightforward. The address list is used for the KeyMail function.

When we opened the KeyList menu and were instructed to "Look Up Address," we were perplexed and even speculated that this option might perform two functions. Extensive testing showed that its only function was to find someone's contact information in the address list.

## Backing Up Your Work

Backing up your data is an essential function that we all promise ourselves we will do once we have lost a bunch of important files. The BrailleNote includes a backup utility that makes this process relatively painless. One 20-MB backup disk is included with the unit. Additional disks can be purchased at computer stores and must be preformatted, since the BrailleNote currently cannot format them. You place this disk in the disk drive, choose the Utilities menu, and choose Backup Files. As in a few other places, the BrailleNote then asks you an ambiguous question: "Do you wish to backup or restore files?" The answer here is not "yes" or "no." It is "B" for backup or "R" for restore. If you choose Backup, you are prompted for the drive and folder to be copied. The default is to store files in a folder with the current date as its title. Backing up and restoring both worked well.

## Remote Possibilities

The BrailleNote can function as a speech synthesizer or braille display with a Windows-based screen reader that has the appropriate driver. We used it with Window-Eyes and it worked well in both capacities. It is still possible to look up a phone number or schedule an appointment while the BrailleNote is functioning in either of these modes. The unit did have a narcoleptic problem, however. While operating as a display or synthesizer, it "went to sleep" after a short time. It was necessary to hit a key to wake it up.

## Braille Lite or Flight?

With only one other significant competitor in the braille-with-speech notetaker department, this review would be incomplete without a few comments regarding differences and similarities between the BrailleNote and the popular Braille Lite from Blazie Engineering/Freedom Scientific. The similarities, of course, are readily apparent.

The units are similar in size and weight. Both sport speech and refreshable braille displays. Although neither aspires to replace a full-blown computer, both offer a considerable array of capabilities in a very portable package. Specifically, both include word processing, appointment tracking, the ability to import and export files, and the capacity to load, store, and read entire books. Both enable the user to read files in either ascii text characters or Grade 2 braille.

There are, however, some significant differences. Most noticeable are the ability to type rapidly and the superior quality of speech. Listening to books or other lengthy documents with BrailleNote's speech is a considerably more comfortable experience than with the tinny squawk of the Braille 'n Speak line. On the other hand, in a classroom or meeting, the Braille Lite's virtually silent keys render the user relatively unobtrusive, whereas the BrailleNote keyboard has a decidedly "clacky" noise level. Touch cursors, a tremendous plus in reading and editing files, are available only on the larger 40-cell models of the Braille Lite. In the BrailleNote, touch cursors are present in both 18- and 32-cell models. Both Braille Lite and BrailleNote offer fairly simple interfaces for printing and embossing files. Only the Braille Lite offers a stop watch and the ability to display the time when powered on. Only the BrailleNote has an internal modem and quick, easy facility for sending and receiving Windows-style E-mail. Although both notetakers offer a calendar function, Braille Lite's Datebook function is painfully slow and cumbersome, and we found the BrailleNote's KeyPlan option refreshingly quick and efficient to access. Only the BrailleNote can import and read Word files and WordPerfect 5.1 files. The Braille Lite is available in many languages, including Spanish, French, and German, but the BrailleNote speaks and properly displays only English. The BrailleNote has standard ports and slots, but the Braille Lite's ports are proprietary.

Finally, of course, every notetaker shopper will want to compare prices. The Braille Lite 2000 (18-cell) costs \$3,395, and the Braille Lite 40 2000 costs \$5,495. The price for the BrailleNote 18 is \$3,395, and the BrailleNote 32 costs \$4,995.

## Manufacturer's Comments

"Pulse Data International is working to fix the "save feature" and is working on a less noisy keyboard.

"Having a modern operating system on which to build a product makes all the difference, not just for today's product, but for the options that can be added. One example is the ability to use ActiveSync, which is a standard Microsoft utility that lets you easily exchange files from your PC. By plugging the BrailleNote into your PC, ActiveSync displays the BrailleNote as another disk drive, so moving, copying, and sharing files is as easy as accessing a floppy on your computer. The really exciting news is that BrailleNote's Windows CE platform marks the beginning of a technological revolution in our industry. At Closing the Gap, Humanware introduced the VoiceNote, which has all the same functionality of a BrailleNote, but without the braille display, and with your choice of either a braille keyboard or a QWERTY keyboard."

## Product Information

Product: BrailleNote.

**Manufacturer:** Pulse Data International Limited; phone: 64 3 384 4555; E-mail: sales@pulsedata.com; Web site: www.pulsedata.co.nz. **U.S. Distributor:** HumanWare; 6245 King Road; Loomis, CA 95650; phone: 800-722-3393 or 916-652-7253; E-mail: info@humanware.com; Web site: <www.humanware.com>. **Price:** BrailleNote 18: \$3,395 plus \$45 shipping; BrailleNote 32: \$4,995 plus \$45 shipping.

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Play media braille typewriter The Perkins Brailler is a braille typewriter with a key corresponding to each of the six dots of the braille code, a. 4 Braille notetakers. 5 See also. 6 References. The first Braille writer machine was presented by Frank Haven Hall in 1892.[1]. The original Perkins Brailler was produced in 1951[2] by David Abraham (1896–1978), a woodworking teacher at the Perkins School for the Blind that was dissatisfied with problems of the existing technology.[3] The director of the Perkins School for the Blind, Gabriel Farrell, asked Abraham to create an inexpensive and reliable machine to allow students to more easily write braille. For starters, note taking apps can store your notes in the cloud and sync them across multiple devices. Zoho Notebook is one of the best free note taking apps you can find. It has a healthy array of features and is available on all major platforms (although as of this writing, the Windows version isn't freely downloadable; and you have to request a copy from Zoho). When you first create an account, the app encourages you to create a few notebooks, which appear on screen as notebooks with different images for their covers. Combining the benefits of KeySoft and braille literacy of a traditional note taker with the efficiency and power of a modern tablet. Driven by KeySoft, completely rewritten from the ground up to maximize the entire experience of modern users. TouchBraille – the most natural way to type braille on a touchscreen – virtually as fast as typing with 10 fingers on a keyboard. Find answers in product info, Q&As, reviews. There was a problem completing your request. Please try your search again later. All Product Information Customer Q&A's Customer Reviews. Our latest solution is the groundbreaking BrailleNote Touch, the first certified braille tablet providing Play Store access. Product details. Shipping Information: View shipping rates and policies. ASIN: B01MF8WNFX.

