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Using Braille2000: The Document Processing Edition

Overview

Braille2000 is a comprehensive tool for creating braille files and getting them embossed on a commercial embosser device attached to the computer. Braille2000 is designed for Windows98, WindowsME, Windows2000, WindowsXP, WindowsVISTA, and Windows7. It can also be used with Windows95 if certain extra conditions are met. Braille2000 will run on WindowsNT but embossing via WindowsNT is not supported.

Of the three editions, the Document Processing Edition is the most comprehensive, including all the capabilities of the Direct Entry Edition as well as a print-to-braille translator.

All editions of Braille2000 are Internet-aware. This includes a built-in tool for downloading new versions of Braille2000 itself and a private email tool called B-Mail™ that lets Braille2000 users exchange messages and files with each other and which is an ideal way for Braille2000 transcribers to submit their work to braille production centers.

This document discusses the main unique features of The Document Processing Edition. You should also have access to the following supplemental documents:

Using Braille2000: The Direct Entry Edition

An overview of braille file editing. All features of The Direct Entry Edition are included in The Document Processing Edition.

Transcriber's Guide to Translation Typing using Braille2000

An overview of the use of %-directives that can be inserted into a RTF document as an aid to braille formatting during translation.

Using Braille2000: The B-Mail™ Messaging System

An overview of the private email system known as B-Mail.

The basics

Braille2000 can translate print materials into braille when the print materials originate from plain ASCII text files or from files in Rich Text Format. These latter files often have filenames that end with .RTF. They are used by nearly all word processor systems that run under Windows, including Wordpad, Word, and Wordperfect. If you have these latter tools, you can use them to convert their own formats (such as .doc and .wpd files) to rich text, either by writing out new files using SaveAs, or by copying the text from one of these tools (and others) to the Windows clipboard.

Braille2000 can take ASCII text or Rich Text from files or from the clipboard. In each case, the print material is translated into nicely formatted contracted braille and becomes available for further editing within the Braille2000 system. The translator works well for prose. Do not use the automatic translation for music or mathematics, although you could translate the blocks of such works that are simple prose and then enter the non-prose parts via the six-key input mechanisms of Braille2000. (Print-to-braille capability for math is being developed.)

Don't Read Braille? Click to Configure

When Braille2000 starts up, you see an initial dialog box titled "Welcome". This box contains links to basic "how to use" information. One line at the top says "Don't read braille? Click to configure". Click this line if you don't read braille dots. This will show the User Characteristics dialog box. Click the item for "Not a braille reader" and then click the OK button. Doing this will cause Braille2000 to show files in the Print View (rather than in the Braille View). If you use a screen reader tool (such as Jaws or WindowEyes), use the "Not a braille reader" option. This dialog box can be accessed later via the Adjust button and the User option.

The Main Menu and the Control Panel

Braille2000 has a main menu, but it does not show across the top of the Braille2000 window. Instead, you get to the top level of the main menu by clicking on the Menu button. This button shows an icon of a knife/fork/spoon, with or without the word "Menu". In the main menu you will find listed all operations Braille2000 can perform. Frequently used groups of items can be accessed more quickly by using buttons within the Braille2000 Control Panel, which is a panel of items that sits at the left edge of the Braille2000 window, unless it is hidden. The main menu can also be navigated via the keyboard, beginning in the usual way by pressing and releasing the ALT key. You then press letter keys according to underlined letters in the various menu entries.

The "Control Panel" menu entry, located in the View submenu (reached either via the Menu button or via the View button in the Control Panel itself) toggles the display state of the Control Panel. When the Control Panel display state is "always showing", it sits at the left side of the Braille2000 window. To its right is a narrow strip of index tabs called the View Selector. To the right of the View Selector is the Editing Panel (the largest part of the Braille2000 window) where either braille cells or print text appears for editing. When the Control Panel display state is not "always showing", the Braille2000 window begins with the View Selector at the left and all the rest of the window is the Editing Panel. In this mode, there is a small knife/fork/spoon button in the upper left (at the top of the View Selector) which you can click to make the Control Panel appear temporarily as an overlay to the left part of the Editing Panel. You can then use a button in the Control Panel and after that the Control Panel overlay will vanish until you click the knife/fork/spoon button again. In this latter mode, nearly all the Braille2000 window is available for document content (larger on-screen cell sizes can thus be accommodated; this is great for transcribers with vision limitations).

Translating from files

Braille files (of several types) can be "opened". Print files are not "opened", but they may be "inserted" or "appended". (The reason they are not "opened" is because a file that is "opened"

should later be "saved", but that operation is not appropriate for print files: Braille2000 neither creates nor edits print files, it only translates them.)

To insert or append a text file (which is translated to braille on-the-fly), you need a target file into which to insert or append. To begin with a new such file, you should use the project management mechanisms of Braille2000:

If you are beginning a new title (e.g., a textbook transcription), click the New button and select Project. Give your new project a short unique name. Then click the New button and select Volume. This will open up an empty file for volume 1. If you already have a project started, and if it is not the current project (the current project's name shows at the top of the Braille2000 control panel), select the project by clicking the Open button and selecting Project. If you need to start a new volume file (for volume 2, for example), use New and Volume again.

If you do not want a new file using the volume numbering type of file name, click the New button and select Braille File. Specify the name of the new file via the "Name for new file" box.

If you want an unnamed editing area, click the New button and select Workarea. You don't specify the file name for an unnamed Workarea until it is Saved.

One way or the other, you need to a file workspace showing, perhaps an empty one, and you are ready to insert or append translated print text.

The "insert" and "append" operations are similar but complementary. "Insert" adds braille to the current file at the precise location of the "cursor" which is the blinking vertical bar. The cursor can be located anywhere, but it is common to put the cursor at the end of the existing text, if any, and then the operation is much like "Append".

The "Append" operation always adds text to the end of the current document, beginning on a new page of braille.

Both the Insert and Append operations are activated by buttons of the corresponding name located on the Braille2000 Control Panel. You will also find them in the main menu, in the File group. Both Insert and Append can operate on either braille files (no translation is performed) or on print files (which are translated to braille on-the-fly). The Append operation can also be performed on Workareas (things listed via the tabs of the View Selector), similar to Append for braille files, letting you combine documents.

The nature of the translation, whether contracted or uncontracted English, or Spanish, French, or German, is determined by the language attribute of the place in the target file (or workarea) where the translated material will go (at the cursor location in the case of Insert or Paste; at the end of the file in the case of Append). The default language is Contracted American English. To select a different language, click the Language button in the lower part of the Control Panel. At the time this is being written, "Nemeth" languages are not yet configured for print-to-braille translation.

When you append a text file, you will get a standard Windows "open" dialog box. You can select between two treatments of plain ASCII text files (Line-by-line or Simple Paragraphs) and one standard treatment of Rich Text files. The latter kind of file provides for more options, in that such text has style (italics, bold, underlined), font (Courier and Braille font names can imply special treatments), hard page breaks, and other controls that plain ASCII-files lack. The kinds

of files being considered here are not markup files, such as HTML, XML, or SGML. For those types, see "Translating from the clipboard".

The different file types have some translation options. You will find an "options" button at the bottom of the open-type dialog box when you are inserting or appending a print file.

The typical translation operation involves the following acts:

- Click the New button and select Volume (creating an empty target file) or
- Click the Open button and open an existing braille file
- Click the Append button and select Print File
- Select the type of print file (via "Files of type")
- Use the "options" button (at the bottom of the Open-type dialog box) to adjust options
- Select the print file you want to translate (via the Open-type dialog box)

Translating from the clipboard

Most people don't realize that the clipboard often carries Rich Text. If the source of the clipboard "copy" operation is a word processor or is Internet Explorer, then the clipboard will contain Rich Text. And by pasting this text into Braille2000, the various attributes (style, font, page breaks, etc.) are made known and can be used to help produce nice braille. Some Windows tools will just put ASCII text on the clipboard. Braille2000 can use that too, but it won't have the added text attributes.

To insert translated material using the clipboard, you use any Windows tool as the source of the text. Highlight the material and Copy it to the clipboard. You then turn to Braille2000, click the Menu button, and navigate through Edit, Special, Paste, to Print-text. This will translate the clipboard to braille and paste that into the current document at the location of the cursor.

As a convenience, the special paste option is available by right-button clicking on the Paste button. You then select Print-text from the popup menu. As when translating from a file, there are some translation options and these can be displayed via the Print-text Options entry, found both in the popup menu (reached via right-button click on Paste) or through the main menu, at Edit, Special, Paste, Print-text Options. See "Print View" below for additional capabilities.

The typical clipboard translation operation involves the following acts:

- Copy print text onto the clipboard (in your word processor program)
- Click the New button and select Volume (creating an empty target file) or
- Click the Open button and select an existing file as the target file
- Set "options" (right-button click the Paste button, select Print-text Options)
- Paste (right-button click the Paste button, select Print-text)

A note about the Paste button

In the Braille View (when seeing braille cells), clicking the Paste button in the normal way (i.e., left-button click) pastes *braille* text from the clipboard into the document. This is part of cut/copy/paste operations on material that is already in braille form. Doing this when the clipboard contains print text will **not** translate that text to braille. To translate from the

clipboard, you need to right-button click on Paste and select Print-text. Or you can traverse the main menu through Edit, Special, Paste, to Print-text.

In the Print View (when seeing print text), clicking the Paste button in the normal way (i.e., left-button click) pastes print text from the clipboard into the document, translating it to braille. This is part of cut/copy/paste operations on material that is in print form. You can also use right-button click on Paste and select Print-text to paste in translated print text.

A note about Microsoft WORD

Some word processing programs, especially Microsoft WORD, lock each document file that they open. The lock prohibits any other access to the document text. This means that while a given RTF file is open in WORD, it cannot be accessed via the Insert or Append functions of Braille2000. To use Insert or Append you must first close the document in WORD. Note the advantages of passing print data to Braille2000 via the clipboard: the document may remain open in WORD and you can select a part of the document to translate to braille (via highlight and Copy functions performed in WORD).

Automatic textbook page numbers

It is unfortunate that Word files and Rich Text documents do not encode the location of the soft page breaks. And lacking this data, it is not possible for Braille2000 to know where the print page changes take place. Thus, totally automatic extraction of page boundaries and page numbers is not possible using Word/RTF documents. But there is a substitute technique that works quite well, although it is not totally automatic.

Braille2000 will respond to special formatting directives added to the text of a Rich Text file. You can add the directives using the word processor of your choice. The directives can be placed just about anywhere in the document, either as lines by themselves or inline with other prose. The item you will want to add is **%pn=number** used for example as %pn=12. This directive should be placed exactly at the spot in the prose where the designated page begins. From this data, Braille2000 can prepare textbook format translations complete with page turn lines with page numbers. To have Braille2000 generate print page numbers and page-turn indicator lines, the print document must contain %pn= indicators and you must turn on the "Generate Print Numbers" option (reached via the Options button at the bottom of the Open-type dialog box when using Insert or Append, or via the Print-text Options menu entry when doing Special Paste).

Other %-directives exist. Their use is optional. The overall technique of adding directives to Rich Text files is called Translation Typing. That technique is described in a separate guide.

Translating from HTML, XML, SGML files

Braille2000 will ultimately have special understanding of publishers' standard XML files (not yet, there are no such files produced by publishers at this time). For other kinds of markup files, those for which Braille2000 does not have any detailed understanding, you can go a long way towards translating such files by using Internet Explorer to view the file.

First, if the filename does not end with .htm you should rename the file and specify the .htm ending. This tells Internet Explorer that the file contains HTML. Use this setting whether the file is really HTML or is actually XML or SGML. By double-clicking on the filename (which now ends with .htm), Internet Explorer will display the file. You should then highlight all or just the desired part of the text (in Internet Explorer) and copy it to the clipboard. Then paste it into Braille2000 using the technique described above.

The Print View

Although Braille2000 is a powerful braille translation tool, it does not produce "print files" like you find with other braille translation tools. The work product of Braille2000 is always a braille file, normally of the .ABT (Annotated Braille Text) type. As you read this section, keep in mind that Braille2000 only generates braille documents and that any print text associated with them has been derived from the braille, on-the-fly, via Braille2000's comprehensive reverse translator.

In the Braille2000 control panel, in the middle, you will find two adjacent square buttons, one marked "B" and one marked "P". These give you the Braille (B) or Print (P) view of the file. The Braille View shows the braille cells in the file (the braille text in the .ABT file that you Save). The Print View shows the same braille translated into print notation. You can switch from one view to the other at any time. Via the View button (and also via the main menu), you will find the "View As" submenu. It has choices for Braille, Print, and Dual. The "B" and "P" buttons are the same as the first two choices. The Dual choice divides the editing panel into two portions, with Braille View on the top and Print View on the bottom. You can edit in one panel and watch the changes that occur to the other panel. Translation from braille to print and print to braille is "live".

If you have selected "Not a braille reader" as your user characteristic, then files you open will show initially in the Print View.

All functions of Braille2000 are available in both the Braille View and the Print View. Supporting dialog boxes (such as for entering a running heading) take six-key input when invoked from the Braille View and typed input when invoked from the Print View.

When the Print View is active, input and editing is by typing. As you type or edit, the print text is translated to braille, inserted into the braille document, and then shown to you as print. The print text is arranged on the screen as *braille* pages, showing you exactly how the prose sits on each braille output page. That is, Braille2000 gently squeezes or stretches the print text so that it occupies the same space as the underlying braille, even though the braille is contracted (i.e., is not the same number of characters). You will notice positional changes to the text as you type. This is because incomplete words contract different amounts than complete words.

Everything you type in the Print View goes through two translations: print-to-braille (to generate that part of the braille document) and braille-to-print (to show the braille page layout in print notation). Braille is fundamentally ambiguous in certain situations and this makes full cycle translation difficult (print-to-braille-to-print, without distortion). Braille2000 uses state-of-the-art techniques to manage such ambiguities. If you find a situation in which what you type is not what shows on the screen, it is because of a failure to manage an ambiguity. Please report this to Computer Application Specialties Company so we can adjust the translation mechanism.

When in the Print View, the Cut, Copy, and Paste buttons work on print text. (When in the Braille View, those buttons work with braille text.) This means that you can Copy text to the

clipboard in any other Windows tool and then Paste that text into the Print View. It will show as print material, but by the time you can see it, it has also generated the underlying braille, and arranged it on the braille page. You can also send print material from the Print View to the clipboard and then paste it into your favorite word processor. (If you do this in the Braille View, it comes into the word processor as braille cells.)

Additional Information

The following brief guides are normally distributed with The Document Processing Edition of Braille2000:

Using Braille2000: The Direct Entry Edition

An overview of braille file editing. All features of The Direct Entry Edition are included in The Document Processing Edition.

Transcriber's Guide to Translation Typing using Braille2000

An overview of the use of %-directives that can be inserted into a RTF document as an aid to braille formatting during translation.

Using Braille2000: The B-Mail™ Messaging System

B-Mail is like E-mail, except that it is private to Braille2000. B-Mail is just the ticket for exchanging messages and braille files with other Braille2000 transcribers and Braille2000 production centers.

The Braille2000 CD disc contains a folder of instructional documents in .PDF format. This folder is called "Print Files". Various materials may be found on the Internet, at www.braille2000.com.

The "Help" and "?" buttons at the top of the Braille2000 control panel access a comprehensive on-line help library.

Support options are described in the on-line Help system. Click the "Help" button at the top of the Braille2000 control panel. In the Help window, view the Contents listing (click the Contents index tab). Open the "Support" group. Click on "How to request technical support".

