# Formatting Documents with a Braille DisplayWorkshop Outline

This document supports the workshop presented on September 28, 2019 by Jennifer Jesso and Jen Goulden on behalf of Braille Literacy Canada. For more information, contact info@blc-lbc.ca.

Please see the separate document on keyboard commands for a list of commands that corresponds with this workshop summary.

## Braille display functions and settings

### Cursor routing buttons

Cursor routing buttons are small buttons that are located directly above each braille cell. The number of cursor routing buttons corresponds one-to-one to the number of cells (e.g., an 18-cell braille display will have 18 cursor routing buttons). Pressing these buttons brings the cursor to that cell location, allowing one to navigate directly to a word or character within a document. In other applications, such as on the internet, the cursor routing buttons can be used to perform tasks such as activating a link.

### The Text Cursor (Insertion Point)

The text cursor, also called the insertion point or something the caret, is the point in the text that any editing will take place. For example, if you have created a document, read over it, and then wish to continue adding new content, it is important to make sure that the text cursor is located at the very bottom of the document, otherwise you will end up with text inserted somewhere in the middle of the existing text. A braille cell has six dots, but refreshable braille displays have eight dots. These additional two dots, which are called dots 7 and 8 and are located below dots 3 and 6 respectively, are used to show the cursor location. The cursor may be shown as dots 7 and 8 both raised on a Windows computer or as dot 8 in one cell and dot 7 in the next raised. The text cursor is shown as a blinking line between two characters for sighted computer users; those who use a braille display can also set the text cursor to blink, or can set it to be solid or hidden, depending on screen reader settings.

### Expand Word Under Cursor

When the text cursor is on a word and you have your screen reader set to display all content in contracted braille, that word can either be expanded into uncontracted braille or displayed in contracted braille. Having a word be expanded to uncontracted braille may be helpful if you are editing letters within that word, but it may hinder proofreading. Having a word remain contracted may make proofreading easier, but it may make editing individual letters within the word may be more difficult. If you have your screen reader set to display content in uncontracted braille, then you don’t need to worry about this setting.

### Changing Braille Display Settings and Options

## Checking Formatting

Before we start formatting documents, we need to know how to check how it’s formatted and confirm that we’ve made the types of changes we want to make. There are a variety of ways to monitor and verify formatting while using a screen reader. The exact methods available will depend on the screen reader and word processor being used. However, all screen readers have at least some basic functions to check the formatting, and some include some advanced functionality for verifying that formatting is correct throughout an entire document.

## Showing Attributes

Screen readers have settings to show text attributes, such as bold, underline, colour, and so on, in speech and braille. On a braille display, if it is set to Unified English Braille, some screen readers use UEB indicators to display the formatting. In JAWS and NVDA on Windows, you can select exactly what text attributes you would like to be indicated or hidden. In JAWS, you can also indicate the dot patterns (using dots 7 or 8) that you would like to use to indicate these formatting changes.

You may not want text attributes announced or displayed all the time. If you don’t have text attribute display features turned on, you can still check the formatting at the insertion point with a specific command. In JAWS and NVDA on Windows, this command is INSERT + F. This announces and displays detailed information about the text and paragraph formatting. If you press this command twice quickly, you are placed in a virtual window where you can browse the information at your own pace.

### Status Cells

Status cells are a group of cells at either the left or right of the braille display that show information about the document you’re in or the text you’re on. They can be turned off if you would like to use the entire display for reading. In some types of documents, especially where you’re working with tables or long documents, they can be helpful for staying oriented by providing information about the current table row and column, for example.

### Text Analyzer

JAWS has a special feature called the Text Analyzer. This feature goes through the entire document and alerts you to inconsistent formatting. For example, if you have copied in text from another document with different formatting to the text used in your document without realizing it, the Text Analyzer will alert you to this fact.

## Formatting Text

There are two ways of formatting text. You can either decide on the formatting you would like to use before you type a word or paragraph. In this case, you would set up the formatting options the way you prefer and then start typing.

The other way to format is to type your text first and then go back and format it. In this case, if you wish to format font or character attributes (such as font face, colour, size, bold, italic, and so on) you need to select the text you wish to format first and then set the formatting options for that text. If you wish to format entire blocks of text, such as an entire paragraph or the page margins, then you do not need to select text, but you do need to make sure your text cursor is within the paragraph or other block of text you wish to apply formatting options to.

## Selecting Text

### Using Text Navigation

If you know how to navigate a document by character, word, line, sentence, paragraph, and page, then you already know how to select text. In many cases, you can just add shift to these commands to select text.

### Using Markers to Select Text (AJWS only)

JAWS includes a function called PlaceMarkers, which allow you to mark specific places in text to return to later. In the past, these have mostly been used to make navigating websites easier. However, recent versions of JAWS allow you to use a PlaceMarker to select text. To use this feature, you read through your text and place your cursor at the beginning of the point you wish to select, then insert a temporary placemarker where you would like the selection to begin. Then read through your text and fin the end point of the text you wish to select, and with your text cursor at that location, press a separate keystroke that will select the text between the placemarker you set earlier and your current position.

### Announce Selected Text

Once you’ve selected text, especially if it’s a larger block of text, you may wish to review it before formatting, just to make sure you’re about to change the right word or phrase.

### Copy, Cut, Paste

A large part of writing and editing a document consists of wordsmithing and ensuring your ideas come across clearly. If you want to rearrange some words, sentences, or paragraphs, you can do so by cutting, copying, and pasting text after you’ve selected it. The commands for cut (move), copy (duplicate), and paste (insert) text are specific to your operating system (Mac, Windows, iOS) rather than your screen reader. You will use the same keyboard commands as a mouse user would use.

## Basic Formatting

### Bold, Italic, Underline

Some basic formatting such as making text bold, italic, or underlined can be done with keyboard commands These keyboard commands are specific to the word processor program you use, not your screen reader.

### Text Alignment

Text alignment (whether text is left-aligned, centred, right-aligned, or justified) is also something that often has built-in keyboard commands. Again, these are specific to the word processor program you are using.

### Font and Paragraph Formatting

If you want to change the font or paragraph options, you will most often need to go into a dialog box or settings screen to adjust these. Within the font dialog box, you can adjust font type, style (bold, italic), size, colour, and other options such as strikethrough. Within the paragraph dialog box or settings screen you will be able to adjust things such as top, bottom, left, and right margins, indents, and spacing. These dialog boxes, there are usually access keys. So, you may want to tab through all options the first few times to learn what options are available, but learn the shortcut key for options that you use very often.

### Headings and Subheadings

Headings are very important parts of documents. In braille, a heading may be centred, indented a certain number of cells, or proceeded by blank lines to distinguish it from surrounding text. On a braille display, these layouts are lose. However, your screen reader can read and display the heading as long as it is indicated properly in the document. Headings will also allow a document to be navigated very rapidly and “skimmed” by using commands to jump from one heading to another, skipping any text in between.

Headings work in a ascending order from number one through six. A heading level one is a main heading, such as the title of a document. A headinglevel two is a subheading, such as a chapter title, and a heading level three is an even smaller subheading, such as the title of a section within a chapter.

### Navigating Headings

Once you have headings in your document, you can navigate them similar to how you would navigate a site on the internet. On Windows, you will have to press INSERT + Z if you are using JAWS or INSERT + SPACEBAR if you are using NVDA, which puts your screen reader into a read-only mode, so that you can no longer edit your document. (To get out of this mode, just press these same commands a second time.)

### Formatting Headings

One very nice thing about headings is that you can change the formatting of one heading and it will be reflected throughout your entire document. For example, if you have a document with four chapters, you might set each of those chapter titles as a heading level two. If at a later date you decide to make all chapter headings have a blue font colour instead of black, you only have to change this formatting once instead of four times.

## Spelling and Grammar

There are two ways of checking spelling in a document: as you type or by using a spelling checker. Most screen readers will make a sound effect or announce an error if you make an error while you type. While this doesn’t show up in braille, a braille display enables you to quickly read exactly how you’ve spelled the word and make any needed corrections.

### Correcting Spelling Errors

When you encounter a spelling error, both Windows (Microsoft Word) and many programs in macOS provide suggested for the correct spelling. In Microsoft Word, you will have to open a context menu to view these suggestions. In macOS, the suggests are suggested as you type, and you can use commands to accept or reject them.

### Spell Checker

A spell checker is a special feature within a program that checks the spelling of the entire document. It is either a dialog box or a sidebar and is usually navigated with the tab key, although there are often keyboard shortcuts as well. Often, it is easier to check spelling directly in a document rather than using a spelling checker.