# JAWS and Braille: A Closer Look

Presented by Matthew Horspool for the Braillists Foundation, Tuesday 6 July 2021 at 7:30 PM

## Objectives

This session will cover:

* Adding and selecting your braille display
* Choosing your braille code and grade
* Status cells and their use in structured mode
* Reversing panning buttons
* Panning by paragraph
* Using JAWS Braille In ™

## Adding and Selecting your Braille Display

### Adding a New Braille Display

This is done through the "Synthesizer and Braille Manager", which can be found in the JAWS "Utilities" menu. It can also be accessed through the "Braille Basic Settings" dialog, as follows:

1. Press JAWSKey+J, and then:
	1. If the JAWS Context Menu appears, press RightArrow or ENTER on the "Options" submenu.
	2. If the JAWS window appears, press ALT+O for the "Options" menu.
2. Press L for "Braille..." At this point, the "Braille Basic Settings" dialog should appear.
3. Press ALT+B for "Add Braille Display..."

Having followed these steps, or the equivalent through the "Synthesizer and Braille Manager", you will be presented with a list of braille displays.

1. Find your display in this list and, if it is not checked, press the SPACEBAR to check it.
2. If you would like more information about a display, TAB to the read only edit box.
3. When you are finished, press ENTER for the "Next >" button.
4. At this point you may be presented with a "Set Options for …" dialog. If this happens, choose the output port and press ENTER for "Next >".
5. Finally, you will be presented with a "Set Primary Device" dialog. Choose your braille display in this list and press ENTER for "Finish".

You will then be alerted that you need to restart JAWS for the changes to take effect.

### Changing your Braille Display

This is done through the "Braille Basic Settings" dialog discussed in the previous section.

On entering this dialog, the first control is a combo box labelled "Default Braille Display". Set this to the display you would like to use and press ENTER.

You should then restart JAWS for the change to take effect.

## Opening Advanced Braille Settings

These can be found in the "Settings Centre" under "Braille". You can access this by:

* Opening the "Braille Basic Settings" dialog and pressing ALT+A for "Advanced..."
* Pressing JAWSKey+F2, locating "Settings Centre", pressing ENTER, pressing CTRL+SHIFT+D for the default file, tabbing to the tree view and pressing B for "Braille"
* Pressing JAWSKey+6 to open the "Settings Centre" directly and proceeding as shown above

## Choosing your Braille Code and Grade

From the "Settings Centre", open the "Braille" item in the tree view and DownArrow to "General".

At this point, you can either RightArrow to open and DownArrow through the tree, or press F6 and TAB through. I recommend pressing F6.

N.B. UEB can be found under "English - United Kingdom" and "English - United States". There is not a separate item for UEB.

If you need to use 6-dot computer braille, e.g. to read a BRF file, choose "English - United States"/"Computer Braille" and then press ALT+8 to move to, and toggle, the checkbox "Display text in 8 Dot Braille Mode". Make sure this checkbox is unchecked.

When finished, press ALT+F4 and choose to save your settings.

## Status Cells and their Use in Structured Mode

There are up to five status cells in JAWS. The number is generally set by the braille display manufacturer and cannot easily be changed. If you do wish to change the number, look for "UseHowManyStatusCells" under your braille display in default.jcf (user settings).

The top six dots of the status cells generally show, in order:

* Cells 1-3: the line number on the screen
* Cell 4: the cursor (PC, JAWS, Invisible, Virtual or braille)
* Cell 5: the braille mode (structured, line, speech history or attribute)

If there are three or fewer status cells, the line number is omitted. If there are four status cells, the braille mode is omitted.

The bottom two dots generally show how much text is missing on the display:

* Dots 7 and 8 up in all status cells: the entire line is shown
* Dots 7 and 8 down on the right: pan right to show more text on the line
* Dots 7 and 8 down on the left: pan left to show previous text on the line

When navigating through dialog boxes, the status cells by default show the type of control, e.g. "btn" for button.

### Turning Off and Configuring Status Cells

From "Settings Centre", choose "Braille" in the tree view and RightArrow to open.

Press A for "Advanced" and RightArrow.

DownArrow to "Placement of Status Cells" and SPACE through the options. They are "Left", "Right" and "None".

LeftArrow to close "Advanced", UpArrow to "Structured Mode" and RightArrow to open.

DownArrow to "Include Optional Components" and RightArrow to open.

DownArrow to "Type". For the type to appear in status cells, this must be set to "On (in Status Cells)".

If this is set to "On", or status cells are set to "None", the type will appear in the regular braille cells.

When finished, press ALT+F4 and choose to save your settings.

## Reversing Panning Buttons

By default, the right (or down) panning button will move the display to the right, whilst the left (or up) panning button will move the display to the left. With panning buttons reversed, however, the right (or down) panning button will move the display to the left, whilst the left (or up) panning button will move the display to the right.

1. In "Settings Centre", find "Braille" in the tree view and RightArrow to open it.
2. DownArrow to "General" and RightArrow to open it.
3. DownArrow to "Panning" and RightArrow to open it.
4. Press R for "Reverse Panning Buttons" and check or uncheck it according to taste.

ALT+F4 and save changes when finished.

Note that, in this context, "panning button" refers to what JAWS explicitly defines as a panning button. This will vary depending on your braille display and its driver. You may further configure other buttons in the "Keyboard Manager".

## Panning by Paragraph

By default, JAWS will take a new line in braille every time there is a new line on the screen. However, it can be configured to only take a new line at the end of a paragraph.

1. In "Settings Centre", find "Braille" in the tree view and RightArrow to open it.
2. DownArrow to "General" and RightArrow to open it.
3. DownArrow to "Panning" and RightArrow to open it.
4. Press P for "Pan Text by Paragraph" and check or uncheck it according to taste.

ALT+F4 and save changes when finished.

## Using JAWS Braille In ™

As well as allowing you to use the braille keyboard of your braille display to type in contracted braille, with supported braille displays you can also emulate modifier keys. The table below shows the key presses required for the various modifiers – press this first, then press the key you would like to modify.

All modifiers include SPACE and DOT8.

|  |  |  |
| --- | --- | --- |
| Modifier | Focus | Brailliant |
| CTRL | 3 | 3 |
| SHIFT | 7 | 7 |
| WINDOWS | 4 | 1 |
| ALT | 6 | 2 |
| JAWSKey | 5 | 5 |
| INSERT | 2 | 6 |
| Function Keys | 1 | 4 |

You can combine modifiers. For example, to press CTRL+ALT+A, press the keystrokes for CTRL and ALT simultaneously, then press dot 1.

For the function keys (F1-F12), use the letters A-L following the function key modifier. This can be combined with other modifiers. For example, to press ALT+F4, press the commands for ALT and function keys simultaneously, then press dots 145.