

Using a Refreshable Braille Display with the iPad

Chapter 3: Manipulating Text with a Refreshable Braille Display

Objectives

- 3.1 Selecting Text
- 3.2 Copy, Cut or Paste Text
- 3.3 Using the Rotor to Cut, Copy, Paste, Highlight, Define or Create a Comment
- 3.4 Replace Misspelled Word

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Manipulating Text Overview

Students regularly manipulate text as they write and edit papers, do research, or study materials. Previously with traditional paper braille, braille students were unable to cut and paste text, create additional notes within a text, or copy and paste information from other sources. However, with digital materials, it is now possible to cut, copy, paste, and insert materials into a digital braille document. This section will demonstrate how to manipulate text using the refreshable braille display.

Commonly used Refreshable Braille Display Commands used to Manipulate Text

Delete; 1 + 4 + 5 + space (D Chord) or 7 + space
Enter; 1 + 5 + space (E Chord) or 8 + space
Select text to copied, cut, deleted or highlighted by characters, words or lines
(as defined by the rotor); 2 + 5 + 6 + space (Dropped D Chord)
Deselect text by characters, words or lines (as defined by the rotor);
2 + 3 + 6 + space (Dropped F Chord)
Select all; 2 + 3 + 5 + 6 + space (Dropped G Chord)
Delete selected text; 1 + 4 + 5 + space (D Chord) or 7 + space
Copy selected text; 1 + 4 + space (C Chord)
Cut selected text; 1 + 3 + 4 + 6 + space (X Chord)
Paste selected text; 1 + 2 + 3 + 6 + space (V Chord)
Undo; 1 + 3 + 5 + 6 + space (Z Chord)
Redo; 2 + 3 + 4 + 6 + space
Toggle show/hide on-screen keyboard; 1 + 4 + 6 + space
Toggle between contracted/uncontracted braille; 1 + 2 + 4 + 5 + space
(G Chord)

3.1 Selecting Text

Text must first be selected before it can be copied, cut, highlighted, defined, or to create a comment associated with the text (sticky note in the margin).

Select Desired Units of Text

To select the text, first navigate to the *beginning* of the desired text. Press 5 + 6 + space or 2 + 3 + space to adjust the rotor to the desired unit of text (characters, words or lines) that you would like to select. Press 2 + 5 + 6 + space (Dropped D Chord) to select the first unit you specified in the rotor. Press 2 + 5 + 6 + space multiple times to continue selecting multiple characters, multiple words or multiple lines. VoiceOver will say the selected text and the selected text is identified on the braille display by the dots 7 and 8. (Example: With the rotor set to Words and your cursor is at the beginning of the sentence, “The bald eagle has been the national emblem of the United States of America since 1782.” Pressing the Dropped D Chord 5 times will select the first five words in the sentence.; these five words will also display dots 7 and 8 to indicated that these five words are selected.)

TEACHER HINT: THE I-BEAM AND RBD CURSOR SHOULD BE POSITIONED *BEFORE* THE DESIRED WORD. WHEN YOU MOVE WORD BY WORD FORWARDS THROUGH THE DOCUMENT, THE THE I-BEAM CURSOR AND CURSOR ON THE BRAILLE DISPLAY WILL BE *AFTER* THE DESIRED WORD. MOVE BACKWARDS USING (3 + SPACE) TO POSITION THE CURSOR *BEFORE* THE DESIRED WORD.

Decrease the Amount of Selected Text

To decrease the amount of text that has previously been selected, press 2 + 3 + 5 + space (Dropped H Chord). Pressing the Dropped H Chord multiple times will deselect multiple units of text.

Select All

To select the entire document, press 2 + 3 + 5 + 6 + space (Dropped G Chord).

3.2 Copy, Cut, or Paste Text

Text must first be selected before the text can be cut or copied. See section 3.1 above for directions on how to select text.

Copy

Once the desired text is selected, press 1 + 4 + space (C Chord) to copy to the clipboard; VoiceOver will say the text which has been copied then the word, "Copied". The RBD will indicate the selected text by displaying dots 7 and 8 underneath the selected text.

Cut

Once the desired text is selected, press 1 + 3 + 4 + 6 + space (X Chord) to cut the text and place it on the clipboard; VoiceOver will say the text which has been cut then the word, "Cut". The RBD will indicate the selected text by displaying dots 7 and 8 underneath the selected text.

Paste

Once the desired text is selected and cut/copied, move the cursor to where you want to insert the text. Press 1 + 2 + 3 + 6 + space (V Chord) to paste the text. VoiceOver will say the text which has been pasted then the word, "Pasted".

Activity 3.2 Select, Copy and Paste

Use the Pages document A Fright On Carpenter's Peak for this activity.

1. Exit "Superhero Joey";
 - Move to top left corner of the screen; (L Chord)
 - Activate Documents button; (3 + 6 + space)
2. Select "A Fright on Carpenter's Peak";
 - Navigate to "A Fright on Carpenter's Peak"; (4 + space or drag finger to desired document)
 - Activate document (open textfield); (3 + 6 + space)
 - Pause VoiceOver; (P Chord)
3. Navigate by Lines;
 - Set Rotor to Lines; (5 + 6 + space multiple times)
 - Move to fourth line; (6 + space multiple times)
 - Move I-beam to beginning of line; (3 + space)
4. Select the first three words;
 - Set Rotor to Words; 5 + 6 + space multiple times
 - 2 + 5 + 6 + space (Dropped D Chord) three times
5. Cut the first three words; (X Chord).
6. Paste the first three words; (V Chord).

3.3 Using the Rotor to Cut, Copy, Paste, Highlight, Define or Create a Comment

Text must first be selected. See section 3.1 for directions on how to select text. The most efficient way to cut, copy and paste is to use the specific RBD commands listed in 3.2; however, you can cut, copy, paste, highlight, define or create a comment using the rotor.

Select the desired text, then set the Rotor to Edit (5 + 6 + space or 2 + 3 + space). Once on Edit, push the joystick down or use 6 + space to move forward through the Edit menu. Your options vary according to the app or the book publisher; not all choices will be available at all times. The possible options are:

Select All, Define, Cut, Copy, Paste, Delete, Replace, Highlight, Comment
Style

Once on the desired Edit option (such as copy), activate that option by pressing 3 + 6 + space. VoiceOver will say the selected text and then the action, such as “copied”.

Highlight will highlight the selected text in color. Some apps, such as iBooks, will allow you to choose the color of the highlight.

Comment, a new option in Pages, enables the user to select a unit of text and then to create a “sticky note” in the margin with additional information. The sticky note is connected with the selected/highlighted text. Comments can be created using VoiceOver but VoiceOver currently will not indicate when there is a comment and will not read the comment. iBooks has the same option; although, iBooks sometimes uses the term “notes” instead of “comment”. Notes created in iBooks are accessible with VoiceOver.

Activity 3.3 Select, Copy and Paste using the Rotor

Use E.O. Wilson's book "Life On Earth.

1. Exit "A Fright on Carpenter's Peak";
 - Move to top left corner of the screen; (L Chord)
 - Activate Documents button; (3 + 6 + space)
2. Go to the Home Screen; (H Chord).
3. Launch iBooks
 - Navigate to the iBooks; (4 + space)
 - Activate iBooks; (3 + 6 + space)
 - If another book is currently open, close the book by
 - Navigating to the Library button; (1 + 2+ 3 + space)
 - Activate the Library button; (1 + 3 + space)
4. Open E.O. Wilson's book "Life on Earth";
 - Navigate to "Life on Earth"; (6 + space or drag finger on the screen)
 - Activate book; (3 + 6 + space)
5. Select a line (chose any line in the book to copy) **This book does not have the rotor option of moving by lines.**
 - Select a line; (drag finger down the left side of the screen).
6. Set the rotor to Words; (5 + 6 + space)
7. Select text by words; (2 + 5 + 6 + space or Dropped D Chord).
8. Copy the desired text;
 - Set Rotor to Edit; (5 + 6 + space multiple times)
 - Move through the Edit menu to Copy; (6 + space multiple times)
 - Activate Copy; (3 + 6 + space)
9. Launch Pages;
 - Go to Home Screen; (H Chord)
 - Navigate to Pages in the next container; (4 + 7 + space)
 - Activate Pages; (3 + 6 + space)
10. Create a new Pages Document;
 - Exit previous Pages Document; (L Chord).
 - Navigate to and activate Create Document; (Drag finger and split tap).
 - Activate Blank Document; (3 + 6 + space).

11. Paste text: V Chord or

- Set Rotot to Edit; (5 + 6 + space).
- Move through Edit menu to Paste; (6 + space)
- Activate Paste; (3 + 6 + space)

3.4 Replace Misspelled Word

When Speak Auto-text is turned On, whenever a word is misspelled, the iPad will automatically underline the word and VoiceOver will say the misspelled word and “misspelled”. The iPad will often – but not always – give suggestions of similar words.

First, make sure that Speak Auto-text is turned On by going to:

Settings > General > Accessibility > Speak Auto-text; turn the Slider button On.

Open the textfield (3 + 6 + space) and navigate to the beginning of the misspelled word by setting the rotor to words or lines (see section 2.9 for directions on how to navigate using the rotor) or by pressing the Router button below the first character in the desired word. Select the desired word by pressing Dropped D Chord (see section 3.1 for directions on how to select). Set the Rotor to Edit (5 + 6 + space). Move through the Edit menu stopping on Replace (6 + space). Activate Replace (3 + 6 + space). If there are options, use the 6 + space or 3 + space to move through the word options. When on the desired word, activate by pressing the 3 + 6 + space.

Activity 3.4 Replace Misspelled Word

Use the same new Pages document.

1. Braille “I love doogs.” (Misspell the word “dogs”.)
2. Move the cursor to the beginning of the word “doogs”; (press the Router button below the “d” in dogs).
3. Set the Rotor to Words; (5 + 6 + space).
4. Select the word “doogs”; (Dropped D Chord).
5. Set the Rotor to Edit; (5 + 6 + space).
6. Move through the Edit menu to Replace; (6 + space).
7. Activate Replace; (3 + 6 + space).
8. If word option pop up, use 6 + space or 3 + space to move to desired word then activate word with 3 + 6 space.