

WritePad

HANDWRITING RECOGNITION TUTORIAL

WritePad Tutorial

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One: Program Overview

WritePad is a new text editor for iPhone and iPad that utilizes advanced handwriting recognition input for the English language as well as iPad keyboard for text entry, and includes a spell checker, context analyzer, and standard editing operations such as copy, cut, paste, etc. WritePad's primary handwriting recognition-based input method integrates with the text editor and is developed specifically for iPad. It recognizes *cursive*, **print**, and **mixed** handwriting styles. To enter the text you can simply write with your *finger*¹ on the iPad screen or using the input panel in either landscape or portrait mode employing your own handwriting style. It also allows easily switching between the handwriting recognition and the standard iPad keyboard.

In the beginning, the recognition quality may depend on your style and how comfortable you feel writing on the iPad screen with your finger; however the more you use it, the better it will become as the software will adapt to your patterns. In addition, you can use simple finger gestures to select text, cut, copy, paste, insert special characters such as space and return, invoke the spell checker for the selected word, correct recognized text, and more (see the *Using Gestures* section below for a complete list of gestures).

The **Shorthand** feature offers a quick and simple way to insert often-repeated text and performs standard editing commands by writing the Shorthand name and drawing a circle around it. You can add new or modified Shorthands using the Shorthand Editor.

With WritePad you can create text documents and store them on your iPad. The built-in HTTP server allows you to exchange documents between iPad and iPhone devices connected to the same WiFi network, or to upload documents onto the desktop PC using the Internet browser. You can also send emails directly from WritePad and use copy/paste to transfer text between WritePad and other applications. In addition, you can translate your documents to other languages, obtain the current location address, create an event, and insert contact information.

The WritePad Twitter client allows users to send Twitter updates directly from WritePad. It can also display the Twitter timeline and replies to your updates, making it possible to copy, retweet, reply to Twitter updates, and search Twitter.

Synchronization with Dropbox allows sharing of WritePad text documents with other devices and computers. If you don't have a Dropbox account, just touch the **Create New Account** button in the Dropbox Login window when you synchronize WritePad for the first time.

¹ You can get even better results by using a stylus for iPad Touch such as **AluPen** from just|mobile - <http://www.xtand.net/alupen.html>.

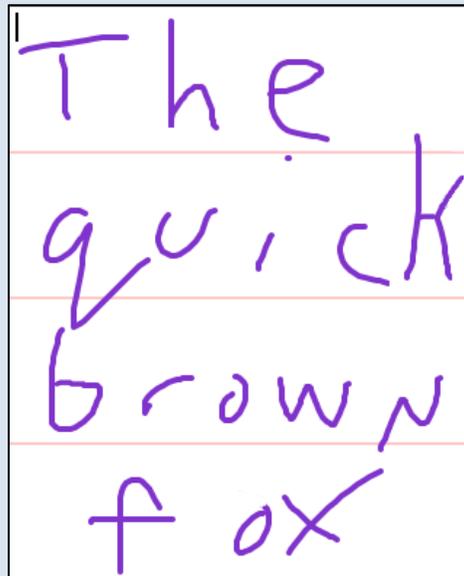
Two: Full Screen Handwriting Mode

This tutorial introduces you to some of the **WritePad** full screen handwriting recognition-based input method available on iPhone and iPad and how to use some 'gestures' developed specifically for iPhone and iPod Touch. Simply follow the steps outlined below to experiment and see for yourself some of the many things you can do using **WritePad**:

1. Open a document in **WritePad**.
2. Make sure you are in handwriting mode by tapping on the handwriting icon  and read the tips below before trying to complete the sentence.

Tips to improve recognition quality

1. Because iPhone does not support a stylus, writing with your finger may be a little more difficult at first. While the handwriting recognition engine is optimized for finger writing, a slightly longer learning curve is expected comparing to stylus text entry. Screen protection films may negatively affect digital ink flow and, therefore, quality of handwriting recognition.
2. Always write on the screen horizontally, not at an arbitrary angle. To help you write horizontally, turn on **gridlines**.

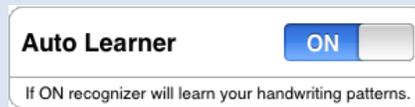


- Write large; do not be afraid to run out of screen space when writing long words because you can write characters of the *same word* on top of each other (the **Separate Letters** setting must be OFF).



- Write legible. If you write 'n' like 'r', or 'u' like 'v', etc. you need to improve your style. Your handwriting does not have to be perfect, just readable.

NOTE: It will also help if you have Auto Learner turned on. It will learn your handwriting patterns in attempt to improve quality of recognition.



- You can write multiple words in each recognition session; however, if you always intend to write one word only, set the **Single Word Only** setting to ON.



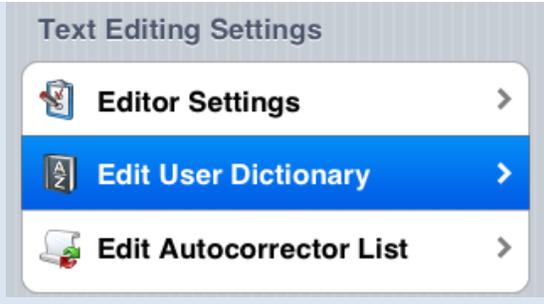
- Always complete the word in the current recognition session. Do not try writing only part of a word per session; it will result in bad recognition quality, because partial words are not found in the dictionary.
- If you always print your characters, use the **Separate Letters** mode. Note that if this option is on, you cannot connect characters or write characters on top of each other.



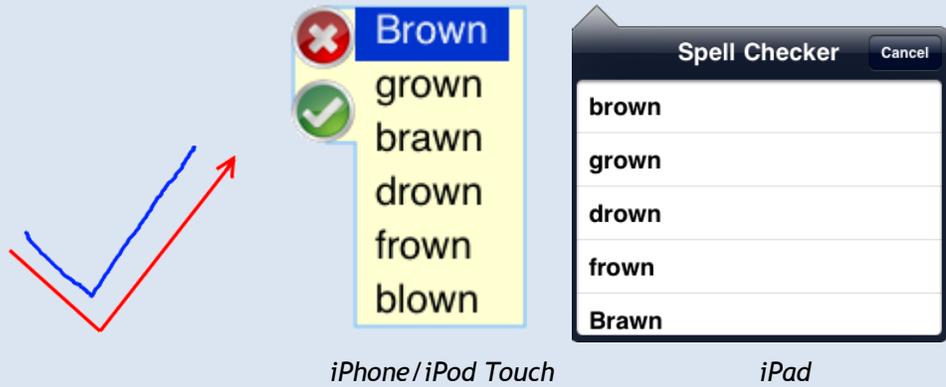
- Do not attempt to correct your handwriting if you made a mistake while writing, the result will be unpredictable. If you made a mistake while writing, use the **Cut** gesture to cancel the recognition session and start again.



- The handwriting recognition engine and its dictionary are optimized for *US English* language only. If you use words that are not in the main or user dictionary, such as rare names, we recommend adding these words to the user dictionary.



10. If a wrong word was recognized, use the **Spell Check** gesture to bring up the **Alternatives** window. When you use the **Alternatives** window to correct the recognition mistake, the recognition engine will learn if the **Auto Learner** switch is ON.



11. To speed up the text entry, use the **Return** gesture at the end of each recognition session. Using this gesture will cancel the timeout and immediately send the recognition results to the editor.



12. Setting the **Only Known Words** switch to **ON** will improve the overall recognition quality, but this will make it impossible to write words, numbers, or any other character sequences that are not found in the user or main dictionary. If you make a spelling error in this mode the result is unpredictable, because the engine will try to find the closest word in the dictionary, which might not be the one you were trying to write.

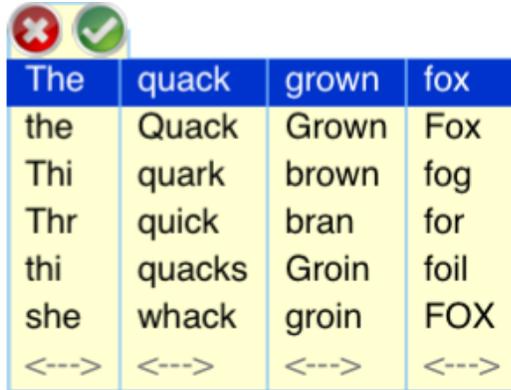


13. If you are writing primarily numbers or capital letters, you can switch recognition modes by tapping on the **Mode** button on the toolbar.

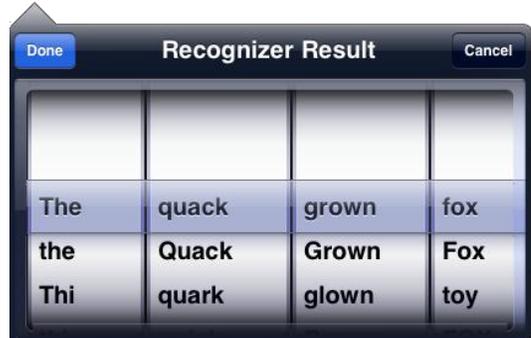
- Mixed mode (default).
- Upper case mode.
- Numerical mode. This also includes punctuation.

NOTE: These modes are also available while using the keyboard.

- Write the following sentence: "The quick brown fox"
- If you have the **Show Alternatives** set to **ON**, you will see something as shown below:



Show Alternatives ON - iPhone/iPod Touch.

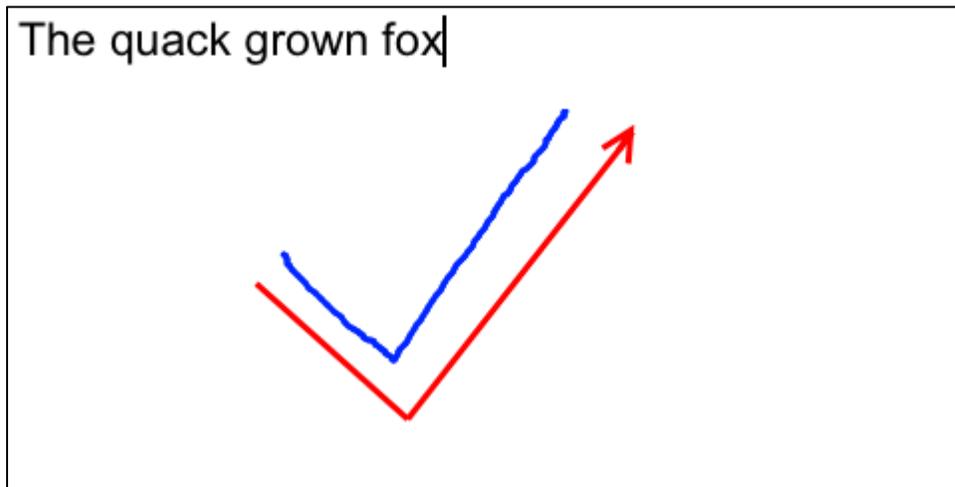


Show Alternatives ON - iPad.

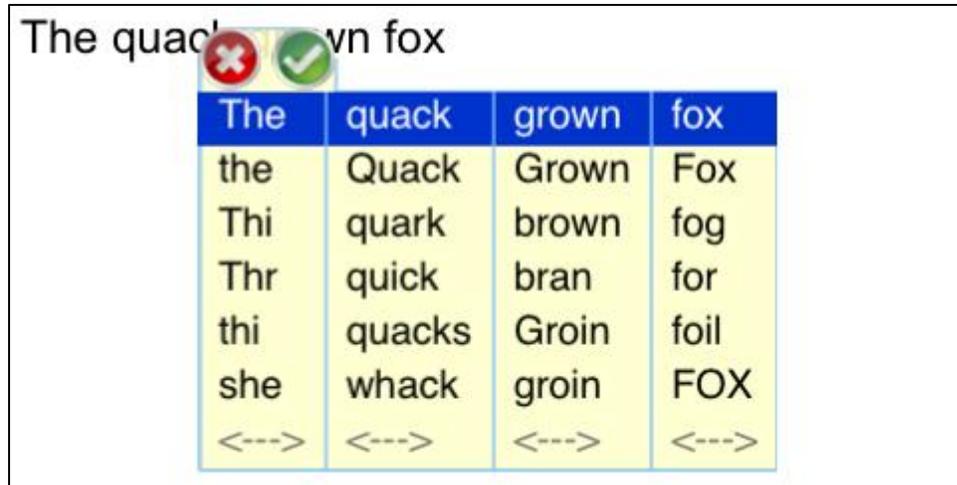
- If **Show Alternatives** is set to **OFF**, then the sentence will appear without the Alternatives window. If this is the case, use the **Spell Check** gesture or tap on the



icon to invoke the Alternatives window.



The Alternatives window will appear.



Show Alternatives OFF- iPhone/iPod Touch.



Show Alternatives OFF- iPad.

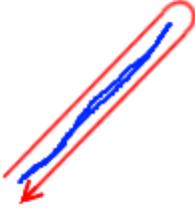
Of course, your results may differ, depending on how your writing is analyzed.

- In this example, the first and last words are OK, so we don't need to change these. In the second column, tap on **quick**. In the third column, tap on **br**own. Now all your desired words will be highlighted. Tap on the  icon or **Done** button to accept. You will now see the results below.

The quick brown fox

7. Now we will try some gestures. Use the **Select All** Gesture to select the entire sentence as shown below.

The quick brown fox

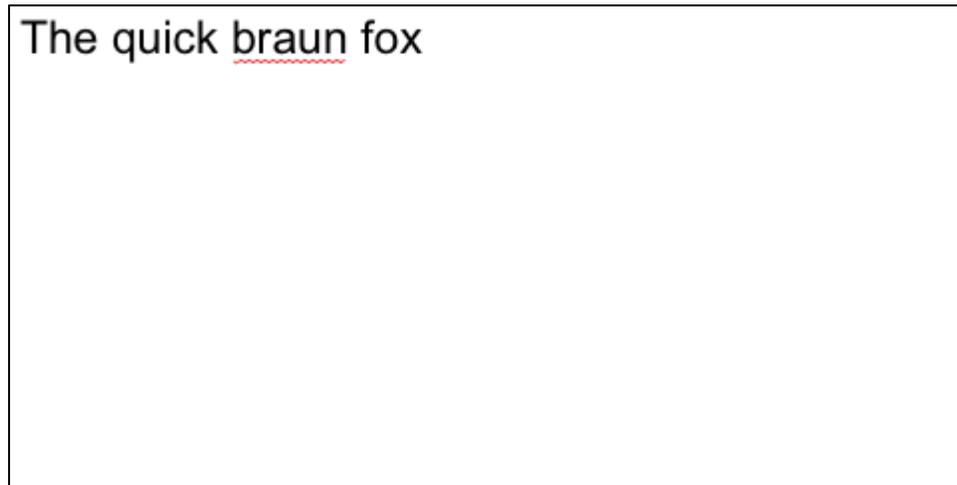


8. With the entire sentence highlighted, use the **Cut** gesture to delete the sentence.

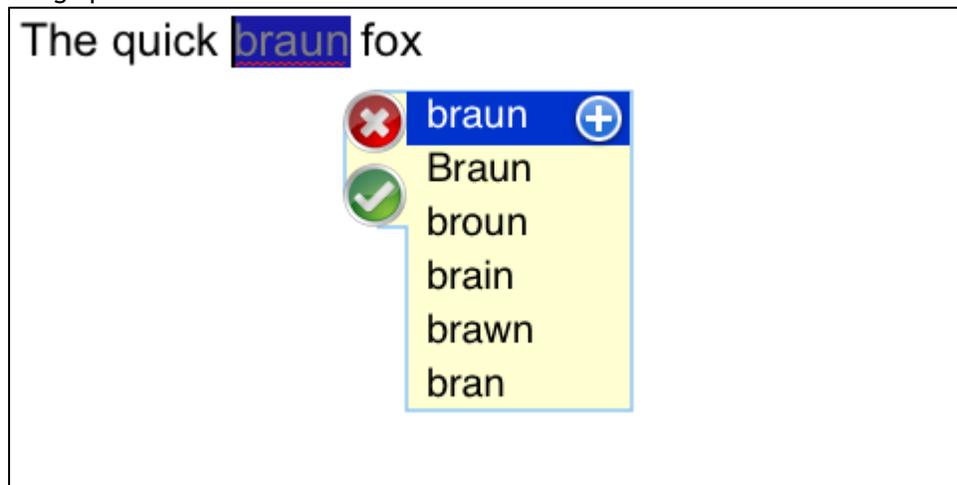
The quick brown fox



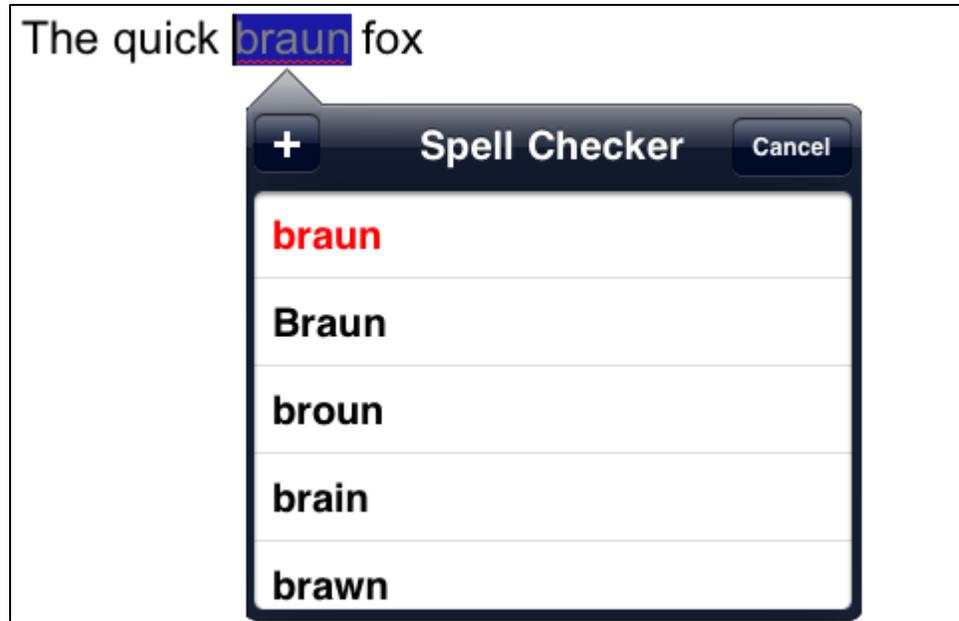
9. Write or type the following sentence: The quick **braun** fox. *The misspelling is intentional.*



10. If you wrote the sentence and have **Spell Checker** turned on, there will be a wavy red line under **braun**. Double-tap on the word to highlight it, then tap the  icon to bring up the **Correction Window**.



Correction Window - iPhone/iPod Touch.

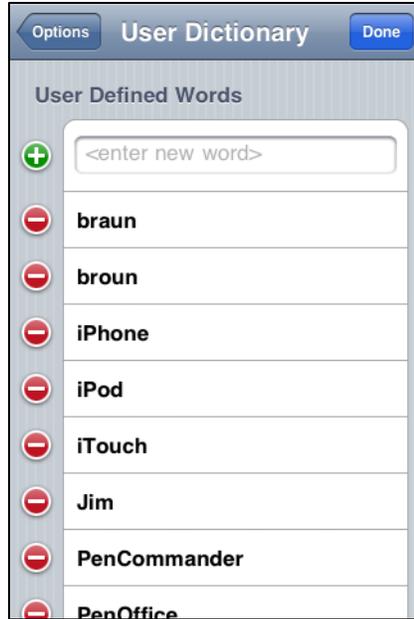


Correction Window - iPad.

11. Since your selected word is not found in the dictionary, you will have an option to add it to the user dictionary by touching the  or  button.
12. If you choose to add it, it will appear in the user dictionary as shown below.



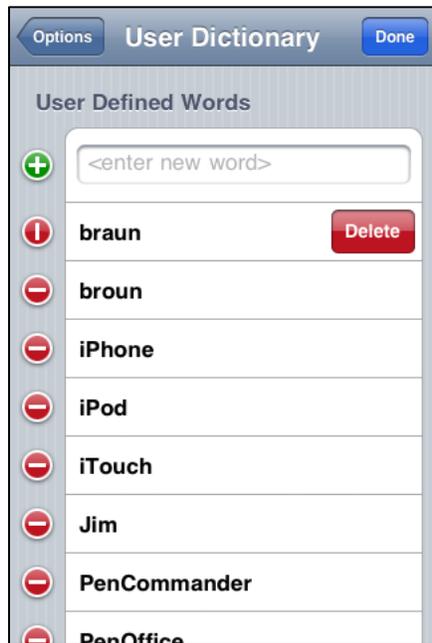
13. The User Dictionary is found in the **Options** window. To go to the **Options** window, tap on . If you decide you want to delete or add a word to the dictionary, touch **Edit User Dictionary**, then tap the **Edit** button. The User Dictionary will appear.



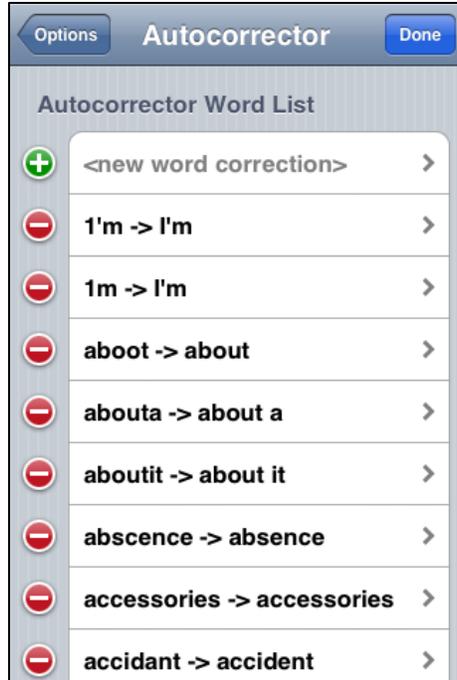
14. To add a new word, tap in the **enter new word** window. The keyboard will appear.

Type in your new word and tap on  to add it to your dictionary.

To delete a word, tap on the  next to the word to delete, then tap on the **Delete** button, then click **Done**.



15. If you notice that a specific word is often recognized as a different word, you can add this word to the Autocorrector word list. Go to the **Options** window and touch **Edit Autocorrector List**, then tap the **Edit** button. The Autocorrector will appear.



16. Tap in the **new word correction** window. The **Edit Word** window will appear.

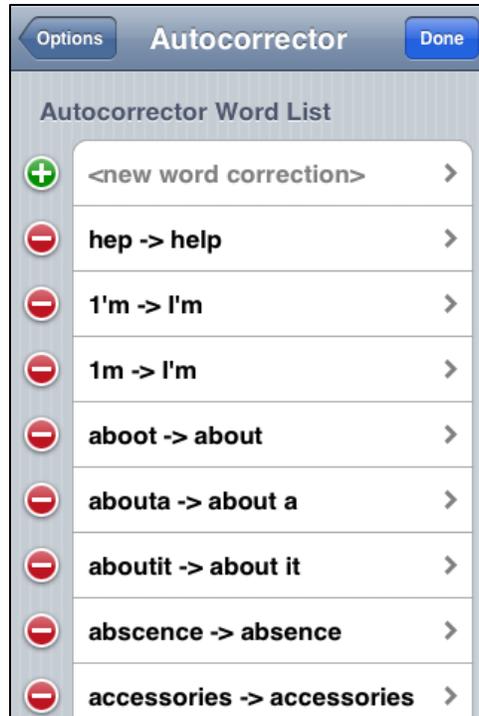


17. Tap in the **enter misspelled word** window. Type in your misspelled word. Do the same in the **enter correct word** window with the correct word spelling, then touch the **Done** button on the keyboard.



- If the **Always Replace** switch is **ON**, the word is always replaced; otherwise the word is replaced only if the recognition engine alternatives contain the replacement word.
- If the **Ignore Case** switch is **ON**, words are compared in lower case.
- If the **Disabled** switch is **ON**, the word replacement is disabled. This is useful to disable a specific word replacement without removing it from the list.

18. Tap **Autocorrector** when you are finished. The new word pair will appear at the top of the list.



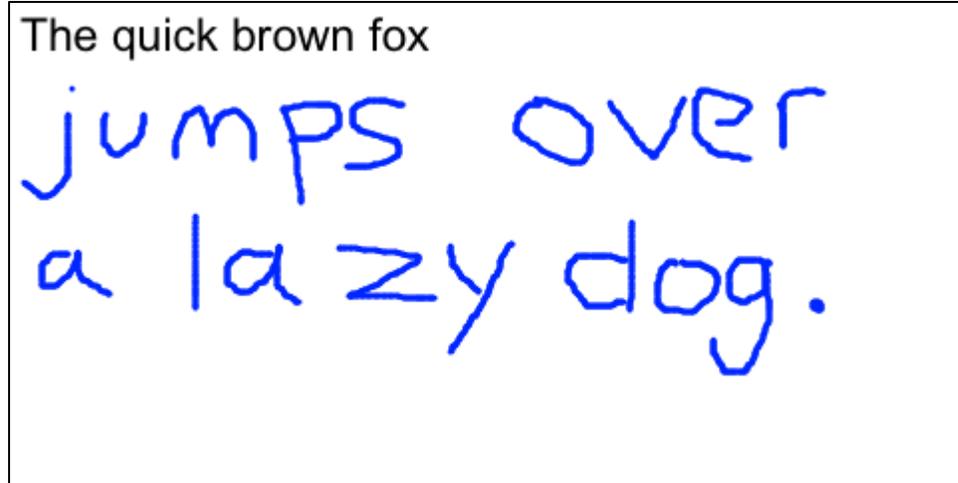
NOTE: When returning to the autocorrector list, the new word correction will be in alphabetical order.

To delete a word pair, tap on the  next to the word to delete, then tap on the **Delete** button, then click **Done**.

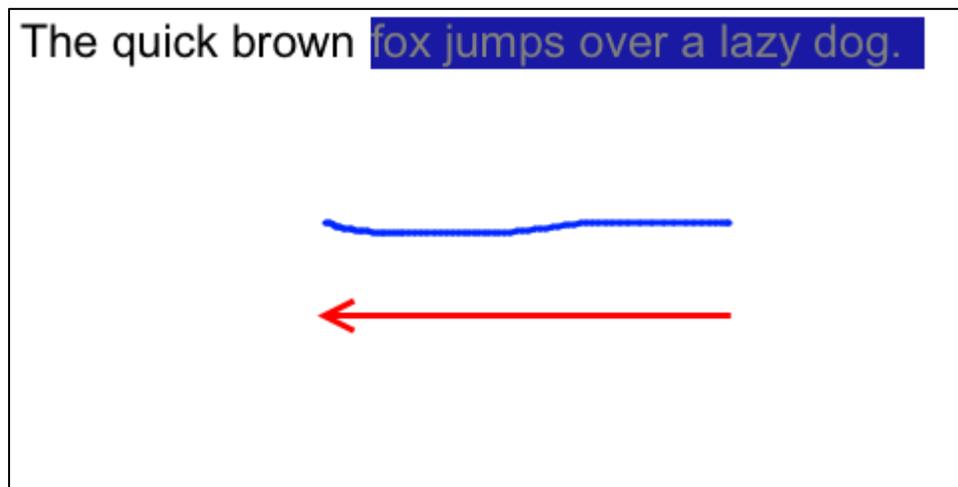
To change a word pair, tap on the pair (either in list or edit mode), and perform the changes as shown above when entering a new pair.

Three: More Gestures

1. Our fox from the previous tutorial is not done yet. Write "jumps over a lazy dog." to add to the previous sentence you created.



2. Select "fox jumps over a lazy dog" by using one of the following two methods:
 - (1) Touch and hold your finger to the left of the word ~~fox~~. After you hear a sound or the device vibrates (depending on chosen options), drag your finger to the end of the sentence to select the text.
 - (2) Draw a line from the first character you want to select to the last character and hold your finger at the last character until you hear a sound or the device vibrates. The selected words are now highlighted.
3. Now use the **Backspace** gesture as shown below.



The selected text is erased.

The quick brown

4. Now, insert a carriage return (equivalent to pressing [ENTER]) by using the **Return** gesture. Make sure that the horizontal part of the gesture is at least twice as long as the vertical part.

The quick brown|

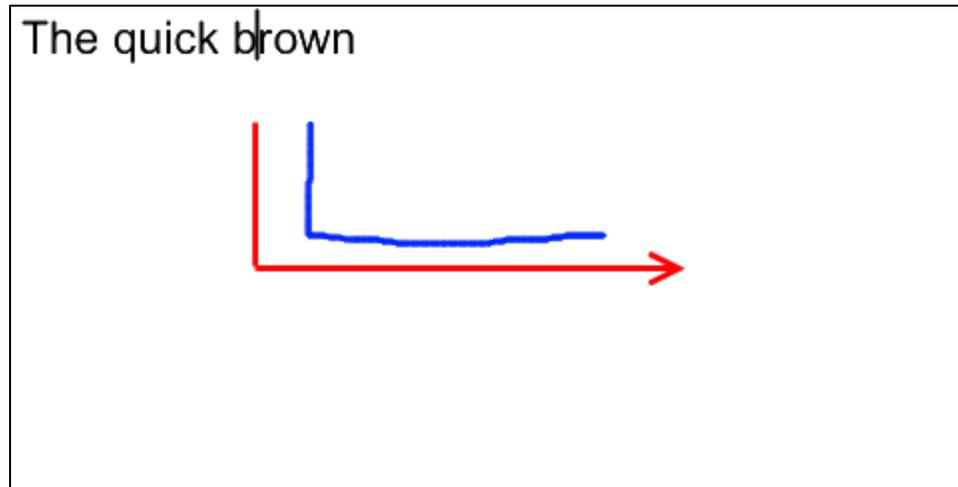


Note that the cursor moves down one line.

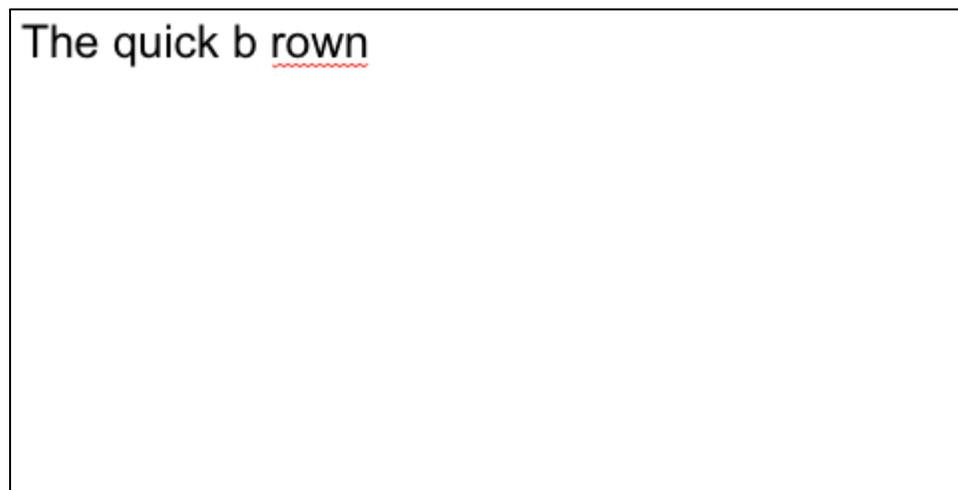
The quick brown

|

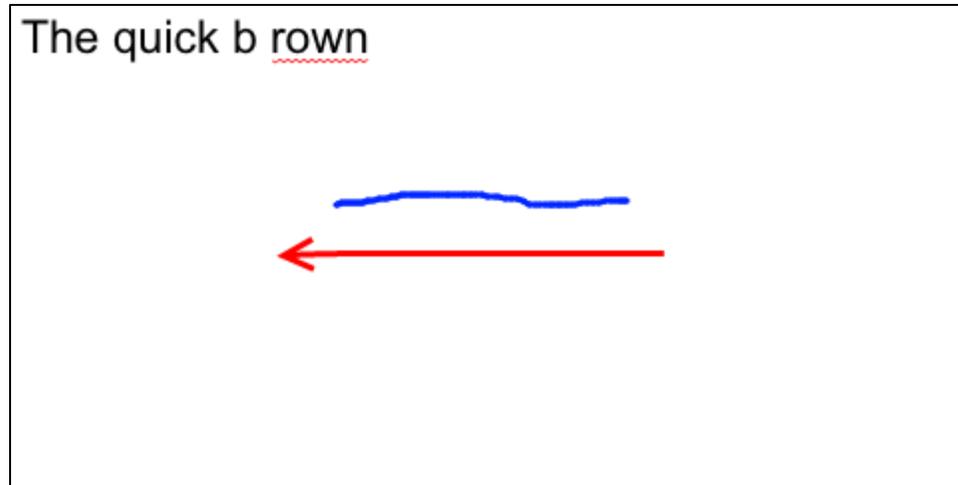
5. Now use the **Backspace** gesture again to erase the carriage return and move the cursor back to the top line.
6. To add a character in the middle of a word, position the cursor by touching once at the desired location. For instance, tap the word **brown** between the **b** and the **r** to position the cursor, then use the **Space** gesture.



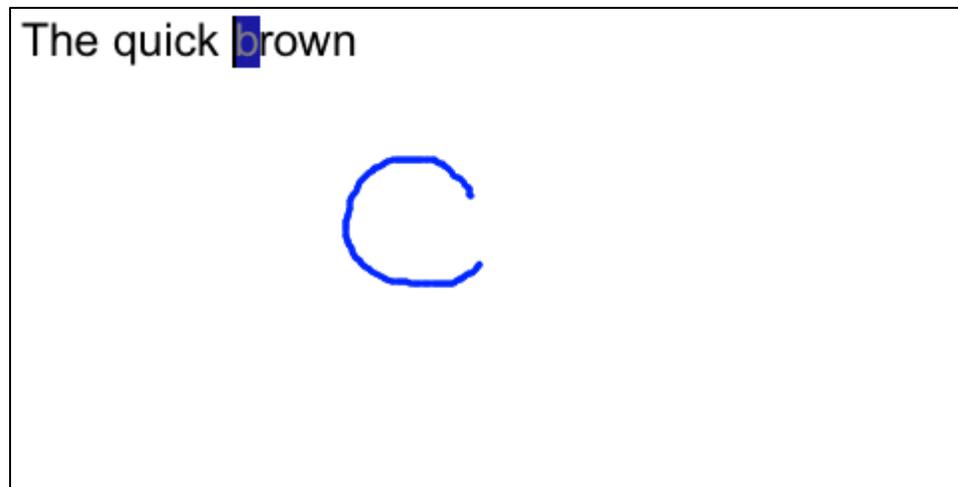
The space is added.



7. Use the **Backspace** gesture to remove the space.



8. You may use your finger to change individual letters. For example, highlight the letter **b** in **brown** by touching and holding your finger on the screen until the **Edit** menu appears, then touch the **Select** button. Now drag your finger to the desired end location to select the text (in this case, drag to the right of the letter **b**). The letter **b** is now highlighted. Write the letter **c**.



The word changes to **rown**.

The quick crown

9. To delete a character to the right of the cursor, in this example place the cursor between the **w** and **n** in **crown**, and use the **Delete** gesture.

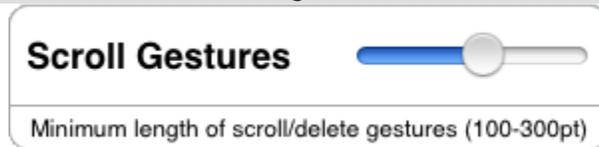
The quick crown|



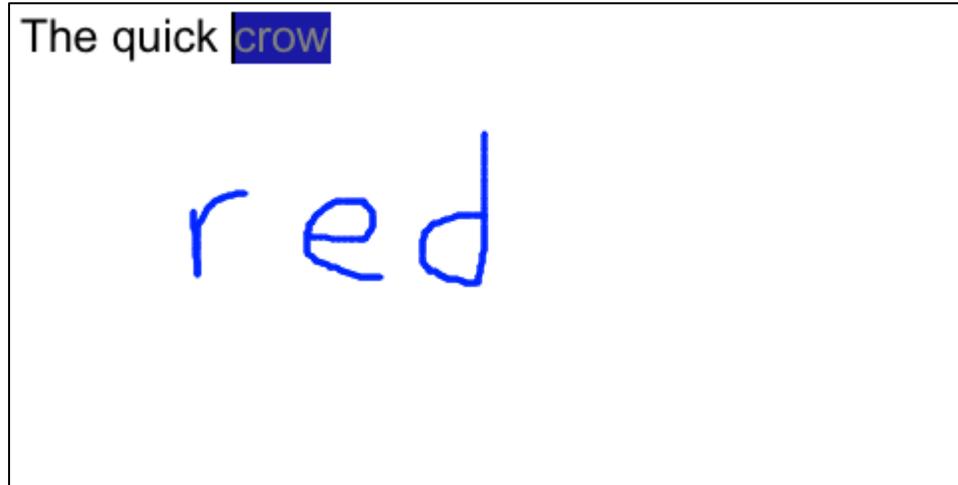
The **n** will be deleted.

The quick crow|

NOTE: To avoid interference with handwriting, both the **Backspace** and **Delete** gestures must have a minimum length as set in the **Scroll Gestures** option.



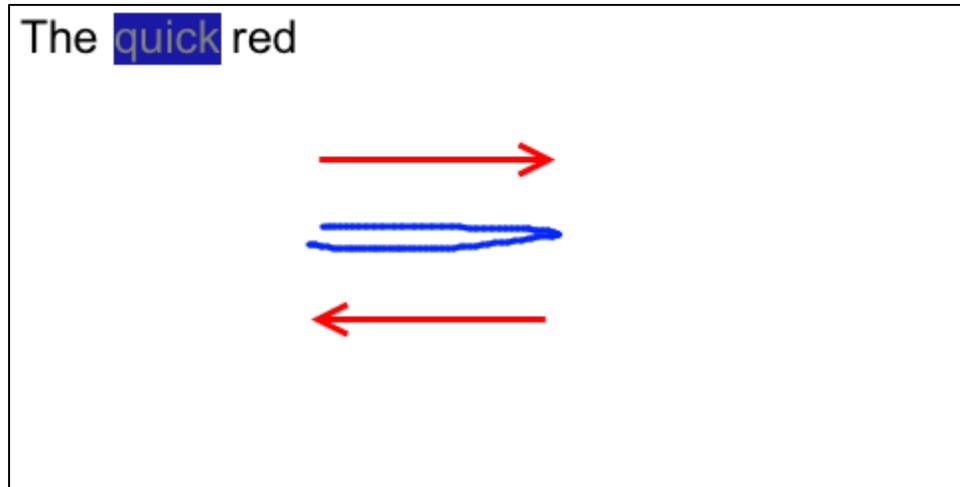
10. You may also select and replace entire words. For example double tap on the word **crow** and write **red**.



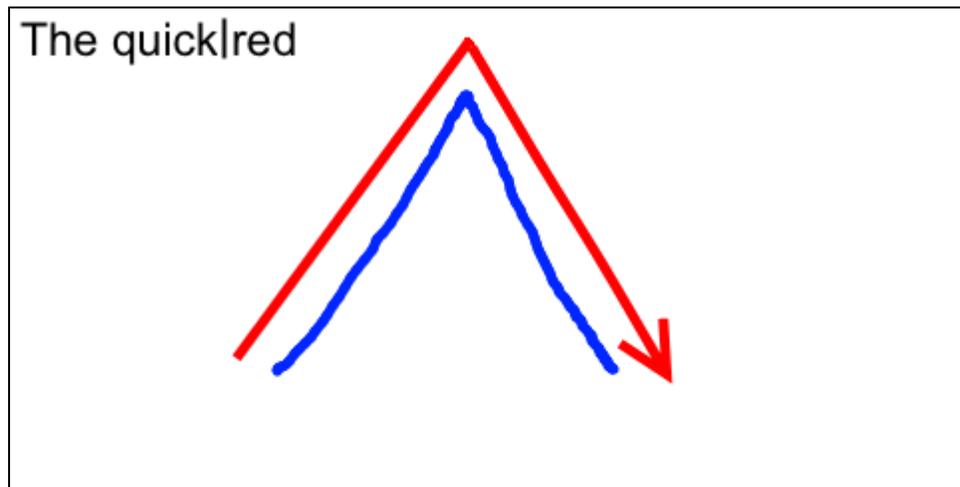
This produces the following result:



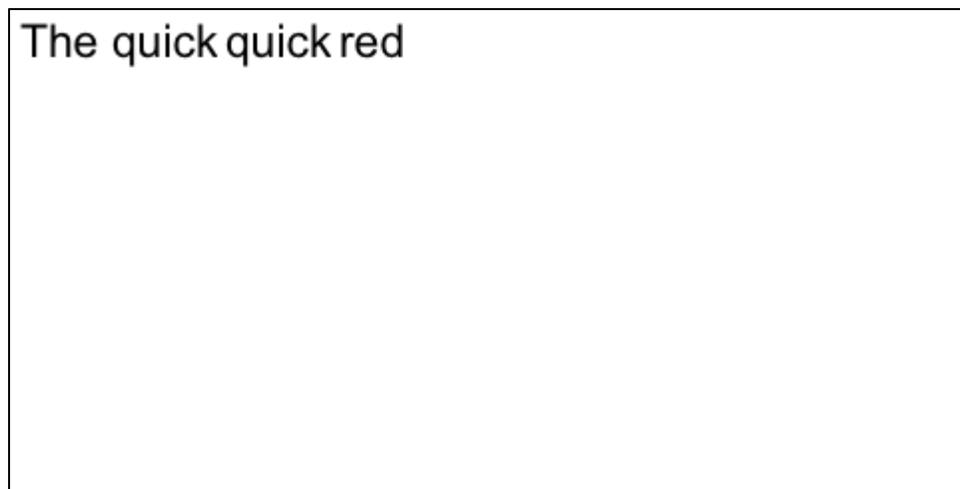
11. To copy selected text, highlight **quick** by double tapping on it, and use the **Copy** gesture to copy the word.



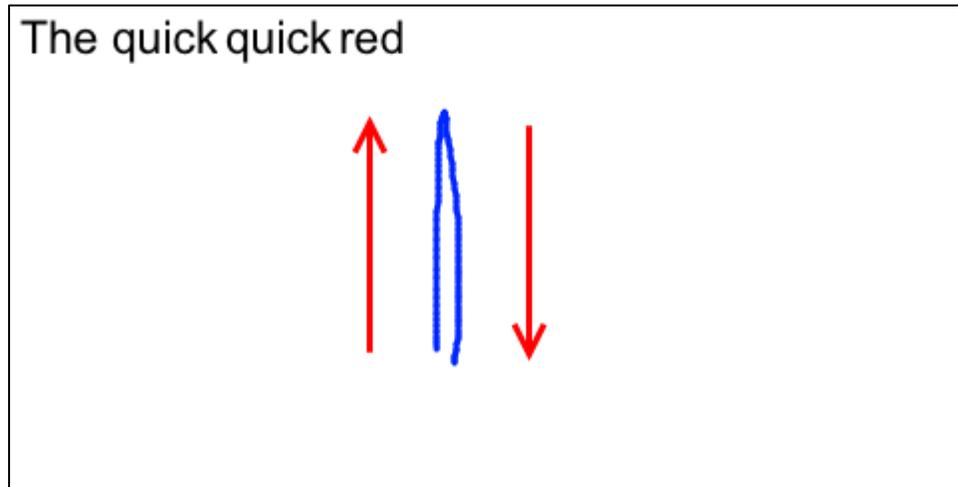
12. Now tap between `quick` and `red`, then use the **Paste** gesture.



`quick` appears twice.



13. To undo the previous action, use the **Undo** gesture.

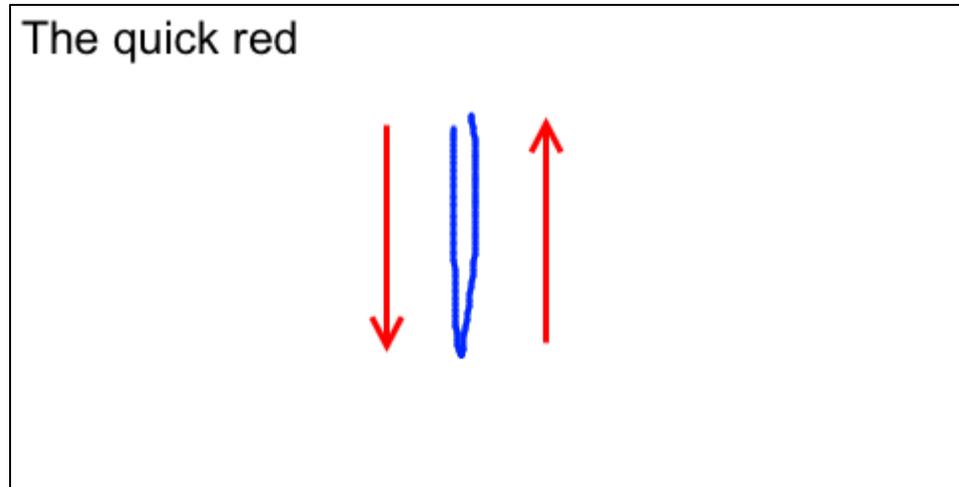


The sentence reverts to only one **quick**.

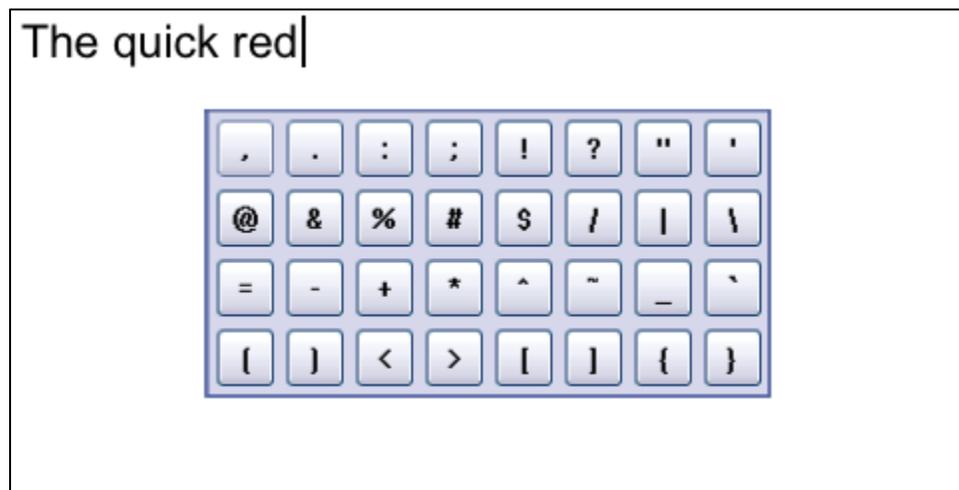


NOTE: You can undo and subsequently redo your last 20 editing actions.

14. The best way to write a period or any other punctuation such as a comma, backslash, etc. is to use the **Punctuation Keyboard**. To bring up the keyboard, use the **Keyboard** gesture when nothing is selected in the editor.



The Punctuation Keyboard appears.



15. Tap on the **period** button to add the period. It will be inserted at the current cursor location. The keyboard will automatically disappear after you touch the desired key or touching anywhere outside the keyboard window when not entering any characters.

The quick red.!

16. You can also use **Scroll** gestures to scroll up or down a page for large documents, as you normally would with an iPod or iPod touch. However, in order to avoid interference with your handwriting, the scroll gesture has to be a minimum length as defined in the **Scroll Gestures** setting in the **Options** window. This will also be the setting for your **Delete** and **Backspace** gestures.



WritePad Tutorial

- In View mode:

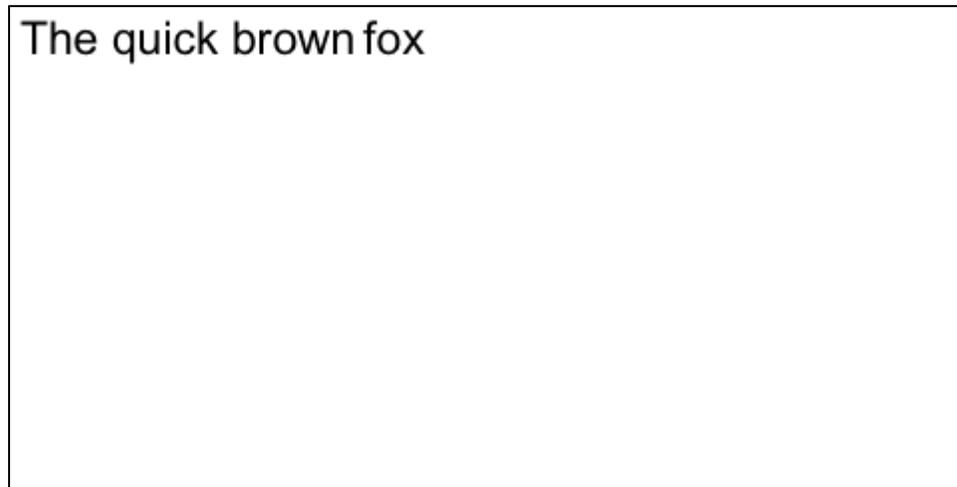
1. use up and down strokes to scroll text up and down
2. You can also tap on underlined phone numbers to dial, URLs to open, and Email addresses to send emails.



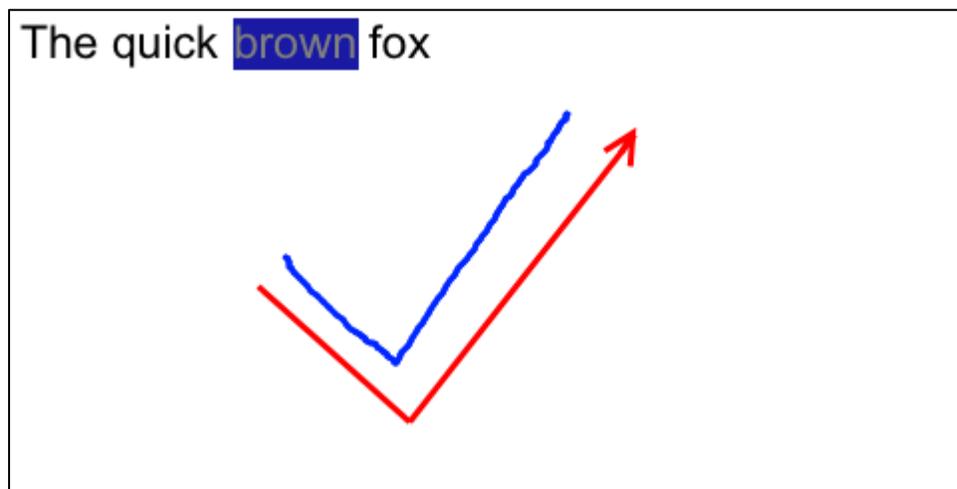
Four: Correcting Individual Words

If you make a mistake while writing or want to use a different word? No problem. WritePad allows you to correct individual words quickly and easily as shown in this tutorial:

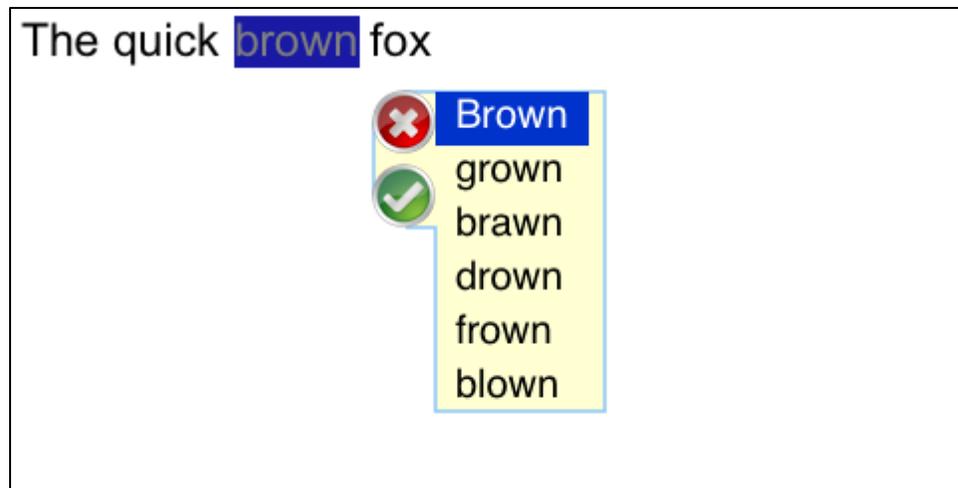
1. Open a document in WritePad.
2. Write "The quick brown fox".



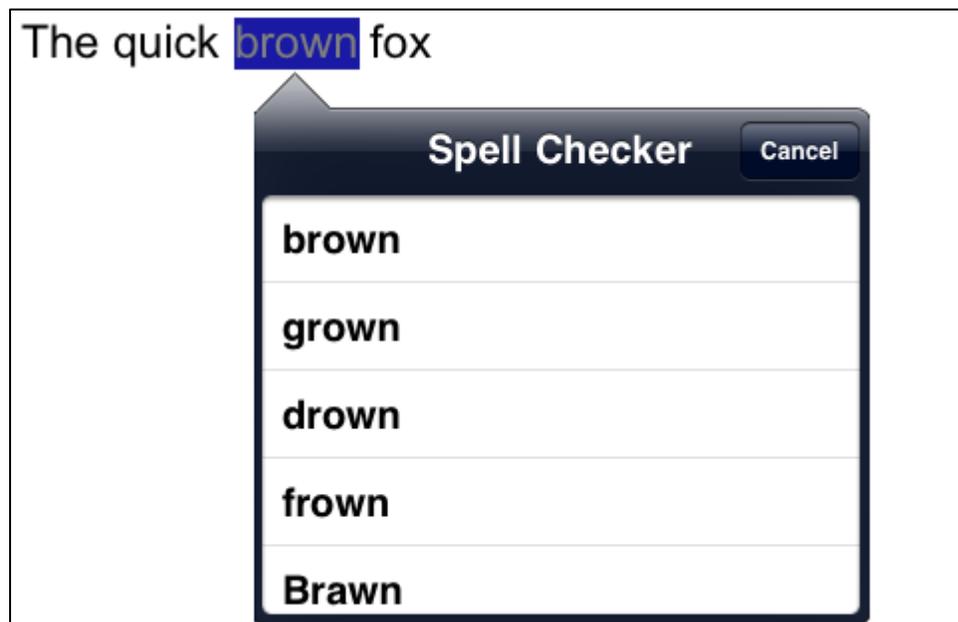
3. Highlight the word **br**o**wn** and use the **Spell Check** gesture or tap on  to launch the spell checker window for the selected word with possible alternatives. Move the stroke from left to right and make the gesture large, with the right leg much higher than the left one as shown below.



The Correction Window appears.



Correction Window - iPhone/iPod Touch.



Correction Window - iPad.

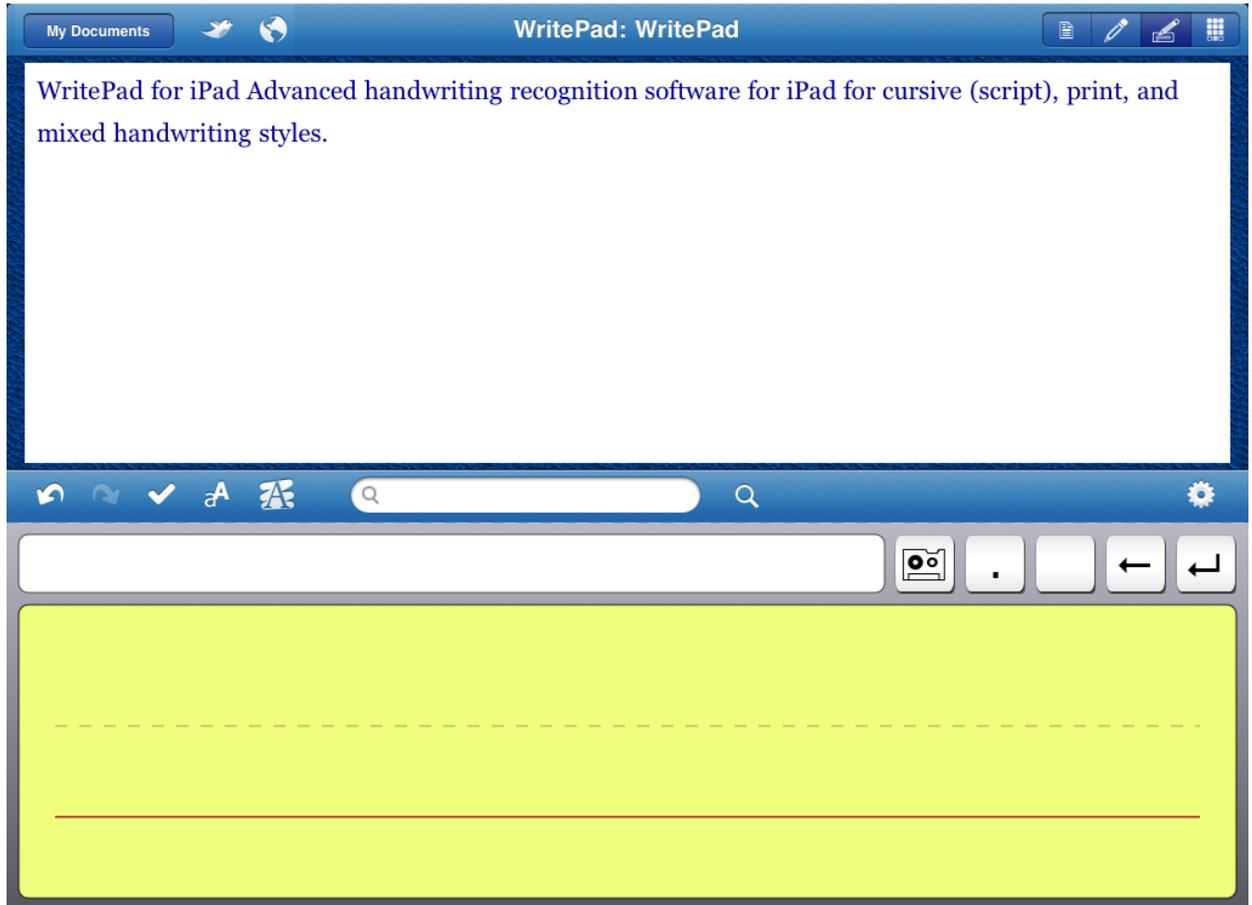
4. The window displays multiple alternatives returned by the spell checker for the highlighted word. For the iPhone/iPod Touch, tap the word **grown** and tap . For the iPad, just tap the word **grown**. **grown** will replace **brown**.

The quick grown fox

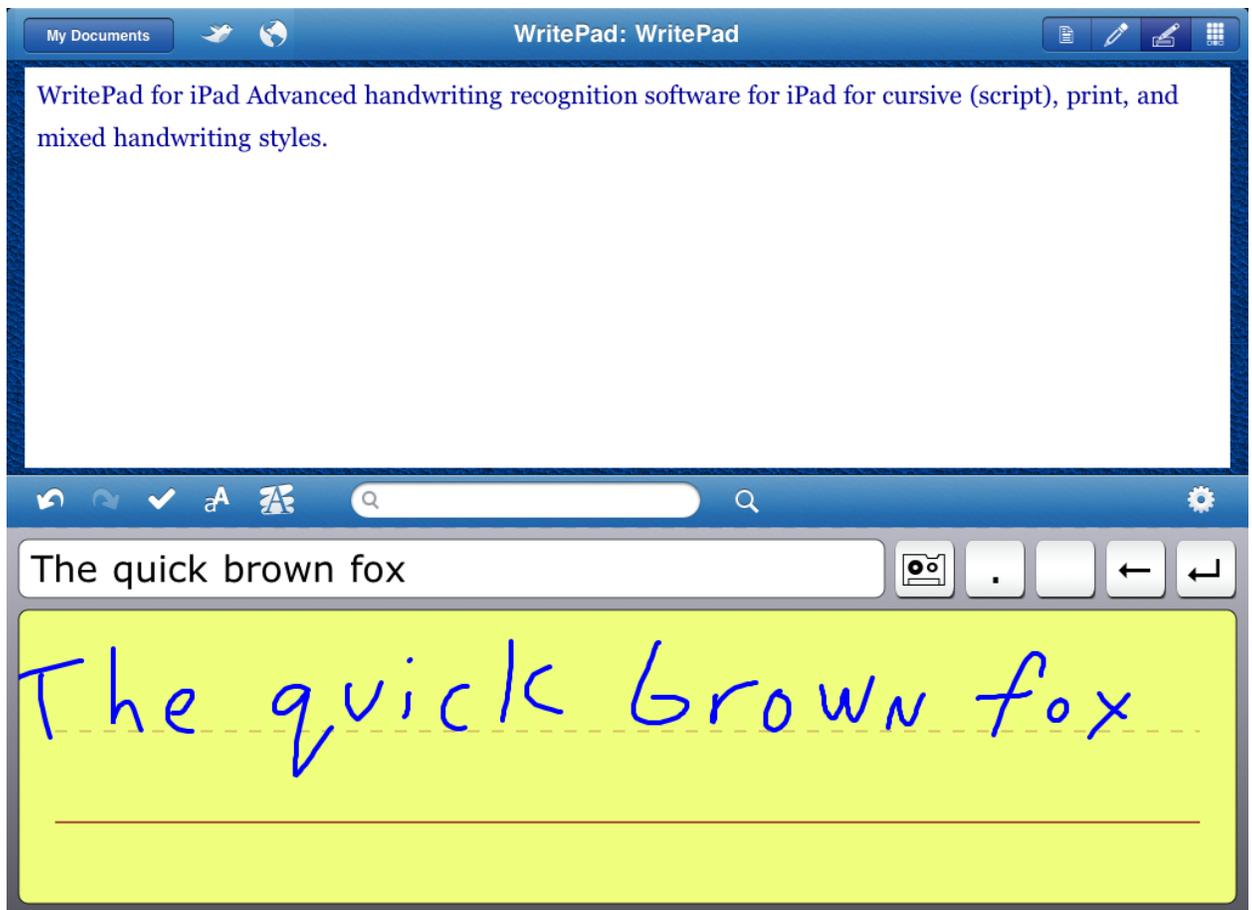
Five: Handwriting Panel

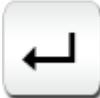
The WritePad handwriting panel is available only on iPad devices.

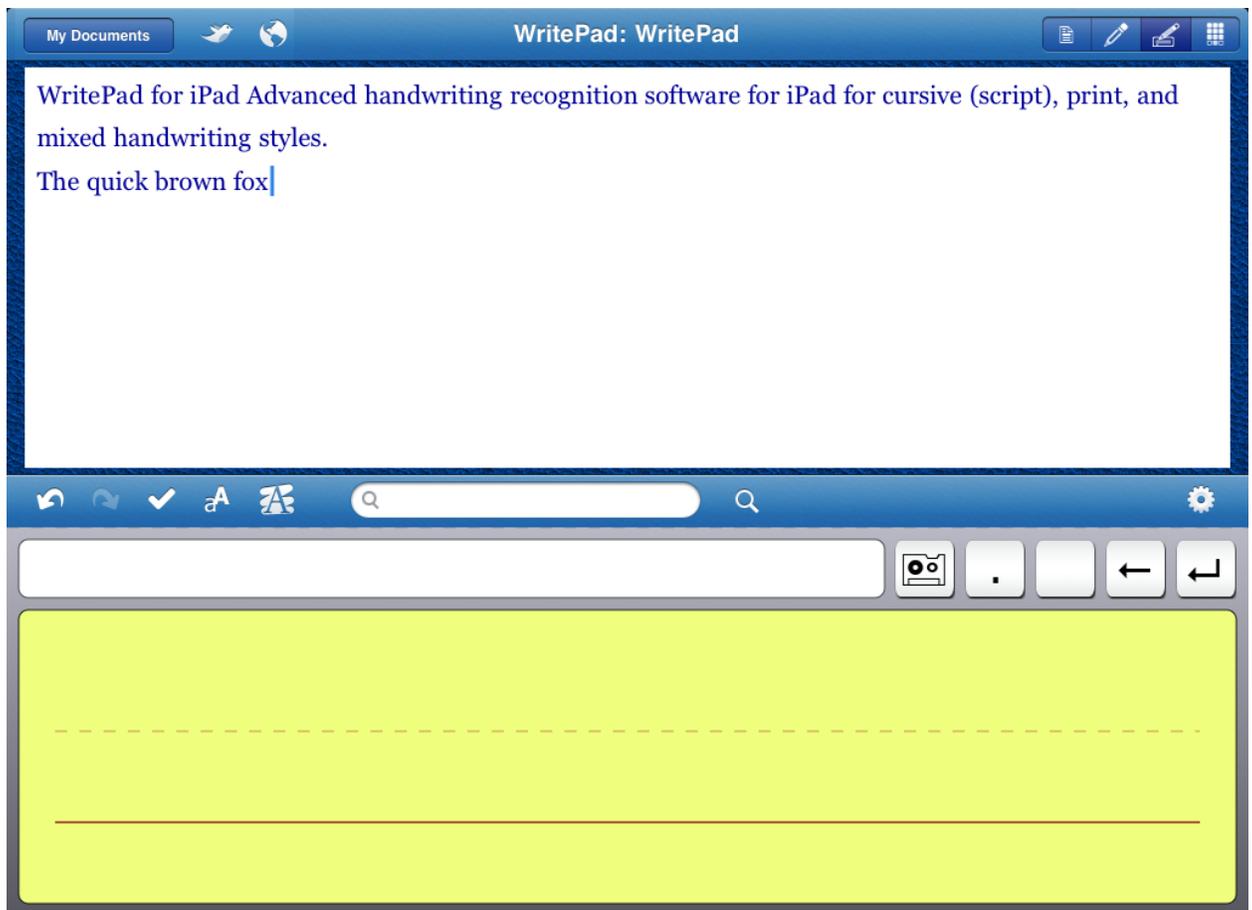
1. To enter the Handwriting Panel mode, tap on the  icon on the top toolbar.



2. To enter text, write on the input panel between the lines in your preferred handwriting style (the Input Panel supports a single line of handwritten text). You can write one or more words per recognition session, but always complete the entire word in each session and ignore intermediate results because the dictionary is used to find best results, which will appear in the recognition results window (the pane above the input panel). Write "The quick brown fox"



3. When you are done writing, touch the **Return** button  to insert the recognized text at the cursor location.

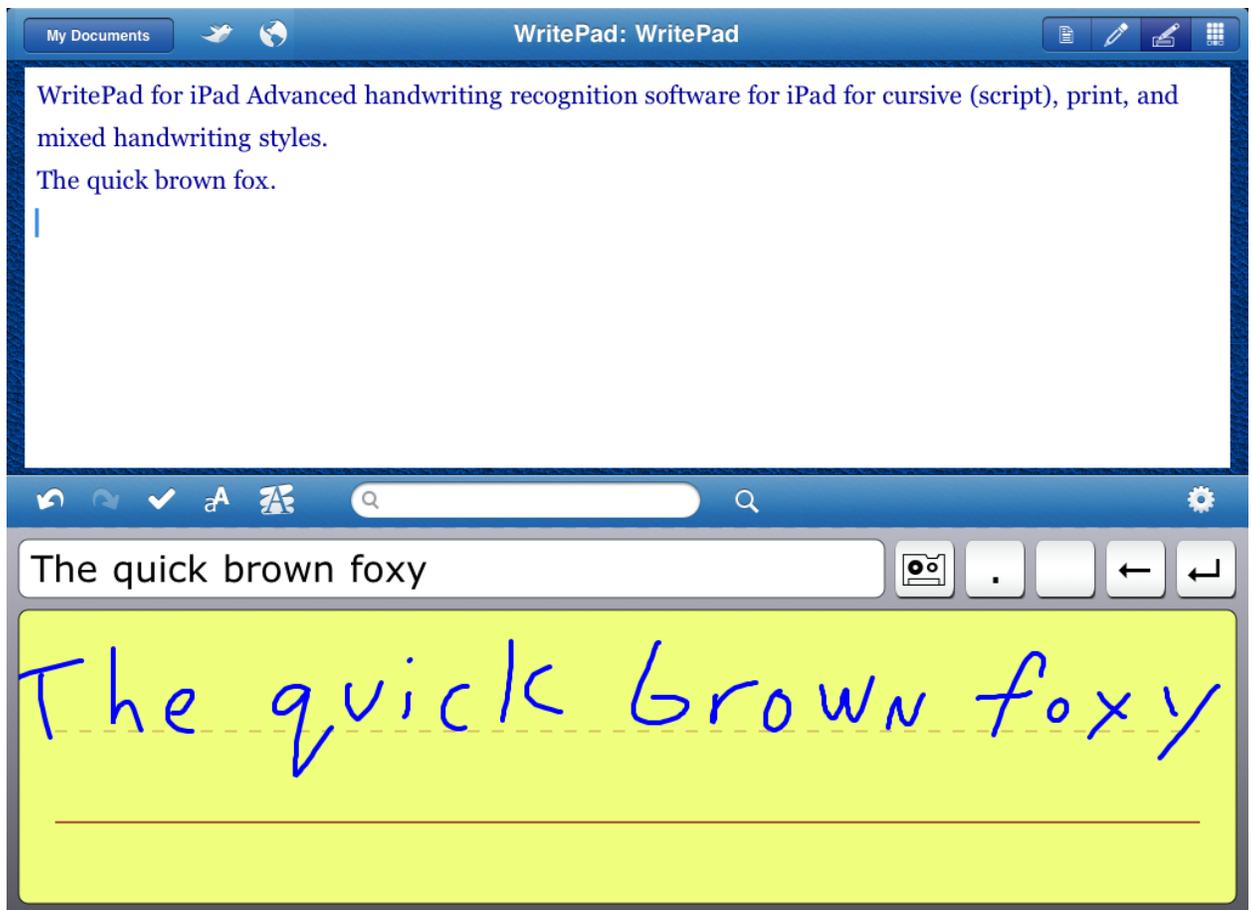


NOTE: If you always print, you may want to enable the **Separate Letters** option.

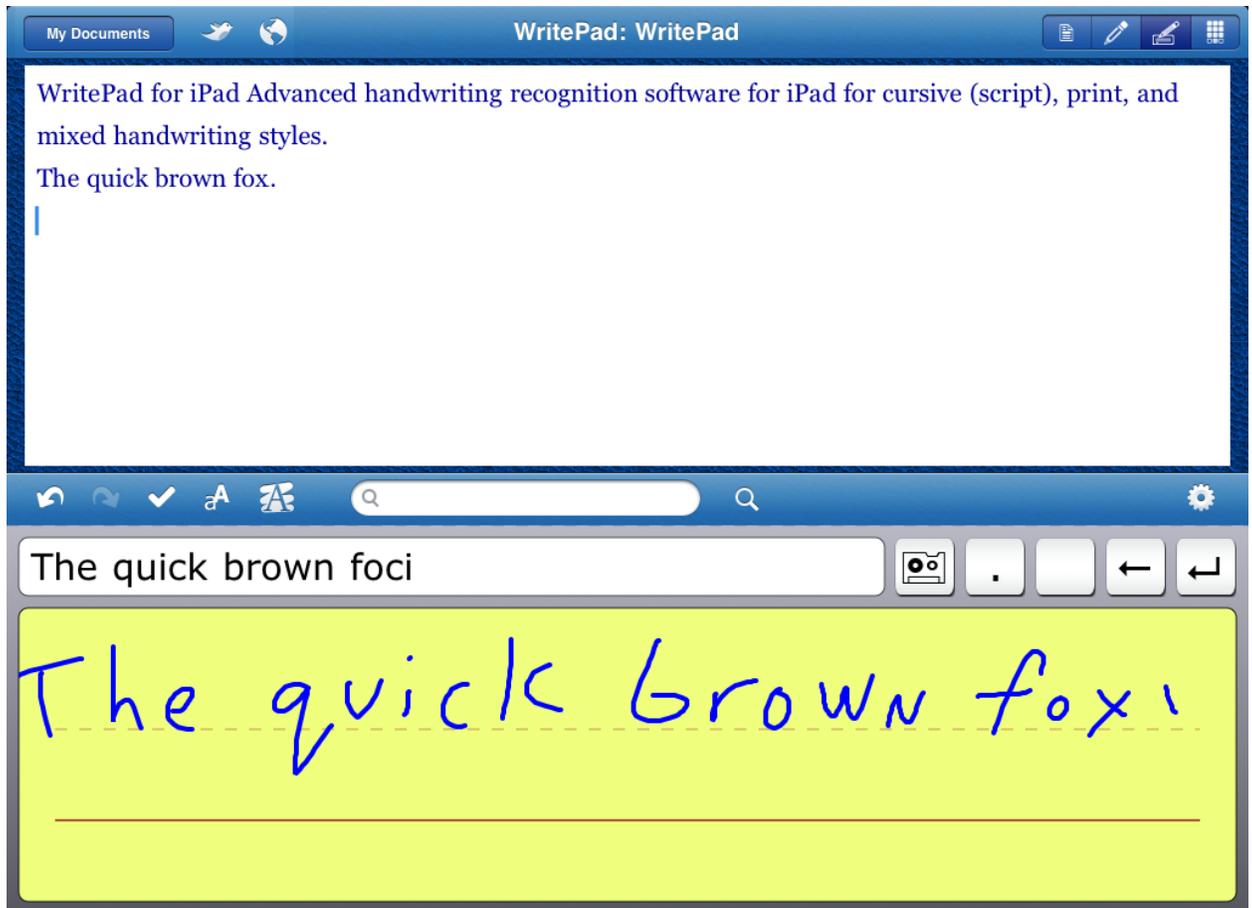
4. Insert a period at the end of the entered sentence by touching the  button.

5. With the input panel blank, touch the **Return** button . This will insert a return at the current cursor location to move the cursor down to the next line.

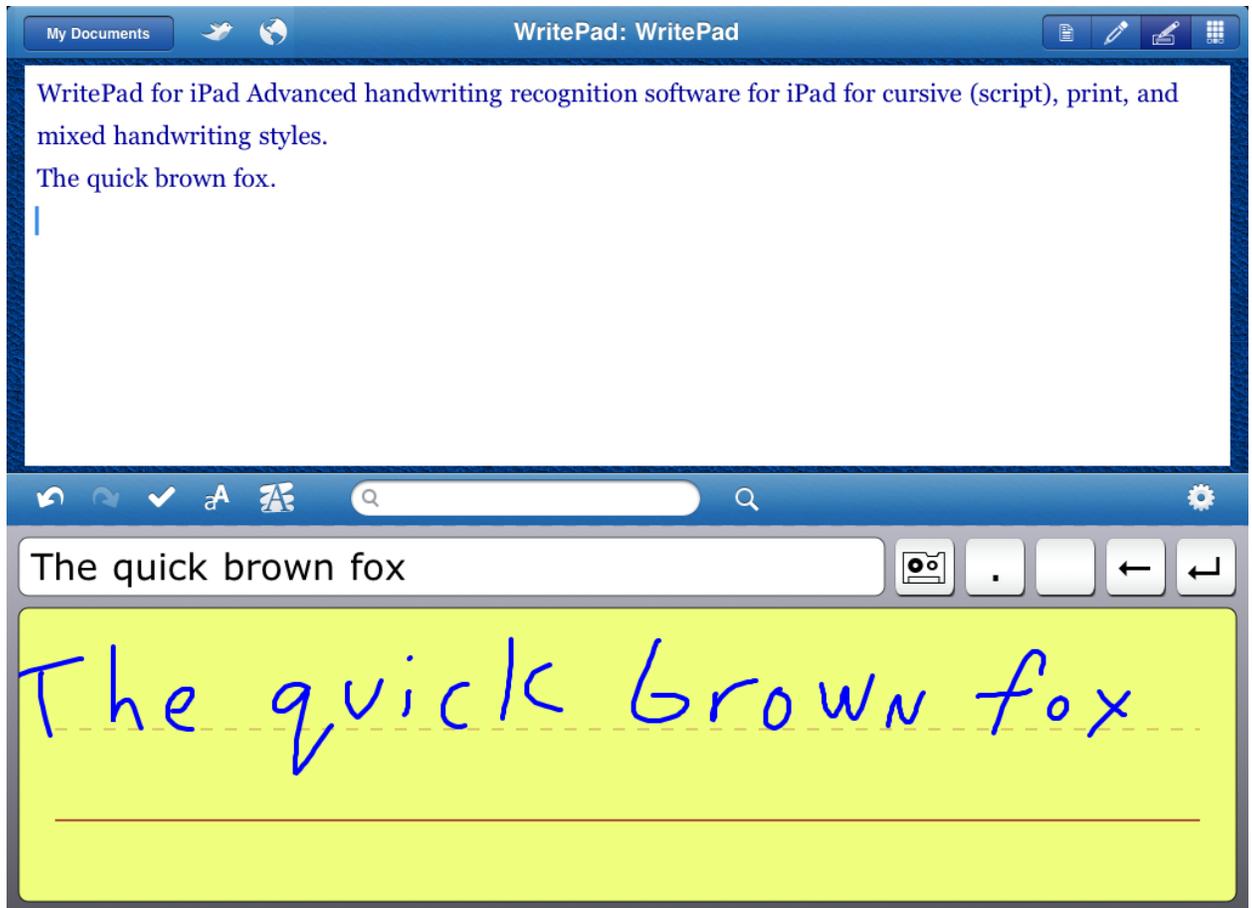
6. Now write “The quick brown foxy” in the input panel.



7. Now we want to remove the y from foxy. Touch the **Backspace** button  twice. You need to touch the button twice since the **Backspace** button *deletes only the last stroke*, and it usually takes two strokes to write the *y*. The recognition results window will adjust the results for each touch of the Backspace button.

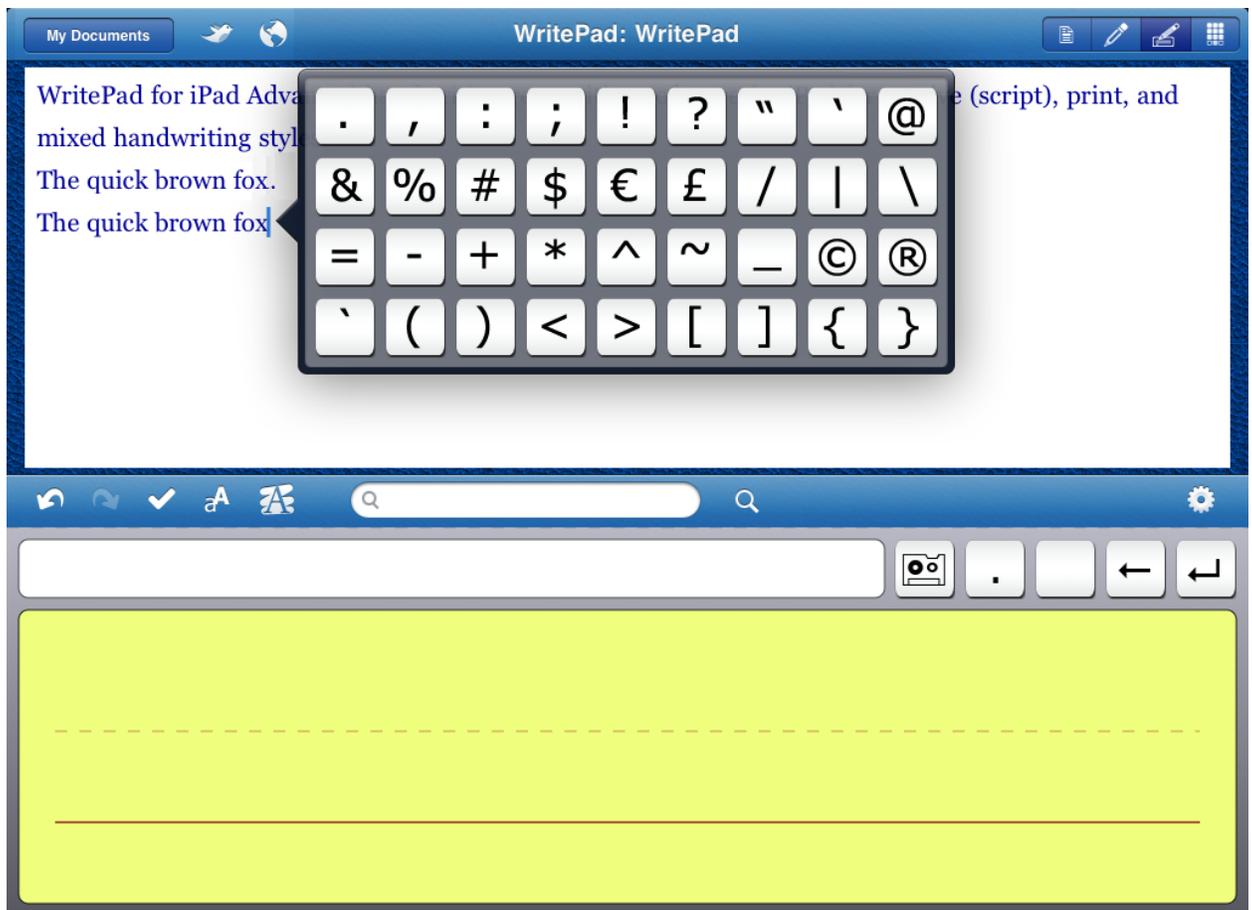


First backspace touch.

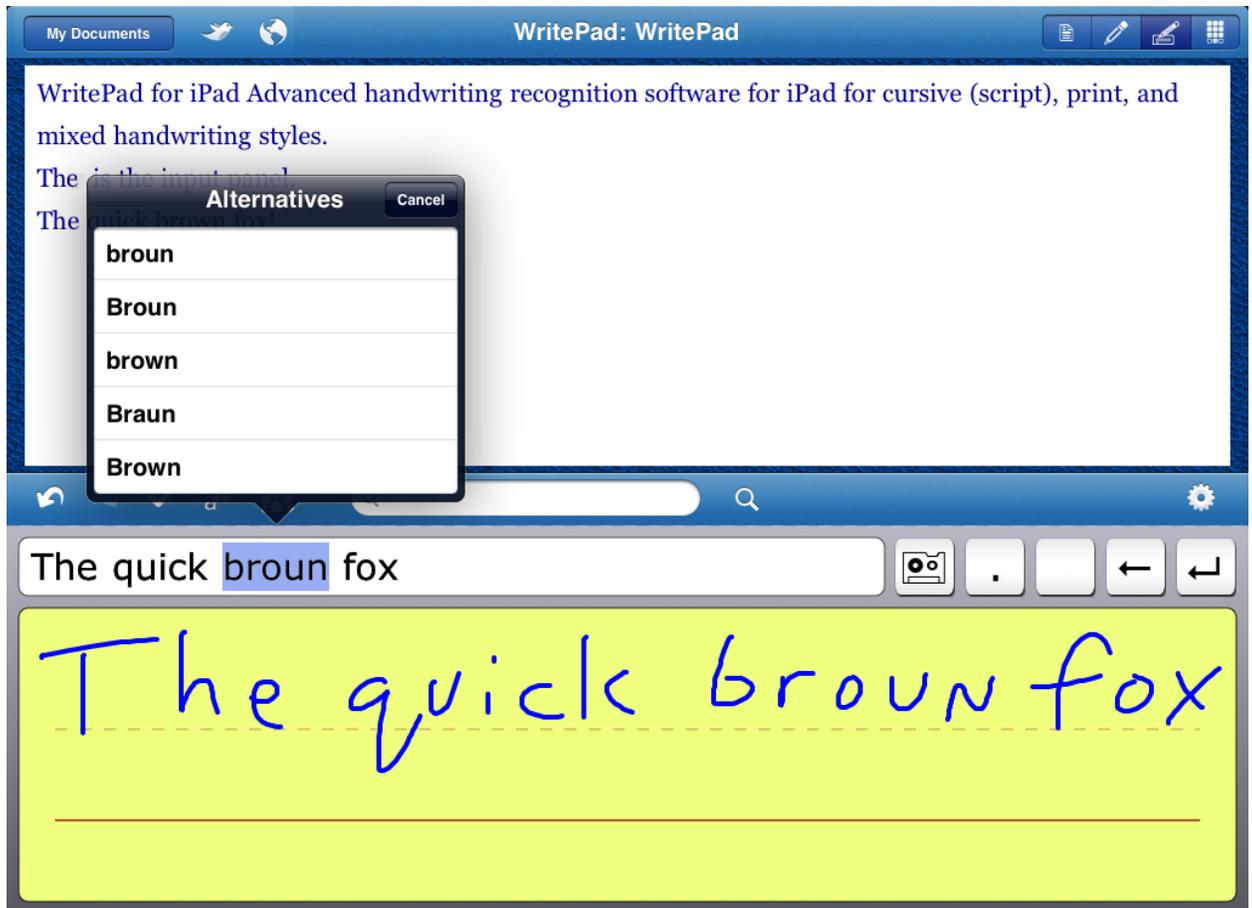


Second backspace touch.

8. Touch the Return button  to insert this sentence.
9. For this sentence, we want to insert an exclamation point at the end of the sentence
 instead of a period. Hold the  button until the punctuation keypad appears, then touch the ! button.



10. Touch the Return button again to move the cursor to the next line.
11. If the recognizer returns an unexpected result, touch the incorrectly recognized word in the recognition results window to view alternatives. Write "The quick broun fox" Touch broun in the recognition results window.

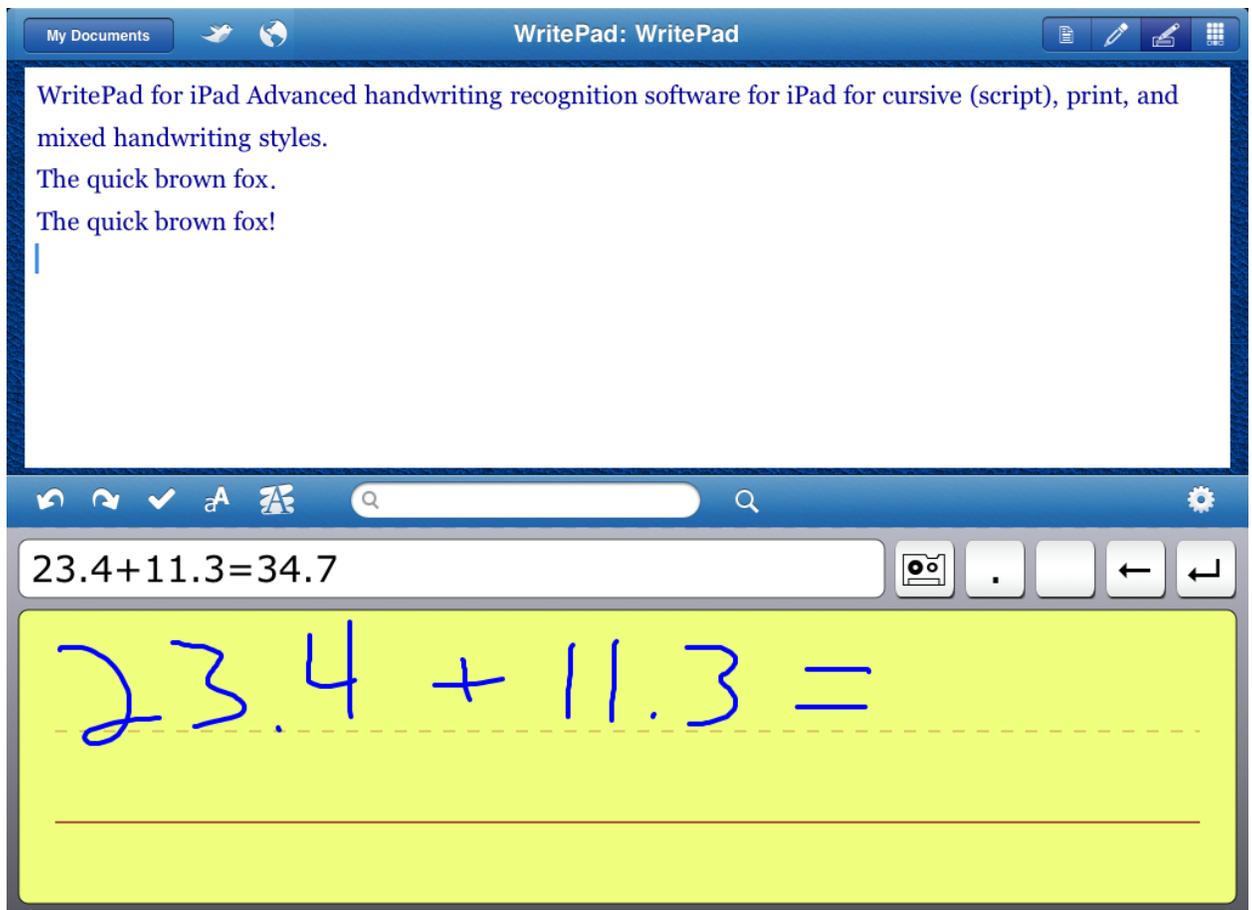


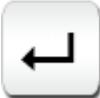
12. Select `brown`.

13. But since we already have this sentence in the document, to clear the input panel and

cancel the recognition session, touch the space button .

14. To use the built-in calculator, write “`23.4+11.3=`” in the input panel. The `=` symbol at the end of the equation is required to invoke the calculator. The answer automatically appears in the recognition results window.

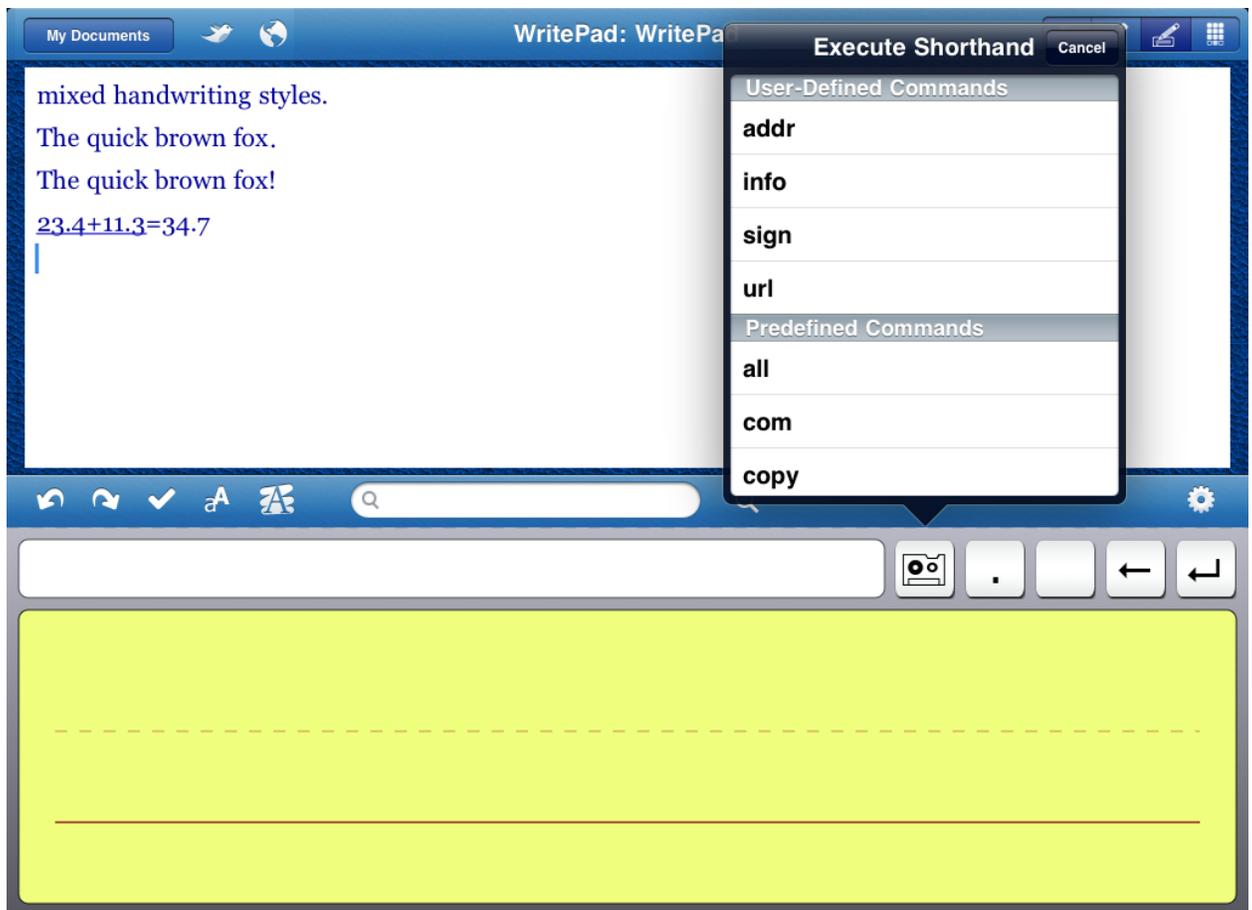


Touch the Return button  to add the calculation to the document. Touch the Return button again to move the cursor to the next line.

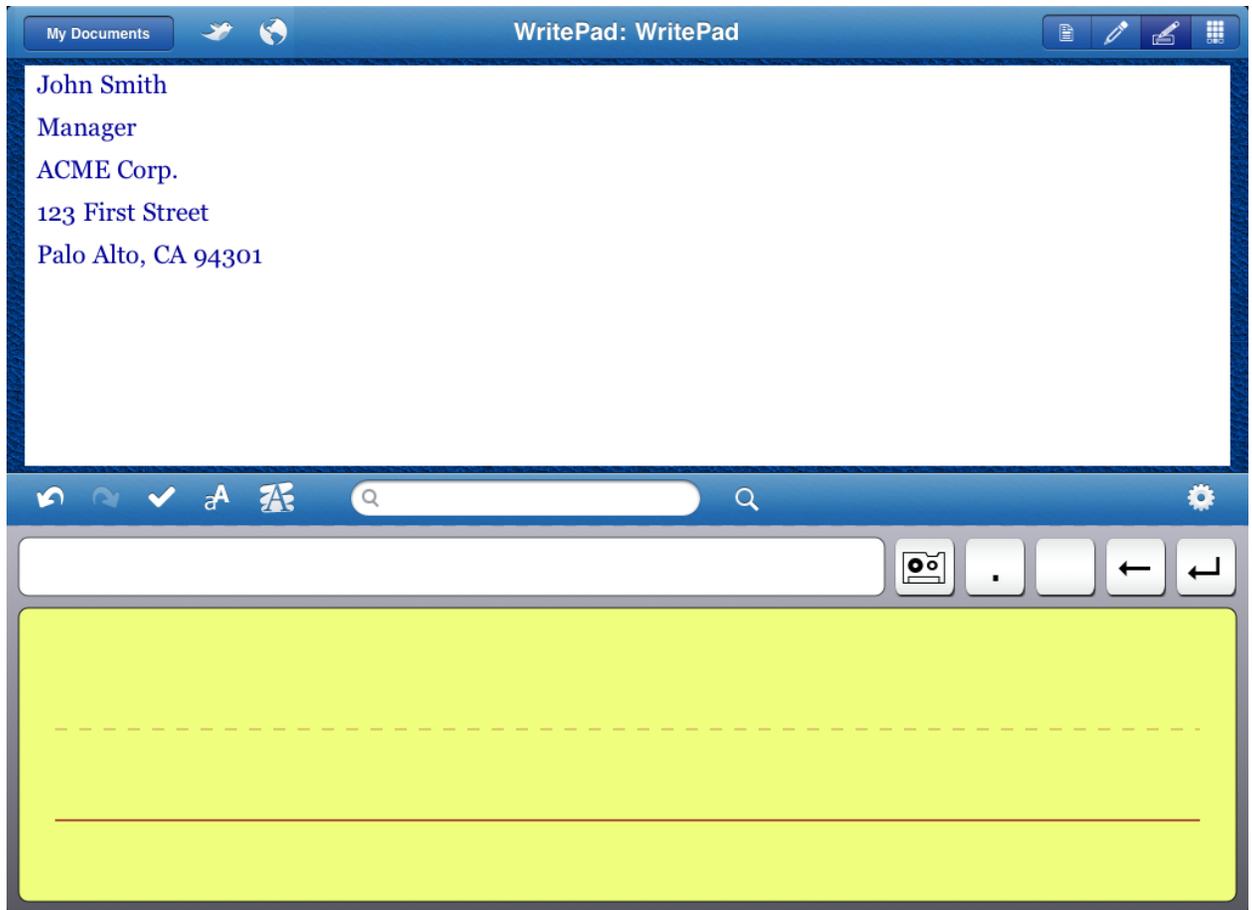
15. Finally, we want to end the document with a signature block. Touch the **Shorthand** button



. The Execute Shorthand dialog appears.



16. Touch `sign` to add the signature block to the document.



See the Users Guide to learn about adding user-defined commands.

Six: User Dictionary and Autocorrector

1. The User Dictionary is found in the **Options** window. To go to the **Options** window, tap

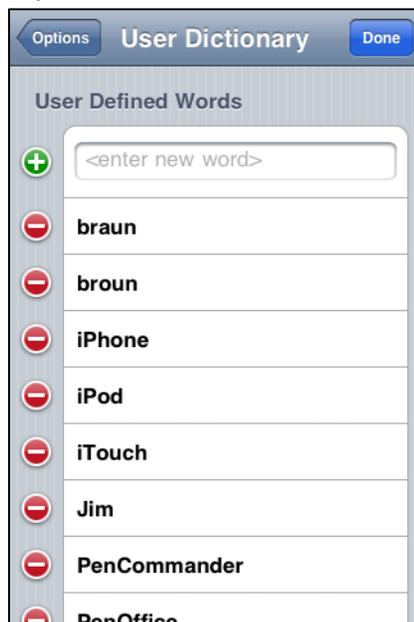


on .

2. If you decide you want to delete or add a word to the dictionary, touch **Edit User Dictionary**. The **User Dictionary** will appear.



3. Tap the **Edit** button.



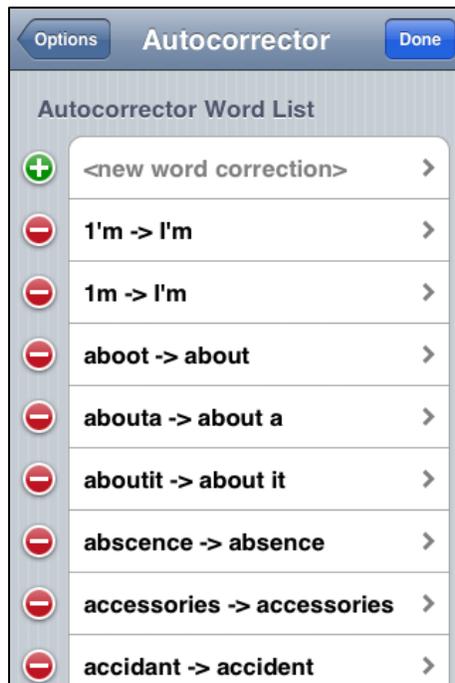
4. To add a new word, tap in the **enter new word** window. The keyboard will appear. Type in your new word and tap on  to add it to your dictionary.
- To delete a word, tap on the  next to the word to delete, then tap on the **Delete** button, then click **Done**.



5. If you notice that a specific word is often recognized as a different word, you can add this word to the Autocorrector word list. Go to the **Options** window and touch **Edit Autocorrector List**. The **Autocorrector** will appear.



6. Tap the Edit button.



7. Tap in the new word correction window. The Edit Word window will appear.



Autocorrector Edit Word

Edit Autocorrector Word

<enter misspelled word>

<enter correct word>

Always Replace ON

Ignore Case ON

Disabled OFF

8. Tap in the **enter misspelled word** window. Type in your misspelled word. Do the same in the **enter correct word** window with the correct word spelling, then touch the **Done** button on the keyboard.



Autocorrector Edit Word

Edit Autocorrector Word

hep

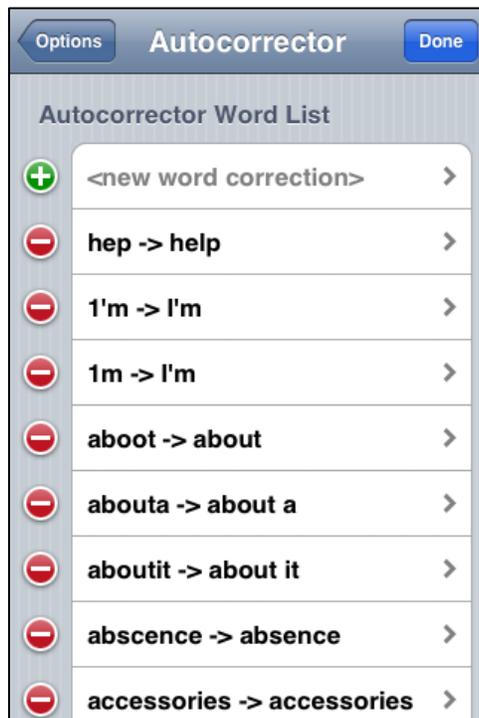
help

Always Replace ON

Ignore Case ON

Disabled OFF

- If the **Always Replace** switch is **ON**, the word is always replaced; otherwise the word is replaced only if the recognition engine alternatives contain the replacement word.
 - If the **Ignore Case** switch is **ON**, words are compared in lower case.
 - If the **Disabled** switch is **ON**, the word replacement is disabled. This is useful to disable a specific word replacement without removing it from the list.
9. Tap **Autocorrector** when you are finished. The new word pair will appear at the top of the list.



NOTE: When returning to the autocorrector list, the new word correction will be in alphabetical order.

To delete a word pair, tap on the  next to the word to delete, then tap on the **Delete** button, then click **Done**.

To change a word pair, tap on the pair (either in list or edit mode), and perform the changes as shown above when entering a new pair.

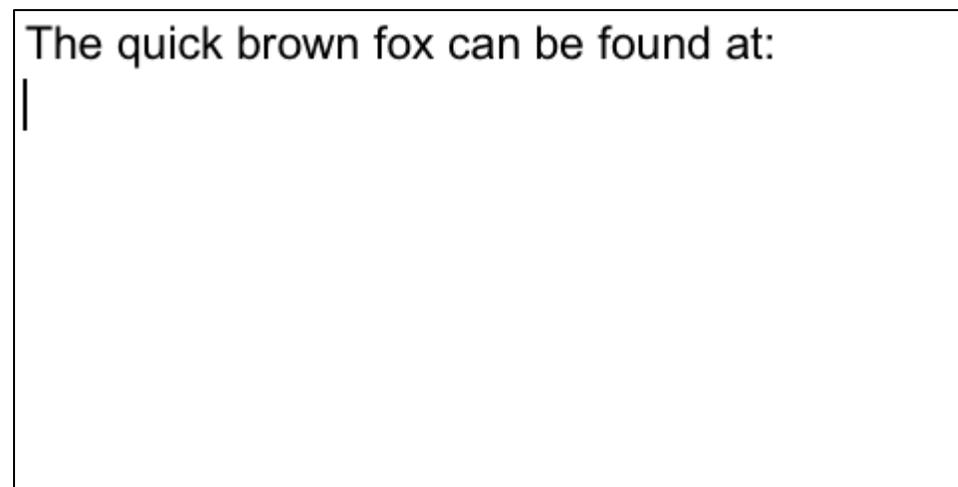
Seven: Using Shorthand Commands

The Shorthand feature offers a quick and simple way to insert often-repeated text and performs standard editing commands by writing the Shorthand name and drawing a circle around it. You can add new or modify Shorthands using the **Shorthand Editor**, which is accessible from the Options dialog.

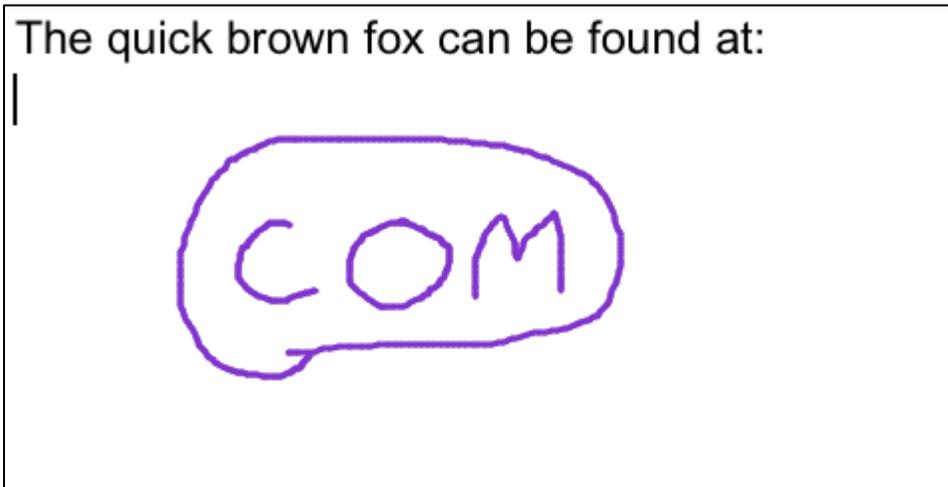
WritePad offers several built-in Shorthands:

- **cut** - copies selected text to the clipboard and deletes it
- **copy** -copies selected text to the clipboard
- **paste** - inserts the text from the clipboard at the current cursor location
- **undo** - undoes last editing action
- **redo** - redoes previously undone action
- **date** - inserts the current date using the current locale at the current cursor location
- **time** - inserts the current time using the current locale at the current cursor location
- **dt** - inserts date and time using the current locale at the current cursor location
- **com** - inserts *www..com* at the current cursor location and places the cursor between the dots
- **org** - inserts *www..org* at the current cursor location and places the cursor between the dots
- **net** - inserts *www..net* at the current cursor location and places the cursor between the dots
- **www** - inserts *http://www.* at the current cursor location
- **ftp** - inserts *ftp://ftp.* at the current cursor location
- **all** - selects all text in the note editor
- **save** - saves the current file without prompt, assigns generic name if name is not specified.
- **new** - creates a new Shorthand from the selected text

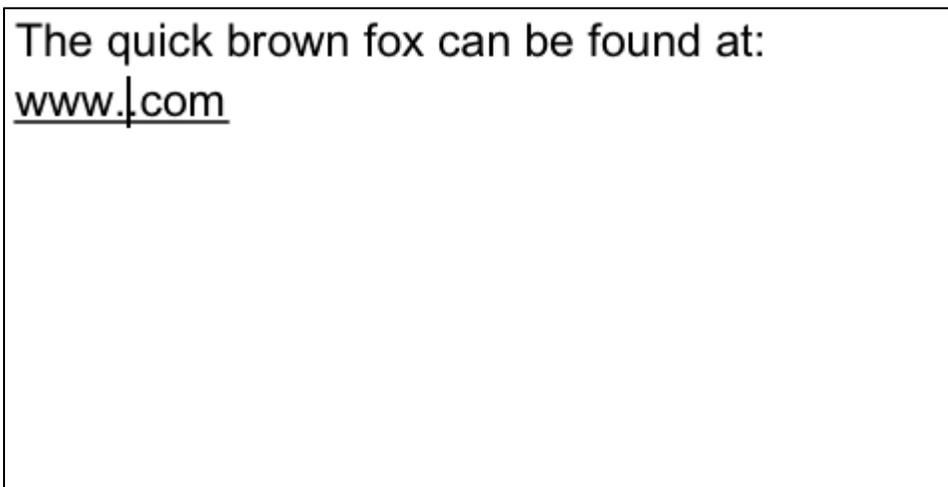
For example, let's take our sample from the previous tutorial and add a url to learn more about quick brown foxes:



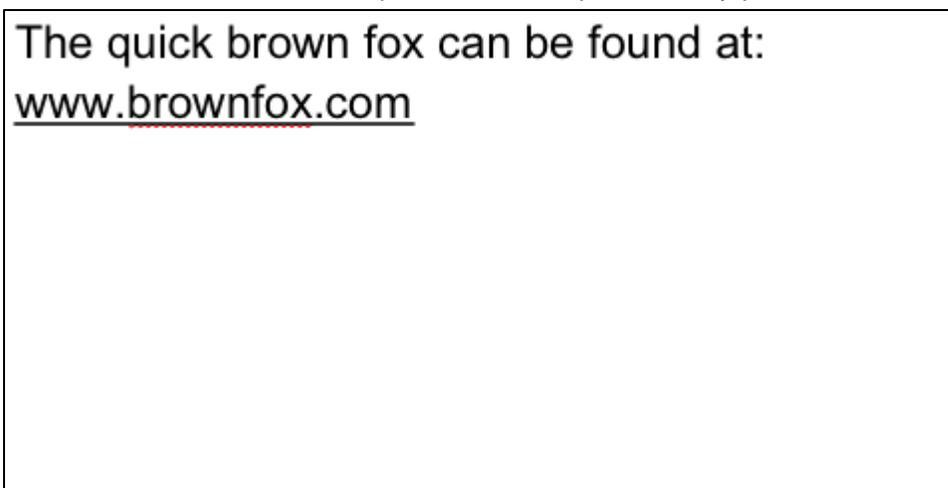
Use the `com` command to add the necessary parts of any url:



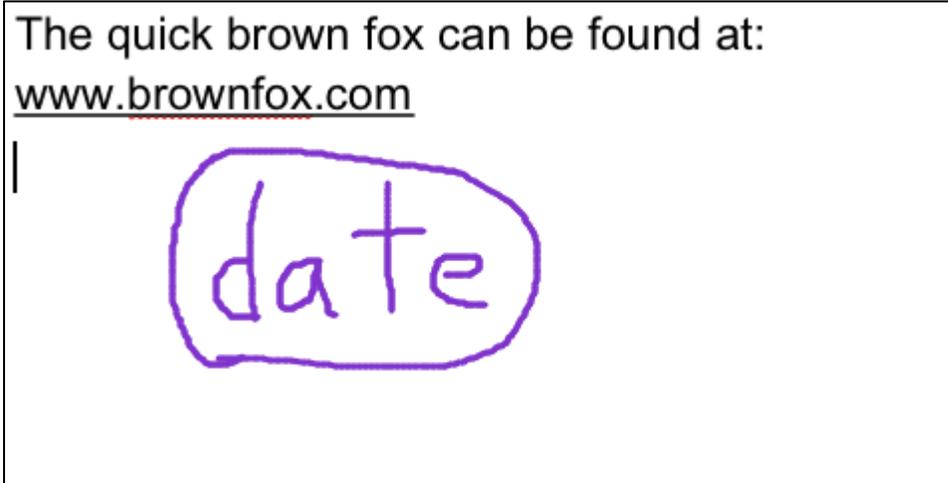
This command results in:



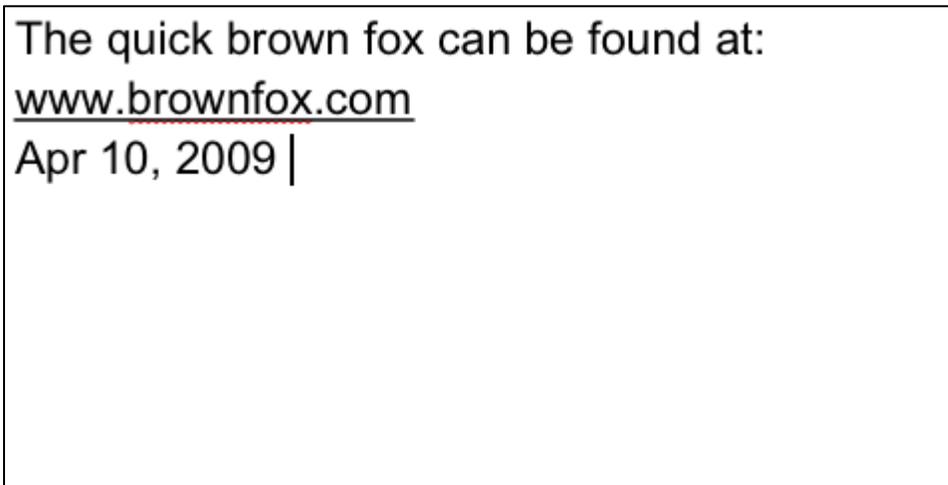
Notice the cursor is conveniently located where you can simply add the address.



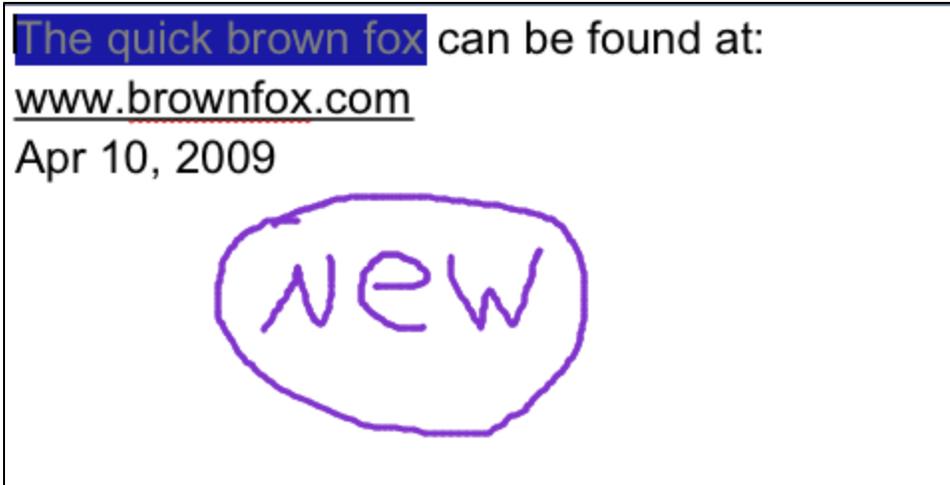
Now let's add a date to the end of our document. Write the date command:



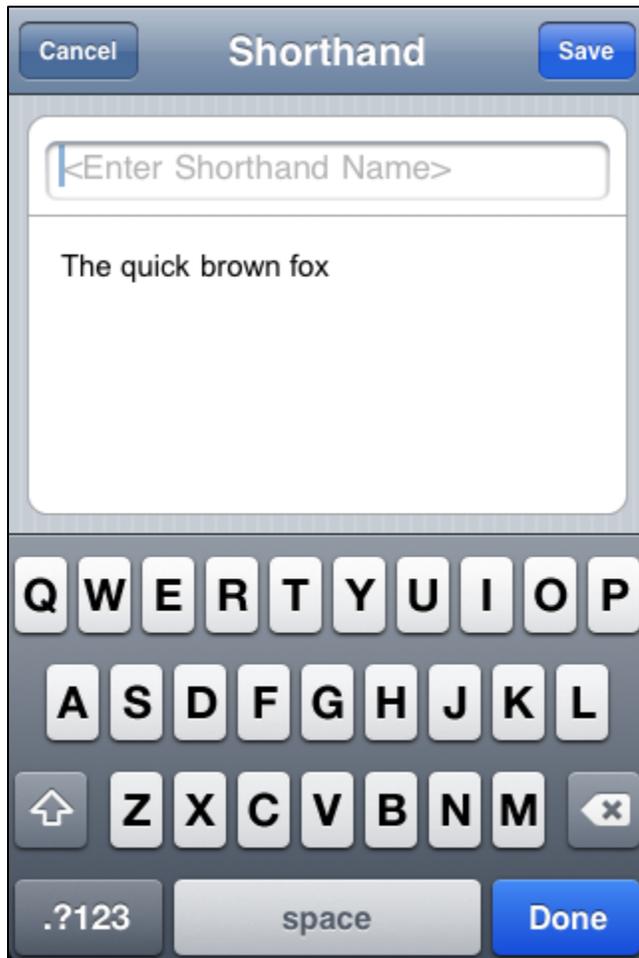
This will add today's date at the cursor position:



Since we seem to be typing "The quick brown fox" frequently, we can do this quicker by creating our own Shorthand command. To do this, highlight "The quick brown fox", then use the **new** command.



The Shorthand Editor will appear with the highlighted text.



Now just add a shorthand command in the Enter Shorthand Name box, and touch Save.



So now anytime you feel the need to begin a sentence with this phrase, just use your new **qbf** shorthand command.



This results in the following:

The quick brown fox