

WritePad for Android

***HANDWRITING RECOGNITION
TUTORIAL***

WritePad Tutorial

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One: Program Overview

WritePad's an advanced input method for Android OS which aims to replace the on-screen keyboard with PhatWare's proven handwriting recognition technology and can be used for text input in any Android application. It integrates with any application allowing text input, such as email, SMS, notes, word processing, and others. WritePad is especially useful on Android Tablets, such as Samsung Galaxy Tab and Motorola XOOM, and Android phones such as Motorola Droid and others. WritePad features 4th generation handwriting recognition technology which supports practically any handwriting style, including cursive (script), print, and mixed for general text entry, numeric for entering numbers and phone numbers; and internet for entering email addresses and URLs. WritePad also has a built-in calculator, enabling users to write simple equations such as "22.3+15.66=" and WritePad will calculate the result.

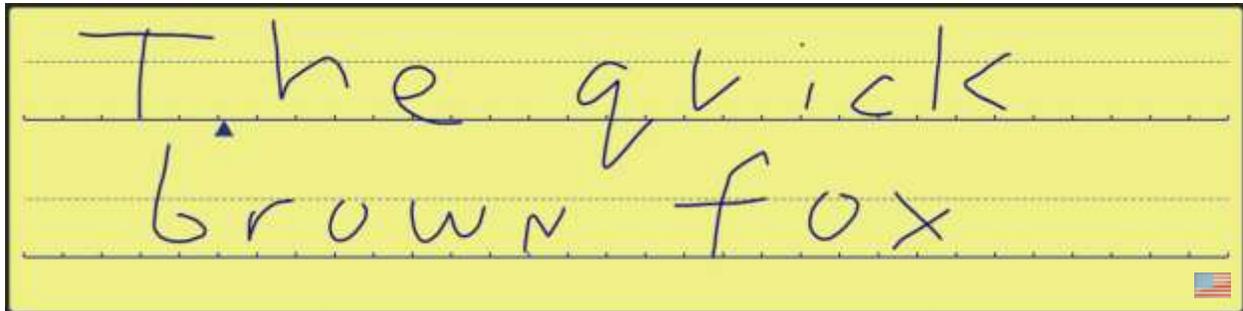
The software analyzes pen strokes written in the designated WritePad area, then converts those pen strokes into text and sends the recognized text to the target application. It also allows easily switching between the handwriting recognition and the standard Android keyboard. The built-in full keyboard has an autocomplete function and a voice recognition feature. WritePad supports handwriting recognition in thirteen languages. You can quickly switch between languages by holding the keyboard button above the writing panel.

In the beginning, the recognition quality may depend on your style and how comfortable you feel writing on the screen with your finger; however the more you use it, the better it will become as the software will adapt to your patterns. To assist in recognition, WritePad has a customizable auto-corrector, which automatically fixes common spelling and recognition errors and an editable user dictionary to improve recognition of custom words and names not included in the main dictionary. You can also use the **letter shape selector** to disable some unused letter shapes to further improve recognition quality.

Note: When reviewing screenshots below, please be advised that WritePad appearance may vary on your device depending the version of the Android OS and device screen size. For instance, on devices with smaller screens, such as Smartphones, the writing panel has only one writing row, while on most tables it has two rows as pictured on the screenshots in this document.

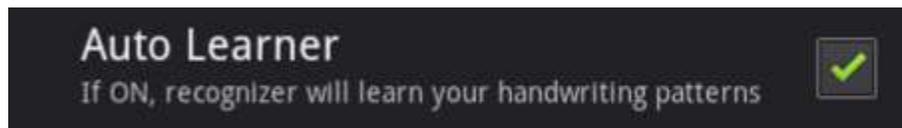
Two: Tips to Improve Recognition Quality

1. Always write on the screen horizontally, not at an arbitrary angle. To help you write horizontally, turn on **Show guidelines** from the **Options** menu.

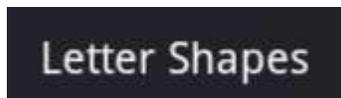


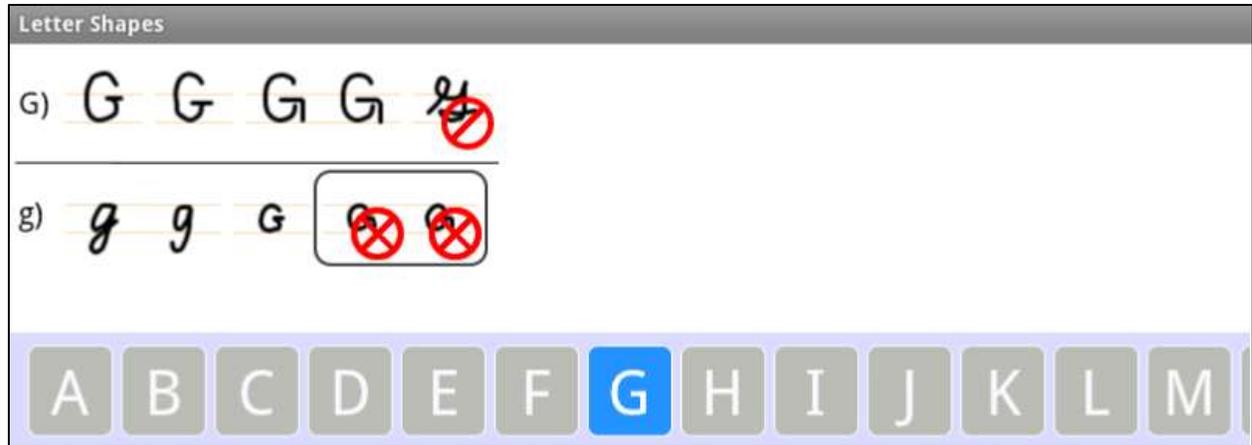
2. Write large; do not be afraid to run out of screen space when writing long words because you can continue to write characters on top of previous writing by starting a new word on the left side of the marker , if **Auto Insert Results** is on. This will automatically send the original line of recognized text into the document and start a new recognition session.
3. 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.



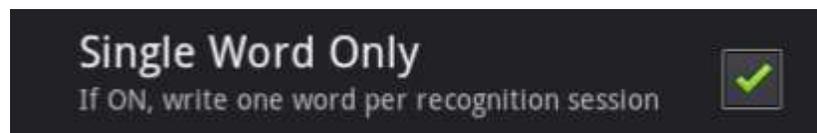
4. If you still get a wrong letter while writing, tap on **Letter Shapes** from the **Options** menu.





Scroll to the desired alphanumeric character, then tap on the desired shape to select it. To disable/enable the selected shape, tap once to indicate that the shape is rarely used (the  symbol will appear next to the shape); tap a second time to indicate that the shape is never used (the  symbol will appear next to the shape); tap again to re-enable the shape. Note that some shapes may be combined in groups. Grouped shapes are always enabled/disabled together.

5. 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**.



6. 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.
7. If you always print your characters, use the **Separate Letters** mode. Note that if this option is on, you should not connect characters.



Also make sure the cursive/print mode option on the toolbar is in **Print Mode**.

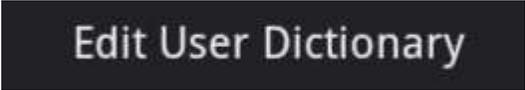


- Print mode

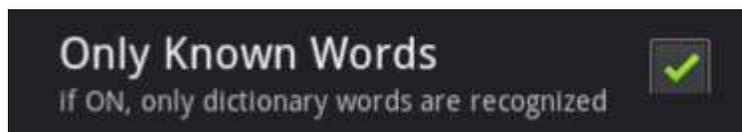


- Cursive mode

8. 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.

A dark rectangular button with the text "Edit User Dictionary" in white.

9. 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.



10. If you are writing numbers, capital letters, or email address/URLs, you can switch recognition modes by tapping on the **Mode** button on the toolbar.

 - Mixed mode (default).

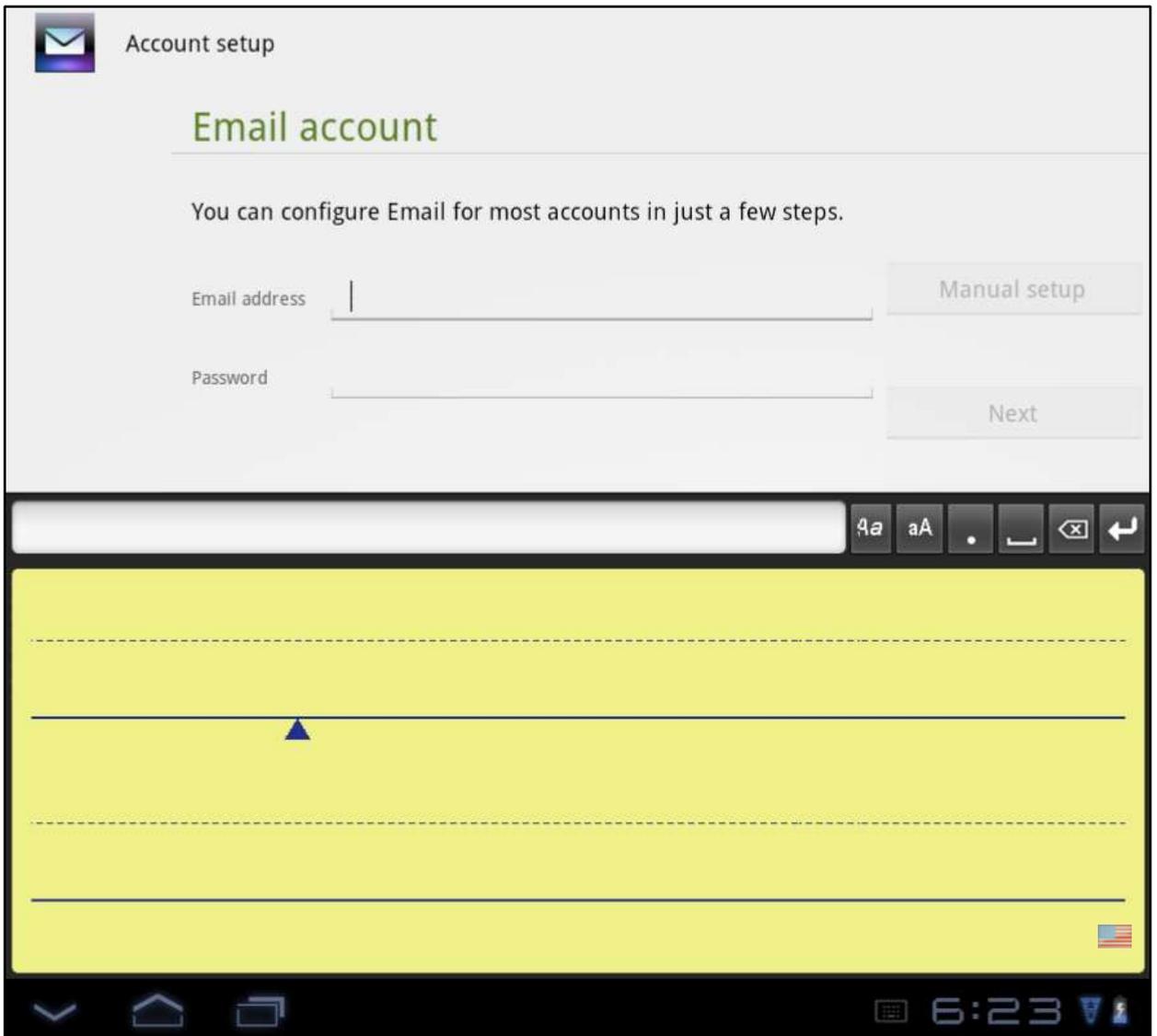
 - Upper case mode.

 - Numerical mode.

 - URL mode

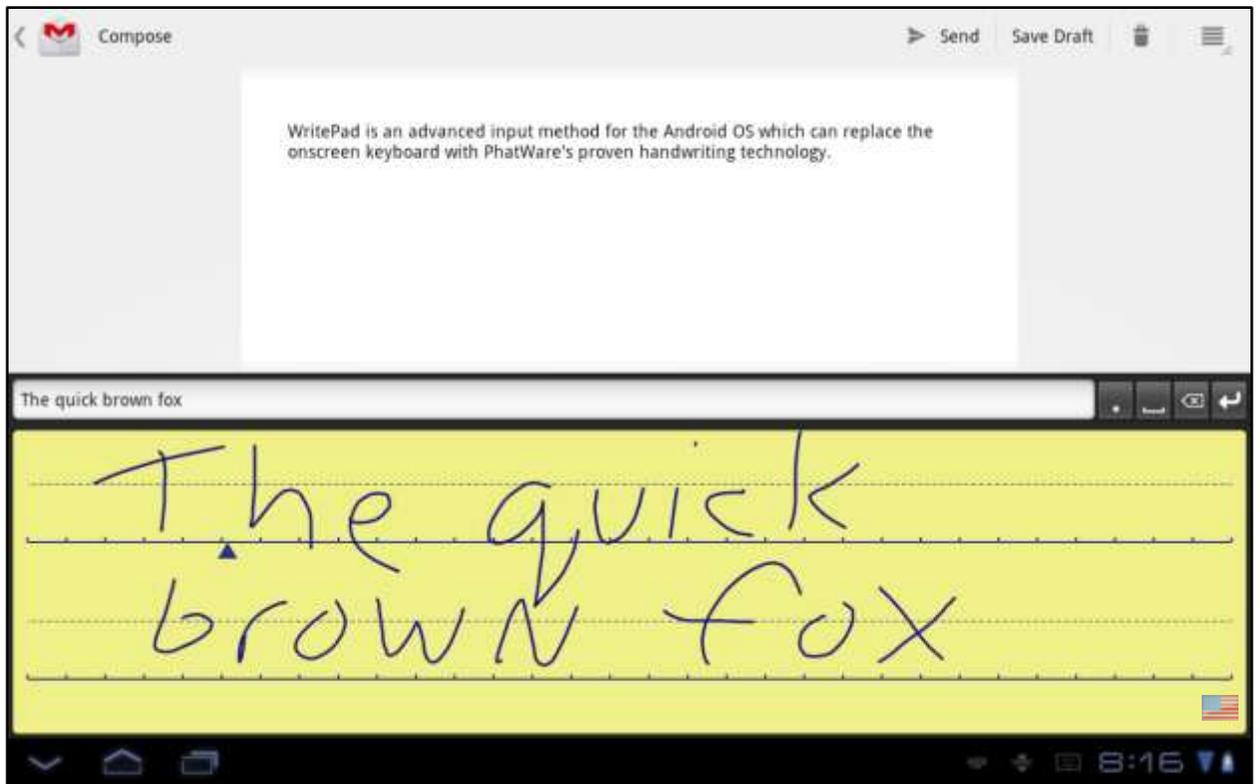
Three: Input Panel

1. To enter the input panel mode, go to any application that requires text input.



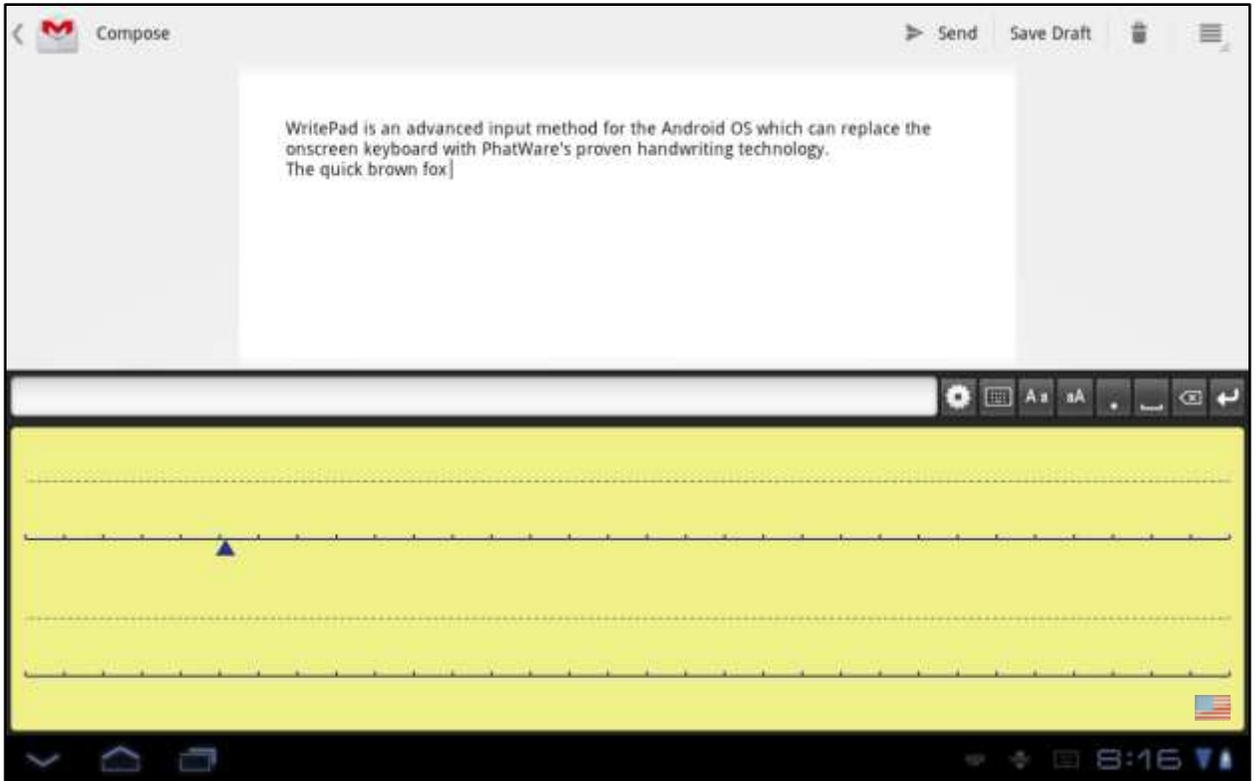
2. To enter text, write on the input panel between the solid lines in your preferred handwriting style (the input panel can support up to two lines of handwritten text, depending on the device and orientation). You can write one or more words per recognition session, but always complete the entire word in each session and ignore intermediate results because the dictionary is used to find best results, which will appear in the application window.

Write "The quick brown fox"



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

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



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

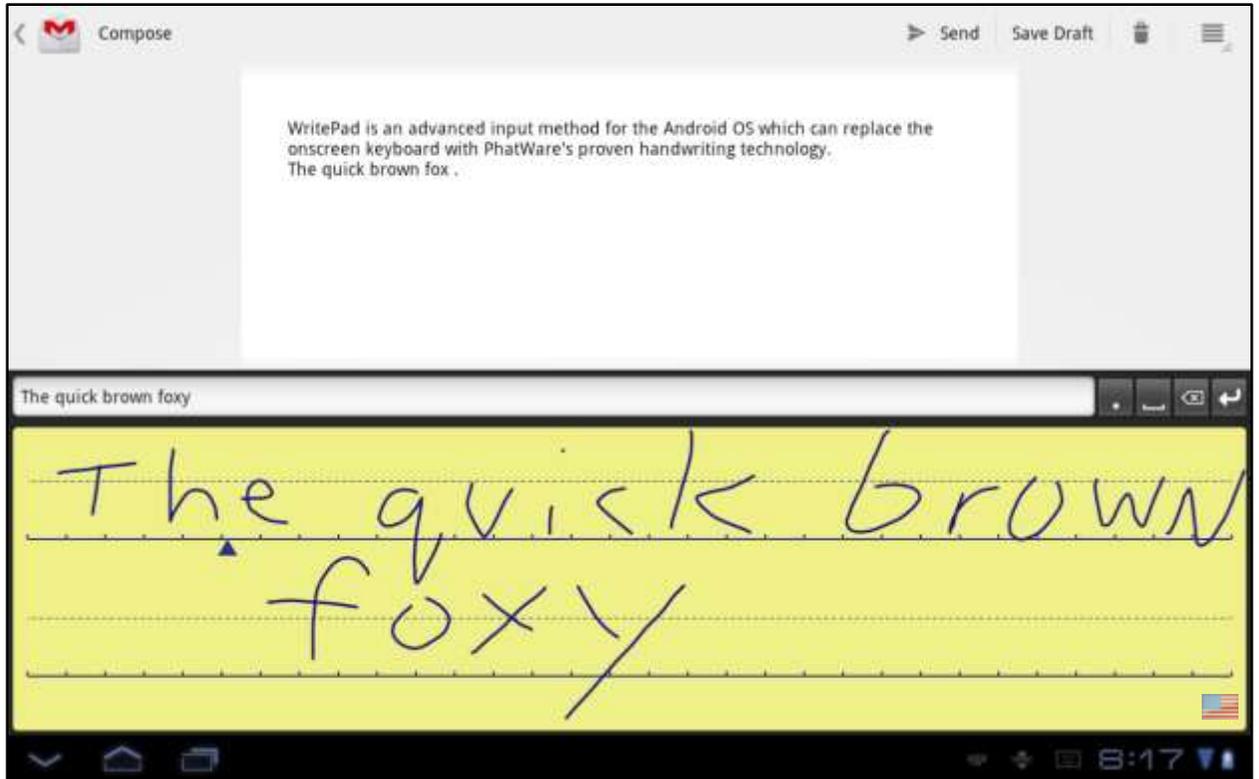
5. With the input panel blank, touch the **Return** button . This will insert a return at the current cursor location to move the cursor down to the next line.

Alternatively, you can use the Return gesture in the input panel to get the same result.



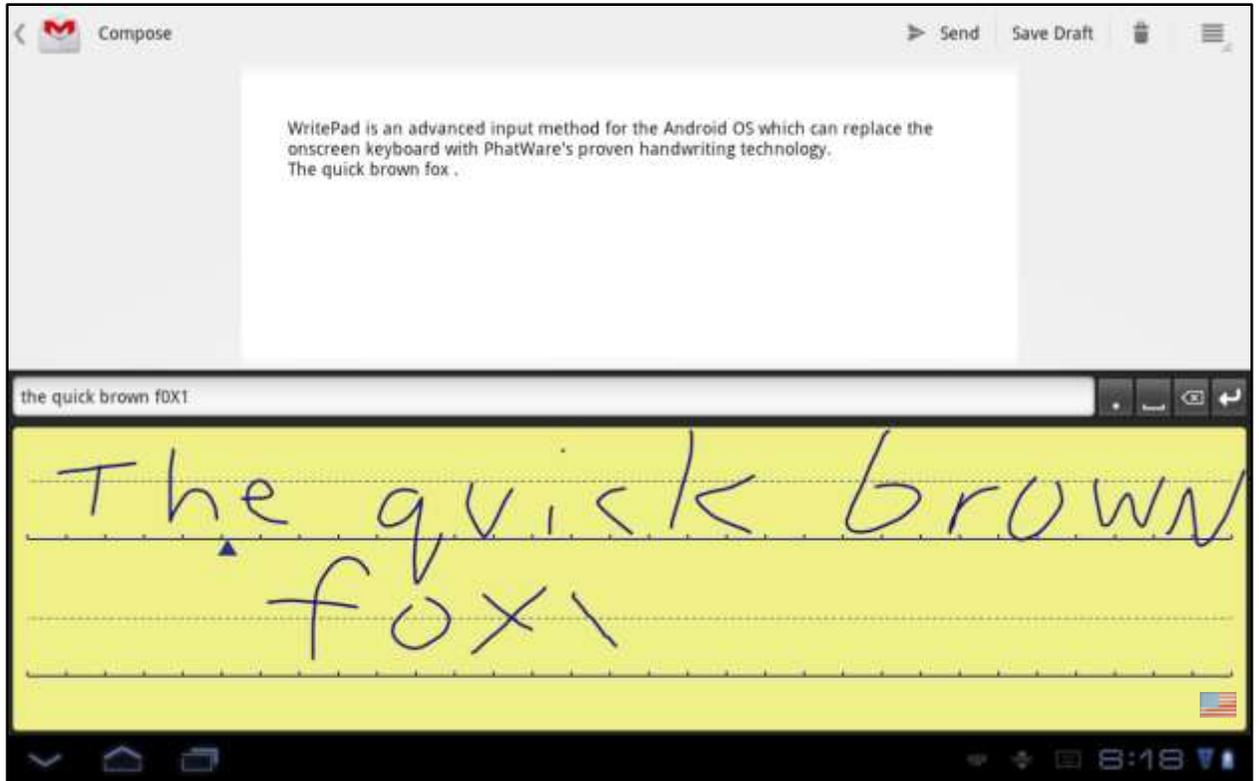
Make sure that the horizontal part of the gesture is at least twice as long as the vertical part.

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



7. Now we want to remove the y from foxy. Since it usually takes two strokes to write the “y”, you need to use the **Backspace** button  or the Backspace gesture *twice*. You need to use the backspace command twice since each backspace *deletes only the last stroke*.

For the first backspace, use the  button.

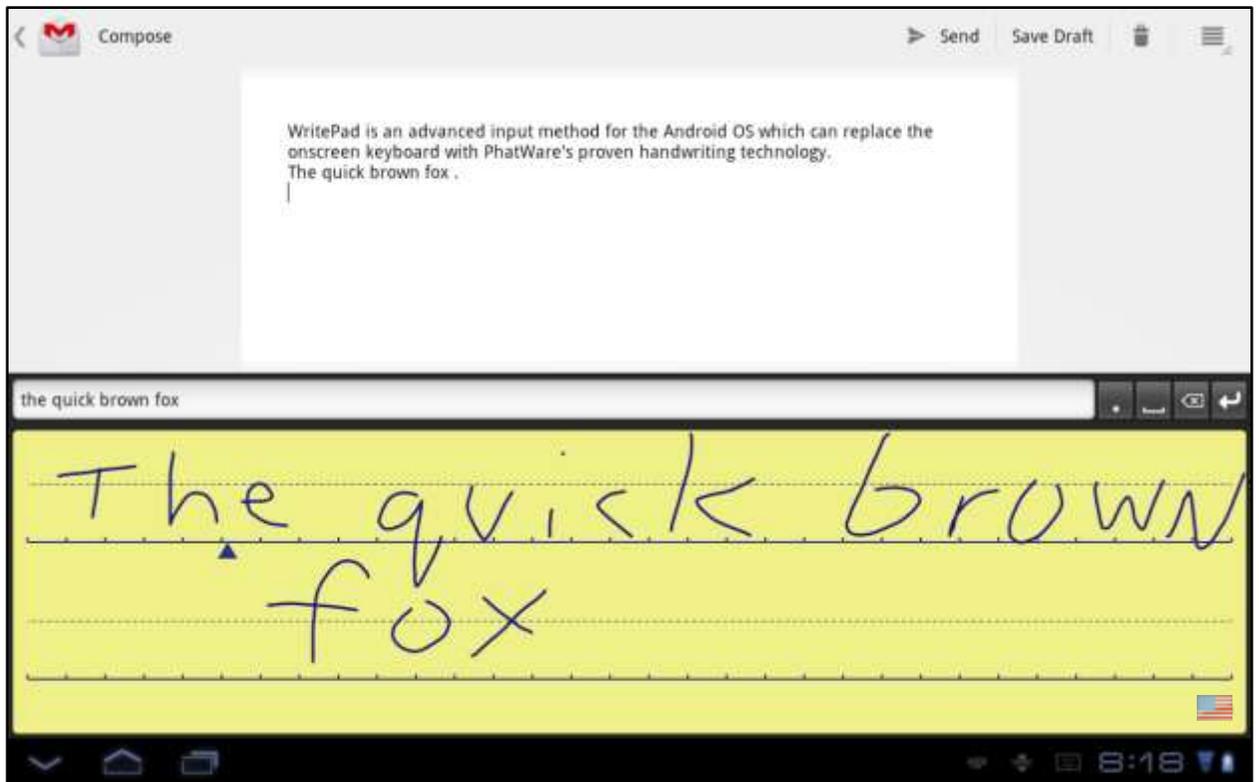


First backspace touch.

The recognition results window will adjust the results for each touch of the **Backspace** button.

For the second backspace, use the Backspace gesture in the Input panel.





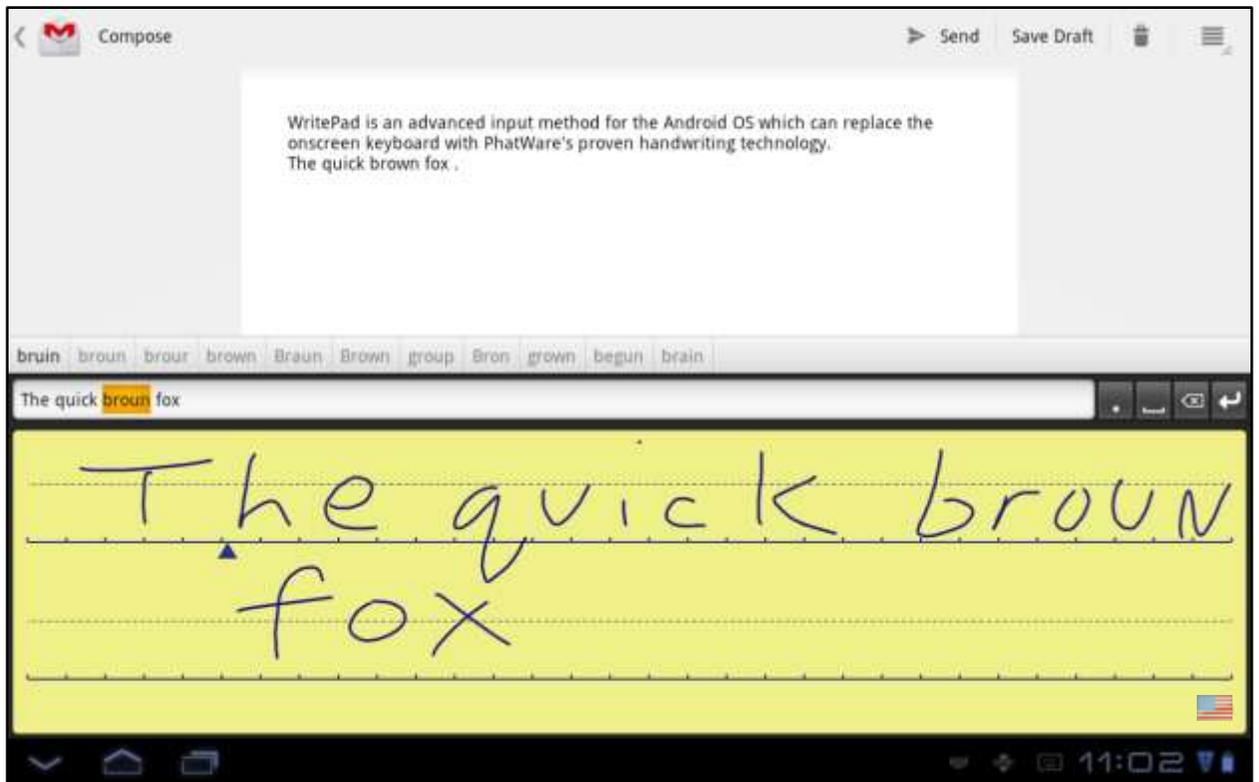
Second backspace touch.

8. If you want to delete the entire content in the Input panel, instead of using the backspace command for each stroke, use the Cut gesture inside the Input panel.



9. 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.



10. Select **brown**.

11. If **Auto Insert Results** is on, starting a new word on the left side of the

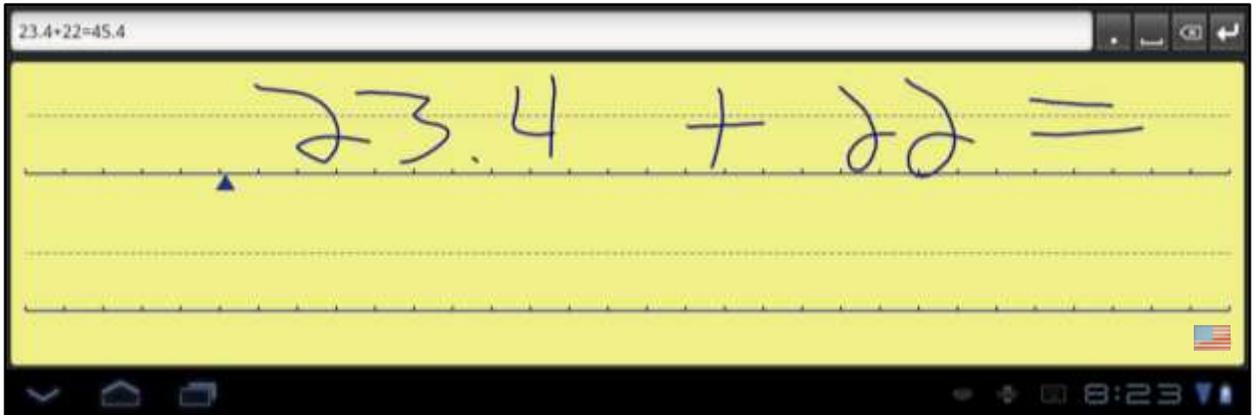
marker  on top of previous writing will automatically send the original line of recognized text into the document and start a new recognition session. Using this option, you can keep writing until you are done, and only have to tap the **Return** button once to enter the final line of text. With the previous writing still in the input panel, start writing “jumps over the lazy dog”, beginning to the left of the marker. The first line of text is automatically inserted into the document and clears the input panel screen so you can keep writing the remaining part of the sentence.

12. Touch the Return button  to insert this sentence. Then touch the Return button again to move the cursor down to the next line.

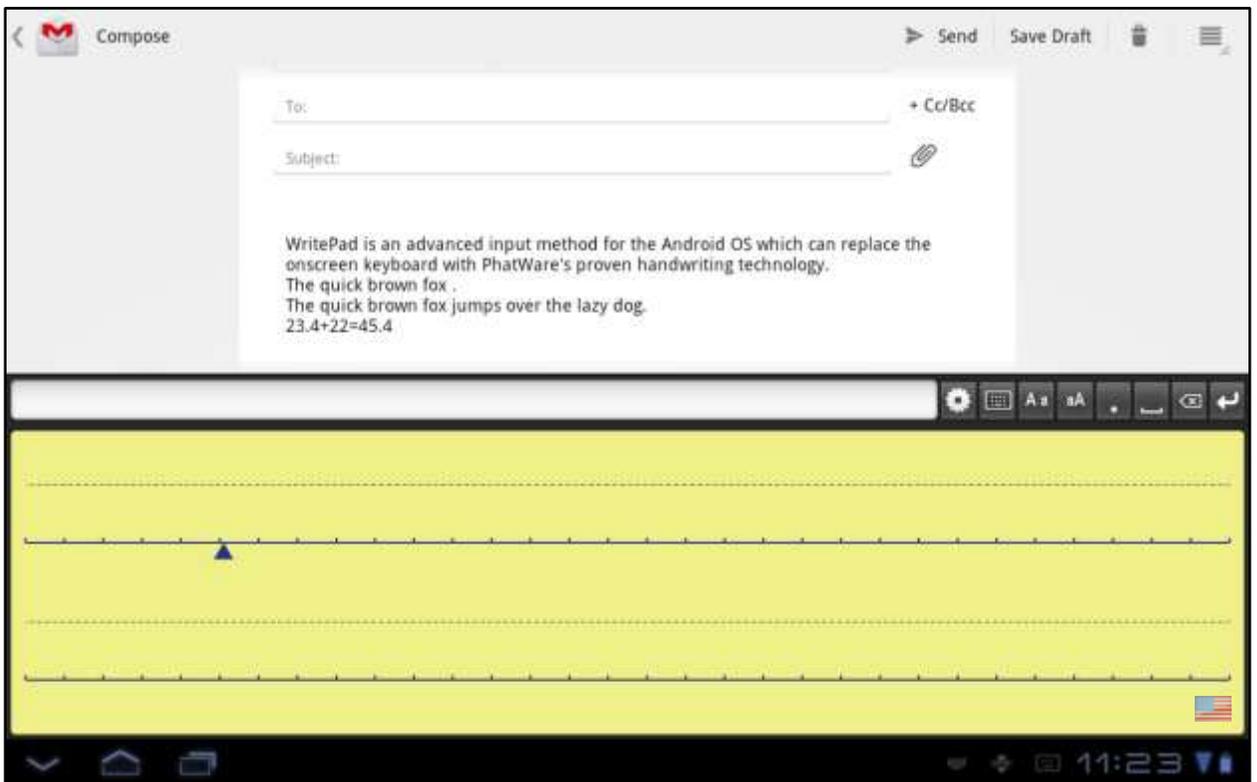
13. To use the built-in calculator, change the **Mode** button to numerical mode

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for better recognition. Write “23.4+22=” 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.



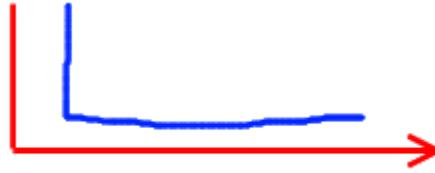
14. Now let's add a space between the equal sign and the answer.

Note: This will only work when the Input panel is empty.

Place the cursor between "=" and "45.4". Now use either the Space button



or use the Space gesture.



Make sure that the horizontal part of the gesture is at least twice as long as the vertical part.



15. Let's change the language used for writing to German. Touch and hold the keyboard icon .



Tap on **Deutsch** to select the German language. The handwriting recognition engine will now recognize German words. The flag of the current language selected will appear in the lower left-hand corner of the Input Panel.

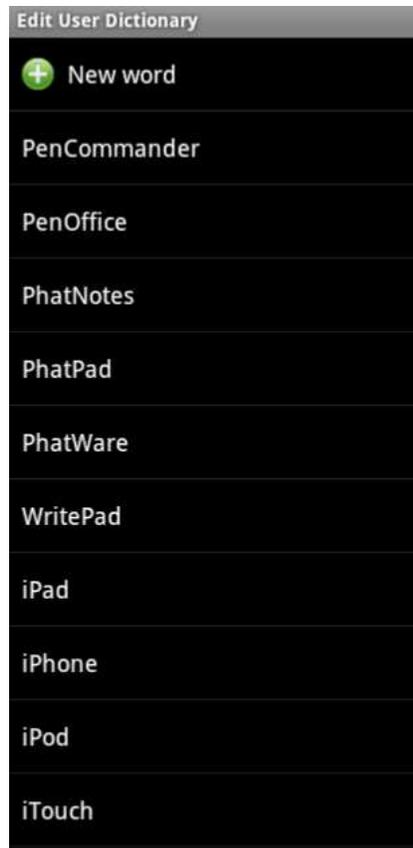


Four: User Dictionary and Autocorrector

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

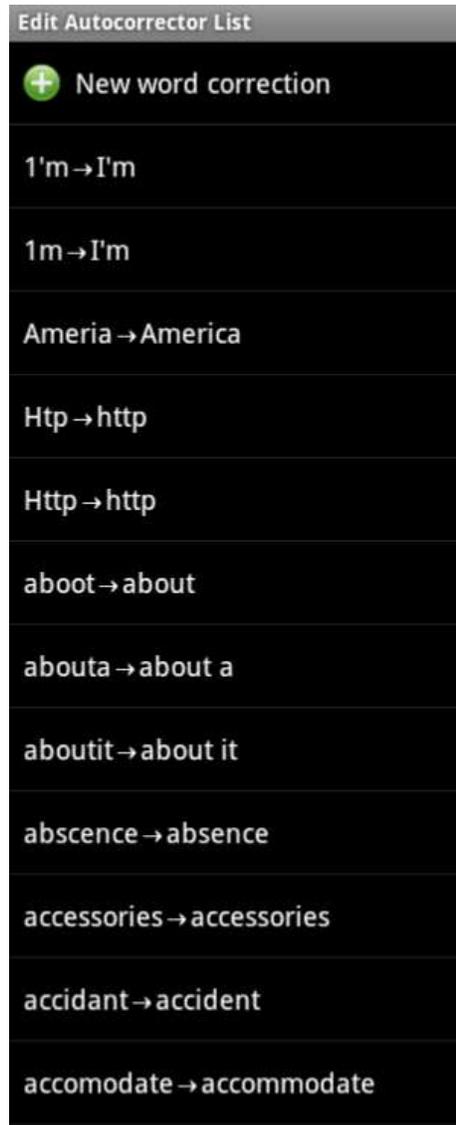
Options window, tap on .

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. To add a new word, tap **New Word**. The keyboard will appear. Type in your new word, touch the Return button  to add it to the Insert Word window, then tap **OK** to add it to your dictionary.
4. To delete a word, tap and hold your finger on the screen on the word to delete, then tap the **Delete** button.
5. To change a word, tap on the word, and perform the changes as shown above when entering a new word.

6. 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 List** will appear.



7. Tap **New word correction**. The **Insert word pairs** dialog will appear.



8. Tap in the left or top window. Using the input panel, enter your misspelled word. Tap the Return button  to add it to the window. Do the same in the right or bottom window with the correct word spelling.



- If the **Always Replace** switch is checked, 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 checked, words are compared in lower case.
 - If the **Disabled** switch is checked, the word replacement is disabled. This is useful to disable a specific word replacement without removing it from the list.
9. Tap **OK** when you are finished. The new word pair will appear in the list.

10. To delete a word pair, tap and hold your finger on the screen on the word to delete, then tap the **Delete** button.
11. To change a word pair, tap on the pair, and perform the changes as shown above when entering a new pair.