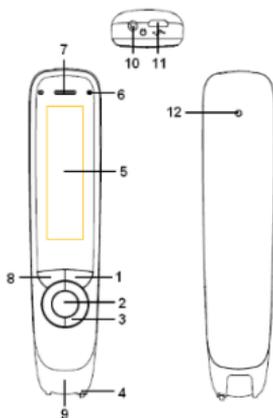# Quick Start Guide

Brief Introduction

The C-Pen™ ReaderPen™ is a portable scanning pen which reads printed text out loud using an embedded camera, a real time optical character recognition (OCR) and text to speech (TTS).

C-Pen ReaderPen is designed with the objective to promote **active and independent reading** with the dedicated purpose to **improve understanding and learning.**

C-Pen ReaderPen also features Scan to File, mono- and bilingual dictionaries, and a voice recorder.

C-Pen ReaderPen will thus help you to work more efficiently and learn faster. Simply scan and the experience is instant!

C-Pen ReaderPen

1. Power On/Off & Back button: A long press powers the device on or off. In the sub-interface, press this button to exit from the current level back to previous interface. When prompted for selection or input, this button cancels the operation.

2. OK button: When a dialog box or option list pops up, press this button to confirm the operation.

3. Up/Down/Left/Right: Press these buttons to move focus or cursor. In the Dictionary sub-interface, press the left/right direction button continuously for 1 second to roll back to the

previous/next scan. Rollback is limited to the recent 100 scans in the current session of using the dictionary.

4. Scan Trigger: When scanning, the Scan Trigger is automatically pressed to activate scanning.

5. Screen: The device's display screen.

6. Microphone: Used for sound recording of voice memos.

7. Speaker: Used to play audio or listen to text speech. Muted when headphones are connected.

8. Menu button: Press this button to display context menu settings when available.

9. Scanning window: Frames the text to be scanned.

10. Headphone jack: Standard headphone jack. Used when listening to the TTS or voice memos. Speakers are muted when headphones are connected.

11. Micro USB connector: Used to connect the device to a computer or an AC adapter for data transmission or battery charging. When connected to a computer the device allows options to connect i) for charging only, ii) as USB memory to upload/download files, an iii) in keyboard mode.

12. Reset button: Pressing this button resets the device. It is recommended to use this button only when the device cannot be turned off properly.

Text Reader

In Text Reader mode all scanned text will automatically be read out loud. This mode is especially valuable to anyone with reading disabilities or if you're reading your second language and need to listen to text being pronounced.

Move the cursor to the option of "Text Reader" in the main menu, and press the OK button to enter the interface of listening function. The scanned text will be read out as default.

Listen Settings: In the interface of listening function, press the Menu button to get access to the context settings;

Adding Mode; The device provides two modes of how to treat scanned text; appending and replacing. With **Append,** the new scanned text will appear after the cursor while with **Replace**, the new scanned text will replace the previously scanned text line.

Scan Languages: if more than one language is supported, this is where to select which to use. Scan Language always sync automatically with the correct TTS language. In English there's an option to select British English or

American English voice. This setting is located in Main Menu\Settings\TTS Settings.

Reading Settings: Reading settings include Speed and Volume. Use navigation and OK buttons to adjust.

Listening options: The scanned text will be read out for every scanning operation. Users don't need to set this function and can't cancel it either. The whole text could be re-read by pressing OK button when part text is highlighted or the cursor is at the end of the text. If no text is highlighted and the cursor is not at the end of the text, the text between the cursor and the last word of the text could be re-read by pressing OK button. Reading can be stopped by pressing Menu button at any time.

Dictionary

Move the cursor to the option of **Dictionary** in the main menu, and press the OK button to enter the dictionary.

Selection of a language pair (e.g. English-English, [other-language]-English, etc.): Press the left/right direction buttons to select language pair (if multiple is supported) per your

preference.

Selection of a dictionary: If the pen has more than one dictionary in same language pair, press the up/down direction buttons to select the preferred one.

Dictionary settings: Press the Menu button to get access to the Dictionary settings.

The settings include options to have the scanned word and/or the definition read out loud.

Scan to File

Move the cursor to **Scan to File** in the main menu, and press the OK button to enter the function. In the submenu you can access Reading Settings to change the volume and reading speed, and to have the TTS read the text.

Create a new file: Move the cursor to **Create a new file**, and press the OK button to create a new .txt file named by the system's current date.

Continue scanning to latest file: Press direction buttons + OK to select latest (Continue…) file and use direction buttons to

position the text cursor within the file. Scan to enter text.

Special hint: If there are errors in the recognition results of the words scanned, press the OK button to delete the highlighted parts and scan again. Press the Back button to save and quit.

Open a file: Move the cursor to "Open a file", and press the OK button to open the list of saved files. Select your desired file, and press the OK button to open it.

Delete a file: Move the cursor to "Delete a file", and press the OK button to display the list of saved files. Select the file to be deleted and press the OK button. A dialog box will pop up to ask you whether to delete the file. Select "Yes" to confirm the deletion, and select "No" to return to the list of files without deleting any file. This action is irreversible.

Use settings to set OCR/scan language.

Audio

Select **Recorder** in the main menu.

Record: Select **Record** in the Recorder submenu, then left/right to set recording quality and up down to select audio format.

Press OK button to start/stop recording.

Play recording: Select this item to play any recorded files. In the submenu, use up/down to select the file and press OK to play. While playing, press up/down to adjust volume.

Erase recording: Select this item to erase recorded audio files. In the submenu, use up/down to select the file and press ok to erase. Select Yes or No to confirm.

Play Music: Music files, or other audio files may be copied from the PC (see USB connection – File Storage Location below) to the ReaderPen internal memory. Select Play Music to listen to these audio files.

Record Settings: In Record Settings, default File format and Sound Quality can be set.

USB connection to PC

After connecting the pen to a computer via USB cable, the pen will prompt you to select Keyboard, U-disk or Charging.

- Keyboard mode enables text input to computer (keyboard emulation – no drivers required). The device charges during use. NOTE: to get accurate characters, the computer keyboard language setting has to match the OCR/scan language of the reader Pen.

- In U-disk mode the ReaderPen connects as a USB disk and allows to upload/download/manage files. The device charges during use.

- In Charging mode the device only charges. There is no data connection to the PC.

File storage location (when connected to PC in U-disk mode):

- The files of extracted text are saved in the e_ScanFile folder.

- The historical records of dictionary lookup are saved

in the e_HistoricalRecords folder.

- The sound recording files are saved in the e_Recorder folder.
- The music playing files are saved in root or e_Music folder.

Scanning Instructions

The device supports scanning from both left to right and right to left (automatic – no settings required). It also supports usage with both left and right hand. Left/right hand setting is found under Settings in the main menu.

Prior to scanning ensure the OCR language is set to correct language (enter Settings in main menu).

1. Make sure the ReaderPen is on.
2. Select your function (Text Reader/Dictionary/Scan to File).
3. Select function, e.g. Scan to File.
4. Hold the device just like a common pen.
5. Place the document to be scanned on a flat surface.

When lowering the ReaderPen to the document, make sure to center the text line to be scanned in the Scanning window. Place the tip of the pen at the location about half a word in front of the first word to be scanned.

6. Push the pen slightly, and scan the words by moving along the text line as the scanning light turns on. Move straight at a steady pace.

7. Once the pen is lifted, the words scanned will be recognised immediately and displayed on the screen.

Test to scan!

Please scan the following words. Scan at a moderate and steady speed, not too fast and not to slow. Avoid twisting or wobbling as you move the scanning pen. If you can control your scanning speed properly and get the correct recognition for the samples below, you should be ready to move on to any other text of your choice.

These

are

single

words

This is a complete text line.

Tips for Scanning

1. Place the document to be scanned on a flat surface.
2. Hold the pen just like holding a common pen. When the scanning trigger pin is pressed (lightly) towards the paper the scanning light will turn on. Without rushing it, start moving the pen along the text line as soon as the scan light is lit up. The scanning process will go on until the trigger pin is released.
3. Ensure the angle between the tip and the surface is in the range of 70-90°, to enable the scanning light to turn on and to get high-quality images.
4. To ensure a complete recognition, place the tip of the scan pen at the location about half a word in front of the first word of the text when starting scanning, and lift up the pen at the location about half a word after the last word when finishing scanning.
5. During the scanning process, you may scan the text from right to left or from left to right.
6. The scan pen can only recognise one text line at a

time. You may not scan another row until the current row is recognised and displayed. Please align the text line to be scanned to the center of the pen's Scanning Window. Avoid twisting the pen while scanning and avoid excessive up/down movements.

7. Don't push the ReaderPen too hard towards the paper surface.

8. Carry out the scanning operation at a stable speed. The recommended speed is 8-10cm/s.

9. When scanning a form composed of cells, avoid scanning the border lines of cells if possible, especially avoid vertical part of the cell frame.

10. The C-Pen Reader can scan words with sizes ranging from 7.5pt to 21pt.

11. Text vs background contrast is important. Note that contrast between text and background may be low even if they are different colours that are readable by human eye.

12. Select appropriate language in the main menu

Settings (if your ReaderPen version supports multiple).

13. Avoid strong ambient light (e.g. direct or reflecting sun light) or too dark environment.

Software Update

If you want to update the system for your C-Pen ReaderPen, please enter this mode.
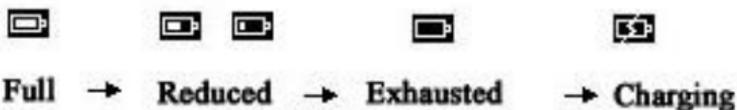
1. Update of upgrade package: Connect the ReaderPen to a computer and enter the U-disk mode. Copy the downloaded upgrade package to the ReaderPen disk root directory, and then exit from the U-disk mode.

2. System upgrade: In the ReaderPen's main system menu, select Software Update. Select Yes and press the OK button to update the system, or select No to return to the main menu without updating. After the upgrade, the system will restart automatically.

Ensure the pen is properly charged prior to upgrade and make sure not to turn off the pen during the upgrade process.

Battery Charging

Battery indicator

Full → Reduced → Exhausted → Charging

Full→Reduced→Exhausted→Charging

Battery charging

When your ReaderPen runs out of battery, you should charge the battery. The pen charges independent of whether it is powered on or off.

Connect the device to the USB socket of a computer (the computer must be powered on) or an AC adapter (not included in the package) through a USB cable for battery charging.

Special hint: The time for power-off charging is around 3 hours.

Safety Precautions for Battery Usage

THE LITHIUM BATTERY IS HAZARDOUS. ANY ATTEMPT TO DISASSEMBLE THE BATTERY IS NOT ALLOWED. IF YOU DISASSEMBLE OR REPLACE THE BATTERY, IT MAY EXPLODE. THROWING IT INTO FIRE MAY ALSO CAUSE EXPLOSION. KEEP THE BATTERY AND THE DEVICE DRY, AND AWAY FROM WATER OR OTHER LIQUID

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TO AVOID SHORT-CIRCUIT. MAKE SURE NOT TO USE THE BATTERY WHEN IT IS DAMAGED, DEFORMED, DISCOLORED OR OVERHEATED OR EMITS ODOR.

THIS PRODUCT SHOULD BE USED WITH CARE IN TROPICAL REGIONS. IF YOU HAVE QUESTIONS ON HOW TO USE THE PEN, PLEASE CONTACT OUR TECHNICAL SUPPORT/SERVICE FOR HELP.

Battery maintenance and precautions

Battery capacity deteriorate over time. To optimize battery life time:

- Charge battery prior to becoming completely empty.
- Do not expose the battery to heat longer than necessary (above 30°C is considered hot).
- Disconnect charger as soon as possible after battery becoming fully charged.
- Especially do not leave battery flat as it may harm the battery.
- Even if device is not used for a longer period it's recommended to charge battery at least every three months.

Declaration of conformity

Virrata AB hereby declares that the product **C610x** (x represents A-Z) comply with the requirements of directive 2004/108/EC – Electromagnetic Compatibility (EMC) Directive – and 93/68/EEC – CE Marking Directive.

FCC Compliance Statement

NOTE! This equipment has been certified to comply with the limits for a Subpart B digital device under Part 15 of FCC Rules. This peripheral may only be attached to a computer certified to comply with the Class B limits. Operation with a non-certified computer is likely to result in interference to radio and TV reception. Any changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

RoHS Declaration

Based on information provided by our suppliers this product meets the requirements of RoHS Directive 2011/65/EU.
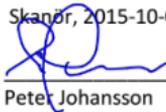The maximum concentration value of the prohibited six substances of "RoHS Directive" do not exceed the following:
– Cadmium and its compounds: 0.01% (100 ppm) by weight in homogeneous materials.
– Lead and its compounds, Mercury and its compounds, Hexavalent chromium and its compounds, Poly Brominated biphenyls (PBB), Poly Brominated diphenyl ethers (PBDE): 0.1% (1000 ppm) by weight in homogeneous materials.

WEEE Notice

The Directive on Waste Electrical and Electronic Equipment (WEEE) which entered into force as European law on 13th February 2003 resulted in a major change in the treatment of electrical equipment at end-of-life The purpose of this Directive is as a first priority the prevention of WEEE and in addition to promote the reuse recycling and other forms of recovery of such wastes so as to reduce disposal. The WEEE logo on the product or on its box indicates that this product must not be disposed of or dumped with your other household waste. You are liable to dispose of all your electronic or electrical waste equipment by relocating over to the specified collection point for recycling of such hazardous waste. Isolated collection and proper recovery of your electronic and electrical waste equipment at the time of disposal will allow us to help conserving nature resources. Moreover proper recycling of the electronic and electrical waste equipment will ensure safety of human health and environment. For more information about electronic and electrical waste equipment disposal recovery and collection points please contact your local city centre household waste disposal service shop from where you purchased the equipment or manufacturer of the equipment.

Skanör, 2015-10-01

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Peter Johansson
CEO
Virrata AB