

# insideONE, the tactile braille tablet.



**USER MANUAL** 

 $Inside vision-v.1.1\_521$ 



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## Let's begin

## What is in the Box?

Carefully unbox the insideONE making sure to keep the original packaging, as it can be used to transport your insideONE in the future.

The box contains:

The insideONE tablet

An AC adapter with the following specifications: 100-240V, 5V, 3A

A Micro USB cable for charging the insideONE. To properly insert the charging cable, the two pins must be facing up toward the touch screen of the tablet

A 128 Gb Micro SD card inserted in the insideONE, and a Micro SD adapter

A Carrying case with a strap

#### What is insideONE?

The insideONE is a Windows 10 tablet computer with an integrated high-quality 32-cell refreshable braille display. A Windows screen reader (NVDA and/or JAWS) is preinstalled, so that the tablet will boot up with speech. The preinstalled copy of JAWS is licensed for 90 days. The touchscreen is made of Gorilla Glass©, and can be darkened by speech or Braille users for privacy or to conserve battery.

### insideONE Technical Specifications

The tablet's 4GB of RAM, and quad-core Intel Atom processor clocked at 1.9 GHz allow the insideONE to boot up quickly. The insideONE has a 64 GB eMMC drive with the ability to expand storage capacity by an additional 256 GB using a Micro SD card. A 128 GB Micro SD card is provided. Wi-Fi supports 802.11a/b/g/n connection standards; however, only the 5 GHz band is supported for 802.11n. The device also supports Bluetooth® 4.0. The tablet's 8000mAH battery can provide up to 6 hours of usage, and up to 200 hours on standby. The insideONE has a 2MP front-facing camera, and a 5MP rear-facing camera. It also has a built-in microphone, and stereo speakers.

#### Description of the insideONE

The insideONE resembles an off-the-shelf Windows tablet with the addition of a 32-cell braille display. All components are contained within an anodized aluminum shell. Its touchscreen is made of Gorilla Glass © and measures 12 inches diagonally. 10 inches of the screen can be utilized in the way one would on a conventional tablet. The remainder is divided into four zones which serve as additional navigation controls for those using speech and Braille. There is a Braille keyboard engraved into the surface of the touchscreen. The following sections will help orient a user to the insideONE.



#### Left Side

Along the left side of the insideONE starting closest to the braille display and moving away from it, you have a 3.5 mm audio jack, a USB 3 port, a Micro SD card slot, a Mini HDMI port, and a Micro USB port for charging the unit. Behind the Micro USB port is an LED indicator which is red while the tablet is charging, and green once charging is complete.

### Right Side

Along the right side of the insideONE starting closest to the braille display and moving away from it, you have a Mini USB port, the Volume Down button, the Volume Up button, and the Power button. There are no ports or controls on the front or back side of this device.

## Orientation to the bottom panel of insideONE

There are four rubber feet on the bottom of the insideONE to keep it stable, and to prevent it from sliding around when in use. Between the two rubber feet nearest the braille display is a printed label with the serial number, electrical information, and standards with which the insideONE complies.

About two inches to the right of the rubber foot closest to the micro USB port is the 5MP rear-facing camera. With the braille display closest to you, this camera is on the underside of the tablet near the top left corner.

#### insideONE Braille Keyboard

For proper orientation to the insideONE, please place it on a flat surface with the braille display closest to you. There are ten oval-shaped indentations on the touchscreen. These correspond to the eight dots on a braille display's keyboard with the addition of two space keys.

### Placement of the Left Hand on the braille keyboard

If you have placed your hands correctly, from left to right you have the following keys. Dot 7 is under the little finger of your left hand, dot 3 is under your ring finger, dot 2 is under your middle finger, and dot 1 is under your index finger. Your left thumb will rest on the left Space key, also known as key 9. This horizontal oval-shaped indentation is directly under dots 1 and 2.

#### Placement of the Right Hand on the Braille Keyboard

Your right thumb will rest on the second Space key, also known as key 0. This horizontal oval-shaped indentation is directly under dots 4 and 5. Dot 4 is under your right index finger, dot 5 is under your middle finger, dot 6 is under your ring finger, and dot 8 is under your little finger.

### The Zones

To the left and right of the braille keyboard are vertical indentations called the Left and Right Slider, respectively. These sliders measure 1/3 of an inch wide and are about 3 inches high. Above the Left Slider is a circular button with a depression in its center. Like the sliders, it allows you to use gestures when working with the insideONE. Simply Called "Button," it measures just over half an inch in diameter.



Below the braille keyboard, and above the 32-cell braille display is a horizontal indentation called the Bottom Slider. This slider is slightly longer than the braille display, and measures 1/3 of an inch high.

The Bottom Slider not only allows a user to navigate the insideONE's applications and menus, but also offers the ability to manipulate the cursor. Along its length are 32 virtual cursor routing buttons.

Above the Bottom Slider is the Alphanumeric Transcription Bar. This shows letters or braille, cell-by-cell, using simbraille to show braille dots, and will be discussed later in the manual.

#### Insertion and Removal of a Micro SD Card

Before using the tablet, you might wish to insert a Micro SD card to give yourself more storage space. To insert a card, hold it with the contacts facing down. Gently push it into the slot until it clicks into place. To remove the Micro SD card, push in on the card, and then release it. The card will pop out of its slot.



## Let's use it

## Starting up and shutting down

## Turning on the insideONE

To turn on the insideONE, press the Power button located on the top right side of the tablet for a few seconds.

insideOne boot-up options

The tablet boots up based on the default combination of the two available screen readers, JAWS and NVDA.

Use the Control icon on Windows to set startup preferences. Click on the Control icon to view three menu options: Stop, Launch and Settings. Stop is used to shut down, restart or hibernate insideONE. Launch is used to choose screen reading software preference. Settings is used to select audio and tactile preferences. To enable or disable a screen reader, double-tap on the right slider or on the horizontal slider above the braille display for an application you want to change and then select OK by swiping two fingers to the right on the horizontal slider. Double-tap on the right slider or on the horizontal slider above the word OK to activate.

Only one screen reader can be enabled at a time.

During the boot process, you will see "initialization insideONE" message on the braille display with a cursor moving rapidly back and forth, followed by the Windows desktop.

JAWS is licensed software. The preinstalled starter version lasts 90 days. If you wish to use JAWS beyond the 90-day period, you will have to purchase a license, or activate the product using a license you already have.

## Shutting down insideONE Using the Windows Desktop

There are multiple ways to shut down the insideONE. When on the Windows desktop, you can bring up the standard Windows shut down options from the start screen and select between restart, shutdown and hibernate, or by using Alt+F4 in the Windows desktop. Remember to save your work before shutting down insideONE.

## Shutting down insideONE Using the Control icon on Windows desktop

Select Control and choose the Stop option. Then select Shutdown, Restart, or Hibernate.

If the insideONE is unresponsive, press the Power button for 15 seconds to force quit all applications and shut down the insideONE. To restart it, press the Power button again.

#### Sleep Mode

To conserve battery and shorten the time it takes the insideONE to boot up, you can put it in sleep mode. In this mode, resuming your work on the device is much faster than it is after completely shutting down.

Pressing the Power button briefly will put the insideONE in sleep mode. Using Windows sleep mode is a good way to leave work up on your tablet if you know you are going to return to it in a relatively short period. A



Windows device in sleep mode uses much less power than one which is fully operational. As the RAM is still receiving power, the operating system, along with any open documents or programs, are stored there. This significantly decreases the time needed for the insideONE to start up.

If the battery becomes low, the RAM no longer receives power, and the tablet will boot up as if it were completely shut down previously instead of being put in sleep mode. To wake up the insideONE, press and release the Power button. You will find yourself in the application open before putting the insideONE in sleep mode.

#### Hibernate

Choosing the hibernate option saves the current state of the RAM the hard disk and powers down the device.

To wake the insideONE from hibernation, press and release the Power button. You will be returned to where you last left off.

## Interacting with the insideONE

Navigating the tablet's menu options and applications is achieved by way of the braille keyboard on the touchscreen's surface, the on-screen QWERTY keyboard, and gestures similar to those used with smartphones. Those using speech and Braille can also take advantage of additional functionality offered by gestures performed on the tactile zones. If you swipe near the edges of the Sliders or touch the edges of the Button when swiping or tapping, your gestures may not be correctly recognized.

The insideONE is tactile and designed to allow blind users to interact with it using the Sliders, braille keyboard, and Button. The four zones respond to many different taps and swipes while gauging the number of fingers making contact with insideONE. As such, while using the Sliders and Button, be sure that no more fingers than necessary are on the tablet's surface to perform the gesture correctly. If you need to swipe one finger right in the Right Slider, no other fingers should be touching the device. Should more fingers be in contact with the tablet than necessary, the gesture will be misinterpreted.

For example, if you are on the second icon of the Windows desktop, and want to arrow left to the first icon, you can do so by swiping one finger left on the Right Slider. If you were to have your left thumb resting in the Bottom Slider while doing so, the gesture corresponding to the press of the Left Arrow would not be recognized.

Keep in mind that the areas which can accept touch include the Bottom Slider, the Left, and Right Sliders, the Button, the braille keys, and the touchscreen. The touchscreen, Button, and Sliders all allow you to perform taps and swipes. Gestures may use one, two or three fingers. If the braille keyboard is active, you cannot use the touchscreen to perform gestures. Instead, you must use the Bottom or Right Slider until the braille keyboard is deactivated. Items can be activated by doing a one-finger double-tap in the Bottom or Right Slider. Please note that in Windows, you will typically use the commands/gestures corresponding to pressing space or



enter to activate an item. Please consult the documentation for your chosen screen reader for additional details.

## Description of insideONE Gestures

InsideONE gestures apply on every tactile zone, the same way, no matter what software you use, NVDA, or JAWS.

The following is a brief description of the types of gestures that can be used with the insideONE. Please see the appendices at the end of this manual for all gestures available to users of the insideONE.

A single tap is one quick tap with one finger.

A double tap is two taps in quick succession with one, two, or three fingers.

A triple tap is three taps in quick succession with one, two, or three fingers.

Swiping is when you move left, right, up, or down in the Sliders. These gestures may use one, two, or three fingers.

It is possible however, to use the standard Windows gestures. This allows sighted persons to use the tablet in a standard way.

To access the standard Windows gesture with NVDA, you need to activate the QWERTY keyboard (hold 1 finger 5 seconds in the left slider). When the QWERTY keyboard is active, Windows gestures are working. You can make the QWERTY keyboard disappear by clicking on the cross at the top right of the keyboard. Windows gestures will be active on the entire surface of the screen.

When JAWS is chosen, and the QWERTY keyboard is active, Windows gestures are enabled. To switch to the JAWS gestures, you need to perform a five-finger rotation gesture on the screen.

To come back to the insideONE gestures, close the QWERTY keyboard by swiping down 1 finger in the left slider.

Gestures can be performed in different places on the tablet.

#### On the screen:

If the braille keyboard is not active, gestures can be made on the whole surface of the screen.

If the braille keyboard is active, no gesture can be performed on the screen. Only text input can be done. Gestures must be performed in the bottom or right slider.

If the QWERTY keyboard is active, gestures for the sighted are active as well. It is thus possible to click anywhere on the screen, like on an ordinary tablet. Note that this operating mode is not suitable to blind



persons. Blind people will mainly use the screen perimeter with the button and the three sliders (left, bottom and right).

## A Note on Working with Sliders

When the gesture performed is in the Left or Right Slider, swipe up or down. When using the Bottom Slider, swipe left or right. If the gesture in question is perpendicular to the slider, you can begin or end in the touchscreen area.

## Using the keyboards available on insideONE

Please note that the braille and QWERTY keyboards cannot be used simultaneously. To dismiss either keyboard, swipe down with one finger in the Left Slider.

### The QWERTY Keyboard

To activate the QWERTY keyboard for use by a sighted individual, hold one finger in the Left Slider for five seconds. Caution: if you are using JAWS, you stay with the Windows gestures. To switch to the JAWS gestures, you must perform a five-finger rotation on the screen.

You can close the QWERTY keyboard using the cross at the top right corner of the keyboard window, but the tactile mode will still be active. You will be able to reactivate the QWERTY keyboard using the keyboard icon in the notification area, close to the date/time icon.

## The Braille Keyboard

To activate the Braille keyboard, place and hold your fingers on dots 1 through 6 for one second, and wait for an audible tone along with confirmation on the display that the keyboard is active.

You can use the braille keyboard to emulate the keys found on a standard Windows QWERTY keyboard. Please see the appendices at the end of this manual for key combinations corresponding to those keys. When using the braille keyboard, the text is not entered immediately after placing your fingers on the keys. Instead, when you lift your hands from the keyboard, your key presses are registered, and text is entered at that time. If you have placed your hands incorrectly while brailling, and do not wish for those keys to be registered, slide your fingers away from the braille keys before lifting them. When typing, be sure that your fingers are not resting on the edges of the braille keys; otherwise, your keypresses may not register correctly. You can rest your wrists on the front edge of the insideONE for comfortable typing.

For beginners, learning how to monitor the braille keyboard, it is possible to set typing speed, using the Control menu or the Control icon, then going to Settings, Tactile and then Keyboard. See Settings chapter.

The Braille input and output grade is chosen in the options of your chosen screen reader everywhere else.

Tips:

To select the complete document, use the keyboard shortcut Ctrl+a



You can cancel your selection doing the Escape gesture, swiping 2 fingers right and left, or 2 fingers swipe left and right, or pressing escape on the keyboard.

If by mistake you have deleted some text, or if you wish to undo the last action, use the cancel gesture with 3 fingers swipe to the right then to the left, or the keyboard shortcut Ctrl+z.

To bold a selection, use the keyboard shortcut Ctrl+b.

To put a selection in italic, use the keyboard shortcut Ctrl+I.

To underline a selection, use the keyboard shortcut Ctrl+u.

To copy a selection, use the keyboard shortcut Ctrl+c.

To cut a selection, use the keyboard shortcut Ctrl+x.

To paste a selection, use the keyboard shortcut Ctrl+v.

New features in version 3:

The 1+4+7+9+0 combination restarts the Core software that works jointly with the screen readers, keyboard and Braille display. Use only if you experience a loss of Braille display.

You can now use a mouse in Windows when the braille keyboard is activated.

#### **Choosing Braille grades**

NVDA and JAWS, have their own settings where you can choose a desired braille grade.

If you use computer grade 0, you must type in computer braille, and characters will be displayed with dot 7 for capital letters and dots 7 and/or 8 for accented and specific characters.

If you choose grade 1, you must type in literary braille. Characters will be displayed with capital and number signs.

## Choosing a braille grade when NVDA is enabled

From the NVDA settings screen, choose the Braille category, and set the input and output table to your preferred grade.

#### Choosing a braille grade with JAWS

In Windows, use JAWS commands to make your selection (Open parameters, check that the selected application is Default (all applications), then go to Braille / General/Output and Input).



## The Braille HID (Human Interface Device) keyboard

This keyboard allows to use the braille keyboard in Windows, even if no screen reader is active. The HID keyboard is activated by 2 quick taps in the left slider, a sound is associated with its activation, as well as a braille message (HID enabled for active and HID disabled for inactive). This keyboard gives access to Windows, as if an ordinary keyboard was connected to the tablet, even if no screen reader is active.

Note that with the HID keyboard, the gestures in the screen are not available.

With this keyboard and the shortcut Alt + Ctrl + n (1+0 then 1+4+0 then 1345) you can launch NVDA.

With this keyboard and the shortcut Alt + Ctrl + j (1+0 then 1+4+0 then 245) you can launch Jaws.

## What is the Alphanumeric Transcription Bar?

Just above the braille display is the Alphanumeric Transcription Bar. Anything written in braille is displayed cell-by-cell in black on the Alphanumeric Transcription Bar. This allows those who do not know braille to see what a braille user is typing.

When entering text using an 8-dot braille, every character is shown as entered on the Alphanumeric Transcription Bar. When using contracted braille, the characters shown on the Alphanumeric Transcription Bar may not always make sense to a sighted individual since some words can be written using just one cell while others use just a few cells. In braille, the word "just" is written using the letter J, which is made up of only three dots. The display will use simbraille to indicate the dots an insideONE user has typed in cases where a word is made up of fewer letters than correspond to the number of print letters. Though some words may be shown on the Alphanumeric Transcription Bar in simbraille, the text will be displayed correctly in print on the screen.



## The Windows desktop

When you are on the desktop you will find the following icons:

Control

**Applications** 

Administrator

Teamviewer

Mozilla Thunderbird

Google Chrome

Microsoft Edge

This PC

VLC media player

Zoom

Acrobat Reader DC

Recycle Bin

EasyReader (30-day license)

Link to Microsoft Office programs

## **Special Desktop Icons**

Three icons have been added to the Windows desktop to make accessing certain commonly used options a more rapid and intuitive process. Found on the first row of desktop icons, from left to right they are: Control, Applications, and Administrator.

### Control

Control lets you choose how you wish to start or shut down the insideONE. The menu shows Stop, Launch and Settings.

#### Stop

Stop lets you choose between Shutdown, Restart and Hibernate. For more information on the different sleep modes, see Let's use it chapter.

### Launch

Launch lets you choose the startup configuration of the insideONE.

Two start up configurations are possible such as:

**NVDA** only

JAWS only



Select Launch, the selected programs will start immediately and will be launched automatically the next times the insideONE starts.

You will see the name of the 2 programs, JAWS and NVDA followed in brackets by their start up state, yes or no.

To apply your choices, select the OK button, either with the cursor routings, or by swiping 2 fingers to the right in the bottom slider, then with 2 taps in the right slider.

It is not possible to activate JAWS and NVDA at the same time. If one of them is already active, the activation of the other will automatically deactivate the first one.

insideOne boot up process options

The tablet starts depending on the startup chosen configuration.

In order to choose the right startup configuration, you need to use the Control menu available in Windows by clicking on the Control icon on the desktop.

At the opening of Control, you will have the choice between Stop, Launch and Settings (see the above explanation).

With insideONE you can use either NVDA or JAWS as a screen reader.

#### **NVDA**

InsideOne is using the NVDA screen reader (Non Visual Desktop Access) to give you access to Windows and its numerous applications.

You must use the standard Windows and NVDA commands using gestures and the insideONE keyboard. The choice of the input/output braille table is managed by NVDA, as well as for the reading voice using the NVDA Options menu.

#### **JAWS**

JAWS is installed and set up on the insideONE. InsideONE is compatible with JAWS version 2018 and above. If you have a license, you can activate JAWS. Otherwise JAWS will run in demo mode.

JAWS manages the choice of the input/output braille table, as well as the reading voice through its options menu.

#### Settings.

Settings shows the different available settings and information concerning the insideONE settings.

It offers options for Sounds, Tactile and About.



Sound allows you to turn on or off the sounds that you hear when you make some gestures.

Tactile allows setup gestures and keyboard settings. If you select Gestures, you will have 3 options concerning their length, Short, Medium or Long. If you select Keyboard you will have 3 options about the inter-keypress timing of the braille keyboard. These settings can be used when learning the braille keyboard, or in case of hand-shaking. If you have selected the Slow option, you will have to keep on holding your fingers on the keyboard for about 1 second before releasing them, so the character or the shortcut be typed in. If you have selected Medium, it will require to keep on holding the fingers for about 0.5 second before releasing them so the character or the shortcut be typed in. If Fast has been selected, there won't be any inter-keypress timing for the character, or the shortcut be typed in.

#### **About**

About shows the version. Select OK to exit.

#### **Applications**

Selecting the Applications icon shows you a list of almost all applications installed on the tablet. The applications are displayed in a list using rows and columns.

### **Administrator**

When Administrator is selected, Windows 10 File Explorer is loaded. You find yourself in the default user section.

## Technical Support and Troubleshooting Your Tablet Remotely

Should you experience any issues with the insideONE, or need to send it in for repair, please contact your local distributor.

#### Password of the insidevision session

The default password is: admin

You will need it if you come to the Windows screen log. Activate the braille keyboard to enter it.

#### Remote Assistance

It is possible to have someone control the insideONE remotely in order to troubleshoot or offer technical support. Anyone who has remote access to the insideONE can view the contents of your hard drive and modify settings. A person controlling the insideONE from a remote location interacts with the tablet using a keyboard and mouse, but is unable to make use of gestures in Windows. Insidevision is not responsible for any loss of data or damage to the tablet which may occur when a third party has been given permission to access the unit in this manner.



You will need to provide the individual providing assistance with the tablet's ID number and password. The insideONE should be connected to the Internet using a high-speed connection with the TeamViewer application running.

Once you have found TeamViewer on the desktop, launch it by double-tapping with one finger in the Bottom or Right Slider, or by pressing dot 8 with the braille keyboard active. Once the application loads, press tab three times. You may do this by swiping right with two fingers in the Bottom Slider, or by pressing dots 2, 3, 4, 5, and 0 on the braille keyboard. Tabbing three times will allow you to read and make note of the tablet's unique nine-digit ID number. The ID number and password change each time a new TeamViewer session is started.

## Care and Maintenance of insideONE

Before cleaning the insideONE, shut it down, and unplug the Micro USB cable if the device is charging, as well as any accessories or peripherals. Clean the entire tablet using a soft, dry, lint-free cloth such as those used for cleaning eyeglasses and electronics. The touchscreen should also be cleaned with a soft, dry, lint-free cloth. It is oil-resistant, but over time, and with normal use, these oil-resistant properties will diminish. The cleaning instructions for the tablet's shell should also be followed when cleaning the touchscreen. Using rough-feeling material to clean the touchscreen will cause scratches, and more quickly negatively affect the screen's oil-resistant properties.

Do not use paper towels, bath towels, hand towels, or any other rough-feeling material when cleaning the insideONE. Do not use compressed air, aerosol sprays, window cleaner, or any other chemicals when cleaning any part of the tablet.

Do not allow moisture to get into any of the insideONE's ports. Also, do not allow liquids to come into contact with the insideONE. Damage caused by moisture or liquid is not covered under the manufacturer's warranty. If the tablet comes into contact with moisture or liquid, please contact your local distributor as soon as possible.



# **Appendices**

## Appendix A: Bottom Slider

Zone	Action	Home	Windows
Bottom Slider	Swipe right with one finger	pans the display forward	pans a display forward
Bottom Slider	swipe left with one finger	pans the display backward	pans a display backward
Bottom Slider	one-finger double-tap	activates an item under a cursor/moves the cursor	activates an item under a cursor/moves the cursor
Bottom Slider	triple-tap with one finger	highlights a word under a cursor; Highlights an object in a list	None
Bottom Slider	Two-finger single-tap	pauses speech	pauses speech (not with JAWS)
Bottom Slider	Two-finger double-tap	Run menu	Alt
Bottom Slider	Two-fingers triple-tap	Pop menu	Right-click
Bottom Slider	swipe right with two fingers	moves to the next object of different type/to the next word when editing/	Tab
Bottom Slider	swipe left with two fingers	moves to the previous object of different type/to the previous word when editing/	Shift+Tab



Bottom Slider	swipe down with two fingers	reads text starting from the current position of the cursor	reads text starting from the current position of the cursor (not with JAWS)
Bottom Slider	swipe up with two fingers	reads the object under the cursor/goes back to the focused object	reads the object under the cursor (not with JAWS)
Bottom Slider	swipe right with two fingers then left	escapes the current menu and goes back to the application you were in/de-selects highlighted text	Escape
Bottom Slider	swipe right with three fingers	moves to the last object of the same type/moves the cursor to the next paragraph	End
Bottom Slider	swipe left with three fingers	moves to the beginning of a paragraph and to the previous paragraph/moves to the first object of the same type	Home
Bottom Slider	swipe down with three fingers	goes to the end of a document	goes to the end of a document
Bottom Slider	swipe up with three fingers	goes to the beginning of a document	goes to the beginning of a document
Bottom Slider	swipe three fingers right then left	cancels the last action	Ctrl+Z
Bottom Slider	swipe three fingers left then right	repeats the last action	Ctrl+Y

Appendix B: Button



Zone	Action	Home	Windows
Button	left or Right swipe with one finger	Alt+Tab switching between any open applications	Alt+Tab switching between any open applications
Button	double-tap	switches between Windows and Home environments	Switches between Windows and Home environments, if Home is installed. If Home is not installed or launched, comes back to Windows desktop or the app you were before
Button	press and hold one finger for five seconds	turns the screen on and off	turns the screen on and off

# Appendix C: Left Slider

Zone	Action	Home	Windows
Left Slider	swipe up with one finger	announces a braille grade currently in use	announces a braille grade currently in use
Left Slider	swipe down with one finger	closes all open keyboards	closes all open keyboards
Left slider	Swipe up twice quickly with one finger	Announces the braille grade currently displayed	Announces the braille grade currently displayed
Left Slider	hold one finger for five seconds	activates QWERTY keyboard	activates QWERTY keyboard; enables on- screen gesture in Windows; when JAWS is enabled, use Windows gestures. To switch to JAWS gestures,



			rotate 5 five fingers on a screen
Left slider	Double tap with one finger	Activates/deactivates the HID keyboard	Activates/deactivates the HID keyboard

# Appendix D: Right Slider

Zone	Action	Home	Windows
Right Slider	swipe up with one finger	up arrow	up arrow
Right Slider	swipe down with one finger	down arrow	down arrow
Right Slider	swipe left with one finger	Moves to the previous object of the same type/moves to the previous character	left arrow
Right Slider	swipe right with one finger	Moves to the next object of the same type/moves to the next character	right arrow
Right Slider	hold one finger for five seconds	enables/disables text-to- speech	enables/disables text-to- speech (not with JAWS)
Right Slider	double tap with one finger	Selects the highlighted object	Enter
Right slider	Swipe right with two fingers (put one finger above the other)	Moves to the next object of a different type/moves the cursor to the next word	NVDA – JAWS: Tab
Right slider	Swipe left with two fingers (put one finger above the other)	goes to the previous object of a different type/moves the cursor to the previous word	NVDA – JAWS: Shift + tab



## Appendix E: Screen (when keyboards are inactive)

Zone	Action	Home	Windows
Screen	Swipe right with one finger	Moves to the next object of the same type/moves to the next character	Right arrow
Screen	swipe left with one finger	Moves to the previous object of the same type/moves to the previous character	Left arrow
Screen	Swipe up with one finger	Up arrow	Up arrow
Screen	Swipe down with one finger	Down arrow	Down arrow
Screen	one-finger double-tap	activates an item under the cursor	activates an item under the cursor
Screen	Two-finger single-tap	pauses speech	pauses speech (not with JAWS)
Screen	Two-finger double-tap	Run menu	Alt
Screen	Two-fingers triple-tap	Pop menu	Right-click
Screen	swipe right with two fingers	moves to the next object of different type/to the next word when editing/	Tab
Screen	swipe left with two fingers	moves to the previous object of different	Shift+Tab



		type/to the previous word	
Screen	swipe down with two fingers	reads text starting from the current position of the cursor	reads text starting from the current position of the cursor (not with JAWS)
Screen	swipe up with two fingers	Goes back to the focused menu/goes back to the cursor	NVDA reads the current object
Screen	swipe right with two fingers then left	escapes the current menu and goes back to the application you were in/de-selects highlighted text	Escape
Screen	swipe right with three fingers	moves to the last object of the same type/moves the cursor to the next paragraph	End
Screen	swipe three fingers left	moves to the beginning of a paragraph and to the previous paragraph/moves to the first object of the same type	Home
Screen	swipe down with three fingers	goes to the end of a document	goes to the end of a document or Ctrl+End
Screen	swipe up with three fingers	goes to the beginning of a document	goes to the beginning of a document or Ctrl+Home
Screen	swipe three fingers right then left	cancels the last action	Ctrl+Z



Screen	swipe three fingers left then right	repeats the last action	Ctrl+Y
From the outer top of the screen to its outer bottom	swipe down with four fingers	goes to Home desktop	None



# Appendix F: NVDA shortcuts

Key modifier in conjunction with other keys	Dot Combinations
Press and hold Alt then release	1+0
Press and hold Ctrl then release	1+4+0
Press and hold Insert then release	2+4+9+0
Press and hold NVDA key then release	1+3+4+5+0
Press and hold Shift then release	2+3+4+0
Press and hold Windows then release	2+4+5+6+0
Cancels pending modifiers	1+2+3+5+7+8+9+0

One-touch combinations	Dot Combinations
Escape	1+5+0
F1	1+9
F2	1+2+9
F3	1+4+9
F4	1+4+5+9
F5	1+5+9
F6	1+2+4+9
F7	1+2+4+5+9
F8	1+2+5+9
F9	2+4+9
F10	2+4+5+9



F11	1+3+9
F12	1+2+3+9
Print screen	1+2+3+4+9+0
Pause	1+2+3+4+9
Tab	2+3+4+5+0
Shift+Tab	2+3+4+5+9
Caps lock toggle	7+9
Shift	3+7+5+0
Ctrl	2+5+0
Windows	3+5+6+8+0
Alt	2+0
Space	0 ou 9
Median point (dot 8 alone)	8+0
No breaking space (dot 7 alone)	7+0
Right click (contextual menu)	1+3+4+0
Enter	8 ou 9+0
Backspace	7
Inser.	3+5+9+0
Delete.	1+4+5+9+0
Beginning	1+2+3+9+0
End	4+5+6+9+0
Previous page	1+3+9+0
Next page	4+6+9+0
Down arrow	4+9+0



Left arrow	3+9+0
Right arrow	6+9+0
Up arrow	1+9+0
Num lock toggle	8+9
Volume up	1+2+3+6+0
Volume down	1+2+3+6+9
Mute volume toggle	1+2+3+6+8+0

## **Direct shortcuts**

Shortcut	Action	Dot Combination
Alt+f4	Closes an application	1+2+3+4+5+9+0
Windows + a	Opens Windows notification area	2+5+9+0
Windows + e	Opens file explorer	1+5+9+0
Windows + m	Windows desktop	1+3+4+9+0
Windows + r	Opens run command box	1+2+3+5+9+0
Windows + ;	Opens emojis tool bar	2+3+9+0
Windows + +	Enlarges Windows zoom	1+3+5+6+0
Ctrl Right arrow	Moves the cursor to the next word	5+9+0
Ctrl Left arrow	Moves the cursor to the previous word	2+9+0
Ctrl + alt + tab	Opens the list of open applications.	1+2+3+4+5+6+9+0
Ctrl + origin	Beginning of file	1+2+3+7+9+0
Ctrl + fin	End of file	4+5+6+8+9+0



Ctrl + a	Select all	1+7+9+0
Ctrl + c	Сору	1+4+9+0
Ctrl + v	Paste	1+2+3+6+9+0
Ctrl + x	Cut	1+3+4+6+9+0
Ctrl + f	Search	1+2+4+9+0
Ctrl + o	Open	1+3+5+9+0
Ctrl + s	Save	2+3+4+9+0
Ctrl + n	New	1+3+4+5+9+0
Ctrl + z	Cancel last action	1+3+5+6+9+0
Ctrl + y	Redo last action	1+3+4+5+6+9+0
Ctrl + h	Replace	1+2+5+9+0
Media previous track	Back to previous track	2+4+6+0
Media next track	Go to next track	1+3+5+0
Media play / pause	Pause / Reading	1+5+6+0
Beginning of selection	Starts text selection	1+2+4+5+9+0
End of selection	Ends text selection	2+3+5+6+9+0
Date and time	Once announces hour, twice quickly announces date	1+2+5+0
Battery status	Announces battery status	1+2+0
Screen curtain toggle	Turns on/off the screen	1+2+3+4+5+6+9
NVDA menu	Opens NVDA menu	1+3+4+5+9
Text-to-speech toggle	Turns on/off text-to-speech	2+3+4+9



Title	Announces the title in the open windows	2+3+4+5+9+0
Input help toggle	Turns on/off keyboard input help	2+3+6+0
Line break (Shift + Enter)		1+2+9+0



# Appendix G: JAWS shortcuts

Key modifier in conjunction with other keys	Dot Combinations
Press and hold Alt then release	1+0
Press and hold Ctrl then release	1+4+0
Press and hold Insert then release	2+4+9+0
Press and hold Shift then release	2+3+4+0
Press and hold Windows then release	2+4+5+6+0
Cancels pending modifiers	1+2+3+5+7+8+9+0

## **Direct shortcuts**

Escape	1+5+0	
F1	1+9	
F2	1+2+9	
F3	1+4+9	
F4	1+4+5+9	
F5	1+5+9	
F6	1+2+4+9	
F7	1+2+4+5+9	
F8	1+2+5+9	
F9	2+4+9	
F10	2+4+5+9	
F11	1+3+9	
F12	1+2+3+9	
Tab	2+3+4+5+0	



Shift + Tab	2+3+4+5+9
Cap locks toggle	7+9
Shift	3+7+5+0
Ctrl	2+5+0
Windows	3+5+6+8+0
Alt	2+0
Space	0 ou 9
Median point (dot 8 alone)	8+0
No breaking space (dot 7 alone)	7+0
Right click (contextual menu)	1+3+4+0
Enter	8 ou 9+0
Backspace	7
Insert	3+5+9+0
Delete	1+4+5+9+0
Beginning	1+2+3+9+0
End	4+5+6+9+0
Previous page	1+3+9+0
Next page	4+6+9+0
Down arrow	4+9+0
Left arrow	3+9+0
Right arrow	6+9+0
Up arrow	1+9+0
Volume up	1+2+3+6+0



Volume down	1+2+3+6+9

Keyboard shortcuts	Action	Dot Combination
Alt + f4	Closes the app	1+2+3+4+5+9+0
Windows + a	Opens Windows notification area	2+5+9+0
Windows + e	Opens file explorer	1+5+9+0
Windows + m	Windows desktop	1+3+4+9+0
Windows + r	Opens run command box	1+2+3+5+9+0
Ctrl Flèche droite	Moves the cursor to the next word	5+9+0
Ctrl Flèche gauche	Moves the cursor to the previous word	2+9+0
Ctrl + alt + tab	Opens the list of open apps.	1+2+3+4+5+6+9+0
Ctrl + origine	Beginning of file	1+2+3+7+9+0
Ctrl + fin	End of file	4+5+6+8+9+0
Ctrl + a	Select all	1+7+9+0
Ctrl + c	Сору	1+4+9+0
Ctrl + v	Paste	1+2+3+6+9+0
Ctrl + x	Cut	1+3+4+6+9+0
Ctrl + f	Search	1+2+4+9+0
Ctrl + o	Open	1+3+5+9+0
Ctrl + s	Save	2+3+4+9+0



Ctrl + n	New	1+3+4+5+9+0
Ctrl + z	Cancel the last action	1+3+5+6+9+0
Ctrl + y	Redo the last action	1+3+4+5+6+9+0
Ctrl +h	Replace	1+2+5+9+0
Media piste précédente	Goes to next track	2+4+6+0
Media piste suivante	Back to previous track	1+3+5+0
Media play / pause	Pause/Reading	1+5+6+0
Ins + J	JAWS window	2+4+5+9+0
Ins + F7 (link search)	List of links in compatible documents	1+2+4+5+9+0
Date and time	Once announces hour, twice quickly announces date	1+2+5+0
Battery status	Announces battery status	1+2+0
Text-to-speech toggle	Turns on/off the screen	2+3+4+9
Title	Announces the title in the open windows	2+3+4+5+9+0
Aide à la saisie activée / désactivée	Turns on/off keyboard input help	2+3+6+0
Line break (Shift + Entrée)		1+2+9+0

# Appendix H: HID keyboard shortcuts

Key modifier in conjunction with other keys	Dot Combinations
Press and hold Alt then release	1+0



Press and hold Ctrl then release	1+4+0
Press and hold Shift then release	2+3+4+0
Press and hold Windows then release	2+4+5+6+0
Cancels pending modifiers	1+2+3+5+7+8+9+0

## **Direct shortcuts**

Keyboard shortcuts	Dot combinations		
Escape	1+5+0		
F1	1+9		
F2	1+2+9		
F3	1+4+9		
F4	1+4+5+9		
F5	1+5+9		
F6	1+2+4+9		
F7	1+2+4+5+9		
F8	1+2+5+9		
F9	2+4+9		
F10	2+4+5+9		
F11	1+3+9		
F12	1+2+3+9		
Print screen	1+2+3+4+9+0	1+2+3+4+9+0	
Pause	1+2+3+4+9	1+2+3+4+9	
Tab	2+3+4+5+0	2+3+4+5+0	
Shift+Tab	2+3+4+5+9		



7+9	
3+7+5+0	
2+5+0	
3+5+6+8+0	
2+0	
0 ou 9	
1+3+4+0	
8 ou 9+0	
7	
3+5+9+0	
1+4+5+9+0	
1+2+3+9+0	
4+5+6+9+0	
1+3+9+0	
4+6+9+0	
4+9+0	
3+9+0	
6+9+0	
1+9+0	

# HID keyboard shortcuts with NVDA

Keyboard shortcut Action	Dot Combination
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Ctrl right arrow	Moves the cursor to the next word	5+9+0
Ctrl left arrow	Moves the cursor to the previous word	2+9+0
Ctrl + alt + tab	Opens the list of open apps.	1+2+3+4+5+6+9+0
Ctrl + origin	Beginning of file	1+2+3+7+9+0
Ctrl + end	End of file	4+5+6+8+9+0
Ctrl + a	Select all	1+7+9+0
Ctrl + c	Сору	1+4+9+0
Ctrl + v	Paste	1+2+3+6+9+0
Ctrl + x	Cut	1+3+4+6+9+0
Ctrl + z	Cancel last action	1+3+5+6+9+0
Ctrl + y	Redo last action	1+3+4+5+6+9+0
Line break		1+2+9+0