#  SAnote - User Manual

SAnote is a battery-driven computer comprising of a standard QWERTY keyboard and standard computer hardware. The device utilizes the GNU or Linux-based operating system with the Speak Up screen reader built into the Kernel, as well as other open source software.

Voice synthesis guides the user through the menu system and is available in multiple indigenous languages (currently English, Sepedi, Setswana and Afrikaans).

The user interface is an 'easy to use' menu navigation system combined with a file browser, both of which give easy access to various applications. Enhanced audio functionality enables the computer to capably record audio in varying environments and play it back later, with adequate battery life.

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# Get to know the SAnote

The SAnote looks like a standard Personal Computer (PC) keyboard. It has the same layout as a normal desktop keyboard also known as a PC 104 keyboard.

The SAnote has batteries similar to laptops and cell phones. If you run your fingers around the sides of the SAnote you can feel the edge of the one centimetre thick battery tray attached to the bottom of the device. You will also feel small ventilation slits to help cool the SAnote’s electronics.

In front of the first row of keys on the keyboard and just inside the front left and right corners you will find two rough patches. These patches are holes for the built-in microphones.

## Keyboard

On top of the SAnote one finds a standard PC keyboard with four key clusters. From the top left one find the ESCAPE key followed by the twelve function keys, grouped into three sets of four keys. The keys are assigned different functions depending on the task being performed on the SAnote.

To the right of the function keys there are grouped together three keys named Print Screen, Scroll-lock and Pause-Break and are basically legacy functions and of minor importance. Next, to the right of these three keys are five small LED lights. They are labelled Num lock, Caps lock, Scroll lock, disk access and power on. These LED lights are not of great benefit to the Blind but are of help to sighted persons.

Below the Function keys we find the QWERTY keyboard with the standard PC keyboard layout except for the Backslash (vertical bar key) that is directly to the left of the Backspace key, both are located directly above the large l-shaped Enter key.

Next and to the right of the QWERTY keyboard you will find the navigation keys. At the bottom are four arrow keys arranged in an inverted-T shape. The bottom bar is the LEFT, DOWN and RIGHT arrow keys, with the UP key in the middle directly above the DOWN key.

Above the arrow keys are two rows of three. The top row keys are INSERT, HOME and PAGE UP and the bottom row are DELETE, END and PAGE DOWN. The functions performed by these keys can change according to the task or program performed by the SAnote.

The numeric keypad can be found to the right of the navigation keys. On the PC the main purpose of these keys is to assist with the quick entry of numbers and numeric calculations. They are also to be used as navigation keys. The SAnote uses the numeric keypad to control many SAnote functions.

The numeric keypad has five rows of four keys. This However is not strictly correct because there are three double sized keys, two on the right. ENTER at the bottom right corner, PLUS just above it and the numeric ZERO key on the bottom left corner of the keypad.

The keys in the top row are, NUMBERS LOCK, DIVIDE (or FORWARD SLASH), MULTIPLY (or STAR) and MINUS. The second row of keys are SEVEN, EIGHT and NINE with the double sized PLUS key on the right. Below this are FOUR, FIVE and SIX with again the double sized PLUS key on the right. The third row keys are ONE, TWO and THREE with the double sized ENTER key on the right side The bottom row keys are the double sized ZERO followed by the DESIMAL POINT and ENTER key on the right

## Plugs sockets and switches

Next we explore the various switches and plugs on the left side and the back of the SAnote.

Find the left front corner of the SAnote. Follow the top edge and move along the left side towards the back. First you will find a small push-button, approximately 5 by 10 millimetres. This is the SAnote’s ON-OFF switch. It is a push ON push OFF switch. It is sensitive, only a quick push is required to activate the SAnote. If the SAnote ever freezes or hangs you can do a forced switch-off by pushing and holding this button for about 10 seconds. After a forced switch-off you should be able to restart the SAnote by pushing the button again. The restart of the SAnote will take a couple of minutes after a forced switch-off. It does a cold start-up and verification of the system before it starts up and gives the normal voice prompt when it is ready.

Past the ON-OFF switch you will find the headphone or speaker jack followed by the external microphone input jack socket. A little further back you will find a USB socket for USB memory sticks and other USB devices. The last thing you find before reaching the back corner is a small grid indicating the left hand speaker, on the opposite side of the SAnote, you will find the grid for the right hand built in speaker.

If you proceed around the back left corner you will find a little indent or slot. It is an access slot for a screw and there is a similar screw access slot on the opposite side.

Next you would be able to locate a small socket for the audio line-out jack plug. The audio line-out is normally used for recording devices. Inserting the plug would not disable the internal speakers. This output has a lower output level than the headphone output.

Slightly to the right along the bottom edge you would encounter an inverted u shaped indent where you can insert the tip of your finger. Inside you will find a small push-button, the battery indicator. If you push this button you should normally hear one, two or three beeps. This indicates the level of charge of the internal batteries. One beep indicates an empty or nearly empty battery. Two beeps indicate that the battery level is dropping. Three beeps indicate a fully charged battery. Do not worry if you do not hear any sounds now.

Slide your finger slightly to the right up, directly below the top edge. You will find a round power socket known as a barrel connector for the external mains power supply and battery charger.

Directly to the right of the power connector is a VGA socket for an external VGA monitor. Next, to the right of the VGA connector is an indented square RJ45 Ethernet connector. Ethernet network cables are often used where there is no wireless Wi-Fi network available.

To the right of the network connector you will feel a grid of about 30 millimetres, this is the air outlet for the internal fan that helps to cool the electronics of the SAnote. Directly below this is another air outlet.

If you move further along the back, directly below the top edge, towards the right hand side you will find three additional USB sockets.

On the right hand side there is a metal retractable handle. You can pull the handle out to enable you to carry the SAnote and you can push it back in when it is not needed. There are no features of interest on the front of the SAnote.

## Isolation Switch

Now place your left hand underneath the SAnote. Feel towards the right until you find a rectangular hole. Inside the hole is a lever. It is called the ISOLATION Switch and protects the batteries during storage and shipping.

The switch moves horizontally. Left is OFF and Right is ON. There is a notch or indent in the left of the bevelled edge around the switch that identifies the OFF position.

This switch must be in the ON position while operating the SAnote. The switch should not be switched to the OFF position while the SAnote is operating. The switch should only be switched to the OFF position after a shutdown command.

# Getting started

After unpacking SAnote, locate the battery isolation switch recessed in the bottom of the device. This switch is in the off position at the time of shipment. Move the switch to the right to switch it to the on position. It is recommended to plug in the charger the first time you start up SAnote. The power connecter can be found on the back side of the device, second socket from the left. Once the power cable is connected and turned on press the start button, on the left side of the device.

***Note: It may take a while to start up from being completely shut down the first time.***

The device has two modes of rest. The first is cold shutdown, the state in which it is shipped, and the second is a hibernation mode which you would use most of the time. In both cases one uses the button on the left to start the device. When starting from hibernation mode, you should hear a sound like a drop of water after a few seconds. This sound confirms that you are now back where you were before you shut down using the button on the left, the same one you used to start with. A cold shutdown can only be done using a special menu option.

You will now be asked to login.

***Note: Anything under the cursor can be repeated by pressing the eight (8) key on the numeric keypad.***

## To login

The SAnote has a default username and password, “bid” (which stands for Blind Information Device).

When prompted for the username type “bid”, without the quotes, followed by enter. Then enter the default password “bid”, without the quotes, followed by enter.

***Note: While you type the password, SAnote does not speak the key set you are typing, for security purposes.***

SAnote will read the start-up screen. *You can silence this reading by pressing the enter key on the numeric keypad (this is the far right bottom key).*

You are now at the main menu with a variety of menu options. Use the up or down arrow keys to navigate through the menu and press the enter key to select the required option. Additionally, you can also use the first letter of the menu option you are searching for.

*For example, if you would like to find the ‘Use calculator’ option, press u as many times as required until you hear ‘Use calculator’, followed by enter to select the option.*

The enter key is to run and q is to quit.

## Sign out

When in a menu or sub-menu, press q until taken to the login page.

## Hibernate

Should you wish to shut down the SAnote for a relatively short period of time and start it up again speedily, use the hibernate function.

Quickly, press the on/off button, found on the left side of the device to hibernate. You will hear a little sound like a drop of water. The device will then go into hibernate.

Press the on/off button to start up. You will hear the drop of water again. Once the device has started up, you will be returned to where you were previously. You can press the eight (8) key on the numeric keypad, with the Num Lock off, to hear where this is.

***Note: If the batteries run down while in hibernation mode, the device will start up as from a cold shutdown the next time. All data that was saved on the internal hard disk will be there, but any data not yet saved when you hibernated will be lost.***

# Keys and functions you need to know

***Note: These are generic and not necessarily applicable to all programs.***

All single letter keys will appear between quotes, e.g. “q”, but the quotes are not to be used when executing commands.

## The file browser, whilst in a menu

Enter: to go into a directory or sub-directory and to select individual files.

Home key: use the home key, situated in the group of 6 keys above the arrow keys to return to the home directory from wherever you are.

Right arrow key: select the entire directory, if you wish to play or read all the files within, e.g. in audio book reader.

Left arrow: moves you up one level within the file browser.

Down arrow: moves to the next file in the list. When the last file is reached the display will wrap and the first file on the list will be shown.

Up arrow: moves to the previous file in the list. When the first file is shown and the up arrow is pressed, the last file will appear.

“Q”: quits the file browser.

Forward slash (/): search within the file browser.

“N”: find next (if no previous search has been done with slash, n will react the same way as slash). N Pressed more than once will result in the next search item being displayed.

Shift “n”: search for the previous item in the file browser.

“C”: type in a new file name and creating a file.

Shift “c”: creates a new directory name.

Control c: emergency exit [quit], which takes you back to the log in screen, when you inside a text entry [editing] field.

Control e: when in the text entry [editing] field, moves the cursor to the end of the line.

“I”: provides information on the selected file or directory.

Delete: press the delete button situated on the bottom left hand corner of the group of six keys above the arrow keys to delete a selected file or directory.

“M”: renames or move, press once to select the file. Then, you can choose to rename or move it. If you wish to move it, arrow to the directory to move it into and press enter. Press m again. You will be prompted with a confirmation message, press enter for yes and n for no if you wish not to execute the move.

“M” pressed twice: select and highlight the file or directory to be renamed.

***Note: When you are renaming a file it will refer to the change as moving the file.***

Backspace to slash (/) and type in the new name. Press enter again. You will be asked if you wish to move your file or directory. Press enter again and it will be renamed.

“V”: view the contents of a file, [opens, reads or plays the file].

“W”: [where am I key] will provide you with your current location within the file browser directory.

## The links web browser

Enter: activates the currently selected link.

Space bar: moves to the next screen.

Dash or minus (-): moves up one screen.

“U”: moves back to the previous page.

Control u: clears the field when on a text field.

Up arrow: moves to the previous link.

Down arrow: moves to the next link.

Slash (/): search.

“N”: find next.

“Q”: asks for confirmation then quits.

Shift q: quits without asking for confirmation.

“A”: add to the bookmark file. You will get the selection of d for document or l for link. When d is selected, the link of the current page is stored in the bookmark. When l is selected, the currently selected link is stored in the bookmark file.

“V”: calls up the bookmark file.

## Hotkeys (keyboard shortcuts)

There are 6 hotkeys (F1 to F6). If you press shift plus any of the 6 function keys you are given the key description. Pressing the key on its own will perform the action.

F1: bring up the SAnote manual.

F2: volume softer.

F3: volume louder.

F4: say current time.

F5: say current date.

F6: show my IP address.

## Speak Up keys

Most of the Speak Up keys are on the numeric keypad. You can use these keys whilst in different menus to navigate.

[Make sure Num Lock is off to use these keys.]

Numeric keypad slash (/): first press marks the beginning of the text you wish to copy or cut, the second time you press the key marks the end of the text you wish to copy or cut.

Asterisk: toggles the cursor rotating from highlight tracking, read window, cursor off and cursor on.

Numeric keypad minus (-): toggles between parked and un-parked [locks or unlocks the cursor].

Number one (1): moves back one character and speaks the letter or number. It also takes you to the end of the filename.

Number two (2): tells you what character you are on. If you press this key twice in quick succession it will tell you the phonetic name of the character (i.e. A for alpha).

Number three (3): moves forward one character and speaks the letter or number.

Number four (4): reads the previous word.

Number five (5): reads the current word. If you press this key twice in quick succession it will spell the current word.

Number six (6): reads the next word.

Number seven (7): reads the previous line.

Number eight (8): reads the current line. If you press this key twice in quick succession it will read the position of the first no blank character. (I.e. anything that is under the cursor can be repeated while pressing the eight (8) key on the numeric key-pad. This will tell you where you are in the programme.).

Number nine (9): reads the next line.

Numeric keypad enter and 0: silences the echo of typing and to un-silence the device.

Enter key: silences the device until the next key is pressed.

Plus key (+): reads a page from top to bottom.

Dot or period (.) key: reads the current terminal number and cursor position.

**The Speak up key:**

Push the “window s” key, known as the Speak up (SU) key to activate various other commands. The key is situated between the alt and control keys on the left hand side of the keyboard. Similarly to the shift key it is pressed simultaneously with another key to activate other commands. For example, to read the rest of the screen, hold the “Speak Up” key and press “p”.

SU key p: read the rest of the screen.

SU F1: enters the Speak Up on-line help system.

SU F9: decreases punctuation level.

SU F10: increases punctuation level.

SU F11: decreases reading punctuation.

SU F12: increases reading punctuation.

SU 1: decreases SU volume.

SU 2: increases SU volume.

SU 3: decreases the pitch.

SU 4: increases the pitch.

SU 5: decreases the speed or rate.

SU 6: increases the speed or rate.

SU asterisk: go to.

SU F2: sets the window.

SU F3: clear the window.

SU F4: enables the window.

SU F5: edit sum. Sum is the group of punctuation characters spoken.

SU F6: edit most. This allows you to edit the punctuation marks that are spoken.

SU F7: edit de-limiters.

SU F8: edit repeat.

SU numeric keypad 7: goes to left edge.

SU numeric keypad 8: reads from top.

SU numeric keypad 9: goes to top edge.

SU numeric keypad minus (-): say character number.

SU numeric keypad 4: say from left.

SU numeric keypad 5: spell phonetic.

SU numeric keypad 6: say to right.

SU numeric keypad plus (+): say window.

SU numeric keypad 1: goes to right edge.

SU numeric keypad 2: reads the bottom.

SU numeric keypad 3: bottom edge.

SU dot (.): say attributes.

Print screen: toggles between deactivating and activating Speak Up.

SU slash (/): paste the marked area.

SU page up: say first character.

SU page down: say last character.

SU z: Speak Up lock. This works like a caps lock for the Speak Up keys.

SU, control 0: Speak Up go to.

## To change languages

If you would like to change the language in which the SAnote speaks, the available languages are English, Afrikaans, Sepedi, or Setswana. Press Control, Alt and Delete until you hear the language you would like to select. Press Control Alt Delete when you want to change again.

***Note: SAnote will only be able to speak the language you have selected if the content is in that language. For example, if an email is in Sepedi, SAnote cannot read it in English.***

## Multiple sessions

This function allows you to have more than one session open at a time. You can open up to 6 sessions simultaneously. Simply press alt and F1 or F2 or F3 or F4 or F5 or F6. You will need to login to every session using your username and password. You can move between sessions by pressing alt and the corresponding F1 or F2 or F3 keys, etc. Press the full stop or delete key on the numeric keypad – make sure the Num Lock is off to find out which session you are in. SAnote will tell you the column and row position, as well as the session. It will refer to TTY and your session number. TTY stands for terminal. For example, TTY2 is session 2 or alt F2. Each session operates independently of each other. This is handy if you wish to keep one session dedicated to audio streaming for example.

***Note: The default session is F1.***

# File Browser

The file browser is an interface that enables you to work with the SAnote file system. There are a number of menu options that make use of the file browser. For example, ‘Play an audio file’. When in one of these menu options you can use the following keys and tasks outlined below.

**Basic keys:**

Up arrow: moves you to the previous file in the browser.

Down arrow: moves you to the next file in the browser .

Slash (/): enables you to type part of the file name you are searching for or the type of file (i.e. .wav).

 ***Note: the search function is case sensitive.***

“N”: enables you to move to the next item in the search.

Shift n: enables you to move to the previous found item in the search.

“I”: when you are on a file, not in a file, this key provides information about the file.

Left arrow: navigating up a level in the directory structure.

Right arrow: to operate on the entire directory.

“W”: will provide you with your current location within the file browser directory.

***Note: When you are searching for a file, the tilde won’t be spoken. In the case when you have two file names that are the same with different tildes, you will need to use one (1) on the numeric key pad to read the previous characters to differentiate between the files.***

## To move a file

Navigate to the file you want to move using the arrows or the search function. Press m. You will now hear where in the file browser the file is you can then search for the directory where you wish to put the file. Press enter to move into a directory. When you have navigated to where you want to move the file, press m again. The device will tell you the full path and file name of the file which you are about to move followed by the full path and file name where the file will be placed. If you are happy and don’t want to edit the file name (details can be found in ‘to rename a file’ below), press enter. It will ask you if you want to continue with the move, y or n. It defaults to y (for yes). If you press enter you will confirm the y. If you press anything else other than enter you will cancel the move. Press enter, you will then receive confirmation regarding the move.

## To rename a file

***Note: When you are renaming a file it will refer to the change as moving the file.***

To rename a file refer to the ‘to move file’ description. You will now hear where in the file browser the file is. Press m again. It will tell you where the file is going and you will be in the edit field. Use the review keys on the numeric keypad to review the file name. To edit the name use the left arrow key and it will speak each letter. As you get to the point in the file you would like to edit press back space over those letters and then type in the new name. Press eight (8) on the numeric keypad. It will read the previous name followed by the new name in terms of moving the file. Use control e to jump to the end of the new file name. Press enter. It will ask you if you are happy to continue with the move, y or n. It then says y (for yes). If you press enter you will confirm the y. If you press anything else other than entre you will cancel the move. You will then receive confirmation regarding the move.

## Create a new directory

To create a new directory, press shift and c. You will be prompted to provide the new directory name. Type the name followed by enter. You will then return to the place in the directory where you were before you pressed shift and c. Use the slash key to search for the new directory and press enter when you are on the directory. The device will tell you that the directory is empty.

## Create a new file or document

Find the place in the directory where you would like to create a new document, press c. You will be prompted to provide the new document name. Type the name followed by enter. Be sure to add the extension of the file (i.e. SAnote under score (\_) tutorial dot (.) wav).

# Main menu

Use the up or down arrow keys to navigate through the main menu. Press the enter key to select the required option. You will either enter into a programme, a sub-menu or in some cases e.g. changing the volume, return to the same option you have pressed enter on. If in a sub-menu, you can press control C to exit at any point. You can use first letter keys to find the menu option you are searching for. Press enter to run and “q” to quit. Below you will find the main menu options available.

## Text file reader

When this option is selected. You are taken to the file browser. There you can select a text file to be read. The file will be read by the screen reader as normal, but if you stop the reading with e.g. the right-most enter key, and then press the A key, you will continue from the cursor position until you stop it using c or q. This is handy for reading e-books in text format.

**Here is a list of keys available in the text file reader:**

Down arrow: go to the next line.

Up arrow: go to the previous line.

Page down or space: go to the next page.

Page up or b: go to the previous page.

Slash (/): search for a string of text.

Greater than (>): search for the next occurrence of the string previously searched for by slash (/).

Less than (<): search for the previous occurrence of the string already searched for by slash (/).

1 and 2: lower and raise the rate of the speech respectively.

“V”: change the voice of the speech.

***You have to type the language code for the Espeak voice you would prefer to use. Then, press v followed by en to return to English, e.g.:***

Press v, then af and enter: to set the reader to read in Afrikaans, press v followed by en to return to English.

Press v, then nso and enter: to read in Sepedi, press v followed by en to return to English.

Press v, then tn and enter: to read in Tswana, press v followed by en to return to English.

“S”, followed by a letter: set a mark at the current position and assign it to the letter.

“M”, followed by a letter: move to the position previously assigned to the letter.

Home: go to beginning of file.

End: go to end of file.

“A”: start the say all function.

“C”: stop the say all function and update the cursor.

## Audiobook Player

When this option is selected, you are taken to the file browser. Here you can select an audio file or a directory containing a number of audio files. If you choose an audio file, it will be loaded and will start playing. The loading will take longer the first time if the file is in some compressed format. If you chose a directory, all audio files in the directory is put together and you will hear a message similar to this: “concatenating 12 files, please wait". This will only happen the first time you read the book.

Once the file starts to play, you can use the same navigation keys as in the audio editor. When you exit the program using q, a bookmark is automatically written so that you can continue where you have left off reading, the next time you select the book. You are taken back to a position, ten seconds before the point you exited the previous time.

Once you have completed reading the book, and it reaches its end and you exit, the bookmark and any temporary files are removed.

## Add an item to the main menu

You will be asked if you are sure you want to add an item to the main menu. Press y for yes or n for no. If you type n, you will be directed back to the main menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

You will also be asked for a command to be executed when this item is chosen from the main menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the main menu.

## Master volume louder

Use the enter key to make the volume go up in increments of 10 percent. Press the enter key as many times as required to set the volume to the desired level. When the maximum volume is reached, pressing enter again will have no effect.

***Note: You do not leave the main menu whilst performing this task.***

## Master volume softer

Use the enter key to make the volume go down in increments of 10 percent. Press the enter key as many times as required to set the volume to the desired level. When the minimum volume is reached, pressing enter again will have no effect.

***Note: You do not leave the main menu whilst performing this task.***

## Use the Calculator

Use the numbers on the standard QWERTY keyboard or the numeric keypad for the calculator. Make sure Num Lock is on to use the numeric keypad, to type your mathematical expression, followed by enter. The answer will be given. If you would like to repeat the answer you can use the 7 key on the numeric keypad, with Num Lock off.

Type “exit” to exit or if you require further help type “help”, followed by enter. You must type the word in full.

***Note: The calculator's prompt is a semicolon (;). It will not be spoken when you use the "read current line" function of speak up (numeric keypad 8) because speak up is configured not to read punctuation marks when reading lines. Use the "read current word" function, (keypad-5), to hear the semicolon.***

To access the help function type “help” followed by one of the topic descriptions. You cannot navigate the menu with the arrow keys. To exit the topic description lists type q.

## Unit conversion

You have 13 options. Use the up or down arrows to navigate these options, enter to run or q to quit.

Press enter to access your choice of conversion and then enter the digits you would like to convert using the standard qwerty keyboard or the numeric keypad (make sure Num Lock is on to use the numeric keypad) followed by enter. You will be given the answer. If you would like to repeat the answer you can use the seven (7) key on the numeric keypad, with Num Lock off. Press q to quit, you will then return to the conversion menu. Press q again to return to the main menu.

**The options are as follows:**

1. Ounce to gram
2. Gram to ounce
3. Pound to kilogram
4. Kilogram to pound
5. Millimetre to inch
6. Inch to millimetre
7. Feet to metre
8. Metre to feet
9. Miles to kilometres
10. Kilometres to miles
11. Fahrenheit to Celsius
12. Celsius to Fahrenheit
13. Celsius to Kelvin

### Add another conversion option

To add an extra conversion option to the conversions menu you need to add an item to the conversion menu.

When in the ‘add an item to the conversion menu’ you will be asked if you are sure you want to add an item to the conversion menu. Press y for yes or n for no. Type y. You will be prompted to type the new item description followed by the enter key. For example, litre to gallon.

***Note: You cannot use a comma in the description.***

You will also be asked for the command to be executed when this item is chosen from the conversions menu. Type kies under score (\_) units space followed by the names of the two units. For example, kies under score (\_) units litre gallon. To convert from gallon to litre, just change around the two unit names, e.g. kies under score (\_) units gallon litre. Press enter, your item will now be added to the conversion menu. Press q to exit.

In order to learn more about the unit conversion programme go to the ‘bash shell’ menu option. When you enter into this menu option you are placed at a command prompt where you can access the different commands that have been assigned to various functions. Type man units. You will then be placed on the manual page for the units program which is used to do the actual conversions. Use the Speak Up keys to navigate the manual. Press h for help or q to quit.

## Personal databases

The purpose of personal databases is to make simple data bases, composed of columns, for you to easily retrieve data from. This programme uses the links web browser, so use the associated keys to navigate.

You have 3 choices. Use the up or down arrows to navigate, enter to run and q to quit.

### Add an item to databases

You will be asked if you are sure you want to add an item to the databases menu. Press y for yes or n for no. If you type n, you will be directed back to the databases menu. If you type y, you will be prompted to type the new databases menu item description followed by the enter key. You will also be asked for a command to be executed when the newly added item is selected. Press enter, your item will now be added to the databases menu.

### Create a new database

You’ll be asked for a new database name, type the database name followed by enter. You will then be prompted to provide the first heading then any optional next headings you have. Press enter when done. Press y for yes to add the new database or n to cancel the new database. You will then go back into the sub-menu of Personal databases.

### Show database list

Authorization is required. To access, type your username and password. You are taken to the list of databases. To navigate the screen you need to use the numeric keypad and the up or down arrow keys. The databases that are present will automatically be given numbers. Press enter on the database you would like to select. You will then be given 3 options to perform.

### Add records to a database

Press the eight (8) key and this will tell you the first heading or column you are on in the database. Type the value for the first column. Use the tab, enter or down arrow key to proceed to the next column. Enter the value for the second column and repeat the process for all the columns. You can leave a column blank if you want to. Once the last column has been filled, you will find an "add" button. Enter on "add" to add the record, or cancel by pressing either the u, q or shift - “q” keys.

You then have two choices. The first is add another. This is to add another entry into the above database. You can follow the steps above. The second is to go back to ‘database name’. Enter on the choice you want.

### Search for or change records in a database

Select search or change <database name> from the menu. You will now be presented with a screen similar to the one where you have added the data before. Move to the column heading or headings on which you want to search and enter your search term or terms. You can for example search on both artist and album name if it is a music database. If you do not enter a search term in any of the columns, all records will be retrieved. When down arrow, enter or tab is pressed on the last column, you will be on the "Search" button. Press enter on that to start the search. A numbered list of records will be presented, with data from the first three columns of the database, allowing you to recognise which record you want to change or look at.

### Go back to database list

The third and final option allows you to go back to the database list. Enter to go back.

## Email

SAnote uses the Alpine 2.02 program. You are able to work on your emails whilst off-line. When not online, older messages and message drafts can be stored until Internet connectivity is restored. To retrieve all new messages you need to use the ‘get new messages’ menu option first.

You have seven options. You can either use the up or down arrow keys to navigate the sub-menu or the short cut key. The short cut key is provided in brackets next to the associated option below. Enter to run and q to quit.

### Help (question mark (?))

Get help using Alpine

You can use the help at any point to be directed into the help menu (for context specific help). Thus, this help function displays context-sensitive help, depending where you were when you press the short cut key for the help function. You can navigate using the arrow keys. Press e to exit.

### Compose message (c)

Press c to compose and send a message. You will be asked who you want to send a message to. Type the email address of the person you want to send the message to or press control t to get the address book listing. Navigate through the list using the up or down arrow keys. Press enter on the contact you wish to send the email to. Use the up or down arrow keys to navigate and fill in the different fields, for example the cc field, the attachment field and the email body. Once you have filled in all the fields you wish to complete, press control x followed by pressing y for yes. You will return to the ‘email’ menu.

When writing the body of an email, the following letters are displayed at the bottom of the screen:

Control g: get help

Control x: send

Control r: read file

Control y: previous page

Control k: cut text

Control o: postpone

Control c: cancel

Control j: justify

Control w: where is

Control v: next page

Control u: uncut text

Control t: to spell

#### Attach a file

While in attachment field, press control J. Either type the name of the file you want to attach, or press control t to be taken into the Alpine file browser (not the SAnote file browser) and you will be prompted to select a file. Use the up or down arrow keys to navigate through the files. You can also use control w, followed by typing a partial file name. Enter on the file you wish to attach. You will then be asked to provide an attachment comment. Press enter.

#### Spell check

Whilst in the email body, you can press control t to spell check the text. You will get a list of any detected incorrect spelt words. Press eight (8) on the numeric keypad. If the response is blank you know that you are on the incorrect word. Press seven (7) on the numeric keypad to go through the suggested corrections. The suggested correction list will be in ascending order and each suggestion will have an associated number. Once you have chosen the suggestion you want to use, type the number. The word will then be replaced in the text. You will then either be taken to the next incorrect word or back to the body of the email if there aren’t any more incorrect words.

#### Postpone email

If you would like to save an incomplete email, to send later, press control o. You will be returned to the ‘email’ menu and the next time you enter into the ‘compose message’ menu you will be asked if you would like to write a new email or carry on with the postponed email.

#### Exit without saving email

Press control C you will be asked to confirm, press “C” to confirm.

### Message index (i)

This is also known as the inbox where you can view messages in the current folder.

SAnote will give you a summary of your inbox. You can silence this by pressing the enter key on the numeric keypad. Now use the up and down arrow keys to navigate the inbox. The details of the emails in your inbox will be given in terms of the sender, subject and date.

***Note: Messages are listed in most recent first.***

**Shortcut keys:**

Control w: allows you to search.

Semicolon (;): allows you to search specific parts of the text (i.e. the subject, sender or date).

“A”: is for apply. Once you have marked messages using the semicolon search function, you can implement various tasks to the marked emails, for example forward, extract or delete them.

Question mark (?): context sensitive help.

Press enter on the email you wish to read. The SAnote will read it to you. Alternatively, you can use the reading keys on the numeric keypad to read the email.

#### Reply to an email

Press R for reply. You will be asked if you would like to include the original email, y for yes, c for cancel and n for no. Select either y or n depending on your preference. You will be placed with in the body of the email you are sending. Use the numeric keypad keys to navigate in the message. Type the text of your email

***Note: The backspace key when erasing a letter does not speak the key being erased.***

Once you have finished the email and it is ready to send, press control x. You will be given a number of options but press y for yes to send the reply. You will return to the message list.

#### View attachment

Press v and you will be placed on the first attachment. The attachment name will be read to you. Press enter and you will be asked whether you want to view the attachment, y for yes and n for no. Press y.

***If it is an audio attachment:***

The device will play an audio attachment. To stop the playback before it is completed, press q.

***If the attachment is a document file:***

The device will read the document. Use the space bar to navigate to the next page, press b to go back one screen or press e to exit when you exit you will return to the attachment index. Press shift and comma (,) and you will return to the point in the message you were on. Press shift and comma again and you will return to the message list.

#### Save attachment

Press v and you will be placed on the first attachment. Navigate to find the attachment you wish to save. Press s. You will now be in an edit field containing a suggested file name. To save the file using the suggested name, just press enter. At this point you can rename the file and the directory where the file will be saved by editing the field before pressing enter. The file will be saved in /home/bid by default. You will return to the point in the message you were on (i.e. on the attachment you saved). Press shift comma and you will return to the message. Press shift comma again and you will return to the message list

#### Delete an email

Go to the message list and find the email you wish to delete. Press d. The message will be marked for deletion and you will be placed on the next email in the list. Once you exit the email program, all messages marked for deletion will be removed. If you have marked a message for deletion and decide that you no longer want it deleted, just press d on the message again to cancel the deletion mark.

Press shift comma, to exit the inbox and return to the main menu of the email program. Press q to exit directly.

### Mail folder list (l)

Select a folder to view.

You will be taken to the folder list:

1. Inbox
2. Sent mail
3. Kept email

You will find yourself in the message list of the folder you have selected. You can use any of the functions described under inbox above. Press shift and comma < to return to the main menu of the email program.

### Address book (a)

You can update the address book.

#### Saving a contact

Find and enter into the email you wish to use the email address from. Press t. All the email addresses present in this email will be found and read out. Use the up or down arrow keys to navigate through the found email addresses. Press enter on the email address or contact you want to save. You will be asked for a nickname for the address. Type the nickname, followed by enter. If you want to save additional information regarding this contact (i.e. additional emails for the same contact), use the numeric keypad nine (9) do navigate through the other options you can add. Now press control x. the contact will be saved in your address book. You will return to the email in which you found the email address.

### Configure your email

Configure Alpine options

Use the directions in ‘set up your email’ in the Administration menu.

### Quit (q)

To leave the Alpine programme

## Use Twitter

***Note: you need to have a Twitter account. You can register with Twitter using the internet.***

### Set up Twitter account on this menu option

The first time you press enter on this menu option you will be given an authentication key and URL you need to go to, using a web browser, to enter the authentication key. This will result in a Twitter key being stored on the devices hard drive under Forward slash (/) home Forward slash (/) bid forward slash (/) dot (.) twitter key.

### Using the menu option

Once you have set up the menu option, press enter on the menu option. The device confirm login. Press seven (7) on the numeric keypad if you would like to check which account name you are logged in as.

*Note: in this menu option the forward slash key (/) stands for a command. If you don’t start your command with a forward slash (/) it will be posted as a tweet.*

Up or down arrow: navigate through the latest tweets of the Twitter accounts you are following.

Forward slash (/) follow space [address to follow]: to follow a Twitter account.

Forward slash (/) a: to get the last 20 tweets.

Forward slash (/) q: to quit.

Forward slash (/) h: for help and to get a list of all function keys you can use.

## Bash shell

This menu option allows you to perform advanced functions using a command line.

When you enter into this menu option you are placed at a command prompt where you can type a command directly to the operating system. Type ‘exit’ to return to the main menu.

## Look up a word in the dictionary

Type in the word you wish to look up, followed by enter. You could get multiple pages for the results found. Use the space bar to navigate to the next page. Press b to go back one screen or q to quit.

## Look it up in the online encyclopaedia

***Note: the online encyclopaedia is Wikipedia and as a result you need to be connected to the Internet.***

Type in the word you wish to look up, followed by enter. You could get multiple result pages for the results found. Use the space bar to navigate to the next page. Press dash (-) to go back one screen or q to quit. Each link within the page is numbered and you can either navigate to the links using the arrow keys, or by typing [number]. Type shift and q to quit. You can also type q to quit but you will first be asked if you are sure, press y.

## Administration menu

You have 8 options. Use the up or down arrows to navigate, enter to run and q to quit.

### Add an item to the administration menu

Before you add an item to the administration menu, you need to create a new menu first. Please see process below in ‘create a new menu’.

When in ‘add an item to the administration menu’ you will be asked if you are sure you want to add an item to the administration menu. Press y for yes or n for no. If you type n, you will be directed back to the administration menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

Next, you will be asked for a command to be executed when this item is chosen from the administration menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the administration menu.

### Create a new menu

This is where you can add your own menus to the menu structure.

You will be prompted to add the new menu name. Type the new menu name, followed by enter. This menu will be stored in a hidden directory called dot (.) kies, under forward slash (/) home forward slash (/) bid. In order for you to now use this menu you need to add an item to the main menu or a relevant sub-menu where you can add a menu item. This new item will call this new menu you have created. Please see the process to add items to the menu option in the relevant sections of the manual.

***Note: to remove an entry in a menu, simply edit the file in the hidden directory. The hidden directory is forward slash (/) home forward slash (/) bid forward slash (/) dot (.) kies. Edit the file by using a text editor.***

### Change your password

You will be asked for the current password (the default factory password is “bid” without the quotes), followed by enter. Then you will be asked to enter the new password. Type your new password followed by enter. Finally you will be prompted to re-type the new password, followed by enter.

***Note: The password must be six characters long with at least one digit. You will be notified whether the new password was successful or whether the password was not sufficient.***

### Change the root password

Root is the master ‘user’ of the computer.

***Note: It is not advised to login as the root user.***

To change the root password from the default, “bid”, follow the same process as above in ‘Change your password’.

### Set up your email

You need the username and or email address from the email provider, as well as the incoming mail server and the outgoing mail server (in the form of IP addresses or host names).

You will be asked for the following:

* Provide the name of the outgoing (SMTP) mail server

Type the outgoing mail server name or address, followed by enter.

* The name of the incoming (pop3) mail server

Type the incoming mail server, followed by enter.

* Your pop3 username

Type the username, followed by enter. This can be the same as the email address.

* Your password

Type your password followed by enter.

* Your email address

Type the email address, followed by enter.

* Your full name

Type your full name as you want it to appear to the recipients of your email, followed by enter.

* SAnote root password

Type the root password of SAnote, by default it is BID unless you have changed it, followed by enter.

SAnote will then configure your email and you will be returned back to the sub-menu. If there are any errors reported during configuration they are benign and won’t affect you’re your email.

### Set up your printer

A submenu will appear, with the following three options:

1. Add a new printer
2. Set the default printer
3. Alternative and advanced printer configuration.

If your printer was connected through USB and switched on when you started SAnote from scratch, chances are that your printer might have been picked up automatically. For this reason, it is recommended that you first try to use the "set default printer" option.

#### Set the default printer

You then will be presented with a list of available print queues. Use the arrow keys to select the printer you want to use as the default printer and press enter. This will then set it as the default. The message: "is the default" is displayed next to the default queue name. By pressing the d key, the queue is removed. You can exit by using q.

If the list is empty, or your printer does not seem to be there, you need to use the "add a new printer" option.

#### Add a new printer

"Add a new printer" displays a list of devices with the info and location all on one line for each printer it found. This list can also be navigated using the up and down arrows. Pressing q at this point will also exit the program without adding a printer. For local printers, the device needs to be plugged in and switched on for the software to show up an identifiable printer. You need to have an active network connection if you want to configure a printer which is connected through your local area network. By pressing enter on one of these lines takes one to a list of printer make and model entries for the driver. The make is extracted from the info available on the device list, but you have to select the model from the list presented. Pressing slash asks for a search string to help one quickly locate the correct driver. The n key is search next. This is required because some of the printer makes as provided, has a long list of drivers. HP has more than 3000.

Once on the correct driver, press enter to select it. You will then be prompted to edit the queue name. A suggested queue name is constructed from the printer information data extracted from the provided device information. If you are happy with that name, just press enter to accept, or edit it to your liking. The print queue will now be created, enabled and set to accept print jobs. Use the "set default printer" option to set your newly added printer as the default.

#### Alternative and advanced printer configuration

One should normally never need to use the "alternative and advanced printer configuration" option. However, should you be unsuccessful using the method described above, this alternative method for printer configuration can be used. When using this option, you will be presented with a web interface to the printer administration tools. You will therefore need to navigate using the lynx web browser keys. It is also possible to access this method through the graphical interface, using the Firefox web browser. To do this, from Firefox, go to: <http://localhost:631/admin>.

### Cold shutdown

Use this option to shut down SAnote when you want to store the device for a long time or if there is some kind of networking problem. When you do a cold shutdown the device will perform a fresh, cold boot next time it is started.

SAnote will shut down in about ten to fifteen seconds. When you plan on storing the device for more than a few days, locate the isolator switch at the bottom of the device, and switch it to the off position once the cold shutdown is completed. This will prevent the batteries from discharging while in storage. Before attempting to start the device the next time, first switch the isolator switch to the on position.

### Show software image version

When enter is pressed on this option the SAnote version is spoken, press q to quit.

Press “q” to return to the main menu.

## Search the Internet

***Note: The search engine is Google and you need to be connected to the Internet.***

You will be asked for your search term. Type in what you wish to search for, followed by enter. You can silence the search chatter of the device by pressing the numeric keypad enter. You can use both the web browser short cut keys and the screen reader shortcut keys. If you get multiple results, use the nine (9) key on the numeric keypad to hear the results, use the space bar to navigate to the next page, press b to go back one screen or to quit.

Each link within the page is numbered and you can either navigate to the links using the arrow keys or by typing [number]. Type shift q to quit. You can also type q to quit but you will first be asked if you are sure, press y.

## Extract various archives

You have 7 choices. Use the up or down arrows to navigate, enter to run and q to quit.

1. Extract .zip archive.
2. Extract tar.gz or tgz archive.
3. Extract tar.bz2 archive.
4. Extract gzip archive.
5. Extract bz2 archive.
6. Extract 7zip archive.
7. Extract .rar archive.

Enter on the appropriate option for the file type you wish to extract. All files with the selected file type are displayed in the file browser. Enter on the file you are extracting. Press the silence key (enter on the numeric keypad) as the device will speak throughout this process. When the extraction is completed you will be taken back to the ‘extract various archives’ menu. The extracted archive will be saved in the directory in which the original file was saved. Use section 5 to assist. Press q to quit and you will return to the ‘main’ menu.

## Audio editing and recording

This program is a simple audio player, recorder and editor. Only .wav files are recommended for usage; any compressed audio format, such as .mp3, could give unpredictable or undesirable results. Use the up or down arrows to navigate the files, enter to play file and q to quit.

When you enter into this menu option you are taken to the file browser where you can search for the file you want to edit, or create a new file which you can edit in this program. Details to search or create a new file are outlined in section 5. A new audio file is created at CD quality with 1 second of silence. An existing audio file that is opened will start to play.

The digital audio editor is called DAE for short.

### Navigating in DAE

The file starts to play when it is loaded. The following keys can be used to navigate back and forth while the file is playing:

F1: stop. Stops the playback of the file.

F2: play. Starts playback at the current position.

F3: fast rewind. Jumps back one minute in the audio. It can be used either while the file is playing or when playback is stopped.

F4: fast forward. Jumps forward one minute in the audio. It can also be used while the file is playing or when it is stopped.

Left arrow: rewind. Jumps back five seconds in the file and can be used like fast forward and fast rewind. Note that holding down the left arrow is not recommended as it does not really work well.

Right-arrow: forward. Toggles the speed of playback between the normal speed and four times the speed of normal playback. It can be used while the file is playing or when the file is stopped.

L: Toggles lowering of playback speed to 70 percent of normal speed. This is useful when marking out small portions of audio.

Home: go to start of the file. If the file was playing when this key is pressed, the file will start playing from the beginning.

F12: go to end of file. Goes to the end of the audio and stops playback, showing the position in seconds. Fractions of seconds are also shown.

W: where am I. Shows the current position in the file and can always be used. The position is shown in seconds with a fraction part.

J: jump to. Prompts for a position in seconds and jumps to that position in the file.

### Inserting audio from a file

Press F11 to stop playback and select a file to be inserted. The file browser is called up so that you can select a file to be inserted. Use the up and down arrows to select the file you want to insert and press enter to start inserting.

*Note: Currently only .wav files can be reliably inserted. The .wav file that you insert does not have to be in the same format, i.e. number of channels, sampling rate etc. It would be converted into the format of the file you are editing automatically. Note that the insertion takes quite long.*

### Recording with DAE

Press F10 to start recording at the current position in the file. You will now see "recording". You are now recording from the default selected input audio device which could be a microphone or line in. While you are recording, you have the following options.

F1: to stop recording

F2: to resume recording

Q: to stop recording and take you back to our original file.

After you have pressed “q” as described above, allow for some time for the content to be inserted into the file. It uses the same routine as for inserting from a file for this task.

#### Recording with background noise reduced

Press shift F10 to do recording as above, however, when q is pressed when the recording is finished, the background noise is first reduced.

#### Recording using an Android phone as a remote wireless microphone

It is possible to use your Android device as a remote microphone for recording. To activate this, there are some steps that need to be done once on your Android device, which we will now assume to be a phone, and on the SAnote.

**On the phone:**

1. Go to the Google Play Store and install the app called "IpWebCam".
2. Go to settings, wireless and networks, more, and select tethering and portable hotspot.
3. Go to portable hotspot and activate it.
4. In the notifications area, go to settings for the hotspot and enter the Network SSID and a password. You might require sighted assistance for the last step.

**On the SAnote:**

1. With the recently created hotspot on the phone active, go to communications menu on the SAnote and choose setup wireless network.
2. You should see your newly created hotspot name among the available wireless networks. Enter on it to configure it.
3. Enter the password of the hotspot when prompted.
4. Press p to set it as the preferred Wi-Fi network. This will ensure that the SAnote connects to your phone's hotspot even if there are other configured wireless networks in range.
5. On the communications menu, choose activate wireless network. Wait a while for the network to be reconfigured and activated. 20 seconds or so should usually be enough.
6. Choose show my IP address to make sure the SAnote is connected to the hotspot. The address must start with 192.168.43.

***Note: Although a hotspot is usually used to access the Internet, the use of the Android device as a wireless microphone never make use of the internet. You can make sure that no internet data will be used by going to settings, data usage and check that mobile data is switched to off.***

**Every time you want to use the phone as a remote microphone, the following needs to be done:**

1. On the phone, activate the hotspot.
2. Run the IPWebCam app and activate the option: "Start server". The phone will show something like: http://192.168.43.1:8080.
3. The phone is now a microphone.

**On the SAnote, do the following:**

1. Activate the wireless network from the communications menu.
2. Verify that the network is active by using the "Show my IP address" option on the communications menu.

*Note: When on any menu, you can simply press F6 to call this option.*

1. Go into the audio editor as normal and press control F10 to start recording.
2. You will be asked if you want to use 192.168.43.1 as the address for the microphone. This will always be correct if you use the hotspot for the Wi-Fi network. Press enter.
3. You are now recording and will hear "Press q to stop recording".

*Note: That q is the only available key while using the remote microphone.*

1. Press q to stop recording. The recorded data will be inserted into your audio file as with the other recording options.

***Note: If both the phone and the SAnote is connected to the same Wi-Fi network, likely in a typical home setup, you do not have to use the hotspot method. Just take note of the address shown when the IpWebCam's "Start server" option is activated and use that on the SAnote when prompted for the microphone's IP address. Do not enter the colon and 8080.***

### Working with parts of the audio file

The following tasks can be performed on a part of the audio file which you are editing:

1. Play a part of the file.
2. Remove a part of the file.
3. Write a part of a file to an external file.

Before any of these tasks can be done, the part of the file you want to work with needs to be identified. This is done by marking the positions of the start and end of the part you want to work with. DAE calls the part of the file thus marked, a block. Press F5 to mark the start of the block and press F6 to mark the end of the block. You do not have to mark the start first, if it is convenient you can first mark the end and mark the start later.

You must have both a start and end position marked before any task can be done which requires a block to exist. To play the marked block, press F7. If the block is shorter than ten seconds, the block will be played and you will be returned to the position in the file where you were when you pressed F7. If the block is longer than ten seconds, you will not be returned to that position directly. You are then able to navigate inside the marked block and can use the navigation keys, stop and start. You cannot mark a block within a block, so you can also not perform any task that requires a marked block. Press q to get back to the position in the main file where you were when you pressed F7.

#### Writing a block to an external audio file

Press F8 to write the marked block to an external audio file. For reliable operation, only write out .wav files. After pressing F8, you will be prompted for the name of the file in which you want the block of audio to be written. It is important that you give the .wav extension when you type the file name. Once the block has been written to the file, you will be returned to the position in the main file where you were before you have pressed F8.

#### Removing a block of audio

Press F9 to remove the marked block. The block will be removed and you will be returned to the position where you were before pressing F9. If you were at a position which fell inside the block area when you pressed F9, you will be returned to the position where the block started. After the block has been removed, a block is no longer marked.

#### Moving a block of audio

Currently, moving a block is done using four operations.

Mark the block.

Write the block to an external audio file.

Insert the external file you have just written out at the desired position.

Remove the block.

### Marking and splitting tracks

Press p at the position where you want the track to end. Move to the position where you want the second track to end and press p again. You can mark as many tracks as you like. Once all tracks are marked, press capital S to split the tracks. Pressing capital J will move to the last track marked. The tracks will be written out to files with the format track\_n.wav where n is a number. If you have less than ten tracks, it would simply be a number from 1 through 9. If there are more tracks, leading zeros will be added to the number. Only mark and split tracks when you have finished all insertions and deletions in the file as the track markers are not updated if you edit the file. When tracks are marked, a file with the track positions is stored in a text file with the name of the file you are editing with a .pos extension added. E.g. test.wav is edited and tracks are marked. The positions are stored in test.wav.pos.

### Finishing the edit session

Press q to exit the program. The backup file and the edited file will be on your disk, but all temporary files will be deleted.

The files you have written out using F8 will also remain on the disk. DAE does not have an undo feature, so if you accidentally make a mistake in your file, exit using “q” and copy the backup file over the one you have edited and start over. You can also copy the file with the mistake in to another file if parts of the file can be used. You then can copy the backup to the original file and edit it again, inserting parts of the file with mistakes after you have written out those parts. This sounds complicated, but the main thing to remember is that you can recover from an error if need be. If you have made a mistake in your file, do not start editing it again before you have done something to back-up the file because if you start DAE again in this situation, the backup file will be replaced with your file with the mistake in it and you can lose data.

## Write a CD

***Note: when inserting an external DVD or CD device, allow SAnote sufficient time to read the CD or DVD before pressing any buttons to avoid an error message. Sufficient time is indicated by the noise that SAnote will make before it “settles”.***

You have 4 choices. Use the up or down arrows to navigate, enter to run and q to quit.

### Add an item to write a CD

You will be asked if you are sure you want to add an item to the write a CD menu. Press y for yes or n for no. If you type n, you will be directed back to the write a CD menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

You will also be asked for a command to be executed when this item is chosen from the write a CD menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the write a CD menu.

### Copy an audio CD

You will be asked to insert the audio CD and press enter. Insert CD into external CD or DVD device. Wait for SAnote to rip the CD. You can silence the device by pressing the enter key on the numeric keypad. To check the progress of the copying process, use the Speak Up keys. When the CD has been ripped the CD will then be ejected. You are asked to insert a blank CD or disk. Wait for the device to “settle” and then press enter. SAnote will now copy to the CD. You can again silence the device by pressing the enter key on the numeric keypad. To check the progress of the copying process, use the Speak Up keys. Once it is done, it will tell you that it is completed as well as the time and size of the data of the CD. Press enter and the CD will be ejected. You will be returned to the ‘copy a data CD’ menu option.

You will be left with two files on your machine, which will be found in your directory (data dot (.) bin and temp dot (.) toc). You can delete these once the disk has been copied.

### Copy a data CD (or DVD)

This can only be done on non-encrypted CDs or DVDs. You will be asked to insert the CD or DVD and press enter once the device has “settled”. SAnote will now read the CD or DVD. To check the progress of the copying process use the Speak Up keys. You will be told when it has finished copying and it will tell you the time and size of the data. When it is finished the CD or DVD will be ejected. You will be asked to insert a blank CD or DVD. Wait for the device to “settle” and then press enter. SAnote will now copy to the CD or DVD. Press enter. Once the data has been copied, the CD or DVD will be ejected. You will be returned to the ‘copy a data CD’ menu option.

### Write an ISO image on CD

Select ISO file from file browser, followed by enter. You will be asked to insert a blank CD or DVD. Wait for the device to “settle” and then press enter. SAnote will now copy to the CD or DVD. Press enter. Once the data has been copied, the CD or DVD will be ejected. You will be returned to the ‘copy a data CD’ menu option.

### Accessing data from a CD or DVD

Insert the CD or DVD into the external player and wait for it to “settle”. Enter into the file browser using any of the menu options that will enable you to open and action the file you wish to open. Search for the directory ‘CD ROM’ by typing forward slash, followed by ‘CD’. You will be taken to the CD ROM directory. Press enter. Use the up or down arrows to navigate through the files present on the CD or DVD. Press enter to select the file you want to select. You can perform the same functions (i.e. copy and paste) as if it is normal sub-directory on the SAnote. The special CD ROM directory will behave like any read-only sub-directory on the SAnote.

## Convert an audio CD to audio files (rip the CD)

Convert an audio CD to audio files:

 (rip the CD)you have 4 choices.

Up or down arrows to select, enter to run, q to quit.

Rip a CD to ogg.

 Rip a CD to flac.

 Rip a CD to mp3.

 Add an item to rip a CD.

 ***Note: Be sure to connect the external CD player using a USB port and to insert the CD into the CD player before you enter into this menu option Also allow the CD to “settle” before entering into this option.* Also ensure you are connected to the internet.**

Once you enter into this option the tracks present on the CD will be read out to you. Press enter and you will be asked whether you would like to edit the CD, y/n. No is the default, press enter. You will then be asked if the CD has multi artists, y or No is the default, press enter. The CD will then start to be copied. This can take a while depending on the CD. Use the enter key on the numeric keypad if you would like to silence the chatter while ripping the CD. When the process is done the CD will be ejected automatically.

Both mp3 and ogg files are compressed files.

You now have 3 options to choose from: You can save your files in either, flac, ogg or mp3 format.

## Manage your files

You have 6 choices. Use the up or down arrows to navigate, enter to run and q to quit.

### Add an item to manage your files

You will be asked if you are sure you want to add an item to “manage” your files menu. Press y for yes or n for no. If you type n, you will be directed back to manage your files menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

You will also be asked for a command to be executed when this item is chosen from the “manage” your files menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the “manage” your files menu.

Press q to quit and return to the menu.

In order to learn more about the unit conversion programme go to the ‘bash shell’ menu option. When you enter into this menu option you are placed at a command prompt where you can access the different commands that have been assigned to various functions. Use the Speak Up keys to navigate the manual. Press h for help or q to quit.

Press q to quit and return to the main menu.

### Copy a file or directory

When you enter into this menu option you are taken to the file browser where you can search for the file or directory you want to copy. Details to search are outlined in section 5. Press enter on the file you wish to copy. If you want to copy a directory you need to press the right arrow key to operate on the whole directory. You will now be asked to pick a location for the selected file or directory. If you want to copy the file or directory, using the same name, but to another directory, select the directory and press the right arrow. If you want to copy the file or directory under a new name in the current directory, use the c option to be prompted for the new name. It will confirm whether the copy was successful and that you should enter to continue. You will be taken back to the ‘copy a file or directory’ menu option.

### Delete a file or directory

When you enter into this menu option you are taken to the file browser where you can search for the file or directory you want to delete. Details to search are outlined in section 5. Press enter on the file you wish to delete. If you want to delete a directory, press the right arrow key to operate on the whole directory. If you don’t want to delete a file, press q to cancel. It will take you to the ‘delete a file or directory’ menu option.

### Show size of the trash

The trash folder is where all deleted items go to. This folder is as a safety net in case you inadvertently delete a file.

When you enter this menu option, the device will tell you the size of the trash folder and will automatically be back in the ‘manage your files’ menu.

### Retrieve from the trash

Allows you to retrieve inadvertently deleted files.

When you enter this menu option, it will bring up all the files or directories present. Navigate the files to find the file or directory you would like to retrieve, using the file browser functions. Press enter on it and it will be moved out of the trash file.

### Clean out the trash

To delete all files in the trash. Once you clean out the trash all files will be permanently deleted and you will not be able to retrieve them.

Press y for yes to clear the trash or n for no, followed by enter. You will be automatically taken back to the ‘manage your files’ menu.

## Do Word processing

You have 3 choices. Use the up or down arrows to navigate, enter to run and q to quit.

### Add an item to edit

You will be asked if you are sure you want to add an item to the do word processing menu. Press y for yes or n for no. If you type n, you will be directed back to the do word processing menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

You will also be asked for a command to be executed when this item is chosen from the do word processing menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the do word processing menu.

### Create or edit a text file using Joe

Joe is a text editor and when you enter this menu option you will be taken to the file browser (see section 5 for details).

#### Create new text file

To create a new text file, press c. You will be prompted to provide a new name for the file. Type the name followed by enter. A new text file will be created and the device will confirm when it is done. You will now be ready to generate the file. To check that you are in the file press seven (7) on the numeric keypad and it should say “top” or press eight (8) on the numeric keypad and it should say “new file”. You can now start typing in the file, using the numeric keypad and the inverted T arrows to assist if needed.

#### Copy and paste in a text file

If you would like to move a section, be it a word or a paragraph, referred to as a ‘block’, place your cursor at the beginning of the ‘block’ you want to move. Press control k, followed by b for begin. Then, place your cursor at the end of the ‘block’, press control k, followed by k for end of block. Now, place your cursor where you want the block’ to be moved to. Press control k, followed by m for move.

#### Find and replace in a text file

Press control K, followed by f. You will be prompted to type the search term, followed by enter. You will be given two options: either to search in the file or to replace the search term.

Press enter to only search in the file. You will be placed at the first found search term. Press control l to move to the next found search term.

Press r, followed by enter to search and replace. You will be prompted to enter the replacement term followed by enter. You will be taken to the first search term found. You will be asked to replace only the one search term or all the found search terms. Follow the prompts throughout.

**Some short cut keys:**

Control y: removes a line.

Control k, followed by f: search or find function.

Control k, followed by s: will save the file and stay in the editor.

Control k, followed by x: will save the file and exit the editor.

Control k, followed by q: cancels this edit.

### Create or edit a text file using Nano

Nano is also a text editor, similar to Joe. Use the shortcut keys at the bottom of the screen to navigate within Nano, E.g. control g – get help, control x – exit, etc.

## Use octave as calculator

***Note: This is a more powerful calculator than the use calculator option but has similar functionality.***

Type your calculation and press enter. You will hear the result. Use the Speak Up keys to review the calculation or the result if required. Type ‘exit’ to exit to main menu.

## Convert pdf to html

When you enter into this menu option you are taken to the file browser where you can search for a pdf file. Details to search are outlined in section 5. Press enter on the file you wish to convert to html. When converting a pdf file to html, SAnote creates a directory to contain all the different files generated, such as the images and the content *etc*. The directory created will be given [the name of the pdf file] full stop (.) converted.

Once the file is converted the converted page will be brought up using the lynx web browser. There will be two frames. Frame 1 will contain the links to all the pages. Frame 2 goes straight to the content of the files. Use the short cut keys for the links web browser, see section 4. Press shift q to exit.

## Audio file conversions

You have 41 file conversion choices, these are listed below. Use the up or down arrows to navigate, enter to run and q to quit. In addition, you can also use letter keys as a short cut to find the menu option you are searching for, to do so use the first letter of the menu option.

*Note: You can search the directory; move files and rename files whilst in the file browser see section 5 for details. When converting files the original file is not removed, a copy is made in the new file type.*

Enter on the file conversion option you wish to use. You will be taken to the file browser where you can search for the file(s) you want to convert.

### Converting one file

Search the file browser and once you have found the file you would like to convert, press enter. That file will be converted into the conversion file type selected (i.e. the .wav file will be converted into .mp3). Use q to get back to the main menu.

### Converting a number of files

If you would like to convert a number of files at one time, ensure they are all in one directory file. You can use the directions in section 5 above to move files.

Search the file browser and once you have found the directory containing all the files you would like to convert, press the right arrow key. All the files in that directory in the file type selected will be converted into the conversion file type selected (i.e. all the .wav files in the ‘music directory’ will be converted into .mp3). There are 41 file conversion options to choose from. The new file will be saved in the same directory in which the original file was saved. Use q to get back to the main menu.

## Listen to a DVD

***Note: Connect the USB extension cable of the external DVD or CD device to the SAnote. If two cables are offered, use both to lend sufficient power to the DVD or CD device.***

Once you enter into this menu option, you will be prompter to place the DVD in the drive and close it. Wait for the DVD to settle giving it enough time to start to read the DVD. Press enter. The DVD will start playing the audio. Press q to quit and the DVD will be ejected from the DVD device.

## Communications menu

You have 8 choices. Use the up or down arrows to navigate, enter to run and q to quit.

***Note: SAnote cannot access the Internet if both the Ethernet and Wireless are activated.***

### Add an item to communications menu

You will be asked if you are sure you want to add an item to the communications menu. Press y for yes or n for no. If you type n, you will be directed back to the communications menu. If you type y, you will be prompted to type the description of the new option which you want to add to the menu, followed by the enter key.

***Note: You cannot use a comma in the description.***

You will also be asked for a command to be executed when this item is chosen from the communications menu. Type the command which you want to be executed when this option is chosen from the menu. Press enter, your item will now be added to the communications menu.

Press q to quit and return to the menu.

In order to learn more about the unit conversion programme go to the ‘bash shell’ menu option. When you enter into this menu option you are placed at a command prompt where you can access the different commands that have been assigned to various functions. Use the Speak Up keys to navigate the manual. Press h for help or q to quit.

### Show my IP address

This shows you the IP address that is configured for the device.

Type in your password, followed by enter. It will then read the IP address. Once it has read the IP address you will be automatically taken to the ‘communications’ menu.

### Activate Ethernet connection

This option is automatically activated when you start up the SAnote device with the LAN connected. It cannot be used when the LAN is connected after start-up. You will need to use the ‘restart network’ option.

### Deactivate Ethernet connection

This is used to disconnect the Ethernet connection. Once it is deactivated you will be returned to the ‘communications’ menu.

### Activate WIFI connection

Once you have pressed enter on this option, SAnote will start up the wireless (WIFI) connection provided that it has been configured, as described below in option 7 (set up wireless networks). Once it is connected you will be returned to the ‘communications’ menu.

### Deactivate WIFI connection

This is used to disconnect the WIFI connection. Once it is deactivated you will be returned to the ‘communications’ menu.

### Set up wireless networks

This option configures and de-configures wireless networks. Once you press enter on this option you could be asked to type in your password. Type in your password, followed by enter.

**You have four choices:**

Enter: to setup. This will allow you to configure a wireless network.

P: for preferred. If you have configured two or more networks that are available at the same time you must select which is the preferred network you would like to connect to.

U: to de-configure. To remove as a configured network.

Q: to quit.

Once you enter this menu option SAnote will search for all available wireless networks. Use the up or down arrow keys to view the available networks. The networks will be read to you, it will also notify you whether the network has been configured or not. Select the network you would like to configure by pressing enter, followed by entering the login and password, if required. Choose your preferred network by typing P on the network option. To de-configure a network, type u on the network option. Press q to quit. Then, you will need to activate the wireless network, see point 5 above.

### Restart network

This option is used when the LAN is connected after start-up of the device. Once it is connected you will be returned to the ‘communications’ menu.

## Get new messages

***Note: Email must be configured before you can use this menu option. You are also able to work on your emails whilst you are off-line, your emails will be sent automatically when the internet connection is restored.***

Press enter on this option and your new emails will be downloaded to your email client. You will be told how many new messages there are and they will be downloaded. After which you will need to access your emails through the ‘email’ menu option. You will be returned to the main menu.

## View a text or html file

When you enter into this menu option you are taken to the file browser where you can search for a text or html file. Details to search are outlined in section 5. Use the up or down arrows to search or navigate for the file you wish to open and read. Press enter. Use the SpeakUp review keys to assist in reading the document if required. Press “q”for quit, space for next page and b for back one screen.

## View an open document format file

Use the up or down arrows to search or navigate the file browser for the file you wish to open. Press i for information about the file. Press enter to select the document.

Use the Speak Up review keys to assist in reading the document if required. Please see section 4 for additional directions.

At the bottom of every page you will have the following options, q to quit, space to go to next page and b to go back one screen. To get to the bottom of the page you can hold down the nine (9) key until you hear a noise.

## View a Microsoft.doc file

When you enter into this menu option you are taken to the file browser where you can search for a Microsoft dot (.) doc file. Details to search are outlined in section 5. Use the up or down arrows to search or navigate for the file you wish to open and read. Press enter. Use the Speak Up review keys to assist in reading the document if required. Press “q” for quit, space for next page and b for back one screen.

***Note: This is a viewing option only, and not for editing.***

## View a Microsoft docx file

When you enter into this menu option you are taken to the file browser where you can search for a Microsoft dot (.) docx file. Details to search are outlined in section 5. Use the up or down arrows to search or navigate for the file you wish to open and read. Press enter. Use the Speak Up review keys to assist in reading the document if required. Press “q” for quit, space for next page and b for back one screen.

***Note: This is a viewing option only, and not for editing.***

## Play an audio file

In this menu option you will need to navigate the file browser. Please see section 5 for instructions. In summary: forward slash to search, n to search next or use the up or down arrows to navigate. Once you find the file you wish to play, press enter. The audio file will start playing. Press q to exit and you will return to the main menu at ‘Play an audio file’.

To control the playback volume while the file is playing, open another session and, in that session, while on the main menu, use the F2 and F3 keys respectively.

***Note: When a file is playing you can silence SAnote by pressing the enter button on the numeric keypad. Make sure the Num Lock is off.***

## Print a document

***Note: Make sure your printer is configured correctly beforehand as per the direction found in the ‘administration’ menu.***

In this menu option you will need to navigate the file browser. Please see section 5 for instructions. Once you find the file you wish to print, press enter and the file should print. You will be returned to the menu.

## Listen to internet audio streams

You have 10 choices. Use the up or down arrows to navigate, enter to run and q to quit.

1. Jacaranda FM
2. Highveld Stereo
3. 5FM
4. RSG
5. SA FM
6. Radio Pulpit
7. 702
8. Radio 2000
9. Tuks FM
10. Classic FM

***Note: You can listen to the radio while working in another session.***

## Listen to internet audio streams while recording

This offers you the option to record the audio stream you are listening to.

You have 10 choices. Use the up or down arrows to navigate, enter to run and q to quit.

1. Jacaranda FM while recording
2. Highveld Stereo while recording
3. 5FM while recording
4. RSG while recording
5. SA FM while recording
6. Radio Pulpit while recording
7. 702 while recording
8. Radio 2000 while recording
9. Tuks FM while recording
10. Classic FM while recording

Press enter on the option you would like to record. The SAnote will start recording. Press q to stop recording. SAnote will then tell you that an audio file of the recording has been created and you will be given the file name. You can use the shortcut keys on the numeric keypad to re-listen to the file name. You can also use the mark-up function of the Speak Up keys. You will be asked if you wish to continue, press enter. You will be taken back to the sub-menu. Press q to return to the main menu. To listen to your recorded audio file see the ‘play an audio file’ option above.

## Normalize an audio file

This menu option is used to normalise a file (i.e. to increase the volume of the file without damaging the sound).

In this menu option you will need to navigate the file browser. Please see section 5 for instructions. Once you find the audio file you wish to normalize, press enter. The file selected will be normalised and saved. No new file is created. Once this task has been completed you will be returned to the main menu.

## Do optical character recognition

This option allows you to turn typed or printed text into speech.

If you have a scanner connected, you can do this by scanning the page and have it spoken from the lynx web browser. You can recognize an image file like a .tif or .jpg file that contains text.

When entering the option, it will say "Press space to scan, or q to quit". At this point, you have the following keys available:

“E”: to change the OCR engine that will be used. Three engines are installed by default. They are: tesseract, Cunneiform and ocrad. The Cunneiform engine is selected by default as it normally gives the best results. The e option can be used to select another OCR engine.

“N”: allows you to name the document you are about to scan. You will enter the file browser and be shown the directories of the documents you have previously scanned. If you want to continue to work on one of these documents, simply select it by pressing the right arrow on its name. If you are about to create a new document, use the c key. You will be prompted for a name. Type a name and press enter. By default, the pages you scan will be stored in a document named unknown.

“D”: will discard the last page you have scanned.

“I”: will take you to the file browser so that you can select an image file like a .tif file to OCR.

Enter: will tell you in which document you are and how many pages it has.

Shift and u: turn the page around 180 degrees

“L”: change the page orientation (landscape or portrait). The default is portrait. The default OCR engine, Cunneiform, does DE columnisation. If you set the orientation to landscape before scanning, it is possible to scan two pages of a book at the same time while using the default engine.

“R”: creates a readable document in HTML. This html file is created under /home/bid/p2tdocs/docname/docname.html. The document starts with a link to skip to the scanned content and is followed by a link to each of the pages scanned. If you want to export the document to a text file, use the p option of the lynx web browser, and then the "Save to a file" option.

Space: will start the scanner and scan the document.

Once the scanner stops, the page is recognized and shown to you in the lynx web browser. Use the Speak Up keys to review the page. Press shift and q to exit the browser and return to the "Press space to scan, or q to quit" prompt. You can now press the spacebar again to scan the second page, or use any of the options described above before doing so.

Press q to quit at the "Press space to scan or q to quit" prompt to go back to the main menu.

## Play a daisy book

In this menu option you will navigate the file browser. Please see section 5 for instructions. Once you find the daisy book you wish to play, press the right arrow as the programme is needed to operate on the directory. The daisy book will start to play. Use the arrow keys to navigate the daisy book. Press q to quit. When you re-enter the daisy book, it will start to play at the point where you stopped playing previously.

## Read EPub document

***Note: the EPub reader uses a player similar to the Daisy wplayer but is for reading EPub documents. It uses the ESpeak synthesizer and not the screen reader generally in use.***

You have 4 choices. Use the up or down arrows to navigate, enter to run and q to quit.

1. Read EPub with Afrikaans voice
2. Read Epub with English voice
3. Read EPub with Sepedi voice
4. Read EPub with Setswana voice

Press enter on the above option you wish to use. You will need to navigate the file browser to find the EPub file. Please see section 5 for instructions. When you have found the EPub file you wish to play, press enter. The EPub file will start to play at the point it last stopped playing.

**Short cut keys:**

Spacebar: pauses

Q: quit

Press eight (8) on the numeric keypad to hear on which item in the book you are currently. You can use the up and down arrow keys to navigate through the table of content of the book.

## Convert various document formats to wave using natural voices

Qfrency text-to-speech is a locally developed synthesiser which creates an audio file from a document. When this option is selected a menu will appear from where one of several voices can be selected. Each menu entry has the name of the voice followed by the language. For example, ‘Zoleka Xhosa’ or ‘Tim English’. Use the up or down arrows to navigate, enter to run and q to quit.

When a voice is used for the first time, the license will be read out to you. Use the normal review commands to read the license. When you press eight (8) on the numeric keypad, you will hear press space to continue. To advance to the next screen of the license press the space bar. Once you have read through the license, you will be asked to either type yes or no. Yes is to accept the license and no is to decline the license. If you decline, a message will appear informing you that you will not be able to use that voice until you accept the license terms, and after having pressed enter you will be returned to the voice menu. Declining the license is not final. If you decline it, you will simply be presented with the license again the next time you try to use that particular voice, and can accept the license then. Once the license has been accepted by typing yes and enter, the document will be synthesized. You will thus have to accept the license for each of the voices the first time you use them but the next time the document will be synthesized directly.

In addition to the Qfrency text-to-speech voices, there is another option on the voice selection menu called "open-source voices". These are experimental voices of varying quality which were built during research. When this option is selected, a sub-menu will appear where one of these experimental voices can be selected.

Once you have entered onto the voice you wish to use, you will have to navigate the file browser to find the document. Please see section 5 for instructions. When you have found the document you wish to convert into a wave file, press enter to synthesise.

***Note: The size of the file will dictate the length of time it takes to synthesise the audio.***

The device will confirm when the synthesis is 100 percent complete. You will then be returned to the ‘Convert various document formats to wave using natural voices’ menu. A new file will be generated and will be named [original file name.\*\*] dot (.) wav.

To play the newly generated wave file, press q to go to the main menu and select the menu option ‘play an audio file’. Use instructions from the ‘play an audio file’ menu.

***Note: You may need to normalise the newly generated file, using the ‘Normalize an audio file’ menu option.***

## Start the graphical interface: experimental

SAnote has a text mode and a graphical mode. Up to now, we have only used the text mode. In the graphical mode, another screen reader, called Orca, is used. The graphical interface itself is called Gnome. In addition to the Orca screen reader, a magnification program is also included under Gnome. The magnification can be used by partially sighted persons if a computer screen is connected to the device. Since we are now using a different interface and screen reader, some keys and functionalities are therefore different to the text based components.

When you enter the ‘start the graphical interface’ menu, you will hear the introductory Gnome jingle and you will be at the preferences button of Orca. Press Alt and F1 to access the available options under the graphical interface. You can now use the up or down arrow keys to navigate these options. Most of these options are sub-menus. Press the right-arrow key to enter a sub-menu. Once in the sub-menu, use the up and down arrows to navigate it. Press enter when you here the program you want to use, e.g. Firefox.

Use the left arrow to return to the main menu. To log out, go to the main menu and find the logout option and press enter and enter again.

## Convert e-books to plain text

This option allows for several e-book formats to be converted into plain text, e.g. epub, mobi, etc. Press enter on the option you wish to use. You will need to navigate the file browser to find the file you want to convert. Press enter to run and q to quit.

## Internet browser

***Note: You need to be connected to the Internet.***

Enter the website you wish to visit here, followed by enter. You can silence the chatter of the device by pressing the numeric keypad enter. You can use both the web browser short cut keys and the screen reader shortcut keys. If you get multiple results, use the nine (9) key on the numeric keypad to hear the results, use the space bar to navigate to the next page, press b to go back one screen or to quit.

***Note: This is another place you will find a manual for the device. You can navigate the manual in the same fashion as the web browser.***

Press enter on the above option you wish to use. You will need to navigate the file browser to find the text file. Press enter on the above option you wish to use. You will need to navigate the file browser to find the text file.

# Other functions

##  Using a memory stick (via a USB port)

Plug the portable memory stick into one of SAnote's USB ports. Enter into the file browser to use any of the above menu options. This will enable you to open the file. Search for the directory “stick” by typing forward slash, followed by “stick”. You will be taken to the stick directory. Press enter. Use the up or down arrows to navigate through the files present on the memory stick. Press enter to select the file you want to select. The memory stick under the stick directory behaves exactly like any other sub-directory on SAnote.

10 Seconds after use of the USB stick, the SAnote will automatically deactivate the memory stick so you will be able to unplug it.

Any mass storage device like a USB hard disk or a phone can be used just like a memory stick.

##  Connecting via another device

This is a platform independent way to transfer data between the SAnote and another device using a wireless network or Ethernet network. In order to do this you will need the IP address of the SAnote device. The IP address can be obtained by using the 'Show my IP address' option under the communications menu.

On the other device that is also on the same network as the SAnote, use the web browser to enter the following URL: http colon (:) forward slash (/) forward slash (/) followed by the IP address of the SAnote. You will be asked to authenticate using a username and password. Use your username and password for the SAnote device.

You will then obtain a web page that has two links. The first link is to access the data that is on SAnote and the second link is to upload a file to SAnote.Once a file has been uploaded, the uploaded files can be found under the ‘upload’ folder under the forward slash (/) home forward slash (/) bid directory.

##  Making the SAnote's data visible on a Windows machine

To do this you need to map a network drive in Windows to SAnote by following the below steps on the Windows machine. In order to do this you will need the IP address of the SAnote device. The IP address can be obtained by using the 'Show my IP address' option under the communications menu.

1. Open Explorer

2. Right-click on Network

3. Click Map Network Drive

4. Select desired drive letter

5. In folder text-box enter \\SAnote.IP.adress\bid (for example \\146.64.28.116\bid)

6. Check Connect using different credentials box

7. Click Finish

8. Enter username and password at prompt

9. Drive now mapped as a network location under selected drive letter

***Note: SAnote will not always get the same IP address from your network, so a drive mapped under windows previously will not work if your network's DHCP server has assigned a different IP address than before. You can ask your network administrator to configure things in such a way that SAnote always will get the same address.***

##  Making SAnote’s data visible on a Unix or Mac machine

To do this you will need to use the sshfs facility on the Unix or Mac machine.

1. Create a directory where you want the SAnote data to appear (e.g. SAnote)
2. Type the following command: sshfs space root @ SAnote IP address :/home/bid space SAnote, followed by enter
3. Type the SAnote username and password at the prompt
4. SAnote data will now be visible under the directory you created in step 1 above.

##  Bluetooth

The SAnote has a Bluetooth adapter. Currently the only way to configure the Bluetooth device, is by using the graphical user interface. Unfortunately, the utility for Bluetooth configuration is not very accessible, so it is strongly recommended that a screen is connected and sighted assistance obtained for this task.