THE BRAILLISTS FOUNDATION

GETTING AROUND THE ORBIT READER 20

Matthew Horspool: Welcome back to BrailleCast Extra and in this episode we're going to hear a recording of the first of a series of Tuesday evening Zoom calls made possible thanks to a grant of £10,000 from the Winston Churchill Memorial Trust. This call is about the Orbit Reader and it's introduced by Holly Scott-Gardner.

Holly Scott-Gardner: So thanks, everyone, for joining our event with the Braillists Foundation about the Orbit. We have Dave Williams here with us. He is an RNIB employee and he's also Braillists Foundation Chair and he will be delivering a presentation today about the Orbit which I'm pretty excited for because it should be interesting to get to know more about the device.

So just a few, I guess, housekeeping type things before we really get started. This event is running in line with our moderation policy which you can find on our website which is braillists.org. The main thing to remember is that everyone will remain muted just because we need to cut down on some of the background noise. If you want to be unmuted, you have to raise your hand and we will come to that in a minute and explain more about that process.

The event is being recorded and it will be made available so that you can listen back to it at a later date or share it with other people. We do have a page on our website where you can find recordings of our previous events and that is braillists.org/media.

So what to expect from the event? Well, Dave Williams will be delivering a presentation and then towards the end of the event, we'll be opening it up for questions and I have Ben [UNSURE OF NAME] here who is moderating. Hello, Ben.

Ben: Hey, Holly. How are you doing today?

Holly Scott-Gardner: Good. How are you?

Ben: Yes, not so bad. I'm really looking forward to this actually. I've had an Orbit Reader for a few months now but I don't know about you, but I always find with tech, there's always that sort of one little tip that someone will tell you and you'll think, "Ooh, yeah, actually, that's good, didn't know that." So looking forward to learning really.

Holly Scott-Gardner: Yes, it should be exciting. I actually have to say I've seen the device. I've briefly used one but it isn't my primary Braille device so it'll be exciting for me to learn more as well.

And just so that people know, if they do raise their hands, you'll be the person calling on them and asking to unmute them and if people do want to unmute once they've raised their hands, a dialog box will appear that they have to press the button on to actually unmute themselves, which I hope I've got that all correct.

So a bit about us. We're the Braillists Foundation. We do lots of, as it says, Braille-related things. You can find us on social media on both Facebook and Twitter, @braillists. We have a newsletter which you can subscribe to by visiting our website. We are also giving away some equipment and we'll be giving you some more information about that towards the end of the event. So keep listening.

We will also be running lots of future events so if you go to braillists.org/events, you can find out about all the different events that we'll be running over the next few weeks.

So we will actually cover how to raise and lower your hands towards the end of the event when we open it up for questions. I'm going to pass over to Dave now.

Hi, Dave. How are you?

Dave Williams: Hello, good evening, everybody. A very warm welcome to our session on getting around with the Orbit Reader. I'm Dave Williams and thank you for joining the Braillists Foundation and if you'd like more about us, that's braillists.org, is the website.

So as Holly mentioned in the introduction, I work with RNIB as a customer experience manager and as we speak and record this session, it is the 3rd of November 2020 so of course information's always subject to change.

In this session we'll provide an introduction to the Orbit Reader, including a physical description. I'll describe some of the differences between the Orbit Reader and other Braille displays. I'll explain how to use the main functions, so reading, writing and managing files with the Orbit Reader and we'll also explore how you go about connecting Orbit Reader with a screen reader.

Where do you get digital Braille books? I'll point you to some sources for those and also places where you can find further help and support.

So let's get started then. This session assumes that you have a basic understanding of English Braille, particularly in respect of the dot positions so I may during the course of the session refer to things like dot-5 or dot-25 and that could be quite important. Also if you know the Braille alphabet, that will be really helpful as well and if you also have an understanding of basic desktop computing concepts, so things like the cursor, the clipboard and context menus, they'll also be useful throughout this session.

This training focuses on the essential information you'll need to understand how to use Orbit Reader 20. It is by no means exhaustive. You are encouraged to read the product user guide, connect with other Orbit Reader users and in the event of any problems, do contact your supplier

So let's do a bit of an overview of the Orbit Reader 20 itself. Orbit Reader 20 is a portable refreshable Braille display, designed to lower the cost and improve access to digital Braille. Orbit Reader 20, in common with other Braille displays, raises and lowers rounded pins to represent the patterns needed to show Braille characters

You can use Orbit Reader 20 as an electronic Braille book reader, as a note taking device and also as a display and Braille keyboard for your Smartphone, tablet or laptop.

The physical description of Orbit Reader, well, the device itself measures 16.8 by 10.9 by 32 centimetres so that's about 6.5 inches by 4 and a quarter inches by about 1.5 inches and it weighs 435 grams so that's just under a pound in weight. So about less than a loaf of bread.

So if you place the Orbit Reader on the table in front of you, which I have done, so I'm just going to switch cameras now so we can see our Orbit Reader. There is the Orbit Reader. We hope, so I'm sure somebody will tell me if they can't see it. I think Ed Rogers is in the room so somebody put your hand up if you can't see the Orbit Reader, that's if you're expecting to be able to see it. Don't worry, I will describe everything. I am blind myself so I don't expect everyone to be following along with the visuals but I'm told that the visuals also help our light-dependent friends.

So along the Orbit Reader, so if you put the display on the table in front of you with the Braille display towards you, you'll find towards the back on the top there are the six traditional Braille input keys, the Perkins-style keyboard, arranged horizontally along the top edge and the dots go from left to right. You've got dots three, two, one and then over on the right dots four, five and six, as you would expect, as you would find on a Perkins.

Then in front of those there are three keys arranged horizontally. The longer one in the centre is your space bar and then the key immediately to the left is backspace or sometimes used as dot-7 and the key on the right is Enter or sometimes used as dot-8.

The other controls you'll see on the top here is in between Braille dot-1 and Braille dot-4, there is a circular arrangement. These are the navigation keys for moving around, up, down, left, right and then we have a Select button in the centre there.

Now the only other keys that you'll find on the top surface are our panning keys at each end of the Braille line. So we've got a 20 cell Braille line here and at each end we have a little rocker. These are our panning keys and they are used to move forward and back by 20 cells of Braille at a time. So you press the lower half of either of those keys to pan forward through the text or you press the upper half of either of those keys to pan back through the text. So that's quite handy, depending on which is your dominant Braille reading hand. I tend to be quite right-hand dominant so I tend to use my left hand to control the panning forward and backward but you may be different. So it's quite ergonomic in that sense.

There is a power button on the back so if I just lift the unit, in the recessed area, we've got the small square power button. If we hold that in for a couple of seconds, that will power the unit on which has happened. Then also in that recessed area, we've got the SD card slot, up to a 32 gigabyte SD card can be inserted there. Then we have our micro USB port for connecting to power and also for connecting to a computer.

The other things to draw your attention to is underneath the battery cover, secured with two Phillips screws, it's a small Phillips screwdriver and under there is the battery. Finally at the front corners, we have our anchor points which you can thread keyrings through and then attach a shoulder strap, should you want to do that.

I do want to make a couple of remarks about the battery. It takes from completely dead around three hours to charge the battery fully and in normal usage you can expect to get around three days of battery life. That's the figure that's advertised by the manufacturer. I've found that most people who have the Orbit Reader do report getting extremely long battery life and that's due in no small part to the way in which the pins work. So when the pins are in the raised position, they draw very little power from the battery and that extends your battery life. When the battery is running low, you get a dot in the dot-8 position, so the very bottom right-hand corner of the 20th cell will start to flash to indicate that the battery is 10% or lower and then at that point of course you need to connect it to power. If you need to check the battery status at any time, you do that by pressing the Select key with the up arrow, so I'm just doing that now, and on the Braille display, it says, "Battery 70%" and that's written in computer Braille and we'll talk a little bit more about computer Braille later on.

So the major differences then with Orbit Reader and traditional Braille displays. Well, the first major difference is of course the price. Orbit Reader 20 in the UK sells for £499, excluding VAT, which of course you don't need to pay VAT if you're a blind or partially sighted person or somebody buying on behalf of a blind or partially sighted person. Other Braille displays typically cost in the thousands of pounds and of course the price is more likely to be a consideration for individuals purchasing who do not qualify for funding.

The signage quality Braille, so the dots on the Orbit Reader, feel very solid, crisp and firm to the touch so Orbit Reader dots, they don't kind of squash down in the way that dots on traditional Braille displays do so they don't feel as soft or as spongy so the benefit of that might be for somebody who's perhaps a little bit heavy-handed or maybe somebody with reduced tactile sensitivity may find these dots easier to read but then conversely if you're used to those softer dots, then you might find that reading from the Orbit Reader could become more tiring and it is purely a personal preference. So I would suggest that you, if possible, try and get hold of an Orbit Reader and try it for yourself to see how you find the dots. Most Orbit Reader users do say that they find the dots extremely clear and easy to read and they're very well defined.

The next main difference, I suppose, would be refresh speed. So the Orbit Reader performs what you can think of as a linear refresh so that's one cell refreshes at a time and that means that the entire display probably takes somewhere in the region of half a second to update whereas a traditional piezoelectric display would refresh all at once, simultaneously. So most Braille readers are not impeded by Orbit Readers refresh speed but it is something that you might want to be aware of if you are an extremely rapid Braille reader.

The other thing that you might have noticed is the slight background sound when the display refreshes. So I'll just stop talking for a second so you can hear that. So while the Orbit Reader is refreshing, you will hear a soft ticking noise. I would say that's roughly equivalent in volume to somebody typing on a Qwerty keyboard, obviously depending on what kind of keyboard that you have, but it's perfectly acceptable in an office environment or if you're sat in front of the TV or out in the garden. In very, very quiet environments, you are obviously going to notice it more in the same way that if you're in a very, very quiet environment, you would notice if somebody was typing on a keyboard.

The question of cursor routing keys comes up from time to time. Orbit Reader was originally designed primarily as a device for reading Braille and as such, Orbit Reader 20 does not include cursor routing buttons, used to position the cursor while editing. So on a traditional Braille display, you might have a button above each Braille cell or below each Braille cell and you can press that to position the cursor. On Orbit Reader, there are other means for positioning the cursor and we'll cover some of those later on.

Finally the feature set of the Orbit Reader. It supports reading and writing Braille files from SD memory cards and you can also connect via USB or Bluetooth to a wide range of mainstream devices. Orbit Reader does not include Wi-Fi, nor does it have the wide range of apps that you might find on a Braille note taker and we heard recently actually from the Braille teacher at New College Worcester that they felt that this was actually a benefit because that meant fewer distractions and fewer things to learn. So a very lightweight device in terms of the software that is built in.

I'm now going to move on to the main functions so reading, writing and navigating. So starting with reading. The main reason you would get an Orbit Reader is to read books and at the moment on my Braille display, funnily enough we've got the word "Books" which tells me that I'm on my Books folder and if I go in there, I can choose a book to start reading, this happens to be Jeffrey Archer, A Prison Diary. To move forward through the book, I press the lower part of either of those panning keys and as you can hear, and those of you with some vision might be able to see, the display refreshes as I move forward and then I can move back by pressing the upper part of the panning key.

You can actually reduce the number of key presses that you would need to press while reading with automatic scrolling. So if you imagine you're going to read a whole book, that's a lot of groups of 20 Braille cells to keep pressing the key at the end of each line and some people do that and are happy to do that. However you can ask Orbit Reader to refresh automatically for you so we do that by pressing the space bar so I'm going to do that now.

As you can hear, the refresh time is very, very slow. There's quite a long period of time each time the display refreshes so we might actually want to speed that up so we can adjust the speed by holding the space bar and using the up or down arrow keys and that will change the speed. So if I go up, that will actually increase the speed by one second at a time. So let's just take that down to something a little bit shorter than where we had it. Okay. So now the display is set to refresh every two seconds so I'm going to press the space bar. Okay. Now we can hear that the display is actually refreshing quite quickly. So you've got to be quite a good Braille reader to keep up with that.

Then if you need to adjust the speed by finer increments, you can add in the dot-7 key. So you press space with dot-7 and then use the up and down arrow keys and that will move the auto-scroll speed by one tenth of a second. So you can really adjust to a very fine increment as to how fast you want it to refresh and while it's refreshing, if you find you're on a short line and you finish reading it, rather than waiting, you can press the scroll forward and keep going so you don't have to always wait for it. But if you find you're working with a student or suddenly your Orbit Reader starts refreshing by itself and you're thinking, "Help, what's going on?" chances are you might have just bumped the space bar and it's automatically scrolling.

Now if you want to jump to a specific word, phrase, chapter or section title, you can use a Find command. So while in your book, you can press space with F, so we'll do that now and then you can type some text so let's try, "Hello." There must be the word "Hello" in this book. Now I've tried it, there won't be. There it is. Yeah, "Hello" is in quotes. ""Hello," that baroness said." So it's come up in the book and we've found the word "Hello."

If we want to go to a particular page, books that are supplied by RNIB have print page numbers marked up in a very particular way and this is actually very useful because it means that you can jump to a particular page in your book, if you know that something is on print page 47 or you just want to jump forward a few pages. So to find out what page we are on, I'm just going to press F and then I'm going to press dot-5, dots 2 5 and the number sign. That will take us to our next page number which happens to be page 328. So we were on 327. As you know, Braille is a flat format. It's not a rich format so you don't have the concept of links and headings and tables in the same way that you would in a web page or something like that so we have to use some of these little find tricks to get where we want to go. When using the Orbit Reader, my wife likes to use the recipe books on the Orbit Reader so Mary Berry and all of that and so she will browse the contents for a recipe that she wants, find the page number and then just use the Find command, space with F, just to jump straight to the place or the page that she wants to get to.

You can skip forward and back by other units so it is possible to move by paragraph. You can also jump forward to the next page form-feed if your Braille file contains those or jump forward by 60 lines, whichever of those comes first. You can jump to the start of the file with space and dots 1, 2 and 3 or the end of the file with space and dots 4, 5 and 6 and there are a whole bunch of these commands. I'm not going to go through all of them. They are in the documentation. One that you will need though is to exit your file, your book, and you do that by pressing the backspace key or the dot-7, that's this one to the left of the spacebar and that will bring you out.

Orbit Reader remembers your place each time you reopen your book. However you can also set and remove bookmarks with space and M and then you can move to the next bookmark with dot-5 or to the previous bookmark with dot-2. That can be a really useful way of keeping your place.

It's important to note that Braille books, Braille files, are going to be displayed using the Braille code that has been set by the transcriber at the time that the book was produced and so that Braille code cannot be easily changed. In the books supplied by RNIB, if a book is in standard English Braille, then you'll notice the letters SEB will appear in the file name and also if the book is in Grade 1 uncontracted Braille, then the letters G1 will appear in the file name.

That's really everything on reading books and we'll talk about where you can get books in a little while but I'm going to move now to writing notes and making notes.

So to create a new file on your Orbit Reader, it's similar in a way to the way you would do it on Windows or Mac where you press Ctrl-N in an application to make a new email message or a new document in Word but on Orbit Reader, we don't have a Control key, we use the spacebar and so you can press space with N to create a brand new file. Or if you are in a file that you were working on previously that you wish to edit, then you can press space with E for edit. It's important to note that books from RNIB are set as write-protected so if you do get a message that says you can't edit this file, that's to prevent you from deleting something accidentally.

When you create your new file in Orbit Reader, the first line you write will become the file name so it's very important that you put dot brf (.brf) as part of that file name. So then other devices in the future will know how to handle that file. So when you copy it across to your computer then your computer can treat it like a Braille file.

Now I did say that I would come back to the whole sticky issue of computer Braille and the Orbit Reader uses USA computer Braille for files and folder names so when you're in the list of files and folders, as well as in the menu, that information is going to be displayed using USA computer Braille. Now, that might sound scary. It's quite common actually in many devices. Some tips that will help you in getting to grips with computer Braille. Firstly, Caps are indicated with dot-7 which is located below dot-3 in the Braille cell so eight dot Braille cells here. So we can see in the first cell we've got A Prison Diary and the first letter of each of those words has a dot-7 below it indicating that it's a capital. Numbers are written in the lower part of the cell and don't require a numeric indicator so for example one is written with the dot-2 and the number two is written dots 2, 3 and so on. There are no contractions in computer Braille and there are different patterns used for representing punctuation, most importantly the full stop is written with dots 4, 6.

So let's do this now. So I'm going to start a new file. So space with N and we're going to call it demo.brf. So I've written D-E-M-O and then dots 4, 6, B-R-F, that's the first line of my file and then I can press Enter and now I can write whatever I like. Remember, this is Braille. It's not going to be translated necessarily so you can write whatever you want, any combination of dots. As you would expect, when editing, the cursor will move along with you and you can change the speed at which the cursor blinks or if you don't want that. Then you can also move the arrow keys to go up and down by line, left and right will move you by character and then you can add space with left and right and that'll move you by word.

There is a context menu so in Windows, you can press Shift+F10 or press the applications key to get the context menu. We can press the Select key here and we're presented with a context menu and this gives us options for marks. I'm just arrowing down so when I press Select firstly, we get the option to Exit and then I can arrow down, we get Mark, Copy, Paste, Cut, Find, Save and then back to Exit. If we just Exit, then my changes are saved and we exit the editor and then we're back to the file name which is demo.brf so if we want to make any further changes to that, then I would press space with E and we would be then editing the file that we are currently on.

Just going to check how we're doing for time. It's 7:30 so I'll just try and speed it up a little bit to make sure we allow plenty of time for questions.

Moving on to managing files and folders, when you exit your file on the Orbit Reader, you return to the file manager. You can use similar commands to the editor and to the reader to move around. So you move up and down by the items in the current folder with up and down and you'll be presented with each file name as you do so. If you move left or right, you actually step through the properties for that file. I'm going to do that now. So the first thing we get is the file name, if I arrow right, then we are shown the position so I've got P-O-S colon and then nine so that tells me that in my file I was on the ninth character. If I go right again, I can see that the file is 1kB in size so one kilobyte in size and the date that it was created and then if I go further to the right, we're then told the Protected or Unprotected status. So that gives you a flavor.

Now, remember that files contain text and folders contain other files and you can, of course, perform a range of operations on each file. So if you want to go to a particular file, you can do that by using the letters of the alphabet. So if I wanted to go to the first item starting with B, then I can press B and I'm taken to Battle Scars UEB. That's the first item in this folder that begins with the letter B.

Now, notice I made my demo file in the same folder as all my books and I would advise against doing that. I would recommend that you actually create a folder for your own files so your own files and your own notes don't get muddled up with your books and you can do that with space and O. That will create a new folder.

So in the notes that we're going to make available on the website, there will be a list of commands for performing those various file management tasks like Rename and how to mark a file and how to protect and unprotect files. So don't worry, we will make sure that all that information is available to you but if there is something specific, do shout out when we get to the questions. I want to make sure that we allow plenty of times for those.

Connecting via USB, you can, of course, use Orbit Reader as a mass storage device so we can press space with dot-7 and dot-5 and then we can connect Orbit Reader to our computer and it will come up like a USB thumb drive. Then you can copy and paste files to and from your computer.

Let's talk a little bit about using Orbit Reader with your screen reader. So Orbit Reader has two basic modes of operation. There is the stand-alone and the remote modes. The stand-alone mode is what we've been using all the way through this demonstration for reading books, for making notes and for managing our files. However if you want to use Orbit Reader as a mass storage device or if you want to use it as a display or keyboard with your screen reader, then you need to put Orbit Reader into its remote mode.

You hold the Select key and press left for local, is how I remember it, left for local and then right for remote. So press Select and I've pressed right and Orbit Reader says the word "Bluetooth" and we've got two symbols at the start of the line there. That gives us a very easy way to switch between our book, perhaps, and then maybe a text message or something that you might want to read on your phone.

Now, while specific instructions are going to vary between screen readers of how you go about connecting to the Orbit Reader, the principle is fairly simple. You have to firstly prepare the Orbit Reader, make sure it's in the right mode, and then you go to your screen reader settings and we're going to do that now. I'm just going to pick up my phone and I'm going to ask Siri to open my VoiceOver settings. I'm just going to work through an example of connect with VoiceOver on the iPhone. This is going to be different depending on what screen reader you want to use it with, NVDA, Jaws, TalkBack or whatever. Let's try VoiceOver.

So open VoiceOver settings.

Automated Siri Voice: Here are the VoiceOver settings.

Automated Voice: Settings

Dave Williams: Okay, I'm now looking for Braille.

Automated Voice: Braille.

Dave Williams: So now I'm in the Braille settings. I'm going to look towards the bottom of the screen to find my Orbit Reader. (Automated Voice). There it is. Okay, so I've double-tapped on the Orbit Reader to try to connect and with any luck- this is a live demo, so anything's possible.

There we go, we have connected. So now if I put my phone down over here. I'm just going to rearrange things slightly so those of you who can see will hopefully have a visual on the phone as well. I've now got my Orbit Reader connected to my phone via Bluetooth so whatever comes up on my Braille display now is whatever the phone sends it. So if I want to change Braille code, I need to do that in my screen reader settings. Orbit Reader is really just acting as a display now. It's also acting as a keyboard so I can issue commands from the Orbit Reader which are then passed back to the phone.

So I'm going to press space with H which is the Braille command to go to the Home screen. Then I can use the right arrow to step through the items on my home screen and then of course I can compose messages, read books, read content from the web. So this dramatically opens up the amount of content that is available to me. As I said, it's really important to remember that once the connection is established, it is your screen reader that is responsible for what happens in terms of Braille output and what the key strokes do but of course the massive benefit is you can connect to apps like Kindle or Apple Books and get access to a huge amount of content in Braille so that's really exciting.

I'm very mindful of the time. I just wanted to perhaps highlight some of the places that you can get books and maybe some of the places for further help and support and then we'll open it up for questions.

In terms of books, you can go to the RNIB and join the Braille library and request the library SD card which contains, I think, around 800 books in Braille, that is also supplied to people who buy the Orbit Reader from RNIB and those books are professionally transcribed Braille books. So they're going to be relatively error-free, touch wood.

Also professionally transcribed books are available in the United States from the National Library Service, American Printing House and National Braille Press.

You can also get books that are translated on the fly. So these are going to be less accurate but there may be more choice available. So services like Bookshare can generate Braille books or you may decide to take the third approach which is to roll your own and use a tool like BrailleBlaster or SendToBraille and make Braille files yourself on your computer which you can then copy to your Orbit Reader. Or, of course, the way in which we demonstrated with the iPhone, that you can have content on your iPhone which VoiceOver then translates into Braille for you.

There is a mailing list where other Orbit Reader users hang out. The address for that is in the notes. You can, of course, discuss all things Orbit on the Braille support group on Facebook and then of course our venerable Braillists forum would be glad to welcome you as well.

If you get really stuck and you've got a problem, do contact the supplier which in the UK would be RNIB, the Technology for Life team would be more than happy to help out with any technical queries that you might have. Then of course Orbit Research themselves have technical support information from their web page including software updates and the most up-to-date versions of the user guides and so on.

With that, let's see if we can open it up and take any questions.

Holly Scott-Gardner: Thank you so much, Dave. That was a really great presentation. I feel like I learned some things so that was quite exciting so I'm sure everyone else did. As Dave said, we will now be taking questions and if you want to ask a question, you need to raise your hand. So on Windows that will be Alt+Y, Option+Y on Mac, the Raise Hand button on iOS and star nine if you're calling in and just to remember that when you do raise your hand, when you are asked to unmute, there will be a dialog box that pops up so you'll have to press the button as well.

Ben: Thank you for that, Dave, just to echo what Holly said. I was correct, I have learned a lot actually. I didn't know you could change the refresh speed there. That's definitely one I'll be using. We've got a few hands up actually so we're going to come to Bernie first and then after Bernie, we're going to go to Steve. So just bringing you in now, Bernie, and you're good to go.

Bernie: Hi, there. Fantastic, thank you so much, Dave, for that demonstration. I learned loads there. I've got a couple of things to say. RNIB, I applied actually for a grant for an Orbit 20 Reader and I thought I hadn't been successful so I got my own and today I received an Orbit 20 Plus from them. I received it through the grant that I did apply for. So what I'm saying is that if you don't have an Orbit 20 and you're in the UK, it is worth applying for one from the RNIB because you may be offered one through a grant.

Ben: That's a good tip.

Bernie: Also, secondly, can you tell me the difference really quickly if you can, between the Orbit and the Orbit Plus?

Dave Williams: Sure. So the device we've been talking about tonight and demonstrating has been the Orbit Reader 20 and that's been available in the UK since October 2018 so just over two years. The Orbit Reader 20 Plus was launched in the UK in September and the physical shape and size and dots and buttons and battery and all that stuff feel identical. The main differences are internal and the biggest one is the availability of a Braille translator. So we talked a bit about computer Braille tonight and the Orbit Reader 20 Plus includes a Braille translator so all your file names and menu items, they'll all appear in regular unified English Braille. So you won't need to think about or worry about computer Braille in quite the same way and it also means that you can create text files on your Orbit Reader 20 Plus which are very easily read by your computer. So particularly helpful for teachers. If they want to give a student a text file and have the student generate a text file, you can do that very easily with the Orbit Reader 20 Plus because it has that built-in Braille translator.

The other difference as well is if you're not sure which one you have, one of the quickest ways to find out is to press space with T because the Orbit Reader 20 Plus has a clock and it will show you the time and the other benefit of having a clock is it means that you actually get correct date and time stamps on your files and you also have access to alarms so you can set an alarm. It's not going to wake you up. It hasn't got a sound. But it does raise and lower the pins. So if you wanted to time box an activity, for example, you've got 20 minutes to do this task, then you could set yourself an alarm to do it.

There is a calendar in there and also a basic four function calculator as well. So Braille translator, clock, calendar and calculator.

Bernie: Thank you very much, Dave, really appreciate that.

Ben: Thanks for that, Dave. Sometimes it can be hard to tell the difference. You get all these different models released and you think, well, okay, one's got a plus, one doesn't but what does that actually mean? So great to get that overview. We're going to come to Steve now and after you, Steve, we're going to come to Jane. So, I think you're good to go now, Steve.

Steve: Thank you and many thanks for the presentation, a good one. I have a couple of questions. The first one is, and I think it comes out from your presentation, if I'm trying to use an app on, let's say, a phone and it uses Unicode characters, for example. However the Braille should come out down to that device itself.

Dave Williams: Yes. It would be up to VoiceOver to decide what to do with those Unicode characters. One of the discussions in Braille at the moment is around emojis and what to do with emojis and the iPhone, for example, will put the description of emojis in a particular kind of bracket. Some screen readers will just put a block of four signs and other screen readers will put the Unicode value so it really depends on the third party screen reader, how they go about handling those things. I think one of the big discussions in Braille at the moment is could we have a consistent approach, please and what should that be.

Steve: That sounds like a good start, consistency. It was more to do with the different languages really.

Dave Williams: So if you're reading in a different language, you're going to be reading a passage of text in a different language, you can add other Braille code tables to your rotor. So if you go into your VoiceOver Braille settings, you can add additional Braille tables and you get an extra rotor option where you can choose the Braille table that is used. So for example if you had a BRF file on your iPhone and you wanted to read that on a Braille display, then you might choose the ASCII Braille table to do that but if you were reading- what language is it, Steve?

Steve: Hebrew.

Dave Williams: Hebrew. So I don't know if there is a Hebrew Braille table in VoiceOver but there certainly should be. There are over 150 tables, last time I checked so I would expect there to be. So I would go and add Hebrew to your list of Braille tables in your VoiceOver Braille settings, and then when you want to read in Hebrew, you turn your rotor to the Braille table option and then you would flick up or down and that would change the Braille table.

Steve: Okay, thank you. The other question was, you mentioned about making sure you had .brf on the end of the file name. As you can have different types of file, I think txt and brf, if you happened to leave that off, what does it default to?

Dave Williams: Well, it will default to nothing but then it will mean that in particular if you put that file on the Orbit Reader 20 Plus, it might not be clear to the file system how to handle that file. So it might try to open it as a text file instead of a Braille file in which case you could end up with all sorts of interesting Braille translating issues going on. It's just good practice, I suppose, to specify. You could write txt and then it will open in Notepad but what comes out will very much depend on the particular file.

Steve: Alright. Great stuff. Many thanks.

Dave Williams: No worries.

Ben: Great. Thank you for that, Steve. Some great questions there. We're going to come to Jane next and after that, we're going to come to Alan. So, Jane, you're good to go.

Jane: Okay. What I want to know is, you mentioned about downloading from Amazon, I'm wondering how I do that on the Orbit 20 Reader, if I so wish to.

Dave Williams: Okay, so obviously the Orbit Reader 20 comes with a load of books and they're going to be the easiest ones. That's the path of least resistance. If you can get a Braille copy of a book and you can put it into your Orbit Reader, that means you can carry it with you, you don't need to worry about Bluetooth or anything else while you're reading.

If you want to read a book from Amazon Kindle then you would need to have a device that can run the Kindle app so maybe something like an iPhone or an iPad or even a Windows PC and then-

Jane: I've got a Windows PC, Dave.

Dave Williams: Yes. So are you running Jaws or NVDA?

Jane: NVDA.

Dave Williams: So you would connect your Orbit Reader to NVDA. So you would put your Orbit Reader into kind of USB mode, as it were. We can get you some help with how to do that. Then once you are in NVDA, NVDA usually picks up Braille displays automatically and then once the Orbit Reader is connected to NVDA, you would then go into your Kindle app on your PC and then you should be able to use NVDA to read through the text and that text is translated into Braille and sent out to the Orbit Reader but the Braille would very much depend on the text in our Kindle book and the ability of NVDA to translate which has improved quite a bit recently.

Jane: It has, yes. Thank you, Dave, and thanks for a great presentation. It was really helpful.

Dave Williams: Good to hear you, Jane. Alan?

Ben: Yes, so going to come to Alan next. We don't have any other hands after Alan but we probably do have time for one or two more questions so do feel free to raise your hand if you have a question. Alt+Y on Windows, Option Y on Mac, Raise Hand button on iOS or star and nine on your telephone keypad if you are dialling in over the phone. So I'm just trying to unmute you, Alan.

Alan: Hello, can you hear me?

Dave Williams: Got you, Alan, there you go. Good things come to those who wait.

Alan: The thing I want is not for me, it's what other people are asking me and the first thing that Bernie will tell you we always get asked is, how can I change from Grade 1 to Grade 2. I want to read a book and it's in Grade 1 or Grade 2, how do I find out and how do I change the grade?

Dave Williams: Most of the books that you'll get from RNIB will come in Grade 2 and if they are available in Grade 1, then you'll also have a file with the same name but it'll have the letter G followed by a number one in the file name. We could probably get you a list of the books that are available in Grade 1 and in Grade 2. I have a feeling James Bowden might have already made such a list. The grade of the Braille in a Braille file is set by the transcriber when they produce the book.

Alan: Excuse me, Dave, you're not answering the question I want.

Dave Williams: Well, you can't do it easily and I'm explaining why.

Alan: I don't want you to change anything. When people get the Orbit Reader, they don't know what they have to do to change from Grade 1 to Grade 2. I go around telling them there are two Welcome files. On the first one, it's Grade 1, on the second one, it's Grade 2. That's what I'm saying. I wanted you to say it to corroborate what I'm saying.

Dave Williams: So, yes, there's two files, if we have a Grade 1 version available and the Grade 1 file will have Grade 1 in its name. So what you would do is you would back out of the file that you're in with the backspace key or dot-7 immediately to the left of the spacebar and then you would arrow to the other file with a very similar name. So like you said in the case of the Welcome message, that's available in Grade 1 and Grade 2 so you could arrow down from the Grade 1 file and then you would get the Grade 2 file and then you can press Select to open that and read it in Grade 2. For some of the books, where we've got a Grade 1 and a Grade 2 version available, then we give you both files.

Alan: Thank you for that. Can I ask another question?

Dave Williams: Yes, by all means.

Alan: Whilst you were explaining to me how to put a file in my notes, I was doing it. What you didn't tell me, is when I get to the end and I've done it all and I've created the file, how I save it.

Dave Williams: Yes, so you press the Select key and you'll have the word "Exit" on your display and then if you press Select again, then that will exit and save your file.

Alan: Thank you very much. I'm out.

Dave Williams: No worries.

Ben: I'm just going to quickly bring in James Bowden who raised his hand. So, James, I'm assuming you want to respond to something.

James Bowden: Yes, hello. Just to add to that, Dave, absolutely correct. The Welcome message also has instructions in it how to get to other contraction or uncontracted version. So it says for example, "To read this in uncontracted Braille or to read this in contracted Braille, do this." So it's in the file as well. Just to say also that there are no books which are only in Grade 1 so all the books are in Grade 2 and some of them have both Grade 1 and Grade 2. Predominantly it's the children's books which are in both Grade 1 and Grade 2.

Dave Williams: That's brilliant. Thank you very much, James.

Ben: That's it for all the hands at the moment so I think I will hand things back to Holly.

Holly Scott-Gardner: Great. Thank you so much and thanks for all those really great questions. They were very, very helpful, I think, and as I mentioned before, what we are going to cover quickly before we end the event is once again our equipment. So the Braillists is giving away some free low-tech equipment if you live in the UK or Ireland. Unfortunately it's not available outside of these countries at the moment. We are running events over the next few weeks so next week on Tuesday at 7:30pm, we will be running an event introducing you to the slate and stylus, otherwise known as a writing frame. I keep using the American "slate". This is very helpful because we are including slates in our package of equipment which is going out. So if you've received some equipment or if you're hoping to get some, then come along to our event next week.

The week after on Tuesday, 17th, at 7:30pm, we will be talking about using Braille for learning languages. So I will probably explore the question of how do you read Hebrew in Braille in more depth because I'm actually learning Hebrew so that was exciting to hear that question.

The week after on the 24th, at 7:30pm, we'll be covering an introduction to Braille music.

As always check our events page for more details about these events and you can find our events page at braillists.org/events.

I'm just going to pass back to Dave very quickly to see if he has anything else he'd like to say before we wrap up.

Dave Williams: Well, I don't want to put you on the spot, Holly, but I was just going to ask you if you knew whether VoiceOver had a Hebrew Braille table.

Holly Scott-Gardner: So, well, kind of but there are problems and it depends if you're reading modern or Biblical Hebrew which really changes things because modern and Biblical Hebrew are not the same in general.

Dave Williams: Let's do that in a couple of weeks.

Holly Scott-Gardner: Yes.

Dave Williams: Brilliant, okay. Well, thank you very much, everybody. Appreciate you sticking with me and listening to me demonstrating the Orbit Reader. It's something we get asked about a lot so really happy to do it and hope you found it of interest and that you will come to our future sessions. If you've got any ideas or thoughts or feedback then do make sure that you share those with the team and the help address is help@braillists.org or you can contact us on social media as well.

Holly Scott-Gardner: Thank you so much. It was a wonderful event and thank you, Dave, for your presentation and to Ben for moderating. I really appreciate that.

Dave Williams: No worries and thank you, Holly, for bringing this whole thing together because it's something we've been wanting to do for a while and we appreciate your energy and your motivation and your organisation to make this all happen. Thank you.

Holly Scott-Gardner: No problem. Thank you very much.

Dave Williams: We should also give an honourable mention to Ken who is also on the call, who's our social media manager who's done an incredible job promoting it on Twitter, Facebook and pretty much everywhere. There are so many of these networks now that a few too many to reel off a list but a great job from Ken as well.

And on that note, thank you, everyone and I'm sure we'll all see you soon. Goodbye.

Ben: Goodbye.

Holly Scott-Gardner: Bye.