THE BRAILLISTS FOUNDATION

USING BRAILLE ON WINDOWS

Matthew Horspool: This episode of BrailleCast Extra is made possible thanks to a grant from the Winston Churchill Memorial Trust. For more information about the Trust, visit its website at wcmt.org.uk.

Good evening. On this very chilly Tuesday here in the UK, the 26th January 2021, and welcome to this Master Class entitled Using Braille on Windows.

My name's Matthew Horspool. I am the secretary of the Braillists Foundation who are presenting these Master Classes.

Just for some housekeeping, I should start off by saying that this session is being recorded. You can find the recording at braillists.org/media a few days after the session finishes. We will also be publishing some complementary notes in a handout form. These notes will also be available from the media page. They haven't been distributed in advance and you won't need to refer to them during the session. So please don't worry about that but don't feel like you need to take copious notes yourself either because the official notes will be made available.

If you don't like websites but you'd still like to catch up with the recording of today's session, you can do so via our BrailleCast podcast and that is listed in all of the major podcast directories, including Apple Podcasts, Google Podcasts, Pocket Casts and all of the apps that base their listings off those directories, so, for example, Overcast, Castro, specialist devices like the Victor Reader Stream. You can also get it on British Wireless for the Blind radios, like the Sonata and the Bumblebee. You can get it on smart speakers, like the Amazon speakers, she who shall not be named, the Google Assistant, the HomePod, all of those, if you ask it to play BrailleCast or you search for BrailleCast, all one word, you'll find all of the previous Master Classes that we have done and you'll also find some other interesting Braille-related audio content that we've put together over the years.

These sessions are very heavily moderated. You'll notice that when you came in, you were automatically muted and you're not able to unmute yourself. This is all documented in our moderation policy which can be found at braillists.org/events/moderation. If you'd like to ask a question, we ask that you don't try to unmute yourself. We ask that you instead raise your hands. On Windows, press Alt-Y. On the Mac, press Option-Y. On the telephone, if you're dialling in, you can dial star-nine. Or if you're using an iOS device, particularly an iPhone, there is a More button down at the bottom right-hand corner of the screen. If you double-tap on that More button, there'll be a Raise Hands button there. Double-tap on that and that will put a little icon next to you and you will be acknowledged at the appropriate time.

I'm delighted that there are a number of people joining one of these Master Classes for the first time today. A particular welcome to you if you're one of those. We are the Braillists Foundation, as I say. Our mission is more Braille, put very simply, and there's a lot of activity that goes on in order to make that mission a reality. We have a book club on a Thursday evening at 6pm in the UK, an open forum on a Friday evening at 6pm in the UK and a Braille for Beginners group on a Monday evening at 7pm in the UK, along with a number of other activities and you can find out about those at braillists.org or our events page at braillists.org/events.

With that said, now that the waiting room has settled down, I'd like to introduce our moderator for this evening's session, Ben Mustill-Rose who is our head of IT operations. Ben, good evening to you.

Ben Mustill-Rose: Hey, Matthew, thanks for that. Good introduction. So, as Matthew said, we tend to run a relatively tightly moderated call but that's not because we don't want to hear from you at all. If anything our calls are made by our audiences. It's just one of those things where if you've got, well, actually over 65 people in the room today, if everyone's unmuted and you hear lots of background noise, it's just really, really hard to hear people talk. So, plenty of opportunity for questions and comments as the session progresses.

Matthew Horspool: Yes, that's right. For those of you living in the UK, I should say, we do have some free equipment available but that's only available to people in the UK and we'll probably give some more information about that at the end of the session. For people who are in the UK, you can stay on and find out about that.

So this evening's session is entitled Using Braille On Windows and it's going to be presented by our head of courses at the Braillists Foundation, Holly Scott-Gardner. Holly is an avid Braille user, has been a reader and a writer of Braille from a very young age, very active in the advocacy space, has taught technology and Braille and various other things over in America for the National Federation of the Blind and it's a real pleasure to have you here, Holly. Hello and over to you.

Holly Scott-Gardner: HI, Matthew. Thank you for that introduction. That makes me sound a lot more, I suppose, I don't want to say, experienced, but it makes me sound definitely like I have done a lot of things and I suppose in some ways I have but it doesn't always feel like it.

It's really great to be here and be leading a session. Normally you'll hear me at the beginning of the sessions, introducing everyone and then handing over to whoever runs it but as Matthew said, today I will actually be running this session looking at using Braille on Windows.

I'm going to give a brief overview of how I want to run this session, just so that you get an idea of what I'll be covering and where you might have opportunities to ask questions.

Now, as we've mentioned, if you do have questions, feel free to raise your hand at any point and then at various intervals throughout the session, I'll probably be asking Ben if there are any hands raised and then we'll get to those.

So I'm going to start by talking a bit about why you might want to use a Braille display with a Windows PC and what you can get out of it, as a blind Braille user and what kind of setup you need to make this work. I'll then move on to talking about using Braille with JAWS, using Braille with NVDA, including both using Braille displays with NVDA and an NVDA add-on which allows you to use your laptop keyboard to input in Braille. I'll talk about using Braille with Windows Narrator which may come as a surprise to some of you. Then finally I'll talk very, very briefly about producing Braille on a Windows PC.

So I hope this gives you an idea of what I'm planning to cover and between all of those various different sections, I will give you the opportunity to ask questions. Raise your hand at any point, as soon as you have a question, and then we'll call you.

So to start off with, why might you want to use Braille on Windows? Well, there are several reasons for this. One quite significant reason why using Braille with a PC is actually very useful as a blind person is in areas where you're dealing with a lot of noise. You can control your PC fully without having to listen to your screen reader. This is also useful for people who are deaf-blind where their primary method of accessing a computer may be through Braille. I know we have some people on these calls who are teachers or who work with blind students, whether they be children or adults, so it's always good to bear in mind that for some of your clients, particularly those who have hearing loss as well, using Braille may actually be the most effective way to interact with their computer.

But for many of us, we may in environments where it's loud. We might be at an event and having our headphones on is quite inconvenient. Equally we might be somewhere where we really want to listen to what's going on. Now, I'm sure many of us have really got used to that technique of one headphone in and the other out. That's very easy with earbuds. It's less easy with headphones that go over your head, but I think we've all managed to make it work.

But if you don't want to do that and that can still be quite inconvenient to have your screen reader in one ear and then trying to listen with the other, Braille is a great solution.

I am personally an advocate for using Braille with a PC when presenting. Now, I fully appreciate that many people can present from a screen reader. I myself am used to presenting using text-to-speech, so it's not unheard of that I will get up and deliver a presentation just using a screen reader. However if you have access to Braille, I think this opens up some more opportunities to you.

You are able to not wear headphones and for me personally, I feel like this helps me engage much more with the audience. You're not having to try and repeat what your screen reader is saying and rush to scroll back up to find the bit you just listened to and then forgot about. And I personally find that the audience also perceives me as more engaged, which is really important, I think, not just how we feel but how the audience feels about us.

So that's a very brief explanation of ways in which Braille is useful, even though you're using a PC.

Now to use a Braille display with your computer, you still need a screen reader and this is something that confuses people. Some people think, well, I've got my Braille display, I'm going to my friend's house, I'll just plug it into their computer and I'll use it. You actually need a screen reader in order to drive the Braille display. So if you're using someone else's computer, you might want to look at something like NVDA which is a free screen reader as that will not add any cost onto using your Braille display with a computer but it is important to bear in mind that you do need a screen reader, even if you're not using speech output. You may choose to completely silence the speech when you're using Braille with your computer but the screen reader still needs to be actually on.

So I'm going to talk a bit now about using a Braille display with JAWS which is one of the main screen readers on Windows but before I do that, I just want to check if we have any very early questions.

Ben Mustill-Rose: We'll just give people a bit of time to raise their hands. Once again that's Alt-Y on Windows, Option Y on Mac, star nine if you're dialling in by phone or if you're using an iDevice, like an iPhone, iPad or iPod Touch, you can press the More button in the bottom right of your screen and find the Raise Hand button. But we don't have any questions at the moment. That was a really good summary. I think sometimes people think, well, why Braille when you've got your computer talking to you, but actually I think you've well and truly proven there that actually there is still very much a place for it.

Holly Scott-Gardner: I think it's personal preference as well and different people are going to use Braille for different things. One thing I use it for a lot is proofreading. So I may do a lot of the proofreading with my screen reader and then check certain things in Braille. So I think one thing people get really intimidated about is this idea that it has to be either or, whereas I think actually using a Braille display in conjunction with speech output is very, very useful.

Ben Mustill-Rose: Definitely. Well, no hands so far so I think we're good to move on.

Holly Scott-Gardner: Thank you.

So using Braille with JAWS is quite simple and JAWS is actually set up to work with many, many Braille display. I'm not going to go through the whole list of them because we'd be here for a while and if you are interested in knowing whether JAWS will function with your Braille display, you can actually check when you're setting up a display. You can look through the list.

So I'm going to talk about how to add a Braille display. When you have installed JAWS, you'll want to go to the JAWS Option menu and this is very easy to access so when you're just on the JAWS window, you can hit Alt plus O and then you can navigate down using your down arrow to Braille and press enter on that and that will open up the Braille settings. You'll then want to move to a button that says, "Add Braille Display" and activate that. Once you get to that window, you then have all the different options to choose your Braille display. So you're immediately put in a list of possible displays, so you'll just arrow down to find the display that you want.

Then you can hit the Next button and add your display and it really is that easy. However if you want to handle some more advanced Braille settings, you will want to go to the Advanced Braille Settings and there's several ways to get there. So you can back to Braille and tab until you hear Advanced or you can press Insert F2 so the JAWS key and F2 and hit S until you hear Settings Centre. The Settings Centre contains all kinds of settings relating to JAWS but there is a whole section on Braille. In that you can choose things like Translation. So what we mean by Braille translation is when your Braille display is connected to your computer using JAWS, it needs to know how to output that Braille. So you can set the language and how it's output. For example, mine is set to Unified English Grade 2 because that's what I read but you might want to set the output to Grade 1, for example, or you might want to change the language.

JAWS itself has many languages set up as it is. You could go from English to French to German, to Hebrew, Italian, all these different languages. Then select the output and the input that relates to that language.

But there are other signs as well. So you can look at panning with your Braille display and how the cursor's displayed as well. All these settings are under the Braille settings within the JAWS Setting Centre and this is one of the most important areas of JAWS, whether you're using Braille or not, because you'll find all sorts of other settings for JAWS in here as well. This is something that is good to play around with. You might think, well, I don't quite know how I want the cursor to be display so what you can do is actually go in there and take a look at the different settings and think, oh, well, maybe I'll try this one, and it's worth noting that when you find a setting, if you hit the tab key, it will take you into a read-only box where it will actually explain what that setting means. For example, there's a setting that says, "Display text in 8-dot mode," and it says, "Select this check box to have text display in 8-dot Braille." In 8-dot Braille mode, JAWS uses dot 7 and 8 on the Braille display to indicate capitalisation and special symbols in computer Braille.

That explains what that setting actually means. So that's very useful because I know that certainly when I went to sit up my Braille display to start with, sometimes I didn't know what the various different settings meant.

I mentioned panning earlier and what panning means is when you're moving forwards and backwards through text. Your Braille display actually limits or effectively controls how much you can pan at a time because if you're using an 80 cell Braille display, you could pan by 80 cells at a time but obviously if you're only using a 20 cell display, you can't do that.

Different displays will control how you pan. I can't tell you, for example, oh, well, you're always going to use this button, because if you're using something like an Orbit, you'll be doing something different to if you're using the Mantis Q40.

However, typically, on many displays there are panning buttons or there are methods of actually using the Braille keyboard to control moving backwards and forwards through the text. What I would recommend is going and looking at the Braille key strokes. JAWS does have a list. On Freedom Scientific, there's a list of the Braille input commands using the Focus displays and the reason that is on the Freedom Scientific website is because Freedom Scientific makes both JAWS and the Focus 40 or the Focus line of displays.

Whilst many of the commands might be slightly different if you're using another display, I do think it's useful to look at this list of commands because it gives a fairly solid overview, actually, of what you'll be needing, in order to access JAWS with a Braille display.

I just want to check if anyone has any questions at this point.

Ben Mustill-Rose: We'll just give everyone a moment or two to raise their hands. Once again, I do think it's really important to go through these things because I find that even though this technology can be really liberating from a blindness point of view, actually if you don't know these things, if you don't know, oh, yeah, that's that check box that I need to check, and sometimes it's not obvious, if you don't know what to do in these situations, it can actually feel almost a little bit intimidating sometimes, I find.

Holly Scott-Gardner: Yes, I think so. It's definitely one of those things and my biggest piece of advice, and this is something that I always advise people, whether they're students of mine or not, is to go and explore the settings and try different things because you can always reset your settings back to the default if you really mess things up and you're very unlikely to break your computer. You might get yourself in a situation where you think, well, this is a bit inconvenient, but actually there's always a way out of it and it's better to explore than not.

Ben Mustill-Rose: Definitely. We don't have any hands raised at the moment so I think we're good to press on.

Holly Scott-Gardner: Okay. So once you've set the settings you want for your Braille display and JAWS, you'll want to save the changes. So just tab through the Settings Centre until you get to the OK and you'll hit the OK button. You definitely want to make sure that you save those settings once you've actually set them all up.

I will say that when you're actually getting set up with JAWS and you think, oh, well, I don't know how to do this and there's so many things that I can do with JAWS on my Braille display and this is confusing, one thing I really recommend is that people make use of the JAWS Help information.

So JAWS has really comprehensive help documentation and you can really easily access that when you're in JAWS, by just hitting F1 when you're in that JAWS window. So you can go through and view all the different aspects of the help. For example, starting JAWS, getting help, so this goes far beyond Braille but I think it's important to mention because you really need screen reader proficiency when you're using Braille on Windows because your screen reader and the Braille display interact with one another so heavily.

I would also recommend the various different webinars and things that are available on the Freedom Scientific website. So, again, if you go into JAWS and you find the Help menu, you can look for things like Training and there's also keyboard commands which, again, is very useful to know how to access any Web Resources.

So I think it's good to find this stuff because, for example, under the Web Resources, you can access the training webinars and also on FSCast and FSCast is Freedom Scientific's podcast where they cover all kinds of different things relating to using JAWS on your computer. Again, whilst not all of these things strictly tie into Braille, they do relate because if you don't actually know how to use your screen reader, you might come up against things that actually aren't such a problem once you are very proficient with your screen reader.

So I did a very, very brief overview of using a Braille display with JAWS and I really didn't delve too deeply into all the more complex settings because I think that, certainly for new users, the most important thing to know how to do is actually get your Braille display set up.

Now, this session isn't designed for you to set up along with us because, as I said, you'll have different displays, things will be slightly different, however in the notes which will be going up on the website after this session, I do explain the steps of actually getting your Braille display set up and I link to the resources that are available, should you want to ask them.

I do also want to mention that there are some languages that are more difficult to access in Braille using JAWS, for example biblical languages, however tables have been created to enable you to get Braille output for those languages. So, I'm talking things like Biblical Hebrew and Ancient Greek and, again, in that handout, I will link to the resource for those tables for any of you who are interested in accessing that because I know that's a very niche thing but I also know when we ran a session on languages, we had quite a surprising number of people who are really interested in biblical study. So if you are interested in that, you will find a link to those tables in the handout.

Now, I'm going to move on to talking a bit about NVDA which is a free screen reader but once again I'm just going to quickly check to see if we have any questions.

Ben Mustill-Rose: Once again, if people have any questions about what we've covered, you can raise your hand by pressing Alt-Y on Windows, Option Y on Mac, star-nine if you're dialling in over the phone and if you're on an iDevice like an iPhone, iPad, iPod Touch, press the More button in the bottom right of your screen and find the Raise Hand button.

People always talk about what you've learned during lockdown and I think one of the only things that I'll be able to say that I've learned is how to raise your hand on Zoom because I've said it so many times now but it probably is worth repeating.

But we don't have any hands so I think we're probably good to go to NVDA with just over half an hour remaining.

Holly Scott-Gardner: Very much like JAWS, NVDA has really comprehensive Braille support and this is wonderful because, as I mentioned, NVDA is a free screen reader. Now, I am a JAWS user myself but I was an NVDA user for a solid ten or so years. So, I'm definitely in favour of NVDA as well.

You can choose, again, to have contracted or uncontracted Braille, both input and output, on NVDA and that is depending on the language you're using and what you want to do.

To actually set up Braille, you'll want to go to the NVDA settings and so, to get to the NVDA settings, what you will do is you will hit the NVDA key and N, and the NVDA key, it does vary depending on what setup you have. On a laptop it is typically the Caps Lock key. You'll find the Preferences sub-menu and when you go to Settings, it contains lots and lots of different categories. I think of this as being kind of similar to the JAWS Setting Centre where I talked about all those different options that you had.

So you'll want to go to the Settings and then navigate to Braille. From there you can set up your various different displays. Again, NVDA supports far more displays than I can actually go through, but what you can do is pick your display. So there will be a Change button where you can select your display.

The output table involves different Braille tables. So, again, very much like when I said about choosing your language and then the output in JAWS, this is very much the same thing. So actioning a box and you navigate this using the arrows keys and you'll select how you want your Braille to output. Then there's also an input table. So, now, you may want to write in contracted Braille but output in uncontracted Braille and that's absolutely your choice, that's something you can do, as a screen reader user and, again, it depends on what you're doing and why you might want that but these are settings that you have full control over.

You can also choose for the word that's under the cursor to be expanded to computer Braille and what that means is, I mentioned computer Braille earlier when I talked about 8-dot Braille and 8-dot Braille uses the bottom two dots on the Braille display. So, now, when you have a word under your cursor, you can choose to expand that to computer Braille. Not everyone will want to do that but it is a useful option to have available.

Likewise, you can turn the cursor on and off so that you can see it on your Braille display. Now, I personally quite often like seeing my cursor. Some people absolutely detest it, which is why it's really useful to have that option. Again, having the cursor blinking and what we mean by a blinking cursor is that your cursor will kind of drop in and out so that it will almost feel like it's flickering and I personally can't stand that. Again, other people love it. So these kinds of settings really allow you to customise how you want NVDA to work with your Braille display. I'm not going to go over them too much because, again, it's very similar to JAWS and, again, my answer to, "Well, how do I know what settings to select?" is that it's personal preference and I always advocate that people try new things. The worst that happens is you've got to reset your NVDA and really in the grand scheme of things that's not that bad. You won't break your computer and you won't break your display. Maybe you'll get to a point where your Braille display just doesn't want to work with NVDA because of the way you've set up, but, again, just reset everything and start again.

I'm going to check quickly if we have any more questions.

Ben Mustill-Rose: So we are actually aware of a technical problem at the moment, that seems to be preventing people from raising hands which we've never experienced before. So what we'll do, if it's okay, Holly, is maybe if we just power on for a little bit and we'll look to resolve that at our end, but equally if not, I notice that some people are asking questions in the chat.

Holly Scott-Gardner: Oh, okay, you could read out some questions maybe.

Ben Mustill-Rose: Yes, so maybe if I just spend a little bit of time collating them and we can go from there. Many apologies to people who can't raise their hands and many thank-yous to everyone who raised that as well.

Holly Scott-Gardner: Thank you for being so patient with us. Unfortunately sometimes there's not a lot we can do when it comes to technology and despite running a technology webinar, sometimes it still fails.

So I'm not going to talk too much about NVDA anymore. It really handles Braille, not quite the same as JAWS because they're different screen readers so actually what they do is slightly different but in terms of actually being able to pair Braille displays with both JAWS and NVDA and choose your language and output, you can do all of those things.

I am now going to talk about Windows 10 and Narrator because it's one of those things that people say, "Well, you can't possibly use Braille with Narrator," but it is actually possible. I went through earlier and experimented a bit to see how well Braille works with Narrator and as we know, Narrator is not a perfect screen reader but certainly in a pinch, it's very useful to have around.

So, to use a Braille display with Narrator, your Braille display needs a USB or serial port. You will want to set up Braille on Narrator by pressing the Windows key with Ctrl and N. So Windows, Ctrl and N. What that does is that opens up the Narrator settings.

You have to tab through quite a lot of settings but then you'll get to the Braille settings and there will be a button which says, "Download and Install Braille," and that takes a few minutes, depending on your connection and various other things. When it downloads, it will pop up asking you if you want to turn on Braille. It was toggled on by default when I tried it. You'll want to listen because it will say On after the button or it certainly did when I was doing it. I was using JAWS at the time so it may affect how it reads it. Then you'll want to add your Braille display so you choose the manufacturer of the display, much like you did with JAWS and NVDA and then choose the connection type, so whether it's a USB or serial port.

There are options to change the drivers if Narrator isn't working with your Braille display. I'm not going to go into managing drivers right now because I think you only need to do that if actually it's not working but I will link to all this information in the handout, if you really want to delve into this in more detail.

I think it's quite exciting that we've got Braille display support on Narrator. I remember the days of Narrator basically not being able to do anything so the fact that we're now at a point where we're looking at Braille and things like that is actually a good thing.

Again, you can manage Braille preferences in Narrator, so the language, the Braille type, so things like Grade 1 or Grade 2, notification time-outs. Sometimes if you get a notification, it will pop up on your display and you can set a number of seconds in which it automatically just disappears from your display, and how the cursor's displayed, again talking about that cursor which blinks, like I mentioned with NVDA, very similar in Narrator, you have those kinds of options as well.

There is a list of the various different commands that you could use with Narrator that relates to Braille. I'm not going to go through all of these because again you may not actually have any interest in using Narrator with a Braille display but these are linked in the handout and it does actually give information about mapping for different Braille displays as well, which is useful because the different supported Braille displays may handle things slightly differently. So that is a very brief overview of Narrator and there's this whole list of Braille displays it supports which is categorised by manufacturer which is quite a nice convenient list. I can't vouch that it's 100% up to date but it is relating to Windows 10 and Microsoft is normally decent at keeping their stuff up to date.

I'm going to check again to see if we have any questions.

Ben Mustill-Rose: Still experiencing some problems with raising hands but I've just dropped a message in the chat and so I think what we'll do for now is if people are able to, I know that chat is slightly hard to use sometimes if you're using a screen reader, so many apologies once again, but if people are able to put their questions in the chat, I will field them to you, Holly.

Got a really good question about computer Braille. I know we touched on this briefly but are you able to talk a bit about what the differences are at a high level between 8-dot Braille and computer Braille and what the perceived benefits are of it?

Holly Scott-Gardner: Right. So when we talk about computer Braille, we basically mean 8-dot Braille and the benefits of computer Braille really were that if you were entering something like an email address, you could enter an @ sign, for example, using computer Braille very conveniently, which wasn't something you could conveniently do in Braille before. Now we can debate whether the same needs arise for computer Braille now we have UEB because there are very clear conventions in UEB for writing things like @ signs so actually you wouldn't need computer Braille to do that. I think we can argue that in some ways computer Braille is redundant, certainly on things like notetakers for input, you could really do most of this using UEB. However, I think there are people who would feel far more comfortable with computer Braille and there are times when it's still useful to see things like @ signs and punctuation and numbers written in the computer Braille format. So that might not seem like the best answer. In my personal opinion, computer Braille has somewhat lost its usefulness but I don't know if that's necessarily a fair thing to say or if that's more my personal opinion.

Matthew Horspool: Just coming in, I think I would largely agree with you. The only point where I disagree with you slightly is that there was the option you talked about in NVDA to expand the word under the cursor to computer Braille and there is also an option there in JAWS to do a similar sort of thing. The reason why you might want to do that is because of cursor routing. I don't think we talked a great deal about cursor routing but you've got the little buttons above the Braille cells and if you press the button above the Braille cell, it moves the cursor to whatever's under that Braille cell. So if you've got a word that's contracted like Matthew with the THE sign, if you press the cursor routing button above the THE sign, where does that cursor go? So, if you expand it to computer Braille, then you can see the uncontracted form of M-A-T-T-H-E-W and you can be more precise with your cursor routing, about where the cursor is. So that's why you might want to do that particular option.

Holly Scott-Gardner: Yes, I would agree with that actually, certainly for handling where the cursor is and looking at individual words. I wouldn't, for example, set my output table to computer Braille all the time but I might have it that I can expand the word under the cursor. I think it's also useful maybe when there is a word with a lot of contractions and certainly for some Braille users who might feel overwhelmed by that. When you expand it out into computer Braille, you're actually going to see that written effectively in a Grade 1 type format. So that can also be helpful.

Matthew Horspool: We seem to have lost Ben at the moment. I'll carry on for now. There was quite a technical question that came in about the use of UIA. I won't worry too much about that question. Thanks for raising it through. The UIA problem and JAWS, obviously you don't want to turn off UIA if you can possibly manage it so it might be worth reporting that but to Freedom Scientific. If you don't know how to do that, drop a line to help@braillists.org and we'll get some more specifics and we'll sort that out, but clearly that is a problem that needs to be addressed at some point.

We had a question about BrailleExtender, the NVDA add-on. Do you want to talk a little bit about that, Holly?

Holly Scott-Gardner: Yes. So I'm presuming we're talking about the add-on for actually writing in Braille and there's actually, to my knowledge, two add-ons that can do this. There's a PC keyboard Braille input add-on for NVDA. So what you can actually do is use your QWERTY keyboard to write in Braille. So, let's say you don't have a Braille display and you don't want Braille output but you do want to be able to input in Braille, you can use F, D and S as dots 1, 2 and 3; and J, K and L as dots 4, 5 and 6. Then you can use the A and your semi-colon as your Backspace and Enter and the spacebar as normal. What you can do is actually write in Braille. So let's say you had a Microsoft Word document and what you write will appear as text, as ordinary text, but you can actually type as if you were typing in Braille. Now there can be problems with this in that particularly some laptop keyboards do not like you pressing some of these buttons down together. They will go, "Well, no-one should be pressing an A, a J and a K at the same time," and they can cause some problems with the add-on. However, that is unfortunately a problem specific to some laptops and their keyboards.

With this add-on, with the PC keyboard Braille input add-on for NVDA, one thing I thought was particularly interesting is that it has one-handed input which is very, very useful if you're someone who maybe is unable to use one of your hands as well as the other. You can also use commands that actually navigate using this add-on which I thought was quite interesting.

So, for example, space with dot 1 emulates the up-arrow key so that to me was quite interesting that you could actually do some navigation using this keyboard add-on as well. It does use the NVDA's Braille support so you'll need to set your various tables, so your input table, using that. The link to that add-on is in the handout as well.

Matthew Horspool: Thanks very much. I'm sorry, we're still having problems with the raising hands facility at the moment. We'll continue to work on that. In the meantime, some more questions in the chat. James Wilson says, "Is there some visual training on how to do this for beginners?" I know that there are some videos that HIMS have done which are very good videos on actually how to set up HIMS Braille displays under Windows, but the techniques would work just as well with other Braille displays, I think.

Holly Scott-Gardner: Yes. I would say go and look at HIMS, Humanware as well. Now, they're on YouTube. I can't actually tell you whether they're videos with visuals because as a totally blind person, the fact that they're on YouTube doesn't necessarily mean they have video. But they are on YouTube so Humanware has fairly comprehensive training.

Also I would say if you're quite willing to read text, although it's not visual in the sense of video, there's lots and lots of text-based resources as opposed to audio.

I will quickly talk about the other Braille add-on as well for NVDA, if that's okay.

The BrailleExtender add-on can be used in conjunction with Braille displays and this add-on is also quite useful because you can do things like switching to different modes and reloading Braille displays with shortcuts. So, say if you've got two favourite displays, for example an Orbit and a Mantis, and I chose these two because they're quite different and you might want to use them for different purposes. You might have different settings depending on your display so you can set shortcuts to load the display you want, which can be quite useful. You can use various different Braille tables at the same time and switch between those in a way that's a lot more simple than having to go constantly in and out of the settings. Again, that add-on doesn't allow you to do anything with NVDA if you don't have a display but what it does is it increases functionality when you do have a display.

Matthew Horspool: We do have Ben back so I'll give Ben an opportunity to come in.

There was a very quick question from Theo though. It was just asking about the option, he's saying that when his cursor is on a word in NVDA, it gets expanded to computer Braille and, yes, you can turn that off in NVDA settings. We talked about that earlier on in the session.

Holly Scott-Gardner: Yes, so that's something that you can just toggle to turn on and off.

Matthew Horspool: Ben might be doing some technical wizardry behind the scenes because he doesn't seem to be unmuting at the moment. I don't think we have any questions in the chat and we're still having problems with raising hands. Was there anything else that you wanted to cover in the webinar at the moment?

Holly Scott-Gardner: I was just going to mention very briefly about producing Braille on Windows. Now, I'm not going to go into the ins and outs of this. I am not a Braille transcriber. I've said this in multiple Braillists events and I say it because then everyone has extremely low expectations and that's the best way when it comes to my transcription.

However, you do have lots of options for actually producing hard copy Braille or BRF files on Windows if that's what you want. Duxbury is obviously the most well-known way of doing that. It is a piece of software that you have to purchase but it is an extremely comprehensive piece of software, used within the transcription industry. If you are planning on really getting serious about producing Braille, particularly if you have an embosser, I would recommend Duxbury.

There are other options, things like BrailleBlaster which is a piece of free software. I have experimented with it, with various different results. I think it's worth checking these things out but I'm not going to go into too much detail about them. What I will say is these pieces of software are accessible if you're a blind person. I think sometimes we can get into the habit of thinking that Braille is something that's produced for us by people who can see and we can't produce it ourselves and that's not true.

Now, I'm not going to tell you how to produce Braille because that's not where my skill set lies but should you want to produce your own Braille, these pieces of software are accessible and if you have access to them, I'd recommend playing around with them to see what you can do.

Matthew Horspool: Thank you very much. We have had a very interesting question in the chat from Steve Bower. Good evening, Steve, good to have you with us. Steve says, "Does using Braille with Narrator preclude you from using Braille with other screen readers?"

Holly Scott-Gardner: No, it shouldn't do. You won't want your screen readers running at the same time but then you wouldn't want them running at the same time anyway. But, no, absolutely, you should be able to use Braille with Narrator and with JAWS, for example, and switch between your preferred screen reader. There are some issues with the drivers which I mentioned earlier but there are instructions for resolving this on the Microsoft website. So if you are having problems where, say, the driver isn't working, then I would recommend checking out the instructions which will be in that handout and seeing if that fixes it. But you absolutely should be able to have multiple screen readers installed on your computer and use Braille with these screen readers.

Matthew Horspool: Yes, and if it does go wrong, possibly just turn Braille off and as you say, change the driver. I have actually had problems. Chris Norman in the chat has said that he's had problems. So, yes, definitely turn Braille off, change the driver and that should sort it out.

Holly Scott-Gardner: Unfortunately it's a known bug, as it were, so you shouldn't have problems but that doesn't mean you won't and it's something that, again, I know, Matthew, you mentioned reporting a bug to Freedom Scientific. Now, I would say the same with Microsoft and Narrator because actually their accessibility team does want to work on this stuff. So if you're finding these bugs, then please report them, so we can have better Braille in future.

Matthew Horspool: We have a question from Jenny [PHONETIC: Sutchen], I think is how you pronounce that name. She did send some questions earlier on but we didn't see them. She's talking about the Focus and the review cursor.

Is that Ben unmuting himself?

Ben Mustill-Rose: We'll give this a go. So Jenny has some questions around using NVDA with a PAC Mate and so we have some general questions about letters being highlighted and the difference between various Focus modes in NVDA, Holly.

There are two ways we can go here. I don't know if you have any experience with using a PAC Mate with NVDA but if not, where are some places that we could go maybe to find out answers to questions, fairly specific questions like that?

Holly Scott-Gardner: I personally don't use a PAC Mate. What I would recommend, firstly is checking out the NVDA user guide and I know that might sound really obvious and you might think, oh, well, I've already done that, which is absolutely fair enough, but it is a very comprehensive document and it does talk at length about the different cursors. What I would also recommend is the PAC Mate, I believe, is a Freedom Scientific product, so if it's, say, an issue with the actual piece of technology, I would reach out to them. Although Freedom Scientific does not make NVDA, they make JAWS and they do make the PAC Mate itself. Then I would also look at things like the RNIB, if you're in the UK. They have a technology support team, I think it's called Tech For Life, so they can actually get people to help you with very specific troubleshooting kinds of problems.

Ben Mustill-Rose: I wonder if it's worth asking Jenny to unmute because we might not have actually covered the exact question. I'm not sure if I completely understand the question either, so I might just ask Jenny to unmute.

Jenny: I really am enjoying this meeting. I'm in the United States. The question I was highlighting was actually more directed to use with the BrailleExtender add-on because I noticed every time I restart the computer, it keeps enabling dots 7 and 8 and highlighting everything that's in Focus that I don't want it to highlight. If I want to use the cursor, I want to just highlight what I want to highlight and so every time I restart, I have to disable dot 7 and 8 but I still have NVDA settings that show the cursor. So that's confusing.

Then my related question regarding the Focus and review cursor, those two cursors, I just don't understand how they relate to each other and when I would use them.

Holly Scott-Gardner: So about the BrailleExtender add-on, on the web page for the add-on, it does actually list the author so I would reach out to the person who created the add-on, if it seems to be a problem specifically with that add-on because it might be that it's a bug. Now, I don't use that add-on because I'm a JAWS user so I can't tell you if it's specifically a bug with that, but I would reach out to the author of the add-on and see if it's a known bug or if it's specific to your installation of the add-on. It might also be that the add-on has some settings as well, specific to BrailleExtender. Some NVDA add-ons do have their own settings so I'd look for those.

In terms of what the different cursors do in NVDA, I would go back to the NVDA user guide which is quite a big document but it's split into all these sections because it does describe in detail the different cursors so that should be able to explain what the various different review and the screen cursors do. I know again that it can be confusing.

Jenny: Okay, thank you.

Ben Mustill-Rose: Sometimes people think of manuals as these really, really boring things that no-one wants to read and to be honest, a lot of time they are, but actually sometimes if you take the time to sit down and, let's say, skim read them, you can actually find out a lot. I think that's definitely a case of do as I say and not as I do though.

We've got a really interesting question from Chris [PHONETIC: Payne] in the chat. He has an SD card with a number of Braille files on it. I'm assuming we're talking about BRF there. Whenever he tries to open them on his laptop, he gets a dialog box asking him to choose a program to open them with. So I suppose there we're talking about what ways are there to view BRF files on Windows and hopefully in conjunction with a Braille display.

Holly Scott-Gardner: I'm going to pass over to Matthew actually for this one, purely because Matthew works in transcription and deals in BRF files.

Matthew Horspool: So, there are various ways of doing this, there is not a one perfect solution, but what I would suggest you do is open the BRF file in Notepad. When it asks you, which app do you want to open it with, choose Notepad, or possibly WordPad but you want it in a fairly light program. You don't want to open it in something like Microsoft Word because it will try to spell check it and it'll go horribly wrong.

So open it in Notepad and then what you need to do is set your screen reader to computer Braille because BRF files are written in computer Braille, set it to US computer Braille and then preferably 6-dot computer Braille and the reason why you want it in 6-dot computer Braille is because a lot of BRF files have all the letters in upper case. So if you have it in 8-dot computer Braille, you'll have lots of dot 7s all over the place and it'll really distract you.

So you either want to set it to 6-dot computer Braille or certainly in JAWS, you can't actually find 6-dot computer Braille but there is a separate option, a separate checkbox in the Settings Centre that says, I think, "Show 8-dot Braille," but make sure either 6-dot Braille is on or 8-dot Braille is off, whichever way your screen reader decides to show you that option or choose 6-dot computer Braille and that's probably the easiest way to view a BRF file on Windows.

Holly Scott-Gardner: Great, that's very helpful.

Matthew Horspool: Just to add to that, that George Bell has helpfully commented that you could, if you have Duxbury, also open the BRF file in Duxbury and read it that way.

Ben Mustill-Rose: Just a quick one from Steve, asking if you could repeat the name of the second NVDA add-on besides BrailleExtender.

Holly Scott-Gardner: Okay, yes. So the second add-on is PC Braille keyboard input for NVDA.

Ben Mustill-Rose: Great, thank you for that. I don't believe we have any more questions in the chat for now.

Holly Scott-Gardner: We are at 8:30 so I am going to wrap up. I know this wasn't ideal with not being able to raise hands, so I'm very sorry about that, but I hope that those of you who joined got to learn something about setting up Braille with your screen reader and if you do have any more questions, always feel free to reach out to us as help@braillists.org. A recording of this will go up on our website.

Before we wrap up, I will pass over to Matthew, if you want to talk about our equipment for people in the UK and Ireland.

Matthew Horspool: Yes, I can certainly do that. This session has been made possible thanks to the Winston Churchill Memorial Trust and we'd like to extend our thanks to that. As part of that, the WCMT has also given us some money to give away some slates and styluses, some abacuses, lots of other equipment, very low cost equipment of that nature.

Unfortunately you have to be resident in the UK or Ireland in order to receive that equipment. We would also politely ask that you subscribe to our newsletter, just so that we have a record of you.

Holly Scott-Gardner: Hopefully some of you are able to take advantage of that offer and, once again, thanks for joining us today.