THE BRAILLISTS FOUNDATION

BRAILLECAST PODCAST EXTRA 37

Choosing And Setting Up Your Embosser

18th January 2022

Matthew Horspool: Welcome back to Braillecast Extra. Coming up this time, Choosing And Setting Up Your Embosser, a session recorded on Tuesday, 18th January 2022, presented by me and introduced by Ben Mustill-Rose.

Ben Mustill-Rose: Good evening and a very warm welcome to the first Masterclass of 2022, brought to you by the Braillists.

 This evening's Masterclass is all about braille embossers. What are braille embossers? Why might you want to buy one? Why might you not want to buy one? And when you have bought one, what do you do with it to get it working? Many, many questions, but I'm proud and incredibly happy to say that we have someone here who will be giving us all of the answers plus much, much more, I am sure. A name that will be familiar to many people who are familiar with Braillists events, it gives me great pleasure to introduce to you all Matthew Horspool. Matthew, take it away.

Matthew Horspool: Well, good evening, everyone. Good evening, Ben. Thank you very much for that introduction and it's wonderful to be back with you all to deliver this Masterclass. This is one of those that I've been thinking about doing for a long time and thinking that it could get very technical very quickly and so I've been putting it off and putting it off, but putting it off no longer. Hopefully I'll be able to deliver it in a way which is not too technical and which people will understand. There will be opportunities for questions during this session. There will be opportunities for questions at certainly two points, possibly a few more depending on how I think it's all going.

 In the first part of the session, we're going to talk about choosing an embosser. We're going to talk about what an embosser is and why you might want one, the different types of embosser on the market, the different types of paper that embossers can take, connectivity options, the user interface and a very brief digression to talk about the role of translation software.

 At that point, there will definitely be a break for questions.

 Then we'll move on to setting up your embosser and we'll talk about drivers and other bits of auxiliary software that you might have; the transport lock which is one of those bits that people don't really think about but is actually very important; setting paper sizes and margins; some troubleshooting tips; and if we have time at the very end, I'll talk about some UK sources of help in purchasing a braille embosser. We might not get to that but there will be a handout available and that will contain all the information that we don't quite get round to.

 So, what is a braille embosser? Or what is an embosser? An embosser is essentially a printer, but it's a printer for braille. Instead of using ink or toner to produce print, it electronically punches dots into paper. So, there are two established uses for an embosser actually. The first one is to emboss braille and that's why we're calling them braille embossers. The second is a less established use but is still nonetheless fairly established and that's to emboss tactile graphics. I'll talk more about tactile graphics in just a moment.

 There are a few groups of people who might benefit from having access to an embosser, and I say having access to an embosser, rather than having an embosser, for a reason. Embossers are quite expensive. You're talking £2,500 plus, if you want to own an embosser. If you want access to an embosser, but you don't want to own one, your local Resource Centre for the Blind probably has one. You might have a church centre or somewhere that has an embosser, a library maybe, and it's worth investigating some of those sources, if you only want to use an embosser occasionally.

 The groups of people who would really benefit from having an embosser, individual blind people, if you're doing frequent braille work as part of your work, as part of your studies, or as part of a hobby. So, if you're just embossing Christmas cards, well, you wouldn't emboss Christmas cards. That's kind of the point. If you're just brailling Christmas cards or the odd letter here and there, a braille embosser is probably overkill. But, for example, I sing in the choir at Coventry Cathedral and that means I need to have hymns, anthems, canticles, responses, psalms, a whole host of things in braille, much of which I have electronically and it's much easier to just put it through the embosser. So, I'm using my embosser at home on probably a weekly basis, if not two or three times a week. So, if you have a situation like that, an embosser will be very useful to you indeed.

 If you are a sighted friend or colleague or relative of a blind person and you don't know braille but you need to produce braille for them on anything approaching a frequent basis, an embosser is a good investment. So that might be a work colleague that needs to produce braille copies of minutes and things like that, or if it's a hobby and you need to produce braille copies of instruction sheets or rotas, anything like that, an embosser is very useful, because you don't actually need knowledge of braille to use one. Knowledge of braille is very advantageous but it's not strictly necessary.

 Teachers, parents, support assistants of blind children or in fact anybody who's in school or college or university who has a visual impairment and reads braille, an embosser is going to be useful in that context.

 It goes without saying, that professional braille transcribers and producers rely on embossers nowadays in order to do their jobs. Gone are the days of zinc plate machines or writing things out by hand on a Perkins and thermoforming them. Virtually everything now is done via braille embossers, certainly in the UK. I think National Braille Press in the US might still have some zinc plate machines but I think they're one of the few now, that I know of anyway, that still use the old zinc plate technology.

 So, I've talked a lot about braille. I'll continue to talk a lot about braille. I just want to sidestep and talk about graphics, because graphics are one of these things that people ask about from time to time and there really isn't a huge amount of knowledge out there and this Masterclass isn't really going to cover it in detail. Maybe we'll do an advanced Masterclass on how to do graphics on your embosser at some point. The thing about graphics on an embosser, they're not continuous. They're dotty graphics, if you like. What happens is that the spacing between the braille dots is made entirely uniform.

 So, let's try to explain that a bit more. If you have a braille cell, the space between dots 1 and 4 of that braille cell is tighter than the space between dot 4 of that cell and dot 1 of the next cell in braille. Likewise, the space between dots 2 and 3 of a braille cell is tighter than the space between dot 3 of one braille cell and dot 1 on the next line. When your embosser is in graphics mode, this is not the case and the spaces are entirely uniform. So, for example, you could write a letter R by writing the letter as dots 1 2 3 5, but if you were to write instead dots 4 5 6, followed by dot 2, because the spacing is uniform, it would still look like a letter R, it would just be a letter R that's been moved a little bit, but it would be moved imperceptibly. It would still look like a letter R. Similarly, if I was to write a lower H on one line and then drop to the next line and write an letter A, if the embosser is in graphics mode, then you'll find that that would also look a letter R. So, hopefully that's explained what I mean when I talk about uniform spacing.

 I don't think there are many braille embossers now that can't do graphics and in fact there aren't many graphic embossers that can't do braille. It does however help, I think, to understand that some embossers were built for braille and graphics were an add-on, and some embossers were built for graphics and braille is an add-on.

 The braille dots that we like in our braille, certainly the braille dots that I like in my braille, are very proud, quite, bulbous is perhaps the wrong word, but relatively speaking, they're quite large dots. If you imagine a slate and stylus, and you imagine the head of the stylus, it's quite a big head actually, compared to, say, the head of a safety pin, and if you tried to use a safety pin to make braille dots, you'd find that the dots are very watery and this is the problem. If you have a braille dot, it's quite a big dot and therefore you can only reduce the dot spacing so far, before you start to get into the territory of tearing the paper. So, fine graphic data is very hard to reproduce with braille dots. Coarse graphic data is pretty easy. You can do circles and you can do graphs and stuff, but really intricate stuff is really difficult.

 If you make the dots small enough, intricate graphics become possible, and you can definitely do this. Some embossers have amazing tactile graphics heads. But you run the risk of the braille dots then feeling very spiky and watery and not very easy to read and they tire your fingers out. At least, they tire my fingers out.

 So, I'm thinking, for example, about ViewPlus embossers. This is the most common manufacturer of graphics embossers that I can think of, and things like IRIE BrailleTrac and BrailleSheet, wonderful embossers for tactile graphics. They are absolutely amazing. I haven't used a ViewPlus embosser in several years. The last time I used one, I was very disappointed by the braille quality, because of what I was saying about the braille head. Also, the ViewPlus embossers are quite expensive, because of the precision required to get the graphics to come out properly.

 Index embossers, on the other hand, they produce acceptable braille graphics. They're not bad. Anybody doing our Braille For Beginners course, the resources for those were produced on an Index embosser, using the graphics mode on the Index embosser to do the graphics of the braille cell. So, it does a decent job, but its real standout is its braille. The braille dots are brilliant.

 So, I've talked about Index, I've talked about Enabling. What does all of this mean? Well, broadly speaking, actually, there are two types of braille embosser and this is now braille embossers, we're leaving graphics alone now. There are the domestic embossers and they cost up to about £5,000 and the most common are the Index ones and Enabling Technologies also manufacture domestic embossers. They also manufacture commercial ones as well, but the Romeo and the Juliet are the domestic range of Enabling embossers. Thiel, if anybody ever used a PortaThiel or anything else by Thiel, they would have also been domestic embossers.

 They're typically designed to sit on a tabletop. They can emboss relatively quickly actually, up to 120 characters per second, or 360 pages per hour, although it's probably closer to 100 in reality or 300 pages per hour. They're quite noisy on the whole but you can buy insulating cabinets for an additional cost, to get rid of that noise and they generally only contain one print head, so if the print head is broken, that embosser is not going to work until you replace the print head.

 Commercial embossers, you could pay £10,000 for one, you could pay £20,000, you could probably pay 50, 60, 70,000 for one, if you wanted. As I say, the Index Braille Box and the Index Fanfold-D technically fall into that category but really what I'm talking about are things like Braillos and Interpoint NV, if anyone's come across those. Their embossing rate is closer to 900 pages per hour and certainly 600 is pretty average for a Braillo. They're generally big, self-contained units which have built-in insulation and built-in things. They might have built-in paper cutters or they might have built-in binders or staplers. They might also have some redundancy in the form of multiple print heads and if one of the print heads goes wrong, they might be able to operate at a slightly slower speed, but still keep going while that print head is removed and sorted out.

 Embossers can generally take one or in some very rare cases two types of paper. Cut sheet paper is probably the easiest to understand. It's literally just the paper that you would buy in a shop. It's a bit thicker and possibly a bit larger but it's just cut sheets of paper. Few commercial embossers take it. The Index Braille Box takes it. I doubt many other commercial embossers will do. But it's fairly common in the domestic market. Index Everest would take cut sheet paper. Some of the ViewPlus stuff would take cut sheet paper. The IRIE Braille Sheet is cut sheet. It's relatively reliable. They've managed to build sheet feeders in printers that are very reliable now, so it's not unreliable. It's fine. You probably want to pay a little bit of attention to make sure that you've only got one sheet coming through at a time and the embosser hasn't actually grabbed two sheets and is trying to emboss on that and that they carry on pulling through and that they don't jam up, but the likelihood of a jam nowadays is pretty low.

 The big risk with cut sheet paper is that you run out of paper. The sheet feeder can generally only take about 50 sheets at a time, so if you're embossing a book, there's a good chance that you'll have to add more paper halfway through the embossing, so that's not always ideal.

 The next step up from cut sheet paper is tractor fed-paper and this refers to the paper with holes down the side, the type you used to get in school, or at least I certainly used to get it in school. It literally has holes every half inch down the left and the right side and they might be removable or they might not. It comes in this great big stack of 500 or 1,000 sheets or something and it all comes through in a great big stack and then at the end of it, you have to sit there and tear all the sheets apart. I had great fun doing this when I was at school and I also had great fun tearing the sprocket holes off. But that is tractor-fed paper.

 It's used in domestic and commercial embossers. The Index Basic will take it. The Enabling Romeo 60, Juliet Pro 120, the Juliet Pro 60, all of those will take tractor-fed paper. The advantage of it over cut sheet paper is that because it comes in stacks of 1,000 and because it's basically operating on a conveyor belt, there's very little that can go wrong. If paper jams with cut sheet paper are rare, paper jams with tractor-fed paper are even rarer. So, you can generally put 1,000 sheets in there and get it to emboss a book and go off and have your lunch and when you come back, the book's done, there's no problem. The downside, of course, is that you have to tear the paper up afterwards.

 Some commercial embossers, and I do mean commercial embossers, a domestic embosser would never take this, but some commercial embosser will take a great big tree trunk of paper. It's an enormous roll, probably about half a metre tall of literally continuous, unperforated paper, like an enormous till roll or something like that. Unless you've seen one, it's really hard to put into perspective. They generally divide into several thousand sheets and they're cut within the embosser itself. There will be a blade in the embosser that cuts those sheets down. The key advantage of this is that the size of the sheet can be determined by the embosser, so if you want to emboss a really narrow book, you can do it on commercial embossers. Also, with several thousand, you could put a roll of paper in an embosser at the start of the day and even if you're embossing volume upon volume upon volume of books, you could get through the whole day without needing to replace the roll. So, things like RNIB Reading Services will be embossing on continuous rolls of paper. But, as I say, you don't see it really in the domestic market, because the rolls would be bigger than the embosser, quite honestly. They really are just absolutely enormous.

 There are one or two other considerations if you're thinking about an embosser. Just to summarise what we've talked about so far, if you're looking at buying an embosser, do you want to buy a tactile graphics machine or do you want to buy a braille machine? Do you want to buy one that takes tractor-fed paper or do you want to buy one that takes cut sheet paper? Those are your two considerations so far.

 The other things you need to think about are, do you want to emboss double-sided? Most embossers nowadays actually will emboss double-sided. It's more trouble than it's worth to make a single-sided version of an embosser nowadays and you can always tell a double-sided embosser not to emboss double-sided and to emboss single-sided, but you can't tell a single-sided embosser to emboss double-sided.

 You do need to know that some embossers are still single-sided. The Romeo is still a single-sided embosser. You aren't going to get double-sided out of that machine. So, do be careful about that.

 You need to think a little bit about connectivity. Most modern embossers have got a USB port on them. I think many, I wouldn't say most, but maybe most have an Ethernet port, so you can connect it to a network. Some will have connectivity like an RS-232 port or a parallel port. Some will go completely the other way and they'll have modern connectivity like Wi-Fi and Bluetooth so you can emboss from your smartphone and how fun that can be. I'm thinking about Index V5 and the new Romeo and Juliet 60 and 120. They have Wi-Fi, they have Bluetooth. You can even plug a USB memory stick into a USB client port on the back and use the menu system to emboss files from pen drives and stuff like that. It's really very sophisticated. So, you need to think about that. If you want to be embossing from a mobile phone, you need an embosser that can connect to your mobile phone via Bluetooth or Wi-Fi, or so on. If you're buying a second-hand embosser, think about what connectivity it's got because it's useful to know that information, but also recognise that if the connectivity options are not quite what you want, you might be able to retrofit. There is a lot of Basic V2s on the second-hand market still which don’t have USB ports, but George Bell at Techno-Vision Systems will be able to sell you a device which can convert its parallel port into a USB port or convert your computer's USB port into a parallel port. One way or the other, you'll be able to get the machine working. Typically the life span of an embosser is probably about 15, 20 years, if not more, so it's definitely worth doing that, if the V2 embosser is otherwise still in good nick.

 The user interface of the embosser is quite important. At some point, you're going to need to change settings. You're going to need to set the size of paper and all that sort of thing. We'll talk a bit more about that later. Many embossers will have menus for this purpose and some of those menus will talk. Some of them, you might need to plug in an external speaker, in order to get them to talk, but they will talk. Alternatively they might not be menu-driven at all, they'll have a keypad and you have to enter codes. I'm thinking about the Romeo Attaché Pro and the old Juliet Pro 60s and things like that, they would have a number pad on the side and if you typed in the right numerical sequence, you would get the right result and all of that was perfectly accessible. Some of the commercial embossers don't have this. They just have a screen and you just scroll through the menu on the screen and they don't talk and they're not accessible at all. So, it's not a huge deal but it's worth knowing that the user interface of these embossers is something to look at. And how intuitive is it? The user interface of an Index V3 is very different to the user interface of an Index V4 and probably the V4 and the V5 are easier to understand than the V3, but the V3 is slightly more configurable. So, it depends what you're looking for there.

 The final thing I want to cover before I break for questions is the role of the translation software, because people think that once they've bought an embosser, they can start to emboss. That's sort of true but sort of not true. The thing about this is that documents are typically written in print, or at least print-related things, so they're written letter for letter and they have print fonts and print styles and print colours and all of this sort of thing in them. A Word document is designed to be printed, not to be brailled.

 So, before that document can be embossed, there's some conversion that needs to be done to get it into a braille-ready format. Braille-ready format or BRF, and indeed we did a whole Masterclass on BRF files last year, which is on our Media page, and we talked a lot more about this concept. There are things that we need to think about in a braille file, like what braille code are we going to have it in? Are we going to have it in UEB or SEB? Are we going to have it in Grade 1 or Grade 2? What's going to happen if there's some text in red? How are we going to represent that in braille? What happens about tables and lists and other stylistic things like headings? What about braille page numbers? Should they be at the top left or the top right? What are we going to do with print page numbers? What are we going to do if we haven't included print page numbers but there is a print contents page? Presumably we need to update that contents page so it has braille page numbers or possibly even if there's no contents page at all, maybe we ought to add one. What are we going to do about graphics? Are we going to bother embossing them or drawing them or are we going to describe them or are we going to miss them out completely?

 Until recently, embossers weren't capable of undertaking any of this stuff. So, the entire process would need to be undertaken by something like Duxbury or BrailleBlaster or Braille2000 or EasyConverter, or in the dim and distant past, you'd have used something like BrailleMaker, WinBraille, NFBTRANS, Cipher, any of those programs and you'd have had to use that, because the embosser just wasn't capable of doing any translation.

 More recent embossers sort of have made an attempt at sorting this out. Again, I'm talking a lot about Index embossers in this session, because they're the ones that I know the most, but they have Index-direct-Braille built into them. If you send a Word document through Index-direct-Braille, you'll get reasonable braille coding. The formatting might be a bit suspect, but if you're just looking to braille something for your own personal use and you don't care about the formatting, you'll get something that's useful, as long as the Word document is styled up in the first place. If you really wanted to cut corners, you could open a Word document and you could make the changes that you want to make in the Word document and then emboss it. It's not great but it works. You can go into the braille app, if you've got a network connection and you can log into its web interface, you can go in and you can edit it and it sort of works but really, for the best results, and especially if you're doing anything approaching professional level transcription, such as transcribing documents for other people, you really do need some translation software.

 Duxbury is still far and away the most popular and I can't remember the price off the top of my head but it will add about £600. That's the sort of thing you need to be thinking about. There are free ones. BrailleBlaster is free and is getting better and better all the time, but Duxbury is still by far the most popular.

 So, I've been talking for about 25 minutes. I'm going to stop at this point and take a few questions and then I'll talk about setting up the embosser.

Ben Mustill-Rose: Thank you, Matthew. We already have a few people with their hands up. We're going to come to Derry first and then Tina.

Derry Lawler: I have an Index Basic-B, I think it is. I'm glad I could probably hook it up using the parallel with George. You were saying George Bell does the connections, so you can connect it up. Is there a brailler out there, a desktop unit, that's not so loud as the Index?

Matthew Horspool: To be honest, I wouldn't think so. I've got a Basic-D V5, so actually the way this worked was the D stood for double-sided and the S stood for single-sided. So, I have a Basic-D V5 and quite honestly, I had a Basic-D V2 when I was at school and the outer shell of the V5 looks very similar to the outer shell of the V2. The embossing sound has hardly changed. It's changed a little bit because it's got different motors and stuff, but, no, it's not much quieter really. I don't think there's anything on the market. There are things that are sort of embossers that are not embossers really but can function as one. So, I'm thinking about something like the Cosmo, which, first and foremost, is an electronic brailler but you can hook it up and use it as an embosser and the same goes for the Mountbatten. If you used something like that, it might be quieter. It also probably will be slower and it will only take one sheet at a time, so you'll be constantly sat there and feeding new paper through it, but if quietness was your primary consideration, that might be something to think about.

Ben Mustill-Rose: We're going to come to Tina next and then Jeff.

Tina Arbery: I have a braille embosser. It's an EmBraille. It's single sided but I'm thinking of actually getting one that does double-sided paper and also you say the tracking ones are good because you don't have to worry about feeding it with paper all the time. I wondered what you'd recommend.

Matthew Horspool: I would always recommend an Index Basic-D in the UK. I just think they're brilliant machines. Even the newer ones, the braille quality is fantastic. There are other issues with them. The firmware can be a bit unreliable from time to time but once it's working, once it's set up and running, the braille quality is fantastic and I would always recommend an Index Basic-D or Everest-D or something along those lines.

 What you really want to do, if you want to do a bit more investigation, you want to write to the manufacturers and ask if you can get a sample. If you asked ViewPlus, and they make the EmBraille that you've got, they'd be able to send you a sample of the braille in the post of what their embossers can do and if you can get to a Sight Village and look at them for yourself, that's always a good option.

Tina Arbery: It actually has some Tiger software.

Matthew Horspool: Yes, that's ViewPlus.

Ben Mustill-Rose: We're going to come to Jeff next and then Kawal.

Jeff Bashton: Thank you for your excellent talk, as expected it was your usual high standard. I don't necessarily expect you to answer this today but I'm looking for guidance. I have an Index Basic-D V3. I would like to produce some reasonable braille, in other words, good enough for me. I'm trying to do it via Wi-Fi, but I think I've tried BrailleBlaster and the lowest Index it went down to is V4. I know I could pay £500 for Duxbury and probably sort it. I don't really want to pay that much, so any hints and tips would be welcome. Otherwise I'm happy to make a donation to the Braillists Foundation for anyone who sorts it.

Matthew Horspool: Well, what an offer. I think you're right. This is one of those questions that is very technical and probably we need to sort it offline and probably I need to call upon George for some assistance here, but what I would say is that there is very little difference in terms of the protocol between the V3 and the V4, so if you set up BrailleBlaster and tell it that it's using an Index V4 and in fact it's using a V3, I don't think the V3 will care, it will just get on and do what it's supposed to do.

Jeff Bashton: It didn't seem to like it, but that could have been me.

Matthew Horspool: Or it could have been something other than BrailleBlaster. It could have been a connectivity problem or something, but protocol-wise there's very little difference.

Jeff Bashton: I could cable it, if I had to. I won't bore you about the research I've done. I'm fairly sure I've got the right cable. Ideally I'd like to Wi-Fi.

Matthew Horspool: It might be worth cabling it as an experiment to see if BrailleBlaster will drive it and then at least we know what the problem is.

Jeff Bashton: Yes, excellent. Thank you.

Ben Mustill-Rose: We're going to come to Kawal next and then George Bell.

Kawal Gucukoglu: I just wanted to thank you for doing this, because I'm starting a new job soon and I had to get an embosser. I used to have an Index V5 and somebody said to me that if you press help five times, somebody would come and fix that embosser without you knowing. Is that true?

Matthew Horspool: I don't know what the exact sequence is and I don't know exactly how it works, because I've never tried it, but I do know that one of the features of the V5s, and possibly the V4s, was a remote support feature. It would almost certainly require an Internet connection, either via Wi-Fi or Ethernet, but, yes, there is a remote support feature.

Ben Mustill-Rose: We're going to come to George and then Ellie.

George Bell: I've got a bit of a list here. First of all, the Enabling printers we're talking about, this has caused a great deal of confusion, because Enabling had a Romeo and a Juliet embosser, which were completely different from what is now the Romeo and Juliet embossers, which in fact are Indexes with a HumanWare badge and called Romeo and Juliet, one is single and one is double-sided. So, don't get confused by that situation.

 You mentioned Duxbury at around 600. It's actually £520.

 The Cosmo, yes, if you want a quiet embosser, but for occasional use. In other words, if you're not going to be printing 5,000 page books, then the Cosmo's great for two or three pages at a time and you can have it blasting full time while you're on the phone with the Cosmo right in front of you and it also can work as an electronic version, similar to a Perkins.

 You talk about writing to the manufacturers for samples of the braille. Well, why not write to your local UK dealer and you'll have it in the post probably the next day?

 V4 and V5 Indexes actually have quite a significantly different interface to the V2 and V3, but if you are only again after pure braille, there are quite a few second-hand V2 and V3s on the market. We have a few and they're round about £500.

 The question of parallel to USB, that is less than £15 these days. In fact, in Amazon, you can get them for under £10 and that will convert your parallel output only to such a way that you can connect it into a USB port on a Windows 11 machine, even.

 Checking into warranties is a good idea, because Index certainly have a two year warranty, back to base, on theirs.

 Make sure that whoever you're buying from has good repair facilities. We do employ a full time engineer for repairs. Some companies will take weeks to return it. Others will take two or three days.

 I think broadly speaking that covers most of what I've heard so far, so I'll get off and give Ellie a chance to get a question in.

Matthew Horspool: Well, I'm very grateful to you. If you're still unmuted, George, just one thing to come back on, you were talking about the interfaces being very different, yes, I would actually agree with you. In terms of the actual physical interface, the buttons are very different. There's a big row of buttons on the V2 and V3, there's a menu system in V4 and V5. When I was talking about the interface, I was more talking about protocols and the escape sequences used to set paper information are largely the same. So, as far as a translation tool is concerned, I don't think it really cares whether it's a V3 or a V4.

George Bell: Something else I'd like to point out as well is that with good software, mentioning no names, you are in charge of the control of the printer. The dog is wagging its own tail, not the tail wagging the dog. So, one of our biggest support issues is that you'll get a techie come on or somebody who's not so familiar come on and say, "Well, I've adjusted the margins on the printer and I've changed the page length," and so on and so forth, you shouldn't have to do anything to touch the printer. It should be controlled from the software. If you don't know how to do that, either ring us or ring whoever supplied you with it and get the instructions.

Matthew Horspool: Yes. I'll come onto that a bit more later on.

Ben Mustill-Rose: Last hand for now, we have Ellie.

Ellie Clark: We have the V5 embosser and for some reason when you put multiple sheets of paper in, it will just suck them all up and just use them all instead of using one. Do you know how to stop it from doing that?

Matthew Horspool: I vaguely know how to stop it. So, that'll be an Everest V5, because I guess you're taking individual cut sheets of paper. I'm desperately trying to think of it because I haven't used an Everest for a while, but on the sheet feeder, there will be some adjustment that look a little bit like switches, unless they've changed dramatically on the V5. There will be some adjustment switches and if you move them up and down, they might change the pressure that the roller is putting on and therefore it should roll fewer sheets in, if you move those adjusters about a bit. There are also the little plastic bits that guide the paper, make sure those are set properly. This is sort of touching on what I said earlier on about cut sheet paper. Once it's working, it's very reliable but you do need to check, because until it's working, it can be quite unreliable and I think it might be worth a conversation off this call, if it's still not working.

Ben Mustill-Rose: Hope that helps. I see George has his hand up.

George Bell: That is quite a common problem. There are sliders on the front of the guides on either side and depending on what paper you're using, they would need to be either moved up or moved down, but you certainly shouldn't be getting a whole bunch of paper coming through at once. So, call your supplier and get some guidance with them on the phone, until you can get it bringing one sheet through at a time.

Matthew Horspool: It's a common problem and with some trial and error, you should be able to get it fixed.

Ben Mustill-Rose: Thank you. We're going to squeeze Dawn in quickly.

Dawn Hand: We have the Index V5 and when we're trying to emboss, the margins on the side, they're off.

Matthew Horspool: Yes. Is this a Basic or an Everest?

Dawn Hand: It's a Basic.

Matthew Horspool: What software are you using?

Dawn Hand: Duxbury.

Matthew Horspool: You should do it in Global, really. If you go into Global and then Embosser Settings, you can change the left margin. It'll be set to zero, but if you set it to something like two or three, that should fix the problem. If you've already made some documents, you might subsequently have to go into the document menu and change it for the documents that you've already made up, but that should solve the problem. If it doesn't, I think Duxbury's not set up quite right.

Dawn Hand: Do you know if there's a way to set up for Braille2000?

Matthew Horspool: I don't know Braille2000 well enough to give you a proper answer, but there are settings on the V5 embossers themselves. If you go into the menu of the embosser, you can set it up there and, again, set the left margin, it might be called binding margin, and set it to two or three and if Braille2000 doesn't send any data before it embosses, which I don't think it does, then that should also solve the problem.

Ben Mustill-Rose: No more hands for now, Matthew, so back over to you.

Matthew Horspool: That's wonderful. Thank you.

 For the first time in doing a Masterclass, I'm really seriously running out of time. So I'm going to skim through quite a lot of things and refer you to the handout and hope that that's okay with everybody.

 The first thing to comment on is drivers. You will need them and that's basically all I'm going to say. Embossers are not plug and play. You're going to need some drivers. If you're installing drivers and they come up with security issues because they're not signed, don't worry. They're not actually a security hazard, it's just that they haven't signed the drivers, so you can go ahead and say, yes, install them, even though they're not signed.

 The manufacturer might make other software available, for example, Index-direct-Braille for Indexes and the Tiger software suite for the ViewPlus embossers. You can install it if you want, it won't do any harm and it might actually help you, but the embosser itself, if you're using it with Duxbury, doesn't need that extra software in most cases, unless the driver's built into that software. It just needs the driver and Duxbury or Braille2000, or what have you, will handle the rest.

 Inside most braille embossers there is a transport lock. This has to do with the fact that in order for the embosser to emboss, the head is going to be moving from left to right across the page and if you don't lock the head in place when the embosser's being transported, and you shock the embosser from left to right, you're going to find that the head is constantly moving and that's going to put wear on the motors and it's going to put wear on the cable and it's potentially going to cause a lot of problems. If you bought it new, or second-hand and it was packed properly, there will be a locking bar that you'll have to take out before you can use the embosser and there should be some clips on the back of it to store it somewhere. Please do store it and please, for goodness sake, do put it back when you transport the embosser for repair, and make sure you put it back properly. There will be a hole in the outer shell of the embosser and there will be a hole in the print head and the bar needs to go through both of those holes in order for the print head to get caught on the locking bar and if it's not put in properly, it won't do its job. There will be a setting on the embosser to put the transport lock in, in most cases, and it's a good idea to follow that setting and that will be detailed in your manual .

 We've talked already quite extensively actually about paper sizes and margins and stuff, so I'm not going to wax lyrical about it in the way that I was going to, but just to say, there are actually three considerations, which I've kind of touched on already. There's the physical length and width of the paper, which is measured in inches or millimetres. So, A4 paper actually physically measures 297mm by 210mm, or a 12 by 12 sheet measures 12 inches long by 12 inches wide.

 Then there is what I'm terming the logical length and width of the sheet. So, for example, is it 40 characters per line and 25 lines per page, or is it 42 character per line and 29 lines per page?

 Then there are the top and bottom margins, and the left and right margins. Yes, it's a 40 character per line thing, but if your left margin is set to zero, that's going to put 40 characters over to the left and you might need to move the left margin, add some characters to the left margin in order to bring that in, and the same for the top and bottom margins as well.

 You need to know that if you've set the left margin, you shouldn't normally need to set the right margin. So, for example, let's say that your embosser reckons that you can get 46 characters on a line and you only want to get 40, and you want it centralised, so you set the left margin to three, you could set the right margin to three, if there is a right margin at all, but you shouldn't need to, because if your translation software is only sending 40 characters, those last three characters on a line are never going to be a problem anyway, because they'll never be received. So, you should be fine in terms of margins to only set the left and the top, and in some cases, if you're working with BRF files in particular, it can be an advantage to deliberately not set the right margin and the bottom margin, in case somebody's got their line lengths and their page lengths wrong and the embosser needs to overspill a little bit.

 When you're embossing double-sided, sometimes when we talk about the left margin, we're talking about the left margin as it appears on the sheet and not as it appears on the page. What I mean by that is , for example, it's double-sided, so the front side, the left margin will be on the left. To read the back side, you have to turn the page over and therefore the left margin at that point should be on the right and therefore it's more accurately called a binding margin. If you've got odd margins, if you've got a left margin of two and right margin of one, you might want to run a test page off, just to check that that is the case and if it's not the case, you might need to think again about what your margins are set as.

 The other thing to note that I will particularly bring up here is the idea that page widths, particularly if you're dealing with tractor-fed embossers, they don't usually include the tractor holes. So, for example, you buy 12 by 12 paper because it's 12 inches but those 12 inches include the tractor holes, so the embosser would see that as 12 by 11 paper, because once the tractor holes are taken off, you'd be looking at 11 inches across.

 As I've already sort of said, Duxbury has some quite clever programming that allows it to control paper settings on the embosser. Many other translation software does not have this. If you're using Duxbury, you should be fine. If you're not using Duxbury, you probably should set the paper settings on the embosser just to be sure. In the handout, there is information about some edge cases. So, for example, if you're using Duxbury most of the time but occasionally using other translation software that needs slightly different settings, you might need to be a bit careful of the work that Duxbury's doing but these are edge cases and they're covered quite well in the handout.

 I also talk in the handout about top of form which is sort of related to paper settings but it isn't, it's a mechanical setting to do with the distance between the perceived top of the page on the embosser and the start of text. So you shouldn't really need to worry about that when you're dealing with paper settings. You just need to know that it's there.

 The other things that I've covered in the handout are some troubleshooting information. If your embosser just isn't embossing, what are you supposed to do about it?

 If you're thinking you might want an embosser but you can't afford one, and, like I say, I think the Cosmo might be slightly cheaper, about £1,500, but realistically you're looking at £2,000 to £2,500 for a new embosser. You could buy a second-hand embosser, but if you're specifically looking to buy a new embosser and you don't think you've got the money for it, if you are, for example, in work, you might be able to get one through Access To Work, or if you are a young person, you might be able to get it through, say, VICTA or Look, and there are other grants available and some of those are listed in the handout as well.

 I realise that is quite rushed but it is already five minutes until the end of the session, so I will stop, in case there are any final questions.

Ben Mustill-Rose: Thank you, Matthew. There are a few minutes for questions, so we're going to come to George first and then Mel.

George Bell: It's just a quick one. The later Indexes on both the Everest and the Basics do have a fixed left tractor or guide. So, it's difficult to explain but in some cases when you're aligning paper up and somebody says, "Well, it's going over the left-hand margin," you actually would be able to move the left-hand tractor or move both the left and the right-hand tractor to move the paper. Now, that works up as far as the V3, but be aware that on the V4 and V5, the left is fixed, therefore you have to do it via software, if you want to add a binding margin.

Matthew Horspool: That's another good point. Thanks very much, George.

Ben Mustill-Rose: We'll come to Mel.

Melanie Pritchard: I take it there are different grades of braille paper.

Matthew Horspool: I'm so glad you brought that up. I could do a whole Braillecast of investigative journalism about what makes good braille paper and there definitely is a difference between good braille paper and not good braille paper. We make the mistake, in the UK, certainly, of talking about braille paper by weight and so we talk about 135gsm and in fact I don't think I can find any braille paper now that's tractor-fed that isn't 135gsm, it's all about the same, which is about the right thickness. It's fine and it's the only comparative that we can really talk about, because nobody tells us any of the other specifications of their paper. But, yes, I think the best thing I can suggest is get some samples of paper from the likes of TechnoVision and RNIB and Sight and Sound and Dolphin and compare them and you will feel the difference between the paper. From an embosser's point of view, what you want is a paper that doesn't generate very much dust and it's amazing actually some of the braille paper on the market, and I'd better not say too much because I can be accused of being unprofessional, but some of the braille paper on the market really does generate an enormous amount of dust. It's absolutely awful. So, again, my favourite paper by a mile is TechnoVision paper, but it's not really about thickness, it's about coating and it's about dust levels and is it short grain or long grain paper and all of that sort of thing.

Ben Mustill-Rose: Thank you to Matthew Horspool, as always, for such an in depth and incredibly well presented Masterclass.

 On behalf of the entire Braillists Foundation, thank you once again, Matthew, thank you once again to our incredible audience. I'm Ben Mustill-Rose, take care, stay safe and bye for now.

Matthew Horspool: We hope you've enjoyed this episode of Braillecast Extra. You can find more braille-related content by subscribing to Braillecast in your podcast client of choice, or listening to Braillecast: Connecting The Dots For Braillists Everywhere, on your smart speaker.

 For the latest information about future Braillists events and how to join live, subscribe to our weekly email newsletter at braillists.org/newsletter/signup.

 You can also visit our Events page at braillists.org/events.

 If you have comments on this recording or suggestions of topics or guests for future events, we'd love to hear from you. Please email help@braillists.org. You can also find the Braillists on Twitter, @braillists, or on Facebook, facebook.com/braillistsfoundation.

 Finally, if you like what you've heard, spread the word. We welcome new listeners and live participants alike. So if you know other people who are interested in braille, please tell them where to find us.

 In the meantime, on behalf of everyone at the Braillists, thanks for listening and bye for now.

 The costs of producing this episode were defrayed by a grant from the Activate fund of the Winston Churchill Memorial Trust. For more information, visit wcmt.org.uk.