DAISY Music Braille Project:

Q2 update 2021

Reporting on project activity in Q2: April, May, June 2021

Date: 12 July 2021

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# 1. Interactive end-user music braille tool

**Aim:** At least one improved interactive music braille user tool is available for blind musicians to independently read, write, convert and explore music in accessible ways, in education, for work and leisure.

**Update:** We have made good progress on our planned Q2 activities which add improvements to MuseScore, a mainstream music notation and editing program, and the development of SMB, a braille notation editor and converter tool.

## MuseScore Q2 developments

Lead: Peter Jonas

### a) Project-funded improvements

1. Allow exporting scores without invisible items
2. Issues with coda and d.s. al coda
3. Repeat measure sign not exported (fixed by a community member)
4. Export unsupported symbols as "symbol" – partly fixed: This consists of two separate tasks: (A) handling of musical symbols, and (B) handling of text symbols. (A) has been fixed, but (B) has not been fixed because it is not required in order to implement fully-featured Braille conversion. We will return to fix (B) later if required, but there is actually some advantage in leaving (B) up to the Braille conversion tool. The code is the same either way, as is the result for end users, but if the tool does the work then it would be able to cope with similar output from other notation programs besides MuseScore.

### b) Additional accessibility improvements funded by MuseScore

MuseScore continues to undertake its own improvements to accessibility for version 4.0. This includes the new keyboard shortcut system and navigation by UI section and subsection mentioned in the Q1 Report. Furthermore, a new accessibility interface is being implemented which should allow MuseScore to work with more screen readers besides NVDA. These systems have progressed to a point where we can now begin to tackle the specific issues with keyboard navigation and screen reader output identified in the MuseScore Workplan for DAISY.

## 1.2 SMB Q2 developments at Sao Mai Centre for the Blind

Lead: Phúc Dang Hoai

In quarter 2, SMB continued implementing the bar-over-bar format to support alignment for scores for plucked instruments, with chords and lyrics. Continuing Braille lines and parallel for bar-over-bar are also formatted correctly. Line-over-line format is also supported.

Main new translation features were implemented in Q2 and are now supported:

* Detected and indicated hand changes in a voice.
* Supported cross-voice and cross-staff ties and slurs for both notes and chords.
* Supported doublings for grace/cue notes, short slur, articulations, noteheads, tremolos, tuplets.
* Well-handled glissando and arpeggios.
* Added options to toggle translation of different music elements such as on/off articulations, ornaments, lyrics, pedal etc.
* Able to arrange Braille signs order.
* Created new LibLouis English table to handle chords and direction text translation. This approach is more open and will help easily create new tables for other languages to customize their own translation rules for chords and direction text.
* And many other improvements and fixes were implemented for rules from chapter 1-23, Part I of the MBC document.

# 2. Professional music braille conversion tool

## 2.1 MakeBraille Q2 development at dzb lesen

Lead: Matthias Leopold

**Aim**: At least one improved tool is available for rapid professional, accurate and automated music braille transcription which produces global formats and is linked to a production workflow. Note that this does not remove the need for skilled music braille staff.

**Update:** Our Q2 activity has delivered new output formats, user profile improvements and contracted braille implementation, as summarised below. If you wish to see the full development list please visit <https://dzblesen.uber.space/> and follow the link to ‘What’s New in MakeBraille’.

Reporting on our main priority activities for Q2, the following features have been implemented/improved:

* **Ongoing MakeBraille testing:** weekly ‘What’s New’ updates are sent to our Test group, who continue to check new implementations, report feedback, and give country-specific requirements.
* **Training workshop:** delivered to 15 participants from testing group: covering scanning and marking up files in capella and running conversions through MakeBraille.
* **PEF and BRF output now also available:** PEF to give you a PEF embosser-ready file, and BRF to give you a plain text file with line breaks ready for embossing. Uses the page-setup you've specified on the Configuration Page.
* **Improvements to MIDI file**: which can be returned with your converted braille file (if source permits it).
* **‘Exam’ user profile added:** in addition to profiles for Beginner, Intermediate and Teacher), and settings and descriptors improved for all profiles. Or choose ‘Custom’ to specify your own settings.
* **Upper case handling**: according to country requirements.
* **Contracted braille improved:** for UEB and German braille.
* **Australia added:** as a separate country profile with their own preferred settings.
* **Music exercise sheet conversion**: now possible in addition to normal scores.
* **‘Revert to default settings’**: added to Configuration page.
* **More SMUFL and UTF-8 symbols added**: for cases where MusicXML is not sufficient.
* **General improvements:** including for example: instrument name output and instrument handling; uppercase Roman numeral recognition; recognition of piano systems in orchestral scores in capella; parentheses recognition for ‘pima’ fingering in guitar; better splitting of large capx files at blocks of text; stem direction in voice parts; harmony chord presentation; chord symbol placement; extraction of harmony symbols from MusicXML word insertions; preferences for slurs on grace notes and for post note-rest symbols for UK, Spain, Norway; support of square and triangular fermata; support for G.P.;
* **General fixes**: updating numerous features in MakeBraille responding to testers’ feedback

# 3. Other project news

## 3.1 Music Braille Production Network (previously ‘Global Virtual Competence Centre’)

SBS’s proposal for a network of agencies who could source/provide music braille transcription to each other has been further developed, and was discussed at a virtual meeting of 30 participants on 22 April, including agencies, transcribers and expert end-users. Notes of that meeting were circulated to participants.

We discussed the updated proposal: the logistics, who could take part, how materials could be transcribed and proofread, for whom, and at what price. Building on comments raised at that meeting we have updated the proposal further and re-circulated it.

During Q3 will test the feasibility and practicalities of the process in a walk-through with a small group of agencies and transcribers who have signed up. As part of this we will build a simple web-form and email forwarding solution to make and send test job requests between participating producers/customers. We will let you know how it goes in our Q3 report.

## 3.2 Teaching and learning of music braille – questions to the sector

We’re starting to consider what resources we could help promote to improve the teaching and learning of music braille across the sector. We know resources do exist in various countries, but people reported difficulty in finding them, and gaps in what’s available.

We have a few questions for you please, and you can return answers to [musicbraille@daisy.org](mailto:musicbraille@daisy.org):

1. Which teaching and learning resources do you find most valuable regarding music braille?
2. Do you have any teaching and learning resources on music braille which you’d be willing to share, or have translated?
3. Can you describe any gaps in resources which you’d like to see filled?

## 3.3 Publisher workflow

We’ve had some initial discussions with the Access Coordinator at the music exam board ABRSM. ABRSM is the UK's largest music education body, one of its largest music publishers and the world's leading provider of music exams, holding over 650,000 assessments in more than 90 countries every year.

We have shared our engraving guidelines with them to review against their current music-setting guidelines.  We will continue our discussions during Q3, to see if their materials could be created more effectively for easy conversion into music braille, through any tool (but obviously through MakeBraille and SMB-MuseScore in particular).

If you have any music publishing contacts who you think would be open to this kind of accessibility improvement, please let us know by emailing us at [musicbraille@daisy.org](mailto:musicbraille@daisy.org).

## 3.4. Conference presentations

The project was presented at three recent events as showcase videos, which you are welcome to promote:

1. Tactile Reading Conference:  
   <https://www.statped.no/tactile-reading-2021/recordings-29th-and-30th-april-2021/#music>
2. DAISY General Meeting:  
   <https://youtu.be/EFCb66nnK8M?t=1895>
3. UKAAF (The UK Association of Accessible Formats) AGM, starting at 05:11 at:  
   <https://www.youtube.com/watch?v=bQGiaEQbTOg>

# 4. Related news from around the sector

## 4.1 OpenScore Lieder

From: Peter Jonas, OpenScore Project Leader, [peter@musescore.com](mailto:peter@musescore.com)

A repository of 1200 songs in MuseScore format has been published at <https://github.com/OpenScore/Lieder>. These scores were transcribed by MuseScore users and checked by a team of trained reviewers to ensure a minimum level of quality, consistency, and accuracy with the original pieces. The scores are released into the public domain via Creative Commons Zero (CC0), so are free for anyone (company or individual) to use for any purpose, including commercial and non-commercial use. We are open to discussing ways to make the scores available in Braille.

## 4.2 Haipeng sets world records for music braille transcription

From: Haipeng Hu, BrailleOrch, [hhpcomposer@gmail.com](mailto:hhpcomposer@gmail.com)

Haipeng transcribed a number of new major works during this quarter. This June, he transcribed the full score of Mahler's 8th Symphony. This production broke two world records: It's the largest braille music score of a single work in the world, and Haipeng spent only 15 days to finish this large and complicated work. The source was first engraved very carefully in Sibelius, by a professional music-setter following our Engravers’ Guidelines, and this enabled Haipeng to do the transcription work quickly. After this, Haipeng also finished Shostakovich's 5th Symphony in around a week using a well-engraved MuseScore source.

## 4.3 Initial Research of the Meaning of Music for the Inclusion of People with Low Vision

From: Juliane Bally, [Juliane.Bally@psk.uni-regensburg.de](mailto:Juliane.Bally@psk.uni-regensburg.de)

The enormous resource of music as worldwide heritage is an important expression of culture. Music contributes to the personal development of people with low vision. Musical and social competencies are needed for participation. This empirical research analyses the meaning of music in blind and visually impaired people’s lives in Switzerland, Germany and Austria. There were 206 interviews conducted, which evaluated music activities in their professional lives and leisure, education, competences and creative interests. The clear majority of the adult study participants have a higher level of music education and activity than the younger ones. The discrepancy is particularly apparent in the ability of reading and writing braille music notation. In the perspective of all participants musical activities are a highly effective medium to implement barrier-free cultural life and successful inclusion.

## 4.4 BookShare prepares to ingest music braille files

From: Nick Bowen, BookShare, [nicholasb@benetech.org](mailto:nicholasb@benetech.org)

We have a subset of music braille metadata implemented within the Bookshare system in preparation of ingesting our first big batch of content.  Ingestion itself is underway, as of now we've ingested nearly 2200 files from our partners at Vision Australia.  These content items are shared with other Bookshare members and other members of our partner libraries through the rules of the Marrakesh Treaty.

## 4.5 Music braille update from ABC Global Book Service

From: Luc Maumet, WIPO, [luc.maumet@wipo.int](mailto:luc.maumet@wipo.int)

Number of music scores in the ABC Global Book Service: 7,025

Authorized Entities sharing music scores and number of music scores shared:

* Canada - CELA/CNIB (820)
* Denmark - Nota (3,317)
* New Zealand - BLVNZ (4)
* Norway - NLB (898)
* Republic of Korea - NLD (1,986)

Number of music scores downloaded so far: 923

## 4.6 Music Braille update from Vision Australia

From: Jane Wegener, Vision Australia, [Jane.Wegener@visionaustralia.org](mailto:Jane.Wegener@visionaustralia.org)

In an extraordinary time, Vision Australia continues to support clients who requests braille music. The majority of our work has been done from home. During the last financial year, we produced 3,820 braille pages of music comprising of 162 new transcription requests, and embossed over 2,340 braille pages of music from our existing catalog.

Our 31 clients who requested braille music during the past year comprised people who wanted to take up their instrument after a hiatus, students studying music at tertiary institutions, professional music teachers and a choral conductor.

Stephanie, one of our clients says about the service: “Having my music transcribed into braille by the team at Vision Australia has enabled me to participate in my local synphonic chorus, including singing many upcoming works from Australian composers and beyond. Without their asistance, I would not be able to learn such a large volume of music and enjoy my passion, and I am extremely thankful for it. The team are also supporting me to complete my Bachelor of music degree”.

Vision Australia provides an online Library, providing a wide range of digital accessible formats for our clients to download and use.  This includes books, magazines, newspapers and music braille.

Our online library is hosted by Bookshare, but this does not mean all our content is available to other patrons of the Bookshare service.

Currently there are approximately 3,200 music braille titles available in the VA Library collection and more are being added each day. This music braille collection is available for VA Library members to download and use, that is, a person must be a VA library member to borrow from this collection.

All music titles are held in electronic format and are available to download.  Up to 20 music titles can be borrowed at any time.  Music titles are not held on the shelf as embossed copies, but embossing is available on demand should a member wish to borrow a physical copy.

We look forward to continue producing music, supporting our clients and be part of the MakeBraille project.

## 4.7 Do you have music braille news to share next time?

I’ll happily collate other news from around the sector and send it out. Our next quarterly update will go out in July, so please send me your news by **Wednesday 6 October**. This mailing goes out to around 150 music braille experts worldwide, including transcribers, teachers, composers, end-users and developers, among others. Please send your updates to [musicbraille@daisy.org](mailto:musicbraille@daisy.org)

# 5. With thanks to our funders

In the next few months we will be asking for final funding contributions towards 2022 costs. Please keep this in mind, thank you ☺. We’re very grateful to the following agencies who are making our activities possible for 2020 and 2021:

* CNIB
* DAISY Strategic Development Fund
* MTM
* NLB
* Norwegian Association of the Blind
* Nota
* ONCE
* RNIB
* SBS
* Vision Australia