Announcement from the DAISY Music Braille Project

Date: Monday 16 November 2020

Project website: <https://daisy.org/activities/projects/music-braille/>

# Funding for an interactive music braille user tool awarded for development of MuseScore and Sao Mai Braille

The Steering Group of the DAISY Music Braille Project was grateful to receive a variety of proposals for the development of an interactive user tool for music braille according to our prioritized sector requirements. After very careful consideration they have chosen to support related proposals for the development of MuseScore (submitted by Peter Jonas, UK), and of Sao Mai Braille (submitted by Phúc Dang Hoai, Vietnam) from the non-profit agency Sao Mai Centre for the Blind. These combined developments will be invaluable for blind musicians of any age learning to read, study or create music braille with multimedia input and output.

Initial development will be based around the world-class, free, open source and mainstream sheet music notation program, MuseScore, giving it improved accessibility features and more informative MusicXML export for better conversion into music braille. MuseScore can already produce modified stave notation for partially sighted users as well as standard print notation, making this an extremely versatile solution.

Alongside this, Sao Mai Centre for the Blind will improve the music braille capabilities of their Sao Mai Braille (SMB) software, enabling it to produce professional quality music braille from sheet music created in MuseScore and other applications. SMB will be available both as a standalone Windows application for users to install on their computer, and as a web service to which users can upload MuseScore or MusicXML files and get back a braille score. The web service will be made available within MuseScore via a cross-platform plugin, making this the first time that a tool to produce music braille has been available to users of both Windows and macOS operating systems.

In addition, Sao Mai Centre for the Blind will contribute open source code to MuseScore to provide two important interactive music braille features within MuseScore itself. The first feature is a live braille preview during playback and editing of a standard score in MuseScore. The preview will consist of the current note or measure, with braille characters displayed on-screen and/or sent to a connected braille display. This braille preview is valuable when editing or checking notes, or when learning to read music braille for the first time. The live braille preview will be incredibly useful in environments where blind and sighted musicians work together, such as a sighted music teacher with a blind student, or vice versa.

The second feature that Sao Mai will add to MuseScore is 6-key braille input. This will enable users to type music in braille, which MuseScore will convert to the equivalent stave notation. The 6-key method uses the letter keys S, D, F, J, K, L on ordinary keyboards to correspond to the 6 dots of a braille cell. This is a fast input method for musicians who think in braille rather than in stave notation. These additional features to be built in MuseScore, used in conjunction with the braille conversion capabilities to be built in SMB, will create a fully accessible workflow for blind and partially sighted musicians to produce and explore professional quality music braille with interactive and multimedia capabilities.

The project team (from MuseScore, SMB and DAISY) will be working closely together in the coming months to develop the work plan, which will be delivered in an agile manner each quarter, allowing for frequent testing and feedback. Funded development is due to start in January 2021 for 24 months. We look forward to updating you with our quarterly plans, progress reports, and demos once work starts.

# Documentation and links

If you’re interested in finding out more, the related MuseScore and SMB written responses, video presentations and related links are all available on the Project web page, under ‘Latest Developments – November 2020’ at <https://daisy.org/activities/projects/music-braille/latest-developments/>

## Written responses

* MuseScore + Sao Mai Braille – User Tool Requirements Response.docx
* MuseScore proposal.docx
* Accessible Music Interactive User Tool Proposal-SaoMai.docx

## Video presentations which accompanied written responses:

* MuseScore’s presentation: <https://www.youtube.com/watch?v=g5jdrNInxBk>
* SMB’s presentation: <https://www.dropbox.com/s/wr1ga6726wybyfj/SM-Braille-Music-Translation-Demo.mp4?dl=1>
* SMB’s supplementary demo of SM Reader to read scores with screen-reading software and different options (which could not be captured by Zoom in the SMB presentation):
<https://www.dropbox.com/s/wvjnav5reebcb7z/SM%20Music%20Reader%20DemoForReference.mp4?dl=1>

## Related links

* Sao Mai Centre for the Blind: <https://www.saomaicenter.org/en>
* MuseScore: <https://musescore.org/en>
* Reference clip about the SM Music Reader app, presented on October 8th at the Connecting To Dots conference organized by CNIB:
“Barrier-free of Reading Scores with SM Music Reader App”:
<https://www.dropbox.com/s/970qsv4s9opkyog/Barrier-freeOfReadingScoresWithSMMusicReaderApp.mp4?dl=1>
* SM Music Reader app can be downloaded for a trial on Google Playstore at:
<https://play.google.com/store/apps/details?id=org.saomaicenter.music.reader&hl=en>