W3C TPAC Music Notation Community Group Meeting

15 September 2022

Agenda

- Introduction to the Music Notation Community Group
- Project Status
  - MNX
  - SMuFL
  - Instrument database
  - MusicXML
- Community Group leadership change
- Questions and answers

W3C Music Notation Community Group

- Founded in July 2015
- Develops and maintains format and language specifications for notated music used by web, mobile, and desktop applications
- Maintains and updates the MusicXML and Standard Music Font Layout (SMuFL) specifications
- Developing new MNX spec to handle new use cases and technologies
- The 8th largest W3C Community Group and in the 10% most active
- https://www.w3.org/community/music-notation/

The most popular music notation software standards

- MusicXML
  - Supported by over 260 web, mobile, and desktop applications
  - Notation editors, digital audio workstations, scanning, practice, analysis, …
  - MusicXML 4.0 released in June 2021
- SMuFL
  - Supported by most major notation editors including Dorico, MuseScore, Finale, capella, and Soundslice
  - Also supported by Logic Pro X, MaxScore for Max, and Verovio
  - Most new music notation fonts are now SMuFL compliant
  - SMuFL 1.4 released in March 2021

MusicXML app support as of 9 September 2022

Products Shipping Now

abc2xml / xml2abc
Artinfuser Exercise
Band-in-a-Box
BMML
Braille Music Editor
Calligra Suite
capella
CeVIO AI
Cornelius Composer
Cubase
DeluxeNote
Denemo
Dorico
Electric Pipes
Encore
Ensemble Composer
Fandango
Finale
Flat
Forte
Free Clef
Guitar Pro
Harmony Assistant
Hyena
JapoScore

AnthemScore
AudioScore Ultimate
audite PLUS
Audiveris
Audovia
Cadencii
Cakewalk
capella audio2score
capella-scan
Cavatina
CelticPipes
Crescendo
Digital Performer
Drumline Composer
Frettable
HarmonyWiz

Archivarius 3000
Auto-Tune EFX+
Blackbinder
BrailleMUSE
Canon
capella playAlong
capella reader
capella start
CsoundAC
D3 Pianogram
daCapo
Don's MusicXML Viewer
Doo Bee Doo Composer
EarMaster
EasyABC
Expresseur
Forte Reader
Frescobaldi
GOODFEEL
GUIDO
Harmonia
IBOS Nodelæser
INScore

JFugue
Kinetic
Komp
libMusicXML
Lime
Logic Pro
MagicScore
MaxScore
Melody Scanner
Mozart
MusEdit
MuseScore
Music Notation SDK
Music Processing Suite
music21
Music Writer
NotateMe
Notation Composer
NoteAbility Pro
Noteflight
Noteworthy Composer
Notion
Nuendo
Obtiv Octava
OpenMusic
Overture

Impro-Visor
iReal Pro
JMSL
Jniz
Kunkunshi Editor
Ludwig
muDic
muscript
MusicJOT
Music-to-XML
MyScript Music SDK
Notate
Notation Pad
Opusmodus
PDFtoMusic Pro
PhotoScore Ultimate
Piano2Notes

Jellynote
KlavarScript
LilyPond
Lyric Creator
Magenta
Manufaktura Controls
Match My Sound
MDLscore
Melody Assistant
Melody Player
MidiAndMusicXmlPlayer
MIDI Player Pro
MusicEase
Music Prodigy
musicxml2mid
MusicXML to MP3
Neutrino
Newzik
OpenSheetMusicDisplay
OrganMuse
PhonicScore
PianoLudic
Piano Marvel
PMX / MusiXTeX

Pizzicato
PowerTracks Pro Audio
PriMus
ProxyMusic
QuickScore Elite Level II
REAPER
Reflow
SCORE
ScoreCloud
ScoreMaker
Score Writer
Scorio
Sibelius
SmartMusic
SmartScore
Songs2See Editor
Soundslice
Speech Analyzer
StaffPad
Stave'n'Tabs
Symphony Pro
TaBazar
TablEdit
tonica fugata
UtaFormatix
VocalEasel

Plaine and Easie
PlayScore
Rachmaniac Score
ReadScoreLib
Rosegarden
Rousseau
Samplitude
ScanScore
Score Creator
Sequoia
SharpEye
Sheet Music Scanner
Simple Song Creator
SmartScore NoteReader
Synfire
Touch Notation
TuxGuitar

Practice Bird
PracticeFirst
Practice Player Live Midi
Purely Musical
Real Piano Score
Rhythm Lab
Scroller
SeeScore
SeeScore SDK
Sight Singing Studio
SingAccord
Singscope
Sinsy
SM Music Reader
Songistic
Songs2See Game
Soundslice Viewer
TEFpad
TEFview
teoría
Tessa
THoTH
WhiteNote
Zupfnoter

MusicXML

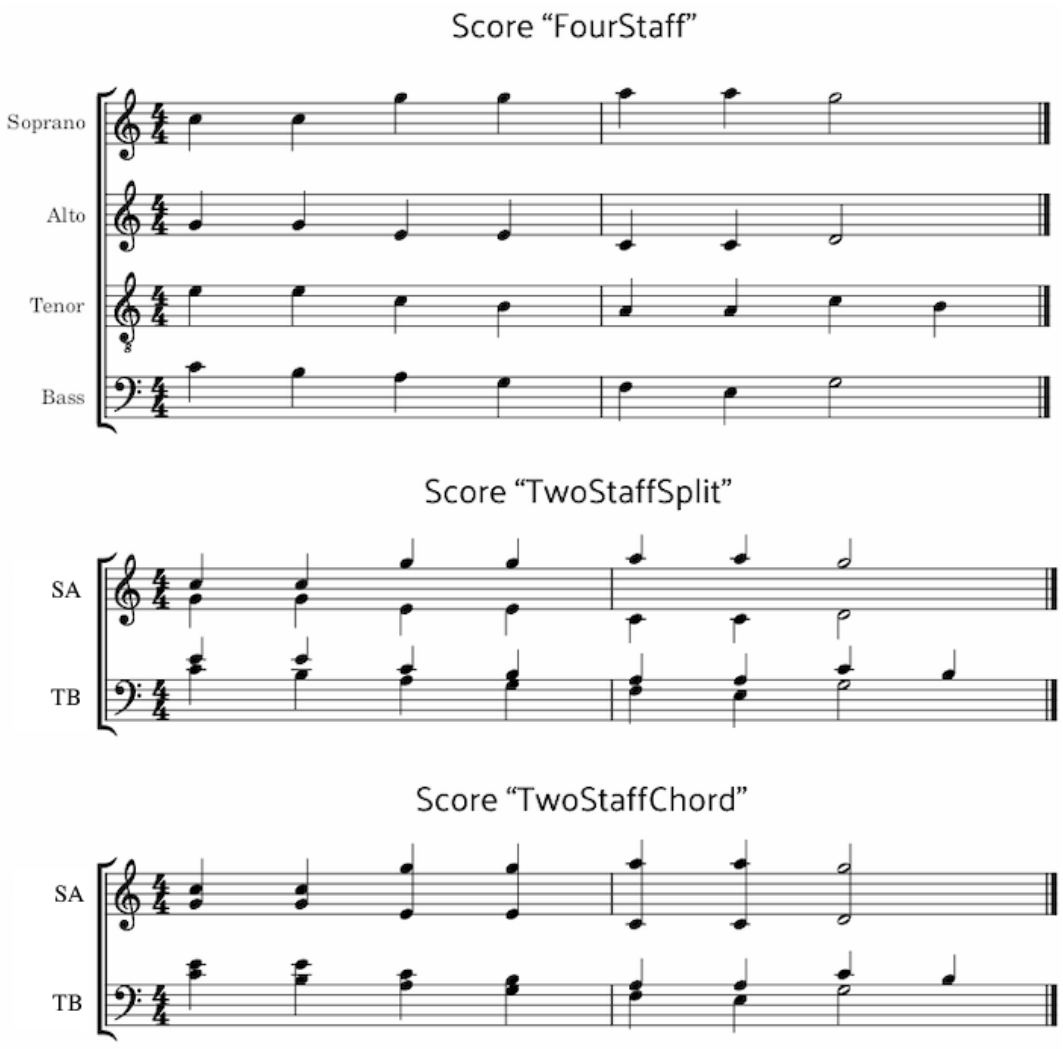
Beta/Prototype Software

A-Score Music Composer
Audimus Notes
bach
Canorus
CMME Editor
Haskell Library
Houdini
Humdrum
KGuitar
MorpheuS
Music Jotter
MusicSQL
Nightingale Notelist
Ossia Viewer
Partitura
PartRenamer
Ptolemaic
pyScore
Renoid Player
sol2snd

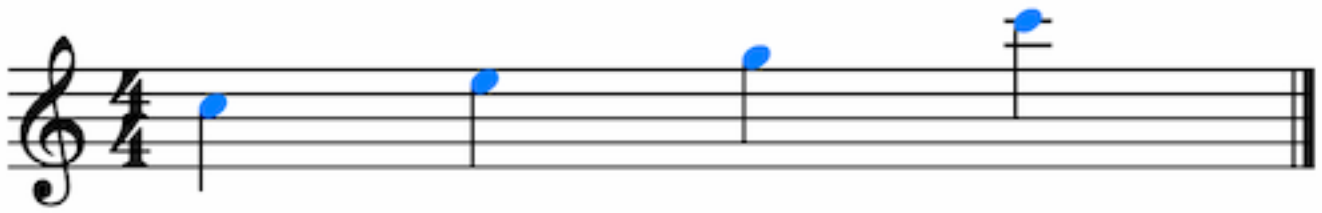
abc4j
Amadeus
Braille Music Compiler
BUZZle
FOMUS
GBMusicParser
jChing
mercussion
mingus
PHPMusicTools
Power Tab
PWGL
SCAMP
Sing2Notes

Accento
Antescofo
Arduino
CrestMuse Toolkit
FreeDots
GLozart
GStreamer
HTML5 Guitar Tab Player
KotoViewer
MATLAB
MoonPiano
µO
MuseBook Score
Musicista
Music Score Metadata Builder
MusicXML Analyzer
musicxml2words
Noutee
Opus
PSAM Control Library
ShakuViewer
SolFaSoGood
StringyFi
SuperScore
Talking Scores

MNX: Layouts (issue 185)

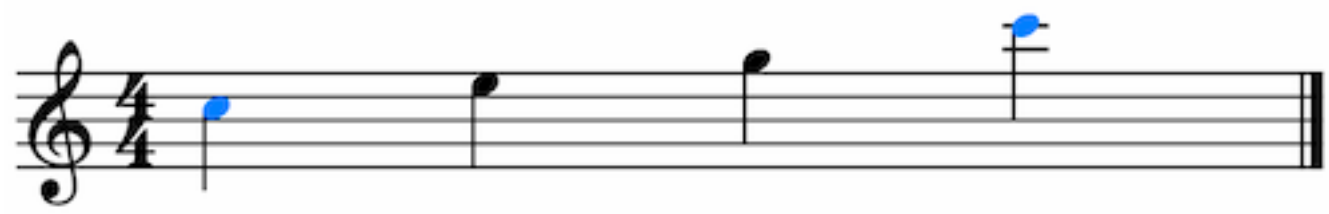


MNX: Styles (issue 263)



```
<style selector="note" color="#0080FF"/>
```

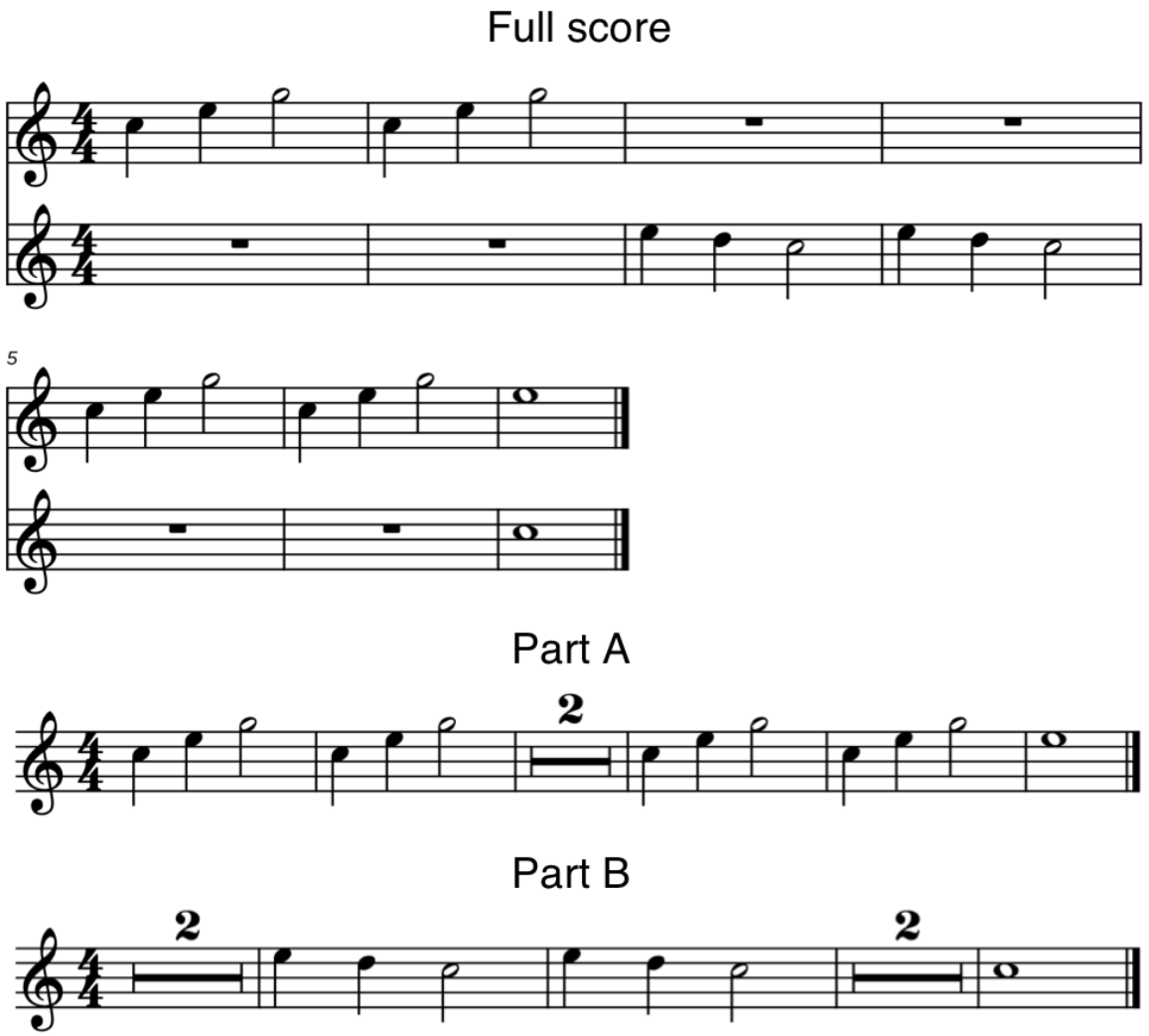
MNX: Styles (issue 263)



```
<style selector=".emphasized" color="#0080FF"/>

<note pitch="C5" class="emphasized"/>
```

MNX: Multimeasure rests (284)



Other MNX progress

- Moved MNX specification and “By Example” to our new docs system (223)
- Also addressed:
  - Direction locations (251)
  - Distinct element names for global directions and measures (265)

MNX next steps

- Finalize list of V1 features, using V1 GitHub milestone
- Implement each remaining V1 feature with an example-first approach
- Continue implementing mnxconverter open-source utility

MNX: how you can help

- Follow the MNX GitHub issue tracker
- Post your opinion, even if it’s just a thumbs up
- Follow the community group blog and mailing list

SMuFL 1.5

- Work on SMuFL 1.5 is now in progress
- Will add a few dozen new symbols
- Focus on font-specific metadata, to enrich data about optional glyphs
  - Define categories of optional glyphs (e.g. optical variants at different sizes, historical period, etc.)
  - Allow grouping of optional glyphs into sets (cf. OpenType stylistic sets)
  - Make it easier for applications to use (or present to the user) optional glyphs as alternates
- Rework specification of fonts for text-based applications

SMuFL 1.5: how you can help

- Providing translated human-readable descriptions for glyphs and ranges
  - Project has been set up on Transifex
  - Looking for translators for German, French, Spanish, Italian, Japanese
  - Just over 3,000 strings, containing nearly 12,000 words
- Follow the SMuFL GitHub issue tracker
  - Look at the SMuFL 1.5 milestone to see what is in scope
  - Look for issues with label Awaiting feedback, and see if you can help
  - Particularly important to get feedback from software developers working with SMuFL and font-specific metadata files

Instrument data: problem

- Most music notation applications have data about instruments
  - Basic data, e.g. default clef(s), number of staves, transposition, playable ranges
  - Specific idiomatic data, e.g. tunings for stringed instruments, number of frets for fretted instruments, sounds/playing techniques that can be produced
- This data is not secret, but it can be time-consuming to research and encode
  - Every developer does this research from scratch every time
  - Errors and omissions are different in every data set
  - Massive duplication of effort

Instrument data

- We discussed a new specification for instrument data at our last meeting, and updated the group charter to include this in January
  - Develop one or more simple data formats (JSON? XML?) to allow easy conversion or consumption of this data by notation applications
- We will need someone to lead this project to make progress
  - This leader / specification editor need not be a co-chair
- If you are interested, please contact the co-chairs

MusicXML status

- MusicXML 4.0 was released in June 2021
- We have been collecting suggestions for future versions on GitHub
- No current plans for a version 4.1
- We likely would not start this until MNX 1.0 is completed
- But plans are subject to change based on our next topic…

Leadership changes

- Michael Good will be retiring on January 6, 2023 and stepping down as Community Group co-chair at that time
- We have been in touch with several candidates to succeed Michael as Community Group co-chair and MusicXML specification editor
- If you would like to be considered, please contact the co-chairs by Friday, September 23

Planning for in-person meetings

- We plan to continue online meetings for their greater inclusiveness
- But we want to resume in-person meetings too
- Here are some of the upcoming events next year:
  - TechChill: Riga, February 2023
  - The NAMM Show: Anaheim, 13–15 April 2023
  - TENOR conference: Boston in 2023?
  - Joint Music Encoding / TEI Conference: Paderborn, September 2023
  - Music Austria is every two years, so not until 2024
- Or a special meeting hosted by an organization with meeting space

Questions and answers

- Any questions for the Community Group?

Staying in touch

- If you are not already a member, join the Music Notation Community Group
  - Membership is free of charge
  - Sign up at the Community Group home page
    - Click on the JOIN OR LEAVE THIS GROUP button to get started
    - If you work for an organization in the area of music notation, please join as a representative of that organization
- Technical work largely happens in our GitHub repositories for MNX, the MNX Converter, MusicXML, and SMuFL.
- We post co-chair meeting minutes on the blog, usually every 2 weeks