MusicXML and eScore Standardization at W3C

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JANUARY 2015



What is MusicXML?

- The open, de-facto standard format for exchanging digital sheet music between applications
- Invented by Michael Good at Recordare in 2000
- Developed collaboratively by a community of hundreds of musicians and software developers over the past 15 years
- Available under an open, royalty-free license that is friendly for both open-source and proprietary software
- Supported by over 180 applications worldwide
- More information at <u>www.musicxml.com</u>



Who Uses MusicXML

Usage map as of January 2015

Products Shipping Now

NotateMe NoteAbility Pro Noteflight Noteworthy Composer Notion

Score Perfect Professional

Sibelius / Sibelius First

Noteworthy Composer Notion Nuendo Obtiv Octava OpenMusic Open Score Format

Ensemble Composer Open Score Format Finale (inc. NotePad, Pizzicato PrintMusic, SongWriter) PriMus Forte Progression FreeClef ProxyMusic Guitar Pro QuickScore Elite Level II

Harmony Assistant iComposer JFugue Lime MagicScore

Braille Music Editor

Calligra Suite capella

Electric Pipes Encore

Capriccio

Cubase

Mozart MusEdit MuseScore Music Notation SDK music21

MusicXML Library

AudioScore Ultimate
Audiveris
Cadencii
CamraScore
capella-scan
capella wave kit
Crescendo
Django
HarmonyWiz
Impro-Visor
iReal Pro
JMSL
Logic Pro

Ludwig Melomics muscript MyScript Music SDK

Notation Composer

Archivarius 3000

Auto-Tune EFX 2

Avid Scorch
Blackbinder
capella playAlong
capella start
CsoundAC
Denemo
EarMaster
EasyABC
Expresseur
Frescobaldi
GUIDO
Harmonia
Igor Engraver
INScore

Jellynote

Kooplet

LilyPond

Legato

KlavarScript

MelodicMatch

Melody Assistant / Player

Symphony Pro
TaBazar
TablEdit
VocalEasel

Notation Switchblade
Opusmodus
PDFtoMusic Pro
PhotoScore Ultimate
Plaine and Easie
Rosegarden
Rousseau
Samplitude / Sequoia
ScoreCloud
Score Creator
ScoreMaker

Scorio

SmartScore

Songs2See Editor

Speech Analyzer

SharpEye SmartScore NoteReader SONAR Symphonix Evolution

> Synfire tonica fugata TuxGuitar

Mobile Music Trainer
MusicEase
Myriad Music Plug-in
Myriad QuickLook Plug-in
neoScores
NtEd
OrganMuse
Overture
OveScore
Personal Composer
PhonicScore
PianoLudic

Pocket Jamz Practice Player Live Midi Score Writer SeeScore / SeeScore SDK

Singer's Mate
Songs2See Game
Soundslice
TEFpad / TEFview

teoría THoTH xml2abc

Beta/Prototype Software

Audimus Notes
Haskell Library
Humdrum
KGuitar
MusicSQL
Nightingale Notelist
Ossia Viewer
Ptolemaic
pyScore
Zong! Editor

abc2xml
abc4j
abc4j
Amadeus
BUZZIe
Digital Performer
FOMUS
jChing
MaxScore
mercussion
Middle C
mingus
Overture
Power Tab
PWGL

Song Builder

Antescofo Arduino BrailleMUSE Canorus CrestMuse Toolkit Flat FreeDots

GLozart GStreamer HTML5 Guitar Tab Player MATLAB MuseBook Score Musicista musicxml2mid

musicxmi2mud
musicxmi2words
MusicXML to MP3
MXMLiszt
Opus
Philomelos
PSAM Control Library
Quantified Artist
Siney

Zong! Webviewer Server

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Why a Standards Organization?

- Need to maintain the format to better support the industry's transition from printed to digital sheet music
- Music notation industry is unstable: most major players have had changes in ownership or direction in the past 2 years
- Always expected that MusicXML would eventually transfer from a company to a standards organization when mature, like PDF did
- However, standards organizations have a dismal history with music notation over the past 20 years



Music Notation Standards Landscape

- ISO / IEC Already has unused SMDL standard
- MPEG Already has unused MPEG 7 SMR standard
- IEEE Already has unused IEEE 1599 standard
- MMA / AMEI Home of related MIDI standards
- W3C Home of related Web standards
- Nothing yet the size of the MusicXML community
 - MMA / W3C have limited music notation membership
 - Notation standards developed outside of the music industry remain unused



W3C Opportunity

- W3C offers Community Groups that do not require W3C membership to participate
- Could capture present-day MusicXML as a Community Group Report, possibly co-published with MMA
- Then evolve MusicXML support for web-based notation
 - Better use of W3C technology like annotations and web fonts
 - Evolve from an exchange format to an interactive platform
- May work best if group also includes Steinberg's SMuFL (Standard Music Font Layout)
- October 2014 TPAC meeting explored these possibilities



Status Quo Opportunity

- MusicXML developer community led by Recordare and MakeMusic has achieved unprecedented success in notation standard adoption
- Majority of the MusicXML developer community seems fine with status quo – it works, and provides the lowest possible overhead
- Similar situation emerging for SMuFL font standard
- MusicXML and SMuFL are both strategic to their host companies; standards groups tend to slow things down
- Planning a MusicXML 4.0 with better SMuFL support



Staying in Touch

- MusicXML forum: http://forums.makemusic.com
- Shows: Musikmesse, NAMM, SF MusicTech
- MusicXML Community Forum at Musikmesse tentatively planned for Friday, April 17
- Twitter: @MusicXML
- Facebook: www.facebook.com/MusicXML

