

***Recordare***



# The Recordare MusicXML Finale Converter

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# Outline

- ◆ Introduction to MusicXML and Finale
- ◆ Exchanging with MuseData
- ◆ Reading from music scanning software:  
SharpEye Music Reader and Middle C
- ◆ Writing to FreeHand Music Manager
- ◆ Converting between Finale versions
- ◆ Making Finale data more accessible

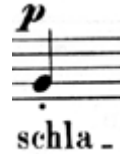


# Introduction to MusicXML

- ◆ MusicXML represents symbolic musical data such as pitches and rhythms
- ◆ Supports notation, analysis, information retrieval, and performance applications
- ◆ Augments, but does not replace, specialized proprietary formats
- ◆ Most successful music interchange format since MIDI



# MusicXML for



```
<direction placement="above">  
  <direction-type>  
    <dynamics>  
      <p/>  
    </dynamics>  
  </direction-type>  
</direction>  
<note>  
  <pitch>  
    <step>G</step>  
    <octave>4</octave>  
  </pitch>  
  <duration>6</duration>
```

```
<voice>1</voice>  
<type>quarter</type>  
<stem>up</stem>  
<notations>  
  <articulations>  
    <staccato/>  
  </articulations>  
</notations>  
<lyric>  
  <syllabic>begin</syllabic>  
  <text>schla</text>  
</lyric>  
</note>
```



# Introduction to Finale

- ◆ Market leader in music notation software
- ◆ Used both by composers writing music and engravers/copyists preparing music for publication
- ◆ Has a plug-in developer's kit (PDK) for third-party developers
- ◆ File format partially documented in PDK

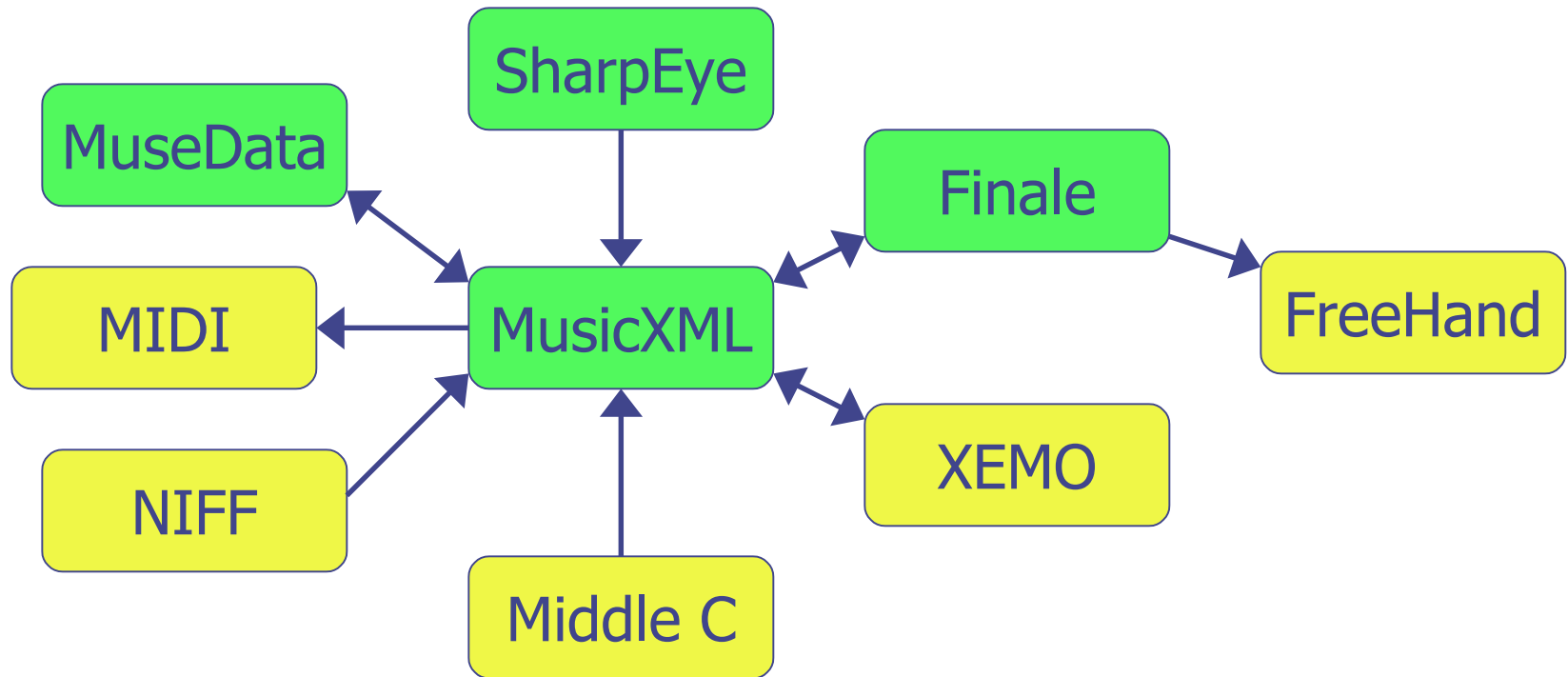
# The MusicXML Finale Converter



- ◆ Runs as a Finale plug-in on Windows
- ◆ Converts between Finale, MusicXML, and MuseData formats
- ◆ Allows other programs that support MusicXML to interchange music with Finale and related programs
- ◆ Improves forwards compatibility between Finale 2000 and Finale 2002



# MusicXML Interchange





# Exchanging with MuseData

- ◆ Leading academic music format developed by Walter Hewlett
- ◆ Large library of online music available from Center for Computer Assisted Research in the Humanities
- ◆ Database at [www.musedata.org](http://www.musedata.org)
- ◆ Converter allows two-way interchange between Finale and MuseData





# MuseData to Finale Example

```
s01.msd - Notepad
File Edit Format View Help
01/08/94 w Hewlett
WK#:848      MV#:2
Bach Gesellschaft xiv
WTC I: Prelude and Fugue in C-sharp major
Fugue

1 2
Group memberships: score
score: part 1 of 1
&
Initial conversion from stage 1 to stage 2
&
$ K:7 Q:4 T:1/1 C1:4 C2:22 D:a 3.
rest 4 1 q 1
rest 2 1 e 1
G#4 2 1 e u1
A#4 1 1 s u1 [[
G#4 1 1 s u1 ==
F#4 1 1 s u1 ==
G#4 1 1 s u1 ]]
E#5 2 1 e u1 [
C#5 2 1 e u1 ]
back 16
rest 16 3 1
back 16
rest 16 4 2
measure 2
G#4 2 1 e u1 [
```



# Reading from Music Scanning Software

- ◆ In the past, scanning and notation programs were coupled one-to-one:
  - Finale and Musitek products
  - Sibelius and PhotoScore products
- ◆ MusicXML enables more competition between scanning programs
- ◆ SharpEye Music Reader available now
- ◆ Middle C Software under development



# SharpEye Example

schumann-op24-no8 \* - SharpEye2

File Edit Image Read Edit Music View Options Help

la-la *f*

1 2 3 *mf* 4 5

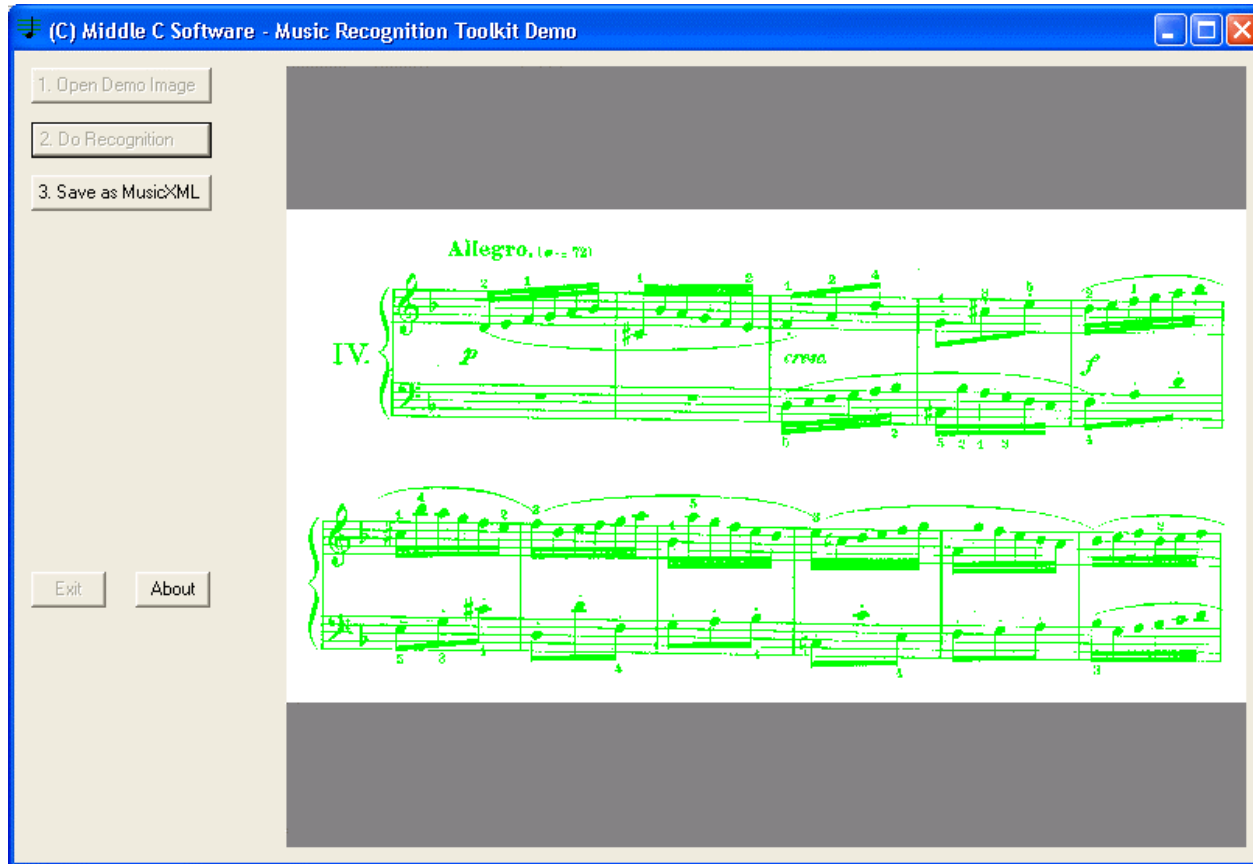
Anfangs-wollt ich fast ver-za-gen,

*mf*

Right button inserts, left selects 0 rhythm warnings



# Middle C Example





# Writing to FreeHand Music Manager

- ◆ Downloadable sheet music should travel with you, away from the PC
- ◆ FreeHand Systems is introducing its MusicPad Pro – a first generation electronic sheet music reader
- ◆ Includes annotations and bookmarks
- ◆ Music Manager software simulates the MusicPad interface on a PC



# FreeHand Example



# Converting Between Finale Versions



- ◆ Earlier versions of Finale cannot read files produced by later versions
- ◆ Only interchange possible was via MIDI files
- ◆ MusicXML provides much greater Finale forwards compatibility than MIDI



# Finale Conversion Example

Finale 2002 - [An Sylvia.mus]

File Edit View Options MIDI Plug-ins Tools MassMover Window Help TGTools

An Sylvia  
D. 891

Eduard von Bauernfeld  
(after William Shakespeare) Franz Schubert

Mässig

Piano

pp

Was ist Syl - via, und sa - - - get  
Ist sie schön und gut da -  
Da - - - rum Syl - via tön', o'

Page: 1

MASS MOVER TOOL: Drag to select music (to transpose or edit). Drag a selection to copy it.



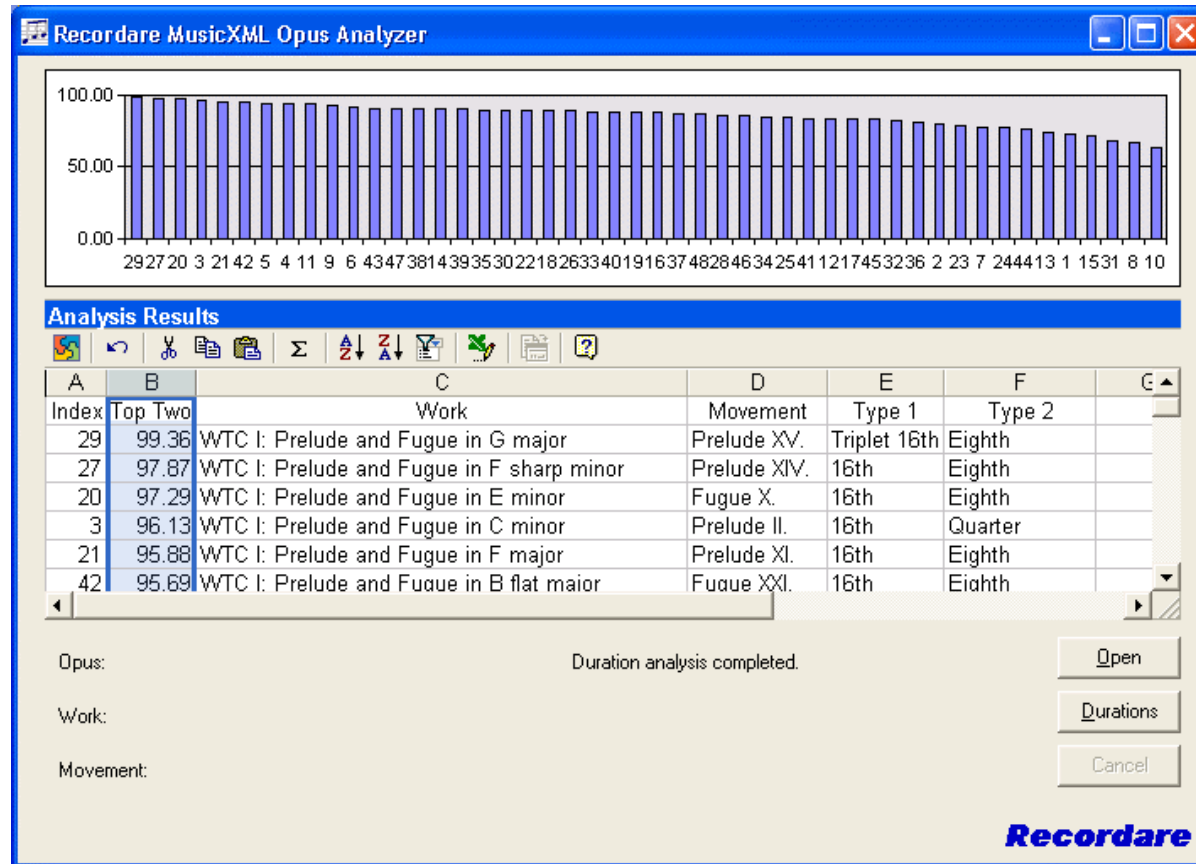
# Making Finale Data More Accessible



- ◆ Finale files can be exported to MusicXML
- ◆ Thus they can be used by programs that read and analyze MusicXML data
- ◆ A boon to music analysis research, with greater benefits as more programs support MusicXML



# Visual Basic Example





# Conclusions

- ◆ MusicXML supports a full music data flow from scanner to digital music stand
- ◆ Extends Finale's role as the most open music notation software
- ◆ Makes Finale files accessible to music analysis applications
- ◆ Working to get more support from new and existing music applications