

MEI

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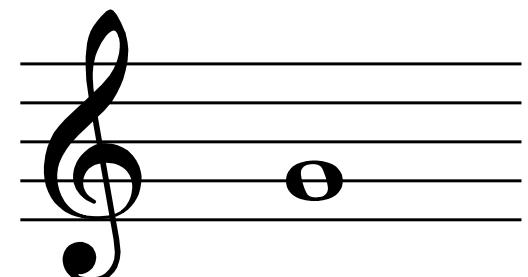
28 February 2013

# MEI

- XML representation for music with focus on academic research
- Features for generating critical editions of a work (with multiple source that are not the same)
- Secondary concentration on pre-modern western musical notation (mensuration and neumes).
- Examples: <http://www2.lib.virginia.edu/innovation/mei/Examples>

```
<mei version="1.7b">
  <meihead>
    <meiid>20071029101306082</meiid>
    <filedesc>
      <titlestmt>
        <title>Hello World!</title>
      </titlestmt>
      <pubstmt/>
    </filedesc>
  </meihead>
  <work>
    <music>
      <mdiv>
        <score>
          <scoredef meter.count="4" meter.unit="4" key.sig="0">
            <staffgrp>
              <staffdef n="1" id="P1" label.full="Music" clef.line="2" clef.shape="G" midi.div="1" key.sig="0"/>
            </staffgrp>
          </scoredef>
          <section>
            <scoredef meter.count="4" meter.unit="4" key.sig="0"/>
            <measure n="1" id="dlef6">
              <staff>
                <layer>
                  <note id="dlef24" tstamp="0" pname="c" oct="4" dur="1" dur.ges="4"/>
                </layer>
              </staff>
            </measure>
          </section>
        </score>
      </mdiv>
    </music>
  </work>
</mei>
```

## Hello World!



# TEI

- MEI is modeled after the Text Encoding Initiative: <http://www.tei-c.org/index.xml>  
“a consortium which collectively develops and maintains a standard  
for the representation of texts in digital form.”

```
<TEI xmlns='http://www.tei-c.org/ns/1.0' xmlns:xml='http://www.w3.org/XML/1998 namespace'  
xml:id="A050153">  
<teiHeader>  
<fileDesc>  
<titleStmt>  
<title level="s">Aktuelle Nachrichten der Carl-Maria von Weber-Gesamtausgabe</title> <title  
level="a">Quellcode von weber-gesamtausgabe.de auf GitHub verfügbar</title> <author  
key="A009001">Peter Stadler</author>  
</titleStmt> <publicationStmt>  
<date when="2013-02-06T12:02:00"/>  
</publicationStmt> <sourceDesc>  
<p>born digital</p>  
</sourceDesc>  
</fileDesc> <profileDesc>  
<textClass>  
<keywords scheme="WeGA_cat">  
<term>announcement</term>  
</keywords>  
</textClass>  
</profileDesc>  
</teiHeader> <text type="news">  
<body>  
<div xmlns:xml='http://www.w3.org/XML/1998 namespace' xml:lang="de">  
<p>  
Der Quellcode der Webapplikation weber-gesamtausgabe.de ist nun (endlich) unter <ref  
target="https://github.com/Edirom/WeGA-WebApp">https://github.com/Edirom/WeGA-  
WebApp</ref> frei verfügbar gemacht worden. <rs type="news" key="A050256">Vor ein paar  
Wochen wurden bereits die XML-Schemata veröffentlicht</rs>, so dass gewissermaßen das  
technische Fundament der Digitalen Weber-Edition jetzt auch offiziell frei zugänglich ist. Das  
Ganze ist zwar auf unsere Ausgabe maßgeschneidert, ich hoffe aber doch, dass es zumindest als Anhaltspunkt und  
Diskussionsgrundlage für ähnliche Editionsvorhaben dienen mag.  
</p> <p>Ein paar weiterführende Informationen finden sich auf den genannten Seiten, wobei die  
Dokumentation des Ganzen noch ein großes Desperat ist. Ich freue mich über alle Fragen und Kommentare und stehe auch bei einer geplanten  
Nachnutzung gerne mit Rat und Tat zur Seite!</p>  
</div>  
</body>  
</text>  
</TEI>
```

rendering

## Quellcode von weber-gesamtausgabe.de auf GitHub verfügbar

Der Quellcode der Webapplikation weber-gesamtausgabe.de ist nun (endlich) unter <https://github.com/Edirom/WeGA-WebApp> frei verfügbar gemacht worden. Vor ein paar Wochen wurden bereits die XML-Schemata veröffentlicht, so dass gewissermaßen das technische Fundament der Digitalen Weber-Edition jetzt auch offiziell frei zugänglich ist. Das Ganze ist zwar auf unsere Ausgabe maßgeschneidert, ich hoffe aber doch, dass es zumindest als Anhaltspunkt und Diskussionsgrundlage für ähnliche Editionsvorhaben dienen mag.

Ein paar weiterführende Informationen finden sich auf den genannten Seiten, wobei die Dokumentation des Ganzen noch ein großes Desperat ist. Ich freue mich über alle Fragen und Kommentare und stehe auch bei einer geplanten Nachnutzung gerne mit Rat und Tat zur Seite!

Peter Stadler, Wednesday, February 6, 2013

- HTML on steroids
- Database format which can be transformed into HTML

<http://www.weber-gesamtausgabe.de/en/A009001/News/A050153>

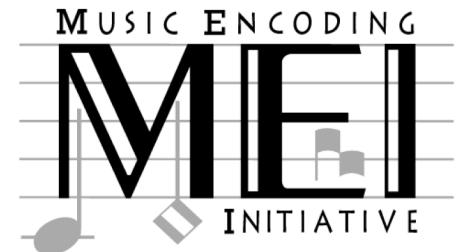
# Formal Description/Documentation

<http://music-encoding.org/downloads/mei2012>

Currently three components:

- mei-CMN (Common western Music Notation)
  - mei-Mensural (precursor to CMN)
  - mei-Neumes (precursor to mensural notation)
- 
- Documentation (MEI 2012):

[http://music-encoding.googlecode.com/files/MEI\\_Guidelines\\_2012\\_v2.0.0.pdf](http://music-encoding.googlecode.com/files/MEI_Guidelines_2012_v2.0.0.pdf)



# DTD/Schema/RelaxNG/ODD

DTD: [http://en.wikipedia.org/wiki/Document\\_Type\\_Definition](http://en.wikipedia.org/wiki/Document_Type_Definition)  
[http://www.w3schools.com/dtd/dtd\\_intro.asp](http://www.w3schools.com/dtd/dtd_intro.asp)

- Original method for formal description of XML file structure (XML 1.0).

Schema: [http://en.wikipedia.org/wiki/XML\\_Schema\\_\(W3C\)`](http://en.wikipedia.org/wiki/XML_Schema_(W3C)}`)

- 2001: Schema is also in XML format, a successor of DTDs
- XSD (XML Schema Definition)
- More data typing than DTDs
- Namespaces, such as “xml:id”

RelaxNG: [http://en.wikipedia.org/wiki/RELAX\\_NG](http://en.wikipedia.org/wiki/RELAX_NG)

- REgular LAnguage for Xml Next Generation
- 2009

ODD: TEI's meta representation to automatically generate Schema or RelaxNG format description.

# Tag Library

- <http://music-encoding.org/documentation/tagLibrary> (MEI 2010-05 version)
- Useful tool for navigating the element hierarchy

The screenshot shows a web browser displaying the MEI Tag Library. The URL in the address bar is [music-encoding.org/archive/tagLibrary/note](http://music-encoding.org/archive/tagLibrary/note). The page header includes the MEI logo and the text "The Music Encoding Initiative ...modelling music notation with XML". The main content area is titled "2010-05: Tag Library" and features a large heading "**<note> note**". Below this, there are three sections: "Description:", "May contain:", and "May occur within:". The "Description:" section contains a detailed text about the <note> element. The "May contain:" section lists various sub-elements like <accid>, <add>, <app>, etc. The "May occur within:" section lists elements such as <add>, <beam>, <bend>, <btrem>, etc.

2010-05: Tag Library >

## <note> note

### Description:

A single pitched event. (Read, p. 63) The note element is allowed to contain other events for situations where a single (usually ornamented) written note is representative of a group of performed notes. The accid and artic sub-elements may be used instead of the note element's attributes when accid and artic represent first-class objects, e.g., when they require attributes, such as x and y location attributes. Similarly, the syll sub-element may be used instead of the syll attribute. The verse sub-element may be used to group text syllables by verse. The colored attribute may be used to indicate coloration. In the mensural repertoire, coloration is a temporary change in the underlying mensuration from perfect to imperfect. In the CMN repertoire, coloration is an inversion of the note head's normal rendition, that is, the notehead is void when it would otherwise be filled and vice versa. Do not confuse this with visual color.

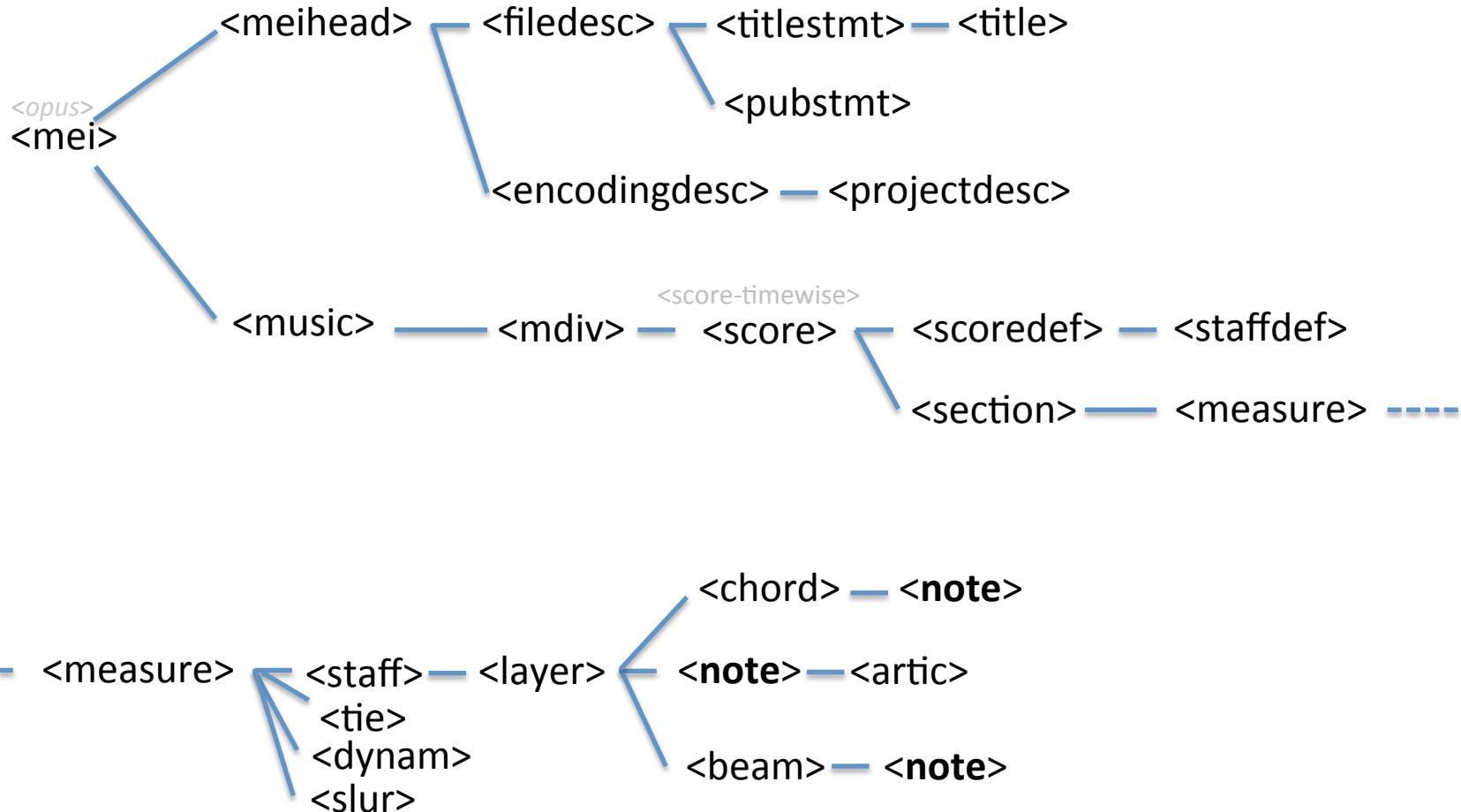
### May contain:

<accid>, <add>, <app>, <artic>, <barline>, <beam>, <beatrpt>, <bend>, <btrem>, <choice>, <chord>, <clefchange>, <corr>, <custos>, <damage>, <del>, <dot>, <ftrem>, <gap>, <gliss>, <halfmrpt>, <handshift>, <keysig>, <ligature>, <mensur>, <note>, <orig>, <pad>, <proport>, <reg>, <rest>, <restore>, <sic>, <space>, <subst>, <supplied>, <syl>, <tuplet>, <unclear>, <verse>

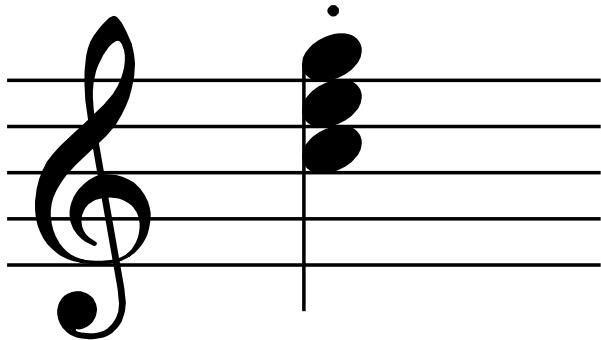
### May occur within:

<add>, <beam>, <bend>, <btrem>, <chord>, <corr>, <damage>, <del>, <ftrem>, <gliss>, <halfmrpt>, <ineume>, <layer>, <lem>, <ligature>, <mordent>, <note>, <orig>, <rdg>, <reg>, <restore>, <sic>, <supplied>, <syllable>, <trill>, <tuplet>, <turn>, <unclear>, <uneume>

# Basic MEI structure



# Chords



MEI

```
<chord xml:id="d11e1" dur="4" dur.ges="1" stem.dir="down">
  <artic value="stacc"/>
  <note xml:id="d1e85" pname="g" oct="5"/>
  <note xml:id="d1e102" pname="e" oct="5"/>
  <note xml:id="d1e118" pname="c" oct="5"/>
</chord>
```

MuseData

G5	1	1	q	d
E5	1	1	q	d
C5	1	1	q	d

.

MusicXML

```
<note default-x="84">
  <pitch>
    <step>C</step>
    <octave>5</octave>
  </pitch>
  <duration>2</duration>
  <voice>1</voice>
  <type>quarter</type>
  <stem default-y="-50.5">down</stem>
  <notations>
    <articulations>
      <staccato default-x="3" default-y="15" placement="above"/>
    </articulations>
  </notations>
</note>
<note default-x="84">
  <chord/>
  <pitch>
    <step>E</step>
    <octave>5</octave>
  </pitch>
  <duration>2</duration>
  <voice>1</voice>
  <type>quarter</type>
  <stem>down</stem>
</note>
<note default-x="84">
  <chord/>
  <pitch>
    <step>G</step>
    <octave>5</octave>
  </pitch>
  <duration>2</duration>
  <voice>1</voice>
  <type>quarter</type>
  <stem>down</stem>
</note>
```

# MEI data on the web

<http://jrp.ccarh.org>

- JRP: database of music from the early Renaissance (1425-1525)
- Data available in Humdrum (primary format), MIDI, MuseData, MusicXML and MEI.
- Primarily Josquin des Prez
- Currently 600,000 notes

Missa Da pacem  
1. Kyrie      Baudeweyn/Josquin?/Mouton  
NJE 3.2

Superius

Altus

Tenor

Bassus

Vocal ranges with diatonic note counts (mouse-over to see counts)

Superius      Altus      Tenor      Bassus

## Data formats:

PDF score  
 Score with ed. acc.  
 MIDI file

Humdrum file (plain)  
 MuseData file  
 NoteArray file

MusicXML file  
 MEI file



## WORK LIST

Go to: [Busnoys](#) | [Du Fay](#) | [Josquin](#) | [La Rue](#) | [Mouton](#) | [Obrecht](#) | [Ockeghem](#)  
| [de Orto](#)

No. Title (click title for more info.) Scores MIDI Voices  
**Josquin des Prez** (287 of 336 works)

### Masses (29)

1201	Missa Ad fugam			4
0701	Missa Allez regretz I			4
0301	Missa Ave maris stella			4
0304	Missa Cum iocunditate			4(-5)
0302	Missa Da pacem			4
0303	Missa De beata virgine			4-5

## SEARCH TOOLS

Pitch   
Interval   
Rhythm

Sort by    
Accidentals   
Composer   
Genre   
Mensuration

instructions

```
<measure n="1" xml:id="mx_sc_1">
  <staff n="1">
    <layer n="1">
      <rest xml:id="n_sc_29_3" dur="breve" dots="1"/>
    </layer>
  </staff>
  <staff n="2">
    <layer n="1">
      <note xml:id="n_sc_29_2" pname="g" oct="3" dur="breve"/>
    </layer>
  </staff>
  <staff n="3">
    <layer n="1">
      <rest xml:id="n_sc_29_1" dur="breve" dots="1"/>
    </layer>
  </staff>
  <staff n="4">
    <layer n="1">
      <rest xml:id="n_sc_29_0" dur="breve" dots="1"/>
    </layer>
  </staff>
</measure>
```

# MEI data on the web (2)

<http://kern.ccarh.org/browse?l=371chorales>



Four-part chorales collected after J.S. Bach's death by his son C.P.E. Bach (and finished by Kirnberger, J.S. Bach student, after C.P.E. Bach's death). Ordered by Breitkopf & Härtel numbers, and includes all chorales except #150 which is not 4-part. First complete edition by Breitkopf & Härtel from 1784-1787 in four volumes. [First incomplete edition consisting of 200 chorales in two volumes by Friedrich Wilhelm Birnstiel in 1765 & 1769 which was reprinted in 1975 by Georg Olms]. This digital edition is referenced against the fourth edition of the chorales by Breitkopf & Härtel, c. 1875:

371 vierstimmige Choralgesänge von Johann Sebastian Bach. 4th ed. by Alfred Dörrfel. Breitkopf & Härtel, Leipzig [c. 1875]. 178 pp. Plate Number: v. a. 10. Retypeset c. 1915 as Edition Breitkopf 10. Reprinted by Associated Music Publishers, Inc., New York [c. 1940].

Scans of the source edition can be viewed by clicking on the **S** button to the left of each chorale title. See [this chorale bibliography](#) at the Riemenschneider Bach Institute at Baldwin Wallace College for a good publication history of the Bach chorales. See also this article: [The History of the Breitkopf Collection of J.S. Bach's Four-Part Chorales](#) by Thomas Braatz. Click on the **Z** button below to download all Humdrum files in a single ZIP file.

**S** All chorales in grand-staff notation (177 pages) [7.8 MB]  
**S** All chorales in vocal-score notation (254 pages) [8.8 MB]  
**H M K** 1. Aus meines Herzens Grunde, BWV 269  
**H M K** 2. Ich dank dir, lieber Herre, BWV 347  
**H M K** 3. Ach Gott vom Himmel sich darein, BWV 153/1  
**H M K** 4. Es ist das Heil uns kommen her, BWV 86/6  
**H M K** 5. An Wasserflüssen Babylon, BWV 267  
**H M K** 6. Christus, der ist mein Leben, BWV 281

<http://kern.ccarh.org/data?file=chor001.krn&l=371chorales&format=info>



1. Aus meines Herzens Grunde, BWV 269

Location: [top>users>craig>classical>bach>371chorales](#)  
Humdrum file: chor001.krn [expanded repeats] [no repeats]

Composer: Bach, Johann Sebastian

Composer's dates: 21 Feb 1685 - 28 Jul 1750

Title: orig. lang.: Aus meines Herzens Grunde

German: From the Depths of My Heart

Data Format Translations: PDF Score: chor001.pdf

Standard MIDI File: chor001.mid [without repeats]

Director Musices: chor001.mus

Melisma Format: chor001.notes

MusicXML: chor001.xml

STK/SKIN: chor001.ski

Guido: chor001.gmn [notation via noteserver.org]

ABC+: chor001.abc [notation via abc2mps] [number every bar]

MuseData: chor001.md2 [notation via muse2ps]

SA Sonorities: chor001.dat

MEI: chor001.mei

<http://kern.ccarh.org/sdata?l=371chorales&file=chor001.krn&f=mei>

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<?oxygen SCHSchema="http://music-encoding.org/mei/schemata/2010-05/rng/mei-all.rng"?>
<?oxygen RNGSchema="http://music-encoding.org/mei/schemata/2010-05/rng/mei-all.rng"
  type="xml"?>
<mei xmlns:xlink="http://www.w3.org/1999/xlink" xmlns="http://www.music-encoding.org/ns/mei" meiversion="2010-05">
  <meihead>
    <filedesc>
      <titlestmt>
        <title type="main" xml:lang="ger">Aus meines Herzens Grunde</title>
        <title type="translated" xml:lang="eng">From the Depths of My Heart</title>
      </titlestmt>
      <pubstmt/>
    </filedesc>
    <profiledesc>
      <langusage>
        <language xml:id="eng" authority="iso639-2"/><!-- English -->
        <language xml:id="ger" authority="iso639-2"/><!-- German -->
      </langusage>
    </profiledesc>
  </meihead>
  <music>
    <body>
      <mdiv>
        <score>
          <scoredef key.sig="1s" key.pname="g" key.accid="n" key.mode="major" meter.count="3"
            meter.unit="4">
            <staffgrp>
              <staffdef n="1" clef.shape="G" clef.line="2"/>
              <staffdef n="2" clef.shape="G" clef.line="2"/>
              <staffdef n="3" clef.shape="G" clef.line="2" clef.trans="8vb"/>
              <staffdef n="4" clef.shape="F" clef.line="4"/>
            </staffgrp>
            <!-- <secrexpan repeat="true" label="default" ids="A A B"/> --
            <!-- <secrexpan repeat="false" label="norep" ids="A B"/> --
          </scoredef>
          <section xml:id="A">
            <measure xml:id="mx_sc_13">
              <staff n="1">
                <layer n="1">
                  <note xml:id="n_sc_19_3" pname="g" oct="4" dur="4"/>
                </layer>
              </staff>
              <staff n="2">
                <layer n="1">
                  <note xml:id="n_sc_19_2" pname="d" oct="4" dur="4"/>
                </layer>
              </staff>
              <staff n="3">
                <layer n="1">
                  <note xml:id="n_sc_19_1" pname="b" oct="3" dur="4"/>
                </layer>
              </staff>
            </measure>
          </section>
        </score>
      </mdiv>
    </body>
  </music>

```

# The Music Encoding Conference 2013

## Concepts, Methods, Editions

22-24 May, 2013

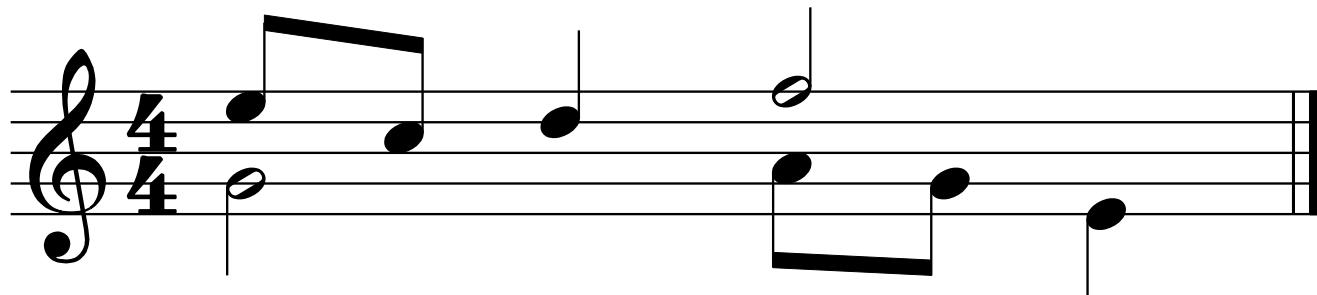
Mainz Academy for Literature and Sciences, Mainz, Germany

Music encoding is now a prominent feature of various areas in musicology and music librarianship. The encoding of symbolic music data provides a foundation for a wide range of scholarship, and over the last several years, has garnered a great deal of attention in the digital humanities. This conference intends to provide an overview of the current state of data modeling, generation, and use, and aims to introduce new perspectives on topics in the fields of traditional and computational musicology, music librarianship, and scholarly editing, as well as in the broader area of digital humanities.

- 30 Short MEI examples (pre MEI 2010-05 version):

[http://wiki.ccarh.org/mediawiki/images/c/cb/30\\_short\\_mei\\_encoding\\_examples.pdf](http://wiki.ccarh.org/mediawiki/images/c/cb/30_short_mei_encoding_examples.pdf)

# SCORE XML



8	1	0.000	0.0	0.0	100.000				
3	1	1.500							
18	1	8.999	0.0	4.0	4.000				
1	1	16.499	10.0	10.0	0.000	0.5	-1.5		
6	1	16.499	9.0	7.5	28.551	11.0			
1	1	16.499	5.0	20.0	1.000	2.0	-1.0		
1	1	28.551	8.0	10.0	0.000	0.5	-0.5		
1	1	40.454	9.0	10.0	0.000	1.0	-1.0		
1	1	58.087	11.0	10.0	1.000	2.0	-1.5		
1	1	58.087	6.0	20.0	0.000	0.5	-0.5		
6	1	58.087	6.5	6.0	70.138	21.0			
1	1	70.138	5.0	20.0	0.000	0.5	-1.0		
1	1	82.041	3.0	20.0	0.000	1.0	-1.5		
14	1	100.000	1.0	2.0					

```

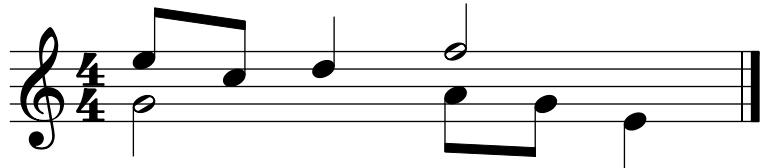
<ScoreXML version="1.0">
<scoreHead>
<info>
  <description>Pitch range information by voice</description>
</info>
</scoreHead>
<scoreData>
<page>
<pageData>
<scoreFile>
<fileHead>
  <name>0301a</name>
  <pmxExt>pmx</pmxExt>
</fileHead>
<fileItems>
  <item p1="8" p2="1" p3="0.000" p4="0.0" p5="0.0" p6="100.000"/>
  <item p1="3" p2="1" p3="1.500"/>
  <item p1="18" p2="1" p3="8.999" p4="0.0" p5="4.0" p6="4.000"/>
  <item p1="1" p2="1" p3="16.499" p4="10.0" p5="10.0" p6="0.000" p7="0.5" p8="-1.5"/>
  <item p1="6" p2="1" p3="16.499" p4="9.0" p5="7.5" p6="28.551" p7="11.0"/>
  <item p1="1" p2="1" p3="16.499" p4="5.0" p5="20.0" p6="1.000" p7="2.0" p8="-1.0"/>
  <item p1="1" p2="1" p3="28.551" p4="8.0" p5="10.0" p6="0.000" p7="0.5" p8="-0.5"/>
  <item p1="1" p2="1" p3="40.454" p4="9.0" p5="10.0" p6="0.000" p7="1.0" p8="-1.0"/>
  <item p1="1" p2="1" p3="58.087" p4="11.0" p5="10.0" p6="1.000" p7="2.0" p8="-1.5"/>
  <item p1="1" p2="1" p3="58.087" p4="6.0" p5="20.0" p6="0.000" p7="0.5" p8="-0.5"/>
  <item p1="6" p2="1" p3="58.087" p4="6.5" p5="6.0" p6="70.138" p7="21.0"/>
  <item p1="1" p2="1" p3="70.138" p4="5.0" p5="20.0" p6="0.000" p7="0.5" p8="-1.0"/>
  <item p1="1" p2="1" p3="82.041" p4="3.0" p5="20.0" p6="0.000" p7="1.0" p8="-1.5"/>
  <item p1="14" p2="1" p3="100.000" p4="1.0" p5="2.0"/>
</fileItems>
</scoreFile>
</pageData>
</page>
</scoreData>
</ScoreXML>

```

# ScoreXML

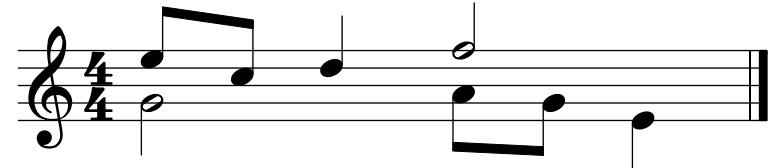


# ScoreXML



```
8 1      0.000  0.0  0.0 100.000
3 1      1.500
18 1     8.999  0.0  4.0   4.000
1 1.1    16.499 10.0 10.0  0.000  0.5 -1.5
@pitch: E5
6 1.1    16.499  9.0  7.5   28.551 11.0
1 1.2    16.499  5.0  20.0  1.000  2.0 -1.0
@pitch: G4
1 1.1    28.551  8.0  10.0  0.000  0.5 -0.5
@pitch: C5
1 1.1    40.454  9.0  10.0  0.000  1.0 -1.0
@pitch: D5
1 1.1    58.087 11.0 10.0  1.000  2.0 -1.5
@pitch: F5
1 1.2    58.087  6.0  20.0  0.000  0.5 -0.5
@pitch: A4
6 1.2    58.087  6.5  6.0   70.138 21.0
1 1.2    70.138  5.0  20.0  0.000  0.5 -1.0
@pitch: G4
1 1.2    82.041  3.0  20.0  0.000  1.0 -1.5
@pitch: E4
14 1    100.000 1.0  2.0
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# ScoreXML



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<item p1="3" p2="1" p3="1.500"/>
<item p1="18" p2="1" p3="8.999" p4="0.0" p5="4.0" p6="4.000"/>
<item p1="1" p2="1.1" p3="16.499" p4="10.0" p5="10.0" p6="0.000" p7="0.5" p8="-1.5">
  <pitch>E5</pitch>
</item>
<item p1="6" p2="1.1" p3="16.499" p4="9.0" p5="7.5" p6="28.551" p7="11.0"/>
<item p1="1" p2="1.2" p3="16.499" p4="5.0" p5="20.0" p6="1.000" p7="2.0" p8="-1.0">
  <pitch>G4</pitch>
</item>
<item p1="1" p2="1.1" p3="28.551" p4="8.0" p5="10.0" p6="0.000" p7="0.5" p8="-0.5">
  <pitch>C5</pitch>
</item>
<item p1="1" p2="1.1" p3="40.454" p4="9.0" p5="10.0" p6="0.000" p7="1.0" p8="-1.0">
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</item>
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</item>
<item p1="1" p2="1.2" p3="58.087" p4="6.0" p5="20.0" p6="0.000" p7="0.5" p8="-0.5">
  <pitch>A4</pitch>
</item>
<item p1="6" p2="1.2" p3="58.087" p4="6.5" p5="6.0" p6="70.138" p7="21.0"/>
<item p1="1" p2="1.2" p3="70.138" p4="5.0" p5="20.0" p6="0.000" p7="0.5" p8="-1.0">
  <pitch>G4</pitch>
</item>
<item p1="1" p2="1.2" p3="82.041" p4="3.0" p5="20.0" p6="0.000" p7="1.0" p8="-1.5">
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</item>
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# ScoreXML

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    <staff num="1">
      <measure num="1">
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        <item p1="3" p2="1" p3="1.500"/>
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            <pitch>E5</pitch>
            <beamstart xml:idref="beam1"/>
          </item>
          <item p1="1" p2="1.1" p3="28.551" p4="8.0" p5="10.0" p6="0.000" p7="0.5" p8="-0.5">
            <pitch>C5</pitch>
            <beamend xml:idref="beam1"/>
          </item>
          <item p1="1" p2="1.1" p3="40.454" p4="9.0" p5="10.0" p6="0.000" p7="1.0" p8="-1.0">
            <pitch>D5</pitch>
          </item>
          <item p1="1" p2="1.1" p3="58.087" p4="11.0" p5="10.0" p6="1.000" p7="2.0" p8="-1.5">
            <pitch>F5</pitch>
          </item>
        </layer>
        <layer num="2">
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          </item>
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          <item p1="1" p2="1.2" p3="58.087" p4="6.0" p5="20.0" p6="0.000" p7="0.5" p8="-0.5">
            <pitch>A4</pitch>
            <beamstart xml:idref="beam2"/>
          </item>
          <item p1="1" p2="1.2" p3="70.138" p4="5.0" p5="20.0" p6="0.000" p7="0.5" p8="-1.0">
            <pitch>G4</pitch>
            <beamend xml:idref="beam2"/>
          </item>
          <item p1="1" p2="1.2" p3="82.041" p4="3.0" p5="20.0" p6="0.000" p7="1.0" p8="-1.5">
            <pitch>E4</pitch>
          </item>
        </layer>
        <item p1="14" p2="1" p3="100.000" p4="1.0" p5="2.0"/>
      </measure>
    </staff>
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</page>
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