The GUIDO Music Notation Format

The GUIDO Music Notation Format

Group Members:
Ananda Jacobs, Aaron Yang,
Beran Pacaci, Carley Tanoue

The GUIDO Introduction

- first introduced in 1998 as a novel approach for adequately representing almost any kind of score-level music.
- named after Guido d'Arezzo (990-1050), a renowned music theorist of his time.
- realized as a plain-text, human-readable and platform independent format.
- based on a simple, yet powerful and easily extensible formalism.
- can be completely embedded within XML using GUIDOXML.

Representational adequacy:
“Simple things have simple representations.”

Related Work

- DARMS
- MIDI
- Common Music Notation
- SMDL
- NIFF
- Humdrum
- MuseData
Three Levels of GUIDO

- Basic GUIDO
- Advanced GUIDO
- Extended GUIDO

Basic GUIDO Notation

- Notes and Rests
  - Note names, Accidentals (sharp and flat), Octave, Duration.
- Note Sequences
  - represent single-voiced scores.
- Chords and Chord Sequences
- Note Segments
  - represent multi-voiced scores.
- Comments and Spacing
- Standard Tags
  - Dynamic Markings (crescendo & diminuendo section info)
  - Tempo Indications (accelerando & ritardando section info)
- Other tags: Instrument, Tie, Slurs, Accents and Expressive Markings, Trills and Ornaments, Tremolo, Ferratas, Grace Notes and Cue Notes, Repetitions, Clefs, Meter/Time Signatures, Key/Key Signatures, Octave Transpositions, Staves, Beams, Stems, Bar Lines and Tactus Strokes, Text, Title and Composer, Markers and Named Sections

Inputs ➔ Outputs

- Plugins
  - Sibelius
  - Finale
  - NoteAbility
- Conversion
  - MIDI
  - MuseData
  - Guido XML
- Manually
  - By Hand
  - Java Keyboard
- Image of the Score (GIF, EPS)
- MIDI

Heart and Soul
Heart and Soul in GUIDO

\{\texttempo \"Allegro\", \textmeter \"4/4\", \textinstrument \"Piano\" \\\
c2/4 c2/4 c2/2 _/8. c2/16 b1*3/16 a1/16 b1*3/16 c2/16 d2/4 e2/4 e2/4 e2/2 _/8. e2/16 d2*3/16 c2/16 d2*3/16 e2/16 f2/4 g2/2 c2/2 _/8. a2/16 g2*3/16 f2/16 e2/4 d2/4 c2*1 \}

Rose Clarinet Etude Example

\{\texttempo \"Allegro\", \textmeter \"4/4\", \textinstrument \"Piano\" \\\
c1/4 c1/8 a0/16 g0/4 e1/4 e1/8 a0/16 d1/4 d1/8 a0/16 c1/4 e1/4 e1/8 a0/16 g1/4 g1/8 a0/16 f1/4 f1/8 a0/16 d1/4 d1/8 c1/4 \}

Clarinet Example in GUIDO


My Favorite Things
The GUIDO Music Notation Format

Web Delivery of Music

- A paper called “Web Delivery of Music using the GUIDO NoteServer” was introduced on the WEDELMUSIC’01.

The GUIDO Music Notation Format

### Advanced GUIDO
- Advanced Musical Concepts
  - Glissandos, Arpeggios, Note clusters, other types of noteheads and staves
- Exact positioning and sizing of notational and arbitrary graphic elements
- More articulation marks, barline types and symbols

### Intended Application Areas
- Notation Software
- Compositional and Analytical Systems/Tools
- Large Musical Databases
- Performance Systems
- Music on the World Wide Web

### Extended GUIDO (Future Work)
- Generic pitch classes and tone descriptions
- Microtonal tuning systems
- Exact timing
- Abstract and hierarchical scores
- Generalized events
- User-defined tags and events
- Specialized extensions

### GUIDO on the Net
- [http://www.informatik.tu-darmstadt.de/AFS/GUIDO/](http://www.informatik.tu-darmstadt.de/AFS/GUIDO/)
- [http://www.salieri.org/guido](http://www.salieri.org/guido)
- [http://www.noteserver.org](http://www.noteserver.org)