

TabEditor

An editor for lute tablature

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Outline

- ECOLM
- *TabCode*
- TabEditor
- Implementation
- Use
- Future Work
- Demo

ECOLM

Electronic Corpus of Lute Music.

- full-text encodings of lute-music sources
- encodings (full-text where possible) of other relevant sources (*e.g.* transcriptions)
- images from manuscripts and engravings
- bibliographic information

ECOLM: Technical resources

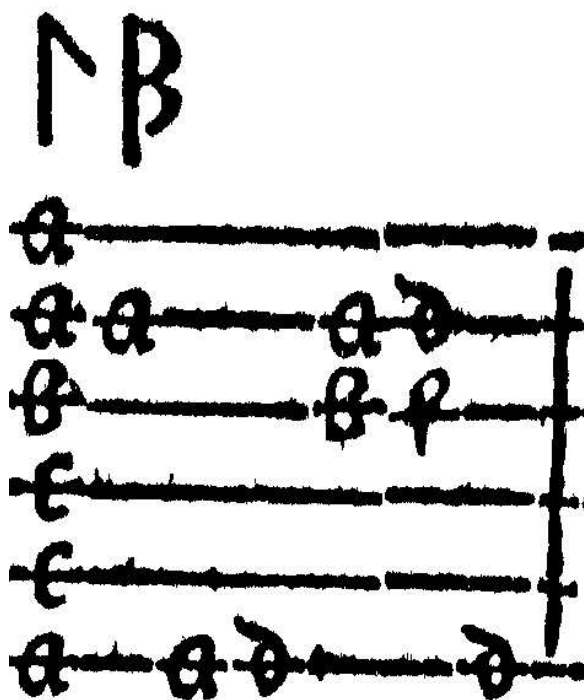
- bibliographic search
- search for musical material
- online editing
- printing of material
- online audio delivery

TabCode

Textual markup language for lute music

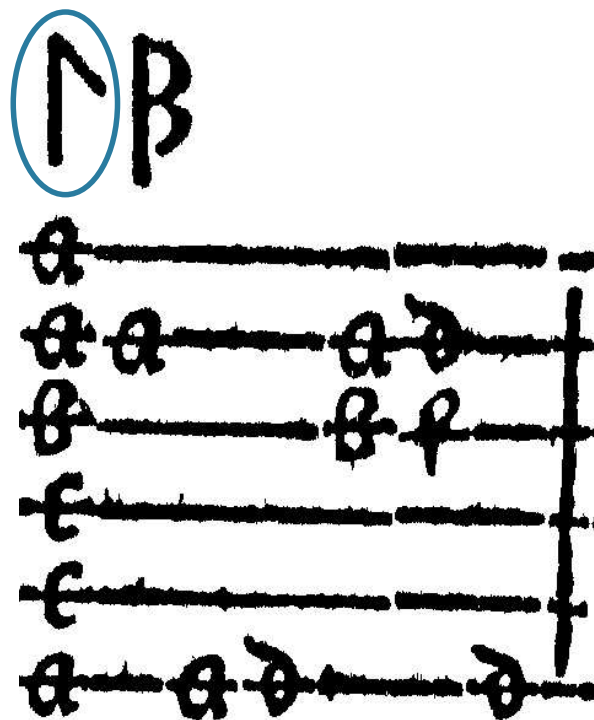
- encoding format for ECOLM (rich enough for ornamentation, performance marks, *etc.*)
- preprocessor stage in production of performing editions (*e.g.* of Silvius Leopold Weiss)
- extensible for provision of additional markup (*e.g.* text-critical, performance directives)

TabCode example



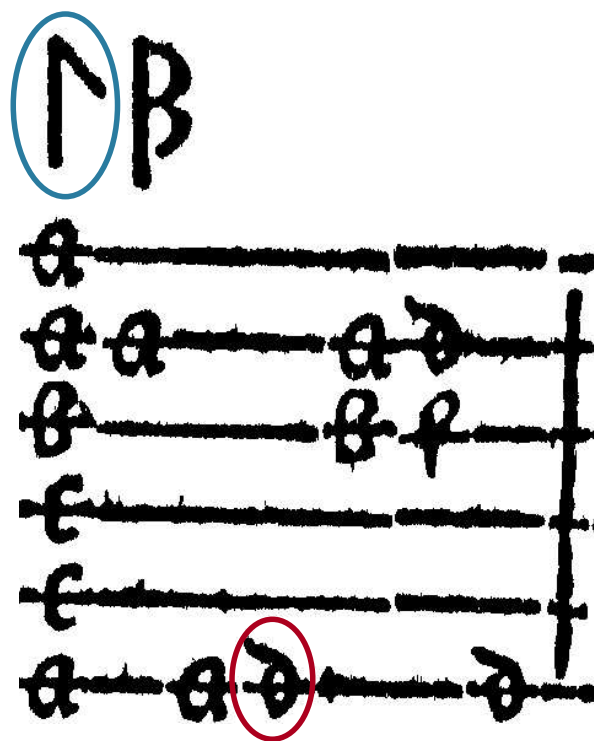
Qa1a2b3c4c5a6
Ea2
a6
d6
a2b3
d2f3
d6
|

TabCode example



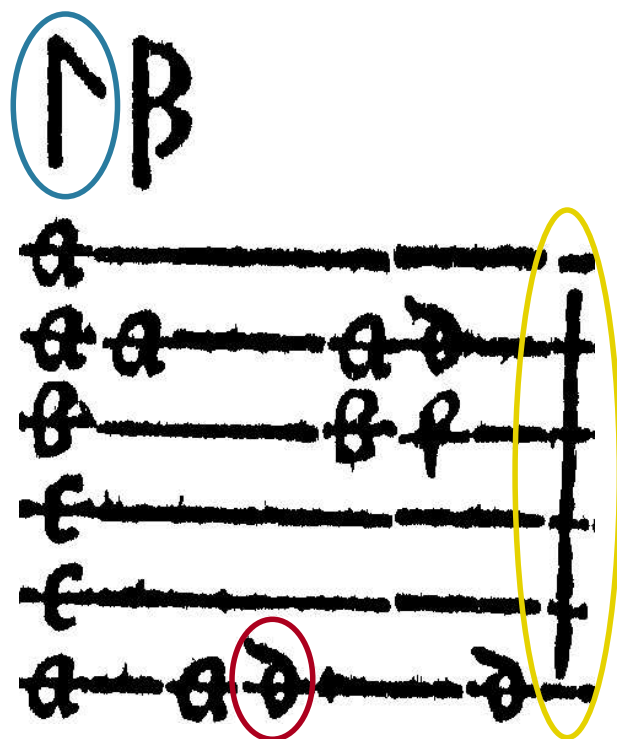
Qa1a2b3c4c5a6
Ea2
a6
d6
a2b3
d2f3
d6
|

TabCode example



Qa1a2b3c4c5a6
Ea2
a6
d6
a2b3
d2f3
d6
|

TabCode example



Qa1a2b3c4c5a6
Ea2
a6
d6
a2b3
d2f3
d6
|

TabEditor

Text editor with *TabCode*-friendly features

- incremental visual feedback
- audio feedback on-demand
- mouse-sensitive display elements
- WYSIWYG printing
- primacy of textual representation
- Emacs-like extensibility (functions, keyboard macros)

Implementation

- **Common Lisp:** standardized language with mature implementations;
- **CLIM:** user interface toolkit with high-level concepts;
- **Climacs:** object-oriented text editor with incremental parsing framework.

Implementation: Common Lisp

- Incremental development
- Extensible, multiparadigm language
- Run time exception handling
- Steel Bank Common Lisp:
 - ◆ natively-compiled
 - ◆ cross-platform
 - ◆ Free
 - ◆ <http://www.sbcl.org/>

Implementation: CLIM

- Industry-standard UI toolkit (CLIM 2: 1992)
- Backend-neutral (McCLIM supports X Window System, OpenGL and Aqua)
- Presentations (object-oriented GUI) and Commands (verb-oriented)
- Incremental Redisplay (intelligent redrawing)
- <http://common-lisp.net/project/mcclim/>

Implementation: Climacs

- Text editor (similar to Emacs)
- Defined protocols for buffer update
- Frameworks for incremental and resynchronising parsing of buffer contents
- Reusable buffer abstraction for hierarchical parsing
- `http://common-lisp.net/project/climacs/`

Use

- Manuscript encoding
- Web application:
<http://www.doc.gold.ac.uk/isms/ecolm/>
- Draft-quality printing support
- Plan for text-critical User Interface support

Future Work

- Full support for *TabCode* (beaming, connecting lines, other hierarchical structures)
- Edition-quality printing support (proportional spacing, scope for manual adjustments)
- Transcription to Common Music Notation (pitch spelling, voicing)
- Support for other tablature entry formats (abctab, `**fret`, TabXML)?
- Support for other forms of musical notation

Demo

Intelligent
Sound &
Music
Systems

Centre for
Cognition,
Computation &
Culture

Questions?

Intelligent
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