Cultivating MEI

Recent and Future Developments

Proposal

Around the release of the latest MEI 4 schema, many different tools and improvements have been developed. Together, these components combine nicely to a whole new MEI experience, for beginners of music encoding in general, advanced MEI users, and people from other communities. To introduce some of these improvements and to illustrate their benefit for the Music Encoding Community, we propose a 60 minutes panel which gives the opportunity for short presentations (about 10 to 15 minutes per topic) and, more important, time for discussion and exchange with the audience/community (at least 15 minutes). During the panel, we want to cover the following topics:

- Learning and teaching MEI: A New Approach for Tutorials
- Customizing MEI: The *ODD Configuration Tool*
- Comparing Schemata: The *ODD Comparison Tool*
- Tools for MEI: The *MEI Garage*

The sections below will explain these topics and their relevance to the MEI community and Music Encoding Conference in some more detail:

Learning and Teaching MEI: A new Approach for Tutorials

(Margrethe Bue and Stefan Münnich, ~15 min)

With the transition of the MEI website to GitHub pages in fall 2017, the existing MEI1st tutorials were taken down for several reasons. First, it had been already migrated from an even older version of the MEI website, which resulted in a hardly maintainable codebase. Second, these tutorials could only be made available via a static website. This did not allow any ‘hands-on’ interaction for the users. Third, the contents of these tutorials hadn’t been updated for a while, so that they partly contradicted the specs of MEI 3.0.0 at that time. Since this caused some confusion especially among first-time users of MEI, it was clear that these tutorials required more work than just a simple ‘copy and paste’ into the new website. Therefore, at various occasions a new concept for MEI Tutorials was developed from within the MEI community.

Features of the new approach include:

- browser-based live interaction (‘hands-on’ ready to use, no installations required)
- separation of programmatic & visual logic (JS, HTML, CSS) from tutorial contents (learning steps, MEI files)
- free configurable and editable tutorial environment

- client-side user input validation (using XPath expressions; additional validation against MEI schema via RelaxNG is planned)
- supporting hints to guide users through the tutorial steps according to their input

This new architecture for tutorials and best practice recommendations is aimed to lower the hurdles of getting started with MEI encodings and to empower users to teach and learn MEI right away in their browsers without any pre-installation processes needed in advance. An instant, world-wide accessibility of training materials will greatly support the various existing training events and classes and facilitate the dissemination of scholarly as well as community-based education regarding music encodings. Presenting this new tutorial approach to and discussing it with the community during the proposed panel, we hope to encourage contributions from other community members, so that there could be a plentitude of different materials, covering various levels of expertise and experience. Ideally, this also includes an adaption of the former MEI1st tutorials to the new system.

Customizing MEI: The *ODD Configuration Tool*

(Johannes Kepper, ~10 min)

An important aspect of MEI Basic is that it's a strict subset of "MEI all", so that it fully complies with the rules of the framework. In order to implement the restrictions discussed for MEI Basic, a dedicated tool has been developed that helps to consider the ODD structures which underlie MEI. As it is generally recommended to restrict MEI for project-specific needs as much as possible, this tool turned to be helpful beyond the context of MEI Basic. Compared to TEI's *Roma* web service[1], it has a much narrower focus, allowing only restrictions to the MEI Schema. However, by definition this ensures full compatibility to MEI, and requires a much simpler process and less understanding of ODD than *Roma*. Therefore, the *ODD Configuration Tool* is not intended as a general replacement for or competitor to *Roma*, but as alternative for just one common use case.

[1] TEI Roma is a tool that allows to build custom versions of the TEI Schema. It is available from http://roma.tei-c.org/.

Comparing Schemata: The *ODD Comparison Tool*

(Johannes Kepper, ~10 min)

When the MEI 4 schema was finished, it was interesting to compare it with MEI 3 to see the actual changes. In order to get a complete overview, a simple tool was built which allows to compare two ODD schemas. It examines elements, model and attribute classes, data types and macro groups and identifies differences. The results are offered as a simple website, which lists unchanged, modified, added and removed objects. That way, it becomes easily traceable how two differents versions of MEI compare. And as with the *MEI Configurator*, it turned out that this tool might actually be helpful for other purposes beyond its initial scope. When projects have used the *MEI Configurator* to build their own custom version of MEI, they may use the *ODD Comparison Tool* to double-check how that customization differs from the official release they've started from, or how it compares to another project's ODD customization. So with the *ODD Comparison Tool*, it becomes easier to properly operate with ODD.

Tools for MEI: The *MEI Garage*

(Daniel Röwenstrunk, ~15 min)

For the TEI community, the so-called OxGarage provides a very helpful service that allows to convert between different file formats. For music, no similar service has been available so far. The *MEI Garage* technically builds on the original OxGarage, but extends its scope considerably. It does not only transform between different music encoding formats and into various renditions, but also offers validation of file instances against relevant schemata, and the adjustment and configuration of such instances. This allows conversion between different encoding styles, i.e. switching from an attribute-based encoding of ties (@tie) to elements (<tie>) and similar things. It is also considered to integrate the existing customization service[2] into the *MEI Garage*. Internally, it utilizes and combines existing XSLT transformations which means that additional transformations from the community can be easily integrated. All services of the *MEI Garage* will be made available as REST interface as well as through a website.

General panel setup

We do not claim sole responsibility or credit for the improvements mentioned above. In fact, a large number of community members have participated in this great work, and so we consider ourselves only as communicators for a much larger group. The panel setup should reflect this situation and therefore mainly focus on a broad exchange with the community about these new developments. It is planned to provide only short presentations on the above topics to give enough time for the community's questions, feedback and contributions. A portable microphone should be at hand to circulate through the audience.

[2] The current service is available from http://custom.music-encoding.org.

Short biographies of the invited communicators

Margrethe Støkken Bue has a master's degree in musicology from the University of Oslo, and specialised in critical sheet music editing, music philology and Norwegian music history. Bue works at the National Library of Norway, where her work includes registering musical manuscripts, reviewing digital solutions for notated music, and editing digital encoded publishing of music related sources. She is also responsible for RISM and RILM in Norway.

Johannes Kepper holds degrees in musicology and media sciences. He worked with and for MEI for more than a decade. Currently, he's employed at the Beethovens Werkstatt project, which seeks to explore the potential of Genetic Editions with MEI.

Stefan Münnich studied musicology and communication science at the Technische Universität Berlin, MA 2011 with a thesis on cantional setting in Heinrich Schütz's *Becker-Psalter*. 2012 research assistant, 2013–2015 research associate of the *Felix Mendelssohn Bartholdy. Sämtliche Briefe* edition at University of Leipzig. Since October 2015 he is PhD student at the department of musicology at Basel University and research associate of the Anton Webern Gesamtausgabe.

Daniel Röwenstrunk holds a degree in business informatics. He's been an active member of the MEI Community since more than ten years, using MEI in various research projects like *Edirom* or *Freischütz Digital*. He works as Managing Director of the *Zentrum Musik – Edition – Medien* (ZenMEM) at Detmold / Paderborn, which is one of the most active centers working on MEI.