## Verovio Humdrum Viewer and its applications

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Organization(s): 1: Stanford University; 2: The Fryderyk Chopin Institute; 3: Packard Humanities Institute

Our proposed tutorial will span a half-day, and we can be available during the conference and on the unconference day for follow-up tutoring/discussion with tutorial participants. An ideal setup for the tutorial, in order of importance, will be a data projector (required), an internet connection (highly preferred), and audio speakers (preferred but optional). We would estimate about 20 participants, but this will be dependent on the number of people attending the conference/workshops and how many other tutorials are going on in parallel.

The primary goal of the tutorial is to instruct participants on how to use <u>Verovio Humdrum Viewer</u> (VHV) efficiently for musical document preparation. In particular, we will cover its use in the workflow of projects being done at <u>The Fryderyk Chopin Institute</u> in Warsaw, Poland, as well as its use in the <u>Josquin Research Project</u> and the <u>Tasso in Music Project</u>.

About half of the tutorial will be spent on a semi-interactive introduction to VHV, which is an online musical data editor focused on the Humdrum data format, but also has a secondary focus on MEI data due to its integration with the <u>Verovio toolkit</u>. Topics for this portion of the tutorial include:

- (1) How to load musical data (including conversions from MusicXML and MEI formats).
- (2) How to save data (in Humdrum and MEI formats).
- (3) Graphical editing of music notation versus textual editing of the Humdrum or MEI data.
- (4) Introduction to Humdrum syntax (http://doc.verovio.humdrum.org/humdrum/getting\_started).
- (5) Introduction to data processing filters for Humdrum data built into Verovio (such as <u>transposition</u>, <u>measure/part</u> extraction, and <u>some analysis tools</u> (<a href="http://doc.verovio.humdrum.org/filters/index.html">http://doc.verovio.humdrum.org/filters/index.html</a>).

In addition, easy-to-use tools for displaying music notation on web pages from data prepared with VHV will be presented, such as the Humdrum notation plugin (<a href="https://plugin.humdrum.org">https://plugin.humdrum.org</a>) and a tag extension for closed-editing wikis (<a href="https://wiki.ccarh.org/wiki/Humdrum\_wiki\_extension">https://wiki.ccarh.org/wiki/Humdrum\_wiki\_extension</a>).

The second half of the tutorial will cover how to use VHV as part of a workflow in projects, or document preparation in general. We will highlight in particular how it is used at The Fryderyk Chopin Institute to prepare scores for two European Union funded projects: one to encode digital scores based on early published prints of Chopin's music (2017-2019), and another project titled "Polish Music Heritage in Open Access" (2019-2021), that will focus on digital encodings of Polish music from the sixteenth through nineteenth centuries. For this portion of the tutorial, we will cover:

- (1) Data entry of music, either through optical-music recognition or a graphical music editor such as MuseScore (depending on the type/quality of the source material).
- (2) Conversion of data into Humdrum with VHV or command-line batch processing.
- (3) Collaborative editing and editorial workflow.
- (4) Integration with Github/Bitbucket.
- (5) Existing and future web interfaces for display the notation. The digital Chopin scores should start to become publicly available online by the time of the Music Encoding Conference, or otherwise, tutorial participants will get a sneak preview).