BSB Bayerische
StaatsBibliothek
Information in erster Linie

musiconn.scoresearch

A Content-Based Search Application for Digitized
Music Prints based on OMR

Jürgen Diet, Music Department of the Bavarian State Library
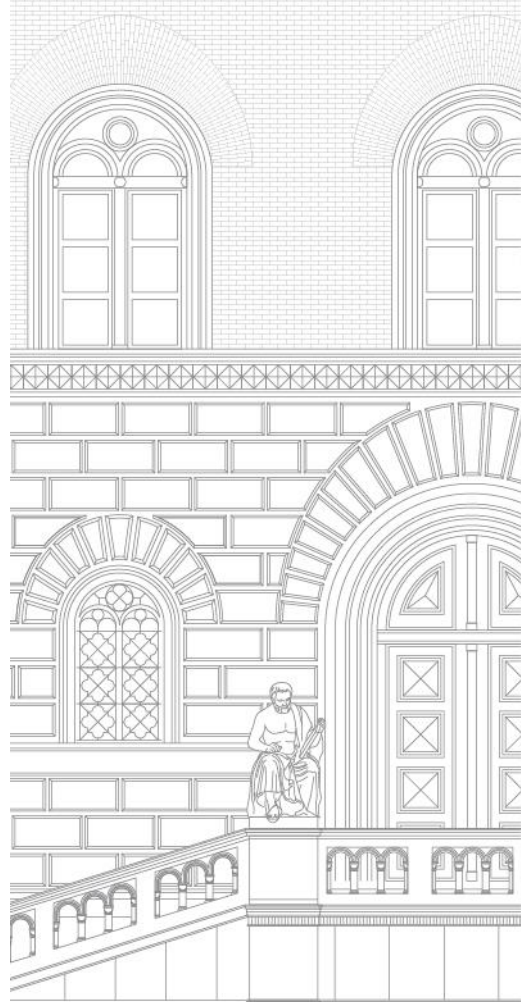
Agenda

1. Project setting

2. Test of OMR software

3. Generating OMR data for a subset of BSB's digitized sheet music

4. A prototypical application for searching in the OMR data

5. Live demonstration

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www.bsb-muenchen.de

1. Project setting

Project name: Fachinformationsdienst Musikwissenschaft (Specialised Information Service Musicology), musiconn

Project sponsor: Deutsche Forschungsgemeinschaft (German Research Foundation)

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Project partners:

- Bavarian State Library

- Saxon State and University Library Dresden

Project phases:

- First funding phase: 2014 – 2016

- Second funding phase: 2017 - 2019

Work packages of musiconn-project:

- Acquisition of sheet music, music books, and music journals (in print and electronic format)

- Publication server for open access publications (musiconn.publish)

- New web database for the data of RIdIM Germany

- RISM:

  - improved integration of music prints in RISM

  - further development of RISM-OPAC

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Work packages of musiconn-project (cont.):

- Search tool for music performance ephemera

- Long-time archiving of musicological websites (see my talk at IAML2018 in Leipzig)

- Optical music recognition (musiconn.scoresearch)

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musiconn advisory boards:

- National advisory board with 14 members from the German musicology and music library community, see https://www.vifamusik.de/en/about-us/

- International advisory board:

  - David Day, Brigham Young University

  - Rupert Ridgewell, British Library

  - Darwin Scott, Princeton University

2. Test of OMR software

The following OMR programs have been tested:

- Audiveris 4.3

- Audiveris 5.0 (github version on April 4, 2017)

- Capella Scan 8.0-22

- SharpEye 2.68

- SmartScore X2 Professional Edition 10.5.8

3. Generating OMR data for a subset of the BSB's digitized sheet music

Complete editions of:

- Ludwig van Beethoven's works (Breitkopf&Härtel, 1862 – 1865)

- Georg Friedrich Händel's works (ed. 1858 – 1902 by Friedrich Chrysander)

- Felix Mendelssohn Bartholdy's works (ed. 1874 – 1877 by Julius Rietz)

- Franz Liszt's works (ed. 1907 – 1936 by Carl Alexander)

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Complete editions of: (cont.)
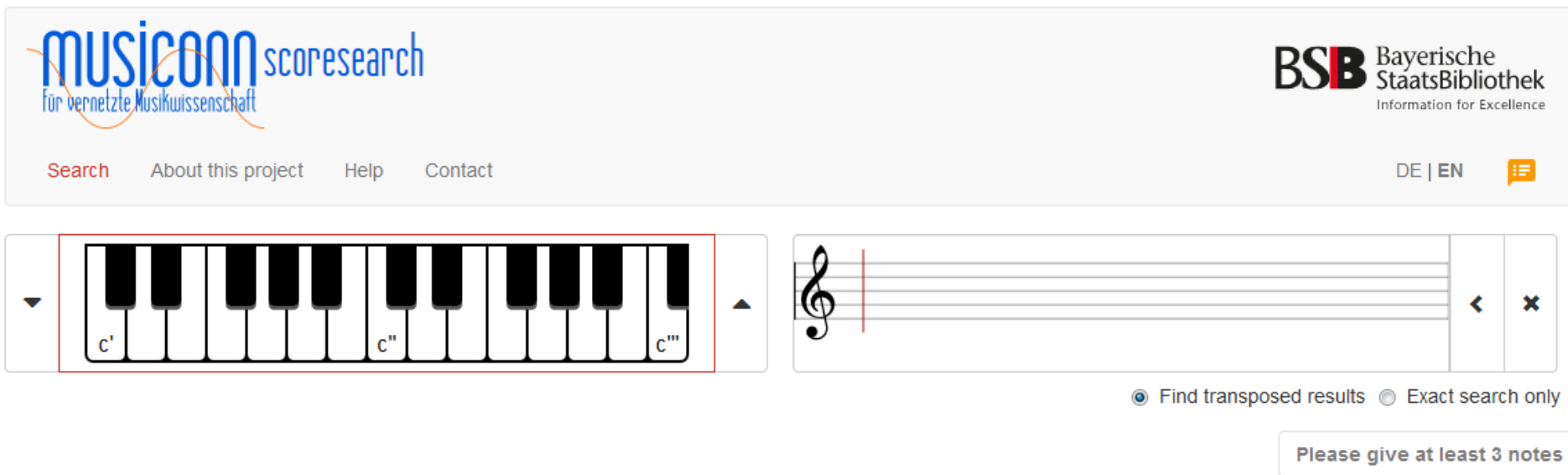
- Franz Liszt's works (ed. 1907 – 1936 by Carl Alexander)

- Franz Schubert's works (Breitkopf&Härtel, 1884 – 1897)

- Robert Schumann's works (ed. 1879 – 1893 by Clara Schumann)

- Denkmäler Deutscher Tonkunst (monuments of German musical art), 1st series (1892 – 1931) and 2nd series (1900 – 1931)

- Ca. 70.000 pages of sheet music

- No manual correction of the OMR data

- Removing polyphony to reduce the complexity of index and search process

Fig. 1. Sample OMR output from Händel's "Der Messias: Oratorium"

4. A prototypical application for searching in the OMR data

URL: https://scoresearch.musiconn.de

5. Live demonstration

URL: https://scoresearch.musiconn.de

Thank you for your attention!

The slides of this presentation are available at
https://de.slideshare.net/jdiet

Reference:

Jürgen Diet: "Innovative MIR Applications at the Bayerische Staatsbibliothek"
conference on "Digital Libraries of Musicology", Paris, 28.9.2018
https://dlfm.web.ox.ac.uk/sites/default/files/dlfm/documents/media/diet-innovative-mir-bsb.pdf