The Open Multitrack Testbed

Brecht De Man, Mariano Mora-Mcginity, György Fazekas and Joshua D. Reiss

School of Electronic Engineering and Computer Science
Queen Mary University of London

b.deman@qmul.ac.uk
c4dm.eecs.qmul.ac.uk

multitrack.eecs.qmul.ac.uk

1 Introduction

- We launch an online repository of multitrack audio and mixes
- Need for large and diverse multitrack data from researchers, developers, students, educators and creative professionals
- Focus on rich metadata connected to songs, tracks and mixes

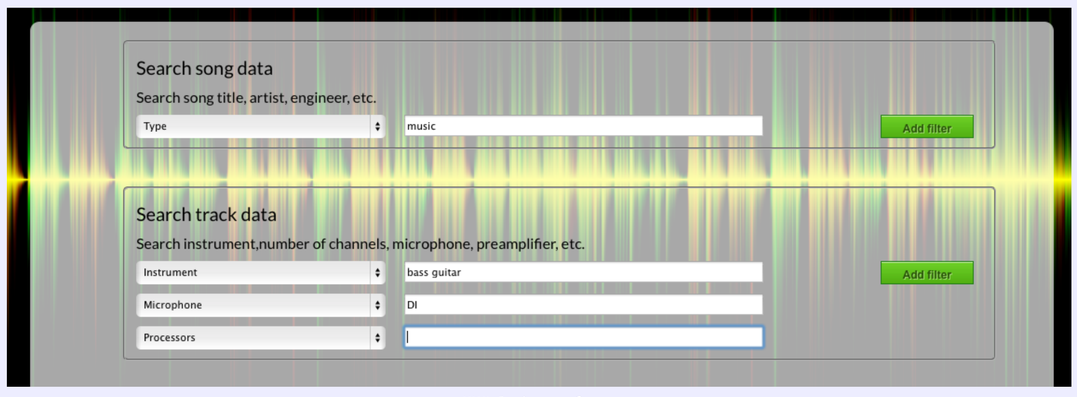
2 Content

- Every song folder can contain
  - raw tracks (one or more takes)
  - stems
  - mixes
  - DAW files
- Public domain audio or (cc) (Creative Commons) licenses enable sharing and adapting
- Extensive metadata to browse, filter and search

Example content

Song: Lead Me by The DoneFors

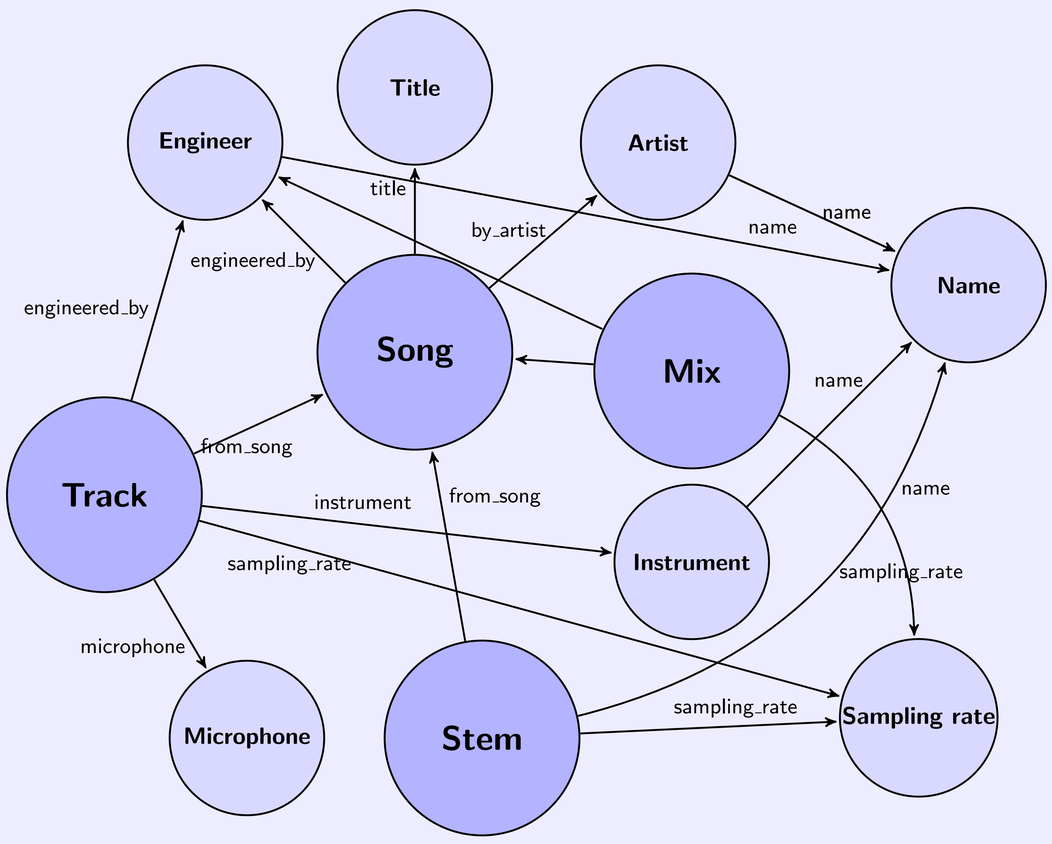
- **Mixes:** (10 mixes)
  - **Mix 1:** by George Massenburg
    - Engineer: *George Massenburg*
    - DAW: *Pro Tools*
    - DAW version number: *10*
    - DAW file: *LeadMe_GM.ptx*
    - Audio file: *LeadMe_GM.wav*
    - ...
  - ...
- **Raw tracks:** (25 tracks)
  - Ac Guit DI.wav
    - Instrument: *Acoustic guitar*
    - Microphone: *DI*
    - Number of channels: *1*
    - Sampling rate: *96 kHz*
    - ...
  - ...
- **Stems:** (0 stems)



Web interface

3 Infrastructure

- Triplestore semantic database (*subject-predicate-object* structured triples)
- SPARQL endpoint to query and insert data through HTTP requests
- REST web service receiving JSON objects and parses to RDF format
- Interface to insert data (authorised users) and search for data (unrestricted)



Example of linked data network (reduced set of features) with class elements (larger nodes), other elements (smaller nodes) and connections through properties (edge labels)

4 Call for contributions

b.deman@qmul.ac.uk

- Dataset relies on contributions from the community: educators, students, hobbyists and professionals
- Mixing experiments to provide several mixes of the same content
- Welcoming feedback, research ideas and community-based evaluation of algorithms

5 Acknowledgements

EPSRC Engineering and Physical Sciences Research Council

soundsoftware.ac.uk Sustainable Software for Audio and Music Research

Supported in part by EPSRC Grant EP/K007491/1: "Multisource audio-visual production from user-generated content"

See also: recent multitrack audio dataset with melody annotation: R. Bittner, J. Salamon, M. Tierney, M. Mauch, C. Cannam and J. Bello, "**MedleyDB**: a multitrack dataset for annotation-intensive MIR research," to appear in *15th International Society for Music Information Retrieval Conference (ISMIR 2014)*, October 2014.

AUDIO ES

Convention e-Brief 165, presented at the 137th Convention of the Audio Engineering Society, 2014 October 9-12 in Los Angeles, USA