M-DJCUE: A Manually Annotated Dataset of Cue Points

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Motivation

- The identification of cue points in a track is an important step in the creation of a DJ-mix.
- A convincing approach to evaluate cue points estimation algorithms is still largely missing. Current evaluations are time consuming, incomplete, or not publicly available.
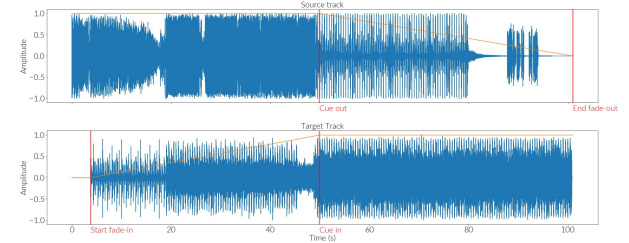

Dataset

- We curated a dataset that currently contains annotations for **134** tracks of Electronic Dance Music (EDM), selected from a period of 30 years (1987–2016) and a variety of musical subgenres; ±60% of the tracks comes from the digitalization of vinyls.
- Each track is annotated by **three persons** from a total of five different annotators.
  - Annotations are encoded in JAMS format.

www.github.com/MZehren/M-DJCUE

Mitigating subjectivity
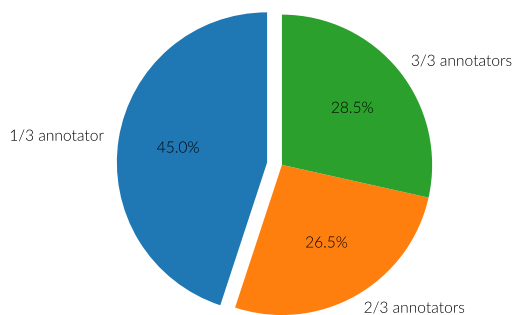
One can filter out the annotations with low agreement (blue slice) by removing all the positions not annotated by multiple annotators.
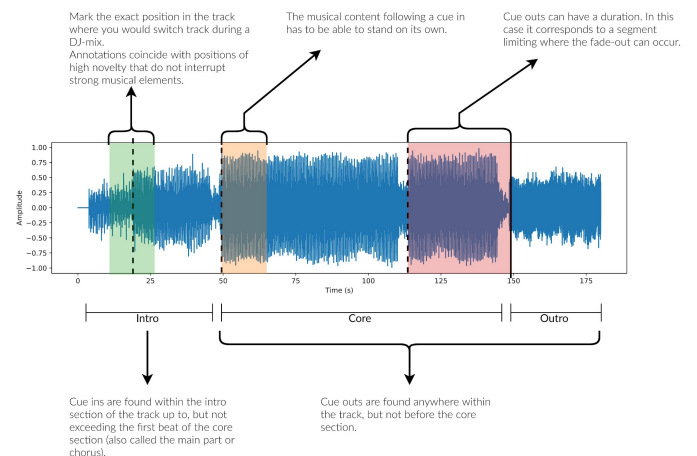

Annotators were given a list of guidelines to follow in order to ensure that the same type of positions are annotated.

Evaluation

We conducted a comparison of algorithms available to detect **cue in** locations using the **Hit Rate** with a **0.5s** tolerance. Since the annotations for cue ins are only up to the core section of the tracks, we removed all the estimations exceeding this position to make the precision score meaningful.

- **MSAF**: Best performing approach from github.com/urinieto/msaf; using parameters `algorithm="olda", feature=None`. The structure boundaries are used as a proxy for cue in positions.
- **All periods**: heuristic approach using all musical periods detected by our algorithm as cue points.
- **Mixed in Key**: commercial product doing cue point identification.
- **Our approach**: our own algorithm (coming out soon).
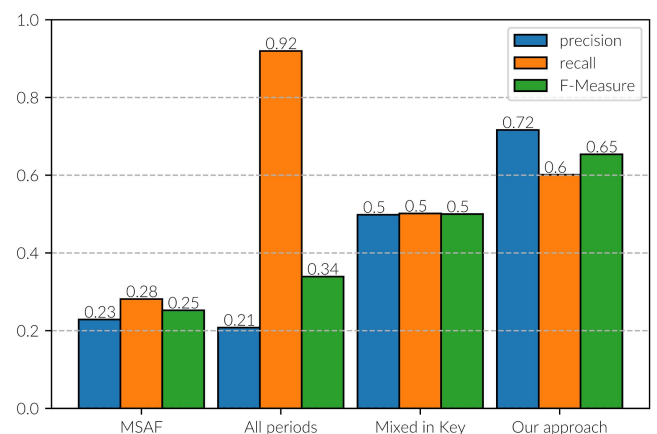
We believe that this dataset makes it possible to evaluate the quality of cue points estimation algorithms in an objective, fast, and easy manner.