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 download: <http://tarsos.0110.be>



What?

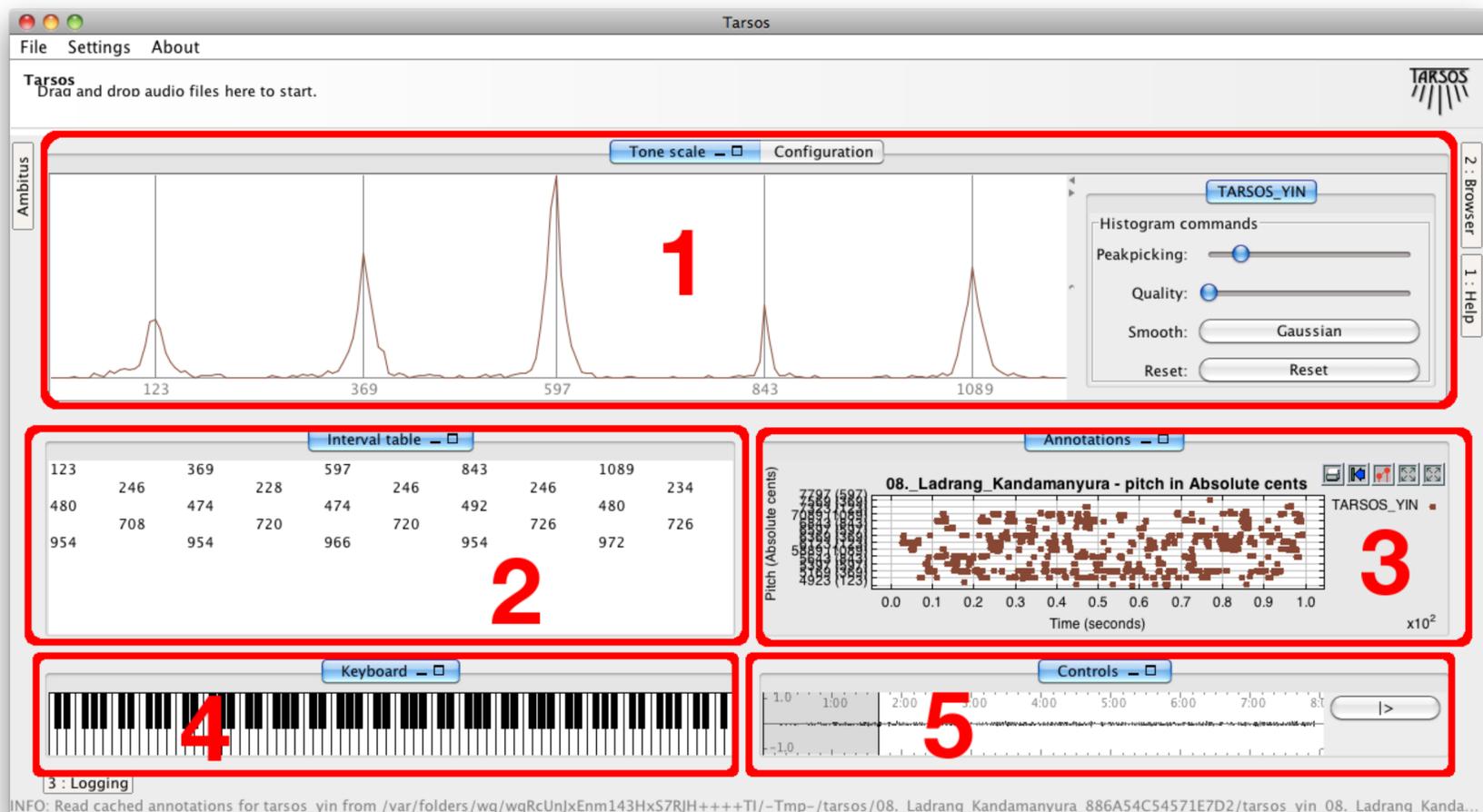
- Tarsos extracts and analyzes pitch organization
- ideal to analyse ethnic music.
- more than the typical Western 12 pitch classes
- musically meaningful representations

Why?

- musical analysis
- ethnomusicological research
- educational purpose
- artistic production

How?

- modular software platform
- automated analysis of large audio sets
- manually adjustable analysis
- several output options

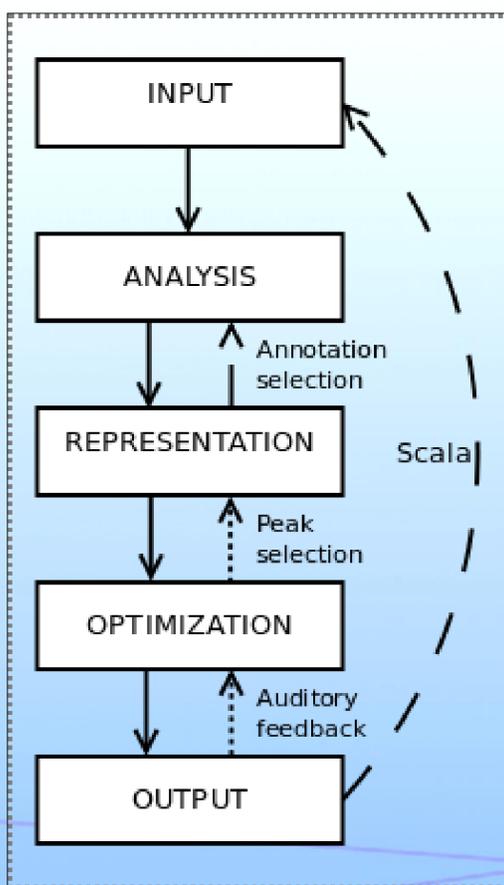


Screenshot TARSOS

- 1) pitch class histogram : clusters all annotations into one octave (1200 cents)
- 2) pitch class interval table : peak picked pitch classes and their interval size
- 3) piano roll like view on annotations : allows selection in frequency domain
- 4) MIDI keyboard : allows playing along the assigned scale (auditory feedback)
- 5) Waveform : allows selection in time domain

Design : background, flow and method

Input : any audio format, scala files
 Analysis : any external pitch annotator YIN, MPM, MAMI... (thanks to modular design)
 Representation : piano-roll : all annotations over time
 pitch histogram: clustered annotations reduced into one octave
 pitch class histogram: clustered annotations (tessitura)
 pitch interval matrix: pitch classes assigned by peak selection
 Optimization : manual adjustable pitch classes
 Output : data : comma separated text files, scala file
 graphical : any of the visualizations
 audio : graphs and table are sonified (listen by clicking)
 MIDI messages to tune MIDI synth for
 manual optimization
 artistic experiment
 performance in non-traditional scales



Future work, short term:

- perform pattern recognition and cluster analysis
- add geographical and chronological data to audio set
- add possibilities for real time analysis
- explore artistic potential

Future work, long term:

- correlation features
- analysis of other musical parameters
- combine pitched, rhythmical, temporal and timbral features