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The Gamelan project :
tracking provenance to ensure
interoperability with the future

Aims and goals

- Long term preservation of music
- Focusing on « provenance » (part of Preservation Description Information, conforming to OAIS)

Partners and dates



- Roles :
- EMI, INA, Ircam : Uses
- UTC : Knowledge engineering
- Ina, Ircam : software development
- Ircam : coordination
- 4-years project
- Start : November 2009, End : October 2013

Music production

- A complex process :
 - Long duration
 - Several actors (musicians, composer, audio engineers, artistic direction, production staff)
 - Several tools and environments
 - Several stages and steps (sessions...)

Constraints

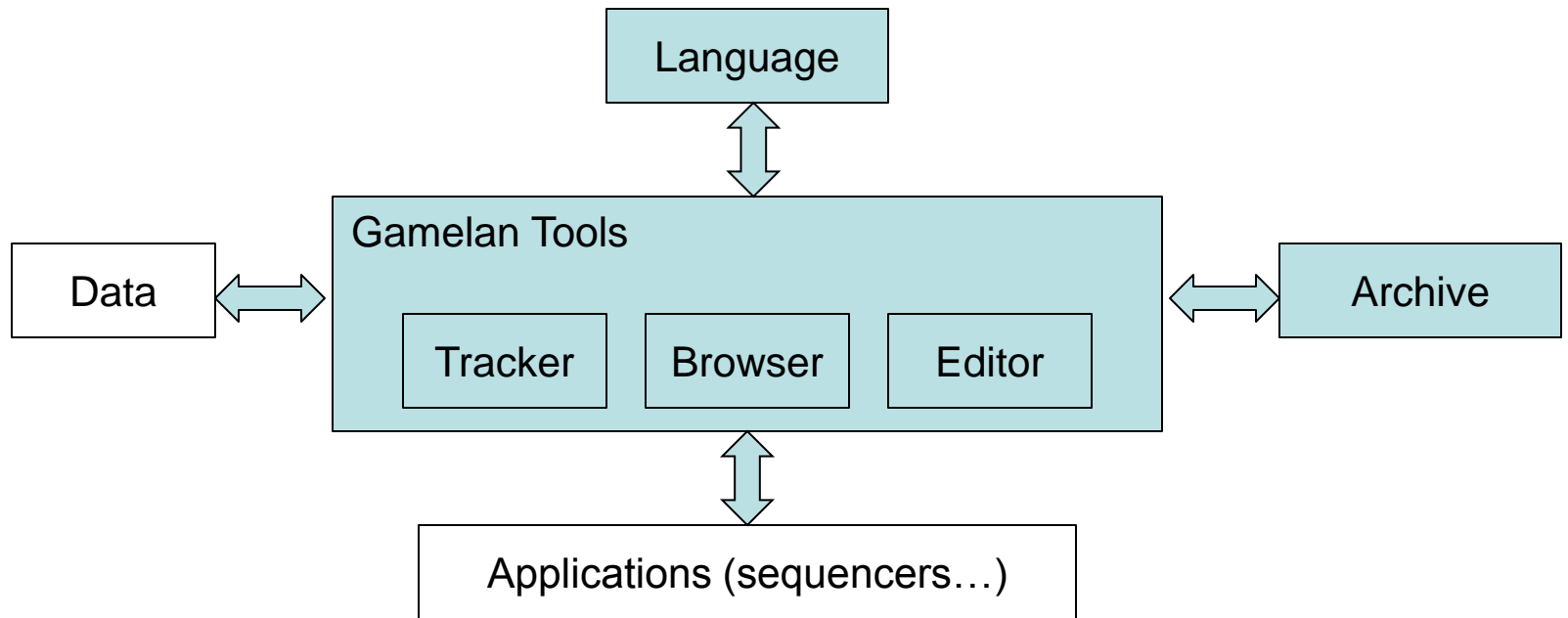
- More and more use of « home studios »
:
 - personalisation of environment (use of « exotic » components)
 - less control by institutions -> difficulty in applying the OAIS model
- Need adaptation to evolving uses

Evolving uses

- Repurposing, ability to adapt the result
 - new rendering devices
 - different mixes (karaoke...)
- Understanding production (musicologists, but also « fans »)
- Identification of actors (potential right owners)

Gamelan approach

- To create an environment able to keep track of user's activity related to a musical production (during the production)
- Recording transformations done on audio files (archiving old versions) : when, why, who?
- According to a language describing the production process



Gamelan tools

- Tracker : keep track of actions made during a production
 - Make archives of deleted or changed files
 - Keep track of modifications made (which application, which user, which action...)
- Browser : let users view and organize the contents
- Editor : let users annotate the contents (files, actions...)

Language

- Description and representation of production processes
- Defining the right level of abstraction :
 - Code (of effects...) too dependent on the machine (HW and SW)
 - Natural language too vague
- To obtain the « Knowledge level », more general than the code implementing the treatment, but precise and prescriptive enough to reproduce that treatment

Intended results

- A personal environment for tracking musical production, browsing elements of production, annotating, archiving
- A language for musical production (PhD thesis, directed by Bruno Bachimont UTC, and Alain Bonardi, Ircam)