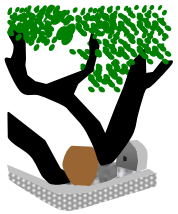

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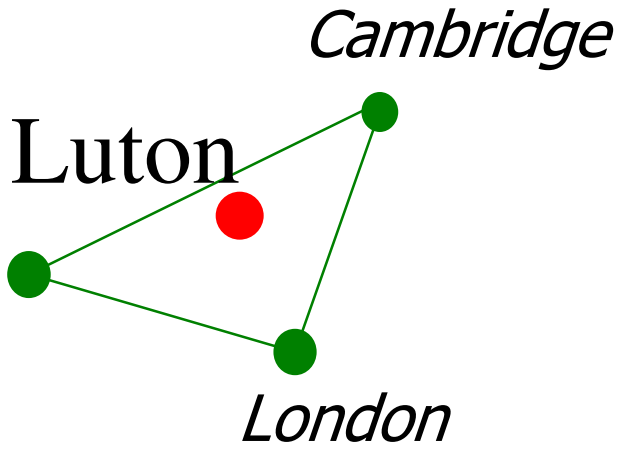
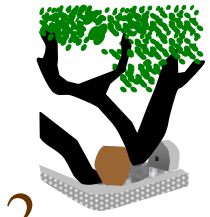
A Java Production System for Musically Pleasing Sonic Events

- Marc Conrad
- Tim French
- Marcia Gibson
  - University of Luton
  - http://perisic.com/sonicevents





Why?

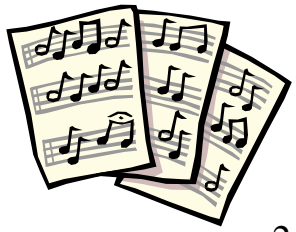
- Inherent drawback of existing security technologies.
- Use of recognition based systems.
- Which refers usually to:

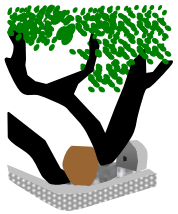
- Image-based systems have inherent drawbacks of their own, for instances
  - Accessibility
  - Telephone
- We need an alternative, namely:

Sound

Or, to be more precise:

Sonic events



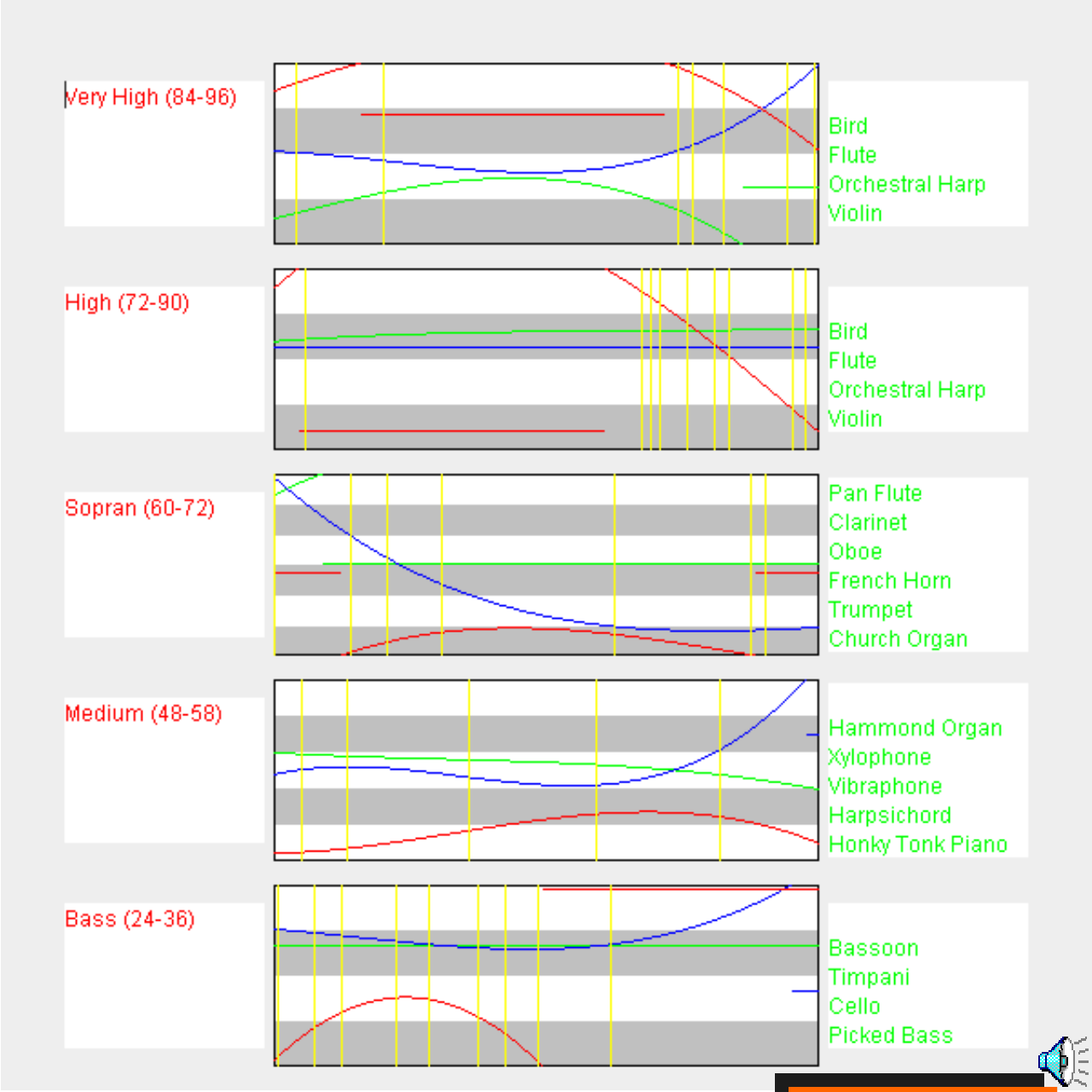


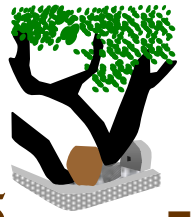
The Goal

- Construct an alphabet of sonic events with the following constraints:
  - Distinguishable by the musically untrained ear.
  - Recognisable through physical characteristics.
  - Deterministically generated from seed values.
  - Virtually infinite in number.

Example Score

- Functions for:
  - Pitch
  - Velocity
  - Timbre





Implementation Issues

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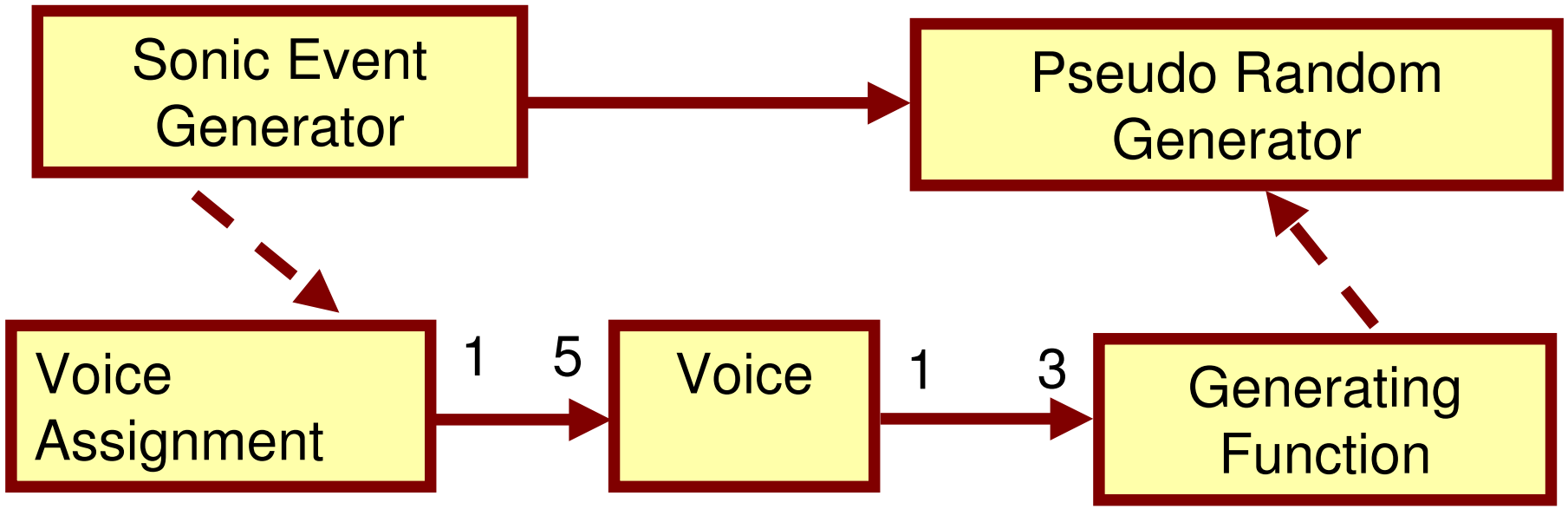
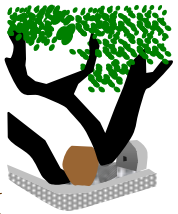
- The application area of our sonic event production system is authentication. It does not exist as an isolated "music producing hard- or software" but is likely to be embedded as part of a wider system that meets industrial standards
  - Use of modular, object-oriented code.





(This is the last slide)

Any Questions?

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