Automatic Accompaniment beyond karaoke
Mixed Music
(human musician + electronics)
Writing and relating multiple time

- relative time in the score
- musician time
- logical time in the program
- audio time
- wall clock time of the physical computer
duration

time flow

event
time line
A second per second

€ ⇄ $
In music, physical time is subordinated to relative time

*not the reverse*

- The score relatively to the tempo, not to wall clock
- the “exchange rate” is dynamic and known only “after”
- makes possible a musical dialog between man and machines
- Duration is not reducible to instant
  - arbitrary division of a duration
  - accelerando
  - musical phrasing (ex. rubato)
listening machine

speed

event

Antescofo
Tempo estimation and clocks sympathy