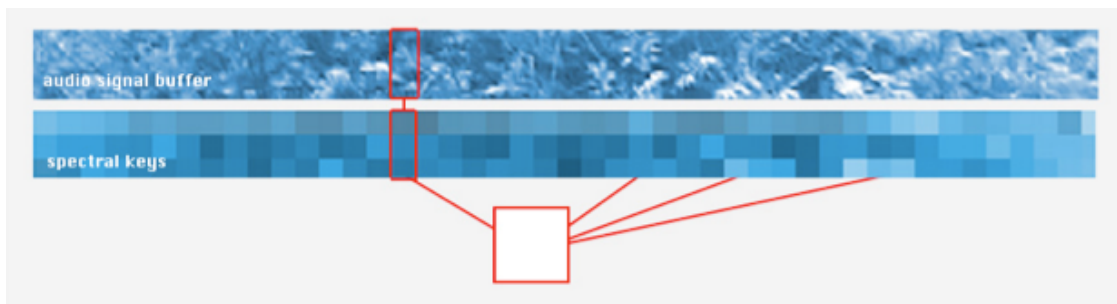# Mr.Kov

Mr.kov - verrechnete Akusmata mit ascii basierten Spektralschlüsseln
Mr.kov - computed acusmata via ascii based spectral keys

Mr.kov is derived from the five transcribed latin letters of Andrej Andrejewitsch Markov's surname by dropping the third occurrence of the vowel A. At the same time Mr.kov is a machine that analyses live sound input e.g. the spoken signifier [markof].

It was written as a contribution to the Conferece *On Computable Texts and Images: Markov's Bequests* (*german version*)

An averaged bundle of discrete fourier transformations is calculated each timeframe along relatively stable frequency distributions of the input signal. Thus the flow of information is numerically reduced and encoded in ascii-strings representing the analysed timeframe of the signal as an identifier and key for the markov model. Simultaneously a buffered reading process of the calculated key stream regenerates sound that uses granular synthesis controlled by a variable length of markov key-chains. For an aesthetically pleasing performance the variability of the order in realtime appears to be essential. This was achieved by implementing the reading algorithm along the well known anecdote of Claude Shannon's finger: stirring in a book by chance he followed the letters until the next fitting pattern in the correct order occurred. So Mr.kov coughs whenever the same key pattern allows a dependency restricted branch into key identical regions of the buffered input signal. MarkovSet

Just as A. A. Markov himself in 1913 illustrated the proof (1910) of his mathematical theorem of dependent probabilities by choosing Pushkin's "Eugen Onegin" as an adequate random source, Mr.kov also differentiates between vowels and consonants. Firstly, because the articulation of vowels takes more time and is more stable compared to consonants, and secondly, because averaged syllables are dominated by their vowels, Mr.kov's somewhat brute-force analysing scheme generates a kind of similar output as the characteristics of well known Markov-based text generators.

That close similarity of letter and sound based encodings of language were surprising. The results point to the experimental focus of Mr.kov, demonstrating the possible and statistically dependent transitions between the quasi grammatological and phonological domains of alphabetized languages. Reaching this point, Markov's mathematical analysing technique puts some historical questions for further investigations: Is it true, that the whole adequacy of taking literature as random source is dependent on the ancient Greek rooted encoding of language as a vocal alphabet - meaning that, the first in depth analysis of sounding speech is the reason for both

a) the Markov-revealed redundancy of text when encoding actual sonic events in contrast to the meaning of languages?

b) the still extraordinary compression rate (or standardization) of meaningful language in sequences of about only 25 signs?

In this perspective, language itself seems to be a cultural technique of redundancy-production implementing a markov process.

Martin Carlé & Julian Rohrhuber, Berlin, 5.4.2003.
▫

Link to this Page

- ▫ MarkovSet last edited on 14 February 2007 at 11:15 am by A0311.a.pppool.de