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LARGE-SIZE MESSAGE CONSTRUCTION FOR ETI -  
INTERPRETATION OF PROCESSES IN LINGUA COSMICA

**Abstract**

In a sequence of papers on the topic of message construction for interstellar communication by means of a cosmic language, the present author has discussed representations of various kinds of concepts of reality in his *Lingua Cosmica* system. Those studied until now were essentially relations of a logic and static character. The present contribution contains an important, fundamental extension: groundwork is done for the purpose of interpreting (dynamic) processes of various kinds in the linguistic system. A solid foundation is obtained for the treatment of many sorts of realistic processes occurring in human (industrial) societies. Individual processes are abstracted in a logic sense and provided with basic properties as termination and communication functions. They can be combined using fixed rules into kinds of processes: here sequential and parallel ones represented by an inductive definition in logic. With in view concepts from the so-called process algebra, processes are provided with channels mapping them to their states. State vectors are introduced to represent states of conglomerates of processes. Communication between processes (locally or globally) is effectuated by means of state transitions. Together with a programmed arbitration function state vectors play a crucial role in representing communication. With these ingredients possibilities for general interpretations of a wide range of processes in the *Lingua Cosmica* system come in view.