

# Upon Multiservers Preemptive Queuing System: A Formal and Object Oriented Approach

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## Abstract

Complex queuing systems imply a discipline of service based on priority treatment of certain clients. The preemptive queuing system type is an appropriate model for numerous real systems. In [6] I presented a simulation algorithm for multi-server queuing system of this type and in [3], based on DEVS formalism I proposed one formal and object oriented model for one service station preemptive waiting system. Using the same general framework, in this paper I propose a simulation model for multi-server parallel queuing system. Further, formal and modular description of systems behavior eliminates the possibility of introducing errors. To each DEVS model, an abstract simulator we associate and using the advanced concept of Object Oriented Language C++, the abstract simulator was implemented.

**KeyWords:** Simulation, Preemptive Queuing Model, Object Oriented Design, DEVS Model

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