UPON MULTI- SERVERS WAITING SYSTEMS OF HEAD OF LINE TYPE: AN OBJECT ORIENTED FORMAL APPROACH

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Abstract

Complex queuing systems imply a discipline of service based on priority treatment of certain clients. The queuing systems of head of line type represent appropriate models for numerous real systems. In [4] I presented simulation algorithms for multi-servers queuing system of this type and in [3] I presented one formal and object oriented approach of the one service station head of line waiting system, based on the DEVS formalism. In this paper I present simulation models for multi-servers queuing systems with fixed number of working stations. Further, formal and modular description of systems behavior eliminates the possibility of introducing errors. To each DEVS model, an abstract simulator we associate and the using of the advanced concept of Object Oriented Language C++, the abstract simulator was implemented.

Key Words: Simulation, Queuing Models, Object Oriented Design, DEVS Model

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