

## ABSTRACT

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### MARKOV MODEL FOR ESTIMATING AND ADAPTIVE RESTORATION OF COMPLEX SYSTEMS OF PROVIDING

The authors propose a model of a complex system, the functioning of the process which corresponds to a discrete Markov process, to evaluate the stochastic and adaptive restoration of the maximum efficiency of the system by the criterion of the probability of exceeding her stay in the stage of operation of the probability stage of its restoration of through the cracks or damage from the outside.

The modeling shows that the conditions of use set of additional repair capability to quickly restore models of equipment that were damaged, the effectiveness of the system significantly improved logistics.

Comparison of the results obtained so real problem results that are often observed in practice operation of complex software systems, shows the absolute utility usage patterns, for more grounded problem solving practice.

Establishment and practical application of relevant software facilitates the successful use of the proposed management model not only for research of complex systems technical support, but also for its operational use in real time.