

## LOGISTIC INFORMATION MANAGEMENT SYSTEM OF THE ENTERPRISE WITH THE DEVELOPMENT OF METHODS OF OPTIMAL SUPPLY OF MATERIAL AND TECHNICAL MEANS

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The results of recent years on the study of methods for increasing the reliability of the calculations of the specialized computing device have shown that it is practically impossible to achieve this within the limits of the positional number systems (PNS). This is due to the main disadvantage of modern specialized computing device, functioning in the PNS: the presence of inter-digit relations between the processed numbers [1]. Therefore, this report focuses on the consideration of the non-positional system of residual classes (NSRC) and its use as a major tool for improving the reliability.

The report is considered the methods of increase of reliability of functioning of the specialized computing device of the automated system of control and accounting of electricity (ASCAE). The purpose of the research is to increase the reliability of the operation of a specialized computing device of ASCAEs.

The description and research of tasks of functioning of an ASCAE are carried out. Theoretical information about NSRC is given. The principles of information processing in the NSRC are formulated. The influence of the main properties of the NSRC on the architecture and principles of operation of ASCAEs. Note that one of the most important properties of NSRC, namely the equality of residues, causes the ability of ASCAEs to have different reliability when solving different problems, depending on the requirements for accuracy, memory capacity and performance of the machine when solving them [2]. That is, in the process of solving various problems, it is possible to carry out "exchange" operations between accuracy, speed and reliability [3]. On the basis of the above, a mathematical model of reliability of ASCAEs was developed. A comparative analysis of the reliability of the specialized computing device of the ASCAE in the NSRC and in the PNS is carried out.

### References

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