

ANALYSIS OF THE LEVEL OF AUTOMATION OF TRAFFIC MANAGEMENT PROCESSES

Kuchuk N., Shyman A., Davydov V., Hrebenuk D.
National Technical University «KhPI», Kharkiv, Ukraine

The proposed approaches to assessing the effectiveness poorly take into account the design and implementation of special software. This applies to the promising complexes of automation tools that are currently being created. As a result, many questions remain insufficiently explored. For example, issues related to the analysis of the quality of software packages that operate in universal multitasking environments. Especially such an important issue for motion control systems indicator as performance. The role of the time factor is growing in modern conditions of fighting. The territorial scope of traffic and the number of its participants is increasing. This leads to an increase in the volume of tasks. It also causes increasing requirements for automation of management processes. Traffic management automation is understood as the process of using electronic computers and various high-performance technical devices associated with it in the work of controls. Such devices with appropriate information and mathematical support increase the efficiency of management in order to make fuller use of the possibilities.

Today, computer facilities that are part of computer traffic control systems require replacement and modernization [1]. Complexes of means for automation of command posts, data transmission and communication systems should be built taking into account the special requirements during military operations on the territory of Ukraine. New achievements in the field of building complexes, taking into account technical means. Mathematical and software - taking into account new information technologies [2]. Information technology is understood as a set of methods, processes and software and hardware tools combined in a technological chain and providing the collection, processing, display, storage and transmission of information in order to reduce the complexity of such processes, as well as increase reliability and efficiency. The most massive technical components of any modern information technology are personal computers, which are cheap, compact, low power consumption and have a developed user interface.

References

1. Mukhin, V. Decomposition Method for Synthesizing the Computer System Architecture, / V.Mukhin, N. Kuchuk, N. Kosenko, R.Artyukh, A.Yelizyeva, O.Maleyeva, H.Kuchuk, V. Kosenko // *Advances in Computer Science for Engineering and Education II*, Springer, Cham, vol 938, 2019. – P. 289-300.
2. Kovalenko, A. and Kuchuk H. (2018), “Methods for synthesis of informational and technical structures of critical application object’s control system”, *Advanced Information Systems*, 2018, Vol. 2, No. 1, pp. 22–27, DOI: <https://doi.org/10.20998/2522-9052.2018.1.04>