ABSTRACT

Thesis is presented in 54 pages, it contains 2 application and bibliography of 15 references. There are 12 images and 1 table in the thesis.

Diploma work is devoted to the development of mathematical and software management of stockpiles of grain storage facilities.

The work analyzes existing systems for inventory management and management methodologies. Their advantages and disadvantages were highlighted. The most well-known methods for solving the problem are considered. To solve a given problem in the work, a modified Wilson model was developed for a given subject domain, and a dynamic buffer as a monitoring system.

An automated system that implements a modified model and dynamic buffer management system is developed. This software provides additional possibilities: to calculate the size of the order with a manual input, to generate informative messages, generate a schedule of volumes of stocks and demand.

Keywords: inventory management, Goldtrath limitation theory, dynamic control buffer, Wilson model.