

ADAPTIVE SYNTHESIS OF THE ABSTRACT ALGORITHMIC FORMULAS

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There is a known algorithmic algebra which has the unconventional operations, for example, sequencing, elimination, parallelization and cyclic operations which are marked by special signs that are not known among mathematical symbols. For typing and editing the abstract algorithmic formulas there is developed a specialized MODAL computer subsystem. But it does not perform an automatic adaptation of the abstract algorithmic formulas. In graphics packages such as Microsoft Visio, Corel DRAW, Adobe Illustrator there is not implemented the adaptation system of algorithmic formulas. Editing processes and algorithmic formulas composition are considerably more complicated without the implementation of such functions.

In the known works the approaches to solving the described problems are discussed, however, with all the diversity in no study the authors did not analyze and describe the main challenges that emerge while attempting to adapt the algorithmic formulas.

With all the urgency of the problem today we have a relatively little accumulated experience of its solution which is primarily determined by a relatively new research direction.

As you know, when you try to compose and edit the algorithmic formulas by means of the known information systems there are significant difficulties. The main reason is that these systems do not implement the adaptation process without which it is virtually impossible to correctly reproduce the algorithmic formula. The objective of the study is the synthesis, research and the construction of the mathematical software process of the algorithmic formulas adaptation.

The synthesized, minimized and studied mathematical model of the adaptation algorithm of the abstract algorithmic formulas describes the identification of the subalgorithms of the basic operations adaptation to the nested formulas and the nested formulas to the basic ones. Its realization provides the greater visibility of the algorithm presentation in the form of formulas of the abstract algorithmic theory. Research of mathematical model before its implementation and testing ensured the detection of errors made in the process of its synthesis and proves that it describes the necessary processes. The processes of the adaptive synthesis of the algorithmic formulas are described through the abstract adaptation algorithmic formula of the abstract algorithms.

The definition of the adaptation processes of the algorithmic formulas is described. We give an algorithm of the algorithmic formulas computer adaptation. A mathematical model is synthesized, minimized and constructed and the adapting algorithm of the basic operation sign is studied.

Keywords - adaptation, adaptive synthesis, algorithm, mathematical model.