

The analysis of Russian and foreign works allows to make conclusion that intellectual educational systems (IES) as new educational technologies are able to provide the new experience of education for future information security specialists in consideration of raised requirements for their training level all over the world. The specificity of IES consist in educational process modeling using dynamically developing knowledge base and automatic selection of efficient strategy and personal individual education trajectory, automated registration and analysis of new information entering in the database. In addition, intellectual educational systems allow to resolve the local problems of self-education of students and control the level of their professional skills. These systems can manage the student's education, resolving problems that they will meet in their further professional activity and controlling unassisted student's work.

Thus, the main task of present-day professor consist in the choosing of optimal and valid organization forms of education and using such a innovation techniques and methods in the educational process, that will provide efficient mastering of professionally significant knowledge, skills, acquirements necessary for future specialist at any professional activity. Using of intellectual educational system as the methodical guide of unassisted student's training doesn't just provide efficient mastering of professionally significant knowledge, skills, acquirements necessary for future specialist at any professional activity, but transform the professor's mission into the mission of organizer of student's educational activity, possessing the efficient tool that allow to achieve nice results in education's quality.

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APPLICATION OF COMPLEX METHODS TO SOFTWARE PRODUCT PROTECTION FOR ILLEGAL COPYING

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The problem of illegal usage of software products cropped up in 80 of XX century simultaneously with the appearance of personal computers, due to some specific features of this type of computers. It has happened as a result of hardware standardization and mass distribution of personal computers without any software.

Software-technical method is the most efficient method used nowadays. At the stage of development a program includes a fragment of code that checks conditions of the program usage and blocks it's execution in case of inconformity to the determinate terms of agreement.

Nowadays there are several types of software-technical protection, but each of them has its own disadvantages. For example one serial number could be used on some computers.

There're sufficient reasons for using a combination of several methods to achieve the most efficient software product protection. One of the most secure combinations is consolidation of cryptographic protection of executable code and external hardware acting as electronic key and external computation module that execute necessary computations for the software. Given method doesn't run the danger of such software attacks as disassembling, debugging and analysis of the memory dumps by reason of the protection of executable code by resistant cryptographic algorithms. Electronic key fulfills just computational functions therefore interception of passing information between the computer and the electronic key won't give desirable result for an intruder.

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MATHEMATICAL MODELING OF THE PROCESS OF WATER - SOLUBLE SALTS WITHDRAWAL FROM PIGMENT ORGANIC SUSPENSION BY DECANTATION

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The main qualitative attribute of pigments and coloring agents is dyeing concentration that depends on many factors, the main of which is presence of water-soluble salts in the finished products paste, generating at the process of synthesis. Water-soluble additive withdrawal is one of the effective way to increase the qualitative attribute of pigment.

Among the diversity of methods of water-soluble salts withdrawal from sediment the following can be pointed out: repulping, washing by filters, decantation.

Decantation is the easy and gentle cleaning method towards the pigment crystal structure, implying the process of hard and liquid phase's separation by means of sedimentation

Aiming to define the quantity of cleaning cycles necessary for archiving the desired concentration of water-soluble salts in pigment paste the mathematical model of the process of water -soluble salts withdrawal from organic pigment suspension was developed.

When developing the mathematical model the following assumptions are taken into consideration: the mass of water-soluble salts is less than mass of water and hard particles; during the sequence period (mixing together with sedimentation) the gradient of