Abstract

master's certification of on:

"Reservation Information Resource Network Grid»

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Objective.

The aim is the study of methods and algorithms for redundancy distributed computing resources.

Problems that are solved in the work:

- Analysis of existing methods and approaches for resource reservation in networks GRID;
- Develop methods for backup;

Scientific novelty of the results:

Scientific novelty of the results is as follows:

- A method for multi-level backup of distributed computing resources for large networks.

The practical significance of the results.

On the basis of the proposed methods and approaches developed analytical, algorithmic and software:

- Algorithms are investigated to establish the isomorphism, graph- subgraph isomorphism and finding the greatest common subgraph for the graphs;
- Investigated the serial and parallel algorithms for complete sets of nonisomorphic graphs and complete sets of graphs with special properties;
- Researched algorithms for optimal redundancy of distributed computing resources on the criteria involved, the minimum number of computing nodes, the most effective use of

computational nodes involved, the minimum number of network connections, the most effective use of network connections;