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TASKS SCHEDULING ALGORITHMS IN HETEROGENEOUS CLUSTER

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Over the past decade, the grid computing system has been an active research field. One of the important issues in grid computing systems is to increase the efficiency of resource utilization and reduction of completion time for grid computing. In other words to improve the resource utilization of heterogeneous cluster, scheduler must avoid unnecessary data transmission.

The aim of this paper is to build the desktop grid environment using UNICORE middle-ware and a built-in test mode of the emulation of the MAUI scheduler was used. The results of practical testing for UNICORE sites with the computing cluster under the local resource management system Torque management for the most common types of parallel jobs are presented. The effectiveness of the algorithms is researched by analyzing the results of simulation and testing of scheduler on the computing cluster in situation of changing intensity of incoming workflows.

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