

This thesis researches available software products for monitoring of computational farms. The Goliath computational farm in the Institute of Physics of the Academy of Sciences of the Czech Republic served as a testbase. The main contribution of this work was a specific reconfiguration of the existing monitoring system Nagios and the installation of a monitoring tool Ganglia. Reusable extension components were developed because of inadequacies in existing monitoring products, especially in the area of presentation and data analysis. Based on the data prepared using the extension components an analysis of the performance of Goliath farm's computational nodes has been undertaken, which now serves as a baseline for decisions regarding further development and optimization of the farm.