Production System of the SPD Experiment

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The SPD experiment at the NICA collider at JINR is under construction. But despite this, processing requests for simulation and reconstruction algorithms tuning already require significant computing resources, and the results of data processing occupy a fairly large disk space. For example, a standard request for the generation of 20 million events involves two calculation steps (simulation and reconstruction) and the generation of 10 terabytes of data and 15 thousand output files, not taking into account service files with processing logs. It is clear that in order to quickly generate the required data sets, it is necessary to create a system that would automate the generation of jobs, distribute them across available computing resources and manage the output data. To solve this problem, a production system for the SPD experiment is being developed. This system is created in line with the data streams recorded in the TDR, and should ensure their reliable storage and processing. The current status of work on the creation of a production system for the SPD experiment is presented in this report.

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