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Development of the Online Configuration System for the BM@N experiment.

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The Configuration Information System (CIS) has been developed for the BM@N experiment to store and provide data on the configuration of the experiment hardware and software systems while collecting data from the detectors in the online mode. The CIS allows loading configuration information into the data acquisition and online processing systems, activating the hardware setups and launching all necessary software applications with required parameters on specified distributed nodes. The architecture of the CIS mainly contains the Web Interface, Configuration Database and Configuration Manager, where the Configuration Manager uses API of the chosen Dynamic Deployment System (DDS) developed by the FAIR collaboration for running and managing tasks, as well as providing their intercommunications. The SSH plugin of the DDS is employed to control online processing tasks in the BM@N experiment. The client-server architecture of the CIS will be presented in detail, where the client has been implemented as a Web service to manage configuration parameters by users and monitor active online tasks. Furthermore, log files of all running tasks controlled by the information system and logs of DDS sessions collected from distributed hosts are provided for users via the Web interface of the CIS.

Summary

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