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Thu-Mo-Po4.02-02 [8]: Carpenter: superconducting magnet test facility management system

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Superconducting magnets at CERN are being tested in one of the largest testing facilities around the world known as SM18. The test facility is equipped with ten horizontal test benches, five vertical cryostats and a cryogenic feed box allowing to test the superconducting link in He gas. This unique infrastructure requires a well-designed and optimized quality assurance and control system to follow-up, monitor and trace all ongoing activities. In 2017 we created Carpenter, a fully customized management system to improve work organization. In addition to its main functionality of quality control for tested items and assemblies, the system enables also to store all relevant test results which can be later used for automatic test report generation. Carpenter uses a web interface for easily access and database for storage. Since January 2018, Carpenter system is fully operational at SM18 and it is being introduced to other superconducting magnet test facilities. In this paper the system philosophy, user workflow and implementation details are discussed.

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