

Containerization in ATLAS Software Development and Data Production

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The ATLAS experiment's software production and distribution on the grid benefits from a semi-automated infrastructure that provides up-to-date information about software usability and availability through the CVMFS distribution service for all relevant systems. The software development process uses a Continuous Integration pipeline involving testing, validation, packaging and installation steps. For opportunistic sites that can not access CVMFS, containerized releases are needed. These standalone containers are currently created manually to support Monte-Carlo data production at such sites. In this paper we will describe an automated procedure for the containerization of ATLAS software releases in the existing software development infrastructure, its motivation, integration and testing in the distributed computing system.

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