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Tile-in-ONE: A web platform which integrates Tile Calorimeter data quality and calibration assessment

The ATLAS Tile Calorimeter assesses the quality of data in order to ensure its proper operation. A number of tasks are then performed by running several tools and systems,

which were independently developed to meet distinct collaboration's requirements and do not necessarily builds an effective connection among them. Thus, a program is usually implemented without a global perspective of the detector, requiring basic software features. In addition, functionalities may overlap in their objectives and frequently replicate resources retrieval mechanisms.

Tile-in-ONE is a unique platform that assembles various web systems used by the calorimeter community through a single framework and a standard technology. It provides an infrastructure to support the code implementation, avoiding duplication of work while integrating with an overall view of the detector status. Database connectors smooth the process of information access since developers do not need to be aware of where records are placed and how to extract them. Within the environment, a dashboard stands for a particular Tile operation aspect and gets together plug-ins, i.e. software components that add specific features to an existing application.

A server contains the platform core, which represents the basic environment to deal the configuration, manage user settings and load plug-ins at runtime. A web middleware assists users to develop their own plug-ins, perform tests and integrate them into the platform as a whole. Backends are employed to allow that any type of application is interpreted and displayed in a uniform way.

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