Flexibility Extension of the Event Picking Service for ATLAS Experiment

Evgeny I. Alexandrov[1], Igor N. Alexandrov[1], Dario Barberis[2], and Alexander V. Yakovlev[1]

[1] *Meshcheryakov Laboratory of Information Technologies, JINR, Dubna, Russia*

[2] *Università di Genova and INFN, Genova, Italy*

ATLAS EventIndex [1] is a catalog of all recorded and simulated ATLAS events, one of four experiments at the LHC accelerator at CERN [2]. The Event Picking Service is one of the components of the Atlas Event Index. It is used when the user wants to collect interesting events from a huge amount of ATLAS data and reprocess them. The process of receiving an event can be split into separate tasks. The set of tasks may differ for different event types. Some tasks use external services, which can take a long time to receive results. An error may occur as a result of completing the task. Some of these errors can be corrected automatically by the service, but some require administrator intervention. Failed tasks must be restarted from the specified step after the problem is manually corrected by the administrator. This is critical if the error occurs after a long-running task has been completed. All of the above leads to the fact that the Event Picking Service must be flexible and be able to be customized for a specific situation. This article is dedicated to describing how elasticity is achieved in the Event Picking Service and how it improves during operation.

References

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