

24/7 operation of the Tier-0 processing system for the CMS experiment

Contributed to be given at [CHEP2010: International Conference on Computing in High Energy and Nuclear Physics 2010, 18-22 Oct 2010, Taipei \(Taiwan\)](#) The talk is pending decision by conf. organizers.

Abstract

The Tier-0 processing system represents the initial stage of the multi-tiered computing system of CMS. It takes care of the first processing steps of recorded proton-proton collisions at the LHC at CERN. The automated workflows running in the Tier-0 contain both low-latency processing chains for time-critical applications and bulk chains to archive the recorded data offsite the host laboratory. The Tier-0 system was successfully used during the cosmic data taking campaigns in 2008/2009 and the first proton-proton collision end of 2009. In 2010, The Tier-0 system was feature complete and processed all 7 TeV collision data taken with the CMS detector. This talk will summarize the operational experience gained during the 2010 data taking run. We will discuss lessons learned both for the usage of the infrastructure at CERN and the implementation and adaptation of the workflows to be run by the Tier-0 system. This talk will present a detailed analysis of latencies and efficiencies of the various processing workflows and will summarize the operational procedures put in place to guarantee a 24/7 availability of this initial processing step of the CMS data taking chain.

Files

Bibliography

CMS groups

The content of this talk is related to the activities of the Computing group. The conveners or conference committee representatives of this group have enhanced CINCO administrative rights. They will be informed by e-mail about any changes and updates to the presentation title, abstract or file upload.

Instructions

You are not allowed to modify this presentation title or abstract. Please contact a member of the CMS conference committee to make changes. You can see the name of the selected speaker as well as the names of potential speakers that you nominated (including yourself). You can download and upload any file. This talk was originally created by Oliver Gutsche on 4/22/2010.