**H1 Grid Production Tool for Large Scale Monte Carlo Simulation**

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**The 2008 World Record in number of generated MC events on the LCG Grid:**

![Graph showing 2.4 x 10^9 MC Events]

**Introduction to the HI Grid Production Framework**

This is an Object Oriented Workflow manager, written in Perl & Python, which converts Monte Carlo (MC) request into executable jobs, supports execution of the jobs on the LCG Grid and downloads resulting files into the final H1 storage. The 2008 World Record in number of generated MC events on the LCG Grid: 2.4 x 10^9 MC Events.

**Grid Job Manager**

- Modular structure of Grid Job Manager - separate module for each task,
- Centralized Database,
- Each module acts on jobs which are in the proper state,
- Actual state of the MC production can be checked using Web Services or using MonALISA (http://monalisa.cattech.edu) based monitoring tool.

**HI Grid Based MC Production**

- Basic structure of a Grid Job for N events:

**Monitoring & Statistics**

For direct management of the large scale MC production are used:
- Web Services (command line interface allows to check of job’s details - more efficient than GUI)
- MonALISA Tool: client contacts with Central Grid Job Manager Database and transfer requested information to the MonALISA Server.

**Monitoring & Statistical Tool**

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