September Workshop Agenda
A Proposal

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WLCG HEPscore task force

06 July 2022

HEPscore Workshop

❑ 2 days workshop 19 and 20 of September

    – Agenda to be ready in the coming days, to be announced at GDB if 13 July

❑ Expected attendance

    – Not only: Task Force members and WG members,

    – But also: Software experts from the experiments, GDB/HEPiX participants, etc

❑ Some known limitation

    – C-RSG meeting involving the Computing Coordinators (only?) will be on the same

      days

    – CMS week

Goal

❑ Discuss the optimal configuration of a CPU benchmark, based on HEP experiment workloads, that would replace the current HEPSpec06 benchmark.

 – Identify a final candidate benchmark that can be presented to the WLCG and the HEP community.

❑ Describe the workloads provided by LHC and other HEP experiments and the foreseen software evolution.

❑ Discuss how to benchmark systems with accelerators (e.g. CPU+GPU) that are increasingly being used by the HEP experiments

❑ Learn from the Accounting WG how the migration will be done on the accounting portal

Draft agenda

❑ Here a draft agenda

– Suggestions are welcome

– Submissions of contributions are welcome

– Plan to allocate enough time for discussions

• No packed sessions

Monday 19

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Session legend

○ Break   ○ HEP Benchmark Suite   ● HEP Workloads   ● HEPscore   ✕

10:00

Welcome and purpose of the workshop
6/R-012 - conference room, CERN   10:00 - 10:05

Overview o the work done by the Task Force and the Working Group
6/R-012 - conference room, CERN   10:05 - 10:35

Analysis of the Measurement Campaign

11:00
6/R-012 - conference room, CERN   10:35 - 11:15

HEPscore candidates

6/R-012 - conference room, CERN   11:15 - 11:45

The Benchmark DB (demo how to use it)
6/R-012 - conference room, CERN   11:45 - 12:05

12:00
Break: Lunch Break

13:00

6/R-012 - conference room, CERN   12:05 - 14:00

14:00

Profiling of HEP Workloads

6/R-012 - conference room, CERN   14:00 - 14:30

Alice Workload
6/R-012 - conference room, CERN   14:30 - 14:45

Atlas worloads
6/R-012 - conference room, CERN   14:45 - 15:00

15:00
CMS worloads

6/R-012 - conference room, CERN   15:00 - 15:15

IGWN worload
6/R-012 - conference room, CERN   15:15 - 15:30

Break: Coffee break
6/R-012 - conference room, CERN   15:30 - 15:50

16:00
Juno worload
6/R-012 - conference room, CERN   15:50 - 16:05

LHCb worload
6/R-012 - conference room, CERN   16:05 - 16:20

The experience of some data centres in running the suite

6/R-012 - conference room, CERN   16:20 - 17:00

Tuesday 20

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Session legend

⬤ Extension of HEPscore beyond x86   ⬤ Selection of HEPscore   ✕

09:00

Madgraph on GPU
6/R-012 - conference room, CERN   09:30 - 09:50

CMS ParticleFlow with ML
6/R-012 - conference room, CERN   09:50 - 10:10

10:00

CMS HLT-like
6/R-012 - conference room, CERN   10:10 - 10:25

Experience running workloads on CPU+GPU at HPC
6/R-012 - conference room, CERN   10:25 - 10:45

Run HEPscore "light" on grid
6/R-012 - conference room, CERN   10:45 - 11:05

11:00

Coffee break
6/R-012 - conference room, CERN   11:05 - 11:25

Measurements of Power Consuption

12:00

6/R-012 - conference room, CERN   11:25 - 12:25

Lunch break

13:00

6/R-012 - conference room, CERN   12:25 - 14:00

14:00

Integration of HEPscore in the accounting system
6/R-012 - conference room, CERN   14:00 - 14:30

Golden candidates for HEPscore

6/R-012 - conference room, CERN   14:30 - 15:10

15:00