

HEPscore Workshop Organization

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WLCG HEPscore task force

24 Aug 2022

Summary

- ❑ 2 days workshop 19 and 20 of September
- ❑ Expected attendance not only from Task Force members and WG members
 - But also: Software experts from the experiments, GDB/HEPiX participants, etc
- ❑ Advertised via GDB and WLCG MB
 - In addition: Contacted conveners of the Accounting TF and Computing Coordinators
- ❑ Known conflicts with other meetings (C-RSG, CMS week, ...)
 - Trying to arrange the contributions to mitigate them.
 - Please communicate ASAP constraints for you and your collaboration
- ❑ Please register and communicate the remote or in person attendance
 - Needed for logistic reasons: current conference room 6/R-012 is for 40 people

Monday 19

3 sessions

☐ HEPscore Task Force Review

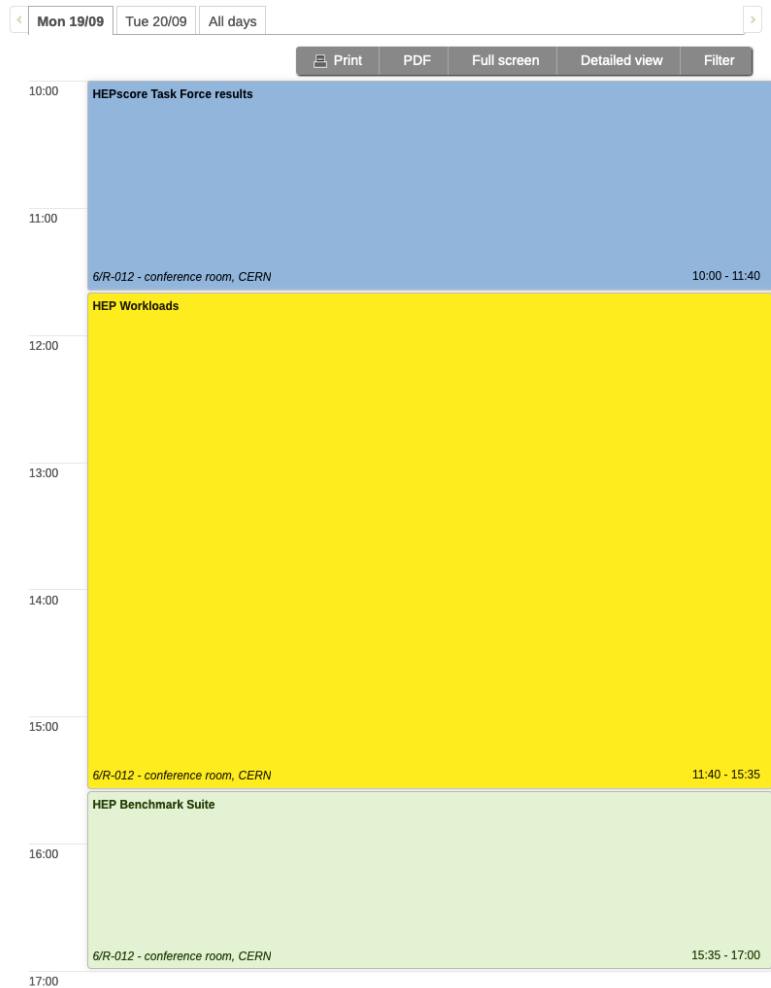
- Activity of the Task Force
- Results of the measurements campaign
- Introduce HEPscore candidates

☐ HEP Workloads

- Review the HEP workloads, their performance, the Experiments' perspective on SW evolution

☐ HEP Benchmark Suite

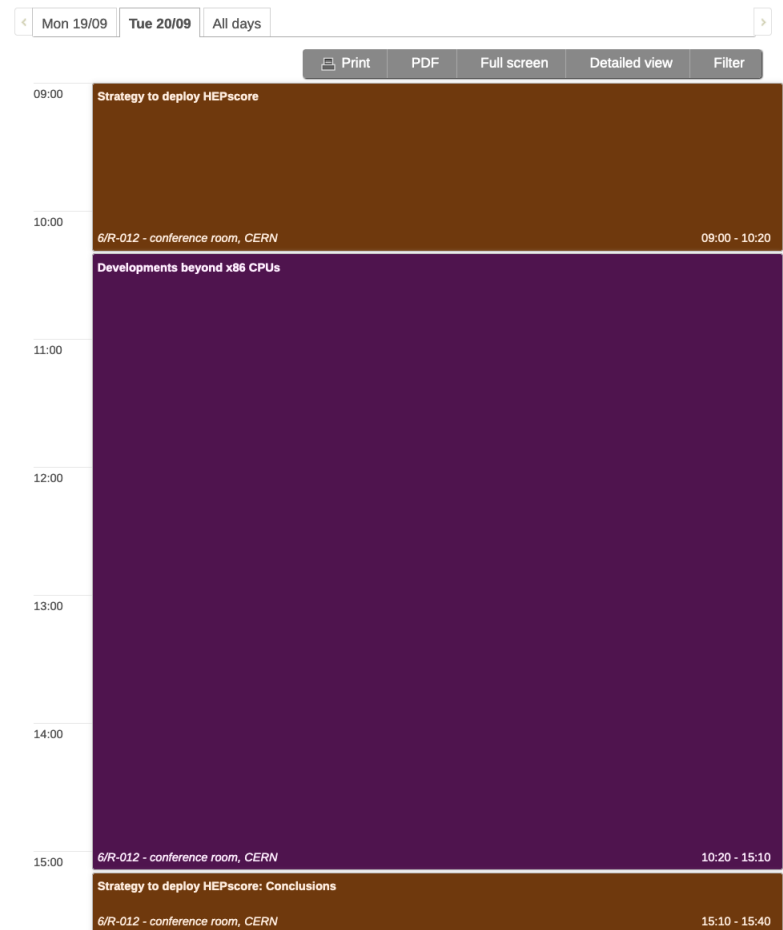
- Present the Benchmark Suite and gather feedback from site admins that have used it



Tuesday 20

2 sessions

- Strategy to deploy HEPscore
 - Strategy foreseen by the Accounting TF
 - Converge on a “golden” HEPscore22 candidate
- Developments beyond x86 CPUs
 - Extension of HEPscore to ARM/ Power and GPUs
 - Measure Power consumption with HEP workloads



Actions done (I)

- ❑ Contacted the computing coordinators and TF representatives of the involved experiments
 - Invited to contribute to the workshop
 - Identify speaker for the Experiment specific talk
 - Waiting answer from Juno (Xiaofei)
- ❑ Defined guidelines for talks

Guidelines for the Experiment's contribution to the workshop

https://indico.cern.ch/event/1170924/timetable/#20220919_detailed

- 1) Please details the workloads provided to the Task force
 - a) Does your experiment process the whole chain (gen-sim-reco) event by event, or is each step (gen, sim, reco) processing a whole set of events before moving to the next step?
 - b) In the case of the generation (simulation) which physics process (pileup configuration) is used?
 - c) Do these workloads represent the processing chain submitted on the grid? Do they include some extra-step not used in production? Eg debug modules
- 2) Software stack
 - a) Are the software features currently in the container still the most recent ones?
 - b) Could you summarise the plans about future, known, major upgrades of the software foreseen in your Experiment?
 - c) Do you plan / have done to migrate your offline code to non-x86 CPUs (ARM/Power) or to adopt accelerators (GPUs)
- 3) Experience in integrating the Experiment's workloads in the HEP standalone containers
 - a) What is your overall experience in using the build procedure designed by the HEPiX Benchmarking WG to create standalone containers?
 - i) Do you have comments about the resolution measured by the working group in the repeated executions of your workloads during the validation procedure?
 - ii) Do you have suggestions? What would you improve?
- 4) Please add any other comment/suggestion you could have

Actions done (II)

- ❑ Report experience in running the suite
 - Contacted few sites involved in the measurement campaign (PIC, IJCLAB, CERN)
 - Please volunteer to contribute
- ❑ Defined guidelines for the site-specific talk

Guidelines for Sites contributing to the Workshop session
“The experience of some data centres in running the suite”
<https://indico.cern.ch/event/1170924/timetable/#20220919.detailed>

1. In which circumstances did you run the HEP Benchmark Suite (also to run HS06) and HEPscore?
 - a. Task Force measurement campaign, procurement procedure, etc
2. On how many and which model of servers did you run?
3. How was your experience in running the HEP Benchmark Suite?
 - a. Please highlight pros and pain points
 - b. Do you have suggestions about how to improve it?
 - i. Including also the provided user support, documentation, communication channel
 - c. If you used the HEP Benchmark Suite to run the HS06 benchmark, what was your experience with respect to the traditional method detailed in https://w3.hepik.org/benchmarking/how_to_run_hs06.html
4. What was your experience in running HEP workloads via the standalone containers steered by HEPscore and the Benchmark Suite?
5. Did you have a chance to monitor the server behaviour during the run?
 - a. Do you have observations to share?
 - b. What kind of monitoring tool was used ?
6. Please add any other comment/suggestion you could have

Actions done (III)

- ❑ Contacted the Accounting TF conveners (Julia and Adrian)
- ❑ Contacted speakers for the “Beyond x86” session

- ❑ Detailed view of the agenda
 - <https://indico.cern.ch/event/1170924/timetable/#20220919.detailed>

Summary

- Converging to a definitive agenda
- Still uncertainties about clashes with other meetings
- Need to know the number of in-person attendees
- Any feedback is welcome

