



HSF Packaging Group: Introduction

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Ideas for Group Plans for 2019

- Main plans to continue with demonstrators and prototypes of packaging solutions in 2019
 - We would like these to aim at providing meaningful and testable solutions to the packaging problem for HEP
 - Based on the [use cases](#) we worked on last year
 - It will be good to have updates from each of these projects every few months
- Longer term goals and thoughts
 - CHEP2019 paper
 - Follow on from successful presentation in Sophia of the group's work
 - Update of the packaging group [technical note](#)
 - Considerable amount of work done since 2016

Ongoing Projects

- Building LCG-like software stack with Spack
 - Graeme and Javier work a small fraction of their time on this
 - Should be useful for ATLAS and FCC as first clients
 - Currently all dependencies for Gaudi are building correctly
 - Want to tidy up HSF [hep-spack](#) package repository
 - Remove some packages that went into upstream spack repo
 - Provide a place for the community to park recipes that are in a good state, but not yet accepted upstream
 - We will share the configuration for our setup in the HSF [spack-config](#) repo
 - We hope to get a CERN Summer Student to work on this too

SuperNEMO Stack with Spack

- SuperNEMO migrating to use Spack
 - Homebrew moving away from from-source builds, binaries work well on Linux, except until graphics (hence ROOT) come along
- Out the box, Spack provides all bar one dependency
 - Though await Javier's ROOT improvements
- Use cases maybe slightly different to those discussed
 - Will still support end users doing the install themselves...
 - ... but already using Docker/Singularity as binary deployment mechanism (no CVMFS yet)
- So far so good, some contributions likely:
 - To spack: "Spack update", "spack repo add <URL>" (like Homebrew...)
 - To WG: Maybe workflow/scripting for Container +Spack (+CVMFS) as a Developer Environment (e.g. support macOS/Windows for Linux-only software)

Ongoing Projects

- FNAL Spack / SpackDev
 - The MVP, last update October
- LHCb use of Nix
 - Chris Burr will update us today on that
- Use of Portage as a 'base system' on which we build
 - Nice tutorial from Guilherme last year

Are there any other projects or tools that people are aware of?

Meeting Cadence and Communication

- As the group has entered a phase where we are more working than discussing...
- Baseline schedule would be one meeting a month
 - Of course we can always try to convene extra meetings if needed
 - Stick to this day/time as it seems to work well for most
- **Next meeting, 27 February**

- Mailing list has been very responsive when questions are raised
 - Thanks! So don't be shy to use it

HOW2019 Workshop

- HSF/OSG/WLCG Workshop is this year in March
 - <https://indico.cern.ch/event/759388/>
 - Early registration closes this week
- Wide ranging workshop on the advances needed in software and computing in the next decade
 - Opportunity to reach discuss with HEP and non-HEP communities
 - Full set of HSF sessions (Reco, Analysis, Sim)
 - There is a Software Tools session where we will give an update from the group

The poster features the title 'HOW2019' in large, white, outlined letters with a circuit-like pattern of dots and lines. The background is dark blue with faint, glowing code snippets and network diagrams. At the top, it says 'Joint HSF, OSG & WLCG Meeting'. Below the title, the dates 'MARCH 18-22, 2019' and location 'Jefferson Lab • Newport News, Virginia, USA' are listed. A section for the 'SCIENTIFIC ORGANIZING COMMITTEE' lists names and affiliations for HSF, OSG, and WLCG. At the bottom, it states 'LOCAL ORGANIZATION PROVIDED BY JEFFERSON LAB' and includes logos for HSF, Open Science Grid, WLCG, and Jefferson Lab, along with the URL 'indico.cern.ch/e/how2019'.