

PRODUCTIVITY TOOLS FOR HIGH PERFORMANCE COMPUTING (PTC COURSE)

November 27 – 28, 2017

VŠB - Technical University of Ostrava
IT4Innovations building, training room 207

LECTURERS

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This HPC training aims to expand skills and knowledge in using **productivity tools** and technologies, to quickly build up an **efficient HPC user environment**, from scratch, without admin rights. We shall demonstrate tools and procedures tailored to the **Salomon** or **Anselm** clusters, however they are rapidly **replicable** on any HPC system.

In particular, our “Swiss knife” course will cover the following tools:

- **Singularity**, a novel technology for paravirtualization allowing for rapid deployment of highly customized environment,
- **EasyBuild**, a software build and installation framework which allows management of (scientific) packages on HPC systems in an efficient way,
- **Lmod**, a program to manage the user environment under Unix (Linux, Mac OS X, ...), a new implementation of environment modules,
- **GIT/GitLab, Continuous Integration**, a version control system for tracking changes in computer files and coordinating work on those files among multiple users,
- **KVM** (Kernel-based Virtual Machine), a virtualization infrastructure for the Linux kernel that turns it into a hypervisor.

Hands-on practical examples will be an integral part of the course.

This training is a **PRACE Training Centre course**, co-funded by the **Partnership of Advanced Computing in Europe** (PRACE).

COURSE AGENDA:

Monday October 27, 2017

09:30	10:00	Registration
10:00	12:00	Introduction GIT (Prda, Hrbáč)
12:00	13:00	Lunch break
13:00	14:30	Container and virtualization technology: Singularity (Krupčík, Hrabal)
14:30	15:00	Coffee break
15:00	16:30	Container and virtualization technology: KVM, VDE2 (Jansík)

Tuesday October 28, 2017

09:00	10:00	Lmod, software for management of environment modules (Krupčík, Hrabal)
10:00	10:30	Coffee break
10:30	12:30	EasyBuild framework for user software installation (Krupčík, Hrabal)
12:30	14:00	Lunch break
14:00	15:30	GitLab, Continuous Integration (Hrbáč)



More information and registration:
<https://events.prace-ri.eu/event/639/>