www.multixscale.eu

EESSI Happy Hour

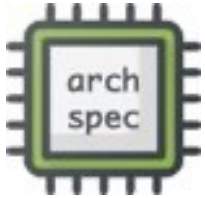
Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Mondays at 14:00 CEST

Current session: Using EasyBuild and controlling settings via `EESSI-extend`

https://www.eessi.io/docs/training/2025/happy-hours-sessions



Streaming Optimised Scientific Software

EESSI

EUROPEAN ENVIRONMENT FOR SCIENTIFIC SOFTWARE INSTALLATIONS

Website: eessi.io

EESSI support portal:

gitlab.com/eessi/support

13-10-2025

EESSI Happy Hour

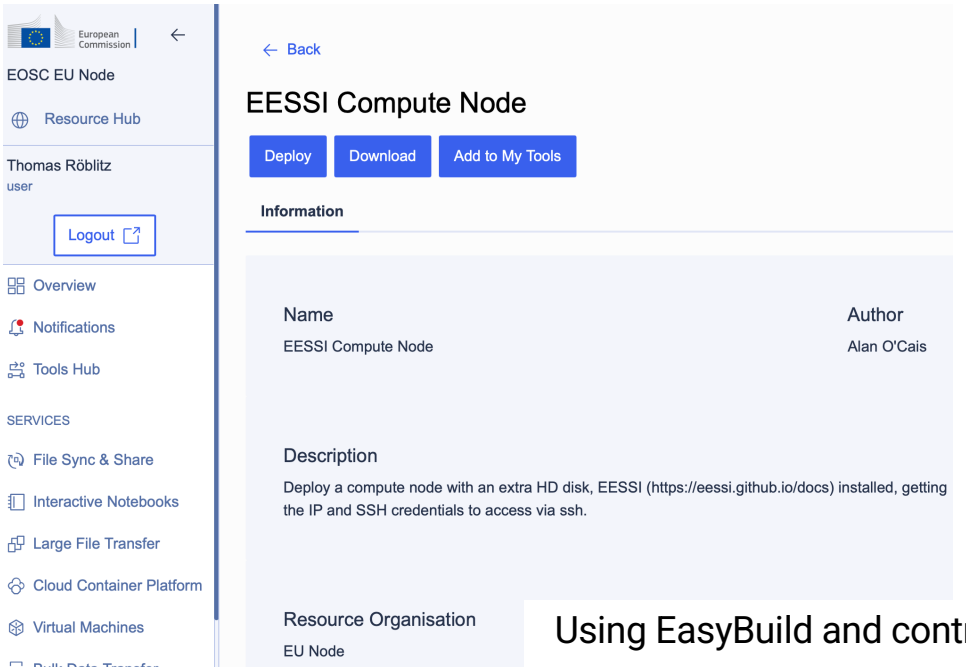
Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Mondays at 14:00 CEST

Session Highlights:

- unique software packages: ~ 600 in EESSI/2023.06, ~ 110 in EESSI/2025.06



EESSI available as public tool on EOSC VMs

https://open-science-cloud.ec.europa.eu/dashboard/tools-hub/tool-view?eo=MjEuMTExNjcvTnp2azVM

Please upvote "EESSI Compute Node" tool!

Using EasyBuild and controlling settings via `EESSI-extend`

EESSI Happy Hour

Mondays at 14:00 CEST

Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Details at https://www.eessi.io/docs/using_eessi/building_on_eessi/

```
$ source /cvmfs/software.eessi.io/versions/2023.06/init/lmod/bash
$ module load EasyBuild/5.1.2
$ eb --show-config
[.. .]
# (C: command line argument, D: default value, E: environment
variable, F: configuration file)
#
buildpath      (D) = /home/almalinux/.local/easybuild/build
containerpath  (D) = /home/almalinux/.local/easybuild/containers
installpath    (D) = /home/almalinux/.local/easybuild
repositorypath (D) = /home/almalinux/.local/easybuild/ebfiles_repo
robot-paths    (D) = /cvmfs/software.eessi.io/versions/2023.06/soft
ware/linux/x86_64/intel/haswell/software/EasyBuild/5.1.2/easybuild/
easyconfigs
rpath          (D) = True
sourcepath     (D) = /home/almalinux/.local/easybuild/sources
```

EESSI Happy Hour

Mondays at 14:00 CEST

Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions


```
$ source /cvmfs/software.eessi.io/versions/2023.06/init/lmod/bash
$ module load EESSI-extend/2023.06-easybuild
$ eb --show-config
#
# Current EasyBuild configuration
# (C: command line argument, D: default value, E: environment variable, F: configuration file)
#
allow-loaded-modules                    (E) = EasyBuild, EESSI-extend
buildpath                               (E) = /tmp/almalinux/easybuild/build
containerpath                           (E) = /tmp/almalinux/easybuild/containers
cuda-compute-capabilities               (E) = 8.0
cuda-sanity-check-error-on-failed-checks (E) = True
debug                                   (E) = True
experimental                            (E) = True
fail-on-mod-files-gcccore               (E) = True
filter-deps                             (E) = binutils, bzip2, DBus, flex, gettext, gperf, help2man, intltool, libreadline, makeinfo, ncurses, ParMETIS,
util-linux, XZ, zlib, Autoconf, Automake, Autotools, libtool, M4
filter-env-vars                         (E) = LD_LIBRARY_PATH
hooks                                   (E) = /cvmfs/software.eessi.io/versions/2023.06/init/easybuild/eb_hooks.py
ignore-osdeps                           (E) = True
installpath                             (E) = /home/almalinux/eessi/versions/2023.06/software/linux/x86_64/intel/haswell
local-var-naming-check                  (E) = error
packagepath                             (E) = /tmp/almalinux/easybuild/packages
prefix                                  (E) = /tmp/almalinux/easybuild
read-only-installdir                    (E) = True
repositorypath                          (E) = /tmp/almalinux/easybuild/ebfiles_repo
robot-paths                             (D) =
/cvmfs/software.eessi.io/versions/2023.06/software/linux/x86_64/intel/haswell/software/EasyBuild/5.1.2/easybuild/easyconfigs
rpath                                   (D) = True
sourcepath                              (E) = /tmp/almalinux/easybuild/sources
sourcepath-data                         (E) = /tmp/almalinux/easybuild/sources
sticky-bit                              (E) = True
strict-rpath-sanity-check               (E) = True
sysroot                                 (E) = /cvmfs/software.eessi.io/versions/2025.06/compat/linux/x86_64
umask                                   (E) = 077
zip-logs                                (E) = bzip2
```

EESSI Happy Hour

Mondays at 14:00 CEST

Topic Series: Building soon top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions

CernVM-FS


```
$ source /cvmfs/software.eessi.io/versions/2023.06/init/lmod/bash
$ module load EESSI-extend/2023.06-easybuild
$ eb --show-config
#
# Current EasyBuild configuration
# (C: command line argument, D: default value, E: environment variable, F: configuration
file)
#
cuda-sanity-check-error-on-failed-checks (E) = True
filter-deps                              (E) = binutils, bzip2, DBus, flex, gettext,
gperf, help2man, intltool, libreadline, makeinfo, ncurses, ParMETIS, util-linux, XZ, zlib,
Autoconf, Automake, Autotools, libtool, M4
filter-env-vars                          (E) = LD_LIBRARY_PATH
hooks                                    (E) =
/cvmfs/software.eessi.io/versions/2023.06/init/easybuild/eb_hooks.py
ignore-osdeps                            (E) = True
installpath                              (E) =
/home/almalinux/eessi/versions/2023.06/software/linux/x86_64/intel/haswell
rpath                                    (D) = True
strict-rpath-sanity-check                (E) = True
sysroot                                  (E) =
/cvmfs/software.eessi.io/versions/2023.06/compat/linux/x86_64
```

EESSI Happy Hour

Mondays at 14:00 CEST

Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions


```
$ source /cvmfs/software.eessi.io/versions/2023.06/init/bash
$ module load EasyBuild/5.1.2
$ module show EESSI-extend/2023.06-easybuild
[...]
```

EESSI_USER_INSTALL ... a location ... for use by the user only.

EESSI_PROJECT_INSTALL ... a location ... for use by a project.

EESSI_SITE_INSTALL ... defined or not ... site installation is done in a defined location

EESSI_CVMFS_INSTALL ... defined or not ... only useful for CVMFS administrators

If none of the environment variables above are defined, an EESSI_USER_INSTALL is assumed with a value of $HOME/EESSI

www.multixscale.eu

EESSI Happy Hour

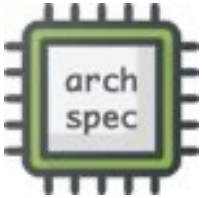
Topic Series: Building software on top of EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions

Mondays at 14:00 CEST

Next session: How we build software in EESSI

https://www.eessi.io/docs/training/2025/happy-hours-sessions



Streaming Optimised Scientific Software

EESSI

EUROPEAN ENVIRONMENT FOR SCIENTIFIC SOFTWARE INSTALLATIONS

Website: eessi.io

EESSI support portal:

gitlab.com/eessi/support