



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG

AWI-CM3 hands-on-course:

Part 3: Installing AWI-CM3

Jan Streffing 08.09.2022

Licence and registration



- OpenIFS is **not** in fact **open source**
- The license is given only to research institutes and universities
- It is free of charge and valid for all institute members & guests

Some proof of AWI member or guest status is required!

One of the following Colleagues has to add your **DKRZ user id** to the repository on <https://gitlab.dkrz.de/>



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Installation



- 1 On ollie & levante cd your `${HOME}` directory
On juwels cd to your own folder inside the project folder (e.g. `/p/project/chhb19/streffing1`)

- 2 Optional & recommended:

```
git config --global credential.helper cache  
mkdir model_codes  
cd model_modes
```

- 3 Download and compile model:

```
esm_master install-awicm3-v3.1
```

Under normal load on login nodes compilation should take 10-15 minutes
During the workshop load might be higher than normal
-> **Time for a coffee break**

Example output



```
mpifort -fp-model precise -O3 -xCORE_AVX2 -g -traceback -qopt-report=0 -fpe0 -qopenmp -  
o ../bin/rnfmap.exe config_mod.o cplng_data_mod.o cplng_init_mod.o cplng_config_mod.o c  
plng_exchange_mod.o cplng_finalize_mod.o cplng_mod.o runoff_mapper_mod.o runoff_mapper.  
o -L/p/project/chhb19/jstrefffi/model_codes/awicm3-master/oasis/build/lib/psmile -L/p/pr  
oject/chhb19/jstrefffi/model_codes/awicm3-master/oasis/build/lib/psmile/scrip -L/p/proje  
ct/chhb19/jstrefffi/model_codes/awicm3-master/oasis/build/lib/psmile/mct -L/p/project/ch  
hb19/jstrefffi/model_codes/awicm3-master/oasis/build/lib/psmile/mct/mpeu -lpsmile -lmct  
-lmpeu -lscrip -L/p/project/chhb19/HPC_libraries/intel-2021.4.0_openmpi-4.1.2_20220129/  
lib -lnetcdf
```

```
[info] link      8.9 M master.exe      <- programs/master.F90  
[info] compile  targets: modified=1, unchanged=2529, failed=0, total-time=0.8s  
[info] compile+ targets: modified=0, unchanged=798, failed=0, total-time=0.0s  
[info] ext-iface targets: modified=0, unchanged=1241, failed=0, total-time=0.0s  
[info] install  targets: modified=0, unchanged=224, failed=0, total-time=0.0s  
[info] link      targets: modified=1, unchanged=0, failed=0, total-time=8.9s  
[info] TOTAL    targets: modified=2, unchanged=4792, failed=0, elapsed-time=26.5s  
[done] make oifs      # 27.9s  
[done] make           # 29.4s
```

```
[ 98%] Building Fortran object src/CMakeFiles/fesom.dir/oce_setup_step.F90.o  
[ 99%] Building Fortran object src/CMakeFiles/fesom.dir/fesom_module.F90.o  
[100%] Building Fortran object src/CMakeFiles/fesom.dir/fesom_main.F90.o  
[100%] Linking Fortran executable fesom  
[100%] Built target fesom  
Install the project...  
-- Install configuration: "Release"  
-- Installing: /p/project/chhb19/jstrefffi/model_codes/awicm3-master/fesom-2.0/src/./bin/fesom.x
```

Feedback



Provide feedback at:

<https://github.com/AWI-CM3/hands-on-course/discussions/2>

The screenshot shows a GitHub repository page for 'AWI-CM3 / hands-on-course'. The 'Discussions' tab is selected. A poll titled '01 Were you able to log in; install esm_tools? #1' was started by 'JanStreffing' (Maintainer) 2 days ago. The poll description states: 'This poll asses how many participants have successfully installed awicm3-v3.1. Feel free to share issues here and help each other.' The poll options are:

- ☐ Yes
- ☐ No, I got a crash installing esm_tools
- ☐ No, I'm having trouble with git
- ☐ No, I can't log into the HPC system (ollie, levante, juwels)

On the right sidebar, the category is 'Polls', the label is 'feedback', and it shows '1 participant'.