

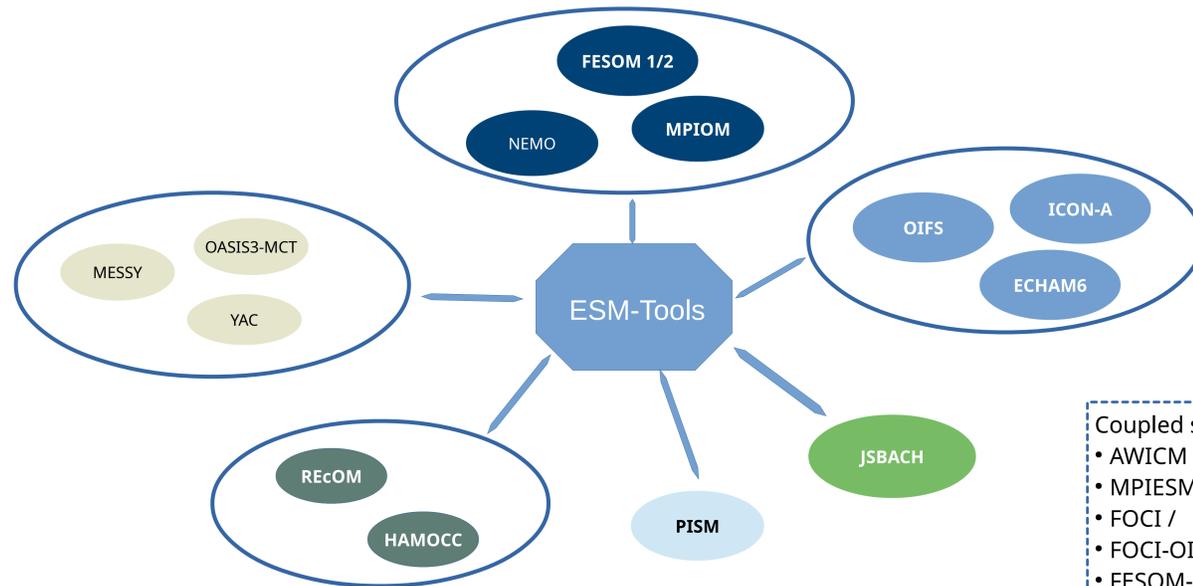
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ESM-Tools

Release 4.0

ESM-Tools: A common infrastructure for modular coupled earth system modelling

ESM-Tools



Coupled setups:
• AWICM 1/2/3
• MPIESM
• FOCI / FOCI-OIFS
• FESOM-RECOM
• ...

ESM-Runscripsts

- Collection of python functions / yaml configs for unified runscripsts to execute different models and coupled systems with only one tool
- Similar runscripsts for all supported models
- Functionality is very modular and easy to extend

Supported Functionality

- Run models and coupled setups
- Run sanity checks
- Pre- and Postprocess Data
- Sort model in- and output for future reference
- Tarball and archive data
- Graphical and error monitoring
- Iterative coupling
- Database logging of activities

Basic usage and syntax

```
$> esm_runscripsts awicm.run -e <exp-id>
```

Sample Runscript for AWICM-CMIP6, yaml style

```
general:
  setup_name: awicm
  compute_time: "00:15:00"
  initial_date: "2000-01-01"
  final_date: "2000-02-29"
  base_dir: "/path/to/experiment/output"
  nmonth: 1

awicm:
  version: CMIP6
  postprocessing: false
  scenario: "PI-CTRL"
  model_dir: "/path/to/model/source/and/bin"

fesom:
  pool_dir: "/path/to/fesom/inputs"
  mesh_dir: "/path/to/fesom/meshes"
  restart_rate: 1
  restart_unit: "m"
  restart_first: 1
  further_reading:
    - "/path/to/some/other/fesom/yaml"
```

ESM-Master/-Environment

Supported tasks

- download (get-)
- configure (conf-)
- install (install-)
- compile (comp-)

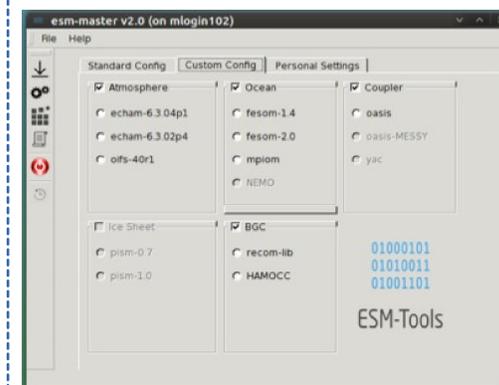
Supported HPC systems

ollie@awi, mistral@dkrz, blogin@hln, glogin@hln, jureca@fzj, juwels@fzj

Example for AWI-CM 2.0

- Downloading the source code
\$ esm_master get-awicm-2.0
- Compiling the source code
\$ esm_master comp-awicm-2.0

GUI



Contact

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