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ESM-Tools

Newsletter September 2020 – Release 4.2

Announcements:

Latest Releases:

Release 4: April 28, 2020

Release 4.2: September 8, 2020

Next planned major release:

Release 5: October, 2020

Next ESM-Tools Dev Meeting:

9:00-11:00, October 6, 2020

Video Conference

a link will be sent via e-mail

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🐦 [@ToolsEsm](#)

Release 4.2

It might be a minor release, but version 4.2 includes important changes that will allow developers to implement new components and setups faster and will ease the user-experience. We could have postponed these functionalities until release 5.0 (due in a month), but why should we make you wait to use the following exciting features?

- **Refactorization of the packages:** The time had come to do a clean up of the packages and to increase the clarity of the ESM-Tools configuration files. Before, the information about a component was split in at least two files, the old `setups2models.yaml` installation file, and a file containing specific configuration for the running of the component. Now things have become much clearer: all the configuration definitions required to install and run a component/setup are in the same file!
- **Component specific environments:** Another tidy-up feature that allows compiling and runtime environments modifications to be specified in the component configuration files. This will prevent the machine files from growing unnecessarily, avoiding environment conflicts among the components, even when these components are part of the same coupled setup! Check this [link](#) for more details.
- **Bug fixes:** We keep working hard on fixing bugs concerning ECHAM and other components. Issues in GitHub are always under our scope, so if you find a bug don't hesitate to report an issue [here](#)! We will address it ASAP.
- **Documentation:** We keep expanding the user manual and filling the gaps. Check the progresses [here](#) and feel free to rise issues on GitHub for suggestions.

Apart from new functionality, we extended the support for configurations for the following models and setups:

- **FOCI:** ECHAM-6.305p2 coupled to NEMO 3.6, developed by Sebastian Wahl (GEOMAR)
- **VILMA:** versions 1d and 3d
- **ICON:** compilation

- **OpenIFS:** latest version (OpenIFS-43r3) supported, developed by Sebastian Wahl and Joakim Kjellsson (GEOMAR)
- **AWIESM:** ECHAM-6.3.05p2 with concurrent radiation and dynamic vegetation coupled to FESOM-2.0 and PISM-1.2, developed by Paul Gierz
- **FESOM-REcoM-1.4:** FESOM-1.4 coupled to the biogeochemistry model REcoM

Shell Version Discontinued

We would like to remind you that the shell version of the ESM-Tools is no longer supported. Note that:

- Although backward compatibility of runscripts is supported, we encourage you to switch to writing your runscripts in YAML format. This format is clearer to read and new features will be developed around it.
- A lot of models and setups already work, are tested, and you can find simple example runscripts. Please contact us to find out if your model has been set up already.

esm-tools@github.com

Each repository of the ESM-Tools has two branches. The default branch is 'release'. This is the branch that will come with 'git clone' and holds the latest stable version of the ESM-Tools. We highly recommend to all users to use this release branch when carrying out model experiments. We will only give full user support to this 'release' branch.

Documentation

User Manual

The old git project "esm-usermanual" is deprecated. You can find the latest user manual here:

https://esm-tools.readthedocs.io/_/downloads/en/latest/pdf/

Also, you can find the newest (and html-) version on our website:

<https://esm-tools.readthedocs.io/en/latest/index.html>

Other news

New colleague started on May: Welcome Deniz!

Paper: The paper describing the ESM-Tools is finally in the reviewing phase in GMD and available as a preprint [here](#). Feel free to contribute to the discussion by posting a comment.

Upcoming events related to ESM-Tools

5th Workshop on Coupling Technologies for Earth System Models: Postponed: 21-23 September 2020, Météo-France Campus, Toulouse, France

- esm-interface (oral presentation by Nadine Wieters)
- ESM-Tools (oral presentation by Deniz Ural)

AGU2020 This time as virtual conference. An abstract was submitted for presenting ESM-Tools.

GitHub Issues

Issues in GitHub is a great feature that allows us to organise the work needed for bugfixes and enhancements. Discussions about how to solve the issue are held there, where referencing commits, merges and other issues is smoothly integrated. Labelling and issue assignment help us to better manage your bugfixes/requests. For all these reasons GitHub Issues is our preferred way for you to report your suggestions and bugs. Of course, if you'd rather not use this feature, you can always contact us by email.

https://github.com/esm-tools/esm_tools/issues

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