ESMValTool v2.0
Coding Workshop

DLR Oberpfaffenhofen – 18-22 June 2018

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Goals of the workshop

- Finalize and release ESMValTool v2.0.0a
- Porting namelists and diagnostics from v1 to v2
- Introduce ESMValTool to newcomers
- Provide help and support to users moving to v2
- Discuss publications

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Priorities and assignments

- In general, each participant is encouraged to focus on the github issues he/she has been assigned to. See the current list here (it can be filtered by assigned user clicking on “Assignee” in the top menu):

  https://github.com/ESMValGroup/ESMValTool/issues

- Since the goal of the workshop is to finalize the release of v2.0.0a (alpha version), a subset of high priority issues should be considered first:

  https://github.com/ESMValGroup/ESMValTool/issues?q=is%3Aissue+is%3Aopen+label%3Aworkshop

- An overview of the current status of v2.0.0a release is also given under the corresponding github project:

  https://github.com/ESMValGroup/ESMValTool/projects/2

- The finalization of `namelist_perfmetrics_CMIP5` is also to be considered as an essential part for the alpha release:

  https://github.com/ESMValGroup/ESMValTool/projects/6

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Help and support

General questions about version 2: Bouwe, Javier, Valeriu, Mattia, Handouts

Installation issues: Bouwe

CMORization: Javier

Regridding, masking and other backend functionalities: Valeriu

Diagnostics and porting to v2: Mattia

Logistics: Birgit

At least one wrap-up session will take place at the end of each day to discuss status, progress and issues

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Publications

Two publications about ESMValTool v2 are planned:

- **Part 1, technical overview** (preprocessor/backend, new structure, revised interface, new namelist format etc.). Righi et al. (v2 developers), to be submitted to Geosci. Model Dev. (open-access Copernicus journal)

ESMValTool (v2.0) – Part 1: technical overview. Revised backend for efficient data pre-processing and improved workflow.

Mattia Righi[1], Bouwe Andela[2], Niels Drost[2], Paul Earnshaw[3], Veronika Eyring[1], Axel Lauer[1], Bill Little[3], Valeriu Predoi[4], Javier Vegas-Regidor[5], and others to be added [X]

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- **Part 2, scientific overview** (new diagnostics since v1 and new features of existing diagnostics ported to v2). Eyring et al. (diagnostic developers)

Summary, outcome and way forward…

Highlights

- ✓ First official release v2.0a0
- ✓ Conda and Docker installation packages available
- ✓ Variable derivation finalized (4 derived variables available)
- ✓ Extended data-finder to read fx-variables in a flexible way
- ✓ New definitions: models -> datasets, namelist -> recipe
- ✓ New option for saving NetCDF Output in compressed format (to save storage)
- ✓ More v2 active users

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The workshop in numbers

- ✓ 20 participants
- ✓ 20 issues solved
- ✓ 36 pull requests merged
- ✓ 24 new issues opened
- ✓ 11 recipes (namelists) being currently ported to v2

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Way forward

To-do before the beta release (v2.0b0):

- ✓ Regridding of ocean grids (Nikolay, Klaus, Valeriu, Daniel)
- ✓ CMORization of observations (Birgit, Xavier, Mattia)
- ✓ Land/Sea masking (Valeriu, Bouwe)
- ✓ Full version of recipe_perfmetrics_CMIP5.yml (Mattia)
- ✓ Provenance/Tagging (Lisa, Björn, Bouwe)
- ✓ Paper Part 1 (Righi et al.)
- ✓ More diagnostics from v1…
- ✓ Next workshop in Summer 2019

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Thank you!

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