Extpar

Status and future plans

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Status Extpar v5.10 (August 2022)

Scientific updates

- MERIT topography available for COSMO

- Revised algorithm for SGSL processing

Technical updates

- Intel and NAG compilers not supported anymore

- Small OpenMP optimizations for domains crossing the dateline

- Replace Mistral with Levante at DKRZ

- Python/CDO rewrite completed

Future developments

New datasets

- Incorporate new parameters for Urban (still not a single piece of information)

- JSBACH 4 Extpar (still not a single piece of information)

Testsuite

- Replace redundant namelist settings, currently about 80% of all settings identical

- Use same CDO version across machines to minimize tolerance thresholds in testsuite

Webinterface

- Work together with P. Sommer to setup new web-interface for WebPep service

- Based on a wrapper around Extpar (see next slides)

Wrapper for Extpar

Problem

- EXTPAR consists of 13 individual script, some with multiple namelists

- Many runscripts outdated and not maintained

- Difficult to define topography tiles for MERIT/ASTER datasets

Solution

- Wrapper to setup sandbox, namelists and runscript

- Pass an icon-grid or COSMO namelists for domain specification

- Only key features like ialb_type, itopo_type etc. need to be defined

- All details (tiles, data path, consistency, etc.) are managed by the script

- See https://github.com/C2SM-RCM/extpar/pull/299 for more infos

More infos

GitHub

- https://github.com/C2SM-RCM/extpar/blob/master/ReleaseNotes.md

- https://github.com/C2SM-RCM/extpar/wiki

- https://github.com/C2SM-RCM/extpar/blob/master/doc/user_and_implementation_manual.pdf

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Discussion