

Configuration Updates

Configuration before v2.12.0

User config

output_path: /path/to/output search_esgf: when_missing

rootpath:

default: /path/to/input CMIP6: path/to/cmip6

drs:

CMIP6: ESGF

Developer config

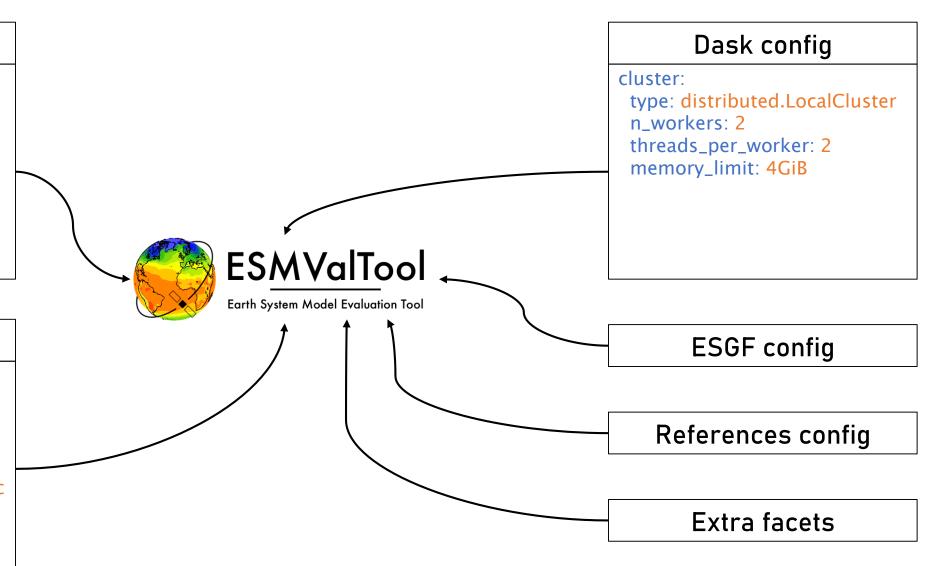
CMIP6:

cmor_strict: true

input_dir:

ESGF: {project}/{dataset}/...
input_file: {short_name}_...nc
output_file: {short_name}_...nc

cmor_type: CMIP6



New Configuration - Overview

Single ESMValTool configuration object

```
output_path: /path/to/output
search_esgf: when_missing
dask:
 cluster:
  type: distributed.LocalCluster
  n workers: 2
  threads_per_worker: 2
  memory_limit: 4GiB
data_sources:
 CMIP6:
  cmor strict: true
  input_dir: {project}/{dataset}/...
  input_file: {short_name}_...nc
  output_file: {short_name}_...nc
  cmor_type: CMIP6
  rootpath: /path/to/input
esgf:
```



New Configuration - Details

Configuration is merged from YAML files within configuration directories (caveat: <u>all</u> YAML files in these directories are interpreted as configuration files!)

Example:

a.yml

output_path: /path/to/a search_esgf: when_missing

data_sources:

CMIP6:

cmor_strict: true rootpath: /path/to/a

z.yml

output_path: /path/to/z log_level: debug

data_sources:

CMIP6:

rootpath: /path/to/z

CMIP5:

rootpath: /path/to/z



Merged configuration

output_path: /path/to/z search_esgf: when_missing

log_level: debug

data_sources:

CMIP6:

cmor_strict: true

rootpath: /path/to/z

CMIP5:

rootpath: /path/to/z

New Configuration - Current state (v2.12.0)

- Currently, <u>user configuration</u> has been adapted to new format. It is now merged from YAML files within configuration directories
 - Priority 1: Directory given via --config_dir command line argument
 - Priority 2: ~/.config/esmvaltool (can be overwritten with ESMVALTOOL_CONFIG_DIR environment variable)
- All configuration options can still be supplied as command line options, for example,
 --search_esgf=when_missing
- Command line option --config_file and default user configuration location
 ~/.esmvaltool/config-user.yml are now deprecated. If used, only these configuration files
 will be read (new options will be ignored). This raises a warning now, and will be removed
 in v2.14.0

New Configuration – Outlook

- Move all configuration files to single configuration object (Developer config, Dask config, ESGF config, ...)
- Overhaul data sources configuration and include new sources like intake

Links

- Plan: https://github.com/ESMValGroup/ESMValCore/issues/2371
- First PR: https://github.com/ESMValGroup/ESMValCore/pull/2448
- Doc: https://docs.esmvaltool.org/projects/ESMValCore/en/latest/quickstart/configure.html