



CliMAF : status and upcoming challenges

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CliMAF (Climate Model Assessment Framework) is a python framework developed in the ANR Convergence project that initially aimed at providing the French climate modelling community with an efficient way to analyse and evaluate any climate simulation. CliMAF offers a user-friendly way to access various organizations of CF-compliant netcdf files, apply most common pre-treatments to the selected climate data (time averaging, selection of a geographical domain, regriding, etc.), plot the result and possibly insert the images in an html page. CliMAF totally handles the outputs by storing them in a smart cache directory that avoids recomputing using a store key which fully handles data provenance.

Last but not least, thanks to the "gluing" capacity of Python, any script can become a CliMAF operator, provided it can be executed within a command line which handles input and output netCDF (or figure) files names and parameters as arguments; it can then integrate the CliMAF framework.

In 2018, we have used CliMAF for many applications (model evaluation, CMIP analysis, climate services projects). The number of users has increased thanks to a good dynamic of training sessions, and we had a lot of feedbacks. We will present the new developments on the data access for an improved discovery of available data and easy build of CliMAF ensemble object to analyse ensembles, and the use of parallel execution. We will also discuss the challenges of the management of the cache content and data access in the context of the large and potentially compressed datasets of the CMIP6 upcoming archive.