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# MAKEDEPF90

incorporated in the new python run-scripts / cy3



# The Problem

- \* Makefile depends on “settings” like `with_hdf`
- \* Makefile depends on base AND projects
- \* Wrong dependencies in Makefile can result in wrong executable (e.g. if the “-C” flag is not used)
- \* Question: Can we solve this once and for all?



# Philosophy

- \* Copy base and project source-code to working directory
- \* Remove the unwanted files based on #ifdef includes
  - \* e.g. with\_hdf requires file\_hdf.F90
- \* Run “makedepf90” to create dependencies for Makefile
- \* Run “make” to create executable

# Implementation

- \* In the `cy3 runtm5.py` script (you need `python2.3` or higher)
- \* Needed: c-program `makedepf90` (freely available) in search path
- \* `source.rc` file needed with “source” information (user may modify it for new projects)
- \* flags in the `.rc` file:
  - \* `make.define` : `slopes with_hdf with_zoom with_budgets ...`
  - \* `source.info` : `rc/source.rc`



with\_remove : user\_output\_cf.F90

with\_mpi : mpi\_const.F90 mpi\_comm.F90

with\_restart : tm5\_restart.F90

◇ with\_grib : file\_grib.f90 grib\_table.f90 tmm\_mf\_grib.F90 tmm\_mf\_ecmwf\_mars.F90 ◇

with\_hdf : file\_hdf.f90 tmm\_mf\_hdf.F90

with\_ncep : tmm\_mf\_ncep\_gfs.F90 tmm\_mf\_ncep\_cdc.F90 file\_ncb.F90 file\_ncg.F90

with\_msc : tmm\_mf\_msc.F90

with\_prism : prism\_putget.F90 tmm\_mf\_prism.F90 tm5\_prism.F90 appl-tm5.F90

with\_tendency : tm5\_tendency.F90 tm5\_tendency\_eval.F90

with\_budgets : budget\_global.F90

with\_pnetcdf : pnetcdf.F90

without\_wet\_deposition : wet\_deposition.F90

without\_dry\_deposition : dry\_deposition.F90

without\_photolysis : photolysis.i photolysis.F90 photolysis\_data.F90

# Demonstration (Mac)

- \* cy3/
- \* base + proj/user\_output
- \* ...no other projects tested yet.....help needed from all..
- \* so, you are encouraged to move to runtm5.py