Wikiprint Book

Title: 1. What is a configuration?

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The configurations

Click on the name of any model configuration for more details.

1. What is a configuration?

The IPSL climate modeling suite offers various configurations described in the mod.def file in modipsl/util. Each configuration consists of one or several model components (including the OASIS coupler) and tools. Tools are, for example, libIGCM, XIOS or IOIPSL. The supported configurations use specific versions of each model component. It is however possible to change the version of a model components and the version of the tools. To do so, you must change mod.def.

The supported configurations are maintained and updated by the working groups at the IPSL Climate Modeling Center. See the supported configurations below and click on the links for details.

2. **IPSLCM5**

- IPSLCM5_v5 : the reference coupled model used for CMIP5 simulations including atmosphere, land, ocean, sea ice and carbon cycle
- Details on the CMIP5 model and its history (between 2010 and 2012) can be found (in French) ■(password required at least) and ■here for its history.

3. **IPSLCM5A2**

- IPSL-CM5A2-VLR : the fast version of the IPSL Earth System Model, based on recent technical developments and recent releases of each component.

4. **IPSLCM6**

- IPSLCM6 LR : this section describe the IPSLCM6_rc1, and the LR (Low Resolution) version.

5. **LMDZOR**

Configuration coupling the atmosphere model LMDZ and with the land surface model ORCHIDEE.

LMDZOR_v5 and LMDZOR_v5.2
- LMDZOR_v5: Using a specific revision number on LMDZ5 trunk and ORCHIDEE version CMIP5
- LMDZOR_v5.2: Using same LMDZ5 and a specific revision of the trunk ORCHIDEE

LMDZOR_v6 : Working configuration under construction. Main modifications compared to LMDZOR_v5:
- Uses close to the latest versions of LMDZ and ORCHIDEE. Can be used with new physics and CWRR(11-layer) hydrology.
- Compiling LMDZ dynamics dyn3dmem, compiling hybrid parallelization mode.
- Using XIOS for writing diagnostics.

6. **LMDZORINCA**

LMDZORINCA: forced configuration with the atmosphere LMDZ land surface ORCHIDEE and tropospheric chemistry INCA.
2 versions are currently maintained :

- LMDZORINCA_v5: the atmosphere-land version of IPSLCM5 including tropospheric chemistry
- LMDZORINCA_v6: version close to IPSLCM6

7. **LMDZREPR**

LMDZREPR_v5: the atmosphere-land version of IPSLCM5 including stratospheric chemistry

8. **IPSLCM5CHT**

IPSLCM5CHT_v5: reference coupled model including tropospheric chemistry

9. IPSLCM5CHS

IPSLCM5CHS_v5: reference coupled model including stratospheric chemistry

10. NEMO

NEMO: ocean-only version including sea ice and marine biogeochemistry

11. ORCHIDEE_OL

ORCHIDEE_OL: offline configurations with the land surface model ORCHIDEE. 3 different versions are available:

- ORCHIDEE_SVN_AR5: using version CMIP5 of ORCHIDEE
- ORCHIDEE_TAG: using the tag 1.9.6 of ORCHIDEE
- ORCHIDEE_trunk: using the latest version of the trunk ORCHIDEE