

## Acronyms

### CCRT

Centre de Calcul Recherche et Technologie. Computing center of CEA, mainly used by industrial branches of CEA and CEA's industrial partners.

### CliMAF

a Climate Model Assessment Framework. More [here](#).

### COSP

CFMIP Observation Simulator Package.

### CMIP5

Coupled Models Intercomparison Project

### CWRR

Centre for Water Ressources Research. Reference to the 11-layers default hydrology used in ORCHIDEE model.

### DA

Daily outputs

### esci

Equipe Système Climat IPSL -- ancien nom de l'équipe Plateforme.

### Ferret

Software which can in particular perform 1D and 2D plots as well as advanced data analysis.

### HF

High-frequency outputs, in general: 3 or 6 hours.

### IDRIS

Institut du Développement et des Ressources en Informatique Scientifique. Computing center of the CNRS.

### IGCMG

IPSL Global Climate Modelling Group, former name of IPSL-CMC

### INCA

Chemistry-aerosols model coupled to LMDz (the general circulation model from the Laboratoire de Météorologie Dynamique). This model allows the interactive simulation of the atmospheric distribution and evolution of long-lasting greenhouse gases (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O), tropospheric ozone chemistry in gaseous phase and different kinds of aerosols.

### IOIPSL

Input/output library developed at the IPSL. Progressively replaced by XIOS.

### IPSL

Institut Pierre Simon Laplace

### IPSL-CMC

IPSL Climate Modelling Centre develops and uses climate models in order to improve our understanding and knowledge of the climate system, its current characteristics and its past and future changes. [See also](#).

**Jessica**

Female first name of Hebrew origin. The name «Jessica» first appeared in a Shakespeare play called "The merchant of Venice" where Jessica is the daughter of Shylock.

**LMDZ**

General atmospheric circulation model which has been developed at <http://www.lmd.jussieu.fr> Laboratoire de Météorologie Dynamique since the 70's. It has several variations which led to model versions for the Earth and for Mars, Titan, Venus, and exoplanets. LMD is the acronym of the department, the "Z" in LMDZ stands for "zoom". In its earth version, LMDZ is the atmospheric component of the IPSL "Integrated climate model", whose development is supervised by the "pôle modélisation". The LMDZ model is being used for the international research effort on future climate.

**MO**

Monthly outputs

**NEMO**

The Nucleus for European Modelling of the Ocean is a state-of-the-art modeling framework for oceanographic research, operational oceanography seasonal forecast and climate studies. NEMO includes 5 major components: the blue ocean (ocean dynamics, NEMO-OPA), the white ocean (sea-ice, NEMO-LIM), and the green ocean (biogeochemistry, NEMO-TOP).

**OASIS**

Coupler developed by CERFACS. OASIS allows for the control of a coupled model components and for the exchange of variables between models (with interpolation if necessary)

**ORCA**

ORCA is the name of the global ocean model NEMO configurations. The existing resolutions are ORCA2 (2°), ORCA1 (1°), ORCA05 (1/5°), ORCA025 (1/4°) and ORCA12 (1/12°).

**ORCHIDEE**

ORCHIDEE is the new land-surface scheme of the IPSL. This scheme is the result of the coupling between the SECHIBA land-surface scheme, which is dedicated to the surface energy and water balances, and the carbon and vegetation model STOMATE.

**PMIP3**

Paleoclimate Modeling Intercomparison Project

**REPROBUS**

REPROBUS (Reactive Processes Ruling the Ozone Budget in the Stratosphere) is a 3D model for chemistry-transport. It computes the evolution of 55 chemical species via 147 chemical reactions [Lefèvre et al., 1998]. Heterogeneous reactions are also taken into account. The liquid PSC are described using Carslaw et al.'s model [1995].

**RTFM**

*Read The Fucking Manual or Regardes Ton Foutu Manuel* in French. To whom it may concern...

**SE**

Stands for seasonal. The acronym designates monthly mean climatologies.

**TGCC**

Très Grand Centre de Calcul du CEA (Very Large CEA's Computing Center)

**TS**

Time series. The acronym designates a file which contains one time series of a unique variable.

**XIOS**

Parallel input/output library developed at the IPSL.

## Definitions

### atlas

This term designates an ensemble of plots obtained with model outputs and used to evaluate the model, or the ensemble of scripts needed to generate those maps.

### bash

Bash is an acronym for Bourne-again shell. It is the GNU project's shell.

### branch

Notion #SVN <http://svnbook.red-bean.com/en/1.1/ch04.html#svn-ch-4-sect-1>

### card

Text file containing options.

### choucroute

Sauerkraut (from German: Sauerkraut, pronunciation IPA: **■za■.■k■a■t**) is a dish which is traditionally eaten in Germany, Bulgaria, Poland, Hungary, the Netherlands, Serbia, Romania, Luxembourg, Switzerland, Luxembourg, Chili, the United States and the Popular Republic of China. In Chili, sauerkraut is part of the traditional "completo chileno". In France, it is a regional speciality from Alsace and in China, it is a specialty from the Heilongjiang province. In Italian Trentino-Alto-Adige region, it obtained the appellation « Produits agroalimentaires traditionnels » (PAT) in 1999, but this appellation is not acknowledged by the european community. Sauerkraut is made of finely cut cabbage that has been fermented by various lactic acid bacteria. Literally this word means « sour cabbage» and by extension it also designates the cooked sauerkraut served with a side dish.

### compilation

Transformation of an ensemble of scripts written in a comprehensive way (or close to comprehensive way!) into a list of commands executed by the computer.

### composante

Script (but not necessarily an independent script, for example LIM regarding OPA)

### configuration

Ensemble of components tuned to work together.

### diadème

Tiara in English. A tiara is a kind of headband, most often used by oriental monarchs as a sign of royalty. The word originates from Greek **δι■δημα**, diadema, which in turn comes from **δι■δηω** diadeo, which means to surround or to tighten.

### démigration

On a few storage facilities (STOREDIR at TGCC for example) the data is either located on a disk or is migrated on bands. The demigration is the action of putting the data migrated on bands back onto a disk.

### driver

Shell script gathering commands to be executed at specific times during the simulation.

### fast

Ensemble of ferret scripts used to simplify the creation of maps, plots and diagnostics.

### fcm

Flexible Configuration Manager. Software developed by the Hadley Centre to extract and compile their model. Used by the IPSL but only to compile.

## **gmake**

GNU version of the make command. For the IPSL models, you must use a version of make which is compatible with gmake.

## **help**

-h, --help : frequently used option in Unix commands and tools. It gives a summary of the users' manual. See also: man. Example: `make -h`

## **janséniste**

Jansenism is a theological, and later political, movement which developed mainly in France during the 17th and 18th centuries in reaction to certain Catholic Church evolutions and to royal absolutism.

## **job**

File containing an ensemble of commands which will be executed one after the other by the batch system of a computer.

## **ksh**

The Korn shell or ksh is a Unix shell developed by David Korn in the early 80's. It is compatible with the Bourne shell and it also includes a wide range of C shell functions. It also allows for advanced scripting functions used in more evolved programming languages such as awk, sed, TCL and Perl.

## **leap**

Referring to leap year

## **libIGCM**

Shell script library used to run the IPSL models.

## **make**

The purpose of the make utility is to determine automatically which parts of a large program need to be recompiled, and to issue the commands to recompile them.

## **makefile**

File which includes the configuration for make. This file describes the dependencies between the different source files. With the makefile, make is able to determine the order in which it must compile the different components.

## **man**

Command which shows the users' manual for each Unix command. To be used without moderation. `man ls`, `man find`, ...

## **modipsl**

Environment which allows for retrieving IPSL configurations and their compilation.

## **mod.def**

File stored in modipsl/util which describes the components of all configurations supported by IPSL.

## **monitoring**

Near real-time monitoring of simulations using simple diagnostics (e.g. plots) of a few key variables.

## **ornithorynque**

The platypus is a little semiaquatic mammal endemic to eastern Australia, including Tasmania. Together with the four species of echidna, it is one of the five extant species of monotremes, the only mammals that lay eggs instead of giving birth. It is the sole living representative of its family (Ornithorhynchidae) and genus (Ornithorhynchus), though a number of related species have been found in the fossil record.

**pack**

Step in the workflow during which it is possible to group in a single file different output time steps. In general, monthly output files are grouped by 1 to 10-yr packs.

**pd.control****pi.control****rebuild**

When using a parallel model for which parallel I/O are not activated, the outputs are divided into different output files (1 file by MPI process), each of the output files containing only a fraction of the computing domain. The rebuild phase is meant to reconstruct the complete output file covering the whole domain.

**restart**

File containing the state of the model at a given time step. The restart file is read to continue a simulation from the next time step.

**scheduler**

A job scheduler is a computer application for controlling unattended background program execution (commonly called batch processing). Synonyms are batch system, Distributed Resource Management System (DRMS), and Distributed Resource Manager (DRM).

**section**

Sub section of the card files starting by the section's name in brackets. Example: [UserChoices]

**Subversion**

Subversion is an open source version control system.

**svn**

Command to manage versions of the Subversion software.

**shell**

Online command interface of the Unix operating system. We suggest the interactive bash and libIGCM uses the ksh in batch.

**tag**

Notion #SVN. A tag is just a "snapshot" of a project in time. In Subversion, this idea already seems to be everywhere. Each repository revision is exactly that—a snapshot of the filesystem after each commit. However, people often want to give more human-friendly names to tags, like release-1.0. And they want to make snapshots of smaller subdirectories of the filesystem. After all, it's not so easy to remember that release-1.0 of a piece of software is a particular subdirectory of revision 4822. ■<http://svnbook.red-bean.com/en/1.1/ch04s06.html>

**trunk**

In #SVN, the main directory in which one works to make the project evolve.