

Wikiprint Book

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Download

Download a model configuration to a specific machine using the **modipsl** tool.

1. Description

modipsl is an suite of scripts which allow you to

- obtain a model configuration from a computing center;
- to [compile](#) the model components of a model configuration on a specific machine.

modipsl is also the architecture hosting the models and tools of a chosen model configuration. **modipsl** is developed at IPSL.

2. Downloading modipsl

```
svn co http://forge.ipsl.jussieu.fr/igcmg/svn/modipsl/trunk modipsl
```

To avoid typing this command line for every new **modipsl** retrieval, we recommend to create an alias :

```
alias svn_ano='svn co http://forge.ipsl.jussieu.fr/igcmg/svn/modipsl/trunk modipsl'
```

The retrieval command then becomes

```
svn_ano
```

To learn more about SVN and other useful scripts, [click here](#).

3. How to use modipsl

3.1. The modipsl directories

After downloading and unpacking **modipsl**, you should have the following directory structure:

- **util** contains information and scripts necessary to setup the different versions of the IPSL models;
- **doc** contains the CECILL's license (license of the IPSL models)

modipsl also contains the following directories (empty in the beginning) :

- **modeles**: directories containing the model source codes (filled once the model configuration has been downloaded and unpacked)
- **config**: directories containing the experiment directories (filled once the model configuration has been downloaded and unpacked)
- **bin**: directory containing the executables (filled after compiling)
- **lib** and **tmp**: directories containing temporary files created during the compilation. Those directories will not be used by all models.

Main scripts in the directory *util*

- **model** --> Downloading script for available model configurations. This script also provides information on the available model configurations.
- **mod.def** --> File containing the information on the available model configurations : components, tags, svn servers
- **ins_make** --> Makefiles for the computing machine
- **ins_job** --> Scripts for running jobs on the computing machine

3.2. Available configurations via modipsl

Using **modipsl** will give you access to a large number of model configurations, each of them uses one or more IPSL models. To list the available model configurations, use the following script:

```
cd modipsl/util
./model -h
```

To obtain information on the models used (tags, versions,...) in a specific configuration, use the following script:

```
./model -h nom_de_la_config
```

Example with LMDZOR_v5 :

```
./model -h LMDZOR_v5

model : LMDZOR_v5

LMDZ and ORCHIDEE (closest version to IPSLCM5_v5)
This configuration can be used with LMDZ4(LMDZ4/branches/LMDZ4_AR5) or LMDZ5 (LMDZ5/trunk(default), LMDZ5/branches/LMDZ5_A

email address of the model manager: Josefine.Ghattas@ipsl.jussieu.fr

Component 1 : IOIPSL/tags/v2_2_1/src
Tag          1 : HEAD
System       1 : svn
Server       1 : http://forge.ipsl.jussieu.fr/igcmg/svn
Directory 1 : IOIPSL/src
Local Dir 1 : modeles
Component 2 : tags/ORCHIDEE_1_9_5/ORCHIDEE
Tag          2 : HEAD
System       2 : svn
Server       2 : svn://forge.ipsl.jussieu.fr/orchidee
Directory 2 : ORCHIDEE
Local Dir 2 : modeles
Component 3 : LMDZ5/trunk
Tag          3 : 1628
System       3 : svn
Server       3 : http://svn.lmd.jussieu.fr/LMDZ
Directory 3 : LMDZ
Local Dir 3 : modeles
Component 4 : CONFIG/UNIFORM/v5/LMDZOR_v5
Tag          4 : HEAD
System       4 : svn
Server       4 : http://forge.ipsl.jussieu.fr/igcmg/svn
Directory 4 : LMDZOR_v5
Local Dir 4 : config
Component 5 : tags/libIGCM_v2.0_rc3
Tag          5 : HEAD
System       5 : svn
Server       5 : http://forge.ipsl.jussieu.fr/libigcm/svn
Directory 5 : libIGCM
Local Dir 5 : .
```

If the requested model configuration does not exist :

```
./model -h Ornithorynque
Model Ornithorynque unknown
Try "model -h"
```

3.3. How to download and use a selected model configuration

Downloading is the recovery of the source codes of the model components of a specific model configuration from different SVN (and CVS) servers. The download can be done with this script:

```
./model nom_de_la_config
```

If you want to access these servers you must request a login and a password. To do so, you must contact the person in charge of the model configuration (see above the list of model managers; their email addresses is also available via the command **model -h**)

Example :

```
cd modipsl/util
# see all the available configurations
./model -h
# extract the LMDZOR_v5 configuration
./model LMDZOR_v5
```

The source codes of the downloaded models are in the **modipsl/modeles/** directory.

For the previous example you will obtain the following directories :

- modipsl/modeles/IOIPSL
- modipsl/modeles/LMDZ
- modipsl/modeles/ORCHIDEE

modipsl also installs a model **configuration**. It is installed in the directory **modipsl/config/** (here modipsl/config/LMDZOR_v5). Each model will be compiled and the simulation will be run in the **config** directory.

The log files of the installation are stored in the modipsl/util/log file.

3.4. Change a model version

By default the available model configurations use specific model versions. But different versions of a given model can be used with a specific configuration. This is the case for the LMDZ version in the "_v5" configurations. You might want to use the latest version on an LMDZ4/branches/LMDZ4_AR5 branch (used for CMIP5 simulations) or you might want to use the new physics scheme of LMDZ and therefore you will need a more recent version of LMDZ5/trunk. To find out which model version to use, please contact the model development team directly.

If you already know which model version to use, you just have to change the section about the model configuration you selected in **modipsl/util/mod.def**.

For example, to extract the LMDZOR_v5 configuration with the latest revision (HEAD) of LMDZ4_AR5, change **mod.def** to obtain :

```
#-C- LMDZOR_v5 LMDZ4/branches/LMDZ4_AR5 HEAD 11 LMDZ modeles
```

or for LMDZ5/trunk revision 1628 :

```
#-C- LMDZOR_v5 LMDZ5/trunk 1628 11 LMDZ modeles
```

4. Special cases

- **Reprobus** : this model has restricted access via svn+ssh. Click [here](#) for more information.
- **Orchidee** :
 - To use the latest version (more recent than the default version): [click here](#)
 - Install LMDZOR and ORCHIDEE_OL with the same modipsl : [click here](#)