

10 minutes SVN and ORCHIDEE

Developer's and user's meeting 13 Nov 2012
Revised 12 June 2014

Josefine Ghattas

Subversion (SVN) - a version control software

- Keep track of changes done over the time
- Backup and store all previous versions
- Centralize all existing developments done in ORCHIDEE
- Diffusion of public versions of ORCHIDEE (“tags and trunk”)
- Makes it easier to work in a group on the same version and exchange developments (“branches”) before inclusion in the main version
- Archive the work done by phd-students, post-doc, researchers,.. (stored in “perso” folder)

Different versions of ORCHIDEE on SVN

Base repository(depot) `svn://forge.ipsl.jussieu.fr/orchidee`

- trunk Standard version. Regularly updates with bug corrections and new developments
To be used with precaution. Not fully validated.
<https://forge.ipsl.jussieu.fr/orchidee/wiki/trunk>

- tag A copy of the trunk for a specific revision.
Validation done. Latest tag 1.9.6
<https://forge.ipsl.jussieu.fr/orchidee/wiki/Tags>

- branches Modifications for a specific development.
A branch should start from a copy of the trunk

- peso Folder for personal versions.
Ask for help to initialize your folder.

Login : 2 types of login

1- Login SVN

SVN anonymous login

« sechiba » (passwd ipsl2000)

Only for extracting public versions of ORCHIDEE : trunk and tags

SVN personal login

« firstname.lastname »

To extract all versions where you have the permission

To be used to commit changes

2- Login “forge”

Forge is a machine at IPSL where the orchidee project is technically managed using trac, wiki and svn.

A specific login at forge is needed to use web-interface for your personal folder and private branches.

Same login is also used to modify the wiki and to create tickets.

Ask for login by sending a mail to [orchidee-help @ ipsl.jussieu.fr](mailto:orchidee-help@ipsl.jussieu.fr)

Basic use of SVN

svn co *repository* : Extract a directory and it's sub-directories.
Add « -r *rev* » for a specific revision.

Exemple : Extract latest revision of tag 1.9.6 :

```
> svn co svn://forge.ipsl.jussieu.fr/orchidee/tags/ORCHIDEE_1_9_6/ORCHIDEE MYORCH
```

Exemple : Extract revision 800 of trunk :

```
> svn co -r 800 svn://forge.ipsl.jussieu.fr/orchidee/trunk/ORCHIDEE MYORCH
```

Extract with modipsl

For ORCHIDEE the extraction is done using modipsl. You do not need to do “svn co ...” as it is embedded in the scripts.

The script « **model** » in modipsl extracts ORCHIDEE and all tools needed for a specific configuration. Example :

```
> svn co http://forge.ipsl.jussieu.fr/igcmg/svn/modipsl/trunk modipsl
> cd modipsl/util
> ./model ORCHIDEE_trunk
```

The model will now be installed in modipsl/modeles/ORCHIDEE.

Basic use of SVN

svn info : Information will be printed on the screen about extracted version

Example :

```
> cd modipsl/modeles/ORCHIDEE  
> svn info
```

```
Chemin : .  
URL : svn://forge.ipsl.jussieu.fr/orchidee/tags/ORCHIDEE_1_9_6/ORCHIDEE  
Racine du dépôt : svn://forge.ipsl.jussieu.fr/orchidee  
UUID du dépôt : f489ceea-5127-0410-b15c-c4a6149ed9a7  
Révision : 881  
Type de nœud : répertoire  
Tâche programmée : normale  
Auteur de la dernière modification : didier.solyga  
Révision de la dernière modification : 880  
Date de la dernière modification: 2012-05-09 16:08:00 +0200 (mer. 09 mai 2012)
```

In this example the version of ORHCIDEE is tags/ORCHIDEE_1_9_6 and the revision is 881. You can also see that no changes for this subdirectory are done since revision 880 which is the latest modified revision.

Basic use of SVN

svn stat : To know which files have been modified compared to extracted version

```
> svn stat
?      Makefile
?      src_driver/Makefile
?      src_parallel/Makefile
?      src_stomate/Makefile
?      src_sechiba/Makefile
M      src_sechiba/intersurf.f90
?      src_global/Makefile
?      src_parameters/Makefile
```

svn -u stat : Compared to latest version on the server

```
> svn -u stat
?      Makefile
?      src_sechiba/Makefile
M      src_sechiba/intersurf.f90
*      src_sechiba/routing.f90
M      * src_sechiba/enerbil.f90
```

```
> svn help stat
'A' Added
'C' Conflicted
'D' Deleted
'M' Modified
'?' item is not under version control
'!' item is missing
* a newer revision exists on the server
```

Basic use of SVN

svn diff : Show difference compare to extracted version

Example :

```
> svn diff
```

```
Index: src_sechiba/intersurf.f90
```

```
=====
--- src_sechiba/intersurf.f90 (revision 1054)
+++ src_sechiba/intersurf.f90 (working copy)
@@ -257,6 +257,7 @@
     itau_sechiba = kjit + itau_offset
     !
-     CALL intsurf_time( itau_sechiba, date0_shifted, xrdt )
+     CALL intsurf_time( itau_sechiba, date0_shifted, xrdt, toto )
+     WRITE(numout,*) 'toto'
     !
     ! 1. gather input fields from kindex array
```

Lines starting with “+” are added in the local version (also called working copy).
Lines starting with “-” are removed. In this example, the line “CALL intsurf....” has been modified and the line “WRITE(...” has been added.

Basic use of SVN

svn diff

Difference between working copy (local version) and the version that was extracted. If changes are done on the repository after extraction, they will not be taken into account

svn diff -r HEAD

Difference between the working copy and the latest revision on the branch you extracted.

svn diff -r x1

Difference between working copy and revision x1

svn diff -r x1:x2

Difference between revision x1 and revision x2

Basic use of SVN

svn revert one_or_several_files

Get back to the version of the file on the server, without your changes.

For example :

```
> svn revert src_sechiba/intersurf.f90
```

Basic use of SVN

svn update : Update working copy with the latest revision on the server

- Updates only with changes on the same branch (the directory and it's sub-directories)
- Local changes will be kept. Conflicts can occur if the same file is modified locally and on the server
- Changes are done only in the local working directory

Example :

If you extracted a tag or a branch, changes done on the trunk will not be added in your directory.

If there is a conflict on a file, type p for postpone. svn will then save your modifications in a separate file. The file without modifications is also saved in your directory.

Commit to svn

svn add newfile.f90

Put files and/or directories under version control.
They will be added in next commit

svn rm file.f90

The file will be removed locally and the file is scheduled to be removed from the svn repository in next commit.

svn commit
(or svn ci)

Commit all changes in the directory to the server
The revision number is increased. This command should be done from directory modipsl/modeles/ORCHIDEE

Best practice for commit

- Add a log message to each commit
- Do whole ORCHIDEE source directory in each commit, avoid to commit file by file
- If you work on a branch, discuss with the other people before commit
- If you work on a branch, update your files regularly

- For commit on the trunk ORCHIDEE, see also :
<https://forge.ipsl.jussieu.fr/orchidee/wiki/trunk/CommitOnTrunk>

Web-interface of the ORCHIDEE svn server

<https://forge.ipsl.jussieu.fr/orchidee/browser>

https://forge.ipsl.jussieu.fr/orchidee/browser

Institut Pierre Simon Laplace Sciences de l'environnement

Orchidée

Wiki | Timeline | Roadmap | **Browse Source** | View Tickets | Search

root

Name ▲	Size	Rev	Age	Last Change
▶ branches		1054	4 days	camille.risi: Added Camille's version including Isabelles modifications. Not yet ...
▶ perso		1050	13 days	abdoul-khadre.traore: correction of lhour type (real instead of integer)
▶ tags		943	4 months	didier.solyga: Bug fix : forget to inverse endif and enddo in my last commit.
▶ trunk		1043	2 weeks	josefine.ghattas: Gathered all tools not related to libIGCM in TOOLS.

Note: See [TracBrowser](#) for help on using the browser.

View changes...

trac
Powered by Trac 1.17
By Edgewall Software

Visit the Trac open source project at <http://trac.edgewall.org/>

Click on the directory to visualize

Web-interface of the ORCHIDEE svn server

<https://forge.ipsl.jussieu.fr/orchidee/browser>

Sciences de l'environnement Institut Pierre Simon Laplace

Orchidée

Login to see also non private directories

Search

Login Help/Guide About Trac Preferences

Wiki Timeline Roadmap **Browse Source** View Tickets Search

Last Change Revision Log Revtree

root / tags / **ORCHIDEE_1_9_6** / ORCHIDEE

Visit: View revision:

Name	Size	Rev	Age	Last Change
..				
arch		8	2 years	orchidee: import first tag equivalent to CVS orchidee_1_9_5 + OOL_1_9_5
src_global		861	6 months	nicolas.vuichard: correct solarang and time_zone functions for calculation of hour in case ...
src_parallel		720	9 months	didier.solyga: Add svn headers for all modules. Improve documentation of the parameters. ...
src_parameters		875	6 months	didier.solyga: Change default values for PFT_TO_MTC array if NVM=13 so we have the ...
src_sechiba		846	6 months	didier.solyga: Formatted labels so a script can automatically generate the ...
src_stomate		943	4 months	didier.solyga: Bug fix : forget to inverse endif and enddo in my last commit.
AA_make	0.7 KB	41	23 months	mmaipsi: MM, MasaK : Group all definitions of R_Earth in the whole ORCHIDEE code : ...
AA_make.ldef	82 bytes	12	2 years	mmaipsi: correct Id, HeadURL, Date, Author and Revision svn properties.
Doxyfile_ORCHIDEE	9.1 KB	8	2 years	orchidee: import first tag equivalent to CVS orchidee_1_9_5 + OOL_1_9_5
makeorchidee_fcm	5.2 KB	8	2 years	orchidee: import first tag equivalent to CVS orchidee_1_9_5 + OOL_1_9_5
ORCHIDEE_CeCILL.LIC	2.1 KB	8	2 years	orchidee: import first tag equivalent to CVS orchidee_1_9_5 + OOL_1_9_5

Note: See [TracBrowser](#) for help on using the browser.

View changes...

Download in other formats:
Zip Archive

Powered by Trac 0.11.7
By Edgewall Software.

Visit the Trac open source project at
<http://trac.edgewall.org/>

Click to compare 2 directories

Click to show modifications done in this directory or file