

## Basic commands to manage source versions: Subversion (svn)

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## 1. How to find help

General help :

```
svn help
```

Help for a specific command (e.g. add)

```
svn help add
```

## 2. How to create a workspace from a file repository

In one of your directories, from a file repository identified by a URL:

```
svn checkout URL directory
```

## 3. How to find out about your workspace's status

To find out if a file has been modified since your last update (checkout or update) :

```
svn status [namefile]
```

To find out if your file has been modified in its present state :

```
svn status -u [namefile]
```

If a file's content has been modified, this will be shown in the 1st column. If a file's property has been modified, this will be shown in the 2nd column.

A

the file has been added in your workspace. It does not exist in the file repository.

D

the file has been deleted from your directory. It still exists in the file repository.

M

the file has been modified in your workspace. It is different than the file in the repository

## 4. How to find out the repository's status

If you want to find out the changes that have been made in the svn sources repository :

```
svn log -rHEAD:BASE
```

To find out all revisions (version number and message) related to a file ;

```
svn log [namefile]
```

This information can be accessed via the related [forge](#) with the `Timeline` tag.

## 5. How to update your workspace

It is not recommended to update your workspace unless you have previously spoken with the persons in charge of each model components, configurations or tools.

```
svn update [namefile]
```

Example :

```
svn update toto
U toto
```

The **svn update** command returns a letter (U, A, D, R, G or C) and the file name concerned. Below is the meaning of these letters :

- U  
The file has been updated properly. There is no conflict.
- A  
The file has been added to your directory, it did not exist before.
- D  
The file has been deleted from your directory.
- R  
The file has been replaced in your directory.
- G  
You have changed the original file and these changes are not in conflict with the update.
- C  
There are conflicts between the update and you own changes. You must therefore open the file and solve the problems by hand.

## 6. How to add a svn version identifier in a file header

Add the following line in the file's header :

```
! $Id$
or according to type of file (shell script, makefile, etc.)
# $Id$
```

Then type the following command lines :

```
svn propset svn:keywords "Id" *.f90
```

This modification will be taken into account in the repository in the next [commit](#) of this file.

## 7. How to add a directory or a file to your workspace

```
svn add newnamefile
```

This modification will be taken into account in the repository in the next [commit](#) of this file.

## 8. How to delete a file

```
svn delete namefile
```

This modification will be taken into account in the repository in the next [commit](#) of this file.

## 9. How to propagate the changes from your workspace to the repository

**This is only possible if the repository has been retrieved as administrator with (`svn checkout svn+ssh://...`)**

```
svn commit --message "explication modification" [namefile]
```

If `namefile` does not appear in the command, all modified (M), added (A) or deleted (D) files in the current workspace will be taken into account. Files identified by the sign ! and ? by `svn status` will not be taken into account.

## 10. How to change the status of a version retrieved with svn

If you retrieved a model in read-only mode (`svn export ...`) and if you want to perform a "commit" on it, you can change the status of this version. Here is an example with `igcmg`:

```
svn switch --relocate http://forge.ipsl.jussieu.fr/igcmg/svn svn+ssh://login@forge.ipsl.jussieu.fr/ipsl/forg.../projets/igcm...
```