Introducing CABLE-2.0 Repository, what’s supported, build and run tools

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Australian Government
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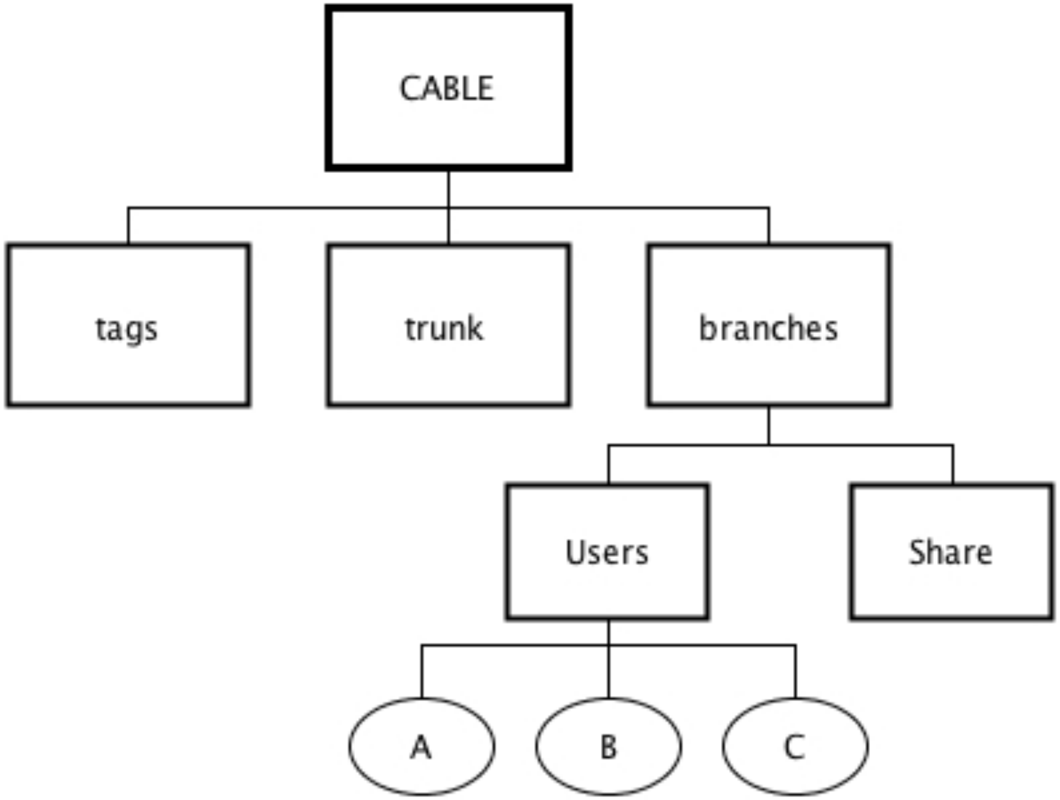
Remember !!

CABLE-2.0 user guide

cable_help@nf.nci.org.au

File Structure of the CABLE repository



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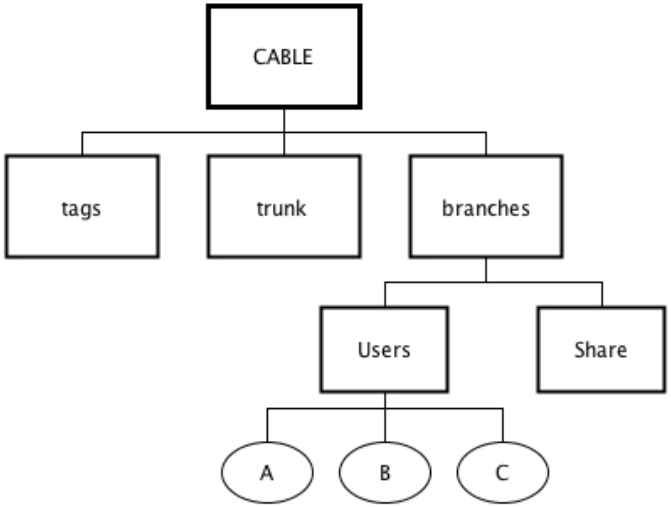
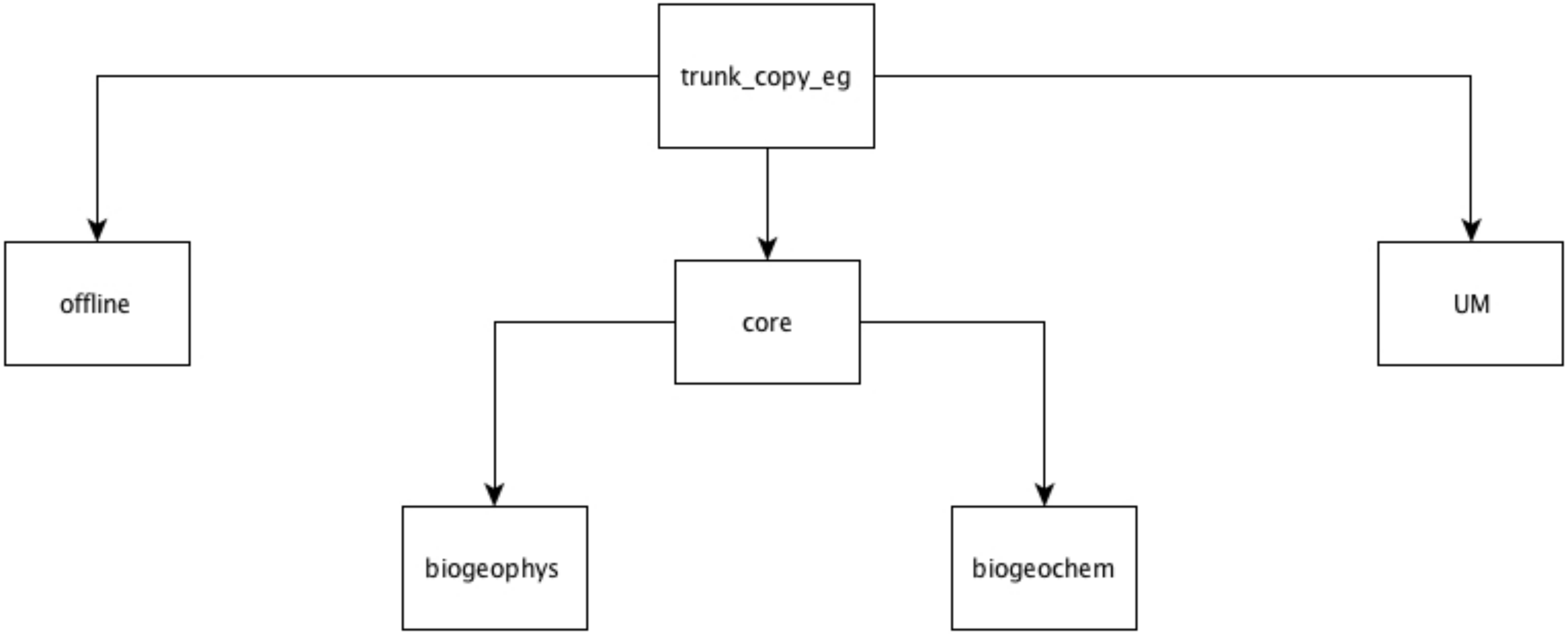


- Effectively this is simply a file system
- Use this as a central repository/archive/vault
- ^ https://trac.nci.org.au/**svn/cable**
- All of these labels are equally as arbitrary
- The command "svn" is an interpreter and a signal to document what is going on
- Consider it an unwritten rule that you can only "checkout" from your own branch
- Assuming we want to copy the trunk to user A

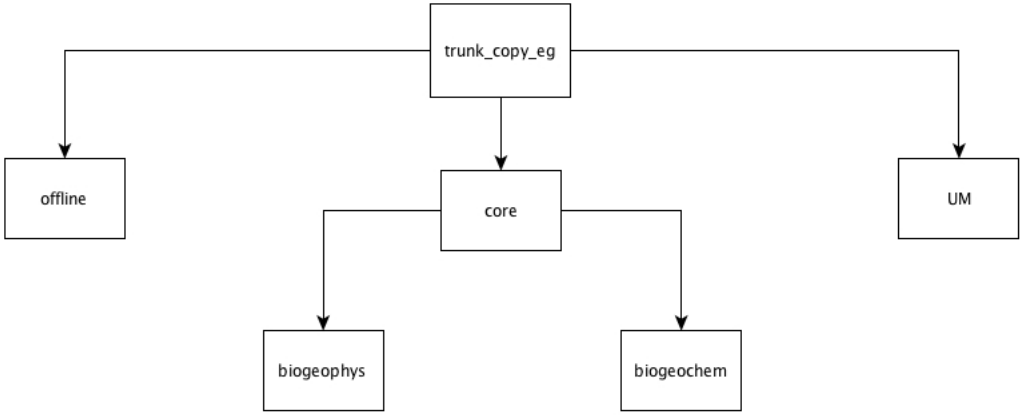
```
svn copy   ^/trunk    ^/branches/Users/A/trunk_copy_eg

svn checkout   ^/branches/Users/A/trunk_copy_eg   [.]
```

The CABLE directory structure

- The contents of trunk_copy_eg



The CABLE tree – what is supported



- CABLE model is basically in core/ biogeophys
- CASA-CNP is in core/biogeochem (functional but not officially supported)
- UM/ and offline/ contain specific drivers
- UM supported – example UMUI jobs are supplied
- Offline supported – single-site, global.

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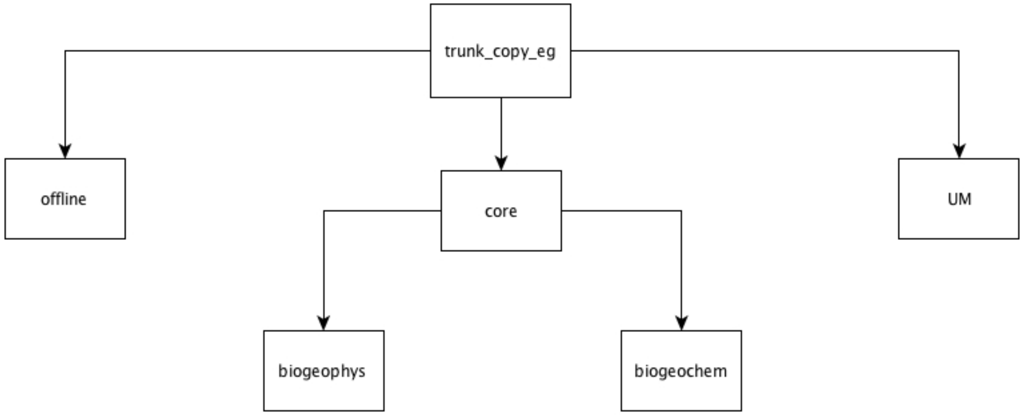

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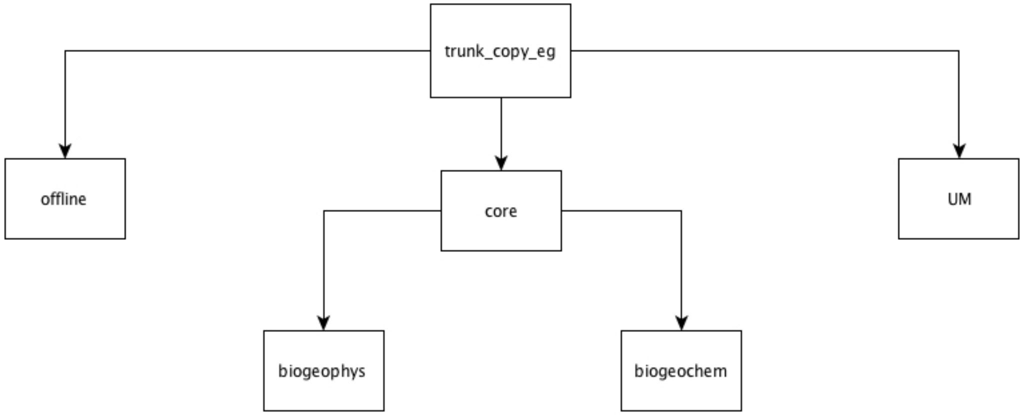
COMING VERY SOON
Offline MPI supported

COMING SOON
CASA-CNP supported

COMING SOONISH
CASA-CNP in ACCESS

Build/Run options & CABLE–AUX files



- three example UMUI jobs (filter user *access)*
- For both UM/offline use *build.ksh*
- Produces an executable/library
- Build/run UM as usual
- Offline can use *run.ksh* or *./cable*
- Both need cable.nml

CABLE needs other files as well. All of these files are available on *vayu*
~access/CABLE-AUX/

There might also some environment variables to set and establish a *~/.kshrc*

Remember: see USER guide

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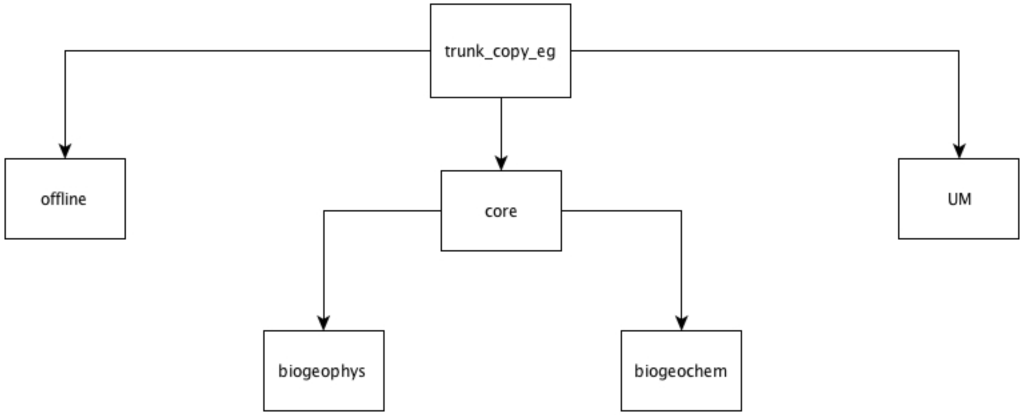
CABLE & svn



- Most svn commands act recursively
- *svn info* will show basic details
  - where from, when, revision number etc
- *svn status* will show local status
  - changes, new files, etc

The most common symbol to see here is a “?”. An “M” represents a modification to a file.

svn commit [.] will commit any modifications you have made back to where you checked it out from. In our e.g. to ^/branches/Users/A/trunk_copy_eg

CABLE svn - Log Messages

- svn commit will prompt you for a log message
- Possibly the least important aspect of everyday version control
- Exactly what, exactly where, exactly when, exactly how and exactly who are automatically recorded.
- Only you know WHY!!!

CABLE svn - update

- Remember, most svn commands act recursively
- *svn log* shows log messages and details
- *svn log –v* shows which files were changed as well
- Pre-commit, *svn diff [.],* will show local modifications
- Post-commit, *svn diff [.]* needs to know which revisions you want to know the differences between

- *svn update* will update your working copy to the status of the repository. This is not the same as merging the latest update in the trunk.

CABLE svn - merge

The most general way to work within svn is to copy from the trunk (or elsewhere), implement your feature, merge the (moving) trunk back into your branch, merge your branch back into the trunk.

- Remember, most svn commands act recursively
- *svn merge* has various incantations. The simplest is when the above practice is strictly adhered to.
- Realistically for us however, merging should (in principle) be as simple as follows:

CABLE svn – merge & conflicts

Assume you followed the example so far.

```
cd trunk_copy_eg
svn merge ^trunk
```

This will merge the changesets from the trunk which occurred between when you copied the trunk and now. NOT the trunk as it is now.

Conflicts are good. They mean svn is working properly.

Conflicts arise when any changeset in the above indicated range, modifies a line which has also been modified in your working copy.

CABLE svn - help

svn merge –dry-run ^trunk

can be useful

svn revert [.]

can also be useful, but be careful

svn help [command]

can be very useful

CABLE svn - summary

svn copy

svn checkout

svn commit

svn update

svn merge

svn commit

svn update

svn commit, update, commit, update, commit, update, merge, commit, update, commit, update, commit, update, commit, update, commit, update, commit, update, commit, update, merge…..

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CABLE workshop, Oct 25 2012, UNSW

CABLE trac page: https://trac.nci.org.au/trac/cable/

CABLE email list: https://lists.csiro.au/mailman/listinfo/cable-users

Thank you

www.cawcr.gov.au