Using clear_case

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Based on Ryad's "Easy Clearcase Manual"

Introduction

- Source code manager: handles the code in the common database
- Modifications in the code must be entered through clearcase
- Supervision done by GCO
- Software is installed on merou.meteo.fr (login needed !)

Some important notions

- **Release**: CYnnXm
  - nn: release number
  - X= faire array T if interim cycle at MF (T=Toulouse) R if interim cycle at ECMWF (R=Reading) H if interim cycle in Hirlam (H=Hirlam)
- **User**
  - public: here, you will find the releases of the project
  - private user (mrpexxx...): usually you cannot see the source codes of your colleagues (if needed however you can ask GCO to become a superuser!)
- **Branch**: Contains a set of modifications of the code. Must be named by the user !
- **View**: part of the database you can see.
  It corresponds to a release, an user and a branch. To make modifications in the code, a view has to be defined as background on top of which, you will make modifications.

Preparing the environment

- log in on merou: ssh -X mrpe7xx@merou
- Add the following variables in your .bash_profile
  export EDITOR=vim
  export CCHOME=/home/marp001
  export CCGROUP=marp
  export CCMASTER=marp001
  export
  PATH=$PATH:/usr/atria/bin:$CCHOME/ccase/bin/admin:$CCHOME/ccase/bin/users
- Then type: cc_init -p arp (to be done once)

Visiting the code in read-only mode

- "cc_getview -r *release* -u public"
  Only public branch can be seen if you are not a superuser !
- Then you can browse the project and edit (in readonly mode) files
- ". cc_quit" to leave the view

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Exercise: Just browse stepo.F90 in cy36T1

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Exercise: Just browse stepo.F90 in cy36T1

Solution:

- cc_getview -r 36t1 -u public
- find arp -name "stepo.F90"
- cd arp; vi arp/control/stepo.F90

Introducing modifications in the code

1. **Creation of a new branch: cc_getpack**
   To be done using cc_getpack command:
   Ex: cc_getpack -r 32T1 -b bf -u newconvection
2. **Modifications of code: cc_edit**
   cc_edit -f *name_of_your_file*
3. **Contents of your branch: cc_list**
4. **To browse the modifications of a given subroutine: cc_diff -h -f**

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Exercise: Modify stepo.F90 in cy36T1.bf and check with cc_diff your modifications

Solution:

- cc_getpack -r cy36T1 -b bf -u testmaint
- cc_edit -f arp/control/cnt0.F90
- cc_diff -h -f arp/control/cnt0.F90

Some hints and recommendations

- Developers should enter their developments into clearcase before compiling them on the NEC (so command **cc_popul** should not be used)
- Command **cc_export** allows to export a branch into a pack on the supercomputer that can be compiled afterwards with gmkpack compilation tool (More details will be given in this afternoon's talk about gmkpack).
- Write a small memo with the most useful commands !

Source of documentation

- cc_help command
- On gmapdoc two documentations to be found:
  - Easy ClearCase Manuel (Ryad)
  - Transparent Use of ClearCase (TUC) manuel