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
Visiting the code in read-only mode

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**Exercise:** Just browse stepeo.F90 in cy36T1
Visiting the code in read-only mode

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*Only public branch can be seen if you are not a superuser!*

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". cc_quit" to leave the view

**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