What is GCO's job? (1)

* Management of the source code of the atmospheric models ARPEGE/ALADIN/AROME, and the model MOCAGE (diffusion of pollutants in the atmosphere), under ClearCase.

* Development and maintenance of ClearCase users and administration scripts.

* Compilation and link editions of atmospheric models on NEC SX8R/SX9 (also MOCAGE on SX9), on Linux cluster (PGI), and on ECMWF super-computer.

* Management and historisation of the elements of configuration of the atmospheric models, and MOCAGE/Meso-NH (binaries, namelists, constants).
What is GCO's job? (2)

* Participation in the implementation and in the follow-up of the models ALADIN intended for various partners: ALADIN partners, French overseas departments and territories, ALADIN FRANCE coupled on IFS, French army, various countries

* First validation of any modification to do on operational models

* OLIVE application administration, validations, and assistance to the users
* OLIVE is a Web application allowing to launch runs of operational configurations of the atmospheric models, and also MOCAGE, and Meso-NH

* OLIVE was collectively developed by GMAP and GCO

* OLIVE validations consist in verifying that the results of the operational suite are reproducible under OLIVE (NB: all operational configurations are checked)
Participation in phasing:
1. Two kinds of phasing

* Building of full cycles with ECMWF (ex: cycle CY37) – 1 per year
  → manual integration in ClearCase of ECMWF new cycle (1 to 2 days of work)
  → a large number of merge with conflicts to perform (2 to 3 days of work)

* Building of intermediate cycles (ex: cycle CY36T2) – 1 or 2 per year
  → developments are sent to GCO through ClearCase branches (easier to integrate)
  → reasonable number of merge with conflicts to perform
Participation in phasing:
2. Perform merge operations

* Gathering of all developers modifications, exclusively under ClearCase (merge operations), and try to solve as much as possible merge conflicts

* Set labels on new versions of source code, as well on development branches as on the cycles

* GCO's branches are used as base branches for all developers

* A point on the status of phasing is regularly made, by e-mail or during the phasing meetings

* Assistance to the ClearCase users
Participation in phasing:
  3. Compilation

* First test of compilation with gfortran and g95 allowing to reveal and to fix the possible errors of phasing, and to check portability of code

* Compilation of « official » packs on hosts « yuki » (SX9), « tori » (SX8R), and « serran » (Linux cluster – PGI), with « gmkpack »

* When phasing starts to reach the end, a compilation is also performed on ECMWF super-computer

* GCO's packs are used as base packs for all developpers

* Assistance to the users in case of compilation problems