



A Consortium for CONvection-scale modelling
Research and Development

Of source code management

Alexandre Mary

ACCORD Integration Leader
Météo France

ACCORD ASW 2025, Zalakaros, April 2nd, 2025

① Management

② Cycles and workflow

Some news but mostly food for thought...

Formalise more code management

- Getting access to the forge (form)
- Teams to manage institutes' members on the forge
- Documentation : tutorials, guidelines
- Contributor's License Agreement
(e.g. `fiat@ECMWF` : <https://bol-claassistant.ecmwf.int/ecmwf-ifs/fiat>)
↔ request to sign at first PR

From an integrated unique repo to an ecosystem



- Recent years/cycles have seen “externalisation” of sub-projects from IAL : fiat, ectrans, oops...
- others are on their way : FA, PHYEX, SURFEX
- Need for specialized integrators for certain projects, in close coordination with IL/AL
- Clarification of the workflow (branches/forks, tools...)
- Interfaces breaks : particular attention and coordination
- Open-sourcing ?

Reviewing : a common effort

The screenshot shows the GitHub interface for the 'IAL' repository. A red circle highlights the notification dropdown menu that appears when hovering over the notification bell icon. The menu options are:

- Participating and @mentions**: Only receive notifications from this repository when participating or @mentioned.
- All Activity**: Notified of all notifications on this repository.
- Ignore**: Never be notified.
- Custom**: Select events you want to be notified of in addition to participating and @mentions.

The repository page also displays a warning: "Your develop branch isn't protected" and a list of recent commits by users like github, ported, aeolus, aladin, and algor.

- In progress...
- The more it is reviewed, the better the code gets
- How to improve ?
- Contributions to be announced ahead of time (*Issues*) : to what extent ?

Releases

- Level of validation \approx coverage of Davai
↔ the more we consolidate it, the better cycles will be validated
- MQA releases

CY50T1

- Contribution window is closed
- 100+ contributions of various size
- Never too late for reviews
- Declaration within 1-2 months

CY50T2

- Technical cycle, mostly : externalisations (FA, SURFEX, PHYEX)
- Expected by the end of summer 2025

SURFEX

- New contributions will then have to be done on its new official repo (basis to be confirmed)
- Version of 49T1 has been merged with V9 (Patrick Samuelsson, Adrien Napoly)
- Validation of 49T1+V9 for integration in V9.2 : ongoing
- Validation of V9⁺ in NWP context : ongoing

CY51

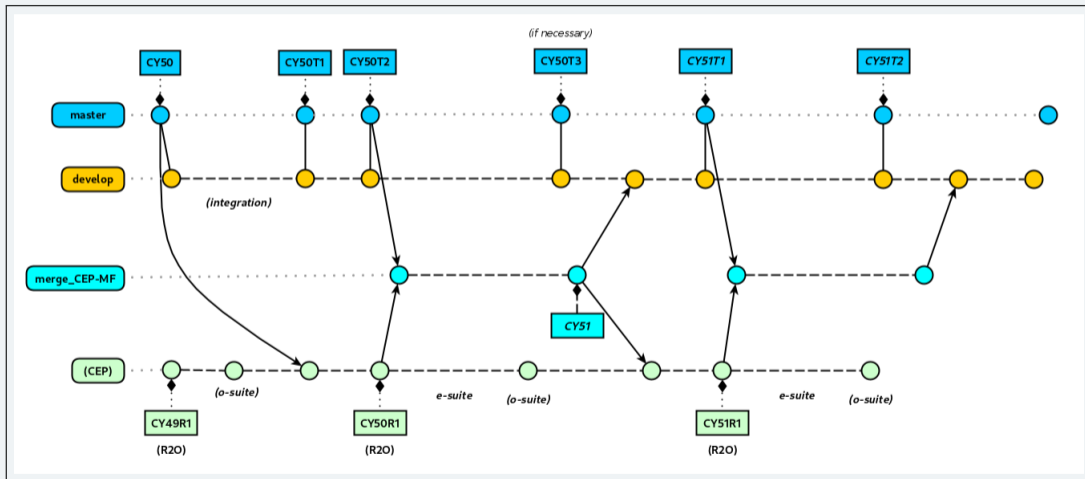
- CY50R1 + CY50T1/T2
- Merge dates tbc with ECMWF
- Post-merge Working Week in Toulouse for phasing and validation (Q4/2025)

and beyond ?

2 recent proposals have emerged :

- CI within ACCORD, in parallel to common cycles with ECMWF
cf. next slide
- ...

CI within ACCORD



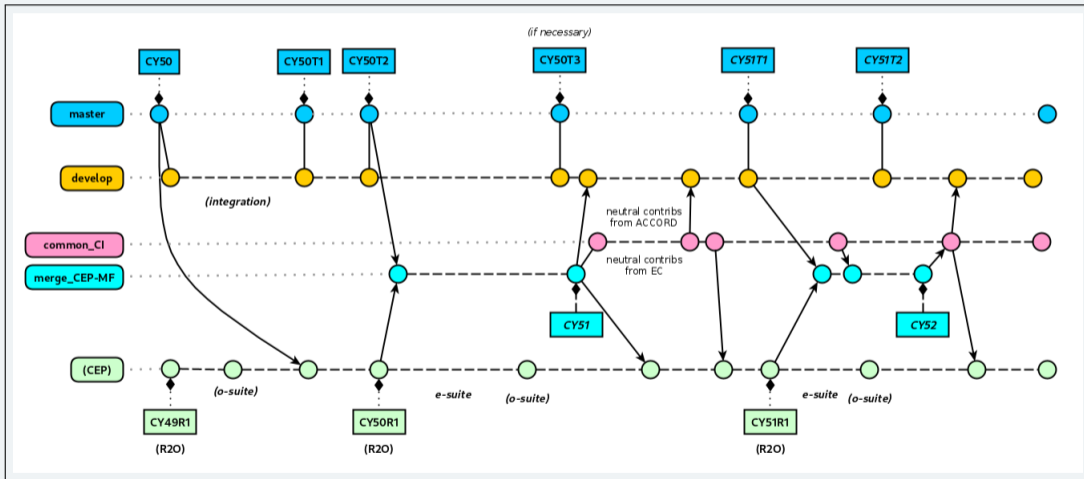
Towards CI

2 recent proposals have emerged :

- CI within ACCORD, in parallel to common cycles with ECMWF
- CI in common with ECMWF for bit-identical or technical (neutral) changes only
 - requires comprehensive & automatised testing
 - in parallel : R/T cycles for meteorological impact
 - common cycles : merge of R/T + update of CI branch and tests
 - on a dedicated github fork and branch

cf. next slide

CI in common with ECMWF for neutral changes



CD (Continuous Deployment)

What would it mean in our context ?

- Level 1 : Building automatically binaries on releases on HPCs ?
- Level 2 : ?
- ...