

WRF-ORCHIDEE coupling

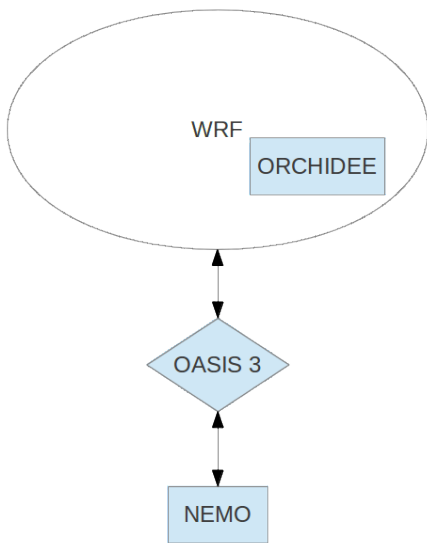
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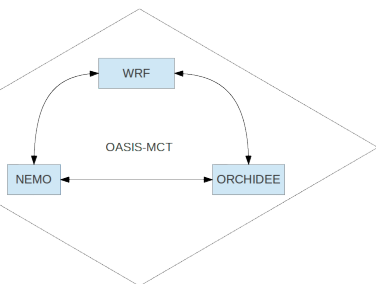
4 juillet 2013

Previously in 2012...



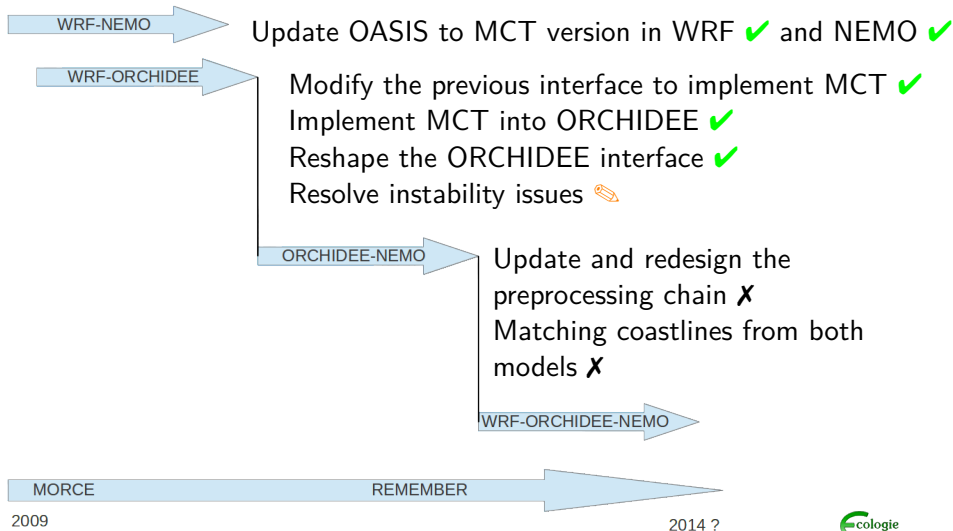
1. ORCHIDEE (LSM) land surface scheme is implemented in WRF as a subroutine (in a equivalent way as for LMDZ) (Stéfanon et al. 2012 & Drobinski et al. 2012) .
2. The coupling between NEMO and WRF is done with the OASIS version 3 coupler.
3. The parallelization of WRF is constraint by the ORCHIDEE one and implies a limitation in the maximum number of processes.
4. More models within the platform
→ more processes dedicated to OASIS.

Previously in 2012...



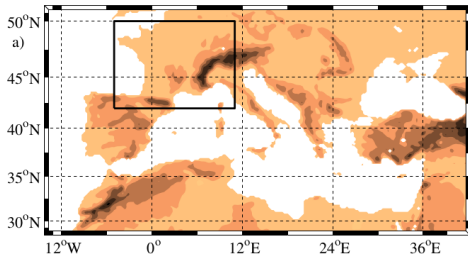
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Coming soon !

- ▶ A 1 year simulation over France.
- ▶ Test and run the MED-CORDEX configuration over the ERAI hindcast period (1989-2012).



- ▶ Test of the script for monthly chained simulations.
- ▶ Documentation-writing within a wiki (<http://www.lmd.polytechnique.fr/MORCE/>)
- ▶ Performance measurement : coupling optimization through code structure and processus partitionning between WRF and ORCHIDEE.