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TERRA standalone

Jean-Marie Bettems / MeteoSwiss

02.09.2013

COSMO GM

TSA

TERRA Standalone session

JM Bettems [chair], J Helmert, JP Schulz, A Will ...;

16h15 - 17h00

TSA
Goal of the session

- Towards a **unified** and **supported** TERRA standalone for the COSMO(-CLM) community; the SMC expects some propositions on this topic, in particular in terms of **resources**.

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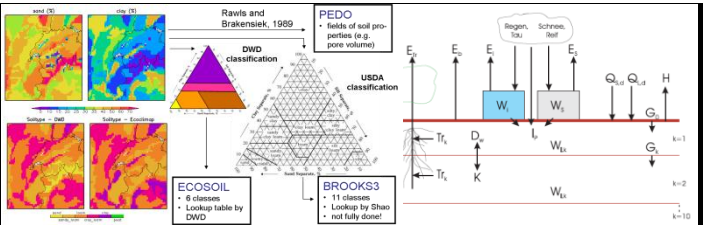
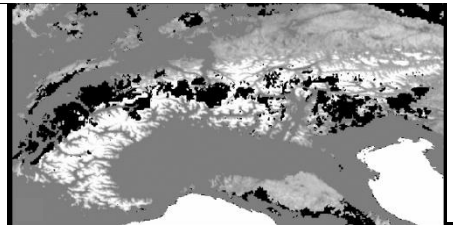
CONSORTIUM FOR SMALL SCALE MODELING
COSMO

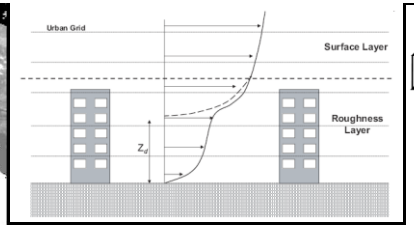
PP COLOBOC
Status Report

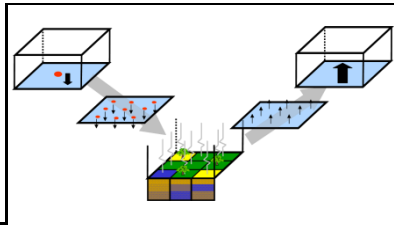
Jean-Marie Bettems / MeteoSwiss
Jürgen Helmert / DWD

COSMO GM Moscow, September 8th, 2010
(content updated after COSMO GM to incorporate feedback)

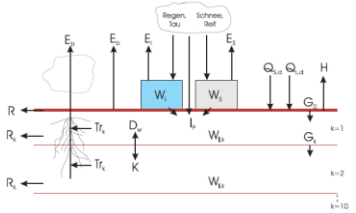








Review – COLOBOC, task 1



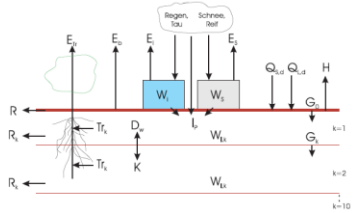
Consolidate externalized TERRA module.

- Updated **package** including tests and documentation soon available on COSMO web site
- **Code remains fragile** when used in a non tested configuration; code limitations will also be documented

Check

- Package availability (mid-october)

Review – COLOBOC, task 1



Task is terminated, but open questions remain

- **Modifications** will soon be again necessary (introduction of GRIB2, new interface with physics…)
- **Code re-write** is required to reach COSMO standard
- **Long term support is** required to integrate this tool in COSMO code
- MeteoSwiss has **no resource** for an extension of this task

➔ **A way forward could be to extend the COSMO single column model to integrate the TERRA standalone functionalities (mainly the possibility to compute the COSMO SCM at a set of points)**
➔ Ask Uli Blahak to raise this issue at DWD

- Provision of COSMO temporal mean values for all **driving fields** (e.g. T_2M)

TSA

- **Who is using TSA, add information on new developments when available**
  - DWD: G. Vogel
  - CLM: Uni Frankfurt (B.Ahrens)
    - Netcdf input for external parameters, forcing, and initial fields
    - Netcdf output
    - Bug fixes, which have to be documented
    - New type of lower boundary condition for thermal part of TERRA-ML
    - Implementation of data assimilation scheme for TERRA-ML
  - …

TSA

- **Which solutions are envisageable, add estimation of required resources**
  - Upgrade, consolidate [… FTE] and maintain current code [… FTE]
  - Extend COSMO SCM to add missing functionalities [… FTE]
  - …

TSA

- **Who could contribute to the upgrade / consolidation of the code ?**
  - …
- **Who could contribute to the maintenance of the code**
  - …