

SURFEX STEERING COMMITTEE

2 April 2015

Agenda :

1) Transversal subjects :

-Status of V8

-Status of code optimization

-Status of assimilation in Surfex (SODA, OI_main, VARASSIM)

-Physiography (HIRLAM initiative, ECOCLIMAP-SG status)

-FA files

-Needs for documentation and communication improvements

-Fortran 2003 structures in surfex

-Content of the next version and organisation of the development

-...

2) Review of activities and plans

3) AOB

Correspondence with atmospheric models

SFX	Release of SFX version	NWP	MNH	CNRM-CM
V1	2005			
V4.8	2008	CY35t2	V4.8	
V5.8		CY36t1		CM5 (CY32+V5.8)
V6	2010	CY37t1*		
V7.1	2011		V4.9	
V7.2	Feb 2012	CY38t1		
V7.2.1	Jan. 2013	CY39t1		
V7.3	Feb. 2013	CY40t1** CY41T1** (end 2015)	V4.10 V5.1 (2014)	CNRM-CM6 (CY37t2+V7.3** or v8)
V8	Summer 2015	CY42T1 (end 2016)	(V5.2 end 2015)	

- v6+ (V6.0+ GMAP optimisations)
- ** CY40t1 and CNRM-CM6 contains additional developments

Version 8 new content

PGD : Various optimizations . Altitude/slopes can be provided by external files

PREP : Improved patch averaging and various optimizations

I/O and code design : Improved portability for compilations netCDF format for PREP and PGD

Assimilation : New VARASSIM program SODA optimized and contains both OI_MAIN and VARASSIM

Scientific models :

ISBA : Introduction of perturbations for AROME ensemble prediction, coupling ISBA-TOP with ISBA-DIF, Introduction of MEB, Implementation of 19 patches Bug corrections and improvements in ISBA-DF-ES. **CROCUS** : new radiative transfer in snow, new metamorphism scheme Coupling with a hydrological model with OASIS

TEB : Irrigation, solar panels

SEA : New sea-ice model GELATO, ECUME V6, Coupling with a sea model with OASIS

LAKES : Minor changes in FLake

Version 8 schedule

All contributions completed since 3 weeks

Next steps :

- **Removal of global variables (CERFACS)**
- **Coupled tests (Meso-NH/AROME)**
- **Transformation as « open source »**
- **Official release**

SURFEX as open source

- **SURFEX V8 will be open source**
- **Some preparation needed :**
- **Header in all files :**
 - !SURFEX_LIC Copyright 1994-2014 Meteo-France**
 - !SURFEX_LIC This is part of the SURFEX software governed by the CeCILL-C|
licence**
 - !SURFEX_LIC version 1. See LICENSE, CeCILL-C_V1-en.txt and CeCILL-C_V1-fr.txt**
 - !SURFEX_LIC for details. version 1.**
- **A license file in the distribution**
- **Inclusion of headers and license files for ISBA-TOP, GELATO, FLAKE**
- **Dummies for Dr Hook and XRD**

Surfex courses

- **2010 : course in French for 20 students**
- **2011 : course in French for 20 students**
- **2012 : course in english for 16 students 1-4 october (Belgium, Bulgaria, Croatia, Finland, France, Hungary, Ireland, Slovakia, Romania, Spain)**
- **2013 : Toulouse (1-4 oct.), 20 people, Norrkoping (25-28 Nov.) 30 people, +10 for lectures**
- **2014 : Toulouse (4-7 Nov.), 17 students**