SURFEX STEERING COMMITTEE
19 March 2013

Agenda :

1. Opening and news from Surfex team (E. Martin)
2. Discussion on identified subjects : Assimilation, physiography, teaching, file formats (?)
3. Review of general activities, including 2013 workplan and plans for 2014 (presentation by each member of the SURFEX SC)
4. Discussion on the 2014 work plan and further cooperations.
5. Next meeting, 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**	V4.10 June (?)	CM6 (CY37t2+V7.3** or v8) (->2014)	
V8	Autumn 2014				

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

Versions content

- V7.2 :

  - Technical :no duplication of PGD, XUNDEF, phasing with MUSC.

  - Physics : update of OI_main, ISBA improvement (DF, A-gs)

- V7.2.1 :

  - Bug corrections, SODA update (snow assimilation)

- V7.3 :

  - Technical : MPI/OpenMP development for offline

  - Scientific : TEB (BEM+green roofs...), CROCUS (various update and improvements), Flake and 1D ocean model (ECUME for Flake, relaxation, ...), ISBA (CC, soil properties, permafrost), ISBA-TopModel coupling, New albedo (based on covers and not PFTs), chemical fluxes (NO)

- V8

  - Technical : PREP/PGD optimization, removing of global variables coupling TRIP with OASIS...

  - Scientific : ISBA : (MEB, DF, AGS, coupling DF with ISBA-TOP), Flake, TEB (irrigation), Gelato, Assimilation SODA/VARASSIM

Version 8

The automatic test procedure :

Objective : detect as early as possible « side effects » and cases of non reproductibility.

It is composed of script package that launch 2500 tests and a program that analyse the differences in the outputs.

Systematically used for the contributions of the V8

(NEW_PREP, NEW_PREP_HIRLAM, V8_GMAP)

Version 8 status

Already done :

- Optimisation of PREP/PGD (NEW_PREP)

- HIRLAM contribution (NEW_PREP_HIRLAM)

- GMAP contribution (V8_GMAP, under test) equivalent to CY40t1

Scheduled :

- ISBA-TOP, TEB, GMGEC, CROCUS, VARASSIM

- Technical : HIRLAM proposal (the use of modi still to be discussed), removing of global variable by CERFACS, adaptation to open source

Surfex team projects

- V8

- Further optimisation of PGD/PREP (parallelization)

- ECOCLIMAP as open source

- Evaluation of the test procedure and improvements

- Move web sites from spip2 to spip3

- Move from svn to git for the repository

SURFEX Licences

- 2013

  - 15 SURFEX licences

    - University of Loja (Equator)
    - University Laval (CA)
    - IHFR Oran (Algeria)
    - Université de Scherbrooke (CA)
    - Alberta university (CA)
    - Lund university (S)
    - University of Strasbourg/ICUBE (F)
    - Hany University, Séoul (Korea)
    - Monash University (Melbourne)
    - ENSA (Toulouse)
    - Geological survey of Denmark
    - LEESU (ENPC)
    - Institute of Met and Geophys (Innsbruck) (AT)
    - Univ. Sherbrooke (CA)
    - Odessa State Univ

  - 8 ECOCLIMAP Licences

- 2013

  - 0 SURFEX Licences

  - 2 ECOCLIMAP Licences :

    - Masdar institute (Qatar)

    - High end computing center (Ireland)

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**

- **ECOCLIMAP will be distributed as open source as soon as the technical solution is ready (a couple of months)**

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**