



PP VERSUS 2 Phase 6

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VERSUS - Motivation

The aim of the VERSUS 1 Priority Project (2006 - 2009), with the official delivery of package, was the development of a common and unified verification 'library' including a Conditional Verification (CV) tool. This library was included into the public COSMO Software along with the new software from Priority Project VERSUS2. The package and all its main features have been planned and built up with the aim of being a useful and friendly tool for the whole COSMO community for operational purposes as well as research activities performing ordinary and conditional verification, ruled by conventional methods.





VERSUS - History

As following lines, here is a brief summary of main implementations performed all project life-cycle long

VERSUS1 project - The delivery of the complete package occurred during a Workshop/Tutorial in February 2009
(Documents required from STC: **System Architecture Design, System Design Overview** one year)

VERSUS2 Phase1 - Conditional Verification
Batch execution
Cross Model
Time series
Daily Cycle

VERSUS2 Phase2 - Ingestion of observation in txt format
Weather Type
COSI Index
Monthly
Verification with the Analysis





VERSUS - History

VERSUS2 Phase3 -

- Improvement "plug&play" installation
- Improvement of graphical scores representation
- Forum Web page for Help Desk providing
- Implementation Verification for the Wave Model

VERSUS2 Phase4 -

- Implementation of Probabilistic Scores for EPS
- Integration WMO BUFR format
- Geographical Score Calculation
- Scatter Plots

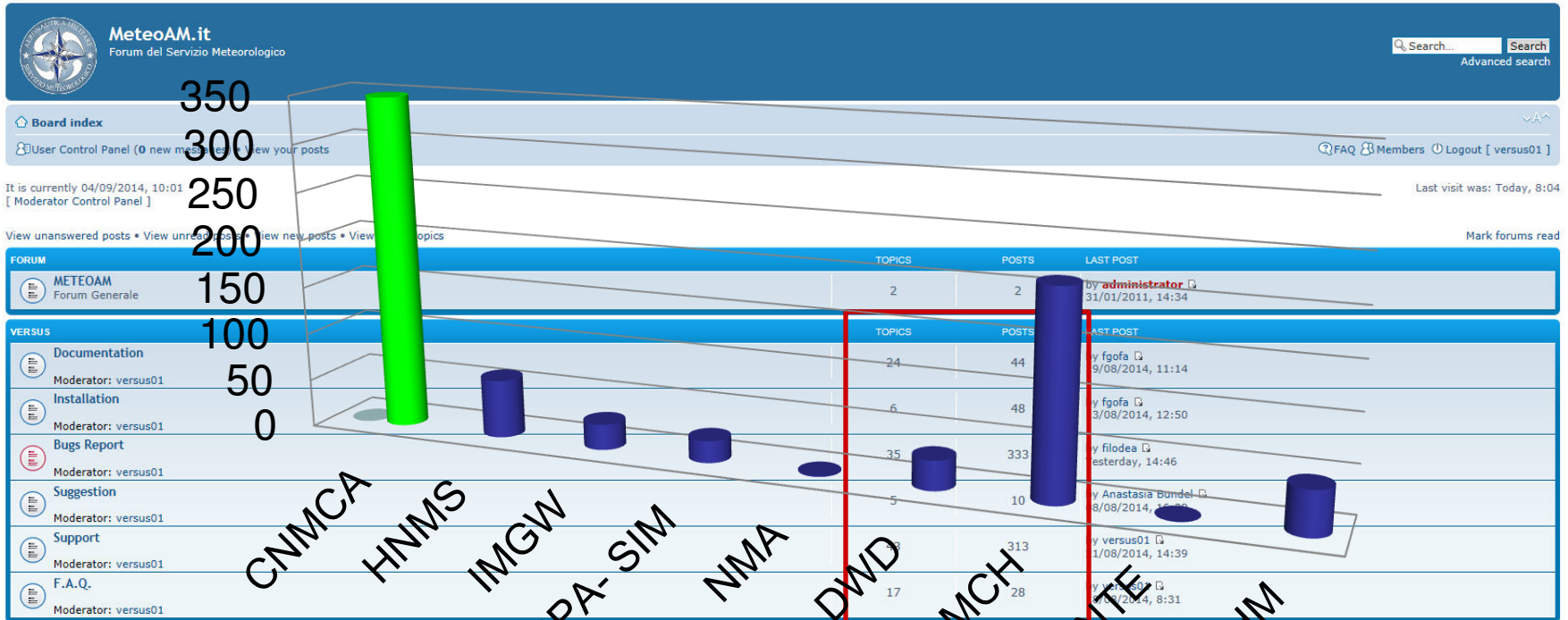
VERSUS2 Phase5 -

- New par. related to SRNWP data pool (TRI=3)
- Test Area and Test Procedure Creation
- Implementation of period 1/3h for prec. Cumulation par
- Implementation parameter with TRI =2 (WIND GUST)
- New plots (Performance diagrams, and so on)





FORUM Activity





VERSUS 2

Phase 6 - Crucial points

The past year showed several difficulties which heavily affected our work progress.

They consisted fundamentally in:

- The forced absence of the PL for 5 months
- Unforeseen delay in the signing of the contract with the external consultant
- A new resource Training process
- Problems occurring in VUS 2014 organization



Task list - Overview

Task 0: Help Desk, Refinements VERSUS Code

Task 1: Refinement of Functionalities

Task 2: Final Implementation of Feedback Files

Task 3: Introduction of additional statistical Techniques

Task 4: Enhance Flexibility of EPS Verifications

Task 5: Extension of the ASCII Import Capabilities

Modular tasks not dependent on each other.

Not performing or deleting any task has no impact with the others.



Task 0: Help Desk, CODE Refinements

Task 0.a Help Desk ON GOING through the forum web page www.meteoam.it/forum-meteoam/.

Task 0.b Documentation updates

- User Manual Updated to the **VERSUS 3.2 version**
- Technical Manual: Updated - PHP area with DOXYGEN
- MYSQL area with MYSQL WORKBANCH
- Installation Manual : **Last update 2014 - June 09th**

The documentation is delivered to the users through the Forum web page www.meteoam.it/forum-meteoam/ and also in the ftp area [ftp://ftp.meteoam.it /VERSUS_DOCUMENTATION/](ftp://ftp.meteoam.it/VERSUS_DOCUMENTATION/)



Task 0: Help Desk, CODE Refinements

Task 0.c New VERSUS releases:

During this year were released the following versions:

- VERSUS 3.1 - October 2013
- VERSUS 3.2 - March 2014
- NEW Installation package VERSUS 3.0. - March 2014
- VERSUS 3.2 extra - to be tested
- VERSUS 3.2.1 - July 2014
- VERSUS 3.3 - July 2014

Versus 3.3 - now on testing phase by MCH

Task 0.e Organization VERSUS Course for Developers: Held in BOLOGNA June 24th-25th 2014

Task 0.f Code adjustment for DB Partitioning: VERSUS 3.2 extra

SUB-TASK COSI Test : DONE by DWD



VUS SUCCESSFUL !!

Information
 Consortium
 Related links
 Contact

SERVIZIO METEOROLOGICO DELL'AERONAUTICA

Documents
 User Manual
 Technical Manual
 Glossary

Additional information

Process Administration
 Acquisition Manager

USE versus 32653 /bin/ksh /media/p18509/versus_pflage
 /bin/Manual_FE_UD_loader

Name	Process	Status	Acq Files	Error Files	Backup Files	Report	Modify	Logs	Delete
Beobachtungen	Stopped	Online	0	0	56				
COSMO DE	Stopped	Online	0	0	4710				
COSMO DE CLCO	Stopped	Online	0	0	561				
...DE RR	Stopped	Online	0	0	559				
...DEU	Stopped	Online	0	0	7413				
...DEU CLCO	Stopped	Online	0	0	1047				
...DEU RR	Stopped	Online	0	0	999				
MWF	Stopped	Offline	0	0	0				
...S_S_ALL	Stopped	Offline	0	0	0				
...S_S_PREC	Stopped	Offline	0	0	0				
...S_S_TCC	Stopped	Offline	0	0	0				
...RFACE_BUFR	Stopped	Offline	0	0	0				
...RFACE_GRIB	Stopped	Offline	0	0	0				
...NOP	Stopped	Offline	0	0	0				
...MP	Stopped	Offline	0	0	0				
...PER_BUFR	Stopped	Offline	0	0	0				
...PER_GRIB	Stopped	Offline	0	0	0				

Results: 17

Start Stop Refresh

User
 Process
 Acquisition Manager
 Acquisition Registration
 Score Manager
 Batch Execution
 Clear Queue

Configuration
 Verification
 Report

Additional information
 for UD
 - The Real Fan of
 VERSUS
 06.08.2014
 16:58:24 CET





Task 1: Refinement of functionalities

The goal was that to improve the functionalities already existing in VERSUS

Main activities:

- Conditional Verification: condition in both fcs and obs Data **VERSUS 3.2**
- Precipitation analysis from composite sources: **performed by SCA**
- Cross Plot for Time Series and Daily cycle: **VERSUS 3.2**



Task 2: Implementation of FF

Task 2a: Re-Analysis and DB Creation: **DONE**

NEW EXTRA TASK: Development of a software to read the Feedback File in NETCDF: **In Progress**

In the Document "ff_versus_library.docx " all technical details are described.

Task 2b: Implementation of Loader Module for FF in VERSUS: **DELAY**

Task 2c: Creation of new Web GUI for FF and improvement of graphics for upper air: **DELAY**

Task 2d: Dedicated testing phase for FF tool implementation and FF functionalities in VERSUS: **DELAY**

This task accomplishment is scheduled at the end of November 2014





Task 3: Additional Stat. Techniques

This task involves the adoption of some external packages in order to perform Verifications with neighborhood methods and spatial verifications (upscaling methods)

Task 3a: Definition of tool to be used: **The TAG and the SCA evaluated LIBSIM to be used**

Task 3b: Description of spatial verification method that need to be implemented (box method, catchment/alert area method): **DONE**

Task 3c: Creation of a extra software for the upscaling

- Software upgrade (LIBSIM): **DONE AUGUST 2014**
- Documentation and User manual: **DONE AUGUST 2014**

Task 3d: Integration of Fyzy toolbox: COSMO funds are used for a contract of one year with University of Turin to implement this Task - **expected to be performed June 2014 - May 2015**

Task 3e: SAL Integration: **Deleted**



Task 4 - EPS Refinements

To ensure proper functioning of the system, a **Pre-Operational Phase** has been defined linked with the performance of the system itself under the bulk EPS model data extensive use . After this period (4 months), a list of feedback information has been drawn to define new developments and possible problems.

The purpose of this task was to ensure that developments were in line with Partner Operational Requirements for EPS verifications.



Task 4 - EPS Refinements

Task 4a: Implementation of CRPS/CRPSS and Plots of Spread/Skill relation: **DONE, VERSUS 3.3**

Task 4b: Pre-Operational phase in which all partners were required to:

- Install VERSUS last updates
- Configure the System
- Perform EPS data Loading (LEPS)
- Perform 2-3 months range verifications
- Compare VERSUS results with current operational EPS verifications
- **Compile a feedback/ suggestions document (possibly coordinated by WG7 Coordinator)**





Task 5: Extension of the ASCII Import Capabilities of VERSUS

The ASCII files (already existing in VERSUS) could be substituted by a more "modern" XML file format, following PL team specifications in coordination with TAG.

- Feasibility Study and Documentation about XML file usage: *we're coming to an agreement despite some little details to be discussed. A meeting is necessary (CNMCA, MCH, IMS)*
- To be illustrated at SMC Meeting in GM Conclusion Phase.



Conclusions

Thank you very much for active cooperation in TEST performing (New patches release, EPS, and so on).

By the way next year an even more energetic effort is required in order to succeed achieving a really fully operational software.