

Data Manager Activity

Progress Report

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Progress summary

The core of RC LACE Data Manager (DM) activity has been the maintenance and development of the common Observation Pre-processing system for LACE (OPLACE). The OPLACE was extended by new data from METOP-B and the upgrade to handle SYNOP data in BUFR format was implemented by the end of 2013. A draft proposal for access of non-LACE countries to access OPLACE was prepared and should be discussed within RC LACE Steering Committee and management Group.

Long-standing efforts dedicated to data policy of the surface synoptic data culminated in the agreement for the exchange of surface data within RC LACE signed by the end of 2013. The implementation of the data exchange is in progress.

The ODB related support was provided upon request and the DM was suggested as Continuous Observation Processing Environment (COPE) correspondent to get in touch with progress of the project.

Scientific and technical main activities and achievements, major events

Action: ODB support

Description and objectives: The main objective is to provide observation database (ODB) related support. This includes help in configuration and usage of ODB and ODB related applications at RC LACE members' site. The DM acts as ODB contact point, helps to solve emerging problems and further spread information inside the community. The DM also updates and maintains RC LACE Forum regarding observation usage in ALADIN data assimilation system.

Efforts: 1 person months

Contributors: DM

Documentation: : www.rclace.eu/forum

Status: The ODB related support was provided upon request. Regular update of the blacklist files from Météo France was maintained. Most of the issues were published on RC LACE Forum, which enables a wide spread of information and direct interactions of users.

The start of the technical discussions between ECMWF, Météo France and HIRLAM about the COPE was discussed at the last ALADIN/HIRLAM scientific coordination meeting. The suggestion was that besides Météo France and HIRLAM, there should be at least one ALADIN correspondent get into the loop of information. The DM was suggested as COPE

correspondent, so that she can get directly the minutes of meetings, and possibly access to any relevant technical documentation.

Action: Data exchange

Description and objectives: The substantial number of local surface observations is available in LACE countries. The main objective is to ensure an exchange of data, which have a potential for data assimilation and verification.

Efforts: 1.5 person month

Contributors: DM

Documentation: Trojáková (2013)

Status: The technical means have been prepared, but there remained a challenge to find an official agreement in order to progress with the local surface data exchange. More comprehensive overview and draft of a common agreement was elaborated in 2013. Common efforts of DM, Area Leader for data assimilation (AL DA) and Program Manager culminated in the ratification of the agreement for the exchange of surface data within RC LACE. The implementation of the data exchange is in progress.

Action: HARMONIE

Description and objectives: Data assimilation suite is rather complex and thus quite demanding for installation and maintenance. To give support to LACE Members the unification of the scripting system was examined, but has not spread much within RC LACE. The new impulse was provided by proposal of ALADIN-LACE System Coordinator (ASC) to focus on two rather standalone components: HARMONIE Verification package and Namelist maker.

Efforts: 0.5 person months

Contributors: DM, ASC

Documentation: no

Status: The HARMONIE verification package was examined and the model data extraction pat was installed in Prague. Validation of the local installation and cross-comparison with respect to the local verification package VERAL is in progress. The work on the main issue of the observation handling, i.e. use of OPLACE observation instead default ECMWF database, has just started.

Action: OPLACE

Description and objectives: Meteorological observations are a key aspect of data assimilation and verification. The OPLACE was built with aim of providing available observations in an appropriate format for data assimilation to RC LACE Members. Regular maintenance is required in order to provide stable and reliable bases for the operational purposes and further extension by the new data is essential for a general progress in area of data assimilation.

Observation monitoring is very important for any data assimilation system. The LACE observation monitoring has been installed in almost all Members. The maintenance and extension of the monitoring system for new observation and diagnostics is another objective.

Efforts: 3 person months

Contributors: DM

Documentation: Trojáková (2013b)

Status: Continuous local work has provided various OPLACE updates and extensions during 2013, in particular METOP-B data were added in May. The main upgrade was implemented by the end of 2013 during the OPLACE maintenance stay in Hungarian Meteorological Service (HMS). It comprised the extension of OPLACE to handle SYNOP data from BUFR format. Until the migration from the Traditional Alphanumeric Codes (TAC) to the Table Driven Code Forms (TDCF) such as BUFR is finished both TDCF and TAC will be decoded and duplication removed. The observation monitoring was extended for radar data and an optional graphical selection for smaller domains was added. The latest version was installed in HMS and the export package is available for Members.

The non-LACE countries showed an interest to access OPLACE data and the RC LACE Council expressed willingness to cooperate and to provide OPLACE access, but the data policy must be carefully defined.

The review of the data policy has shown that the most problematic is the data policy of surface synoptic data. Considering the technical solution for the national data exchange we propose to move all surface synoptic data to the dedicated ftp (OPLACE-national) and to keep in the default OPLACE only essential surface synoptic data (to be exchanged without charge and with no condition on use). It will slightly change current downloading procedure for the Members, which anyway will have to be adapted for the national data exchange. On other hand it gives an opportunity to have in the default OPLACE data without the data policy issues and to consider providing access to non-LACE countries (assuming being EUMETSAT member).

This draft proposal should be discussed within RC LACE Management group and RC LACE Steering Committee and an official procedure for accessing OPLACE is required. It should be kept in mind that non-LACE countries may have different geographical location and the OPLACE may need further extensions and an appropriate compensation should be investigated.

List of actions, deliverables including status

Subject: ODB support

Deliverables: regular update of blacklist files; on demand help

Status: DONE

Subject: OPLACE

Deliverables: observation monitoring extension; OPLACE maintenance and development;

Status: DONE

Subject: Data exchange

Deliverables: data policy review;

Status: ONGOING, the agreement was ratified; the implementation is in progress

Subject: HARMONIE

Deliverables: no

Status: ONGOING, the work on HARMONIE verification package has started

Documents and publications

Trojáková, A. 2013. Exchange of surface data within RC LACE, *internal report*

Trojáková, A. 2013b. Internal report on the OPLACE maintenance, *internal report*

Activities of management, coordination and communication

1) 20th LACE Steering Committee meeting, 11-12 March 2013, Prague, Czech Republic

- 2) Joint 23rd ALADIN Workshop & HIRLAM All Staff Meeting 2013, 15-19 April 2013, Reykjavik, Iceland.
- 3) 36th EWGLAM & 21st SRNWP joined meetings, 30 September – 3 October, 2013, Antalya, Turkey.
- 4) OPLACE maintenance stay, 18-29 November 2013, Budapest, Hungary
- 5) 21st LACE Steering Committee meeting, 16-17 September 2013, Zurndorf, Austria
- 6) Data Assimilation Working Days, 18-20 September 2013, Vienna, Austria

Summary of resources/means

Subject	Resource		LACE	
	Planned	realized	planned	realized
ODB support	1.0 PM	1.0 PM		
OPLACE	3.0 PM	5.0 PM	0.25 PM	0.5 PM
Data exchange	1.0 PM	1.5 PM		
HARMONIE	1.0 PM	0.5 PM		
Total:	6.0 PM	6.0 PM	0.25 PM	0.5 PM

Problems and opportunities

The non-LACE countries showed an interest to access OPLACE and the official procedure for accessing is required. On the top of the data policy issues it should kept in mind that non-LACE countries may have different geographical location and the OPLACE may need further extensions and an appropriate compensation for LACE should be considered.