22nd ALADIN LTM meeting Tuesday 4 April 2017 16:00-18:00 Helsinki, Finland



Minutes

Participants

ALADIN Program Manager: Piet Termonia

LTMs and representatives:

Algeria: Mohamed Mokhtari (LTM) Austria: Clemens Wastl (dep. LTM) Belgium: Alex Deckmyn (LTM), Bulgaria: Boryana Tsenova (dep. LTM)

Croatia: Martina Tudor (dep. LTM)
Czech Rep: Petra Smolikova (dep. LTM)

France : Claude Fischer (LTM) Hungary : Balaz Szintai (LTM)

LACE Program Manager: Yong Wang ACNA: Maria Derkova (Mariska) HIRLAM observer: Daniel Santos Support Team: Patricia Pottier

Morocco: Siham Sbii (dep. LTM)

Poland : **Bogdan Bochenek** (dep. LTM) Portugal : **Maria Monteiro** (LTM) Romania : **Raluca Iordache** (dep. LTM)

Slovakia : **Jozef Vivoda** (LTM) Slovenia : **Neva Pristov** (LTM) Tunisia : **Zied Sassi** (LTM) Turkey : **Alper Guser** (LTM)

1. Opening and welcome

Mariska opens the meeting and welcomes the participants. All ALADIN partners are represented. Raluca (deputy LTM for Romania) joins for the first time; She also welcomes Daniel (HIRLAM Project Leader for System) as HIRLAM observer.

2. Adoption of the agenda

The proposed agenda (see Annex) is adopted with an A.O.B topic proposed by Neva (more coordinated work in diagnostic fields).

3. ARPEGE with SURFEX => impact on LBC

Mariska summarises the feedback collected from Partners (Cz, Mo, Pt, Ro, Sk, Tk) on the LBC data produced over August 2016 by MF for each domain (OLIVE "e-suite like" experiment ARPEGE with SURFEX, with assimilation and production runs): partners have reported a worsening of the scores of some parameters, improvement or neutral behaviour for others.

From February 2017, MF produces on-line generated LBC for LACE and Belgium from the e-suite. Similar behaviour of the scores is reported by LACE.

Claude explains that a problem on the e-suite was identified by MF in March and the binary changed on March 23. A positive impact on the scores is expected with this new version. LACE and Belgium should resume the testing with the LBC operationally produced with the new binary and send their feedback to Claude and Mariska before the end of April.

Claude thanks the Partners for the feedbacks on the quality of the LBC files and insists that their comments are useful and taken into account (forwarded to relevant GMAP people). They are also discussed during the ACNA WebEx meetings (the next one is scheduled for the first week of May and will have a look to the feedback on this new binary).

However, Claude explains that as this ARPEGE e-suite contains both new surface and new convection schemes, we probably cannot expect a global uniform improvement (on all parameters, all ranges, everywhere). MF is still trying to improve this e-suite and it won't be operational before June, after analysis of the pros and the cons.

4. Code & Cycles

4.1. Status of CY40T1 export installation @Partners

Mariska summarizes the status of the installation of CY40T1 at Partners institutes (see https://docs.google.com/spreadsheets/d/1_IQMFDaRRDNEng21asHKQ42Hx_- IlOnRG3EX3BtfzVo/edit#gid=1841819452): the inquiry shows progress in the installation of this export version, without major problems.

4.2. CY40T1 bf07 export

Claude thanks Mariska and Olda for their coordination work and testing on CY40T1_bf07: a GIT branch is available, the code is ready (including back-phased developments from ALARO-1vB, with a documentation due for the 2nd week of April), and has been validated in the sanity check (mitraillette).

An export version will be prepared based on CY40T1_bf07. Claude recommends that it should be re-installed from scratch, not in an incremental manner thus not on top of a previous version.

4.3. Usual MF report on codes/cycles/suites

Claude opens the floor for comments or questions on the "progress and plans on the cycles and MF e-suites" document he sent before the meeting (Doc 4.c ProgressPlansMF).

He underlines that the next important MF upgrade will also contain an increase of horizontal resolutions for global systems (deterministic, EDA, EPS), with more networks on EPS systems if possible. This e-suite is expected to start running in October-November 2017, with a switch foreseen next spring (2018). It has still to be decided if it will be based on CY43T2 or CY44, the main difference being a more clearly introduced OOPS refactoring for DA in CY44. A bugfix will be needed on top of whatever CY43T2 or CY44 cycle is chosen. It is expected that the next export version of the code will be based on the e-suite cycle of MF. This will also be discussed at the next ACNA WebEx and Daniel will be invited to join for HIRLAM.

Claude asks the LTMs to express his thanks and appreciation to the members of their teams who participated to the recent phasing exercises in Toulouse. They have indeed provided a significant help and Claude explained he had passed this appreciation to the management level.

All LTMs should now check within their teams for potential candidates for the upcoming phasing exercises in Toulouse: CY45T1 (mid-Sept until mid-Nov 2017) and CY46 (Dec 2017 until February 2018). They may also think about possible candidates for March-June 2018, in case a CY46T1 would be possible over that period.

Fortran 2003 (F2003) is now the official norm for IFS/ARPEGE cycles. The discussions have started at ECMWF on the F2008 features, with the black-list approach promoted, e.g. to list the items that will not be accepted from F2008 (for example co-arrays).

5. Feedback from General Assembly

Piet summarises the outcome of the recent meetings and reminds that the LTMs could also find information on the aladin webpage (minutes, documents that were presented there, ...): the 4th HAC/PAC meeting¹, the strategy² meeting held in Toulouse, the 2nd joint ALADIN General Assembly and HIRLAM Council³ (including the newly signed ALADIN-HIRLAM cooperation agreement⁴)...

Things have been clarified about data policy, terminology (for the current branding, it has been decided to use "the ALADIN-HIRLAM shared system" as the name of the common system and to use "HARMONIE-AROME" for the HIRLAM reference system); the definition of the ALADIN-HIRLAM common codes will be based on the Canonical Model Configurations (CMCs); the ALADIN legacy and this new terminology will be settled by articles such as the HIRLAM article published in March 2017 in MWR and the ALADIN article prepared for GMD (this article has been written and re-read by many people, including the LTMs).

The Directors also approved the reorganisation of the common ALADIN-HIRLAM Rolling Work Plan according to three types of activities: Part 1. common activities (activities necessary to create the export versions): code delivery, maintenance and support activities; Part 2. core programs (R&D): commonly agreed programs of recognized strategic importance that will benefit all partners: two core programs are proposed "Scalability" (numerics, scalability and HPC developments) and "DA for ALL Partners" (Development of a DA "starters kit" to help those ALADIN Members who do not have an operational data assimilation yet, and further developments of 3Dvar); Part 3. specific activities: all activities carried out outside of the core programs that a.) are needed by a limited group of member states who invest resources in it, OR b.) do not lead in the short term to the creation of a new CMC or a major extension of the sanity check, OR c.) are not needed to guarantee operations.

The RWP will be split into Work Packages, their redaction distributed, some templates agreed on. The discussion will begin at the HMG/CSSI meeting, the outcomes will be presented at HAC/PAC meeting. The RWP will be finalized after the summer and presented at the next LTM meeting, then the LTMs will be asked to commit on the manpower.

Piet encourages the LTMs to take opportunity of the meeting in Helsinki to come to him with any questions or remarks on the above topics (ALADIN article, RWP, ...) or to contact him afterwards by email.

6. Feedback from DA basic kit WD

Piet puts these DA basic kit Working Days into the context of the "DA for all Partners" core programme (see item 5). The goal of this meeting was to gather representatives of all of the ALADIN countries that do not run an operational DA, to identify their needs and expectations for a future DA, and to start a feasible common action on the handling of observation data. According to a recent inquiry among the Members of the ALADIN consortium, there are still 9 ALADIN Members who do not run an operational DA. It turned out that not all HIRLAM countries have an operational 3Dvar either. So it would be beneficial to plan this program together with HIRLAM.

¹ PAC and HAC/PAC : http://www.umr-cnrm.fr/aladin/spip.php?article109

² Strategy meeting: http://www.umr-cnrm.fr/aladin/spip.php?article300

³ Joint GA/C: http://www.umr-cnrm.fr/aladin/spip.php?article308

⁴ A-H cooperation agreement : http://www.umr-cnrm.fr/aladin/IMG/pdf/ah-agreement-with-appendix3-web.pdf

⁵ The HARMONIE-AROME model configuration in the ALADIN-HIRLAM NWP system,

⁶ The ALADIN System and its Canonical Model Configurations of cycles CY40T1 and CY41T1

The meeting started with didactic introductions by a number of DA experts. The presentations are published⁷ on the ALADIN web site.

Some encouraging conclusions: almost all attending countries have activities on DA and all countries are now allocating at least 1 Full Time Equivalent to DA; about half of these countries have tested OPLACE data so far; some countries have tested the HARMONIE scripting system.

Daniel explains that HIRLAM has plans to rewrite its HARMONIE scripting system and this could be the opportunity to work with ALADIN on a common scripting system. This could be discussed within HMG/CSSI and when establishing the RWP.

During the DA WD, the need for an inquiry as to what any scripting system should provide as features and how it should be coded or recoded was raised and it was decided to make an inquiry on the needs for data handling (to be discussed at the HMG/CSSI meeting).

The Irish colleagues are using a data handling system based on the SAPP software of ECMWF. ECMWF is open to provide the SAPP system "as is", but without any support for its operational use. This may provide an interesting alternative to OPLACE.

Yong explains that, OPLACE being developed by LACE, the LACE Council has decided that non-LACE Partners could benefit from OPLACE as soon as they commit to 2 months stays in a LACE country per year, mainly dedicated to work on OPLACE or another topic of interest for LACE.

Patricia comments that, so far, this is a bilateral agreement between the Partner and LACE and thus falls outside the flat-rate planning and funding. If all Partners interested in OPLACE ask for the 2 month stays they committed to LACE to be part of the flat-rate funding, it would eat the whole flat-rate budget spent on scientific visits.

As this commitment proves to be problematic for most Partners, Piet proposes to raise the issue of a possible agreement between LACE and the other ALADIN Partners as a whole, rather than bilateral agreements, at the next PAC and the GA meetings. It has to be stressed that data handling is not purely NWP issue (it has to be understood if NMS plans to invest to operational data assimilation).

As a concrete outcome of the DA basic kit WD, it was decided to create a network within the people who are trying to develop and run an operational DA. This network would benefit from a coordinator. Piet proposes to write a plan for the core program "DA for all Partners", together with the Term of Reference for a possible DA coordinator. The LTMs who still don't have an operational DA are asked to look for and propose somebody in their team who could be this coordinator. Then, Piet could ask the PAC and the GA for a possible funding of this position (similar as the Code Architect position). The very first action to be coordinated, that was proposed during the DA WD, will be an exercise to locally handle GTS data and create an ODB from them. The document will be sent to the LTMs by Alena (LACE Data Manager) till the end of April.

7. Support team information

7.1. Call for next Newsletter

The next newsletter will be dedicated to this Wk/ASM in Helsinki, with additional parts about recent publications by the ALADIN/HIRLAM colleagues and PhD defences. It is due for this summer.

Thus, the LTMs are kindly asked to let Patricia know about any new publications and PhDs in their teams and to ask the Helsinki speakers to prepare a short article based on their presentation (or poster).

Deadline is mid-June and the authors are asked to use the templates as they are proposed on-line: http://www.umr-cnrm.fr/aladin/IMG/gz/templates-nl8.tar.gz.

7.2. Reminder about the registration of the manpower

⁷ DA basic kit WD: http://www.umr-cnrm.fr/aladin/spip.php?article318

The LTMs are reminded about the importance of registering the manpower on time (the official rule is that this registration should be done within one month after each quarter, the on-line tool allows the registration during three months but it is not always enough to get all partners registered ...). It is also important they register the visits/stays in their institute (flat-rate, bilateral, LACE, ... visits). The LTM who hosts a visit should register the action. The LTM of the visitor can check that this has been done (simply use the link proposed on your LTM participation page "data already registered for this quarter" and you will see both what you have registered and what the other LTMs have registered for people of your team). You don't have to register the work of your people when they are on visits/stays in another ALADIN country. Important too, only effective periods of work should be registered, not the whole periods when people are paid by their NMS but are not working (stays aboard, holidays, sick leave, ...) and no more than 3 months of registered work per quarter and 11 months per year.

7.3. Status of the ALADIN flyers

Some ALADIN flyers have been prepared after a request by the 2014 General Assembly: the front page is the same for all Partners and the reverse page can be customized for each Partner, with texts and pictures sent by the LTMs.

Beginning of December 2016, the first three flyers were ready, printed and presented at the General Assembly: Croatia, Czech and France. The pdf versions are downloadable on the aladin website: http://www.umr-cnrm.fr/aladin/spip.php?article314.

Other flyers are under preparation for Algeria, Austria, Belgium, Hungary, Poland, Portugal, Romania, Slovenia and Turkey. They will be printed and sent to these Partners as soon as the LTMs give their green-light to the last proposal by the printing company (version v8).

7.4. ALADIN template for presentations

We have prepared a <u>template for the ALADIN presentations</u>. It was first used at the 21st ALADIN GA⁸ (see for instance <u>the Tour d'ALADIN</u> given by Piet there). Piet also used it during this Workshop. <u>It is recommended to use this template for ALADIN presentations</u>, unless otherwise notified by the home Institute of the speaker or by any other consortium or project that may have funded the presented work.

This template is <u>downloadable on the ALADIN website</u> (see the repertory "COM⁹", where the leaflets also can be found, together with older documents).

In order to keep it updated, the LTMs should make sure to let Patricia know about any changes in the name or logo of their institute.

8. A.O.B.

Neva, as LACE physics Area Leader expresses a need for more coordination within ALADIN/HIRLAM/LACE on diagnostic fields that are requested by end users (i.e. lightenings, ...). The first step would be to make an inquiry of the current status (various tools already exist, some in FullPos, others in GL, others on radar visualisation, ...) and aim to have everything in a single tool. Daniel adds that HIRLAM would like too to have only one tool.

This could be proposed as a Work Package (to be discussed during the HMG/CSSI on Friday). Neva and Mariska will prepare a questionnaire. The LTMs should be prepared to answer this inquiry.

^{8 21}st GA: http://www.umr-cnrm.fr/aladin/spip.php?article308

⁹ COM repertory: http://www.umr-cnrm.fr/aladin/spip.php?rubrique72

9. Closing

The next meeting will take place in Reading, besides the SRNWP/EWGLAM meetings, thus on the 3^{rd} of October 2017.

Annex: Agenda with list of preparatory documents

	Agenda	Introd. by	Decision, Comment, Information	Documents
1.	Opening and welcome	ACNA		
2.	Adoption of the agenda	ACNA		Agenda
3.	ARPEGE with SURFEX => impact on LBC	CF/ACNA	information/ discussion	slides
4.	Code & Cycles			
4.a	Status of CY40tT1_export installation @Partners	ACNA	information/d iscussion	link2ACNA table
4.b	CY40T1bf07_export	ACNA/CF	information	
4.c	Usual MF report on codes/cycles/suites	CF	information	Doc4.c
5.	Feedback from GA	PT	information	slides
6.	Feedback from DA basic kit WD	PT/ACNA	information	slides
7.	Support team information		information	
7.1	Call for next Newsletter	PP	information	http://www.umr-cnrm.fr/aladin/spip.php?article260
7.2	Reminder about the registration of the manpower	PP	information	http://www.umr-cnrm.fr/aladin/spip.php?article130
7.3	Status of the flyers/leaflets	PP	information	http://www.umr-cnrm.fr/aladin/spip.php?article314
7.4	ALADIN template for presentations	PP	information	http://www.umr-cnrm.fr/aladin/spip.php?article315
8.	AOB			