
Expert Team on Systems Aspects Interoperability

Chairman of the ET: Ulrich Schättler (DWD)

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Review Talk for Expert Team on System Aspects 34th EWGLAM / 19th SRNWP Meeting

Ryad El Khatib	ALADIN	
Ulrich Schättler	COSMO	still acting chairman
Ulf Andrae	HIRLAM	
Glenn Greed	MetOffice	
Oldrich Spaniel	RCLACE	
Alfred Hofstadler	ECMWF contact	

Topics of Interest for the ET

- Interoperability: Work coordination within the consortias
- Future work for Interoperability:
 - To maintain the standard output format, the lists of parameters and the documentation
 - To maintain and test the Interoperability software, the adaptors:
 - Exchange test data once a year and check the adaptors
 - Best before the EWGLAM / SRNWP Meetings
- List of “Operational NWP Systems in Europe”: Has been updated during August / September: the new list is already on the web <http://srnwp.met.hu>
- To foster some discussions, a survey has been distributed to the Expert Team

Survey for the Expert Team

- We asked to rate the importance for some aspects of
 - Software Development and Implementation Aspects
 - Software Maintenance
 - Operational Systems
- Rating goes from
 - 0: I do not know
 - 1: Not important
 - ...
 - 5: Very important

Software Development and Implementation Aspects

	Importance for your Home System	Importance for collaboration
Code Design	3.16	3.16
Portability	4.33	2.66
I/O	3.66	3.50
Parallelization Aspects (shared / distributed memory; hybrid)	4.16	3.50
Optimization for special hardware	2.16	1.83
New Computer Architectures (GPU, Intel MIC)	2.5	3.5

Software Maintenance

	Importance for your Home System	Importance for collaboration
Coding Standards	3.50	2.50
Documentation	3.83	1.83
Testing Procedures	4.16	2.66
Use of Software Management Systems (SVN, Redmine, GIT,...)	3.33	2.33
Release Management	2.83	1.50
Transparency to the Users	2.66	1.83

Operational Systems

	Importance for your Home System	Importance for collaboration
Observation Data Processing	3.66	3.00
Job Management and Scheduling	3.83	1.66
(Grib) Data Handling	4.00	3.83
Postprocessing	4.16	2.33
Sharing of Computer Resources	2.33	1.66

What are the interesting / important issues:

- Software Development: Portability, I/O, Parallelization Aspects
 - See presentation „Offloading I/O in AROME“
 - There were several presentations about I/O at this years „ECMWF HPC Workshop in Meteorology“
- Software Maintenance: Coding Standards, Documentation, Testing Procedures
 - These are intra-consortia issues; interesting to talk about, but no need for inter-consortia actions
- Operational Systems: but only „in-house-importance“, not for collaboration
 - BUT: GRIB data handling
 - Some aspects of GRIB could be coordinated by the ET on System Aspects by maintaining the standard output format and the list of parameters from Interoperability

How to go on?

- There are already special workshops, e.g. „HPC in Meteorology“ @ ECMWF
- These could be a good platform to meet and do (ex)³:
 - exchange extraordinary experiences



Thank you for your attention

