

NWP utility inventory at HIRLAM and ALADIN communities

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1998 - Toward coordinated exchange of applications in the ALADIN's world

- **According the conclusions of discussion at 6th and 7th ALADIN workshops and according to the action requested at 1998 Assembly of ALADIN Partners, a new attempt has been initiated to improve the collaboration within the ALADIN community in the exchange of applications in the ALADIN's world.**
- **Jure Jerman (Slovenia)**

<http://www.cnrm.meteo.fr/aladin/concept/exchange.html>

2007 - NWP utility inventory at HIRLAM and ALADIN communities

- **An inventory almost for decades**
- **The initiative aims at improving the collective knowledge of various software tools made in various teams which can be inspirational and make our work more efficient.**
- **More practical environment for store and exchange**

The statistical table of available utilities for 1998/2007

Country	1998	2007
Algeria	/	1
Austria	4	/
Belgium	6	1
Bulgaria	/	3
Croatia	1	7
Czech Republic	7	4
France	9	1
Hungary	11	3
Morocco	/	/
Poland	/	2
Portugal	1	2
Romania	2	/
Slovakia	3	4
Slovenia	3	2
Tunisia	/	/
HIRLAM	/	5
Total	47	35

Classification of applications

- **Visualization**
 - **2D maps drawing (NCAR)**
 - **interactive web based visualization (PHP, Perl, Java)**
 - **GrADS binary file**
 - **Gnuplot**
 - **basic Meteorological Applications from ECMWF (Metview, Magics, EMOSLIB, SMS/Xcdp) – BUFR, GRIB**

Classification of applications

- **Verification**
 - mean difference of RMSEs
 - intercomparison of different ALADIN model versions
 - Aladin Verification Project

Classification of applications

- **Post-processing**
 - **FA to NETCDF, GRIB, ASCII**
 - **calculations on FA files (scale/offset, summation, max/min, spectral -> gridpoint fields)**
 - **LBC interface (HIRLAM/IFS -> ALADIN/AROME)**
 - **diagnostic variables (CAPE)**

Classification of applications

- **Data handling**
 - **Data transfer (retrieving LBC)**
- **Automatic forecast**
 - **Visualization of meteorological data in the form of NWP, observations, satellite and radar images etc.**

The Utility Demonstration Show during HIRLAM/ALADIN ASM/workshop

- Jean-Daniel Gril: Pinuts utilities**
- Martin Janousek: CHAGAL graphics**
- Lisbeth Bergholt: DIANA**
- Carlos Santos: INM Ensemble
monitoring and verification tools**
- Ulf Andrae: HARMONIE monitoring
tools**
- Kalle Eerola: Verification graphics**

Accessibility

- **1998**

<http://www.cnrm.meteo.fr/aladin/concept/exch>

Title	Contact	Application
automatic forecast from ALADIN/LACE	Martin.Bellus@mail.shmu.sk	Short text forecast for 22 towns in Slovakia based on ALADIN/LACE grib products + graphic forecast + verification
new diagnostic parameters from ALADIN	olda.spaniel@mail.shmu.sk	Temperature gradient, Q vector, KO Index, K index, ADEDOKUN index, Faust index
model Safran application in Bucegi mountains	caian@meteo.inmh.ro	Interface Aladin/Safran providing input files for snow analyses model Safran for the Bucegi mountains

Accessibility

- 2007

<http://www.cnrm.meteo.fr/aladin/concept/.....>

<http://www.rclace.eu> | **Actions** | **NWP utility**

Name (Country)	Inventory Purpose	Short Description
chagal (Czech Republic)	visualization	2D maps drawing. Reads data from *FA* files. Creates PostScript images. Contour plots, wind barbs/arrows plots, overlay plots. Custom colouring. Sequence plots and/or multiple panel plots. Fortran program using NCAR Graphics library and IFS/ARPEGE/ALAD.
auto2grad (Croatia)	visualization	The program reads an ascii file with measurements from Croatian automatic stations and writes it to a GrADS binary file. The scripts plot a comparison of forecasted and measured quantity.
sinop2grad (Croatia)	visualization	The program reads an ascii file with synop measurements and writes it to a GrADS binary file. The scripts plot a comparison of forecasted and measured quantity.
flux (Slovakia)	data handling	Diagnostic tool for 2D vertical plane ALADIN. It performs FA --- > ASCII conversion. DOWNLOAD

Conclusion

- 1. The environment for exchange of utilities**
 - LACE ftp server
 - Restricted access
 - ALADIN ftp server - anonymous
 - <ftp://cnrm-ftp.meteo.fr/pub-aladin/>
 - Web site with open access for modification by contributors – Wiki (?) + open forum
- 2. The rules for export pack (source code, makefile, binary, example, data set, output)**
 - Invitation to the utility bazaar