



HARP: current status

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Prague, 19 September 2019

HARP training

- Tuesday 15 October - Thursday 17 October 2019
- DMI, Copenhagen
- basic R usage + HARP

HARP verification package(s)

- HIRLAM-ALADIN collaboration
- R packages for verification :
 - point verification (deterministic & probabilistic)
 - spatial verification
- No longer a stand-alone piece of software, but a set of R packages: processing model output and creating output + visualising output in a web interface.

Installation

- First install R.
- You will need a lot of packages from CRAN
- To install HARP itself: first install “devtools”
- **install.packages(c(“devtools”, “tidyverse”))**

This will install a lot (>100) of packages!

non-root users: add the install location

```
install.packages(..., lib="/my/R-libs")
```

- **install_github(“/adeckmyn/harpIO”)** (this will also install even more dependencies from CRAN)
- Other libraries to install from github:
“adeckmyn/meteogrid”, “adeckmyn/Rgrib2”, “andrew-MET/harpSpatial”, “harpPoint”, “harpVis”,
- Also some packages e.g. for specific data formats (“h5”, “ncdf4” “maps”... may be needed). Rfa will be available soon.
- **The github packages are still in beta, the the two versions are not always the same.**

harp libraries

- **harpIO**: functions, wrappers & methods for reading data in various formats (GRIB, netcdf, FA, hdf5) plus interpolation, SQLite wrappers etc.
- **harpPoint**: functions for point verification (ensemble and deterministic)
- **harpSpatial**: spatial verification (SAL, FSS, ...)
- **harpVis**: visualisation. Mainly used by the *Shiny* web interface.
- **Rgrib2, meteogrid** : specific GRIB support
- **Rfa**: (not yet on github) FA and LFI files

Starting a HARP session

- It is a normal R session.
- Interactive for data exploration, but all commands can be put into a script
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Rfa on beaufix

- sources and installed version (plus README) in
~deckmyn/public/R-libs
- in ~/.Renviron:
R_LIBS=~deckmyn/public/R-libs/3.5.2
- <short demonstration>