

Read and Plot IDRA Data

Prepared by Tobias Otto (tobias.otto@gmx.de), November 2012.
Programmed and tested under Windows with Matlab R2012a.

Quick Start to plot IDRA Data

1. Download one of the following supported IDRA NetCDF files:
 - a. IDRA products available at <http://www.cesar-database.nl> including rainfall rate estimates, attenuation-corrected reflectivity, specific differential phase, differential backscatter phase, and the corresponding estimation accuracies

filename mask: cesar_idra_products_lb1_t00_v1.0_yyyymmdd.nc
 - b. IDRA data available at <http://data.3tu.nl/repository/collection:cabauw> including the processed data, i.e. attenuated reflectivity, attenuated differential reflectivity, attenuated linear depolarisation ratio, differential phase, Doppler velocity and Doppler spectrum width

filename masks IDRA_yyyy-mm-dd_near_range.nc
IDRA_yyyy-mm-dd_standard_range.nc
IDRA_yyyy-mm-dd_far_range.nc
2. Open MATLAB and run the function *idra_plot_data.m* to plot plan-position indicators for a desired time span.

Notes

- you may change file type (fig, jpg, png, ...), plot titles, colour-bar ranges and filenames in the MATLAB function *idra_plot_constants.m*
- if you consider to seriously work with the data, *please read the IDRA dataset description documents* that are available at the CESAR database and at the 3TU.Datacentre
- if you want to work with the data, use the following Matlab functions to read them
idra_read_products_NetCDF.m for data of type 1.a, and
idra_read_3TU_NetCDF.m for data of type 1.b.
Please refer to the comments in the MATLAB files on how to use these functions.
- for IDRA data the CESAR data policy applies which you can find at <http://www.cesar-database.nl/DataPolicy.do>
- if you use the data in a scientific publication, please cite it using the digital object identifier of IDRA data in the 3TU.Datacentre, e.g.

T. Otto and H.W.J. Russchenberg, 2010: IDRA weather radar measurements – all data, TU Delft, Dataset, <http://dx.doi.org/10.4121/uuid:5f3bcaa2-a456-4a66-a67b-1eec928cae6d>.