GA number: 641821

Published on *Marketplace* (https://wie.dev.52north.org)

REFRAN - Processing Time Series of Meteorological Stations Data

Product Owner : DG JRC European Commission

Category : Software Products

Stage of Commercial Development: looking for first markets

REFRAN-CV software allows processing time series of data from ground meteorological stations (precipitation data), in order to generate spatially-explicit products (return period maps) based on the L-moments statistics. This tool and the associated products at local and regional scale can be used in the development planning process and, concretely, to prepare investment in multi-purpose (irrigation, flood and drought prevention, environment protection) hydraulic infrastructure. L-moments statistics are used to estimate the probability distribution function of precipitation data. The L-moments have the advantage of being less susceptible to the presence of outliers and performing better with smaller sample sizes. This is of particular interest in the case of datasets where the time series lengths are heterogeneous as this is usually the case in developing countries.

Application & Target Markets :
REFRAN-CV software allows processing time series of data from ground meteorological stations (precipitation data), in order to generate spatially-explicit products (return period maps) based on the L-moments statistics.

Competitive Advantages :
Open source regionalization tool

Details :

License / Copyright:	Free and open source
License Info :	http://www.aquaknow.net/fr/links/regional-frequency-analysis-climate-var...
Costs :	For free
Type of Software:	Data processing
Case Studies :	Return Period Maps of extreme rainfall across Venezuela (NO WORKING LINK)
E-learning, Tutorials and Supporting Material :	D7.1 Draft tutorials and multimedia products

WFD Objectives :	Selecting measures, Characterization of water bodies (including mapping), Data processing (spatial or geographical), Planning process, Modelling and prediction, Reference conditions, Infrastructure planning
Issue :	Ecological or chemical status, Ecosystem services and Urban areas.
Relevant Water Bodies:	Rivers, Lakes and Artificial and heavily modified waterbodies.
Target User Group:	Research organisation, Utility, Government (and associated bodies) - practitioners and Regulator.
Type of Input requirements :	Rainfall data
Type of Output :	The software was used for the production of the Regional Frequency Map of Precipitation

Supported Standards

Standard Category :

- Data Visualization
- Processes and Models

Version :	2016/05
Project :	RALCEA
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Partners

This project has received funding from the European Union's Horizon 2020 research and innovation programm under grant agreement No G41821.

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