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Further results on the homogeneity analysis of daily time series of ECA&D

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Climate research requires existence of homogenised time series of various meteorological variables. In the last years, a big effort has been devoted to the development and comparison of methods for detection of inhomogeneities at monthly time scales (e.g. Venema et al, 2011).
In this work we focused on comparison of results obtained with the use of different methods for inhomogeneities detection (on monthly scale) applied upon various elements. Data used consists of daily series available from the European Climate Assessment & Dataset (http://eca.knmi.nl/). Methods selected are among those tested in the framework of the ES0601 COST Action (HOME), such as PRODIGE and MASH. SNHT was also used to compare the results obtained between “older” and modern methods. For correction of the found inhomogeneities various methods were applied (tested within the COST Action as well). Validation procedure includes comparison with complete national datasets (e.g. from the Czech Republic, Portugal, Norway) to account for problems associated with a lower station density in the ECA&D.
In 2012 we presented mean air temperature results, in 2013 we continue with further elements, namely maximum and minimum temperature.

Reference:
Venema, V., O. Mestre, E. Aguilar, I. Auer, J.A. Guijarro, P. Domonkos, G. Vertacnik, T. Szentimrey, P. Stepanek, P. Zahradnicek, J. Viarre, G. Müller-Westermeier, M. Lakatos, C.N. Williams, M.J. Menne, R. Lindau, D. Rasol, E. Rustemeier, K. Kolokythas, T. Marinova, L. Andresen, F. Acquaotta, S. Fratianni, S. Cheval, M. Klancar, M. Brunetti, Ch. Gruber, M. Prohom Duran, T. Likso, P. Esteban, Th. Brandsma. Benchmarking homogenization algorithms for monthly data. Climate of the Past, 8, pp. 89-115, doi: 10.5194/cp-8-89-2012, 2012

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