



Web processing services (WPS) for Climate Data as possible tools of inter-project collaboration

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Processing of climate data is often connected with big data processing, but a frequent problem is that users of the processing outcome are not optimally-equipped with appropriate hardware (computing and storage facilities) nor programming experience for software development to perform the processes themselves. Web Processing Services (WPS) can close this gap and offer users a valuable practical tool to process and analyze big data. WPS represents an interface to perform processes over the HTTP network protocol, enabling users to trigger specific processes over a website. The appropriate processes are predefined, together with access to the relevant data archives where appropriate data are provided.

This presentation is an introduction to the ClimDaPs project, which uses WPS for climate data processing. It is based on the PyWPS implementation of WPS and additionally provides an easy-to-use web-based user-interface to access and combine climate data processes. The data archive of the earth system grid federation (ESGF) is connected with a search process and provides access beside others to CMIP5 and CORDEX data. Furthermore, the WPS we present is conform with the standardization defined by the Open Spatial Consortium (OGC), allowing combination with WPS from other institutions to establish a network of computing providers.