

Teaching Tools for Web Processing Services

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Abstract : Web Processing Services (WPS) have up growing concern in geoinformation research. However, teaching about them is difficult because of the generally complex circumstances of their use. They limit the possibilities for hands- on-exercises on Web Processing Services. To support understanding however a Training Tools Collection was brought on the way at University of Applied Sciences Stuttgart (HFT). It is limited to the scope of Geostatistical Interpolation of sample point data where different algorithms can be used like IDW, Nearest Neighbor etc. The Tools Collection aims to support understanding of the scope, definition and deployment of Web Processing Services. For example it is necessary to characterize the input of Interpolation by the data set, the parameters for the algorithm and the interpolation results (here a grid of interpolated values is assumed). This paper reports on first experiences using a pilot installation. This was intended to find suitable software interfaces for later full implementations and conclude on potential user interface characteristics. Experiences were made with Deegree software, one of several Services Suites (Collections). Being strictly programmed in Java, Deegree offers several OGC compliant Service Implementations that also promise to be of benefit for the project. The mentioned parameters for a WPS were formalized following the paradigm that any meaningful component will be defined in terms of suitable standards. E.g. the data output can be defined as a GML file. But, the choice of meaningful information pieces and user interactions is not free but partially determined by the selected WPS Processing Suite.

Keywords : deegree, interpolation, IDW, web processing service (WPS)

Conference Title : ICGIS 2016 : International Conference on Geographic Information Systems

Conference Location : Boston, United States

Conference Dates : April 25-26, 2016