A Rules-Based Service for Suggesting Visualizations to analyze Earth Science Phenomena (IN118-1632*)

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Abstract

Current Earth Science Information Systems lack support for new or interdisciplinary researchers, who may be unfamiliar with the domain vocabulary or the breadth of relevant data available. We need to evoke the current information systems, to reduce the time required for data preparation, processing and analysis. This can be done by effectively salvaging the "dark" resources in Earth Science. We assert that Earth science metadata assets are dark resources, information resources that organizations collect, process, and store for regular business or operational activities but fail to utilize for other purposes. In order to effectively utilize these dark resources, especially for data processing and visualization, we need a combination of domain, data product and processing knowledge. i.e. knowledge base which is specific to the phenomena to be visualized. We use Jena rules to make assertions about compatibility between a phenomena and its metadata. These assertions can be used to effectively salvage the "dark" resources in Earth Science. We assert that Earth science metadata assets are dark resources, information resources that organizations collect, process, and store for regular business or operational activities but fail to utilize for other purposes. In order to effectively utilize these dark resources, especially for data processing and visualization, we need a combination of domain, data product and processing knowledge. i.e. knowledge base which is specific to the phenomena to be visualized. We use Jena rules to make assertions about compatibility between a phenomena and its metadata. These assertions can be used to effectively salvage the "dark" resources in Earth Science.

Rules Generation

We use Jena rules to make assertions about compatibility between a phenomena and its metadata. These assertions can be used to effectively salvage the "dark" resources in Earth Science. We assert that Earth science metadata assets are dark resources, information resources that organizations collect, process, and store for regular business or operational activities but fail to utilize for other purposes. In order to effectively utilize these dark resources, especially for data processing and visualization, we need a combination of domain, data product and processing knowledge. i.e. knowledge base which is specific to the phenomena to be visualized. We use Jena rules to make assertions about compatibility between a phenomena and its metadata. These assertions can be used to effectively salvage the "dark" resources in Earth Science.