

STARS touch: A web-application for time-dependent observation data designed for world data systems

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In 2008, the International Council for Science (ICSU) established the World Data System (WDS) to ensure the long-term stewardship and provision of quality-assessed data and data services to the international science community and other stakeholders. One of the objectives of the WDS is to support and make progress of interdisciplinary and cross-over studies data analyses covering a variety of research fields. In 2010, the NICT Science Cloud, which is one of the projects of the National Institute of Information and Communications Technology (NICT), has initiated a sub-project to realize the WDS's concept of the interdisciplinary data activity. In this paper, we demonstrate potential capability of our Web application for interdisciplinary data analysis, which is now operated on the NICT Science Cloud. In the initial stage of the system development, we constructed a basic concept and an initial design of the Web application, taking into account our long-term experiences in data-oriented activities under the WDC (World Data Center) system of the ICSU, which was an ICSU's data program operated from 1957 to 2008, preceded the WDS. Based on our design, we have implemented the Web application for data plots on the basis of the HTML5 and the Ajax technologies. Data plots can be previewed on the Web application with higher usability and better handleability than those of traditional data-plot tools developed for multiple-datasets. We finally discuss feasibility and potential usefulness of the Web application for future interdisciplinary data-analysis activities of the WDS.