



Good Read: Incorporating Semantics in Scientific Workflow Authoring

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C. Berkley, S. Bowers, M.B. Jones, B. Ludascher, M. Schildhauer, J. Tao. Incorporating Semantics in Scientific Workflow Authoring. Proceedings of Scientific and Statistical Database Management, SSDBM'05, Santa Barbara, CA.

This article presented at the SSDBM (<http://2005.ssdbm.org/program.html>) and available on the LTER Information Manager Meeting website (http://gce-lter.marsci.uga.edu/lter_im/2005/app/resources.asp?webpage=references) describes an instance of the merging of ontologies with workflow systems in the with a particular workflow system called Kepler being used by the SEEK (Science Environment for Ecological Knowledge; <http://seek.ecoinformatics.org/>) together with a number of partners. Kepler is a promising research avenue, a tool designed with a generalized support for scientific workflows which are locally tailored for specific tasks through ontology-enabled, domain-specific customization. Workflows are the automation of scientific processes related to data manipulation and representation, while ontologies are system accessible scientific terminologies and computable linkages between them. This article describes how in combining ontologies and workflows a system for data discovery, manipulation and representation was created which is both domain specific and cross-disciplinarily configurable. The authors briefly describe problems in creating workflows and ontologies, and the future possibilities of automated data integration through re-use of semantically annotated workflows.