A modeling paradigm for interdisciplinary water resources modeling: Simple Script Wrappers (SSW)

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Abstract: Holistic understanding of a water resources system requires tools capable of model integration. This team has developed an adaptation of the OpenMI (Open Modelling Interface) that allows easy interactions across the data passed between models. Capabilities have been developed to allow programs written in common languages such as matlab, python and scilab to share their data with other programs and accept other program's data. We call this interface the Simple Script Wrapper (SSW). An implementation of SSW is shown that integrates groundwater, economic, and agricultural models in the High Plains region of Kansas. Output from these models illustrates the interdisciplinary discovery facilitated through use of SSW implemented models.

Reference: Bulatewicz, T., A. Allen, J.M. Peterson, S. Staggenborg, S.M. Welch, and D.R. Steward, The Simple Script Wrapper for OpenMI: Enabling interdisciplinary modeling studies, Environmental Modelling & Software, 39, 283-294, 2013.

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http://code.google.com/p/simple-script-wrapper/