Progress in Stochastic Analysis, Modeling, and Simulation: SAMS-2003

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Abstract. SAMS is a software for stochastic analysis, modeling, and simulation of hydrologic time series such as streamflows. It has been written in MS Visual C++ and Fortran. The package consists of many menu option windows that focus on three primary application modules - Statistical Analysis of Data, Fitting of a Stochastic Model (including parameter estimation and testing), and Generating Synthetic Series. SAMS has the capability of analyzing single site and multisite annual and seasonal data such as monthly and weekly streamflows based on a number of single site and multisite models, and aggregation and disaggregation modeling schemes. Results can be presented in graphical and tabular forms and, if desired, saved to an output file. The purpose of the paper is to summarize and update on the current capabilities of SAMS. Some illustrations are made to demonstrate the improved technical capabilities of the program using flow data of the Colorado River system.