

The Execution Engine: Client-server mechanism for remote calling of R and other systems

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Abstract

A recent project highlighted the need to execute and manage remote jobs over a range of servers (including via a Grid API). The software systems on which jobs were to be managed included R, NONMEM and openBUGS (as well as other internal systems). In order to meet this demand, Mango created a software component we call the *Execution Engine*.

This presentation will discuss the design challenges in the development of the execution engine, with particular focus on the execution of R for model-based reporting. This will include interfaces for allowing control over R command options, and a developer interface in order to fully customize the application for other users.

This developed component can be thought of as a general client-server framework for R and other tools. It has now been used in a number of projects and is continuing to be developed.