

Enterprise Automations with R

Zubin Dowlaty, Vice President Decision Sciences, InterContinental Hotels Group
Dean Mao, Advanced Computing Analyst, InterContinental Hotels Group
Simon Urbanek, AT&T Labs - Research

Abstract

Modern competitive enterprises today need software that enables the creation, persistence and scheduling of analytical processes or workflows. As we store data in ubiquitous databases, the equivalent persistence and query mechanism is needed for processes. Further, to enable analytics to become more accessible within the enterprise, the capability for easy integration with existing heterogeneous systems, extensible architecture and a visual modeling metaphor will increase the likelihood for adoption and success. As we develop and mature along the analytics path, automation of existing processes will likely become an important objective, enabling the analyst to continue to innovate on new and novel applications, rather than serve the current and past processes that are needed to be maintained.

Presently within the software industry there exists a genre with the label of Business Process Modeling or BPM, which is an attempt to create a generic framework for modeling workflow processes. Best of breed commercial vendors like Tibco and Webmethods are playing in this space. Further, SAS with Enterprise Miner, SPSS with the Clementine product, and S with Insightful Miner have also introduced a process driven approach focusing more on statistical applications. When we scan the open source landscape, there presently did not exist an enterprise capable analytics solution that leverages these BPM concepts. R as a statistical language is extremely robust, we feel R coupled with an enterprise quality open source BPM engine and visual client that can be used to model, persistent and schedule analytics workflows, this combination would elevate R into many new and unique applications within the enterprise and beyond.

The purpose of our talk today is to discuss our solution, demonstrate examples utilizing the actual software we have developed and release the codebase to the open source community.