# R<sup>3</sup>S Process Manager





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### **R<sup>3</sup>S Process Manager**

Today's rapidly changing and challenging economic conditions, coupled with ever more stringent regulatory environment, have created a requirement for enterprise-ready, robust, secure and scalable financial modeling solutions. With the increasing focus on risk management through regulation such as Solvency II, reporting standards such as IFRS 17, and IT compliance standards, the way that business-critical modeling systems are used, managed and deployed within an organization has come under greater scrutiny.

It is important to ensure that access to business-critical models is thoroughly managed and controlled. Minimizing the need for manual intervention, protecting model integrity and avoiding an overdependence on individual resources are essential parts of managing and containing operational risk.

R<sup>3</sup>S Process Manager is a workflow solution designed and developed for executing models developed in R<sup>3</sup>S Modeler and managing the process around this execution. Process Manager can also manage data files and single-filebased database inputs as well as Microsoft Excel® reporting spreadsheets associated with the models to provide the full endto-end managed process. Process Manager provides the security and governance around access permissions and model versions between reporting periods and implements approval and verification processes on inputs, models and reports.

## Overview

Process Manager provides a production environment for the execution of models developed in Modeler. Use of Process Manager requires no prior knowledge of the R3S Modeler tool as the software is designed to provide separation of the development and production elements. Models that have been approved for production use can be uploaded to Process Manager and then scheduled to run. Runtime parameters, defined for the model in R<sup>3</sup>S Modeler, can be used to configure the model at runtime, altering the data, assumptions or calculation requirements. The workflow processes designed and built within Process Manager can execute runs automatically with no manual intervention needed from data upload through to reporting, or used to execute one-off investigative runs on demand.



#### Workflow

A permission-based workflow can be defined creating dependencies between inputs, models and result spreadsheets. Approval processes can be configured so models are submitted and approved prior to execution and a verification process can be configured so that results spreadsheets can be verified. Associated with these approval and verification processes when inputs, models or spreadsheets are invalidated, all dependent parts of the workflow are automatically invalidated. When the invalid input, model or spreadsheet is corrected, the dependent parts of the workflow can be automatically executed again.

#### **Permission-Based Access**

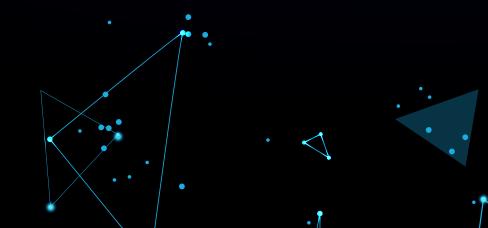
To protect the integrity of the production process, Process Manager comes with an integrated security capability so that the production of models can be safeguarded and managed across all users throughout an organization. Access to Process Manager is managed through customizable user profiles and defined roles and permissions. Any aspect of usage within Process Manager can be enabled or restricted, giving maximum flexibility for application setup and control to those administering it. The system setup is traceable so the system administrator can monitor activities performed within Process Manager. This allows users to approve inputs and verify results before the next stage of the workflow can begin, meaning that the right people can perform the right tasks at the right time and so reduce levels of operational risk in performing the production runs.

#### **Active Directory Integration**

Process Manager can interface with the domain to obtain domain user and group information. This allows for domain users to log in using their domain credentials and allows IT to manage users and groups via the domain rather than managing additional users and groups within Process Manager.

#### Automation

When the same group of calculations must be performed regularly, the data linkage, model runs and report creation steps required can be defined as templates within a reporting period. These templates can then be used to define a series of processes that are needed from one reporting cycle to the next. The required recursion can be defined on the reporting period template so that a reporting period, with all the required steps, is automatically created and processed at the required interval with zero manual intervention if required. The automation can happen at the interval of your choosing, so either weekly, monthly or quarterly, for example. The flexibility is there to reduce the pressure when you need it most and to free up the valuable resource within the company to undertake tasks commensurate with their knowledge and training.



#### **Cloud Distribution**

Increased demands for management information and regulatory reports in insurers are leading to increasing volumes of runs, larger data sets and reduced reporting time frames. As a result, more and more demands are made on the hardware available for running models. To address this need, R<sup>3</sup>S Process Manager can be deployed on a range of cloud infrastructures, enabling insurers to better manage their hardware, scaling up and down as required, and only paying for what they need. The immediate benefits of deploying R<sup>3</sup>S Process Manager in a cloud environment can include:

- Increased hardware capacity beyond
  what is normally available within a company
- Greater flexibility to scale up and down the available hardware as needed
- Lower cost of hardware ownership
- Reduced processing times due to increased processing power
- Ability to perform more runs across more scenarios

#### **Key Points**

- Provides compliance with regulatory governance requirements
- Versioning of models, data, assumptions and reports
- Model run validations
- Workflow options to invalidate results if inputs are amended
- Every action within the application is recorded for audit purposes
- Full runtime progress and summary log files
- Password security
- Integration with Active Directory
- Automated, manual or one-off processing
- Fully cloud enabled

Headquarters UK RNA Analytics Limited Ground Floor Bancroft Place 10 Bancroft Road Reigate RH2 7RP United Kingdom



rnaanalytics.com

+44(0)1737 246586