



Software Performance Systems, Inc.

## CAPABILITY

# IBM/Rational

## Overview

Models are the foundation for capturing and maturing institutional knowledge. The Unified Modeling Language (UML), an open industry standard notation for modeling real-world objects, has been adopted by a preponderance of tool vendors. Object oriented analysis and design (OOA&D) models have reached a critical mass. Widespread adoption of standard protocols for importing and exporting models ensures easy model transference between tools.

Recent OOA&D market consolidation and the continuing advance and dominance of UML set the stage for mainstream adoption of model-driven architecture best practices. In December 2002, IBM positioned itself as an IT modeling leader by acquiring Rational, the leading OOA&D tool vendor. Prior to this acquisition, IBM integrated their WebSphere Application Development (WSAD) suite and the open source Eclipse integrated development framework. The integrated environment ensures that Rational modeling can be applied effectively for both low-end (open source) and high-end (WSAD) application development.

## Making IT Work. Together.

SPS standardized on the Rational process in 2000 and continues model-based development with the IBM/Rational Software today. Employing IBM/Rational products ensures we have the most robust, mature environment to rapidly deliver a full range of IT services

including: full life-cycle software development and implementation, business analysis, and development infrastructure support.

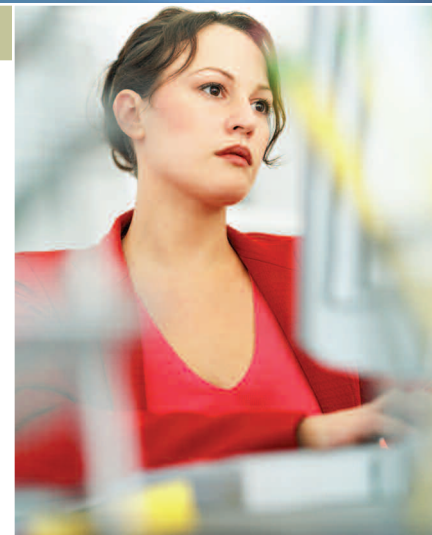
Because SPS applies continuous process improvement to projects, the SPS toolbox is filled with productivity aids including: IBM/Rational SoDA Reports designed to automatically generate artifacts of other life-cycle processes; IBM/Rational ClearQuest schemas to address discrepancy reporting, enhancement requests, and risk management; and IBM/Rational TeamTest, Test Manager, and Robot scripts to facilitate automated regression testing.

## Featured Solutions

### U.S. Patent and Trademark Office (USPTO) – Enterprise Architecture (EA)

The USPTO established an EA program to integrate a newly formed EA function with long-standing software development methods. The long-term objective was to have EA govern congruent architecture advancement across all of USPTO. After an initial year of support by another contractor, SPS was asked to establish and manage a Service Component-Based Architecture task. SPS first used Rational XDE to aggregate an EA Model encompassing over 100 systems and then extended the earlier contractor work to deliver a Solution Architecture Technical Standard and Guideline (TSG). The TSG specifies an architecture package required of each project to ensure that enterprise models can be accurately updated and EA compliance measured.

SPS helped USPTO develop a structured approach to retiring Advantage:Gen platforms and adopting a Concept Application Architec-



## CLIENT BENEFITS

- Modeled systems mitigate cost and frustration caused by technical and functional shortcomings.
- Technical risk is formally addressed at each development stage.
- Clients see user functions evolve before their eyes, ensuring projects conform to customer's expectations, obtain client "buy-in", and reduce costs.
- Modeling technologies accommodate change.
- Modeled systems are agile enough to keep up with changes in market shifts, regulatory demands, and corporate policy and direction.
- Clients benefit from IBM research and development investments, and focused SPS training investments.
- Technologies and personnel will both be "state of the art."

ture to ensure that day-to-day architecture decisions would drive toward these goals. Besides presenting an overall transition strategy, SPS provided UML Activity Diagrams to guide USPTO System Development Managers through a series of architecture decisions to align project releases with USPTO architecture objectives.

#### **Department of Justice, Executive Office of the US Attorney - Enterprise Case Management System**

The Department of Justice (DOJ) determined a need to replace independent US Attorney case management systems with a modern consolidated system. DOJ accepted a SPS proposal to leverage advanced object oriented analysis and design modeling techniques to deliver a new system architecture and design. In support of the DOJ Enterprise Case Management System (ECMS), SPS employed Rational Rose to develop object oriented system analysis and design models, and then leveraged SoDA to produce the work products required by the DOJ system development life-cycle. Analysis and Design work and architecture prototyping proceeded in parallel throughout this effort and provided a component-based architecture and detailed design for the ECMS system.

#### **Additional Solutions**

The Smithsonian Institution, NOAA Marine Chart Division, and DOJ all selected SPS for system integration tasks that required modeling expertise. Each task relied on SPS Change Management and Risk Management processes implemented with IBM/Rational ClearQuest to ensure open and precise communication for discrepancy reports, enhancement requests, and identified risks. SPS expertise and solutions included: IBM/Rational ClearCase for configuration management, IBM/Rational RequisitePro for requirements management, and OOA&D UML Modeling.

#### **Summary**

SPS certified and experienced experts and the IBM/Rational environment backed by IBM's deep pockets enables low-risk, rapid, and sustained application development. Your bottom line will benefit from operational efficiencies realized from component design and reuse, pattern-based development, and service oriented

architectures. Imagine what we could do working together! Let us put our expertise and experience to work for you.

***Gartner's Magic Quadrant for OOA&D Tools, 4Qo4 Update identifies IBM/Rational as the clear leader in both axes – Ability to Execute and Vision – and credits them with receiving roughly half of all new product license revenue in this area during 2003.***

## **ABOUT SPS**

Software Performance Systems, Inc. (SPS), a small business based in Northern Virginia, is a privately held information technology services provider. Established in 1995, SPS specializes in the design and integration of large web-based solutions for Federal, State, and Local Governments and commercial clients worldwide. SPS has been honored with many national awards, including: #10 ranking in the Computerworld Top 100 Best Places to Work in IT, Deloitte's Virginia Technology Fast 50 and North America Technology Fast 500, and as a SBA Exporter of the Year. More importantly, SPS solutions helped our clients win prestigious awards, including the Grace Hopper Federal Government Technology Leadership Award, the E-Gov Pioneer Award, the Excellence.gov Grand Prize Award, and the Government IT Agency Award for Excellence in Government. **SPS...proven over time.**

## **CONTACT INFORMATION**



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