PROGRESS® Corticon®

www.progress.com

BUSINESS RULES MODELING STUDIO

EXTEND RULE MODELING ACCESS TO EVERYONE IN YOUR ORGANIZATION

Easy to learn and easy to use, Progress® Corticon® Business Rules Modeling Studio makes modeling decisions and their business rules accessible to business professionals, business analysts and software developers alike. The model-driven Corticon approach eliminates the need for classic programming skills, with a spreadsheet metaphor that is easy to understand, yet still offers support for the most sophisticated decisions and business rules. Even skilled programmers get the benefit of significantly reduced development cycles when using Corticon Studio to create and maintain rule-based decision services. Within its environment you can model, analyze and test rule sets independent of any IT system, then save them as executable decision services.

ASSURE THE QUALITY AND CONSISTENCY OF YOUR ORGANIZATION'S DECISIONS

One of the greatest challenges to successful business rule projects is assuring that your business logic will produce the correct outcome for all possible scenarios. The cost in time and resources to perform exhaustive functional testing is prohibitive. Corticon overcomes this challenge by ensuring that any rule model constructed and analyzed using Corticon Studio will produce the correct outcome every time it executes. Corticon Studio provides tools based on patented logical analysis techniques that show you how to resolve all rule conflicts, ambiguities, and unintended logic loops. Missing business rules are automatically found and modeled for you. Scenario-based testing tools confirm correct model execution behavior for any number of user-defined test cases. You analyze and test your logic during modeling, which eliminates multiple hand-offs and the potential for classic communication problems when multiple people and tools are used to define, construct and test.

OPTIMIZE MODEL PERFORMANCE AND SCALABILITY EVERY TIME YOU SAVE

Corticon Business Rules Modeling Studio plays a leading role in the delivery of enterprise-class runtime performance and scalability. It automatically generates a performance-optimized, executable decision service every time it saves a rule set. This reduces the burden associated with fine-tuning rule performance at runtime.

KEY FEATURES OF THE CORTICON BUSINESS RULES MODELING STUDIO

SOPHISTICATED, INTUITIVE RULE MODELING

Corticon Business Rules Modeling Studio provides a complete rule modeling framework and tools to make modeling easy to learn and easy to use. It automatically handles the underlying

HIGHLIGHTS

Progress® Corticon® Business Rules Modeling Studio is a standalone desktop environment to model, analyze, test and save business rules as executable decision services. Corticon Studio supports all aspects of the modeling process, from initial capture of business requirements through the testing of the decision against organizational data—delivering complete, deployment-ready decision services—and the agility to collapse your rules development lifecycle.
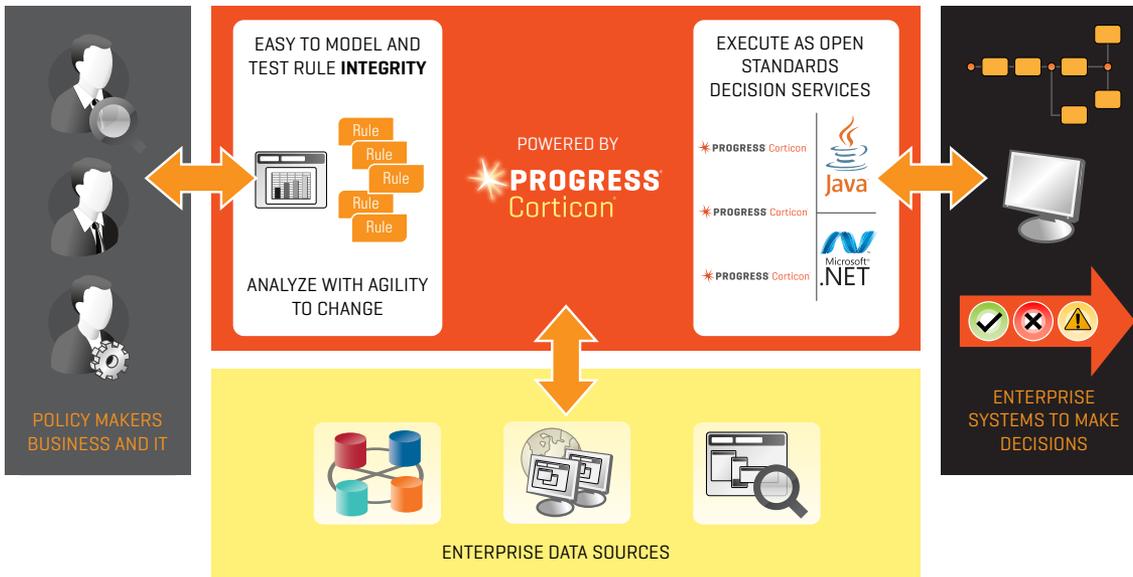
PROGRESS

Figure 1

Progress Corticon Business Rules Management System

complexities of constructing business rules, so you can focus on the logic of your business decisions.

▶ **Rule Requirements Capture:** Capture your rule requirements in natural-language rule statements and organize them into logical groups. These rule statements are used for reference during model construction. They also provide important traceability from requirement to implementation—to facilitate regulatory audits, documentation generation, and model maintenance. And they are used as outcome messages in the model itself—vital for testing and debugging prior to deployment and for explaining outcomes of real decisions after deployment.

▶ **Intuitive Modeling Interface:** Build rule models by constructing rules within a graphical framework based on the patented Corticon rulesheet concept. Eliminate the need to memorize rule language operators or business vocabulary by using drag-and-drop rule construction.

▶ **Comprehensive Modeling Language:** The Corticon modeling language is both easy to learn and comprehensive in its expressiveness. Any business logic can be represented accurately and completely using the Corticon declarative rule language.

▶ **Vocabulary Management:** The Corticon vocabulary represents the business terms used by the rules and supports user-defined vocabularies that consist of business-specific and industry-specific terms, their relationship to each other, and the type of data that can be assigned to them. You create vocabularies using the vocabulary editor. Better yet, you can create any number of vocabularies, and the same vocabulary can be reused as part of any number of rule models. Business terms can be based on data models, object models and XML schemas.

▶ **Extensible Rule Operator Library:** Choose from a large library of operators to contruct your business rules. Similar to the Microsoft Excel function library, the Corticon operator library includes many standard operators such as mathematical functions { +, -, *, /} and comparator functions {<, >, =}, as well as more specialized functions to handle collections and date-time calculations. The library is extensible, so if you need an operator that is not included, you can add it yourself.

PROGRESS
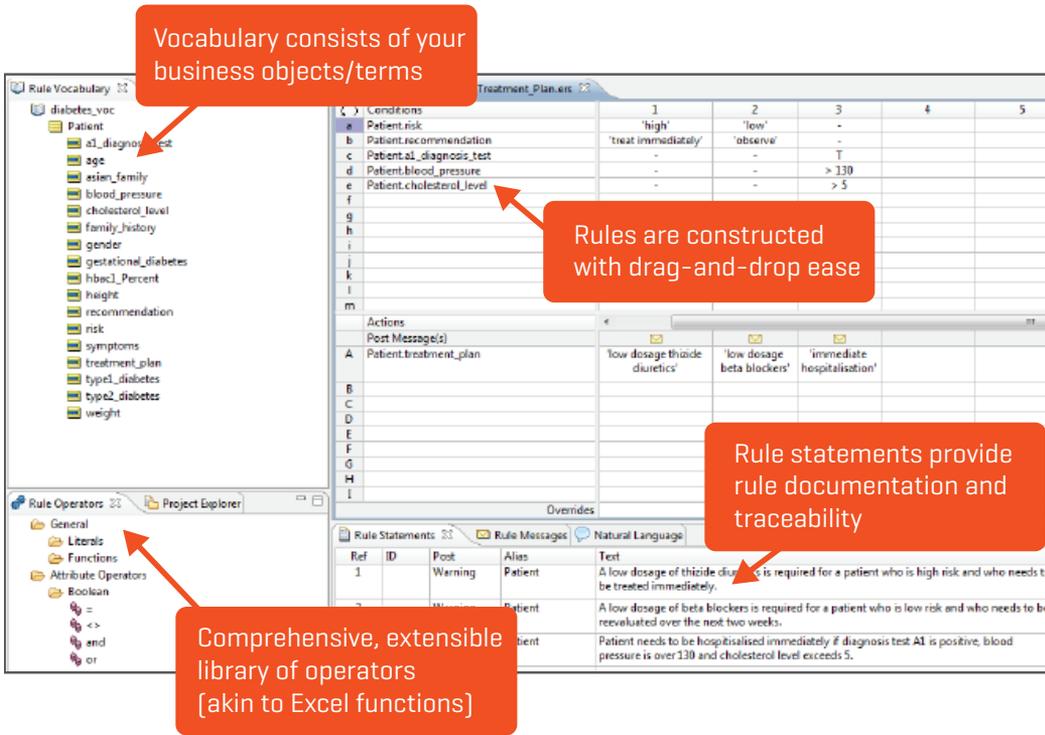
Figure 2

Modeling interface extends the spreadsheet metaphor

ADVANCED ANALYSIS TOOLS FOR DECISION LOGIC VALIDATION

Corticon Studio includes patented technology that automatically identifies logical errors in your rule models, and provides interactive assistance in resolving them.

▶ **Ambiguity Checker:** This feature highlights and describes conflicts between two or more rules on a rulesheet. Graphical tools show you exactly under which scenarios rules conflict, with expansion and filtering capabilities to facilitate visualization in complex rulesheets.

▶ **Completeness Checker:** Corticon Studio identifies missing business rules, highlighting coverage gaps within a rulesheet both between and at the edges of a value range. The completeness checker also automatically generates the missing business rules.
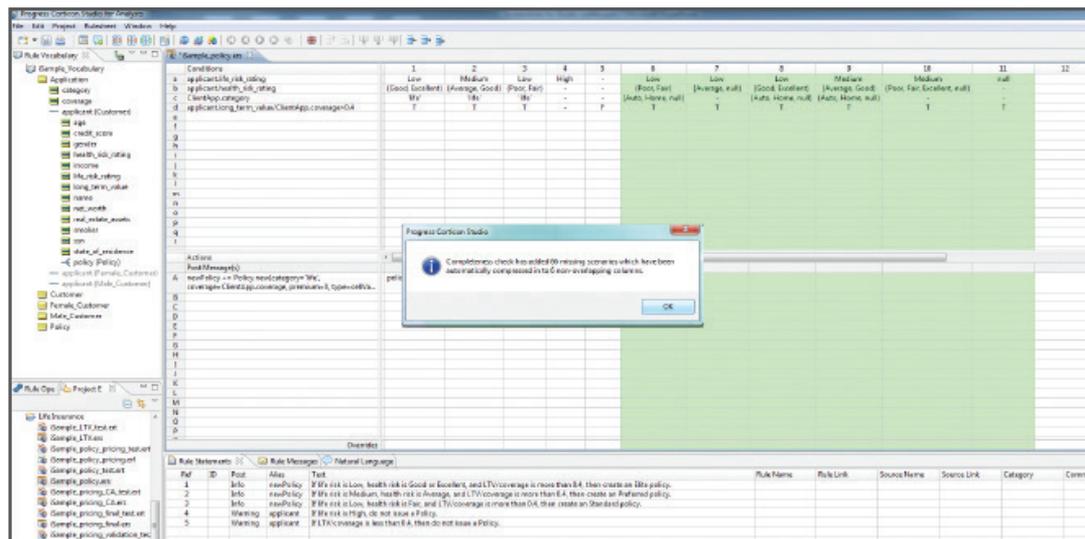
Figure 3

Completeness checker automatically fills out missing rules for you

PROGRESS

▶ **Logical Loop Checker:** Corticon Studio also detects logical loops across all rules in a rule set, helping you find unintended loops that would cause your business logic to stall at runtime.

COMPREHENSIVE SCENARIO-BASED MODEL TESTING

Corticon Studio includes a complete test bed for functional testing of rule models at design time. It provides the foundation for unit testing, regression testing, and data-driven functional analysis at the granularity of a rule, rulesheet, or rule set.

▶ **Test Cases:** The primary building blocks of scenario testing are test cases that leverage the same vocabulary used to construct the business rules. You can construct sophisticated groups of tests that span multiple rule models to test the rule interaction within complex decision logic.

Figure 4

Rule statements explain the reasoning behind test results

▶ **Authentic Rule Execution:** You can run test cases one at a time or in batch through embedded rules engine (the same rules engine deployed in Progress® Corticon® Busines Rules Server), or direct the test case at a remote instance of Corticon Business Rules Server.

▶ **Debugging and Diagnosis:** Compare expected results to actual results to identify possible errors. Test cases produce the list of rule statements that were posted during execution, allowing you to easily determine exactly how the results were created and to more quickly find the root cause of unexpected behavior. For more complex decision logic, you can pause after each rulesheet executes to inspect the intermediate results.

▶ **Reuse Test Cases and Test Data:** Populate the test cases by entering the test data by hand, or use a remote database to store test cases to enable reuse and regression testing.

PROGRESS

TEMPLATE-BASED REPORTING FOR DOCUMENTATION AND AUDIT

Use the Studio Reporting Framework to generate HTML reports from vocabulary, rule set, and test files. View and print using any web browser, or publish to your corporate content management system.

SUMMARY OF BENEFITS

▸ Extend rule modeling access to everyone in your organization

▸ Assure the quality and consistency of your organization's decisions

▸ Optimize model performance and scalability every time you save

SUMMARY OF FEATURES

▸ Sophisticated, intuitive rule modeling

▸ Advanced analysis tools for decision logic validation

▸ Comprehensive scenario-based model testing

▸ Template-based reporting for documentation and audit

INTEGRAL PART OF THE PROGRESS® CORTICON® BUSINESS RULES MANAGEMENT SYSTEM (BRMS)

Corticon Business Rules Modeling Studio works as a standalone modeling environment or as part of the Corticon Business Rules Management System. It communicates directly with the central repository in the Corticon Business Rules Collaborator to share vocabularies, rule sets and test scenarios across the organization. It plugs into the Corticon Enterprise Data Connector to enable model-driven data integration. And it creates the deployment files needed by Corticon Business Rules Server to integrate and execute the rules as a decision service. When used together, these products provide a complete platform for managing the lifecycle of decisions across the enterprise.

COMPATIBLE THIRD-PARTY MODELING TOOLS

▸ Rational Rose and other XMI-compliant export sources

"An intuitive spreadsheet environment to model, verify and test any business logic, regardless of its complexity."

✳ PROGRESS