Overview

QuickRules.NET Standard Edition 3.0 is a complete Business Rules Management Solution for the .NET Framework, with features supporting the entire business rules lifecycle. This document lists the minimum hardware and software configurations required to install and run the product, as well as a summary of the feature set supported by the product.

Highlights

Rule Development IDE integrates with Visio and Excel: Lesser time to become productive

Developers no longer need to learn multiple environments in order to use the power of the QuickRules.NET BRMS platform. Familiarity with the Microsoft Office products allows them to start developing business rules immediately.

Easier integration of the RuleBuilder into 3rd party systems / products

The RuleBuilder IDE uses XML for storing the business rules, allowing developers to:

1. Integrate the business rules data model into proprietary data models.
2. Use the business rules data model to generate custom rule development environments confirming to application-specific requirements.

Productivity enhancements for Rule Developers

Integration of the RuleBuilder IDE with the Microsoft Office products makes the industrial strength productivity of the Visio and Excel now available for QuickRules.NET BRMS Rule Developers. This version also features several other improvements:

1. Copy / Paste business rules across rulesets
2. Improved Decision Table layouts for handling large (> 2000) number of rows easily

Productivity Enhancements for Business Users

Business Users can:

1. Create / modify "FlowRulesets" using a point-click interface in the WebEditor.
2. Test the business rules using the WebEditor itself, removing the dependency on the IT team for testing and verification.
3. Improved navigation for easier access to business rules

Model complex business logic easily using QuickRules.NET BRMS

QuickRules.NET BRMS capture of business policies as a combination of Sequential Rules (FlowRulesets), spreadsheet-like Decision Tables, and plain vanilla IF-THEN rules (RETE Rules), enabling real-world business logic to be captured and managed easily.

Manage large numbers of business rules by grouping them into "Packages"

QuickRules.NET BRMS allows grouping of business rules into "Packages". Each Package can contain Inference (IF-THEN) Rules and Decision Tables – it can also contain other Packages, allowing nesting of Packages to any number of levels.

This allows grouping of business rules according to their business function / owner, without reference to the grouping required for actual execution, i.e., the ruleset.

Client Application architecture agnostic

To remove any restrictions on the architecture of the Client Applications, the Runtime Engine supports deployment as:

1. Plain .NET component: The rules repository can be either a file system folder, or a RDBMS server
2. Web Service
3. Message-driven component: With support for integration with MSMQ, and other .NET-based Messaging Systems.

Capturing conflicting and time-based business logic

QuickRules.NET BRMS exposes a construct known as a "Mutex", allowing conflicting business logic to be captured and enforced easily. Time-based business logic (weekend-only, for example) can be captured and enforced using "effectivities".

Support for Year-end consolidation, Historical Pricing, Re-generation of old statements

QuickRules.NET BRMS allows Users to take "snapshots" of the existing versions of business rules. Using this feature, the Client Application can execute previous version of business rules by querying on the date on which they were valid. Year-end consolidation, historical pricing scenarios, re-generation of old statements in case of customer queries, etc. are supported out-of-the-box

TECH SPECS

System Requirements

Hardware
For .NET framework 1.1 Redistributable: Refer to the hardware configuration at http://msdn.microsoft.com/netframework/technologyinfo/sysreqs/default.aspx

Software
Operating System: Windows 2000 and above
.NET Framework 1.1
Internet Information Services (For QuickRules.NET WebEditor)

Databases supported
Microsoft SQL Server 2000 and above
Other OLEDB-compliant database engines

Deployment Scenarios
Deployable as an in-process runtime engine
Deployable as a Web Service
Integrated with MSMQ

Toolset

QuickRules.NET Engine
Inference Rules, Decision Tables, and Flows
Caching / pooling for efficient memory management

QuickRules.NET RuleBuilder IDE
Integrated with Visio and MS-Excel
Intuitive, easy-to-use graphical user interface
Capture, design, implement, test, and deploy business rules
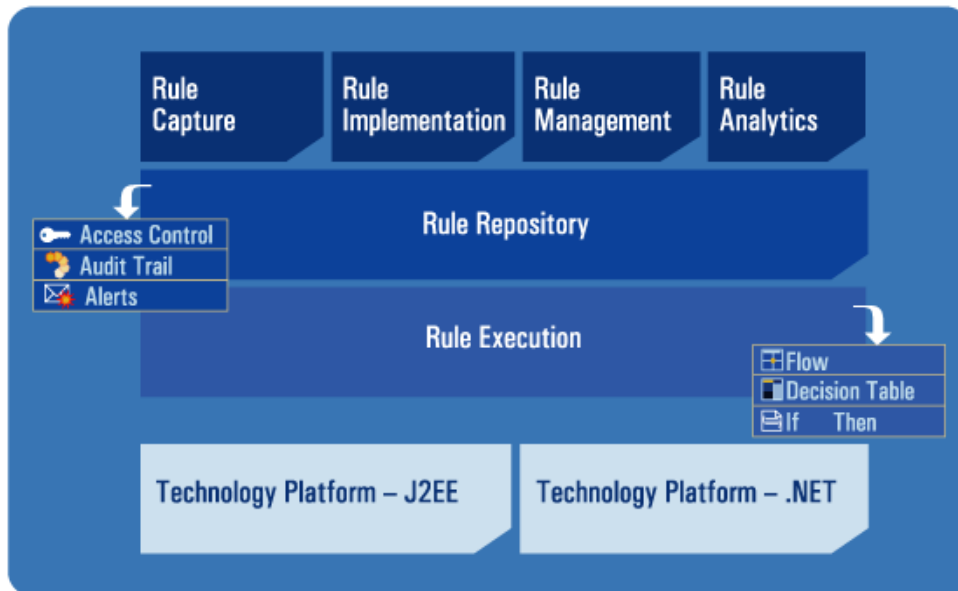Customizable "rule consistency check" for rule stability and correctness

QuickRules.NET WebEditor
Web-based rule governance module for business managers and business users
Edit, test, and upload changes to rules in real time
Customizable Rule Consistency Check for rule stability and correctness

Product API
Open, well-documented, and easy-to-use
Develop custom rule editors
Monitor rule execution in the Engine in real-time
Access and control loading and invocation of rules

Platform Architecture

YASU TECHNOLOGIES

Feature Set

Features	Builder IDE	WebEditor	Engine	API
Rule Capture The ability to capture business policies with minimal support from the technical team in terms of business data objects, etc. The QuickRules.NET RuleBuilder provides the features required for performing the tasks involved in capturing (defining and authoring) business rules from requirements documents. The QuickRules.NET RuleBuilder comes pre-integrated with Visio [for capturing "Flows"], and Excel [for importing business rules captured in spreadsheets].				
▪ Define flows capturing the set of tasks/actions required for implementing a business policy ("FlowRuleset" feature) **[Uses Visio]**	✓	✓		✓
▪ Define business terms with type information ("Definitions" feature)	✓	✓		✓
▪ Author Inference (IF-THEN) Rules using Definitions	✓	✓		✓
▪ Author Decision Tables (Spreadsheet format) using pre-defined data **[Import from Excel]**	✓	✓		✓
▪ Author collections of related terms in a single unit ("Data Types" feature)	✓	✓		✓
▪ Share captured business rules across the enterprise	✓	✓		
Rule Implementation The ability to link rules with business data objects and define properties that control the execution of the rules at runtime. The QuickRules.NET RuleBuilder provides the features required for performing the tasks involved in implementing business rules in IT applications.				
▪ Import .NET classes into the rules project ("Import Class" feature)	✓			✓
▪ Import XSD documents into the rules project ("Import Schema" feature)	✓			✓
▪ Map natural language phrases to data objects ("Alias" feature)	✓			✓
▪ Use already imported .NET classes / XSD Elements in business rules ("Add Class/Add Element" features)	✓	✓		✓
▪ Create executable units for business rules ("Add Ruleset" feature)	✓	✓		✓
▪ Author business rules ("Add Rule" feature)	✓	✓		✓
▪ Create and manage complex rule execution sequences diagrammatically ("FlowRuleset" feature)	✓	✓		✓
▪ Simplify sequence of events - intuitive and easy to understand ("FlowRuleset" feature)	✓	✓		✓
▪ Define preconditions to business rules ("Precondition" feature)	✓	✓		✓
▪ Define constraints on business rule activation ("Mutex" feature)	✓	✓		✓
▪ Set time period validity for business rules ("Effectivity" feature)	✓	✓		✓
▪ Add context-specific metadata to business rules ("Custom Properties" feature)	✓	✓		✓
▪ Check for consistency in the business rules in the RuleBuilder ("Check Consistency" feature)	✓	✓		✓
▪ Customize consistency checks based on the needs of the enterprise		✓		✓

TECH SPECS

Features	Builder IDE	WebEditor	Engine	API
	✓	✓		

Rule Deployment

The ability to export business rules to databases for secure storage. This feature is provided in the QuickRules.NET RuleBuilder.

Features	Builder IDE	WebEditor	Engine	API
▪ Deploy business rules to File System Folders	✓			✓
▪ Deploy business rules to OLEDB compliant databases	✓			✓

Rule Governance

The ability to maintain business rules (change them as business scenarios change) after they have been deployed to production environments from across the enterprise.

The QuickRules.NET WebEditor provides the features required for performing the tasks involved in managing change.

Features	Builder IDE	WebEditor	Engine	API
▪ Add/edit/delete business rules at runtime		✓		✓
▪ Add/edit/delete rulesets at runtime		✓		✓
▪ Add/delete business objects at runtime				✓
▪ Test business rules at runtime		✓		✓
▪ Upload changes to the rule repository		✓		✓
▪ Supports versioning of rulesets and reverting to older versions ("Version Control" feature with Rollback support)	✓	✓		
▪ View logs of the changes made to business rules, by whom and why ("Audit Trail" feature)	✓	✓		
▪ Restrict access of business users depending their role to ensure that unauthorized/inadvertent access ("Access Control" feature)	✓	✓		

Rule Execution

The ability to accept business data from client applications, infer the relevant policies applicable to the data, execute the business rules, and return the results back to the client application.

The QuickRules.NET Engine provides the functionality required for executing the business rules.

Features	Builder IDE	WebEditor	Engine	API
▪ Execute business rules based on business data and rule properties (**effectivity, mutual exclusion, preconditions, as-of date**)			✓	✓
▪ Cache multiple copies of business rules to provide parallel execution in a multi-threaded environment.			✓	✓
▪ Check periodically for updates to business rules and refresh the cache automatically			✓	✓
▪ Allow execution of multiple rulesets using a single API call in batch mode			✓	✓
▪ Provide trace functionality to let clients track the execution profile			✓	✓
▪ Integrate into Client-Server applications			✓	✓
▪ Integrate into N-Tier web-based applications			✓	✓
▪ Integrate into SOA-based applications				

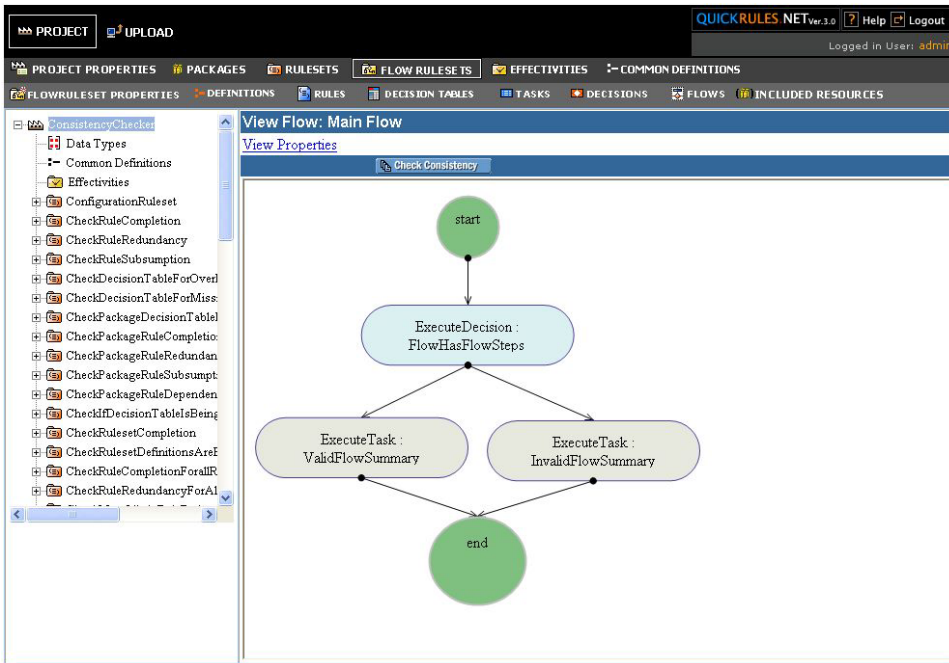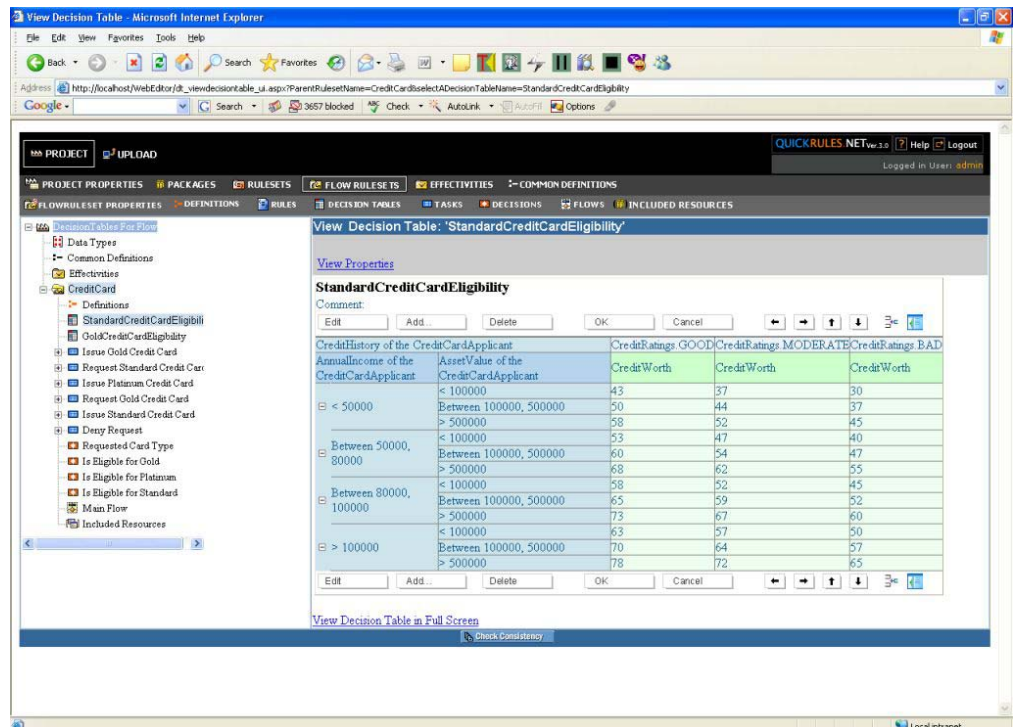| Features	Builder IDE	WebEditor	Engine	API
▪ Integrate into Desktop-based applications			✓	✓
			✓	✓
▪ Use file system folders as rule repository				
▪ Use OLEDB compliant RDBMS engines as rule repository			✓	✓
			✓	✓

Product Screenshots
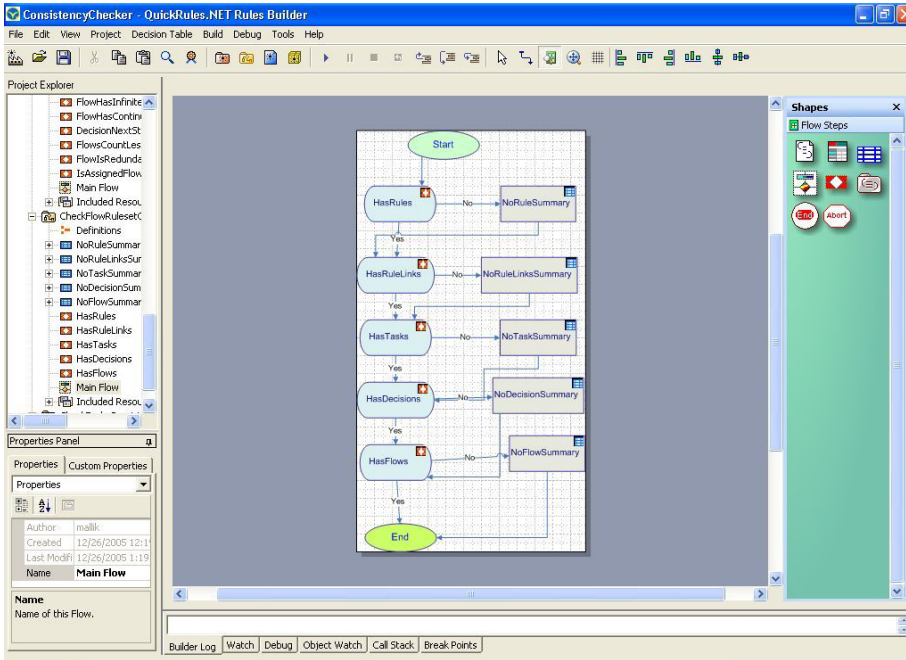
Rule Development IDE showing "Flow" rules [Visio Integration]
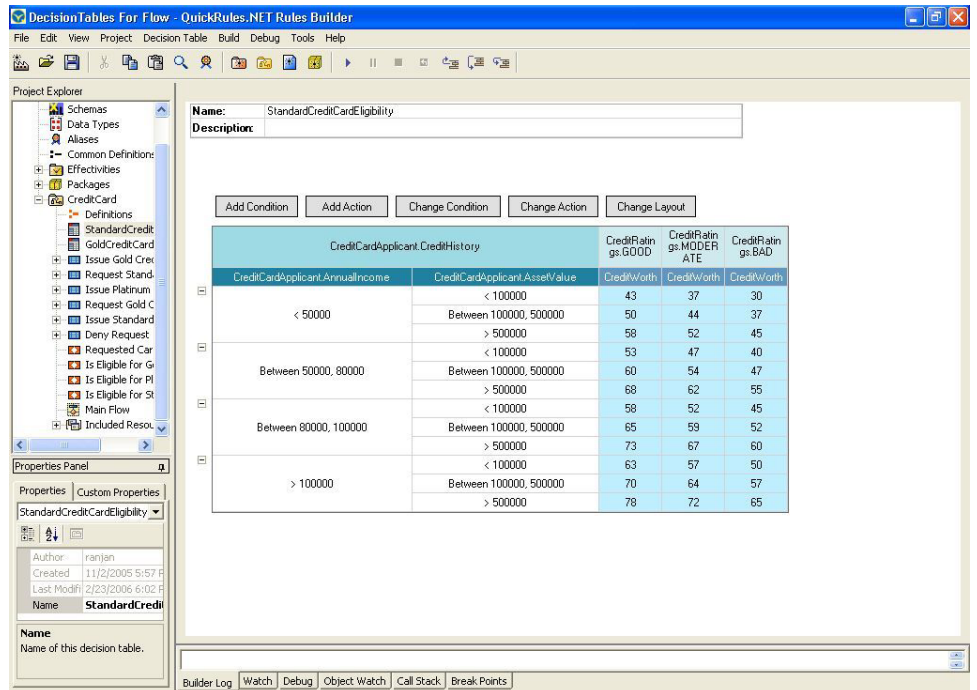
Rule Development IDE showing Decision Tables

WebEditor showing "Flow" rules

WebEditor showing Decision Tables