> AUTOMATED DECISION PROCESSING

Aligning Strategy and Operations in the Face of Change

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BUSINESS MAKING PROGRESS.

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INTRODUCTION

Progress® Corticon® technologies help organizations make better, faster decisions by managing the rules that drive their business. Progress® Corticon® Business Rules Management Software ensures the consistent, efficient, reliable, and (where possible) automated execution of a company's strategies and policies. This enhances the quality and productivity across key business processes, resulting in transformational improvements in business performance.

A company's decision makers define and refine business strategy and policy in an ongoing attempt to improve and sustain competitive advantage. The problem is that, today, it is extremely difficult to reconfigure operations to support a new strategic direction. Most decision-making tasks are performed manually, and strategy changes often require the retraining of human resources. No matter how good the training, though, people make mistakes. Furthermore, people are limited in efficiency, requiring new hiring when scalability is needed.

Automation has been of little help. The reason is current automation technologies (including rule engines) fail to deal effectively with the complex, volatile business logic needed to capture and manage corporate strategy and policy. Extracting such logic from its source (the decision makers) and translating it into machine-readable code is a costly, risky and time-intensive endeavor. Also, the resulting systems are extremely difficult to adapt beyond simple parameterized changes.

Progress® Corticon® products now offer a better way. Our revolutionary business rules management software enables the capture, modeling and automation of a company's best policies, practices and guidelines. All are managed without programming, using a simple, spreadsheet-like, visual environment, accessible to business analysts. Proprietary algorithms assist in the identification of conflict and ambiguity, ensuring the capture of complete and unambiguous business logic, which can be used to automate key decisions within critical business processes. And, because changes can be made directly by the business analysts and redeployed without programming, the enterprise achieves unprecedented

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agility and competitive advantage. Customers gain dramatic improvements in productivity and business performance.

THE PROBLEM:
AUTOMATING DECISION-MAKING LOGIC

Over the last decade companies have greatly improved the efficiency of their business processes. The Internet and open communication standards have enabled us to automate the flow of information across distances and between systems. Many activities of low complexity or volatility have now been automated. However, the improvements made are incremental at best, due to an inability to streamline decision-intensive tasks.

Figure 1 illustrates an example of the problem, using the sample business process of mutual fund stock trading. The arrows indicate the information flow, and the circles indicate the activities, both manual and automated. In this case, the trade execution or exchange activity is automated while the other activities are manual. Trade selection requires highly skilled and experienced employees. The decisions are complex and volatile, based upon numerous and varying poorly documented criteria, most of which exist only in the heads of valued employees. Other activities, such as trade settlement, require less training. The decisions in trade settlement are based upon well-defined criteria, often documented in a policy manual.
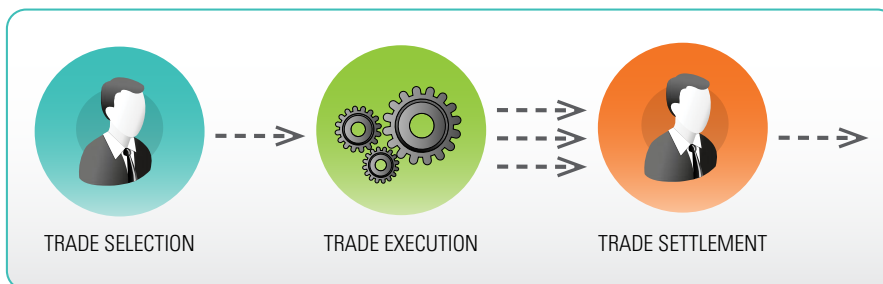

Figure 1

Business process today

TRADE SELECTION   TRADE EXECUTION   TRADE SETTLEMENT

Reliance upon manual support suffers from two critical problems: quality and productivity. As activities grow in complexity, people are increasingly prone to mistakes, leading to inconsistent and unreliable performance. In addition, as the information flow increases, the number of

people required grows linearly. These people must be hired and trained and remain as fixed costs even when not fully used.

To date, automation efforts (including rule engines) have been unsuccessful due to the complexity and volatility of the underlying business logic. Automation typically requires extensive programming, and the resulting systems are flexible only in pre-determined ways (i.e., parameterization). As an activity increases in complexity or volatility, the difficulty of programming increases exponentially. This has limited the degree to which decision-intensive tasks can be automated. As a result, most rote decision-making activities are still performed manually. Even with the best employees, this approach is inefficient and often produces inconsistent results. Companies need a solution that will allow them to automate their critical decision-intensive business processes while effectively addressing the complexity and volatility inherent within the underlying business logic.

THE SOLUTION: CORTICON BUSINESS RULES MANAGEMENT

Corticon Business Rules Management is a unique and powerful solution to the problems inherent in traditional automated decision processing. Using Corticon Business Rules Management Software, organizations can capture and model the complex decision-making logic that drives their business and automate that logic as standards-based services that are seamlessly integrated with existing enterprise systems.

Business people model the logic using a simple spreadsheet-like tool, which helps them to understand the complex interrelationships across their rules and to test their decision-making services against scenarios that they define. This effectively addresses the problem of complexity, enabling the business-driven capture of complete and consistent decision-making logic.

The rulesets are then deployed, again without programming, as standards-based services (e.g., XML web services) that can be incorporated into enterprise applications and business processes.

Figure 2 illustrates the same trading process described in Figure 1, enhanced through Corticon Business Rules Management. Activities, such as trade settlement, in which all decisions are predefined, can be entirely

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automated. Other activities, such as trade selection, may require some degree of manual involvement, but can benefit greatly from an automated screening capability.
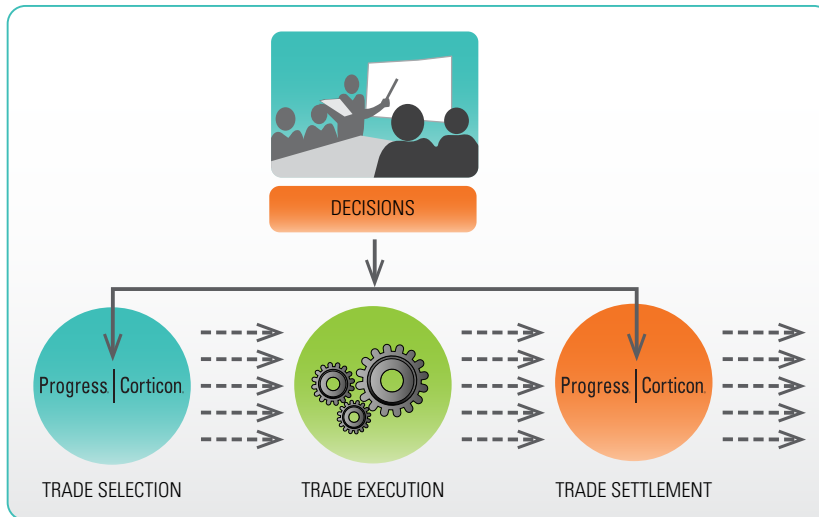
In both cases, the Corticon Business Rules Management System provides a complete audit trail for all transactions, tracking precisely which rules fired, in which order, for each trade. The decision-makers can then analyze the outcomes and rapidly adapt the Corticon rules to implement any changes in strategy or policy.

Almost as soon as policy is defined, it needs to be changed. Corticon Business Rules Management System also addresses the problem of volatility. In automated decision processing, a change to a single rule can break the whole system due to the interdependencies across rules. As the rule models in Corticon are changed, an impact analysis is automatically generated, showing the business people how the change interacts with the other rules in the system in a way that they can easily understand and address without the assistance of programmers. Furthermore, assuming the appropriate security clearance, the changes that business people make can immediately impact live enterprise systems, dramatically improving responsiveness. New strategies can be implemented as rapidly as they are defined.

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BENEFITS

Corticon Business Rules Management Software enables companies to transform their complex and volatile policies and procedures into rapid, dependable and consistent decisions that can be applied, with zero latency, against massive amounts of enterprise information. Corticon Business Rules Management streamlines the business process, ensuring the fastest cycle times with consistent standards. Highly scalable, reliable and secure automated agents replace costly, time-intensive, manual activities. This frees human capital from rote tasks, allowing employees to focus their unique capabilities and creativity on innovation. As new knowledge is discovered, it is captured into new or existing Corticon rules, adding to the pool of intellectual assets, safeguarded against changes in personnel.

Through widespread adoption of Corticon Business Rules Management, our customers experience an **increasing returns dynamic:**
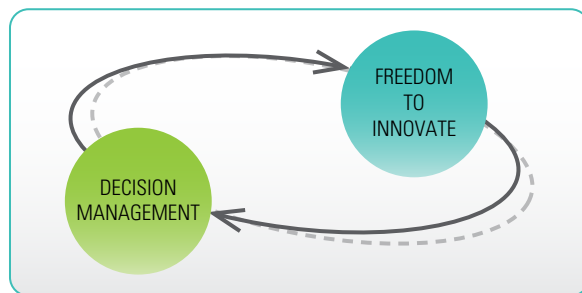

Figure 3
The increasing return dynamic

The more decisions that are automated, the more freedom people have to innovate. With more freedom to innovate, more decisions are defined, formalized and automated, driving continually improved results.

The increasing returns dynamic accelerates the distribution and adoption of Corticon software across the enterprise and naturally drives increasing returns.

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IN SUMMARY

Companies are constantly striving to streamline processes in an attempt to increase productivity and efficiency. In recent years, many have looked to process automation to help them achieve this goal. The solutions available were only able to automate simple, routine tasks, leaving the highest value processes to be handled manually by individual, skilled workers.

Corticon Business Rules Management Software provides the next transformational step in process automation. The key decision makers within a company are now able to capture, model, and automate their best practices, policies and procedures. This ensures that corporate strategy is aligned with operational execution in the face of rapidly changing market environments. This provides those who participate with unforeseen agility and a sustainable competitive advantage.

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Progress Software Corporation (NASDAQ: PRGS) is a global software company that enables enterprises to be operationally responsive to changing conditions and customer interactions as they occur. Our goal is to enable our customers to capitalize on new opportunities, drive greater efficiencies, and reduce risk. Progress offers a comprehensive portfolio of best-in-class infrastructure software spanning event-driven visibility and real-time response, open integration, data access and integration, and application development and management—all supporting on-premises and SaaS/cloud deployments. Progress maximizes the benefits of operational responsiveness while minimizing IT complexity and total cost of ownership.

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