

Corticon Decision Management



**Aligning Strategy and Operations
In the Face of Change**



CORTICON

Corticon Decision Management:

Aligning Strategy and Operations In the Face of Change

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About This White Paper:

This white paper provides an introduction to Decision Management, a revolutionary approach to better align corporate strategy with operational execution. It describes the problems with today's business processes, and the inherent limitations in productivity, quality and agility. It describes the problems with the current approaches to automation, which fail to effectively address the management of decision-making logic. It then introduces Corticon Decision Management, and describes its numerous benefits and advantages. Last it provides an overview of the Corticon Platform, a powerful suite of software technologies that enable Decision Management.

Introduction

Corticon provides the leading enterprise software for the automation and management of decision-intensive business processes. *Corticon Decision Management Software* ensures the consistent, efficient, reliable, and (where possible) automated execution of a company's strategies and policies. This results in transformational quality and productivity improvements in key business processes.

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 often extremely difficult to reconfigure operations to new strategic direction. Most decision-making activities are conducted manually, and strategy changes often require the retraining and retooling 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.

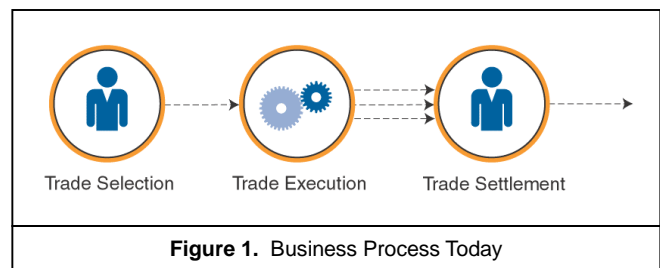
Automation has been of little help. This is because current automation technologies (including rule engines) fail to deal effectively with complex, volatile decision-making logic such as that needed to capture and manage corporate strategy and policy. Extracting such logic from its source (the decision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

Corticon now offers a better way. Our revolutionary Decision Management Software enables the capture, formalization 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 decision 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 agility and competitive advantage. Customers gain dramatic improvements in productivity and 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 activities.

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, including 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.



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 utilized.

To date, automation efforts (including rule engines) have been unsuccessful due to the complexity and volatility of the decision-making 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 activities can be automated. As a result, many critical business activities are performed manually, requiring skilled workers to apply individual decisions (often governed by policies) when and where they are needed.

Companies need a solution that will address the issues of complexity and volatility in decision-intensive business processes.

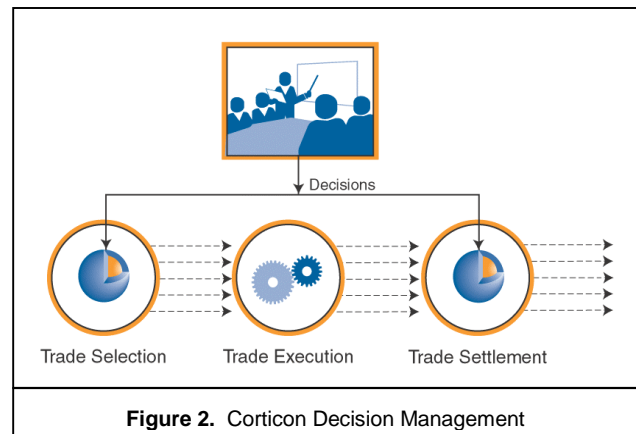
The Solution: Corticon Decision Management

Corticon delivers a solution that offers dramatic improvements in productivity and performance. Using Corticon Decision Management Software, companies can securely capture and automate their collective best practices, policies, procedures and know-how as software components called Corticon Decision Services, or 'Corticons' for short. The Corticons are created and managed by business analysts, without programming, using a simple, drag-and-drop environment similar to a spreadsheet. Often, the decision-makers themselves participate directly in the development process.

Corticon Decision Management addresses complexity by representing decision logic as sets of visually interrelated business rules. Proprietary algorithms automatically identify conflict and ambiguity, ensuring that exceptional circumstances are further clarified by the decision-making body. This enables the capture of complete and consistent decision logic. Without these features, complex underlying logic in decision-based processes cannot be automated. *Of note, no competitors offer these unique and powerful features.*

Figure 2 illustrates the same trading process described in Figure 1, enhanced through Corticon Decision Management. Activities, such as Trade Settlement, in which all decisions are predefined, can be entirely automated. Other activities, such as Trade Selection, may require some degree of manual involvement, but can benefit greatly from an automated screening capability.

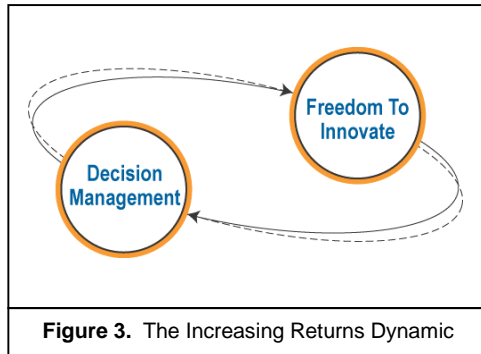
In both cases, the Corticon Decision Management system provides a complete audit trail for all transactions, tracking precisely which rules fired, in which order, for each trade. The decision-makers can then analyze the outcomes and rapidly adapt the Corticons to implement any changes in strategy or policy.



Corticon's Decision Management Software directly addresses the problem of volatility. The policies that govern the decisions are managed without programming, using a simple, spreadsheet-like, visual environment. Because changes can be made directly by business analysts and redeployed without programming, the enterprise achieves unprecedented agility and competitive advantage. Customers gain dramatic improvements in productivity and performance, and new strategies can be implemented as rapidly as they are defined.

Corticon Decision Management 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 Decision 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 them to focus their unique capabilities and creativity on innovation. As new knowledge is discovered, it is captured into new or existing Corticons, adding to the pool of intellectual assets, safeguarded against changes in personnel.

Through widespread adoption of Corticon Decision Management Software, our customers experience an *Increasing Returns 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.

Product Offerings

Corticon Decision Management Platform

Corticon Studio:

The Corticon Studio is a 100% Java, visual development environment that allows business analysts to manage decision-making logic as sets of business rules. Well recognized as the easiest way to manage business rules, the Corticon Studio is the only product on the market today that allows business analysts the freedom to implement rules without predefined programmer-created development templates.

This dramatic advance is achieved through the following features:

- Unique spreadsheet-like interface and OCL-based rule language to easily model business rules;
- Powerful algorithms that automatically analyze and highlight logical errors across business rules (i.e. conflict, redundancy, incompleteness);
- Business-friendly scenario testing (as opposed to programmer-level tracing and debugging);

- Simple Vocabulary builder to manage shared semantic models, which can be created from scratch or imported from existing UML class diagrams;
- Automated deployment wizards, including auto-generated service description files (XML Schemas and WSDL).

Corticon Server:

The Corticon Server is a 100% Java, enterprise-strength processing environment that serves business rules and decision-making logic to any software application. It includes a revolutionary business rule engine, targeted specifically at the needs of business process automation, and delivering superior performance relative to common RETE-based engines.

The Corticon Server installs out-of-box as a true Web Services server (running Apache Tomcat and SOAP messaging). Alternatively, it can be embedded into a container of choice (e.g. WebLogic, WebSphere, Microsoft Transaction Server, custom container, etc). Once installed, decision services created in the Corticon Studio can be loaded onto the server using an integrated, auto-deployment tool. The only requirement for integration is that the calling application pass an XML document that is conformant with the XML Schema provided by the target decision service.

The Corticon Server is the rule processing environment of choice for several reasons:

- Simple to install;
- A snap to integrate new decision services;
- Lightweight, portable, 100% Java;
- Maximum performance and scalability.

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 Decision Management Software provides the next transformational step in process automation. The key decision-makers within a company are now able to capture and automate their best practices, policies and procedures. This ensures the 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.