

RULE X PRESS

THE BUSINESS TOOL FOR EXPRESSING AND COMMUNICATING BUSINESS RULES.

UTILITIES

- COMPANY** A not for profit agency supporting community-owned utilities
- CHALLENGE** Keep information systems synchronized with a rapidly changing energy market
- SOLUTION** Develop and evolve a rules-based system using RuleXpress and a modern business rules management system
- RESULTS** 97% reduction in costs relative to other organizations facing the same challenges
-

This customer, who wishes to remain anonymous, is a not-for-profit joint powers agency that represents and provides support for 17 member communities and districts in the United States. Our customer was founded as a forum through which community-owned utilities could prevent costly market abuses employed by private utilities at that time, and to make investments to ensure an affordable, reliable and clean future energy supply for electric ratepayers.

Information in this case study is based on customer interviews conducted by James Taylor.

© DECISION MANAGEMENT SOLUTIONS

CHALLENGE

The Independent System Operator (ISO) recently implemented the Market Redesign and Technology Upgrade (MRTU), a comprehensive program that enhances grid reliability and fixes flaws in the ISO markets. This project keeps the state compatible with market designs that are working throughout North America and replaces aging technology with modern computer systems that keep pace with the dynamic needs of California's energy industry. In order to remain cost effective within the new market, organizations such as our customer needed to implement information systems that would work with the new ISO systems.

The MRTU design was approved in September of 2006 and was implemented March 31, 2009. Throughout the life of the project, over 10,000 pages of requirements were written by the ISO and passed down to organizations, including our customer. Each organization needed to implement them to support MRTU. Not only did the analysts of our customer need to harvest the original requirements from those pages, they also needed to keep track of sometimes daily changes. Our customer had to describe this work to internal business people, to their internal Commission, to member cities and to the IT department. To be successful, our customer needed a single set of business artifacts, a good understanding of the requirements and increased transparency.

SOLUTION

Our customer realized early on that supporting MRTU would require innovative thinking and a new approach to software and business development. Our customer initiated an Enterprise Architecture project to create a foundation for future IT systems. Adopting a modified version of the Zachman Framework, they focused on the particular challenge of managing business rules. In particular our customer knew they needed to manage the source documents for MRTU, the business rules themselves, metadata about the business rules and the terms that underpin the rules.

Previous approaches had led to business rules that were only defined within policy documents and code. These approaches did not allow for effective management of the rules or provide the kind of traceability needed in a project peppered with highly volatile requirements. Clearly, a new approach was needed to solve this challenge.

Our customer adopted a process modeling tool but its support for modeling business rules was insufficient. The use of Word and Excel to manage rules was likewise rejected because no real management of the rules would be possible. Our customer was committed to using a commercial business rules management system (BRMS) as its execution environment. While the BRMS provided a robust rule repository focused on implementation, our customer needed a more business-centric model of the business rules and terms. After evaluating other alternatives, our customer became an early adopter of RuleXpress.

“We wanted a tool that would support the whole organization and we wanted a vendor that was big enough to offer support and longevity but focused on this specific problem and on supporting us” said the Manager Information Systems of our customer. “RuleArts and RuleXpress fit the bill perfectly”.

Our customer uses RuleXpress as a core part of designing the processes that support its business. An integral part of their Enterprise Architecture approach, it bridges the gap between IT and the business by ensuring a common understanding of problems and proposed solutions. RuleXpress is the main tool for Business Analysts to capture rule requirements from

the perspective of business people. Reports from RuleXpress are so accurate and complete that they are often considered legal documents that are sent for Commission approval. RuleXpress provides critical traceability and linkage between document-based requirements and executable rules, no matter how they are implemented. In addition, RuleXpress is used to manage the terms our customer uses across the enterprise. All these terms are mapped to their specific implementation within information systems.

RuleXpress delivers:

- **Easy and effective management of Terms**

RuleXpress provides complete term management, supporting term definition, information links and navigation facilities. Business users can see term definitions from rules, navigate, conduct impact analysis and determine traceability. Integrated look-up for Terms and automatic identification of defined Terms make it easy to use terms in rules. And RuleXpress manages preferred terms and synonyms and generates a comprehensive glossary of terms for use throughout the enterprise.

- **Ease of use for business people**

Intuitive and easy to use, RuleXpress has a non-technical interface that allows non-technical users to create and manage business rules and terms. Users get up to speed quickly and find it easy to use day to day. RuleXpress avoids any use of pseudo code or technical jargon, and supports writing in local languages.

- **A “reference library”**

RuleXpress can contain the business rules, sources of rules, terms, supporting documents, evidence, implementation details and even people’s opinion. With RuleXpress you can create a true reference library for projects.

RESULTS

MRTU lasted three and a half years. Changes to the electricity market design meant constant change – weekly changes from the ISO for most of the last two years. Market defects would be found and ISO would change the rules accordingly. This in turn would mean our customer would need to update the rules in its systems. Without RuleXpress, such a rate of change could not have been supported.

Compared with how other organizations have implemented MRTU the results have been dramatic. While some groups of municipalities spent \$10M over three years implementing the rules, our customer spent just \$300,000 – a savings of 97%! And this saving is in development – ongoing maintenance will continue to be much cheaper, boosting the results over time.

In addition, everyone at our customer is now talking the same language and understanding one another. Thousands of rules and over 2,000 terms have been defined and documented. Most importantly these rules and terms are now traceable. The 2,200 terms are a reference guide to how the business speaks and what it means. And one that is so complete it is used as a reference by the legal department. The use of RuleXpress has helped to spread knowledge throughout the organization, making it clear what the rules are and helping everyone understand the business of our customer.

PLANS FOR THE FUTURE

Our customer has been working with their BRMS vendor and RuleArts to tie the RuleXpress repository to that of the BRMS. Bridging the communication gap between the two repositories will greatly improve change management. Most changes will be initiated within RuleXpress and then translated into the BRMS without the need for rule rewrites and manual translation.

Our customer has also been working with RuleArts to tightly integrate RuleXpress with Microsoft Word. Creating a custom dictionary add-on that contains all of the terms defined within RuleXpress will ensure consistency in terminology and allow anyone in an enterprise to utilize the business' language.