Overcome the Challenges of Business Rules Extraction in Legacy Modernization

Modernization projects are challenging for a number of reasons, but by far the most common is a failure to extract all the business rules from a given system. This could lead to functionality shortfalls that delay deployment and cause business disruptions.

Many existing tools and methods do an acceptable job analyzing simple code, searching for the logic that constitutes a business rule, and isolating it for documentation. However, this method doesn't work well for complex applications, and the results could be disastrous as they consist of program logic statements and not clear rules written in the business language.
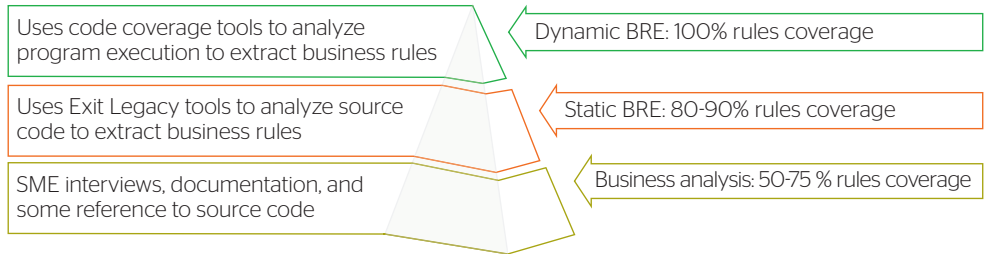
- Some other challenges which hamper legacy modernization projects are,
- Code complexity makes 100% extraction of business rules nearly impossible
- Existing methods yield errors and omissions with severe consequences
- Documentation must be easily understandable for business users

AtoS | Syntel

Atos Syntel's solution

Our proprietary Exit Legacy portal and patented business rule extraction (BRE) methodology address these challenges to thoroughly discover the static and dynamic business rules built into your legacy systems. Atos Syntel's three-step methodology consists of:

- Identifying the underlying application structure
- Performing a static BRE using Exit Legacy to identify candidate business rules
- Dynamic BRE to validate candidate business rules by creating and executing test cases against the legacy code to reveal any omissions

Three Step Process for Business Rule Extraction

Process	Coverage
Uses code coverage tools to analyze program execution to extract business rules	Dynamic BRE: 100% rules coverage
Uses Exit Legacy tools to analyze source code to extract business rules	Static BRE: 80-90% rules coverage
SME interviews, documentation, and some reference to source code	Business analysis: 50-75 % rules coverage

Exit Legacy Analysis Workbench

- Inventory analysis
- Rule classification and de-duplication
- Seed-based impact analysis
- Program flowcharting
- Highlight potential rules and rule auto description

Atos Syntel differentiators

- Rules classification and de-duplication
- Automated BRE to extract branch paths
- Program flowcharting and documentation
- Seed-based impact analysis
- Code auto remediation
- Support for languages like COBOL, Assembler, NATURAL, PL/I, CA Gen, JAVA, Ab Initio and VB

Business benefits

- 100% business rule extraction
- Technical business rules extracted for business analysts
- Zero loss of functionality
- Up to 50% reduction in effort
- Risk mitigation
- Creation of a complete regression test suite
- Rules are delivered in a form that can be understood by non-technical staff and business rule management systems

Atos Syntel in action

Business rules extraction for premium billing calculation

A leading insurer wanted to sunset their aging premium billing calculation and policy admin systems, and turned to Atos Syntel to assist in the effort.

Business challenges

- Existing assembler code was complex and difficult and expensive to maintain
- Business rules were not properly documented
- Logic was highly complex and deeply embedded within the legacy system

Atos Syntel's solution

- Leveraged the Exit Legacy framework to extract and migrate business rules
- Generated comprehensive static BRE and documentation
- Dynamic BRE – static rules verifying all logical paths have been executed or explained
- Created decision tables for test cases creation and verification of complex nested 'if' statements with a string of multiple test conditions

Business benefits

- Comprehensive, technology-independent documentation of rules in business language
- Improved decision making for modernization
- Created a business knowledge database
- Regression test suites were generated for future use
- Improved business-as-usual continuity