The Benefits of Visual Rules

in Application Development

White Paper

As of May 2007

innovations
Software Technology
Bosch Group

Content

1 Introduction

This document describes the quantitative benefits of Visual Rules in application development as a result of numerous customer projects, including the ROI achieved.

2 Established standard

Visual Rules has established itself as a Business Rules Management (BRM) tool and enables the multitude of business rules used in a company to be automated efficiently. The use of Visual Rules doesn't just result in more software agility, it also reduces development and maintenance costs at the same time.

3 Integrated visual model approach

The approach for visually creating business logic in software is consistently supported by Visual Rules across the entire development cycle, from modeling, testing and automatic generation of documentation up to monitoring of rules in execution. It thus constitutes a common platform for the business department and IT.

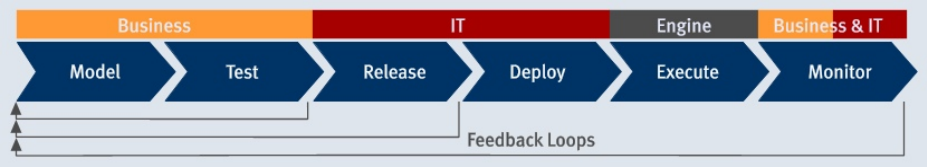

Figure 1: Model approach across the entire development cycle

With its integrated visual model approach Visual Rules combines the advantages of the Model Driven Architecture (MDA) with those of Business Rules Management Systems (BRMS). The business logic generated can be delivered e.g. as service in a Service Oriented Architecture (SOA); it could as well be used as decisions for controlling workflows. Furthermore, Visual Rules adds a modeling approach for business logic to the Unified Modeling Language (UML) employed in IT, making it suitable for use by other departments.

4 Shortening the development cycle

When comparing the development cycle in conventional software development to the use of Visual Rules, it becomes clear how higher software agility and reduced costs can be attained simultaneously.

In the conventional development of software in general, and business logic in particular, costs are incurred for each of the phases of design, programming and testing as well as for the accompanying measures of quality assurance and documentation.

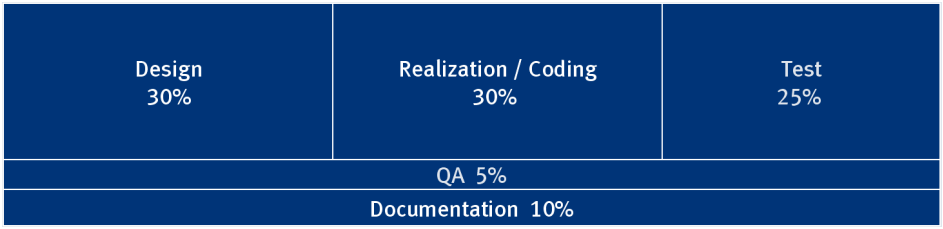

Figure 2: Typical distribution of costs in the conventional development cycle

The Visual Rules integrated model approach allows the department to become more strongly incorporated in the development cycle. All work is done in the visual model of business logic, from modeling to testing results. This leads to a substantial gain in efficiency.

When using Visual Rules in the development process lower costs are incurred in the classic conceptual design phase in comparison to conventional business logic development. Modeling is done earlier and less requirement papers are produced.

The model of business logic is clearly specified and then automatically converted 1:1 into executable rule code. When creating business logic, the hand off from conceptual designer (business analyst) to programmer is eliminated completely.

„Visual Rules is our perfect choice for the collaboration of business and IT in modeling the business rules. Translation of the business into IT language has now become much easier– with visualizing the decisions within the processes. The design phase is definitely shorter now– in some projects up to 30%."

Hagen Buchwald, entory

Testing costs are also reduced, because department and IT are able to work more closely together on a collaboration platform and Visual Rules supports automatic testing and debugging in the visual model.

Quality assurance is simplified, because the visual models clearly and understandably represent the business logic and code generation is automatic and standardized. Because the models themselves make up part of the documentation and this can also be generated automatically from the model, costs can clearly be reduced here.

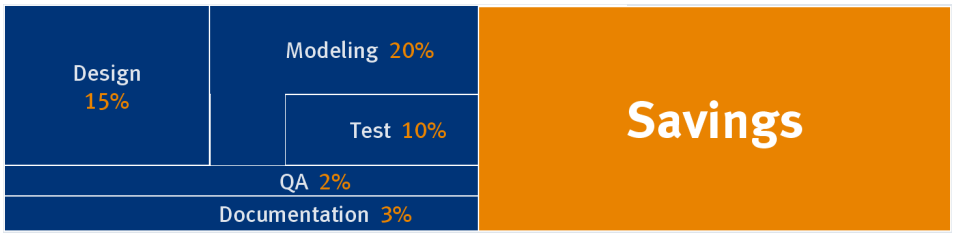

Fig. 3: Distribution of costs when using Visual Rules

5 More agility at lower cost

Business logic in software is one of the most frequently changing components. These often consist of only a few if – then rules at the beginning, growing into a complex component over time. As business logic becomes more complex, productivity resulting from the integrated model approach of Visual Rules rises.

When the development cycle in conventional development is compared to the use of Visual Rules across several iterations, the benefit of Visual Rules becomes readily apparent:

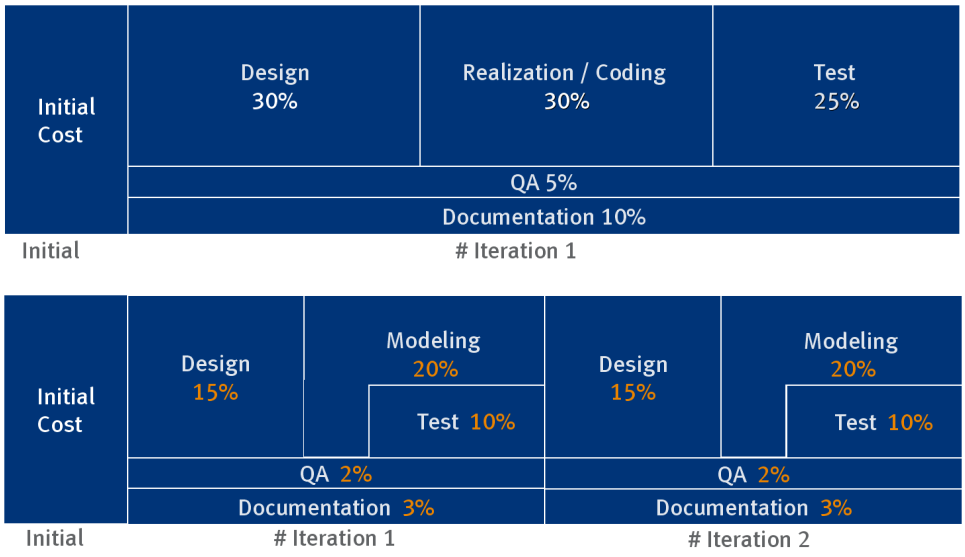

Fig. 4: Comparison of development cycles over several iterations

In conventional development of business logic the development cycle shown, including the transition to programming, must be performed each time.

When using Visual Rules benefits are gained in each development cycle. With an average increase in productivity of 50%, Visual Rules enables two iteration steps to be carried out in the time of only one formerly. More agility and lower costs are the result.

When comparing the gain in productivity with the costs for Visual Rules, experience shows that the Return on Investment (ROI) is achieved in less than half a year.

The Total Cost of Ownership has been an important decision factor for Visual Rules – along with the visual modeling of business rules and the consistent service orientation of the system architecture. The TCO is much lower than of all other Business Rules Management Systems we've evaluated."

Stefan Schulz, SunGard

6 Qualitative benefits

In addition to the quantitative benefits listed – more agility, reduction in costs and time – there are qualitative factors that speak for the use of Visual Rules:

- Transparency and intelligibility of business logic
- Auditing acceptability
- Improvement in quality
- Re-use of business rule services across processes
- Aligned management of business rules
- Establishment of Application Management instead of fixed release cycles

„We highly appreciate the possibility of integrating quality management into the development process. Visual Rules supports the "Test Programming First" Paradigma. It enables our consultants to develop solutions along clearly defined and automatically executable test scenarios. The cost for quality assurance is especially high in process-oriented projects. We have now managed to significantly reduce it. With Visual Rules, the business logic of applications can be implemented in higher quality – with the gain in quality becoming manifest for the customers."

Hagen Buchwald, entory

Americas:

Innovations Software Technology Corp.
161 N. Clark Street
Suite 4700
Chicago, Illinois 60601 / USA
Tel. +1 312 523-2176
Fax +1 312 268-6286
info@innovations-software.com
www.innovations-software.com

Asia:

Robert Bosch (SEA) Pte Ltd
c/o Innovations Software Technology Corp.
38C Jalan Peminpin
Singapore 577180
Tel. +65 6372-9506
innovations@sg.bosch.com
www.innovations-software.com

Europe:

Innovations Software Technology GmbH
Ziegelei 7
88090 Immenstaad / GERMANY
Tel. +49 7545 202-300
Fax +49 7545 202-301
info@innovations.de
www.innovations.de

innovations™
Software Technology
Bosch Group