WebRatio

Custom enterprise applications in a third of the time

Think the model, Customize the rules, Get the application
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The Business-IT gap

“There is a gap developing between the business users of enterprise applications and the IT professionals who are charged with providing these applications. The business leaders are looking for modern, easy-to-use applications that can be quickly deployed to solve a specific problem or respond to a market opportunity. Meanwhile, the IT organization is typically working toward a strategic goal of standardizing on a limited set of comprehensive application suites in order to minimize integration issues, maximize security and reduce IT costs. This approach rarely leads to strategic alignment.”

(Gartner, March 2011)

To address the problem of the misalignment between business and IT, companies should adopt innovative development methods and tools allowing:

- business users to get a quick response to their demands and to use modern and easy-to-use enterprise applications
- IT professionals to provide standard applications that integrate seamlessly with the existing IT ecosystem, meeting the budget

WebRatio is the clear answer to this need.
From Idea to Solution in 3 steps

WebRatio is an innovative **Model-Driven** development environment for building **custom enterprise applications** that run in a standard **Web/SOA environment**. This tool allows you to capture requirements in abstract models and automatically generate a full-featured, industrial-strength, standard application. The models are based on the **BPMN** standard and the **WebML** modeling language. The result is a perfectly **standard Java Web application**, with no proprietary runtime or components, that can be deployed on any Java application server. The development environment is open: generation rules can be extended and customized at will.

WebRatio lets you concentrate your efforts on requirement analysis and model building, allowing you to respond quickly to business demands. At the same time the applications you get are always compliant with your IT ecosystem and your IT governance rules.

Moreover WebRatio lets process analysts and application functional analysts work together with designers and developers, thus optimizing collaboration within the work team and encouraging reuse.

With WebRatio your ideas become solutions in 3 easy steps:

1. **THINK THE MODEL**
   - capture business requirements in abstract, technology independent models

2. **CUSTOMIZE THE ENVIRONMENT**
   - define your own generation rules

3. **GET THE APPLICATION**
   - get a tailored, yet standard, Java Web application with no proprietary runtime
1. Design the Model

In a WebRatio project, two types of models pool together to define the application requirements: the process model and the application model. Depending on the type of application you want to build, you will use the first, the second or both.

Process Model

The process model is based on the BPMN (Business Process Modeling Notation) OMG’s standard. It allows you to define:

- organization and roles: the different categories of users that participate in the process
- activities and assignments: the tasks performed by the actors or executed by the system
- business rules: the constraints and conditions that regulate the workflow

Application Model

The application model is based on the Web Modeling Language (WebML), a Domain Specific Language for web applications. It allows you to define:

- data extraction logic
- page composition logic
- navigation paths across pages and intra page
- interaction commands
- business logic
- integration with third party services and components (e.g. through Web Services)
2. Customize the Rules

The generation rules used by WebRatio for building the final Web application are fully customizable and extensible. Thus the development environment adapts itself to the needs, standards and habits of any work team.

More specifically, the development environment can be extended by:

- defining layout templates
- adding custom model components

Layout Templates

The visual identity of the Web application can be fine-tuned with full precision. This is possible thanks to specific generation rules that can be defined by a graphic designer and that will be used by WebRatio in order to generate the layout pages of the Web application.

The presentation rules are collected in a presentation style and can be written in any rendition language, most notably in HTML.

The presentation style and the application model are completely independent. Thus it is possible, from the same application model, to generate Web application with completely different visual identities. Moreover, it is possible to reuse the same presentation style in order to generate many different web applications with the same visual identity.

Custom Model Components

The business logic of the application is defined by the components that build up the application model and by the way these components are linked together. A predefined set of components are available in the standard development environment, however the user can define and integrate new custom components at will, for example to implement a complex task, to communicate with a legacy system or to invoke an existing library.

The business logic of a new component is defined in Java. Once defined, the new component is immediately available to the work team, and can be reused in any application model.
3. Generate the Application

WebRatio generates **standard and open Java Web applications**, with no proprietary runtime or components, deployable on **any Java Application Server** such as JBoss Application Server, Apache Tomcat, IBM WebSphere, Oracle Application Server, etc.

A **working realistic prototype of your solution** can be generated at any time, with **no additional cost**. Thus you can immediately verify the compliance of your work to initial requirements. With WebRatio the development cycle of a web application is a **circle of analysis, modeling, generation and validation**, which greatly facilitates the convergence towards the final solution.
What you can build

A wide range of application domains
# Product Editions

To support the different needs of development teams, business analysts, large enterprises or consulting firms, WebRatio is offered through the following editions:

**ENTRY LEVEL EDITIONS**

Start working immediately with WebRatio

<table>
<thead>
<tr>
<th>WebRatio BPM Free</th>
<th>WebRatio Personal</th>
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<tbody>
<tr>
<td>dedicated to <strong>business process analysts</strong> wanting to edit BPMN diagrams and rapidly get a prototype of their BPM application</td>
<td>designed for <strong>single users</strong> who want to use the development environment for free and pay for each application released</td>
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**BUSINESS EDITIONS**

Exploit the full potential of WebRatio, without any limitation

<table>
<thead>
<tr>
<th>WebRatio BPM Pro</th>
<th>WebRatio Standard</th>
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<tbody>
<tr>
<td>designed for <strong>development teams</strong> wanting to build custom BPM/BAM applications, based on BPMN and WebML</td>
<td>designed for <strong>development teams</strong> wanting to build custom Web/SOA applications, based on WebML</td>
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<th>WebRatio Enterprise</th>
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<tr>
<td>dedicated to <strong>development teams</strong> wanting to build both custom Web/SOA applications and BPM/BAM applications</td>
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WebRatio BPM Free

Model, Execute, Document Your Business Processes

WebRatio BPM Free 6.0 ® is a freeware BPMN editor that lets you model your business processes, immediately execute them on the Web and export professional documentation. It is designed for business process analysts wanting to edit BPMN diagrams and rapidly get a prototype of their BPM application.

Main Features

- **User-friendly BPMN editor**
  Design the model of your business process using the standard BPMN 1.2 notation through a user-friendly and powerful editor.

- **Immediately executable prototypes**
  Generate in one click a working web application executing your business process.

- **Professional documentation!**
  Add as many comments as you need to your models and export professional documentation in html, pdf or rtf formats.

The editor further allows you to:

- Edit standard BPMN 1.2 diagrams
- Define a data model and use business objects in the process models
- Define process parameters and use them to control how gateways work
- Define different scenarios and highlight options of your diagrams
- See live warnings and/or errors on your diagrams
- Import and export your diagrams in XPDL format
- Immediately generate and navigate a Web application executing your business process

The generated Web application allows you to:

- Immediately log in with predefined test users
- Execute and test the process online, with data objects and parameters management
- See a graphical update of the process status at any time
WebRatio Personal

An entry level edition, free for development!

WebRatio Personal 6.0 ® is the entry level edition of WebRatio. It is designed for single users wanting to use the development environment for free and pay for each application released.

Main Features

- Model editing:
  - Data model editor
  - WebML model editor
  - BPMN model editor
- Web application generation
- Warning/Error detection
- Project documentation export
- Generation rules customization:
  - Custom presentation styles definition
  - Custom components definition
## Compare Editions

<table>
<thead>
<tr>
<th>Feature</th>
<th>BPM Free</th>
<th>Personal</th>
<th>BPM Pro</th>
<th>Standard</th>
<th>Enterprise</th>
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<tr>
<td>Business Process Modeling</td>
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<td>Rapid prototyping of BPM applications</td>
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<td>Model-Driven Development of custom BPM/BAM applications based on BPMN and WebML</td>
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<td>Team work functions</td>
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<td>Source code of generated applications available</td>
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<td>Generation rules customization</td>
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<tr>
<td>License model</td>
<td>Free</td>
<td>Application</td>
<td>Annual, Perpetual</td>
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Technical Features

Eclipse-based development environment

WebRatio is integrated in the Eclipse IDE. It is available either as a standalone installation or as a plug-in embeddable in an already configured Eclipse environment.

WebRatio shares the same workspace as all the tools and extensions already available in Eclipse for developing JEE applications:

- advanced Java editors
- popular code repositories (CVS, SVN)
- third-party plug-ins

BPMN modeling

WebRatio offers a powerful, yet intuitive and easy to use, process diagram editor, based on the BPMN standard.
WebML Modeling

WebRatio offers an application model diagram editor, based on the WebML modeling language, which allows you to capture all the functional requirements of the application.

Deployment on any Java application server

Web applications built by WebRatio comply with the Java/JSP 2.0 standard and can be deployed on any application server, including:

- Apache Tomcat
- JBoss
- Cacho Resin
- Oracle WebLogic Application Server
- IBM WebSphere

Database independence

Web applications built by WebRatio exploit the Hibernate libraries and can be connected to any database supporting the JDBC standard, including:

- PostgreSQL
- MySQL
- Oracle 8i/9i/10g/11g
- IBM DB2
- Apache Derby
Full support of SOA and Web Services

Web applications built by WebRatio are naturally integrated in an SOA environment, where they can collaborate with any other distributed system. WebRatio supports the definition and generation of applications that publish, consume and orchestrate Web Services.

Legacy system interoperability

Through the development and integration of new custom components, Web applications built by WebRatio can integrate with any legacy system.

Security, authentication, profiling

Web applications built by WebRatio can manage user authentication and profiling by integrating with the most popular identity management systems like LDAP, Oracle SSO and MS Active Directory. Security can be enhanced by exploiting SSL protocol. All the user-dependent features are managed by the application model.

Multilingual applications

WebRatio fully supports the production of multilingual applications. The application model editor allows the users to define translations for every label and a localized format for each data type, in all the desired languages. The Web applications built by WebRatio are UTF-8 compliant.

Collaborative work and versioning

All the source files of a project can be hosted, shared and versioned on a collaborative work server (CVS or Subversion).

Rich interface layout and interaction

Generation rules can incorporate any graphic template, written in any language such as HTML, CSS, AJAX, Javascript, as well as Rich Internet Application interfaces and components.

Multichannel user interfaces

Web applications built by WebRatio can be delivered over different channels, such as internet and mobile.

High performance

Code generation rules produce highly optimized code, meeting the standards of critical mission applications. If needed, post-production optimizations can be applied to the generated code and incorporated in the generation rules.
Reports

You can define report pages in a variety of formats: HTML, Excel, PDF, and integrate WebRatio with specialized reporting tools, for example with Jasper Report.

Open source code and standard libraries

Web applications built by WebRatio employ the most popular java libraries, including Hibernate, Struts, JSTL, JSP, and Java Servlet. The generated code is completely open and does not rely on proprietary components. If needed, applications can be maintained without using WebRatio any more, like a standard Java/JSP project.