OlivaNova Model Execution System

Overview
The OlivaNova Model Execution System is a commercially available software system that generates complete applications from software models. Unlike other software solutions pursuing the promise of Model Driven Architecture® (MDA), our Model Execution System isn’t limited to building embedded systems (that lack GUIs), database infrastructure, or integration plumbing. Instead the OlivaNova Model Execution System takes class models, functional models, and presentation models and creates a completely functional and executable software application – in minutes.

How It Works
Embracing the basics of Model Drive Architecture (MDA), we believe that truly effective software development must split the “what” from the “how”.

In that vain, our Modeler allows business and systems analysts to model their system requirements, rules, conditions for triggering events, and key business objects. This is the “what.” Without learning any new languages (no programming required), analysts are able to create complicated conditions and rules within the modeler which will then be transformed into the target architecture and language. The selection of a particular architecture and language and the accompanying transformation into source code is what we consider the “how.”

The real beauty of this solution is that you can re-use your models and target a new architecture or language very quickly. Within minutes, the new source code is delivered to the developer and is ready for compilation and deployment.

Deployment Architectures
Given the complexity associated with the kinds of software that organizations are developing today, the OlivaNova Model Execution System supports the generation and deployment of a variety of software architectures and languages:

<table>
<thead>
<tr>
<th>Platform</th>
<th>Architecture</th>
<th>Language</th>
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</thead>
<tbody>
<tr>
<td>Windows NT</td>
<td>Web</td>
<td>Visual Basic 6.0</td>
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<tr>
<td>Windows 2000</td>
<td>Client/Server</td>
<td>JAVA/EJB</td>
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<td>Windows 2003</td>
<td>Integration w/Mainframes</td>
<td>JSP</td>
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<tr>
<td>Most Unix</td>
<td>Web Services</td>
<td>Cold Fusion</td>
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<td>Most Linux</td>
<td>Windows Service</td>
<td>.NET/C#</td>
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The Modeler
Like other software products that allow developers and analysts to define software from an object-oriented perspective, the Modeler captures business objects as classes with attributes and connects them via relationships. However, this is where the similarity ends. Unlike other modeling software, the OlivaNova Modeler allows analysts and developers to capture actual business logic, business rules, and system constraints without having them write any code. These rules and constraints are then translated by the Transformation Engine into language and architecture-specific code that is ready for compiling and deployment.

UML™
If your organization is already modeling software in UML, then using our Modeler will require very little adjustment. While the underlying semantics of the modeling language are driven by OASIS, a language developed for its preciseness and lack of ambiguity, we use standard UML notation within the Modeler to make it easy to read.
Features:

- Business/Object Modeling
- Data Modeling
- Model Integrator
- Legacy System Modeling
- Rules/Constraints Definition
- Conceptual GUI Definition
- UML Support
- XML Support

The Transformation Engine
The Transformation Engine (a collection of code generators) is run as a web service that allows clients to send XML definition files for models created in our Modeler. With a simple-to-use interface, clients select the kind of architecture and language support they desire for the application and upload the definition file. From there the web service collects the file, runs it through the appropriate code generator and mails back the code to the client. Normally this process takes less than 5 minutes – to generate the complete application!

For additional information, visit our website at [http://www.sosyinc.com](http://www.sosyinc.com)