



Telelogic Rhapsody

What's New in Rhapsody 7.0

Telelogic introduces Telelogic Rhapsody®, the latest version of its Model-Driven Development environment for embedded systems and software. Rhapsody 7.0 increases developer productivity, better supports multiple workflows, and promotes the implementation of a software product line to encourage software asset reuse. Rhapsody 7.0 includes usability improvements to ease MDD adoption and streamline the development workflow.

Rhapsody 7.0 enables code-centric workflow, which allows hand-coders to build models from code and leverage these models for analysis and automatic document production. Developers who prefer a model-based approach can abstract, analyze, and validate the design, and produce code and documentation automatically.

BENEFITS

- Rhapsody 7.0 focuses on developer productivity with improved support for multiple workflows
- Most feature-rich Rhapsody ever
- New Eclipse CDT integration
- Enables strategic reuse of software when using approaches similar to Software Product Line Development
- Numerous usability improvements that ease MDD adoption and streamline the development workflow

FEATURES

- New Eclipse CDT Integration
- Functional C Profile
- Multi-language development
- Java code generation enhancements
- Code respect and improved reverse engineering
- Base aware DiffMerge
- Automatic merging
- C rules-based code generation
- Powerful Rhapsody Simulink Integration
- Welcome window, improved user interface

Eclipse CDT Integration

Eclipse CDT Integration – Provides a seamless development workflow between the Eclipse CDT development IDE for coding activities and Rhapsody for model-centric activities. This integration synchronizes Eclipse and Rhapsody projects and editing environments to streamline the user's process. It provides a truly seamless development environment to enhance the code-centric developer's MDD experience.

Functional C Profile

The user interface enables C programmers to design at the graphical level using concepts and terms that map to the C programming language. This provides the typical C developer with a familiar look and feel. Embedded C developers leverage the benefits of Model-Driven Development at low risk and with a reduced learning curve.

Multi-language Development

Many of today's designs are developed using more than one language. A design may use C++ for the basic functionality, C for time-critical algorithms and firmware, and Java for the graphics. Rhapsody now enables a user to create designs that contain elements implemented in C, C++, and Java all in one model; users can now develop mixed language applications more easily.

Java Code Generation Enhancements

Rhapsody's Java code generation supports JDK 5 (1.5) generics and type safe containers, allowing Rhapsody users to produce code from a wider range of modeling constructs.

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Code Respect and Improved Reverse Engineering

Developers can either hand write or auto generate code, while leveraging all the benefits of modeling. In this release, users can now reverse engineer C++ code into a model that respects the order, location, and dependencies of the global elements in the original code. Rhapsody now automatically understands macros in code that will be reverse engineered. This promotes the reuse of legacy C and C++ code within Rhapsody, easing the adoption of Model-Driven Development while enabling a more code-centric workflow.

Base Aware DiffMerge

Projects often need to support multiple variants of an application and allow for parallel development. The new base aware DiffMerge allows a base development branch to be graphically compared and merged with two divergent branches, enabling support for multiple application variants while supporting parallel development. This capability significantly decreases the time required to integrate enhancements and modifications into the project.

Simulink Integration

Many embedded and real-time systems have to interact with a physical system that contains complex dynamic behavior. Simulink is the leading tool for dynamic control systems design. The integration of Simulink and Rhapsody

allows the user to include control algorithms and plant models developed in Simulink into Rhapsody designs, creating a true hybrid modeling, execution, and code-generation environment.

SysML Compliance

Rhapsody supports all SysML 1.0 diagrams and will include support for flowports simulation, requirement containment relation and diagram frames to provide a more detailed alignment with the SysML 1.0 specification.

Ease-of-use and Large Project Workflow Enhancements

Rhapsody is used by an increasing number of developers and systems engineers every day; the Rhapsody MDD environment is being deployed on large projects. To reduce the time it takes to design and develop models, this release includes many "ease of use" enhancements that will benefit users regardless of project size.

Systems Requirements

- Development host minimum CPU: Pentium II 800 MHz
- Development host disk space: approximately 750 MB
- Development host memory: minimum 256 MB RAM, 512 MB
- License Management Software: FLEXlm 9.2

About Telelogic

Telelogic® is a leading global provider of solutions for automating and supporting best practices across the enterprise — from powerful modeling of business processes and enterprise architectures to requirements-driven development of advanced systems and software. Telelogic's solutions enable organizations to align product, systems, and software development lifecycles with business objectives and customer needs to dramatically improve quality and predictability, while significantly reducing time-to-market and overall costs.

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