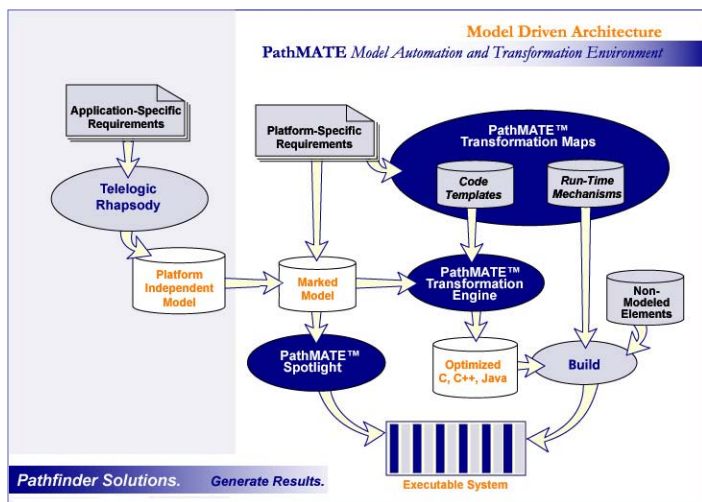


PI-MDD Project Startup Kit with IBM Rational Rhapsody

A complete solution for Platform-Independent Model Driven Development with Rhapsody

Building complex, high performance systems using Model Driven Development (MDD) calls for the right technologies. Developers face a spectrum of challenges, from hardware interfaces to architecture, each with its own unique problems and solutions. IBM Rational Rhapsody brings a broad set of capabilities addressing a wide range of these challenges with proven technology. Complementing this solid base, the **PI-MDD Project Startup Kit for Rhapsody** builds your project team capabilities to model high-level, platform independent components using UML standard action semantics and deploy them directly to embedded and other high performance target environments.



Extending the range of the MDD approach, PI-MDD brings Rhapsody users unique capabilities and features for direct MDA modeling and deploying high level system components. PI-MDD speeds development of high-level components, facilitates product-line strategies, brings executable models to non-programmers, and helps you build custom, optimized deployments to unique target environments.

“With PI-MDD, I focus on high-level objectives, requirements and overall architecture, not memory management and I/O details—I’m much more able to see and address system-wide issues.”

*Software engineer
Factory Control Solution Provider*

*Use these unique capabilities and features of **PI-MDD Project Startup Kit for Rhapsody** will rapidly bring your team proficiency to model and deploy implementation of higher-level system components:*

- Direct automation for constructing, checking and transforming platform independent models
- Complete support for specifying model actions using UML2 standard action semantics in a simple and extensible model-level language
- More abstract and simpler models in higher-level components
- Rules-based transformation of platform independent models directly to optimized code, formatted documents, xmi and xml for data interchange, or any ASCII form
- Consistent support across a range of UML editing platforms, including legacy and current Rational editors, building a base of consistent practice across diverse organizations
- Open, configurable, OMG MDA standards based approach
- Open, extensible environment, runs native in Eclipse

PI-MDD Project Startup Kit for Rhapsody packages these high-value products and services:

- **Effective MDD Training:** The Effective MDD class delivers a proven model-driven approach. Pathfinder Solutions has tailored each step to fit into an overall process for building complex systems. Giving you a simple, coherent, effective and proven approach, this course teaches your team what it needs to know to get your project done successfully and on schedule.
- **IBM Rational Rhapsody Developer:** Market-leading systems and software modeling environment, providing UML modeling capabilities for projects facing a range of real-world challenges.
- **PathMATE:** PathMATE transforms MDA Platform-Independent Models (PIMs) into high-performance embedded C, C++ & Java. Fully integrated with Eclipse and the Rational Software Developer Platform, PathMATE is the most open and advanced environment for the development and deployment of high performance systems.
- **Expert MDD Mentoring:** Our deeply experienced mentors come onsite to help your team by working with them directly as they use PI-MDD and Rhapsody to build and deploy your high-performance system quickly, with quantum gains in productivity and quality.

PathMATE™ for Rhapsody Features

Self Optimization

Unique to PathMATE Code Maps, this feature leverages the complete visibility into model-level actions afforded by platform independent models, automatically optimizing the implementation code as it is being generated. The Code Maps have complete and easy access to all action details - allowing them to provide a range of Self Optimizing capabilities:

- Self trimming of unused model elements
- Only build in run-time layer elements actually used
- Self-selection of optimal memory management, instance data storage and access mechanisms
- Generate tailored infrastructure code only when needed, avoiding unused constructs
- Efficient topology resolution, automatically using local accesses where inter-task and inter-processor mechanisms are not necessary.
- Transformation-time selection of optimal infrastructure services, generating compile time resolution where possible (instead of run-time resolution)

“For my high-level components, the PathMATE Code Map generates code that is 3 to 7 times smaller and faster than a code-in-the-model approach. The self-optimizing capabilities make a remarkable difference.”

Architect – Software Performance Team, DoD Surveillance System

Model Checking and Static Analysis

- Built-in model syntax, completeness and consistency checks
- Run-time performance, safety-critical, high-availability, and modeling consistency analysis (customizable for project-specific requirements)

Product Support

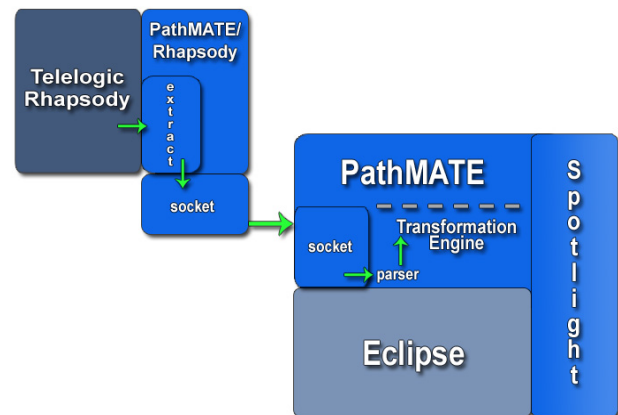
- PathTECH on-line tech resource site
- Systems engineering and software development training & mentoring
- Fully-executable sample systems

Documentation & Report Generation

- Generates formatted Word documents with injected diagrams
- HTML output for web-based collaboration and reference lookup
- XMI and XML output for data interchange
- Rich document template library provides a range of reports, and custom examples
- Fully customizable document generation.

Architectural Configurability

- Reconfigure across task & processor topologies for performance prototyping, varying product line configurations, etc.



Integrated with the Rhapsody extensibility interface, PathMATE runs on Eclipse platforms. To browse our wide range of supported deployment platforms, refer to the datasheets for PathMATE Transformation Maps for C, C++, or Java.

To access white papers, see demos or to request product evaluations, please visit www.pathfinderddd.com