

# all you need for product lines

## pure::variants for IBM Rhapsody®

### Variant Management for Complex Systems and Software Engineering

Systematic & Strategic Reuse of Architecture, Designs, Models

pure::variants for IBM Rhapsody® is an IBM Ready for Rational Software certified tool to manage variability in your architecture and help you create and maintain reusable UML and SysML models and software assets.

Enabling Product Line Engineering with Variant Management

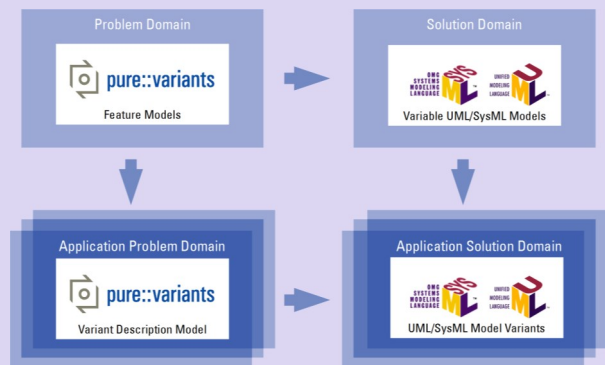
Related products frequently share much of the same software, with only a few differences realizing product-specific functionality. However, much of the challenge of developing related products comes from managing these differences. Variant management addresses this problem by enabling the development of a group of related products as a whole, rather than as individual, independent projects.

pure::variants is a purpose-built variant management tool. It manages your product line while integrating seamlessly into existing development processes and streamlines the processes of developing your product line as a whole while producing individual product variants.

Variant management is required in all stages of the development lifecycle. However, traditional software development tools are often focussed on single system development. pure::variants closes this gap by providing a model-based infrastructure for variability modelling and variant definition in all phases of systems and software development. This allows existing tools to be augmented to handle variability and variants more efficiently. With its open interfaces, variant information can be used consistently in requirements engineering, during systems design and implementation and also in testing.

pure::variants for IBM Rhapsody®

pure::variants supports variability management and model tailoring for IBM Rhapsody. UML and SysML model variants can be automatically created from a variable master project by feature selection in pure::variants. Architecture variability mapping and intrinsic rules related to optional, alternative, mandatory and related features ensure valid, accurate and consistent model creation. System architects and domain engineers are now enabled to share models with their team and drive effective and precise reuse within systems and software engineering.



Benefits of pure::variants for IBM Rhapsody®

- Easy-to-use "In-tool Editor" allows users to view feature models, map features to architecture design variation points, edit constraints and perform variant previews of models directly from within Rhapsody.
- Configuration, instantiation and automated generation of variant-specific Rhapsody models and configurations.
- Capture domain know-how about architecture and design variability and share this with other team members.
- Reuse architecture, designs, models and functions.
- Understand variability within architecture resulting in more efficient and leaner system design.
- Easy, precise and efficient configuration, assembly and tailoring of model variants with automated conflict detection and resolution during feature selection.
- Capture and analyse variation points within legacy systems to help support migration from code centric to model centric.
- Supports Rhapsody Gateway; integrates Requirements Engineering with pure::variants for IBM DOORS® to achieve traceability and consistency across systems engineering lifecycle.
- Enterprise-scalable open-standards based technology designed to be integrated with ALM and PLM, enabling Product Line Engineering for Systems and Software.

Supported Platforms

pure::variants release 3.2 (or newer)

IBM Rational Rhapsody® 7.5 / 7.6 / 8.0 / 8.1 (or later, see release notes)