pure::variants Professional for IBM Rational Rhapsody®
Variant Management for Systems and Software Engineering

pure::variants Professional for Rhapsody
pure::variants Professional for 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.

About 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 (known as a Software Product Line) 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 therefore streamlines the processes of developing your product line as a whole and producing individual product variants.
Variant management is required in all stages of Product Line development. 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 a system 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.

Variability Management and Reuse for UML and SysML
pure::variants supports variability management and model tailoring for IBM Rational 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 application engineering.

Benefits of pure::variants for IBM Rational Rhapsody®
- 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.
- Integrate model-based-development as part of a Software Product Line.
- Speed production of model-to-code and improve consistency and quality.
- Capture and analyse variation points within legacy systems to help support migration from code centric to model centric
- Integrate Requirements Engineering e.g. with pure::variants for IBM Rational DOORS® to achieve traceability and consistency across the systems engineering lifecycle.
- Enterprise-scalable open-standards based technology designed to be integrated as part of an end-to-end solution for Application (ALM) and Product (PLM) Lifecycle Management.

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