

all you need for product lines

pure::variants

Connector for MATLAB®/Simulink®

integrates variant management with MATLAB®/Simulink®

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 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. It allows to improve existing tools to handle variability and variants more efficiently.

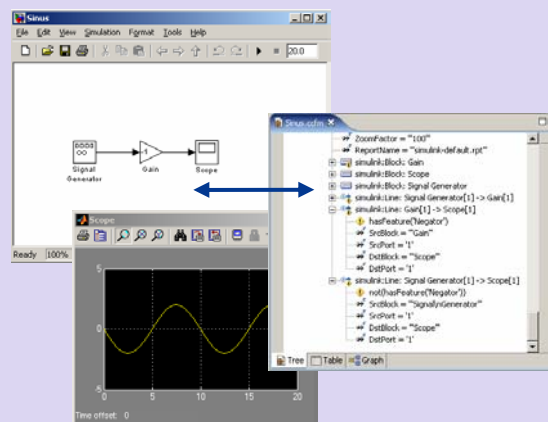
pure::variants Connector for MATLAB®/Simulink®

The pure::variants Connector automates the generation of variants of MATLAB®/Simulink® models. Model parameters and elements are adapted according to the specific variant.

pure::variants is a variant management system for management of variability in all phases of a system development. Using its open interfaces variant information can be used consistently in requirements engineering, during systems design and implementation as well as in testing.

The pure::variants Connector for MATLAB®/Simulink® permits the easy integration of variant management functionality into MATLAB®/Simulink®. Over interfaces models are exchanged between MATLAB®/Simulink® and pure::variants. Within pure::variants model elements can be connected to features using rules. Based on this rules and a valid feature selection

models are adapted. Blocks can be removed or added; and block parameters changed. Signals can be connected to different blocks depending on the feature selection. The transformation produces MATLAB®/Simulink® models matching the desired features.



Benefits of pure::variants Connector for MATLAB®/Simulink®

- powerful variability modelling language
- automatic conflict detection and resolution during variant definition
- automatic model variant generation according to requested features
- import of existing MATLAB®/Simulink® models
- update of pure::variants models after MATLAB®/Simulink® model changes

Technical Data

Compatibility:

pure::variants Developer Edition / Server Edition Release 2.0
(Win32, Linux, MacOS X)

MATLAB® 7.1 / Simulink® 6.3 (other releases on request)