

# all you need for product lines

pure::variants

## Synchronizer for DOORS®

### Integrated Variant Management for Telelogic DOORS®

Managing requirements for multiple product variants is a problem due to the difficulty of specifying how requirements may vary between products. DOORS® users now have a solution to this problem - pure::variants Synchronizer for DOORS® - an add-in for the pure::variants variant management toolset - that allows your existing DOORS® Requirements Models to be modelled as pure::variants Feature Models.

#### About Variant Management

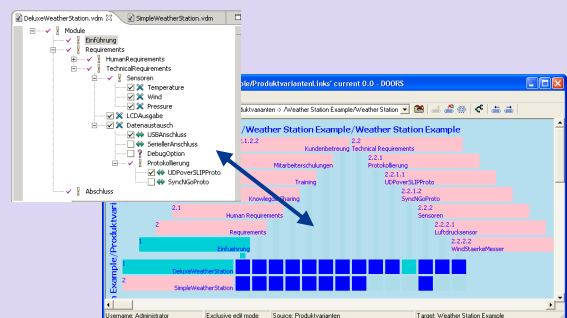
Related products frequently share much of the same software, with only a few differences realizing product-specific functionality. However, much of the challenge of developing related products comes from managing these differences. Variant management addresses this problem by enabling the development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

Although variant management is required in all stages of the development lifecycle it is especially relevant to Requirements Management since most differences between products are directly derived from requirements. For example, in many cases some requirements are only relevant for some product variants, and some requirements may be mutually exclusive. It also is very important to achieve full traceability between requirements and product variants for testing and change management. With full traceability, effort and risk estimates for software changes can be made much more accurately. Furthermore, changes affecting already-shipped products can be handled differently from changes affecting unreleased products.

#### How Synchronizer for DOORS® works

Modules in DOORS® are synchronized with pure::variants Feature models - these model what is common to all products in the product line and what varies between products in the product line. Additional relations and dependencies between requirements that have not been represented in DOORS® are then modelled in pure::variants. Individual product variants may then be

created using pure::variants and the results stored in DOORS® to record which requirements map to which variants. Changes to requirements models in DOORS® can be mirrored in pure::variants.



#### Benefits of pure::variants Synchronizer for DOORS®

- Uses your existing DOORS® Modules as the basis for Variant Management – no further work is required in DOORS® to get started.
- Supports traceability - makes it easy to report on which requirements have been incorporated into which variants.
- Allows you to check the integrity of your Requirements Modules e.g. by ensuring that you support variability where it is desired.
- Makes it possible, and easy to establish whether a particular combination of requirements is valid.
- Provides a rich language for modelling relationships and restrictions between requirements.
- Automatically detects and resolves problems when conflicting requirements specified.
- Enables requirements data to drive the software configuration process.

#### Supported Platforms

DOORS® 7.1, 8.0

(support for earlier releases available on request)

pure::variants Developer Edition / Server Edition 2.0

(Win32, Linux, MacOS X)