



Industry's First Integrated Requirements Management and SPL Lifecycle Framework Solution

Requirements management for a product line portfolio of similar products is exponentially more complex than for a single product.

The DOORS/Gears Bridge is the industry's first solution to provide fully integrated requirements management and software product line (SPL) lifecycle technologies. The Bridge's innovative capabilities offer a highly scalable alternative to the exponential complexity of common product-centric techniques:

- A single, consolidated collection of requirements for the entire portfolio rather than "clone-and-own" copies for each product.
- Requirement variations expressed using first-class variation points from the Gears SPL framework rather than convoluted low-level attribute scripting or one-size-fits-all text.

The increased efficiency provided by the DOORS/Gears Bridge enables you to deliver more new products and features faster, while reducing the development effort and optimizing product quality.

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Telelogic DOORS® / BigLever Gears™ Bridge Product Overview

Requirements management solutions provide the essential capabilities needed to communicate, collaborate and validate – throughout the product development lifecycle – that the “right product is built” and the “product is built right”. The problem becomes increasingly difficult when development organizations must define and manage requirements for a product line portfolio of similar products, rather than just a single product. Managing the diversity within the requirements for the different products in the portfolio is dramatically more complex.

The growth of software product line (SPL) engineering practice in the industry has increased the number of organizations faced with this challenge. The result is significantly greater demand for the integration of first-class product line engineering and requirements engineering tools and methods.

Now, with the integration of Telelogic's DOORS requirements management solution and BigLever's Gears software product line (SPL) engineering tool and lifecycle framework, the DOORS/Gears Bridge provides a simple and elegant solution for managing requirements across your entire product line portfolio.

Integrated Requirements Management and SPL Capabilities

The DOORS/Gears Bridge solution integrates Telelogic's market-leading requirements management tool into the Gears SPL lifecycle framework, enabling you to easily leverage the benefits of requirements management throughout your product line development lifecycle.

With the DOORS/Gears Bridge, you can utilize: 1) DOORS modules as first-class reusable assets in the Gears SPL development lifecycle, and 2) Gears constructs as first-class software engineering mechanisms for managing product requirement diversity in your product line, all within the context of the SPL framework.

More specifically, the DOORS/Gears Bridge allows you to:

- Use SPL mechanisms to manage requirement diversity for a full product line portfolio from a single, consolidated set of requirements, as a highly scalable alternative to clone-and-own, low-level attribute scripting and one-size-fits-all.
- Automatically configure requirements for individual products based on Gears feature profiles, in synchrony with other assets in all lifecycle stages.
- Convert any DOORS requirement into a Gears variation point to encapsulate SPL diversity – such as requirements options, alternatives and refinements.
- Use one or more DOORS modules in a larger collection of reusable core assets for the full development lifecycle of a Gears SPL portfolio.
- Perform integrated SPL operations – such as product configuration, variation point editing and variation impact analysis – directly from DOORS menus.





Features at a Glance

- Use DOORS modules in a Gears production line
- Convert any DOORS requirement into a variation point
- Edit logic for DOORS module variation points
- Run Gears actuator from within DOORS
- Execute Gears Membership to perform product impact analysis of requirements changes

Variation Point Types

- Optional requirements
- Alternate requirements
- Text substitution refinements

Product Versions

- DOORS Version: 7.1 – 9.X +
- Gears Version 5.5 +

Bridge Plugin Extensions

The DOORS/Gears Bridge solution takes the form of a dual plugin that provides the following extensions to each product:

Gears Plugin Extensions

On the Gears side, the Bridge enables you to include DOORS modules as another form of core asset within a Gears software production line. You can use the Gears product configurator to automatically configure DOORS requirements, based on your feature profile selections made within Gears.

Using DOORS modules as first-class SPL core assets, you can now automatically configure different instantiations of product requirements without having to clone-and-own.

DOORS Plugin Extensions

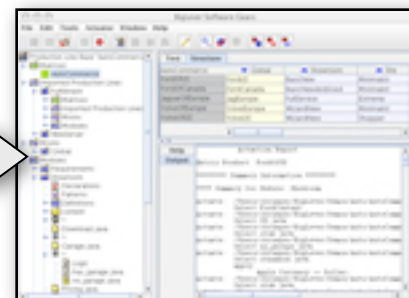
On the DOORS side, the Bridge allows any requirement within a DOORS module to be converted into a first-class Gears variation point. As a result, the diversity of requirements needed to describe the different products within the portfolio can be managed as variation points within the DOORS module.

Now, you can express the full feature diversity in requirements without the need for low-level attribute scripting or one-size-fits-all requirements collections.

Gears operations, such as product configuration and impact analysis – as well as creating, editing and managing variation points – are now available from within the DOORS menus.



Telelogic DOORS



BigLever Software Gears

Operating Systems

- Windows

The extensive strategic benefits offered by the DOORS and Gears synergy allow you to dramatically optimize your product line scalability while improving productivity and driving down product defect rates – all with faster time-to-market.

For more information regarding the DOORS/Gears Bridge, contact BigLever Software at info@biglever.com or Telelogic at info@telelogic.com.