



BIGLEVER NEWSLETTER: Special Announcement

BigLever Establishes an Open Industry Ecosystem for Product Line Engineering with the Release of Gears 7.0

Greetings from Charles Krueger, BigLever CEO:

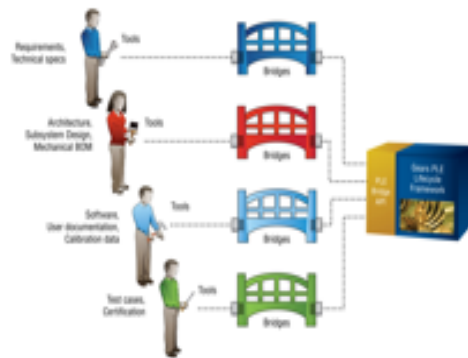
As 2nd generation systems and software product line engineering (PLE) is adopted across a broader range of industries, the need and desire to make more engineering tools "product line aware" likewise grows. Every organization we speak to about enhancing their PLE approach has their own preferred set of engineering tools, often coming from many different sources, that they would like to be part of their unified PLE solution.

To effectively address this expanding need for "product line aware" tools that work synchronously in unified PLE solutions, BigLever Software is delighted to announce the release of *Gears 7.0*. This new Gears release delivers a new API – *the PLE Bridge API* – that makes it easy for any Application Lifecycle Management (ALM) or Product Lifecycle Management (PLM) tool maker to integrate with the industry-standard Gears PLE Lifecycle Framework.

This new chapter in BigLever's PLE leadership establishes an industry ecosystem model for PLE. We have introduced a Bridge Partner Program designed to enable tool makers to become part of the expanding PLE ecosystem in order to help meet the increasing demand for unified PLE solutions.

With Gears 7.0 and PLE Bridge API, developers of commercial, open source, customized, integrated or proprietary engineering tools can create bridges between their tools and the Gears Framework by making their tools "product line aware". These bridges enable tools to work synchronously with other "product line aware" tools across the full engineering lifecycle. (Click image to enlarge.)

And, of course, BigLever supports the development of PLE Bridges with world-class experience and expertise, the Gears Bridge SDK, and the Bridge Validation process.



■ BigLever at IBM Innovate

As an IBM partner, BigLever will provide insight into the latest advances in product line engineering at this year's Innovate conference. BigLever's participation will include a case study session co-presented with Lockheed Martin and an industry panel discussion addressing the convergence of Application Lifecycle Management (ALM), Product Lifecycle Management (PLM) and Product Line Engineering (PLE) disciplines.

Innovate 2012

June 3 - 7, Orlando, Florida

Panel Discussion: The Convergence of Engineering Disciplines in Modern Systems Engineering

June 4, 4:15 PM - 5:45 PM

Panelists:

Dr. Charles Krueger, BigLever
Randy Skelding, Pratt & Whitney
Brian Wells, Raytheon
Tony Baer, Ovum
Mark Holt, IBM

Case Study Presentation:

Advances in PLE for Aerospace and Defense: Featuring Lockheed Martin and the Aegis Product Line

June 5, 10:30 AM - 12:00 PM

Presenters:

Dr. Paul Clements, BigLever
Susan Gregg, Lockheed Martin

Mega-Scale Product Line Requirements Engineering at General Motors

June 6, 4:15 PM - 5:15 PM

Presenters:

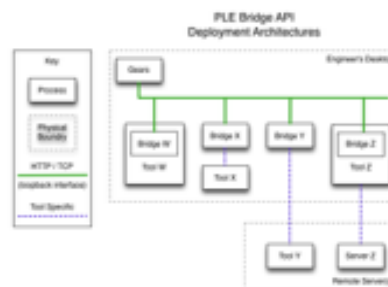
Dr. Charles Krueger, BigLever
Rick Flores, General Motors

Come see us at Innovate! Visit BigLever on the showfloor, booth

How does Gears 7.0 make your tools "product line aware"?

The fundamental characteristic that makes a tool "product line aware" is support for feature-based variation points in the assets managed by the tool. The Gears Bridge SDK enables you to extend your tool with support for variation points by building upon the primitives available in the PLE Bridge API.

- The Gears Bridge SDK provides the precise semantics and examples of the required structures and behaviors of a variation point. You decide which artifacts in your tool's assets should support variation points and then use the PLE Bridge API to extend your tool to provide the variation point support for these artifacts.
- The PLE Bridge API supports the full range of different variation point types found in native Gears: optional artifacts, variant artifacts, text transformation within artifacts, and table or spreadsheet variation.
- Variation points in your bridge become feature-based via the variation point Logic, the language that describes variation point behavior in terms of PLE features. Your tool users create and maintain variation point Logic using a Gears Logic Editor launched through the PLE Bridge API – this is what connects your variation points to the user's centralized product line features that are managed in the Gears PLE Lifecycle Framework.
- The primary responsibility of a "product line aware" tool is to configure shared product line assets into different product-specific instances of the assets, based on the product line feature combinations selected for each product. The Gears Bridge SDK describes how to connect your tool to the Gears product configurator through the PLE Bridge API.
- The Gears Bridge SDK describes the PLE-related commands that should be available from your "product line aware" tool and how to implement the commands with the PLE Bridge API.
- The PLE Bridge API is based on industry-standard REST over HTTP, making it easy to integrate with whatever technology you use to implement your tools. (Click image to enlarge.)



About the Bridge Partner Program and Validation Process

The BigLever Bridge Partner Program provides access to the Gears Bridge SDK -- a companion development kit that delivers the complete package of documentation, examples and support materials needed to quickly and easily build consistent, compatible PLE bridges.



With the Bridge Validation process, you can work in collaboration with BigLever to demonstrate, through a series of validation steps, that your bridge

integration fully supports the PLE capabilities defined in the Gears Bridge SDK. Validated bridge providers can display the BigLever Validated Bridge logo, in order to clearly convey that your bridge product fully supports the industry's best and most successful PLE practices.

If you develop or use an engineering tool that you would like to become

516, in the Ready for Rational Pavilion.

About BigLever and Product Line Engineering

As an industry thought leader, BigLever offers a variety of informational resources regarding new generation PLE solutions for systems and software, pragmatic PLE methodologies, and the latest real world PLE deployments.

Introductory Overviews:

- [Product Line Engineering Solutions for Systems and Software](#)
- [Reuse is an Event. Sharing is a Journey.](#)

White Papers:

- [The Systems and Software Product Line Engineering Lifecycle Framework](#)
- [The Pragmatic 3-Tiered Product Line Engineering Methodology](#)

Case Studies:

- [General Dynamics & U.S. Army](#)
- [Lockheed Martin](#)
- [HomeAway](#)

Analyst Reports:

- [Product Line Engineering: Underwriting ALM and PLM convergence](#)
- [Managing Quality in Product Line Engineering: An Automotive Story](#)

Getting Started

It can be difficult to decipher where to begin with your transition to product line engineering practice. The important question is... where do you start next Monday? BigLever has a practical, proven approach – and a special package offer – to help you get started.

>> [Learn more.](#)

About BigLever

BigLever Software, Inc.™ is the leading provider of systems and software product line engineering framework, tools and services. BigLever's patented Gears™ solution enables organizations to

"product line aware" and part of the PLE ecosystem, just e-mail me at my address below, or contact ecosystem@biglever.com.

Best Regards,
Charles W. Krueger
BigLever Software CEO
ckrueger@biglever.com

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reduce development costs and bring new product line features and products to market faster, enabling businesses to more reliably target and hit strategic market windows.

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