

BigLever's unmatched experience in helping organizations achieve product line engineering (PLE) success has enabled us to create a robust, repeatable path to organizational transformation: **onePLE™**. With **onePLE**, BigLever provides a single deliverable to your organization — a successful, fully-operational PLE capability with highly trained and skilled PLE executives, managers, technical leaders, and practitioners. **onePLE** can be applied at the enterprise, business unit, or product area level.

onePLE PACKAGE

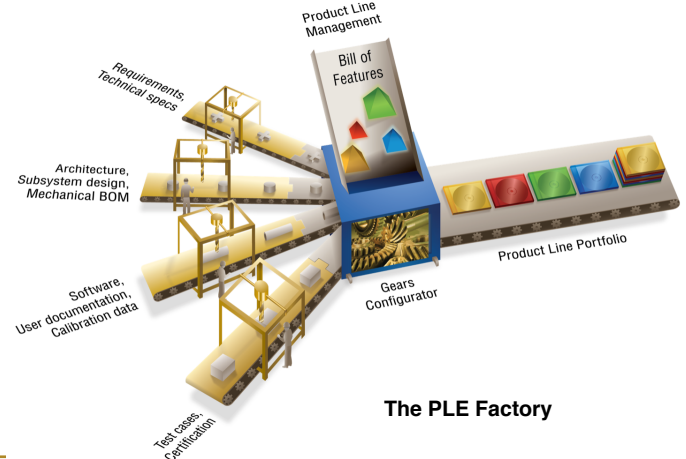
Your organization's PLE journey with **onePLE** includes:

- Gears and bridge **licenses** for all PLE practitioners
- Expert **mentoring** of PLE managers and technical leaders on designing, creating, transitioning, and operating the PLE factory
- **Organizational change** guidance based on the industry's most successful organizational change strategies
- World-class **expertise** and **guidance** for solve your organization's hardest PLE organizational and technical challenges

PLE FACTORY

onePLE delivers PLE capability based on the **factory** concept that underpins BigLever's industry-leading approach to successful PLE:

- **Shared assets** (left) are the engineering artifacts you use to develop, sustain, and operate your products.
- **Bill of Features** (top) specifies a product in terms of its features.
- **Gears configurator** (bottom) produces product-specific instantiations of the shared assets (right).



Transitioning to PLE means moving your organization to the PLE factory paradigm for the creation, production, and evolution of the products in your portfolio. BigLever assists you in building, staffing, and operating your PLE factory. As part of **onePLE**, we also help you establish a **PLE Center of Excellence** which provides invaluable support for your organization's PLE journey, and accelerates your transition, across the enterprise.

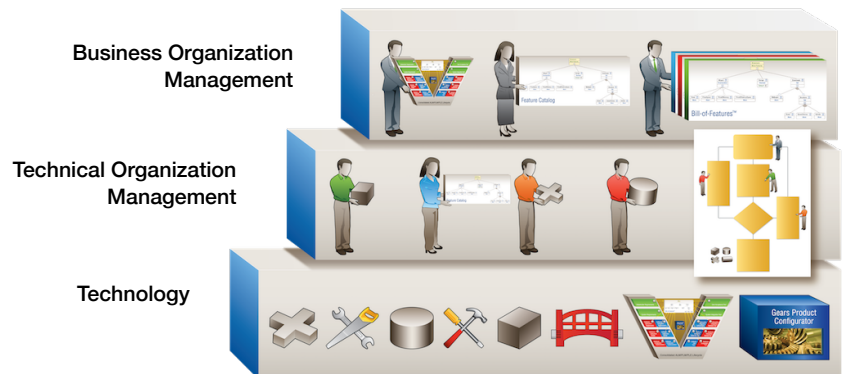
PLE LIVING BUSINESS PLAN

A **living business plan** for PLE is foundational for adoption success. **onePLE** includes the creation of a living business plan, which encompasses:

- **Multi-Level Scope:** How broadly will PLE be applied across the enterprise? What products will be brought under the PLE umbrella?
- **Guiding Coalition:** Who is the core group of champions guiding the PLE transition?
- **Importance and Urgency:** Why PLE? Why now? Establishing urgency is the #1 ingredient for organizational change.
- **Vision and Strategy:** What will the organization be like under PLE? How will we get there? PLE must be part of a business strategy, and supported by a PLE vision, owned by executive leadership.
- **Communication Plan:** How will the vision be shared with the organization at large?
- **Funding and Funding Plan:** How will the up-front costs be managed?
- **Roadblocks and Risks** to a successful adoption, with mitigation strategies.

3-TIERED PLE METHODOLOGY

BigLever's 3-Tiered PLE Methodology™ illustrates the three concerns that must be addressed in any PLE adoption:



Business Organization Management: Focuses on the people, roles, and processes that utilize and leverage the PLE Factory to achieve the business objectives of the enterprise, as well as on the required processes for leadership to establish the PLE Factory, and provide the necessary support for the PLE Factory during its operation.

Technical Organization Management: Focuses on the people, roles, and processes that operate the PLE factory. In combination with a technological infrastructure, this provides a fully operational Feature-based PLE Factory.

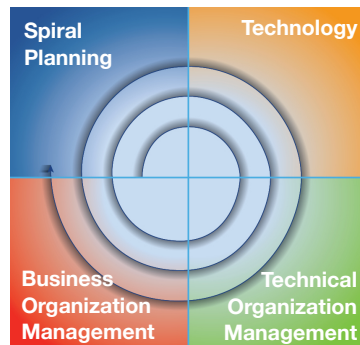
Technology: Puts in place and maintains the tool and technology environment to operate the PLE Factory.

ROLES, AND PROCESSES

PLE involves the establishment, operation, management, and oversight of one or more PLE Factories. These activities are performed by trained members of the organization, operating in defined roles, carrying out specific processes.

BigLever's onePLE Body of Knowledge for Feature-based Product Line Engineering is a web-based comprehensive body of PLE knowledge structured and available on-line for use throughout your organization.

SPIRAL ADOPTION PLAN



A **spiral adoption plan** enables a carefully-planned incremental PLE adoption strategy using a Spiral Adoption Model.

Organizations can take the journey to PLE in small steps that can be absorbed without disrupting ongoing production.

Each spiral defines a set of incremental milestones, achieved through activities in any of four quadrants. Each journey around the spiral enables new capabilities and benefits, bringing your organization closer to **full PLE capability**.

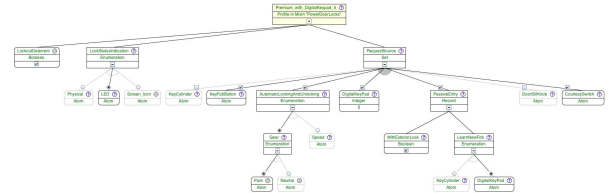
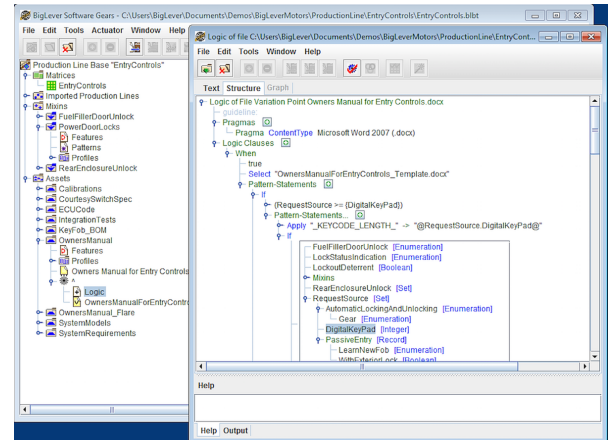
BigLever's Gears PLE Tool & Lifecycle Framework™ provides the technology foundation for **onePLE** and your PLE capability.

With Gears, organizations can engineer an entire product line portfolio as a single production system rather than a multitude of products. With this innovative “single system” capability, a product line can be developed, evolved and managed, smoothly and efficiently, through each lifecycle stage – from requirements to design, implementation, testing, delivery, maintenance, and evolution.

The Gears Framework provides a set of industry-standard PLE concepts and constructs that augment existing tools, assets and processes across the entire lifecycle:

- A **feature model** used to express the feature diversity (optional and varying feature choices) among the products in your product line.
- A **uniform variation point mechanism** that is available directly within existing tools and their associated assets, to manage feature-based variations in all stages of the engineering lifecycle.
- A **product configurator** for automatically assembling and configuring assets and their variation points – based on the feature selections made in the feature model – for producing all of the assets for each product within a product line with the push of a single button.

Gears provides a unique “console” – the **Gears Development Environment** – for managing the portfolio-specific facets of systems and software development including a powerful collection of browsers, views, languages, constraints, editors, dashboards, wizards, and analytical tools.



Powering an organization's PLE Center of Excellence is BigLever's **Body of Knowledge**, which contains detailed process descriptions for every aspect of Feature-based PLE — including all of the activities involved in establishing and operating your PLE Factory:

- producing your Living Business Plan and Spiral Adoption Plan,
- establishing and managing the PLE Factory,
- establishing the organizational structure for the PLE Factory,
- building a Feature Catalog and Bills-of-Features for your product line,
- engineering shared asset supersets with variation points and traceability,

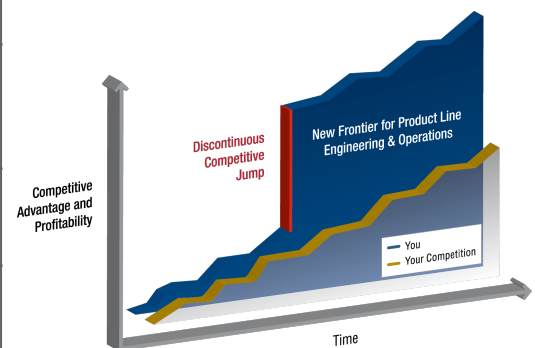
- using the PLE Factory to build and deliver products,
- managing change and product line temporal evolution,
- ensuring IP protection, and operating in a classified environment,
- funding policies for the PLE Factory,
- defining PLE metrics and measures, and much more.

Anyone in your organization can go to the Body of Knowledge, look up their role, determine its definition and the processes and activities for which they are responsible, and then undertake associated training. Training materials include specialized courses, best practices compendia, Quick Reference Guides, slide presentations, how-to videos, white papers, and more.

Customer	Driving problem	PLE results
Leading defense contractor	High cost of old approach threatened loss of contract	Over 100 deployments, \$47M in cost avoidance per year
Leading defense contractor	Innovative low-cost solution required to win and keep major contract	Over 300 deployments, \$800M cost avoidance over 12 years
Leading auto-maker	Vehicles taking too long to bring to market; expensive/error-prone processes	Will save “hundreds to thousands of man-years per year, worth 10s to 100s of \$M per year” for one asset type
Leading data storage company	Unable to accommodate growth in market	2x-5x improvements in scalability, productivity, time-to-market, and product quality
Leading online vacation rental	Broad variation in sites around the world; needed to go live ASAP	First product went live in 60 days

Product line engineering is delivering higher ROI and greater *competitive advantage* than any other systems or software engineering discipline.

onePLE aims at delivering that competitive advantage as quickly and reliably as possible.



The foundation of BigLever's **onePLE** approach is our proven Getting Started process, which centers on a pair of intense hands-on working events — the Technical Getting Started Workshop and the Business Getting Started Workshop. These two workshops constitute your organization's first step for establishing full PLE capability.

This Getting Started process enables you to stand up, fund, staff, and operate your PLE factory for producing your product line. For more information about how to Get Started with PLE, please contact BigLever at info@biglever.com, +1-512-777-9552.