

Lifecycle DNA

Making metrics-based
PLM investment decisions

Siemens PLM Software

www.siemens.com/plm



Siemens PLM Software's Lifecycle DNASM provides a closed-loop metrics-based framework for making business decisions about implementing product lifecycle management (PLM) and maximizing its return on investment.

SIEMENS

Assessing the business case for PLM

Product lifecycle management (PLM) is the only mission-critical business initiative capable of organically growing your revenue, as well as materially reducing your operational costs. Siemens' PLM solutions can transform your business processes by helping you bring profitable products to market ahead of the competition. To enable you to understand PLM in terms of your company's own business objectives, Siemens provides Lifecycle DNA – a closed-loop metrics-based framework that you can use to systematically make business decisions about implementing PLM and maximizing your return on investment.

Analysts agree that PLM has joined the ranks of enterprise resource planning (ERP), supply chain management (SCM) and customer relationship management (CRM) as one of the Big Four mission-critical IT investments.

CIMdata calls PLM “the most effective investment you can make to achieve product leadership.”¹ AMR Research says, “Companies committed to time to value in product innovation certainly cannot succeed without a sound PLM foundation.”²

But what does PLM mean to your company? Do you have to embrace PLM all at once? Can you deploy it in phases? Where should you start? How do you prioritize your PLM investment?

How do you benchmark your innovation processes against industry best practices? How do you make sure that PLM will deliver the business results you expect? What can you do to minimize your investment risk?

Understanding these and other business issues are crucial to the success of any PLM investment.

Siemens is the first PLM company to provide a proven framework for enabling decision makers to uniquely assess PLM from their own business perspective using metrics-based tools, models and methodologies.

Siemens calls this framework Lifecycle DNA – a systematic and repeatable approach to PLM decision making that enables you to transform your strategic business goals into process improvements that you can validate through quantifiable business results.

¹PLM: The True Killer Enterprise Solution, CIMdata 2003 PLM Conference

²PLM 2005: The New Game in Town is Time to Value, AMR Research, December 2004

Introducing Lifecycle DNA

What is PLM and why should it matter to you?

Traditional IT initiatives, such as ERP, SCM and CRM, are adopted to wring surplus cost out of the operational side of your business. But by themselves, these initiatives have not been able to increase a company's revenues or control expenses associated with managing your products across their active lifespan.

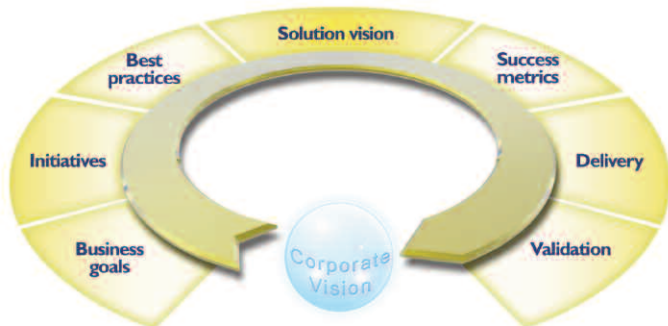
Companies need to leverage their people, processes and intellectual capital to accelerate new product development while simultaneously reducing operational costs. The goal of product lifecycle management (PLM) is to digitally transform the lifecycle that you use to conceive, design, manufacture, service and improve your product offerings. Siemens refers to this as "transforming the process of innovation."

PLM enables you to capture all of your product knowledge and leverage it in seamlessly integrated lifecycle processes that improve the efficiency of your product lifecycle from start to finish. PLM acts as a multiplier that delivers huge dividends for today's global enterprises.

Your product lifecycle and the enterprise that you employ to develop, support and improve your products are complex and diverse – they are comprised of many people, many processes and many IT resources.

Every gap that separates your enterprise produces a discontinuity that carries a price tag. Every improvement that integrates your lifecycle and brings people, processes and product knowledge together delivers a competitive advantage.

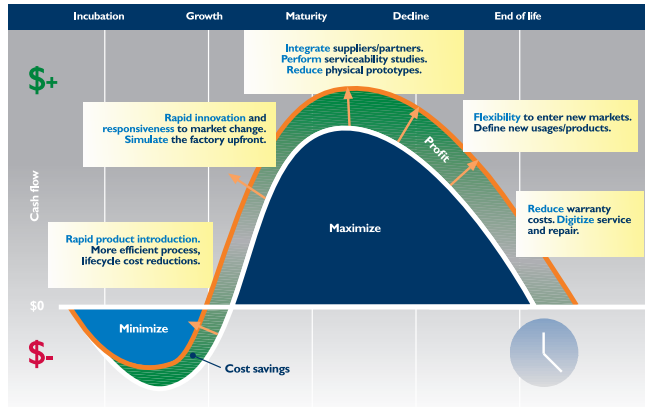
PLM is all about closing the gaps in your product lifecycle and optimizing your enterprise's varied resources.



PLM drives three strategic advantages

PLM is the only mission-critical initiative capable of reshaping your company's financial profile in the following ways.

- PLM maximizes revenue by enabling you to beat the competition to market with innovative content that justifies premium pricing while delivering first-to-market advantages that drive early sales.
- PLM slashes operational expense by enabling you to eliminate unnecessary rework, implement lean development initiatives, rapidly adjust to changing compliance regulations and reduce material, structural and warranty costs.
- PLM extends the profitable duration of your product lines by enabling you to cost effectively deliver product variants and derivatives.



Lifecycle DNA addresses the business case challenge

Like all mission-critical initiatives, PLM raises challenges for you as a decision maker. You can apply PLM to many aspects of your product lifecycle. Different people, different organizations and different processes can all benefit from PLM.

What are your highest PLM priorities? What PLM projects will deliver the biggest pay off? Where should you start?

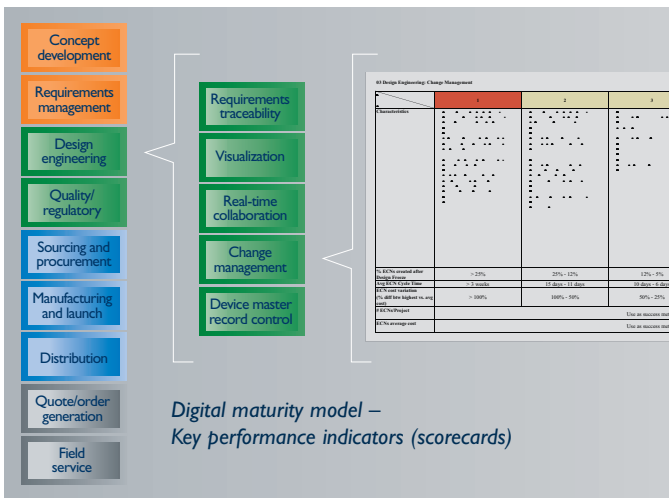
What decision-making process should you use to focus your PLM investment? How do you align your PLM implementation plan with your PLM business case? How do you measure the business benefits that you expect to derive from PLM?

The answer to these pressing questions is Lifecycle DNA – a rigorous and systematic decision-making framework that enables you to assess PLM from your own unique company-specific perspective.

Lifecycle DNA's basic concepts

Lifecycle DNA is an engagement methodology with a repeatable process for capturing, understanding and developing a PLM business case that embraces the client's voice. This process enables you to make effective business decisions that result in a PLM solution capable of delivering truly meaningful business results.

After years of working with leading Fortune 500 companies, Siemens consultants have developed – and validated – a closed-loop process that companies can use to prioritize PLM investments on the basis of their expected business value.



Lifecycle DNA leverages a straightforward holistic approach that results in a detailed roadmap you can follow to ensure:

- A rapid return on your PLM investment
- A delivered PLM solution aligned with your most strategic business goals and performance metrics
- Continuous improvement of your PLM objectives

Understanding your corporate vision and business goals.

Siemens starts the Lifecycle DNA process by working with you to identify your company's strategic objectives and understand the process improvement initiatives that drive your business units and their related functional disciplines.

Siemens can help you develop a hierarchy of explicit business requirements that link your corporate strategies, goals and objectives. This step ensures that everyone who participates in your decision making understands exactly what business goals your company wants to achieve *before* you actually invest.



Assessing your operational initiatives and applying best practices.

Siemens employs industry and operational benchmarking practices (through the Digital Maturity Model) to evaluate the effectiveness of your product development operations against industry best practices. You can work with Siemens to model the ideal performance of your product development operations – such as your requirements and product planning, concept engineering, product engineering, sourcing, manufacturing engineering, product test and quality, manufacturing production, distribution and logistics, and warranty management functions.



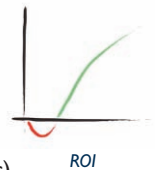
Then, you can quantitatively compare these best practices against the actual performance of your operations.

Lifecycle DNA is able to identify current impediments to product development efficiency and provide you with a list of operational targets that indicate where – in your product development operations – you can boost performance and gain the most improvement. Equally important, Lifecycle DNA ties these impediments and improvements to your overall strategies and business goals.



Developing a vision for your PLM solution and establishing its success metrics.

Once your product development issues are fully understood, Siemens consultants work with you to propose highly focused PLM solutions for your company. Siemens estimates the net benefits of the proposed PLM solution (expressed in terms of hard, soft and cost avoidance percentage improvements) and/or actual benefit recognition. Siemens' model focuses on productivity and performance gains that provide you with a basis for evaluating the proposed solution's business value. Lifecycle DNA tightly links these productivity gains to your business strategies and process initiatives – forming the business case for your PLM solutions. Lifecycle DNA reporting tools help you prioritize the proposed solutions according to the value they generate and their speed of payback.



Delivering your PLM solution and validating its business value.

Lifecycle DNA is unique among PLM methodologies because it provides a closed-loop framework for *continuing* to measure and validate your PLM business case. Instead of concluding with a justification step, Lifecycle DNA uses weighted success metrics to quantify the business value of your implemented PLM solution.



You can establish executive dashboards to verify that your PLM solution delivers these metrics once it is deployed, as well as across its active lifespan. You can use the dashboard as a “warning light” to inform you when changing business conditions affect your solution and require further optimization.

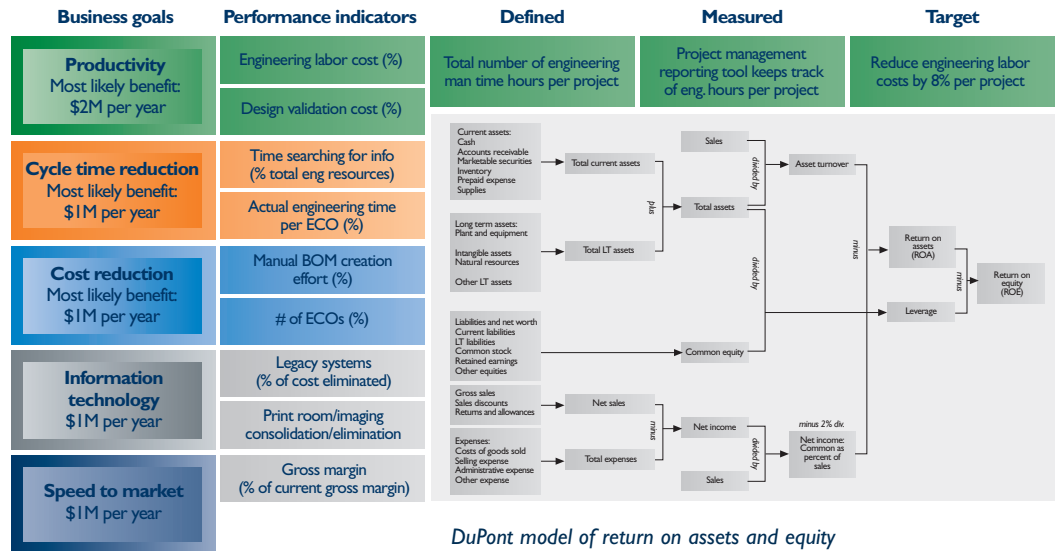


Lifecycle DNA's business value

Key business values

Today's mission-critical IT solutions have to be fully cost justified and aligned with tangible business value and quantified ROI targets.

- You want the technology that you implement to be linked to quantifiable business goals
- You know that mission-critical systems are a strategic investment that needs to be continuously assessed and improved
- You don't want any unpleasant surprises



DuPont model of return on assets and equity

How Lifecycle DNA delivers business value

Lifecycle DNA advantage

Delivered business value

<i>Systematic closed-loop process</i>	Lifecycle DNA is a closed-loop process that starts where your decision-making framework should begin – with the need to understand your company's most strategic business objectives. Then, Lifecycle DNA considers each and every step in your PLM business case. But, the Lifecycle DNA process does not end when you decide on a solution. It continues – just like your solution continues. Lifecycle DNA enables you to validate the business success of your solution – on initial deployment, when it is fully deployed and as it manages your product programs on an ongoing basis.
<i>Proven tools and proven models</i>	Siemens developed Lifecycle DNA's tools and business models by drawing on the experience gained working with the world's largest base of PLM users. Siemens is the market leader in PLM technology. Its experience is unsurpassed in terms of dealing with Fortune 500 companies who have implemented PLM solutions. The Digital Maturity Model has proven itself time and again in real-world situations.
<i>Strategic goals linked to process improvement</i>	Lifecycle DNA drills down into the operational backbone of your company to understand your business goals and priorities. It starts with your corporate objectives and then digs in to understand the process improvement initiatives that drive your business units and the daily operational considerations that affect your functional disciplines. Equally important, Lifecycle DNA can cover all aspects of your product lifecycle from product/requirements planning through engineering to downstream lifecycle stages, including your manufacturing and service operations. The scope and depth of this analysis ensures that your PLM solutions will deliver strategic, operational and individual improvements.
<i>Best practice-based benchmarking</i>	Lifecycle DNA compares the effectiveness of your product development processes with best practices that lead the way in today's global marketplace. This rigorous benchmarking helps you understand your competitive position and enables you to target your PLM solutions to high priority processes that can deliver the biggest operational boost.
<i>Ongoing validation of success metrics</i>	Lifecycle DNA enables you to establish success metrics that you can use to quantitatively measure the effectiveness of your implemented PLM solutions. Equally important, you can establish executive dashboards to continue this validation on an ongoing basis – thereby ensuring that your PLM solutions stand the test of time.

The Lifecycle DNA advantage

It is a fair and pertinent question to ask, *Why is Lifecycle DNA special?* Three compelling reasons stand out.

- Lifecycle DNA minimizes risk more effectively
- Lifecycle DNA uses success metrics to test and validate PLM's business case
- Lifecycle DNA produces an active model of your PLM investment strategy

Effective risk management. There are many reasons that Lifecycle DNA minimizes the risk associated with implementing a mission-critical PLM solution. For starters, Siemens' experience in delivering real-world solutions far exceeds its PLM competitors. No PLM vendor can match Siemens' record of proven success.

Experience managing risks in PLM projects

Presence of PLM vendor	Performance of PLM solution	Adaptiveness of customers culture
Reputation	Technology	Leadership
Geographic coverage	Execution	Resources
Industry focus	Financials	Training
Market share	Personnel	Project ownership

Source: Meta Group/Gartner

Lifecycle DNA is *enterprise scalable*. The world's largest installations of PLM users – including systems that service tens of thousand of users – employ Siemens' technology for product lifecycle management. Siemens consultants have repeatedly helped its customers address their highest business priorities first and then expand their PLM initiative over time as local, regional, or global extensions are needed.

Integral role of success metrics. Historically, the IT industry has done little to measure the effectiveness of pre-production stages in the product lifecycle. Lifecycle DNA shatters this limitation. Lifecycle DNA enables you to establish success metrics for your PLM solutions – quantitative measures that you can use to evaluate the productivity and process improvements that you expect to gain from your company's PLM solution.

Active model of your PLM investment. Lifecycle DNA establishes a visual model to align your business objectives with your recommended PLM solutions and the process improvement initiatives that drive your product development operations. This model evolves across your PLM decision-making process, as well as across your PLM

solution's entire lifespan. The model tracks PLM's ability to drive revenue, reduce lifecycle cost and facilitate process and product innovation. The model also uses the metrics that *you* select to measure your PLM solution's operational value – as well as the business criteria that *your* executive dashboards use to validate your solution's initial implementation and ongoing performance.

Lifecycle DNA is a methodology that *identifies* PLM issues and expectations in the earliest stages of your PLM decision process. Lifecycle DNA enables you to *constantly track* these expectations throughout every stage in your decision-making – as well as across every stage in the implementation process.

Siemens realizes that decision-making frameworks require *more than* just software. Professional expertise is the heart of every Lifecycle DNA project. Like all Siemens professionals, Lifecycle DNA consultants live by Siemens' well known credo – *We do not let our customers fail*.

No PLM vendor matches the comprehensiveness and flexibility of Lifecycle DNA's tool set and methodology. No other PLM vendor puts you in the driver's seat by enabling you to test PLM's business case with goals, metrics, and monitors set entirely at your discretion.

What's next?

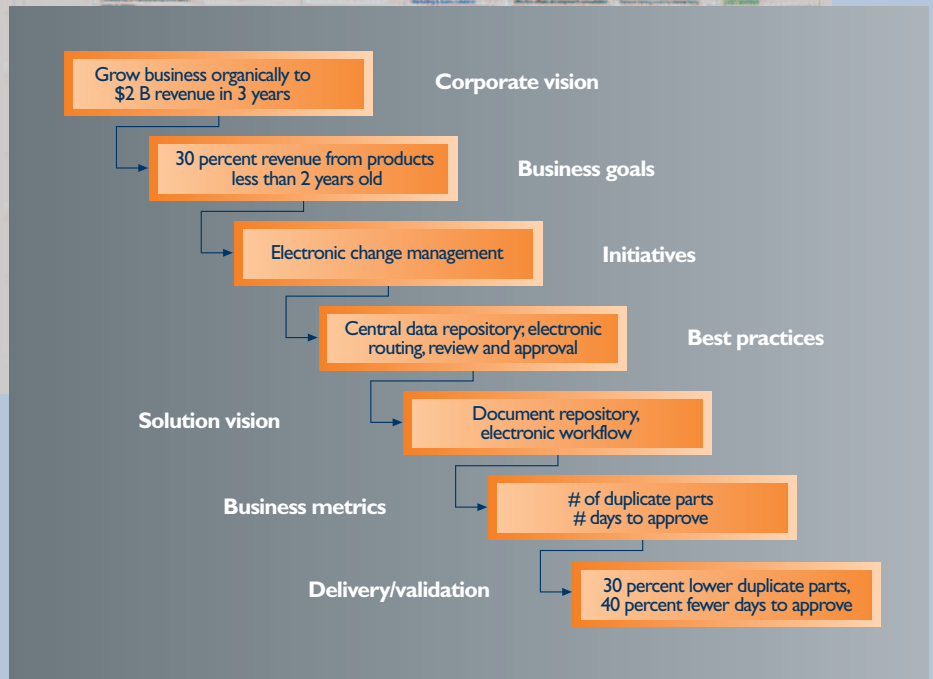
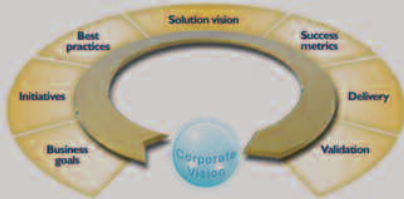
Through its Lifecycle DNA approach, Siemens offers a systematic and proven method for establishing a metrics-based business case for PLM and aligning PLM's implementation for maximum success. Skilled Siemens professionals have worldwide experience working with businesses and industries like yours. By closely collaborating with your people and taking advantage of their creativity and talents, Siemens can help you leverage PLM to improve the efficiency of your lifecycle processes.

Lifecycle DNA has been employed successfully many times to deliver sustainable improvements that enable companies to establish new standards for eliminating waste and unnecessary cost while increasing the ability of their products to grow revenue and enhance market share.

Contact your Siemens PLM Software account representative today to learn more about Lifecycle DNA – the world's best methodology and framework for making PLM decisions and validating PLM's promise.

Corporate Background	Things Done Well	Business Goals & Objectives	Needs & Risks
<p>Business Objectives: Increase revenue, improve customer satisfaction, reduce costs, improve operational efficiency.</p> <p>Strategic Initiatives: Digital transformation, market expansion, operational excellence.</p>	<p>Customer Satisfaction: High scores in surveys, low complaint rates.</p> <p>Operational Efficiency: Reduced cycle times, lower inventory levels.</p>	<p>Revenue Growth: Increase sales by 15% over the next 3 years.</p> <p>Cost Reduction: Reduce operating expenses by 10% over the next 3 years.</p>	<p>Market Expansion: Enter new geographic markets and increase market share.</p> <p>Operational Risk: Supply chain volatility, cybersecurity threats.</p>
<p>Market Position: Strong competitor, established brand.</p> <p>Customer Segments: Diverse, global reach.</p>	<p>Product Portfolio: Broad range of products, strong R&D pipeline.</p> <p>Operational Capabilities: Efficient manufacturing processes, strong logistics network.</p>	<p>Market Penetration: Increase market share in key regions.</p> <p>Product Development: Launch new products to meet customer needs.</p>	<p>Supply Chain: Dependence on key suppliers, potential for disruption.</p> <p>Regulatory: Compliance with global regulations, potential for changes.</p>
<p>Financial Performance: Strong revenue growth, healthy margins.</p> <p>Operational Performance: High efficiency, low waste.</p>	<p>Customer Loyalty: High retention rates, strong brand loyalty.</p> <p>Operational Excellence: Consistent quality, fast delivery.</p>	<p>Revenue Growth: Maintain growth rate of 10-15% annually.</p> <p>Cost Reduction: Continue to optimize costs without sacrificing quality.</p>	<p>Market Expansion: Identify and enter new markets with low risk.</p> <p>Operational Risk: Implement robust risk management strategies.</p>
<p>Market Position: Established leader in the industry.</p> <p>Customer Segments: Diverse, global reach.</p>	<p>Product Portfolio: Broad range of products, strong R&D pipeline.</p> <p>Operational Capabilities: Efficient manufacturing processes, strong logistics network.</p>	<p>Market Penetration: Increase market share in key regions.</p> <p>Product Development: Launch new products to meet customer needs.</p>	<p>Supply Chain: Dependence on key suppliers, potential for disruption.</p> <p>Regulatory: Compliance with global regulations, potential for changes.</p>

Major Initiatives	OPERATIONAL EXECUTION		SOLUTION ROADMAP		BUSINESS VALUE	
	Findings & Observations	Customer Quotes	Recommended PLM Solutions & Functions	Solution Value Summary	Operational Impact *	Financial Impact **
1. Product Development	<p>Product development cycle is too long, leading to delayed market entry and increased costs.</p> <p>Design changes are frequent and costly, indicating poor design stability.</p>	<p>"We need a better way to manage our product development process. It's too slow and too expensive."</p>	<p>Implement PLM solutions for product development, including design collaboration and change management.</p>	<p>Reduce product development cycle time by 20%.</p> <p>Reduce design change costs by 15%.</p>	<p>Improved time-to-market for new products.</p> <p>Reduced operational costs.</p>	<p>Increased revenue from new products.</p> <p>Cost savings from reduced development and change costs.</p>
2. Manufacturing Efficiency	<p>Manufacturing process is inefficient, with high waste and scrap rates.</p> <p>Quality control is manual and prone to errors.</p>	<p>"Our manufacturing process is wasteful and inefficient. We need to optimize it."</p>	<p>Implement PLM solutions for manufacturing efficiency, including process optimization and quality management.</p>	<p>Reduce manufacturing waste and scrap by 10%.</p> <p>Improve quality control and reduce defects by 15%.</p>	<p>Increased manufacturing efficiency.</p> <p>Reduced waste and scrap.</p>	<p>Cost savings from reduced waste and scrap.</p> <p>Improved product quality and customer satisfaction.</p>
3. Supply Chain Optimization	<p>Supply chain is complex and difficult to manage, leading to inventory issues and delivery delays.</p> <p>Supplier selection and management is manual and inefficient.</p>	<p>"Our supply chain is a mess. We need a better way to manage it."</p>	<p>Implement PLM solutions for supply chain optimization, including supplier management and inventory management.</p>	<p>Reduce supply chain complexity and improve visibility.</p> <p>Reduce inventory levels by 10%.</p>	<p>Improved supply chain efficiency.</p> <p>Reduced inventory levels.</p>	<p>Cost savings from reduced inventory and improved supply chain efficiency.</p> <p>Improved delivery times and customer satisfaction.</p>



About Siemens PLM Software

Siemens PLM Software, a business unit of the Siemens Industry Automation Division, is a leading global provider of product lifecycle management (PLM) software and services with nearly six million licensed seats and 56,000 customers worldwide. Headquartered in Plano, Texas, Siemens PLM Software works collaboratively with companies to deliver open solutions that help them turn more ideas into successful products. For more information on Siemens PLM Software products and services, visit www.siemens.com/plm.

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