

# Should IBM® Engineering Lifecycle Management v7.0 be in your future?

Assess your needs to find the answer

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## Complexity doesn't just reside in engineering today's connected digital products. It also impacts the engineering lifecycle and makes it harder to manage.

The aim is to get new products to market before anyone else, but there are challenges.

Software now drives everything. Connectedness and AI continue to change how businesses and the world work. Engineering and development teams are global and require greater levels of secure collaboration, while product safety requires a whole new level of sophistication. And yet, innovation must accelerate without compromising quality.

It all increases the scale of complexity in the products you're trying to launch:

- Importance of industry standards for safety-critical systems
- Quantity and difficulty of requirements
- Structure and size of architectures
- Number and depth of tests
- Exponentially growing lines of code

## Insightful engineering at enterprise scale

To develop complex systems and software, IBM Engineering Lifecycle Management (ELM) lets engineering teams focus squarely on **Requirements, Systems Design, Test Management, and Workflow Management**. It gives team members insights into the engineering data and processes they need. And especially with its enhanced capabilities for modeling and compliance, IBM ELM provides much more than Application Lifecycle Management.

### IBM ELM v7.0

With its v7.0 release, IBM has made ELM even better. For requirements, 7.0 improves data scalability, authoring and accuracy. It gives administrators and practitioners new flexibility to manage models and source code as well as documentation. For engineering operations that plan to grow, 7.0 makes configuration and management easier for requirements, tests, models and other engineering functions in significantly sized deployments. In essence, 7.0 is more fully baked than any previous version of IBM ELM.

The question is, should IBM ELM v7.0 be on your organization's radar?

**Our checklist can help you decide.**

# Requirements

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- Manage requirements using AI (IBM DOORS/DOORS Next/RQA)

- ✓ Reduce ambiguity, improve requirements accuracy/product quality
  - Capture, trace, analyze and manage requirements accurately

- ✓ Incorporate AI and analytics
  - Enhance operational data/customer insight to improve engineering decisions
- ✓ Maintain a single source of truth
  - Better understand the impact of changes

- Collaborate with manufacturers, designers, regulators, suppliers, others
  - ✓ Work more effectively across disciplines, time zones, supply chains
  - ✓ Get a more secure environment for collaboration and data sharing
  - ✓ Scale collaboration as needed
- Meet regulatory, compliance, process, reporting and audit requirements
  - ✓ Automate transparency and traceability
    - Example: ISO 26262 (automotive), traceability/accountability for software changes in real-time
  - ✓ Support compliance with safety-critical standards
- Improve the management of project scope
  - ✓ Your organization + supply chain

# Systems Design

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- Manage complexity and control risk throughout the product lifecycle

- ✓ Model Based Systems Engineering / MBSE (IBM Rhapsody/Model Manager)

- Maintain collaborative design, development, test environments for systems and software engineers
- Conduct continuous validation via rapid simulation, prototyping, and execution
  - ✓ Address errors earlier in the design process
  - ✓ Ensure that all requirements are tested at the model level through end to end traceability

- Enable agile systems engineering practices

- ✓ Iteratively create system architecture and behavior
  - ✓ Continuous verification and validation

- Reuse components to improve product line engineering efficiency

- ✓ Leverage validated golden models across the enterprise
  - ✓ Manage variation across the entire product family (built-in features)

# Test Management

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- Maintain engineering/product quality
  - ✓ Test planning
  - ✓ Test asset management
  - ✓ Automated test execution
  - ✓ Automation to speed project schedules
    - Report on metrics for informed release decisions
- Maintain full traceability from test, to models, to code and requirements
  - ✓ Ensure complete coverage of all requirements
- Support risk management best practices
  - ✓ Risk based testing - prioritize the features and functions to be tested based on importance and likelihood or impact of failure

# Workflow Management

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- Accelerate development
  - ✓ Ensure quality/reporting consistency across time zones, disciplines, and supply chains
  - ✓ Drive constant process improvements across multi-tier value chains
- Manage plans, tasks, project status
  - ✓ Manage dependencies across development projects (small, or complex)
  - ✓ Provide a critical link between required and delivered work
- Orchestrate processes at multiple speeds
  - ✓ Speed release cycles
  - ✓ Adapt to any process

- Flexible key process support
  - ✓ Templates available for a number of the most widely adopted processes
    - Scrum
    - SAFe
    - ASPICE
    - ISO26262
  - ✓ Customize process templates to meet the needs of any development organization
- Advanced configuration management
  - ✓ Advanced software version control
  - ✓ Integrated workspace management
  - ✓ Distributed source control
  - ✓ Parallel development
  - ✓ Automatic change tracking of artifacts
  - ✓ Mitigate work interruptions with suspend-and-resume feature

## Let ClearObject help you get to IBM ELM v.7.0

If ELM v7.0 becomes an objective, we'll move your existing engineering product development environment for you. We can even manage it if you'd like with our IBM ELM Managed Services offering.

As both an IBM Gold Business Partner and the sole managed service provider for IBM SaaS globally, ClearObject brings knowledge and responsiveness together in the form of the IBM development process and IBM Support. And as a single trusted source, we keep your environment for engineering product development healthy and performing at peak efficiency.



Contact us at [marketing@clearobject.com](mailto:marketing@clearobject.com)

### About ClearObject

ClearObject is a digital transformation leader in Internet of Things (IoT) Engineering and Analytics. As IBM Watson IoT and Google Cloud Business Partners, we deliver global embedded software development environments for our customers, and design and deliver unique data analytics digital products that help them recognize the value of their data. Our objective is clear: help the world's best companies build intelligence into their products and gain intelligence from them. The future is clear. Do you see it?

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