

IBM Rhapsody Systems Engineering

Turn complexity into a competitive advantage
with advanced system modeling

Highlights

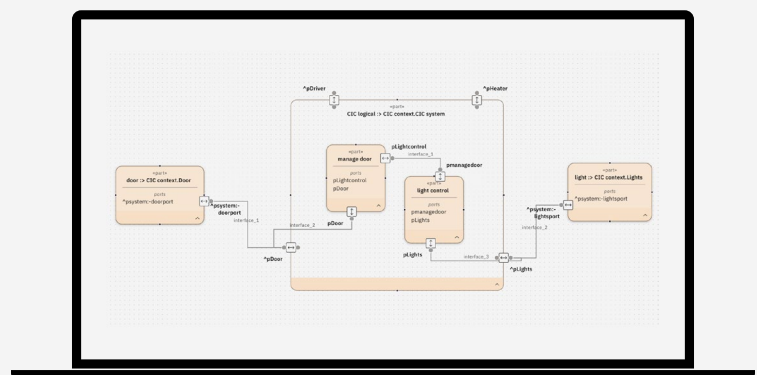
Employ SysML V2 and
modern workflows for the
design of complex systems

Facilitate effective model-
based design collaboration
across engineering domains

Enable a cross-domain
digital thread across the full
development lifecycle

Today's systems engineering teams deal with increasing complexity, which magnifies challenges in many areas, including functionality, quality, scalability, reliability and security. Connecting individual systems often results in unexpected results and increased risk. Systems engineering teams that analyze these concerns know that resolving them early is key to successful delivery of advanced capabilities and products.

IBM® Rhapsody® Systems Engineering (Rhapsody SE) is a new solution for systems engineering teams, enabling the development of smarter, more complex and more competitive products and solutions. Rhapsody SE addresses their key challenges of coordinating the overall technical design effort, furthering communication and alignment across teams and engineering domains, and ensuring that the overall solution satisfies stakeholder expectations and delights customers.





Employ SysML V2 and modern workflows for the design of complex systems

Although complexity often carries negative connotations, modern design languages such as SysML V2 and modern workflows can turn complexity into a competitive advantage. The SysML V2 standard was defined by systems engineers for systems engineers, and Rhapsody SE supports this standard and eases adoption. Its web-based architecture and SysML V2 APIs make it naturally extensible to add functional capabilities and automate analyses. You can also configure usage for users' specific needs, including modeling preferences, corporate modeling style guides, and specific completeness and correctness checks to improve quality and compliance.

Facilitate effective model-based collaboration across engineering domains

Rhapsody SE enables web-based design collaboration among engineering teams and their many stakeholders. Models are expressed in semantically rich SysML V2, with the digital thread extending to existing SysML V1 models. The solution fosters interactions with engineering teams using SysML V1 or unified modeling language (UML) and even with electrical/electronic (E/E) and mechanical engineering (ME) architects, helping them provide inputs to the systems engineering teams early in the development process. Such interactions help ensure the most appropriate allocations of functions to each downstream engineering domain along with the identification of the correct interfaces between engineering domains.

Enable a cross-domain digital thread across the full development lifecycle

With digital threads, you can assert and use relationships among engineering data managed in multiple tools, enabling an entire development process. Rhapsody SE is designed to help engineering teams mitigate the negative impacts of data silos in engineering. It does this by creating a digital thread on a linked data architecture called Open Services for Lifecycle Collaboration (OSLC) based on open standards, integrating across domains and in the context of versioned data and its relationship with the Global Configuration Management application. In this way, systems engineering teams can collaborate with stakeholders from all engineering domains and seamlessly hand off systems designs to downstream engineering teams for domain-specific design. At the same time, teams can maintain full digital traceability across the development process and domains and manage change across the whole initiative.

Conclusion

Rhapsody SE turns complexity into a competitive advantage by offering next-generation system modeling that's web-based, collaborative and customizable, integrating into the cross-domain digital thread of engineering artifacts. With its support for SysML V2 and the digital thread as well as extendable customization and collaboration, the solution empowers cross-functional teams to orchestrate technical efforts to satisfy stakeholders. It revolutionizes how organizations approach complexity, offering insights, efficiency and agility in tackling the most challenging systems engineering tasks.

Why IBM?

As a trusted global brand, IBM has an impressive track record of helping clients through digital transformation, focusing on areas that yield the biggest impact on their business and positively influence their corporate culture with technology. With unparalleled experience in solving the world's biggest business problems, IBM offers solutions and expertise wherever you are on your journey.

For more information

To learn more about IBM Rhapsody Systems Engineering, contact your IBM representative or IBM Business Partner, or visit ibm.com/products/rhapsody-systems-engineering.

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