

DRAW OUT THE BIGGER PICTURE

Leverage our advanced enterprise modeling solution to achieve operational resilience – and unleash the best of your financial services.



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PART 1 CATIA Magic

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Is your data lake fast becoming a data swamp?

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Financial services companies work within large, complex operational ecosystems that have grown over time with each new service, merger or acquisition. Making sense of these ecosystems' data and the hundreds of associated data-dependent business processes is essential to transparency and resilient operations.

Enterprise Resilient Modeling and Simulation leverages global model-based systems engineering (MBSE) solutions to provide a comprehensive enterprise data model for the most complex organizations. Companies can use this feature to gain dynamic visual insights, mitigate enterprise risks and eliminate operational pain points.

This is where Dassault Systèmes' CATIA Magic offers support. As a market-leading solution, it provides a standards-based means of communication that all parties can understand when describing problems and agreeing on solutions.



CATIA Magic is designed for enterprise system and data architects, ontologists, data analysts, data modelers and data and knowledge engineers.

Companies can use the solution to:



Enable modelers to create meaningful model elements with a single keystroke

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Allow users to quickly and easily model concepts without extensive training in formal description logic



Magic is the leader in the software and systems modeling world. It is an award-winning business process, architecture and software and systems modeling tool that is widely used in manufacturing, aerospace and defense, and high-tech industries. Today, adoption by large financial institutions is growing.

The key benefits of Magic include:



A wider understanding of operational landscapes



Generation of candidate mission architectures



Development of standards-based system-of-systems architecture that simplifies source selection



Better decisions on resource configurations that comply with capability requirements



Delivery of consistent and complete architectural descriptions



Automatic verification of capability requirements



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Enterprise Resilient Modeling and Simulation is based on Magic, which supports UML standards and the most popular programming languages for implementation. Unlike other UML modeling and architecture environments, Magic enables easier deployment of a software development life cycle (SDLC) environment that best suits the needs of your business.

Magic also supports the <u>Unified Architecture Framework®</u> (<u>UAF®</u>). Based on the Unified Profile for the Defense industry, the UAF defines ways of representing an enterprise architecture, enabling stakeholders to focus on specific areas of interest in the enterprise while retaining sight of their big picture. UAF meets the specific business, operational and systems-of-systems integration needs of complex commercial and industrial enterprises.

Our approach to standards and open API make it easier for you to integrate with congruent applications that best support those needs. What's more, Magic fully supports all architectural framework products, thus ensuring project results. The solution also leads the industry in usability and interoperability, allowing you to avoid unnecessary cost and schedule and performance risks.



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Properties of CATIA Magic



Development methodology agnostic The solution conforms to existing processes.



A well-designed GUI

It is intuitive and usable by a broad user base and provides a quick start.



Extensible

Its UML profiles and custom diagrams allow you to extend to fit your domain.



Central to MDD solutions It's the tool of choice for model-driven architecture.

Collaborative All users can work on the same model simultaneously.







Enterprise Resilient Modeling and Simulation also includes the Cameo Concept Modeler (CCM) that puts your business first by capturing expert business knowledge as concept models. By explaining concept models to everyone in plain English, the solution simplifies validation, consensus, understanding and training. It also provides the value of ontologies while hiding the formal model behind its appealing graphics/UI and generating plain English glossaries.

Ultimately, the CCM democratizes access to ontologies that non-technical business experts and knowledge engineers can easily understand and customize. It can also contribute to process standardization and optimization across the entire organization.



CCM is ideal because:





It enables architects to create new models of information from one overarching concept model. It unifies all kinds of models, such as models of requirements, data, business processes, systems, ontologies, database schemata, message schemata and object-oriented software. It allows advanced users to create and realize new models of information from one concept model while connecting existing models of information to concept models. Architects can also cherry-pick concepts and properties to create a closed-world information model for schemata and code generation. Part 1

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Quick learning with an intuitive interface

Easy access to the most common operations is a cornerstone of Magic's user interface. Since all major commands are reachable through a single click, you can easily focus on modeling. Choose your favorite one-click method from a selection of standard menus, context menus, shortcuts and toolbars. With Magic, you can complete your tasks with half the steps demanded by other tools.



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Fast diagram creation

Features such as on-diagram editing and automatic completion of attributes, operations, parameter types and pick lists for types and names render Magic indispensable. The solution enables you to work more swiftly than ever before as its unique Smart Manipulators support high-velocity diagram creation and editing.

Since Magic's automatic UML semantics-checking capability facilitates the creation of valid models, you will not waste valuable time correcting improper UML.



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Derivation of models from existing source codes in just seconds

Magic's reverse engineering principle is the fastest way to get UML models from Java, C#, C++, CORBA IDL, EJB 2.0, DDL, CIL (MSIL), WSDL, and XML Schema source codes. It takes only a few seconds. Meanwhile, the solution's automatic generation of sequence diagrams from Java source code adds a more detailed view of the system.



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Model visualization in a few quick steps

Magic's automatic generation of static structure, package dependency and hierarchy diagrams allows multiple views of the same model. You can automatically generate your hierarchy diagram with just a few steps – in mere seconds. This way, you do not have to spend hours doing the same work manually.

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Model-based collaboration

Using Magic's Teamwork Cloud, multiple developers can work simultaneously on the same model. This accelerates your team's collaboration while providing simple configuration management, controlled access to all your artifacts and remote access to your model. It is the optimal way to manage the model and avoid version conflicts.



Instant UML model-based source code

Magic generates code for Java, EJB, C#, C++, CORBA IDL, DDL, WSDL and XML Schema. Integrations with the most popular integrated development environments (IDEs) such as Eclipse, IBM WSAD and RAD, Borland JBuilder and IntelliJ IDEA, NetBeans and Sun Java Studio eliminate the need for a native Magic IDE. Since you can continue using your favorite IDE for coding, there is no need to waste valuable time learning a new one.

Whether you are using Magic as a standalone application or with an integrated IDE, you can leverage round-trip engineering to keep the model and code synchronized. Since Magic allows you to go further with code generation, it is the tool of choice for model-driven development. The solution integrates seamlessly with IO Software ArcStyler, AndroMDA and other MDD tools.





Automatic report generation

Magic's automatic report generation engine rapidly produces comprehensive professional requirements, software design documentations and other types of reports in HTML, PDF and RTF formats. All reports produced by the solution will match your software development process and templates right down to layout and format.



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Extends UML capabilities beyond UML 2

UML Profiles and custom diagrams allow you to extend standard UML to fit your specific problem domain. Quickly create custom diagrams that fit your software development process. At the same time, define your own custom toolbar for stereotyped element creation, thus accelerating your modeling effort.

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Work quickly between modeling domains

With Magic model transformations, you can quickly go back and forth from one modeling domain to another. Magic allows model transformations both ways: From a platform-independent model (PIM) to a platform-specific model (PSM) and vice versa. With these model transformations, you can produce many specific models such as XML Schema, DDL or even a customized specific model adapted from a generic one.





Quickly customized model navigation

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With Magic hyperlinks, you can link to any model elements, elements in other diagrams, different models, and files or documents outside of the model. This easy-to-use function helps you customize model navigation to address your specific needs. Use the content diagram to create an overview of your project diagrams' content in a single location.

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Dassault Systèmes, the **3DEXPERIENCE** Company, is a catalyst for human progress. We provide business and people with collaborative virtual environments to imagine sustainable innovations. By creating 'virtual experience twins' of the real world with our **3DEXPERIENCE** platform and applications, our customers push the boundaries of innovation, learning and production.

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