

What's New to MagicDraw in 18.4



Released on: July 29, 2016

MagicDraw 18.4 introduces new ways to get your most important modeling tasks done quicker and easier. Included in this update, expanded Teamwork Cloud integration features will help you collaborate more efficiently with your team. With the addition of Product Line Engineering Support, you can construct and visualize your models faster. A new plugin allows you to analyze your designs for safety and reliability. These are just a few of the new features which make us confident that version 18.4 will enhance your MagicDraw experience, making you even more productive. Download it today at nomagic.com or contact your sales representative, and don't forget to give us your feedback on [Twitter](#) or [Facebook](#).

Construction/Visualization

- Parts and Ports Management
- Rapid Element Creation
- Hierarchical Display Modes

Analysis/Simulation

- Safety and Reliability Analysis

Model Management /Collaboration

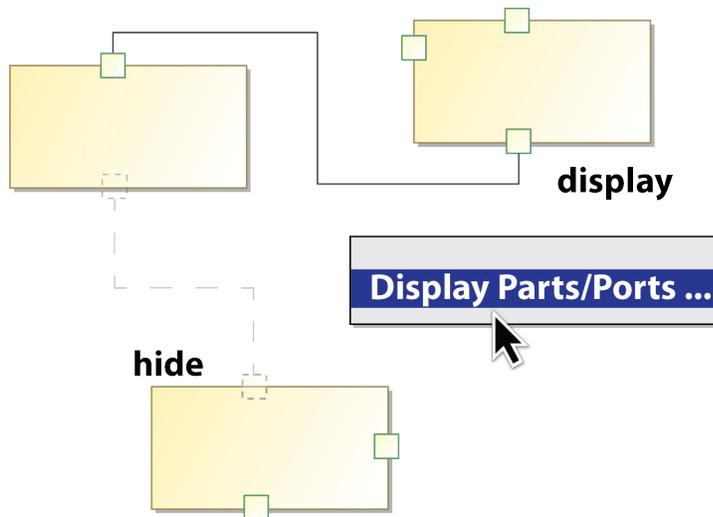
- Offline Mode for Server Projects
- Efficient Collaboration

Integration/Interoperability

- Product Line Engineering (PLE) Support

Managing and creating Parts and Ports on Composite Structure Diagrams (CSDs) has been simplified by combining the **Select Parts** and **Select Ports** dialogs into a single **Display Parts/Ports** dialog. This new dialog and **Display**

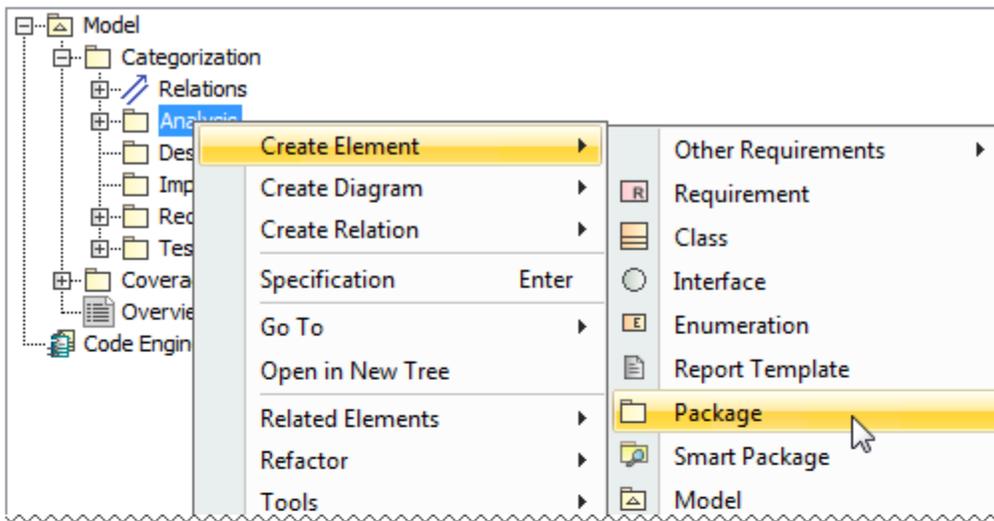
Related Elements button  allows you to display Parts/Ports and nested Parts/Ports, as well as hide Ports. New functionality has been added to allow bulk display of Parts and Ports based on metatype and custom stereotypes. These new features allow for a simpler workflow and increased speed and accuracy of internal structure creation.



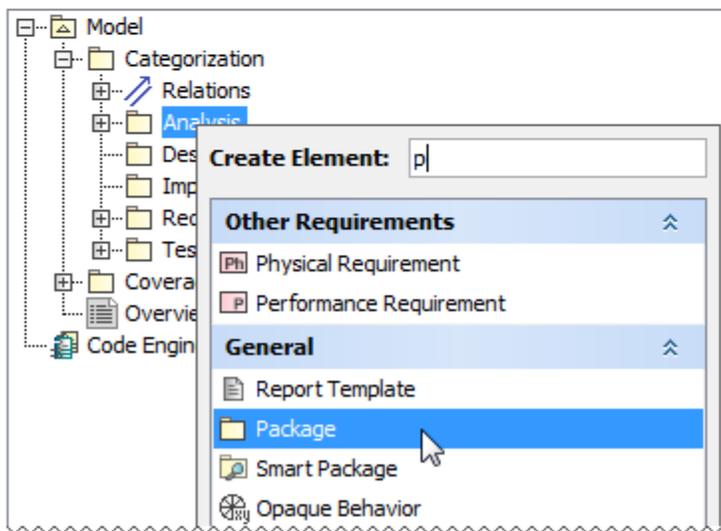
[Learn more about Parts and Ports Management>>](#)
[Back to top](#)

Rapid Element Creation

You can now quickly find the element you want to create using a new **Create Element** filter. When creating a new element, a dialog box appears to allow a quicker discovery of the desired element type. This dialog box reduces the number of steps for the most frequent actions such as creating diagrams, creating relationships, and refactoring. Figure 1 below compares element creation in previous versions of MagicDraw to the ease of element creation in MagicDraw 18.4.



In earlier versions

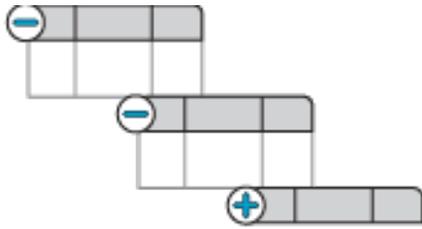


In version 18.4

Figure 1: Element creation in earlier versions of MagicDraw vs. the ease of element creation in version 18.4.

[Back to top](#)

Hierarchical Display Modes



Now you can manage, analyze, and review any amount of data in tables quicker and easier with the help of Hierarchical Display Modes. The content of any table can now be hierarchically displayed in a tree-like structure. Several display modes list rows hierarchically according to the elements containment:

- **Complete tree** mode displays elements with all their owners in the column header.
- **Compact tree** mode displays elements with their direct and common owners in the column header.

This feature allows you to see how elements relate to each other, a view not possible using plain lists in previous versions of MagicDraw.

[Learn more about Hierarchical Display Modes>>](#)
[Back to top](#)

Safety and Reliability Analysis (Technology Preview)

MagicDraw version 18.4 introduces a technology preview of the **Cameo Safety and Reliability Analyzer (CSRA)** plugin. CSRA enables a model-based approach to safety and reliability analysis. The plugin also supports the Failure Mode, Effects Analysis, Criticality Analysis (FMECA), and Hazard Analysis which conforms to IEC 62304 and ISO 14971:2007 medical standards.

Using **Cameo Safety and Reliability Analyzer (CSRA)** ensures:

- **Full customizability** allowing you to add your own data columns and customize risk calculation rules and reports.
- **Integration** into the No Magic MBSE toolkit.
- **Validation** if risks are addressed by safety requirements/risk control measures.
- **Quicker iterations** between safety analysis, reliability analysis, and design phases.

- **Traceability** from risks to requirements, design elements, and other artifacts, as well as traceability from design elements to FMECA and two-way traceability between FMECA and risks/hazard analysis.
- **Safety analysis**, automatic Risk Score Number calculations and risk reduction analysis.
- **Impact analysis** which automatically identifies failure modes needing attention from the hazard analysis cross-functional team.



[Learn more about Cameo Safety and Reliability Analyzer \(CSRA\)>>](#)
[Back to top](#)

When working on a model stored in Teamwork Cloud, you can now store an offline copy of a project, and commit project changes later. By clicking on the **Save Changes Locally** command in the **Collaborate** menu, you can disconnect from the server and reconnect later to commit your changes. Offline mode also allows you to work on several Teamwork Cloud projects at the same time, even if those projects are located on different servers. This new feature results in faster and safer modeling by allowing you to save incremental changes locally, continue modeling without a server connection, and reduce the amount of time spent committing those changes to the server.

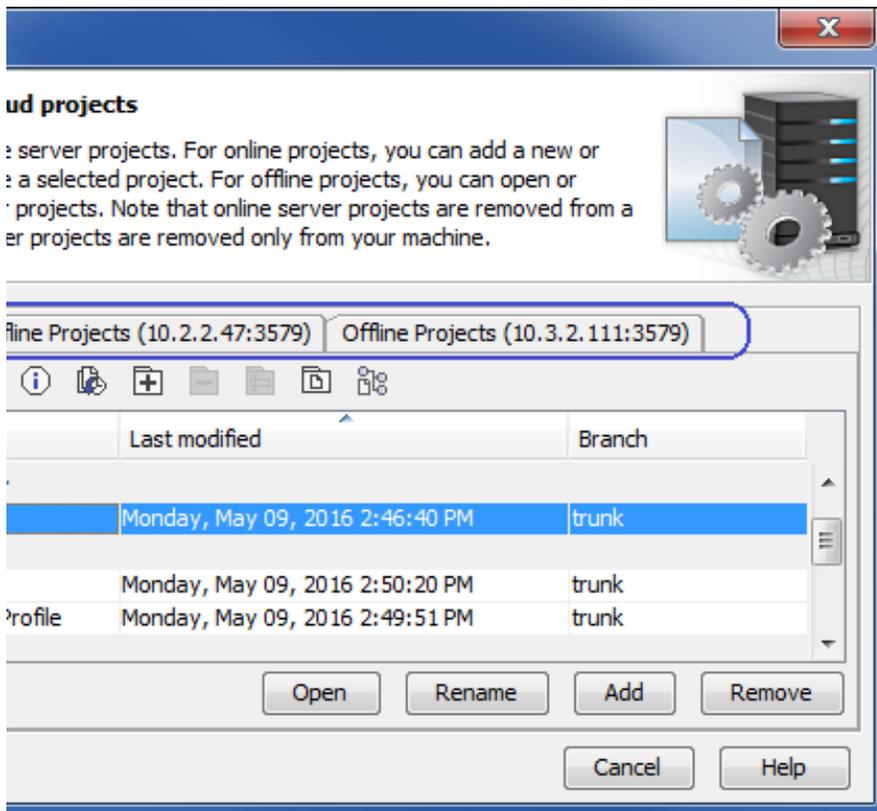


Figure 2: The Manage Projects window showing the multiple projects feature which allows you to have several Teamwork Cloud projects open at once.

[Learn more about Offline Mode for Server Projects >>](#)
[Back to top](#)

Efficient Collaboration with Teamwork Cloud

Many new features have been added to promote efficiency and clarity when collaboratively building models using Teamwork Cloud. The **Commit Project to the Server** window presents the changed elements during the local session in a nested tree view with simple navigation. You will now see a notification if another member of your team commits an update to the model on which you are working. Significant new functionality has been added for project administrators to manipulate **Project Usages** in Teamwork Cloud.

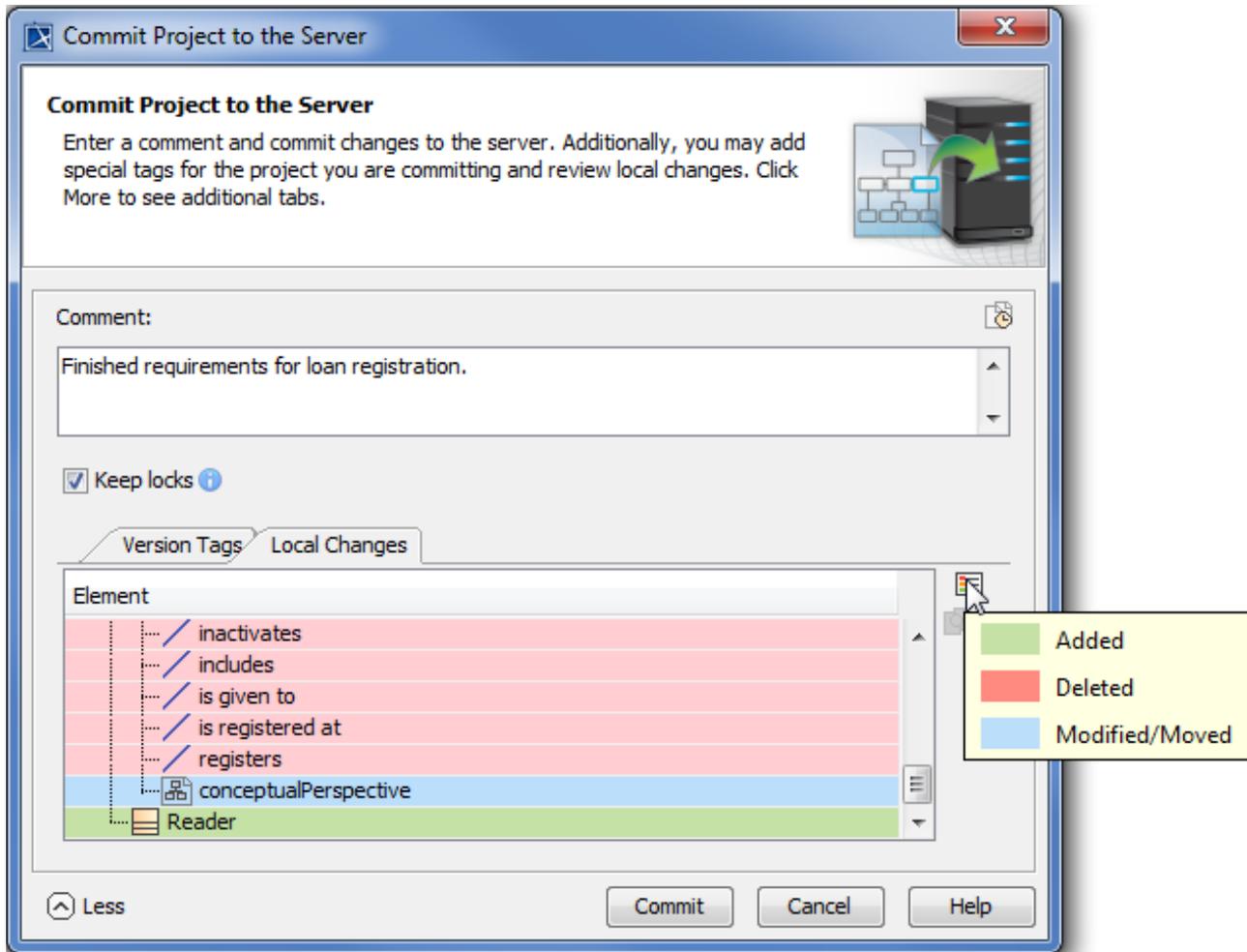


Figure 3: In the new Commit Project to Server window, all changed elements are highlighted in a color which corresponds to a particular action in the dialog box.

With these new features you can:

- Embed in local projects
- Remove a project usage (including standard/system profiles)
- Lock and unlock project usages
- Change or update sticky version of a project usage
- Reload usages from local project file
- Import a used project into the model

[Learn more about Collaboration with Teamwork Cloud >>](#)
[Back to top](#)

Product Line Engineering (PLE) Support

Version 18.4 of MagicDraw introduces support for Product Line Engineering (PLE) tools from Big Lever Software, Inc.™ and pure-systems GmbH. Users of the product-specific plugins for Big Lever Gears and pure::variants PLE environments benefit from the ability to dynamically create a system model of a particular variant. Through integration components that read the exact features contained in the selected variant, MagicDraw can “slice” a superset model containing all product variations, producing the system model with only the variant’s features.

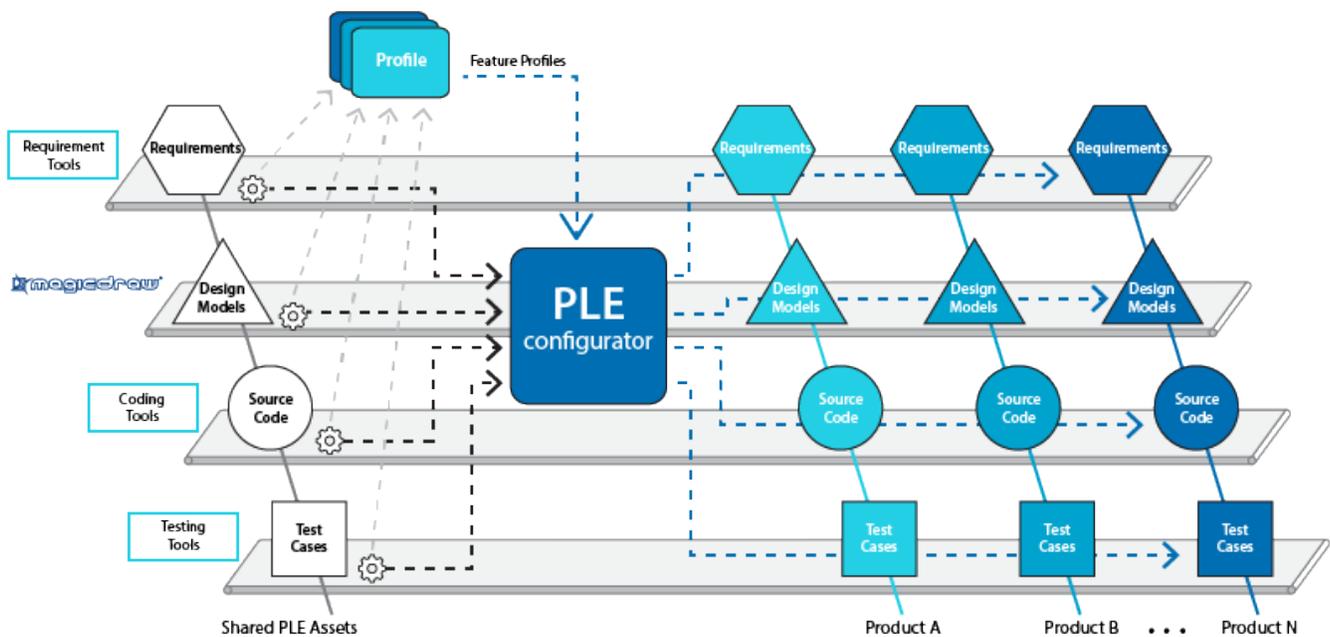


Figure 4: MagicDraw dynamically creates a system model of a particular variant.

[Back to top](#)

More Improvements

Customizable Implied Relation Operation has been improved by adding definable hierarchies that allow you to recursively collect elements, not only through generalization and composition, but any other available operation or combination of them. This feature allows you to then customize implied relation operation to meet your needs.

[Learn more about Customizable Implied Relation Operation >>](#)

Report Wizard now provides more flexibility by allowing you to:

- Generate reports from a specific Teamwork Cloud project version.
- Choose whether or not .svg graphics in **Web Publisher 2.0** reports are linkable or resizable.
- Retrieve information about used projects (modules).
- Utilize the new *Generic Table Export* template to dynamically export column elements of the Generic Table diagram.

[Learn more about using the Report Wizard >>](#)

MagicDraw 18.4 includes new modeling features and extended capability of existing features. Some of the new updates are a new smart manipulator toolbar, new drag-and-drop features, extended menu commands, and workflows.

Diagrams

Enhanced features for diagrams include the ability to:

- Display full-size images on symbols in a diagram. [Learn more about applying images >>](#)
- Hide multiplicities displayed next to the **Parts** or **Ports** type.
- Delete elements only from Smart Package content. [Learn more about removing elements from a Smart Package >>](#)
- Align multi-line body text of an Opaque Action to the left.
- Set UML Expressions that are used as **Property Slot** or **Default Values** to Read-only in online editor and diagram.
- Align text of tagged values and constraints on shapes.

Tables

- If the **Element Type** box is specified as a stereotype with an abstract metaclass, users can now select only stereotype's tags and metaclass properties as table columns.
- The Glossary table now supports capitalized acronyms. [Learn more about the usage of acronyms in Glossary table >>](#)
- The numbers of the elements can now be displayed in any table. [Learn more about displaying elements numbers in tables >>](#)

UI Improvements

- A new **Selection** toolbar in the diagram palette provides commands to select siblings, elements of the same type, elements with the same stereotype applied, elements that are all connected, are elements connected recursively, and all elements on the diagram.
- A new search field in the **Select Element Type** dialog allows you to easily find desired elements.
- Improved dialogs have been added for editing of time and date settings.

Other

- The program launcher on Mac OS X is upgraded. The correct application name is now shown in the Dock and Activity Monitor.
- UML Value Specifications are not recreated after modification. They are now used as values of Slots or default values of Properties.

CPU/Memory Profiler Plugin is not Supported

- As of version 18.4, MagicDraw no longer supports the CPU Memory Profiler Plugin. Instead, we suggest using the [Java VirtualVM](#).
 - [Learn more about using Java Virtual VM for solving performance issues>>](#)
 - [Learn more about using Java VirtualVM for solving memory issues>>](#)

Installation and Licensing

- The latest FlexNet license server version 11.13.1 is supported.

[Back to top](#)

