New capabilities

- OWL export for concept models can now be automated using MagicDraw macros or the command line.
- A concept model can now be exported to description logic (DL) notation in HTML or LaTeX.

New concept model library for well known ontologies

- CCM now includes a ready-to-use library of concept models corresponding to the following ontologies:
  - Dublin core metadata initiative (DCMI) properties and classes from the terms and elements 1.1 namespaces
  - The World Wide Web Consortium (W3C) recommended Resource Description Framework (RDF), RDF Schema (RDFS), and Web Ontology Language 2 (OWL 2) reference ontologies
  - Basic Formal Ontology (BFO) 2020 (ISO/IEC 21838-2)
  - The Open Biological and Biomedical Ontology (OBO) Foundry recommended Basic Formal Ontology (BFO) 2 upper level ontology
  - The Common Core Ontologies (CCO) 1.2
  - The DCMI and W3C ontologies are now available in every new project by default.
  - The BFO 2, the CCO and the BFO 2020 ontologies can be added to any CCM project as needed.
  - When importing a user ontology, the CCM will now detect and add any references to the model elements from the standard library.
  - Templates are now available for creating a project based on BFO, CCO, or DOLCE

New samples

- A 'Fair Trade Coffee' concept model provides a rudimentary definition of a fair trade coffee plantation.
- A 'Jurisdiction' concept model provides a jurisdiction-dependent definition of a child worker for the 'Fair Trade Coffee' model.

Usability improvements

- Freeze IRIs or Unfreeze IRIs context menu items now appear instantaneously, even for large models.
- Freeze IRIs and Unfreeze IRIs operations now display a progress bar.
- The Concept Modeling Diagrams section now appears at the beginning in the Create Diagrams context menu for «Concept Model» or «Model» packages.
- The containment tree now offers a context menu item that loads the profiles needed to make a Concept Modeling project.
- Upon creating a Concept Model using the "Create Concept Model" context menu item, the generated name is selected for editing.
- An «Equivalent Class» generalization is now drawn as an oblique line.
- Dragging a named property onto another property now displays a clearer tooltip of the available menu items.
- Importing and exporting individuals has now graduated to be a non-experimental feature.
- Selecting the top node in the property selection step of the information model transformation wizard now selects all its children recursively.

OWL import improvements

- An OWL objectOneOf restriction is now interpreted as an unnamed «Individual List» Class.
- A clearer error message is now shown if an owl:imports statement cannot be resolved.

OWL export improvements

- A «Same As» stereotyped dependency is now exported as an OWL SameIndividual axiom.
- A «Different From» stereotyped dependency is now exported as a pairwise OWL DifferentIndividuals axiom.

OWL export improvements

- Exporting an unnamed Association Class now emits a warning that the class will be ignored.

Model understandability improvements

- «Restriction» and «External Reference» stereotypes no longer clutter diagrams when initially applied to an element.

Natural Language Glossary improvements

- The project option for "Include property definitions in the Natural Language Glossary" is now set to true for new projects.
- The "Model-Generated Definition” subsection now includes definitions for unions, intersections, individual lists, domains, ranges, and «Self» restrictions.
- The "Model-Generated Definition” subsection now has updated definitions for complements, disjoints, equivalent classes, and restrictions.
- Each role entry definition now shows applicable domain, range, inverse, subproperty, subproperty chain, equivalent properties, and property characteristics.

Bug fixes

- Exporting an association with a datatype on one end no longer fails with an exception.
- Empty intersections or unions are no longer exported.
• An unnamed «Anything» class now shows the correct generated class description.
• An import summary message is no longer intermixed with other import notifications.
• Opening a project no longer results in a NullPointerException due to a missing 'Preferred annotation property' project option.
• Stepping back to the beginning of the information model transformation wizard now shows the selected information model package.
• Adding a new subproperty now updates the Subproperty Tree.
• A subclass is no longer exported as part of a union when a complete generalization set exists and its generalization is not part of the set.
• The Concept Modeling Support Library is now added to the project when creating a concept modeling diagram in a non-CCM project.
• The Create Concept Model context menu item no longer shows under a read-only package, a «Concept Model» package, or a «Model» package.
• Importing a named subproperty with a range of owl:Thing resulting in a min 0 cardinality no longer emits a warning that the cardinality is meaningless.
• Individuals from indirectly imported ontologies are no longer ignored.
• Round tripping a redundant qualified cardinality restriction through CCM is no longer optimized away.
• Adding the UPCM library during migration of a project on TWC no longer fails.
• An annotation on a foreign element no longer automatically moves into the same package as the annotated element.
• Importing a full disjoint mesh over a class's subclasses now results in a Generalization Set marked (incomplete.disjoint).
• Automatically generated association end property names are no longer duplicated within an owning element.
• Converting from the «Superclass Intersection» notation no longer applies the «Necessary & Sufficient» stereotype to an «Equivalent Class» generalization.
• Importing from OWL a datatype property that has an anonymous list of literals as its range no longer re-exports as a named list of literals to OWL.
• Generated descriptions of anonymous classes in the containment tree are now correctly updated when the model changes.
• Invalid keyboard shortcuts no longer clutter ‘Create Concept Model’ and ‘Export Model to OWL’ context menu items.

News of earlier versions
• What's New in Cameo Concept Modeler 19.0 LTR SP4
• What's New in Cameo Concept Modeler 19.0 LTR SP3
• What's New in Cameo Concept Modeler 19.0 LTR SP2
• What's New in Cameo Concept Modeler 19.0 LTR SP1
• What's New in Cameo Concept Modeler 19.0 LTR

Other resources
• Modeling Community Blogs
• Modeling Community Forum
• Webinars
• FAQ

AutoStyler news
• AutoStyler 2021x LTR
• What’s New in AutoStyler 19.0 LTR SP2
• What’s New in AutoStyler 19.0 LTR
• What’s New in AutoStyler 18.0 LTR SP13