



Automating NIEM Information Exchange With Cameo NIEM-UML

What is NIEM?

NIEM is an end-user driven, federally supported, government-wide initiative for broad-based information exchange. NIEM connects communities of people who share a common need to exchange information in order to advance their missions.

NIEM provides:

- A large community with a formal governance process
- Core and domain specific vocabularies of information exchange elements
- Detailed XML design rules and packaging specifications for describing information exchanges
- Training and support
- Tools for development and discovery
- Hundreds of existing exchange specifications

More on NIEM can be found on <http://www.niem.gov>

NIEM provides federal, state, local and tribal support for the following domains: Biometrics, CBRN (chemical, biological, radiological, nuclear), Children, Youth and Family Services, Cyber, Emergency Management, Human Services, Immigration, Infrastructure Protection, Intelligence, International Trade and Justice.

Introducing NIEM-UML

NIEM-UML is a new standard being completed in the Object Management Group (OMG) with the support of the NIEM program management office, key NIEM experts and experts in modeling and model driven architecture.

NIEM-UML leverages the highly successful Unified Modeling Language (UML) standard to facilitate NIEM information sharing, reducing cost, time and risk while improving stakeholder engagement and reuse. NIEM-UML enhances the NIEM suite of specifications by providing a standard for:

- High-level and business focused representations of NIEM using UML
- A UML “Profile” which tailors UML tools to precisely represent NIEM
- The NIEM domain and core reference vocabularies as UML models
- Automated generation of NIEM exchange specifications (Called IEPDs –Information Exchange Package Documentation and MPDs – Model Package Descriptions) from NIEM-UML models, complete with XML Schema, catalogs and documentation
- Constraints to validate NIEM conformance
- Support for NIEM naming and design rules (NDR) 1.3 and NIEM Model Package Description (MPD) specification 1.0.
- Reverse engineering of existing NIEM assets into UML

More on NIEM-UML can be found on <http://www.niem-uml.org>

Business Benefits of the NIEM-UML Plugin:

- Reduces complexity and learning curve
- Business stakeholder friendly for improved collaboration
- All core and reference vocabularies included
- Built-in support for reuse
- Automated production of NIEM technical artifacts
- Automated validation of NIEM conformance
- Full support for all NIEM constructs
- Integrates with process, services, requirements and other MagicDraw® UML diagrams
- Based on industry standards with readily available training, resources, tools and expertise

NIEM-UML Plugin

The Cameo NIEM-UML Solution

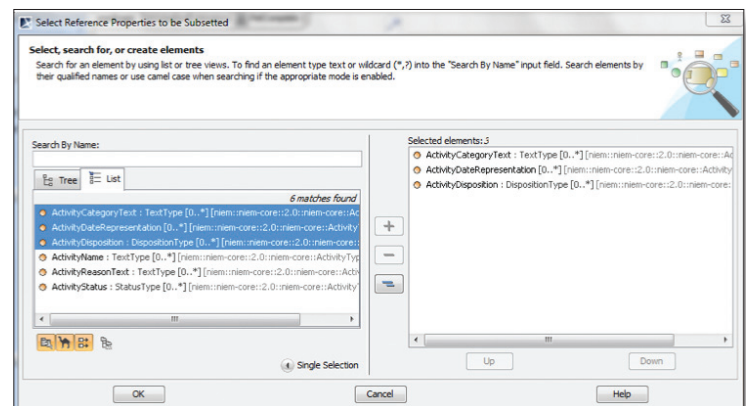
Cameo NIEM-UML implements the complete NIEM-UML specification with specific enhancements to make modeling for information exchange easier and more effective. The “learning curve” for NIEM architects and developers is sharply reduced since Cameo NIEM-UML automatically generates valid NIEM-XML Schema and NIEM model packages. If, for any reason, a model is not valid NIEM-UML, Cameo NIEM-UML clearly shows the user what needs to be changed.

Reuse is essential to NIEM and Cameo NIEM-UML is “reuse central”. Cameo NIEM-UML can read existing NIEM artifacts and produce a UML model ready for reuse. An essential feature of NIEM is the “subsetting” of reference vocabularies for the needs of a specific domain or exchange. Cameo NIEM-UML makes it easy to find, reuse and subset elements from reference namespaces and existing NIEM IEPDs. With Cameo NIEM-UML, subsetting and all subset dependencies are managed within the model for automated production of 100% correct NIEM subset namespaces.

Since Cameo NIEM-UML is part of the extensive No Magic Cameo suite, NIEM-UML models can be integrated with the full life cycle of information sharing and application development processes. NIEM-UML information models can be used in business processes, service specifications, use cases, interfaces, OO designs, DBMS designs and application components. Using the Model Driven Architecture (MDA) standards of the OMG, the Cameo suite can help automate the production of multiple technologies and application artifacts from UML models. For example, Cameo SoaML may be used to create complete service specifications that use NIEM exchanges. With Cameo NIEM-UML, 100% correct NIEM specifications and implementations can be produced in a fraction of the time it would take to create solutions manually.

Cameo NIEM-UML Features & Functionality

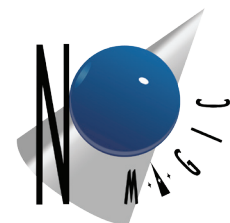
- Provides a visual environment for creating and using NIEM specifications
- All NIEM elements and features are supported, including: metadata, associations, roles, augmentations, code lists, simple types, unions, lists, restrictions, substitution groups and namespaces.
- The Cameo NIEM-UML Plugin for NIEM-UML makes NIEM easier to model and implement
- Supports reuse
- More than 50 NIEM reference models are included
- Includes a visual and automated way to create NIEM subset models using customized dialogs
- Validates that models conform to the NIEM specifications
- The extensive modeling features of UML assist with creating NIEM information sharing applications
- Automatically generates NIEM conformant XML Schema
- Creates standard Model Package Descriptions (MPD) including Information Exchange Package Descriptions (IEPD) with all catalogs and required artifacts
- Supports industry standard XML Model Interchange Format (XMI) for UML so models can be shared between UML tools



Select Reference Properties to be Subsetted

To learn how to benefit from our NIEM expertise, call us. We have the experience and insights to help you succeed. For more information go to: <http://www.nomagic.com/products/magicdraw-addons/niem-plugin.html>.

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