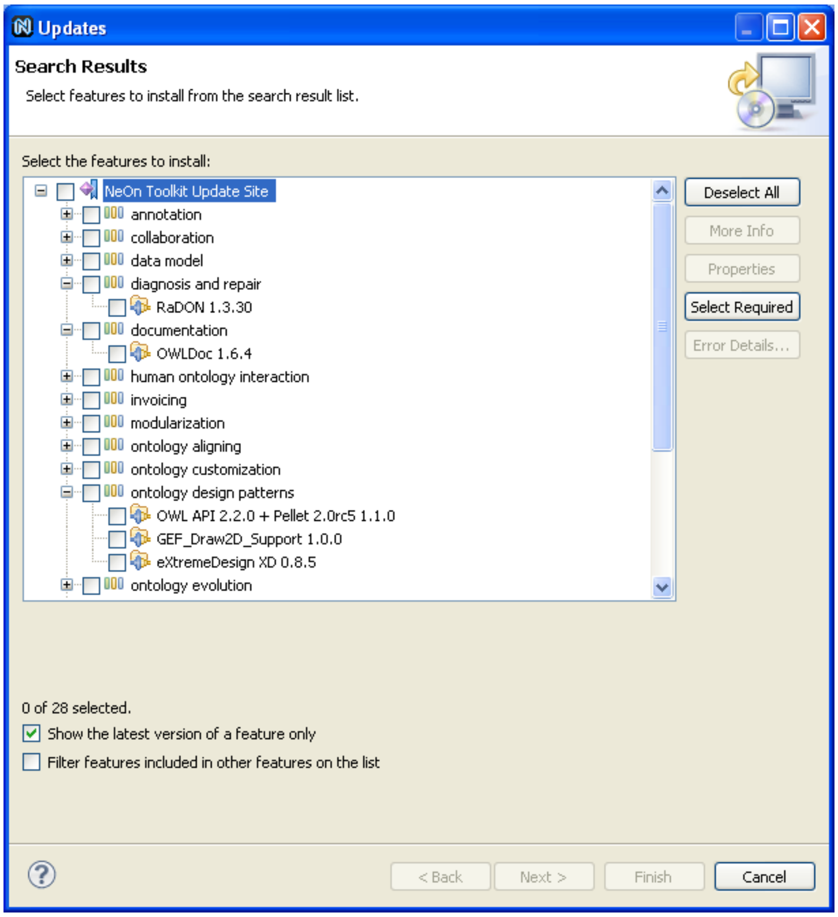
NeOn Toolkit Plug-ins

Authors: Andreas Harth, Walter Waterfeld, Holger Lewen

Introduction

The NeOn Toolkit core provides basic ontology import and editing functionality; users can easily extend the core functionality by downloading and installing separate plug-ins directly from the **NeOn Toolkit update site** (http://www.neon-toolkit.org).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Search Results

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Select the features to install:

- NeOn Toolkit Update Site
  - annotation
  - collaboration
  - data model
  - diagnosis and repair
    - RaDON 1.3.30
  - documentation
    - OWLDoc 1.6.4
  - human ontology interaction
  - invoicing
  - modularization
  - ontology aligning
  - ontology customization
  - ontology design patterns
    - OWL API 2.2.0 + Pellet 2.0rc5 1.1.0
    - GEF_Draw2D_Support 1.0.0
    - eXtremeDesign XD 0.8.5
  - ontology evolution

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Building on the flexible plug-in architecture of Eclipse, developers augment existing functionality and extend the Toolkit with entirely new plug-ins; in fact, most of the core functionality is also implemented as plug-ins, leading to a flexible architecture where different components coordinate via well-specified interfaces.

The core NeOn Toolkit defines extension points for all important aspects of ontology engineering like views, project and ontology handling, help and project management support. For the basic functionality such as OWL modelling, it provides appropriate APIs like a high level modelling API on the basic OWL API. NeOn Toolkit plug-ins use these APIs and realize these extension and thus provide a seamless integration into the overall NeOn Toolkit.

A flexible plug-in architecture is important because

- core development is decoupled from plug-in development, a crucial requirement in large, decentralised open-source development projects;
- in such a modular architecture components do not interfere with each other, which yields in a more robust application;
- licensing can be handled in a flexible manner, i.e., contributions can come from both open-source and commercial entities.

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NeOn-project.org

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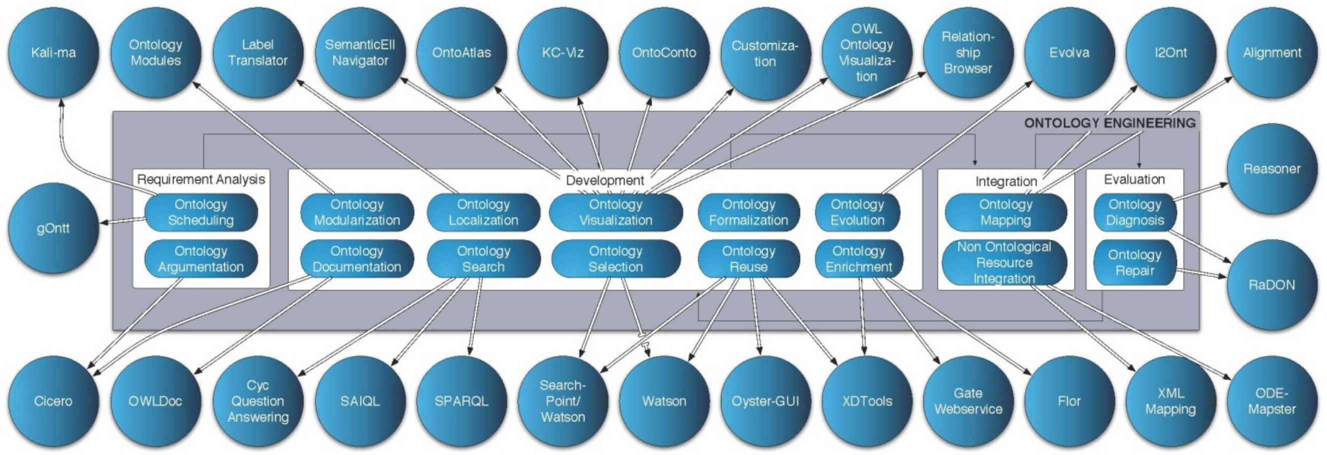
Set of plug-ins

The NeOn Toolkit provides an extensive set of plug-ins contributed by several partners inside and outside of the NeOn project, covering the complete life cycle of ontology engineering, including:

- Integration of non ontologicial resources such as relational databases and XML: for example, ODEMapster provides a graphical environment for mapping data residing in relational databases into an ontology-based format. Similarly, an XML mapping allows accessing XML documents as ontologies.
- Ontology reuse: for example, the Modularization plug-in allows segmenting existing ontologies into smaller modules, or combining modules with set-based operators.
- Visualisation: for example, the OWL Ontology Visualization plug-in renders ontologies using node-link graphs.
- Ontology Mapping: for example, the Alignment plug-in uses state-of-the-art alignment algorithms to automatically relate concepts and properties in ontologies to each other.
- Project management: for example, gOntt allows project managers to create a schedule for the ontology development involving other plug-ins; thanks to the flexible plug-in structure, gOntt can call and integrate the various plug-ins.
- Evaluation: the RaDON plug-in detects inconsistencies in ontologies and has the ability to repair them.



Additional information:

Contact person: harth@kit.edu

- ❑ Walter Waterfeld et. al. D6.2.1: Specification of NeOn reference architecture & NeOn APIs, NeOn project deliverable, February 2007.
- ❑ Peter Haase, Milan Agatonovic, Carlos Buil-Aranda, Mathieu d'Aquin, Mauricio Espinoza, Michael Gesmann, Qiu Ji, Chan Leduc, Klaas Dellschaft, Raul Palma, Jacopo Penazzi, Johanna Völker, Yimin Wang. D6.10.1: Realization of core engineering components for the NeOn Toolkit. February 2008.
- ❑ Peter Haase, Mathieu d'Aquin, Mauricio Espinoza, Qiu Ji, Chan Leduc, Klaas Dellschaft, Raul Palma, Johanna Völker. D6.10.2 Realization of core engineering components for the NeOn Toolkit, v2. November 2008.