

# CIM OWL Ontology

## • Introduction

Managing an IT environment requires the exchange of structured data between different agents. The <http://www.dmtf.org/standards/cim> (CIM) by the <http://www.dmtf.org/> (DMTF) is a comprehensive open standard that specifies how managed elements in an IT environment are modelled as a set of common objects and relationships between them. It has however limited support for knowledge interoperability and aggregation, as well as reasoning. By converting the existing CIM model into a format that can be processed by semantic web tools, these limitations can be overcome.

For this reason, we developed a tool that converts the CIM schema into an <http://www.w3.org/2004/OWL/> (OWL) ontology. The ontology includes CIM schema 2.23 and the [http://www.snia.org/tech\\_activities/standards/curr\\_standards/smi](http://www.snia.org/tech_activities/standards/curr_standards/smi) (SMI-S) 1.5.0 by the <http://www.snia.org/> (SNIA).

## Download

The ontology is available under dual licensing terms:

- For **educational** use, the ontology may be used under the terms of the <http://www.apache.org/licenses/LICENSE-2.0>. The ontology therefore is downloadable on an "as is" basis, without warranties or conditions of any kind. Please see the license text for further details.
- For all other uses, including proprietary, closed source applications and other commercial applications, the ontology is available under alternative license terms; please us.

### Release 1.0, July 2011

- CIM OWL Ontology [zip] [[../downloads/extern/oss/cimowl/cimowl.zip](http://wwwvs.cs.hs-rm.de/oss/cimowl/cimowl.zip)]

## Related Publications

- A. Textor; J. Stynes; R. Kroeger: "IT Management Using a Heavyweight CIM Ontology", Schloss Dagstuhl - Leibniz-Zentrum fuer Informatik, Germany, Kiel, Germany, 17th GI/ITG Conference on Communication in Distributed Systems (KiVS'11), Pages 73--84, Vol. 17, OpenAccess Series in Informatics (OASISs), Editors: N. Luttenberger; H. Peters, ISBN: 978-3-939897-27-9, March 2011

- <http://drops.dagstuhl.de/opus/portals/oasics/index.php?semnr=11000>
- A. Textor; J. Stynes; R. Kroeger: "Transformation of the Common Information Model to OWL", Springer Verlag, Current Trends in Web Engineering - 10th International Conference on Web Engineering - ICWE 2010 Workshops, Pages 163--174, Vol. 6385, Lecture Notes in Computer Science, Editors: F. Daniel; F. Facca, ISBN: 978-3-642-16984-7, July 2010  
<http://www.springerlink.com/content/h363x7j1u4182074/>
- Textor, Andreas: "Semi-Automatic Management of Knowledge Bases Using Formal Ontologies", M.Sc. Thesis, Cork Institute of Technology, Ireland

## Contact

Please contact Andreas Textor [[../mitarbeiter/details/a\\_textor.html](http://wwwvs.cs.hs-rm.de/opus/portals/oasics/index.php?semnr=11000)] or Reinhold Kroeger [[../mitarbeiter/details/kroeger.html](http://wwwvs.cs.hs-rm.de/opus/portals/oasics/index.php?semnr=11000)] for comments and questions.