



## Bericht der AG Modellierung

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Sprecher der AG

14. September 2007

- 35. Sitzung, 1. Juni, LVermA NRW
- 36. Sitzung, 27. Juli, IGG, Uni Bonn

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- CityGML-Spezifikation: Fertigstellung und Präsentation auf OCG-Meeting in Paris (9. - 12. Juli)
  - Best Practices Paper des OGC
- CityGML Wiki online (FZ Karlsruhe)
  - [www.citygmlwiki.org](http://www.citygmlwiki.org)
- Diskussion von Einzelfragen:
  - LoD-Assoziation: Reaktion auf Kritik
  - LoD-Konzept: Geometrie/Semantik

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## Main Page

# CityGML - City Geography Markup Language [edit]

The City Geography Markup Language (CityGML) is a new and innovative concept for the modelling and exchange of 3D city and landscape models that is quickly being adopted on an international level. CityGML is a common information model for the representation of 3D urban objects. It defines the classes and relations for the most relevant topographic objects in cities and regional models with respect to their geometrical, topological, semantical and appearance properties. Included are generalization hierarchies between thematic classes, aggregations, relations between objects, and spatial properties. In contrast to other 3D vector formats, CityGML is based on a rich, general purpose information model in addition to geometry and graphics content that allows to employ virtual 3D city models for sophisticated analysis tasks in different application domains like simulations, urban data mining, facility management, and thematic inquiries. Targeted application areas explicitly include urban and landscape planning; architectural design; tourist and leisure activities; 3D cadastres; environmental simulations; mobile telecommunications; disaster management; homeland security; vehicle and pedestrian navigation; training simulators; and mobile robotics.

CityGML is realised as an open data model and XML-based format for the storage and exchange of virtual 3D city models. It is implemented as an application schema for the [Geography Markup Language version 3.1.1 \(GML3\)](#), the extendible international standard for spatial data exchange issued by the [Open Geospatial Consortium \(OGC\)](#) and the [ISO TC211](#). CityGML is intended to become an open standard and therefore can be used free of charge.

The CityGMLWiki is an open portal to publish and share information about CityGML. However, it is not the official website of the CityGML. Please find the official website of CityGML at <http://www.citygml.org>.

**Welcome to CityGMLWiki!** [ Edit ]  
CityGMLWiki is an open portal for all kind of information around CityGML. Good authors are always welcome – the first steps are very easy! Don't hesitate to login (please use a proper name) and add, correct, and modify the pages. All matters are subject to [GNU Free Documentation Licence](#).

**Note!** [ Edit ]  
As OGC is an international organisation and CityGML is an international development authors are kindly asked to contribute articles in English. However external references may include information and documents provided in different languages.

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## Current News [edit]

July 12, 2007 The OGC Technical Committee has approved the CityGML Specification version 0.4.0 as an **OGC Best Practices Paper** at its meeting in Paris. Therefore, CityGML is an **official position of the OGC membership** on 3D city modelling. The Specification document ([OGC Document No. 07-062](#), PDF 9.8MB) can be freely downloaded from the [Best Practices Paper section](#) of the [Open Geospatial Consortium website](#). Within OGC, CityGML is discussed and further developed within the [3D Information Management \(3DIM\) Working Group](#) (formerly CAD/GIS Interoperability Working Group). A Change Document tracking the changes from the previous CityGML version 0.3.0 ([OGC Document No. 06-057r1](#), PDF 3.1MB) to CityGML version 0.4.0 can be obtained [here](#) (PDF 4MB). Please note, that this document is not an official part of the CityGML Specification. It is only intended to give an informative and informal overview of the significant changes and to reflect the discussions on received change proposals and comments.

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- Kritik von J. Herring (Oracle): nicht UML-konform
  - Anregung: Ersetzung durch qualifizierte Assoziation

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## 1.) LoD-Assoziation

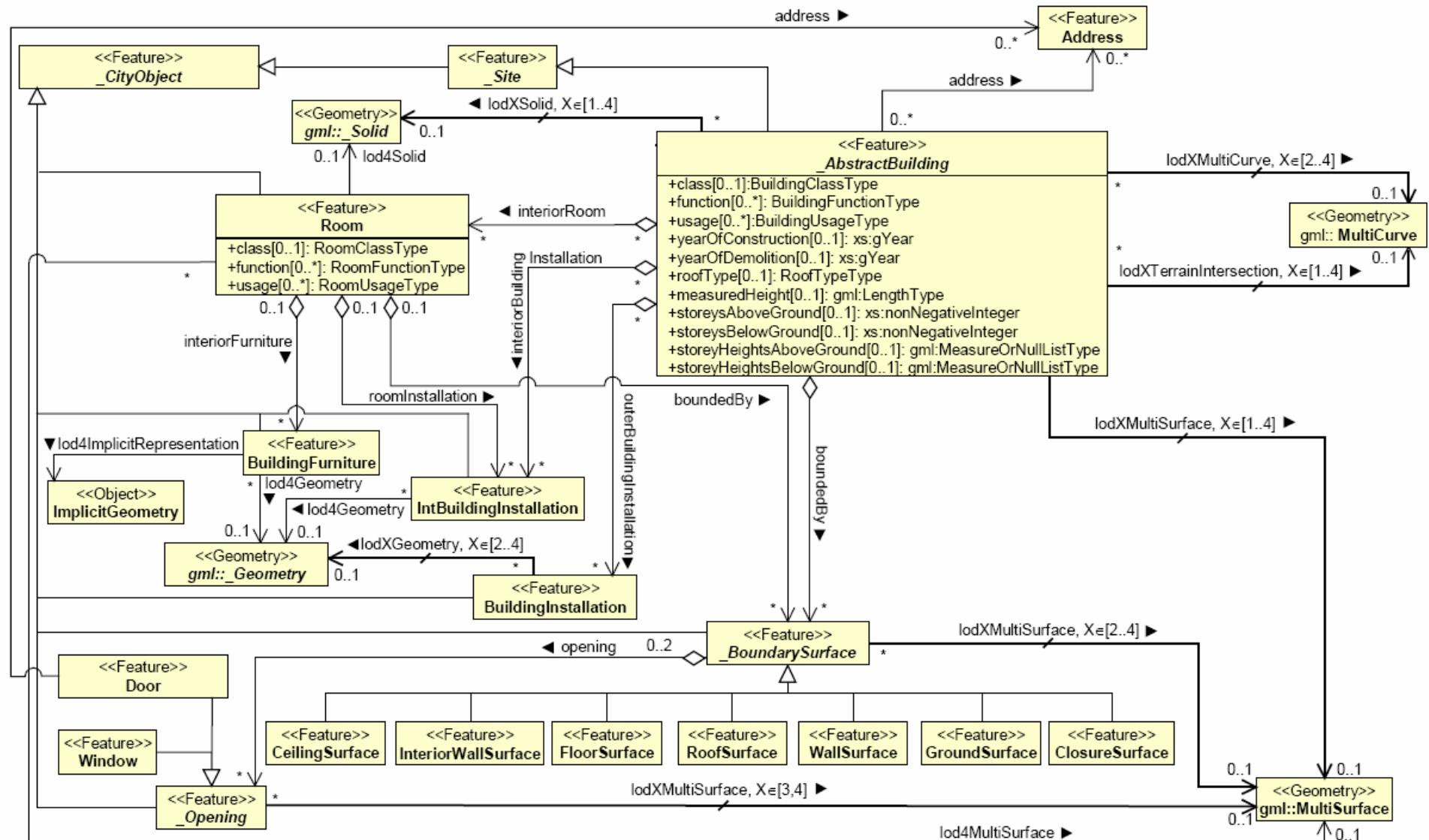


## 2.) Qualifizierte Assoziation



## 3.) Standard-UML-Assoziationen





- LoD: semantische und geometrische Aspekte
- Datensatz mit Gebäuden für Katastrophenmanagement:
  - LoD1-Gebäudehülle
  - Generalisierte Innenräume
- Problem: Bestimmung des LoD des Gebäudes
  - Nicht LoD1 (Räume nur im LoD4)
  - Nicht LoD4 (Genauigkeit zu gering)
- Möglicher Lösungsansatz: Differenzierung semantische / geometrische LoD
- Langfristiger Aspekt

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- Sitzung der AG im Anschluss an Plenarsitzung
- Themen (Liste erweiterbar):
  - LoD-Assoziation: Entscheidung
  - Umstieg auf GML 3.2 (ISO 19136)
  - Verwendung des Simple Dictionary Profile
  - Versionsnummer des Schemas/Namespaces
  - ADEs: Zuordnung Properties/Klassen
  - Metadaten in CityGML

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