

Reorganization of Conformance Requirements

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CityGML contains many conformance requirements for appearance, spatial model and each thematic module. Conformance requirements describe mandatory properties of a data set in order to be consistent with a specified standard. An underlying rule set can be validated to test a given CityGML instance document for conformance. Ideally, this can be performed automatically using machine-readable rules.

In an attempt to develop recommendations for quality criteria of CityGML models, the Working Group for Quality of SIG3D Germany (Special Interest Group 3D) had a closer look at existing conformance requirements in version 2.0. They should serve as a base for validation rules to check the quality of city models. However, the structure and content of existing requirements does not support this completely. Some requirements are obsolete because they are already covered by the Schema. Some requirements rather define modeling specifications, or they are not clearly separated from each other, e.g. more than one requirement per item.

The requirements for referential integrity contain a lot of repeating text in many variations which is confusing for the recipient and could be represented more clearly.

The presentation will illustrate these issues at some examples to point out the need for discussion regarding the next version of the standard. A reorganization of the conformance requirements seems helpful to facilitate readability and comprehensibility.