Proposed Disposition: Resolved

OMG Issue No: 10869

Title: N-aries

Source:

NIST (Mr. Conrad Bock, conrad.bock@nist.gov conradb@cme.nist.gov)

Summary:

In 16.2.2 (Class and Property - Basics), second paragraph under Figure 16.3, association classes are not the same as naries. The translation given to N-ary associations is incomplete, because n-ary associations have multiplicities. These will not translate to cardinalities of binaries, at least not without a constraint to ensure there is only one instances of the association class in OWL for each link in UML.

Resolution:

Replace text as described below.

Revised Text:

The following is the current contents of this paragraph:

> This specification takes advantage of the fact that an N-ary relation among types T_1 ... T_N, or an association class with attributes, is formally equivalent to a set R of identifiers together with N projection functions P_1, ..., P_N, where P_i:R -> T_i. Thereby N-ary UML associations are translated to OWL classes with bundles of binary functional properties.

Replace this paragraph with the following:

> This specification takes advantage of the fact that both an N-ary relation among types T_1 ... T_N and an association class with attributes are formally equivalent to a set R of identifiers together with N projection functions P_1, ..., P_N, where P_i:R -> T_i. Thereby both association classes and N-ary UML associations are translated to OWL classes with bundles of binary functional properties.

Proposed Disposition: Resolved