

On the Need of User-defined Libraries in OCL

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Java vs. OCL

Java

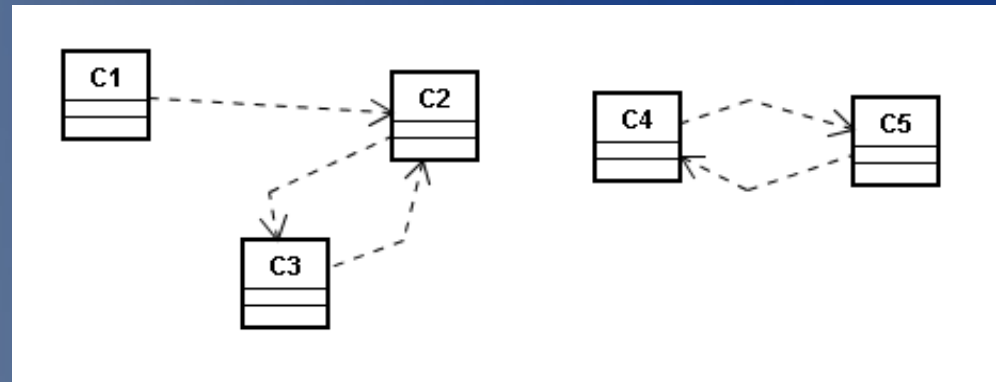
- Stable language
- Active community
 - market of libraries
- Library bundles
 - e.g. Java EE
 - trainings/certifications

OCL

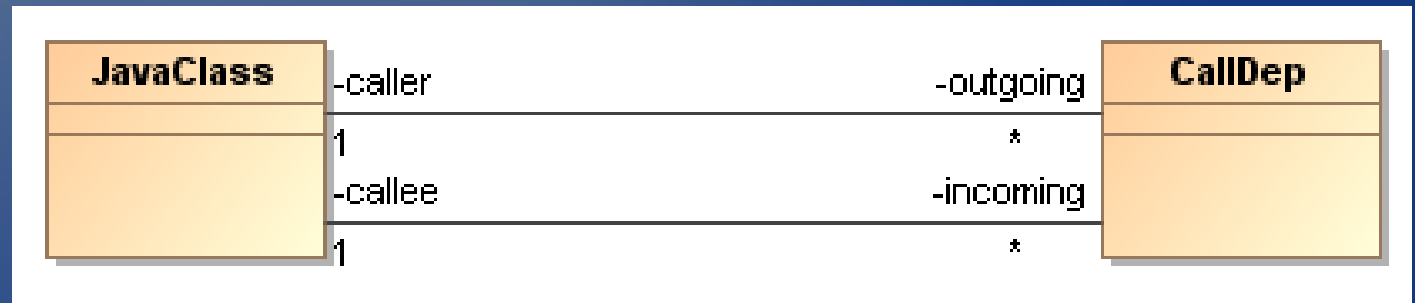
- Little adoption in industry
- No user-defined libraries
- Ongoing discussion on semantics and language constructs

Running Example: Call-Graph Analyzer

Example Call-Graph:



Datastructure Call-Graph:

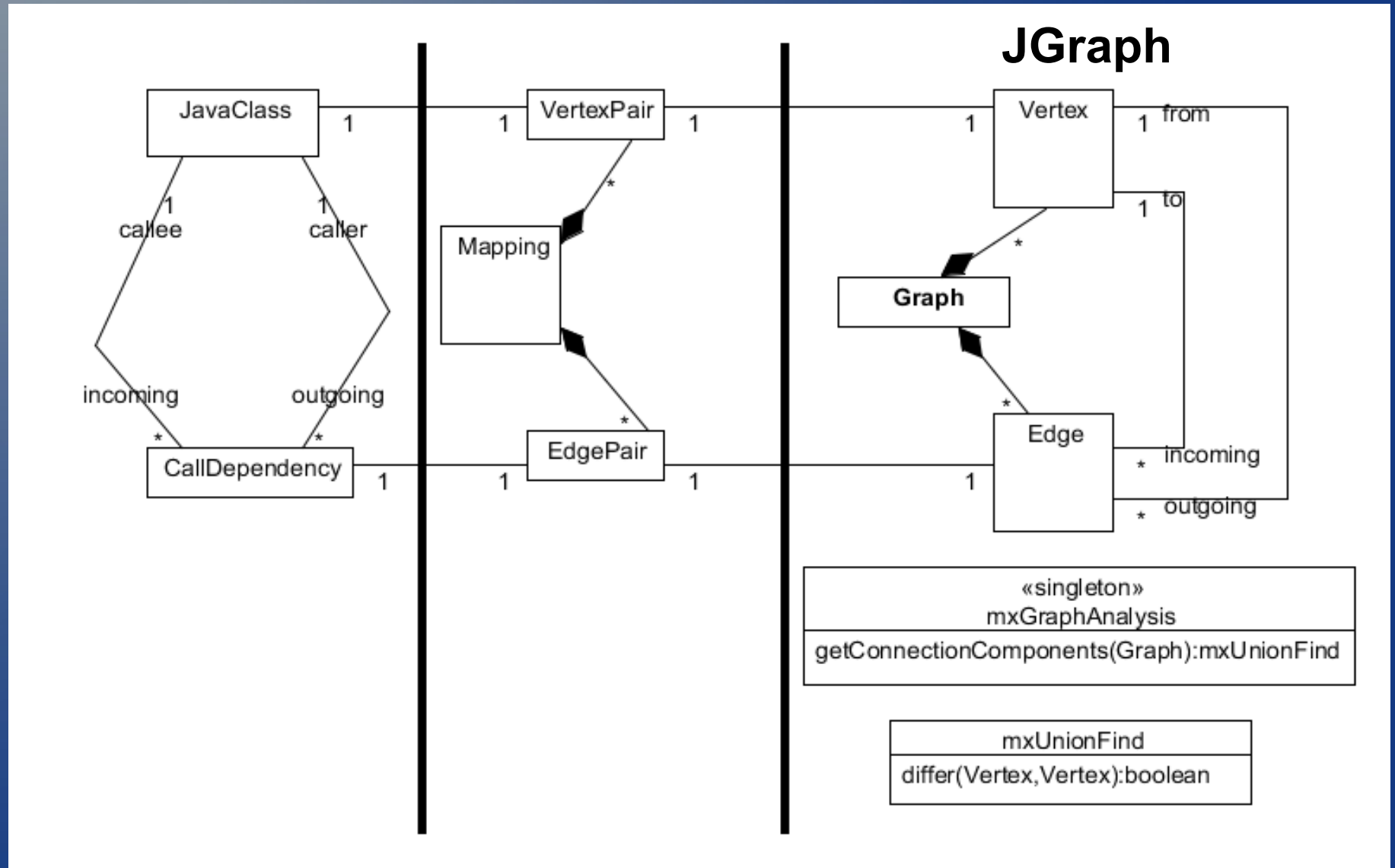


How to implement/specify method

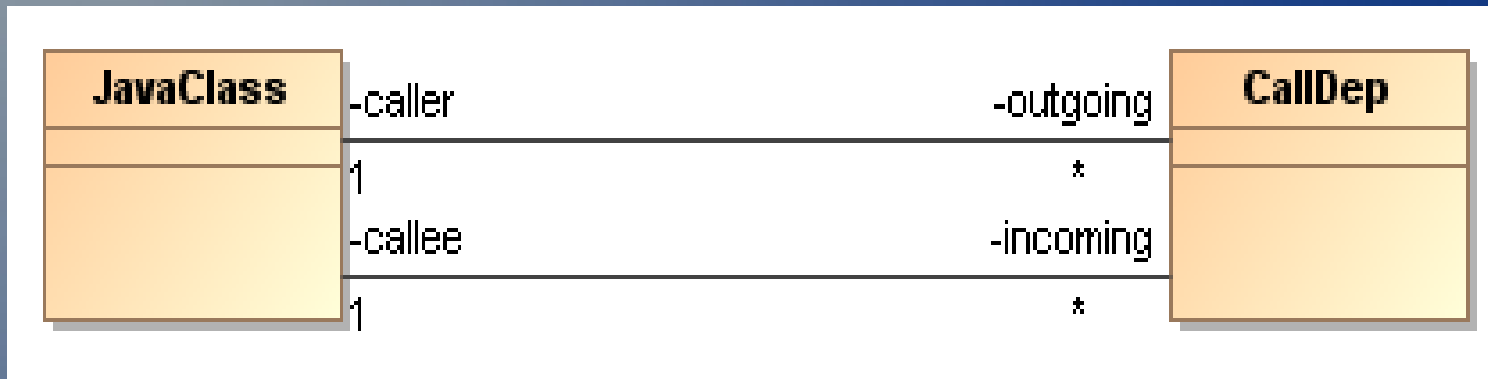
JavaClass::isOrphan(JavaClass):boolean ?

Solution in Java

- Usage of open-source library JGraph



Solution Attempt for OCL

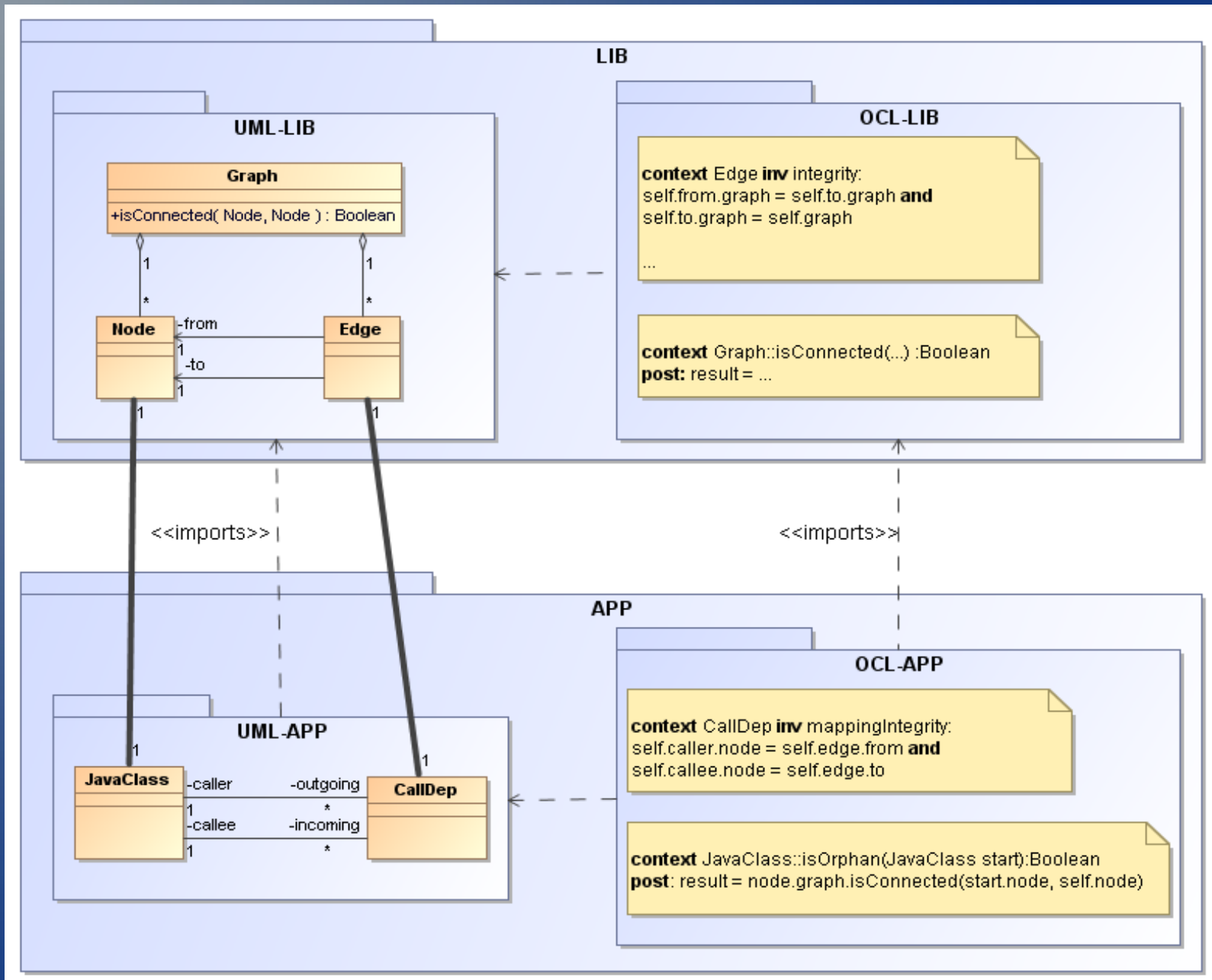


context JavaClass::isOrphan(startClass):boolean

post: result = startClass.**TC**(outgoing)->includes(self)

TC() - TransitiveClosure-Operator

Solution in OCL



Obstacles

- No import-statement in OCL
- Different import-statements in UML (import, access, merge)
- No mechanism for customization (overriding, selection, ...)