Architecture of the QSemanticDB implementation

Rehno Lindeque

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Abstract

The architecture an OpenSemanticDB reference implementation is described.

1 Introduction

1.1 Terminology

- *Semantic symbol / symbol* – The conceptual representation of a semantic value. For example a could be a symbol and so could $a.b$

- *Semantic id / id* – The internal representation of some semantic symbol.

- *Fully qualified id* – An id that represents some semantic symbol inside some context.

- *Unqualified id* – An id that represents some semantic symbol disregarding the context it is found in. (I.e. $a.(b.c)$ is qualified, but c or even $b.c$ is unqualified when refering to a).

- *Relation* – A declaration in the form $a \rightarrow b$ which is represented by the existence of the query $a.b$.

- *Unqualified relation* – A pair of id's $(domainId, codomainId)$ such that $codomainId$ is unqualified with respect to $domainId$.

- *Qualified relation* – A pair of id's $(domainId, codomainId)$ such that $codomainId$ is qualified with respect to $domainId$.