Meta - Levels

- ml = N (collapse of all higher meta levels to one node)
- ml = 3 (meta meta types and meta meta relations)
- ml = 2 (meta types and meta relations)
- ml = 1 (classes and relations)

Layers - Packages

- Layer 0 - MetaMetaMeta
- Layer 1 - ClassInheritance
- Layer 1 - PersistenceStructure
- Layer 2 - Grounding

Visibility

- public (visible to all following layers)
- public+1 (visible to following layer only)
- private (visible to this layer only)

Layer 0 - MetaMetaMeta

MetaTypes (used in this layer)
- **mnt** = metaNType (ml=N)
- **mt** = metaType (ml=3)
- **mr** = metaRelation (ml=3)
- **mrs** = metaRelationSignature (ml=3)
- **rp** = relationProperty (ml=3)
- **mlt** = metaLevelType (ml=2)

Types (used in following layers)
- **class** = class (ml=2)
- **rel** = relation (ml=2)
- **rs** = relationSignature (ml=2)

Relations (all ml=3)
- **type** = type
- **ml** = metaLevel
- **sig** = signature
- **st** = sourceType
- **tt** = targetType
- **nml** = nextMetaLevel
- **rpr** = relationPropertyRelation

Signature nodes (all ml=3)
- a2at = any-to-anyType
- a2mlt = any-to-metaLevelType
- mlt2mlt = metaLevelType-to-metaLevelType
- mrs2mt = metaRelationSignature-to-metaType
- mnt2mnt = metaNType-to-metaNType
- mr2mrs = metaRelation-to-metaRelationSignature
- rs2rp = relationSignature-to-relationProperty

Relation properties (all ml=2)
- man = mandatory
- uni = unique
- imp = implicit
- tra = transient

MetaLevel nodes (all ml=2)
- ml0, ml1, ml2, ml3, mlN

Layer 1 - Class-Inheritance (ml=2)

Relations
- **tc** = targetClass
- **sc** = sourceClass
- **inh** = inheritance
- **supc** = superClass
- **ith** = inverseTransitiveHull

Relation Signatures
- **c2c** = class-to-class
- **rs2c** = relationSignature-to-class
- **r2r** = relation-to-relation
- **mr2mr** = metaRelation-to-metaRelation

Layer 1 - Persistence-Structure (ml=2)

Types
- **lay** = layer
- **pac** = package
- **sh** = sheet
- **vn** = versionNode
- **dn** = descriptionNode

Relations
- **version** = version
- **descr** = description
- **contains** = contains
- **refers** = refers

Relation Signatures
- **pa2pa** = package-to-package
- **pa2sh** = package-to-sheet
- **pa2ver** = package-to-version
- **lay2lay** = layer-to-layer
- **lay2pa** = layer-to-package
- **sh2a** = sheet-to-any
- **sh2sh** = sheet-to-sheet
- **2desc** = to-description

Layer 2 - Grounding

Types (ml=2)
- **gt** = groundingType

Relations (ml=2)
- **gdr** = groundingDetailRelation
- **grr** = groundingReferenceRelation

Relation Signatures (ml=2)
- **gt2gt** = groundingType-to-groundingType
- **gt2a** = groundingType-to-any

Grounding Nodes (ml=1)
- 55 grounding nodes