

Reverse-engineering AAI data model to Papyrus information model

Source links

Currently there are a number of source files needed to get a complete view of the AAI schema information:

- .xsd file in correct version: <https://gerrit.onap.org/r/gitweb?p=aaicode;a=tree;f=aaicode/src/main/resources/onap/aaicode;hb=d4f97e683cb971ceb7107beaaca628926156a4f6>
- DB edge rules (.json) in correct version: <https://gerrit.onap.org/r/gitweb?p=aaicode;a=tree;f=aaicode/src/main/resources/onap/edbgerules;hb=3501e74711a2e91ce84d0b4cbc989738f96e0891>
- Possibly also traversal information (.json): <https://gerrit.onap.org/r/gitweb?p=aaicode;a=tree;f=aaicode-traversal/src/main/resources/schema/onap/query;hb=600abffda37ce3aba83024162dc7178d90b84c26>

Auto-generated documentation of the AAI schema is the most complete at the moment (created by an OpenAPI/Swagger-like process).

- Source HTML file: https://wiki.onap.org/download/attachments/58229560/aaicode_swagger_v16.html?api=v2
 - Stored here: [AAI REST API Documentation - Dublin](#)
- Originals stored in NEXUS:
 - https://nexus.onap.org/service/local/repositories/releases/archive/org/onap/aaicode/aaicode/1.0.6/aaicode-1.0.6.jar!/_onap/aaicode_swagger_html/aaicode_swagger_v16.html
 - https://nexus.onap.org/service/local/repositories/releases/archive/org/onap/aaicode/aaicode/1.5.0/aaicode-1.5.0.jar!/_onap/aaicode_swagger_html/aaicode_swagger_v16.html

Problems encountered when working with the AAI model structure:

- AAI uses RelationshipList as a generic linking class everywhere in the model – needs to be collapsed into the actual links
- AAI uses collection classes (ex. Pnfs as a collection for Pnf) that add no information – need to be filtered out

Ideas regarding how to do the reverse-engineering with a minimum of manual rework of the model (*NOTE: most of these are still TODO*):

- Convert XSD directly to UML – see [Step-by-step to generate Papyrus UML model from XSD file](#). This method is inspired by these discussion threads:
 - <https://www.eclipse.org/forums/index.php/t/1068724/>
 - <https://www.eclipse.org/forums/index.php/t/160294/>
- Generate UML model from OpenAPI (a.k.a. Swagger) YAML file, see <https://github.com/opendata-for-all/wapiml> and <https://modeling-languages.com/openapi-to-uml/>
- Generate UML model from JSON schema documents, see <https://github.com/SOM-Research/jsonSchema-to-uml>
- Copy metadata in the .xsd file to XML tags that can be parsed by Ecore
 - *Combine the source files into a single XSD (XML schema file) using an XSLT script?*
- Generate UML from OXM file, e.g. by *model-browser* script