



*OSDU Data Platform
Application Developer Training*

Schema Service



Schema

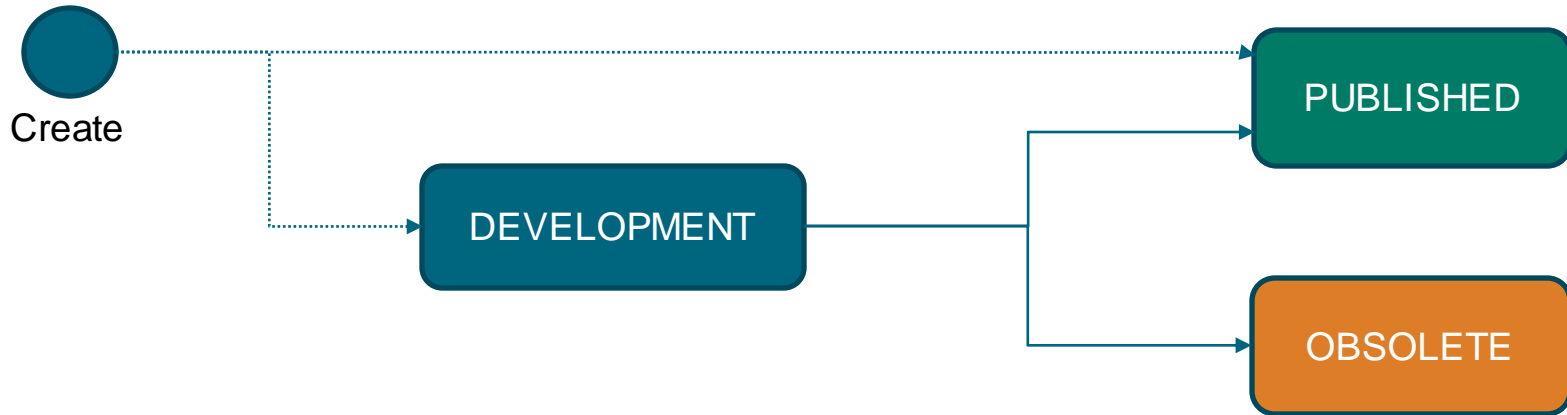
- » A schema is a data model definition
- » OSDU Data Platform's Data Model is defined in rich JSON objects
- » Schema ID and version:
 - *authority:source:entity-type:major-version.minor-version.patch-version*
 - E.g., *opendes:wks:master-data--Well:1.0.0*
- » Scoped:
 - INTERNAL
 - SHARED

Schema Service Overview

- » Enables centralized governance and management of schemas in the OSDU Data Platform
- » Provides all necessary APIs to fetch, create, update, and mark a schema obsolete
- » Requires a special permission level to manage schemas:
 - *service.schema-service.admin*

Schema States

- » DEVELOPMENT: mutable state
- » PUBLISHED: immutable state
- » OBSOLETE: no longer needed



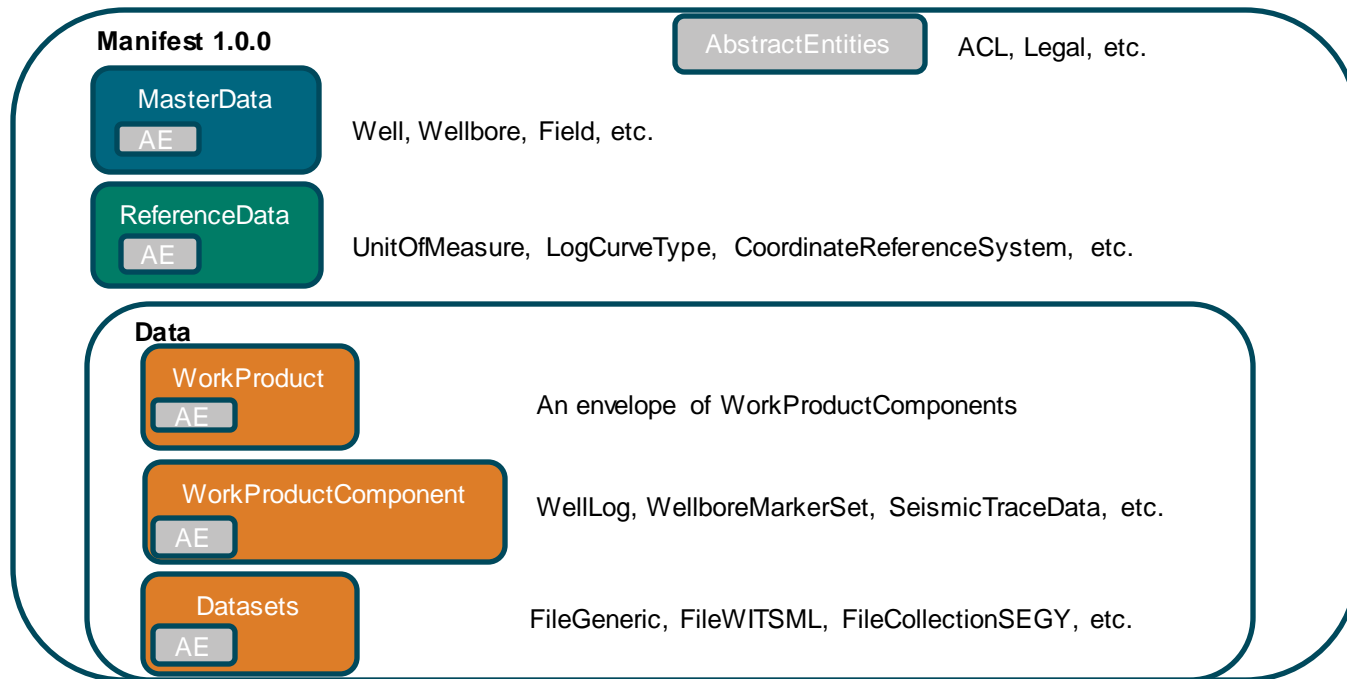
Schema Definition: Example

```
{
  "$id": "https://schema.osdu.opengroup.org/json/master-data/SeismicProcessingProject.1.6.0.json",
  "schema": "http://json-schema.org/draft-07/schema#",
  "title": "SeismicProcessingProject",
  "description": "A seismic processing project is a type of business project...",
  "type": "object",
  "allof": [
    {
      "$ref": "../abstract/AbstractMaster.1.0.0.json"
    },
    {
      "$ref": "../abstract/AbstractProject.1.0.0.json"
    },
    {
      "type": "object",
      "properties": {
        "SeismicAcquisitionSurveys": {
          "description": "List of seismic acquisition projects (surveys)...",
          "type": "array",
          "items": {
            "type": "string",
            "pattern": "^(\\w\\-\\.\\.\\.\\.]+:master-data\\-\\-SeismicAcquisitionSurvey: [\\w\\-\\.\\.\\.\\.\\%]+: (0-9) *$"
          }
        }
      }
    }
  ]
}
```

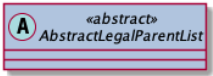
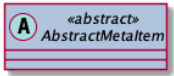
Schema Record: Example

```
{
  "schemaInfo": {
    "schemalentity": {
      "authority": "{{schema-authority}}",
      "source": "wks",
      "entityType": "master-data--SeismicProcessingProject",
      "schemaVersionMajor": 1,
      "schemaVersionMinor": 0,
      "schemaVersionPatch": 0,
      "id": "{{schema-authority}}:wks:master-data--SeismicProcessingProject:1.0.0"
    },
    "createdBy": "OSDU Data Definition Group",
    "scope": "SHARED",
    "status": "DEVELOPMENT"
  },
  "schema": {{ schema definition }}
}
```

Entity Types in Manifest

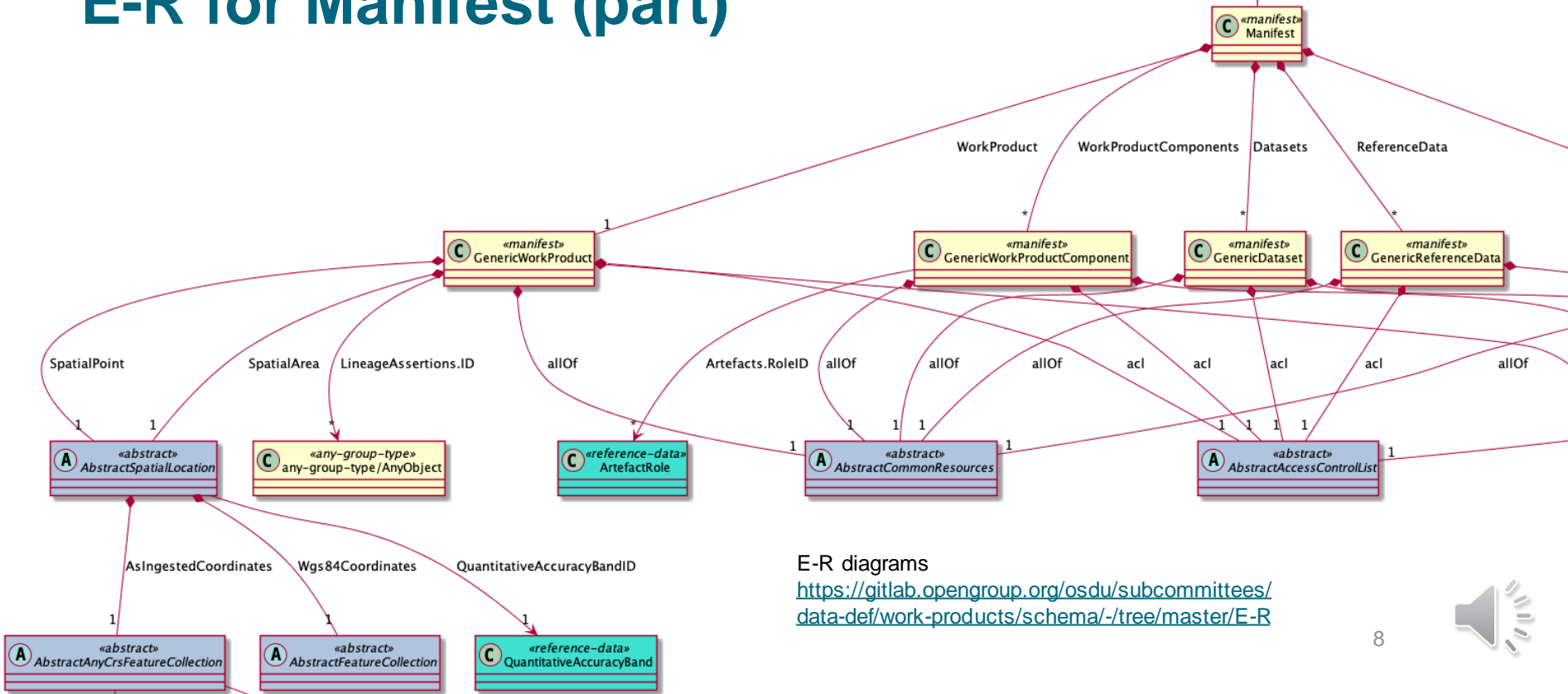


Schema Definition repository: <https://gitlab.opengroup.org/osdu/subcommittees/data-def>



Class evaluated in this E-R diagram

E-R for Manifest (part)



E-R diagrams <https://gitlab.opengroup.org/osdu/subcommittees/data-def/work-products/schema/-/tree/master/E-R>



Thank you!