

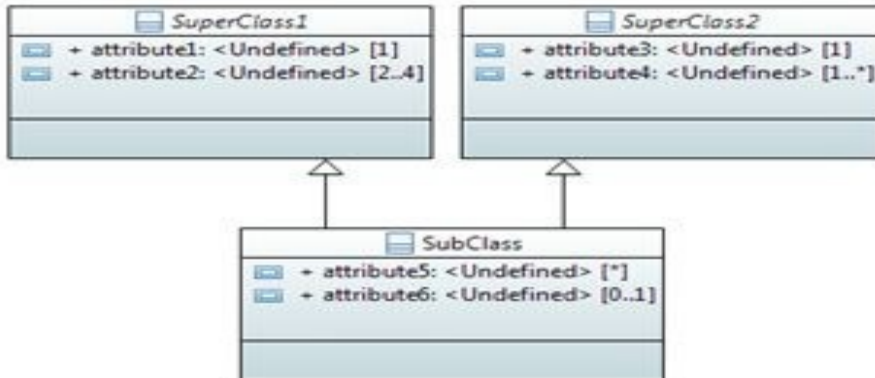
IETF 94

draft-mansfield-uml-to-yang-01

Summary

- The document provides guidelines for translating UML artifacts to YANG
- Changes since -00
 - Significant updates to the mapping tables for Object Classes, Attributes, Associations, Interfaces, Operations, Operations Parameters, and Notifications.
 - UML recursion information expanded and moved to a section called Mapping Patterns
 - Added information on meta-information about the support and condition of artifacts. This adds the ability to know if an artifact is: M - Mandatory, O - Optional, C - Conditional, CM - Conditional-Mandatory, or CO - Conditional-Optional.

Example Mapping

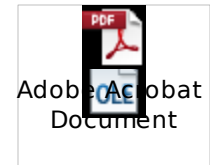


```
grouping SuperClass1 {
  leaf attribute1 {
    ...
    mandatory true;
  }
  leaf-list attribute2 {
    ...
    min-elements 2;
    max-elements 4;
  }
}

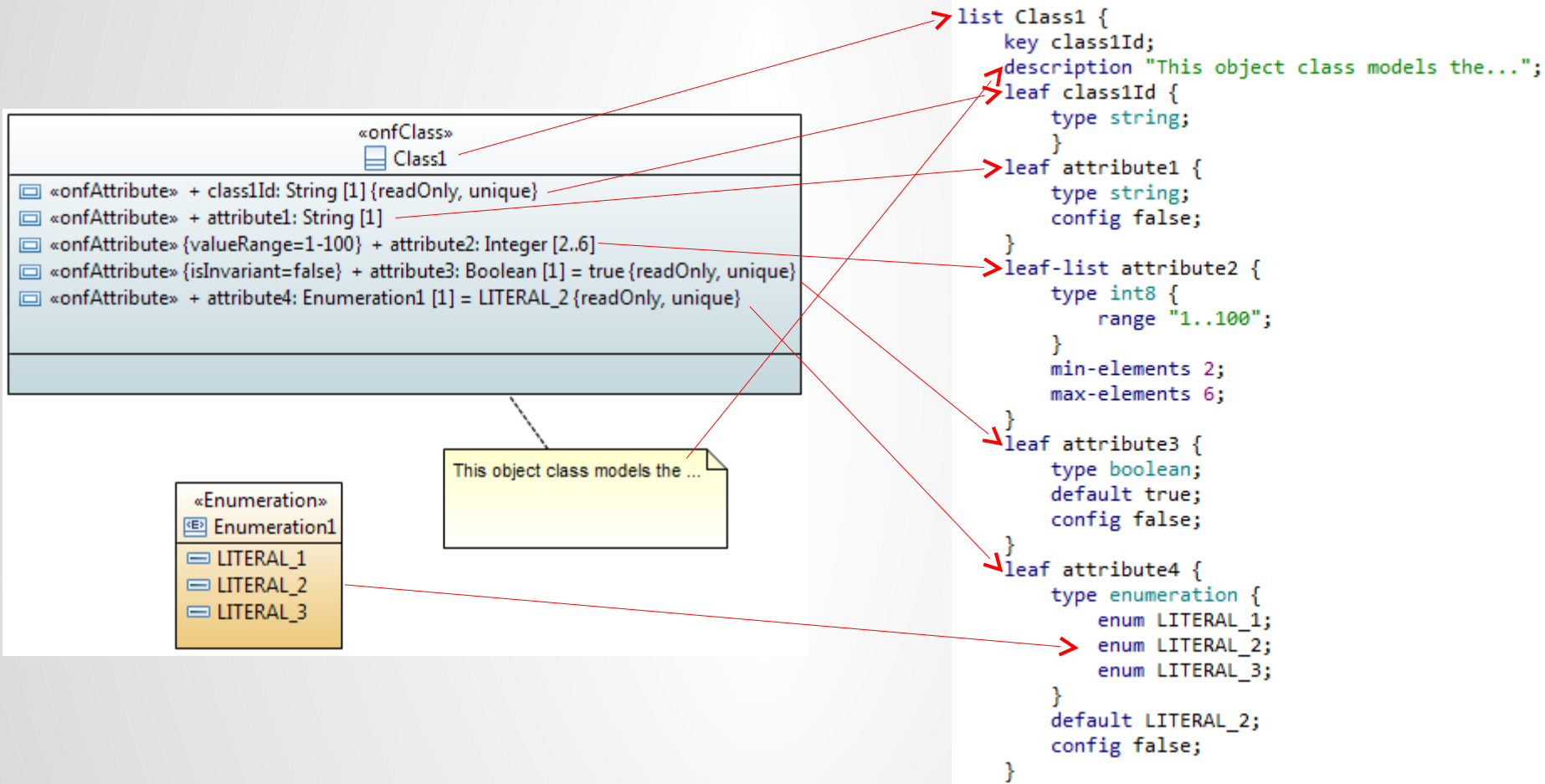
grouping SuperClass2 {
  leaf attribute3 {
    ...
    mandatory true;
  }
  leaf-list attribute4 {
    ...
    min-elements 1;
  }
}

container SubClass {
  ...
  uses SuperClass1;
  uses SuperClass2;
  leaf-list attribute5 {
    ...
  }
  leaf attribute6 {
    ...
  }
}
```

Object Class Mapping Table



Example Mapping Guidelines



Next Steps

- Seeking guidance from YANG experts
- Looking to resolve the question marks in the tables
- Looking to add guidance on when certain artifacts are used
- Support development of open source UML to YANG conversion tool
- Aspire to be adopted as WG draft leading to an Informational RFC
 - Timeframe: IETF 95 for requesting working group status

References

- IETF drafts
 - draft-lam: <https://tools.ietf.org/html/draft-lam-teas-usage-info-model-net-topology-02>
 - draft-betts: <https://tools.ietf.org/html/draft-betts-netmod-framework-data-schema-uml-02>
 - draft-mansfield: <https://tools.ietf.org/html/draft-mansfield-netmod-uml-to-yang-01>
- ONF Liaison (<https://datatracker.ietf.org/liaison/1406/>)
Re-approval and public availability of:
 - ONF-CIM Core Model base document 1.0 + [Model 1.0](#) (March 2015 | TR-512)
 - [Common Information Model \(CIM\) Overview 1.0](#) (March 2015 | TR-513)
 - [UML Modeling Guidelines 1.0](#) (March 2015 | TR-514)
 - [Papyrus Guidelines 1.0](#) (March 2015 | TR-515)