Conceptual and Logical Data Models
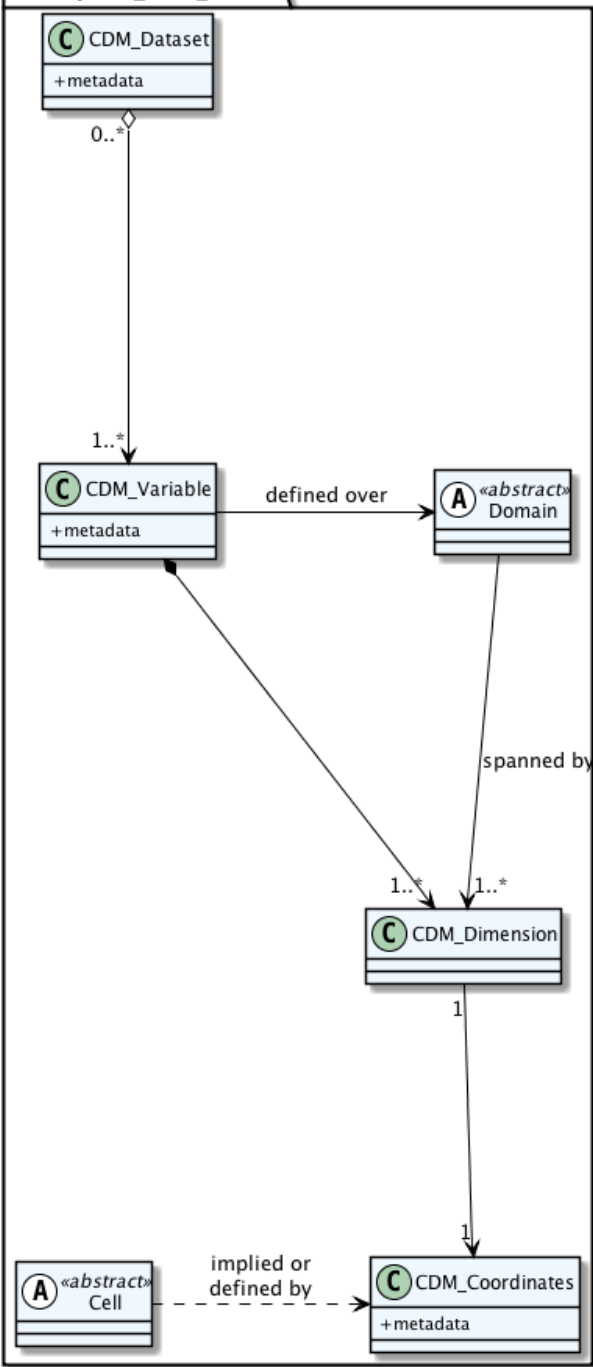

Conceptual_Data_Model

CDM_Dataset
+metadata

0..*

1..*

CDM_Variable — defined over → **«abstract» Domain**
+metadata

spanned by

1..* 1..*

CDM_Dimension

1

1

«abstract» Cell — implied or defined by ⤑ **CDM_Coordinates**
+metadata

Logical_Data_Model

E LDM_Payload_Type
json
xml
xhtml
geojson
cfa

C LDM_Metadata

E LDM_DataType

C LDM_Sci_Metadata
+payload_type: LDM_Payload_Type
+payload: String
+plugin_name: String [0..1]

C LDM_Tech_Metadata
+filling_method: LDM_Filling_Method
+domain: LDM_Domain
+inbound_references: LDM_Reference [0..N]
+access_control: LDM_AccessInfo
+storage_type: LDM_Backend
+data_type: LDM_DataType

C LDM_Container
+name: String
+root_name: String
+metadata: LDM_Metadata
+create()
+delete()
+add_member(path_name, var_name)
+remove_member(path_name, var_name)
+add_leaf(path_name, leaf_name)

1..*

0..*

C LDM_Variable
+name: String
+sealed: Boolean
+metadata: LDM_Metadata [1]
+create()
+delete()
+repartition_fragments()
+replicate()
+check_integrity()
+add_fragment()
+delete_fragment()

1

0..*

E LDM_Backend
mero
posix
s3
wos

C LDM_AccessInfo

C LDM_Domain
+BoundingBox
+Dimensions
+Coordinates

C LDM_Replicant
+metadata: LDM_Metadata
+is_complete: Boolean

1

0..*

C LDM_Reference

C LDM_Fragment
+metadata: LDM_Metadata
+read()
+write()
+delete()
+check_integrity()