DM Session: Introduction

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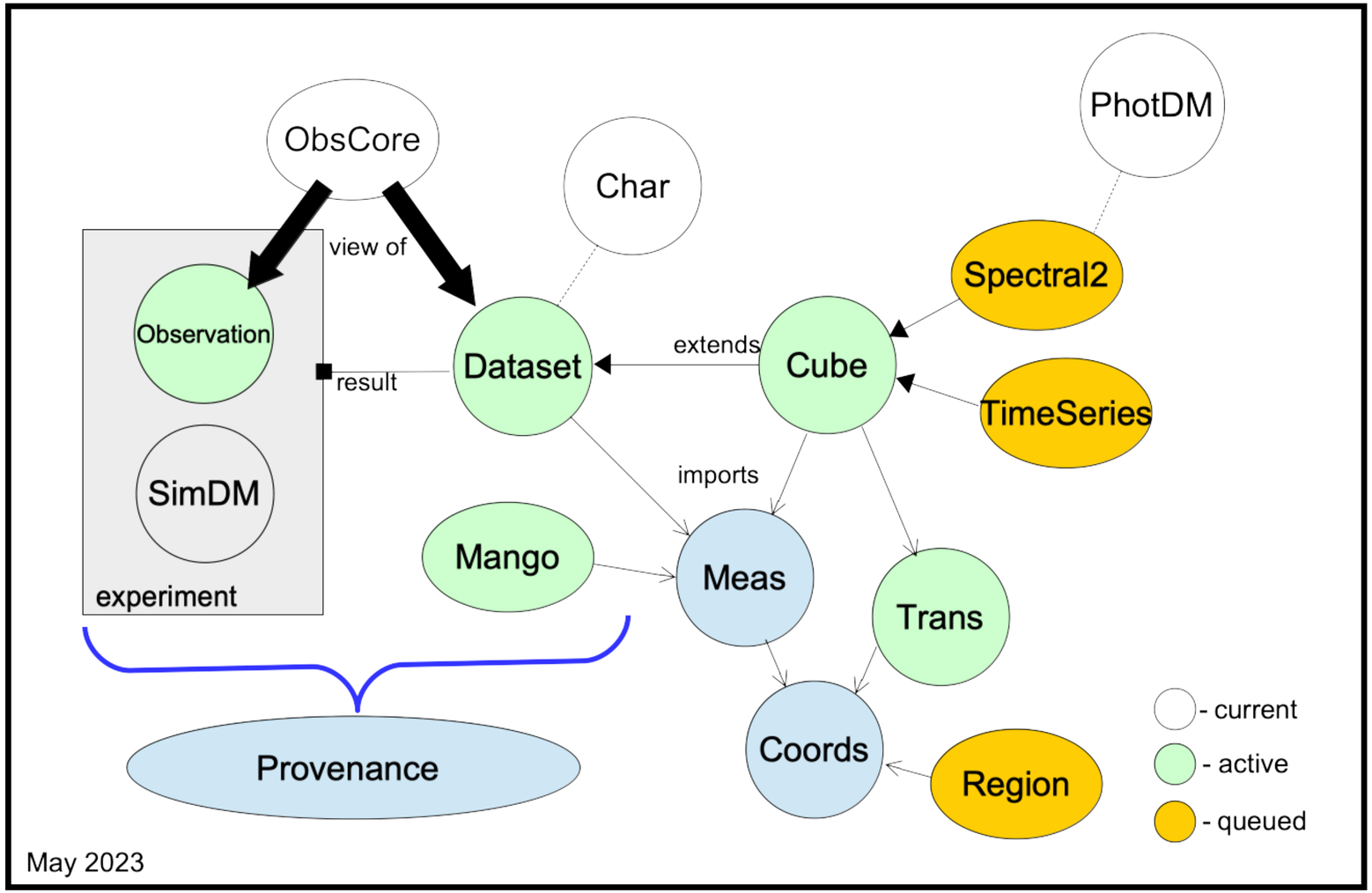
Nov. 11, 2023

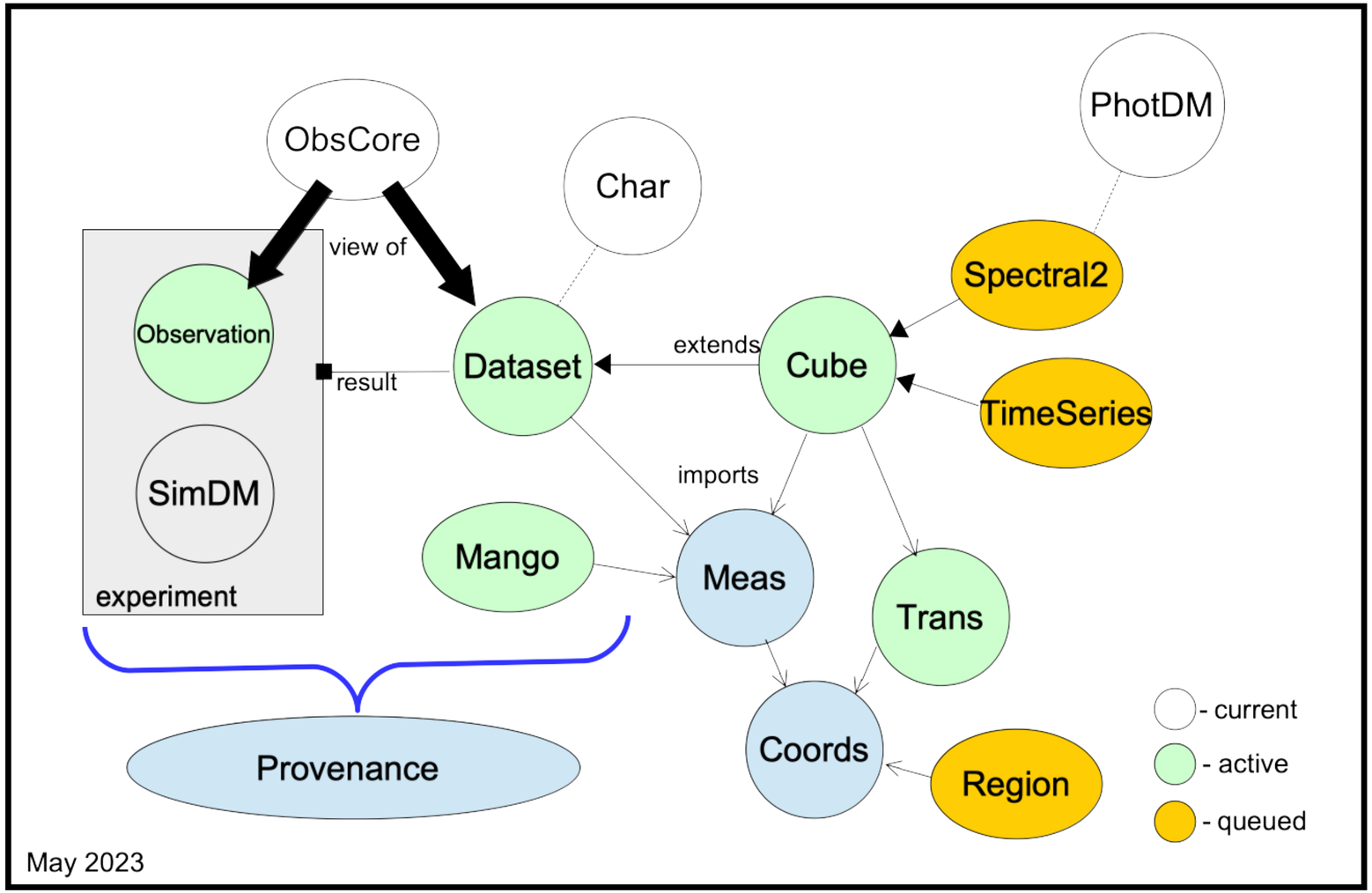
Thoughts on Datamodel ecosystem

- Inspired by several discussions and talks at the Bologna interop and since.
  - S. Hughes talk including “Artifacts generated from the Model”
  - Discussions with Applications regarding using MIVOT annotated VOTables
  - Discussions here regarding the tight bind IVOA has to VOTable and interest in alternate serializations (JSON).
  - General confusion about when certain models would apply

Model Ecosystem diagram

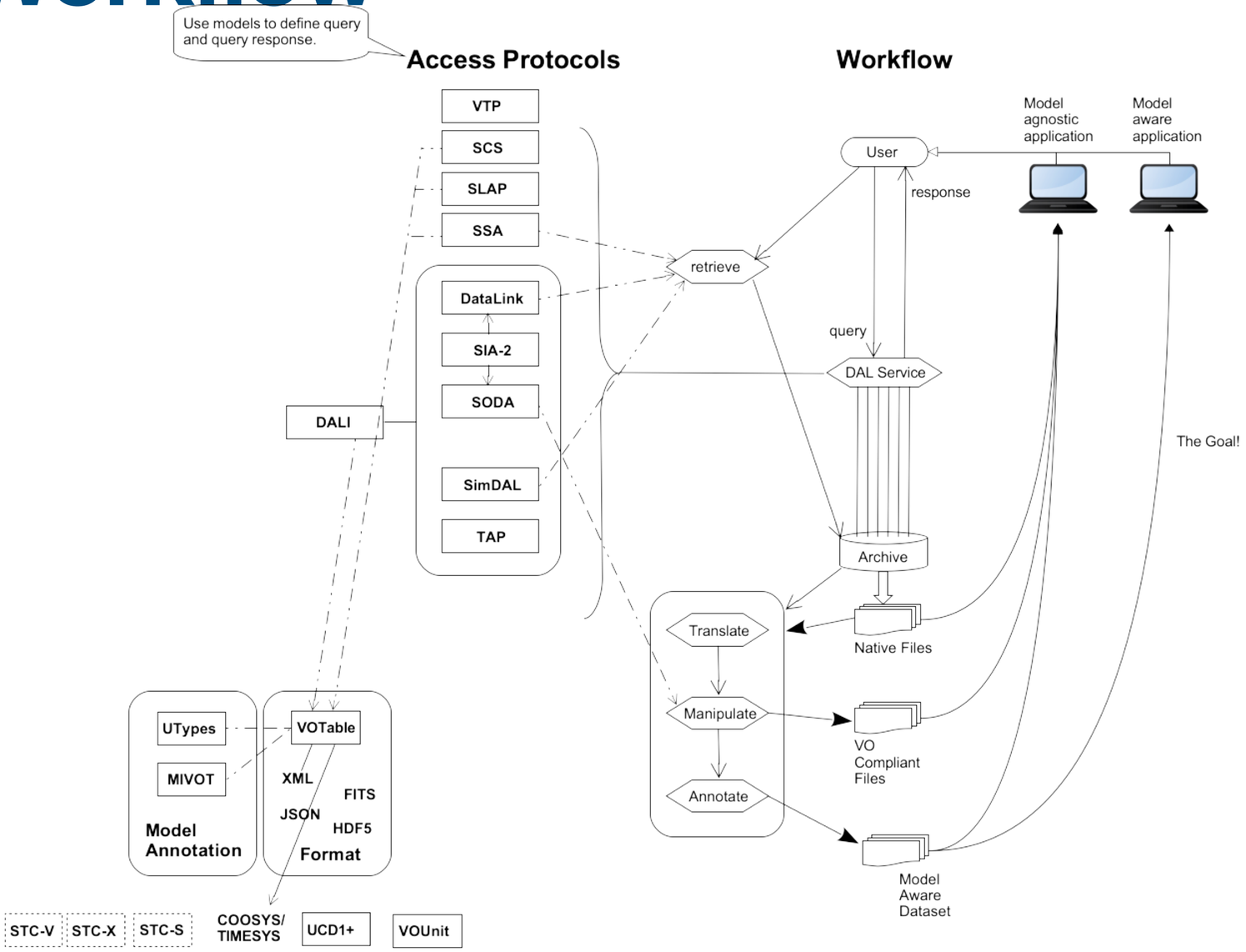


Model Ecosystem diagram

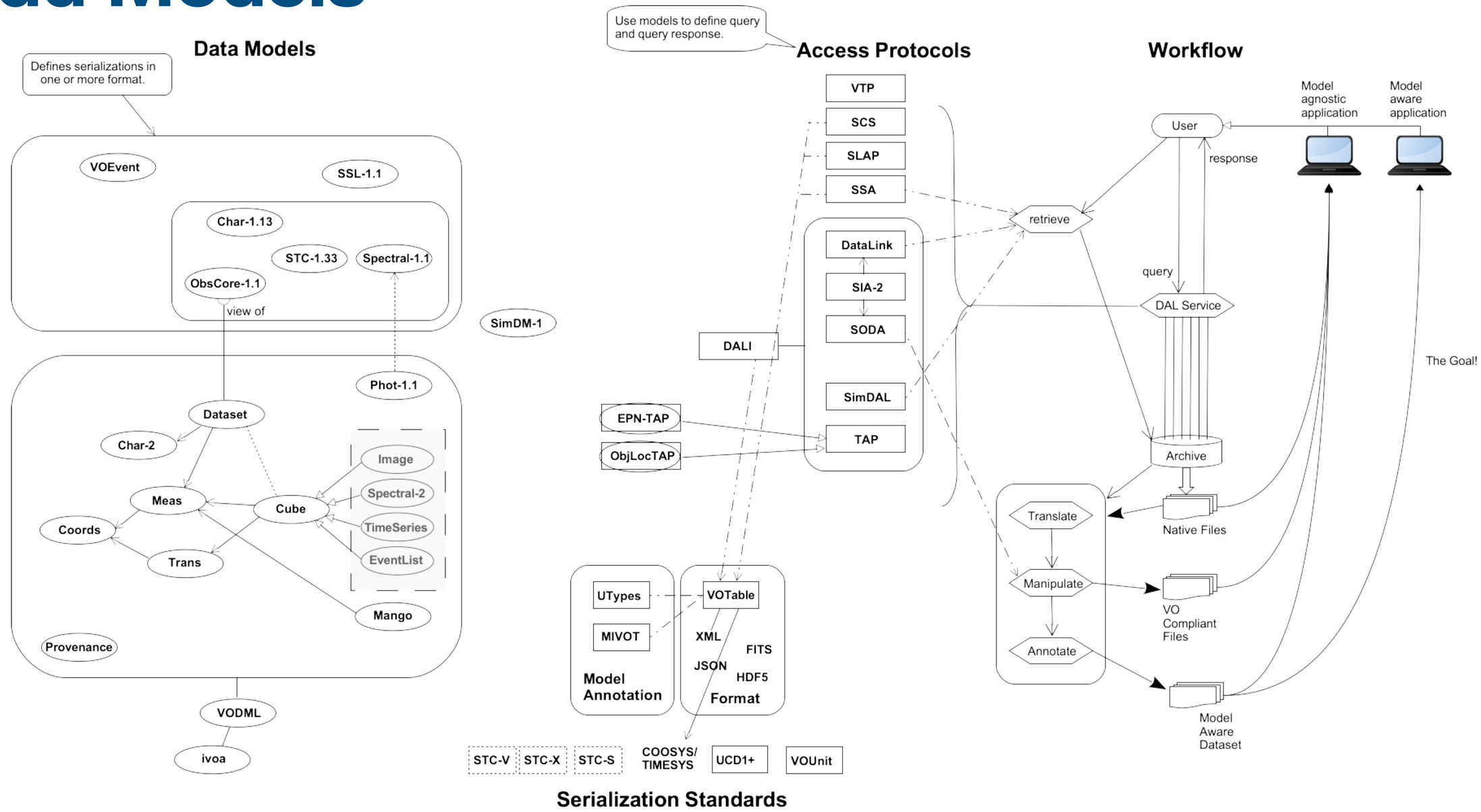


Missing Context

‘Typical’ IVOA Workflow



Add Models


Data Models
Defines serializations in one or more format.
VOEvent
SSL-1.1
Char-1.13
STC-1.33
Spectral-1.1
ObsCore-1.1
view of
Phot-1.1
Dataset
Char-2
Image
Spectral-2
Meas
Cube
TimeSeries
Coords
EventList
Trans
Mango
Provenance
VODML
ivoa
SimDM-1
Use models to define query and query response.
Access Protocols
VTP
SCS
SLAP
SSA
DataLink
SIA-2
SODA
SimDAL
TAP
DALI
EPN-TAP
ObjLocTAP
UTypes
MIVOT
Model Annotation
VOTable
XML
FITS
JSON
HDF5
Format
STC-V
STC-X
STC-S
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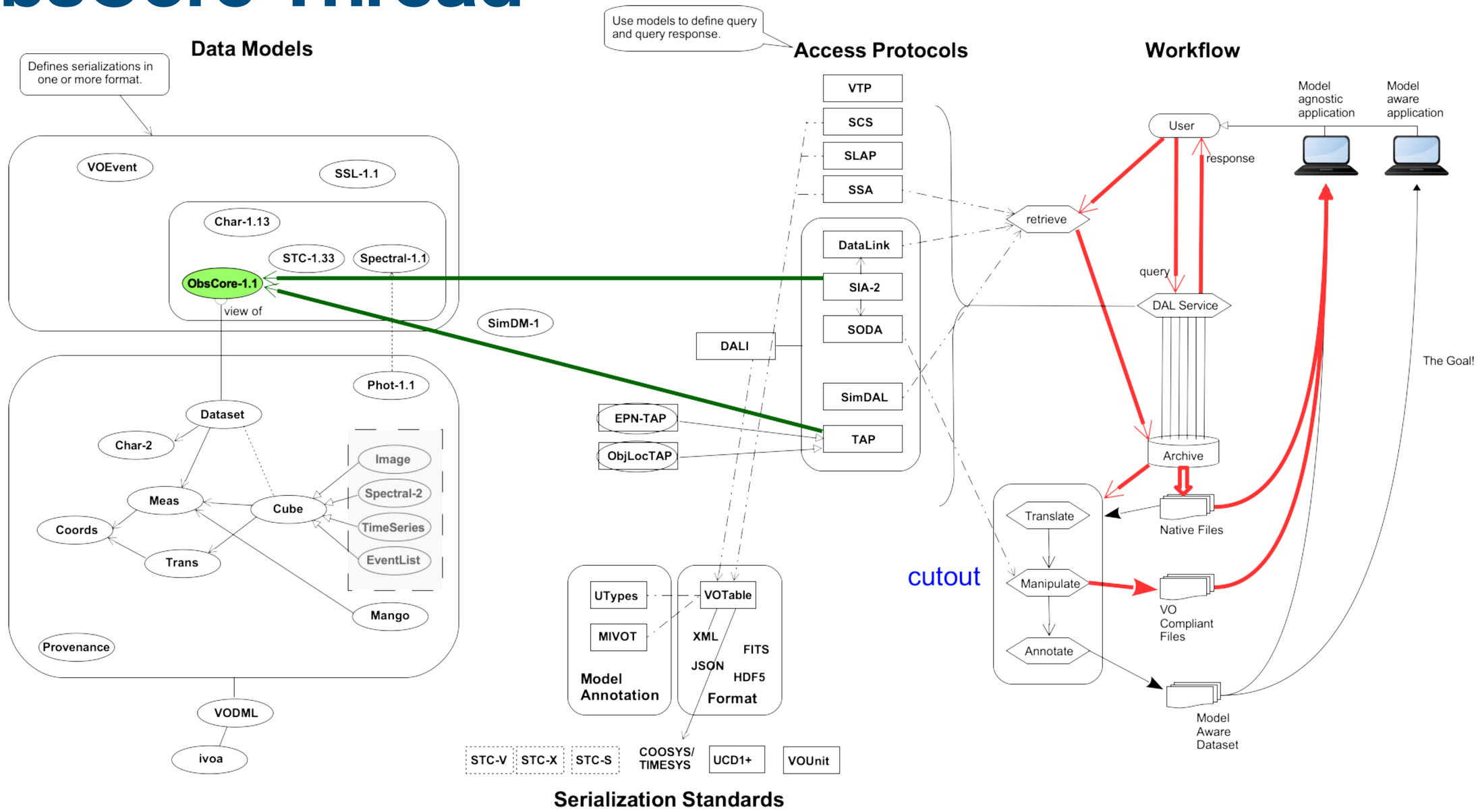
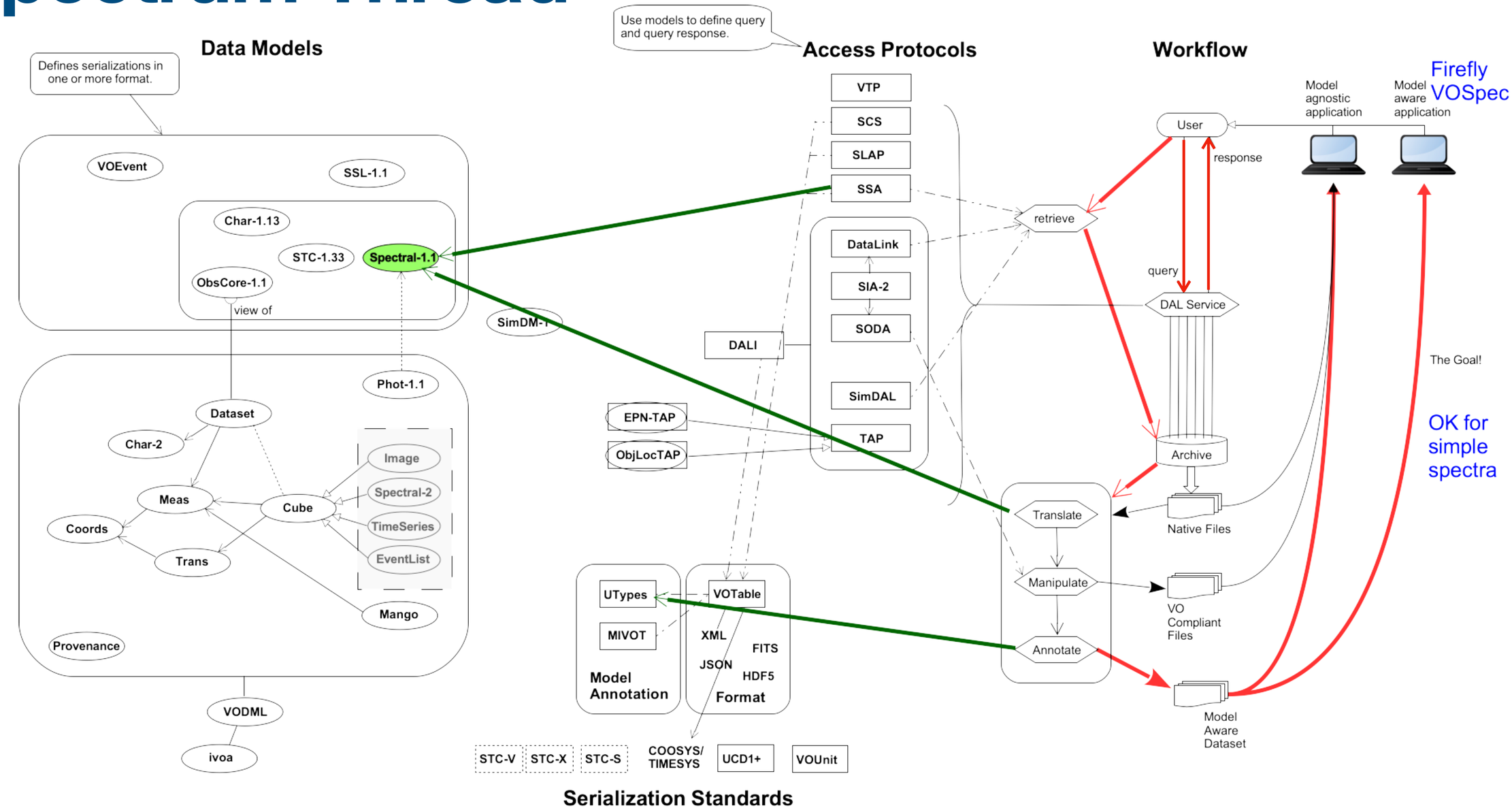
VOUnit
Serialization Standards
Workflow
Model agnostic application
Model aware application
User
response
retrieve
query
DAL Service
Archive
Native Files
Translate
Manipulate
VO Compliant Files
Annotate
Model Aware Dataset
The Goal!

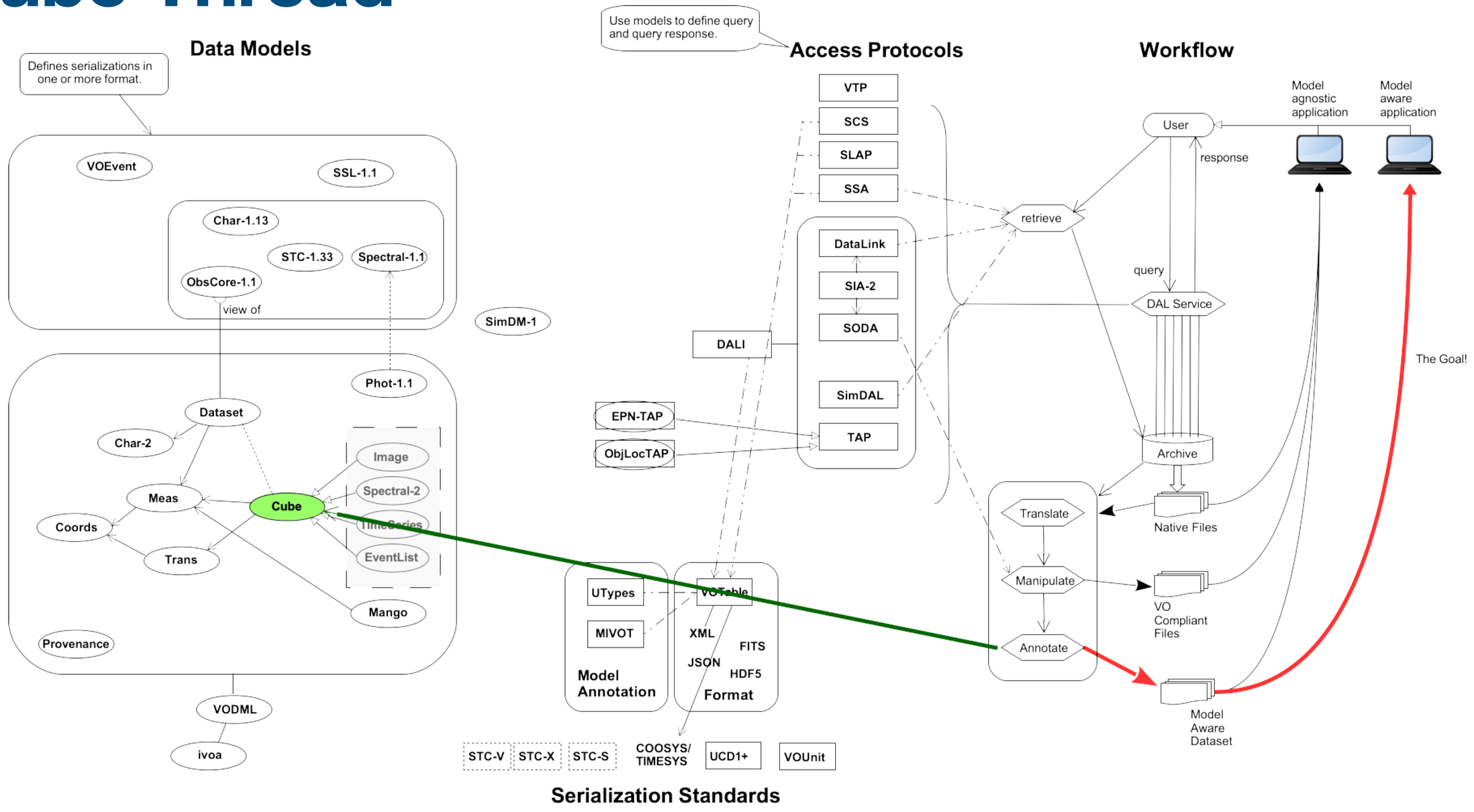
ObsCore Thread



Spectrum Thread



Cube Thread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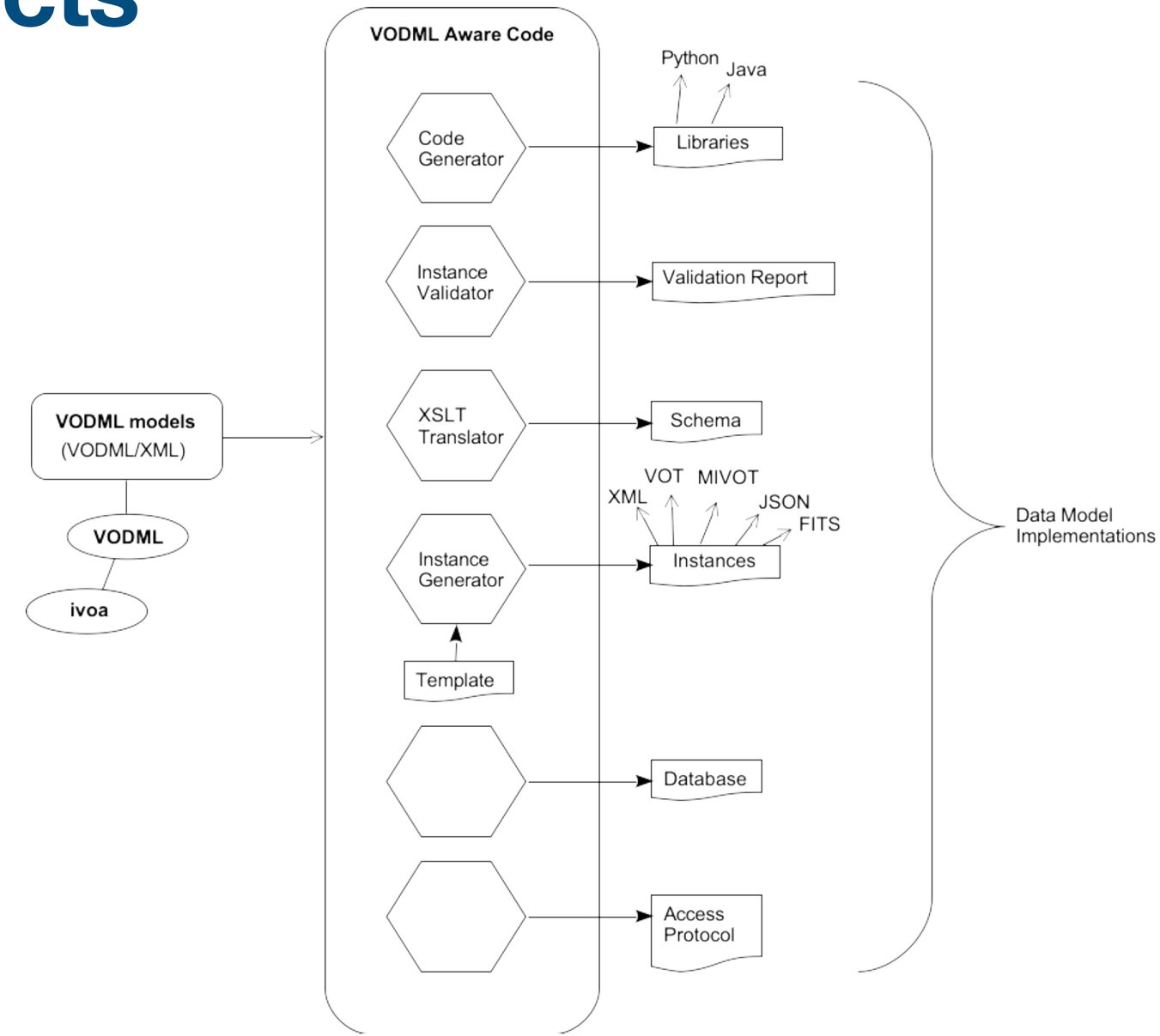
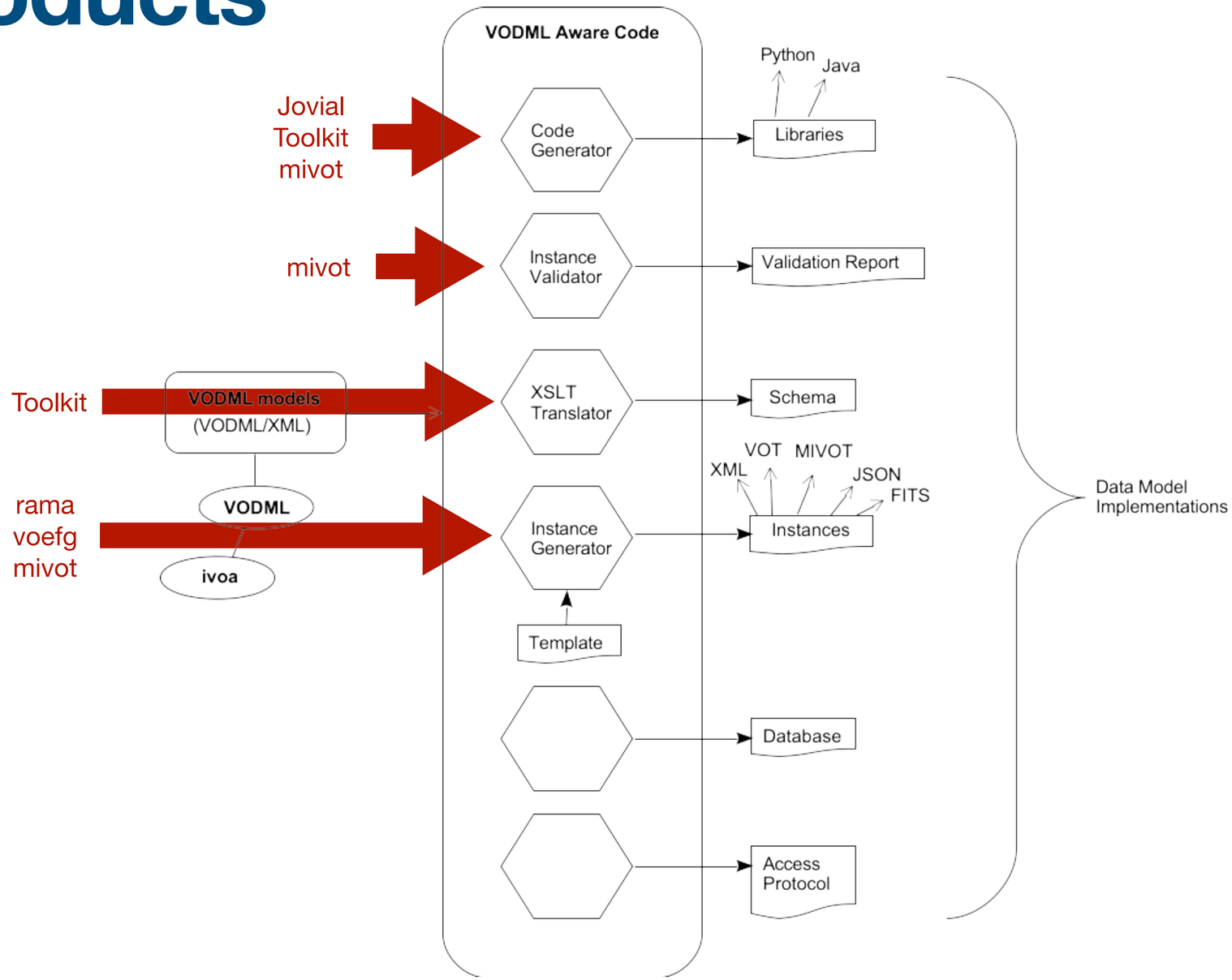
The Goal!

VO-DML Products

Software which understands the VO-DML metamodel can interpret any compliant model and generate products.



VO-DML Products



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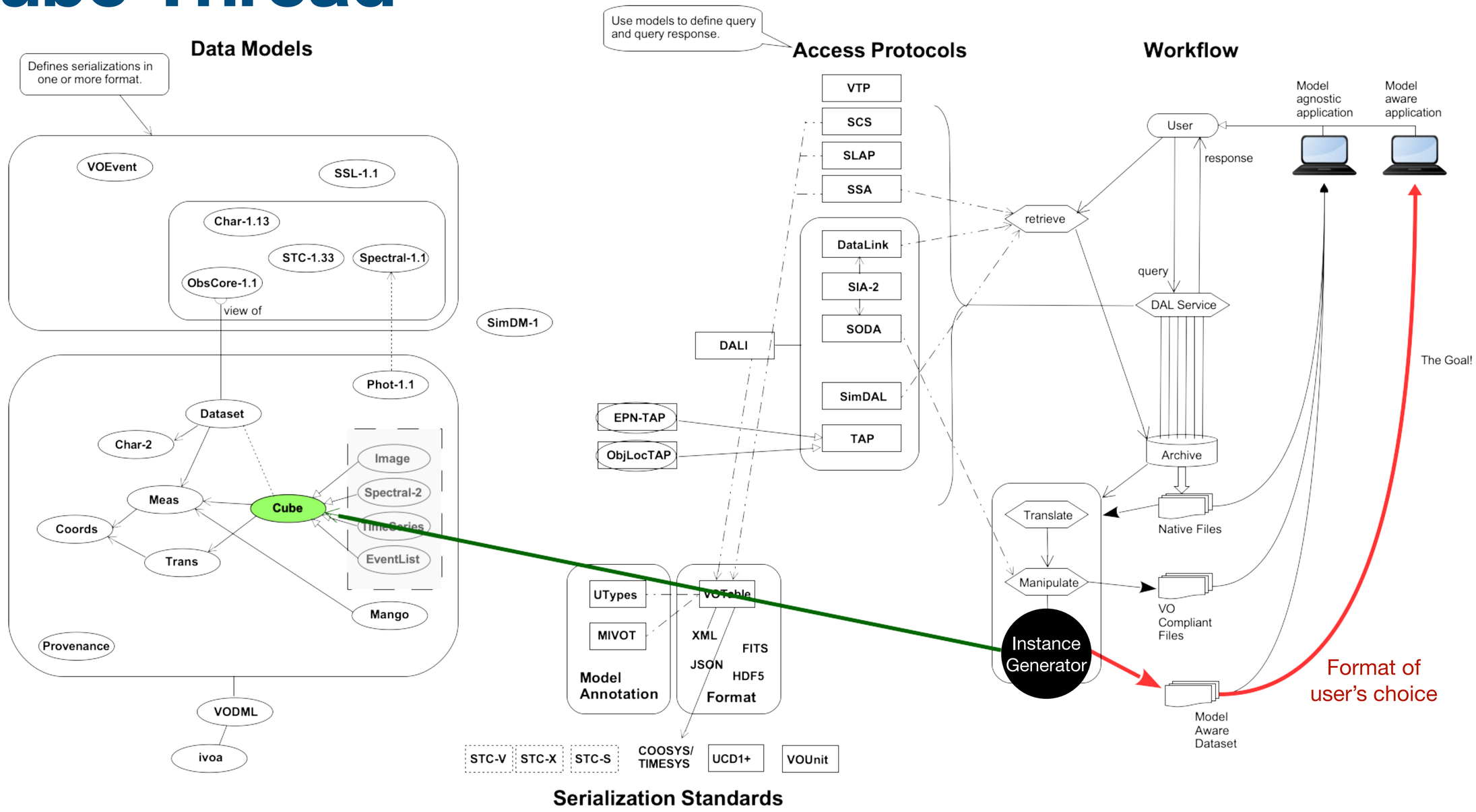
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