Proposal Data Model Update

Paul Harrison (JBO)
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The University of Manchester
Jodrell Bank
Observatory

OPTICON
RadioNet
Pilot

MANCHESTER
1824

Proposal Tool

- A new proposal tool is a funded product of ORP https://www.orp-h2020.eu

  - replacement for Northstar - but different architecture

- Re-use proposal information in other tools - Proposal Data Model.

  - First "deliverable" of the project

- Single Proposal tool deployment can host multiple observatories.

- AAI- will utilize development from elsewhere.

eMERLIN

The University of Manchester
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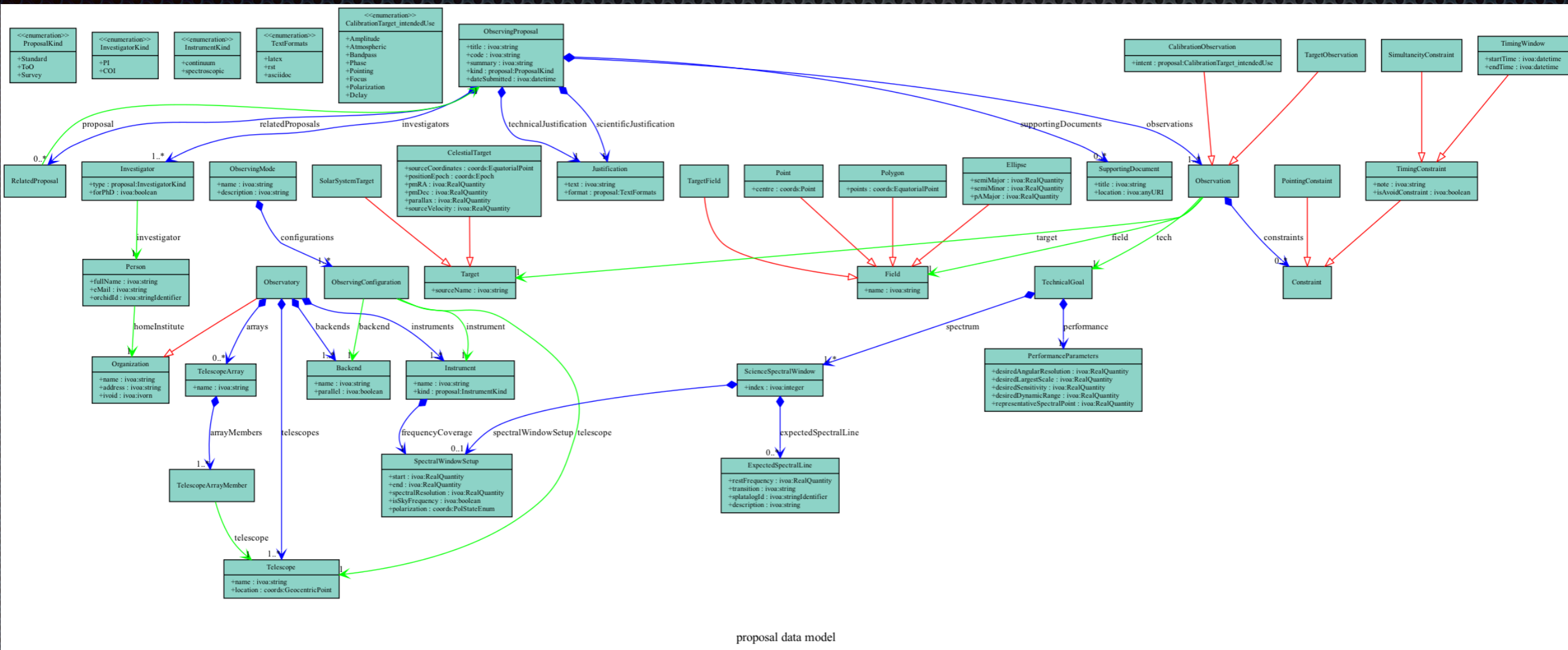Observatory

OPTICON
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Proposal Data Model

- Inspired by Alan Bridger and Bryan Butler "The ALMA/EVLA project data model: steps toward a common project description for astronomy", Proc. SPIE 7019, Advanced Software and Control for Astronomy II, 70190P (14 July 2008); https://doi.org/10.1117/12.789262

- Create formal data model in VODML*

    - Allow for export and interchange

        - easier to interface with other observatory systems - but note only phase 1 model.

    - Try to model scientific requirements rather than instrument specifics

    - Publish model as formal IVOA standard.

- Aim to create the smallest model possible - but it does cover a wide domain.

* actually will use VODSL as a working language

High Level View of PDM

- Model physically split into two files

  - Observer's Perspective (Proposal) - concepts such as

    - Scientific Justification

    - Source Lists

    - …

  - Observatory Perspective (ProposalManagment) - concepts such as

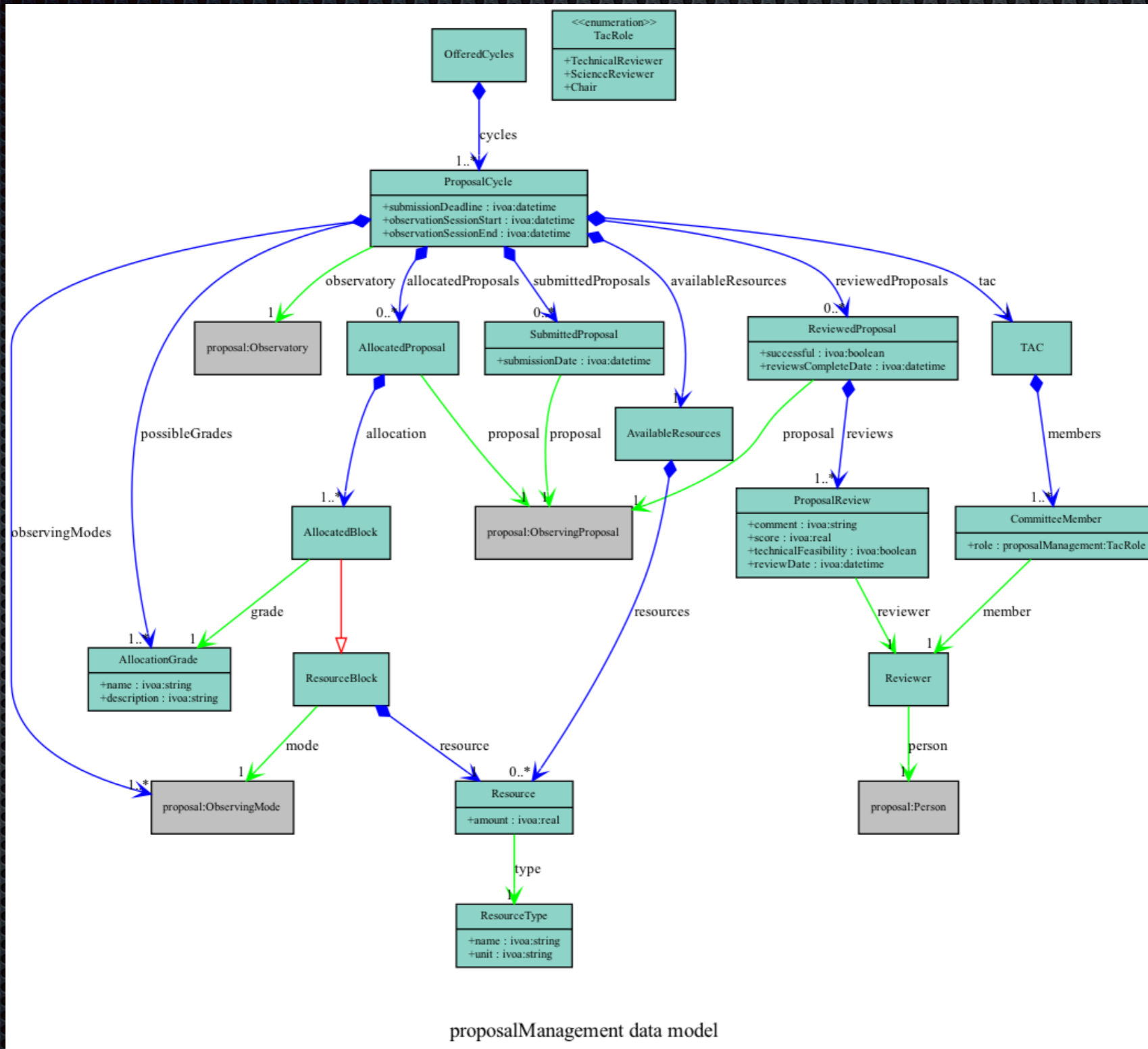   - Observing Cycles

    - Time allocation committee

    - …

Proposal

proposal data model

- 41 Types

ProposalManagement

proposalManagement data model

16 Types

Model Development

- Open collaboration via https://github.com/ivoa/ProposalDM

  - Note that the ultimate model source code is vodsl which is translated into the normative VO-DML.

    - You can just use your favourite text editor…

    - tests run and documentation automatically generated on push

  - Need more observatory specific use-cases expressed as tests

    - Particularly optical observatory

Model TODOs

* VODSL source code has comments indicating where more work is necessary.

* Some concepts need more detail - e.g. SolarSystemTarget

* Some constructs could be different - e.g. Telescope, Instrument, Backend groupings.

* Some concepts might be too general/not general enough - e.g. Resource

Connections with other IVOA work

- COORDS - would like ObjectType that is point on unit sphere (majority of astronomical positions!)

- Would like a "catalogue source" ObjectType - DataSetMetadata has some similar concepts, but it would be nice to factor out into smaller parts - with more detail.

- Observatory/Instrument Metadata - in the Registry? Its own service?

  - semantics vocabulary lists

  - suggestion of WikiData connections….

- ObsLocTap - service has connections - especially for a proposal Tool