API Interoperability Efforts

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ADS Users Group Meeting, 15-16 Nov. 2021
API User Focus Group

- Discussion with heavy API users in winter 2021
- Wish list:
  - Better integration of API with UI
  - More and better documentation, including for concatenated actions
  - If creating a new API client/library, desire to not duplicate efforts (with e.g. the Python ADS library, astroquery, etc.)
API User Focus Group: wish list

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Documenting our entire API with OpenAPI

- **OpenAPI**: Language-agnostic, widely adopted industry standard for documenting APIs in a machine-readable (YAML or JSON) way
- Documented all of our API endpoints (70+ user-facing and 80+ with pipeline and internal scopes)
OpenAPI-Powered Documentation

- Used our OpenAPI spec with a documentation generation tool, RapiDoc, to create new, complete API documentation
- New documentation example

API for Astrophysics Data System (ADS) 1.0.0

API for the NASA Astrophysics Data System

The source code for the project can be found at https://github.com/adsabs.

Individual components:
- Search: https://github.com/adsabs/solt-service
- Stored search: https://github.com/adsabs/vault
- Libraries: https://github.com/adsabs/biblib-service
- Export: https://github.com/adsabs/export_service
- Metrics: https://github.com/adsabs/metrics_service
- Author affiliation: https://github.com/adsabs/author_affiliation_service
- Citation helper: https://github.com/adsabs/citation_helper_service
- Classic import: https://github.com/adsabs/harbour-service
- Objects: https://github.com/adsabs/object_service
- Recommender: https://github.com/adsabs/recom_service
- Reference: https://github.com/adsabs/reference_service
- Resolver: https://github.com/adsabs/resolver_service
- Notifications: https://github.com/adsabs/vault
- Visualizations: https://github.com/adsabs/vis-services

This documentation follows the OpenAPI specification. The UI was created with RapiDoc.
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Example Jupyter notebooks

- Two new notebooks specifically for concatenated actions
  - Searching + adding to/maintaining a library
  - Searching + exporting
- On the horizon: searching + metrics notebook
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