

ORNL DAAC Mercury - ECHO Client for Searching and Retrieving LP DAAC Granules

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Introduction

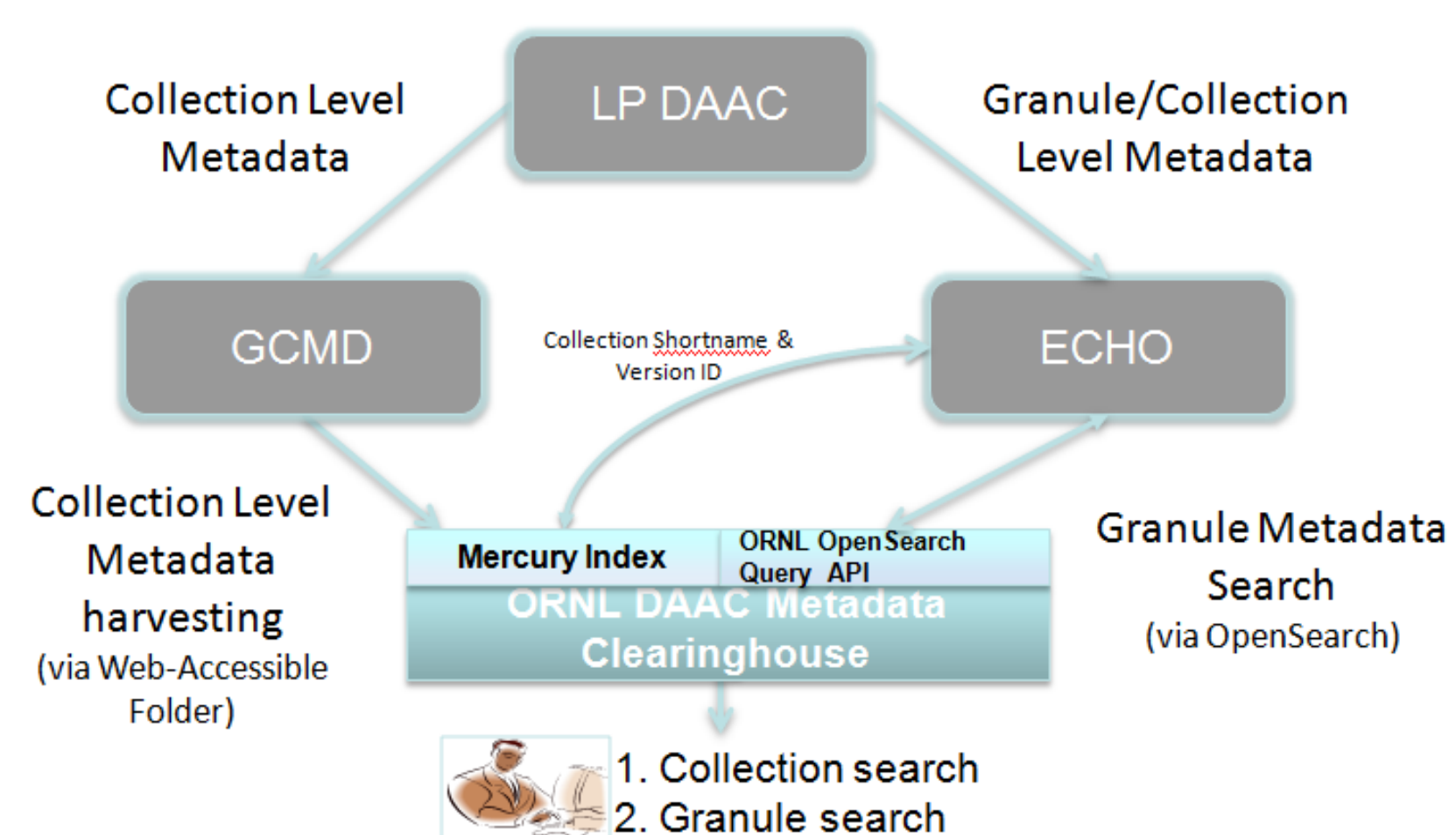
Mercury is a federated metadata harvesting, search and retrieval tool based on both open source and ORNL DAAC developed software. Mercury provides a single portal to information contained in disparate data management systems. Mercury allows the user to perform various types of metadata searches. Users can do a simple (full text) search or they can use an advanced search interface with spatial, temporal and parameter search capabilities. The search summary page provides an integrated summary of the results from the various data sources. Search summary can be e-mailed or bookmarked and summaries results can be sorted or filtered.

Mercury is being used in 14 different projects across 4 federal agencies. Recently as part of the NASA's Technology Infusion project, we developed a Mercury client to search and retrieve LP DAAC granule level metadata via ECHO's OpenSearch.

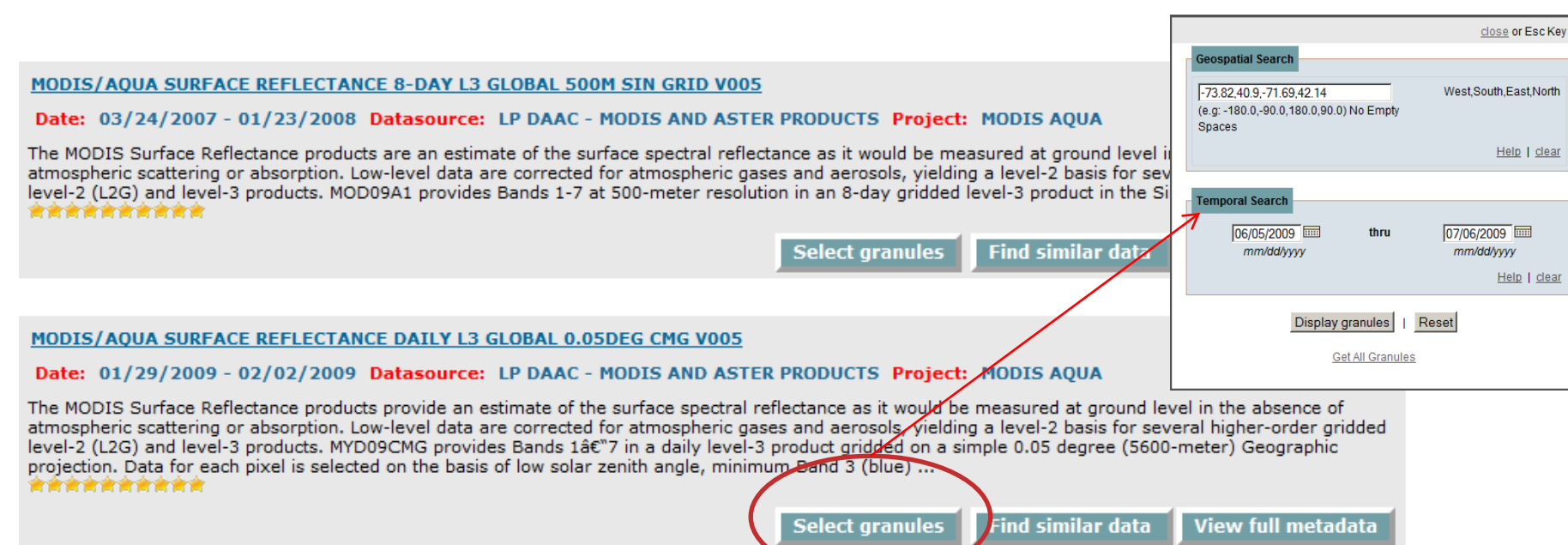
Metadata Harvest and Retrieval

1. Mercury harvester engine collects all the LP DAAC Collection level metadata from Global Change Metadata Directory (GCMD)
2. Mercury enhances harvested Collection level metadata per ECHO specifications. Example: Adding Version ID, Collection level Short name, Project, Keywords.
3. Searchable fields are then parsed and indexed into Mercury to render search capabilities such as simple, fielded, spatial and temporal.
4. From the Mercury search results, users can retrieve LP DAAC granules via ECHO OpenSearch.

Flow of Metadata



Mercury – ECHO OpenSearch Integration

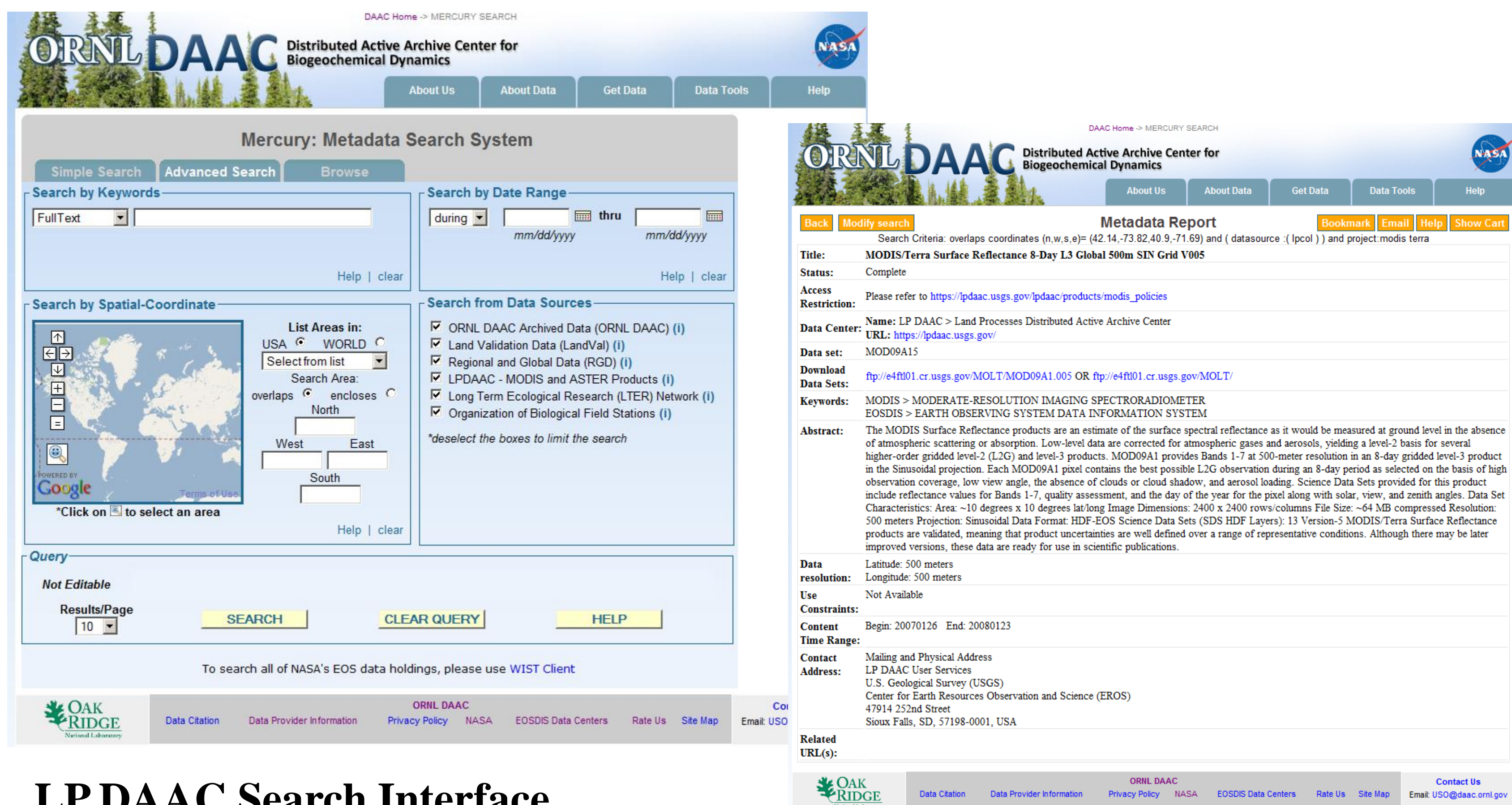


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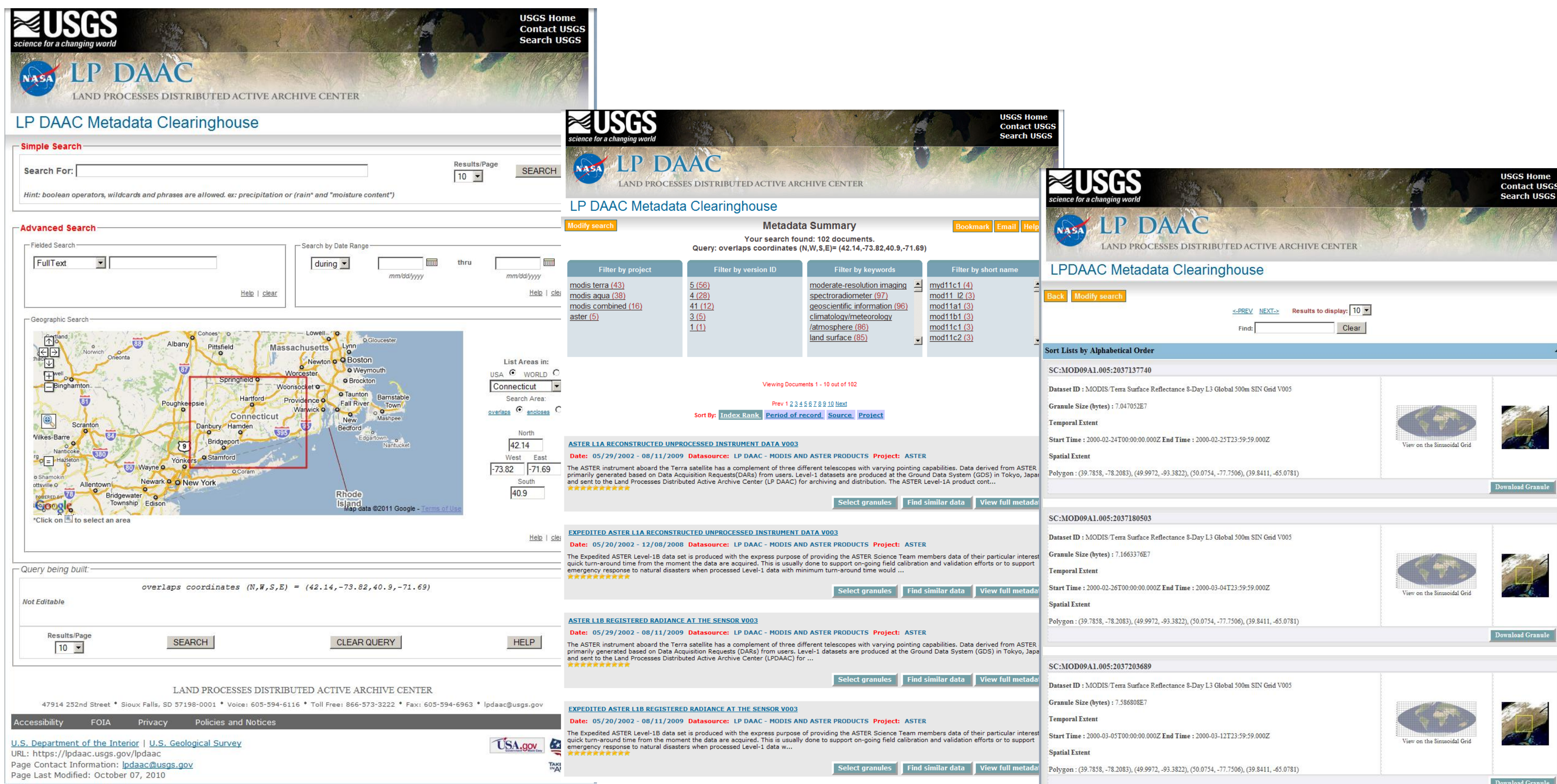


Mercury search Interfaces

ORNL DAAC Search Interface



LP DAAC Search Interface



What's Next?

MODIS Land Products (already in MODIS Tool, we have all the metadata), we would like to set up a test instance and harvest this metadata so we can add the features such as:

- Slide-bar temporal range selector for inclusion in LP DAAC granule interface (can be used in other Mercury applications)
- Spatial display and selection of selected granules by tile and geographic area
- Report total number of granules per search

More Information

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Mercury Search Interfaces

LP DAAC : <http://mercury.ornl.gov/lpdaac>
ORNL DAAC: <http://mercury.ornl.gov/ornl daac>