

Mercury – Distributed Metadata Search and Data Discovery System

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About Mercury

Mercury is a metadata harvesting, search and retrieval tool that provides a single portal to information contained in disparate data management systems. Mercury was originally developed for NASA, with continuing development funded by NASA, USGS, and DOE for a consortium of projects (ORNL DAAC, NBII, DADDI, LBA, LTER, NARSTO, CDIAC, OCEAN, I3N, IAI, ESIP and ARM).

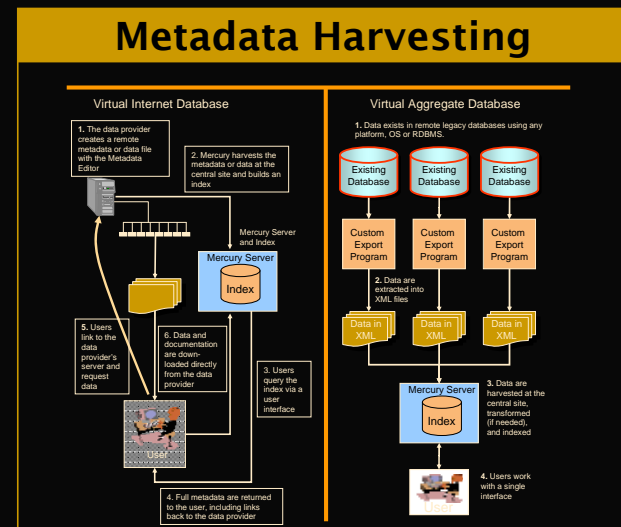
Projects Using Mercury

Mercury Architecture

Mercury supports various metadata standards including XML, Z39.50, FGDC, Dublin-Core, Darwin-Core, EML, and ISO-19115. The new Mercury system is based on open source and Service Oriented Architecture and provides multiple search services. It provides free text, fielded, spatial, temporal and keyword browse tree search capabilities.

Other key features include:

- Seamless data ordering/data extraction functionalities
- Seamless integration to external data visualization tools
- Semantic web integration support (thesaurus service)
- Provides harvested metadata records to other search applications (eg., Google, GCMD, NBII Biobot)



Search Options

Simple Search

Search All Records For: [input] [SEARCH] Results/Page: 10

Keyword Browse Search

Collapsible list of search categories: Data Set Title, Parameters / Source / Site, Site / Sensor / Parameter, Topic / Term / Parameter, Parameter / Source / Sensor.

Advanced Search

Search by Keywords, Search by Date Range, Search by Spatial-Coordinate, Search from Data Sources.

Search Results

The search summary page provides an integrated summary of results found in various data sources. Search summary can be emailed or bookmarked or used as an RSS feed, and summary results can be sorted or filtered.

Search results page showing filters for data providers, parameters, sensors, topics, and projects. It includes a 'Metadata Summary' section with a query: 'fullText:soil carbon AND datasource:(daac landval rgl lter obf)'. Results are sorted by Index Rank, Period of record, Source, and Project.

Other Search Services

Global Forest Information Service is using the Mercury RSS feed for its portal search. Users can easily create RSS feeds for their search criteria.

Sample RSS feed for ORNL DAAC metadata

Additional Information

Mercury home page: <http://mercury.ornl.gov>

ORNL DAAC Mercury Instance: <http://mercury.ornl.gov/ornl daac>

NBII Clearinghouse: <http://mercury.ornl.gov/nbii>

LBA Beija-flor Search Engine: <http://mercury.ornl.gov/lba>

Questions and Comments: mercury-support@ornl.gov

search services

filter results

sort results

metadata summary

access to metadata & data