



The Goddard Library Digital Asset System

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NASA Goddard Library
Taxonomy Tuesday
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DAS Overview



- **DAS = Digital Asset System**
- **Institutional Repository of scientific and technical information**
- **Includes selected GSFC websites, videos and images**
- **Uses open-source software**
 - **Java and Java Server Pages**
 - **Apache Tomcat server and Apache Lucene search engine**
 - **MySQL database**

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Metadata



- **DAS uses the Goddard Core Metadata Element Set**
 - Based on the ISO Standard for Descriptive Metadata (Dublin Core)
 - Extends the Dublin Core to 24 qualified elements
 - Enables custom classification of GSFC-specific content
- **Goddard Core was developed internally to accommodate GSFC project-specific needs**
 - GSFC generates a lot of jargon and project-specific terminology due to personnel matrixing across administrative organizations
 - Examples: Subject.Instrument, Subject.Competencies
- **Metadata Review Group includes internal and external people interested in metadata schema development**
 - Meets quarterly
 - Provides comments and professional collaboration on GC development
 - Includes representatives from government, private industry and academia

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Taxonomy Integration



- NASA Taxonomy serves as the primary DAS taxonomy
- Project-specific taxonomies include:
 - Earth Observing System (EOS)
 - Landsat
 - The taxonomic classifications appear in the DAS search results as Subject.Competencies, and eventually require mutual integration
- Taxonomies currently serve the DAS as controlled vocabularies; we are looking for ways to implement them as front-end search tools

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DAS Search Page

Digital Asset System at Goddard Library - Microsoft Internet Explorer

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Digital Asset System at The Goddard Library

Welcome to the Digital Asset System (DAS) at NASA Goddard Space Flight Center Library
This Goddard Library project focused on Digital Preservation and Knowledge Management.
The DAS searches 94813 digital objects such as web pages, images, and videos.

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Responsible NASA Official: Robin Head, Library Information Services

Internet

NASA Taxonomy Search Page

Engineering

- Aerospace engineering
- Electrical engineering
- Mechanical engineering
- Bioengineering
- Life Sciences
- Agriculture
- Biology
- Botany
- Ecology
- Genetics
- Geobiology
- Physiology
- Zoology
- Biotechnology
 - Cellular Biotechnology
 - Macromolecular Biotechnology
 - Biotechnology Research
- Earth Sciences
 - Atmosphere
 - Biosphere
 - Cryosphere
 - Geosphere
 - Hydrosphere
 - Systems, Interactions, Feedback Loops
- Current Issues
- Earth in Space
- Geochemistry
- Geology
- Geophysics

Search for: AND AND

in: NASA Taxonomy All All

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Responsible NASA Official: Robin Dixon
Head, Library Information Services Branch

EOS Taxonomy Search Page

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Sample Search Results

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Displaying 1 to 10 of 70

View	Metadata	Type	Title	Subject.Competencies	Creator	Code
		Image	Comparing Two Satellite Sensors	EOS.Instruments, EOS.Sensors, NASA.Earth Sciences		
		Web page	Space Geodesy Networks and Sensors Calibration Office	NASA.Earth Sciences, NASA.Geosphere, NASA.Physics, EOS.Calibration, EOS.Sensors		920.1
		Video	The NPOESS preparatory project (NPP)	NASA.Physics, EOS.Sensors	Bob Murphy	920
		Web page	NPOESS Preparatory Project Sensors	NASA.Earth Sciences, EOS.Sensors, EOS.Instruments, EOS.Observatory		429
		Video	MODIS performance	EOS.Sensors, EOS.Calibration	William Barnes	
		Web page	Comparison of L7 and EO-1 Sensors	EOS.Spacecraft, EOS.Instruments, EOS.Sensors		427
		Web page	Ultra Sensitive Photon Sensors @ GSFC Technology	NASA.Technology		500
		Web page	ASAS Sensor and Tilting Platform Details	EOS.Sensors, EOS.Instruments, NASA.Earth Sciences, NASA.Physics		920
		Video	Understanding Our World of the Future: Mastering ...	EOS.Sensors, NASA.Technology, NASA.Earth Sciences	Gran Paules	
		Web page	NASA IPO-REP Office	NASA.Technology, EOS.Sensors, EOS.Instruments		402

Done Internet

Next Steps for DAS Development



- Overhaul code with an open-source IR package (DSpace or Fedora)
- Interface changes - provide search results with context, relevance, thumbnail images
- Integrate the NASA Taxonomy 2.0 as a front-end search and retrieval tool
- Investigate the incorporation of an ontological reasoning mechanism
- Implement rights management and access controls in order to open some of the content to the public
- Support preservation, long-term access and rendering of various file types
- Incorporate more project documentation such as Landsat

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