



**MIKE WASH** *GPO's Chief Information Officer*

**How will FDsys interact with the Integrated Library System?**

FDsys and the Integrated Library System (ILS) will exchange bibliographic records (descriptive metadata) – enabling users to search and access content in-scope for GPO dissemination programs. An ILS record represents in-scope content available in FDsys, although that record may be very brief. Data will pass to FDsys upon the creation of or update to an ILS record by GPO and the information will become searchable. As information is ingested into FDsys, metadata is transformed into MARC format and passed to the ILS – leading to the enhancement of the existing record or creation of a new record. •

# techline

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## GPO's Federal Digital System (FDsys)

### Development of the First Public Release

You have heard about GPO's Federal Digital System (FDsys) for a couple of years and soon it will become a reality. The first public release of FDsys is targeted for later this year and additional releases with increasing functionality will follow approximately every six months.

#### First Efforts Focused on Infrastructure

Much of the current work focuses on the infrastructure required to support the system. The storage capacity of FDsys must be highly scalable in order to support the large amount of data and it must have the ability to accommodate changes to technology, hardware, software, and location without requiring a major system redesign. GPO's adoption of the Open Archival Information System (OAIS) reference model in the FDsys design provides the necessary technological environment for a trusted digital repository. The domain-neutral OAIS model provides the scalability, extensibility, and interoperability required for a system of this magnitude. Detailed information on GPO's adoption of the OAIS reference model is available in the FDsys Concept of Operations located at [www.gpo.gov/projects/pdfs/FDsys\\_ConOps\\_v2.0.pdf](http://www.gpo.gov/projects/pdfs/FDsys_ConOps_v2.0.pdf).

#### New and Improved Capabilities

For the first public release, the content in the system will consist of information migrated from *GPO Access* and day-forward content. Day-forward content is content that GPO receives after the launch of FDsys that is in-scope of GPO's dissemination programs. The parsing of migrated information from *GPO Access* to FDsys will capture metadata elements necessary for advanced searching and browsing –

## FDsys

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#### Get the Latest Information

GPO has posted detailed information about GPO's Federal Digital System (FDsys) at: <http://www.gpo.gov/fdsys>. You can find a wealth of information on all aspects of FDsys including:

- **Updates to *Federal Digital System: System Releases and Capabilities* (revised December 2007) and *Federal Digital System: Requirements Document* (revised January 2008);**
- **Demonstrations of the Search and Submission functions;**
- **Release schedule with details of the major capabilities of each release.**

Also, FDsys has a blog at: <http://fdsys.blogspot.com/>. We would like to hear from you regarding what you think of FDsys.

greatly enhancing the search capabilities currently available on *GPO Access*. FDsys will capture and store multiple types of metadata, including:

- Descriptive
- Administrative
- Technical
- Structural
- Provenance

Metadata describes how, when, and by whom content was collected, what the content is, where it resides, and how it is formatted. FDsys will also integrate with the Integrated Library System's Aleph product for a bi-directional exchange of data between two systems, including MARC records. Users will be able to view descriptive metadata accumulated from automatic processes within the system and from external sources.

The search features in FDsys will enable public users to access final versions of in-scope content and metadata stored within the system.

#### Users will be able to:

- Choose the complexity level of their search (i.e. simple, advanced, citation, expert Boolean)
- Select content collections to search
- Direct search against content and/or metadata
- Customize search results through filtering and bi-directional sorting of results
- Limit the number of search results displayed per page
- Browse content by collection, table of contents, and date issued
- Search using alternate spellings of search terms and suggested corrected spellings

#### Access to Information

Internet search engines will be able to crawl and index publicly available content within FDsys so that users can find government information through their favorite search engine, without navigating directly to FDsys to search. Content within FDsys will have persistent, predictable links, meaning that a link to

a rendition or a granule will not stop working after a user closes their browser. Many *GPO Access* users have created links to documents currently residing in WAIS databases and these legacy links will continue to work once FDsys goes live. FDsys will also provide the ability for internal linking of publications at all levels of granularity to support current *GPO Access* functionality, including the Federal Register Table of Contents. Internal linking refers to the ability to link a piece of text within a document to another digital object. Granular content is content that is broken down into smaller units such as chapters, parts, or sections.

#### FDsys will allow users to:

- Print and download content
- Bookmark search results, content detail pages, and individual collection pages
- Access content on Mac and Windows platforms in HTML/text and PDF formats
- View PREMIS and MODS XML metadata
- Receive the daily Federal Register Table of Contents via email

FDsys will also be compliant with Section 508 of the Rehabilitation Act of 1973, ensuring that Federal employees and members of the public with disabilities have access to and use of information and data, comparable to that of employees and members of the public without disabilities.

#### Authenticity and Version Control

Establishing the authenticity of government information is essential in today's digital world. FDsys will identify deposited content as "authentic" through the application of a digital time stamp to content upon ingest. FDsys will interface with GPO's Automated PDF Signing System for the application of digital signatures on PDF files available through the public search engine. Users must be confident that the version of information they are viewing is official and meets their needs and they must be able to track the history of changes to that information. In the case of

## FDsys Outreach

In April 2008 federal agency customers and members of the Depository Library community attended a GPO seminar highlighting FDsys in San Antonio, Texas. GPO is in the planning similar events throughout the United States over the next several months.

GPO is currently working with a usability contractor to design and test the graphical user interfaces for the first public release of FDsys. We will use multiple methods of gathering feedback on the interfaces, including, one-on-one testing, webinars, and upcoming conferences.

#### Additional upcoming events include:

##### Society for Imaging Science and Technology's 2008 Archiving Conference

June 2008  
Bern, Switzerland

##### NASA Printing Conference

July 2008  
Washington, DC

##### Society of American Archivists Convention

August 2008  
San Francisco, CA

Federal information, multiple versions of Government publications may be available on public web sites, which can be confusing and potentially damaging to users who are not aware of the version of the content. Version control is a necessary operation in the management and dissemination of digital content to ensure that users are accessing the appropriate or desired content. FDsys will evaluate and establish the version of a piece of content and subsequently track it through its entire lifecycle. The process of version control will include acquiring, cataloguing, storing, preserving, indicating relationships among content, and retrieving different versions of content.

#### Security

In today's technological environment, security provisions are a necessity. GPO will use various federal and industry standards to manage and enforce security within FDsys, including LDAP protocols, as well as hash and digital signature standards. GPO will ensure that FDsys user privacy and private data

is kept confidential. FDsys will maintain audit logs of all transactions in the system containing information about the event that occurred including, date, time, outcome, source, description, and user. The audit logs are for internal processing and are required to maintain records vital to generating reports and the support of job and order tracking. GPO will not track external searches or collect personal information about users or the information accessed through FDsys.

#### Looking Forward

The features that will be available in the first public release of FDsys are extensive and the system will have a significant impact on the way people access Government information. GPO will continue to expand the capabilities of FDsys through a series of releases, with the second and third releases focusing on the submission of content by Congress and Federal agencies and the enhancement of access functionality. •