# U.S. Government Publishing Office govinfo System Design Document

# Volume XLI:

# Data Management Definition (DMD)

# **Education Reports from ERIC**

**R1C2** Edition

Prepared by: govinfo Program

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0.11	09/25/2010	<ol> <li>Arity of various PM elements updated</li> <li>Section 6.2, index profile fields belong to package only. Updated various fields from upper-case to lower-case</li> <li>7.1 Updated {publishdate} formatting in line 2</li> <li>7.3 FQL updated for search field identifiers</li> <li>Section 7.3.1 updated</li> </ol>			
0.12	01/16/2013	Changed {PM/topic} and {PM/geographicSubject} to {PM/subject/topic} and {PM/subject/geographic} respectively in accordance with PTR 728			
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2.1	05/27/2014	Search Engine Replacement Project (SERP) Update			
2.3	02/24/2015	GPO name change			
2.4	03/15/2015	Added Preservation Planning chapter			
3.0	01/29/2018	Updated to reflect the govinfo interface as built			

# **Revision History**

Description	Responsible Party	
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### Responsibilities

## **Documentation Conventions**

- Strings with embedded values are indicated with curly-braces, for example: Compilation of Presidential Documents Volume {PCS/volume}, Issue {PCS/issue}, {PM/dateIssued}
- 2. References to XML entities and attributes are referenced using the XPath standard. However, to save room, common prefixes may be abbreviated (see next section).

## System

The name of the system discussed in the DMD is now **govinfo**. When the system was originally designed and implemented, the name of the system was FDsys or Federal Digital System. While many of the references to FDsys have been changed in this document, this name persists in areas related to computer code, file names, schemas etc. For example, the name of the computer file containing metadata for a package continues to be "fdsys.xml".

### Abbreviations

This document uses the following abbreviations for specifying elements in "fdsys.xml":

- PH Package header fdsysPackage/packageHdr/
- PM Package metadata fdsysPackage/packageHdr/descPkgMd/
- PCS Package collection specific metadata fdsysPackage/packageHdr/descPkgMd/collectionSpecific/
- GM Group metadata (generic granule metadata) fdsysPackage/mdSect/descMdGroups/descMdGroup
- GCS Group collection specific metadata (collection specific granule metadata) fdsysPackage/mdSect/descMdGroups/descMdGroup/collectionSpecific/

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## 1. Introduction

## 1.1. General Description

The ERIC Collection contains records to education related materials and journals such as:

- Books
- Research syntheses
- Conference papers
- Technical reports
- Policy papers

The data is used primarily by people interested in education policy, instructors and students in teaching programs. The data comes from a myriad of different sources and prefaced by an abstract and metadata on the first page of the PDF file. The GPO collection is static with data going from 1995 to 2004.

GPO Access contains reports on federally funded education research topics from the U.S. Department of Education's Educational Resources Information Center. Reports on *GPO Access* begin with those received in October 2002. Prior reports are available from select <u>Federal depository libraries</u> nationwide in microfiche. A larger selection of ERIC reports is available from the <u>ERIC program</u>. Files are available in Adobe Portable Document Format (PDF) only.

PM/collectionCode	Display Name
ERIC	Education Reports from ERIC

## 1.2. Document Types

There is only a single type of file for ERIC, the PDF file that contains the educational resource.

PCS/	User-readable	User-readable	Description
docClass	(full)	(abbreviated)	
ERIC	Education Resources Information Center	ERIC	ERIC indexes education journals, the majority of which are peer-reviewed. Most of these journals are indexed comprehensively - that is, a record for every article in each issue is included in ERIC. Some journals are indexed selectively - that is, only those articles that are education- related are included.

## 2. "fdsys.xml" Metadata Schema Elements

### 2.1. Package Metadata

Notes:

- See above for XML entity abbreviations (PM and PCS)
- Items which are <blank> do not need to be included in the "fdsys.xml" file.
- All of the data values below are assumed to be strings unless specified otherwise.

XML Entity	Description or "constant value"	Source	Arity*		
Generic Metadata Fields					
PM/collectionCode	"ERIC"	constant	1		
PM/quality	Filled out by parser (see section 4.3.1)	parser	0-1		
PM/scope	"fdlp"	constant	1		
PM/governmentAuthor1	"Department of Education"	constant	1		
PM/governmentAuthor2	"Education Resources Information Center"	constant	1		
PM/governmentAuthor3	<blank></blank>	n/a	0		
PM/starprintNumber	<blank></blank>	n/a	0		
PM/category	"Executive Agency Publications "	constant	1		
PM/title	The title of the report as parsed from the document	parser	1		
PM/title/@info	"from-parsing"	parser	1		
PM/sourceContentType	"deposited"	constant	1		
PM/ packageDigitalOrigin	"born digital"	constant	1		
PM/personalAuthor	<blank></blank>	n/a	0-1		
PM/branch	"executive"	constant	1		
PM/typeOfResource	"text"	constant	1		
PM/genre[@authority=" marcgt"]	"government publication"	constant	1		
PM/geographicLocation	<blank></blank>	n/a	0-1		
PM/dateIssued	The date of the document as parsed from its summary metadata.	parser	1		
PM/dateCreated <blank></blank>		n/a	0-1		
PM/dateCopyrighted	PM/dateCopyrighted <blank></blank>		0-1		
PM/dateValid	PM/dateValid       		0-1		
PM/dateModified	<blank></blank>	n/a	0-1		
PM/dateIngested	Date ingested into govinfo	submission	1		
PM/edition	<blank></blank>	n/a	0-1		

XML Entity	Description or "constant value"	Source	Arity*
PM/issuance	"monographic"	constant	1
PM/language	"eng"	constant	1
PM/abstract	PM/abstract The abstract parsed from the document metadata.		0-1
PM/tableOfContents	   	n/a	0-1
PM/subject/topic	<blank></blank>	n/a	0-1
PM/subject/geographic	<blank></blank>	n/a	0-1
PM/temporalSubject	<blank></blank>	n/a	0-1
PM/classification/ [authority="sudocs"]	"ED 1.615:"	constant	1
PM/otherIdentifier [@idStandard= 'ils-system-id']	"000573142"	n/a	1
PM/otherIdentifier [@idStandard= 'migrated-doc-id']	<blank></blank>	n/a	0-1
PM/otherIdentifier [@idStandard= 'stock-number']	<blank></blank>	n/a	0-1
PM/otherIdentifier/ [@idStandard= 'sudoc-item-number']	<blank></blank>	n/a	0-1
PM/otherIdentifier [@idStandard='isbn']	From document metadata.	parser	0-1
PM/otherIdentifier [@idStandard='issn']	<blank></blank>	n/a	0-1
PM/part	<black></black>	n/a	0-1
PM/waisDatabaseName	<black></black>	n/a	0-1
PM/notes	<black></black>	n/a	0-1
PM/recordSource	"DGPO"	constant	1
PM/recordCreationDate	Date that the "mods.xml" is created	processing	1
PM/recordChangeDate	Date that the "mods.xml" is modified	processing	1
PM/recordOrigin	"machine generated"	constant	1
PM/subTitle	                                  	n/a	0-1
PM/creator	   	n/a	0-1
PM/publisher	"U.S. Department of Education"	constant	1
PM/pageCount         Computed based on the total page count of the pages in the PDF rendition.		processing	1
PM/frequency	   	n/a	0-1

XML Entity	Description or "constant value"	Source	Arity*			
	Collection-Specific Metadata Fields					
PCS/docClass	"ERIC"	constant	1			
PCS/accessId	PCS/accessId The access identifier for this package, used to uniquely identify this granule to the public. Example "ERIC-ED463724"					
PCS/type	The type of education resource. Example, "Creative Works"	parser	1-n			
PCS/institution	The "INSTITUTION" is the originating institution for of the resource. Example "Arizona Univ., Tucson. Coll. of Education."	parser	0-1			
PCS/sponsorAgency	The sponsoring agency of the education resource. Example "Special Education Programs (ED/OSERS), Washington, DC."	parser	0-n			
PCS/subject	The "DESCRIPTORS" attribute found in the metadata section of the PDF file	parser	0-n			
PCS/identifiers	The "IDENTIFIERS" attribute found in the metadata section of the PDF file	parser	0-n			
PCS/ericNumber	[KEY]The ERIC # for the report. This the file name without the extension. Example "ED464427"	parser	1			
PCS/personalAuthor	The author(s) of the ERIC resource as parsed from the document metadata. Example, "Kaput, James J."	parser	0-n			
PCS/isFallbackTitle	Will be "true" if a fallback title was used for this package, or "false" if it is a normal, descriptive title.	parser	1			

\*Arity is with respect to the parent element. For example, a parent element with an arity of "0-1" is optional and single-valued, while a child element with arity of "1" is mandatory, but only if the parent element is present.

## 2.2. Granule Metadata

There are no granules in this collection.

## 2.3. Standardized References

The ERIC DMD uses no standard references.

## 3. Renditions and Input Files

## 3.1. Renditions

Format Name	Mime Type	Classifica- tion	From	Pub- lic	Gran -ules	Description
pdf- submitted	application/ pdf	production	Plant	no	no	The original PDF files
pdf	application/ pdf	web- optimized	pdf- submitted	yes	no	The PDF rendition, for public consumption. This is separated from "pdf-submitted" since the files will be renamed and to allow for future digital signing.
text	text/plain	production, derived	pdf- submitted	no	no	Produced from the submitted PDF by processing. Note: This is an ACP derived rendition. It is not stored in the AIP.

Notes:

- 1. The format name will be used for the rendition folder name, which will in turn be used as a component of the URL for access.
- 2. If the rendition is public, then it will also have classification="public-access".

## 3.2. Plant Processing

This is a static collection. There will be no further GPO Plant processing required.

## 3.3. Migration Input & Packaging

Detailed packaging rules were computed as each directory of files was migrated from the former GPO Access system. The following is a rough guide for how to determine, for each file name, how to determine the package ID to which it will be assigned.

Rendition	Sample File Names	Instructions for determining package ID	
pdf-submitted	ed464338.pdf	Remove extension from file name.	
text	ed464338.txt	This rendition is generated from the "pdf-submitted rendition". It should be generated following the output format of the "pdftotext" tool. The name of the file is the same as the PDF rendition but with a ".txt" extension instead. For example, "ed464338.pdf" yields "ed464338.txt". The file is set on the "text" rendition folder of the package.	

## 3.4. Day Forward Input

This is a static collection. There will be no day-forward processing required.

## 4. Parsing

## 4.1. Renditions

This collection will be parsed using the text rendition produced from the submitted PDF. The DMD assumes the text output resembles the Adobe "Saves as Text" format. Dates for all renditions should be converted to YYYY-MM-DD format. Also, only dates should be stored. There are no date-time formats in this collection.

## 4.2. Parsing Text

All the metadata for the document is found on the first page.

## 4.2.1. Preprocessing

Reduce the parsing scope to the first page by excluding all other pages. The document will have a top header separating the pages. The second header instance in the document marks the end of the first page. Below is an example of the header pattern to match:

```
7 organizations that offer help to families, caregivers, and teachers and an
annotated list of 11 print resources.) (CR)
Reproductions supplied by EDRS are the best that can be made
from the original document.
This is the background image for an Adobe Acrobat Capture OCR page with image
plus hidden text.
Perspectiva General sobre la Sordo-Ceguera. DB-LINK.
Diciembre de 1995
Por
Barbara Miles
```

## 4.2.2. Granules

There are no granules associated with this collection.

## 4.2.3. Parsing Metadata

All the metadata about the content is found on the first page of the document and will be parsed in a similar fashion. The few exceptions will be noted in subsequent sections. Below is a sample of the metadata from the text rendition.

	DOCUMENT RESUME
AUTHOR	Kleiner, Anne; Lewis, Laurie
AUTION	Rieffier, Anne, Dewis, Daurie
TITLE	Internet Access in U.S. Public Schools and Classrooms: 1994-
	2002. E.D. Tabs.
INSTITUTION	National Center for Education Statistics (ED), Washington,
	DC.; Westat, Inc., Rockville, MD.
REPORT NO	NCES-2004-011
PUB DATE	2004-00-00

NOTE	85p.; Project Officer, Bernard Greene. For the 1994-200'1
	edition, see ED 472 678.
AVAILABLE FROM	For full text: http://nces.ed.gov/pubs2004/2004011.pdf.
PUB TYPE	Numerical/Quantitative Data (110) Reports - Research (143)
	Tests/Questionnaires (160)
EDRS PRICE	EDRS Price MFOl/PC04 Plus Postage.
DESCRIPTORS	*Classroom Environment; Educational Equipment; Information
	Dissemination; Information Technology; *Internet; Public
	Education; *Public Schools

ABSTRACT

This report presents data on Internet access in U.S. public schools from 1994 to 2002 by school characteristics. It provides trend analysis on the progress of public schools 'and classrooms in connecting to the Internet and on the ratio of students to instructional computers with Internet access. For the year 2002, this report also presents data on the types of Internet connections used; student access to the Internet outside of regular school hours; laptop computer loans; hand-held computers for students and teachers; and school Web sites. It also contains information on computer hardware, software, and Internet support and Web site support at the school; teacher professional development on how to integrate the use of the Intern'et into the curriculum; and technologies and procedures to prevent student access to inappropriate material on the Internet. Appended are the Methodology and Technical Notes; and Questionnaire. (Contains 43 tables and 4 figures.) (Author)

Reproductions supplied by EDRS are the best that can be made from the original document.

All documents start with the text "DOCUMENT RESUME". But the first metadata does not appear until the line starting with "AUTHOR". The author metadata element is typically the first element to be found, but "TITLE" has also shown up where there is no author element. All metadata element names are all in capital letters. The other important factor to notice is that values for the metadata elements start always from a particular character spacing in document. It the previous example the metadata values start at character 19. Elements with multiple values have the value delineated by a ";" (semi-colon).

#### Common actions:

- Remove any carriage returns or end of line codes.
- Do not include the last period as part of the value.
- Set the {PM/title/@info} metadata attribute to "from-parsing".
- Remove any asterisks (i.e. "\*") from the values
- Remove any semi-colons (i.e. ";") from the values

• Remove the extra "ISBN" from the ISBN values only.

Table of mappings from element name in the text to specific metadata values:

Element from Text Rendition	Metadata Name
TITLE	PM/title
AUTHOR	PCS/personalAuthor
PUB DATE	PM/dateIssued
ISBN	PM/otherIdentifier[@idStandard='isbn']
PUB TYPE	PCS/type
ABSTRACT	PM/abstract
INSTITUTION	PCS/institution
SPONS AGENCY	PCS/sponsorAgency
DESCRIPTORS	PCS/subject
IDENTIFIERS	PCS/identifiers

## 4.2.4. PM/title and PCS/isFallbackTitle

If no title can be parsed from the document, set {PM/title} to the following fallback title:

```
"Education Report {PCS/ericNumber}"
```

Where {PCS/ericNumber} is formatted with intervening spaces as follows:

```
{alphaprefix} {ddd} {ddd}
```

And "ddd" segments are taken in order from the numeric suffix.

```
For example, ED464761 is formatted as "ED 464 761".
```

If the fallback title is used, be sure to set {PCS/isFallbackTitle} to "true". Otherwise, set it to "false".

## 4.2.5. PM/datelssued

The {PM/dateIssued} value is found on the line for the "PUB DATE". For example:

```
SPONS AGENCYSpecial Education Programs (ED/OSERS), Washington, DC.PUB DATE1995-12-00NOTElop.; For the English version, see ED 436 056.
```

Here the {PM/dateIssued} is "1995-12-01".

Note:

- The format is interpreted as YYYY-MM-DD
- The "PUB DATE" can set the month and date value to "00".
- When the month or date is set as "00", default the value to "01".

## 4.2.6. PM/abstract

The {PM/abstract} data can be found at the end of the metadata section. It is preceded by the uppercase "ABSTRACT" markup. It is terminated by a pattern "Reproductions supplied by EDRS are the best that can be made". It is important to note that the value for {PM/abstract} does not start on the same line as the "ABSTRACT" element. It starts on the next line and frequently does not use the same character starting position.

For example:

DESCRIPTORS	*Federal Aid; Higher Education
ABSTRACT	
	This guide explains student financial aid programs the U.S.
Department of E	ducation's Federal Student Aid (FSA) office administers. The
first three page	es are a quick reference; the rest of the publication provides
more of what you	u need to know about the financial aid programs offered. (AMT)
	Reproductions supplied by EDRS are the best that can be made

Please note the abstract should be truncated to the "." prior to the terminating pattern. As with other metadata elements remove any carriage returns in the metadata, but not the trailing period.

## 4.2.7. PCS/accessId

The formula for deriving the access identifier:

{PM/collectionCode}-{PCS/ericNumber}

Example:

ERIC-ED463948

## 4.2.8. PCS/type

The {PCS/type} is found after the "PUB TYPE" tag on the metadata page in the document. There can more than one identifier per document and they should all be indexed. Unlike other metadata values, the values for this element are separated by "--".

For Example:

```
      AVAILABLE FROM
      For full text: http://nces.ed.gov/pubs2004/2004011.pdf.

      PUB TYPE
      Numerical/Quantitative Data (110) -- Reports - Research (143)

      -- Tests/Questionnaires (160)
      .

      EDRS PRICE
      EDRS Price MF01/PC04 Plus Postage.
```

The {PCS/type} values for this example are "Numerical/Quantitative Data", "Reports – Research", "Tests/Questionnaires".

- As with other metadata elements remove any carriage returns in the metadata.
- Additionally, remove any text in parentheses encountered and the "--" characters.

- Frequently values have dash in the data such as "Reports -Evaluative (142)". The dash should have a single space on either side, so the value would appear as "Reports - Evaluative".
- Set each value into a separate {PCS/type} metadata field.
- Note: If unable to parse out a {PCS/type} set it to "Other".

## 4.2.9. PCS/ericNumber

The {PCS/ericNumber} is the file name of the document, dropping the extension.

Convert the file name to uppercase before assigning the value to {PCS/ericNumber}.

For Example:

Directory of \data\2000\pdf-submitted						
05/05/2009	01•40	РM	<dir></dir>			
05/05/2009			<dir></dir>		· 	
04/02/2009	02:55	PM	4,	,604,128	ed463510.pdf	
04/02/2009	02:55	PM	5,	,670,425	ed463572.pdf	
04/02/2009	02:55	PM	4,	,020,631	ed463617.pdf	
04/02/2009	02:55	PM	1,	,501,243	ed463618.pdf	

The files highlighted would have the {PCS/ericNumber} of ED463510, ED463572, ED463617, and ED463618 respectively.

## 4.3. Validation Heuristics

The following validation heuristics should be checked by the parser and added to the element in the "fdsys.xml" value as a "quality=" attribute or the <quality> element.

## 4.3.1. Validating Granules and Packages

There are two quality elements for flagging quality issues encountered when parsing packages and granules.

PM/quality (and PM/quality/@quality)

GM/quality (and GM/quality/@quality)

In general, quality/@quality should specify either "error", "low", or "medium". The text inside the <quality> element should provide some descriptive text as to why the quality was tagged as such.

Situation Metadata @qua		@quality	Descriptive Text
Unrecognized file name format	PM/quality	error	"Unrecognized file name format"
Incorrect format	PM/quality	error	"Text file format appears to contain locator data"

## 5. govinfo Processing

This section describes in detail all of the steps required to process the collection files inside of **govinfo**. This includes creating renditions, creating the table of contents, mapping metadata, expected manual edits, etc.

## 5.1. Special Manual Interventions Required

There are no special manual interventions required for this collection.

## 5.2. Text Creation

The PDF files will need to be converted to text using the "pdftotext" tool. Text files will:

- Be stored in the "text" rendition
- Have the same file name as the PDF file, except...
- Will have a ".txt" extension instead a ".pdf"

For example: "ed453610.pdf" will be run through the "pdftotext" tool and will result in an "ed453610.txt" file which will be stored in the text rendition.

## 5.3. PDF Processing

### 5.3.1. Renaming PDF files

The submitted PDF file for the entire package will need to be copied to the "pdf" rendition and renamed. The original file name is of the form "ed{digits}.pdf" and should be renamed to a file name of the form "{PCS/accessId}.pdf". For example, the file "ed483019.pdf" should be copied to the "pdf" rendition and renamed "ERIC-ED483019.pdf".

## 5.4. HTML Processing

There will be no HTML rendition for this collection. Only a PDF rendition will be made public. The text version of the files will not be made public in any way. They are used only for parsing.

## 6. Content Publishing and Indexing

### 6.1. Indexing Granularity

There will be an entry in the public web site search engine indexes for:

- 1. The package as a whole
  - This entry will be used for the "Browse by Date" feature on **govinfo** as well as for simple and advanced searches.
  - $\circ~$  The PDF content file for the package will be indexed with this entry, as well as the metadata

## 6.2. Index-profile field mapping

Notes:

1. {pdfobj} is computed as follows:

/fdsysPackage/contentSect/rendition[label/mime='application/pdf' and isPublic='true']/digitalObject/techMdGroup

2. There are no granules in ERIC. All the fields defined below belong to the package.

Index-profile Field	From "fdsys.xml" Entity(ies) and Special Instructions	Purpose		
Standard ESP Fields				
title	{PM/title}	results, sorting		
getpath	file://{package-directory-location}/{pdfobj}/filePath Note: "getpath" is a special field for indexing document content by file name into the "body" and "content" fields.	full content search		
teaser	{PM/abstract}	results		
contenttype	"text/html"	indexing control		
language	{PM/language}	indexing control		
charset	"utf-8"	indexing control		
url	https://www.govinfo.gov/content/pkg/{PCS/accessId}/ {pdfobj}/filePath	admin & testing		
	Standard Document Types and Identifiers			
accode	{PM/collectionCode}	navigator, results		
packageid	{PCS/accessId}	results		
granuleid	<blank></blank>	n/a		
docClass	{PCS/docClass}	navigator, results		
granuleClass	<blank></blank>	n/a		
processingcode	results			
Granule and Collection Hierarchy Fields				

Index-profile Field	From "fdsys.xml" Entity(ies) and Special Instructions	Purpose		
nodeclass	"simple;package;browse;"	search control		
treesort	(See next section below)	sorting		
ancestors	   	n/a		
thisnode	   	n/a		
	Publishing Specific Fields			
publishdate	{PM/dateIssued}	sorting		
publishdatehier	{PM/dateIssued} Formatted as "YYYY; YYYY/MM; YYYY/MM/DD"	hierarchical navigator		
publishyear	{PM/dateIssued} Formatted as "YYYY"	navigator		
publishmonth	{PM/dateIssued} Formatted as "MM"	navigator		
publishweek	{PM/dateIssued} Formatted as "MM-DD/W" where the MM-DD/W is the month and day of the Friday on or after the {PM/dateIssued} OR the last of the month, whichever is earlier.	navigator		
publishday	{PM/dateIssued Formatted as "MM-DD/W" where "W" is the numeric day of the week where 1=Sunday and 7=Saturday			
publishmonthyear	{PM/dateIssued} Formatted as "YYYY-MM"	navigator for browse		
firstpage	<blank></blank>	results, citation search		
lastpage	<blank></blank>	results, citation search		
pageprefix	                                  			
governmentauthor	{PM/governmentAuthor1}; {PM/governmentAuthor2};	navigator		
xmldata	(a copy of the "mods.xml")	advanced search		
	Fields for Relevancy Ranking Control			
grank1	{PCS/ericNumber}; {ericnum-formatted} Note: {ericnum-formatted} is {PCS/ericNumber} formatted as			
grank2	{PM/title}; "Education Reports from ERIC"	relevancy ranking		
grank3	<pre>{PCS/institution}; {PCS/sponsorAgency}; {PCS/personalAuthor} Note: Include all occurrences of {PCS/personalAuthor} fields separated by semi-colons.</pre>	relevancy ranking		

Index-profile Field	From "fdsys.xml" Entity(ies) and Special Instructions	Purpose
grank4	{PM/abstract}; {PCS/subject}; {PCS/identifier};4Note: Include all {PCS/subject} and {PCS/identifier} values separated by semi-colons.	
grank5	<blank></blank>	relevancy ranking
grank6	<blank></blank>	relevancy ranking
	File Access Fields	
pdffile	{pdfobj}/filePath	content delivery
pdfsize	{pdfobj}/fileSize	content delivery
htmlfile	       	n/a
htmlsize	<blank></blank>	n/a
other1file	<blank></blank>	n/a
other1size	   	n/a
other1mime	<blank></blank>	n/a
other2file	<blank></blank>	n/a
other2size	   	n/a
other2mime	   	n/a
	Common govinfo Metadata	
branch	PM/branch	navigator
chamber	   	navigator
category	PM/category	navigator
	Standard Navigator Add-Ins	
fdsys_orgs	{PCS/institution}; {PCS/sponsorAgency}	navigator
fdsys_people	fdsys_people       {PCS/personalAuthor};         Note: There may be multiple {PCS/personalAuthor} values.         Include them all separated by semi-colons.	
fdsys_locations	<blank></blank>	navigator
fdsys_concepts	{PCS/type}: {PCS/subject}; {PCS/identifier}; Note: There may be multiple values for the three metadata fields. Include them all separated by semi-colons.	navigator
	Collection-Specific Fields	
generic1val	ic1val       {PCS/type};         Note: Include all values separated by semi-colons.	
agencies	{PCS/sponsorAgency}	navigator

Index-profile Field	From "fdsys.xml" Entity(ies) and Special Instructions	Purpose
categoryhier	Subject/{PCS/subject}; Identifier/{PCS/identifier}; Type/{PCS/type}; Notes: 1. There can be multiple subjects, identifiers and types. Include all of them, separated by semicolons. 2. For each entry set the appropriate prefix constant. For example: Subject/Children; Subject/Communication Skills; Subject/Communication (Thought Transfer); Subject/Deaf Blind; Type/Guides; Type/Non-Classroom	hierarchical navigator
r.ericnumber	{PCS/ericNumber}	results
r.fericnumber	er {PCS/ericNumber} Note: Format ERIC number as "{alphaprefix} {ddd} {ddd}". Where {ddd} are digits from the numeric suffix. For example, "ED 463 412"	
r:isfallbacktitle	{PCS/isFallbackTitle}	results

Note: Fields prefixed with "r:" are stored in the "resultsbundle" index-profile field, as a nested list of name/value pairs. These pairs are unbundled for display as needed by the search API layer.

## 6.3. Computing "treesort"

The "treesort" field will be used to sort the documents when being displayed for collection browsing. Tree sort will be made up of the following components, each separated by a forward slash:

Order	"fdsys.xml" Field	Formatting and Special Instructions
1	PM/dateIssued	Format to YYYY
2	PCS/ericNumber	

For example:

1996/ED438032 1996/ED439239

## 6.4. Solr Fields

For compatibility and convenience purposes, the index fields defined in the Index Profile, i.e. the index transform file named "index.xsl", remain exactly as described in the previous sections. However, upon Publishing, these fields are mapped to Solr fields and additional fields are also defined.

Index-Profile Field	Action	Solr Field Name	Туре	Notes			
	Standard Fields						
		title	text tokens	The 2 <sup>nd</sup> field is used			
title	сору	title_exact	string	for sorting.			
		<none></none>		The file referenced			
getpath	file extraction	body	text tokens	here is used to populate "body" and then discarded.			
teaser	flag teaser	teaser	string	Stored, not indexed! Generated from "body" for granules or from file access fields for package.			
contenttype	copy	contenttype	text tokens				
language	сору	language	string	Default is "eng"			
charset	ignore	<none></none>		Not required for Solr			
url	copy	url	string				
	Stand	lard Document Types and	l Identifiers				
accode	multi- valued	accode	lowercase tokens				
		packageid	lowercase				
packageid	сору	id	string	Unique Solr Doc Id – only use packageid when not a granule			
docclass	сору	docclass	lowercase tokens				
processingcode	сору	processingcode	lowercase				
	Gran	ule and Collection Hiera	rchy Fields				
nodeclass	multi- valued	nodeclass	lowercase				
treesort	сору	treesort	string				
		Publishing Specific Fi	elds				
publishdate	date/time	publishdate	date				
publishdatehier	multi- valued	publishdatehier	string				
publishyear	сору	publishyear	string				
publishmonth	сору	publishmonth	string				
publishweek	сору	publishweek	string				
publishday	сору	publishday	string				

Index-Profile Field	Action	Solr Field Name	Туре	Notes			
publishmonthyear	сору	publishmonthyear	string				
governmentauthor	multi- valued	governmentauthor	text tokens				
xmldata	xml	xml	xml tokens	MODS data			
	Fiel	ds for Relevancy Ranking	g Control				
grank1	сору	grank1	text tokens				
grank2	сору	grank2	text tokens				
grank3	сору	grank3	text tokens				
grank4	сору	grank4	text tokens				
	File	Access Fields (Stored, not	indexed!)				
pdffile	package teaser	pdffile	string	Stored, not indexed! Generate package teaser from this file if not yet set.			
pdfsize	сору	pdfsize	integer	Stored, not indexed!			
		Common govinfo Metad	lata				
branch	сору	branch	lowercase tokens				
category	multi- valued	category	lowercase tokens				
	Standard Navigator Add-Ins						
fdsys_orgs	multi- valued	companies	lowercase tokens				
fdsys_people	multi- valued	personnames	lowercase tokens				
fdsys_concepts	multi- valued	concepts	lowercase tokens				
		Collection-Specific Field	lds				
categoryhier	multi- valued	categoryhier	string				
agencies	multi- valued	agencies	lowercase tokens				
generic1val	сору	generic1val	lowercase tokens				
Results Bundle (copied to individual fields that are stored but not indexed)							
r.ericnumber	сору	r_ericnumber	string	Stored, not indexed!			
r.fericnumber	сору	r_fericnumber	string	Stored, not indexed!			
r:isfallbacktitle	сору	r_isfallbacktitle	string	Stored, not indexed!			
	N	avigator Fields (See Section	on 7.2)				

Action	Explanation	
сору	Use the Index Profile Field as is	
ignore	Discard	
multi-valued	Break the value up into separate values (usually separated by semi-colons) that each has the same Solr field name	
date/time	Convert to standard date/time format, appending "T12:00:00Z" if no time is specified	
file extraction	The value of the field is a file. Store the contents of the file and discard the file name.	
flag teaser	For granules. If "teaser" is not already set, generate it from file contents stored in "body"	
package teaser	For packages. If "teaser" is not already set, generate it from pdffile, htmlfile, or xmlfile file contents, whichever comes first.	
xml	This field is processed by a special MODS XML handler	

#### Key to Action Column Values:

Key to Type Column Values:

Туре	Tokenized	Explanation	
string	no	Treat text as one single token.	
integer	no	Treat as a 32-bit integer.	
date	no	Full standard date and time string. E.g. "1970-01-01T23:59:59Z"	
lower case	no	As a "string" only converted to all lower case first.	
lower case tokens	whitespace	As "lower case" but tokenized on whitespace.	
text tokens	whitespace punctuation	lower case, lemmatized (stemming), punctuation removal, etc.	
text tokens unstemmed	whitespace punctuation	As "text tokens", but without any lemmatization (stemming).	
xml tokens	whitespace punctuation	As "text tokens", but recognizes and handles XML tags.	
boundary	no	Prefix the value with "XXPREFIX " and append " XXSUFFIXXX".	

### 7. Search and Browse

### 7.1. Search Results Presentation

Line	Pattern (using index-profile fields) and Special Instructions		
	{r.fericnumber} – {title}		
1	<ol> <li>Notes:</li> <li>1. The title should link to the Content Details page.</li> <li>2. If {r:isfallbacktitle} is "true", use "Education Report from ERIC" instead of {title}</li> </ol>		
2	Education Reports from ERIC. {agencies}.{publishdate}. Note: {publishdate} is formatted as "DayOfWeek, Month Day, Year", e.g. "Friday, May 2, 2008"		
3	{teaser}		
4	A row of buttons linking to the PDF content rendition, the Content Details page, and the electronic sharing feature respectively.		

Examples:

#### i)

### ED 481 811 - Status and Trends in the Education of Blacks

Education Reports from ERIC. Monday, September 1, 2003.

... DOCUMENT RESUME AUTHOR TITLE INSTITUTION REPORT NO PUB DATE NOTE AVAILABLE FROM PUB TYPE EDRS PRICE DESCRIPTORS IDENTIFIERS ABSTRACT black children Hoffman, Kathryn; Llagas, Charmaine; Snyder, Thomas D. Status and Trends in the Education of Blacks. National Center for Education Statistics (ED), Washington, DC. NCES-2003-034 2003-09-00 188p. ED...

#### PDF DETAILS SHARE

ii)

ED 472 451 - Including Special-Needs Students in the NAEP 1998 Reading Assessment. Part I: Comparison of Overall Results with and without Accommodations. A Report on 1998 NAEP Research Activities. Statistical Analysis Report

Education Reports from ERIC. Saturday, February 1, 2003.

... DOCUMENT RESUME ED 472 451 EC 309 663 AUTHOR Lutkus, Anthony D. ; Mazzeo, John TITLE INSTITUTION REPORT NO PUB DATE NOTE AVAILABLE FROM PUB TYPE EDRS PRICE DESCRIPTORS IDENTIFIERS Including Special-Needs Students in the NAEP 1998 Reading Assessment. Part I: Comparison of Overall Results with and without Accommodations. A Report on 1998 NAEP...

#### PDF DETAILS SHARE

#### iii)

### ED 472 649 - Education Report from ERIC

Education Reports from ERIC. Friday, November 1, 2002.

... ED 472 649 DOCUMENT RESUME EA 032 306 AUTHOR TITLE' INSTITUTION REPORT NO PUB DATE NOTE AVAILABLE FROM PUB TYPE EDRS PRICE DESCRIPTORS IDENTIFIERS McDowell, Lena M.; Sietsema, John P. Directory of Public Elementary and Secondary Education Agencies, 2000-2001. National Center for Education Statistics (ED), Washington, DC. NCES-2003-310 2002-11-0...

PDF DETAILS SHARE

## 7.2. Navigators

Collection-specific navigators are listed here.

Display Name	Navigator	Index-profile Field	Туре	Purpose
Document Category	categoryhiernav	categoryhier	string, hierarchical	results, hierarchical

## 7.2.1. Navigator Examples

### 7.2.1.1. Document Category

Note: The quality of this navigator will be evaluated in development.

{categoryhier}

Navigator values are already formatted at the index level; no need for post-processing.

Identifier (4)	>
Subject (4)	>
Type (4)	V

□ ERIC Publications - - ERIC Digests in Full Text (2)

 $\Box$  Reports - Descriptive (1)

See More

govinfo SDD – R1C2

### 7.3. Search Fields

Notes:

- 1. All of the standard fields, even though they are not listed below, must be available for this collection.
- 2. The advanced search form will be made up of all of the fields with the "Search Form" column equal to "Y".
- 3. Developers are encouraged to use a pull-down box or query completion for elements with pre-defined valued.
- 4. When two or more collections are selected by a user on the search form, the metadata in the pull-down should be a join of the common elements.

Display Name	Search field: all one word	Search QPL	Search Form	Туре	Allowed Values	Help Text
ERIC Number	ericnumber	xml:extension:ericnumberformatted: (\${s})	Y	string		Search for an ERIC resource based on its number. Example ERIC Numbers are "ED466380", or "ED 483 022", (either format is allowed).
Subject	ericsubject	xml:extension:subject:(\${s})	Y	string		Search for an ERIC resource based on its subject. Examples subjects are "Cognitive Psychology", "Elementary Education" and "Story Reading"
Identifiers	ericidentifier	xml:extension:identifiers:(\${s})	Y	string		The topical area covered by the ERIC resource. Example Identifiers are "Family Activities; *Read Along; Team Learning".
Sponsoring Agency	sponsor agency	xml:extension:sponsoragency:(\${s})	Y	string		Search for an ERIC resource based on the Agency that funded the creation of the resource. An example agency is "Office of Educational Research and Improvement (ED), Washington, DC."
Source Institution	institution	xml:extension:institution:(\${s})	Y	string		The institution that created the ERIC resource, for example "Family Learning Association, Bloomington, IN."

## 7.3.1. Search Form Query Completion

Advanced Search Field	QC Value Prefix	Data comes from "fdsys.xml" fields
Government Author*	GAU	{PM/governmentAuthor1}, {PM/governmentAuthor2}, {PM/governmentAuthor3}
SuDoc Class Number*	GSU	{PM/classification[@authority='sudocs']}
Type Education Resource	ERR	{PCS/type}
Institution	ERI	{PCS/institution}
Sponsor Agency	ERA	{PCS/sponsorAgency}
Subject	ERS	{PCS/subject}
Identifiers	ERD	{PCS/identifiers}

The following fields will be present in the query completion server.

This is not implemented in release and is designed to be implemented in future releases.

## 7.4. Collection Browsing

### 7.4.1. Front Page

The following is the description of the collection to be presented to public users:

## About Education Reports from ERIC

Find reports on federally funded education research topics from the U.S. Department of Education's Educational Resources Information Center. Reports on **govinfo** begin with those received by GPO in October 2002. The documents received from the Educational Resources Information Center have dates that range from 1995 to 2004. Prior reports are available from select Federal depository libraries nationwide in microfiche. A larger selection of ERIC reports is available from the <u>ERIC program web site</u>. Files are available in Adobe Portable Document Format (PDF) only.

The text, "ERIC program web site", links to: http://eric.ed.gov/

The Help button on the Browse page for this collection will link to: <u>https://www.govinfo.gov/help/eric</u>

## 7.4.2. Browse Hierarchy

There will be one method for collection browsing for R1C2: by year of the date issued. Articles within each year are sorted by their "treesort" values.

Level	Display Name	Navigator	Purpose / Special Instructions
1	Date Issued Year	pubyearnav	Not applicable. Display year as YYYY from {PM/dateIssued}

The hierarchy method will be: Ancestor siblings.

## 7.4.3. Presentation of articles

The articles at the leaf of the browse-by-date tree should be presented the same as specified in section 7.1, with the following exceptions:

- 1. Add the links from line 4 to the end of line 1.
- 2. Remove the collection name and date from line 2.
- 3. Remove line 3 and 4 completely.

For example:

#### ED 471 693 - High School Counselor's Handbook, 2003-04 PDF DETAILS SHARE

Office of Student Financial Assistance (ED), Washington, DC.

Note: Articles are to be sorted by "treesort" (see section 6.3).

## 7.4.4. Complete Collection Browsing Example

**Browse Education Reports from ERIC O** 2004 0 2003 • 2002 Sort 12 ED 463 411 - Effective Advisory Committees. In Brief: Fast Facts PDF DETAILS SHARE for Policy and Practice Office of Vocational and Adult Education (ED), Washington, DC. ED 463 445 - High Schools That Work: Best Practices for CTE. DETAILS SHARE PDF Practice Application Brief No. 19 Office of Educational Research and Improvement (ED), Washington, DC. ED 463 446 - Learning Disabilities and Career Development. SHARE Practice Application Brief No. 20 Office of Educational Research and Improvement (ED), Washington, DC.

## 7.4.5. Related Resources

The following is the list of "Related Resources" which should be displayed at the bottom of the page when browsing this collection:

- Additional ERIC Reports
  - Display text: From the Department of Education website
  - Links to: <u>http://eric.ed.gov/</u>
- Contact your local Federal Depository Library
  - Display text: To access a physical copy of the ERIC Education Reports.

- Links to: <u>http://catalog.gpo.gov/fdlpdir/public.jsp</u>
- Purchase printed education related publications
  - Display text: From GPO's Online Bookstore
  - o Links to: https://bookstore.gpo.gov/catalog/education-libraries

## 7.5. Citation Search

There is no citation search for this collection.

## 8. Content Details

This section covers any collection-specific needs for accessing the documents and metadata on the Content Details page. Here is an example of a Content Details page for this collection.

Download	Content Details			
DF PDF	ED463563 - Preven	563 - Preventing Bullying. ERIC Digest		
	Summary			
D PREMIS	Category	Executive Agency Publications		
ZIP	Collection	Education Reports from ERIC		
Actions	SuDoc Class Number	ED 1.615:		
	Date Issued	March 1, 2002		
Browse Education Reports	Author	Lumsden, Linda		
CGP Record	Source Institution	ERIC Clearinghouse on Educational Management, Eugene, OR		
<b>&lt;</b> Share	Sponsoring Agency	Office of Educational Research and Improvement (ED), Washington, DC		
	Publication Type	ERIC Publications ERIC Digests in Full Text		
	Subject	Academic Achievement, Antisocial Behavior, Bullying, Elementary Secondary Education, Group Dynamics, Intervention, Peer Acceptance, Peer Influence, Peer Mediation, Prevention, School Responsibility, Violence		
	Identifiers	ERIC Digests		
	Abstract	Students who are the target of bullying episodes commonly suffer serious, long-term academic, physical, and emotional consequences. Unfortunately, school personnel often minimize, underestimate, tolerate, or ignore the extent of bullying and the harm it can cause. This digest examines the problem of bullying and some of its effects, and discusses preventive steps schools and states are taking. Bullying occurs when a person willfully and repeatedly exercises power over another with hostile or malicious intent. It can be physical or psychological in form. In a survey of more than 15,000 sixth through tenth graders, 30 percent reported bullying others, being targets, or both. Everyday approximately 160,000 students stay home from school out of fear of being bullied. Victims often have difficulty concentrating on schoolwork, show low performance, and have relatively high rates of absenteeism. Psychological symptoms of victims include anxiety, depression, and low self-esteem. To counteract bullying, schools can distribute a written anti- bullying policy to everyone in the school community and apply the policy consistently and fairly. Positive socialization and anger-management skills can be taught. An anti-bullying culture can be developed among peers. Some states are beginning to require schools to adopt anti- bullying policies. (Contains 17 references.).		

As can be seen in the example above, the Content Details page is organized as follows:

• Along the left-hand side of the page is a column of links that are partitioned into two sections:

- The top section consists of Download links regarding the specific document
- $\circ$   $\;$  The bottom section offers some additional Actions
- The remainder of the page is devoted to the Contents Details of the specific document:
  - At the top of this section is a Header
  - Below the Header is a single tabbed pane containing a Summary of metadata fields specific to this document

### 8.1. Downloads

The following are available from the Content Detail page, which will be provided to the public.

- PDF rendition of the document.
- MODS metadata for the document.
- PREMIS metadata for the package.
- ZIP file of the package contents including metadata files.

All URLs are in the **govinfo** standard format. See the SDD Volume XIX – Common Metadata and Standard References for more details.

## 8.2. Actions

The following HTML action links will be available when browsing the Content Details page of a Congressional Hearing:

- Browse the Congressional Record
  - $\circ$   $\;$  Goes to the main CREC browse page.
- CGP Record
  - Links to <u>https://catalog.gpo.gov/F?func=find-b&find\_code=sys&request</u> ={PM/otherIdentifier[@idStandard='ils-system-id']}
  - If the ILS system ID is not available use: <u>https://catalog.gpo.gov</u>
- Share
  - Allows the user to share a link to the content detail page of the publication.

## 8.3. Header

The header at the top of the content-detail page will read the same as line 1 from section 7.1.

## 8.4. Summary Fields to Display

The following fields are to be displayed on the Content Detail page. Note that the fields are to be displayed in the same order as they are listed below.

Display Name	"fdsys.xml" Entities & Special Instructions	Example	
Category	{PM/category}	Executive Agency Publications	
Collection	"Education Reports from ERIC"	Education Reports from ERIC	
SuDoc Class Number	{PM/classification[@authority='sudocs']}	ED 1.615:	
Date Issued	{PM/dateIssued}	December 1, 2002	
Author	{PCS/personalAuthor} Set all entries separated by semi-colons.	Ahearn, Eileen M.; Lange, Cheryl M.; Rhim, Lauren Morando; McLaughlin, Margaret J.	
Source Institution	{PCS/institution}	National Association of State Directors of Special Education, Alexandria, VA.	
Sponsoring Agency	{PCS/sponsorAgency}	Special Education Programs (ED/OSERS), Washington, DC.	
Publication Type	{PCS/type} Include all entries in a comma-separated list.	Reports – Evaluative. Numerical/Quantitative Data	
Subject	{PCS/subject} Include all entries in a comma-separated list.	Accountability, Case Studies, Charter Schools, Compliance (Legal), Delivery Systems	
Identifiers       {PCS/identifiers}         Include all entries in a comma-separated list.		Family Activities, Read Along, Team Learning	
Abstract	{PCS/abstract}	The message of this series of books, "Parents and Children Together," is that parents should get together with their children, talk about stories, and learn together. This book, "Learning Together," contains	

Note: All dates must be formatted as: {month} {day}, {year}. Example: May 2, 2008.

## 9. "mods.xml" Mapping

Since this collection has no granules, there will only be a single "mods.xml" produced for all situations. This "mods.xml" structure is mapped out in the following section.

## 9.1. "mods.xml" Structures

This section defines the two different structures or components for the "mods.xml".

"mods.xml" for the entire issue:

```
<?xml version="1.0" encoding="UTF-8"?>
<mods version="3.3" ID="{PH/@id}"
xsi:schemaLocation="http://www.loc.gov/mods/v3
http://www.loc.gov/standards/mods/v3/mods-3-3.xsd"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns="http://www.loc.gov/mods/v3">
{Component 1: Publication Metadata independent of package or granule}
{Component 1: Publication Metadata independent of package or granule}
```

</mods>

## 9.2. "mods.xml" Components

This section specifies the mapping of "mods.xml" collection-specific metadata entities from "fdsys.xml" entities.

Notes:

- 1. All elements below are children of the top-level <mods> tag which is specified above.
- 2. Items indicated with an asterisk (\*) below are the same for all collections.

MODS Schema Entry	MODS Entity Attributes	"fdsys.xml" Entity(ies) & Special Instructions
titleInfo/title		{PM/title}
location/url	displayLabel="PDF rendition" access="raw object"	https://www.govinfo.gov/content/pkg/{PCS/accessId }/pdf/{PCS/accessId}.pdf
location/url	displayLabel="Content Detail" access="object in context"	https://www.govinfo.gov/app/details/{PCS/accessId}
		{PCS/ericNumber}
identifier	type="preferred citation"	Format ERIC number as "ED {ddd} {ddd}". Where "ddd" segments are from numeric suffix. For example, ED464761 is formatted as "ED 464 761".
		{PCS/ericNumber}; {PM/title}; {eric-number- formatted}
extension/searchTitle		{eric-number-formatted} is the ERIC number formatted as "ED {ddd} {ddd}". Where "ddd" segments are from numeric suffix. For example, ED464761 is formatted as "ED 464 761".

MODS Schema Entry	MODS Entity Attributes	"fdsys.xml" Entity(ies) & Special Instructions
extension/ ericNumberFormatted		{PCS/ericNumber}; {eric-number-formatted} {eric-number-formatted} is the ERIC number formatted as "ED {ddd} {ddd}". Where "ddd" segments are from numeric suffix. For example, ED464761 is formatted as "ED 464 761".
extension		{PCS/*}

Note: There are no standard references to be set for this collection.

## **10. Preservation Planning**

#### Designated Community

The Primary Designated Community for the ERIC collection is the U.S. Department of Education. This collection will be preserved at the linguistic, contextual, and practical level of understanding, knowledge, and experience essential to educational practice and policy as well as interpreting relevant materials sources such as think tanks, institutional repositories, research organizations, state and district offices, and technical assistance providers.

The Secondary Designated Community for the ERIC collection includes depository and non-depository libraries serving education professionals and services, as well as educators, parents, administrators, policymakers, researchers, public and private entities, childhood services organizations, and technical assistants providing support and services to the Department of Education the general public at large. This community also includes all organizations and offices within the Federal Executive, Legislative, and Judicial Government. This level of understanding can render and access content by successfully discovering content by branch, category, citation, ERIC number, government author, identifiers, series, source institution, sponsoring agency, subject, SuDoc class number, and title.

The Designated Community at-large for the ERIC collection includes all other state and local governments, data consumers, legal professionals, internal GPO units, news media, non-profit organizations, private industries, transparency organizations, libraries, academics, or interested citizens with access and the capability to render electronic government information products.

#### Content Submission

Content has been migrated to **govinfo** from previous system; no day-forward content submission.

#### Information Packages

Information packages will conform to the packaging implementation data and logical models of the **govinfo** Architecture System Design Document. All information packages can be located at the file path location and at the logical level in relation to other packages within the system by the METS package unique identifier of the package.

#### **Content Information**

Content packages contain MODS, PREMIS, METS metadata files and submitted PDF renditions.

#### Preservation Description Information

Provenance: Persists preservation actions, including source of ingest and processing.

Reference: All content packages are assigned a globally unique identifier throughout the repository which is independent of the underlying technical infrastructure and the physical location of the digital object.

Fixity: SHA-256 Checksum Algorithm calculated and persisted in the PREMIS file.

Context: Linking agent identifiers persistent the contextual relationship between the SIP, ACP, and AIP packages created from the submitted content.

#### Representation Information

The DROID file format identification processing component will identify that content is submitted in a PDF rendition file and that the file format type designation information is sustained in the MODS and PREMIS metadata. The author, physical description, relevant cataloging information, and legal citations are persisted in the MODS metadata file. This information is not parsed; this information is provided by the content submitter.

File formats (by MIME type) accepted for this collection include:

• application/pdf

See File Format Transformation Strategy document for risk-based analysis of file format obsolescence within the **govinfo** repository.

#### Dissemination Presentation

Content will be disseminated in a presentation which persists the look and feel of printed publications (PDF) as received from the content submitter