

www.nationalarchives.gov.uk



### Active Preservation at The National

Archives:

### PRONOM and DROID

Adrian Brown

Head of Digital Preservation

The National Archives



# The problem

- Our solution
- Future priorities



00000001 00000000 00000000 00000000 01101010 000000			
00000000 00000001 00110001 00000000 000000		00000000	
00000010 00000000 00000 Objectives:	1001001001	00000000	
ooooooo oooo Objectives:	22.22.22	00000000	
0000001 0000000 0000		01101111	
01101000 01101111 01110		00100000	
• Describe technologies required to		00000000	
00000011 00000000 00000	100 100 100	00000000	
ooooooo oooo access digital objects	100 100 100	00000000	
00001101 00000000 00000 00000 00000		00000000	
0000001 0000000 0000		00000000	
		00000001	
• Understand risks arising from these		00000000	
00000001 00000000 00000		00000000	
10100100 0000000 0000 technologies	0000	00000000	00000001
01001000 00000000 00000	0000	01001010	01000110
00000001 00000010 00000	1101	00000000	00001100
• Support automated preservation	1110	01000001	01100100
00000000 01100100 10000 Oappoit automated preservation	0100	00000000	00001100
00001001 00001000 00001 processes	0001	00010101	00001111
00010101 00011000 00010 processes	1100	00001100	00001100
00001100 00001100 00001		00001100	
00001100 00001100 00001	1100	00001100	00000001
• Support internal and external use		00010100	
00001110 00010100 00010	100 000 000	00001100	
00010001 00001100 00001		00001100	
• Be effective and practical		00001100	
· · · · · · · · · · · · · · · · · · ·		00010001	
	0000000	000000000	000000001
00000001 00000001 00000001 00000001 000000		00000011	
00000001 00000000 00000000 00000000 000000		000000011	
00001000 00001001 00001010 00001011 00010000 000000		00000011	000000100
00001000 00000101 00000011 00001100 00110011 000000			



- The problem
- Our solution
- Future priorities



### **PRONOM** services

- Technical Registry content
- Web services interfaces
- Tools
  - e.g. DROID





#### The technical registry **PRONOM**

Welcome : About Add an entry

Search

? Help

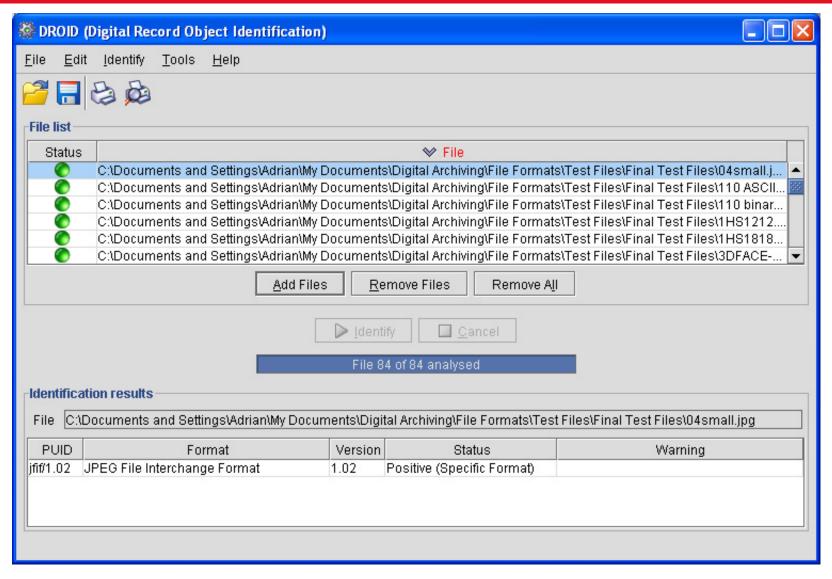
Information resources



? Help: detailed report on file format

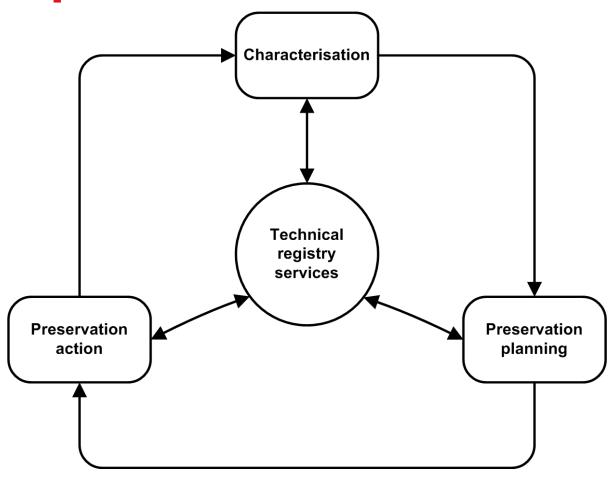
	M Unique Identifier ortable Document	
Go to: Summary	Documentation >	Signatures >   Compression >   Character encoding >   Rights >   Reference files >
Summary		
Name		Portable Document Format
Version		1.6
Other names		PDF (1.6)
ldentifiers		PUID: fmt/20 MIME: application/pdf
Family		
Classification		Page Description
Disclosure		Full
Description		Portable Document Format is a platform-independent format for representing formatted documents, developed by Adobe Systems Incorporated. It is the native format of Adobe?s Acrobat family of software products, version 1.6 corresponding to the release of Acrobat 7.0. PDF is based on, and shares the same imaging model as, the PostScript page description language. A PDF file comprises a Header section, a Body section containing the objects which make up the document, a Cross Reference Table, and a Trailer section. PDF files can contain a wide variety of content, including text, images, video and audio.
Orientation		Binary
Byte order		Big-endian (Motorola)

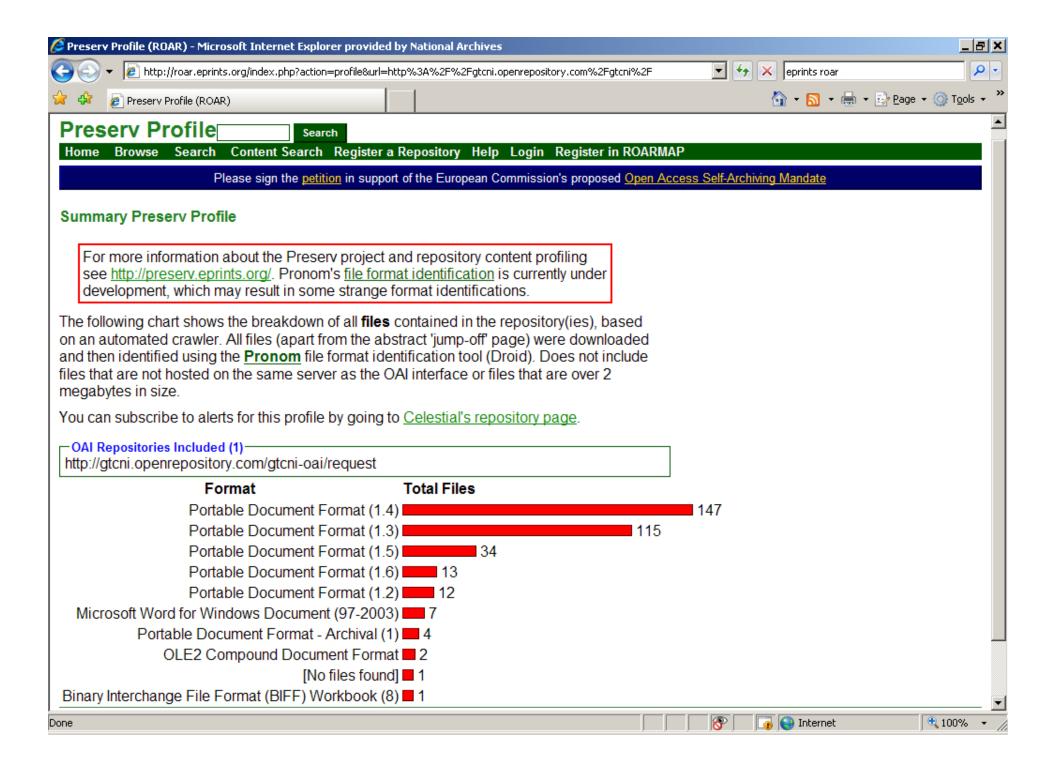






# **Active preservation**





#### **Active Preservation Management Console**

You are not logged in	
Username	login
Password	

Command	CHR3	XMLOutputFile	/home/carj/tmp/F/chr-output.xml
Machine	potent.tessella.co.uk	XMLInputFile	/home/carj/droid-input.xml
Date Received	2006-Deo-15 04:50:12		
Working Area	/home/carj/tmp/F/		
Date Completed			
Client Web Service	http://localhost:8080/jobQueueManager/services/JobCompleteService		

Name	Tool Id	Date Started	Date Completed	Priority	% Completed	Status	Act	ion	Message
Characterise File Set	100	2006-Deo 15 04:51:24		Normal Priority 💌	0	Running	•	×	Characterise File Set started
DROID	100	2006-Deo-15 04:51:27	2006-Deo 15 04:51:52	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Jpeg2000	100	2006-Deo-15 04:51:53	2006-Deo 15 04:51:53	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Gif	100	2006-Deo-15 04:51:53	2006-Deo 15 04:51:53	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Html	100	2006-Deo 15 04:51:53	2006-Deo 15 04:51:54	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Tiff	100	2006-Deo-15 04:51:54	2006-Deo 15 04:51:54	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Wave	100	2006-Deo 15 04:51:54	2006-Deo 15 04:51:54	Normal Priority	100	Completed			Tool Completed Normally
XML validatior	100	2006-Deo 15 04:51:54	2006-Deo-15 04:51:55	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Aiff	100	2006-Deo-15 04:51:54	2006-Deo 15 04:51:55	Normal Priority	100	Completed			Tool Completed Normally
Jhove-Pdf	100	2006-Deo-15 04:51:55		Normal Priority 💌	50	Running	0	×	ZA544606.800-UK-A.pdf (8/16)
Jhove-Jpeg	100	2006-Dec-15 04:51:57	2006-Dec-15 04:51:57	Normal Priority	100	Completed			

Home
TNA:: Technology Watch



INFRASTRUCTURE PRONOM 2 PRONOM 3 **PRONOM 4** PRONOM 5 **PRONOM 6 PRONOM 1** Initial Technology Enable File format Improved admin architecture web access modelling tools upgrade designed CONTENT Main product Core product File format Ongoing Ongoing data load data load data load enhancement enhancement **FUNCTIONALITY** DROID 2.0, Multilingual Open Source **DROID** tool PUID resolution, capability DROID SOAP interfaces 2002 2002 2004 2005 2006 2007

**PRONOM Development Roadmap** 



### Working with others

- Planets
- Global Digital Format Registry
- Digital Curation Centre
- Library of Congress
- Commercial sector (e.g. Microsoft)
- Potential adopters:
  - JHOVE 2
  - Dspace
  - AONS II



- The problem
- The solution
- Future priorities



## **Future priorities**

- More content?
- More tools?
- Enhanced tools?
- New services?
- More integration?



www.nationalarchives.gov.uk