PRONOM 4 INFORMATION MODEL

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"I have read this document and agree that it addresses adequately the business needs and technical requirements of the National Archives".

David Ryan, Head of Archive Services.

Document History

Issue	Author	Date	Comments
0a	Adrian Brown	30 April 2004	First draft
0b	Adrian Brown	21 May 2004	Incorporating internal comment
0c	Adrian Brown	16 June 2004	Incorporation of Byte Sequence entity
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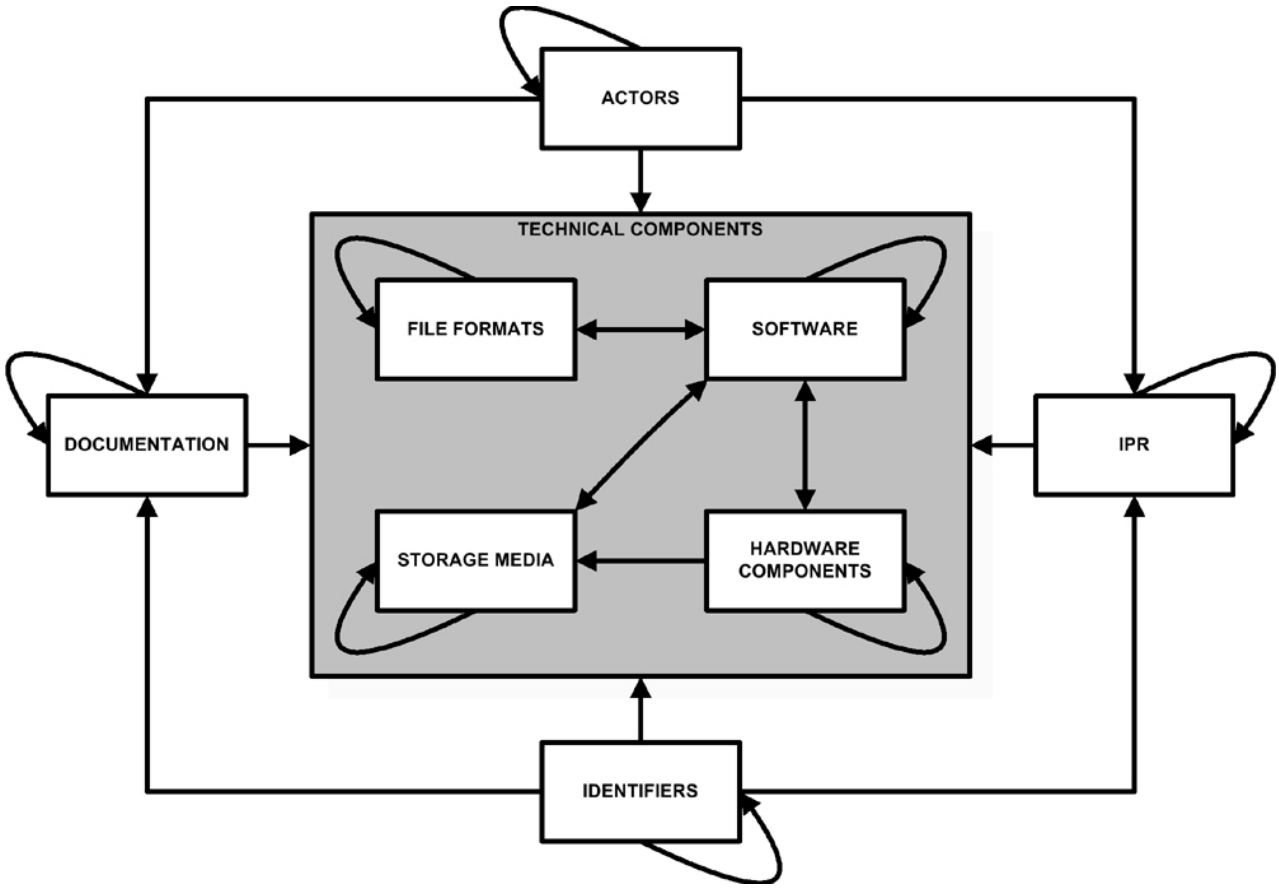
Contents

1 Introduction

This document describes the underlying information model for the PRONOM system. The management and accessibility of any digital object is dependent upon a specifically-configured technical environment, comprising discrete but inter-related technical components. PRONOM is a system for describing these technical components and the relationships between them. At a fundamental level, the underlying PRONOM information model must therefore be capable of describing any technical component, and any relationship between that component and any other.

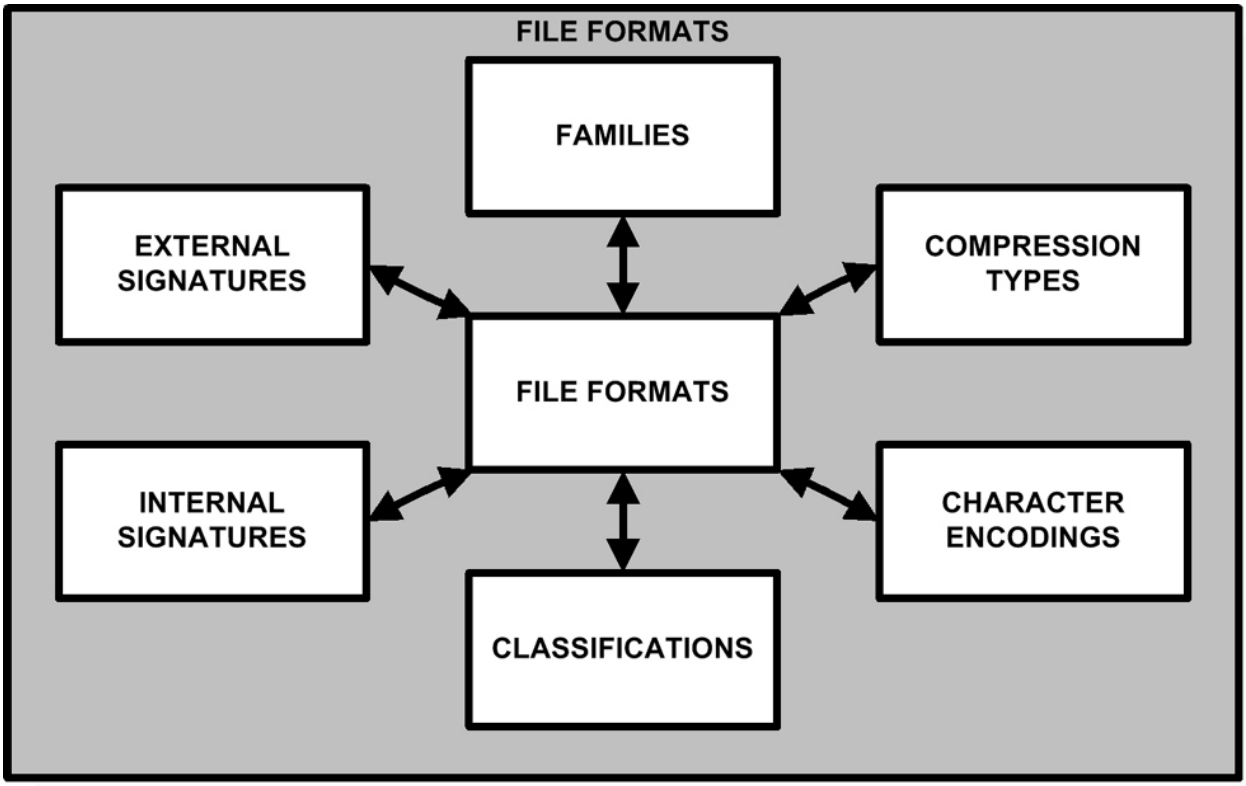
This information model is independent of any specific database model or implementation. It defines the entities and relationships which PRONOM is currently required to support. However, it is expected that the new types of entity and relationship will need to be defined in the future, and that this will be supported by the underlying system architecture. It should also be noted that the entities described do not necessarily correspond to actual data tables in any given database implementation.

The high-level information model is illustrated below:



At the heart of the model are the various types of inter-related technical components which are required to model the technical environment of a digital object. Associated entities describe the actors, documentation, intellectual property rights, and identifiers which relate to these technical components and each other.

Each technical component is capable of being further decomposed into sub-entities. Of these, the most complex is the file format component, which is illustrated in more detail below:



In this model, a file format can be grouped with other formats into families, classified according to various descriptive schemes, may possess a variety of internal and external signatures by which it may be identified, and can utilise a number of different character encodings and compression algorithms.

Although there are some differences in scope, PRONOM is intended to be fully interoperable for the purposes of information exchange with the any other technical registry initiatives which may be implemented internationally.

2 Entities

2.1 Core Entities

The PRONOM information model utilises five core entities:

2.1.1 Technical Component

This entity models any component of a technical environment which may be required to support an electronic record. Each type of technical component is modelled as a sub-entity, and defined in Section 2.2.

2.1.2 Actor

This entity models an individual or organisation which performs a defined role with respect to another entity.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Actor Personal Name	String	O		Name of an individual having a cited role	
Actor Corporate Name	String	O		Name of an organisation having a cited role	
Actor Job Title	String	O		Job title of an individual having a cited role	
Actor Type	String	M		Type of actor	Authority controlled
Actor Address	String	O		Full postal contact address for the actor	
Country	String	O		Country element of the address	Authority controlled
Actor Telephone	String	O		Full international contact telephone number	
Actor Email	String	O		Contact email address	
Actor Website	URL	O		Contact website URL	
Actor History	String	O		Historical description relating to the actor	
Note	String	O		Informative note about the actor	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.1.3 Documentation

This entity models items of documentation which relate to another entity.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the documentation	
Documentation Type	String	M		Indicates whether the documentation is authoritative, informative or speculative	Authority controlled
Documentation Display Text	String	M		Bibliographical text to display	
Documentation Author	Actor	O	R	Author of the documentation	
Documentation Date	Date	O		Date of publication	
Documentation Title	String	M		Title of the documentation	
Documentation Publisher	Actor	O	R	Publisher of the publication	
Documentation Availability Type	String	M		Classification of the availability of the documentation	Authority controlled
Documentation Availability Notes	String	O		Additional information about the documentation availability	
IPR	IPR	O	R	Intellectual property rights which attach to the documentation	
Note	String	O		Informative note about the documentation	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.1.4 IPR

This entity models intellectual property rights which apply to another entity.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the rights entity	
IPR Type	String	M		Type of right described	Authority controlled
IPR Owner	Actor	M	R	Owner of the IPR	
IPR Date	Date	O		Date of the IPR	2004
Jurisdiction	String	O		Jurisdiction of the IPR	Authority controlled
License Details	String	O		Details of any license arrangements	Made available under the terms of the GNU Lesser General Public License, version 2.1 (1999)
IPR Note	String	M if IPR Type is "Other"		Informative note about the IPR	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.1.5 Identifier

This entity models external identifiers which may be applied to another entity.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Identifier Value	String	M		Value of the identifier	
Identifier Type	String	M		Type of identifier	Authority controlled
Identifier Note	String	M if Identifier Type is "Other"		Informative note about the identifier	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.2 Technical Component Entities

The following entities have been defined to model specific technical components:

2.2.1 File Format

This entity models the file formats which may be used to encode digital objects. The file format entity comprises the following attributes:

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the format	
Name	Name	M		Preferred name of the format	
Alias	Name	O	R	Alias by which the format is known	
Family	Family	O	R	Family group to which the format is assigned	
Format Type	Classification	O	R	Generic format type	Authority controlled
Description	String	M		Description of the main characteristics of the format	
Orientation	String	O		Indicates whether the format is text or binary based	Authority controlled
Byte Order	String	O	R	Allowable byte orders for the format	Authority controlled
Internal Signature	Internal Signature	O	R	Internal signature which may be used to identify the file format	
External Signature	External Signature	O	R	External signature which may be used to identify the file format	
Compression Type	Compression Type	O	R	Compression method employed by the file format	
Character Encoding	Character Map	O	R	Character encoding employed by the file format	
Format Disclosure	String	O		Level of public disclosure provided for the format specification	Authority controlled
Release Date	Date	O		Date on which the format was released	
Withdrawn Date	Date	O		Date on which support for the format was, or is due to be, withdrawn	
Developer	Actor	O	R	Actor responsible for developing the format	
Support	Actor	O	R	Actor currently responsible for supporting or maintaining the format	
Documentation	Documentation	O	R	Documentation about the format	
IPR	IPR	O	R	Intellectual property rights which attach to the format	
Note	String	O		Informative note about the format	

Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	
Reference File	Reference File	O	R	Reference file for the format	

2.2.2 Software Component

This entity models software components, including operating systems, which may be required to perform processes on specific file formats, or to support specific hardware components or storage media.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the software	
Name	Name	M		Preferred name of the software	
Alias	Name	O	R	Alias by which the software is also known	
Family	Family	O	R	Family group to which the software is assigned	
Software Type	Classification	O	R	Generic software type	Authority controlled
Description	String	M		Description of the main characteristics of the software	
Service Pack Level	String	O		Service pack or patch level applied to the software	
Default File Format	File Format	O	R	Default file format supported by the software	
Software Requirement	Software Requirement	O	R	Other software, including operating systems, required to support the software	
Hardware Requirement	Hardware Requirement	O	R	Hardware components required to support the software	
Media Format	Storage Media	O	R	Type of storage media on which the software is supplied	
Language	String	O	R	Language supported by the software	Authority controlled
Release Date	Date	O		Date on which the software was released	
Withdrawn Date	Date	O		Date on which support for the software was, or is due to be, withdrawn	
Developer	Actor	O	R	Actor responsible for developing the software	

Support	Actor	O	R	Actor currently responsible for supporting or maintaining the software	
Documentation	Documentation	O	R	Documentation about the software	
IPR	IPR	O	R	Intellectual property rights which attach to the software	
Note	String	O		Informative note about the software	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	
Image	Image	O	R	Image of the software product	

2.2.3 Hardware Component

This entity models hardware components which may be required to support specific software components or storage media.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the hardware	
Name	Name	M		Preferred name of the hardware	
Alias	Name	O	R	Alias by which the hardware is also known	
Family	Family	O	R	Family group to which the hardware is assigned	
Description	String	M		Description of the main characteristics of the hardware	
Hardware Type	Classification	M	R	Type of hardware component being described	Authority controlled
Release Date	Date	O		Date on which the hardware was released	
Withdrawn Date	Date	O		Date on which support for the hardware was, or is due to be, withdrawn	
Software Requirement	Software Requirement	O	R	Software required to support the hardware	
Hardware Requirement	Hardware Requirement	O	R	Other hardware components required to support the hardware	
Developer	Actor	O	R	Actor responsible for developing the hardware	
Support	Actor	O	R	Actor currently responsible	

				for supporting or maintaining the hardware	
Documentation	Documentation	O	R	Documentation about the hardware	
IPR	IPR	O	R	Intellectual property rights which attach to the hardware	
Note	String	O		Informative note about the hardware	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	
Image	Image	O	R	Image of the hardware product	

2.2.4 Storage Media

This entity models specific types of physical storage media which may be used to store digital objects.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the medium	
Name	Name	M		Preferred name of the medium	
Alias	Name	O	R	Alias by which the medium is also known	
Family	Family	O	R	Family group to which the medium is assigned	
Description	String	M		Description of the main characteristics of the medium	
Media Format Type	Classification	M	R	Generic media type	Authority controlled
Write Type	String	M		Write method, if any, which is supported	Authority controlled
Write Speed	String	O		Maximum write speed supported	
Write Protection	String	O		Description of any write protection mechanisms	
Error Correction	String	O		Description of any error correction mechanisms	
Data Transfer Rate	String	O		Maximum data transfer rate supported	
Media Access Type	String	O		Data access method employed	Authority controlled
Uncompressed Capacity	String	M		Uncompressed data storage capacity	
Compressed	String	O		Compressed data storage	

Capacity				capacity	
No. of Sides	Integer	O		Number of data storage sides available	
No. of Layers	Integer	O		Number of data storage layers available	
Dimensions	String	O		Physical dimension(s) associated with the medium	
Software Requirement	Software Requirement	O	R	Software required to access the medium	
Hardware Requirement	Hardware Requirement	O	R	Hardware components required to access the medium	
Release Date	Date	O		Date on which the medium was released	
Withdrawn Date	Date	O		Date on which support for the medium was, or is due to be, withdrawn	
Developer	Actor	O	R	Actor responsible for developing the medium	
Support	Actor	O	R	Actor currently responsible for supporting or maintaining the medium	
Documentation	Documentation	O	R	Documentation about the medium	
IPR	IPR	O	R	Intellectual property rights which attach to the medium	
Note	String	O		Informative note about the medium	
Longevity Rating	String	O		Estimated longevity of the medium	
Longevity Documentation	Documentation	O	R	Documentation to support the longevity rating	
Coercivity Rating	Integer	O (only applies to magnetic media)		Coercivity rating of the medium in Oersteds	
Storage Conditions	String	O		Recommended environmental storage conditions	
Storage Notes	String	O		Description of any special storage requirements	
Handling Notes	String	O		Description of any special handling requirements	
Storage Documentation	Documentation	O	R	Documentation to support the storage and handling recommendations	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	

Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	
Image	Image	O	R	Image of the medium	

2.2.5 Character Encoding

This entity models character encodings (character maps[1]) employed by file formats.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the encoding	
Name	Name	M		Preferred name of the encoding	
Alias	Name	O	R	Alias by which the encoding is also known	
Family	Family	O	R	Family group to which the encoding is assigned	
Description	String	M		Description of the main characteristics of the encoding	
Code Page	Integer	O		Code page for the character set	
Code Unit Width	String	O		Width of the code unit in bits	Fixed 8-bit
Encoding Form Width	String	O		Width of the encoding form in code units	Variable 1-4 code units
Release Date	Date	O		Date on which the encoding was released	
Withdrawn Date	Date	O		Date on which support for the encoding was, or is due to be, withdrawn	
Developer	Actor	O	R	Actor responsible for developing the encoding	
Support	Actor	O	R	Actor currently responsible for supporting or maintaining the encoding	
Documentation	Documentation	O	R	Documentation about the encoding	
IPR	IPR	O	R	Intellectual property rights which attach to the encoding	
Note	String	O		Informative note about the encoding	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which	

[1] As defined in Whistler, K and Davis, M, 2000, Character Encoding Model, *Unicode Technical Report*, **17** [http://www.unicode.org/reports/tr17/ - viewed 29 June 2004]

				the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.2.6 Compression Type

This entity models compression algorithms employed by file formats.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Identifier	Identifier	O	R	External identifier which applies to the algorithm	
Name	Name	M		Preferred name of the algorithm	
Alias	Name	O	R	Alias by which the algorithm is also known	
Family	Family	O	R	Family group to which the algorithm is assigned	
Description	String	M		Description of the main characteristics of the algorithm	
Lossiness	String	M		Identifies whether the algorithm is lossy or lossless	Authority controlled
Release Date	Date	O		Date on which the algorithm was released	
Withdrawn Date	Date	O		Date on which support for the algorithm was, or is due to be, withdrawn	
Developer	Actor	O	R	Actor responsible for developing the algorithm	
Support	Actor	O	R	Actor currently responsible for supporting or maintaining the algorithm	
Documentation	Documentation	O	R	Documentation about the algorithm	
IPR	IPR	O	R	Intellectual property rights which attach to the algorithm	
Note	String	O		Informative note about the algorithm	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.2.7 Internal Signature

This entity models signatures contained within the bitstream of a digital object which may be used to identify file formats.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Byte Sequence	Byte Sequence	M	R	Byte sequence which forms the signature	
Note	String	O		Informative note about the signature	Big endian byte order
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

2.2.8 Byte Sequence

This entity models individual byte sequences which form an internal signature.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Byte Sequence Position Type	String	M		Indicates whether the sequence occurs at a absolute or variable offset within the bitstream	Authority controlled
Byte Sequence Offset	Integer	M if Byte Sequence Position Type is "Absolute"		If Byte Sequence Position Type is "Absolute from BOF": offset in bytes from the beginning of the bitstream (offset 0) at which the sequence begins If Byte Sequence Position Type is "Absolute from EOF": offset in bytes from the end of the bitstream (offset 0) at which the sequence ends	0
Byte Sequence Value	Byte stream	M		Value of the sequence, expressed as hexadecimal byte values and regular expressions	49492A00

2.2.9 External Signature

This entity models signatures which are external to the bitstream of a digital object which may be used to identify file formats.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
External Signature Type	String	M		Type of external signature	Authority controlled
External Signature Value	String	M		Value of the external signature	

2.2.10 Name

This entity models name and version designations which may be applied to technical components.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Name	String	M		Name of the component	
Version Identifier	String	O		Version identifier for the component	

2.2.11 Classification

This entity models classification schemes which may be applied to technical components.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Classification Scheme Name	String	M		Name of the scheme from which the classification value is derived	
Classification Scheme Value	String	M		Classification value	

2.2.12 Family

This entity enables technical components to be grouped into conceptual families.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Family Name	String	M		Name of the family	
Family Description	String	M		Description of the characteristics of the family	
Family Note	String	O		Informative note about the family	

2.2.13 Reference File

This entity describes reference files which may exist for file formats.

Name	Type	Obligation	Cardinality	Description	Example
System ID	System-dependent	M		Internal system-generated ID	
Identifier	Identifier	M		External identifier which applies to the file – this will normally be a hypertext link to a downloadable copy of the file	
File Name	String	M		The system filename	
File Description	String	M		Description of the file	
Documentation	Documentation	O	R	Documentation about the file	
IPR	IPR	O	R	Intellectual property rights which attach to the file	
Note	String	O		Informative note about the file	
Source	Actor	M		Actor entity which provided the file	
Source Date	Date/Time	M		Date and time at which the information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

3 Relationships

Two types of relationship are permitted in this information model

3.1 Between two entities of the same type

Relationships between entities of the same type are defined using a generic relationship

Name	Type	Obligation	Cardinality	Description	Example
Source Entity	Entity	M		Source entity in the relationship	
Target Entity	Entity	M		Target entity in the relationship	
Relationship Type	String	M		Type of relationship	Authority controlled
Relationship Note	String	M if Relationship Type is "Other"		Informative note about the relationship	

3.2 Between entities of different types

A number of specific relationships have been defined between different types of entity. In most cases, the relationship has no attributes, and is defined by including the target entity as an attribute of the source entity (e.g. the "author" relationship between a documentation entity and an actor entity is defined by including "author" as an attribute of the documentation entity, with the type "actor"). However, the following complex relationships, which do have their own attributes, have also been defined:

3.2.1 Software Process

This defines the relationship between a software entity and a file format entity, in terms of the process which the software entity supports.

Name	Type	Obligation	Cardinality	Description	Example
File Format	File Format	M		File format operated on by the process	
Software	Software	M		Software component responsible for the process	
Software Process Type	String	M		Type of process	Authority controlled
Content Variance	String	M if Software Process Type is "Render"		Degree of content variance produced	Authority controlled
Extracted Metadata	String	M if Software Process Type is "Extract Metadata"	R	Metadata element which can be extracted	Bit depth
Documentation	Documentation	O	R	Documentation about the process	
Note	String	O		Informative note about the process	
Source	Actor	M		Actor entity which provided the information	
Source Date	Date/Time	M		Date and time at which the	

				information was added to PRONOM	
Last Updated	Date/Time	M		Date and time at which the information was last updated	
Provenance Note	String	O		Informative note on the provenance	

3.2.2 Software Requirement

This describes the relationship between a technical component entity and a required software entity.

Name	Type	Obligation	Cardinality	Description	Example
Technical Component	Technical Component	M		Technical component	
Software	Software	M		Required software	
Requirement Qualifier	String	O		Qualifier for the requirement	Authority controlled
Requirement Qualifier Value	String	O		Value associated with the Requirement Qualifier	
Requirement Note	String	O		Informative note about the requirement	

3.2.3 Hardware Requirement

This describes the relationship between a technical component entity and a required hardware component entity.

Name	Type	Obligation	Cardinality	Description	Example
Technical Component	Technical Component	M		Technical component	
Hardware Component	Hardware Component	M		Required hardware component	
Requirement Qualifier	String	O		Qualifier for the requirement	Authority controlled
Requirement Qualifier Value	String	O		Value associated with the Requirement Qualifier	50 MB free hard disk space
Requirement Note	String	O		Informative note about the requirement	

4 Authority Controlled Attributes

Actor Type
Central government organisation
Local government organisation
Government agency
Commercial organisation
Non-profit organisation
Educational body
Standards body
Professional association
Registered charity
Individual
Other

Byte Order
Little-endian (Intel)
Big-endian (Motorola)

Byte Sequence Position Type
Absolute offset from BOF
Absolute offset from EOF
Variable offset

Content Variance
Changed content
Unchanged content
Unknown

Country
PRONOM authority file

Documentation Type
Authoritative
Informative
Speculative

Documentation Availability
Public
Restricted
Not available

External Signature Type
File extension
Mac OS data fork
Other

Format Disclosure
Full
Partial
None

Identifier Type

PUID	PRONOM Unique Identifier
GDFRClass	GDFR Class
GDFRFormat	GDFR Format
GDFRRegistry	GDFR Registry
TOM	TOM Identifier
MIME	MIME type
4CC	Four Character Code codec identifier
ARK	Archival Resource Key
DOI	Digital Object Identifier
PURL	Persistent URL
URI	Uniform Resource Identifier
URL	Uniform Resource Locator
URN	Uniform Resource Name
UUID/GUID	Universally/Globally Unique Identifier
Handle	CNRI Handle
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
UDC	Universal Decimal Classification
DDC	Dewey Decimal Classification
LCC	Library of Congress Classification
LCCN	Library of Congress Control Number
RFC	IETF Request for Comment
ANSI	ANSI Standard
ISO	ISO Standard
BSI	BSI Standard
Other	

IPR Type
Copyright
Patent
Other

Jurisdiction
PRONOM Country authority file
+
European Union
Worldwide

Language
PRONOM authority file

Lossiness
Lossy
Lossless

Media Access Type
Random
Serial

Orientation
Binary
Text

Requirement Qualifier
Minimum
Or Equivalent

Relationship Type
Previous version of
Subsequent version of
Can contain
Can be contained by
Equivalent to
Subtype of
Supertype of
Other

Software Process Type
Create
Render
Identify
Validate
Extract metadata

Write Type
Read only
Write once
Rewriteable

5 PRONOM Classification Schemes

The following classification schemes have currently been developed for PRONOM:

Format Type
Image (Raster)
Image (Vector)
Audio
Video
Database
Spreadsheet
Text (Unstructured)
Text (Structured)
Text (Mark-up)
Text (Wordprocessed)
Presentation
GIS
Page Description
Email

The GDFR Ontology will also be supported as a classification scheme for Format Type

Hardware Type
CPU
Motherboard
RAM
Hard disk drive
CD-ROM drive
DVD-ROM drive
Floppy disk drive
Zip drive
Graphics card
Sound card
Dongle
Network card
Modem

Media Format Type
Punched paper tape
Punched card
Flexible magnetic disk
Hard disk drive
Magnetic tape cartridge
Magnetic tape reel
Optical disc
Magneto-optical disk
Solid state

Software Type
PRONOM authority file