



Best Practices for Software Metadata: A report from the Software Preservation Network

International Conference on Dublin Core & Metadata Applications
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SPN Metadata Working Group

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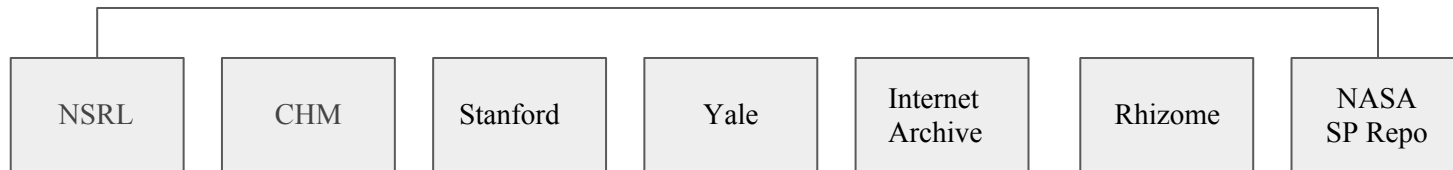
softwarepreservationnetwork.org
[@softpresnetwork](https://twitter.com/softpresnetwork)
<https://osf.io/a7uea/>

Introduction to SPN

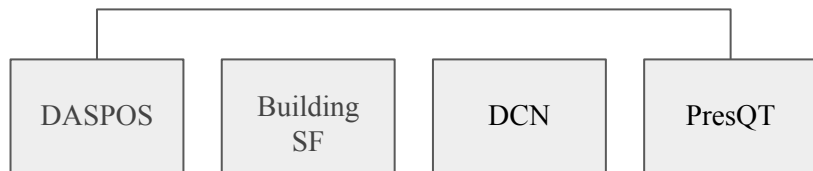
- *Saving Software Together*
- **Mission:** Preserving software through community engagement, infrastructure support, and knowledge generation
- **Values:**
 - Community
 - Sustainability
 - Access
 - Transparency
 - Advocacy

SPN in Context (of software preservation)

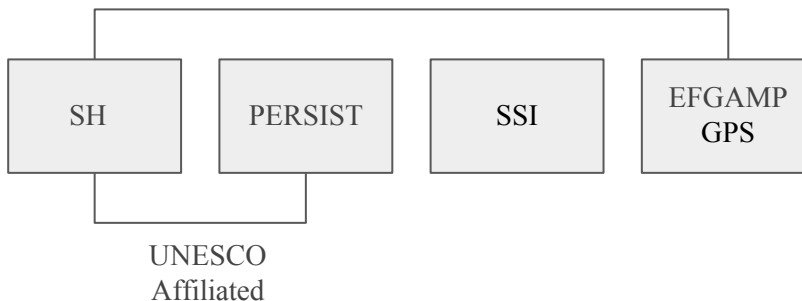
Software Collections (not exhaustive)



Projects (U.S.)



Programs/Efforts (international)



Commercial Services



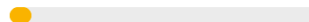
SPN Metadata Survey

The Software Preservation Network (SPN) is an initiative to explore and establish partnerships, collaborations, and best practices for software preservation. The SPN Metadata Working Group is currently conducting a survey of institutions with digital preservation programs to gain insight into metadata practices for software and other digital objects. The results of this survey will be used to establish a baseline for metadata best practices for software.

Please consider completing this very short survey about metadata practices in use at your institution. We are looking for responses both from institutions collecting software and those who have yet to begin this kind of work. This survey will be open through April 28, 2017



NEXT



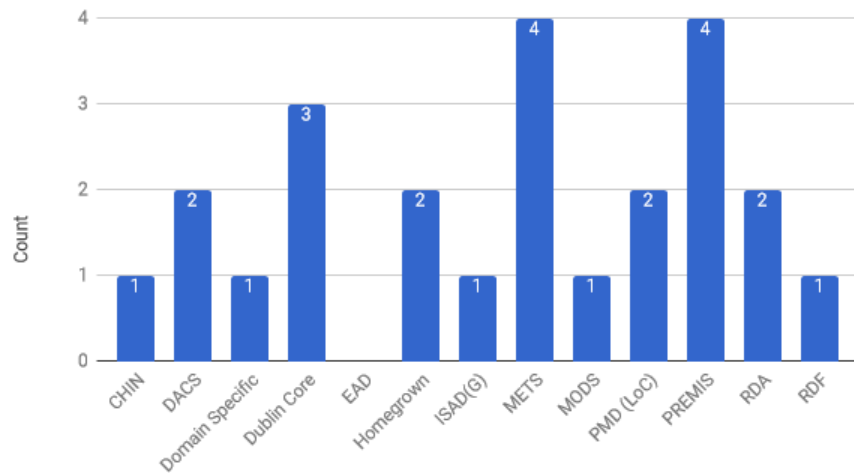
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Never submit passwords through Google Forms.

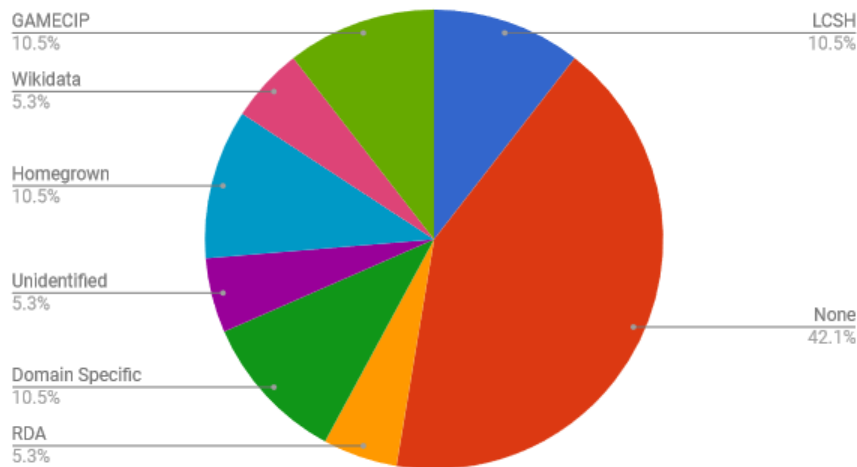


MDWG Survey: Preserving Software? Yes

What metadata standards are you using?

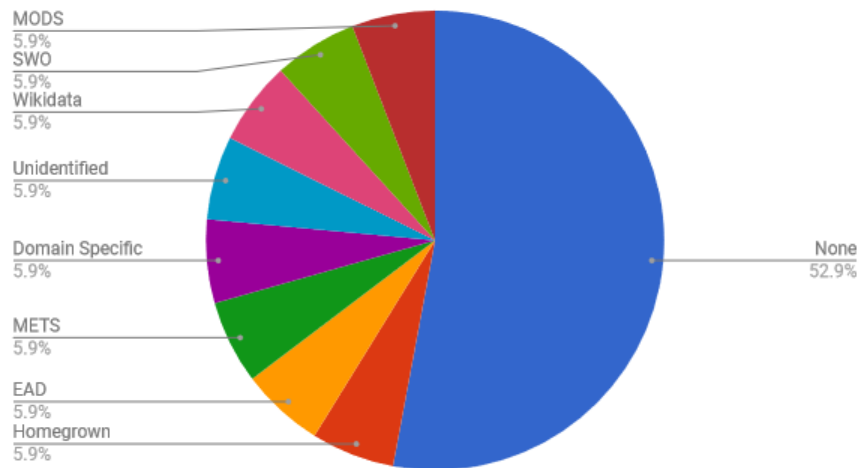


What controlled vocabularies are you using?

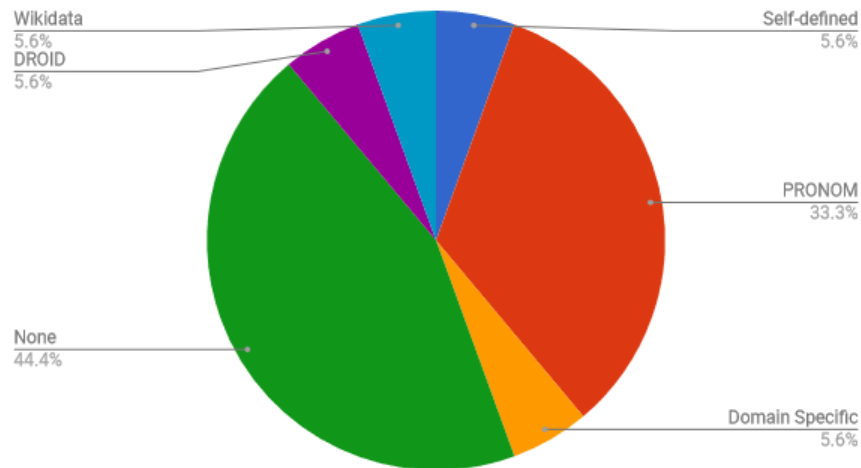


MDWG Survey: Preserving Software? Yes

What schemas/ontologies are you using?

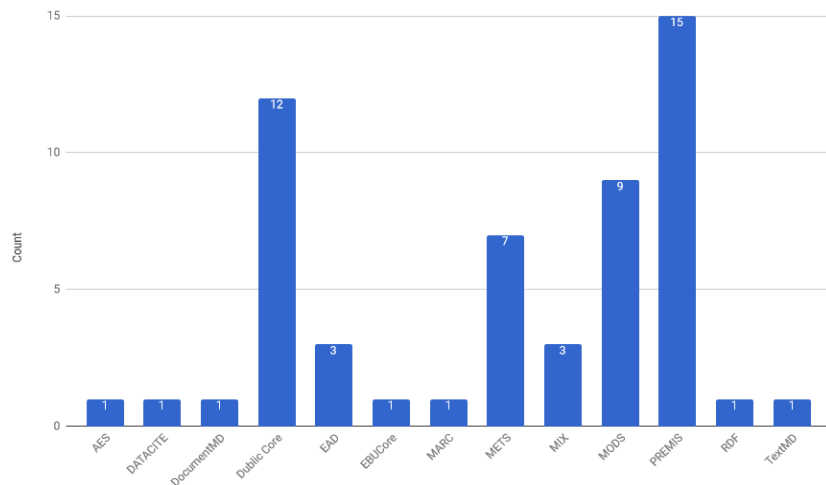


What file format registries are you using?

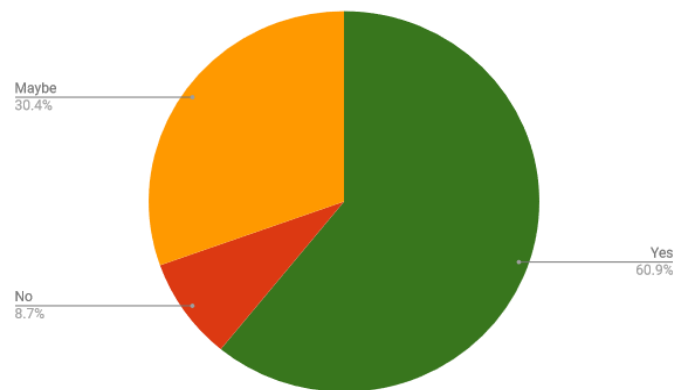


MDWG Survey: Preserving Software? No

What metadata standards are you using?



Will this metadata be useful?



Takeaways

- Limits to existing standards and tools
- Need for Real World examples of existing metadata solutions for software preservation
- Considerations for machine-actionable metadata to support emulation as a service and other applications

Full survey: <https://osf.io/4878z/>

Metadata Schemas for Software (...so far)

Registries

GDFR

PRONOM

Wikidata

NSRL

UDFR

Projects

TOTEM

CodeMeta

SEON

Software Heritage

Standards

PREMIS

GameCIP

MARC/RDA

Dublin Core

MODS

LoC Software Formats

DOAP

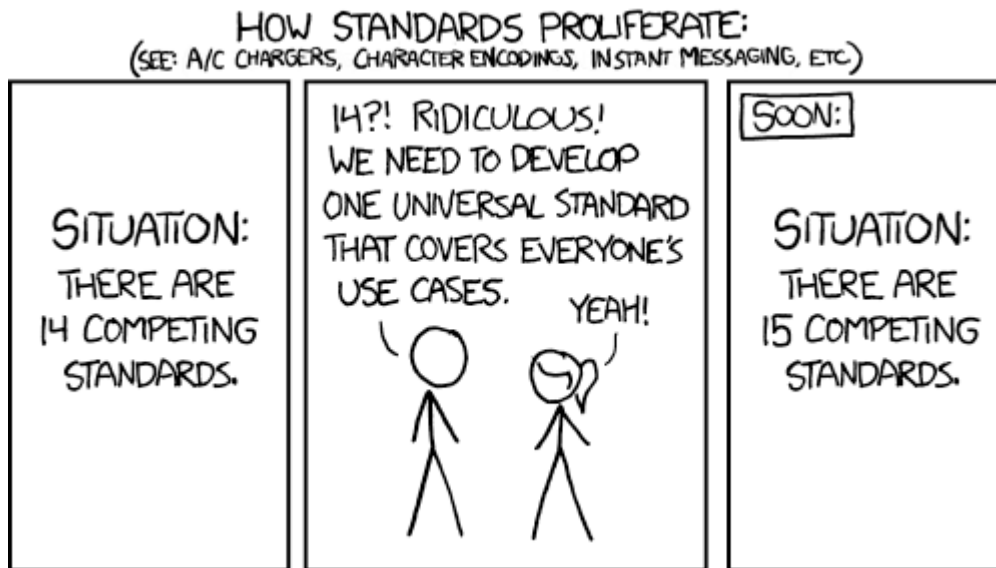
Schema.org

softwarepreservationnetwork.org

[@softpresnetwork](https://softwarepreservationnetwork.org)

<https://osf.io/a7uea/>

Metadata Schemas for Software (...so far)



<https://xkcd.com/927/>

Documenting the Metadata Landscape for Software

Software Metadata crosswalk-draft ☆

File Edit View Insert Format Data Tools Add-ons Help Last edit was made yesterday at 1:38 PM by Elizabeth Roke

100% \$ % .0 .00 123 Arial 10 B I A

Comments Share

	A	B	N	O	P	Q	R	S	T	U	V	W	X	Y	
	Semantic unit	Definition of Semantic Unit	Software Heritage https://www.softwareheritage.org/	Wikidata PID	Wikidata property name	National Software Reference Library	GAMECIP Schema/BPG	MARC/RDA	DC	MODS	Library of Congress software recommended formats	UDFR (http://www.udfr.org/onto/onto.rdf)		Counts	
1															
41	mime type	Two-part identifier for file formats and format contents transmitted on the Internet. Also called media type.		P1163	media type									2	
42	Media Format (of physical media)			P1163			Media Format	338 computer chip cartridge \$2rdacarrir	format	media_type1 (repeatable)				7	
43	Memory requirements	Minimum memory requirements													
44	Name	term used for identification of a resource		no property is used for this, it is just called label	label	ProductName	Title ; Standard Title ; Variant Title	245 00 Camp Lazlo: Leaky Lake games.// 500 Title from cartridge label.	title	title	title			13	
45	Namespace	In computing, a namespace is a set of symbols that are used to organize objects of various kinds, so that these objects may be referred to by name												1	
	Operating system	An operating system (OS) is system software that manages		P306	operating system	OpSystemCode	Platform	538 System Requirements: Playstation 2 with the NTSC-U/C designation.// 753 Playstation 2	relation	note	Operating system			15	

+ Sheet1 Semantic unit definitions Explore

Semantic Units

Operating system (15)

Version (14)

Name (13)

Manufacturer (10)

Identifier (10)

Publisher (9)

Contributor (9)

Language-Programming (8)

Language-Natural (8)

Form of Content (8)

Programmer (8)

Copyright date (8)

Subject (7)

Software dependencies (7)

Publication date (7)

Phys. Media format (7)

System requirements (6)

Rights (6)

Phys. Media extent (6)

Content type (6)

Storage repository (5)

Maintainer (5)

Bug tracker (5)

Screenshots (4)

Release/revision info (4)

File type (4)

Download page (4)

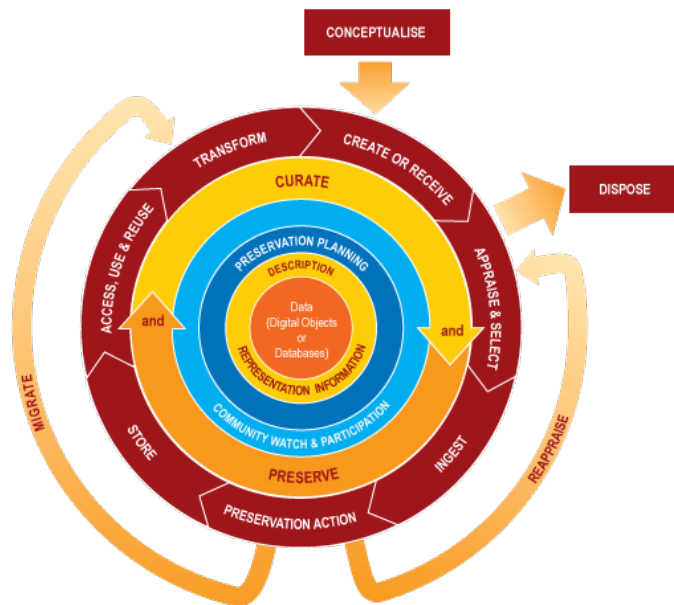
Creator (4)

Checksum (4)

Application type (4)

Abstract (4)

Metadata from Creation to Preservation



The DCC Curation Lifecycle Model. Digital Curation Center.
<http://www.dcc.ac.uk/sites/default/files/documents/publication/DCCLifecycle.pdf>

softwarepreservationnetwork.org
@softpresnetwork
<https://osf.io/a7uea/>

Activities Ahead


- Refinement of full set of semantic units for software preservation
- Definition of minimal metadata for various software preservation use cases
- Exploration of WikiData as a tool for translating software metadata standards



Participate!

- Follow us in our OSF repository and on the SPN website
- Contribute to the crosswalk on Github
<https://github.com/softwarepreservationnetwork/metadata-wg>
- Join the effort!



Thank You!
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 [@elizabethrroke](https://twitter.com/elizabethrroke)