

## Description of the San Antonio (Level 1, Level 2) Community Profiles [Non Normative]

### D.1 History

NISO Committee AX created two Community Profiles, San Antonio Level 1 and Level 2, to support the deployment of the NISO OpenURL Framework Standard in the scholarly information community.

### D.2 Maintenance of the San Antonio Community Profiles

NISO Committee AX acts in an advisory capacity until a permanent maintenance agency for the San Antonio Community Profiles is appointed by NISO. The maintenance agency will assume overall responsibility for the further development and maintenance of the San Antonio Community Profiles.

### D.3 Introduction to the San Antonio Community Profiles

The San Antonio Community Profiles list the choices for core components of the OpenURL Framework Standard made by NISO Committee AX on behalf of the scholarly information community. As required by the OpenURL Framework Standard, these choices are in fact selections of entries from the OpenURL Framework Registry for the following components: Namespaces, Character Encodings, Physical Representations, Constraint Languages, ContextObject Formats, Metadata Formats, and Transports.

As creator of the OpenURL Framework Standard, NISO Committee AX also specified the initial content of the Registry. Several Registry entries are valuable in application domains and for Communities other than the scholarly information community. For example, both ContextObject Formats (KEV and XML) are useful to several Communities, as is the OpenURL suite of HTTP(S)-based methods to transport representations of ContextObjects. Other initial Registry entries are targeted at the scholarly information community. For example, the Namespace for National Bibliographic Numbers (urn:NBN:) is essential to support context-sensitive linking in applications that involve National Libraries, but may not be relevant in other application domains.

### D.4 Purpose and Scope

Using the general OpenURL Framework Standard, Communities may specify many concrete instantiations of the Framework through the creation and/or selection of entries from the Registry. Those selections are bundled into Community Profiles that unambiguously specify the details of a concrete instantiation of the general OpenURL Framework.

The two San Antonio Community Profiles specify selections made to support the deployment of the OpenURL Framework in the scholarly information community. Within this Community, the major application of the OpenURL Framework is to provide context-sensitive linking from a reference in online scholarly information systems to resources relevant to the referenced item. In this Community, the OpenURL Framework is used as follows: When a user clicks a link or button on an HTML page, information about a scholarly resource (a journal article, for example) and of the context in which it is referenced is transported to a linking server. The transportation mechanism is based on HTTP(S) GET or POST, and is referred to as "an OpenURL". The purpose of the transportation is to obtain services that are relevant to the referenced scholarly resource and to the context in which it was referenced from the targeted linking server. Using the terminology of the OpenURL Framework Standard, the transported descriptions of both

the referenced item and the context are contained in a representation of a `ContextObject`. The `ContextObject` has 6 `Entities` one of which – the `Referent` - conveys information about the referenced item, the others – the `ReferringEntity`, `Requester`, `Resolver`, `ServiceType` and `Referrer` - about the context of the reference. Table D.1 shows those 6 `Entities`, and gives examples of what those `Entities` typically are in the scholarly information community. The Table also shows that, for the `ContextObject` `Formats` selected by the scholarly information community, inclusion of descriptions for one `Entity` is mandatory, while it is optional for the other five `Entities`.

**Table D.1 Entities in the `ContextObject`, and their use in the scholarly information community**

Entity	Definition	Mandatory Optional	Example
Referent	The <code>Entity</code> about which the <code>ContextObject</code> was created - a referenced resource	M	A referenced journal article
ReferringEntity	The <code>Entity</code> that references the <code>Referent</code>	O	A referencing article on EBSCOhost
Requester	The <code>Entity</code> that requests services pertaining to the <code>Referent</code>	O	The user clicking an OpenURL
ServiceType	The <code>Entity</code> that defines the type of service requested	O	Fulltext, ILL, etc.
Resolver	The <code>Entity</code> at which a request for services is targeted	O	A library's OpenURL linking server
Referrer	The <code>Entity</code> that generated the <code>ContextObject</code>	O	EBSCOhost

As specified by the OpenURL Framework Standard, a `Community Profile` must list `Registry-choices` for the following core components:

- A single `ContextObject` `Format`. Because of the nature of `ContextObject` `Formats`, this choice brings along a selection of:
  - A set of constraints on the type and number of `Entities` and `Descriptors` used for the representation of a `ContextObject`
  - A constraint on the number of `ContextObjects` that can be represented in a single instance document that conforms to the `ContextObject` `Format`
  - A single `Physical Representation`
  - A single `Constraint Language`
  - One or more `Character Encodings`
- `Metadata` `Formats` that may be used for `By-Value` `Metadata` or `By-Reference` `Metadata` descriptions or both. Because of the nature of `Metadata` `Formats`, this choice brings along a selection of:
  - One or more `Physical Representations`
  - One or more `Constraint Languages`
  - One or more `Character Encodings`
- `Namespaces` that may be used to describe `Entities` by an `Identifier`

Descriptor

- One or more Transports that specify how representations of ContextObjects in the chosen ContextObject Format must be transported

The two San Antonio Community Profiles specify a concrete instantiation of the OpenURL Framework with choices for the aforementioned core components:

- The San Antonio Level 1 Community Profile is built around the Key/Encoded-Value ContextObject Format. It has choices for Metadata Formats and Namespaces that meet the needs of the scholarly information community. This Community Profile is identified in the Registry as **info:ofi/pro:sap1** . The **mandatory** machine-readable version of this Community Profile will be registered.
- The San Antonio Level 2 Community Profile is built around the XML ContextObject Format. It has choices for Metadata Formats and Namespaces that meet the needs of the scholarly information community. This Community Profile is identified in the Registry as **info:ofi/pro:sap2** . The **mandatory** machine-readable version of this Community Profile will be registered.

**D.5 Selections made from the Registry for the San Antonio Community Profiles**

This Section lists the entries from the Registry that are selected to compile the San Antonio Community Profiles.

**D.5.1 ContextObject Formats**

A ContextObject is an information construct that binds together the Entities (see Table D.1) that describe a referenced resource and the context in which it is referenced. A ContextObject may be represented in a variety of ways, and ContextObject Formats specify the Physical Representation, Constraint Language and actual constraints used for a specific ContextObject representation. The San Antonio Community Profiles support the two ContextObject Formats listed in Table D.2.

**Table D.2: ContextObject Formats in the San Antonio Community Profiles**

ContextObject Format	Registry Identifier	Used in Community Profile
KEV	info:ofi/fmt:kev:mtx:ctx	San Antonio Level 1
XML	info:ofi/fmt:xml:xsd:ctx	San Antonio Level 2

As a result of the choices of the above ContextObject Formats, the San Antonio Profiles also adhere to:

- The constraints on the type and number of Entities and Descriptors used for the representation of a ContextObject
- The constraints on the number of ContextObjects that can be represented in a single instance document that conforms to the ContextObject Format

Those constraints are shown in Tables 7.1. and 7.8. of Part 2 on the OpenURL Framework Standard.

The selection of the above ContextObject Formats also includes the selection of the entries shown in Table D.3. It also includes the selection of Character Encodings, shown in Section D.5.2.

**Table D.3: Registry selections resulting from the choice of ContextObject Formats listed in**

Table D.2

Registry entry	Registry Identifier	Used in Community Profile
KEV Physical Representation	info:ofi/fmt:kev	San Antonio Level 1
Z39.88-2004 Matrix Constraint Language	info:ofi/fmt:kev:mtx	San Antonio Level 1
XML Physical Representation	info:ofi/fmt:xml	San Antonio Level 2
W3C XML Constraint Language	info:ofi/fmt:xml:xsd	San Antonio Level 2

### D.5.2 Character Encodings

Table D.4 lists the Character Encodings that are selected from the Registry for use in the San Antonio Community Profiles.

Table D.4: Character Encodings in the San Antonio Community Profiles

Registry entry	Registry Identifier	Used in Community Profile
UTF-8 Unicode	info:ofi/enc:UTF-8	San Antonio Level 1, San Antonio Level 2
ISO Latin 1	info:ofi/enc:ISO-8859-1	San Antonio Level 1

### D.5.3 Namespaces

Table D.5 lists the Namespaces that are supported by the San Antonio Community Profiles. As a result, Identifiers from these Namespaces may be used for the description of Entities by means of an Identifier Descriptor. They may also be used for the specification of network locations, for example, when providing By-Reference Metadata descriptions or in the By-Reference OpenURL.

Table D.5: Namespaces in the San Antonio Community Profiles

Registry entry	Registry Identifier	Used in Community Profile
Namespace for "ftp" URI Scheme	info:ofi/ftp:	San Antonio Level 1, San Antonio Level 2
Namespace for "http" URI Scheme	info:ofi/nam:http:	San Antonio Level 1, San Antonio Level 2
Namespace for "https" URI Scheme	info:ofi/nam:https:	San Antonio Level 1, San Antonio Level 2
Namespace for "ldap" URI Scheme	info:ofi/nam:ldap:	San Antonio Level 1, San Antonio Level 2
Namespace for "mailto" URI Scheme	info:ofi/nam:mailto:	San Antonio Level 1, San Antonio Level 2
Namespace for "ISBN" URN Namespace	info:ofi/nam:urn:ISBN:	San Antonio Level 1, San Antonio Level 2
Namespace for "ISSN" URN Namespace	info:ofi/nam:urn:ISSN:	San Antonio Level 1, San Antonio Level 2
Namespace for "NBN" URN Namespace	info:ofi/nam:urn:NBN:	San Antonio Level 1, San Antonio Level 2
Namespace for Astrophysics Bibcodes	info:ofi/nam:info:bibcode:	San Antonio Level 1, San Antonio Level 2
Namespace for Digital Object Identifiers	info:ofi/nam:info:doi:	San Antonio Level 1, San Antonio Level 2
Namespaces for CNRI handles	info:ofi/nam:info:hdl:	San Antonio Level 1, San Antonio Level 2
Namespace for OAI Identifiers	info:ofi/nam:info:oai:	San Antonio Level 1, San Antonio Level 2
Namespace for identifiers assigned by OCLC to records in the WorldCat database	info:ofi/nam:info:oclcnum:	San Antonio Level 1, San Antonio Level 2

Namespace for PubMed Identifiers	info:ofi/nam:info:pmid:	San Antonio Level 1, San Antonio Level 2
Namespace for Identifiers for the Referrer Entity	info:ofi/nam:info:bibcode:	San Antonio Level 1, San Antonio Level 2
Namespace for SICI codes	info:ofi/nam:info:sici:	San Antonio Level 1, San Antonio Level 2
Namespace for identifiers that follow the info:sid scheme, mainly used for the identification of the Referrer Entity	info:ofi/nam:info:sid:	San Antonio Level 1, San Antonio Level 2

#### D.5.4 Metadata Formats

Metadata Formats registered in the OpenURL Framework Registry are used to describe an Entity of the ContextObject by means of metadata. Metadata descriptions can be provided By-Value or By-Reference. In the former case, the metadata is contained in the ContextObject. In the latter, the ContextObject contains the network location of the metadata. Metadata may be represented in a variety of ways, and therefore Metadata Formats specify the Physical Representation, Constraint Language, and actual constraints used for the representation of a class of resources.

The San Antonio Community Profiles focus on resources that are often used by the scholarly information community. Therefore, the Metadata Formats they subscribe to have been created to describe books, journals (and components thereof), dissertations, and patents. (Conference proceedings may be described by means of the Metadata Formats for books or journals depending on whether the proceedings are contained in a monograph or in a journal, respectively.) Two other subscribed Metadata Formats (MARC and OAI Dublin Core) are general purpose.

The San Antonio Community Profiles supports the Metadata Formats listed in Table D.6.

**Table D.6: Metadata Formats in the San Antonio Community Profiles**

Registry Entry	Registry Identifier	Used in Community Profile
Key/Encoded-Value Metadata Format for Books	info:ofi/fmt:kev:mtx:book	San Antonio Level 1
Key/Encoded-Value Metadata Format for Dissertations	info:ofi/fmt:kev:mtx:dissertation	San Antonio Level 1
Key/Encoded-Value Metadata Format for Journals	info:ofi/fmt:kev:mtx:journal	San Antonio Level 1
Key/Encoded-Value Metadata Format for Patents	info:ofi/fmt:kev:mtx:patent	San Antonio Level 1
Key/Encoded-Value Metadata Format for ServiceTypes for the scholarly information community	info:ofi/fmt:kev:mtx:svc_sch	San Antonio Level 1
XML Metadata Format for Books	info:ofi/fmt:xml:xsd:book	San Antonio Level 2
XML Metadata Format for Dissertations	info:ofi/fmt:xml:xsd:dissertation	San Antonio Level 2
XML Metadata Format for Journals	info:ofi/fmt:xml:xsd:journal	San Antonio Level 2
XML Metadata Format for Patents	info:ofi/fmt:xml:xsd:patent	San Antonio Level 2

Library of Congress MARC XML Metadata Format	info:ofi/fmt:xml:xsd:MARC21	San Antonio Level 2
Open Archives Initiative Unqualified Dublin Core	info:ofi/fmt:xml:xsd:oai_dc	San Antonio Level 2
XML Metadata Format for ServiceTypes for the scholarly information community	info:ofi/fmt:xml:xsd:svc_sch	San Antonio Level 2

**D.5.5 Transports**

Transports define how to transport representations of ContextObjects over the network. Table D.7 lists the Transports supported by the San Antonio Community Profiles.

The By-Value OpenURL Transport and the By-Reference OpenURL Transport (over HTTP and HTTPS) may be used to transport ContextObjects represented by means of the Key/Encoded-Value and the XML ContextObject Format. In case of the Key/Encoded-Value representation, only a single ContextObject may be transported. In case of the XML representation, one or more ContextObjects may be transported.

The Inline OpenURL Transport may only be used to transport a single ContextObject represented using the KEV ContextObject Format.

**Table D.7: Transports in the San Antonio Community Profiles**

Registry entry	Registry Identifier	Used in Community Profile
By-Reference OpenURL over HTTP	info:ofi/tsp:http:openurl-by-ref	San Antonio Level 1, San Antonio Level 2
By-Value OpenURL over HTTP	info:ofi/tsp:http:openurl-by-val	San Antonio Level 1, San Antonio Level 2
Inline OpenURL over HTTP	info:ofi/tsp:http:openurl-inline	San Antonio Level 1, San Antonio Level 2

**D.6 Conformance for OpenURL Resolvers**

Table D.8 specifies which Registry items an OpenURL Resolver **must** be able to handle to be considered conformant to a specific San Antonio Community Profile. San Antonio Community Profile Level 1 specifies conformance for OpenURL Resolvers that handle ContextObjects and metadata descriptions that use the Key/Encoded-Value Physical Representation. San Antonio Community Profile Level 2 specifies conformance for OpenURL Resolvers that handle ContextObjects and metadata descriptions that use the XML Physical Representation.

**Table D.8: OpenURL Framework Component Conformance for OpenURL Resolvers per San Antonio Community Profile**

OpenURL Framework Core Component	Registry Entry	Registry Identifier	Level 1	Level 2
Namespaces				
	Namespace for "ftp" URI Scheme	info:ofi/nam:ftp:	Y	Y
	Namespace for "http" URI Scheme	info:ofi/nam:http:	Y	Y
	Namespace for "https" URI Scheme	info:ofi/nam:https:	Y	Y

OpenURL Framework Core Component	Registry Entry	Registry Identifier	Level 1	Level 2
	Namespace for "ldap" URI Scheme	info:ofi/nam:ldap:	Y	Y
	Namespace for "mailto" URI Scheme	info:ofi/nam:mailto:	Y	Y
	Namespace for "ISBN" URN Namespace	info:ofi/nam:urn:ISBN:	Y	Y
	Namespace for "ISSN" URN Namespace	info:ofi/nam:urn:ISSN:	Y	Y
	Namespace for "NBN" URN Namespace	info:ofi/nam:urn:NBN:	Y	Y
	Namespace for Astrophysics Bibcodes	info:ofi/nam:info:bibcode:	Y	Y
	Namespace for Digital Object Identifiers	info:ofi/nam:info:doi:	Y	Y
	Namespaces for handles	info:ofi/nam:info:hdl:	Y	Y
	Namespace for OAI Identifiers	info:ofi/nam:info:oai:	Y	Y
	Namespace for identifiers assigned by OCLC to records in the WorldCat database	info:ofi/nam:info:oclcnum:	Y	Y
	Namespace for PubMed Identifiers	info:ofi/nam:info:pmid:	Y	Y
	Namespace for identifiers that follow the info:sid scheme, mainly used for the identification of the Referrer Entity	info:ofi/nam:info:sid:	Y	Y
	Namespace for SICI identifiers	info:ofi/nam:info:sici:	Y	Y
Character Encodings				
	UTF-8 Unicode	info:ofi/enc:UTF-8	Y	Y
	ISO Latin 1	info:ofi/enc:ISO-8859-1	Y	
Physical Representations				
	Key/Encoded-Value (KEV)	info:ofi/fmt:kev	Y	
	XML	info:ofi/fmt:xml		Y
Constraint Languages				
	Z39.88-2004 Matrix	info:ofi/fmt:kev:mtx	Y	
	W3C XML Schema	info:ofi/fmt:xml:xsd		Y
ContextObject Formats				
	KEV ContextObject Format	info:ofi/fmt:kev:mtx:ctx	Y	
	XML ContextObject Format	info:ofi/fmt:xml:xsd:ctx		Y
Metadata Formats				
	KEV Metadata Format for Journals	info:ofi/fmt:kev:mtx:journal	Y	
	XML Metadata Format for Journals	info:ofi/fmt:xml:xsd:journal		Y
	KEV Metadata Format for Books	info:ofi/fmt:kev:mtx:book	Y	

<b>OpenURL Framework Core Component</b>	<b>Registry Entry</b>	<b>Registry Identifier</b>	<b>Level 1</b>	<b>Level 2</b>
	XML Metadata Format for Books	info:ofi/fmt:xml:xsd:book		Y
	KEV Metadata Format for Patents	info:ofi/fmt:kev:mtx:patent	Y	
	KEV Metadata Format for ServiceTypes for the scholarly information community	info:ofi/fmt:kev:mtx:svc_sch	Y	
	XML Metadata Format for Patents	info:ofi/fmt:xml:xsd:patent		Y
	KEV Metadata Format for Dissertations	info:ofi/fmt:kev:mtx:dissertation	Y	
	XML Metadata Format for Dissertations	info:ofi/fmt:xml:xsd:dissertation		Y
		info:ofi/fmt:xml:xsd:MARC21		Y
	OAI Unqualified Dublin Core	info:ofi/fmt:xml:xsd:oai_dc		Y
	XML Metadata Format for ServiceTypes for the scholarly information community	info:ofi/fmt:xml:xsd:svc_sch		Y
Transports				
	Inline OpenURL	info:ofi/tsp:http:openurl-inline	Y	N
	By-Value OpenURL	info:ofi/tsp:http:openurl-by-val	Y	Y
	By-Reference OpenURL	info:ofi/tsp:http:openurl-by-ref	Y	Y