

Formal Statement of Conformance to ISO 14721:2012

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Formal Statement Of Conformance to ISO 14721:2012

This formal statement of conformance to the Open Archival Information System (OAIS) model is based on the official standard (ISO 14721:2012), which is not available online. The text at the Consultative Committee for Space Data Systems ([CCSDS](#)) is an earlier version from the official standard, but may prove helpful in the interpretation of this document.

Overview and Criteria for Conformance

Section 1.4 of ISO 14721:2012 defines the requirements of conformance to the OAIS Standard as an archive that can:

- Support the model of information described in Section 2.2
- Fulfill the responsibilities listed in Section 3.1

Criteria for Section 2.2

The information model of Section 2.2 describes information transferred to and from the custody of the OAIS-conforming system in terms of Information Packages, which have particular characteristics.

Each Information Package should contain three parts:

- Content Information
- Preservation Description Information: Provenance (the source), Context (links to other objects), Reference (identifiers for retrieval), and Fixity
- Packaging Information

The system is required to support three types of Information Packages:

- Submission Information Package (SIP)
- Archival Information Package (AIP)
- Dissemination Information Package (DIP)

ISO 14721:2012 also requires that Information Packages be associated with Descriptive Information sufficient to locate them.

Criteria for Section 3.1

The mandatory requirements of Section 3.1 apply to the organization operating the OAIS archive, requiring the OAIS-conforming system to enable the organization to:

- Negotiate for and accept appropriate information from information Producers.
- Obtain sufficient control of the information provided to the level needed to ensure Long Term Preservation.
- Determine, either by itself or in conjunction with other parties, which communities should become the Designated Community and, therefore, should be able to understand the information provided, thereby defining its Knowledge Base.
- Ensure that the information to be preserved is Independently Understandable to the Designated Community. In particular, the Designated Community should be able to understand the information without needing special resources such as the assistance of the experts who produced the information.
- Follow documented policies and procedures which ensure that the information is preserved against all reasonable contingencies, including the demise of the Archive, ensuring that it is never deleted unless allowed as part of an approved strategy. There should be no ad-hoc deletions.
- Make the preserved information available to the Designated Community and enable the information to be disseminated as copies of, or as traceable to, the original submitted Data Objects with evidence supporting its Authenticity.

UNT Libraries' Digital Collections Conformance Statement

The UNT Libraries and the UNT Libraries' Digital Collections are committed to developing our digital preservation systems and practices in conformance to the OAIS Reference model standard.

Conformance with Section 2.2

The UNT Libraries' Digital Collections meet the requirements for Information Package types and contents and have established these practices in a number of documents.

Content Information: The UNT Libraries' Digital Collections support a wide range of activities for their designated community but remain true to their mission of long-term collecting, preserving, and providing access to digital resources that support research, teaching, and scholarship of all types.

As such, the UNT Libraries have a number of policies, specifications, standards, and best practices outlining the requirements of the Content Information they collect and maintain as part of their repository. These requirements articulate both the intellectual content collected (what kinds of data are or are not acquired) as well as the technical specifications in place for this content. Additionally these policies define the levels of support available for content that does not match the minimum specifications at a technical level.

Related documentation:

- The UNT Libraries: OAIS Information Package Specification
- UNT Libraries Policy: Collection Development Policy for the UNT Libraries' Digital Collections
- UNT Libraries Policy: Digital Preservation Policy Framework
- Digital Libraries Policy: Digital Collections Usage and Feedback Policy
- Digital Projects Unit: Digital File Formats - <http://www.library.unt.edu/digital-projects-unit/digital-file-formats>
- Digital Projects Unit: Digitization Standards - <http://www.library.unt.edu/digital-projects-unit/standards>

Preservation Description Information: The UNT Libraries maintain preservation description information about all digital objects acquired and preserved as part of the UNT Libraries' Digital Collections. This preservation description information is generated throughout the lifecycle of the resource and is serialized in a number of locations throughout the infrastructure, often in an intentionally redundant fashion.

For each file in a digital object the following preservation metadata is programmatically generated and stored within the AIP created for the object:

- PREMIS Object Entity record for each file
- JHOVE output stream for each file
- UNIX File command output serialization for each file
- METS file-level metadata in the METS File Section for each file

During and after ingest into the Coda repository, PREMIS Events are created and collected using the PREMIS Event Service application and associated with each resource. PREMIS Events captured at present include:

- Ingest
- Fixity Verification
- Replication
- Migration

Related documentation:

- The UNT Libraries: OAIS Information Package Specification
- UNT Libraries TRAC Conformance Document, Section B 2.9
- UNTL METS Archival Information Package Profile - <http://www.loc.gov/standards/mets/profiles/00000045.xml>

Packaging Information: The UNT Libraries use the BagIt specification to encapsulate both the Content Information and the Preservation Description Information for each of the digital objects added to the UNT Libraries' Digital Collections. Additionally each digital object added to the Coda repository must be a valid UNT-AIP as defined by the UNT Libraries OAIS Information Packaging Specification. This requires the use of a METS to encapsulate Content Information and relevant Preservation Description Information in a document that conforms to the UNTL METS Archival Information Package Profile.

Related documentation:

- METS Archival Information Package Profile - <http://www.loc.gov/standards/mets/profiles/00000045.xml>
- The UNT Libraries: OAIS Information Package Specification

Information Package Types (SIP, AIP, DIP): The UNT Libraries: OAIS Information Package Specification acts as the guiding document that specifies the creation of Information Packages in the UNT Libraries' Digital Collections. Additionally, the METS Archival Information Package Profile is used as part of that specification in the creation of Archival Information Packages (AIPs) for the Coda repository. The UNT Libraries has documentation covering the conversion between a SIP to an AIP and from an AIP to a DIP.

Related documentation:

- The UNT Libraries: OAIS Information Package Specification
- METS Archival Information Package Profile - <http://www.loc.gov/standards/mets/profiles/00000045.xml>
- UNT Libraries SIP-to-AIP Conversion Workflow
- UNT Libraries AIP to DIP/ACP Conversion Workflow

Descriptive Information: Resources collected and ingested into the UNT Libraries' Digital Collections all have Descriptive Information associated with each object in the form of a metadata record that can be validated against the UNTL XML Schema, and which uses the UNTL Metadata Guidelines for input guidelines during the creation of the metadata. This Descriptive Information is paired with the originating Content Information by reference with the use of Archival Resource Keys (ARKs) that connect the Descriptive Information held in the Auby access system and Archival Information Package (AIP) in the Coda repository.

Related documentation:

- UNTL Metadata Guidelines - <http://www.library.unt.edu/digital-projects-unit/metadata>
- UNTL XML Schema - <http://digital2.library.unt.edu/untl.xsd>

Conformance with Section 3.1

The UNT Libraries as an organization meet the required responsibilities, as outlined in this section.

Negotiate for and accept appropriate information from Information Producers.

The UNT Libraries work with Information Producers to acquire needed information for the creation of Submission Information Packages and associated Descriptive Information.

Obtain sufficient control of the information provided to the level needed to ensure Long Term Preservation.

The UNT Libraries require contributing partners to sign a Standard Partnership Agreement, Memorandum of Agreement for Digital Rights, or other legal document such as a Memorandum of Understanding that outlines the rights and information needed by the UNT Libraries to preserve and make available items in the UNT Libraries' Digital Collections.

Determine, either by itself or in conjunction with other parties, which communities should become the Designated Community and, therefore, should be able to understand the information provided, thereby defining its Knowledge Base.

The UNT Libraries' Digital Collections have a broad Designated Community interested in utilizing the digital resources, including:

- The UNT Extended Community (comprising students, faculty, staff, alumni, and administrators)
- Contributing partners and their constituents
- The larger academic community and researchers
- The general public throughout the world

Further information related to the Designated Community of the UNT Libraries' Digital Collections can be found in the following policies at <http://www.library.unt.edu/policies/>:

- UNT Libraries Policy: Collection Development Policy for the UNT Libraries' Digital Collections
- UNT Libraries Policy: Digital Preservation Policy Framework
- UNT Libraries Policy: Digital Collections Usage and Feedback Policy

Ensure that the information to be preserved is Independently Understandable to the Designated Community. In particular, the Designated Community should be able to understand the information without needing special resources such as the assistance of the experts who produced the information.

Resources collected, preserved, and made accessible by the UNT Libraries' Digital Collections are available via access interfaces such as The Portal to Texas History, the UNT Digital Library and the Gateway to Oklahoma History. These systems make available the Dissemination Information Packages (DIPs) generated from the Archival Information Packages (AIPs) preserved in the Coda repository. By actively making these resources available via the Web using common formats, the UNT Libraries' Digital Collections ensure that the information preserved is understandable to their Designated Community.

Additional policy documents that discuss issues related to the understandability and utility of items by the designated community include:

- UNT Libraries Policy: Collection Development Policy for the UNT Libraries' Digital Collections
- UNT Libraries Policy: Digital Preservation Policy Framework
- UNT Libraries Policy: Digital Collections Usage and Feedback Policy
- UNTL Metadata Guidelines - <http://www.library.unt.edu/digital-projects-unit/metadata>
- Digital Projects Unit: Digital File Formats - <http://www.library.unt.edu/digital-projects-unit/digital-file-formats>
- Digital Projects Unit: Digitization Standards - <http://www.library.unt.edu/digital-projects-unit/standards>

Follow documented policies and procedures which ensure that the information is preserved against all reasonable contingencies, including the demise of the Archive, ensuring that it is never deleted unless allowed as part of an approved strategy. There should be no ad-hoc deletions.

The UNT Libraries have a number of policies, procedures, workflows, and systems in place to ensure that preserved content remains viable through a wide range of contingencies. These are in part discussed by the UNT Libraries Policy: Digital Preservation Policy Framework and the UNT Libraries TRAC Conformance Document in more detail. These documents include information about who would assume custody of digital resources in the event that the UNT Libraries were not able to manage the resources anymore; the majority of the content would

return to the partner institutions, and large portions would be covered by memoranda of understanding (MOUs) with state and federal institutions such as the Texas Secretary of State's Office, the Government Publishing Office, and the National Archives and Records Administration.

Related Documentation:

- UNT Libraries Policy: Digital Preservation Policy Framework
- UNT Libraries TRAC Conformance Document

Make the preserved information available to the Designated Community and enable the information to be disseminated as copies of, or as traceable to, the original submitted Data Objects with evidence supporting its Authenticity.

The UNT Libraries Digital Collections can provide the full history of the preserved information to the Designated Community when requested. Events important to the lifecycle of the resource are captured as part of the PREMIS Event Service, the Digital Libraries' Major Event Log system, and in transactional versioning of Descriptive Information and end-user access metadata as part of the Aubrey metadata editing infrastructure.

Additional documentation related to the authenticity of objects and associated metadata is available in the following documents:

- UNT Libraries Policy: Collection Development Policy for the UNT Libraries' Digital Collections
- UNT Libraries Policy: Digital Preservation Policy Framework
- UNT Libraries Policy: Digital Collections Usage and Feedback Policy
- UNT Libraries TRAC Conformance Document

References

Digital Projects Unit: Digitization Standards -

<http://www.library.unt.edu/digital-projects-unit/standards>

Digital Projects Unit: Digital File Formats -

<http://www.library.unt.edu/digital-projects-unit/digital-file-formats>

JHOVE - <http://jhove.sourceforge.net/>

PREMIS - <http://www.loc.gov/standards/premis/>

UNIX File Command - [http://en.wikipedia.org/wiki/File_\(command\)](http://en.wikipedia.org/wiki/File_(command))

UNT Libraries: OAIS Information Package Specification -
<http://www.library.unt.edu/digital-libraries/trusted-digital-repository>

UNT Libraries Policy: Collection Development Policy for the UNT Libraries' Digital Collections -
<http://www.library.unt.edu/policies/>

UNT Libraries Policy: Digital Preservation Policy Framework -
<http://www.library.unt.edu/policies/>

UNT Libraries Policy: Digital Collections Usage and Feedback Policy -
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UNT Libraries SIP-to-AIP Conversion Workflow -
<http://www.library.unt.edu/digital-libraries/trusted-digital-repository>

UNT Libraries AIP to DIP/ACP Conversion Workflow -
<http://www.library.unt.edu/digital-libraries/trusted-digital-repository>

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UNTLL Metadata Guidelines - <http://www.library.unt.edu/digital-projects-unit/metadata>

UNTLL METS Archival Information Package Profile -
<http://www.loc.gov/standards/mets/profiles/00000045.xml>

UNTLL XML Schema - <http://digital2.library.unt.edu/untll.xsd>