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# Introduction

This document contains the Application Profile used for the aggregation of information about interoperability assets (controlled vocabularies, metadata schemas) and software solutions by the federated repositories[[1]](#footnote-1) on the Joinup platform, online collections of interoperability solutions maintained by European public administrations, businesses and citizens.

## Background

The Asset Description Metadata Schema, version 1.00[[2]](#footnote-2) was developed on 2011-2012 by the ADMS Working Group following the Process and Methodology for Developing Core Vocabularies[[3]](#footnote-3) under the European Commission's ISA programme[[4]](#footnote-4). It was reviewed by representatives of the Member States of the European Union, publishers of Public Sector Information (PSI), and by other interested parties. ADMS was published as a Working Group Note[[5]](#footnote-5) by the Government Linked Data Working Group[[6]](#footnote-6) of the World Wide Web Consortium (W3C). The ADMS namespace document[[7]](#footnote-7) is published by W3C, generated from the associated Resource Description Framework (RDF) schema.

In 2013, an extended ADMS specification was developed as the ADMS Application Profile for Joinup[[8]](#footnote-8). This application profile aimed to extend the use of ADMS, originally envisaged for the description of semantic interoperability assets, to also support description of other types of interoperability solutions, covering the political, legal, organisational and technical interoperability layers defined by the European Interoperability Framework[[9]](#footnote-9).

From implementation experience with the Application Profile in the years since 2013, it became clear that a revision of the original ADMS-AP was necessary to streamline the specification and to modify some of its elements.

## Scope

The revision of the Application Profile takes into account all issues related to the implementation of version 1.0 of the ADMS-AP. The resulting Application Profile, version 2.0 of ADMS-AP, tries as much as possible to remain backwards compatible with ADMS-AP 1.0. Exceptions are possible where elements of ADMS-AP 1.0 were not used or in cases where changes were considered to be necessary.

At the same time, ADMS-AP 2.0 aims to be, as much as possible, interoperable with the general DCAT Application Profile for data portals in Europe, DCAT-AP version 1.1[[10]](#footnote-10), with the objective to make it easy to share descriptions created under ADMS-AP 2.0 with data portals, such as the European Data Portal[[11]](#footnote-11), that are able to process DCAT-AP 1.1.

## Structure

The structure of the document is as follows:

In section 2, the methodology of the work towards the revision of ADMS-AP is outlined.

Section 3 contains an overview of the specific terminology used in the specifications.

Section 4 explains the link between the Joinup content model and the ADMS-AP specifications.

An UML class diagram of the Application Profile is presented in section 5.

Section 6 contains a description of the classes in the Application Profile.

In section 7, the properties for each of the classes are specified.

The controlled vocabularies to be used with several of the properties are listed in section 8.

In section 9, the requirements for conformance with the Application Profile are specified.

Section 10 lists the participants in this activity.

Further information is included in the annexes

Annex I contains a log of the changes that were made to version 1.0.

Annex II is a quick reference with all classes and properties on a single page.

# Methodology

## Stakeholder invitation

The process started with an invitation to the main stakeholders to participate in the revision and communicate any issues they were aware of. The participants in this activity are listed in section 10.

## Change requests

The change requests received are publicly visible in the Joinup issue tracker at <https://joinup.ec.europa.eu/asset/adms_revsion/issue/all>.

## Review

Discussion among the stakeholders took place on the Joinup issue tracker. Under a description of the issue as submitted by a stakeholder, the discussion and the consensus reached are visible in the comments section.

Further discussion took place on the subscriber-only mailing list with a public archive at <http://joinup.ec.europa.eu/mailman/archives/adms_revsion/>.

## Publication

Based on the consensus reached by the participants, this document is published on Joinup.

# Overview and terminology

In the following sections, classes and properties are grouped under headings ‘mandatory’, ‘recommended’ and ‘optional’. These terms have the following meaning.

* **Mandatory class**: a receiver of data must be able to process information about instances of the class; a sender of data must provide information about instances of the class.
* **Recommended class**: a receiver must be able to process information about instances of the class; a sender SHOULD provide the information if it is available.
* **Optional class**: a receiver must be able to process information about instances of the class; a sender may provide the information but is not obliged to do so.
* **Mandatory property**: a receiver must be able to process the information for that property; a sender must provide the information for that property.
* **Recommended property**: a receiver must be able to process the information for that property; a sender should provide the information for that property if it is available.
* **Optional property**: a receiver must be able to process the information for that property; a sender may provide the information for that property but is not obliged to do so.

The meaning of the terms must and may in this section and in the following sections are as defined in RFC2119[[12]](#footnote-12). In the given context, the term "processing" means that receivers must accept incoming data and transparently provide these data to applications and services. It does neither imply nor prescribe what applications and services finally do with the data (parse, convert, store, make searchable, display to users, etc.).

The table below lists the namespace prefixes that are used in the following sections with the corresponding namespaces URIs.

|  |  |
| --- | --- |
| Namespace prefix | Namespace URI |
| adms | http://www.w3.org/ns/adms# |
| dcat | http://www.w3.org/ns/dcat# |
| dct | http://purl.org/dc/terms/ |
| foaf | http://xmlns.com/foaf/0.1/ |
| owl | http://www.w3.org/2002/07/owl# |
| rdfs | http://www.w3.org/2000/01/rdf-schema# |
| schema | http://schema.org/ |
| skos | http://www.w3.org/2004/02/skos/core# |
| spdx | http://spdx.org/rdf/terms# |
| v | http://www.w3.org/2006/vcard/ns# |
| xsd | http://www.w3.org/2001/XMLSchema# |

# Usage note on adms-ap

This section explains the link between the Joinup content model and the ADMS-AP specifications. The Joinup content model represents a solution as part of a hierarchy. Each solution belongs to a collection and has releases and distributions. A definition of each term can be found below:

1. **Collection:** A collection is defined by Joinup as a catalogue of interoperability solutions and other content items around a common topic or domain. Collections are the main collaborative space around which information is organised and users can share their content and engage their community.
2. **Solution:** A solution on Joinup is a framework, tool, or service either hosted directly on Joinup or federated from third-party repositories.
3. **Release:** The release contains the distribution(s) of the different versions or packages of a solution.
4. **Distribution:** A distribution is typically a downloadable computer file that implements the intellectual content of solutions and can have different physical formats. A particular distribution is associated in Joinup with one and only one solution.

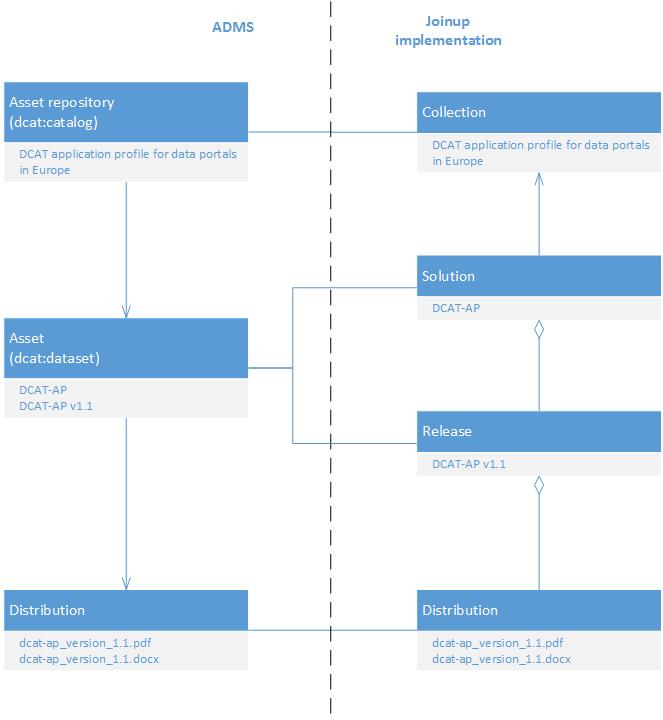


Figure 1: Conceptual model and implementation of the example

Figure 1 provides a visual representation of the link between ADMS-AP (on the left) and the Joinup content model (on the right). The DCAT-AP v1.1 release is used as example to better explain how ADMS-AP can be used to describe the solution hierarchy on Joinup.

To describe this hierarchy, three classes from ADMS-AP are used.

* **Asset Repository (dcat:Catalog)** is used to annotate a collection.
* **Asset (dcat:Dataset)** is used to annotate a solution and its releases.
* **Asset Distribution (dcat:Distribution)** is used to annotate a distribution.

The **dct:hasVersion** is used to describe the relation from the solution level to the release whereas **dct:isVersionOf** is used for the inverse relationship.

## Example

As an example, we describe Figure 1 using ADMS-AP:

1. **Collection**: “DCAT application profile for data portals in Europe”[[13]](#footnote-13) is the collection of all the DCAT-AP solutions on Joinup. According to the ADMS-AP, the DCAT application profile for data portals in Europe uses *dcat:Catalog*.
2. **Solution**: “DCAT-AP”[[14]](#footnote-14) is the name of the solution that is part of that collection. According to ADMS-AP, the solution uses *dcat:Dataset*.
3. **Release**: DCAT-AP has several releases such as DCAT-AP v1.0, DCAT-AP v1.1, DCAT-AP v1.x... According to ADMS-AP, the DCAT-AP release uses *dcat:Dataset*. Note that the range of the class is the same as the solution. Therefore, the difference between a solution and a release according to ADMS-AP is made by the property *dct:isVersionOf*. For instance, the release “DCAT-AP v1.1” [[15]](#footnote-15) is described in RDF as a *dcat:Dataset*, whose property *dct:isVersionOf* contains the URI of the solution “DCAT-AP”.
4. **Distributions**: DCAT-AP v1.1 contains two distributions:
   1. dcat-ap\_version\_1.1.pdf[[16]](#footnote-16); and
   2. dcat-ap\_version\_1.1.docx[[17]](#footnote-17)

According to ADMS-AP, each distribution is modelled in RDF as dcat:Distribution.

Table 1 presents in detail the RDF/XML representation of the example. The table only contains excerpts of the file; not all the mandatory classes/properties are included on it.

Table 1: RDF/XML example usage on Joinup

|  |
| --- |
| RDF/XML example |
| <rdf:Description rdf:about=".../asset/dcat\_application\_profile/description">  <rdf:type rdf:resource="dcat:Catalog"/>  <dct:title xml:lang="en">DCAT application profile for data portals in Europe</dct:title>  <dct:description xml:lang="en">The DCAT Application Profile for data portals (DCAT-AP) is a specification based on the Data Catalogue vocabulary (DCAT) for describing public sector datasets in Europe. Its basic use case is to enable cross-data portal search for data sets and make public sector data better searchable across borders and sectors. This can be achieved by the exchange of descriptions of datasets among data portals.</dct:description>  <dcat:dataset rdf:about=".../asset/dcat\_application\_profile/asset/DCAT-AP" />  </rdf:Description>    <rdf:Description rdf:about=".../asset/dcat\_application\_profile/asset/DCAT-AP">  <rdf:type rdf:resource="dcat:Dataset"/>  <dct:title xml:lang="en">DCAT-AP</dct:title>  <dct:description xml:lang="en">The DCAT Application Profile for data portals (DCAT-AP) is a specification based on the Data Catalogue vocabulary (DCAT) for describing public sector datasets in Europe.</dct:description>  </rdf:Description>    <rdf:Description rdf:about=".../asset/dcat\_application\_profile/asset/DCAT-AP/v1.1">  <rdf:type rdf:resource="dcat:Dataset"/>  <dct:title xml:lang="en">DCAT-AP v1.1</dct:title>  <dct:description xml:lang="en">Release of the DCAT-AP. Version 1.1 of the specifications.</dct:description>  <dct:isVersionOf rdf:resource=".../asset/dcat\_application\_profile/asset/DCAT-AP" />  <dcat:distribution rdf:resource=".../asset/dcat\_application\_profile/asset/DCAT-AP/v1.1/PDF" />  <dcat:distribution rdf:resource=".../asset/dcat\_application\_profile/asset/DCAT-AP/v1.1/DOC" />  </rdf:Description>  <rdf:Description rdf:about=".../asset/dcat\_application\_profile/asset/DCAT-AP/v1.1/PDF">  <rdf:type rdf:resource="dcat:Distribution"/>  <dct:title xml:lang="en">dcat-ap\_version\_1.1.pdf</dct:title>  <dcat:accessURL rdf:resource=".../system/files/project/dcat-ap\_version\_1.1\_0.pdf" />  <dct:license rdf:resource=".../category/licence/isa-open-metadata-licence-v11" />  </rdf:Description>  <rdf:Description rdf:about=".../asset/dcat\_application\_profile/asset/DCAT-AP/v1.1/DOC">  <rdf:type rdf:resource="dcat:Distribution"/>  <dct:title xml:lang="en">dcat-ap\_version\_1.1.docx</dct:title>  <dcat:accessURL rdf:resource=".../system/files/project/dcat-ap\_version\_1.1\_0.docx" />  <dct:license rdf:resource=".../category/licence/isa-open-metadata-licence-v11" />  </rdf:Description> |

# UML Class diagram

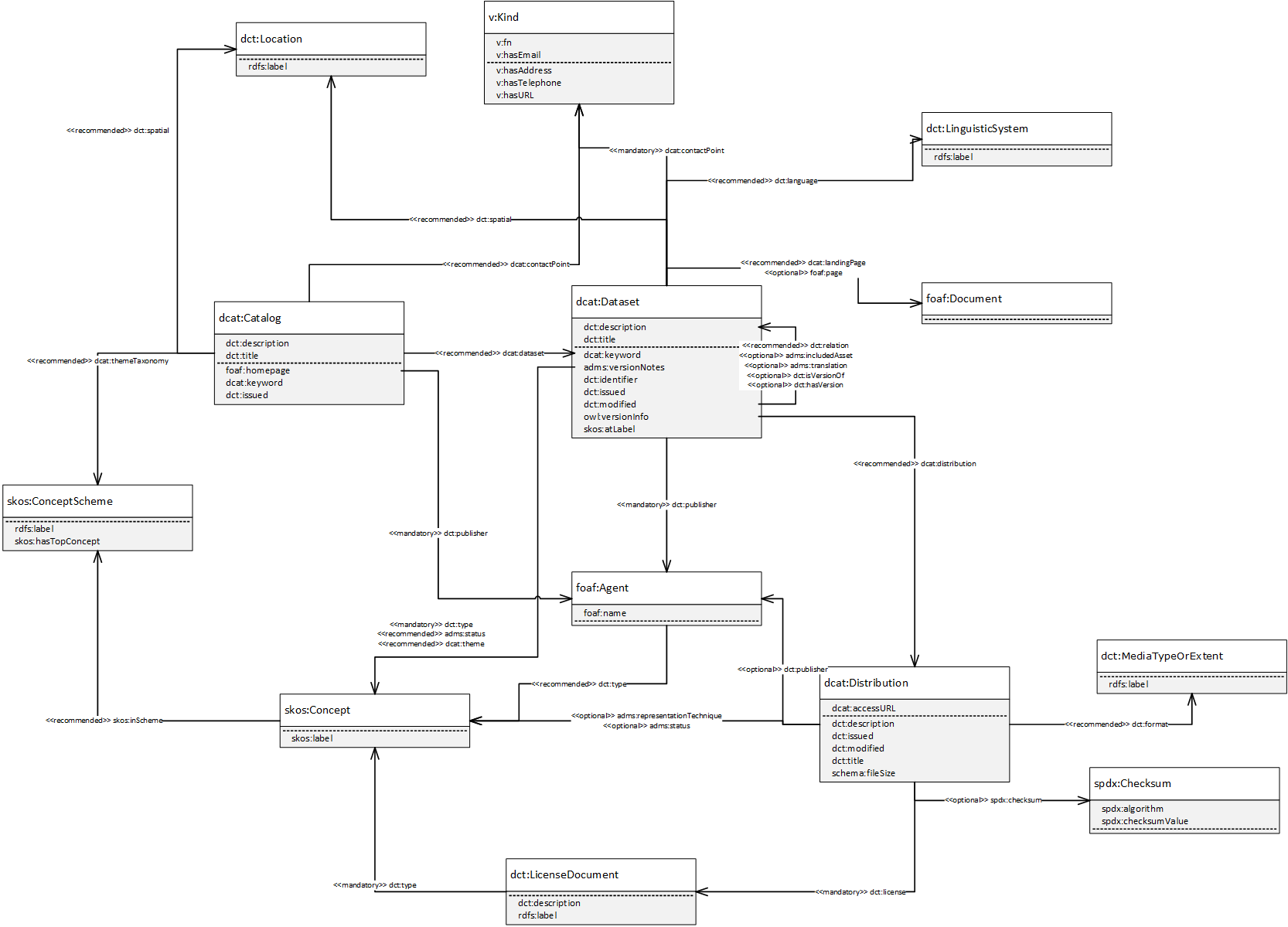


Figure 2: ADMS Application Profile UML Class Diagram

# Application Profile Classes

## Mandatory classes

These classes include the Asset class and all classes that appear as the range of mandatory properties in the description of instances of the Asset class.

|  |  |  |
| --- | --- | --- |
| Class name | Usage note for the Application Profile | URI |
| Asset | Abstract entity that reflects the intellectual content of an Asset and represents those characteristics that are independent of its physical embodiment. This abstract entity combines the FRBR[[18]](#footnote-18) entities work (a distinct intellectual or artistic creation) and expression (the intellectual or artistic realization of a work).  The physical embodiment of an Asset is called an Asset Distribution. A particular Asset may have zero or more Distributions. | dcat:Dataset |
| Asset Type | Classification of an Asset according to a controlled vocabulary. | skos:Concept |
| Contact Information | Contact point for further information about an Asset. | v:Kind |
| Publisher | Organisation that makes information available. | foaf:Agent |

## Recommended class

The Asset Distribution class is classified as Recommended to allow for cases where an Asset does not have a physical embodiment, such as when a description of an Asset is made before the physical file is available, or when the Asset description is maintained after the physical file has been removed. ‘Recommended’ in this case means that the data provider MUST provide a description of the Asset Distribution when it exists.

|  |  |  |
| --- | --- | --- |
| Class name | Usage note for the Application Profile | URI |
| Asset Distribution | Particular physical embodiment of an Asset, which is an example of the FRBR entity manifestation (the physical embodiment of an expression of a work).  A Distribution is typically a downloadable computer file (but in principle it could also be a paper document or API response) that implements the intellectual content of an Asset.  A particular Distribution is associated with one and only one Asset, while all Distributions of an Asset share the same intellectual content in different physical formats.  For the properties to be used with this class see section 7.2. | dcat:Distribution |

## Optional classes

These classes include the Asset Repository class and all classes that appear as the range of recommended and optional properties in the description of instances of the Asset class, as well as classes that appear as the range of all properties in the description of instances of all other classes.

|  |  |  |
| --- | --- | --- |
| Class name | Usage note for the Application Profile | URI |
| Asset Repository | System or service that provides facilities for storage and maintenance of descriptions of Assets and Asset Distributions, and functionality that allows users to search and access these descriptions. An Asset Repository will typically contain descriptions of several Assets and related Asset Distributions. | dcat:Catalog |
| Checksum | Independently reproducible mechanism that permits unique identification of a specific Software Package. | spdx:Checksum |
| Documentation | Document that further describes an Asset or gives guidelines for its use. | foaf:Document |
| Geographical Coverage | Country or region to which an Asset or Repository applies. | dct:Location |
| Interoperability Level | Interoperability level (e.g. legal, organizational, political etc.) of an Asset. | skos:Concept |
| Language | Language of an Asset that contains textual information, e.g. the language of the terms in a controlled vocabulary or the language in which a document is written. | dct:LinguisticSystem |
| Licence | Conditions or restrictions that apply to the use of a Repository or Distribution, e.g. whether it is in the public domain, or that some restrictions apply such as attribution being required, or that it can only be used for non-commercial purposes etc. | dct:LicenseDocument |
| Media Type | Technical format in which a Distribution is available, e.g. PDF, XSD etc. | dct:MediaTypeOrExtent |
| Representation Technique | Machine-readable language in which a Distribution is expressed. | skos:Concept |
| Status | Indication of the maturity of an Asset or a Distribution | skos:Concept |
| Theme | Concept or subject to which an Asset applies, e.g. "law" or "environment". | skos:Concept |
| Theme Taxonomy | Controlled vocabulary that contains terms that are used as Themes for the Assets in a Repository. | skos:ConceptScheme |

# Properties per class

## Asset, dcat:Dataset

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dcat:contactPoint | v:Kind | contact point for further information about the Asset, where errors can be reported or suggestions can be made | 1..n |
| dct:description | rdfs:Literal | descriptive text for the Asset | 1..n |
| dct:publisher | foaf:Agent | organisation making the Asset available; the publisher is the Agent that publishes the Asset, not the Agent that publishes the metadata about it | 1..n |
| dct:title | rdfs:Literal | name of the Asset | 1..n |
| dct:type | skos:Concept | type of the Asset, using a controlled vocabulary (see section 8.1) | 1..n |

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dcat:distribution | dcat:Distribution | implementation of the Asset in a particular format | 0..n |
| dcat:keyword | rdfs:Literal | word of phrase to describe the Asset | 0..n |
| dcat:landingPage | foaf:Document | Web page that provides access to the asset, its releases, distributions and/or additional information. It is intended to point to a landing page at the original asset provider, not to a page on a site of a third party, such as a catalogue or repository | 0..1 |
| dcat:theme | skos:Concept | theme or sector to which the Asset applies, using a controlled vocabulary (see section 8.1) | 0..n |
| dct:language | dct:LinguisticSystem | language of the Asset, or language supported by software, using a controlled vocabulary (see section 8.1) | 0..n |
| dct:relation | rdfs:Resource | related resource, in particular a related asset | 0..n |
| dct:spatial | dct:Location | geographic region or jurisdiction to which the Asset applies, using a controlled vocabulary (see section 8.1) | 0..n |

### Optional properties

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property | | Range | Usage note | Card. |
| adms:includedAsset | | dcat:Dataset | an Asset that is contained in the Asset being described | 0..n |
| adms:status | skos:Concept | | status of the Asset in the context of a particular workflow process, using a controlled vocabulary (see section 8.1) | 0..1 |
| adms:translation | | dcat:Dataset | translation of the Asset | 0..n |
| adms:versionNotes | | rdfs:Literal | description of changes between this version and the previous version of the Asset | 0..1 |
| dct:identifier | | rdfs:Literal | main identifier for the Asset, e.g. the URI or other unique identifier in the context of the Repository. | 0..n |
| dct:issued | | rdfs:Literal typed as xsd:dateTime | date of formal issuance of this version of the Asset | 0..1 |
| dct:isVersionOf | | dcat:Dataset | an Asset that is the solution of which this Asset is a release (see section 4) | 0..1 |
| dct:hasVersion | | dcat:Dataset | an Asset that is a release of this Asset (see section 4) | 0..n |
| dct:modified | | rdfs:Literal typed as xsd:dateTime | date of latest update of Asset | 0..1 |
| foaf:page | | foaf:Document | documentation that contains information related to the asset | 0..n |
| owl:versionInfo | | rdfs:Literal | version number or other designation of the Asset | 0..n |
| skos:altLabel | | rdfs:Literal | alternative name for the Asset | 0..n |

## Asset Distribution, dcat:Distribution

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dcat:accessURL | rdfs:Resource | URL of the Distribution | 1..n |
| dct:license | dct:LicenseDocument | conditions or restrictions for (re)use of the Distribution; if there are multiple licences, the most 'open' one should be given. Whenever relevant, the URIs under the concept scheme identified by http://purl.org/adms/OSIlicence/ can be used | 1..1 |

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dct:format | dct:MediaTypeOrExtent | media type of the Distribution, using a controlled vocabulary (see section 8.1) | 0..1 |

### Optional properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| adms:representationTechnique | skos:Concept | language in which the Distribution is expressed, using a controlled vocabulary (see section 8.1)  Note: this is different from the file format, e.g. a ZIP file (file format) could contain an XML schema (representation technique) | 0..1 |
| adms:status | skos:Concept | status of the Distribution in the context of a particular workflow process, using a controlled vocabulary (see section 8.1) | 0..1 |
| dct:description | rdfs:Literal | descriptive text for the Distribution | 0..n |
| dct:issued | rdfs:Literal typed as xsd:dateTime | date of formal issuance of the Distribution | 0..1 |
| dct:modified | rdfs:Literal typed as xsd:dateTime | date of latest update of the Distribution | 0..1 |
| dct:publisher | foaf:Agent | organisation making the Distribution available; the publisher is the Agent that publishes the Distribution, not the Agent that publishes the metadata about it | 0..n |
| dct:title | rdfs:Literal | name of the Distribution | 0..n |
| schema:fileSize | rdfs:Literal | size of the file of the distribution | 0…1 |
| spdx:checksum | spdx:checksum | checksum of the distribution | 0…1 |

## Asset Repository, dcat:Catalog

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dct:description | rdfs:Literal | descriptive text for the Repository | 1..n |
| dct:publisher | foaf:Agent | organisation making the Repository available; the publisher is the Agent that publishes the Repository, not the Agent that publishes the metadata about it | 1..1 |
| dct:title | rdfs:Literal | name of the Repository | 1..n |

### Recommended properties

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Property | Range | | | Usage note | Card. | |
| dcat:contactPoint | | v:Kind | contact point for further information about the Repository | | 0..n |
| dcat:dataset | dcat:Dataset | | | an Asset included in the Repository | 0..n | |
| dcat:themeTaxonomy | skos:ConceptScheme | | | Concept Scheme used to classify an Asset Repository's assets, using a controlled vocabulary (see section 8.1) | 0..n | |
| dct:spatial | dct:Location | | | geographic region or jurisdiction to which the Repository applies, using a controlled vocabulary (see section 8.1) | 0..n | |
| foaf:homepage | foaf:Document | | | web page that gives access to the Repository | 0..1 | |

### Optional properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dcat:keyword | rdfs:Literal | word of phrase to describe the Repository | 0..n |
| dct:issued | rdfs:Literal typed as xsd:dateTime | date of formal issuance of the Repository | 0..n |

## Asset Type, skos:Concept

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| skos:label | rdfs:Literal | label for the Asset Type | 0..n |
| skos:inScheme | skos:ConceptScheme | concept scheme in which the Asset Type is included | 0..n |

## Checksum, spdx:Checksum

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| spdx:algorithm | spdx:checksumAlgorithm\_sha1 | SHA-1 is the only supported algorithm | 1..1 |
| spdx:checksumValue | rdfs:Literal typed as xsd:hexBinary | lower case hexadecimal encoded digest value produced using a specific algorithm | 1..1 |

## Contact Information, v:Kind

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| v:fn | rdfs:Literal | full name of the contact | 1..n |
| v:hasEmail | v:Email | e-mail address where comments and question for an Asset or Repository can be sent | 1..n |

### Optional properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| v:hasAddress | v:Address | full address of the contact | 0..n |
| v:hasTelephone | rdfs:Literal | telephone number of the contact | 0…n |
| v:hasURL | rdfs:Literal | webpage of the contact | 0…n |

## Geographical Coverage, dct:Location

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| rdfs:label | rdfs:Literal | name of the Location | 0..n |

## Interoperability Level, skos:Concept

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| skos:label | rdfs:Literal | label for the Interoperability Level | 0..n |
| skos:inScheme | skos:ConceptScheme | concept scheme in which the Interoperability Level is included | 0..n |

## Language, dct:LinguisticSystem

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| rdfs:label | rdfs:Literal | name of the Language | 0..n |

## Licence, dct:LicenseDocument

### Mandatory properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dct:type | skos:Concept | type of the licence, using a controlled vocabulary (see section 8.1) | 1..1 |

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dct:description | rdfs:Literal | description of the Licence | 0..n |
| rdfs:label | rdfs:Literal | label for the Licence | 0..n |

## Media Type, dct:MediaTypeOrExtent

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| rdfs:label | rdfs:Literal | label for the File Format | 0..n |

## Publisher, foaf:Agent

### Mandatory property

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| foaf:name | rdfs:Literal | name of the person or organisation | 1..n |

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| dct:type | skos:Concept | the type of publisher | 0…n |

## Representation Technique, skos:Concept

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| skos:label | rdfs:Literal | label for the Representation Technique | 0..n |
| skos:inScheme | skos:ConceptScheme | concept scheme in which the Representation Technique is included | 0..n |

## Status, skos:Concept

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| skos:label | rdfs:Literal | label for the Status | 0..n |
| skos:inScheme | skos:ConceptScheme | concept scheme in which the Status is included | 0..n |

## Theme, skos:Concept

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| skos:label | rdfs:Literal | label for the Theme | 0..n |
| skos:inScheme | skos:ConceptScheme | concept scheme in which the Theme is included | 0..n |

## Theme Taxonomy, skos:ConceptScheme

### Recommended properties

|  |  |  |  |
| --- | --- | --- | --- |
| Property | Range | Usage note | Card. |
| rdfs:label | rdfs:Literal | name of the Theme Taxonomy | 0..n |
| skos:hasTopConcept | rdfs:Literal | concept that is the top level of the Theme Taxonomy | 0..n |

# Controlled vocabularies

## Controlled vocabularies to be used

In the table below, properties are listed with controlled vocabularies that must be used.

|  |  |  |  |
| --- | --- | --- | --- |
| Property URI | Used for Class | Vocabulary | Vocabulary URI |
| adms:representationTechnique | Asset Distribution | ADMS Representation Technique Vocabulary | <http://purl.org/adms/representationtechnique/> |
| adms:status | Asset, Asset Distribution | ADMS Status vocabulary | <http://purl.org/adms/status/> |
| dcat:mediaType | Asset Distribution | MDR File Type Name Authority List[[19]](#footnote-19) | <http://publications.europa.eu/resource/authority/file-type> |
| dcat:theme | Asset | Dataset Theme Vocabulary | <http://publications.europa.eu/resource/authority/data-theme>; the values to be used for this property are the URIs of the concepts in the vocabulary. |
| dcat:themeTaxonomy | Asset Repository | Dataset Theme Vocabulary | Fixed value: <http://publications.europa.eu/resource/authority/data-theme>; the value to be used for this property is the URI of the vocabulary itself, i.e. the concept scheme, not the URIs of the concepts in the vocabulary. |
| dct:language | Asset | MDR Languages Named Authority List | <http://publications.europa.eu/resource/authority/language> |
| dct:spatial | Asset, Asset Repository | MDR Countries Named Authority List[[20]](#footnote-20), MDR Places Named Authority List[[21]](#footnote-21) | <http://publications.europa.eu/resource/authority/country>, <http://publications.europa.eu/resource/authority/place/> |
| dct:type | Asset | EIRA vocabulary | <https://joinup.ec.europa.eu/svn/eia/taxonomy/EIRA_SKOS.rdf> |
| dct:type | Licence Document | ADMS Licence Type vocabulary | <http://purl.org/adms/licencetype/>; use only one of the four terms [:PublicDomain](http://purl.org/adms/licencetype/PublicDomain), [:OSIcompliant](http://purl.org/adms/licencetype/OSIcompliant), [:NonOSIcompliant](http://purl.org/adms/licencetype/NonOSIcompliant), [:UnknownIPR](http://purl.org/adms/licencetype/UnknownIPR) |
| dct:type | Publisher | ADMS Publisher Type vocabulary | <http://purl.org/adms/publishertype/> |

## Other controlled vocabularies

In addition to the proposed common vocabularies in section 8.1, further region or domain-specific vocabularies may be used. While those may not be recognised by general implementations of the Application Profile, they may serve to increase interoperability across applications in the same region or domain. Examples are the full set of concepts in Eurovoc[[22]](#footnote-22), the CERIF standard vocabularies[[23]](#footnote-23), the Dewey Decimal Classification[[24]](#footnote-24) and numerous other schemes.

Such vocabularies and classifications can be used if they are defined as SKOS[[25]](#footnote-25) Concept Schemes where the classification terms (modelled as SKOS Concepts) can be referenced by their URIs.

# Conformance statement

## Provider requirements

In order to conform to this Application Profile, an application that provides metadata must:

* For all instances of the mandatory Asset class, provide data for at least the mandatory properties specified in section 7.1.1
* For all instances of the recommended Asset Distribution class, if available, provide data for at least the mandatory properties specified in section 7.2.1
* For all instances of the optional Asset Repository class, provide data for at least the mandatory properties specified in section 7.3.1
* For all instances of the optional Checksum class, provide data for at least the mandatory properties specified in section 7.5.1
* For all instances of the mandatory Contact Information class, provide data for at least the mandatory property specified in section 7.6.1
* For all instances of the optional Licence class, provide data for at least the mandatory property specified in section 7.10
* For all instances of the mandatory Publisher class, provide data for at least the mandatory property specified in section 7.12.1
* In addition to the mandatory properties, any of the recommended and optional properties defined in chapter 7 may be provided.
* For the properties listed in the table in section 8.1, the associated controlled vocabularies must be used. Additional controlled vocabularies may be used.

In addition to the classes and properties specified in section 7, other classes and properties may be used by an application without breaking conformance to this application profile.

## Receiver requirements

In order to conform to this Application Profile, an application that receives metadata must be able to:

* Process information for all classes specified in section 6.
* Process information for all properties specified in section 7.
* Process information for all controlled vocabularies specified in section 8.1.

"Processing" means that receivers must accept incoming data and transparently provide these data to applications and services. It does neither imply nor prescribe what applications and services finally do with the data (parse, convert, store, make searchable, display to users, etc.).

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1. Change log

The table below summarises the changes applied to the current release of the ADMS-AP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URI | Type | Action | Description | Issue |
| dcat:Dataset | Mandatory class | Updated | *Updated*  An asset was declared as dcat:Dataset and not adms:Asset. | [CR42](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr42-make-adms-ap-dcat-ap) |
| dcat:Distribution | Recommended class | Updated | *Updated*  An asset distribution was declared as dcat:Distribution rather than adms:AssetDistribution.  Removed statement about backwards compatibility. | [CR42](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr42-make-adms-ap-dcat-ap) |
| dcat:Catalog | Optional class | Updated | *Updated*  A catalogue of assets was declared as dcat:Catalog and not adms:AssetRepository.  Removed statement about backwards compatibility. | [CR42](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr42-make-adms-ap-dcat-ap) |
| qb:Dataset | N.A. | Deleted | *Deleted*  Removed the optional class qb:Dataset because it was only used for ADMS.SW. |  |
| dct:MediaTypeOrExtent | Optional class | Updated | *Updated*  URI: dct:FileFormat -> dct:MediaTypeOrExtent | [CR29](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr29-distribution-change-range-property-dctformat-dctmediatypeorextent) |
| skos:Concept | N.A. | Deleted | *Deleted*  The optional classes *Intended Audience, Locale*, *Operating System*, *Programming Language* and *User Interface Type* were removed because they were only used for ADMS.SW. |  |
| admssw:SoftwarePackage | N.A. | Deleted | *Deleted*  The optional class Software Package was removed. | [CR33](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr33-software-package-remove-class) |
| admssw:SoftwareProject | N.A. | Deleted | *Deleted*  The optional class Software Project was removed. | [CR31](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr31-software-project-remove-class) |
| admssw:SoftwareRelease | N.A. | Deleted | *Deleted*  The optional class Software Release was removed. | [CR32](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr32-software-release-remove-class) |
| admssw:SoftwareRepository | N.A. | Deleted | *Deleted*  The optional class Software Repository was removed because it was not used. |  |
| foaf:Agent | Mandatory class | Updated | *Updated*  The class Publisher was replaced by definition by the class Agent, as it covers the only agent role in the profile. | [CR35](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr35-clarify-meaning-publisher-context-interoperability-solutions-and-repos) |
| v:kind | Mandatory class | Updated | *Updated*  Updated from optional to mandatory class. |  |
| skos:Concept | Optional class | Updated | *Updated*  Updated from mandatory to optional class. |  |
| dct:PeriodOfTime | Optional class | Deleted | *Deleted*  Class was no longer used after deletion of dct:temporal | [CR14](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr14-asset-change-dcttemporal-recommended-optional-property) |
| foaf:name | Mandatory property (Agent) | Updated | *Updated*  Cardinality: 0..n -> 1..n | [CR36](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr36-publisher-modify-cardinality-property-foafname-1n) |
| dcat:contactPoint | Mandatory property (Asset) | Updated | *Updated*  Range: v:VCard -> v:Kind. This was an error in the revision draft ADMS-AP v0.08. |  |
| dcat:ContactPoint | Mandatory property (Asset) | Updated | *Updated*  Cardinality: 0..1 -> 1..n | [CR9](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr9-asset-change-cardinality-dcatcontactpoint-1n) |
| dcat:theme | Recommended property (Asset) | Updated | *Updated*  Cardinality: 1..n -> 0..n | [CR20](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr20-modify-cardinality-dcattheme-0n) |
| adms:status | Optional property (Asset) | Updated | *Updated*  Changed from recommended to optional. | [CR23](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr23-distribution-change-level-recommendation-property-admsstatus-optional) |
| dct:modified | Optional property (Asset) | Updated | *Updated*  Cardinality: 1..1 -> 0..1  Changed from recommended to optional. | [CR11](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr11-asset-change-cardinality-dctmodified-01) |
| dct:publisher | Mandatory property (Asset) | Updated | *Updated*  Updated the definition: the publisher is the Agent that publishes the asset or solutions, not the Agent that publishes the metadata about it. | [CR35](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr35-clarify-meaning-publisher-context-interoperability-solutions-and-repos) |
| dcat:distribution | Recommended property (Asset) | Updated | *Updated*  Redefined. Removed statement about backwards compatibility. |  |
| dcat:keyword | Recommended property (Asset) | Updated | *Updated*  Redefined. Removed statement about backwards compatibility. |  |
| dcat:landingPage | Recommended property (Asset) | Updated | *Updated*  Redefined: The landing page is the web page that provides access to the asset, its releases, distributions and/or additional information. It is intended to point to a landing page at the original asset provider, not to a page on a site of a third party, such as a catalogue or repository. | [CR12](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr12-asset-modify-usage-note-dcatlandingpage), [CR13](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr13-asset-modify-range-property-dcatlandingpage) |
| dct:language | Recommended property (Asset) | Updated | *Updated*  Cardinality: 0..1 -> 0..n  Redefined: it is the language of the Asset, or language supported by software, using a controlled vocabulary. | [CR15](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr15-asset-change-cardinality-dctlanguage-0n) |
| dct:identifier | Optional property (Asset) | Updated | *Updated*  URI: adms:identifier -> dct:identifier  This property is the main identifier for the Asset, e.g. the URI or other unique identifier in the context of the Repository. | [CR16](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr16-asset-change-usage-note-admsidentifier) |
| dct:hasVersion and dct:isVersionOf | Optional properties (Asset) | Added | *Added*  These properties express the relationship between solution and release (see section 4) | [CR21](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr21-asset-remove-admslast-admsnext-admsprev-properties-and-replace-them-pr) |
| adms:last | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR21](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr21-asset-remove-admslast-admsnext-admsprev-properties-and-replace-them-pr) |
| adms:next | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR21](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr21-asset-remove-admslast-admsnext-admsprev-properties-and-replace-them-pr) |
| adms:prev | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR21](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr21-asset-remove-admslast-admsnext-admsprev-properties-and-replace-them-pr) |
| adms:sample | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR19](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr19-asset-remove-or-clarify-property-admssample) |
| wrds:describedBy | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR17](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr17-asset-remove-property-wrdsdescribedby) |
| admssw:metrics | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR18](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr18-asset-remove-property-admsswmetrics) |
| dct:temporal | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class. | [CR14](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr14-asset-change-dcttemporal-recommended-optional-property) |
| adms:interoperabilityLevel | N.A. | Deleted | *Deleted*  The property was deleted from the Asset class as it can be derived from the Asset Type. | [CR10](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr10-asset-duplicate-property-dcttype-two-different-meanings) |
| adms:status | Optional property (Asset Distribution) | Updated | *Updated*  Changed from recommended to optional. | [CR23](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr23-distribution-change-level-recommendation-property-admsstatus-optional) |
| dcat:downloadURL | N.A. | Deleted | *Deleted*  The property was deleted from the Asset Distribution class. | [CR26](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr26-distribution-remove-property-dcatdownloadurl) |
| dcat:mediaType | N.A. | Deleted | *Deleted*  The property was deleted from the Asset Distribution class. | [CR27](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr27-distribution-remove-property-dcatmediatype) |
| dct:format | Recommended property (Asset Distribution) | Updated | *Updated*  Changed from optional to recommended.  It is the media type of the Distribution, using a controlled vocabulary. | [CR28](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr28-distribution-change-property-dctformat-optional-recommended) |
| dct:license | Recommended property (Asset Distribution) | Updated | *Updated*  If there are multiple licences, the most 'open' one should be given. Whenever relevant, the URIs under the concept scheme identified by http://purl.org/adms/OSIlicence/ can be used.  *Updated 2*  The property was made Mandatory. | [CR22](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr22-analyse-how-licencing-information-are-associated-assets-and-distributi), [CR30](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr30-analyse-how-licences-can-be-referred-through-dctlicense-property) |
| dct:issued | Optional property (Asset Distribution) | Updated | *Updated*  Cardinality: 0..n -> 0..1 | [CR25](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr25-distribution-modify-cardinality-dctissued-01) |
| admssw:tagURL | N.A. | Deleted | *Deleted*  The property was deleted from the Asset Distribution class. | [CR24](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr24-distribution-remove-property-admsswtagurl) |
| schema:FileSize | Optional property (Asset Distribution) | Updated | *Updated*  Range: schema:fileSize -> rdfs:Literal. This was an error in ADMS-AP v1.0. Schema.org defines Text as the expected value type (https://schema.org/fileSize) which is equivalent to rdfs:Literal. |  |
| dct:publisher | Optional property (Asset Distribution) | Updated | *Updated*  Updated the definition: the publisher is the Agent that publishes the asset or solutions, not the Agent that publishes the metadata about it. | [CR35](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr35-clarify-meaning-publisher-context-interoperability-solutions-and-repos) |
| dct:publisher | Mandatory property (Asset Repository) | Updated | *Updated*  Cardinality: 1..n -> 1..1  Updated the definition: the publisher is the Agent that publishes the asset or solutions, not the Agent that publishes the metadata about it. | [CR2](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr2-repository-change-cardinality-dctpublisher-11), [CR35](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr35-clarify-meaning-publisher-context-interoperability-solutions-and-repos) |
| foaf:homepage | Recommended property (Asset Repository) | Updated | *Updated*  URI: dcat:assetURL -> foaf:homepage.  It is the web page that gives access to the Repository.  Range: foaf:Documentation -> foaf:Document. This was an error in the revision draft ADMS-AP v0.08. | [CR5](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr5-repository-modify-cardinality-property-dcataccessurl-01) |
| dcat:contactPoint | Recommended property (Asset Repository) | Updated | *Updated*  Cardinality: 1..n -> 0..n  Changed from mandatory to recommended.  Range: v:VCard -> v:Kind. This was an error in the revision draft ADMS-AP v0.08. | [CR1](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr1-repository-change-cardinality-dcatcontactpoint-0n) |
| dcat:themeTaxonomy | Recommended property (Asset Repository) | Updated | *Updated*  Removed statement about backwards compatibility. | [CR7](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr7-repository-remove-property-dcatthemetaxonomy) |
| dct:modified | N.A. | Deleted | *Deleted*  The property was deleted from the Asset Repository class. | [CR6](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr6-repository-change-cardinality-dctmodified-01) |
| adms:supportedSchema | N.A. | Deleted | *Deleted*  The property was deleted from the Asset Repository class. It could be described as an asset. The ADMS-AP schemas can be published and described by Joinup. | [CR3](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr3-repository-remove-property-admssupportedschema-or-change-property-range) |
| dcat:keyword | Optional property (Asset Repository) | New | *New*  It is the word of phrase to describe the Repository. | [CR8](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr8-repository-add-property-dcatkeyword) |
| skos:label | Recommended property (Asset Type) | Updated | *Updated*  Changed from rdfs:label to skos:label for classes that are defined as skos:Concept. |  |
| v:hasAddress | Optional property (Contact Information) | Updated | *Updated*  Changed from recommended to optional.  Changed to v: instead of vcard: to align with the namespace prefixes in section 3. | [CR37](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr37-contact-information-change-properties-vcardhasaddress-vcardtelephone-a) |
| v:fn | Optional property (Contact Information) | Updated | *Updated*  Changed from recommended to mandatory to conform to Vcard specification.  Changed to v: instead of vcard: to align with the namespace prefixes in section 3. | [CR37](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr37-contact-information-change-properties-vcardhasaddress-vcardtelephone-a) |
| v:hasTelephone | Optional property (Contact Information) | Updated | *Updated*  Changed from recommended to optional.  Changed to v: instead of vcard: to align with the namespace prefixes in section 3. | [CR37](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr37-contact-information-change-properties-vcardhasaddress-vcardtelephone-a) |
| v:hasURL | Optional property (Contact Information) | Updated | *Updated*  Changed from recommended to optional.  Changed to v: instead of vcard: to align with the namespace prefixes in section 3. | [CR37](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr37-contact-information-change-properties-vcardhasaddress-vcardtelephone-a) |
| dct:title | Optional property (Contact Information) | Deleted | *Deleted*  It was not clear to which ‘document’ this title applied |  |
| skos:label | Recommended property (Interoperability level) | Updated | *Updated*  Changed from rdfs:label to skos:label for classes that are defined as skos:Concept. |  |
| skos:inScheme | N.A. | Deleted | *Deleted*  The property was deleted from the Language, Licence and MediaType as these classes are not defined as skos:Concept. |  |
| skos:label | Recommended property (Representation Technique) | Updated | *Updated*  Changed from rdfs:label to skos:label for classes that are defined as skos:Concept. |  |
| skos:label | Recommended property (Status) | Updated | *Updated*  Changed from rdfs:label to skos:label for classes that are defined as skos:Concept. |  |
| skos:label | Recommended property (Theme) | Updated | *Updated*  Changed from rdfs:label to skos:label for classes that are defined as skos:Concept. |  |
| admssw:intendedAudience | Controlled vocabulary | Deleted | *Deleted*  The controlled vocabulary was removed because it was only used for ADMS.SW. |  |
| admssw:locale | Controlled vocabulary | Deleted | *Deleted*  The controlled vocabulary was removed because it was only used for ADMS.SW. |  |
| admssw:programmingLanguage | Controlled vocabulary | Deleted | *Deleted*  The controlled vocabulary was removed because it was only used for ADMS.SW. |  |
| admssw:userInterfaceType | Controlled vocabulary | Deleted | *Deleted*  The controlled vocabulary was removed because it was only used for ADMS.SW. |  |
| dcat:theme | Controlled vocabulary (Asset) | Updated | *Updated*  The controlled vocabulary for an Asset theme will use the Dataset Theme Vocabulary (http://publications.europa.eu/resource/authority/data-theme), the values to be used for this property are the URIs of the concepts in the vocabulary. | [CR38](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr38-review-and-change-controlled-vocabulary-associated-dcattheme-propertie) |
| dct:type | Controlled vocabulary (Asset) | New | The Asset Type vocabulary of ADMS has been extended to cover all interoperability levels as well as to take on board a maximum of relevant concepts from the EIA building blocks. This resulted in the Solution Type vocabulary (<http://purl.org/adms/solutiontype/>).  *Updated*  The controlled vocabulary for Asset Type has been updated to use the EIRA vocabulary. The Solution Type has been deleted. | [CR40](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr40-review-and-update-vocabulary-associated-http/purlorg/adms/solutiontype), [CR10](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr10-asset-duplicate-property-dcttype-two-different-meanings) |
| adms:interoperabilityLevel | Controlled vocabulary (Asset) | Deleted | *Deleted*  The controlled vocabulary has been removed for Asset as the property was deleted. | [CR10](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr10-asset-duplicate-property-dcttype-two-different-meanings) |
| adms:status | Controlled vocabulary (Software project) | Deleted | *Deleted*  The controlled vocabulary has been removed for Software Project as the class was deleted. | [CR31](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr31-software-project-remove-class) |
| dcat:theme | Controlled vocabulary (Software project) | Deleted | *Deleted*  The controlled vocabulary for a Software Project theme has been removed as the class has been deleted. | [CR31](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr31-software-project-remove-class) |
| dcat:themeTaxonomy | Controlled vocabulary (Asset Repository) | Updated | *Updated*  The controlled vocabulary for an Asset Repository theme will use the Dataset Theme Vocabulary (<http://publications.europa.eu/resource/authority/data-theme>), the value to be used for this property is the URI of the vocabulary itself, i.e. the concept scheme, not the URIs of the concepts in the vocabulary. | [CR38](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr38-review-and-change-controlled-vocabulary-associated-dcattheme-propertie) |
| dct:format | Controlled vocabulary (Asset Distribution) | Deleted | *Deleted*  The controlled vocabulary has been removed. |  |
| dct:type | Controlled vocabulary (Licence Document) | Updated | *Updated*  Only one of the four terms http://purl.org/adms/licencetype/PublicDomain, http://purl.org/adms/licencetype/OSIcompliant, http://purl.org/adms/licencetype/NonOSIcompliant, http://purl.org/adms/licencetype/UnknownIPR should be used for the type of the Licence Document. | [CR34](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr34-review-vocabulary-associated-property-dcttype-class-dctlicensedocument) |
| schema:operatingSystem | Controlled vocabulary (Software project) | Deleted | *Deleted*  The controlled vocabulary for a Software Project theme has been removed as the class has been deleted. | [CR31](https://joinup.ec.europa.eu/asset/adms_revsion/issue/cr31-software-project-remove-class) |

Further changes:

* Removed namespaces prefixes that were only used for ADMS.SW or were no longer used: doap, qb, rad, swid, trove, wdrs.
* Updated the quick reference in annex II.
* Removed the following provider requirements:
  + “For all instances of the optional Identifier class, provide data for at least the mandatory property specified in section 7.12.1” (i.e. mandatory properties of the Licence).
  + “For all instances of the optional Software Package class, provide data for at least the mandatory properties of the Asset Distribution class specified in section 7.3.1” (i.e. mandatory properties of the Asset Distribution).
  + “For all instances of the optional Software Project class, provide data for at least the mandatory properties specified in section 7.24.1” (i.e. mandatory properties of the Software Project).
  + “For all instances of the optional Software Release class, provide data for at least the mandatory properties of the Asset class specified in section 7.2.1” (i.e. mandatory properties of the Asset).
* Added DCAT subclass statements to Asset (Dataset), Asset Distribution (Distribution) and Asset Repository (Catalog).
* Changed the text for the Contact Information in section 9.1 to indicate it is a mandatory class.
* Added a bullet point for the Publisher class in section 9.1.

1. Quick reference

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Class | Class URI | Mandatory prop. | Recommended prop. | Optional prop. |
| Asset | dcat:Dataset | dcat:contactPoint  dct:description  dct:publisher  dct:title  dct:type | adms:status  dcat:distribution  dcat:keyword  dcat:landingPage  dcat:theme  dct:language  dct:relation  dct:spatial | adms:includedAsset  adms:translation  adms:versionNotes  dct:identifier  dct:issued  dct:isVersionOf  dct:hasVersion  dct:modified  foaf:page  owl:versionInfo  skos:altLabel |
| Asset Distribution | dcat:Distribution | dcat:accessURL dct:license | dct:format | adms:representationTechnique  adms:status  dct:description  dct:issued  dct:modified  dct:publisher  dct:title  schema:fileSize  spdx:checksum |
| Asset Repository | dcat:Catalog | dct:description  dct:publisher  dct:title | dcat:contactPoint  dcat:dataset  dcat:themeTaxonomy  dct:spatial  foaf:homepage | dcat:keyword  dct:issued |
| Asset Type | skos:Concept |  | skos:label  skos:inScheme |  |
| Checksum | spdx:Checksum | spdx:algorithm  spdx:checksumValue |  |  |
| Contact Information | v:Kind | v:fn  v:hasEmail |  | v:hasAddress  v:hasTelephone  v:hasURL |
| Geographical Coverage | dct:Location |  | rdfs:label |  |
| Interoperability Level | skos:Concept |  | skos:label  skos:inScheme |  |
| Language | dct:LinguisticSystem |  | rdfs:label |  |
| Licence | dct:LicenseDocument | dct:type | dct:description  rdfs:label |  |
| Media Type | dct:MediaTypeorExtent |  | rdfs:label |  |
| Publisher | foaf:Agent | foaf:name | dct:type |  |
| Representation Technique | skos:Concept |  | skos:label  skos:inScheme |  |
| Status | skos:Concept |  | skos:label  skos:inScheme |  |
| Theme | skos:Concept |  | skos:label  skos:inScheme |  |
| Theme Taxonomy | skos:ConceptScheme |  | rdfs:label  skos:hasTopConcept |  |

1. Change log version 2.01

The table below summarises the changes applied to version 2.0 of the ADMS-AP.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| URI | Type | Action | Description | Issue |
| spdx:algorithm | Mandatory property (Checksum) | Updated | *Updated*  URI: algorithm -> spdx:algorithm. This was an error in the ADMS-AP v2.0. |  |
| spdx:checksumValue | Mandatory property (Checksum) | Updated | *Updated*  URI: checksumValue -> spdx:checksumValue. This was an error in the ADMS-AP v2.0. |  |
| owl | Namespace | Added | The owl namespace was not identified.  http://www.w3.org/2002/07/owl# |  |

1. <https://joinup.ec.europa.eu/catalogue/repository> [↑](#footnote-ref-1)
2. <https://joinup.ec.europa.eu/asset/adms/asset_release/adms> [↑](#footnote-ref-2)
3. <https://joinup.ec.europa.eu/elibrary/document/isa-deliverable-process-and-methodology-developing-core-vocabularies> [↑](#footnote-ref-3)
4. <http://ec.europa.eu/isa/> [↑](#footnote-ref-4)
5. <http://www.w3.org/TR/vocab-adms/> [↑](#footnote-ref-5)
6. <http://www.w3.org/2011/gld/> [↑](#footnote-ref-6)
7. .<http://www.w3.org/ns/adms> [↑](#footnote-ref-7)
8. <https://joinup.ec.europa.eu/asset/adms/asset_release/adms-application-profile-joinup> [↑](#footnote-ref-8)
9. <http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf> [↑](#footnote-ref-9)
10. <https://joinup.ec.europa.eu/asset/dcat_application_profile/asset_release/dcat-ap-v11> [↑](#footnote-ref-10)
11. <http://www.europeandataportal.eu/> [↑](#footnote-ref-11)
12. IETF. RFC2119. Key words for use in RFCs to Indicate Requirement Levels. <http://www.ietf.org/rfc/rfc2119.txt> [↑](#footnote-ref-12)
13. <https://joinup.ec.europa.eu/asset/dcat_application_profile/home> [↑](#footnote-ref-13)
14. <https://joinup.ec.europa.eu/asset/dcat_application_profile/asset_release/dcat-ap-v11> [↑](#footnote-ref-14)
15. <https://joinup.ec.europa.eu/asset/dcat_application_profile/asset_release/dcat-ap-v11> [↑](#footnote-ref-15)
16. <https://joinup.ec.europa.eu/catalogue/distribution/dcat-ap-version-11> [↑](#footnote-ref-16)
17. <https://joinup.ec.europa.eu/catalogue/distribution/dcat-ap-version-11-0> [↑](#footnote-ref-17)
18. [↑](#footnote-ref-18)
19. Publications Office of the EU. Metadata Registry. Authorities. File types. <http://publications.europa.eu/mdr/authority/file-type/> [↑](#footnote-ref-19)
20. Publications Office of the EU. Metadata Registry. Authorities. Countries. <http://publications.europa.eu/mdr/authority/country/> [↑](#footnote-ref-20)
21. Publications Office of the EU. Metadata Registry. Authorities. Places. <http://publications.europa.eu/mdr/authority/place/> [↑](#footnote-ref-21)
22. <http://eurovoc.europa.eu/> [↑](#footnote-ref-22)
23. <http://www.eurocris.org/Uploads/Web%20pages/CERIF-1.5/CERIF1.5_Semantics.xhtml> [↑](#footnote-ref-23)
24. OCLC. Dewey Summaries as Linked Data. <http://www.oclc.org/dewey/webservices.en.html> and <http://dewey.info/> [↑](#footnote-ref-24)
25. W3C. Simple Knowledge Organization System Reference. <http://www.w3.org/TR/skos-reference/> [↑](#footnote-ref-25)