



## MultiPhoto/Video

*Manifest, Metadata and Practices for Digital Photo-Video Collections*



# Dublin Core-Normalized Metadata Format Profile Specification

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## ABSTRACT

The Dublin Core Normalized Metadata Format Profile (DC-NMF) specifies the NMF representation of Dublin Core Metadata Initiative compliant metadata.

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# Contents

Contents.....	4
Chapter 1: Introduction.....	9
1.1 Terminology.....	9
1.1.1 Requirements.....	10
1.2 Dublin Core Background Information.....	10
1.3 Schema Information.....	10
1.4 DC-NMF Best Practices and Usage Guidelines.....	10
1.4.1 Capitalization .....	11
1.4.2 Property Usage.....	11
1.4.3 Property Types.....	11
1.4.4 Plain-text vs. XML markup .....	12
1.4.5 Qualified Properties and Dumb-Down.....	12
1.4.6 Array Properties.....	13
Chapter 2: Dublin Core Elements Schema.....	14
2.1 Best Practices and Usage.....	14
2.2 Properties container.....	14
2.3 Property: contributor .....	16
2.3.1 group contributorChoiceGroup.....	16
2.3.2 element contributor.....	17
2.3.3 element contributorBag .....	17
2.3.4 element contributorQVal.....	17
2.3.5 element contributorRef .....	18
2.4 Property: coverage.....	18
2.4.1 group coverageChoiceGroup.....	19
2.4.2 element coverage .....	19
2.4.3 element coverageQVal.....	19
2.4.4 element coverageRef .....	20
2.5 Property: creator .....	20
2.5.1 group creatorChoiceGroup.....	20
2.5.2 element creator.....	21
2.5.3 element creatorRef .....	21
2.5.4 element creatorSeq .....	21
2.6 Property: date.....	22
2.6.1 group dateChoiceGroup.....	22
2.6.2 element date .....	22
2.6.3 element dateRef .....	23
2.7 Property: description.....	23
2.7.1 group descriptionChoiceGroup .....	23
2.7.2 element description .....	24
2.7.3 element descriptionAlt.....	24
2.7.4 element descriptionAnyXML .....	24
2.7.5 element descriptionRef.....	25
2.8 Property: format.....	25
2.8.1 group formatChoiceGroup.....	25

2.8.2	element format	26
2.8.3	element formatRef	26
2.9	Property: identifier	26
2.9.1	group identifierChoiceGroup	27
2.9.2	element identifier	27
2.9.3	element identifierRef	27
2.10	Property: language	27
2.10.1	group languageChoiceGroup	28
2.10.2	element language	28
2.10.3	element languageBag	29
2.10.4	element languageQVal	29
2.10.5	element languageRef	30
2.11	Property: publisher	30
2.11.1	group publisherChoiceGroup	30
2.11.2	element publisher	31
2.11.3	element publisherBag	31
2.11.4	element publisherQVal	31
2.11.5	element publisherRef	32
2.12	Property: relation	32
2.12.1	group relationChoiceGroup	32
2.12.2	element relation	33
2.12.3	element relationBag	33
2.12.4	element relationQVal	34
2.12.5	element relationRef	34
2.13	Property: rights	34
2.13.1	group rightsChoiceGroup	35
2.13.2	element rights	35
2.13.3	element rightsAlt	35
2.13.4	element rightsQVal	36
2.13.5	element rightsRef	36
2.14	Property: source	36
2.14.1	group sourceChoiceGroup	37
2.14.2	element source	37
2.14.3	element sourceQVal	38
2.14.4	element sourceRef	38
2.15	Property: subject	38
2.15.1	group subjectChoiceGroup	39
2.15.2	element subject	39
2.15.3	element subjectBag	39
2.15.4	element subjectQVal	40
2.15.5	element subjectRef	40
2.16	Property: title	41
2.16.1	group titleChoiceGroup	41
2.16.2	element title	41
2.16.3	element titleAlt	42
2.16.4	element titleAnyXML	42
2.16.5	element titleQVal	43
2.16.6	element titleRef	43
2.17	Property: type	43
2.17.1	group typeChoiceGroup	44
2.17.2	element type	44
2.17.3	element typeBag	44
2.17.4	element typeQVal	45
2.17.5	element typeRef	45
Chapter 3:	Dublin Core Terms Schema	46
3.1	Best Practices and Usage	46
3.2	Properties Container	46
3.3	Property: abstract	48
3.3.1	group abstractChoiceGroup	48
3.3.2	element abstract	49
3.3.3	element abstractAlt	49
3.3.4	element abstractAnyXML	50

3.3.5	element abstractQVal.....	50
3.3.6	element abstractRef .....	50
3.4	Property: alternative .....	51
3.4.1	group alternativeChoiceGroup .....	51
3.4.2	element alternative .....	51
3.4.3	element alternativeAlt.....	52
3.4.4	element alternativeAnyXML .....	52
3.4.5	element alternativeQVal.....	52
3.4.6	element alternativeRef .....	53
3.5	Property: available .....	53
3.5.1	group availableChoiceGroup .....	53
3.5.2	element available.....	54
3.5.3	element availableRef.....	54
3.6	Property: conformsTo .....	54
3.6.1	group conformsToChoiceGroup .....	55
3.6.2	element conformsTo.....	55
3.6.3	element conformsToBag.....	55
3.6.4	element conformsToQVal .....	56
3.6.5	element conformsToRef.....	56
3.7	Property: created.....	56
3.7.1	group createdChoiceGroup.....	57
3.7.2	element created .....	57
3.7.3	element createdRef .....	57
3.8	Property: extent.....	57
3.8.1	group extentChoiceGroup .....	58
3.8.2	element extent .....	58
3.8.3	element extentRef.....	58
3.9	Property: hasFormat.....	59
3.9.1	group hasFormatChoiceGroup .....	59
3.9.2	element hasFormat.....	60
3.9.3	element hasFormatBag.....	60
3.9.4	element hasFormatQVal.....	60
3.9.5	element hasFormatRef.....	61
3.10	Property: hasPart .....	61
3.10.1	group hasPartChoiceGroup .....	61
3.10.2	element hasPart.....	62
3.10.3	element hasPartBag .....	62
3.10.4	element hasPartQVal .....	63
3.10.5	element hasPartRef.....	63
3.11	Property: hasVersion .....	63
3.11.1	group hasVersionChoiceGroup .....	64
3.11.2	element hasVersion.....	64
3.11.3	element hasVersionBag .....	64
3.11.4	element hasVersionQVal.....	65
3.11.5	element hasVersionRef.....	65
3.12	Property: isformatOf.....	65
3.12.1	group isFormatOfChoiceGroup.....	66
3.12.2	element isFormatOf.....	66
3.12.3	element isFormatOfBag .....	66
3.12.4	element isFormatOfQVal.....	67
3.12.5	element isFormatOfRef .....	67
3.13	Property: isPartOf.....	67
3.13.1	group isPartOfChoiceGroup.....	68
3.13.2	element isPartOf.....	68
3.13.3	element isPartOfBag .....	68
3.13.4	element isPartOfQVal.....	69
3.13.5	element isPartOfRef .....	69
3.14	Property: isReferencedBy.....	69
3.14.1	group isReferencedByChoiceGroup.....	70
3.14.2	element isReferencedBy.....	70
3.14.3	element isReferencedByBag .....	70
3.14.4	element isReferencedByQVal.....	71

3.14.5	element isReferencedByRef .....	71
3.15	isReplacedBy .....	71
3.15.1	group isReplacedByChoiceGroup .....	72
3.15.2	element isReplacedBy .....	72
3.15.3	element isReplacedByBag .....	73
3.15.4	element isReplacedByQVal .....	73
3.15.5	element isReplacedByRef .....	73
3.16	Property: isRequiredBy .....	74
3.16.1	group isRequiredByChoiceGroup .....	74
3.16.2	element isRequiredBy .....	74
3.16.3	element isRequiredByBag .....	75
3.16.4	element isRequiredByQVal .....	75
3.16.5	element isRequiredByRef .....	75
3.17	Property: issued .....	76
3.17.1	group issuedChoiceGroup .....	76
3.17.2	element issued .....	76
3.17.3	element issuedRef .....	77
3.18	Property: isVersionOf .....	77
3.18.1	group isVersionOfChoiceGroup .....	77
3.18.2	element isVersionOf .....	78
3.18.3	element isVersionOfBag .....	78
3.18.4	element isVersionOfQVal .....	78
3.18.5	element isVersionOfRef .....	79
3.19	Property: medium .....	79
3.19.1	group mediumChoiceGroup .....	79
3.19.2	element medium .....	80
3.19.3	element mediumRef .....	80
3.20	Property: modified .....	80
3.20.1	group modifiedChoiceGroup .....	80
3.20.2	element modified .....	81
3.20.3	element modifiedRef .....	81
3.21	Property: references .....	81
3.21.1	group referencesChoiceGroup .....	82
3.21.2	element references .....	82
3.21.3	element referencesBag .....	82
3.21.4	element referencesQVal .....	83
3.21.5	element referencesRef .....	83
3.22	Property: replaces .....	83
3.22.1	group replacesChoiceGroup .....	84
3.22.2	element replaces .....	84
3.22.3	element replacesBag .....	84
3.22.4	element replacesQVal .....	85
3.22.5	element replacesRef .....	85
3.23	Property: requires .....	85
3.23.1	group requiresChoiceGroup .....	86
3.23.2	element requires .....	86
3.23.3	element requiresBag .....	86
3.23.4	element requiresQVal .....	87
3.23.5	element requiresRef .....	87
3.24	Property: spatial .....	87
3.24.1	group spatialChoiceGroup .....	88
3.24.2	element spatial .....	88
3.24.3	element spatialQVal .....	88
3.24.4	element spatialRef .....	89
3.25	Property: tableOfContents .....	89
3.25.1	group tableOfContentsChoiceGroup .....	89
3.25.2	element tableOfContents .....	90
3.25.3	element tableOfContentsAlt .....	90
3.25.4	element tableOfContentsAnyXML .....	90
3.25.5	element tableOfContentsQVal .....	91
3.25.6	element tableOfContentsRef .....	91
3.26	Property: temporal .....	91

3.26.1	group temporalChoiceGroup.....	92
3.26.2	element temporal.....	92
3.26.3	element temporalQVal.....	92
3.26.4	element temporalRef.....	93
3.27	Property: valid.....	93
3.27.1	group validChoiceGroup.....	93
3.27.2	element valid.....	94
3.27.3	element validRef.....	94
Appendix 1.	References.....	95



# Chapter 1: Introduction

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This specification defines a profile based on the Normalized Metadata Format (NMF [NMF]) for metadata that is compatible with the Dublin Core Metadata Initiative [DCMI]. This profile is referred to as the DC-NMF profile when there is a need to distinguish it from other representations of DCMI compatible metadata.

## 1.1 Terminology

### Resource

A Resource is anything that can be identified by a URI

### Schema

A Schema is a set of property definitions that is identified by a URI.

### Property

A Property is a named entry in a schema. In NMF, this property must have the same namespace as the schema and also have a well-defined value type that is expressible in an XML Schema [XSCHEMA].

### Statement

A statement is the binding of a property instance to a particular resource.

### Literal Property Value

A literal property value is either textual content or well-formed XML that is not a composite property value.

### Composite Property Value

A composite property value is a set of properties from one or more schemas.

### Top-level Composite Property Value

A top-level composite property value is a composite property value that is not contained in a property element.

### Nested Composite Property Value

A nested composite property value is a composite property value that is contained in a property element.

### Array Property Value

An Array property value is sequence of properties that are either ordered, unordered or alternatives.

### Qualified Property Value

A qualified property value is one where the base property value (either literal or composite) has zero or more additional properties associated with it. These additional properties are called qualifiers of the base property and provide additional information about how to interpret the base property.

### 1.1.1 Requirements

The keywords MUST, MUST NOT, REQUIRED, SHALL, SHALL NOT, SHOULD, SHOULD NOT, RECOMMENDED, MAY, and OPTIONAL, if and where they appear in this document, are to be interpreted as described in [RFC2119].

## 1.2 Dublin Core Background Information

The Dublin Core Metadata Initiative is an open forum engaged in the development of interoperable online metadata standards that support a broad range of purposes and business models. DCMI's activities include consensus-driven working groups, global workshops, conferences, standards liaison, and educational efforts to promote widespread acceptance of metadata standards and practices.

The most familiar aspect of the work at the DCMI is the Dublin Core Element Set **[DCES]**. This DCES defines a set of fifteen metadata items that can be used to describe a wide range of resources where a resource is defined very broadly as anything that can be identified by a uniform resource identifier **[URI]**.

There are several alternate ways to interchange Dublin Core metadata that are under development at the DCMI. These include the interchange of DC in HTML **[DC-HTML]**, the interchange of DC using the W3C Resource Description Format **[DC-RDF]**, and the interchange of DC using XML **[DC-XML]**.

This specification specifies how to interchange Dublin Core metadata using the Normalized Metadata Format **[NMF]** which is a representation that can interchange with Resource Description format **[RDF]** metadata and can be managed using mainstream XML tools and technologies.

## 1.3 Schema Information

The DC-NMF specification uses the following schema:

Schema group	Namespace Identifier	Conventional Namespace Prefix
DC Elements	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>	dc:
DC Terms	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>	dcterms:

## 1.4 DC-NMF Best Practices and Usage Guidelines

The reality of Dublin Core metadata usage is that a very wide variety of content models are employed that are described as complying with Dublin Core in one way or another. The DC-NMF profile balances the need to support a useful subset of these while also providing a more concrete set of interoperability guidelines for users of DC-NMF.

The NMF based representation supports a variety of these variations although there are likely to be some examples of metadata that are specified as being Dublin Core compliant that will not be considered compliant by the NMF representation.

The DC-NMF profile is composed of two schemas that correspond to the primary namespaces that have been defined by the DCMI [DCMI-NS]. These include the DC Elements schema and the DC Terms schema. This section provides general guidelines and best practices that are applicable to the profile as a whole. The chapters on DCES and DC Terms provide additional guidelines that are specific to those schemas.

### 1.4.1 Capitalization

There are many examples of DC usage that employ capitalization of the element names. This can be seen in the examples in the RDF specification [RDF]. The DC-NMF profile only supports the use of lower case element names as specified in the DC specifications.

- DC-NMF compliant properties MUST use the same namespace and localname as specified in the schemas.

### 1.4.2 Property Usage

The DC-NMF specification does not tightly define nor constrain the usage and values of DC-NMF properties beyond those articulated by the [DCMI]. This provides for the greatest compatibility with existing [DCMI]-based content. However, the recommended best practice for specifications that use DC-NMF is to more tightly constrain its usage as part of that specification. This will significantly enhance interoperability of DC-NMF-based documents between applications using the given specification. An example of this can be found in the MPV Core Specification [MPV-Core].

### 1.4.3 Property Types

NMF explicitly models the various content models that are used for describing metadata using different property value types. There are two levels of property types in NMF. The first level is referred to as the base level and the second level is the higher-order level that wraps one or more of the property types from the first level.

The first, or base, level of property types are::

- Simple property type (textual content)
- Composite property type (a set of properties).
- XML Literal property type (well-formed XML that isn't interpreted).
- Reference property type (a reference to another resource via a URI).

**NOTE:** A property cannot be specified as supporting both a composite property type and a simple property type.

In addition to the base types, NMF supports several higher-order property types that can wrap the base property types. The higher-order property types are:

- Qualified properties
- Array properties

The DC-NMF profile goes out of its way to support most of the property value types on each property. This is done in order to maximize interoperability with metadata that is specified using the RDF interchange representation of DC [DC-RDF].

As mentioned above, NMF does not allow a property to have both a simple and a composite property type. The working assumption for DC-NMF is that most metadata will be based on the use of simple property values. Given this, the DC-NMF profile only supports simple property types for all properties. In other words, DC-NMF property values cannot directly contain subproperties.

Note that this is only relevant to the simple vs. composite choice. A property can still support the other base types such as XML Literal and Reference in addition to the simple property types.

For example, the following cannot be encoded in DC-NMF such that it can be mechanically validated because XML-Schema can only support either textual or element content for the same element name. In DC-NMF, the decision was made to only support textual content.

```
...
<dc:creator>Pieter van Zee</dc:creator>
<dc:creator>
  <rdf:Description>
    <vcard:fname>Gabe</vcard:fname>
    <vcard:lname>Begeed-Dov</vcard:lname>
  </rdf:Description>
```

```
</dc:creator>
...
```

If an application wishes to specify that the value of a DC-NMF property as a composite property, it can do this indirectly on some properties that support the Ref property type. The Ref property type can refer to a top-level composite property which will contain the desired composite property value. Using this approach, the above example can be re-stated as follows.

```
...
<dc:creator>Pieter van Zee</dc:creator>
<dc:creator rdf:resource="#P1"/>

<rdf:Description rdf:about="#P1">
  <vcard:fname>Gabe</vcard:fname>
  <vcard:lname>Begeed-Dov</vcard:lname>
</rdf:Description>
...
```

#### 1.4.4 Plain-text vs. XML markup

There are several DC properties whose contents are intended for presentation to human readers. Examples of these are the title and description properties. These properties are mainly intended to contain plain text but there are many examples of applications placing markup (HTML and/or XML) into these properties. NMF directly supports this type of usage by providing a variant property type that can contain well-formed XML.

- An application SHOULD use the simple property type and plain text for encoding human readable information whenever possible.
- An application SHOULD use the AnyXML variant of a property to convey well-formed markup rather than the base property type.

#### 1.4.5 Qualified Properties and Dumb-Down

Dublin Core Qualifiers [DCQ] supports the use of qualified properties for relatively different usages. the two broad classes of qualifiers are:

- **Element Refinement.** These qualifiers make the meaning of an element narrower or more specific. A refined element shares the meaning of the unqualified element, but with a more restricted scope. A client that does not understand a specific element refinement term should be able to ignore the qualifier and treat the metadata value as if it were an unqualified (broader) element. The definitions of element refinement terms for qualifiers must be publicly available.
- **Encoding Scheme.** These qualifiers identify schemes that aid in the interpretation of an element value. These schemes include controlled vocabularies and formal notations or parsing rules. A value expressed using an encoding scheme will thus be a token selected from a controlled vocabulary (e.g., a term from a classification system or set of subject headings) or a string formatted in accordance with a formal notation (e.g., "2000-01-01" as the standard expression of a date). If an encoding scheme is not understood by a client or agent, the value may still be useful to a human reader. The definitive description of an encoding scheme for qualifiers must be clearly identified and available for public use.

The DC-NMF profile directly supports the element refinement qualifiers specified in the DCQ specification and maps them to first class properties that are defined in the DC Terms schema. Encoding Schema qualifiers are supported indirectly via the qualified property value. The qualified property value wraps the base property value that contains the unqualified value along with one or more properties that specify the additional information that can be used to further interpret the base value.

Dublin Core Qualifiers also describes a simple algorithm for processing qualified property values where the qualifier properties are not understood by the processor. the algorithm is simply to ignore the qualifiers and treat the base value as a stand-alone item.

- An application that makes use of a qualified property value type SHOULD strive to specify the base value such that it will be meaningful to processors that don't understand the qualifiers that are provided.
- An application SHOULD avoid use of qualified property values.

### **1.4.5.1 Implicit Data Typing**

DC-NMF defines the simple property types using a weakly typed string datatype in order to be compatible with regular DC usage that allows overloading of the base property with the actual type being specified either by context or by qualifiers that provide the encoding scheme.

Despite the fact that DC-NMF doesn't explicitly type the simple types using XML Schema datatyping mechanisms, there is an implicit datatype that is assumed in many cases and which is specified in the prose of the property description. This implicit type is described in the best practices description of the property.

- An DC-NMF aware application SHOULD honor the implicit data specified by in the property definition.

### **1.4.6 Array Properties**

Dublin Core metadata properties are allowed to repeat one or more times. This usage can be problematic in many situations where the intent of the repetition is not clear. For example, a given sequence may be an ordered sequence of properties, an unordered sequence of properties, or a set or exclusive alternatives. There are also many processing environments that do not support the occurrence of more than one property with the same name in a composite property.

DC-NMF defines a specific array interpretation for any property where repetition is allowed. The array is either ordered, unordered or alternative. If the DC-NMF metadata was obtained via a translation step from some other DC representation such as RDF it is the responsibility of the translator to supply the mapping logic to map any repeating property occurrences into an array representation.

# Chapter 2: Dublin Core Elements Schema

---

## 2.1 Best Practices and Usage

The Dublin Core Element Set (DCES) defines fifteen properties that can be used to describe resources. Some of these properties may not be clearly enough defined to allow a high level of interoperability to occur between loosely coupled participants in a metadata interchange scenario.

DCMI is providing increased clarity on the the contents on encoding of the DCES via the definition of qualifiers that either refine the meaning of the core elements or nail down the details of the encoding of the core elements.

There are some elements of DCES that are in wide usage and provide a high degree of interoperability, not the least because they are intended to be weakly typed and not directly machine processable. These elements are:

- description
- title

In addition, DC-NMF specifies a specific interpretation of some of the DCES that allows them to provide a higher degree of utility using the implicit data typing best practice of DC-NMF. The following properties are implicitly typed in DC-NMF:

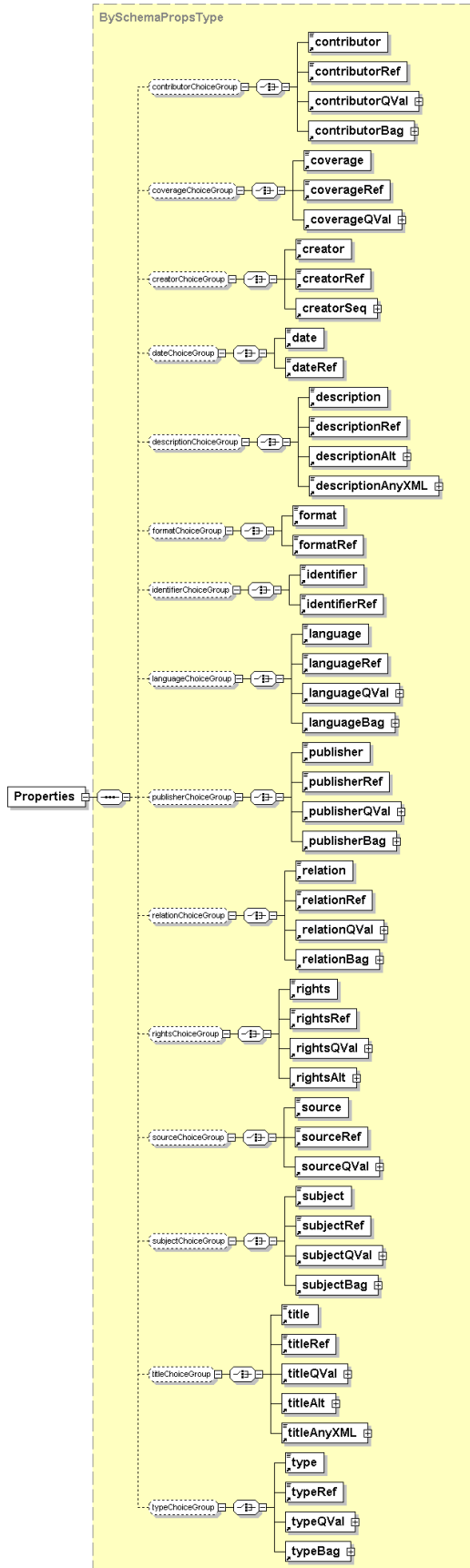
- date
- format
- identifier

## 2.2 Properties container

The Properties container element contains zero or more properties from the schema. These properties are specified in alphabetical order and can occur zero or once in the element. Each property is specified as a choice group that contains the alternative types that can occur in that position within the Properties container element.

The Properties element is an instance of the `BySchemaPropsType` complexType.

diagram



namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">BySchemaPropsType</a>
children	<a href="#">contributor</a> <a href="#">contributorRef</a> <a href="#">contributorQVal</a> <a href="#">contributorBag</a> <a href="#">coverage</a> <a href="#">coverageRef</a> <a href="#">coverageQVal</a> <a href="#">creator</a> <a href="#">creatorRef</a> <a href="#">creatorSeq</a> <a href="#">date</a> <a href="#">dateRef</a> <a href="#">description</a> <a href="#">descriptionRef</a> <a href="#">descriptionAlt</a> <a href="#">descriptionAnyXML</a> <a href="#">format</a> <a href="#">formatRef</a> <a href="#">identifier</a> <a href="#">identifierRef</a> <a href="#">language</a> <a href="#">languageRef</a> <a href="#">languageQVal</a> <a href="#">languageBag</a> <a href="#">publisher</a> <a href="#">publisherRef</a> <a href="#">publisherQVal</a> <a href="#">publisherBag</a> <a href="#">relation</a> <a href="#">relationRef</a> <a href="#">relationQVal</a> <a href="#">relationBag</a> <a href="#">rights</a> <a href="#">rightsRef</a> <a href="#">rightsQVal</a> <a href="#">rightsAlt</a> <a href="#">source</a> <a href="#">sourceRef</a> <a href="#">sourceQVal</a> <a href="#">subject</a> <a href="#">subjectRef</a> <a href="#">subjectQVal</a> <a href="#">subjectBag</a> <a href="#">title</a> <a href="#">titleRef</a> <a href="#">titleQVal</a> <a href="#">titleAlt</a> <a href="#">titleAnyXML</a> <a href="#">type</a> <a href="#">typeRef</a> <a href="#">typeQVal</a> <a href="#">typeBag</a>
source	<xs:element name="Properties" type="BySchemaPropsType" substitutionGroup="nmf:BySchemaPropsBase"/>

## 2.3 Property: contributor

### Definition

An entity responsible for making contributions to the content of the resource.

### Comment

Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.

### Practice

This property is weakly typed and MAY NOT be actively supported by DC-NMF processors.

### 2.3.1 group contributorChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">contributor</a> <a href="#">contributorRef</a> <a href="#">contributorQVal</a> <a href="#">contributorBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="contributorChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="contributor"/&gt;     &lt;xs:element ref="contributorRef"/&gt;     &lt;xs:element ref="contributorQVal"/&gt;     &lt;xs:element ref="contributorBag"/&gt;   &lt;/xs:choice&gt;</pre>



	<code>&lt;/xs:group&gt;</code>
--	--------------------------------

### 2.3.2 element contributor

contributor is the base property value for the contributor property.

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">contributorType</a>
used by	complexType <a href="#">contributorBagType</a> <a href="#">contributorQValType</a> group <a href="#">contributorChoiceGroup</a>
source	<code>&lt;xs:element name="contributor" type="contributorType"/&gt;</code>

### 2.3.3 element contributorBag

In the case where there is more than one contributor, a contributorBag property is used to contain the actual contributor properties. The contributorBag is an unordered container for the contributors.

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">contributorBagType</a>
children	<a href="#">contributor</a> <a href="#">contributorRef</a> <a href="#">contributorQVal</a>
used by	group <a href="#">contributorChoiceGroup</a>
source	<code>&lt;xs:element name="contributorBag" type="contributorBagType"/&gt;</code>

### 2.3.4 element contributorQVal

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">contributorQValType</a>
children	<a href="#">contributor</a> <a href="#">contributorRef</a>
used by	complexType <a href="#">contributorBagType</a> group <a href="#">contributorChoiceGroup</a>
source	<code>&lt;xs:element name="contributorQVal" type="contributorQValType"/&gt;</code>

### 2.3.5 element contributorRef

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">contributorRefType</a>
used by	complexType <a href="#">contributorBagType</a> <a href="#">contributorQValType</a> group <a href="#">contributorChoiceGroup</a>
source	<code>&lt;xs:element name="contributorRef" type="contributorRefType"/&gt;</code>

## 2.4 *Property: coverage*

### Definition

The extent or scope of the content of the resource.

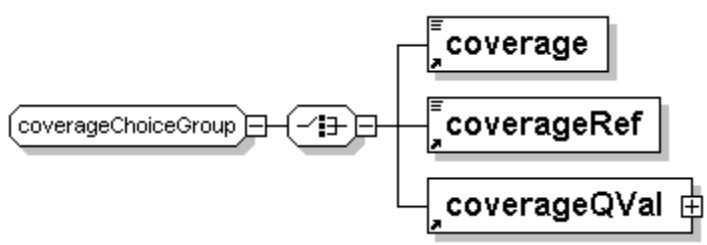
### Comment

Coverage will typically include spatial location (a place name or geographic coordinates), temporal period (a period label, date, or date range) or jurisdiction (such as a named administrative entity). Recommended best practice is to select a value from a controlled vocabulary (for example, the Thesaurus of Geographic Names [TGN]) and that, where appropriate, named places or time periods be used in preference to numeric identifiers such as sets of coordinates or date ranges.

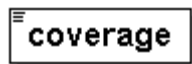
**Practice**

This property is weakly typed and MAY NOT be actively supported by DC-NMF processors.

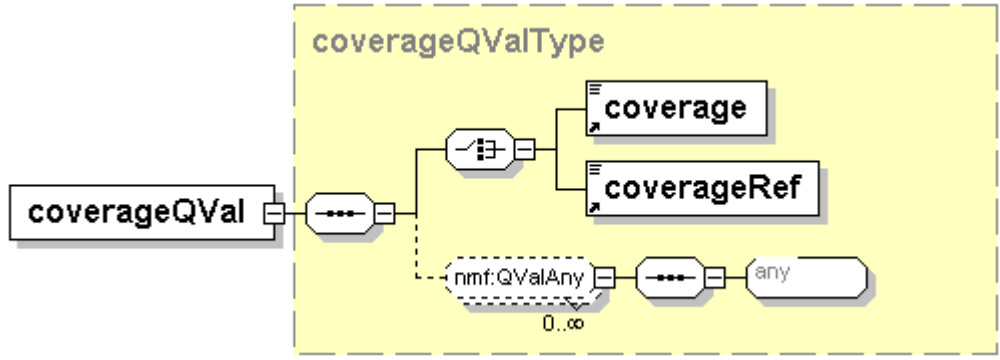
**2.4.1 group coverageChoiceGroup**

diagram	 <p>The diagram shows the structure of the <code>coverageChoiceGroup</code> element. It is a complex type containing a choice of three elements: <code>coverage</code>, <code>coverageRef</code>, and <code>coverageQVal</code>. The <code>coverageQVal</code> element is shown with a plus sign in a box, indicating it is optional.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">coverage</a> <a href="#">coverageRef</a> <a href="#">coverageQVal</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre> &lt;xs:group name="coverageChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="coverage"/&gt;     &lt;xs:element ref="coverageRef"/&gt;     &lt;xs:element ref="coverageQVal"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>

**2.4.2 element coverage**


diagram	 <p>The diagram shows the <code>coverage</code> element as a simple rectangular box.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">coverageType</a>
used by	complexType <a href="#">coverageQValType</a> group <a href="#">coverageChoiceGroup</a>
source	<code>&lt;xs:element name="coverage" type="coverageType"/&gt;</code>

**2.4.3 element coverageQVal**

diagram	 <p>The diagram shows the structure of the <code>coverageQVal</code> element. It is a complex type containing a choice of two elements: <code>coverageQValType</code> and <code>any</code>. The <code>coverageQValType</code> element is highlighted in a yellow dashed box and contains a choice of <code>coverage</code> and <code>coverageRef</code> elements. The <code>any</code> element is shown with a plus sign in a box, indicating it is optional. The <code>coverageQValType</code> element is shown with a plus sign in a box, indicating it is optional. The <code>any</code> element is shown with a plus sign in a box, indicating it is optional. The <code>coverageQVal</code> element is shown with a plus sign in a box, indicating it is optional.</p>
---------	---

namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">coverageQValType</a>
children	<a href="#">coverage</a> <a href="#">coverageRef</a>
used by	group <a href="#">coverageChoiceGroup</a>
source	<code>&lt;xs:element name="coverageQVal" type="coverageQValType"/&gt;</code>

#### 2.4.4 element coverageRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">coverageRefType</a>
used by	complexType <a href="#">coverageQValType</a> group <a href="#">coverageChoiceGroup</a>
source	<code>&lt;xs:element name="coverageRef" type="coverageRefType"/&gt;</code>

## 2.5 Property: creator

### Definition

An entity primarily responsible for making the content of the resource.

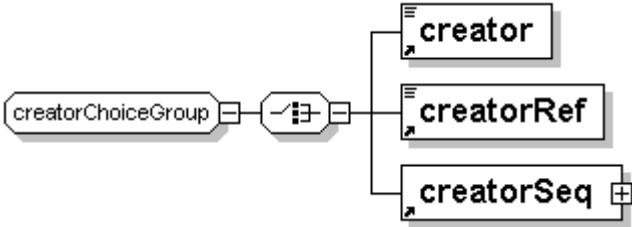
### Comment

Examples of a Creator include a person, an organisation, or a service. Typically, the name of a Creator should be used to indicate the entity.

### Practice

This property is weakly typed and MAY NOT be actively supported by DC-NMF processors.

#### 2.5.1 group creatorChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">creator</a> <a href="#">creatorRef</a> <a href="#">creatorSeq</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<code>&lt;xs:group name="creatorChoiceGroup"&gt;</code>

	<pre> &lt;xs:choice&gt;   &lt;xs:element ref="creator"/&gt;   &lt;xs:element ref="creatorRef"/&gt;   &lt;xs:element ref="creatorSeq"/&gt; &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>
--	---

## 2.5.2 element creator

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">creatorType</a>
used by	complexType <a href="#">creatorSeqType</a> group <a href="#">creatorChoiceGroup</a>
source	<xs:element name="creator" type="creatorType"/>

## 2.5.3 element creatorRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">creatorRefType</a>
used by	complexType <a href="#">creatorSeqType</a> group <a href="#">creatorChoiceGroup</a>
source	<xs:element name="creatorRef" type="creatorRefType"/>

## 2.5.4 element creatorSeq

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">creatorSeqType</a>
children	<a href="#">creator</a> <a href="#">creatorRef</a>
used by	group <a href="#">creatorChoiceGroup</a>
source	<xs:element name="creatorSeq" type="creatorSeqType"/>

## 2.6 Property: date

### Definition

A date associated with an event in the life cycle of the resource.

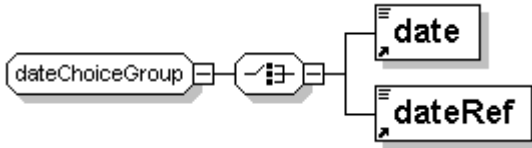
### Comment

Typically, Date will be associated with the creation or availability of the resource. Recommended best practice for encoding the date value is defined in a profile of ISO 8601 [W3CDTF] and follows the YYYY-MM-DD format.


### Practice

This property is interpreted as conforming to the XML Schema datetime datatype. It SHOULD NOT be used directly in metadata. Instead one of its derived types defined in the terms schema should be used.


### 2.6.1 group dateChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">date</a> <a href="#">dateRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="dateChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="date"/&gt;     &lt;xs:element ref="dateRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 2.6.2 element date

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">dateType</a>
used by	group <a href="#">dateChoiceGroup</a>
source	<pre>&lt;xs:element name="date" type="dateType"/&gt;</pre>

### 2.6.3 element dateRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">dateRefType</a>
used by	group <a href="#">dateChoiceGroup</a>
source	<code>&lt;xs:element name="dateRef" type="dateRefType"/&gt;</code>

## 2.7 Property: description

### Definition

An account of the content of the resource.

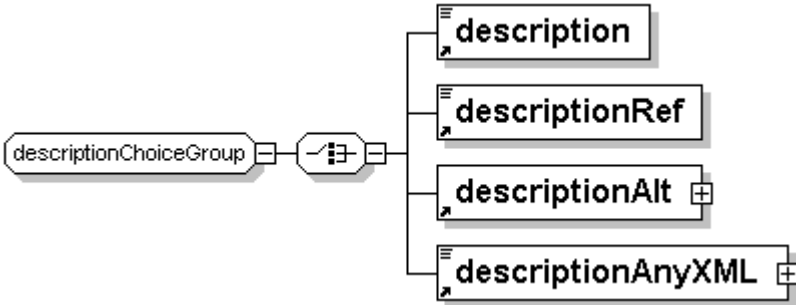
### Comment

### Practice

This property is used for longer human readable accounts of the resource. A short concise human readable label should be specified using the title property.

If well-formed XML is used in the description, the descriptionAnyXML variant of the property should be used.

### 2.7.1 group descriptionChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">description</a> <a href="#">descriptionRef</a> <a href="#">descriptionAlt</a> <a href="#">descriptionAnyXML</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<code>&lt;xs:group name="descriptionChoiceGroup"&gt; &lt;xs:choice&gt; &lt;xs:element ref="description"/&gt; &lt;xs:element ref="descriptionRef"/&gt;</code>

	<pre> &lt;xs:element ref="descriptionAlt"/&gt; &lt;xs:element ref="descriptionAnyXML"/&gt; &lt;/xs:choice&gt; &lt;/xs:group&gt;                 </pre>
--	--

### 2.7.2 element description

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">descriptionType</a>
used by	complexType <a href="#">descriptionAltType</a> group <a href="#">descriptionChoiceGroup</a>
source	<code>&lt;xs:element name="description" type="descriptionType"/&gt;</code>

### 2.7.3 element descriptionAlt

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">descriptionAltType</a>
children	<a href="#">description</a> <a href="#">descriptionRef</a> <a href="#">descriptionAnyXML</a>
used by	group <a href="#">descriptionChoiceGroup</a>
source	<code>&lt;xs:element name="descriptionAlt" type="descriptionAltType"/&gt;</code>


### 2.7.4 element descriptionAnyXML

diagram	
namespace	http://purl.org/dc/elements/1.1/



type	<a href="#">descriptionAnyXMLType</a>
used by	complexType <a href="#">descriptionAltType</a> group <a href="#">descriptionChoiceGroup</a>
source	<code>&lt;xs:element name="descriptionAnyXML" type="descriptionAnyXMLType"/&gt;</code>

## 2.7.5 element descriptionRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">descriptionRefType</a>
used by	complexType <a href="#">descriptionAltType</a> group <a href="#">descriptionChoiceGroup</a>
source	<code>&lt;xs:element name="descriptionRef" type="descriptionRefType"/&gt;</code>

## 2.8 Property: format

### Definition

The physical or digital manifestation of the resource.

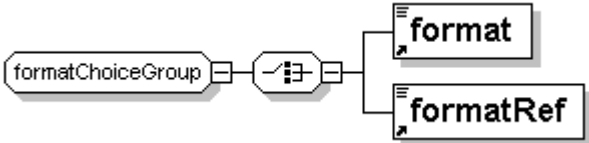
### Comment

Typically, Format may include the media-type or dimensions of the resource. Format may be used to determine the software, hardware or other equipment needed to display or operate the resource. Examples of dimensions include size and duration. Recommended best practice is to select a value from a controlled vocabulary (for example, the list of Internet Media Types [MIME] defining computer media formats).

### Practice


This property is interpreted as using the [MIME] controlled. It MAY be used to describe the content-type of the resource.

### 2.8.1 group formatChoiceGroup


diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">format</a> <a href="#">formatRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<code>&lt;xs:group name="formatChoiceGroup"&gt; &lt;xs:choice&gt; &lt;xs:element ref="format"/&gt;</code>

	<pre>&lt;xs:element ref="formatRef"/&gt; &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>
--	---

## 2.8.2 element format

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">formatType</a>
used by	group <a href="#">formatChoiceGroup</a>
source	<pre>&lt;xs:element name="format" type="formatType"/&gt;</pre>

## 2.8.3 element formatRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">formatRefType</a>
used by	group <a href="#">formatChoiceGroup</a>
source	<pre>&lt;xs:element name="formatRef" type="formatRefType"/&gt;</pre>

## 2.9 Property: identifier

### Definition

An unambiguous reference to the resource within a given context.

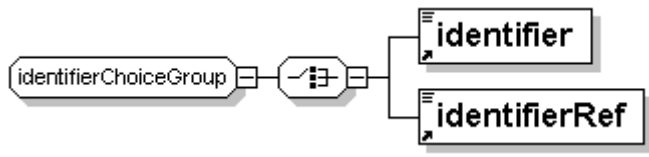
### Comment

Recommended best practice is to identify the resource by means of a string or number conforming to a formal identification system. Example formal identification systems include the Uniform Resource Identifier (URI) (including the Uniform Resource Locator (URL)), the Digital Object Identifier (DOI) and the International Standard Book Number (ISBN).


### Practice

This property is implicitly typed to be conform to the XML Schema xs:anyURI datatype.


## 2.9.1 group identifierChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">identifier</a> <a href="#">identifierRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="identifierChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="identifier"/&gt;     &lt;xs:element ref="identifierRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

## 2.9.2 element identifier

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">identifierType</a>
used by	group <a href="#">identifierChoiceGroup</a>
source	<pre>&lt;xs:element name="identifier" type="identifierType"/&gt;</pre>

## 2.9.3 element identifierRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">identifierRefType</a>
used by	group <a href="#">identifierChoiceGroup</a>
source	<pre>&lt;xs:element name="identifierRef" type="identifierRefType"/&gt;</pre>

## 2.10 Property: language

### Definition

A language of the intellectual content of the resource.

**Comment**

Recommended best practice for the values of the Language element is defined by RFC 1766 [RFC1766] which includes a two-letter Language Code (taken from the ISO 639 standard [ISO639]), followed optionally, by a two-letter Country Code (taken from the ISO 3166 standard [ISO3166]). For example, 'en' for English, 'fr' for French, or 'en-uk' for English used in the United Kingdom.

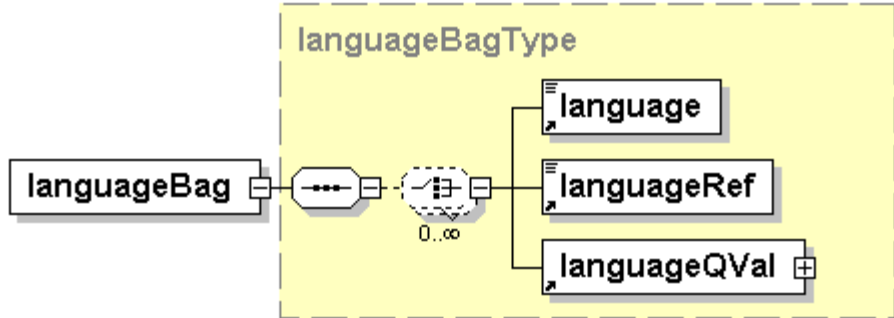
**2.10.1 group languageChoiceGroup**

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">language</a> <a href="#">languageRef</a> <a href="#">languageQVal</a> <a href="#">languageBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="languageChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="language"/&gt;     &lt;xs:element ref="languageRef"/&gt;     &lt;xs:element ref="languageQVal"/&gt;     &lt;xs:element ref="languageBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

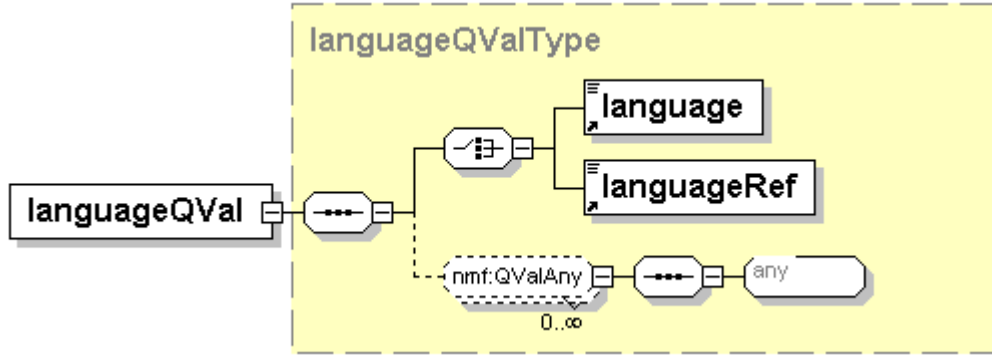
**2.10.2 element language**

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">languageType</a>
used by	complexTypes <a href="#">languageBagType</a> <a href="#">languageQValType</a> group <a href="#">languageChoiceGroup</a>
source	<pre>&lt;xs:element name="language" type="languageType"/&gt;</pre>


### 2.10.3 element languageBag

diagram	 <p>The diagram shows the structure of the <code>languageBagType</code>. It starts with a <code>languageBag</code> element, which is connected to a sequence container (rectangle with three dots). This container is linked to a choice container (circle with a vertical bar and a plus sign) that has a cardinality of <code>0..∞</code>. The choice container branches into three options: <code>language</code>, <code>languageRef</code>, and <code>languageQVal</code>.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">languageBagType</a>
children	<a href="#">language</a> <a href="#">languageRef</a> <a href="#">languageQVal</a>
used by	group <a href="#">languageChoiceGroup</a>
source	<code>&lt;xs:element name="languageBag" type="languageBagType"/&gt;</code>

### 2.10.4 element languageQVal

diagram	 <p>The diagram shows the structure of the <code>languageQValType</code>. It starts with a <code>languageQVal</code> element, which is connected to a sequence container (rectangle with three dots). This container is linked to a choice container (circle with a vertical bar and a plus sign). The choice container has two main branches: one leading to a choice container (circle with a vertical bar and a plus sign) that branches into <code>language</code> and <code>languageRef</code>; and another leading to a sequence container (rectangle with three dots) that contains an <code>nmf:QValAny</code> element (dashed box) with a cardinality of <code>0..∞</code>, followed by an <code>any</code> element (rounded rectangle).</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">languageQValType</a>
children	<a href="#">language</a> <a href="#">languageRef</a>
used by	complexType <a href="#">languageBagType</a> group <a href="#">languageChoiceGroup</a>
source	<code>&lt;xs:element name="languageQVal" type="languageQValType"/&gt;</code>

## 2.10.5 element languageRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">languageRefType</a>
used by	complexTypes <a href="#">languageBagType</a> <a href="#">languageQValType</a> group <a href="#">languageChoiceGroup</a>
source	<code>&lt;xs:element name="languageRef" type="languageRefType"/&gt;</code>

## 2.11 Property: publisher

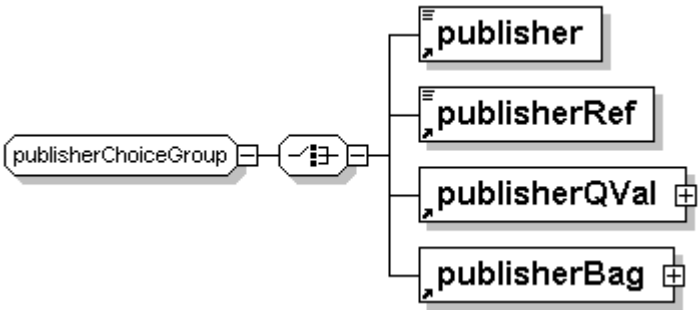
### Definition

An entity responsible for making the resource available.


### Comment

Examples of a Publisher include a person, an organisation, or a service. Typically, the name of a Publisher should be used to indicate the entity.

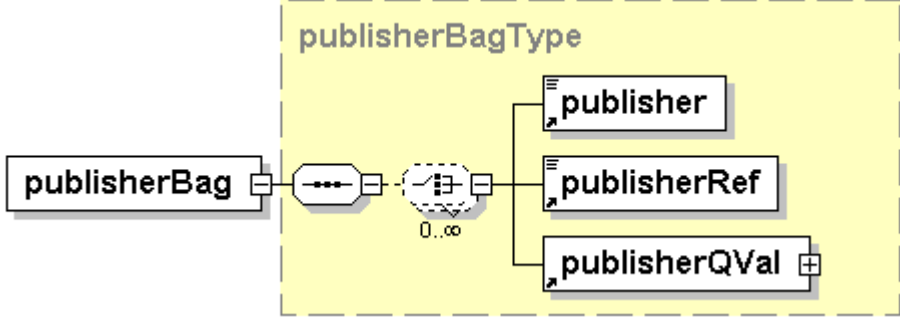
### 2.11.1 group publisherChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">publisher</a> <a href="#">publisherRef</a> <a href="#">publisherQVal</a> <a href="#">publisherBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="publisherChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="publisher"/&gt;     &lt;xs:element ref="publisherRef"/&gt;     &lt;xs:element ref="publisherQVal"/&gt;     &lt;xs:element ref="publisherBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

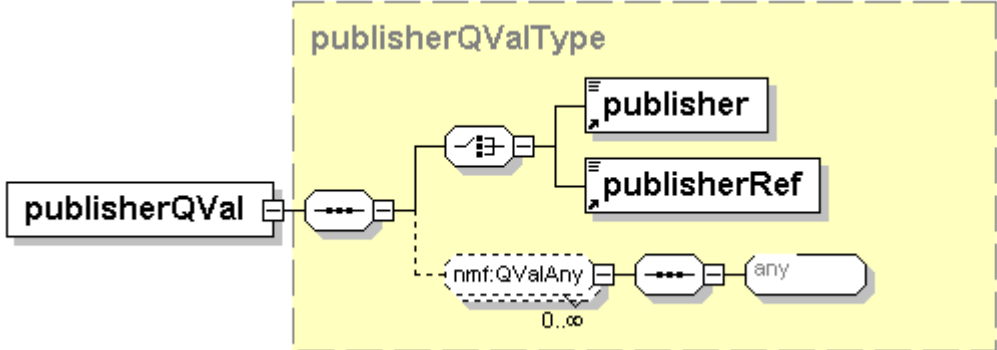
### 2.11.2 element publisher

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">publisherType</a>
used by	complexTypes <a href="#">publisherBagType</a> <a href="#">publisherQValType</a> group <a href="#">publisherChoiceGroup</a>
source	<code>&lt;xs:element name="publisher" type="publisherType"/&gt;</code>

### 2.11.3 element publisherBag

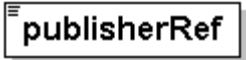
diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">publisherBagType</a>
children	<a href="#">publisher</a> <a href="#">publisherRef</a> <a href="#">publisherQVal</a>
used by	group <a href="#">publisherChoiceGroup</a>
source	<code>&lt;xs:element name="publisherBag" type="publisherBagType"/&gt;</code>

### 2.11.4 element publisherQVal

diagram	
---------	--

namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">publisherQValType</a>
children	<a href="#">publisher</a> <a href="#">publisherRef</a>
used by	complexType <a href="#">publisherBagType</a> group <a href="#">publisherChoiceGroup</a>
source	<xs:element name="publisherQVal" type="publisherQValType"/>

### 2.11.5 element publisherRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">publisherRefType</a>
used by	complexTypes <a href="#">publisherBagType</a> <a href="#">publisherQValType</a> group <a href="#">publisherChoiceGroup</a>
source	<xs:element name="publisherRef" type="publisherRefType"/>

## 2.12 Property: relation

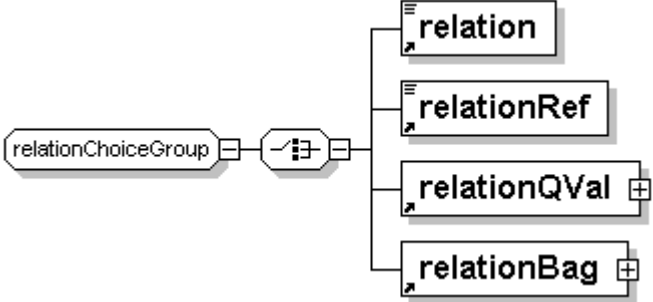
### Definition

A reference to a related resource.

### Comment

Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.

### 2.12.1 group relationChoiceGroup

diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">relation</a> <a href="#">relationRef</a> <a href="#">relationQVal</a> <a href="#">relationBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>



source	<pre> &lt;xs:group name="relationChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="relation"/&gt;     &lt;xs:element ref="relationRef"/&gt;     &lt;xs:element ref="relationQVal"/&gt;     &lt;xs:element ref="relationBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>
--------	---

### 2.12.2 element relation

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">relationType</a>
used by	complexTypes <a href="#">relationBagType</a> <a href="#">relationQValType</a> group <a href="#">relationChoiceGroup</a>
source	<code>&lt;xs:element name="relation" type="relationType"/&gt;</code>

### 2.12.3 element relationBag

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">relationBagType</a>
children	<a href="#">relation</a> <a href="#">relationRef</a> <a href="#">relationQVal</a>
used by	group <a href="#">relationChoiceGroup</a>
source	<code>&lt;xs:element name="relationBag" type="relationBagType"/&gt;</code>

## 2.12.4 element relationQVal

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">relationQValType</a>
children	<a href="#">relation</a> <a href="#">relationRef</a>
used by	complexType <a href="#">relationBagType</a> group <a href="#">relationChoiceGroup</a>
source	<code>&lt;xs:element name="relationQVal" type="relationQValType"/&gt;</code>

## 2.12.5 element relationRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">relationRefType</a>
used by	complexTypes <a href="#">relationBagType</a> <a href="#">relationQValType</a> group <a href="#">relationChoiceGroup</a>
source	<code>&lt;xs:element name="relationRef" type="relationRefType"/&gt;</code>

## 2.13 Property: rights

### Definition

Information about rights held in and over the resource.

### Comment

Typically, a Rights element will contain a rights management statement for the resource, or reference a service providing such information. Rights information often encompasses Intellectual Property Rights (IPR), Copyright, and various Property Rights. If the Rights element is absent, no assumptions can be made about the status of these and other rights with respect to the resource.

### 2.13.1 group rightsChoiceGroup

diagram	<p>The diagram shows the structure of the <code>rightsChoiceGroup</code> element. It is a complex type containing a choice of four elements: <code>rights</code>, <code>rightsRef</code>, <code>rightsQVal</code>, and <code>rightsAlt</code>. Each element is represented by a box with a small icon in the top-left corner. The <code>rightsChoiceGroup</code> element is connected to a choice element, which is then connected to each of the four child elements.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">rights</a> <a href="#">rightsRef</a> <a href="#">rightsQVal</a> <a href="#">rightsAlt</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="rightsChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="rights"/&gt;     &lt;xs:element ref="rightsRef"/&gt;     &lt;xs:element ref="rightsQVal"/&gt;     &lt;xs:element ref="rightsAlt"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 2.13.2 element rights

diagram	<p>The diagram shows the structure of the <code>rights</code> element, which is a simple type represented by a box with a small icon in the top-left corner.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">rightsType</a>
used by	complexType <a href="#">rightsAltType</a> <a href="#">rightsQValType</a> group <a href="#">rightsChoiceGroup</a>
source	<pre>&lt;xs:element name="rights" type="rightsType"/&gt;</pre>

### 2.13.3 element rightsAlt

diagram	<p>The diagram shows the structure of the <code>rightsAlt</code> element. It is a complex type containing a choice of three elements: <code>rights</code>, <code>rightsRef</code>, and <code>rightsQVal</code>. Each element is represented by a box with a small icon in the top-left corner. The <code>rightsAlt</code> element is connected to a choice element, which is then connected to each of the three child elements. The choice element is labeled with <code>0..∞</code>. The entire structure is highlighted in a yellow dashed box labeled <code>rightsAltType</code>.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>

type	<a href="#">rightsAltType</a>
children	<a href="#">rights</a> <a href="#">rightsRef</a> <a href="#">rightsQVal</a>
used by	group <a href="#">rightsChoiceGroup</a>
source	<code>&lt;xs:element name="rightsAlt" type="rightsAltType"/&gt;</code>

### 2.13.4 element rightsQVal

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">rightsQValType</a>
children	<a href="#">rights</a> <a href="#">rightsRef</a>
used by	complexType <a href="#">rightsAltType</a> group <a href="#">rightsChoiceGroup</a>
source	<code>&lt;xs:element name="rightsQVal" type="rightsQValType"/&gt;</code>

### 2.13.5 element rightsRef

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">rightsRefType</a>
used by	complexTypes <a href="#">rightsAltType</a> <a href="#">rightsQValType</a> group <a href="#">rightsChoiceGroup</a>
source	<code>&lt;xs:element name="rightsRef" type="rightsRefType"/&gt;</code>

## 2.14 Property: source

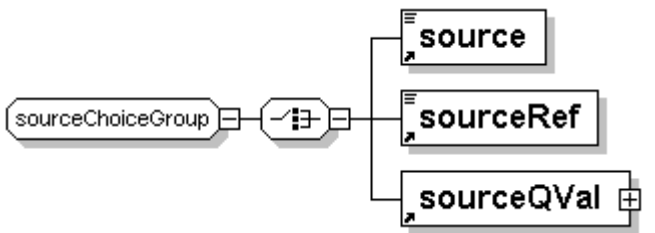
### Definition

A Reference to a resource from which the present resource is derived.


**Comment**

The present resource may be derived from the Source resource in whole or in part. Recommended best practice is to reference the resource by means of a string or number conforming to a formal identification system.

**2.14.1 group sourceChoiceGroup**

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">source</a> <a href="#">sourceRef</a> <a href="#">sourceQVal</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="sourceChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="source"/&gt;     &lt;xs:element ref="sourceRef"/&gt;     &lt;xs:element ref="sourceQVal"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

**2.14.2 element source**

diagram	
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">sourceType</a>
used by	complexType <a href="#">sourceQValType</a> group <a href="#">sourceChoiceGroup</a>
source	<pre>&lt;xs:element name="source" type="sourceType"/&gt;</pre>

### 2.14.3 element sourceQVal

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">sourceQValType</a>
children	<a href="#">source</a> <a href="#">sourceRef</a>
used by	group <a href="#">sourceChoiceGroup</a>
source	<code>&lt;xs:element name="sourceQVal" type="sourceQValType"/&gt;</code>

### 2.14.4 element sourceRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">sourceRefType</a>
used by	complexType <a href="#">sourceQValType</a> group <a href="#">sourceChoiceGroup</a>
source	<code>&lt;xs:element name="sourceRef" type="sourceRefType"/&gt;</code>

## 2.15 Property: *subject*

#### Definition

The topic of the content of the resource.

#### Comment

Typically, a Subject will be expressed as keywords, key phrases or classification codes that describe a topic of the resource. Recommended best practice is to select a value from a controlled vocabulary or formal classification scheme.

### 2.15.1 group subjectChoiceGroup

diagram	<p>The diagram shows the structure of the <code>subjectChoiceGroup</code> element. It is a container element (rectangle with a small square on the left) that contains a choice element (circle with a vertical line and a small square on the left). This choice element contains four child elements: <code>subject</code>, <code>subjectRef</code>, <code>subjectQVal</code>, and <code>subjectBag</code>. Each child element is represented by a rectangle with a small square on the left and a small square on the right, indicating that each child is optional and can occur once.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
children	<a href="#">subject</a> <a href="#">subjectRef</a> <a href="#">subjectQVal</a> <a href="#">subjectBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="subjectChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="subject"/&gt;     &lt;xs:element ref="subjectRef"/&gt;     &lt;xs:element ref="subjectQVal"/&gt;     &lt;xs:element ref="subjectBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 2.15.2 element subject

diagram	<p>The diagram shows the structure of the <code>subject</code> element, which is a simple element represented by a rectangle with a small square on the left.</p>
namespace	<a href="http://purl.org/dc/elements/1.1/">http://purl.org/dc/elements/1.1/</a>
type	<a href="#">subjectType</a>
used by	complexTypes <a href="#">subjectBagType</a> <a href="#">subjectQValType</a> group <a href="#">subjectChoiceGroup</a>
source	<pre>&lt;xs:element name="subject" type="subjectType"/&gt;</pre>

### 2.15.3 element subjectBag

diagram	<p>The diagram shows the structure of the <code>subjectBag</code> element. It is a container element (rectangle with a small square on the left) that contains a choice element (circle with a vertical line and a small square on the left). This choice element contains three child elements: <code>subject</code>, <code>subjectRef</code>, and <code>subjectQVal</code>. Each child element is represented by a rectangle with a small square on the left and a small square on the right, indicating that each child is optional and can occur once. The choice element is enclosed in a dashed yellow box labeled <code>subjectBagType</code>. The choice element has a cardinality of <code>0..∞</code>.</p>
---------	--

namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">subjectBagType</a>
children	<a href="#">subject</a> <a href="#">subjectRef</a> <a href="#">subjectQVal</a>
used by	group <a href="#">subjectChoiceGroup</a>
source	<code>&lt;xs:element name="subjectBag" type="subjectBagType"/&gt;</code>

## 2.15.4 element subjectQVal

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">subjectQValType</a>
children	<a href="#">subject</a> <a href="#">subjectRef</a>
used by	complexType <a href="#">subjectBagType</a> group <a href="#">subjectChoiceGroup</a>
source	<code>&lt;xs:element name="subjectQVal" type="subjectQValType"/&gt;</code>

## 2.15.5 element subjectRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">subjectRefType</a>
used by	complexTypes <a href="#">subjectBagType</a> <a href="#">subjectQValType</a> group <a href="#">subjectChoiceGroup</a>
source	<code>&lt;xs:element name="subjectRef" type="subjectRefType"/&gt;</code>



## 2.16 Property: title

### Definition

A name given to the resource.

### Comment

Typically, a Title will be a name by which the resource is formally known.

### Practice

This property is used for a short one line label that can be displayed in an index list of resources such as a resource directory browser.

### 2.16.1 group titleChoiceGroup

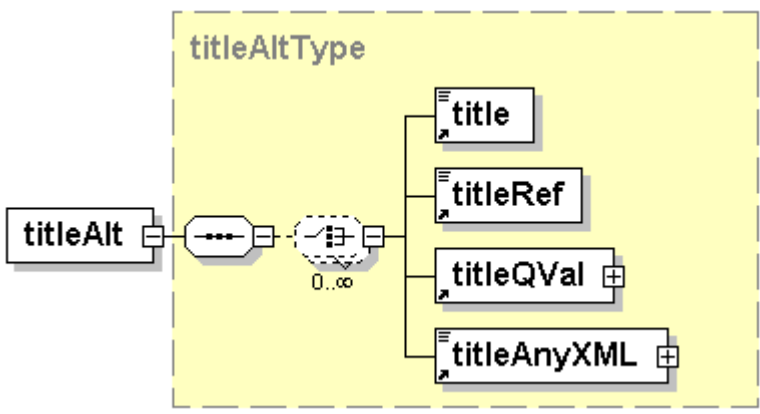
diagram	
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">title</a> <a href="#">titleRef</a> <a href="#">titleQVal</a> <a href="#">titleAlt</a> <a href="#">titleAnyXML</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="titleChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="title"/&gt;     &lt;xs:element ref="titleRef"/&gt;     &lt;xs:element ref="titleQVal"/&gt;     &lt;xs:element ref="titleAlt"/&gt;     &lt;xs:element ref="titleAnyXML"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 2.16.2 element title

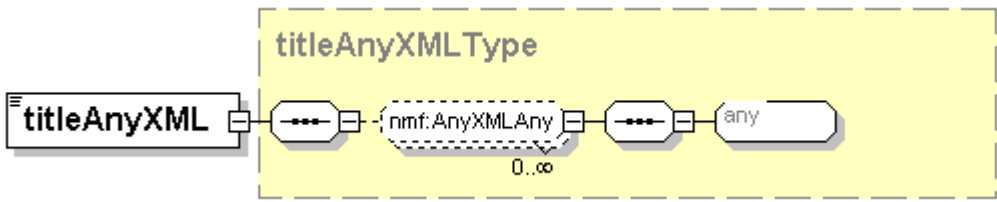
diagram	
namespace	http://purl.org/dc/elements/1.1/

type	<a href="#">titleType</a>
used by	complexType group <a href="#">titleAltType</a> <a href="#">titleQValType</a> <a href="#">titleChoiceGroup</a>
source	<code>&lt;xs:element name="title" type="titleType"/&gt;</code>

### 2.16.3 element titleAlt

diagram	 <p>The diagram shows the structure of the <code>titleAltType</code>. It consists of a sequence of elements: <code>titleAlt</code>, a sequence container (represented by a box with three dots), a choice container (represented by a dashed box with a vertical bar and a plus sign), and four child elements: <code>title</code>, <code>titleRef</code>, <code>titleQVal</code>, and <code>titleAnyXML</code>. The choice container is labeled with <code>0..∞</code>, indicating that the choice of elements is optional and can occur multiple times. The child elements <code>title</code>, <code>titleRef</code>, <code>titleQVal</code>, and <code>titleAnyXML</code> are each shown with a plus sign and a vertical bar, indicating they are optional and can occur once.</p>
namespace	<code>http://purl.org/dc/elements/1.1/</code>
type	<a href="#">titleAltType</a>
children	<a href="#">title</a> <a href="#">titleRef</a> <a href="#">titleQVal</a> <a href="#">titleAnyXML</a>
used by	group <a href="#">titleChoiceGroup</a>
source	<code>&lt;xs:element name="titleAlt" type="titleAltType"/&gt;</code>

### 2.16.4 element titleAnyXML

diagram	 <p>The diagram shows the structure of the <code>titleAnyXMLType</code>. It consists of a sequence of elements: <code>titleAnyXML</code>, a sequence container (represented by a box with three dots), a choice container (represented by a dashed box with a vertical bar and a plus sign), a sequence container (represented by a box with three dots), and an <code>any</code> element. The choice container is labeled with <code>0..∞</code>, indicating that the choice of elements is optional and can occur multiple times. The <code>any</code> element is shown with a vertical bar and a plus sign, indicating it is optional and can occur once.</p>
namespace	<code>http://purl.org/dc/elements/1.1/</code>
type	<a href="#">titleAnyXMLType</a>
used by	complexType <a href="#">titleAltType</a> group <a href="#">titleChoiceGroup</a>
source	<code>&lt;xs:element name="titleAnyXML" type="titleAnyXMLType"/&gt;</code>

## 2.16.5 element titleQVal

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">titleQValType</a>
children	<a href="#">title</a> <a href="#">titleRef</a>
used by	complexType <a href="#">titleAltType</a> group <a href="#">titleChoiceGroup</a>
source	<code>&lt;xs:element name="titleQVal" type="titleQValType"/&gt;</code>

## 2.16.6 element titleRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">titleRefType</a>
used by	complexTypes <a href="#">titleAltType</a> <a href="#">titleQValType</a> group <a href="#">titleChoiceGroup</a>
source	<code>&lt;xs:element name="titleRef" type="titleRefType"/&gt;</code>

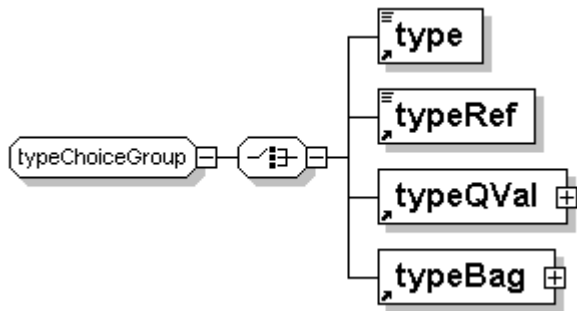
## 2.17 Property: type

### Definition


The nature or genre of the content of the resource.

### Comment

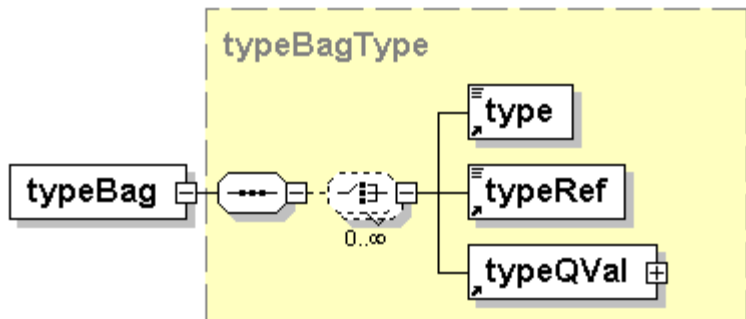
### 2.17.1 **group** typeChoiceGroup

diagram	 <p>The diagram shows a 'typeChoiceGroup' element connected to a choice element (represented by a circle with a vertical bar and a plus sign). This choice element branches into four child elements: 'type', 'typeRef', 'typeQVal', and 'typeBag'. Each child element has a small square icon with a plus sign in the top-left corner, indicating it is a complex type.</p>
namespace	http://purl.org/dc/elements/1.1/
children	<a href="#">type</a> <a href="#">typeRef</a> <a href="#">typeQVal</a> <a href="#">typeBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="typeChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="type"/&gt;     &lt;xs:element ref="typeRef"/&gt;     &lt;xs:element ref="typeQVal"/&gt;     &lt;xs:element ref="typeBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 2.17.2 **element** type

diagram	 <p>The diagram shows a single rectangular box labeled 'type' with a small square icon with a plus sign in the top-left corner, representing a complex type element.</p>
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">typeType</a>
used by	complexType group <a href="#">typeBagType</a> <a href="#">typeQValType</a> <a href="#">typeChoiceGroup</a>
source	<pre>&lt;xs:element name="type" type="typeType"/&gt;</pre>

### 2.17.3 **element** typeBag

diagram	 <p>The diagram shows a 'typeBag' element connected to a choice element (represented by a circle with a vertical bar and a plus sign). This choice element branches into three child elements: 'type', 'typeRef', and 'typeQVal'. Each child element has a small square icon with a plus sign in the top-left corner. The choice element is enclosed in a dashed yellow box labeled 'typeBagType'. Below the choice element is the cardinality '0..∞'.</p>
---------	--

namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">typeBagType</a>
children	<a href="#">type</a> <a href="#">typeRef</a> <a href="#">typeQVal</a>
used by	group <a href="#">typeChoiceGroup</a>
source	<code>&lt;xs:element name="typeBag" type="typeBagType"/&gt;</code>

### 2.17.4 element typeQVal

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">typeQValType</a>
children	<a href="#">type</a> <a href="#">typeRef</a>
used by	complexType <a href="#">typeBagType</a> group <a href="#">typeChoiceGroup</a>
source	<code>&lt;xs:element name="typeQVal" type="typeQValType"/&gt;</code>

### 2.17.5 element typeRef

diagram	
namespace	http://purl.org/dc/elements/1.1/
type	<a href="#">typeRefType</a>
used by	complexTypes <a href="#">typeBagType</a> <a href="#">typeQValType</a> group <a href="#">typeChoiceGroup</a>
source	<code>&lt;xs:element name="typeRef" type="typeRefType"/&gt;</code>

# Chapter 3: Dublin Core Terms Schema

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## 3.1 Best Practices and Usage

The Dublin Core Terms schema [DCQ] defines a large set of qualifiers for the DCES. These qualifiers are split into qualifiers that refine the meaning of the DCES properties and qualifiers that provide context for how to interpret the encoding of the DCES properties or DCTerms refined properties.

DC-NMF doesn't directly support the encoding qualifiers other than to allow metadata that uses them to be weakly encoded in DC-NMF using the qualified property type. Instead, DC-NMF explicitly defines the element refinements of the Dublin Core Qualifiers specification as first class properties and uses implicit data typing where appropriate to specify the encoding.

### Date Properties

The refinements of the date property in DCES are of general utility for many applications since they provide a useful set of temporal properties. Specifically, DC-NMF applications are encouraged to use the following properties for increased interoperability. Note that all these properties derive from the dc:date property which is implicitly typed to conform to the XML schema datetime datatype.

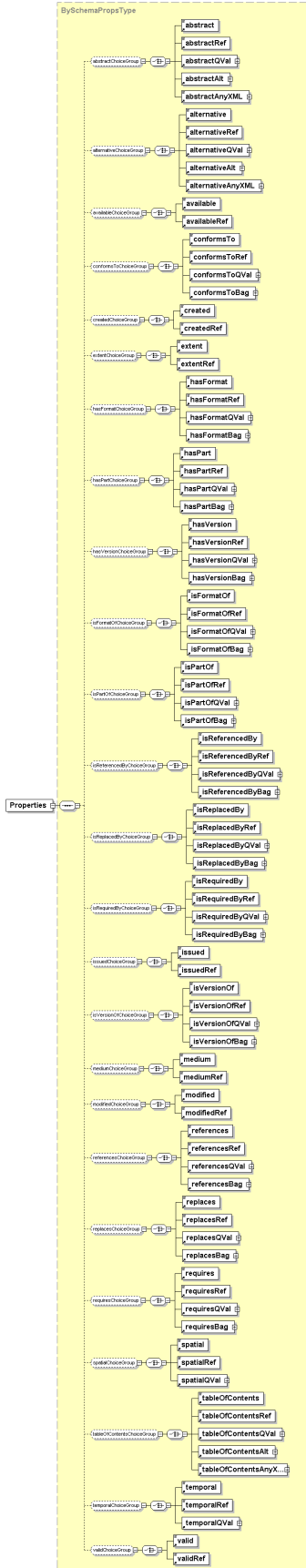
- created
- modified

## 3.2 Properties Container

The Properties container element contains zero or more properties from the schema. These properties are specified in alphabetical order and can occur zero or once in the element. Each property is specified as a choice group that contains the alternative types that can occur in that position within the Properties container element.

The Properties element is an instance of the BySchemaPropsType complexType.

diagram



namespace	http://purl.org/dc/terms/
type	<a href="#">BySchemaPropsType</a>
children	<a href="#">abstract</a> <a href="#">abstractRef</a> <a href="#">abstractQVal</a> <a href="#">abstractAlt</a> <a href="#">abstractAnyXML</a> <a href="#">alternative</a> <a href="#">alternativeRef</a> <a href="#">alternativeQVal</a> <a href="#">alternativeAlt</a> <a href="#">alternativeAnyXML</a> <a href="#">available</a> <a href="#">availableRef</a> <a href="#">conformsTo</a> <a href="#">conformsToRef</a> <a href="#">conformsToQVal</a> <a href="#">conformsToBag</a> <a href="#">created</a> <a href="#">createdRef</a> <a href="#">extent</a> <a href="#">extentRef</a> <a href="#">hasFormat</a> <a href="#">hasFormatRef</a> <a href="#">hasFormatQVal</a> <a href="#">hasFormatBag</a> <a href="#">hasPart</a> <a href="#">hasPartRef</a> <a href="#">hasPartQVal</a> <a href="#">hasPartBag</a> <a href="#">hasVersion</a> <a href="#">hasVersionRef</a> <a href="#">hasVersionQVal</a> <a href="#">hasVersionBag</a> <a href="#">isFormatOf</a> <a href="#">isFormatOfRef</a> <a href="#">isFormatOfQVal</a> <a href="#">isFormatOfBag</a> <a href="#">isPartOf</a> <a href="#">isPartOfRef</a> <a href="#">isPartOfQVal</a> <a href="#">isPartOfBag</a> <a href="#">isReferencedBy</a> <a href="#">isReferencedByRef</a> <a href="#">isReferencedByQVal</a> <a href="#">isReferencedByBag</a> <a href="#">isReplacedBy</a> <a href="#">isReplacedByRef</a> <a href="#">isReplacedByQVal</a> <a href="#">isReplacedByBag</a> <a href="#">issued</a> <a href="#">issuedRef</a> <a href="#">isVersionOf</a> <a href="#">isVersionOfRef</a> <a href="#">isVersionOfQVal</a> <a href="#">isVersionOfBag</a> <a href="#">medium</a> <a href="#">mediumRef</a> <a href="#">modified</a> <a href="#">modifiedRef</a> <a href="#">references</a> <a href="#">referencesRef</a> <a href="#">referencesQVal</a> <a href="#">referencesBag</a> <a href="#">replaces</a> <a href="#">replacesRef</a> <a href="#">replacesQVal</a> <a href="#">replacesBag</a> <a href="#">requires</a> <a href="#">requiresRef</a> <a href="#">requiresQVal</a> <a href="#">requiresBag</a> <a href="#">spatial</a> <a href="#">spatialRef</a> <a href="#">spatialQVal</a> <a href="#">tableOfContents</a> <a href="#">tableOfContentsRef</a> <a href="#">tableOfContentsQVal</a> <a href="#">tableOfContentsAlt</a> <a href="#">tableOfContentsAnyXML</a> <a href="#">temporal</a> <a href="#">temporalRef</a> <a href="#">temporalQVal</a> <a href="#">valid</a> <a href="#">validRef</a>
source	<xs:element name="Properties" type="BySchemaPropsType" substitutionGroup="nmf:BySchemaPropsBase"/>

### 3.3 Property: abstract

#### Refines

description

#### Definition

A summary of the content of the resource.

#### Comment

#### 3.3.1 group abstractChoiceGroup

diagram	<pre> classDiagram     class abstractChoiceGroup     class abstract     class abstractRef     class abstractQVal     class abstractAlt     class abstractAnyXML     abstractChoiceGroup -- &gt; abstract     abstractChoiceGroup -- &gt; abstractRef     abstractChoiceGroup -- &gt; abstractQVal     abstractChoiceGroup -- &gt; abstractAlt     abstractChoiceGroup -- &gt; abstractAnyXML     </pre>
namespace	http://purl.org/dc/terms/
children	<a href="#">abstract</a> <a href="#">abstractRef</a> <a href="#">abstractQVal</a> <a href="#">abstractAlt</a> <a href="#">abstractAnyXML</a>
used by	complexType <a href="#">BySchemaPropsType</a>



source	<pre> &lt;xs:group name="abstractChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="abstract"/&gt;     &lt;xs:element ref="abstractRef"/&gt;     &lt;xs:element ref="abstractQVal"/&gt;     &lt;xs:element ref="abstractAlt"/&gt;     &lt;xs:element ref="abstractAnyXML"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>
--------	--

### 3.3.2 element abstract

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">abstractType</a>
used by	complexTypes <a href="#">abstractAltType</a> <a href="#">abstractQValType</a> group <a href="#">abstractChoiceGroup</a>
source	<code>&lt;xs:element name="abstract" type="abstractType"/&gt;</code>

### 3.3.3 element abstractAlt

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">abstractAltType</a>
children	<a href="#">abstract</a>
used by	group <a href="#">abstractChoiceGroup</a>
source	<code>&lt;xs:element name="abstractAlt" type="abstractAltType"/&gt;</code>

### 3.3.4 element abstractAnyXML

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">abstractAnyXMLType</a>
used by	group <a href="#">abstractChoiceGroup</a>
source	<code>&lt;xs:element name="abstractAnyXML" type="abstractAnyXMLType"/&gt;</code>

### 3.3.5 element abstractQVal

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">abstractQValType</a>
children	<a href="#">abstract</a>
used by	group <a href="#">abstractChoiceGroup</a>
source	<code>&lt;xs:element name="abstractQVal" type="abstractQValType"/&gt;</code>

### 3.3.6 element abstractRef

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">abstractRefType</a>
used by	group <a href="#">abstractChoiceGroup</a>
source	<code>&lt;xs:element name="abstractRef" type="abstractRefType"/&gt;</code>

## 3.4 Property: alternative

### Definition

Any form of the title used as a substitute or alternative to the formal title of the resource.

### Comment

### 3.4.1 group alternativeChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">alternative</a> <a href="#">alternativeRef</a> <a href="#">alternativeQVal</a> <a href="#">alternativeAlt</a> <a href="#">alternativeAnyXML</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="alternativeChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="alternative"/&gt;     &lt;xs:element ref="alternativeRef"/&gt;     &lt;xs:element ref="alternativeQVal"/&gt;     &lt;xs:element ref="alternativeAlt"/&gt;     &lt;xs:element ref="alternativeAnyXML"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.4.2 element alternative

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">alternativeType</a>
used by	complexTypees <a href="#">alternativeAltType</a> <a href="#">alternativeQValType</a> group <a href="#">alternativeChoiceGroup</a>
source	<pre>&lt;xs:element name="alternative" type="alternativeType"/&gt;</pre>

### 3.4.3 element alternativeAlt

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">alternativeAltType</a>
children	<a href="#">alternative</a>
used by	group <a href="#">alternativeChoiceGroup</a>
source	<code>&lt;xs:element name="alternativeAlt" type="alternativeAltType"/&gt;</code>

### 3.4.4 element alternativeAnyXML


diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">alternativeAnyXMLType</a>
used by	group <a href="#">alternativeChoiceGroup</a>
source	<code>&lt;xs:element name="alternativeAnyXML" type="alternativeAnyXMLType"/&gt;</code>

### 3.4.5 element alternativeQVal

diagram	
namespace	http://purl.org/dc/terms/

type	<a href="#">alternativeQValType</a>
children	<a href="#">alternative</a>
used by	group <a href="#">alternativeChoiceGroup</a>
source	<code>&lt;xs:element name="alternativeQVal" type="alternativeQValType"/&gt;</code>

### 3.4.6 element `alternativeRef`

diagram	
namespace	<code>http://purl.org/dc/terms/</code>
type	<a href="#">alternativeRefType</a>
used by	group <a href="#">alternativeChoiceGroup</a>
source	<code>&lt;xs:element name="alternativeRef" type="alternativeRefType"/&gt;</code>

## 3.5 Property: available

### Refines

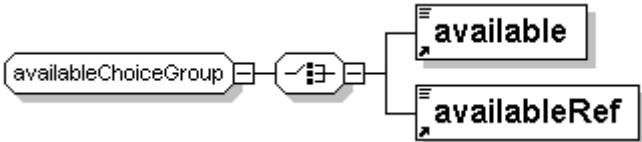
dc:date

### Definition


Date (often a range) that the resource will become or did become available.

### Comment


### 3.5.1 group `availableChoiceGroup`

diagram	
namespace	<code>http://purl.org/dc/terms/</code>
children	<a href="#">available</a> <a href="#">availableRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="availableChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="available"/&gt;     &lt;xs:element ref="availableRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.5.2 element `available`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">availableType</a>
used by	group <a href="#">availableChoiceGroup</a>
source	<code>&lt;xs:element name="available" type="availableType"/&gt;</code>

### 3.5.3 element `availableRef`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">availableRefType</a>
used by	group <a href="#">availableChoiceGroup</a>
source	<code>&lt;xs:element name="availableRef" type="availableRefType"/&gt;</code>

## 3.6 Property: *conformsTo*

### Definition

An entity responsible for making contributions to the content of the resource.

### Comment

Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.

### 3.6.1 group conformsToChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">conformsTo</a> <a href="#">conformsToRef</a> <a href="#">conformsToQVal</a> <a href="#">conformsToBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="conformsToChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="conformsTo"/&gt;     &lt;xs:element ref="conformsToRef"/&gt;     &lt;xs:element ref="conformsToQVal"/&gt;     &lt;xs:element ref="conformsToBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.6.2 element conformsTo

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">conformsToType</a>
used by	complexTypes <a href="#">conformsToBagType</a> <a href="#">conformsToQValType</a> group <a href="#">conformsToChoiceGroup</a>
source	<pre>&lt;xs:element name="conformsTo" type="conformsToType"/&gt;</pre>

### 3.6.3 element conformsToBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">conformsToBagType</a>
children	<a href="#">conformsTo</a>

used by	group <a href="#">conformsToChoiceGroup</a>
source	<code>&lt;xs:element name="conformsToBag" type="conformsToBagType"/&gt;</code>

### 3.6.4 element conformsToQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">conformsToQValType</a>
children	<a href="#">conformsTo</a>
used by	group <a href="#">conformsToChoiceGroup</a>
source	<code>&lt;xs:element name="conformsToQVal" type="conformsToQValType"/&gt;</code>

### 3.6.5 element conformsToRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">conformsToRefType</a>
used by	group <a href="#">conformsToChoiceGroup</a>
source	<code>&lt;xs:element name="conformsToRef" type="conformsToRefType"/&gt;</code>

## 3.7 Property: created

#### Refines

date

#### Definition

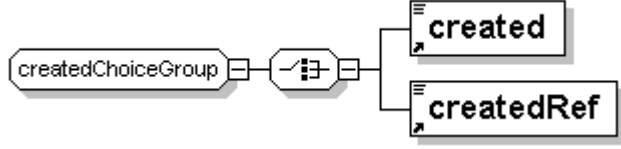
Date of creation of the resource.

#### Practice

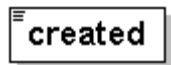
This property is specified using the xs:datetime syntax which conforms to ISO 8601.




### 3.7.1 group createdChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">created</a> <a href="#">createdRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="createdChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="created"/&gt;     &lt;xs:element ref="createdRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.7.2 element created

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">createdType</a>
used by	group <a href="#">createdChoiceGroup</a>
source	<pre>&lt;xs:element name="created" type="createdType"/&gt;</pre>

### 3.7.3 element createdRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">createdRefType</a>
used by	group <a href="#">createdChoiceGroup</a>
source	<pre>&lt;xs:element name="createdRef" type="createdRefType"/&gt;</pre>

## 3.8 Property: extent

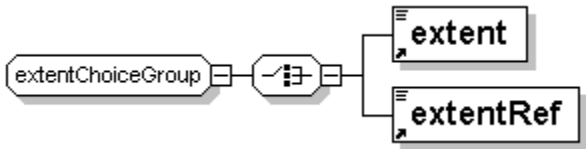
### Refines

dc:format


**Definition**

The size or duration of the resource.


**Comment****3.8.1 group extentChoiceGroup**

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">extent</a> <a href="#">extentRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="extentChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="extent"/&gt;     &lt;xs:element ref="extentRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

**3.8.2 element extent**

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">extentType</a>
used by	group <a href="#">extentChoiceGroup</a>
source	<pre>&lt;xs:element name="extent" type="extentType"/&gt;</pre>

**3.8.3 element extentRef**

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">extentRefType</a>
used by	group <a href="#">extentChoiceGroup</a>
source	<pre>&lt;xs:element name="extentRef" type="extentRefType"/&gt;</pre>

## 3.9 Property: *hasFormat*

### Refines

dc:relation

### Definition

The described resource pre-existed the referenced resource, which is essentially the same intellectual content presented in another format.


### Comment

Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.

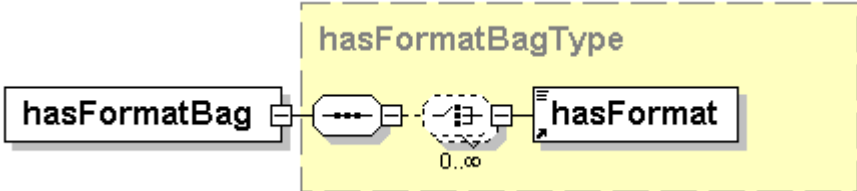
### 3.9.1 group *hasFormatChoiceGroup*

diagram	<pre> classDiagram     class hasFormatChoiceGroup {         hasFormat         hasFormatRef         hasFormatQVal         hasFormatBag     }     </pre>
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">hasFormat</a> <a href="#">hasFormatRef</a> <a href="#">hasFormatQVal</a> <a href="#">hasFormatBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre> &lt;xs:group name="hasFormatChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="hasFormat"/&gt;     &lt;xs:element ref="hasFormatRef"/&gt;     &lt;xs:element ref="hasFormatQVal"/&gt;     &lt;xs:element ref="hasFormatBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>

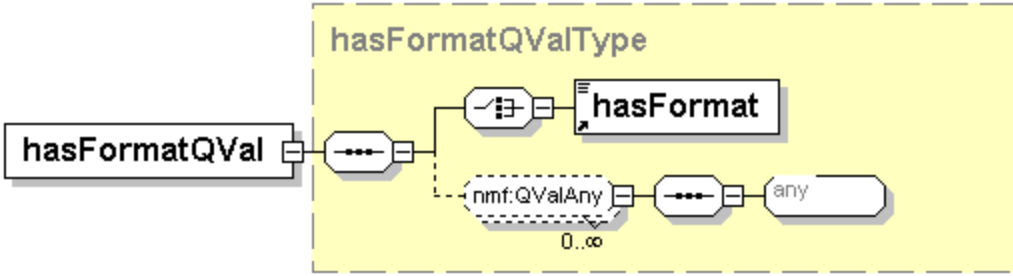
### 3.9.2 element hasFormat

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasFormatType</a>
used by	complexTypes group <a href="#">hasFormatBagType</a> <a href="#">hasFormatQValType</a> <a href="#">hasFormatChoiceGroup</a>
source	<code>&lt;xs:element name="hasFormat" type="hasFormatType"/&gt;</code>

### 3.9.3 element hasFormatBag


diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasFormatBagType</a>
children	<a href="#">hasFormat</a>
used by	group <a href="#">hasFormatChoiceGroup</a>
source	<code>&lt;xs:element name="hasFormatBag" type="hasFormatBagType"/&gt;</code>

### 3.9.4 element hasFormatQVal

diagram	
---------	--

namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasFormatQValType</a>
children	<a href="#">hasFormat</a>
used by	group <a href="#">hasFormatChoiceGroup</a>
source	<code>&lt;xs:element name="hasFormatQVal" type="hasFormatQValType"/&gt;</code>

### 3.9.5 element hasFormatRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasFormatRefType</a>
used by	group <a href="#">hasFormatChoiceGroup</a>
source	<code>&lt;xs:element name="hasFormatRef" type="hasFormatRefType"/&gt;</code>

## 3.10 Property: hasPart

### Refines

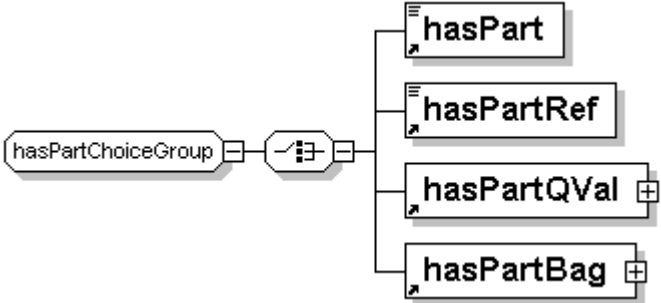
dc:relation

### Definition

The described resource includes the referenced resource either physically or logically.


### Comment

#### 3.10.1 group hasPartChoiceGroup

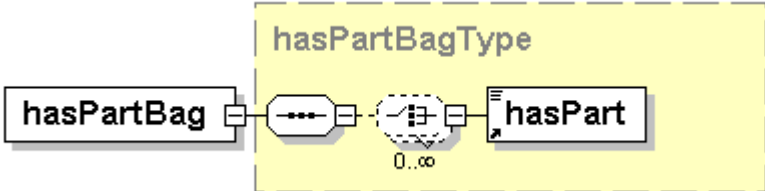
diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">hasPart</a> <a href="#">hasPartRef</a> <a href="#">hasPartQVal</a> <a href="#">hasPartBag</a>

used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="hasPartChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="hasPart"/&gt;     &lt;xs:element ref="hasPartRef"/&gt;     &lt;xs:element ref="hasPartQVal"/&gt;     &lt;xs:element ref="hasPartBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.10.2 element hasPart

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasPartType</a>
used by	complexTypes <a href="#">hasPartBagType</a> <a href="#">hasPartQValType</a> group <a href="#">hasPartChoiceGroup</a>
source	<pre>&lt;xs:element name="hasPart" type="hasPartType"/&gt;</pre>

### 3.10.3 element hasPartBag

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasPartBagType</a>
children	<a href="#">hasPart</a>
used by	group <a href="#">hasPartChoiceGroup</a>
source	<pre>&lt;xs:element name="hasPartBag" type="hasPartBagType"/&gt;</pre>

### 3.10.4 element hasPartQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasPartQValType</a>
children	<a href="#">hasPart</a>
used by	group <a href="#">hasPartChoiceGroup</a>
source	<code>&lt;xs:element name="hasPartQVal" type="hasPartQValType"/&gt;</code>

### 3.10.5 element hasPartRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasPartRefType</a>
used by	group <a href="#">hasPartChoiceGroup</a>
source	<code>&lt;xs:element name="hasPartRef" type="hasPartRefType"/&gt;</code>

## 3.11 Property: *hasVersion*

### Refines

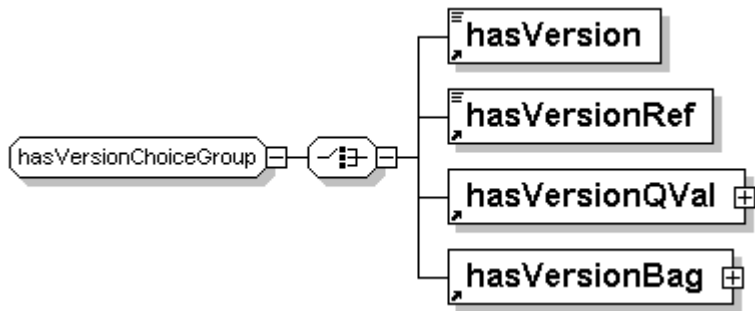
dc:relation

### Definition

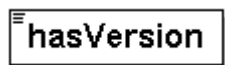
The described resource has a version, edition, or adaptation, namely, the referenced resource.

### Comment

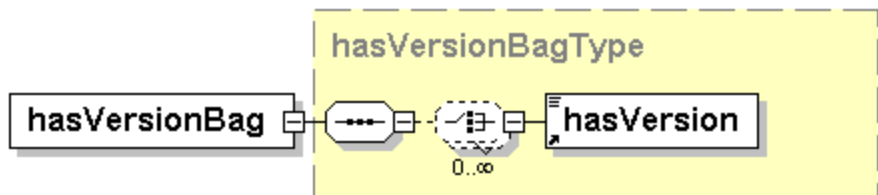
### 3.11.1 **group** hasVersionChoiceGroup

diagram	 <p>The diagram shows a box labeled 'hasVersionChoiceGroup' connected to a choice symbol (a circle with a vertical bar and a plus sign). This choice symbol is connected to four boxes: 'hasVersion', 'hasVersionRef', 'hasVersionQVal', and 'hasVersionBag'. Each of these four boxes has a plus sign in its top right corner, indicating that each is an optional element within the choice.</p>
namespace	http://purl.org/dc/terms/
children	<a href="#">hasVersion</a> <a href="#">hasVersionRef</a> <a href="#">hasVersionQVal</a> <a href="#">hasVersionBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="hasVersionChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="hasVersion"/&gt;     &lt;xs:element ref="hasVersionRef"/&gt;     &lt;xs:element ref="hasVersionQVal"/&gt;     &lt;xs:element ref="hasVersionBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.11.2 **element** hasVersion

diagram	 <p>The diagram shows a single box labeled 'hasVersion' with a plus sign in its top right corner, indicating it is an optional element.</p>
namespace	http://purl.org/dc/terms/
type	<a href="#">hasVersionType</a>
used by	complexTypes <a href="#">hasVersionBagType</a> <a href="#">hasVersionQValType</a> group <a href="#">hasVersionChoiceGroup</a>
source	<pre>&lt;xs:element name="hasVersion" type="hasVersionType"/&gt;</pre>

### 3.11.3 **element** hasVersionBag

diagram	 <p>The diagram shows a box labeled 'hasVersionBag' connected to a bag symbol (a circle with three dots). This bag symbol is connected to a choice symbol (a circle with a vertical bar and a plus sign). The choice symbol is connected to a box labeled 'hasVersion'. The choice symbol has '0..∞' written below it, indicating that the 'hasVersion' element can occur zero or an infinite number of times. The entire structure from the bag symbol to the 'hasVersion' box is enclosed in a dashed yellow box labeled 'hasVersionBagType'.</p>
namespace	http://purl.org/dc/terms/
type	<a href="#">hasVersionBagType</a>
children	<a href="#">hasVersion</a>



used by	group <a href="#">hasVersionChoiceGroup</a>
source	<code>&lt;xs:element name="hasVersionBag" type="hasVersionBagType"/&gt;</code>

### 3.11.4 element `hasVersionQVal`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasVersionQValType</a>
children	<a href="#">hasVersion</a>
used by	group <a href="#">hasVersionChoiceGroup</a>
source	<code>&lt;xs:element name="hasVersionQVal" type="hasVersionQValType"/&gt;</code>

### 3.11.5 element `hasVersionRef`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">hasVersionRefType</a>
used by	group <a href="#">hasVersionChoiceGroup</a>
source	<code>&lt;xs:element name="hasVersionRef" type="hasVersionRefType"/&gt;</code>

## 3.12 Property: *isformatOf*

### Refines

dc:relation

### Definition

The described resource is the same intellectual content of the referenced resource, but presented in another format.

### Comment

### 3.12.1 **group** isFormatOfChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">isFormatOf</a> <a href="#">isFormatOfRef</a> <a href="#">isFormatOfQVal</a> <a href="#">isFormatOfBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="isFormatOfChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isFormatOf"/&gt;     &lt;xs:element ref="isFormatOfRef"/&gt;     &lt;xs:element ref="isFormatOfQVal"/&gt;     &lt;xs:element ref="isFormatOfBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.12.2 **element** isFormatOf

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isFormatOfType</a>
used by	complexTypes <a href="#">isFormatOfBagType</a> <a href="#">isFormatOfQValType</a> group <a href="#">isFormatOfChoiceGroup</a>
source	<pre>&lt;xs:element name="isFormatOf" type="isFormatOfType"/&gt;</pre>

### 3.12.3 **element** isFormatOfBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isFormatOfBagType</a>
children	<a href="#">isFormatOf</a>

used by	group <a href="#">isFormatOfChoiceGroup</a>
source	<code>&lt;xs:element name="isFormatOfBag" type="isFormatOfBagType"/&gt;</code>

### 3.12.4 element isFormatOfQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isFormatOfQValType</a>
children	<a href="#">isFormatOf</a>
used by	group <a href="#">isFormatOfChoiceGroup</a>
source	<code>&lt;xs:element name="isFormatOfQVal" type="isFormatOfQValType"/&gt;</code>

### 3.12.5 element isFormatOfRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isFormatOfRefType</a>
used by	group <a href="#">isFormatOfChoiceGroup</a>
source	<code>&lt;xs:element name="isFormatOfRef" type="isFormatOfRefType"/&gt;</code>

## 3.13 Property: isPartOf

#### Refines

dc:relation

#### Definition

The described resource is a physical or logical part of the referenced resource.

#### Comment

### 3.13.1 **group** isPartOfChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">isPartOf</a> <a href="#">isPartOfRef</a> <a href="#">isPartOfQVal</a> <a href="#">isPartOfBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="isPartOfChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isPartOf"/&gt;     &lt;xs:element ref="isPartOfRef"/&gt;     &lt;xs:element ref="isPartOfQVal"/&gt;     &lt;xs:element ref="isPartOfBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.13.2 **element** isPartOf

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isPartOfType</a>
used by	complexTypes <a href="#">isPartOfBagType</a> <a href="#">isPartOfQValType</a> group <a href="#">isPartOfChoiceGroup</a>
source	<pre>&lt;xs:element name="isPartOf" type="isPartOfType"/&gt;</pre>

### 3.13.3 **element** isPartOfBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isPartOfBagType</a>
children	<a href="#">isPartOf</a>

used by	group <a href="#">isPartOfChoiceGroup</a>
source	<code>&lt;xs:element name="isPartOfBag" type="isPartOfBagType"/&gt;</code>

### 3.13.4 element isPartOfQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isPartOfQValType</a>
children	<a href="#">isPartOf</a>
used by	group <a href="#">isPartOfChoiceGroup</a>
source	<code>&lt;xs:element name="isPartOfQVal" type="isPartOfQValType"/&gt;</code>

### 3.13.5 element isPartOfRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isPartOfRefType</a>
used by	group <a href="#">isPartOfChoiceGroup</a>
source	<code>&lt;xs:element name="isPartOfRef" type="isPartOfRefType"/&gt;</code>

## 3.14 Property: isReferencedBy

### Refines

dc:relation

### Definition

The described resource is referenced, cited, or otherwise pointed to by the referenced resource.

### Comment

### 3.14.1 **group** isReferencedByChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">isReferencedBy</a> <a href="#">isReferencedByRef</a> <a href="#">isReferencedByQVal</a> <a href="#">isReferencedByBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="isReferencedByChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isReferencedBy"/&gt;     &lt;xs:element ref="isReferencedByRef"/&gt;     &lt;xs:element ref="isReferencedByQVal"/&gt;     &lt;xs:element ref="isReferencedByBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.14.2 **element** isReferencedBy

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isReferencedByType</a>
used by	complexType <a href="#">isReferencedByBagType</a> <a href="#">isReferencedByQValType</a> group <a href="#">isReferencedByChoiceGroup</a>
source	<pre>&lt;xs:element name="isReferencedBy" type="isReferencedByType"/&gt;</pre>

### 3.14.3 **element** isReferencedByBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isReferencedByBagType</a>
children	<a href="#">isReferencedBy</a>

used by	group <a href="#">isReferencedByChoiceGroup</a>
source	<code>&lt;xs:element name="isReferencedByBag" type="isReferencedByBagType"/&gt;</code>

### 3.14.4 element isReferencedByQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReferencedByQValType</a>
children	<a href="#">isReferencedBy</a>
used by	group <a href="#">isReferencedByChoiceGroup</a>
source	<code>&lt;xs:element name="isReferencedByQVal" type="isReferencedByQValType"/&gt;</code>

### 3.14.5 element isReferencedByRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReferencedByRefType</a>
used by	group <a href="#">isReferencedByChoiceGroup</a>
source	<code>&lt;xs:element name="isReferencedByRef" type="isReferencedByRefType"/&gt;</code>

## 3.15 isReplacedBy

#### Refines

dc:relation

#### Definition

The described resource is supplanted, displaced, or superseded by the referenced resource.

#### Comment

### 3.15.1 **group** isReplacedByChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">isReplacedBy</a> <a href="#">isReplacedByRef</a> <a href="#">isReplacedByQVal</a> <a href="#">isReplacedByBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="isReplacedByChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isReplacedBy"/&gt;     &lt;xs:element ref="isReplacedByRef"/&gt;     &lt;xs:element ref="isReplacedByQVal"/&gt;     &lt;xs:element ref="isReplacedByBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.15.2 **element** isReplacedBy

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReplacedByType</a>
used by	complexType <a href="#">isReplacedByBagType</a> <a href="#">isReplacedByQValType</a> group <a href="#">isReplacedByChoiceGroup</a>
source	<pre>&lt;xs:element name="isReplacedBy" type="isReplacedByType"/&gt;</pre>



### 3.15.3 element isReplacedByBag

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReplacedByBagType</a>
children	<a href="#">isReplacedBy</a>
used by	group <a href="#">isReplacedByChoiceGroup</a>
source	<code>&lt;xs:element name="isReplacedByBag" type="isReplacedByBagType"/&gt;</code>

### 3.15.4 element isReplacedByQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReplacedByQValType</a>
children	<a href="#">isReplacedBy</a>
used by	group <a href="#">isReplacedByChoiceGroup</a>
source	<code>&lt;xs:element name="isReplacedByQVal" type="isReplacedByQValType"/&gt;</code>

### 3.15.5 element isReplacedByRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isReplacedByRefType</a>
used by	group <a href="#">isReplacedByChoiceGroup</a>

source	<code>&lt;xs:element name="isReplacedByRef" type="isReplacedByRefType"/&gt;</code>
--------	--

## 3.16 Property: *isRequiredBy*

### Refines

dc:relation

### Definition

The described resource is required by the referenced resource, either physically or logically.

### Comment

### 3.16.1 group *isRequiredByChoiceGroup*

diagram	<pre> classDiagram     class isRequiredByChoiceGroup     class isRequiredBy     class isRequiredByRef     class isRequiredByQVal     class isRequiredByBag     isRequiredByChoiceGroup -- &gt; isRequiredBy     isRequiredByChoiceGroup -- &gt; isRequiredByRef     isRequiredByChoiceGroup -- &gt; isRequiredByQVal     isRequiredByChoiceGroup -- &gt; isRequiredByBag   </pre>
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">isRequiredBy</a> <a href="#">isRequiredByRef</a> <a href="#">isRequiredByQVal</a> <a href="#">isRequiredByBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre> &lt;xs:group name="isRequiredByChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isRequiredBy"/&gt;     &lt;xs:element ref="isRequiredByRef"/&gt;     &lt;xs:element ref="isRequiredByQVal"/&gt;     &lt;xs:element ref="isRequiredByBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;   </pre>

### 3.16.2 element *isRequiredBy*

diagram	<pre> classDiagram     class isRequiredBy   </pre>
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isRequiredByType</a>
used by	complexType <a href="#">isRequiredByBagType</a> <a href="#">isRequiredByQValType</a> group <a href="#">isRequiredByChoiceGroup</a>

source	<code>&lt;xs:element name="isRequiredBy" type="isRequiredByType"/&gt;</code>
--------	--

### 3.16.3 element isRequiredByBag

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isRequiredByBagType</a>
children	<a href="#">isRequiredBy</a>
used by	group <a href="#">isRequiredByChoiceGroup</a>
source	<code>&lt;xs:element name="isRequiredByBag" type="isRequiredByBagType"/&gt;</code>

### 3.16.4 element isRequiredByQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isRequiredByQValType</a>
children	<a href="#">isRequiredBy</a>
used by	group <a href="#">isRequiredByChoiceGroup</a>
source	<code>&lt;xs:element name="isRequiredByQVal" type="isRequiredByQValType"/&gt;</code>

### 3.16.5 element isRequiredByRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isRequiredByRefType</a>

used by	group <a href="#">isRequiredByChoiceGroup</a>
source	<code>&lt;xs:element name="isRequiredByRef" type="isRequiredByRefType"/&gt;</code>

## 3.17 Property: *issued*

### Refines

dc:date

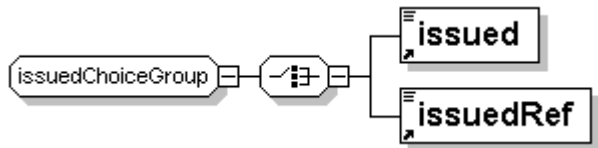
### Definition

Date of formal issuance (e.g., publication) of the resource.

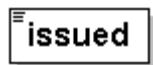
### Comment

Examples of a Contributor include a person, an organisation, or a service. Typically, the name of a Contributor should be used to indicate the entity.


### 3.17.1 group issuedChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">issued</a> <a href="#">issuedRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="issuedChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="issued"/&gt;     &lt;xs:element ref="issuedRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.17.2 element issued

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">issuedType</a>
used by	group <a href="#">issuedChoiceGroup</a>
source	<code>&lt;xs:element name="issued" type="issuedType"/&gt;</code>

### 3.17.3 element issuedRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">issuedRefType</a>
used by	group <a href="#">issuedChoiceGroup</a>
source	<code>&lt;xs:element name="issuedRef" type="issuedRefType"/&gt;</code>

## 3.18 Property: *isVersionOf*

### Refines

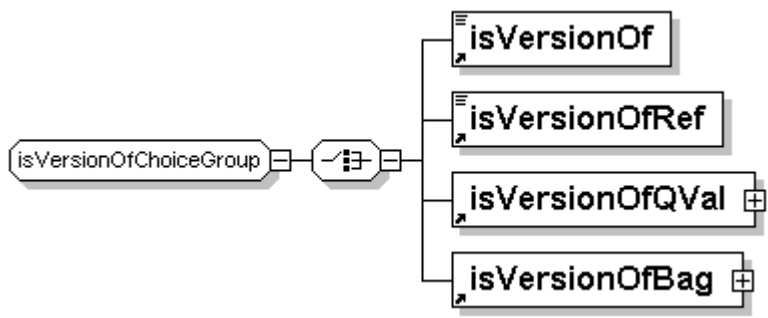
dc:relation

### Definition

The described resource is a version, edition, or adaptation of the referenced resource. Changes in version imply substantive changes in content rather than differences in format.

### Comment

### 3.18.1 group isVersionOfChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">isVersionOf</a> <a href="#">isVersionOfRef</a> <a href="#">isVersionOfQVal</a> <a href="#">isVersionOfBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="isVersionOfChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="isVersionOf"/&gt;     &lt;xs:element ref="isVersionOfRef"/&gt;     &lt;xs:element ref="isVersionOfQVal"/&gt;     &lt;xs:element ref="isVersionOfBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

	<pre>&lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>
--	---

### 3.18.2 element isVersionOf

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isVersionOfType</a>
used by	complexTypes <a href="#">isVersionOfBagType</a> <a href="#">isVersionOfQValType</a> group <a href="#">isVersionOfChoiceGroup</a>
source	<code>&lt;xs:element name="isVersionOf" type="isVersionOfType"/&gt;</code>

### 3.18.3 element isVersionOfBag


diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isVersionOfBagType</a>
children	<a href="#">isVersionOf</a>
used by	group <a href="#">isVersionOfChoiceGroup</a>
source	<code>&lt;xs:element name="isVersionOfBag" type="isVersionOfBagType"/&gt;</code>

### 3.18.4 element isVersionOfQVal

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">isVersionOfQValType</a>
children	<a href="#">isVersionOf</a>
used by	group <a href="#">isVersionOfChoiceGroup</a>

source	<code>&lt;xs:element name="isVersionOfQVal" type="isVersionOfQValType"/&gt;</code>
--------	--

### 3.18.5 element isVersionOfRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">isVersionOfRefType</a>
used by	group <a href="#">isVersionOfChoiceGroup</a>
source	<code>&lt;xs:element name="isVersionOfRef" type="isVersionOfRefType"/&gt;</code>

## 3.19 Property: medium

### Refines

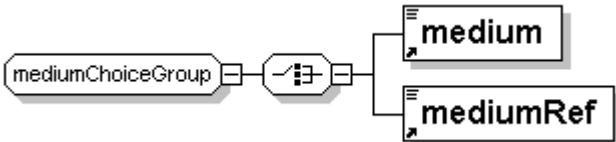
dc:format

### Definition


The material or physical carrier of the resource.

### Comment

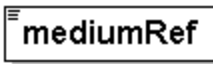
### 3.19.1 group mediumChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">medium</a> <a href="#">mediumRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="mediumChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="medium"/&gt;     &lt;xs:element ref="mediumRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.19.2 element medium

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">mediumType</a>
used by	group <a href="#">mediumChoiceGroup</a>
source	<code>&lt;xs:element name="medium" type="mediumType"/&gt;</code>

### 3.19.3 element mediumRef

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">mediumRefType</a>
used by	group <a href="#">mediumChoiceGroup</a>
source	<code>&lt;xs:element name="mediumRef" type="mediumRefType"/&gt;</code>

## 3.20 *Property: modified*

### Refines

dc:date

### Definition

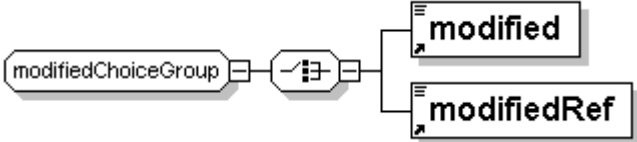
Date on which the resource was changed.

### Comment

### Practice

This property is specified using the xs:datetime syntax which conforms to ISO 8601.


### 3.20.1 group modifiedChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">modified</a> <a href="#">modifiedRef</a>




used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="modifiedChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="modified"/&gt;     &lt;xs:element ref="modifiedRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.20.2 element modified

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">modifiedType</a>
used by	group <a href="#">modifiedChoiceGroup</a>
source	<pre>&lt;xs:element name="modified" type="modifiedType"/&gt;</pre>

### 3.20.3 element modifiedRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">modifiedRefType</a>
used by	group <a href="#">modifiedChoiceGroup</a>
source	<pre>&lt;xs:element name="modifiedRef" type="modifiedRefType"/&gt;</pre>

## 3.21 *Property: references*

#### Refines

dc:relation

#### Definition

The described resource references, cites, or otherwise points to the referenced resource..

#### Comment

### 3.21.1 **group** referencesChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">references</a> <a href="#">referencesRef</a> <a href="#">referencesQVal</a> <a href="#">referencesBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="referencesChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="references"/&gt;     &lt;xs:element ref="referencesRef"/&gt;     &lt;xs:element ref="referencesQVal"/&gt;     &lt;xs:element ref="referencesBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.21.2 **element** references

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">referencesType</a>
used by	complexType <a href="#">referencesBagType</a> <a href="#">referencesQValType</a> group <a href="#">referencesChoiceGroup</a>
source	<pre>&lt;xs:element name="references" type="referencesType"/&gt;</pre>

### 3.21.3 **element** referencesBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">referencesBagType</a>
children	<a href="#">references</a>

used by	group <a href="#">referencesChoiceGroup</a>
source	<code>&lt;xs:element name="referencesBag" type="referencesBagType"/&gt;</code>

### 3.21.4 element referencesQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">referencesQValType</a>
children	<a href="#">references</a>
used by	group <a href="#">referencesChoiceGroup</a>
source	<code>&lt;xs:element name="referencesQVal" type="referencesQValType"/&gt;</code>

### 3.21.5 element referencesRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">referencesRefType</a>
used by	group <a href="#">referencesChoiceGroup</a>
source	<code>&lt;xs:element name="referencesRef" type="referencesRefType"/&gt;</code>

## 3.22 Property: replaces

### Refines

dc:relation

### Definition

The described resource supplants, displaces, or supersedes the referenced resource.

### Comment

### 3.22.1 group replacesChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">replaces</a> <a href="#">replacesRef</a> <a href="#">replacesQVal</a> <a href="#">replacesBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="replacesChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="replaces"/&gt;     &lt;xs:element ref="replacesRef"/&gt;     &lt;xs:element ref="replacesQVal"/&gt;     &lt;xs:element ref="replacesBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.22.2 element replaces

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">replacesType</a>
used by	complexTypes <a href="#">replacesBagType</a> <a href="#">replacesQValType</a> group <a href="#">replacesChoiceGroup</a>
source	<pre>&lt;xs:element name="replaces" type="replacesType"/&gt;</pre>

### 3.22.3 element replacesBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">replacesBagType</a>
children	<a href="#">replaces</a>

used by	group <a href="#">replacesChoiceGroup</a>
source	<code>&lt;xs:element name="replacesBag" type="replacesBagType"/&gt;</code>

### 3.22.4 element replacesQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">replacesQValType</a>
children	<a href="#">replaces</a>
used by	group <a href="#">replacesChoiceGroup</a>
source	<code>&lt;xs:element name="replacesQVal" type="replacesQValType"/&gt;</code>

### 3.22.5 element replacesRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">replacesRefType</a>
used by	group <a href="#">replacesChoiceGroup</a>
source	<code>&lt;xs:element name="replacesRef" type="replacesRefType"/&gt;</code>

## 3.23 Property: requires

### Refines

dc:relation

### Definition

The described resource requires the referenced resource to support its function, delivery, or coherence of content.

### Comment

### 3.23.1 **group** requiresChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">requires</a> <a href="#">requiresRef</a> <a href="#">requiresQVal</a> <a href="#">requiresBag</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre> &lt;xs:group name="requiresChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="requires"/&gt;     &lt;xs:element ref="requiresRef"/&gt;     &lt;xs:element ref="requiresQVal"/&gt;     &lt;xs:element ref="requiresBag"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>

### 3.23.2 **element** requires

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">requiresType</a>
used by	complexTypes <a href="#">requiresBagType</a> <a href="#">requiresQValType</a> group <a href="#">requiresChoiceGroup</a>
source	<code>&lt;xs:element name="requires" type="requiresType"/&gt;</code>

### 3.23.3 **element** requiresBag

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">requiresBagType</a>
children	<a href="#">requires</a>

used by	group <a href="#">requiresChoiceGroup</a>
source	<code>&lt;xs:element name="requiresBag" type="requiresBagType"/&gt;</code>

### 3.23.4 element `requiresQVal`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">requiresQValType</a>
children	<a href="#">requires</a>
used by	group <a href="#">requiresChoiceGroup</a>
source	<code>&lt;xs:element name="requiresQVal" type="requiresQValType"/&gt;</code>

### 3.23.5 element `requiresRef`

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">requiresRefType</a>
used by	group <a href="#">requiresChoiceGroup</a>
source	<code>&lt;xs:element name="requiresRef" type="requiresRefType"/&gt;</code>

## 3.24 Property: *spatial*

#### Refines

dc:coverage

#### Definition

Spatial characteristics of the intellectual content of the resource.

#### Comment

### 3.24.1 group spatialChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">spatial</a> <a href="#">spatialRef</a> <a href="#">spatialQVal</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="spatialChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="spatial"/&gt;     &lt;xs:element ref="spatialRef"/&gt;     &lt;xs:element ref="spatialQVal"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.24.2 element spatial

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">spatialType</a>
used by	complexType <a href="#">spatialQValType</a> group <a href="#">spatialChoiceGroup</a>
source	<pre>&lt;xs:element name="spatial" type="spatialType"/&gt;</pre>


### 3.24.3 element spatialQVal

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">spatialQValType</a>
children	<a href="#">spatial</a>
used by	group <a href="#">spatialChoiceGroup</a>



source	<code>&lt;xs:element name="spatialQVal" type="spatialQValType"/&gt;</code>
--------	--

### 3.24.4 element spatialRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">spatialRefType</a>
used by	group <a href="#">spatialChoiceGroup</a>
source	<code>&lt;xs:element name="spatialRef" type="spatialRefType"/&gt;</code>

## 3.25 Property: *tableOfContents*

### Refines

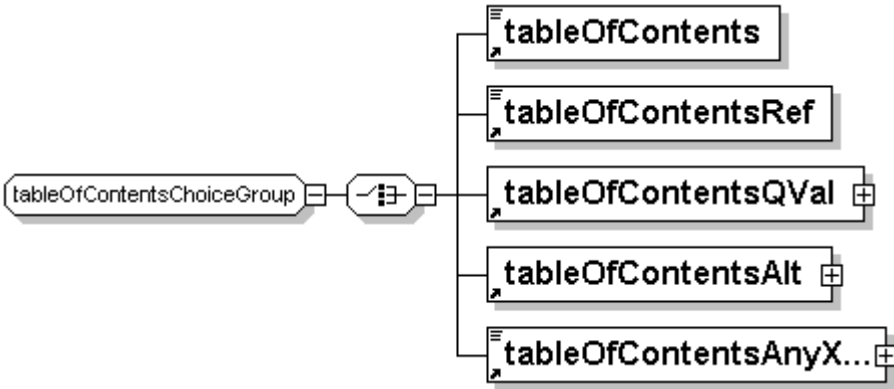
description

### Definition

A list of subunits of the content of the resource.

### Comment

### 3.25.1 group tableOfContentsChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">tableOfContents</a> <a href="#">tableOfContentsRef</a> <a href="#">tableOfContentsQVal</a> <a href="#">tableOfContentsAlt</a> <a href="#">tableOfContentsAnyXML</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<code>&lt;xs:group name="tableOfContentsChoiceGroup"&gt; &lt;xs:choice&gt;</code>

	<pre> &lt;xs:element ref="tableOfContents"/&gt; &lt;xs:element ref="tableOfContentsRef"/&gt; &lt;xs:element ref="tableOfContentsQVal"/&gt; &lt;xs:element ref="tableOfContentsAlt"/&gt; &lt;xs:element ref="tableOfContentsAnyXML"/&gt; &lt;/xs:choice&gt; &lt;/xs:group&gt; </pre>
--	---

### 3.25.2 element tableOfContents

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">tableOfContentsType</a>
used by	complexTypes <a href="#">tableOfContentsAltType</a> <a href="#">tableOfContentsQValType</a> group <a href="#">tableOfContentsChoiceGroup</a>
source	<xs:element name="tableOfContents" type="tableOfContentsType"/>

### 3.25.3 element tableOfContentsAlt

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">tableOfContentsAltType</a>
children	<a href="#">tableOfContents</a>
used by	group <a href="#">tableOfContentsChoiceGroup</a>
source	<xs:element name="tableOfContentsAlt" type="tableOfContentsAltType"/>

### 3.25.4 element tableOfContentsAnyXML

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">tableOfContentsAnyXMLType</a>
used by	group <a href="#">tableOfContentsChoiceGroup</a>

source	<code>&lt;xs:element name="tableOfContentsAnyXML" type="tableOfContentsAnyXMLType"/&gt;</code>
--------	--

### 3.25.5 element tableOfContentsQVal

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">tableOfContentsQValType</a>
children	<a href="#">tableOfContents</a>
used by	group <a href="#">tableOfContentsChoiceGroup</a>
source	<code>&lt;xs:element name="tableOfContentsQVal" type="tableOfContentsQValType"/&gt;</code>

### 3.25.6 element tableOfContentsRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">tableOfContentsRefType</a>
used by	group <a href="#">tableOfContentsChoiceGroup</a>
source	<code>&lt;xs:element name="tableOfContentsRef" type="tableOfContentsRefType"/&gt;</code>

## 3.26 Property: temporal

#### Refines

dc:coverage

#### Definition

Temporal characteristics of the intellectual content of the resource.

#### Comment

### 3.26.1 group temporalChoiceGroup

diagram	
namespace	http://purl.org/dc/terms/
children	<a href="#">temporal</a> <a href="#">temporalRef</a> <a href="#">temporalQVal</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="temporalChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="temporal"/&gt;     &lt;xs:element ref="temporalRef"/&gt;     &lt;xs:element ref="temporalQVal"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.26.2 element temporal


diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">temporalType</a>
used by	complexType <a href="#">temporalQValType</a> group <a href="#">temporalChoiceGroup</a>
source	<pre>&lt;xs:element name="temporal" type="temporalType"/&gt;</pre>

### 3.26.3 element temporalQVal

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">temporalQValType</a>
children	<a href="#">temporal</a>
used by	group <a href="#">temporalChoiceGroup</a>

source	<code>&lt;xs:element name="temporalQVal" type="temporalQValType"/&gt;</code>
--------	--

### 3.26.4 element temporalRef

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
type	<a href="#">temporalRefType</a>
used by	group <a href="#">temporalChoiceGroup</a>
source	<code>&lt;xs:element name="temporalRef" type="temporalRefType"/&gt;</code>

## 3.27 Property: valid

### Refines

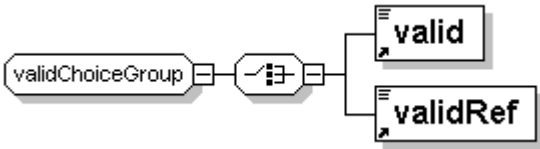
dc:date

### Definition


Date (often a range) of validity of a resource.

### Comment


### 3.27.1 group validChoiceGroup

diagram	
namespace	<a href="http://purl.org/dc/terms/">http://purl.org/dc/terms/</a>
children	<a href="#">valid</a> <a href="#">validRef</a>
used by	complexType <a href="#">BySchemaPropsType</a>
source	<pre>&lt;xs:group name="validChoiceGroup"&gt;   &lt;xs:choice&gt;     &lt;xs:element ref="valid"/&gt;     &lt;xs:element ref="validRef"/&gt;   &lt;/xs:choice&gt; &lt;/xs:group&gt;</pre>

### 3.27.2 element valid

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">validType</a>
used by	group <a href="#">validChoiceGroup</a>
source	<code>&lt;xs:element name="valid" type="validType"/&gt;</code>

### 3.27.3 element validRef

diagram	
namespace	http://purl.org/dc/terms/
type	<a href="#">validRefType</a>
used by	group <a href="#">validChoiceGroup</a>
source	<code>&lt;xs:element name="validRef" type="validRefType"/&gt;</code>

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