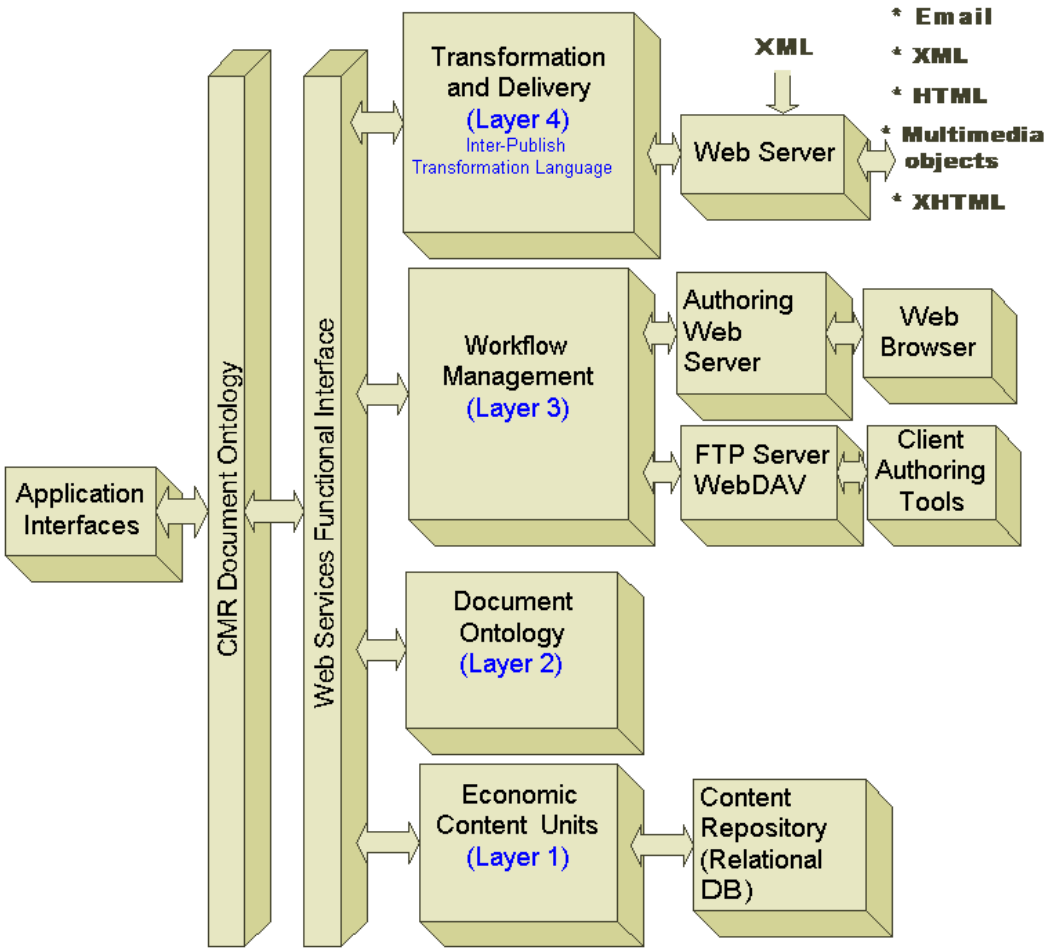
Appendix 2 - Web Services Definition

A2.1 Web Services Overview

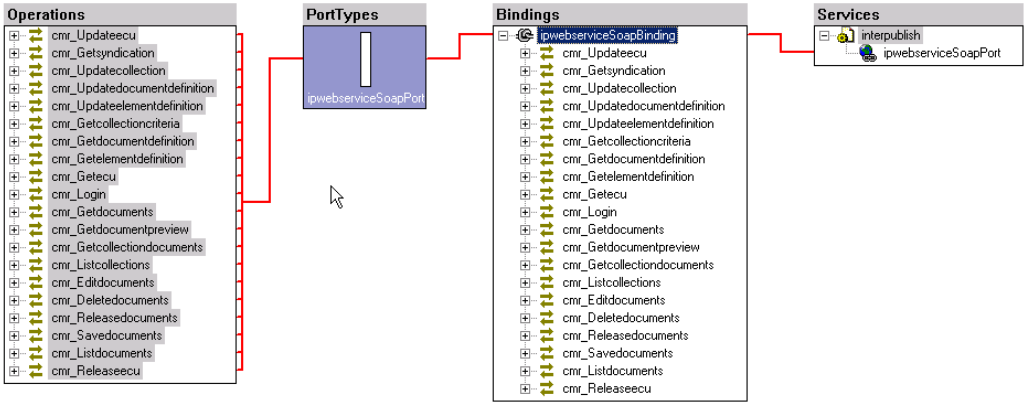
The ontological elements of the Content Model for Reuse include a Web Services Definition Language (WSDL) that defines the systems interfaces at each layer of the model and an XML schema describing the document exchange formats. The WSDL definition provides the framework for application interfaces to the systems model. Other interfaces were designed in the course of the project. They were oriented to providing a framework for authoring and publish access to the Inter-Publish prototype as described in the architecture diagram below.



A2.2 Web Services Definition

The Web Services interface is itself a four layer model. The layered approach of the web services definition is directed primarily to achieve transport independence (the services layer) and well documented functional separation of the services provided. The bindings are the principal point of interface through to operations with specific document exchange specifications. In the definition below, the documents exchanged using the web services functions are defined by the CMR xml schema shown in Section A2.3 below. The current Web Services Definition Language (WSDL) specification may be found at http://www.interpublish.com.au/interpublish.wsdl.

The following diagram is an overview of the Inter-Publish web services interface, followed by a detailed description of each of the bindings and operations.



services	bindings	porttypes	messages
interpublish	**ipwebserviceSoap Binding**	**ipwebserviceSoapPort**	**ipwebservice.cmr_Deletedocuments** **ipwebservice.cmr_DeletedocumentsResponse** **ipwebservice.cmr_Editdocuments** **ipwebservice.cmr_EditdocumentsResponse** **ipwebservice.cmr_Getcollectioncriteria** **ipwebservice.cmr_GetcollectioncriteriaResponse** **ipwebservice.cmr_Getcollectiondocuments** **ipwebservice.cmr_GetcollectiondocumentsResponse** **ipwebservice.cmr_Getdocumentdefinition** **ipwebservice.cmr_GetdocumentdefinitionResponse** **ipwebservice.cmr_Getdocumentpreview** **ipwebservice.cmr_GetdocumentpreviewResponse** **ipwebservice.cmr_Getdocuments** **ipwebservice.cmr_GetdocumentsResponse** **ipwebservice.cmr_Getecu** **ipwebservice.cmr_GetecuResponse** **ipwebservice.cmr_Getelementdefinition** **ipwebservice.cmr_GetelementdefinitionResponse** **ipwebservice.cmr_Getsyndication** **ipwebservice.cmr_GetsyndicationResponse** **ipwebservice.cmr_Listcollections** **ipwebservice.cmr_ListcollectionsResponse** **ipwebservice.cmr_Listdocuments** **ipwebservice.cmr_ListdocumentsResponse** **ipwebservice.cmr_Login** **ipwebservice.cmr_LoginResponse** **ipwebservice.cmr_Releasedocuments** **ipwebservice.cmr_ReleasedocumentsResponse** **ipwebservice.cmr_Releaseecu** **ipwebservice.cmr_ReleaseecuResponse** **ipwebservice.cmr_Savedocuments** **ipwebservice.cmr_SavedocumentsResponse** **ipwebservice.cmr_Updatecollection** **ipwebservice.cmr_UpdatecollectionResponse** **ipwebservice.cmr_Updatedocumentdefinition** **ipwebservice.cmr_UpdatedocumentdefinitionResponse** **ipwebservice.cmr_Updateecu** **ipwebservice.cmr_UpdateecuResponse** **ipwebservice.cmr_Updateelementdefinition** **ipwebservice.cmr_UpdateelementdefinitionResponse**

service **interpublish**

ports	**IpwebserviceSoapPort** **binding** **wsdlns:ipwebserviceSoapBinding**

binding **ipwebserviceSoapBinding**

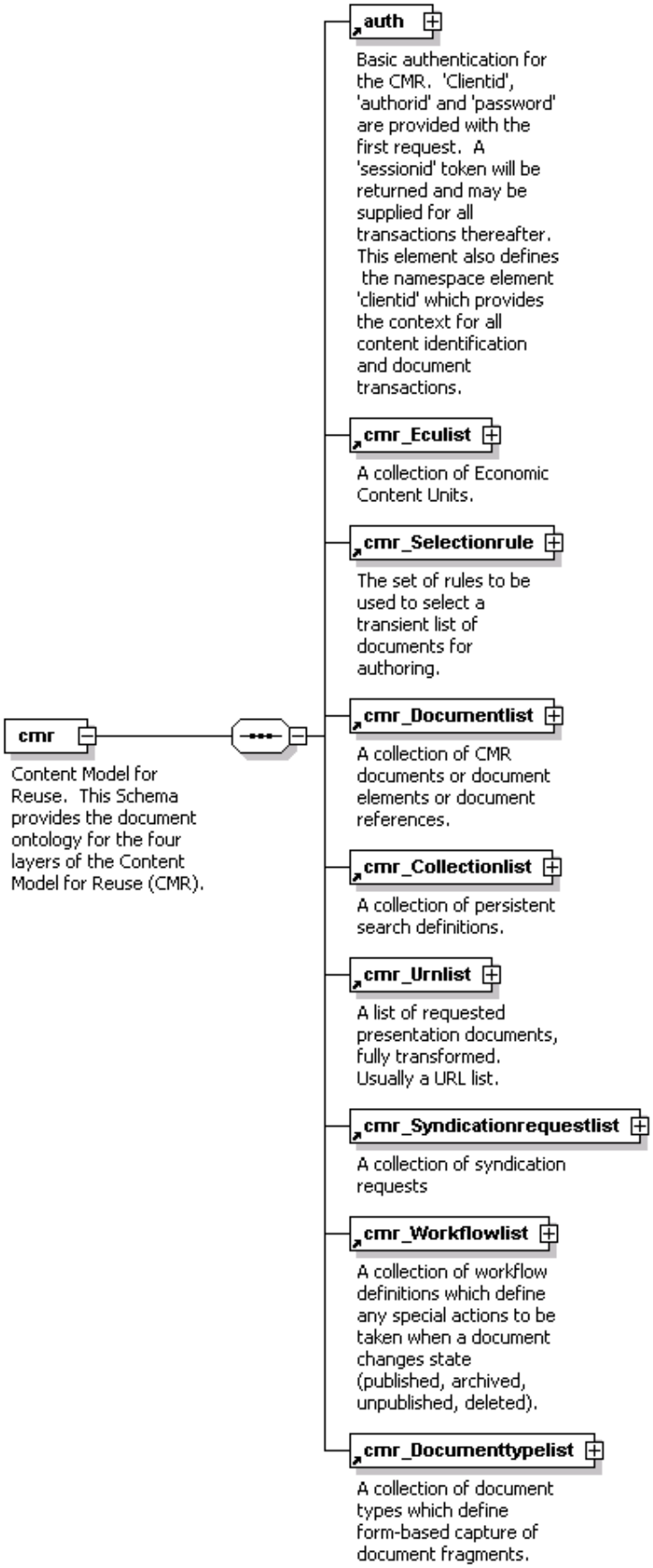
type	wsdlns:ipwebserviceSoapPort
operations	**cmr_Updateecu** **input** <soap:body parts="cmr_Eculist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getsyndication** **input** <soap:body parts="cmr_Syndicationrequest" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Updatecollection** **input** <soap:body parts="cmr_Collectionlist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Updatedocumentdefinition** **input** <soap:body parts="cmr_Documenttypelist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Updateelementdefinition** **input** <soap:body parts="cmr_Elementlist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getcollectioncriteria** **input** <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getdocumentdefinition** **input** <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getelementdefinition** **input** <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getecu** **input** <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Login** **input** <soap:body parts="cmr_Auth" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **output** <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/> **cmr_Getdocuments** **input** <soap:body parts="cmr_Urnlist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>

	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Getdocumentpreview
	input <soap:body parts="cmr_Urnlist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Getcollectiondocuments
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Listcollections
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Editdocuments
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Deletedocuments
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Releasedocuments
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Savedocuments
	input <soap:body parts="cmr_Documentlist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Listdocuments
	input <soap:body parts="cmr_Selectionrule" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	cmr_Releaseecu
	input <soap:body parts="cmr_Eculist" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>
	output <soap:body parts="Result" use="encoded" encodingStyle="http://schemas.xmlsoap.org/soap/encoding/" namespace="http://www2.prosentient.com.au/interpublish/message/"/>

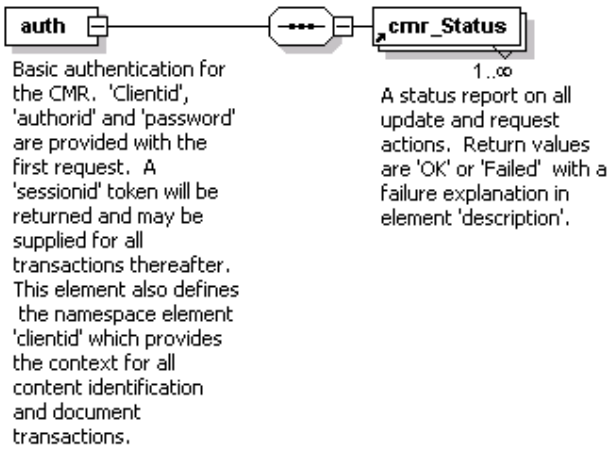
A2.3 CMR Schema

This section presents each element in the realisation of the CMR as an XML schema used in the web services interface for each layer of the model..

The XML schema provides the document ontology required at the four layers of the CMR. At each layer content documents are required to provide the content interchange definition. In practical implementation an 'auth' elelment is required with each transaction. The ontology for these content documents is described through an XML schema in this section, and can be reviewed at http://www.it.usyd.edu.au/~ejb/cmr.xsd.

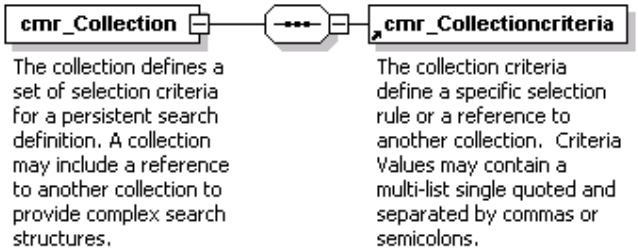

cmr
Content Model for Reuse. This Schema provides the document ontology for the four layers of the Content Model for Reuse (CMR).
auth
Basic authentication for the CMR. 'Clientid', 'authorid' and 'password' are provided with the first request. A 'sessionid' token will be returned and may be supplied for all transactions thereafter. This element also defines the namespace element 'clientid' which provides the context for all content identification and document transactions.
cmr_Eculist
A collection of Economic Content Units.
cmr_Selectionrule
The set of rules to be used to select a transient list of documents for authoring.
cmr_Documentlist
A collection of CMR documents or document elements or document references.
cmr_Collectionlist
A collection of persistent search definitions.
cmr_Urnlist
A list of requested presentation documents, fully transformed. Usually a URL list.
cmr_Syndicationrequestlist
A collection of syndication requests
cmr_Workflowlist
A collection of workflow definitions which define any special actions to be taken when a document changes state (published, archived, unpublished, deleted).
cmr_Documenttypelist
A collection of document types which define form-based capture of document fragments.

element **auth**



children	**cmr_Status**
used by	element **cmr**
attributes	Name / Type / Use clientid / xs:string / required authorid / xs:string password / xs:string sessionid / xs:string
notes	Basic authentication for the CMR. 'Clientid', 'authorid' and 'password' are provided with the first request. A 'sessionid' token will be returned and may be supplied for all transactions thereafter. This element also defines the namespace element 'clientid' which provides the context for all content identification and document transactions.
xml	<xs:element name="auth"> <xs:notes> <xs:documentation>Basic authentication for the CMR. 'Clientid', 'authorid' and 'password' are provided with the first request. A 'sessionid' token will be returned and may be supplied for all transactions thereafter. This element also defines the namespace element 'clientid' which provides the context for all content identification and document transactions.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> <xs:attribute name="clientid" type="xs:string" use="required"/> <xs:attribute name="authorid" type="xs:string"/> <xs:attribute name="password" type="xs:string"/> <xs:attribute name="sessionid" type="xs:string"/> </xs:complexType> </xs:element>

element **cmr_Collection**



children	**cmr_Collectioncriteria**
used by	element **cmr_Collectionlist**

attributes

Name	Type	Use
action	xs:NMTOKEN	required
collectionid	xs:string	required
sectionname	xs:string	required
status	xs:string	
instructions	xs:string	
shortdescription	xs:string	

notes

The collection defines a set of selection criteria for a persistent search definition. A collection may include a reference to another collection to provide complex search structures.

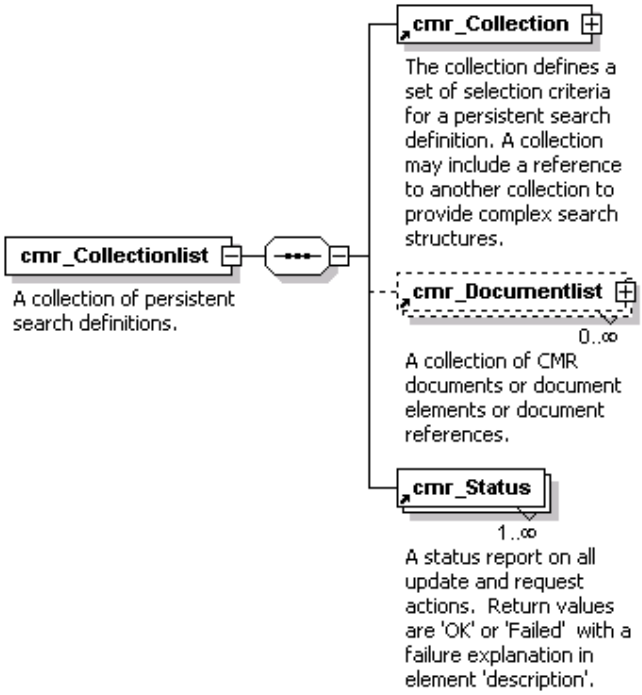
xml

```
<xs:element name="cmr_Collection">
 <xs:notes >
  <xs:documentation>The collection defines a set of selection criteria for a persistent search definition. A collection may include a reference to another collection to provide complex search structures.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Collectioncriteria"/>
  </xs:sequence>
  <xs:attribute name="action" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="update"/>
     <xs:enumeration value="generate"/>
     <xs:enumeration value="publish"/>
     <xs:enumeration value="delete"/>
     <xs:enumeration value="get"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="collectionid" type="xs:string" use="required"/>
  <xs:attribute name="sectionname" type="xs:string" use="required"/>
  <xs:attribute name="status" type="xs:string"/>
  <xs:attribute name="instructions" type="xs:string"/>
  <xs:attribute name="shortdescription" type="xs:string"/>
 </xs:complexType>
</xs:element>
```

element **cmr_Collectioncriteria**

	cmr_Collectioncriteria The collection criteria define a specific selection rule or a reference to another collection. Criteria Values may contain a multi-list single quoted and separated by commas or semicolons.
used by	element **cmr_Collection**
attributes	Name / Type / Use criteriaelement / xs:string / required criteriacomparison / xs:string / required criteriavalues / xs:string / required
notes	The collection criteria define a specific selection rule or a reference to another collection. Criteria Values may contain a multi-list single quoted and separated by commas or semicolons.
xml	<xs:element name="cmr_Collectioncriteria"> <xs:notes > <xs:documentation>The collection criteria define a specific selection rule or a reference to another collection. Criteria Values may contain a multi-list single quoted and separated by commas or semicolons.</xs:documentation> </xs:notes > <xs:complexType> <xs:attribute name="criteriaelement" type="xs:string" use="required"/> <xs:attribute name="criteriacomparison" type="xs:string" use="required"/> <xs:attribute name="criteriavalues" type="xs:string" use="required"/> </xs:complexType> </xs:element>

element **cmr_Collectionlist**

	
children	**cmr_Collection cmr_Documentlist cmr_Status**
used by	element **cmr**
notes	A collection of persistent search definitions.
xml	<xs:element name="cmr_Collectionlist"> <xs:notes >

```
  <xs:documentation>A collection of persistent search definitions.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Collection"/>
   <xs:element ref="cmr_Documentlist" minOccurs="0" maxOccurs="unbounded"/>
   <xs:element ref="cmr_Status" maxOccurs="unbounded"/>
  </xs:sequence>
 </xs:complexType>
</xs:element>
```

element **cmr_Data_event**

cmr_Data_event

The definition for a data-driven workflow event.

type	extension of **xs:string**
used by	element **cmr_Workflow**

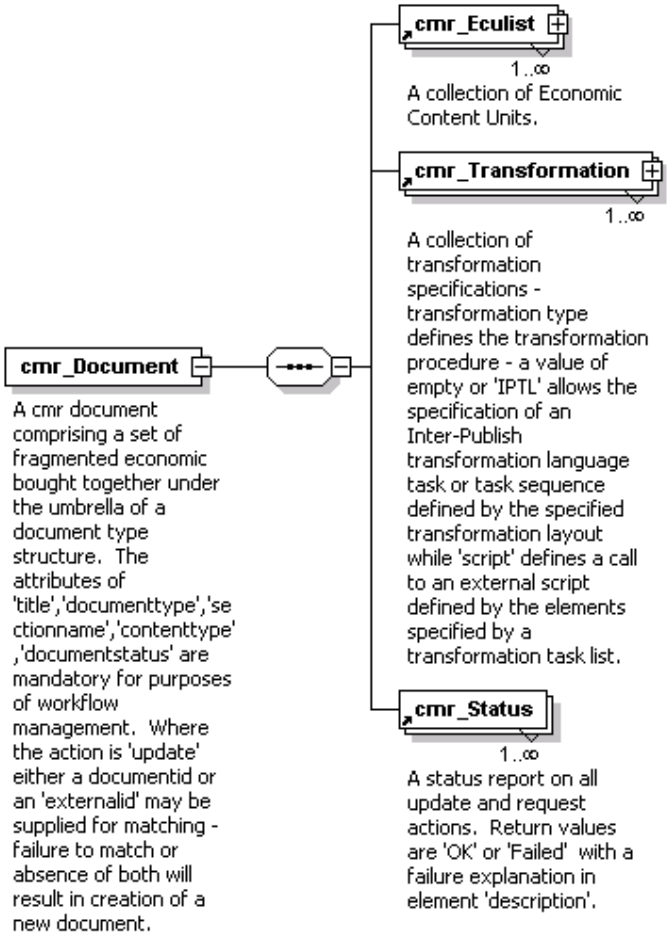
attributes	Name	Type	Use
	elementname	xs:string	required
	elementvalues	xs:string	required
	action	xs:NMTOKEN	required
	alertgroup	xs:string	required
	nextdocumenttype	xs:string	required
	nextstatus	xs:string	

notes: The definition for a data-driven workflow event.

xml

```
<xs:element name="cmr_Data_event">
 <xs:notes >
  <xs:documentation>The definition for a data-driven workflow event.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:simpleContent>
   <xs:extension base="xs:string">
    <xs:attribute name="elementname" type="xs:string" use="required"/>
    <xs:attribute name="elementvalues" type="xs:string" use="required"/>
    <xs:attribute name="action" use="required">
     <xs:simpleType>
      <xs:restriction base="xs:NMTOKEN">
       <xs:enumeration value="publish"/>
       <xs:enumeration value="changedocumenttype"/>
       <xs:enumeration value="email"/>
       <xs:enumeration value="changedocumentstatus"/>
      </xs:restriction>
     </xs:simpleType>
    </xs:attribute>
    <xs:attribute name="alertgroup" type="xs:string" use="required"/>
    <xs:attribute name="nextdocumenttype" type="xs:string" use="required"/>
    <xs:attribute name="nextstatus" type="xs:string"/>
   </xs:extension>
  </xs:simpleContent>
 </xs:complexType>
</xs:element>
```

element **cmr_Document**



children	**cmr_Eculist cmr_Transformation cmr_Status**
used by	element **cmr_Documentlist**

attributes

Name	Type	Use
action	xs:NMTOKEN	required
title	xs:string	required
documenttype	xs:string	required
sectionname	xs:string	required
contenttype	xs:string	required
externalid	xs:string	
documentstatus	xs:NMTOKEN	required
datelastedited	xs:string	required

notes

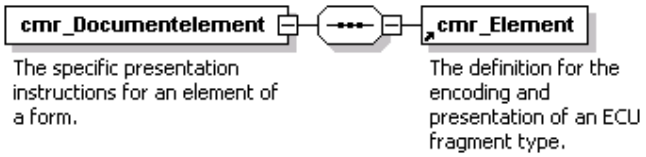
A cmr document comprising a set of fragmented economic bought together under the umbrella of a document type structure. The attributes of 'title','documenttype','sectionname','contenttype','documentstatus' are mandatory for purposes of workflow management. Where the action is 'update' either a documentid or an 'externalid' may be supplied for matching - failure to match or absence of both will result in creation of a new document.

xml

```
<xs:element name="cmr_Document">
 <xs:notes >
  <xs:documentation>A cmr document comprising a set of fragmented economic bought together under the umbrella of a document type structure. The attributes of 'title','documenttype','sectionname','contenttype','documentstatus' are mandatory for purposes of workflow management. Where the action is 'update' either a documentid or an 'externalid' may be supplied for matching - failure to match or absence of both will result in creation of a new document.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Eculist" maxOccurs="unbounded"/>
   <xs:element ref="cmr_Transformation" maxOccurs="unbounded"/>
   <xs:element ref="cmr_Status" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="action" use="required">
```

```
    <xs:simpleType>
     <xs:restriction base="xs:NMTOKEN">
      <xs:enumeration value="create"/>
      <xs:enumeration value="update"/>
      <xs:enumeration value="delete"/>
      <xs:enumeration value="archive"/>
      <xs:enumeration value="publish"/>
      <xs:enumeration value="get"/>
     </xs:restriction>
    </xs:simpleType>
   </xs:attribute>
   <xs:attribute name="title" type="xs:string" use="required"/>
   <xs:attribute name="documenttype" type="xs:string" use="required"/>
   <xs:attribute name="sectionname" type="xs:string" use="required"/>
   <xs:attribute name="contenttype" type="xs:string" use="required"/>
   <xs:attribute name="externalid" type="xs:string"/>
   <xs:attribute name="documentstatus" use="required">
    <xs:simpleType>
     <xs:restriction base="xs:NMTOKEN">
      <xs:enumeration value="published"/>
      <xs:enumeration value="unpublished"/>
      <xs:enumeration value="deleted"/>
      <xs:enumeration value="archived"/>
     </xs:restriction>
    </xs:simpleType>
   </xs:attribute>
   <xs:attribute name="datelastedited" type="xs:string" use="required"/>
  </xs:complexType>
 </xs:element>
```

element **cmr_Documentelement**

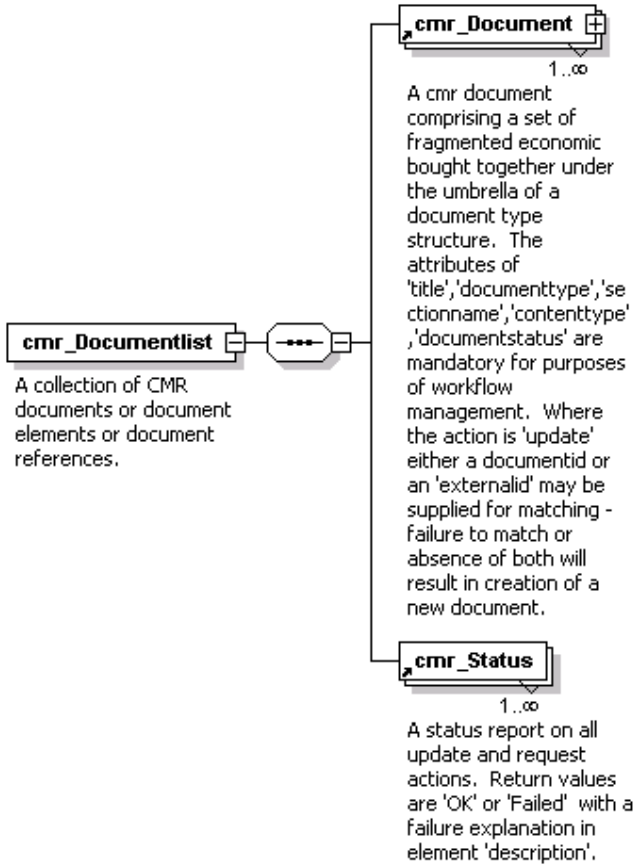


children	**cmr_Element**
used by	element **cmr_Documenttype**
attributes	Name / Type / Use formprefix / xs:string / required formsuffix / xs:string / required
notes	The specific presentation instructions for an element of a form.

xml

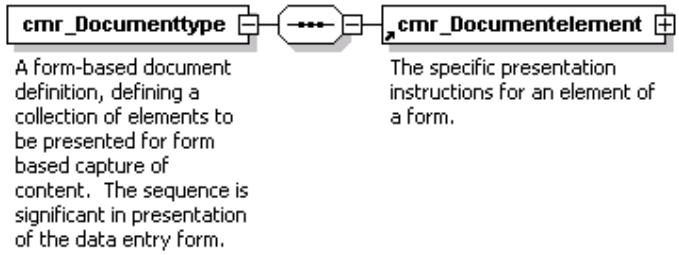
```
<xs:element name="cmr_Documentelement">
 <xs:notes >
  <xs:documentation>The specific presentation instructions for an element of a form.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Element"/>
  </xs:sequence>
  <xs:attribute name="formprefix" type="xs:string" use="required"/>
  <xs:attribute name="formsuffix" type="xs:string" use="required"/>
 </xs:complexType>
</xs:element>
```

element **cmr_Documentlist**



children	**cmr_Document cmr_Status**
used by	elements **cmr cmr_Collectionlist**
notes	A collection of CMR documents or document elements or document references.
xml	<xs:element name="cmr_Documentlist"> <xs:notes > <xs:documentation>A collection of CMR documents or document elements or document references.</xs:documentation> </xs:notes > <xs:complexType> <xs:sequence> <xs:element ref="cmr_Document" maxOccurs="unbounded"/> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

element **cmr_Documenttype**



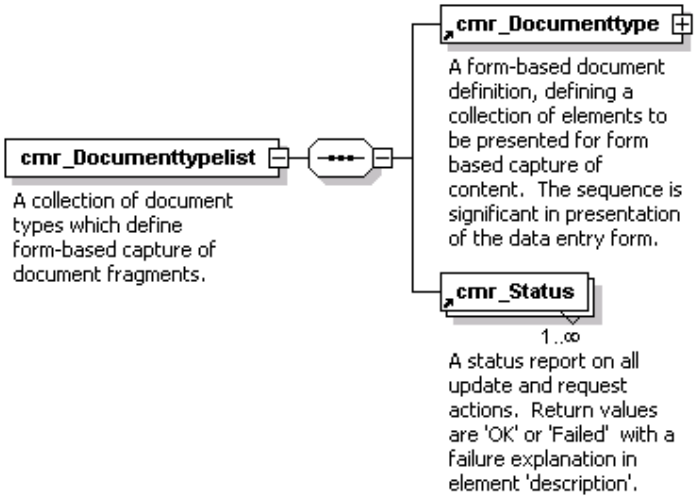
children	**cmr_Documentelement**

used by	element **cmr_Documenttypelist**
attributes	Name / Type / Use documenttype / xs:string / required language / xs:string / required
notes	A form-based document definition, defining a collection of elements to be presented for form based capture of content. The sequence is significant in presentation of the data entry form.
xml	<xs:element name="cmr_Documenttype"> <xs:notes > <xs:documentation>A form-based document definition, defining a collection of elements to be presented for form based capture of content. The sequence is significant in presentation of the data entry form.</xs:documentation> </xs:notes > <xs:complexType> <xs:sequence> <xs:element ref="cmr_Documentelement"/> </xs:sequence> <xs:attribute name="documenttype" type="xs:string" use="required"/> <xs:attribute name="language" type="xs:string" use="required"/> </xs:complexType> </xs:element>

element **cmr_Documenttype_event**

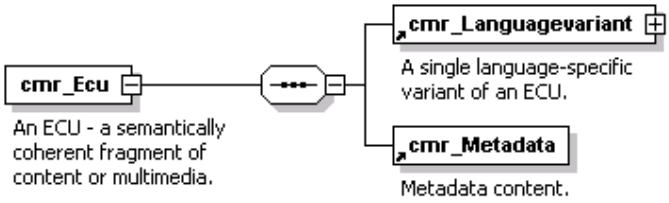
	cmr_Documenttype_event A workflow event definition for the actions required when a document changes status.
used by	element **cmr_Workflow**
attributes	Name / Type / Use action / xs:NMTOKEN / required alertgroup / xs:string nextdocumenttype / xs:string nextstatus / xs:string
notes	A workflow event definition for the actions required when a document changes status.
xml	<xs:element name="cmr_Documenttype_event"> <xs:notes > <xs:documentation>A workflow event definition for the actions required when a document changes status.</xs:documentation> </xs:notes > <xs:complexType> <xs:attribute name="action" use="required"> <xs:simpleType> <xs:restriction base="xs:NMTOKEN"> <xs:enumeration value="publish"/> <xs:enumeration value="changedocumenttype"/> <xs:enumeration value="email"/> <xs:enumeration value="changedocumentstatus"/> </xs:restriction> </xs:simpleType> </xs:attribute> <xs:attribute name="alertgroup" type="xs:string"/> <xs:attribute name="nextdocumenttype" type="xs:string"/> <xs:attribute name="nextstatus" type="xs:string"/> </xs:complexType> </xs:element>

element **cmr_Documenttypelist**



children	**cmr_Documenttype cmr_Status**
used by	element **cmr**
notes	A collection of document types which define form-based capture of document fragments.
xml	<xs:element name="cmr_Documenttypelist"> <xs:notes> <xs:documentation>A collection of document types which define form-based capture of document fragments.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Documenttype"/> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

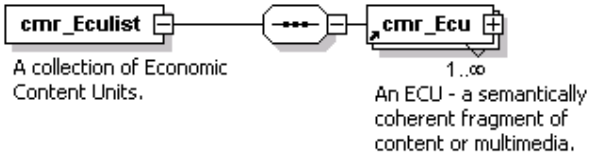
element **cmr_Ecu**



children	**cmr_Languagevariant cmr_Metadata**
used by	element **cmr_Eculist**
attributes	Name / Type / Use contentid / xs:string / required cmr_Fragmentationlevel / xs:NMTOKEN / required
notes	An ECU - a semantically coherent fragment of content or multimedia.
xml	<xs:element name="cmr_Ecu"> <xs:notes> <xs:documentation>An ECU - a semantically coherent fragment of content or multimedia.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Languagevariant"/> <xs:element ref="cmr_Metadata"/> </xs:sequence> <xs:attribute name="contentid" type="xs:string" use="required"/>

```
<xs:attribute name="cmr_Fragmentationlevel" use="required">
  <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
      <xs:enumeration value="completedocument"/>
      <xs:enumeration value="textpage"/>
      <xs:enumeration value="textparagraphl"/>
      <xs:enumeration value="multimediasegment"/>
    </xs:restriction>
  </xs:simpleType>
</xs:attribute>
</xs:complexType>
</xs:element>
```

element **cmr_Eculist**

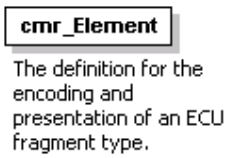


children	**cmr_Ecu**
used by	elements **cmr cmr_Document**
notes	A collection of Economic Content Units.

xml

```
<xs:element name="cmr_Eculist">
  <xs:notes >
    <xs:documentation>A collection of Economic Content Units.</xs:documentation>
  </xs:notes >
  <xs:complexType>
    <xs:sequence>
      <xs:element ref="cmr_Ecu" maxOccurs="unbounded"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

element **cmr_Element**



used by element **cmr_Documentelement**

attributes

Name	Type	Use
element	xs:string	required
elementtype	xs:NMTOKEN	required
elementusage	xs:NMTOKEN	required
description	xs:string	required
inputsize	xs:string	required
maxinput	xs:string	required
selectionvalues	xs:string	required
subelements	xs:string	required

notes: The definition for the encoding and presentation of an ECU fragment type.

xml

```
<xs:element name="cmr_Element">
  <xs:notes >
    <xs:documentation>The definition for the encoding and presentation of an ECU fragment type.</xs:documentation>
  </xs:notes >
```

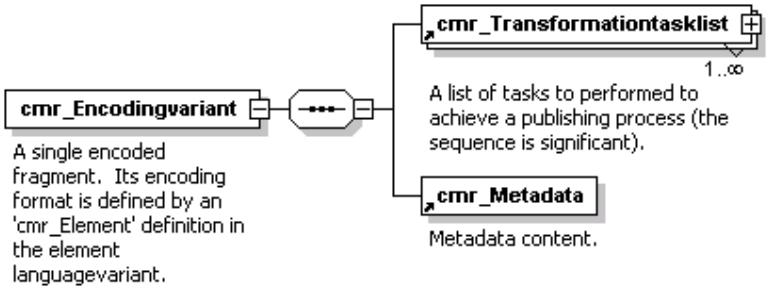
```
<xs:complexType>
 <xs:attribute name="element" type="xs:string" use="required"/>
 <xs:attribute name="elementtype" use="required">
  <xs:simpleType>
   <xs:restriction base="xs:NMTOKEN">
    <xs:enumeration value="textline"/>
    <xs:enumeration value="textblob"/>
    <xs:enumeration value="multimediablob"/>
   </xs:restriction>
  </xs:simpleType>
 </xs:attribute>
 <xs:attribute name="elementusage" use="required">
  <xs:simpleType>
   <xs:restriction base="xs:NMTOKEN">
    <xs:enumeration value="date"/>
    <xs:enumeration value="input"/>
    <xs:enumeration value="xml"/>
    <xs:enumeration value="html"/>
    <xs:enumeration value="text"/>
    <xs:enumeration value="numeric"/>
    <xs:enumeration value="logical"/>
    <xs:enumeration value="checkboxlist"/>
    <xs:enumeration value="lookupdocumentcontents"/>
    <xs:enumeration value="selectionlist"/>
   </xs:restriction>
  </xs:simpleType>
 </xs:attribute>
 <xs:attribute name="description" type="xs:string" use="required"/>
 <xs:attribute name="inputsize" type="xs:string" use="required"/>
 <xs:attribute name="maxinput" type="xs:string" use="required"/>
 <xs:attribute name="selectionvalues" type="xs:string" use="required"/>
 <xs:attribute name="subelements" type="xs:string" use="required"/>
</xs:complexType>
</xs:element>
```

element **cmr_Encodeddocument**

	cmr_Encodeddocument A single encoded and transformed document ready for final presentation.
type	**xs:string**
used by	element **cmr_url**
notes	A single encoded and transformed document ready for final presentation.

xml	`<xs:element name="cmr_Encodeddocument" type="xs:string">`
	`<xs:notes >`
	`<xs:documentation>`A single encoded and transformed document ready for final presentation.`</xs:documentation>`
	`</xs:notes >`
	`</xs:element>`

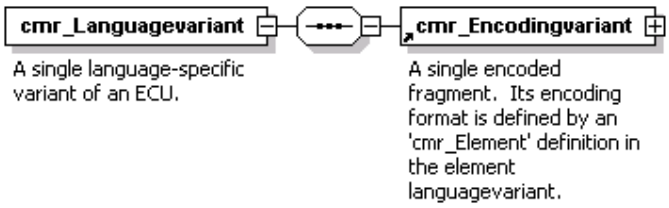
element **cmr_Encodingvariant**



children	**cmr_Transformationtasklist cmr_Metadata**
used by	element **cmr_Languagevariant**
attributes	Name / Type / Use cmr_Fragmentationlevel / xs:string / required cmr_Contenttype / xs:string / required cmr_Element / xs:string / required cmr_Transferencoding / xs:string / required
notes	A single encoded fragment. Its encoding format is defined by an 'cmr_Element' definition in the element languagevariant.

xml	`<xs:element name="cmr_Encodingvariant">`
	`<xs:notes >`
	`<xs:documentation>A single encoded fragment. Its encoding format is defined by an 'cmr_Element' definition in the element languagevariant.</xs:documentation>`
	`</xs:notes >`
	`<xs:complexType>`
	`<xs:sequence>`
	`<xs:element ref="cmr_Transformationtasklist" maxOccurs="unbounded"/>`
	`<xs:element ref="cmr_Metadata"/>`
	`</xs:sequence>`
	`<xs:attribute name="cmr_Fragmentationlevel" type="xs:string" use="required"/>`
	`<xs:attribute name="cmr_Contenttype" type="xs:string" use="required"/>`
	`<xs:attribute name="cmr_Element" type="xs:string" use="required"/>`
	`<xs:attribute name="cmr_Transferencoding" type="xs:string" use="required"/>`
	`</xs:complexType>`
	`</xs:element>`

element **cmr_Languagevariant**



children	**cmr_Encodingvariant**
used by	element **cmr_Ecu**
attributes	Name / Type / Use language / xs:string / required element / xs:string / required
notes	A single language-specific variant of an ECU.

xml	`<xs:element name="cmr_Languagevariant">`
	`<xs:notes >`
	`<xs:documentation>A single language-specific variant of an ECU.</xs:documentation>`
	`</xs:notes >`
	`<xs:complexType>`
	`<xs:sequence>`

```
    <xs:element ref="cmr_Encodingvariant"/>
   </xs:sequence>
   <xs:attribute name="language" type="xs:string" use="required"/>
   <xs:attribute name="element" type="xs:string" use="required"/>
  </xs:complexType>
 </xs:element>
```

element **cmr_Metadata**

cmr_Metadata

Metadata content.

used by	elements	**cmr_Ecu cmr_Encodingvariant**	
attributes	Name	Type	Use
	contenttype	xs:string	required
	transferencoding	xs:string	required
	element	xs:string	required
	fragmentationlevel	xs:NMTOKEN	required
notes	Metadata content.		

xml

```
<xs:element name="cmr_Metadata">
 <xs:notes >
  <xs:documentation>Metadata content.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:attribute name="contenttype" type="xs:string" use="required"/>
  <xs:attribute name="transferencoding" type="xs:string" use="required"/>
  <xs:attribute name="element" type="xs:string" use="required"/>
  <xs:attribute name="fragmentationlevel" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="completedocument"/>
     <xs:enumeration value="textpage"/>
     <xs:enumeration value="textparagraphl"/>
     <xs:enumeration value="multimediasegment"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

element **cmr_profile**

cmr_profile

The profile id to be used to return a transformed specific set of syndication documents.

attributes	Name	Type	Use
	profileid	xs:string	required
	encoding	xs:string	required
notes	The profile id to be used to return a transformed specific set of syndication documents.		

xml

```
<xs:element name="cmr_profile">
 <xs:notes >
  <xs:documentation>The profile id to be used to return a transformed specific set of syndication documents.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:attribute name="profileid" type="xs:string" use="required"/>
  <xs:attribute name="encoding" type="xs:string" use="required"/>
```

```
  </xs:complexType>
</xs:element>
```

element **cmr_Selectionelement**

cmr_Selectionelement

A transient selection request returning a set of documents for authoring. The attribute 'SelectionType' specifies the type of selection rule to be applied that can be further qualified by the attribute SelectionElement and SelectionValue. Where 'SelectionType' as a value of 'Element' then an Inter-Publish Element must be specified in the attribute 'SelectionElement' with a value or set of values in the attribute 'SelectionValue'. More complex selection rules can be defined through static collections.

used by: element **cmr_Selectionrule**

attributes

Name	Type	Use
action	xs:NMTOKEN	
selectiontype	xs:NMTOKEN	required
selectionelement	xs:string	required
selectioncomparison	xs:string	required
selectionvalue	xs:string	required

notes

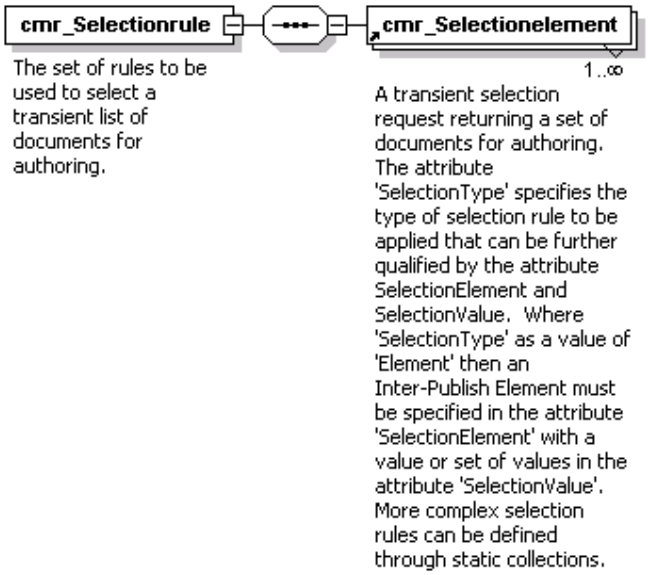
A transient selection request returning a set of documents for authoring. The attribute 'SelectionType' specifies the type of selection rule to be applied that can be further qualified by the attribute SelectionElement and SelectionValue. Where 'SelectionType' as a value of 'Element' then an Inter-Publish Element must be specified in the attribute 'SelectionElement' with a value or set of values in the attribute 'SelectionValue'. More complex selection rules can be defined through static collections.

xml

```
<xs:element name="cmr_Selectionelement">
 <xs:notes >
  <xs:documentation>A transient selection request returning a set of documents for authoring. The attribute 'SelectionType' specifies the type of selection rule to be applied that can be further qualified by the attribute SelectionElement and SelectionValue. Where 'SelectionType' as a value of 'Element' then an Inter-Publish Element must be specified in the attribute 'SelectionElement' with a value or set of values in the attribute 'SelectionValue'. More complex selection rules can be defined through static collections.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:attribute name="action">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="lock"/>
     <xs:enumeration value="nolock"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="selectiontype" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="element"/>
     <xs:enumeration value="documenttype"/>
     <xs:enumeration value="sectionname"/>
     <xs:enumeration value="elementdefinition"/>
     <xs:enumeration value="documenttypedefinition"/>
     <xs:enumeration value="element"/>
```

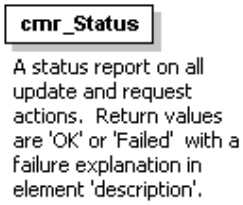
	<xs:enumeration value="contentid"/> <xs:enumeration value="documentid"/> </xs:restriction> </xs:simpleType> </xs:attribute> <xs:attribute name="selectionelement" type="xs:string" use="required"/> <xs:attribute name="selectioncomparison" type="xs:string" use="required"/> <xs:attribute name="selectionvalue" type="xs:string" use="required"/> </xs:complexType> </xs:element>

element **cmr_Selectionrule**



children	**cmr_Selectionelement**
used by	element **cmr**
notes	The set of rules to be used to select a transient list of documents for authoring.
xml	<xs:element name="cmr_Selectionrule"> <xs:notes> <xs:documentation>The set of rules to be used to select a transient list of documents for authoring.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Selectionelement" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

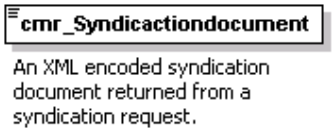
element **cmr_Status**



used by	elements **auth cmr_Collectionlist cmr_Document cmr_Documentlist cmr_Documenttypelist cmr_Syndicationdocument cmr_Syndicationrequest cmr_Urnlist cmr_Workflowlist**
attributes	Name / Type / Use status / xs:NMTOKEN / required description / xs:string / optional
notes	A status report on all update and request actions. Return values are 'OK' or 'Failed' with a failure explanation in element 'description'.
xml	<xs:element name="cmr_Status"> <xs:notes> <xs:documentation>A status report on all update and request actions. Return values are 'OK' or 'Failed' with a failure explanation in element 'description'.</xs:documentation> </xs:notes> <xs:complexType> <xs:attribute name="status" use="required">

```
    <xs:simpleType>
      <xs:restriction base="xs:NMTOKEN">
        <xs:enumeration value="OK"/>
        <xs:enumeration value="Failed"/>
      </xs:restriction>
    </xs:simpleType>
  </xs:attribute>
  <xs:attribute name="description" type="xs:string" use="optional"/>
 </xs:complexType>
</xs:element>
```

element **cmr_Syndicactiondocument**

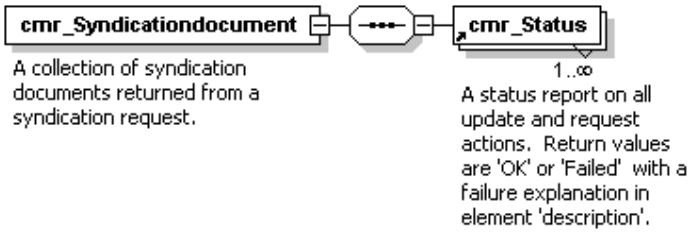


type	extension of **xs:string**
attributes	Name / Type / Use format / xs:NMTOKEN / required
notes	An XML encoded syndication document returned from a syndication request.

xml

```
<xs:element name="cmr_Syndicactiondocument">
 <xs:notes >
  <xs:documentation>An XML encoded syndication document returned from a syndication request.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:simpleContent>
   <xs:extension base="xs:string">
    <xs:attribute name="format" use="required">
     <xs:simpleType>
      <xs:restriction base="xs:NMTOKEN">
       <xs:enumeration value="rdf"/>
       <xs:enumeration value="rss"/>
       <xs:enumeration value="prism"/>
       <xs:enumeration value="newsml"/>
      </xs:restriction>
     </xs:simpleType>
    </xs:attribute>
   </xs:extension>
  </xs:simpleContent>
 </xs:complexType>
</xs:element>
```

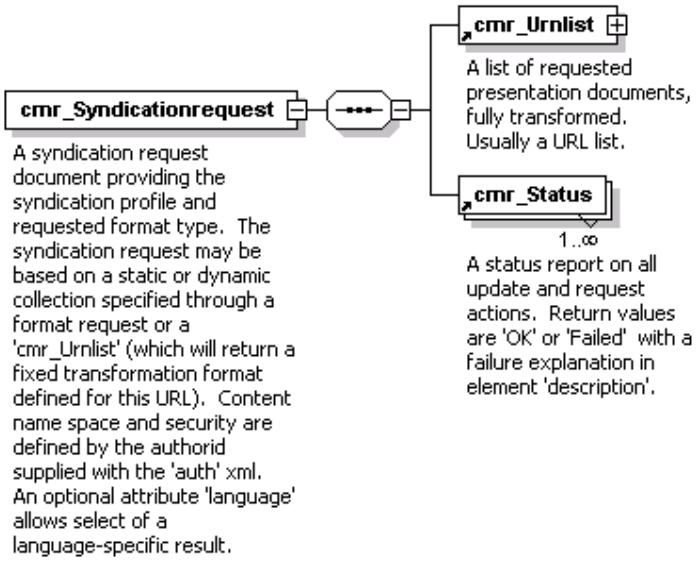
element **cmr_Syndicationdocument**



children	**cmr_Status**
attributes	Name / Type / Use format / xs:string / required requestid / xs:string / required language / xs:string / required

notes	A collection of syndication documents returned from a syndication request.
xml	<xs:element name="cmr_Syndicationdocument"> <xs:notes> <xs:documentation>A collection of syndication documents returned from a syndication request.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> <xs:attribute name="format" type="xs:string" use="required"/> <xs:attribute name="requestid" type="xs:string" use="required"/> <xs:attribute name="language" type="xs:string" use="required"/> </xs:complexType> </xs:element>

element **cmr_Syndicationrequest**

	
children	**cmr_Urnlist cmr_Status**
used by	element **cmr_Syndicationrequestlist**
attributes	Name / Type / Use requestid / xs:string / language / xs:string / format / xs:NMTOKEN / required
notes	A syndication request document providing the syndication profile and requested format type. The syndication request may be based on a static or dynamic collection specified through a format request or a 'cmr_Urnlist' (which will return a fixed transformation format defined for this URL). Content name space and security are defined by the authorid supplied with the 'auth' xml. An optional attribute 'language' allows select of a language-specific result.
xml	<xs:element name="cmr_Syndicationrequest"> <xs:notes> <xs:documentation>A syndication request document providing the syndication profile and requested format type. The syndication request may be based on a static or dynamic collection specified through a format request or a 'cmr_Urnlist' (which will return a fixed transformation format defined for this URL). Content name space and security are defined by the authorid supplied with the 'auth' xml. An optional attribute 'language' allows select of a language-specific result.</xs:documentation> </xs:notes> <xs:complexType> <xs:sequence> <xs:element ref="cmr_Urnlist"/> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> <xs:attribute name="requestid" type="xs:string"/>

```
  <xs:attribute name="language" type="xs:string"/>
  <xs:attribute name="format" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="html"/>
     <xs:enumeration value="xhtml"/>
     <xs:enumeration value="rdf"/>
     <xs:enumeration value="rss"/>
     <xs:enumeration value="prism"/>
     <xs:enumeration value="newsml"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

element **cmr_Syndicationrequestlist**

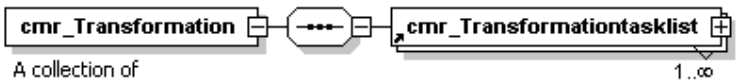
A collection of syndication requests

A syndication request document providing the syndication profile and requested format type. The syndication request may be based on a static or dynamic collection specified through a format request or a 'cmr_Urnlist' (which will return a fixed transformation format defined for this URL). Content name space and security are defined by the authorid supplied with the 'auth' xml. An optional attribute 'language' allows select of a language-specific result.

children	**cmr_Syndicationrequest**
used by	element **cmr**
notes	A collection of syndication requests

```
<xs:element name="cmr_Syndicationrequestlist">
 <xs:notes >
  <xs:documentation>A collection of syndication requests</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Syndicationrequest"/>
  </xs:sequence>
 </xs:complexType>
</xs:element>
```

element **cmr_Transformation**



A collection of transformation specifications - transformation type defines the transformation procedure.

A list of tasks to be performed to achieve a publishing process (the sequence is significant).

children	**cmr_Transformationtasklist**

used by	element **cmr_Document**		
attributes	Name	Type	Use
	transformationtype	xs:string	required
	publishingtargetdomain	xs:string	required
	publishingtargetname	xs:string	required
	transformationlayout	xs:string	required
notes	A collection of transformation specifications - transformation type defines the transformation procedure - a value of empty or 'IPTL' allows the specification of an Inter-Publish transformation language task or task sequence defined by the specified transformation layout while 'script' defines a call to an external script defined by the elements specified by a transformation task list.		

xml

```
<xs:element name="cmr_Transformation">
 <xs:notes >
  <xs:documentation>A collection of transformation specifications - transformation type defines the transformation procedure - a value of empty or 'IPTL' allows the specification of an Inter-Publish transformation language task or task sequence defined by the specified transformation layout while 'script' defines a call to an external script defined by the elements specified by a transformation task list.
</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Transformationtasklist" maxOccurs="unbounded"/>
  </xs:sequence>
  <xs:attribute name="transformationtype" type="xs:string" use="required"/>
  <xs:attribute name="publishingtargetdomain" type="xs:string" use="required"/>
  <xs:attribute name="publishingtargetname" type="xs:string" use="required"/>
  <xs:attribute name="transformationlayout" type="xs:string" use="required"/>
 </xs:complexType>
</xs:element>
```

element **cmr_Transformationtask**

	cmr_Transformationtask The input, output and transformation rules for a particular transformation task.
used by	element **cmr_Transformationtasklist**
attributes	Name / Type / Use scripttype / xs:string / required scriptserver / xs:string / required scriptname / xs:string / required scriptparameters / xs:string / required
notes	A list of tasks to performed to achieve a publishing process (sequence is significant).

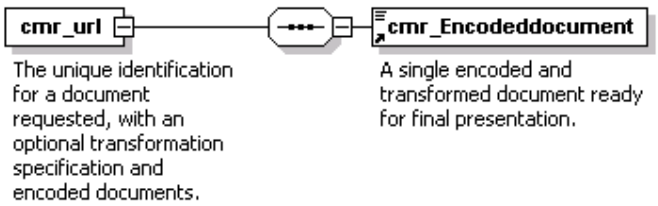
xml	`<xs:element name="cmr_Transformationtask">`
	`<xs:notes >`
	`<xs:documentation>A list of tasks to performed to achieve a publishing process (sequence is significant).</xs:documentation>`
	`</xs:notes >`
	`<xs:complexType>`
	`<xs:attribute name="scripttype" type="xs:string" use="required"/>`
	`<xs:attribute name="scriptserver" type="xs:string" use="required"/>`
	`<xs:attribute name="scriptname" type="xs:string" use="required"/>`
	`<xs:attribute name="scriptparameters" type="xs:string" use="required"/>`
	`</xs:complexType>`
	`</xs:element>`

element **cmr_Transformationtasklist**

	cmr_Transformationtasklist — A list of tasks to be performed to achieve a publishing process (the sequence is significant). → **cmr_Transformationtask** (1..∞) — The input, output and transformation rules for a particular transformation task.
children	**cmr_Transformationtask**
used by	elements **cmr_Encodingvariant cmr_Transformation**
notes	A list of tasks to performed to achieve a publishing process (the sequence is significant).

xml	`<xs:element name="cmr_Transformationtasklist">`
	`<xs:notes >`
	`<xs:documentation>A list of tasks to performed to achieve a publishing process (the sequence is significant).</xs:documentation>`
	`</xs:notes >`
	`<xs:complexType>`
	`<xs:sequence>`
	`<xs:element ref="cmr_Transformationtask" maxOccurs="unbounded"/>`
	`</xs:sequence>`
	`</xs:complexType>`
	`</xs:element>`

element **cmr_url**

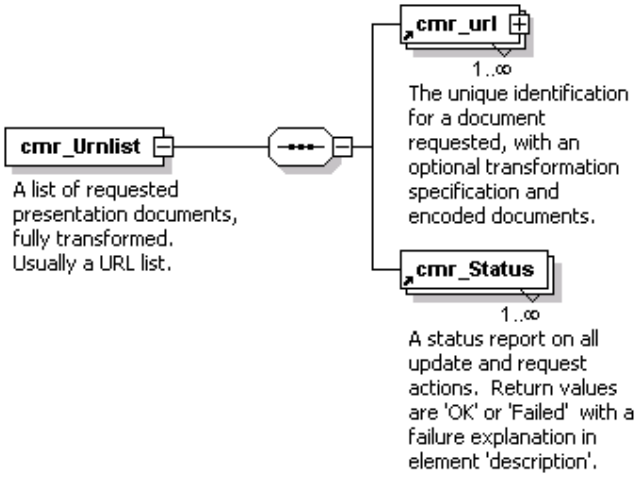


children	**cmr_Encodeddocument**
used by	element **cmr_Urnlist**
attributes	Name / Type / Use cmr_Transformation / xs:string / optional requesttype / xs:NMTOKEN / required
notes	The unique identification for a document requested, with an optional transformation specification and encoded documents.

xml

```
<xs:element name="cmr_url">
 <xs:notes >
  <xs:documentation>The unique identification for a document requested, with an optional transformation specification and encoded documents.</xs:documentation>
 </xs:notes >
 <xs:complexType>
  <xs:sequence>
   <xs:element ref="cmr_Encodeddocument"/>
  </xs:sequence>
  <xs:attribute name="cmr_Transformation" type="xs:string" use="optional"/>
  <xs:attribute name="requesttype" use="required">
   <xs:simpleType>
    <xs:restriction base="xs:NMTOKEN">
     <xs:enumeration value="cmr_Encodeddocument"/>
     <xs:enumeration value="sitemap"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:attribute>
 </xs:complexType>
</xs:element>
```

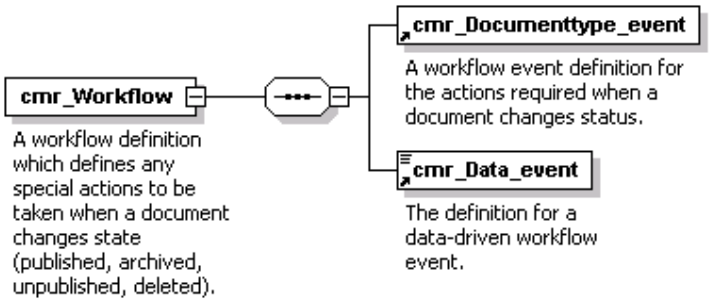
element **cmr_Urnlist**



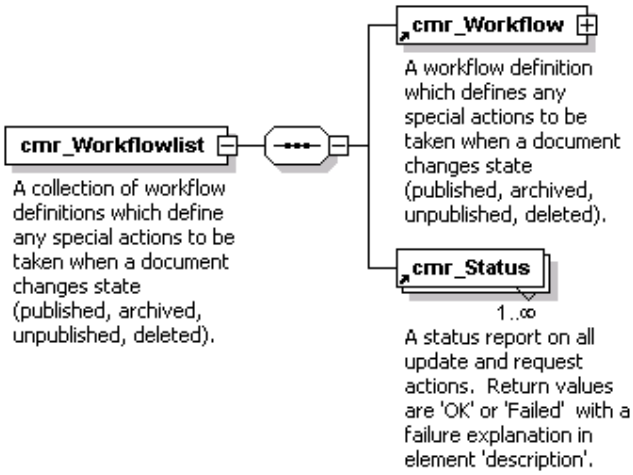
children	**cmr_url cmr_Status**
used by	elements **cmr cmr_Syndicationrequest**
notes	A list of requested presentation documents, fully transformed. Usually a URL list.

xml	<xs:element name="cmr_Urlist"> <xs:notes > <xs:documentation>A list of requested presentation documents, fully transformed. Usually a URL list.</xs:documentation> </xs:notes > <xs:complexType> <xs:sequence> <xs:element ref="cmr_url" maxOccurs="unbounded"/> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>

element **cmr_Workflow**

	
children	**cmr_Documenttype_event cmr_Data_event**
used by	element **cmr_Workflowlist**
attributes	Name: documenttype; Type: xs:string; Use: required
notes	A workflow definition which defines any special actions to be taken when a document changes state (published, archived, unpublished, deleted).
xml	<xs:element name="cmr_Workflow"> <xs:notes > <xs:documentation>A workflow definition which defines any special actions to be taken when a document changes state (published, archived, unpublished, deleted).</xs:documentation> </xs:notes > <xs:complexType> <xs:sequence> <xs:element ref="cmr_Documenttype_event"/> <xs:element ref="cmr_Data_event"/> </xs:sequence> <xs:attribute name="documenttype" type="xs:string" use="required"/> </xs:complexType> </xs:element>

element **cmr_Workflowlist**

	
children	**cmr_Workflow cmr_Status**
used by	element **cmr**
notes	A collection of workflow definitions which define any special actions to be taken when a document changes state (published, archived, unpublished, deleted).
xml	<xs:element name="cmr_Workflowlist"> <xs:notes > <xs:documentation>A collection of workflow definitions which define any special actions to be taken when a document changes state (published, archived, unpublished, deleted).</xs:documentation> </xs:notes > <xs:complexType> <xs:sequence> <xs:element ref="cmr_Workflow"/> <xs:element ref="cmr_Status" maxOccurs="unbounded"/> </xs:sequence> </xs:complexType> </xs:element>