

Session 36



XML: An Advanced Guide

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XML Registry and Repository

This session provides a training session on how to use the XML Registry and Repository for the Education Community.

<http://www.fsaxmlregistry.ed.gov>

Development Steps

- ❑ Identify education-related business process.
- ❑ Contact PESC to register intent.
- ❑ Identify data elements currently in use.
- ❑ Review data elements for clarity and usage.
- ❑ Match data elements with the XML Registry and Repository for Education.

Development Steps

- ❑ Review to ensure compatible elements.
- ❑ Identify new elements.
- ❑ Submit to PESC Submission Advisory Board for review.
- ❑ Develop schema according to business rules and XML Technical Specification.
- ❑ Submit to PESC Submission Advisory Board for final review.



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XML REGISTRY AND REPOSITORY FOR THE EDUCATION COMMUNITY

WELCOME TO THE XML REGISTRY AND REPOSITORY.

An image of an open book with text on the pages, serving as a background for the navigation links.

[Administrative Users Click Here](#)

[Community/Guest Users Click Here](#)

Welcome to the XML Registry and Repository for the Education Community. The Registry is a central access point for XML Core Components, XML Schemas, and supporting documentation for the Education Standards Community.

These documents have been created and reviewed through a collaborative effort between the Department of Education's Office of Federal Student Aid (FSA), the Postsecondary Electronics Standards Council (PESC), and the education standards community.



XML REGISTRY AND REPOSITORY FOR THE EDUCATION COMMUNITY

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WELCOME

Welcome to the XML Registry and Repository for the Education Community. The Registry is a central access point for XML Core Components, XML Schemas, and supporting documentation for the Education Standards Community.

The Core Components stored in the XML Registry and Repository have been created and reviewed through a collaborative effort between the Office of Federal Student Aid (FSA), Postsecondary Electronics Standards Council (PESC), and the Education Standards Community.

To navigate through the Registry, use the menu on the left hand side of the browser. Choose the link corresponding to the area you are interested in (i.e., Classifications, Core Components, Sector Libraries, Message Specifications, or Search).

NOTE: For navigation of this site, the 'Back' button and 'Refresh' button on your browser should not be used. Navigation through the XML Registry and Repository is best accomplished using with the menus and buttons that are displayed on the web.



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CLASSIFICATIONS

Classifications group Core Components, Sector Libraries, and Message Specifications into manageable sets.

- HIGHER EDUCATION
 - CORE COMPONENTS
 - MESSAGE SPECIFICATION
 - GENERAL PERSON/ORGANIZATION
 - ADDRESS AND CONTACT
 - PERSON
 - IDENTIFICATION
 - DEMOGRAPHICS
 - FINANCIAL
 - TYPES
 - STUDENT
 - APPLICATIONS
 - APPLICATION-AID
 - APPLICATION-ADMISSIONS
 - HOUSING

- To view the Classification, select the appropriate link on the left hand menu.
- To view Core Components and Enumerated Lists organized by Classification, select the Core Components.
- To view Sector Libraries organized by Classification, select the Sector Libraries.
- To view Message Specifications organized by Classification, select the Message Specifications.



CLASSIFICATIONS

CORE COMPONENTS

SECTOR LIBRARIES

MESSAGE SPECIFICATIONS

SEARCH

HIGHER EDUCATION

CORE COMPONENTS

CORE COMPONENT LIBRARY FILES

MESSAGE SPECIFICATION

CORE COMPONENTS

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GENERAL PERSON/ORGANIZATION

ADDRESS AND CONTACT

CORE COMPONENTS

ENUMERATED LISTS

PERSON

IDENTIFICATION

CORE COMPONENTS

ENUMERATED LISTS

DEMOGRAPHICS

CORE COMPONENTS

CORE COMPONENTS

Core Components and **Enumerated Lists** are accessible from this section of the Registry. These items are organized by Classification scheme.

Core Components

- To Browse the Core Components, select the Core Components Link under the Classification on the menu.
- To View the Core Component's base properties, select Base.
- To View the Core Component's schema representation, select Details.
- To View other associated Core Components, select Associations.
- To Search for a specific Core Component using keywords, select Search.

Enumerated Lists

- To Browse the Enumerated Lists, select the Enumerated Lists Link under the Classification on the menu.
- To search for a specific Enumerated List using keywords, select Search.



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CORE COMPONENTS

CORE COMPONENT: EMAIL ADDRESS

[SUMMARY](#) | [BASE PROPERTIES](#) | [DETAILS](#) | [ASSOCIATIONS](#) | [RELATED MESSAGE SPECIFICATIONS](#) | [NOTES](#)

XML Tag Name	EmailAddress
Business Term	Email Address
Definition	This basic component specifies the numbers, letters, and symbols used to identify an electronic mail (e-mail) user within the network to which the person or organization belongs. Follows the format of username@domain.
Related Terms	E-Mail, Electronic Mail
Version	1.0.0
Minimum Length	1
Maximum	128



- CLASSIFICATIONS**
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- SEARCH**

- ☰ **HIGHER EDUCATION**
- CORE COMPONENTS**
- **CORE COMPONENT LIBRARY FILES**
- 📁 **MESSAGE SPECIFICATION**
- 📄 **CORE COMPONENTS**
- ☰ **ENUMERATED LISTS**
- 📁 **GENERAL PERSON/ORGANIZATION**
- 📁 **ADDRESS AND CONTACT**
- 📄 **CORE COMPONENTS**
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CORE COMPONENT: EMAIL ADDRESS

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Business Term	Email Address	
Definition	This basic component specifies the numbers, letters, and symbols used to identify an electronic mail (e-mail) user within the network to which the person or organization belongs. Follows the format of username@domain.	
Related Terms	E-Mail, Electronic Mail	
Classification	/ General Person/Organization / Address and Contact /	
Namespace Identifier	urn:us:gov:ed:fsa:personOrganization:contact:	
Version	1.0.0	
Object	Qualifier	Object Class Global
Property	Qualifier	Property Term



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GENERAL PERSON/ORGANIZATION

CORE COMPONENT: EMAIL ADDRESS

| **SUMMARY** | **BASE PROPERTIES** | **DETAILS** | **ASSOCIATIONS** |
| **RELATED MESSAGE SPECIFICATIONS** | **NOTES** |

Facets

Facet Type	Facet Value
length	
minLength	1
maxLength	128
pattern	
enumeration	

Supplementary Fields

pattern	
enumeration	

Supplementary Fields

Field Name	Field Value
xml:lang	
languageLocaleID	

XML Schema Definition

```

<!-- ===== CORE COMPONENT: EmailAddressType ===== -->
<xs:simpleType name="EmailAddressContent">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="128"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="EmailAddressType">
  <xs:annotation>
    <xs:documentation>This basic component specifies the numbers, letters, and symbols u
  </xs:annotation>
  <xs:complexContent>
    <xs:extension base="EmailAddressContent">
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
  
```

- ☰ HIGHER EDUCATION
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 - CORE COMPONENT LIBRARY FILES
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 - 📁 GENERAL PERSON/ORGANIZATION
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CORE COMPONENT: EMAIL ADDRESS

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Child Associations

These are the child elements of this Core Component.

Associated Object	Business Term	Min. Occurs	Max. Occurs	Association Type
There are no child associations for this Core Component.				

(note: if Max. Occurs = -1 then the cardinality for that element is unbounded)

Parent Associations

These are other Core Components that have this Core Component as a child element.

Associated Object	Business Term	Min. Occurs	Max. Occurs	Association Type
Email	Email Address	0	0	ContainsCCObject
		0	0	ContainsCCObject
		0	0	ContainsCCObject
		0	0	ContainsCCObject
Email	Email Address	0	0	ContainsCCObject

(note: if Max. Occurs = -1 then the cardinality for that element is unbounded)



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CORE COMPONENT: EMAIL ADDRESS

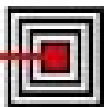
[SUMMARY](#) | [BASE PROPERTIES](#) | [DETAILS](#) | [ASSOCIATIONS](#) |
[RELATED MESSAGE SPECIFICATIONS](#) | [NOTES](#) |

These are the Message Specifications that contain this Core Component

Schema Name	Namespace	Version	Status
COD common record	urn:us:gov:ed:fsa:awareness:cod	1.0	Submitted



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CORE COMPONENT: EMAIL ADDRESS

SUMMARY | BASE PROPERTIES | DETAILS | ASSOCIATIONS |
RELATED MESSAGE SPECIFICATIONS | NOTES |

New Note

| Add Note |

Subject

Comment



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SECTOR LIBRARIES

Sector Libraries are organized by Classification scheme (e.g. Aid Application and Aid Award).

- To Browse the Sector Libraries, select the corresponding Classification on the menu.
- To Download, Update, or Upload a New Version of an existing Sector Library, select the appropriate link from the Sector Library view page.
- To Search for a specific Sector Library using keywords, select Search.

 **HIGHER EDUCATION**
SECTOR LIBRARIES

 **AID APPLICATION**

 **AID AWARD**

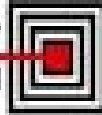
 **AID AWARENESS**

 **SCHOOL PARTICIPATION**

 **SERVICING**



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MESSAGE SPECIFICATIONS IN THIS CLASSIFICATION

[| Upload New Schema |](#)

Current Versions

Schema Name	Namespace	Version	Status
COD common record	urn:us:gov:ed:fsa:awareness:cod	1.0	Submitted

Previous Versions

There are no previous versions of Message Specifications under this Classification.



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SEARCH

Please enter keyword(s) and select search criteria.

| Search |

Search Text:

Search For: [| Select All |](#)

Core Components

Search Core Components for: [| Select All |](#)

<input checked="" type="checkbox"/> Name	<input checked="" type="checkbox"/> Description
<input checked="" type="checkbox"/> Tag Name	<input checked="" type="checkbox"/> Related Term
<input checked="" type="checkbox"/> Business Term	<input checked="" type="checkbox"/> Qualifier Representation Term
<input checked="" type="checkbox"/> Object Class Term	<input checked="" type="checkbox"/> Qualifier Object Class
<input checked="" type="checkbox"/> Property Term	<input checked="" type="checkbox"/> Qualifier Property Term

Enumerated Lists

Search Enumerated Lists for: [| Select All |](#)

Name

Sector Libraries



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SEARCH RESULTS FOR "EMAIL"

Core Components

Tag Name	Business Term
BusinessEmail	Business Email
Email	Email Address
EmailAddress	Email Address
EmailAddressUpdateDate	Email Address Update Date
EmailAddressValidityIndicator	Email Address Validity Indicator
EndEmailEffectiveDate	Stop Payment Monitoring Removal Email End Date
HomeEmail	Home Email
ReceiverEmail	Receiver Email
SchoolAssignedEmail	School Assigned Email
SenderEmail	Sender Email
StartEmailEffectiveDate	Stop Payment Monitoring Effective Email Date



ADDITIONAL INFORMATION

The FSA XML Registry and Repository has been developed based on the standards outlined in the ebXML Registry Information Model v2.5. The detailed specifications can be found at:

<http://www.oasis-open.org/committees/documents.php>

In addition the Core Components housed in this repository have been modeled according to the standards defined by the United Nations Center for Trade Facilitation and Electronic Business (UN/CEFACT) in the ebXML Core Component Technical Specification v2.01 and the Core Component User's Guide. These documents can be found at:

http://www.unece.org/cefact/ebxml/CCTS_V2-01_Final.pdf

Definitions for the pre-defined Core Component Types used in this registry can be found at:

Core Component Types

For additional questions please contact the system administrator by email at XMLRegistrySupport@ed.gov.



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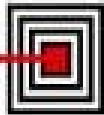
SITE USAGE SUMMARY MONTHLY REPORT

| **MONTHLY** | YEARLY |

October, 2004				
	Core Components	Sector Libraries	Message Specifications	Totals
Views/Downloads	703	0	0	703
Updates	4	0	0	4
Searches	432	433	433	1298
Totals	1139	433	433	2005



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SITE USAGE SUMMARY

YEARLY REPORT

MONTHLY

YEARLY

2004

2004

Go

	Core Components	Sector Libraries	Message Specifications	Totals
Views/ Downloads	0	0	0	0
Updates	0	0	0	0
Searches	0	0	0	0
Totals	0	0	0	0



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SITE USAGE DETAIL MONTHLY CORE COMPONENTS 'VIEWS'

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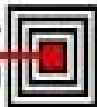
October, 2004

October 2004

	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
Administrator	0	0	0	0	0	1	0	0	0	0	
Registered User	0	0	0	0	0	0	0	0	0	0	
Community Reviewer	0	0	0	0	0	0	0	0	0	0	
Guest	6	0	0	0	0	11	78	67	0	0	
	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	21st
Administrator	0	5	1	0	0	0	0	1	0	1	0
Registered User	0	0	0	0	0	0	0	0	0	0	0



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Registry Users **Reports** Info Log Out

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SITE USAGE DETAIL

YEARLY CORE COMPONENTS 'VIEWS'

MONTHLY | **YEARLY**

2004	2004												Go
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals
Administrator Hits	0	0	0	0	0	0	0	0	0	0	0	0	0
Community Reviewer Hits	0	0	0	0	0	0	0	0	0	0	0	0	0
Community User Hits	0	0	0	0	0	0	0	0	0	0	0	0	0
Guest Hits	0	0	0	0	0	0	0	0	0	0	0	0	0

CORE COMPONENTS

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SECTOR LIBRARIES

- VIEWS
- UPDATES
- SEARCHES

MESSAGE SPECIFICATIONS

- VIEWS
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- SEARCHES

Creating a Schema from the Registry

- Create an empty schema
- Search for the core components
- Paste the core components into the schema

XML Schema

```
<?xml version="1.0" encoding="UTF-8"?>  
<xs:schema  
  targetNamespace="urn:edu:myschool:myschema:v1.  
  0.0"  
  xmlns="urn:edu:myschool:myschema:v1.0.0"  
  xmlns:xs="http://www.w3.org/2001/XMLSchema"  
  elementFormDefault="qualified"  
  attributeFormDefault="unqualified">  
  
  <xs:element name="RootElement">  
  </xs:element>  
</xs:schema>
```




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SEARCH

Please enter keyword(s) and select search criteria.

| [Search](#) |

Search Text:

Search For:

| [Select All](#) |

Core Components

Search Core Components for:

| [Select All](#) |

Name

Description

Tag Name

Related Term

Business Term

Qualifier Representation Term

Object Class Term

Qualifier Object Class

Property Term

Qualifier Property Term



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SEARCH RESULTS FOR "LAST NAME"

Core Components

Tag Name	Business Term
LastName	Last Name

Enumerated Lists

No Enumerated Lists were found.

Sector Libraries

No Sector Libraries were found.

- CORE COMPONENTS
- ENUM
- ERATED LISTS
- HISTORY
- CORE COMPONENTS
- ENUM
- ERATED LISTS
- LOANS AND GRANTS
- CORE COMPONENTS
- ENUM
- ERATED LISTS
- TYPES
- CORE COMPONENTS
- ENUM
- ERATED LISTS
- FINANCIAL PARTNER
- DEMOGRAPHICS
- CORE COMPONENTS
- ENUM

Field Name	Field Value
xml:lang	
languageLocaleID	

XML Schema Definition

```

<!-- ===== CORE COMPONENT: LastNameType ===== -->
<xs:simpleType name="LastNameContent">
  <xs:restriction base="xs:string">
    <xs:minLength value="1" />
    <xs:maxLength value="35" />
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="LastNameType">
  <xs:annotation>
    <xs:documentation>This basic component specifies the last name or surname by which
a person is legally known. </xs:documentation>
  </xs:annotation>
  <xs:complexContent>
    <xs:extension base="LastNameContent">
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
  
```

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema>
<xs:element name="RootElement">
  <xs:complexType>
    <xs:sequence>
      <xs:element name="LastName" type="LastNameType"/>
    </xs:sequence>
  </xs:complexType>
</xs:element>
<!-- ===== CORE COMPONENT: LastNameType ===== -->
<xs:simpleType name="LastNameContent">
  <xs:restriction base="xs:string">
    <xs:minLength value="1"/>
    <xs:maxLength value="35"/>
  </xs:restriction>
</xs:simpleType>
<xs:complexType name="LastNameType">
  <xs:annotation>
    <xs:documentation>This basic component specifies the last name or surname by which
a person is legally known. </xs:documentation>
  </xs:annotation>
  <xs:complexContent>
    <xs:extension base="LastNameContent">
    </xs:extension>
  </xs:complexContent>
</xs:complexType>
</xs:schema>
```



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SEARCH

Please enter keyword(s) and select search criteria.

| [Search](#) |

Search Text:

Search For:

| [Select All](#) |

Core Components

Search Core Components for:

| [Select All](#) |

- | | |
|---|---|
| <input checked="" type="checkbox"/> Name | <input checked="" type="checkbox"/> Description |
| <input checked="" type="checkbox"/> Tag Name | <input checked="" type="checkbox"/> Related Term |
| <input checked="" type="checkbox"/> Business Term | <input checked="" type="checkbox"/> Qualifier Representation Term |
| <input checked="" type="checkbox"/> Object Class Term | <input checked="" type="checkbox"/> Qualifier Object Class |
| <input checked="" type="checkbox"/> Property Term | <input checked="" type="checkbox"/> Qualifier Property Term |

SEARCH RESULTS FOR "PHONE"

Core Components

Tag Name	Business Term
AreaCityCode	Phone Number Area City Code
BusinessPhone	Business Phone
CountryPrefixCode	Phone Number Country Prefix Code
Extension	Phone Number Extension
FaxPhone	Fax Phone
HomePhone	Home Phone
LocalHomePhone	Local Home Phone
MobilePhone	Mobile Phone
PagerPhone	Pager Phone
PermanentHomePhone	Permanent Home Phone
PermanentPhone	Permanent Phone
Phone	Phone
PhoneNumber	Phone Number
PhoneNumberUpdateDate	Phone Number Update Date
TemporaryPhone	Temporary Phone

ENumerated Lists

LOANS AND GRANTS

CORE COMPONENTS

ENumerated Lists

Types

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GENERAL PERSON/ORGANIZATION

ADDRESS AND CONTACT

CORE COMPONENTS

ENumerated Lists

MESSAGE SPECIFICATION

CORE COMPONENTS

ENumerated Lists

XML Schema Definition

```

<!-- ===== CORE COMPONENT: PhoneType ===== -->
<xs:complexType name="PhoneType">
  <xs:annotation>
    <xs:documentation>This complex component provides a logical
    1 grouping of components related to phon</xs:documentation>
  </xs:annotation>
  <xs:sequence>
    <xs:element name="CountryPrefixCode" type="CountryPrefixCodeType"
      minOccurs="0"
      maxOccurs="1"
    />
    <xs:element name="AreaCityCode" type="AreaCityCodeType"
      minOccurs="0"
      maxOccurs="1"
    />
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    />
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      maxOccurs="1"
    />
    <xs:element name="UpdateDate" type="UpdateDateType"
      minOccurs="0"
      maxOccurs="1"
    />
  </xs:sequence>
</xs:complexType>

```

Technical Assistance

We appreciate your feedback and comments. We can be reached at:

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