

VOLUME I GETTING STARTED

COMMON ORIGINATION AND DISBURSEMENT
2012-2013 TECHNICAL REFERENCE



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Document Standards



The Common Origination and Disbursement System (COD) Technical Reference includes information for schools using the COD System. All schools are required to be Full Participants. A Full Participant uses the XML Common Record to submit Pell Grant, TEACH Grant, and/or Direct Loan data to COD.

The 2012-2013 COD Technical Reference contains message classes, edits, record layouts, implementation guides, and supporting information for Pell Grant, TEACH and Direct Loan Users.

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How to Use This Technical Reference

The *2012-2013 COD Technical Reference* is an operational guide that informs schools, vendors, and third-party servicers how to transmit Pell Grant, TEACH Grant, and Direct Loan Origination and Disbursement data to the COD System.

In particular, this Technical Reference provides the record layout and data elements that are required for the COD System to successfully process submitted records as well as the record layout and data elements for the receipts and responses that are returned to participants by the COD System.

The information provided in this Technical Reference is not intended to reflect all Federal regulations that govern the Pell Grant, ACG, National SMART Grant, TEACH Grant, and Direct Loan programs and with which all participants must comply. As such, schools, vendors, and third-party servicers must refer to these regulations and documents such as the *Federal Student Aid Handbook* and Dear Colleague Letters for guidance on regulatory compliance.

Document Structure

The *2012-2013 COD Technical Reference* is comprised of six separate volumes that contain key 2012-2013 development information for COD Users. To use the technical reference effectively, choose the appropriate volume for your needs. Each volume has its own table of contents and individual sections.

Volume I: Getting Started

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- Section 1: Document Standards
- Section 2: COD Overview of Changes from 2011-2012 to 2012-2013
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Volume II: Common Record Technical Reference

- Volume II Table of Contents
- Section 1: Implementation Guide
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Volume III: Pell Grant, TEACH Grant & Direct Loan Combination System Supplement

- Volume III Table of Contents
- Section 1: Combination System Implementation Guide
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Volume IV: Direct Loan Tools

- Volume IV Table of Contents
- Section 1: Direct Loan (DL) Tools for Windows, available June 15th, 2012
- Section 2: DL Tools Message Classes
- Section 3: DL Tools Record Layouts
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Volume V: School Testing Guides

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- Section 1: COD School Testing Guide
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- Volume VI Table of Contents
- Section 1: Glossary of Terms
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- Section 3: Pell Grant Calculation Table
- Section 4: State, Jurisdiction, Country, Codes
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- Volume VII Table of Contents
- Section 1: COD System Generated XML Response File Instructions
- Section 2: AC Doc Type Example
- Section 3: AT Doc Type Example
- Section 4: BN Doc Type Example
- Section 5: CO Doc Type Example
- Section 6: EC Doc Type Example
- Section 7: ND Doc Type Example
- Section 8: PN Doc Type Example
- Section 9: PS Doc Type Example
- Section 10: SP Doc Type Example

Document Conventions

The *COD Technical Reference* update for the 2012-2013 Award Year features many new and exciting changes. The following design conventions have been applied to help distinguish between the information presented within this document.

Notes & Updates

Notes and updates are now placed in the margins, as well as important changes to system functionality.

Code Samples

All code samples, field names, and field values are now distinguished from regular text by their font face, *Courier New*. Extended snippets of code are presented in the following manner:

```
<DLLoanInformation AwardKey="1">
  <OriginationFeePercent>2</OriginationFeePercent>
  <InterestRebatePercent>1.5</InterestRebatePercent>
  <PromissoryNotePrintCode>S</PromissoryNotePrintCode>
  <DisclosureStatementPrintCode>Y</DisclosureStatementPrintCode>
  <StudentLevelCode>1</StudentLevelCode>
  <FinancialAwardBeginDate>2012-09-01</FinancialAwardBeginDate>
  <FinancialAwardEndDate>2013-05-15</FinancialAwardEndDate>
  <AcademicYearBeginDate>2012-09-01</AcademicYearBeginDate>
  <AcademicYearEndDate>2013-05-15</AcademicYearEndDate>
</DLLoanInformation>
```

Calculations

Calculations have been highlighted and are presented in the following manner:

Eligibility Used Calculation

$$\text{EU \%} = 100\% \times (\text{Sum of Actual Disbursements of Award} - \text{DMCS Repayments of Award}) \div \text{Scheduled Award Amount}$$

Viewing & Printing the Document

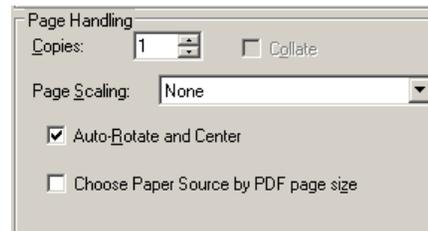
Updates to this document can be found posted on the following websites:

- Information for Financial Aid Professionals (IFAP),
<https://www.fsadownload.ed.gov/CODTechRef1213.htm>
 - Provides PDF and Microsoft Word formats
- FSA Download,
<https://www.fsadownload.ed.gov/CODTechRef1213.htm>
 - Provides PDF format

Auto-Rotating

A number of documents in this Technical Reference will contain sections that are oriented differently, utilizing both landscape and portrait orientations to maximize usability. Some printers may not be automatically configured to print both orientations.

The user may have to configure the printer to auto-rotate the pages. This option can be sent immediately before sending the document to the printer by selecting the “Auto-Rotate and Center” option:



Printing Double-Sided

This document is best printed in black and white on a printer that is capable of printing double-sided. Double-sided printing will ensure the mirror-margins appear correctly.

Alternatively, if your printer is unable to print double-sided, you can make sure your document is printed properly by following these suggested steps:

1. Print all even pages of the document
2. Load the even pages into the printer.
3. Print all odd pages of the document.

It is helpful to determine the paper orientation required to print on both sides properly so that the odd pages are not on the same side as the even pages or upside-down.

Please note that printing odd pages first, then even pages, may result in the entire document being collated backwards.

COD School Relations

If you have any questions regarding the information contained in this document, please contact the COD School Relations Center at the following phone numbers:

- (800) 474-7268 for Grant assistance
- (800) 848-0978 for Direct Loan

Staff is available Monday through Friday, 8am-8pm Eastern Time. Or, please email COD Customer Service at CODSupport@acs-inc.com.

Overview of Changes from 2011-2012 to 2012-2013



This section provides an overview of the changes made from 2011-2012 to 2012-2013 for Common Origination and Disbursement (COD). The changes made for the 2012-2013 Award year will be implemented in the COD System beginning February 2012.

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Common Origination and Disbursement (COD) Changes

Changes from 2011-2012 to 2012-2013

The change descriptions are organized by the following three categories: Additions, Modifications, and Removals. The first column provides a description of each change. The remaining columns indicate which programs the change will affect.

Additions to Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program
Edits	✔			✔	✔
Financial Awareness Counseling				✔	

Modifications to Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program
End Grad. and Prof. Students' DL Sub. Eligibility				✔	
End Eligibility for Upfront Interest Rebates				✔	
Pell LEU Changes to 600% & Edits 177/178	✔				
Post Deadline/Extended Processing				✔	
COD School Monitoring Report	✔	✔	✔	✔	✔

Removals from Common Origination and Disbursement

Description	Pell Grant Program	ACG Program	National SMART Grant Program	Direct Loan Program	TEACH Grant Program
Edit 181				✔	
Edit 182				✔	
Edit 111				✔	

Additions to COD for 2012-2013

Financial Awareness Counseling

StudentLoans.gov will be enhanced to add a new counseling process and supporting functionality. A new Financial Awareness Counseling Tool will be added to the StudentLoans.gov website to provide borrowers with relevant tools and financial information to assist them in understanding their financial aid and manage their finances. Schools will have the option to elect to receive Financial Awareness Counseling responses and determine the frequency to receive those responses. Note: The Counseling Type tag will be populated with 'StudentLoanCounseling' (without spaces) in the response when Financial Awareness Counseling is completed by a borrower who chooses to notify their school of their counseling completion.

Modifications to COD for 2012-2013

End Graduate and Professional Students' Eligibility for Direct Loan Subsidized Loans

Beginning in July 2012, Graduate and Professional students will no longer be eligible to receive Direct Loan Subsidized awards with Award Year Begin Date on or after 7/1/2012. Graduate and Professional students will still be eligible for DL Subsidized loans if the loan period begin date is in the valid date range (prior to 7/1/2012).

End Eligibility for Upfront Interest Rebates

In April 2012, the COD System will begin processing the Interest Rebate Percentage as 0% for all new Direct Loan (DL) awards. This includes DL Subsidized (DLS), Unsubsidized (DLU), and PLUS (DLP) awards. The new Interest Rebate Percentage applies to all Award Years. The change will go into effect for DL awards with the Earliest Disbursement Date on or after 07/01/2012.

In July 2012, the COD System will add an Earliest Disbursement Date (EDD) to all existing DL PLUS awards. This will allow the Interest Rebate Percentage to be changed on awards beginning with Release 11.1. All DLP awards will be updated, including those with accepted, pending, and declined credit checks. Any Direct Loan Origination Tool batch in draft status ('D') containing Direct Loan Subsidized, Unsubsidized, or PLUS award(s) with an EDD on or after 07/01/2012 will have the Interest Rebate Percentages updated to 0%. All disbursement level Net, Fee, and Rebate amounts for the impacted awards in these batches will be recalculated to account for the change in Interest Rebate Percentage.

Pell Lifetime Eligibility Used (LEU)

In July 2012, the Pell Grant duration of eligibility used will be reduced from 900% to 600%, the equivalent of 12 full-time semesters. The functionality which only calculates LEU for students who received their first actual disbursement in Award Year 2008-2009 will be retired as part of this modification. The new LEU limit of 600% will apply to all Pell recipients regardless of when they first began receiving Pell Grant funds.

As part of the July 2012 changes, a new Pell LEU History page on the COD Web will display a list of the year to date disbursements by award year included in a student's Pell LEU calculation. The weekly 2012-2013 Pell LEU Report will also continue to be produced through June 30, 2013.

Edit 177

Beginning in July 2012, the COD System will return warning edit 177 for students whose Lifetime Eligibility Used is within 450% and 600%

Edit 178

Beginning in July 2012, the COD System will return warning edit 178 for students whose Lifetime Eligibility Used has exceeded 600%

COD School Monitoring Report

The COD School Monitoring Report is currently sent via email. Beginning in July 2012, this report will be available on a weekly basis via a schools SAIG mailbox (preformatted text file) or via the COD Newsbox (pdf format). This report will no longer be sent via email. Although the COD School Monitoring Report will be generated weekly, if there is no data for the report on a given week, the report will not be sent to schools' SAIG mailboxes or made available the COD Reporting website. Currently, Customer Service begins sending the report 30 days after the new award year is implemented. For the 12-13 award year, modifications will be applied to prevent the display of New Award Year summaries until 30 days after implementation.

Post Deadline/Extended Processing for Direct Loans

Beginning in July 2012, the COD System will allow authorized users to request Post Deadline/ Extended Processing for Direct Loans via the Request Post Deadline/ Extended Processing webpage as they currently do for the Grant Programs. The COD System will also enhance the TEACH grant extended processing authorization functionality to match all other programs.

Removals from COD 2012-2013

Edit 181

Beginning in March 2012, the COD System will no longer return edit 181 on Direct PLUS Loans.

Edit 182

Beginning in March 2012, the COD System will no longer return edit 182 on Direct PLUS Loans.

Edit 111

Beginning in October 2012, the COD System will no longer return edit 111 on Direct Loan award originations and maintenance submitted via batch processing, COD Web and the Direct Loan Origination Tool for all Award Years.

The Common Origination and Disbursement (COD) System was implemented in April 2002 by the Office of Federal Student Aid (FSA) to re-engineer the process of delivering and reporting Federal Pell Grants and Direct Loans from two processes into one Common Origination and Disbursement Process. This section will provide an overview of the COD System, contact information for COD Customer Service, and high-level information regarding the common record files and how they are processed through COD.

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Common Origination and Disbursement

The Common Origination and Disbursement (COD) System was implemented in April 2002 by the Office of Federal Student Aid (FSA) to re-engineer the process of delivering and reporting Federal Pell Grants and Direct Loans from two processes into one Common Origination and Disbursement Process.

On July 1, 2006, the COD System implemented the Higher Education Reconciliation Act of 2005 (the HERA). The HERA introduced the Academic Competitiveness Grant (ACG), the National Science and Mathematics Access to Retain Talent (SMART) Grant, and the PLUS loan for graduate and professional student borrowers (Grad PLUS). The COD System processes Grad PLUS for the 2005-2006 award year and forward, and processes the two new Grant programs for the 2006-2007 through the 2010 -2011 award years.

On September 27, 2007, Congress enacted the College Cost Reduction and Access Act (CCRAA). As a result, the TEACH Grant Program was established effective beginning with the 2008-2009 Award Year. On July 1, 2008, the COD System began processing TEACH Grant awards for the 2008-2009 Award Year and forward.

COD provides a common process and an integrated system that enables efficient delivery of Title IV Funds. COD allows for:

- Common Processing:
 - One process and record for submitting origination and disbursement data
 - Edits that are common across the Pell Grant, ACG, National SMART Grant, TEACH Grant, and Direct Loan programs
 - Data tags that are common across the Pell Grant, ACG, National SMART Grant, TEACH Grant, and Direct Loan programs, and are (approaching) a cross-industry standard for data definitions
 - Elimination of duplicate data reporting for Pell Grants, ACG, National SMART Grant, TEACH Grant, and Direct Loans
- Streamlined edits to reduce turnaround time for exception processing
- Expanded online capability to make corrections/changes, to process “emergency” requests, and to check transmission status

In general, the COD Process is a simplified process for requesting, reporting, and reconciling Title IV funds.

COD Users

A COD User utilizes the Common Record in XML format to submit Pell Grant, ACG, National SMART Grant, TEACH Grant, and/or Direct Loan origination and disbursement data to the COD System.

COD Participants may submit data to the COD system in two ways:

- Batch processing of Common Record documents over the Student Aid Internet Gateway (SAIG).
- Manual entry of Common Record data using the COD web site.

Users should refer to *2012-2013 COD Technical Reference, Volume II - Common Record Technical Reference* for record layouts and processes.

COD Web Site Cookies

The COD Web site uses a “cookie” to help visitors use the web site interactively. A cookie is a small file that a web site transfers to the user’s computer hard disk, usually for the purpose of tracking the user while he or she is connected to that site.

The cookie on this site does not collect any information about the user, only about the user’s browser session. The cookie makes it easier for users to use the dynamic features on these web pages, without having to provide the same information over and over again as the user moves from one page to another, essentially confirming that a valid log-in was performed each time the user moves to another page. If a user has his or her computer set to block all cookies, the cookie is not created at log-in. As a result, the COD Web site cannot validate when the user moves from one web page to another. If the COD Web site cannot validate the user, the user’s session is terminated and the user is forced to log in again. **To avoid this situation, all users must set their Internet browser Privacy settings for cookies to “high” or less.**

COD Web site & Privacy

For more information about COD Web privacy, please go to:
<https://cod.ed.gov/cod/Privacy>.

COD Customer Service

The COD School Relations Center integrates customer service for the Direct Loan, Pell Grant, ACG and National SMART Grant Programs.

All schools should use the numbers or email address listed below for assistance:

- For Pell Grant, ACG, National SMART Grant, and TEACH Grant assistance
 - (800) 474-7268
 - CODSupport@acs-inc.com
- For Direct Loan assistance – for award years 2002-2003 and forward
 - (800) 848-0978
 - CODSupport@acs-inc.com
- Transmit all batch files to the SAIG mailbox to be forwarded to COD to be processed
- Perform on-line PLUS and Grad PLUS Credit Checks on the COD Web site at:
 - <http://www.cod.ed.gov>
- Mail all Promissory Notes to:

US Department of Education
P.O. Box 5692
Montgomery, AL 36103-5692
- Send Promissory Notes overnight to:

US Department of Education
100 Capitol Commerce Blvd.
Montgomery, AL 36117

Direct Loan: Award Year 2001-2002 and Prior

For Direct Loan assistance for award years 2001-2002 and earlier, please e-mail dlops@ed.gov

Online Credit Checks

Although online PLUS Credit Checks can be performed for all award years, Grad PLUS Credit Checks may only be performed for the 2005-2006 award year and forward.

- Refunds of Cash for Direct Loans should be returned using the Electronic Refund function in G5. The Electronic Refund function can be accessed from the G5 “Main Menu.”

As an alternative, the Department will continue to accept refund checks at the following address:

COD School Relations Center
P.O. Box 9001
Niagara Falls, NY 14302

- Refunds of Cash for Pell, ACG and National SMART Grant should be returned using the Electronic Refund function in G5. The Electronic Refund function can be accessed from the G5 “Main Menu.”

As an alternative, the Department will continue to accept refund checks at the following address:

US Department of Education
P.O. Box 979053
St. Louis, MO 63197-9000

- Request Direct Loan Publications by contacting ED Pubs at:
 - Web: www.FSApubs.org
 - Telephone: (800) 394-7084
 - E-mail: orders@fsapubs.org
 - Fax: (301) 470-1244
- Schools choosing to create Master Promissory Note (MPN) forms instead of using Department provided forms must submit them for testing and review only to:

US Department of Education
P.O. Box 5691
Montgomery, AL 36103

Submitting Refund Checks

Schools must specify the award year and their school code when submitting refund checks.

Submitting MPNs for Test and Review

All documents and shipping packages should be clearly marked “For Testing Only”.

Common Record Overview

The Common Origination and Disbursement process utilizes one single record across programs for both origination and disbursement. Participants use a Common Record, one that uses common data elements, definitions, edits, and structure for Pell Grants, ACG, National SMART Grants, TEACH Grants, and Direct Loans. Although the record has the same layout for all programs, not all data elements are required for each transmission. This record layout relies on a technology called the eXtensible Markup Language, or XML.

Prior to the introduction of HERA, the Common Record only supported the submission of Pell Grant and Direct Loan data. However, the flexible nature of the Common Record format makes it easily adaptable for future use throughout the financial aid community. Now, the Common Record supports the submission of Pell Grant, ACG, National SMART Grant, TEACH Grant, and Direct Loan data.

The Common Record was developed in partnership with members of the National Council of Higher Education Loan Programs (NCHELP) and the Postsecondary Electronic Standards Council (PESC). This collaborative effort enables the Common Record to bring consistency and standardization to the transmission of student financial aid data.

What is XML?

XML stands for eXtensible Markup Language. XML is a recommendation by the World Wide Web Consortium (W3C) for how to represent structured information in a text-based format. XML is a markup language whose roots originate in HTML and SGML. Like HTML, XML consists of elements that are defined by tags. A start tag containing a name precedes element data; an end tag follows it. While HTML tags have a specific meaning and generally describe how the text between them should look, XML uses tags only to delimit pieces of data and leaves the interpretation of the data completely to the application. The tags identify data elements and provide metadata, or meaning, for the information that appears between the tags.

The textual and self-describing nature of XML makes its platform independent and very flexible in terms of content. It is an open standard for storing, publishing, and exchanging any kind of information between any number of disparate systems. As long as two parties agree on and adhere to a common data structure, they can transfer information to each other without any knowledge of the other party's operating system, database type or programming language. XML can be used in conjunction with HTML to store data within standard web pages. It can also be used to store data in files and to pull information from disparate, incompatible databases.

One of the objectives behind the design of the COD Process and System was to provide FSA and our partnering student aid schools greater flexibility in record processing, i.e., opportunities for multiple data cross-walks. The COD Process could serve as a technological foundation for future FSA integration initiatives. Given these objectives, XML was the

logical choice for the Common Record's format and structure. XML offers the flexibility to design records, known as XML documents, particular to an audience or community. It allows increased access to and reuse of information. It supports validation [edits] by checking structural validity and flagging errors. It also enables systems to share information and users to see different views of available data.

XML 101

XML technology allows a common data packet structure to be used between two disparate systems. It is a markup language that defines data structure. An XML document is the vehicle through which data is transmitted. It can be thought of as a batch.

XML documents are comprised of markup and content. Markup defines the content. For example, `LastName` is the markup describing the content, `Jones`.

```
<LastName>Jones</LastName>
```

`<LastName>` is a start tag. Note the presence of brackets. `LastName` is an element. `Jones` is the data, or XML content. `</LastName>` is an end tag.

Elements can be either complex or simple. A complex element is a grouping of attributes or other elements. The Common Record is a logical grouping of complex elements. In the following example, the Complex Element is bolded.

Complex Element:

```
<Name>
  <FirstName>Heidi</FirstName>
  <LastName>Smith</LastName>
</Name>
```

A simple element refers to the value that is contained within tags. In the following example, the two simple elements are bolded.

Simple Element:

```
<Name>
  <FirstName>Heidi</FirstName>
  <LastName>Smith</LastName>
</Name>
```

Fixed-Format Files vs. XML Documents

Fixed-format files have been used as vehicles through which data can be exported and imported to business applications. Fixed-format files contain a sequence of fields that is in machine-readable language. An example of a comma-separated, fixed-format file follows:

```
Sally, A, Smith, 299999999, 1980-02-03, IN, DL222222, false, P,
417 Halper Road, Fort Wayne, IN, 46807, Allen, USA, 2197999999,
sally.a.smith@email.net, 1, 221784902
```

In the above comma-separated fixed-format file, it is difficult to understand what the data means. There is also no way to validate the document to make sure that the data is represented in a format that can be read by the receiving application.

XML is a language that is not only machine readable, but also human readable. It also has a mechanism to ensure the validity of the document format through the use of XML schemas. As a result, business applications are rapidly moving toward the use of XML to exchange data. The following example demonstrates that XML not only represents data in a human readable text format, but also provides meaning to the data through the use of tags. This is how a Student record similar to the one represented in the fixed-format file above would be represented in XML:

```
<Student>
  <Index>
    <SSN>299999999</SSN>
    <BirthDate>1980-02-03</BirthDate>
    <LastName>Smith</LastName>
  </Index>
  <Contacts>
    <PermanentAddress>
      <AddressLine>417 Hapler Road</AddressLine>
      <City> Fort Wayne </City>
      <StateProvinceCode>IN</StateProvinceCode>
      <PostalCode>46807</PostalCode>
    </PermanentAddress>
    <Phone>
      <PhoneNumber>219-799-9999</PhoneNumber>
    </Phone>
    <Email>
      <EmailAddress>sally.a.smith@email.net</EmailAddress>
    </Email>
  </Contacts>
  <Citizenship>
    <CitizenshipStatusCode>1</CitizenshipStatusCode>
  </Citizenship>
  <Note>
    <SchoolNoteMessage>New Person</SchoolNoteMessage>
  </Note>
</Student>
```

Common Record Structure

The XML document called the Common Record is composed of different information modules, referred to as complex elements or blocks. Data fields within the blocks emphasize similarities across programs and contain information such as: document or batch information, school or entity information, person information, award or origination information, disbursement information, and the response status of the record.

A general rule regarding sequence of data within blocks, and within complex elements: the start and end data tags and their content must be presented on the XML document within the block's tags or the complex element tags to which they belong. The sequence of the data within that block or element is dictated by the sequence of the data tags presented in the XML Common Record Schema. For example, if a complex element has ten simple elements within it, those ten elements must occur in the same sequence as depicted in the XML Common Record Schema.

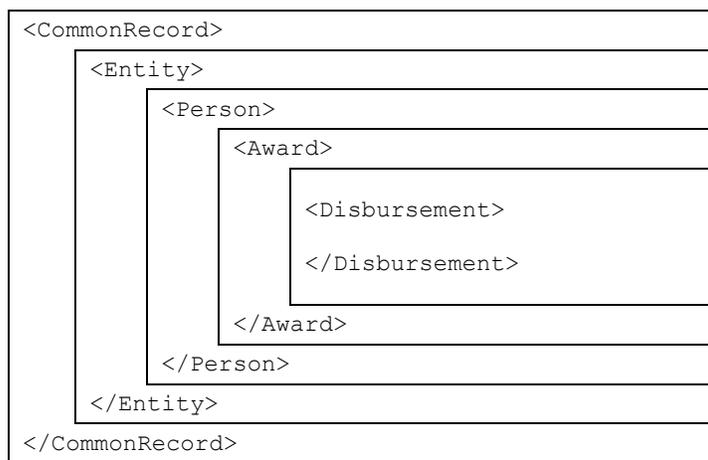
The Common Record is organized into the following structure:

Quick Reference Block Description

	Block Name	Block Description
1	Document Information	The Document Information Block contains information that was previously associated with a batch. It contains a date/time stamp, document validation information, summary-level document information, as well as the source of the document. This block occurs once per XML Document or submission.
2	Entity Information	The Entity Information Block contains information about the reporting and attending school. This block occurs once per reporting entity or school within the XML Document or submission.
3	Person Information	The Person Block contains student or parent information. This block occurs once per person, except for Grad PLUS where there will be two person blocks with identical data. All data within the two blocks must be identical.
4	Award Information	The Award Information Block contains Direct Loan, Pell Grant, ACG, National SMART Grant, and TEACH Grant award information, similar to origination data submitted in the fixed-length record layouts. As other partners use the Common Record to transport data, this will be the location of those awards. This block occurs once per award per person.
5	Disbursement Information	The Disbursement Information Block contains Direct Loan, Pell Grant, ACG, National SMART Grant, and TEACH Grant disbursement information. This block occurs once per disbursement.
6	Response	A Response block is nested within each block. The Response block is returned by COD to the submitting entity upon processing the Common Record. The Response block contains information about processing edits and document status.

Below is a pictorial representation of the Common Record layout. It illustrates how the Common Record is comprised of information modules or blocks.

The Common Record Document Structure



These information modules or blocks may be reused many times in the same record to transmit data for multiple awards and multiple disbursements for one or multiple students by one or multiple Attended Schools.

Schema Version

Beginning March 2012, all schools must submit Common Record documents using the latest XML Schema Version, 3.0e.

XML Schema

An XML Schema specifies the rules surrounding the logical structure of an XML document. It is a language that describes the allowed content of documents. It defines the elements present in the document and the order in which they appear, as well as any attributes that may be associated with an element.

To support the open standards proven effective in the development of the Common Record, FSA is making the XML Schema for the Common Record available electronically to all interested parties. Whether a school, a software provider, or a third-party servicer is using it for product development to support COD or any student financial resource trading partner is interested in incorporating the Common Record into their products and services, the schema is available on the web at: <http://ifap.ed.gov/ifap/publications.jsp>.

XML Resources

Extensible Markup Language (XML) is a growing standard for e-commerce, data transmissions and structured documents using the Internet. Many industry groups are developing schemas and data dictionaries for this purpose. As a result, there is extensive information available about XML and the initiatives specific to the higher education community. Many institutions are already using XML for their own Internet initiatives, including self-service applications for students, faculty, and staff; data exchanges both within and outside the school, and even data coordination or backup with data warehouse projects.

Available resources about XML include courses at many institutions and local or Internet bookstores. The Web is also a resource, including the sites mentioned below. The first three are international standards bodies, and the last is specifically for the schema and data dictionary for higher education.

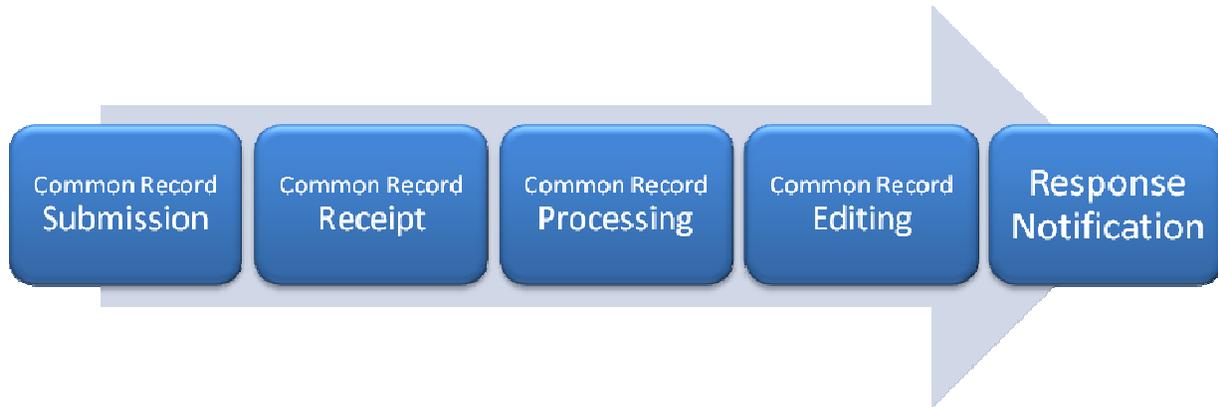
- <http://www.w3.org>
- <http://www.ebXML.org>
- <http://www.oasis-open.org>
- <http://www.PESC.org>
- IBM's Introduction to XML: <http://www-106.ibm.com/developerworks/xml/>
- Sun's XML & Java Technologies: <http://java.sun.com/xml>
- The XML Industry Portal: <http://www.xml.org>
- Web Reference: Exploring XML: <http://www.webreference.com/xml/>
- XML Information: <http://html.about.com/cs/xmlinformation>
- O'Reilly XML.com: <http://www.xml.com>
- The XML FAQ: <http://www.ucc.ie/xml>

Literature is constantly being updated as new technologies develop and mature. Therefore, it is recommended that time be spent exploring these resources.

Common Record Processing

This section addresses at a high level the processing of the Common Record from the institution perspective.

The COD Process is comprised of the following steps:



Please note that this overview of the COD Process will not cover the entire cycle for a school. There are items that take place prior to the submission of records (i.e. packaging) that are not explained in this document.

Common Record Submission

The COD Process begins when a school submits a Common Record. The Common Record is submitted by schools in one of two ways:

- Batch Submission via SAIG
- Manual Online Submission via the COD web site

Batch Submission

All Common Records sent in batch mode are submitted to COD's Student Aid Internet Gateway (SAIG) mailbox. The Enterprise Application Integration Bus (EAI Bus) performs periodic sweeps of COD's SAIG mailbox and transmits the Common Record data to the COD System.

Online Submission

A COD User can manually enter data online via the COD web site. The COD Web site creates a Common Record document for data entered online and sends it directly to the COD System.

Common Record Receipt

After the COD System receives the Common Record, the COD System generates a receipt. The receipt is transmitted from the COD System to the source entity in the same manner that the Common Record was submitted. For example,

- For Common Records received by the COD System via batch processing, the receipt is transmitted to the EAI Bus. The EAI Bus routes the receipt to the SAIG Destination Mailbox indicated in the SAIG Transmission Header and Trailer.
- For Common Record data entered via the COD web site, the receipt is returned to the COD web site.

For examples of Common Record receipts received via SAIG, please refer to *Volume VI, Section 6 – XML Examples* of this Technical Reference.

Common Record Processing

After the COD System transmits a receipt, the COD System classifies the record to determine how it is to be processed. The types of records are:

- New Record
- Update Record

New Record

A New Record establishes a new person, award or disbursement on the COD System. There are three types of new records:

- New Person with New Award – If the SSN contained in the student identifier does not match any previously submitted to the COD System, then the record is considered a New Student. A student cannot be established on the COD database without establishing an award for the student. Therefore, any New Student Record must contain a New Award Record. For Pell Grant, ACG, National SMART Grant, TEACH Grant, and Direct Loan Subsidized/Unsubsidized, the Student Identifier submitted by a school to establish the student on COD is matched to data from the Central Processing System (CPS).
 - For Pell Grant, ACG, National SMART Grant, and TEACH Grant, the current SSN, current Date of Birth, and first two characters of the current Last Name are matched with CPS data.
 - For Direct Loans, the current SSN and current Date of Birth are matched with CPS data.
- New Award – If the student identifier matches an SSN already established on the COD System, then the system checks to determine if the award is already on file. If not, then the record is considered a New Award.
- New Disbursement – If the person and award already exist on the COD System, then the system checks the disbursement number submitted for the award. If it is not already on file, then the system logs the disbursement as a new disbursement. There are two types of disbursement records:

Award Already on File

For Direct Loans, ACG, National SMART Grant, and TEACH Grant, the Financial Award Type, Financial Award Year, Attended Entity ID, Reporting Entity ID, and Financial Award ID fields are checked to determine if the award is already on file.

- Actual Disbursement - Actual Disbursement Records contain a `DisbursementReleaseIndicator` equal to `true`. The `DisbursementReleaseIndicator` is a tag on the Common Record that signals to the COD System that the disbursement information is an actual disbursement. It either makes funds available to a school, or substantiates cash already made available to the school. These records affect the Current Funding Level (CFL) calculation for the school. This can be thought of as the actual disbursement record in the old fixed-length record process.
- Anticipated Disbursement – Anticipated Disbursement Records contain a `DisbursementReleaseIndicator` equal to `false` or omitted. If the `DisbursementReleaseIndicator` is omitted, the indicator will default to `false`. These disbursements are not considered Actual Disbursements; therefore, they do not substantiate drawdowns. These records do not affect the CFL calculation for the school.

Update Record

An Update Record performs a change to information or elements that were previously established on the COD System by a New Record. There are two types of Update Records:

- Update Record – An Update Record performs a change to a non-monetary data element that was previously established by a New Record or is used to change disbursement amounts and dates that occur prior to substantiating drawdowns.
- Release Record – A Release Record can be submitted to the COD System with a `DisbursementReleaseIndicator` equal to `true` for a disbursement record previously submitted as an Anticipated Disbursement Record. Data elements can be changed via the COD Web site or by resubmission of a Common Record. Once the release indicator is set to `true`, there will no longer be an anticipated disbursement on the system with the same disbursement number as the actual.

Common Record Editing

Once the Common Record is received and has been classified, the COD System performs a series of valid format and content edits to determine if the file is suitable for further processing.

The COD System performs three types of edits:

- Correction – For Pell Grant data, if the school selects this option, the system automatically corrects the data and sends a response to the entity that submitted the record indicating that a correction took place, the element corrected, the original value, and the corrected value. The default option in the COD System for all schools is set to ‘correct’. If a school wants to have COD reject

Please note the COD System does not correct Direct Loan, ACG, National SMART Grant, and TEACH Grant data.

data instead of correcting it, then it must contact the COD School Relations Center to request that FSA make this change.

- Warning – The COD System sends a response to the entity that submitted the record indicating a warning, the warning code and the relevant element. The record continues to be processed by the COD System.
- Reject – The COD System sends a response to the entity that submitted the record indicating the reject code, the reject reason(s) and the relevant element(s). The record requires action from the school to continue processing.

Where possible, COD uses information from CPS as a basis for these edits. COD receives the Abbreviated Applicant file from CPS on a daily basis. This file is used to:

- Confirm a valid ISIR is on file (if applicable) and,
- Pull student-level information required for Common Record processing.

The COD System performs edits on the Document, Entity, Person, Award and Disbursement levels of the Common Record data. Data that passes edits is accepted and continues to be processed while data that does not pass edits is rejected. The COD System stores rejected data and associated reject reasons. Rejected data is held for corrective action to be taken by the school. Data can be corrected via Common Record re-submission or via the COD web site. The COD System then returns a response record notifying the school of the edit results.

Response Documents

For all Common Records received and processed by the COD System, the COD System returns a Response document indicating the status of the Common Record processing, including any rejected data elements and the reason for the rejection. If the Common Record was accepted, then the Response document indicates that the record was accepted.

The COD System sends one Response document for each Common Record document submitted. For Common Records that are transmitted via the SAIG, the COD System sends Response documents to the school's SAIG mailbox. For Common Record data entered into the COD web site, schools have an option to receive a Response document either via the COD Web site or via their SAIG mailbox.

For Responses received via the SAIG mailbox, schools also have the option to receive a Full or a Standard Response to Common Records processed by the COD System. A Full Response contains all the original tags sent by the school and the rejected data elements and reason codes. A Standard Response contains only the rejected data elements and reason codes.

The Common Record can be resubmitted in its entirety or sent with just the key identifiers, minimum data elements required for processing, and those data elements that have changed.

Record Layouts and Processes

For further information regarding record layouts and processes, schools/software vendors should refer to *Volume II – Common Record Technical Reference*.

For examples of COD Response Documents, please refer to *Volume VI, Section 6 – XML Examples* and *Volume VII, Section 7 – COD System Generated XML Response Files*.

If you use a combination of EDExpress and another system, please refer to *Volume III – Pell Grant, ACG, National SMART Grant & Direct Loan Combination System Supplement* for record layouts, processes, and edits pertinent to working in a combination system.