COD School Testing Guide

COD School testing enables simpler, faster, and less costly issue identification and resolution in a low-volume, controlled test environment. It also allows Schools, Third-party Servicers, and Software Vendors the opportunity to make corrections or enhancements to software applications and processes prior to entering into the "live" production environment. The goal of COD School Testing is to make the transmission of production data smoother and reduce the risk of production problems.

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Introduction

The COD School Testing Guide is intended for all Schools in the COD System.

Purpose

Throughout this document, the term "Schools" is used to indicate any entity that is participating in COD School Testing and includes Schools as well as entities that process on behalf of Schools (such as third-party servicers and software vendors).

The purpose of COD School testing is to provide schools, third-party servicers, and software vendors an opportunity to test Pell, Direct Loan, and the Teacher Education Assistance for College and Higher Education (TEACH) Grant business processes and system software with the COD System prior to the transmission and processing of actual production data. COD School testing will enable simpler, faster, and less costly issue identification and resolution in a low-volume, controlled test environment. It will also allow schools, third-party servicers, and software vendors the opportunity to make corrections or enhancements to software applications and processes prior to entering into the "live" production environment. The goal of COD School Testing is to make the transmission of production data smoother and reduce the risk of production problems.

Scope

COD School Testing is divided into three distinct phases of testing for the upcoming award year. The testing environment will be updated with new code in conjunction with the next major release of COD.

- Phase I – Common Record Manual Verification

- Phase II – Structured Application Testing

- Phase III – Unstructured Testing

Each phase is described in more detail later in this document.

COD School Testing is available to all entities that participate in the COD process. Schools, vendors or third-party servicersers are not required to test with COD, but are encouraged to participate in Phase I testing. Schools, vendors or third-party servicers should refer to the *Volume V Section 2: COD School Test Cases* document for more information. The test case document contains descriptions of the test data that schools, vendors or third-party servicers will send to and from COD, test execution guidelines, and structured test cases with multiple testing cycles.

Schools that use software from a software vendor and/or use a third-party servicer do not need to test with COD. The software vendors and third-party servicers can complete the test on behalf of their customers.

All entities that wish to participate in COD School Testing must submit a formal sign-up document to the COD School Relations Center. The sign-up document is located at the end of this section.

It is the School's choice as to how much of the test process they want to complete. But a previous test phase must be completed before moving on to the next. (Example: Schools wishing to test to Phase II must first complete Phase I.)

Test Phase Descriptions

Phase I - Common Record Manual Verification

1. What is the purpose of Phase I testing?

The purpose of the Common Record Manual Verification testing is to ensure that the schools, vendors or third-party servicer's XML Common Record is well formed and properly structured according to the rules of the 4.0d XML Common Record Schema. The 4.0d schema documentation is available on the IFAP web site at: https://ifap.ed.gov/codxmlschema/CODXMLSchema4pt0d.html This site also has direct links to the 4.0d schema XML code, the valid ranges XML code, and the change log. The COD team manually reviews a Common Record document emailed to the COD School Relations Center (CODSupport@ed.gov) by the schools, vendors or third-party servicers and assists the school, vendor or third-party servicer in the identification of potential updates to their Common Record submissions. This testing does not validate the data submitted within the Common Record. For this phase of testing, only two student records should be sent in the Common Record.

2. Who should participate?

The Common Record Manual Verification phase of testing is available to all schools, vendors or third-party servicers

3. When does Phase I testing take place?

Phase I testing is available from the beginning of January 2020 to October 2nd 2020. Phase I testing is required for all schools, vendors or third-party servicers prior to participating in Phase II testing.

4. How do Schools, Vendors or Third-Party Servicers sign up for Phase I testing?

Schools, vendors or third-party servicers must complete a sign-up document in order to participate and schedule a testing window with the COD School Relations Center. The sign-up document is located at the end of this guide and on the COD web site, https://cod.ed.gov under the "COD Resources" link. The completed document must be emailed to CODSupport@ed.gov, Subject: "COD School Testing Sign-up", or faxed to the COD School Relations Center, 1-877-623-5082.

5. What do Schools, Vendors or Third-Party Servicers need to do when they complete Phase I testing?

Schools, vendors or third-party servicers have completed Phase I and would like to continue on to Phase II testing, they must contact their COD School Testing Coordinator at COD School Relations Center to schedule a Phase II testing start date. A second sign-up document is not required to participate in Phase II testing.

Phase II - Structured Application Testing

1. What is the purpose of Phase II Testing?

The purpose of Phase II-Structured Application Testing is to ensure that schools, vendors or third-party servicers can send, receive, and process batches of records using specific input instructions with detailed expected results issued by COD. Schools, vendors or third-party servicers s use a test ISIR file supplied by COD that creates a test data set of students to use with the structured test cases. Schools, vendors and third-party servicers cannot create their own student data to submit files during Phase II testing.

During this phase, schools, vendors or third-party servicers send Common Record documents to, and receive Common Record Response documents back from the COD School Testing mailbox. Schools, vendors or third-party servicers must verify that these files can be loaded and processed correctly in their system.

2. Who should participate?

All schools, vendors or third-party servicers that have completed Phase I (Manual Verification) testing. Phase II is for schools who want to submit test common records for actual processing in the School Test environment. This would also allow Schools to test bringing in the response file they would get back from COD.

3. When does Phase II testing take place?

Phase II testing assists schools, vendors or third-party servicers in the identification of potential updates to their system before beginning actual processing for 2020-2021. Phase II is available from April 13th 2020 to November 18th 2020. If schools, vendors or third-party servicers complete Phase I prior to April 13th 2020 they must wait until the Phase II testing window opens.

4. How do Schools, Vendors or Third-Party Servicers sign up for Phase II testing?

When schools, vendors or third-party servicers sign up for testing, they can select their desired test phases on the Sign-Up Document. If not selected during initial submission schools, vendors or third-party servicers that want to continue on to Phase II testing after completing Phase I can contact their Testing Coordinator at COD School Relations Center. A second sign-up document is not required to participate in Phase II testing.

5. What do Schools, Vendors or Third-Party Servicers need to do when they complete Phase II testing?

Schools, vendors or third-party servicers should notify their COD School Relations Testing Coordinator when they have completed testing. If a schools, vendors or third-party servicer has shown no testing activity over a two week period, COD will assume your school, vendors or third-party servicer has completed Phase II of testing, unless you have notified COD otherwise.

6. What do Schools, Vendors or Third-Party Servicers need to do when they are ready to submit their first "live" batch?

Schools, vendors or third-party servicers should notify their COD School Testing Coordinator prior to submitting their first "live" batch into the production environment. The School Testing team will ensure the batch processes successfully, and notify the schooll, vendor or third-party servicerof the results.

Phase III - Unstructured Application Testing

1. What is the purpose of Phase III Testing?

The purpose of Unstructured Testing is to ensure that schools, vendors or third-party servicers can correctly create and submit all possible transactions needed for the future award year. Schools, vendors or third-party servicers continue to use data supplied within a test ISIR file supplied by COD. Schools, vendors or third-party servicers cannot create their own student data to submit files during the Unstructured Testing.

2. Who should participate in Phase III Testing?

Schools, vendors or third-party servicers that have participated in Phase I and Phase II of testing for the new award year set up, and wish to submit minor variations to the test cases such as adjustments to the person information, award amounts or disbursement amounts.

3. When does Phase III Testing take place?

Unstructured Testing for 2020-2021 will be available from April 13th 2020 through December 18th 2020. This testing phase is optional.

4. How do Schools sign up for Unstructured Testing?

Schools that want to continue on to unstructured testing after completing Phase II must contact the COD School Relations Center. A second sign-up document is not required to participate in Unstructured Testing.

5. What do Schools, Vendors or Third-Party Servicers need to do when they complete Phase III Testing?

Schools, vendors or third-party servicers Servicers should notify the COD School Relations Center when they have completed testing. If schools, vendors or third-party servicers have shown no testing activity over a two week period, COD will assume your school, vendor or third-party servicer has completed Unstructured testing, unless you have notified COD otherwise.

Testing Criteria

Test Entry Criteria

In order to begin testing with schools, vendors or third-party servicers need to complete the following steps:

- Complete a COD School Testing sign-up document (located at the end of this section). Upon completion, it should be submitted to the COD School Relations Center no later than September 18th 2020.

- Schedule individual testing date(s) specific for your School(s) for each testing phase. COD School Relations will contact you after the sign-up document is received.

- Be aware of your school's COD Entity ID and other program IDs. If you are a school, vendor or third-party servicer without a COD Entity ID simply request Entity IDs for testing.

- Confirm your test plans and COD readiness. Contact COD School Relations when you are ready to submit.

- Install the latest version of the message class table from SAIG.

- Install and implement the 2020-2021 updates to the software applications.

- Develop a means of keeping testing data separated from production environment.

- Identify individuals at the school, vendor or third-party servicer responsible for completing the COD School Testing process and exchange names with COD School Testing team.

- Complete Phase I Common Record Manual Verification Testing, prior to beginning Phase II Structure Application Testing.

> Vendors can test using a COD Entity ID for one of their Schools, or the COD School Relations Center can provide one for them to use for testing purposes only.

Test Exit Criteria

The School and the COD School Relations Center should jointly determine when the school, vendor and third-party servicer have successfully completed COD School testing. The school, vendor and third-party servicer can select which processes to test and should continue testing until expected results are received. Once the expected results are received the school can consider testing successful. There is no pre-defined "end" of the test other than the published end dates for each phase of COD School Testing.

A school, vendor and third-party servicer is considered to have completed testing with COD once any of the following steps are completed:

- It has been determined that the school, vendor and third-party servicer has been able to satisfactorily complete the desired test scenarios by achieving the expected results.

- School, vendor and third-party servicer has chosen to discontinue school testing prior to completing all the desired test scenarios if the expected results have been achieved.

- School, vendor and third-party servicer has contacted the COD School Relations Center to verify the test results.

- School, vendor and third-party servicer has successfully sent a "live" batch into the COD Production environment.

- Testing phase window closes prior to test completion by School.

Testing Completion Clean Up

In order to begin the production phase, all test data **MUST** be removed from the participating school, vendor or third-party servicer systems. Before submission of production data, schools, vendors and third-party servicers should also ensure that files are sent using the proper production message classes and production destination mailbox.

Test Data

The Test Data section explains test data requirements for Phase II-Structure Application Testing. More detail about the test cases can be found in the COD Test Cases document located in *Volume V, Section 2-COD Test Cases* document of the *2020-2021 COD Technical Reference*.

Common Record Test Data

COD provides an actual CPS test data ISIR file for all test phases to each participating school, vendor and third-party servicer via email in an attached Zip file. Each school, vendor and third-party servicer processes the ISIR data that COD provides and generates student award transactions using its normal awarding process. Schools, Vendors and third-party servicers are required to send this file to COD using the normal SAIG processing protocols with the exception of using the COD School Testing message classes and the COD School Testing destination mailbox located in the *Volume V, Section 2: COD Test Cases* document.

Upon receiving a Common Record in XML format, the COD System performs an immediate check to determine if the Common Record is readable. If the Common Record is readable and complies with the XML schema the COD System processes the file. COD will reject any unreadable record with Edit 210. After the COD System confirms the Common Record is readable and complies with the XML schema, the COD System classifies the record to determine how it will be processed. Schema 4.0a, 4.0b, 4.0c, and 4.0d Common Records will be processed with full validation enforced. Common Records that have schemas later than 3.0c will go through partial validation. Schema 3.0c and older schemas will be entirely rejected. School Test will expect Schools to submit schema 4.0d common records. Once the data has been processed, schools, vendors and third-party servicers will receive a response file indicating the results of each record submitted. If a record rejects the response file indicates which data element(s) have rejected. Rejected records can then be corrected and resubmitted.

When processing records within the COD test environment the anticipated time from record submission to Response file is approximately two hours during any business day. Batches submitted during the weekend or federal holidays may not be processed until 7:30am ET of the next business day. If a school, vendor or third-party servicer has not received a response within the above time frame of submitting the test file they should contact their School Testing Coordinator at the COD School Relations Center.

Testing Message Classes

Common Record message classes are year specific and are to be used from year to year in the production environment. However, different test message classes must be used for testing. During Phase II Structured Application Testing, and Phase III Unstructured Application Testing, Schools must use the following message classes when sending in Common Records for testing:

Common Record Test Message Classes

Common Record Documents sent from School to COD	CRTESTIN
Responses sent from COD to School	CRTESTOP

School Testing Sign-Up Process

Schools, vendors and third-party servicers register for COD testing by completing the sign-up document located at the end of this School Testing Guide and submitting it to the COD School Relations Center. Once the COD School Relations Center has received the sign-up document from the School a confirmation letter will be sent to the School, via email, verifying that their sign-up document was received. Once the sign-up document has been processed, the COD School Relations Center will send the School a Readiness letter, via email, to provide additional information needed to begin testing such as the testing Entity ID Number to be used by the school, vendor or third-party servicer, the assigned testing start date, and the name of the School Testing Coordinator assigned to the school, vendor or third-party servicer. A new readiness letter will be sent to the school, via email, for each specified phase of testing.

Upon receipt of the sign-up document, the COD team must complete a considerable setup process to establish the School in the COD test environment before testing can begin. Schools should take this setup process into account when planning to participate in COD School Testing and provide enough lead-time in their schedule.

The COD School Relations Center can be contacted by:

- Phone: 1-800-848-0978

- Fax: 1-877-623-5082

When calling, ask for COD School Testing Support, or send email to CODSupport@ed.gov with the subject line "COD School Testing Support".

Contact Names

Each School participating in COD testing notifies the COD School Relations Center of their designated contact person on the testing sign-up document. The contact person should be consistent for the period of time before, during, and upon completion of the test. This person should be a technically oriented staff member who is very knowledgeable about the School's financial aid system. This person should be available to assist in problem analysis and to coordinate any follow-up tests that may be required. If a school uses a third-party servicer and the servicer is conducting the test on behalf of the school, the COD School Relations Center needs the name and telephone number of the servicer contact person.

Scheduling

The School Testing sign-up document must be completed and emailed or faxed to the COD School Relations Center by the appropriate deadline shown below:

- The deadline to sign up for COD Testing is September 18th 2020.

When a School submits their School Testing sign-up document, the School is contacted by the COD School Relations Center to schedule testing dates within each phase of testing.

Support Services

While a school, vendor or third-party servicer are going through testing, there are many support sources available for assistance, as listed below:

School Support Services

Support Service	For Information on the Following:	Contact
School Testing Sign Up	Registering for School Testing	Contact COD School Relations Center
ISIR Data Issues	Problems with ISIR data only	Contact COD School Relations Center
ISIR Processing Issue	Problems with processing the ISIR file	Contact CPS/SAIG Technical Support 1-800-330-5947
SAIG	Issues concerning connectivity to SAIG only	Contact CPS/SAIG Technical Support 1-800-330-5947
COD Processing	Issues concerning all items related to Pell, Direct Loan, and TEACH processing only.	Contact COD School Relations Center
School Testing Issues	Issues concerning all items related to COD School Testing only.	Contact COD School Relations Center
School Testing Results	To obtain or report School Testing results for COD School Structured Testing only.	Contact COD School Relations Center

Resource Planning

Hardware/Software

Schools should have all hardware and software capabilities ready before testing. Each School should have all upgrades installed from vendors or regulatory releases for 2020-2021.

Roles and Responsibilities

A collaborative effort between participating schools, vendors and third-party servicers and the COD School Relations Center is necessary for COD School testing to be completed successfully. The expected roles and responsibilities of each entity are described below:

Schools, Vendors, and Third-Party Servicers

Schools, vendors and third-party servicers are responsible for completing the following steps associated with COD School Testing:

- In addition to this school testing section review relevant Electronic Announcements posted on the IFAP web site.

- Review the COD Implementation Guide and Common Record Layout in the COD Technical Reference.

- Review all documentation that is emailed to the participating School (if applicable).

- Review the 2020-2021 Award Year Pell Payment Schedule which has yet to be released as of the time this guide was published.

- Schedule testing date with the COD School Relations Center using the sign-up document (preferably returned via email).

- Prepare a test environment for COD School Testing that uses the test destination mailbox, test message classes, and the test Entity ID.

- Prepare test data to execute the Structured COD School Testing scripts for submissions.

- Send the test data to COD via the SAIG.

- Retrieve Responses from COD via the SAIG.

- Process Responses/acknowledgements.

- Communicate results with the COD School Relations Center.

- Once testing is completed, remove all data from the school, vendor or third-party servicer environment.

Protecting Personally Identifiable Information
Do not use real student data or production data during any phase of testing. Utilize only the student data provided in the ISIR provided by COD.

COD School Relations Center

The COD School Relations Center provides the following support during testing:

- Provide and process COD School Testing sign-up documents.

- Schedule specific test dates for schools, vendors, and third-party servicers.

- Provide schools, vendors, and third-party servicers with their own testing Entity ID to use only during a specific testing phase (if needed).

- Process submitted data.

- Send Responses via the SAIG.

- Update schools, vendors, and third-party servicers of their testing status.

- Assist with issue identification and resolution.

- Provide testing technical guidance.

Lessons Learned from 2019-2020

Schools, vendors and third-party servicers that participated in COD School Testing for 2019-2020 provided COD with feedback on their experience. The following sections provide you with insight as to what schools, vendors and third-party servicers should test, how to prepare and, and how to schedule testing within your institution.

Should I participate in School Testing?

- All software vendors, third-party servicers and schools that use a homegrown or mainframe system are encouraged to test their software with the COD System prior to submitting production data.

- FSA ensures that EDExpress is extensively tested each year with COD prior to its annual release(s) to the schools. Schools using EDExpress software do not need to test with the COD System.

- Schools that use a softwarevendor product do not need to test with the COD System, since most software vendors test with COD on their school's behalf. This will help minimize the need for schools to retest with COD.

- New schools to Title IV Financial Aid, that are not using EDExpress or another software vendor product, are also encouraged to test with COD.

How do I prepare for School Testing?

Before you begin testing, schools should:

- Establish a separate testing environment to keep production data separate from their testing data. Production operations of prior award years and COD School Testing need to be able to occur in parallel without interference.

- Compare test output files against the Common Record Layout and XML Examples published in the 2020-2021 COD Technical Reference Volume II.

- Signup for testing in advance to allow for adequate setup time before you are ready to begin testing. COD has considerable work to do to set-up each testing participant to ensure a successful test.

- Identify a strategy for loading the provided fictitious test students several weeks prior to Phase I testing. The easiest way to enter the test data is that Schools can process the simulated CPS ISIR file provided (via email) by COD. Schools can also manually enter the fictitious test students into their testing environment reading from the simulated CPS ISIR file.

- Review the Implementation Guide in the 2020-2021 COD Technical Reference and understand the COD process for Pell, TEACH Grants and Direct Loans.

What can I expect during School Testing?

- Plan to test and start early in the testing window. **DO NOT** wait until the end of the testing window to sign-up or begin testing. Allow and plan time for retesting with the COD system.

- Plan and allow time to encounter possible issues and errors, and expect time delays during the resolution process.

- Schools should be very careful to send test files to the correct SAIG mailbox and to use the correct SAIG testing message classes to avoid accidentally submitting test data to the COD production environment. SAIG has two networks. One is Production (Prod) and the other one is Test (ProdT). You will need to send your files to TG75891 mailbox in the Test network. Schools that use EDConnect should ensure that they select the correct test message class (usually CRTESTIN) and not the production message class.

- Proactively contact your testing coordinator to help resolve issues, provide testing status, and answer questions during the testing process. Schools may experience delays in the testing process while issues are identified, researched, and resolved.

- Communicate to the COD School Relations Center when the School has satisfactorily completed school testing or chooses to discontinue school testing.

COD School Testing Sign-up Document

On the following page you will find the COD School Testing sign-up document. This document should be completed to the best of your ability upon submission. The completed document should be sent to the COD School Relations Center.

Send the completed document to COD School Relations at:

- Email: CODSupport@ed.gov, subject of "COD School Testing Sign-up"

- Fax: 1-877-623-5082

Definitions of terms in the sign-up document and what information should be contained in them are listed below.

Field Name	Description
Organization	If you are a third-party servicer or software vendor list your name here. Schools can also put their name here.
COD Entity ID	Enter your Entity ID here. If you are unaware of your Entity ID you can find this information on the COD web site, cod.ed.gov, or contact the COD School Relations Center. Third-party servicers or software vendors who have tested in any previous year can enter the same ID they were given in the previous testing year. If a Servicer/Vendor has lost the information from previous years testing or if they have never tested before reach out to the COD School Relations Center and an ID will be provided.
Organization Type	Indicate if you are a school, software vendor, or third-party servicer.
Test Readiness Date	The date when you will be ready to begin the COD School Testing process.
Desired Test Phase	Select the phase(s) of testing that you want to complete. Keep in mind that you must complete each phase in order.
Hardware Setup	Indicate what kind of physical system you are using (a mainframe system or a server based system).
Software Product	If you are using a software vendor product or third-party service provider you use to submit records to COD enter the vendor product/software name. If you are using a self-made custom solution enter Custom: (and the name of you've given it).
Contact Info (Name, Phone, Email)	Enter the contact information of the people who will be working with the COD School Testing personnel.
School Name	If you are a School enter your name here. If you are a third-party servicer or software vendor testing through a school then enter that school's name here. If you are a third-party servicer or a software vendor testing directly with COD then leave this field blank.
Reporting School Entity ID	Enter the COD Entity ID of the School that will be submitting the records to COD. For most schools this will be the same as COD Entity ID above.
Attended School Entity ID	Enter the COD Entity ID of the School where student attends class. (This is usually the same as the COD Entity ID too.)
OPE ID	Enter the OPE ID of the School where student attends class.
Direct Loan ID	Enter the Direct Loan ID of the School where student attends class.
Pell ID	Enter the Pell ID of the School where student attends class.
SAIG Test Mailbox	Enter the SAIG Test mailbox ID (TGxxxxx) of the test mailbox you will be transmitting your test files from.

COD School Testing 2020-2021 Sign-Up Document

Complete and send to **CODSupport@ed.gov** or Fax to 1-877-623-5082.
Upon completion, it should be submitted to the COD School Relations Center no later than September 18th, 2020.

Allow 7-10 business days for the sign-up and set-up processes prior to testing.

Allow sufficient time for re-testing to meet your specific testing needs.

Organization Information	COD Entity ID:		Date Submitted:
Organization:			
Organization Type: School ( ) Vendor ( ) 3rd Party Servicer ( )		Test Readiness Date:	

Test Information	Desired Test Phases: 1. Manual Verification ( ) 2. Structured ( ) 3. Unstructured ( )
Programs Tested: Direct Loan ( ) Pell ( ) TEACH ( )	Hardware Setup: Mainframe ( ) Server/Workstation ( )
Software Product:	

Primary Contact	Name:	Phone #: ( ) -
Email:		

Additional Contact	Name:	Phone #: ( ) -
Email:		

School Information (List each school only once. If testing with a school system list main campus first.)

School Name:		
Reporting School Entity ID:	Attending School Entity ID:	OPE ID:
Direct Loan ID:	Pell ID:	SAIG Test Mailbox: TG
If sending/simulating batches through a third-party servicer enter the Entity ID for the servicer here:		

School Name:		
Reporting School Entity ID:	Attended School Entity ID:	OPE ID:
Direct Loan ID:	Pell ID:	SAIG Test Mailbox: TG
If sending/simulating batches through a third-party servicer enter the Entity ID for the servicer here:		

School Name:		
Reporting School Entity ID:	Attended School Entity ID:	OPE ID:
Direct Loan ID:	Pell ID:	SAIG Test Mailbox: TG
If sending/simulating batches through a third-party servicer enter the Entity ID for the servicer here:		

Case IDs assigned: