

## Understanding and Correcting MSDS File Upload Errors

During the file upload process in MSDS, users will often receive a pop-up message indicating the file was uploaded successfully, yet sometimes the data never reaches the Staging Area. This document will discuss how to understand and correct issues that are preventing the data from reaching the Staging Area.

### The Upload Process

1. Log into MSDS.
2. Click “Student Data Submission” on the left-hand menu.
3. Click “Upload File.” (Image 1)
4. Set the “Collection” drop-down to the collection you plan to upload.
5. Click “Browse.”
6. Locate the XML file that was exported from your Student Information System.
7. Click “Upload File.”
8. Unless the file selected is of the wrong format, or is otherwise inconsistent, a pop-up will inform you that the file was uploaded successfully.



After being uploaded successfully, the system runs error checks on the file. If any errors in the XML schema are found, the file will not process. Schema files are available under the Technical Material section of each collection page on the CEPI site. These will enable users and Student Information System vendors to view the layout and rules to which the files must conform.

### Check Upload Status

1. Click “Student Data Submission” on the left-hand menu
2. Click “Upload File Status.”
3. Select the collection you are working with and click “Filter.”
4. If there were no problems detected in your file, the status of the file will be “Processed Successfully.” If errors were detected, the status could be “Failed Load Staging Area,” “Upload Failed,” or “Failed File Level Validation.” (Image 2)
5. Click on the name of the file, under the File Name column, to view the errors that are preventing the data from entering the Staging Area.

Collection	Zip File Name	File Name	Notes	Uploaded Date	Source	Status	Uploaded By User	Cancel Upload?
Student Record Maintenance 2015-2016				03/03/2016 09:53 AM	File Uploaded UI	Failed Load Staging Area		
Student Record Maintenance 2015-2016		<a href="#">SRMUpload6.xml</a>		02/29/2016 01:18 PM	File Uploaded UI	Failed File Level Validation		
Student Record Maintenance 2015-2016				02/29/2016 01:14 PM	File Uploaded UI	Upload Failed		
Student Record Maintenance 2015-2016		<a href="#">SRMUpload4.xml</a>		02/29/2016 01:09 PM	File Uploaded UI	Processed Successfully		
Student Record Maintenance 2015-2016		<a href="#">SRMUpload7.xml</a>		02/29/2016 01:09 PM	File Uploaded UI	Upload Failed		
Student Record Maintenance 2015-2016		<a href="#">SRMUpload2.xml</a>		02/29/2016 01:09 PM	File Uploaded UI	Failed File Level Validation		
Student Record Maintenance 2015-2016				12/23/2015 10:32 AM	File Uploaded UI	Failed File Level Validation		

## Reading XML Code

Error messages that occur after a file upload in MSDS often contain similar language. Understanding this language can help users interpret and correct issues that are preventing the upload.

**Header:** The header is the long string of data that appears at the top of the file. It contains information about the file that is necessary to be uploaded to staging. Information contained in the header includes the current school year, the name of the collection, and the collection ID.

**Element:** These are the sections of data that appear in the body of the file. In the MSDS XML files, the elements represent components of the collection (e.g. Membership, School Demographics, Special Education, etc.)

**Child Element:** In the MSDS XML files, the child elements are the characteristics that appear within the components. In the Membership component, the child elements are Date of Count, Student Residency, and 10/30 Day Rule. The child element of the Student Record Maintenance component is the As Of Date.

### The following is an example of how an XML file would begin for the Student Record Maintenance collection:

```
<?xml version="1.0" encoding="utf-8"?>
<StudentRecordMaintenanceGroup SchemaVersionMajor="2015-2016"
SchemaVersionMinor="1" CollectionId="171"
SubmittingSystemName="BWSTransform.DownloadDataToXML"
SubmittingSystemVendor="MSDS - DownloadDataset" SubmittingSystemVersion="2.00"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/StudentRecordMaintenance
2015-20161.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <StudentRecordMaintenance>
    <SubmittingEntity>
      <SubmittingEntityTypeCode>D</SubmittingEntityTypeCode>
      <SubmittingEntityCode>33170</SubmittingEntityCode>
    </SubmittingEntity>
    <PersonalCore>
      <UIC>6663652983</UIC>
      <LastName>Bing</LastName>
      <FirstName>Chandler</FirstName>
      <DateOfBirth>2000-04-04</DateOfBirth>
      <MultipleBirthOrder>0</MultipleBirthOrder>
      <Gender>M</Gender>
    </PersonalCore>
  </StudentRecordMaintenance>
  <StudentRecordMaintenance>
    <AsOfDate>2016-02-29</AsOfDate>
  </StudentRecordMaintenance>
  <SchoolDemographics>
    <OperatingISDESANumber>33</OperatingISDESANumber>
    <OperatingDistrictNumber>33170</OperatingDistrictNumber>
    <SchoolFacilityNumber>02822</SchoolFacilityNumber>
    <GradeOrSetting>11</GradeOrSetting>
  </SchoolDemographics>
```

SRM Header

Submitting Entity Code and Type (Appears with every student record listed in the file)

School Demographics *Element* Begins

Child Elements of School Demographics

School Demographics *Element* Ends

## Interpreting Errors

Files must conform to the predetermined schema in order to be loaded to the Staging Area in MSDS. Some common errors are addressed below.

### Example 1:

Error Message: The value of the 'SchemaVersionMajor' attribute does not equal its fixed value.

Explanation: The Schema Version Major is the school year and should be 2015-16 if uploaded for the current collection. In this example, the previous school year is used and caused the error.

How the error appears in the file:

```
<?xml version="1.0" encoding="utf-8"?>
<StudentRecordMaintenanceGroup SchemaVersionMajor="2014-2015" SchemaVersionMinor="1"
CollectionId="171" SubmittingSystemName="BWSTransform.DownloadDataToXML"
SubmittingSystemVendor="MSDS - DownloadDataset" SubmittingSystemVersion="2.00"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/StudentRecordMaintenance2015-20161.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

### Example 2:

Error Message: The value of the 'CollectionId' attribute does not equal its fixed value.

Explanation: Each collection has its own identification number that differentiates it from the others. These are listed in the schema files for each collection. The Collection ID for the 2015-16 Student Record Maintenance (SRM) collection is 171 as detailed in the schema files that are available under Technical Material on the CEPI SRM Web page. In this example, however, the number 170 was entered and triggered the error.

How the error appears in the file:

```
<StudentRecordMaintenanceGroup SchemaVersionMajor="2015-2016" SchemaVersionMinor="1"
CollectionId="170" SubmittingSystemName="BWSTransform.DownloadDataToXML"
SubmittingSystemVendor="MSDS - DownloadDataset" SubmittingSystemVersion="2.00"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/StudentRecordMaintenance2015-20161.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

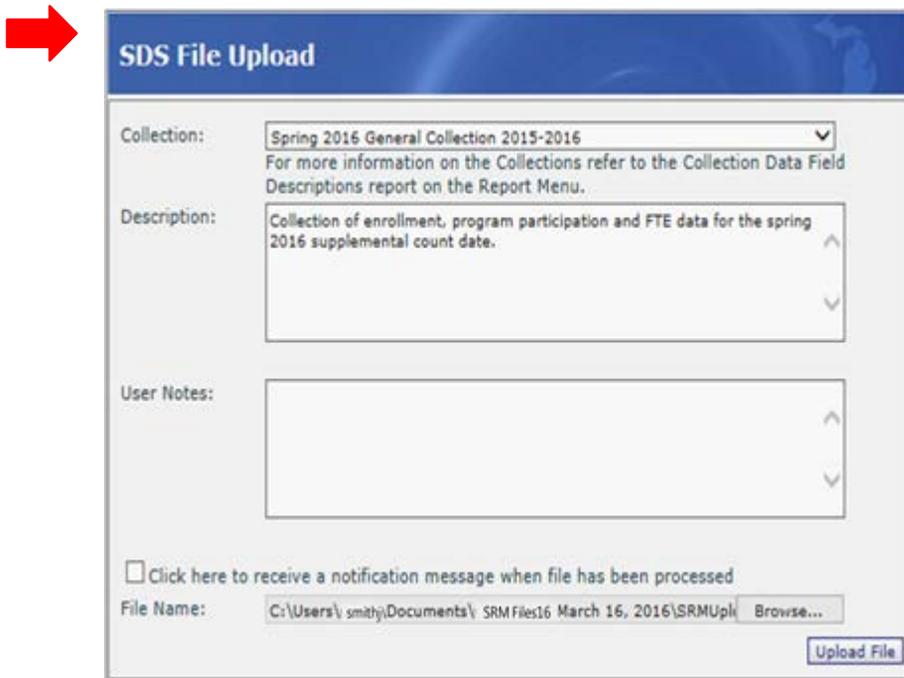
## Common Errors in the Header of the XML file

### Example 3:

Error Message: The 'StudentRecordMaintenanceGroup' element is not declared.

Explanation: This occurs when the collection selected in the dropdown on the upload screen does not match the type of file uploaded. In the case of this error message, the file uploaded was for the SRM collection, and the dropdown was set to the Spring Collection during the upload process.(Image 3) The mismatch caused the error.

Image 3: Collection Dropdown Mismatch



The screenshot shows the 'SDS File Upload' interface. A red arrow points to the 'Collection' dropdown menu, which is currently set to 'Spring 2016 General Collection 2015-2016'. Below the dropdown, there is a link for more information: 'For more information on the Collections refer to the Collection Data Field Descriptions report on the Report Menu.' The 'Description' field contains the text: 'Collection of enrollment, program participation and FTE data for the spring 2016 supplemental count date.' The 'User Notes' field is empty. At the bottom, there is a checkbox labeled 'Click here to receive a notification message when file has been processed' and a 'File Name' field with the path 'C:\Users\smithy\Documents\SRMFiles16 March 16, 2016\SRMUpl' and a 'Browse...' button. An 'Upload File' button is located at the bottom right.

*Common Errors in the Body of the XML file***Example 4:**

Error Message: The Submitting Entity Type Code and Submitting Entity Code (33170) were not found in EEM.

Explanation: Entity Type Code is “B,” indicating the entity is a building, and the Submitting Entity Code used is for a district. These must match. Also note, the Entity Type Code “B” is used for nonpublic entities, and “A” should be used for non-schools, such as daycare centers. All districts should use the “D” code with their district code.

How the error appears in the file:

```
<StudentRecordMaintenance>
  <SubmittingEntity>
    <SubmittingEntityTypeCode>B</SubmittingEntityTypeCode>
    <SubmittingEntityCode>33170</SubmittingEntityCode>
  </SubmittingEntity>
```


**Example 5:**

Error Message: If the collection being submitted is a Fall General, Spring General, EOY General, TSDL, or SRM collection, then the Submitting Entity Type must be 'D'.

Explanation: In this example, the Submitting Entity Type Code and Submitting Entity Code are both building-level. As indicated in the error message, the data entered here must be representative of a district if submitting for Fall General, Spring General, EOY General, TSDL, or SRM collections.

How the error appears in the file:

```
<StudentRecordMaintenance>
  <SubmittingEntity>
    <SubmittingEntityTypeCode>B</SubmittingEntityTypeCode>
    <SubmittingEntityCode>02822</SubmittingEntityCode>
  </SubmittingEntity>
```



**Example 6:**

Error Message: The 'PrimaryDisability' element is invalid - The value " is invalid according to its datatype 'PrimaryDisabilityType' - The Enumeration constraint failed.

Explanation: The double quotes in the error message (") are actually two single quotes indicating a required field has been left blank.

How the error appears in the file:

```
<SpecialEducation>  
  <PrimaryDisability></PrimaryDisability>  
  <IEPDate>2016-02-16</IEPDate>  
  <SupportServices>230</SupportServices>  
  <PrimaryEducationalSetting>11</PrimaryEducationalSetting>  
  <Section52FTE>0.00</Section52FTE>  
  <Section53FTE>0.00</Section53FTE>  
</SpecialEducation>
```

**Example 7:**

Error Message: The 'SupplementalNutritionEligibility' element is invalid - The value 'true' is invalid according to its datatype 'SupplementalNutritionEligibilityType' - The Enumeration constraint failed.

Explanation: The Supplemental Nutrition Eligibility component will only accept codes "1" or "2." Entering a "true" into this field triggered the error.

How the error appears in the file:

```
<SNE>  
  <SupplementalNutritionEligibility>true</SupplementalNutritionEligibility>  
</SNE>
```

## Interpreting Errors

### Common Errors in the Body of the XML file

#### Example 8:

Error Message: The element 'SpecialEducation' has invalid child element 'PrimaryDisability'. List of possible elements expected: 'SecondaryDisability, IEPDate, SupportServices, ProgramServiceCode, PrimaryEducationalSetting, PlacedByAnotherDistIEP, SpecEdExitReason, SpecEdExitDate, Section52FTE, Section53FTE'.

Explanation: In this case, two Primary Disability codes have been entered for the student, and the business rules allow for only one to be entered in MSDS. The error message lists the *child elements*, or the characteristics that appear in the component, in the order that they should appear. Optional child elements are not included in the schema if no data are entered.

How the error appears in the file:

```
<SpecialEducation>
  <PrimaryDisability>20</PrimaryDisability>
  <PrimaryDisability>19</PrimaryDisability>
  <IEPDate>2016-02-16</IEPDate>
  <SupportServices>230</SupportServices>
  <PrimaryEducationalSetting>11</PrimaryEducationalSetting>
  <Section52FTE>0.00</Section52FTE>
  <Section53FTE>0.00</Section53FTE>
</SpecialEducation>
```



#### Example 9:

Error Message: Duplicate Multi-Valued Characteristic Value - 4940346337 Support Services 230 Count:2

Explanation: Here two Support Services codes were entered. The business rules allow for up to five different support services codes to be entered, however, the same code (230) was entered twice in the student's record in this case. The error message contains the UIC of the student where the duplicate is located (4940346337).

How the error appears in the file:

```
<SpecialEducation>
  <PrimaryDisability>20</PrimaryDisability>
  <IEPDate>2016-02-16</IEPDate>
  <SupportServices>230</SupportServices>
  <SupportServices>230</SupportServices>
  <PrimaryEducationalSetting>11</PrimaryEducationalSetting>
  <Section52FTE>0.00</Section52FTE>
  <Section53FTE>0.00</Section53FTE>
</SpecialEducation>
```



## Interpreting Errors

### *Common Errors in the Body of the XML file*

#### **Example 10:**

Error Message: The element 'HomelessDemographics' has incomplete content. List of possible elements expected: 'UnaccompaniedYouth'.

Explanation: when the Homeless Demographics component is submitted, the file must contain information on whether the student is an Unaccompanied Youth. This line is absent from the schema.

How the error appears in the file:

```
<HomelessDemographics>  
  <Homeless>15</Homeless>  
</HomelessDemographics>
```

How the Homeless element **should** appear:

```
<HomelessDemographics>  
  <Homeless>15</Homeless>  
  <UnaccompaniedYouth>>false</UnaccompaniedYouth>  
</HomelessDemographics>
```



## Correcting Errors

Once the errors in the schema that are preventing the file from processing are identified, users have several options on how to make corrections. These options are discussed below:

**Option 1: Contact your Student Information System (SIS) vendor for assistance** - The vendor should be able to help determine how to correct the data within your SIS, and create another file for upload. This is the preferred method recommended by CEPI, as it is important to troubleshoot possible issues with the vendor, so they do not occur again in other files. In many cases, it is also easier to make corrections within the SIS than by using the method listed below.

**Option 2: View the errors in Excel** - Some errors, such as blanks or incorrectly entered values, can be identified by importing the file into Excel. Other errors, such as duplicate values, are not visible in the spreadsheet.

Follow the instructions to identify errors in the file:

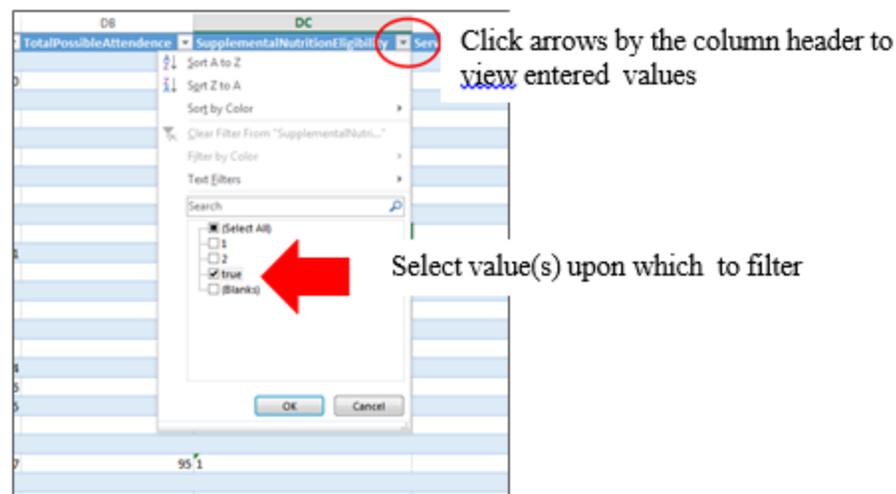
- Save the XML file somewhere on your computer where it can easily be located
- Open the file from within Excel **as an XML table**
- You might see the message, “The specified XML source does not refer to a schema. Excel will create a schema based on the XML source data.”
- Click OK.

The XML file data will be sorted into columns in the Excel document. Locate the column that contains the characteristic that is listed in the error. For example, the error message from Example 6:

```
<SNE>
  <SupplementalNutritionEligibility>true</SupplementalNutritionEligibility>
</SNE>
```

In this case, users should locate the Supplemental Nutrition Eligibility (SNE) component in the column headers. Filter to locate the “true” in the SNE column that is causing the error rather than a “1,” “2,” or blank cell. Then, scroll over to the left of the sheet to locate the name/UIC of the record that contains the error. **Corrections to these errors cannot be performed in the Excel spreadsheet itself.** The correction must be made either in your Student Information System, or in the XML file itself using an XML editor such as Notepad.

Image 4: Filter Columns for Data

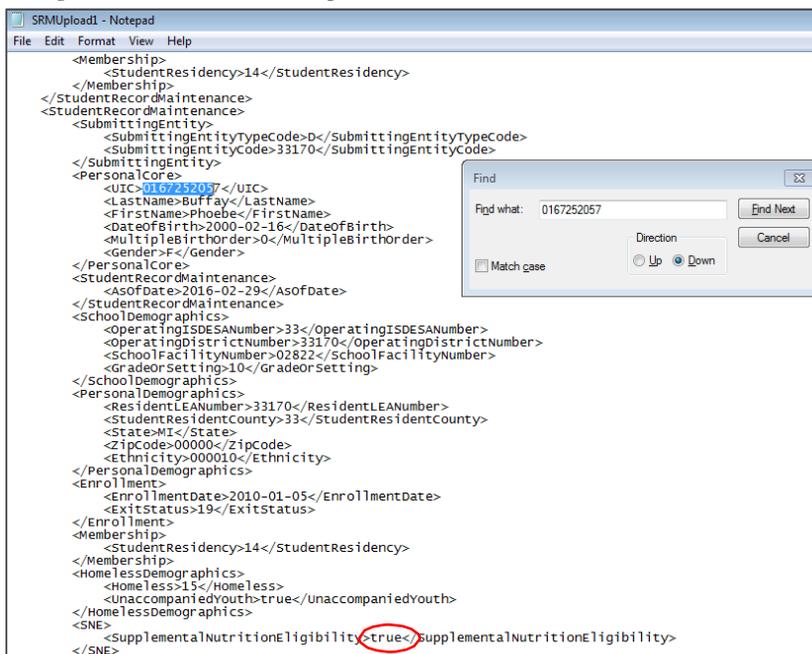


## Correcting Errors

**Fix the errors directly in the XML file:** Users can work in their Student Information System (SIS) to make the correction and create a new file for upload. If you are not able to make this change in the SIS, the errors can be fixed directly in the XML file. Follow these instructions:

- Open the file using Notepad (Not Wordpad).
- Use CTRL+F to search for the UIC identified in your spreadsheet. (Image 5)
- Locate the element that must be corrected and make the change.

Image 5: XML Text in Notepad



Save the file as “All Files,” and be sure to type .xml after the name of the file to save it as an XML file. **Neglecting to save as XML will cause the file to be saved as text and would be incompatible with MSDS.**

Image 6: Save as XML

