Understanding and Correcting MSDS File Upload Errors

Understanding the process of uploading your data into the MSDS system is important, so that you can take the steps needed to correct any errors in your file(s). First, you need to have your data file(s) saved on your computer where they are easily located and secure. The upload process below walks you through the steps of uploading the file from your computer into MSDS. Once your file is uploaded into MSDS, the system runs multiple quality checks on your file, to verify that it is in the correct format to be able to be loaded into your data staging area. These quality checks are checking the format of your data file and making sure that it is correct. Any errors in your data are that not caught by the system at this time will be caught by running the Quality Review process from the MSDS staging area.

The Upload Process

1. Log in to MSDS.
2. Click "Student Data Submission" on the left-hand menu.
3. Click "Upload File."
4. Set the "Collection" drop-down to the collection you are uploading.
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 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 SIS 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 "Uploaded File Status."
3. Select the collection that 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."
5. Click the name of the file under the File Name column to view the errors that are preventing the data from entering the Staging Area.

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 XML file. It contains information about the file that is necessary to be uploaded into the Staging Area. Information contained in the header includes the current school year, the name of the collection, and the Collection ID.

Element: These are section 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. For example, in the Membership element, the child element is "Student Residency."

The following is an example of the header of an XML file for the Spring 2018 General collection:

```
<?xml version="1.0" encoding="utf-8"?>
<SpringGeneralCollectionGroup SchemaVersionMajor="2017-2018" SchemaVersionMinor="1.0" CollectionId="194"
SubmittingSystemName="PowerSchool" SubmittingSystemVendor="PowerSchool" SubmittingSystemVersion="1.0"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/SpringGeneralCollection2017-20181.0.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

The following is an example of the Submitting Entity Code and Type (this appears with every student record listed in the file):

```
<SpringGeneralCollection>
    <SubmittingEntity>
        <SubmittingEntityTypeCode>D</SubmittingEntityTypeCode>
        <SubmittingEntityCode>31110</SubmittingEntityCode>
    </SubmittingEntity>
```

The following is an example of the Personal Core Element, and the Child Elements:

```
<PersonalCore>
    <UIC>123456789</UIC>
    <LastName>Smith</LastName>
    <FirstName>Joe</FirstName>
    <MiddleName>R</MiddleName>
    <DateOfBirth>2000-05-31</DateOfBirth>
    <MultipleBirthOrder>0</MultipleBirthOrder>
    <Gender>M</Gender>
</PersonalCore>
```

The UIC, LastName, FirstName, MiddleName, DateofBirth, MultipleBirthOrder, and Gender are the child elements of the Personal Core element.

Interpreting Errors

Files must conform to the predetermined schema to be loaded into 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 2017-2018 if uploaded for the current collection. In this example, the previous school year was used and caused the error.

How the error appears in the file:

```
<?xml version="1.0" encoding="utf-8"?>
<SpringGeneralCollectionGroup SchemaVersionMajor="2015-2016" SchemaVersionMinor="1.0" CollectionId="194"
SubmittingSystemName="PowerSchool" SubmittingSystemVendor="PowerSchool" SubmittingSystemVersion="1.0"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/SpringGeneralCollection2017-20181.0.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 2017-2018 Spring General collection is 194 as detailed in the schema files that are available under Technical Material on the CEPI General Collection page. In this example; however, the number 170 was entered and triggered the error.

How the error appears in the file:

```
<?xml version="1.0" encoding="utf-8"?>
<SpringGeneralCollectionGroup SchemaVersionMajor="2017-2018" SchemaVersionMinor="1.0" CollectionId="170"
SubmittingSystemName="PowerSchool" SubmittingSystemVendor="PowerSchool" SubmittingSystemVersion="1.0"
xsi:noNamespaceSchemaLocation="http://cepi.state.mi.us/msdsxml/SpringGeneralCollection2017-20181.0.xsd"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
```

Example 3:

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 is 'B' for building-level. As indicated in the error message, the data entered here must be representative of a district if submitting for any of the above collections.

How the error appears in the file:

```
<SubmittingEntity>
    <SubmittingEntityTypeCode>B</SubmittingEntityTypeCode>
    <SubmittingEntityCode>31110</SubmittingEntityCode>
</SubmittingEntity>
```

Example 4:

Error Message: The 'LastName' element is invalid – The value '' is invalid according to its datatype 'LastName' – The Enumeration constraint failed.

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

How the error appears in the file:

```
<PersonalCore>
    <UIC>123456789</UIC>
    <LastName></LastName>
    <FirstName>Joe</FirstName>
    <MiddleName>R</MiddleName>
    <DateOfBirth>2000-05-31</DateOfBirth>
    <MultipleBirthOrder>0</MultipleBirthOrder>
    <Gender>M</Gender>
</PersonalCore>
```

Example 5:

Error Message: The element 'SpecialEducation' has invalid child element 'PrimaryDisability'. List of possible elements expected: 'SecondaryDisability, IEPDate, TypeofPlan, 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>
    <TypeofPlan>02</TypeofPlan>
    <SupportServices>230</SupportServices>
    <ProgramServiceCode>194</ProgramServiceCode>
    <PrimaryEducationalSetting>11</PrimaryEducationalSetting>
    <Section52FTE>0.14</Section52FTE>
</SpecialEducation>
```

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 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 that 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 below to identify errors in the file:

1. Save the XML file on your computer where it can be easily located.
2. Open the file from within Excel as an XML table
3. You may see the message, "The specified XML source does not refer to a schema. Excel will create a schema based on the XML source data."
4. 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. Once you locate the error, it will need to be corrected in your SIS, or by using a program such as Notepad to edit your XML file.

Correcting Errors

Fix the errors directly in the XML file: Users can work in their SIS to make the correction and create a new file for upload. If you are not able to make changes in your SIS, the errors can be fixed directly in the XML file. Follow the below instructions to fix these errors in your XML file:

1. Open the file using Notepad (Not WordPad).

2. Use the CTRL + F feature to search for the UIC identified in your spreadsheet from option 2.
3. Locate the element that must be corrected and make the change.
4. 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 it will be incompatible with MSDS.**