

Align Module 4: Aligning Elements to CEDS (Part 2)

This tutorial explains how to align elements in your map to CEDS via the CEDS Align Tool. This feature requires that you have already created a map. If you need assistance adding elements individually to your CEDS map, please view Part 1 of Align Module 4.

Align Elements to CEDS (Topic 2)

On the right hand side of the screen, CEDS elements can be searched by Domain such as Early Learning, K12 or Postsecondary or by a keyword. When searching by keyword, enter the keyword and then click *Filter*. This will provide a list of elements which contain that keyword either in the element name or somewhere in the element's information. Before entering a keyword, you have the option to narrow your search to include only those CEDS elements in the same domain as the data dictionary on which you are working. For example, let's assume our *Gender* example is in a university's data dictionary, and thus in the *Postsecondary Domain*. We can first select *Postsecondary* in the drop-down menu. Note that the system will not enable you to filter by domain after generating a list of CEDS elements on a keyword; you can only filter by domain before entering a keyword.

Now that we have narrowed the domain to *Postsecondary*, we enter the keyword *Male* in the *Search* field and click *Filter*. You can view details about an element by clicking on the element name. When we click on *Sex*, information about that element appears in a pop-up box. The information includes the definition, option set, related use cases, and XML.

If you find that one of the elements in the search results aligns to your map element, select it by clicking on the checkbox next to its name. A pop-up box appears asking two questions about the alignment. The responses to these two questions will be useful when creating reports. It will allow the user to quickly see the similarities and differences between the map's element and the CEDS element. The first alignment question is about the definitions. The definitions of the map element and the CEDS element are identical, similar, or related only at a concept level. Since our example definition of *Gender* is close in meaning to the CEDS element definition for *Sex*, but not exactly the same, we select the fourth option, indicating that the definitions are similar in intent, with wording differences.

Similarly, the second question is about how the code sets of the two elements align. The first option is that the code sets have exactly the same codes and definitions. Select this if your codes are exactly the same as the CEDS element. The second option is that the code sets have the same number of codes, but would require transformation on value to align with CEDS code set. The third option is that the code sets have the same concepts, but would require aggregation or disaggregation of codes to achieve compatibility. This is generally the case if you have more codes than the CEDS element and you can combine them to create the same codes that the CEDS element has. The fourth option is that the code sets have very few or no codes that relate. This is generally the case if one of the elements has more codes than the other and any sort of combination of the codes would not result in similar codes in the other element.

In our example, GENDER, our codes were M for Male, F for Female, and Z for Unknown. The CEDS element *Sex* also has three codes: *Male*, *Female*, and *Not selected*. Since our three codes have essentially the same meaning as the CEDS codes, but have different valid values, we will choose the second option: the code sets have the same number of codes, but would require a transformation of value to align.

The fifth option is alignment is Not Applicable. This occurs when an element does not contain a code set such as first name or student identification number.

The sixth and final option is that there is no code set definition available in the stakeholder data dictionary. This is true for some data systems. If this is true in your case, select the sixth option. Then click *Submit*.

You will notice on the left side of the screen that the first table has now been populated with the CEDS element name and the responses from the two alignment questions.

In addition to filtering by domain and searching based on keyword, you can also find a particular element by drilling down in the CEDS Element tree view. The first list you see is made up of the domains in CEDS. Expand a domain to show the entities by selecting the small box to the left of the appropriate domain. Expand an entity to show the categories. Expand a category to show the elements. Just as you could with the keyword search, click on an element name to see details about that element. You can also select the element by clicking in the checkbox to the left of the element name. The pop-up box will appear for you to answer the two alignment questions.

If you need to deselect an element previously aligned, simply uncheck the box next to the CEDS element name or select the red X in the CEDS alignment table on the left side of the screen. You will need to confirm that you want to remove the associated alignment. You also have the ability to edit the alignment questions you answered previously. To do this, simply click on the *Edit Alignment* icon in the CEDS alignment table on the row for the element alignment you wish to revise. The two alignment questions appear again, and are now editable. Make any changes and click *Update*.

If you cannot find an element within CEDS that aligns to your map element, click the checkbox at the top of the screen that says *Element Could Not Be Located in CEDS*.

When you complete the alignment to all relevant CEDS elements, click *Next* to advance to the next element within the table you are currently working in your map. You can go back to the previous element by selecting *Previous*. You can also select *Close* to return to the list of tables and elements. The list of elements will display a dot indicator when an element has either been aligned to at least one CEDS element or *Element Could Not Be Located in CEDS* was selected.

If you need to edit an element, find the appropriate element and click on its name. This will take you to the Element Information screen. If you need to make changes to your element's System, Database, Table or Element Name, Element Definition, Data Type, or Length you can do so here. Be sure to click the green *Update* button to save your changes. Make all of your changes and then click *Close* to go back to the list of elements.

If at any time you need to delete an element, you can do so by selecting the red X next to the element name.

Validate Consistency (Topic 3)

The Validate Consistency report is available to Map Administrators and Authorized Users when they are logged in. This report is also accessible as a Map-Based Report under *Use* in *Align*. With this report, users have the ability to check the consistency of the alignment of elements that have multiple instances within their map.

When you run this report, the system looks for multiple instances of the same element name and multiple instances of the same element ID. If your map has multiple instances of the same element name, but you did not align the elements exactly the same, the report will show those elements under the “Common Element Names” header. Expanding the plus sign beside the element name shows a table first with a purple header row. The CEDS element is in this row and information about the CEDS element is revealed in a popup box when the purple row is selected.

Below the CEDS element are rows showing the path for all instances of this map element that align to the CEDS element displayed. The map element is hyperlinked so that when selected, the details about that element appear in a popup window. In the columns next to the element, the responses about definition and option set alignment appear.

Multiple groupings of CEDS elements indicate that the map element was aligned to different CEDS elements, depending on the instance of the map element. Multiple paths displayed under a single CEDS element indicates that either one or both of the definition and option set alignment responses varied across instances of the map element.

Note that inconsistencies across instances of a map element may be necessary given the context of each instance. If, however, the inconsistencies are erroneous, the user can correct the issue by selecting the Align button next to the appropriate map element instance and making the necessary edits.

The same situation is displayed under the “Common Element IDs” header except that the system is looking for multiple instances of the same element ID instead of the same element name.

If there are no inconsistencies across the map, the system will display a message indicating such.

This completes Part 2 of *Align Module 4: Aligning Elements to CEDS*. For information on how to create a map, manage your maps, upload a data dictionary or create reports, please view the other Align tutorials available on the CEDS website.