

Educational Service District 113
Capital Region Information Service Center

Data Mining

Advanced Data Mining

November 2016



My Partner for Learning Solutions

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Fields Tab – Student Inclusion

WS/ST/DM

Student Inclusion give you flexibility to narrow the selection of students who are included in your report, sometimes significantly improving the quality and usefulness of the data in the report.

The screenshot shows the 'Data Mining' interface with the 'Fields' tab selected. The 'Report Name' is 'New Data Mining Template'. The 'Report Title' is 'New Data Mining Template'. The 'Report Orientation' is 'Portrait', 'Student Status' is 'Active', 'Excel Export' is 'Default', and 'Default Entity' is 'Both'. The 'Selected Students' count is 0. The 'Family Access Display' is set to 'Format'. The 'And/Or Filter' is set to 'Task Manager'. The 'Field Areas' section shows 'Student Main Line' selected. The 'Include All Students Regardless if They Have Data in the Field Areas.' option is selected, highlighted with a red box.

Note: This functionality works in conjunction with the “Selected Field Areas” on the Fields tab. The illustration below gives a clear example of what that means:

The screenshot shows the 'Data Mining' interface with the 'Fields' tab selected. The 'Report Name' is 'Health Condition Report'. The 'Report Title' is 'Health Condition Report'. The 'Report Orientation' is 'Landscape', 'Student Status' is 'Active', 'Excel Export' is 'Default', and 'Default Entity' is 'Yes'. The 'Field Selection' section shows 'Field Search' selected, highlighted with a red box. The 'Field Search' section shows 'Field Lookup: critical alert info' and '** Type 3 Text Characters to Start Search **'. The 'Selected Field Location' is 'Emergency'. The 'Selected Field' section shows 'Description: Critical Alert Info', 'Used For: Emerg.', 'Heading 1: Student', 'Heading 2: Crit Alert Info', and 'Length: 19'. The 'Fields on Report' section shows a list of fields, with 'Critical Alert Info' highlighted, highlighted with a red box. The 'Report Width' is 236/172.

The **Student Inclusion** feature gives you more flexibility in determining which students are included in your report. A detailed explanation of this functionality is available under the **?**.

Students Included on Report

Information:

- A Data Mining report must contain at least one Student Main Line field in order to print.
- Student Inclusion criteria is based on Fields Areas. A Field Area is a common group of related fields. Examples of Field Areas: Student Main Line Info, Student Attend Info, Discipline Info, Scheduling Info.
- If at least one of the fields in a Field Area has a value, then that area is considered to have data.
- A field from any area can be considered part of the Student Main Line Field Area. A field is determined to be part of the Student Main Line Field Area if only one value can be entered for the Student.
- If a report has the Student's Name, their Advisor, and their Obligations, the Student's Name and their Advisor are one Field Area, and their Obligations are another Field Area.

Example:

	Has Attend Records	Has Discipline Records
John	Yes	Yes
Mary	No	Yes
Tom	Yes	No
Jane	No	No

Include All Students, Regardless if They Have Any Data in the Selected Field Areas

- The report will include all Students even if they do not have any records in the Attend or Discipline tables.
- John, Mary, Tom and Jane are all included on the report.

Include Students Who Have data in at Least One of the Selected Field Areas

- The report will include all Students who have a record in the Attend or Discipline table.
- John, Mary and Tom are included on the report.
- Jane is excluded from the report because she does not have any records in either the Attend or Discipline table.

Include Only Students Who Have Data in All of the Selected Field Areas

- The report will only include Students with a record in both tables.
- Only John is included on the report.

OK

Format Tab

WS/ST/DM

The **Format Tab** allows you to print multiple records on one line per student.

In the example below, the Data Mining report is pulling **Student Full Name** and **Health Condition Description** only. The students have multiple **Health Conditions** entered on their student records.

When the report is printed **WITHOUT** using the new **Format** tab functionality it displays as shown below:

lcnrgs42.p 56-2 04.10.12.02.00	HS Entity Instructor 400 - INS Name & Health Condition Only	04/26/11	Page:1 10:46 AM
Student			
Full Name			
Abler, Richard			
Condition Desc			
ALLERGIES			
Anaphylactic			
Severity Code B			
Adams, Alex			
Condition Desc			
ALLERGIES			
Severity Code D			
Smith, Rebecca			
Condition Desc			
Asthma - Severe			
Severity Code B			
Student Count:3			
***** End of report *****			

When the same report is exported to Excel it displays as shown below:

	A	B	C	D	E	F
1	Student Full Name	Condition Desc				
2	Abler, Richard	ALLERGIES				
3	Abler, Richard	Anaphylactic				
4	Abler, Richard	Severity Code B				
5	Adams, Alex	ALLERGIES				
6	Adams, Alex	Severity Code D				
7	Smith, Rebecca	Asthma - Severe				
8	Smith, Rebecca	Severity Code B				
9						
10						

To make all of these Health Condition records display on one line, edit the Data Mining report

- Click on the **Format** tab.
- Click **Edit** and check the box beside **"Print All Information on One Line Per Person"**.
- Any field that can contain multiple records becomes editable and you can enter the number of records to print per student. Choose a number large enough to include all of the possible records you wish to include in your report. In the example below we have selected to print 3 Health Condition records.
- Click **Save and Back**.

Data Mining

Report Name: Health Condition Report

Report Title: Health Condition Report

Report Orientation: Portrait Student Status: Active Excel Export: Default Default Entity: Both

☒ Print All Information on One Line Per Person

Report Width: 76/132

Format

Table Information

Table Name	Print #
General/Profile/Name	1
Health/Health Conditions	3

Save and Back

When the same report is printed using the Format tab as described, the report displays as shown below:

1cnrgs42.p 56-2 04.10.12.02.00		HS Entity Instructor 400 - INS Name & Health Condition Only	04/26/11	Page: 1 10:58 AM
Student				
Full Name	Condition Desc	Condition Desc	Condition Desc	
Abler, Richard	ALLERGIES	Anaphylactic	Severity Code B	
Adams, Alex	ALLERGIES	Severity Code D		
Smith, Rebecca	Asthma - Severe	Severity Code B		
***** End of report *****				

When this report is exported to Excel it displays as shown below:

	A	B	C	D	E
1	Student Full Name	Condition Desc	Condition Desc	Condition Desc	
2	Abler, Richard	ALLERGIES	Anaphylactic	Severity Code B	
3	Adams, Alex	ALLERGIES	Severity Code D		
4	Smith, Rebecca	Asthma - Severe	Severity Code B		
5					
6					
7					

And/Or Filter Tab

WS/ST/DM

The **And/Or Filter** Tab allows you to build filters for the fields in your report. These fields supplement the settings in the Ranges tab. In the example below we will build a report to select students, age 3-21, who were born outside of the USA.

Add the following fields to your report:

Data Mining

Report Name: Birth Country

Report Title: Birth Country

Report Orientation: Portrait Student Status: Both Excel Export: Default Default Entity: Both

☐ Field Selection ☒ Field Search

Field Search

Field Lookup:

** Type 3 Text Characters to Start Search **

Selected Field Location

Selected Field

Description:

Used For:

Heading 1:

Heading 2:

Length:

Add This Field To Report

Available Fields

Fields on Report

Student Full Name	[Profile]
Birth Country Code	[Birth Hist]
Age	[Profile]

Save and Back

Save and Modify Ranges

Back

Up

Down

Delete

Under the **Ranges** Tab, select age 3 through 21.

Data Mining

Report Information

Report Name: Birth Country

Report Title: Birth Country

Report Orientation: Portrait Student Status: Both Excel Export: Default Default Entity: Both

Report Width: 42/132

Selected Students: 0

Family Access Display

Format

And/Or Filter

Task Manager

Student Full Name (Profile)

☒ Print Field on Report ☐ Individual Selections

Name Order: ☒ Last, First, Middle ☐ First Middle Last ☐ Last, First ☐ First Last

Reset

Ranges Low/High:

Headings 1: Student Headings 2: Full Name Length: 30

Birth Country Code (Birth Hist)

☒ Print Field on Report ☐ Individual Selections

Reset

Ranges Low/High: a ZZZ

Headings 1: Birth Headings 2: Country Length: 7

Age (Profile)

☒ Print Field on Report ☐ Individual Selections

Reset

Ranges Low/High: 3 21

Headings 1: Age Headings 2: Age Length: 3

Under the Fields tab, select the **Student Inclusion Option** to “Include Only students who Have Data in All of the Selected Field Areas.” This will remove any records for students who have a blank Birth Country Code.

Click the **And/Or Filter Tab**. The filter you want to build will select those students who were not born in the USA.

1. Click **Edit**.
2. Under the **Defined Filters** area, add a **Student** filter by clicking **Add**.
3. Under the **Filter Parameter Definitions** area your cursor will be under the word **Fields** and a dropdown arrow is available for field selection. Using the dropdown arrow choose **Birth Country Code**.
4. Using the dropdown arrow in the field to the right choose **Not Equal**.
5. In the blank field to the right of **Not Equal** type USA.
6. Click **Accept**.

The **And/Or Filter** screen will now display as shown below:

With the combination of Student Ranges, Student Inclusion, and the And/Or Filter, your records will only include those students ages 3-21, born outside of the USA:

1cnrgs42.p 85-2 05.14.10.00.06		Entity (485) Grades 9 to 12 Birth Country		12/11/14	Page:1 11:16 PM
Student	Birth				
<u>Full Name</u>	<u>Country</u>	<u>Age</u>			
Abaloscr, Xenia B	THA	16			
Abbscr, Klara I	GBR	16			
Addlemanscr, Glory O	THA	18			
Student Count:3					

Information Labels

WS/ST/DM

Information Labels allows to you to create labels using student-specific information, such as Name, Advisor, Grad Year, etc. In the example below, we are creating labels to place on student folders for quick and easy identification.

Add the following fields to your report:

Data Mining

Report Name: Back

Report Title:

Report Orientation: Student Status: Excel Export: Default Entry:

☐ Field Selection ☒ Field Search

Field Search

Field Lookup:

** Type 3 Text Characters to Start Search **

Selected Field

Description:

Used For:

Heading 1:

Heading 2:

Length:

Available Fields

Fields on Report

Student Full Name	[Profile]
Grad Year	[Profile]
Other ID	[Profile]
Birth Date	[Profile]
Gender	[Profile]
Freeform Comment 1	[UDF]

Report Width:

Click **Save and Back** – then select **Information Labels**.

Note: Information Label templates are specific to the Data Mining report you are working within; this is because the fields on the report impact the outcome of the Information Label output.

1. Click **Add**
2. Type a description
3. In the **Line Information** area, click **Line 1**
4. In the **Available Fields** list, double-click the desired field to add to line 1 of the label; repeat to add additional fields to Line 1
5. Continue adding fields to Line 2 through Line 6

If you add multiple fields to an Information Label line, you can insert a space or add a comma between the fields using a UDF Freeform Comment field.

Information Labels Maintenance

Template Settings

* Template Description:

☐ Share with other users in entity 402

☐ Print Greenbar

Available Fields

Field	Group	Length
Student Full Name	[Profile]	30
Grad Year	[Profile]	4
Other ID	[Profile]	12
Birth Date	[Profile]	10
Gender	[Profile]	3
-	[UDF]	20

Information Label Appearance

1: Student Full NameXXXXXXXXXXXXX_

2: Birth Date_ - XXXXXXXXXXXXXXXXXXXX_Gen_

3: Grad_ - XXXXXXXXXXXXXXXXXXXX_Other IDXXXXX_

4: _____

5: _____

6: _____

Line Information

☒ Line 1 ☐ Line 2 ☐ Line 3 ☐ Line 4 ☐ Line 5 ☐ Line 6

Field	Group	Length	Length	Spacing	Trim
Student Full Name	[Profile]	30	30	1	Yes

☒ Trim Trailing Spaces

Spacing After Field:

Selected Field Length:

Total Line Length:

Asterisk (*) denotes a required field

At the bottom of the screen, specify spacing and field length options:

- **Trim Trailing Spaces** – removes extra spaces between each selected field. This option is selected by default; if you clear this checkbox, it resets when you add a new field
- **Spacing After Field** – allows you to add extra space between fields. For example, type “3” to separate fields by three spaces
- **Selected Field Length** – adjusts the length of fields. For example, Age is a three character field. To reduce it to two characters, type “2” over the original default value of “3”

Select **Label Setup** to choose the type of label (such as Avery 5160)

- Click on **Skyward Labels** hyperlink for available label types or click **MS Word** (this option generates a CSV file to use for mail merge in Word)
- Select your label choice and save.

Sample information label:

Abbruzzesescr, Kathey T
11/24/2001 - F
2020 - 44894

Label Options

Label Export Options

☒ Skyward Labels:

☐ MS Word (This option will generate a csv file that can be used for a merge)

Label Overrides

Number of Labels Across: Start With Label:

Number of Positions to Indent: Label Sort Order:

Number of Labels per Person:

Label Default Settings

Margins

Top: Side:

Label Dimensions

Height: Width:

Pitch

Vertical: Horizontal:

Number of Labels

Across: Down:

Page Set-up

Lines Per Inch: Label Type:

Char Per Inch: Orientation:

Mail Merge

WS/ST/DM

Mail Merge allows you to merge student data gathered in a Data Mining Report with another document. In the example below, we are creating a letter providing emergency information for to send home for review.

Add the following fields to your report:

The screenshot shows the Skyward Data Mining interface. On the left, a list of fields is displayed, each with a corresponding data type in brackets. These fields are intended to be added to a report. The main window shows a 'Fields on Report' section with a list of fields already added to the report. Buttons for 'Save and Back', 'Save and Modify Ranges', 'Back', 'Up', 'Down', and 'Delete' are visible. The 'Report Width' is shown as 449/172.

Field Name	Data Type
Student Full Name	[Profile]
Student Last Name	[Profile]
Grade	[Profile]
Address	[Address]
Mailing Address (One Line)	[F1]
Primary Phone	[Profile]
Guardian First Name	[F1/G1]
Guardian Last Name	[F1/G1]
Custodial Parent (Y/N)	[F1/G1]
Pick Up (Student) (Y/N)	[F1/G1]
Relationship to Student	[F1/G1]
2nd Phone	[F1/G1]
2nd Phone Type	[F1/G1]
3rd Phone	[F1/G1]
3rd Phone Type	[F1/G1]
Guardian First Name	[F1/G2]
Guardian Last Name	[F1/G2]
Custodial Parent (Y/N)	[F1/G2]
Pick Up (Student) (Y/N)	[F1/G2]
Relationship to Student	[F1/G2]
2nd Phone	[F1/G2]
2nd Phone Type	[F1/G2]
3rd Phone	[F1/G2]
3rd Phone Type	[F1/G2]

Click **Save and Back** – then select **Mail Merge**

1. Click **Add**.
2. Enter a Template Description.
3. Click **Merge Fields**.
4. Click the drop-down arrow in the **Add Merge Fields** area and **select fields**.
5. Begin typing your document, or copy and paste an existing document.

6. You may use the formatting features to modify your document.
7. Finish creating your document, inserting merge fields as necessary.
8. Click **Save and Print**

Mail Merge

Template Settings

* Template Description:

☐ Share with other users in entity 402

☐ Print Greenbar

☒ 6 Lines Per Inch ☐ 8 Lines Per Inch

Save and Print (highlighted)

Reset

Back

Mail Merge Document

Source Arial 14

[[--Student First Name | Profile--]] [[--Student Last Name | Profile--]]

Grade: [[--Grade | Profile--]]

We are in the process of verifying the family contact information for our students.

Please take a moment to verify the below information for [[--Student First Name | Profile--]].

Note any updates, then return to the school office.

Family Information:

Street Address: [[--Address | Address--]]

Mailing Address: [[--Mailing Address (One Line) | F1--]]

Primary Phone: [[--Primary Phone | Profile--]]

Guardian Information:

Guardian Name: [[--Guardian First Name | F1/G1--]] [[--Guardian Last Name | F1/G1--]]

Relationship to Student: [[--Relationship to Student | F1/G1--]]

Is this guardian a custodial parent? [[--Custodial Parent (Y/N) | F1/G1--]]

Is this guardian allowed to pick up the student? [[--Pick Up (Student) (Y/N) | F1/G1--]]

2nd Phone: [[--2nd Phone | F1/G1--]] **Type:** [[--2nd Phone Type | F1/G1--]]

3rd Phone: [[--3rd Phone | F1/G1--]] **Type:** [[--3rd Phone Type | F1/G1--]]

Example of the document created using the Mail Merge option, with the fields filled in:

Vanita Ainscoughscr
Grade: 12

We are in the process of verifying the family contact information for our students.

Please take a moment to verify the below information for Vanita.

Note any updates, then return to the school office.

Family Information:

Street Address: 30037 Scramble avenue Scramble WV 55555

Mailing Address: 30037 Scramble avenue Scramble, WV 55555

Primary Phone: (555) 953-1752

Guardian Information:

Guardian Name: William Ainscoughscr

Relationship to Student: FATHER

Is this guardian a custodial parent? N

Is this guardian allowed to pick up the student? N

2nd Phone: (555) 147-7403 **Type:** Work

3rd Phone: (555) 925-5247 **Type:** Cellular

Reports Generator

WS/ST/DM

The **Print Using Reports Generator** feature allows you to refine the range of information that appears on your report. This allows you to maintain your original list of students, but narrows it down to a specific group of students without having to modify your original report.

Add the following fields to your report:

The screenshot shows the 'Data Mining' application window. At the top, there's a 'Report Name' field with 'Student Phone List' and a 'Back' button. Below that, 'Report Title' is 'Student Phone List', 'Report Orientation' is 'Portrait', 'Student Status' is 'Active', 'Excel Export' is 'Default', and 'Default Entity' is 'Both'. There are radio buttons for 'Field Selection' and 'Field Search'. The 'Field Search' section has a 'Field Lookup' field and a note '** Type 3 Text Characters to Start Search **'. Below this is a 'Selected Field Location' table. The 'Selected Field' section has fields for 'Description', 'Used For', 'Heading 1', 'Heading 2', and 'Length', with an 'Add This Field To Report' button. The 'Fields on Report' list is highlighted with a red box and contains three items: 'Student Full Name [Profile]', 'Grade [Profile]', and 'Primary Phone [Profile]'. To the right of this list are buttons: 'Save and Back', 'Save and Modify Ranges', 'Back', 'Up', 'Down', and 'Delete'. At the bottom right, it says 'Report Width: 48/132'.

Click **Save and Back** – then select **Print Using Reports Generator**

1. Click **Add**
2. Type a Description in the Parameter Set Name
3. Select **Change Information**
4. Select **Phone** – Low Date = 10/01/16, High Date = 10/31/2016
5. Click **Save and Back**
6. You can now either **Print**, or **Print Student List** to preview

Change Information

Parameter Set Name: [] Save Save and Back Back

Change Information

This screen allows you to select students based on the last date certain information was changed. To use these dates to select students, the checkbox must be checked next to the corresponding date. Otherwise the date ranges will be disregarded while selecting students.

The Name Range checks the last date the first, last, or middle names have been changed. The Address Range checks the last date the students' address was changed. The Phone Range checks the last date the primary phone number was changed. The Entry/Withdrawal Range checks the last date either the entry date or withdrawal date was changed within the entity range listing.

Use Dates

	Low	High
Name	01/01/1900	12/31/2999
Address	01/01/1900	12/31/2999
Phone	10/01/2016	10/31/2016
Entry/Withdrawal	01/01/1900	12/31/2999

Student Phone List (without using Reports Generator)

1cnrgs42.p 86-4 05.16.10.00.00		Entity (402) Grades 9 to 12 Student Phone List	11/22/16	Page:1 9:02 PM
Student Full Name	Primary Gr Phone			
Abbruzzese, Kathy T	09 (555) 229-8890			
Aceroscr, Camellia Z	10 (555) 195-7369			
Aceroscr, Sofia E	11 (555) 240-5457			
Acescr, Trang P	09 (555) 346-0607			
Ahsingcr, Yana O	12 (555) 061-1429			
Ainscoughcr, Vanita B	12 (555) 953-1752			
Ainsliescr, Brandon E	11 (555) 978-6112			
Ainsliescr, Palmer M	10 (555) 978-6112			
Ainsleycr, Tyron V	09 (555) 253-3002			
Ajeacr, Conrad J	09 (555) 297-4862			
Ajescr, Hal J	10 (555) 179-9396			
Akardcr, Angelo B	10 (555) 220-0410			
Alexopouloscr, Adam G	09 (555) 446-8894			
Alimentcr, Maria U	10 (555) 623-3181			
Allvincr, Melaine M	09 (555) 179-2927			
Almescr, Waylon O	10 (555) 392-7537			

Student Phone List (Using Reports Generator Selecting Phone Number Changes between 10/1/16 and 10/31/16):

1cnrgs42.p 86-4 05.16.10.00.00		Entity (402) Grades 9 to 12 Student Phone List	11/22/16	Page:1 9:00 PM
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Student	Primary
<u>Full Name</u>	<u>Gr Phone</u>
Bahnscr, Alonzo V	12 (555) 148-9572
Bensmanscr, Brunilda L	10
Fehlmanacr, Waldo U	12 (555) 079-8450
Mashackscr, Jane E	12 (555) 179-3539
Sentelliacr, Charlena F	10 (555) 970-9932
Vardenscr, Barbara O	09 (555) 376-2107
Mascoscr, Clyde S	11 (555) 655-4877
Moleryscr, Meda B	11 (555) 087-3595
Zmudascr, Gaston H	10 (555) 475-5914

Student Count:9

***** End of report *****

Processing Lists

WS/ST/DM

Processing Lists allow you to assemble a list of student names in one area to run a report, and use that same student list to generate another report in another area.

Add the following fields to your report:

The screenshot shows the 'Data Mining' application window. At the top, the 'Report Name' is 'Odd Grad Years'. Below this, the 'Report Title' is also 'Odd Grad Years'. The 'Report Orientation' is set to 'Portrait', 'Student Status' is 'Active', 'Excel Export' is 'Default', and 'Default Entity' is 'Both'. The 'Field Selection' tab is active, showing a 'Field Search' section with a 'Field Lookup' box and a 'Selected Field Location' box. Below this is a 'Selected Field' section with fields for 'Description', 'Used For', 'Heading 1', 'Heading 2', and 'Length'. To the right of these is a 'Fields on Report' section, which is highlighted with a red box. This section contains a list of fields: 'Student Full Name' and 'Grad Year', both with '[Profile]' next to them. To the right of the 'Fields on Report' section are buttons for 'Save and Back', 'Save and Modify Ranges', 'Back', 'Up', 'Down', and 'Delete'. At the bottom right, the 'Report Width' is '35/132'.

Click **Save and Modify Ranges**:

Specify a range on the **Grad Year** field – select **Individual Selections**, then select each grad year ending with an odd-digit

Click **Save and Back** – then select **Print Using Processing List**

1. Click **Create New Processing List**
2. Enter both a Description and Long Description for your Processing List
3. Click **Save and Print**
4. Your report will be generated as normal, but in addition, a list of student names will be generated that can be used in another report.
5. Go to Student Management/Advanced Features/Processing Lists to view your list of student names (WS/AF/PL).
6. Expand to see the list of names.

Export Options

WS/ST/DM



Print – generates the report in PDF report

Excel – generates the report in Excel format

Export to File – generates an exportable file of the Data Mining report using a comma, Fixed Width, Space or Tab delimiter. This option also allows you to specify letter case.

Export Layout – exports a layout of the selected Data Mining report template in a .txt format. (The Import Layout button allows you to import a layout).

Using Excel Export:

On the Report Information tab of your Data Mining report, the Excel Export option provides two choices: Use Default Field Lengths and Use Template Field Lengths. The option selected here will impact the field length if the report is exported to Excel.

- **Use Default Field Lengths** – includes all of the characters of the selected fields when you export the report to Excel. *For example, Student First Name has default field length of 17 characters and Student Last Name has default field length of 30 characters. With this option, the Excel columns for these fields contain 17 and 30 characters respectively; the fields do not truncate.*
- **Use Template Field Lengths** – automatically adjusts Excel's column widths based on the width specified in the field ranges and is commonly used to export less than the default field length. *For example, Student Middle Name has a default field length of 15 characters. With this option, if you change the Middle Name field length to one character on the Ranges tab, only the first character would export to Excel.*