Beginning Query
Conference 2015

Session Description: Procedures for creating your own reports using basic Aeries Query statements; single table queries, selection of data fields, sorting data fields, and constructing simple and multiple conditions.

1. Aeries Query
What is a Table?
How is a Table Created?
Why is There More than One Table?

2. Using Query
Accessing Query
Creating a Basic Query
Run Query for STU Table
Change Sort Order of Field Names
Run Query for Specific Fields in STU Table
Change Default Sort Order
Select Specific Records
Print a Datasheet Report

3. Additional Functions
Creating a Report
Saving Queries
Loading Saved Queries
TOTAL Queries
Inactive Students
Error Messages
Conditions and Comparisons
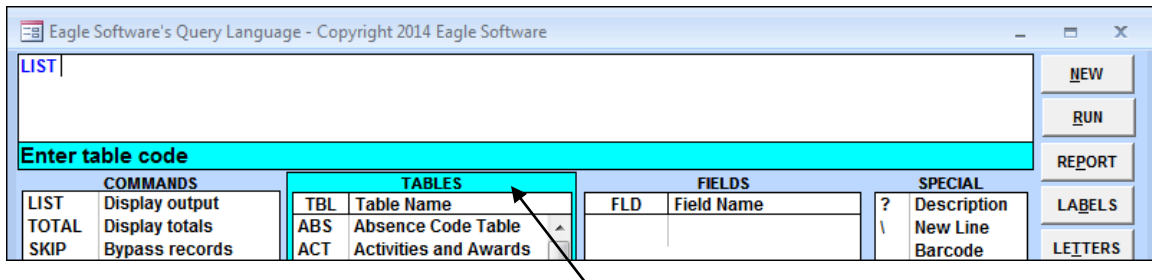*Using Query to Proof your Work*
Additional Data to Query

AERIES QUERY

All data entered into *Aeries* is stored within tables in the database. The **Query** option enables you to access the data stored in these tables. The process generates a "query statement", which is somewhat like a program and collects the data from within the tables selected. You can then use this data to create a report or to update specific data. **Query** is a very visual program, which makes it extremely easy to use when accessing data.
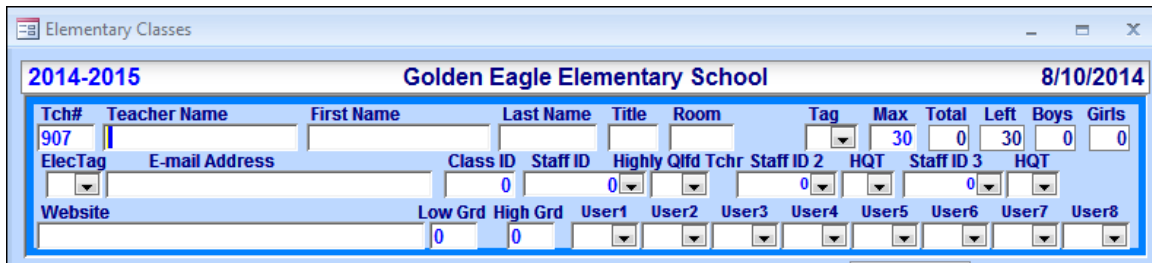
WHAT IS A TABLE?

A **table is a file** that stores certain data entered into the **Student Information System**. The **Query** form below displays some of the **tables** that are contained within the database.

HOW IS A TABLE CREATED?

The form displayed below is the **Teachers** form. After you have typed information into the different **fields** on this form and pressed **ENTER** the information creates one record and is saved in the **TCH** table.

After the first record is created, essentially you have created the **TCH** table that will now store all new records. As you keep adding teachers a new record is created and a different teacher number is assigned.

WHY IS THERE MORE THAN ONE TABLE?

Instead of creating one large table containing all of the schools data, smaller tables are created to help increase processing speed. In order to access and combine data within a query a connection must be made between the two tables, which is usually the student number.

For instance, when medical data is entered for a student the student number, medical code, details, etc. are added to the table. Using Query to access and combine this information with the **STU** table the student number field is used and creates a link between the two tables.

The **MED** and **STU** tables are displayed below with all fields and both have the **SN** field that links the tables.
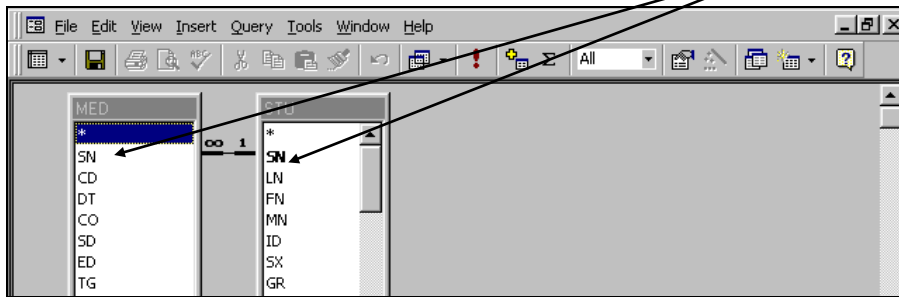
ACCESSING QUERY

The following documentation provides information on some of the general functions available to you through **Query**. To begin the query process, click the mouse on the **QUERY** button in AeriesCS, or on the **Query** node in *Aeries.net*.
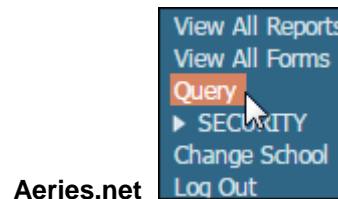

AeriesCS   **Aeries.net**

Various **commands** can be selected by using the mouse or typing the query by hand.

The commands available are:

- **LIST** – will select and display the query data.
- **TOTAL** - will calculate a total amount for a specific category and display.
- **SKIP** - will bypass specific records.
- **KEEP** - will select specific records.
- **CHANGE** - will make permanent changes to select records. **It is recommended that this command is restricted until a User is advanced.**

NOTE: It is suggested BEGINNING query only utilizes LIST and TOTAL commands until comfortable with query.

A text box is displayed at the top of the form. This area is where the query will be entered. Below the text box, **messages** display indicating the steps to be performed. You will notice that the color of the message area is **aqua blue**.
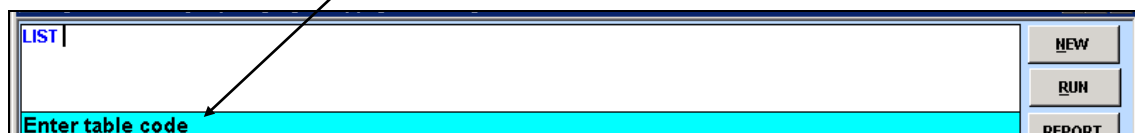
CREATING A BASIC QUERY

The first step when creating a query is to **Enter a Command** from the **Commands** box which has an aqua blue border. The border of the boxes will change to indicate each step to be taken.

Click the mouse on the command selected which will display in the **text box**. Notice the message has changed and now displays **Enter Table Code**. Take note to the outline on the box called **TABLES,** which has changed to an aqua blue border.
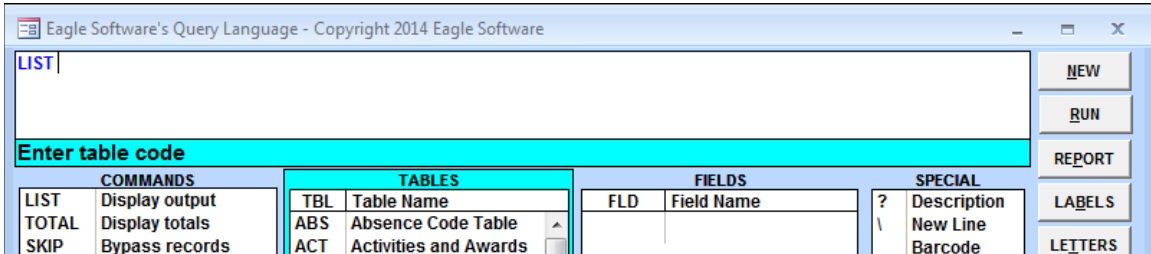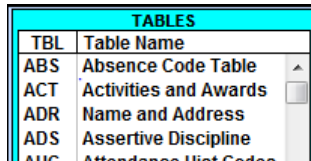

All tables available display a 3-letter code under **TBL**. **Table Name** displays to the right of the **TBL code.** A scroll bar displays on the right side of the box to display additional tables.

To create a Student related query click the mouse on the **STU** table. The 3-letter Table code will display in the text box. The **TABLES** box will now only display tables related to the **STU** table that have a **LINK**, such as the **Student Number (SN)**.

The next **available steps** that can be performed will display below the text box. Notice that there are many different **steps** listed.
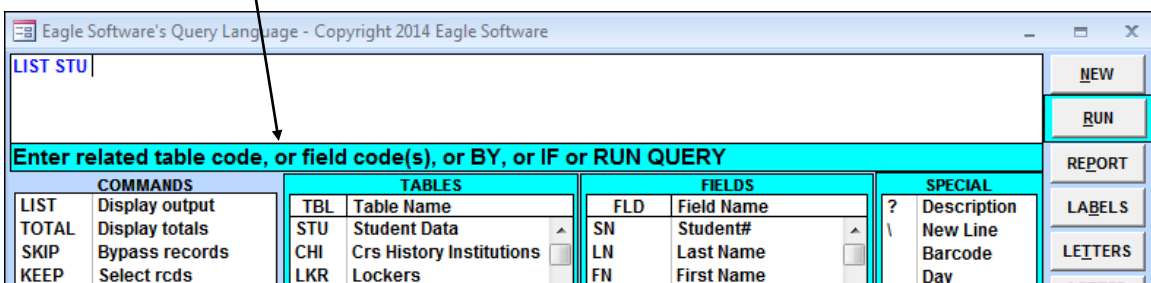
RUN QUERY FOR STU TABLE

With only the **STU Table** selected, click the mouse on the **RUN** button. Using AeriesCS a datasheet will display with **ALL** data stored in the table for each active student. A scroll bar displays at the bottom of the datasheet. Use the arrows and slide to the right to display **ALL** additional data.

Student#	Last Name	First Name	Middle Nam	ID#	Sex	Grade	Birthdate	Parent/guar	Mailing Add	City
1	Aadasian	Robert	Bradly	99000001	M	6	5/17/2003	M/M A Aadasia	5514 Sunburst I	Eagle Rock
2	Aadasian	Ruben	Preston	99000002	M	1	12/23/2008	M/M A Aadasia	5514 Sunburst I	Eagle Rock
3	Aguilar	Jonathan	Daniel	99000003	M	5	7/16/2004	M/M A Aguilar	33512 Lillyvale	Eagle Rock
4	Aguilar	LaTonya	Stephanie	99000004	F	4	10/13/2005	M/M A Aguilar	5538 Taciturn A	Eagle Point
5	Aguilar	Stephanie	Christina	99000005	F	3	7/8/2006	M/M A Aguilar	33512 Lillyvale	Eagle Point

Aeries.Net returns results in a similar format using a pop-up window with scroll bars to the right and the bottom of the window. A maximum of 400 records will display per page. Clicking on the page numbers at the bottom of the window will display the next set of results.
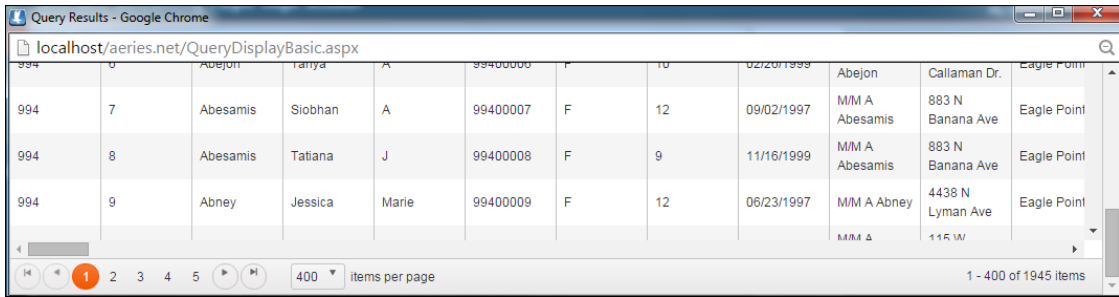
To return to **QUERY** from AeriesCS, click the mouse on the lower **"X"** in the far right corner of the form. **DO NOT** click the mouse on the upper **"X".** Clicking the upper **"X"** will shut down the entire *Aeries* program. To return to QUERY from Aeries.net click on the **"X"** to close the pop-up window.

The **Query** form will re-display and still contains the original query statement generated. Changes can be made to this query and can be **RUN** again to change the data that you are looking for.

CHANGE FIELD SORT ORDER

Take note to the **FIELDS** box which displays **ALL** fields available for the **STU table** and the box is outlined in an aqua blue border. A two or three letter code displays for all fields under the **FLD** heading and display in the order stored in the table. The **Field Name** displays to the right. To change the sort order, click the mouse on the **Field Name** heading and the sort order will change to alphabetical A-Z.
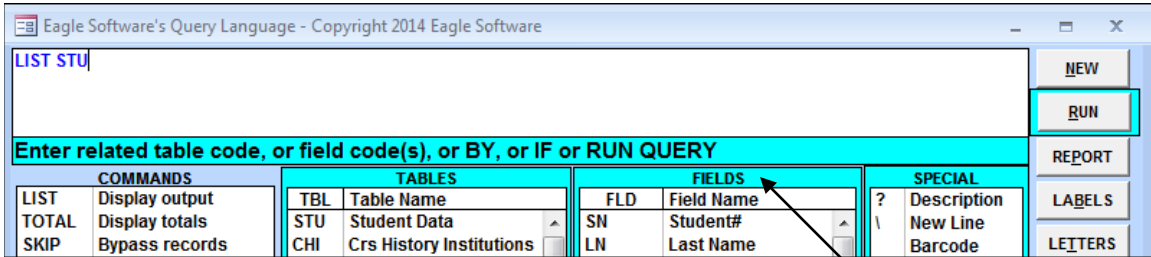
To display the fields in reverse alphabetical order click the mouse on the **Field Name** heading again and the order will change from Z-A. A third click will return the order to the original view.

RUN QUERY FOR SPECIFIC FIELDS IN STU TABLE

To generate a query for specific fields click the mouse on the **Field Names.** The two or three letter code will display to the right of the table in the **text box**. The query displayed below, **LIST STU SN LN FN SX GR** contains the fields for the Student Number, Last Name, First name, Sex and Grade for all active students.
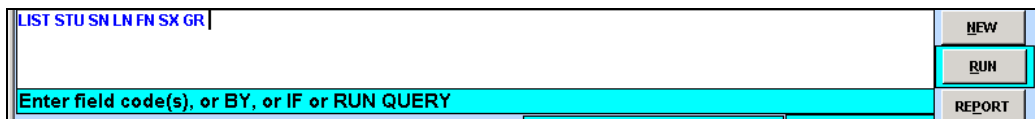
Notice that there is a space after each entry of the query. As you click the mouse a space is automatically inserted. In order for the query to generate properly there **MUST** be a space in between each entry of the query statement. The following is the definition for the query selected:

LIST	= display on the form
STU	= from the Student Data table
SN	= the student Number
LN	= the students Last Name
FN	= the students First Name
SX	= the sex
GR	= the current grade

After the query statement is entered click the mouse on the **RUN** button and the query will be generated. A datasheet will now display with data from the fields selected. Notice the first and second student listed.

The first student's number is greater than the second student's number. This is because the default query sort order is by the students Last Name, First Name.
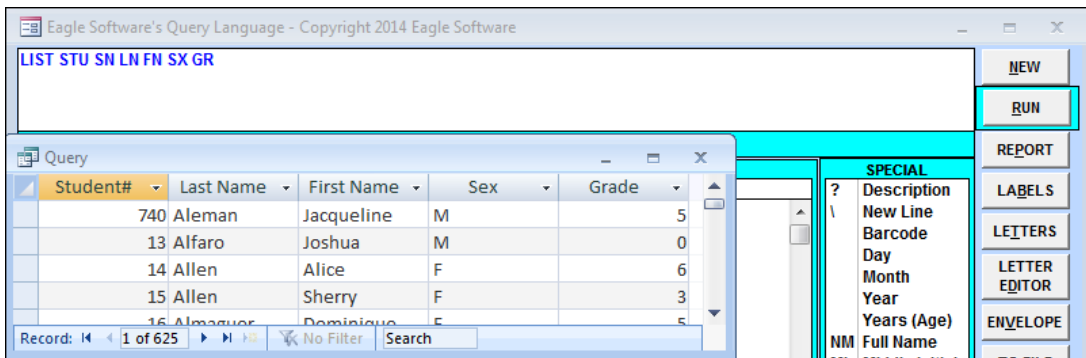
Notice at the bottom of the form a scroll bar **does not** display with this query and there are no other fields listed after Grade. Click the mouse on the **"X"** in the right corner of the datasheet to return to **Query**.

CHANGE DEFAULT SORT ORDER

Now that the data has been selected it can be sorted by a particular field, for instance by grade. To sort the query click the mouse on the **BY** option under **SORT**.
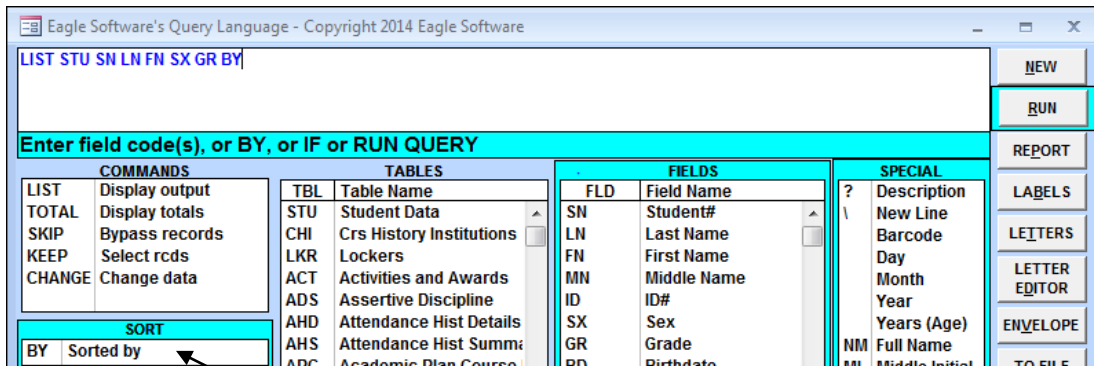
Determine the order that you want this data sorted. Click the mouse on the field, which will display to the right of **BY** in the query statement. For example, **BY GR** will sort the data in order of grade instead of the default last name, first name. Click the mouse on the **RUN** button.

LIST STU SN LN FN SX GR BY GR	NEW
	RUN
Enter more field code(s) to sort by, or IF, or RUN query	REPORT

The datasheet will now display these students in order by grade. Click the mouse on the lower **"X"** in the far right corner to return to **Query**.

Query				
Student#	Last Name	First Name	Sex	Grade
675	Turner	Kenneth	M	0
683	Uribe	Cameron	M	0
686	Valdez	Sarah	F	0
690	Vargas	Shannel	F	0
692	Velazquez	Christy	F	0
698	Wagner	Kimberly	M	0
726	Willoughby	Edith	F	0
2	Aadasian	Ruben	M	1
21	Alvarez	Tiffany	F	1
32	Aparicio	Katharine	F	1
34	Aragones	Maryrose	F	1

SELECT SPECIFIC RECORDS

To select specific records, such as females only, an **IF** option can be added to separate other data. For this query to select certain records, click the mouse on **IF**. Click the mouse on a field for record selection. Type the criteria necessary to select a specific record. **For example, for a list of only female students, enter: IF SX = F**

LIST STU SN LN FN SX GR BY GR IF SX = F	NEW
	RUN
Enter AND or OR to start another condition, or RUN query	REPORT

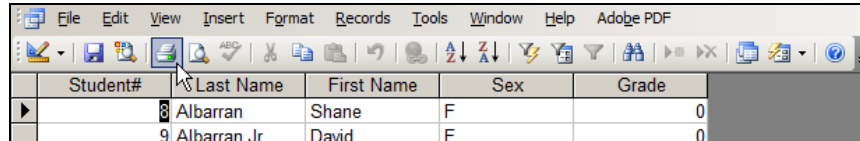| COMMANDS		TABLES		FIELDS		SPECIAL		
LIST	Display output	TBL	Table Name	FLD	Field Name	?	Description	LABELS
TOTAL	Display totals	STU	Student Data	SN	Student#	\	New Line	
SKIP	Bypass records	CHI	Crs History Institutions	LN	Last Name		Barcode	LETTERS
KEEP	Select rcds	LKR	Lockers	FN	First Name		Day	
CHANGE	Change data	ADS	Assertive Discipline	MN	Middle Name		Month	LETTER
		ATL	Attendance Log	ID	ID#		Year	EDITOR
SORT		ATN	Attendance Notes	SX	Sex		Years (Age)	ENVELOPE
REV	Reverse Sort	ATT	Attendance Data	GR	Grade	NM	Full Name	
		CNF	Conference	BD	Birthdate	MI	Middle Initial	TO FILE
IF	COMPARISON	CON	Contacts	PG	Parent/guardian			
IF	= Equals	CSE	Calif. Special Education	AD	Mailing Address			CHANGE

Click the mouse on the **RUN** button. Students displayed are only females and still in grade order. After generating a query verify the data selected is correct and in the right order. Then you will need to decide what you want to do with this data.

Query				
Student#	Last Name	First Name	Sex	Grade
654	Taylor	Cynthia	F	0
656	Thiel	Janell	F	0
672	Turner	Christina	F	0
686	Valdez	Sarah	F	0
690	Vargas	Shannel	F	0
692	Velazquez	Christy	F	0
726	Willoughby	Edith	F	0
21	Alvarez	Tiffany	F	1
32	Aparicio	Katharine	F	1
34	Aragones	Maryrose	F	1
42	Armenta	September	F	1
44	Arreola	Nicole	F	1
86	Borja	Carissa	F	1

PRINT DATASHEET REPORT

To generate a report in the same format as the datasheet displayed on the screen click the mouse on the **printer icon** at the top of the **Query** form in AeriesCS and a report will be generated.
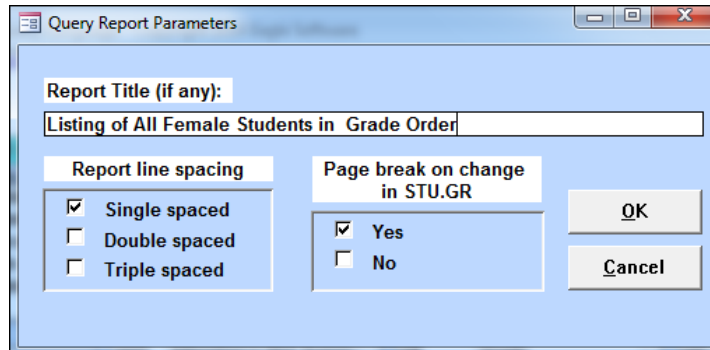

ADDITIONAL FUNCTIONS

There are buttons in a column on the right side of the **QUERY** form. These buttons can be used after the query has been generated to create **reports**, **labels**, **files**, **etc**.

The following are the **ADDITIONAL FUNCTIONS** available:

- **NEW** clears the text box area of any query currently displayed to enter a new query.
- **RUN** will generate the query statement and display the data.
- **EXCEL** will create an Excel spreadsheet from the data generated. This option is only available in Aeries.net.
- **REPORT** will generate a formatted report from the data generated.
- **LABELS** will generate formatted labels from the data generated.
- **LETTERS** will generate a formatted letter previously created in the **Query Text Editor** program from the data generated.
- **LETTER EDITOR** will store formatted letters created in the **Query Text Editor** program.
- **ENVELOPE** will generate a format to be printed on a legal envelope from the data generated. This option is only available in AeriesCS.
- **TO FILE** will create a text file onto a disc from the data generated. This option is only available in AeriesCS.
- **CHANGE** allows you to make quick changes to data in select fields. This option is only available in AeriesCS.
- **SAVE** allows you to save the query for later use.
- **LOAD** will allow you to re-load a query previously saved.
- **STARTUP** will store a **KEEP** statement that can be setup to run automatically on the opening of Aeries **WITHOUT** having to enter query. This option is only available in AeriesCS.
- **RESET** will reset the **KEEP** and **SKIP** statements.
- **TABLES** will re-load and update data tables. This option is only available in AeriesCS.
- **EXIT** will exit the **QUERY** form.

CREATING A REPORT

After generating a query statement, a formal looking report can be created by clicking **REPORT**. To format the report, enter the **report title** name to print at the top of the report and select the line spacing. If this report was sorted **BY** a specific field, such as grade, select whether or not you want this report to have a page break for each grade level. Click the mouse on the **OK** button.
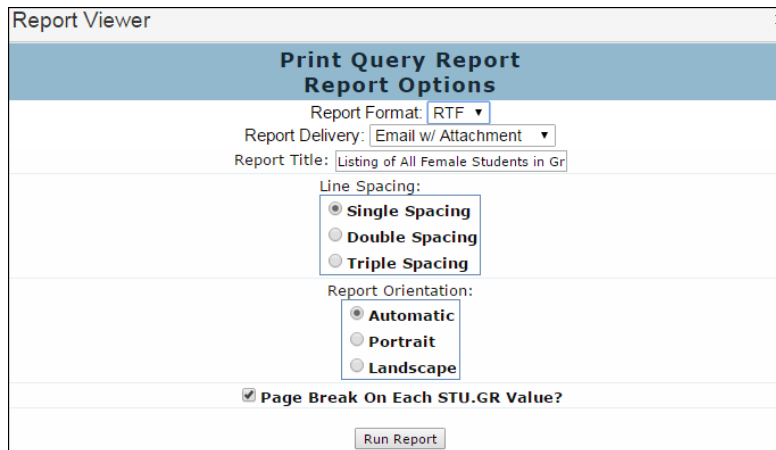

Aeries.net includes an additional **Report Format** and **Report Delivery** options. Reports can be formatted as a PDF, Word Document (RTF), Spreadsheet (XLS) or Text file (TXT).

The **Report Delivery** options are:
- **Email w/ Attachment** – an email is sent to the user notifying them of the report parameters and the completion of the report
- **Email w/o Attachment** – an email is sent to the user notifying them of the report parameters and the completion of the report along with an attachment of the report
- **None** – no emails are sent to the user.

The following report will display. Since it was sorted by grade and **Page Break** was selected, each **GRADE** will be printed separately. The Grade number will also print at the top of the page after the report name. To print the formatted report displayed on the screen click the **Printer** icon at the top of the form:

SAVE QUERY STATEMENTS

Once you have created a query statement, you can save the query and access this query for later use. To save a query, click the mouse on the **SAVE** button.
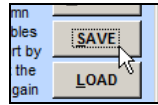
The following text box will display. Type a descriptive name in the text box. Click the **OK** button to save your **Query**.
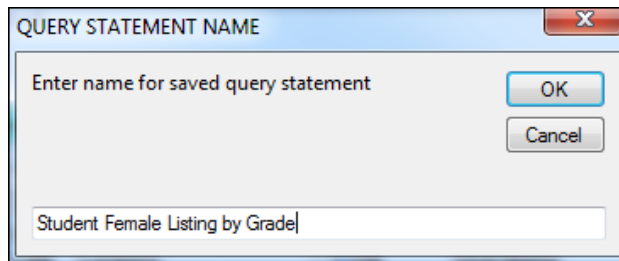
REMEMBER: If a REPORT query is saved the query name will print on the report heading.

USING THE LOAD BUTTON

To **LOAD** a saved **Query** statement, click the **LOAD** button on the **QUERY** form. The saved queries can be displayed by the name of the **Query** or by the **Author's** name. To select the **Query** in AeriesCS and run it, click the **Gray box** to the left of the **Query** title. Click the **OK** button at the bottom of the box.
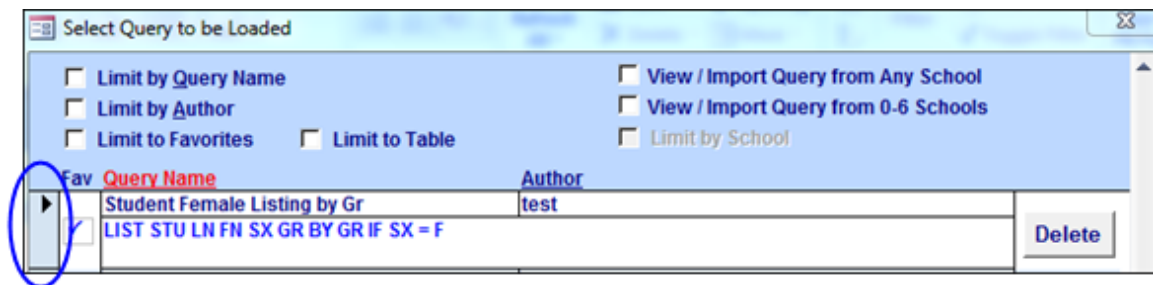
To select the **Query** in Aeries.net and run it, click on the query record.

Sort By:	Query Name ▼	Query Name Filter:		Author Filter:	
Query Name	Author	Query			
✗ Student Female Listing by Grade	test	LIST STU LN FN GR BY GR IF SX = F			

Close
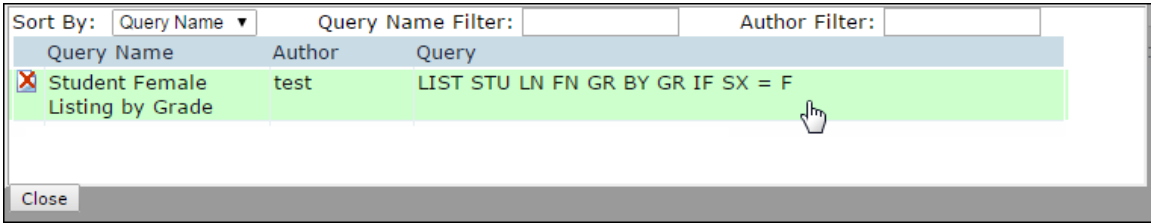
NOTE: We do suggest ONLY saving frequently used Queries or complicated Queries.

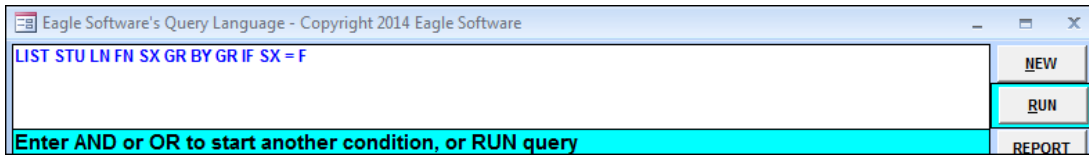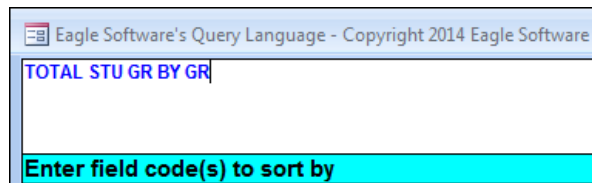The **Query** statement will now display in the **Query** textbox and can be generated by clicking the mouse on **RUN**. The query will be generated and will display the data displayed.

Eagle Software's Query Language - Copyright 2014 Eagle Software

LIST STU LN FN SX GR BY GR IF SX = F

NEW

RUN

Enter AND or OR to start another condition, or RUN query

REPORT

TOTAL COMMAND

The **TOTAL** command can be utilized to add together a specific series of students and create a running total on the screen. For example, to determine the number of students in each grade you would type the following **TOTAL** query selecting the grade field and sorting by the grade field.

Eagle Software's Query Language - Copyright 2014 Eagle Software

TOTAL STU GR BY GR

Enter field code(s) to sort by

Take note to the **SORT** order selected, **BY GR**. Also note that the field the query is sorting on **must** be included in the **TOTAL** query statement. Click the mouse on the **RUN** button. The following calculation will be generated.

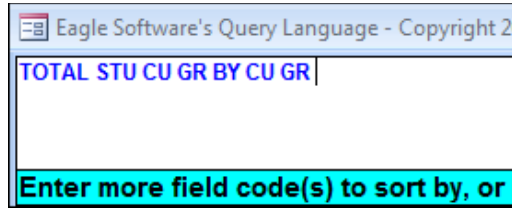| TOTAL	Grade
84	0
97	1
94	2
93	3
80	4
81	5
95	6

The **TOTAL** command can also be utilized to add together a specific series of students and create a running total on the screen using more than one field. For example, to determine the number of students for each teacher/counselor by grade you would type the following **TOTAL** query selecting the teacher/counselor and grade field and then sorting by the teacher/counselor and grade field.

Eagle Software's Query Language - Copyright 2(

TOTAL STU CU GR BY CU GR

Enter more field code(s) to sort by, or

Take note to the **SORT** order selected, **BY CU GR**. Also note that the fields being sorted on **must** be included in the **TOTAL** query statement. Click the mouse on the **RUN** button. The following calculation will be generated.

TOTAL	Tchr Num	Grade
18	107	1
19	108	1
19	109	1
17	110	1
18	211	2
18	212	2
19	213	2

INCLUDE INACTIVE STUDENTS

When a query is generated only the active students are included by default. To **Include Inactive Students** in **AeriesCS** click the mouse on the check box at the bottom left hand corner. When you generate a query **ALL** students will now be included in the data selected. Click on the **Include Inactive Students** check box to revert back to active students only.

☑ **Include Inactive Students**
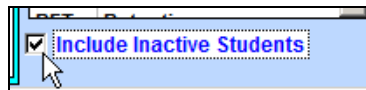
In Aeries.net the Include Inactive Students is located under the query box to the right of the command line.

Enter Command ☑ Include Inactive Students

COMMANDS   TABLES   FIELDS   SPECIAL
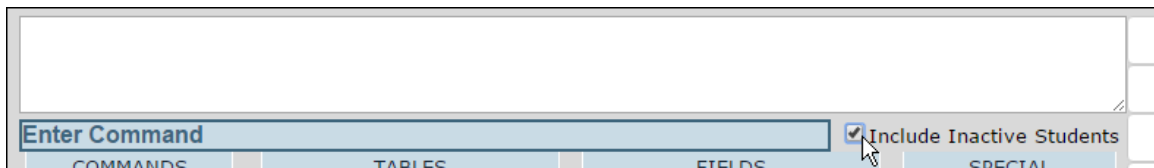
ERROR MESSAGES

If a command, such as **LIST** is used but an incorrect table name is entered into the query statement an error message will display. Take note to the **Command Line** in the query below and notice the color of the border has changed to red. The message states **Invalid table code** and in the statement above, there is no table entered. Click the mouse on the **NEW** button and re-enter the query statement.

Invalid table code

CONDITIONS AND COMPARISONS

LIST STU SN FN LN GR RC1 BY GR RC1	Show student number, first name, last name, grade, and race. Order by grade and race
LIST STU SN FN LN GR IF GR = 12	Show student number, first name, last name, and grade if in twelfth grade.
LIST STU FN LN GR SX IF GR = 12 AND SX = M	Show first name, last name, grade, sex if in twelfth grade and male.
LIST STU FN LN GR SX IF GR = 10 OR GR = 12	Show first name, last name, grade, sex if in tenth or twelfth grade
LIST STU FN LN GR SX IF GR > 10	Show first name, last name, grade, sex if in grades greater than tenth grade.
LIST STU FN LN GR SX IF GR < 11	Show first name, last name, grade, sex, if in grades less than eleventh grade
LIST STU FN LN GR SX IF GR # 10	Show first name, last name, grade, sex, for all grades EXCEPT tenth grade
LIST STU FN LN GR SX IF LN : SON	Show first name, last name, grade and sex if their name contains SON anywhere within it.
LIST STU FN LN GR PG IF PG ; LN	Show first name, last name, grade, parent/guardian if the parent/guardian name does not contain student's last name.

USING QUERY TO PROOF YOUR WORK

LIST STU SN FN LN RC1 BY RC1	Will display students in order of race codes with blank race codes at the top of the list.
LIST STU SN FN LN IF CU = 0	Will list students without a teacher or counselor number **IF CU = 0 is a zero not the letter "O"**
TOTAL STU CU BY CU	**Elementary setting** - Will show total number of active students for each teacher **Secondary setting** - Will show total student distribution across the counseling staff
TOTAL STU RC1 GR BY RC1 GR	Will show total number of active students in order by race code and grade
LIST STU SN FN LN ETH RC1 IF ETH = " " AND RC1 = " "	Will display Students that have blanks in the Ethnicity Indicator flag and Race field

ADDITIONAL STUDENT DATA TO QUERY

LIST STU SN FN LN NS NG NT	Will display Students next school, next grade and next teacher information
LIST STU SN FN LN SX GR BD CU BY BD CU	Will display Students birthday sorted in order by birthday and teacher/counselor

ADDITIONAL DATA TO QUERY IN AERIES

LIST TCH TN ID TE TT EM RM	Will display specific Teacher information
LIST CRS CN CO NA S1 DE LO HI E1	Will display specific Course information
LIST COL ID NM AD CY ST ZC TL CD ZX AT	Will display specific College information
LIST LOC CD NM AD CY ST ZC AC TL LO HI	Will display specific information for all Schools in the district
LIST LKR LK CM SN C1 C2 C3 C4 C5 SE	Will display specific Locker information
LIST EMP CD NM AD CY ST ZC ZX TL	Will display Employers setup for Worker Permits
LIST REQ CD SA C1 C2 C3 C4 GRT	Will display the Graduation Requirement information
LIST CTL ID PT NM A1 GR BY ID PT	Will display all Tests setup and will be sorted in order by the Test ID and Part number