Advanced Query for Secondary Schools
Conference 2015

Session Description: Multi-table queries, the "CHANGE" button and command; advanced applications of Query for secondary school personnel.

1. Query Principles and a Review of Basics

Query Tips
The Query Form is Dynamically Helpful in Building
How do we know what tables to include and the order?
Aeries Database Definitions
Related Tables in Aeries

2. Query Commands

Selecting Records By Criteria
Using Connectives AND and OR
Sorting Data – Ascending or Descending Order
Aeries Query Symbols Versus Access Symbols
Modifying A Datasheet View in Design View
Commands Utilized in Datasheet View

3. Math Operations

4. Aeries Query Buttons

Change Command versus Change Button
Change Button
Change Button with Multiple Tables
Change Command
Query Letters

QUERY TIPS

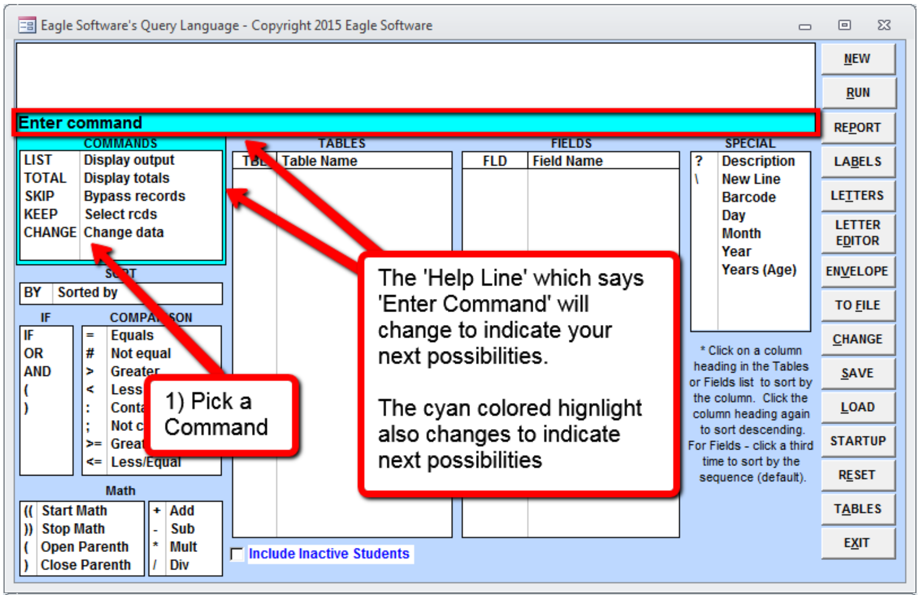
- Identify the fields you wish to include and the tables from which they come.
- Using a **KEEP or SKIP** may make the final outcome easier or more accomplishable, but a full use of the **IF** portion is always best if you wish to save the query as a one-step solution.
- What is the required table order to make the query run with the desired outcome?
- Using sorts can make it easier for those that run it later?
- Do I need to teach someone else how to do this query? Share the load and make life easier for yourself and more rewarding for others.

The Query Form is Dynamically Helpful in Building Statments

The 5 function areas of a query statement are:

- Command [**LIST TOTAL KEEP SKIP CHANGE**]
- Table(s)
- Field(s) (optional)
- Sort [**BY**] (optional)
- Conditions [**IF**] (optional)

NOTE: not all are required but they are to be in this order if utilized



Enter command

LIST	Display output
TOTAL	Display totals
SKIP	Bypass records
KEEP	Select rcds
CHANGE	Change data

BY	Sorted by

IF
OR
AND
(<br>)

=	Equals
#	Not equal
>	Greater
<	Less
:	Conta
;	Not c
>=	Great
<=	Less/Equal

((	Start Math	+	Add
))	Stop Math	-	Sub
(	Open Parenth	*	Mult
)	Close Parenth	/	Div

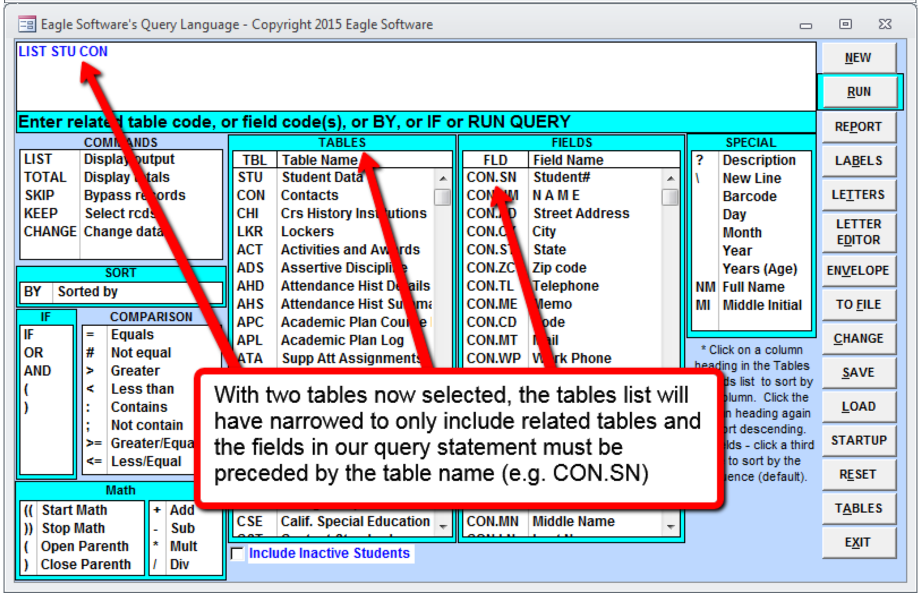
?	Description
\	New Line
	Barcode
	Day
	Month
	Year
	Years (Age)

* Click on a column heading in the Tables or Fields list to sort by the column. Click the column heading again to sort descending. For Fields - click a third time to sort by the sequence (default).

1) Pick a Command

The 'Help Line' which says 'Enter Command' will change to indicate your next possibilities.

The cyan colored hignlight also changes to indicate next possibilities



LIST STU CON

Enter related table code, or field code(s), or BY, or IF or RUN QUERY

LIST	Display output
TOTAL	Display totals
SKIP	Bypass records
KEEP	Select rcds
CHANGE	Change data

BY	Sorted by

IF
OR
AND
(<br>)

=	Equals
#	Not equal
>	Greater
<	Less than
:	Contains
;	Not contain
>=	Greater/Equa
<=	Less/Equal

((	Start Math	+	Add
))	Stop Math	-	Sub
(	Open Parenth	*	Mult
)	Close Parenth	/	Div

TBL	Table Name
STU	Student Data
CON	Contacts
CHI	Crs History Institutions
LKR	Lockers
ACT	Activities and Awards
ADS	Assertive Discipline
AHD	Attendance Hist Details
AHS	Attendance Hist Summa
APC	Academic Plan Course
APL	Academic Plan Log
ATA	Supp Att Assignments
CSE	Calif. Special Education

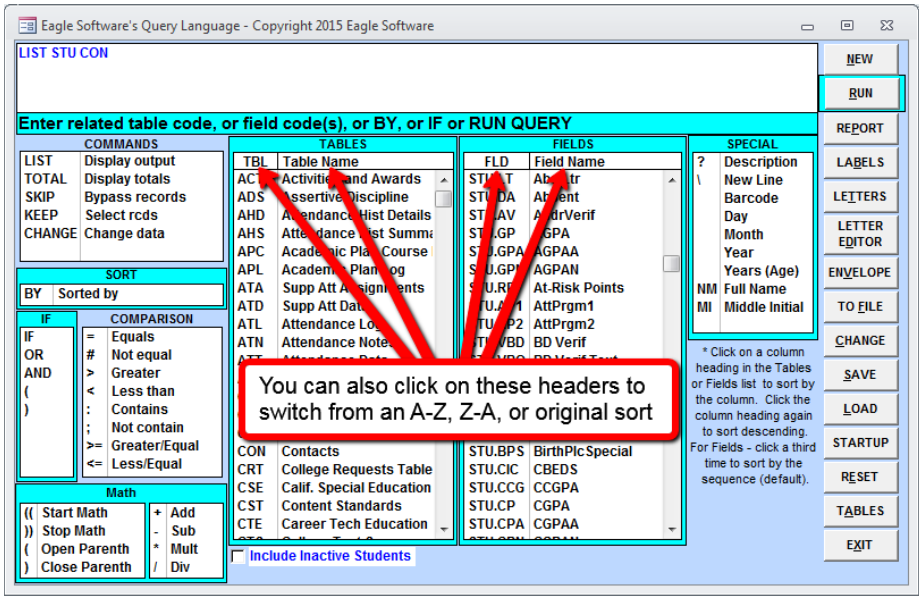
FLD	Field Name
CON.SN	Student#
CON.NM	N A M E
CON.AD	Street Address
CON.CY	City
CON.ST	State
CON.ZC	Zip code
CON.TL	Telephone
CON.ME	Memo
CON.CD	Code
CON.MT	Mail
CON.WP	Work Phone
CON.MN	Middle Name

?	Description
\	New Line
	Barcode
	Day
	Month
	Year
	Years (Age)
NM	Full Name
MI	Middle Initial

* Click on a column heading in the Tables or Fields list to sort by the column. Click the column heading again to sort descending. For Fields - click a third time to sort by the sequence (default).

With two tables now selected, the tables list will have narrowed to only include related tables and the fields in our query statement must be preceded by the table name (e.g. CON.SN)

NOTE: The highlighted areas have opened up since we are further along building the statement



LIST STU CON

Enter related table code, or field code(s), or BY, or IF or RUN QUERY

You can also click on these headers to switch from an A-Z, Z-A, or original sort

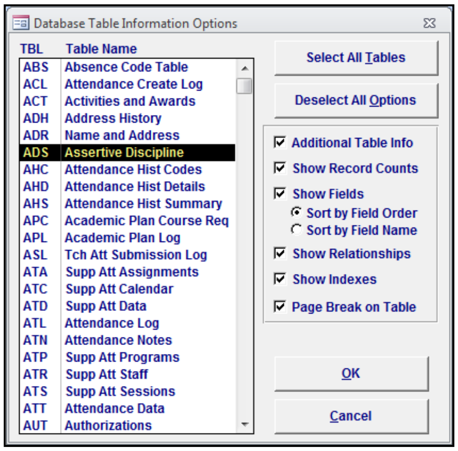
* Click on a column heading in the Tables or Fields list to sort by the column. Click the column heading again to sort descending. For Fields - click a third time to sort by the sequence (default).

HOW DO WE KNOW WHAT TABLES TO INCLUDE AND THE ORDER?

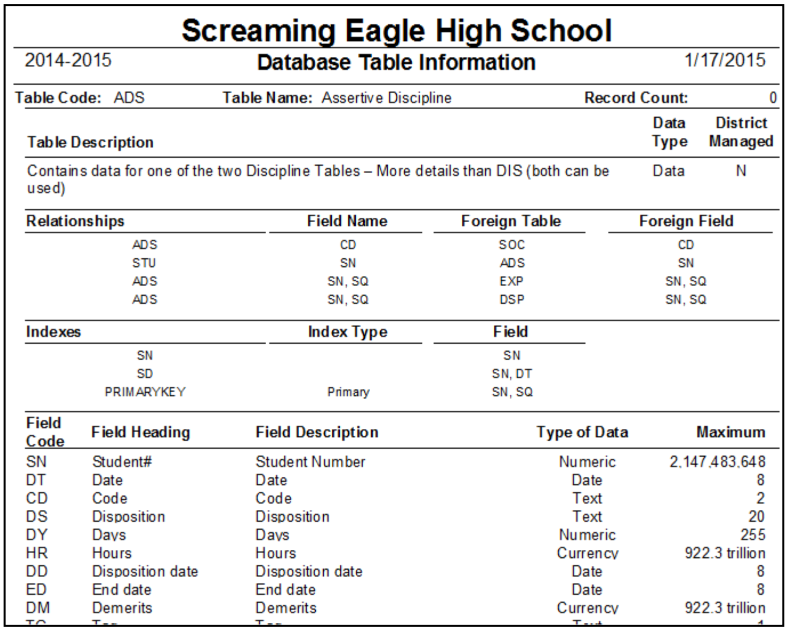
- Rely on the interactive nature of the Query Form starting with a primary first table.
- Review queries that resemble what you are trying to accomplish.
  - Review queries your district/school already has saved by hitting the LOAD button.
  - Check aeries.com for queries. http://www.aeries.com/training-support/queries
  - Sign up for the Aeries_Talk Listserv. https://groups.yahoo.com/neo/groups/aeries_talk This is not moderated by Eagle Software. It is our users helping each other.

AERIES DATABASE TABLE INFORMATION

The **Print Database Table Information** report is available through **View All Reports**. This report can be very helpful and will supply you with all tables available to Aeries CS including the relationships, field names, and descriptions.



☑ Additional Table Info
☑ Show Record Counts
☑ Show Fields
● Sort by Field Order
○ Sort by Field Name
☑ Show Relationships
☑ Show Indexes
☑ Page Break on Table



Screaming Eagle High School

2014-2015 **Database Table Information** 1/17/2015

Table Code: ADS **Table Name:** Assertive Discipline **Record Count:** 0

Table Description	Data Type	District Managed
Contains data for one of the two Discipline Tables – More details than DIS (both can be used)	Data	N

Relationships	Field Name	Foreign Table	Foreign Field
ADS	CD	SOC	CD
STU	SN	ADS	SN
ADS	SN, SQ	EXP	SN, SQ
ADS	SN, SQ	DSP	SN, SQ

Indexes	Index Type	Field
SN		SN
SD		SN, DT
PRIMARYKEY	Primary	SN, SQ

Field Code	Field Heading	Field Description	Type of Data	Maximum
SN	Student#	Student Number	Numeric	2,147,483,648
DT	Date	Date	Date	8
CD	Code	Code	Text	2
DS	Disposition	Disposition	Text	20
DY	Days	Days	Numeric	255
HR	Hours	Hours	Currency	922.3 trillion
DD	Disposition date	Disposition date	Date	8
ED	End date	End date	Date	8
DM	Demerits	Demerits	Currency	922.3 trillion

RELATED TABLES IN AERIES

The following are various forms available from the **Control Panel** and **Student Data** form which displays some of the related tables for these forms.

Control Panel

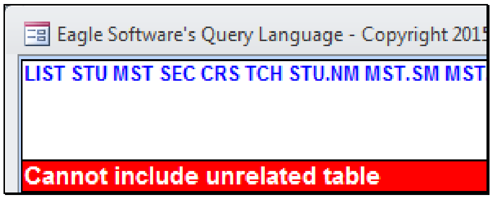
B - School Calendar STU DAY	C - Master Schedule MST TCH CRS	E. Scheduling Master SMS CRS TCH STU SSS SMS CRS TCH

Student Data Form

1 Attendance STU ATT (Attendance) STU ATT ABS (Codes) STU ATT ATN (Notes)	2 Supplemental STU SUP (Student info) STU SSD (Sec Stu Data) STU RAL (Record Access) STU RJN (Rejoinders) STU AUT (Author/Prohib STU ACT (Activities) STU PGM (Programs)	3 Medical STU MED (Medical) STU MHS (Med History) STU IMM (Immunization) STU DEN (Dental)	4 Discipline STU ADS STU DSP STU DIS STU EXP
6 Contacts STU CON	7 Tests STU TST CTL STU CTS	8 Fees STU FEE	0 Counseling STU CNF STU VIS
E SpecEd STU CSE (Special Ed) STU CSE CSS (Suspen) STU CSE CSV (Services)	H Lang STU LAC (LF info-SABE) STU LAC LAF (FLOSEM) STU LAC LAS (Assessmt)	I Interventions STU INV	J Classes STU SEC MST CRS TCH
K Grades STU GRD CRS TCH STU GRH CRS TCH	L Transcript STU HIS CRS	N CrsAttend STU CAR	O College STU CTS

The relational order of the tables must be correct in order for Query to work properly and the query form will block you from specifying tables in an order that does not relate. For example, the table order **STU MST SEC** will not run because the **STU** table is not directly related to **MST**.

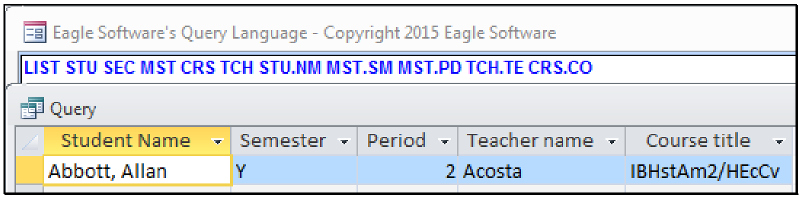
On the right the table order is **STU SEC MST**. This query will run because **STU** relates to **SEC** through **SN** and **SEC** relates to **MST** through **CN**.



Eagle Software's Query Language - Copyright 2015

LIST STU MST SEC CRS TCH STU.NM MST.SM MST

Cannot include unrelated table



Eagle Software's Query Language - Copyright 2015 Eagle Software

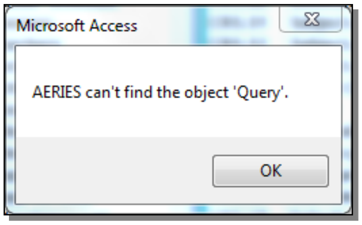
LIST STU SEC MST CRS TCH STU.NM MST.SM MST.PD TCH.TE CRS.CO

Query

Student Name	Semester	Period	Teacher name	Course title
Abbott, Allan	Y	2	Acosta	IBHstAm2/HEcCv

REMEMBER - ONLY Related tables can be used in a multiple table query. The order in which we list tables does make a difference.

The following “Aeries can’t find the object ‘Query’.” is a generic message in AeriesCS that some syntax within your query was not understood. Aeries.net will display the message “Your query does not return any data!”



Microsoft Access

AERIES can't find the object 'Query'.

QUERY COMMANDS AND STRUCTURE

A **Query Command** is the first step used when generating a query. The structure is a definite order that the query must be entered when being created. **The following are the Commands:**

- **LIST** – will display the data selected from tables which are required but fields, sorts and conditions are optional
- **TOTAL** - will calculate a total amount but must contain a sort on all fields in the same order as listed
- **SKIP** - will bypass specific records
- **KEEP** - will select specific records
- **CHANGE** - will make permanent changes to an **existing** record
  (Only if user has permissions and they are not logged into District Client Server)

The following are the structures used for each Command:

LIST **Command:** Table(s) – Field(s) – Sort(s) (BY) – Condition(s) (IF)
LIST MST CRS TCH TCH.TE MST.RM MST.SM MST.PD CRS.CO MST.MX MST.TS BY TCH.TE MST.PD MST.SM IF CRS.CO # TEACH

TOTAL **Command:** Table(s) - Field(s) - Sort(s) (on ALL fields in order) - Condition(s) (IF)
TOTAL STU ADS STU.GR ADS.CD BY STU.GR ADS.CD IF ADS.DS : SUS

SKIP **Command** – Table(s) (Start with STU) – Condition(s) (IF)
SKIP STU CSE IF CSE.DI > 0

KEEP **Command** – Table(s) (Start with STU) – Condition(s) (IF)
KEEP STU TST IF TST.PL < 3 AND TST.PL > 0

CHANGE **Command** – Table(s) – Field (being copied to) “TO” Field (being copied from)
CHANGE STU SSD SEC MST CRS TCH **SSD.TGC TO MST.TN** IF CRS.DC = E

NOTE: If using KEEP/SKIP reset MUST be performed or all data accessed will be limited to the query generated. Also, there is NO UNDO button for the CHANGE command.

SELECTING RECORDS BY CRITERIA (IF):

- **Using the contents of a field as the criteria:**

(Using the semi-colon which means does NOT CONTAIN)
LIST MST CRS TCH MST.CN MST.SE CRS.CO MST.PD MST.SM IF CRS.CO ; TEACH

(Medical History using a populated code as the criteria)
LIST STU SEC MST TCH CRS MHS TCH.TE STU.NM MHS.CD? BY TCH.TE IF MHS.CD > 0

- **Using Red flags as the criteria:**

(Assertive Discipline using the red flag as the criteria.)
LIST STU ADS FLG STU.GR STU.NM ADS.CD ADS.CD? ADS.DT ADS.DS IF FLG.TC = ADS

(Flags sorted by table**)**
LIST STU FLG STU.NM STU.GR FLG.TC FLG.CO BY FLG.TC IF FLG.SN > 0

(Flags listed for a specific table**)**
LIST STU FLG STU.NM STU.GR FLG.TC FLG.CO IF FLG.TC = MED

(Flags for a specific student**)**
LIST STU FLG STU.NM STU.GR FLG.TC FLG.CO IF STU.NM : ABBOTT

- **Using "Null" or " "**

(Looking for students with no course requests)

```
LIST STU SSS STU.SN STU.NM STU.GR STU.CU BY STU.CU IF SSS.SN = NULL
```

(Using a populated user field as the criteria.)

```
LIST STU NM PG AD CY ZC TL MW FW IF U7 # " "
```

- **Working with dates**

(The colon following BD means CONTAINS with “*” representing “any day” and “any year”, while the “?” after BD will produce the age of the student.)

```
LIST STU TCH TCH.TE STU.NM STU.BD STU.BD? IF STU.BD : 12/*/*
```

(Students who have not had the 1st polio shot – no date is entered)

```
LIST STU IMM STU.SN STU.NM IF IMM.P1 = NULL
```

USING CONNECTIVES "AND" and "OR"

Using connectives "And" and "OR":

When using **AND** all records must meet all of the **IF** conditions.

```
LIST STU TST CTL CTL.NM TST.SN STU.NM TST.ID TST.GR TST.RS TST.SS TST.PL TST.TD BY STU.NM TST.PT IF TST.ID : CST AND TST.TD : */*/2008
```

When using an **OR** the records must meet either condition.

```
LIST STU GRD CRS TCH TCH.TE STU.NM CRS.CO GRD.M1 IF GRD.M1 : D OR GRD.M1 : F
```

When combining **AND** with multiple **OR** parts in an **IF STATEMENT**, encase the **OR** portion in **( )** and place a space before and after each parenthesis.

```
LIST STU GRD CRS TCH TCH.TE STU.NM CRS.CO GRD.M1 IF ( GRD.M1 : D OR GRD.M1 : F ) AND STU.GR = 9
```

***Note the “OR” portion of the condition is placed inside of ( ) so as to be considered one condition when the “AND” portion is added.**

SORTING DATA – ASCENDING OR DESCENDING ORDER

When a **LIST** query is generated the program determines which field will be used to sort in ascending order. For example **LIST STU** is sorted in ascending order by student last name. When creating a query the sort can be changed to descending order. To descend a query statement you must either use **DESC**, **REV**, or **^** symbol after the field in the **BY** portion of the query. If more than one sort field is selected the first sort field entered will be used to determine the page break in Aeries formatted reports.

```
LIST STU SEC MST TCH CRS MST.SM MST.PD STU.SN STU.NM TCH.TE CRS.CO BY TCH.TE MST.PD IF MST.SM = F OR MST.SM = Y
```

A query sort order reversed to descending order has **REV** added after the sort field. Also, as soon as **BY** is entered into the query, **REV** displays on the left-side menu below the commands.

```
LIST STU ADS STU.SN STU.NM STU.GR STU.SX ADS.CD ADS.CD? ADS.DS BY STU.GR REV IF ADS.CD # " "
```

A sort on more than one field can also be setup to descend with one field and ascend with another.

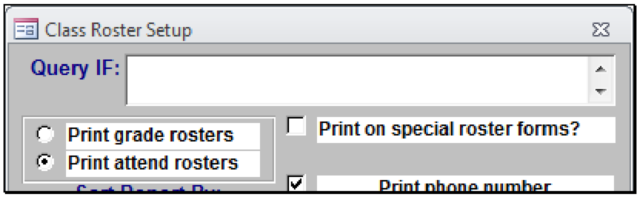
```
LIST STU ADS STU.SN STU.NM STU.GR STU.SX ADS.CD ADS.CD? ADS.DS BY STU.GR REV STU.SX IF ADS.CD # " "
```

AERIES QUERY SYMBOLS VERSUS ACCESS SYMBOLS

The Aeries program uses Aeries Query symbols in the **Query** program and Access Query symbols can be used throughout various forms and reports. The following are the different Aeries and Access symbols that are utilized.

AERIES SYMBOLS	ACCESS SYMBOLS
• **Recognizes text fields**	• **Text fields must be enclosed in quotes**
• **# Is NOT EQUAL to**	• **<> Is NOT EQUAL to**
• **: CONTAINS or is Like**	• **LIKE** ("___"), where ___ is the text
• **; Does NOT CONTAIN**	• **NOT LIKE** ("___"), where ___ is the text
• **< LESS THAN, > GREATER THAN**	• **< LESS THAN, > GREATER THAN**
• **((START MATH,)) STOP MATH**	• **<= LESS THAN OR EQUAL TO**
• **+ ADD, - SUBTRACT**	• **>= GREATER THAN OR EQUAL TO**
• **LEFT(field,1) chooses 1 char from left side**	• **+ ADD, - SUBT, / DIV, * MULT**
• **RIGHT(field,4) chooses 4 char from right side**	• **LEFT(field,1) chooses 1 char from left side**
	• **RIGHT(field,4) chooses 4 char from right side**

Some Aeries programs will display a selection box allowing you to enter an Access Query IF statement. The **Query IF** selection only uses Access symbols not Aeries symbols.



Query IF:

○ Print grade rosters

● Print attend rosters

□ Print on special roster forms?

☑ Print phone number

The following are Access Query examples that could be utilized on Class Roster Setup:

<u>TN <>605</u> - Print all rosters except teacher number 605

<u>TE LIKE "A*"</u> - Pint rosters for all teachers whose last name starts with "A"

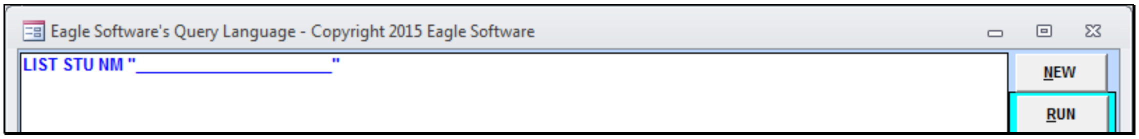
<u>TE NOT LIKE "A*"</u> - Print rosters for all teachers whose last names do not start with "A".

<u>AD LIKE "*Alliance*"</u> - In a directory report where the students address contains "Alliance"

MODIFYING A DATASHEET VIEW IN DESIGN VIEW

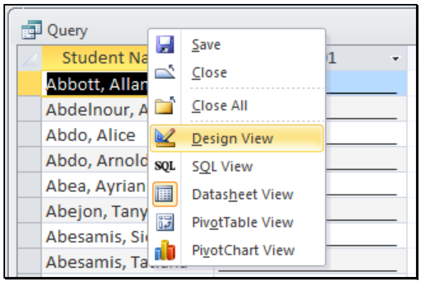
Temporary changes can be performed through the **Access Design View** that will modify the appearance of the **Query Datasheet View**.

The following **LIST** query uses the **STU** table and has 2 fields – the **NM** field and a field created that will print a line on a report.

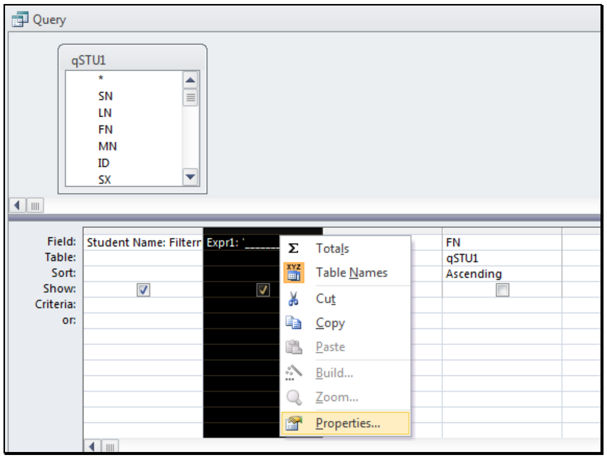

Eagle Software's Query Language - Copyright 2015 Eagle Software
NEW
RUN

```
LIST STU NM "____________________"
```

Column Heading - the query generated contains two fields. One field was manually created and contains a column caption named **Expr1001**. The caption for this column can be changed. After generating a query the results are displayed in **Datasheet View**. One way to get in to **Design View** would be to right click on the header of the query's results window where it says 'Query' and choose **Design View**.

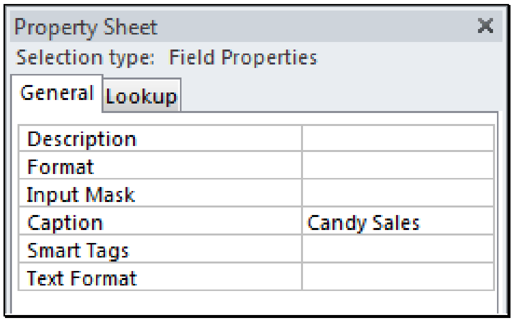


The **Design View** will now display. To select the column right click the mouse on the **narrow bar** just above the **Field** row and the column will be highlighted.



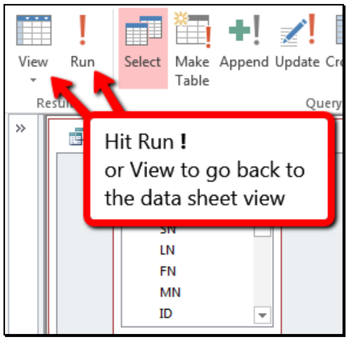
Field:	Student Name: Filterr	Expr1: '______	FN
Table:			qSTU1
Sort:			Ascending
Show:	☑	☑	☐
Criteria:			
or:			

Field properties will be listed at the upper right margin of your screen. In **Caption,** type the new caption selected such as Candy Sales. Next, run the query again by hitting the red ! exclamation run button or click the view button to return to datasheet view.



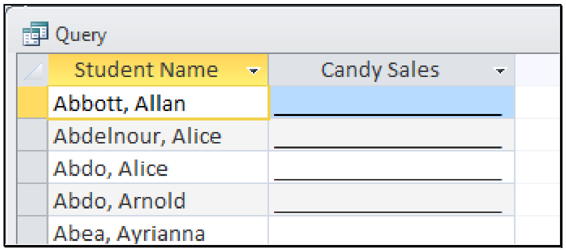
Selection type: Field Properties

Description	
Format	
Input Mask	
Caption	Candy Sales
Smart Tags	
Text Format	



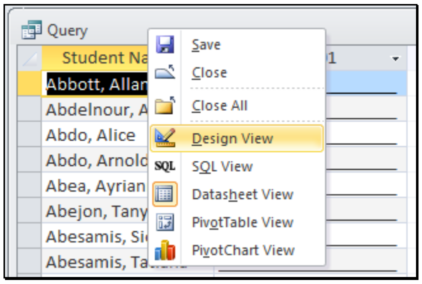
Hit Run !
or View to go back to the data sheet view

The column in **Datasheet View** will now display Candy Sales. **The changes cannot be retained in the existing Query generated and cannot be printed using Query Report. The results can ONLY be printed, copied, or exported.**

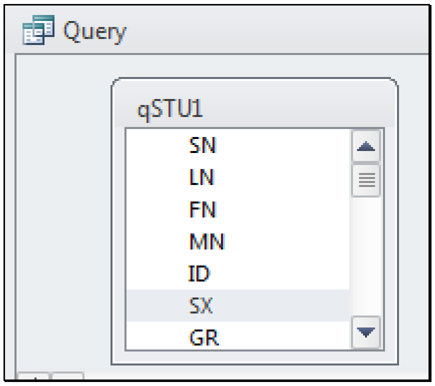


Student Name	Candy Sales
Abbott, Allan	
Abdelnour, Alice	
Abdo, Alice	
Abdo, Arnold	
Abea, Ayrianna	

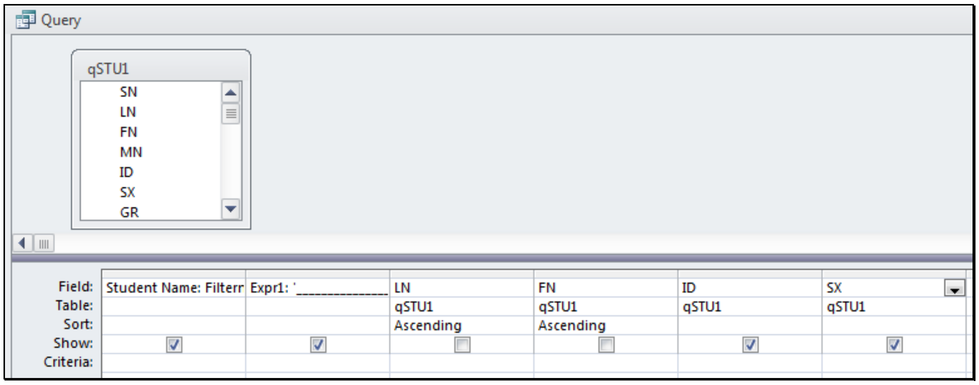
Add Existing Fields – after a query is generated and displayed in **Datasheet View** additional fields can be added through going back to **Design View**. You may return to **Design View** by right click on the header of the query's results window where it says 'Query' and choose **Design View**.



The **Design View** will now display. There are various ways to add an existing field. Locate the field in the table displayed in the top of the form and **double click** the mouse on the field selected. The field will then display in the next available **column**.

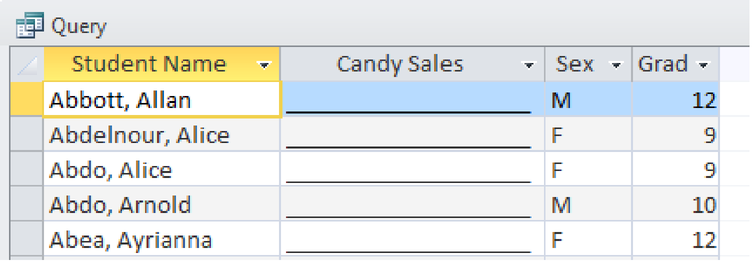


The field can also be typed into an available column. Also, if you click the mouse on the **Field** line a drop down will display with a listing of all **existing fields**. Click the mouse on the field selected and the field will display in the column.



Field:	Student Name: Filterr	Expr1: '_____________	LN	FN	ID	SX
Table:			qSTU1	qSTU1	qSTU1	qSTU1
Sort:			Ascending	Ascending		
Show:	☑	☑	□	□	☑	☑
Criteria:						

After the fields have been selected, run the query again by hitting the red **!** exclamation run button or choose **Datasheet View** button in the left upper corner and the new fields will be selected with the previous fields. **The changes cannot be retained in the existing Query generated and cannot be printed using Query Report. The results can ONLY be printed with File Print.**

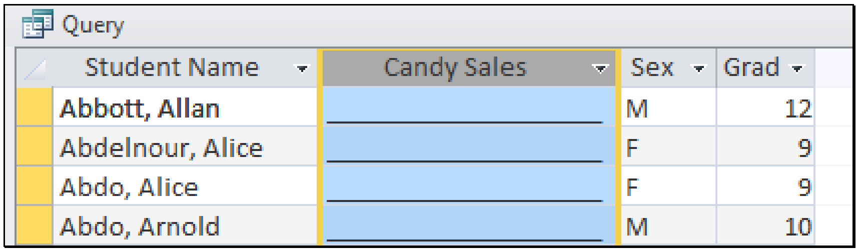


Student Name	Candy Sales	Sex	Grad
Abbott, Allan	______________	M	12
Abdelnour, Alice	______________	F	9
Abdo, Alice	______________	F	9
Abdo, Arnold	______________	M	10
Abea, Ayrianna	______________	F	12

COMMANDS UTILIZED IN DATASHEET VIEW

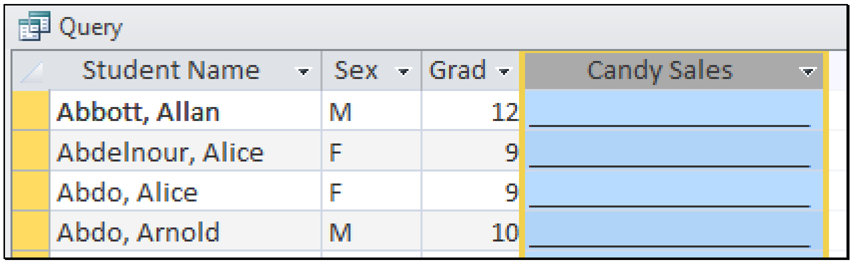
Once a query is generated and the **Datasheet View** has displayed there are various **Commands** that can be utilized.

Moving columns – left click the column heading to select the column, then left click the column a second time and you will notice a **square** displays below the **arrow**.



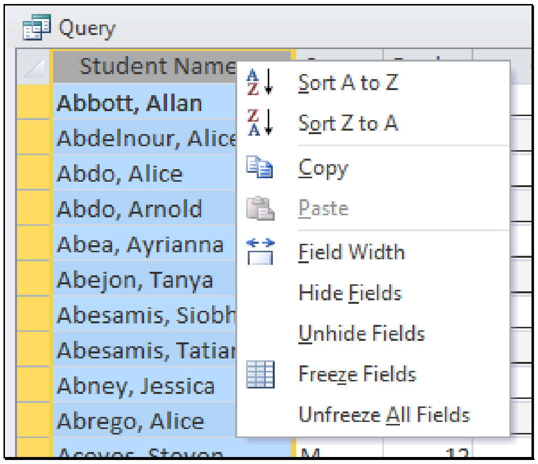
Student Name	Candy Sales	Sex	Grad
Abbott, Allan	________	M	12
Abdelnour, Alice	________	F	9
Abdo, Alice	________	F	9
Abdo, Arnold	________	M	10

Hold the mouse down and drag the column to the desired location then release the mouse.



Student Name	Sex	Grad	Candy Sales
Abbott, Allan	M	12	________
Abdelnour, Alice	F	9	________
Abdo, Alice	F	9	________
Abdo, Arnold	M	10	________

Column Changes – A column can be selected by left clicking the mouse on the heading. Right click the mouse on column header and the following menu will display.

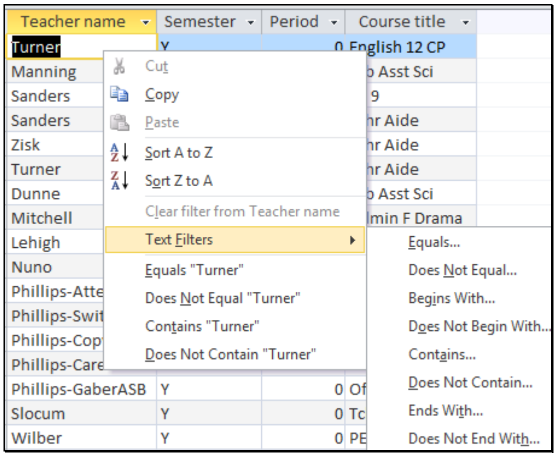


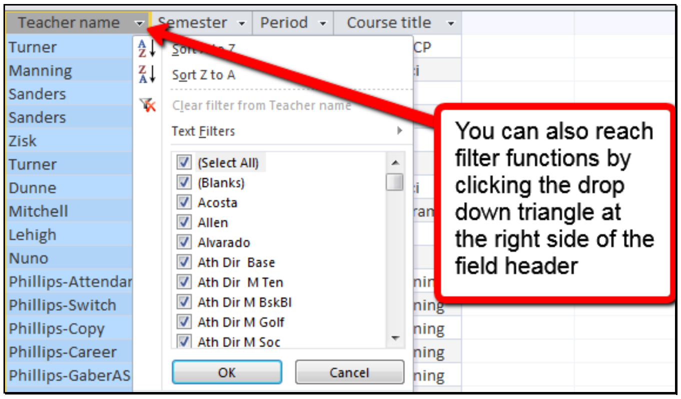
The following commands can be utilized for the highlighted column:

- **"Sort A to Z"** will sort the selected column in ascending order.
- **"Sort Z to A"** will sort the column selected in descending order.
- **"Copy"** will copy the selected column to the windows clipboard.
- **"Freeze Fields"** will move a selected column to column1 and not permit other columns to be moved as described above.
- **"Unfreeze All Columns"** will restore all columns to a movable state.

More than one column can be selected by holding the left mouse down and moving across the column headings. Then right clicking the mouse in the body of the selected data will bring up the same menu. This can be useful for example to modify the column width of a wide report to "best fit" for all columns or to change the sort order of more than one column, such as grade and sex.

Column Filters – certain criteria can be used to sort out data using various filter commands. All commands are executed by right clicking the mouse into the field next to the record to be filtered and the following menu will display. The example at the right below is next to the Teacher Name of Turner.





You can also reach filter functions by clicking the drop down triangle at the right side of the field header

<u>E</u>quals "Turner" – will select only those records where "Turner" is the teacher.

Does <u>N</u>ot Equal "Turner" – will select only those records where "Turner" is not the teacher.

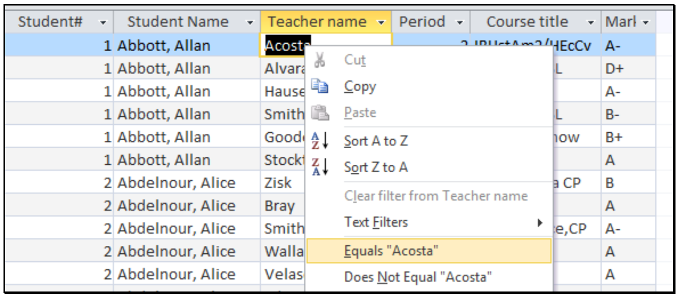
<u>E</u>quals… - enter access conditions such as:

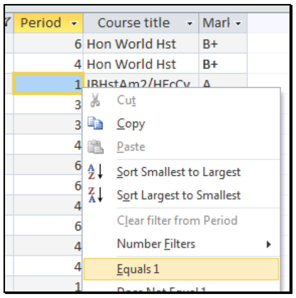
- **like "T*"** to select all records where the teacher name begins with "T".
- **not like "T*"** to select all records where the teacher name does not begin with "T".
- **like "A*" or like "B*"** to select all records where the teacher name begins with "A" or "B".

You can apply multiple filters and remove them from a field by choosing 'Clear filter from' *{field_name}*. The following is an example of a query that is generated.

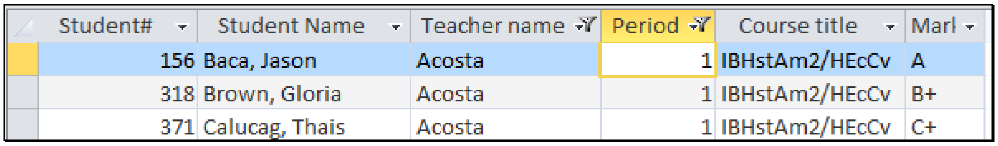
LIST STU GRD CRS TCH STU.SN STU.NM TCH.TE GRD.PD CRS.CO GRD.M1 IF GRD.M1 > 0

Two filters are placed on two fields, which are **Teacher Name Acosta** and **Period 1**. Click the mouse on **Equals "Acosta"**.





The filter will add an **AND** condition and will list only students with Teacher Acosta in Period 1.



Student#	Student Name	Teacher name	Period	Course title	Marl
156	Baca, Jason	Acosta	1	IBHstAm2/HEcCv	A
318	Brown, Gloria	Acosta	1	IBHstAm2/HEcCv	B+
371	Calucag, Thais	Acosta	1	IBHstAm2/HEcCv	C+

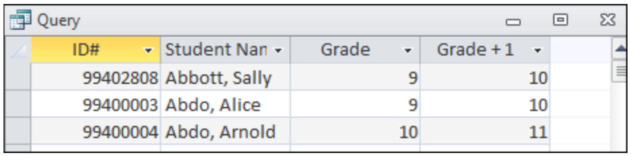
All filters, freezes, and hides will be retained in Access for printing, copying, or exporting. The Aeries Report Button will ONLY format the results of the query as listed in the query statement.

MATH OPERATIONS

Various math operations can be performed in query. As usual, there is a space between each command, table, field, operation or condition. You can add, multiply, divide or subtract within the start and stop math symbols.

For example, in the below query the students are listed with their grade and one grade level higher:

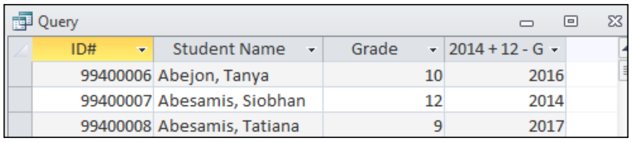
LIST STU ID NM GR ((GR + 1))



ID#	Student Nan	Grade	Grade + 1
99402808	Abbott, Sally	9	10
99400003	Abdo, Alice	9	10
99400004	Abdo, Arnold	10	11

The “Class Of” can also be calculated based off of the student’s current grade:

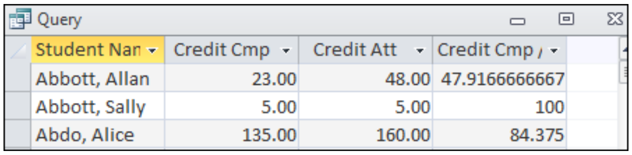
LIST STU ID NM GR ((2014 + 12 - GR))



ID#	Student Name	Grade	2014 + 12 - G
99400006	Abejon, Tanya	10	2016
99400007	Abesamis, Siobhan	12	2014
99400008	Abesamis, Tatiana	9	2017

In the query below the cumulative credit completed (CC) is being divided by the cumulative credit attempted (CA) and then multiplied (*) by 100 to convert it to a percent:

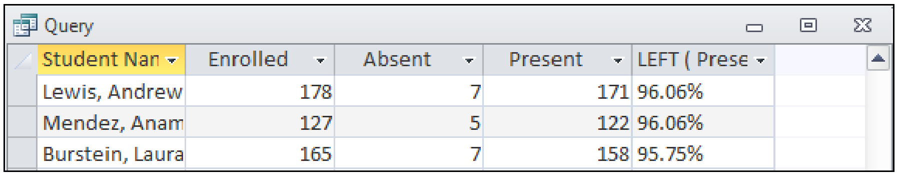
LIST STU NM CC CA ((CC / CA * 100)) IF CA # 0



Student Nan	Credit Cmp	Credit Att	Credit Cmp /
Abbott, Allan	23.00	48.00	47.9166666667
Abbott, Sally	5.00	5.00	100
Abdo, Alice	135.00	160.00	84.375

In the next example the days present are divided by the days enrolled and then multiplied by 100 to calculate the Attendance Percentage. Formatting is also done to trim the percentages to two significant digits and add a % symbol to the end:

LIST STU NM DE DA DP ((LEFT (DP / DE * 100 , 5) + "%")) BY ((DP / DE)) REV IF DE # 0

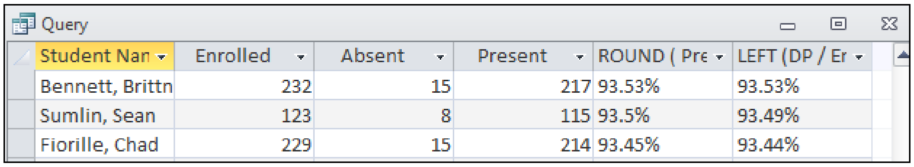


Student Nan	Enrolled	Absent	Present	LEFT (Prese
Lewis, Andrew	178	7	171	96.06%
Mendez, Anam	127	5	122	96.06%
Burstein, Laura	165	7	158	95.75%

NOTE: this query does not produce any results when run in Aeries.net.

This query demonstrates the effects of using the Rounding function:

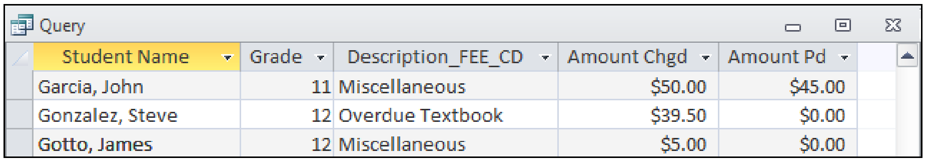
LIST STU NM DE DA DP ((ROUND (DP / DE * 100,2) & "%")) ((LEFT (DP / DE * 100,5)+"%")) BY ((DP / DE)) REV IF DE # 0



Student Nan	Enrolled	Absent	Present	ROUND (Pre	LEFT (DP / Er
Bennett, Brittn	232	15	217	93.53%	93.53%
Sumlin, Sean	123	8	115	93.5%	93.49%
Fiorille, Chad	229	15	214	93.45%	93.44%

NOTE: this query does not produce any results when run in Aeries.net.

The next example is using the fee amount charged (AM) and subtracting the amount paid (**PD**) and then only displaying the information if the remaining amount is greater than zero:

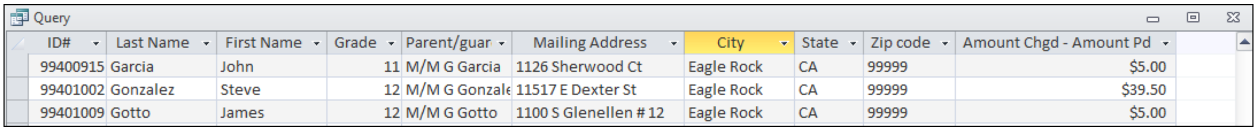


Query

Student Name	Grade	Description_FEE_CD	Amount Chgd	Amount Pd
Garcia, John	11	Miscellaneous	$50.00	$45.00
Gonzalez, Steve	12	Overdue Textbook	$39.50	$0.00
Gotto, James	12	Miscellaneous	$5.00	$0.00

The outstanding fee balance can also be displayed by inserting the mathematical operation in the field area before the IF. This query could be used for a Fee Letter that would go home to the parents:

LIST STU FEE STU.ID STU.LN STU.FN STU.GR STU.PG STU.AD STU.CY STU.ST STU.ZC ((FEE.AM - FEE.PD)) IF ((FEE.AM - FEE.PD)) > 0

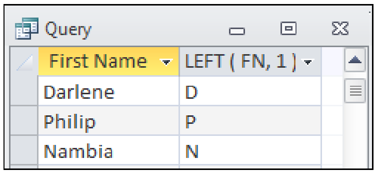


Query

ID#	Last Name	First Name	Grade	Parent/guar	Mailing Address	City	State	Zip code	Amount Chgd - Amount Pd
99400915	Garcia	John	11	M/M G Garcia	1126 Sherwood Ct	Eagle Rock	CA	99999	$5.00
99401002	Gonzalez	Steve	12	M/M G Gonzale	11517 E Dexter St	Eagle Rock	CA	99999	$39.50
99401009	Gotto	James	12	M/M G Gotto	1100 S Glenellen # 12	Eagle Rock	CA	99999	$5.00

Math operations can also be performed to truncate a field or “cut off” characters or numbers from left or right. The following query examples will truncate to the left all characters up to the first character of a student’s first name:

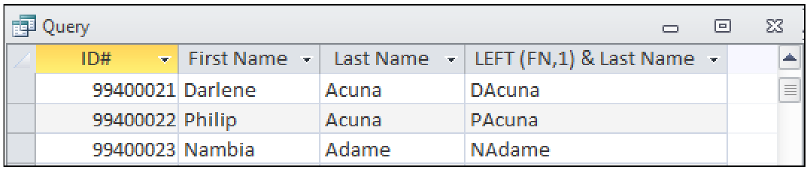
LIST STU FN ((LEFT (FN, 1)))



Query

First Name	LEFT (FN, 1)
Darlene	D
Philip	P
Nambia	N

LIST STU ID FN LN ((LEFT (FN,1) & LN))



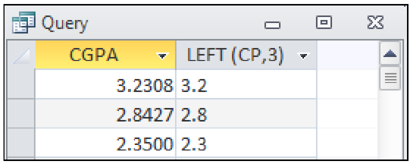
Query

ID#	First Name	Last Name	LEFT (FN,1) & Last Name
99400021	Darlene	Acuna	DAcuna
99400022	Philip	Acuna	PAcuna
99400023	Nambia	Adame	NAdame

NOTE: When querying from Aeries.net substitute the “&” for a “+”:
LIST STU FN ((LEFT (FN, 1) + LN))

Another example is truncating the CGPA field left to reduce it to 2 digits. Take note to the truncation (CP,3). The reason for this is so that it will include the decimal point:

LIST STU CP ((LEFT (CP,3))) IF CP > 0

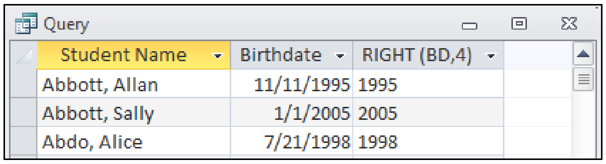


Query

CGPA	LEFT (CP,3)
3.2308	3.2
2.8427	2.8
2.3500	2.3

The following query example will truncate to the right down to the last four digits of the birth date and will only display the birth year:

LIST STU NM BD ((RIGHT (BD,4)))

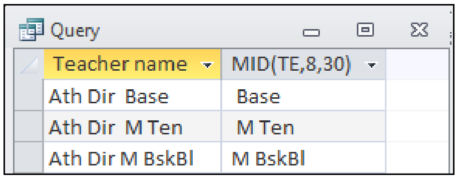


Query

Student Name	Birthdate	RIGHT (BD,4)
Abbott, Allan	11/11/1995	1995
Abbott, Sally	1/1/2005	2005
Abdo, Alice	7/21/1998	1998

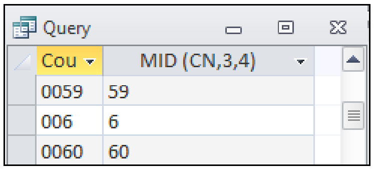
The next two examples will use the MID function to list a certain number of characters within a field:

LIST TCH TE ((MID (TE,8,30))) IF TE : "ath dir "



Teacher name	MID(TE,8,30)
Ath Dir Base	Base
Ath Dir M Ten	M Ten
Ath Dir M BskBl	M BskBl

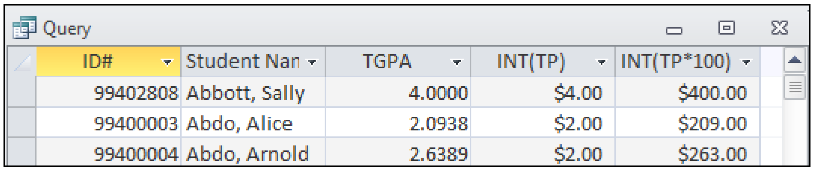
LIST CRS CN ((MID (CN,3,4)))



Cou	MID (CN,3,4)
0059	59
006	6
0060	60

The next query demonstrates how to change a whole number to an integer using the INT function:

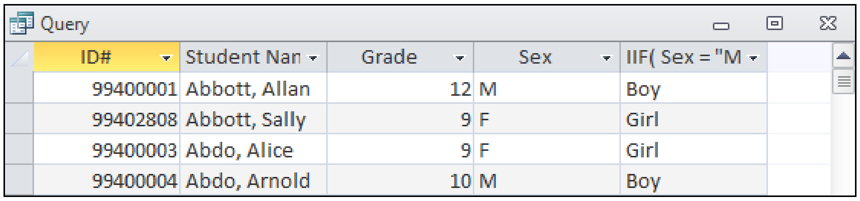
LIST STU ID NM TP ((INT(TP))) ((INT(TP*100)))



ID#	Student Nan	TGPA	INT(TP)	INT(TP*100)
99402808	Abbott, Sally	4.0000	$4.00	$400.00
99400003	Abdo, Alice	2.0938	$2.00	$209.00
99400004	Abdo, Arnold	2.6389	$2.00	$263.00

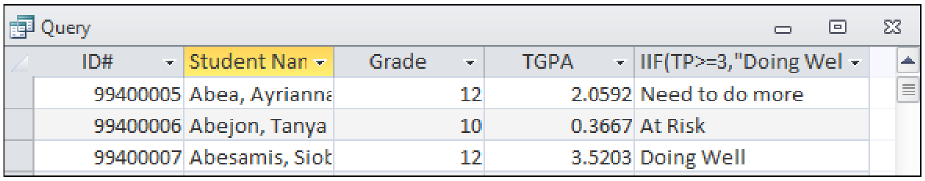
The following queries using an IIF function to only report information that returns a value based on another value that is being returned. In the first query the word “Boy” will be returned if the student’s sex is M, otherwise “Girl” will be returned. In the second example the phrase “Doing Well” will display if the student’s cumulative weighted GPA is > or = 3.000, display “Need to do More if the GPA is > 2, and display “At Risk” if the GPA is < or = 2.000:

LIST STU ID NM GR SX ((IIF(SX = "M","Boy","Girl")))



ID#	Student Nan	Grade	Sex	IIF(Sex = "M
99400001	Abbott, Allan	12	M	Boy
99402808	Abbott, Sally	9	F	Girl
99400003	Abdo, Alice	9	F	Girl
99400004	Abdo, Arnold	10	M	Boy

LIST STU ID NM GR TP ((IIF(TP>=3,"Doing Well", IIF(TP>2,"Need to do more","At Risk"))))

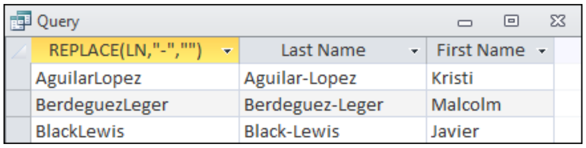


ID#	Student Nan	Grade	TGPA	IIF(TP>=3,"Doing Wel
99400005	Abea, Ayrianna	12	2.0592	Need to do more
99400006	Abejon, Tanya	10	0.3667	At Risk
99400007	Abesamis, Siot	12	3.5203	Doing Well

NOTE: the MID, INT and IIF functions are not compatible in Aeries.net.

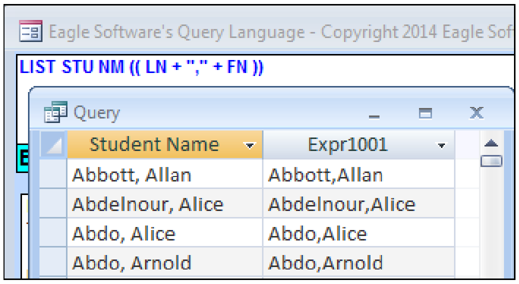
In the next example the dash in a student’s last name is removed in the query results by using the Replace function:

LIST STU ((REPLACE(LN,"-",""))) LN FN IF LN : "-"



REPLACE(LN,"-","")	Last Name	First Name
AguilarLopez	Aguilar-Lopez	Kristi
BerdeguezLeger	Berdeguez-Leger	Malcolm
BlackLewis	Black-Lewis	Javier

Math Operations can also concatenate or combine fields and strings. For example, the student's last name and first name can be joined. In the example below the students last name is joined with the first name and has a comma inserted between them.

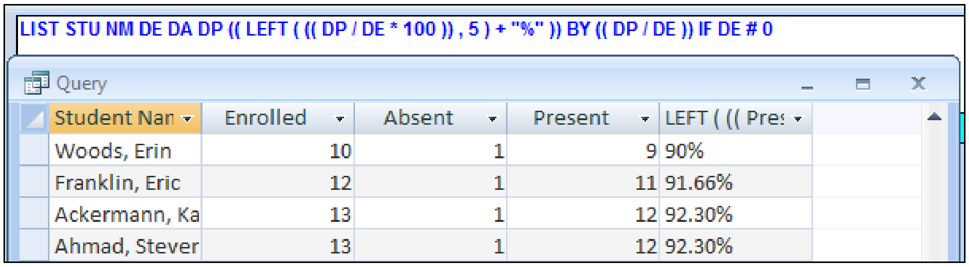


```
LIST STU NM (( LN + "," + FN ))
```

Student Name	Expr1001
Abbott, Allan	Abbott,Allan
Abdelnour, Alice	Abdelnour,Alice
Abdo, Alice	Abdo,Alice
Abdo, Arnold	Abdo,Arnold

But take note to the first selection after **STU**, which is **NM**. Notice that **NM** is nowhere listed in the **STU Fields**. Aeries Query **NM** is a programmed concatenation of a student's last name, plus comma, space and last name.

Math Operations can also perform operations, concatenate and truncate with in the same query. The math operation below has calculated from days present (DP) and days enrolled (DE) the actual percentage that a student has been present. The caption for this field was then changed in Design View to **% Present**.



```
LIST STU NM DE DA DP (( LEFT ( (( DP / DE * 100 )) , 5 ) + "%" )) BY (( DP / DE )) IF DE # 0
```

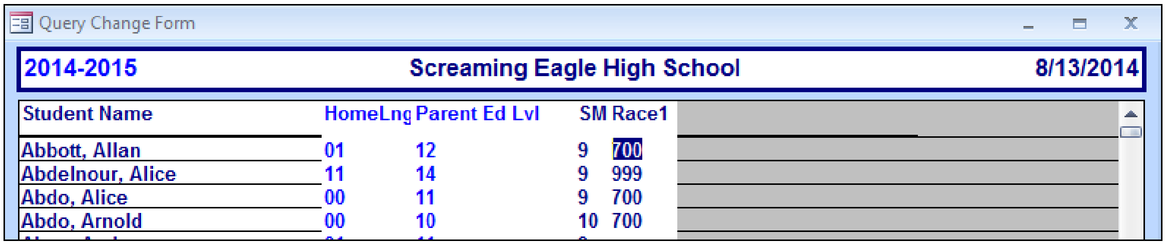
Student Nan	Enrolled	Absent	Present	LEFT (((Pre:
Woods, Erin	10	1	9	90%
Franklin, Eric	12	1	11	91.66%
Ackermann, Ka	13	1	12	92.30%
Ahmad, Stever	13	1	12	92.30%

CHANGE BUTTON versus CHANGE COMMAND

After generating a **LIST** query the **Change** button will display the records on the form and allow you to manually change the records selected. If the **CHANGE** command is utilized in the query statement it will automatically write a specified value into a field for **ALL** records selected.

CHANGE BUTTON

Run a **LIST** query and close the datasheet. Click the mouse on the **CHANGE** button. The edit form will display. The first field is dark blue indicating it is locked and the data cannot be changed. Use **Tab** to move from field to field and make any changes. The **Tab** can also be turned off/on for any column by clicking on the column headings.

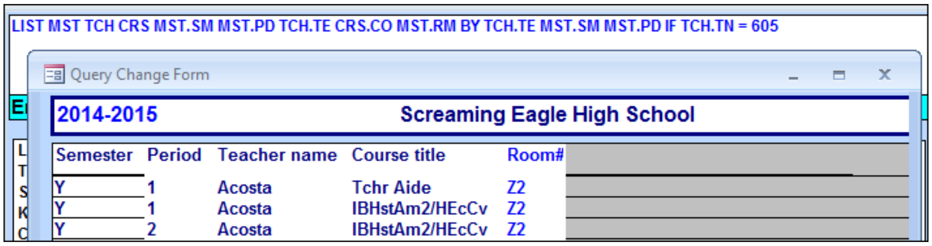


2014-2015 Screaming Eagle High School 8/13/2014

Student Name	HomeLng	Parent Ed Lvl	SM	Race1
Abbott, Allan	01	12	9	700
Abdelnour, Alice	11	14	9	999
Abdo, Alice	00	11	9	700
Abdo, Arnold	00	10	10	700

CHANGE BUTTON WITH MULTIPLE TABLES

Run the **LIST** query with multiple tables selected and close the datasheet. Click the mouse on the **CHANGE** button to bring up the edit display. Edit the teacher room assignment by entering the new room assignment and tabbing to the next field.



LIST MST TCH CRS MST.SM MST.PD TCH.TE CRS.CO MST.RM BY TCH.TE MST.SM MST.PD IF TCH.TN = 605

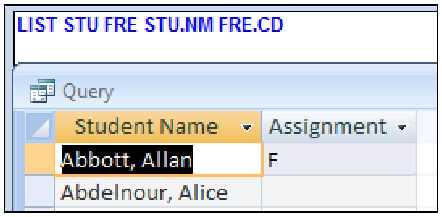
2014-2015 Screaming Eagle High School

Semester	Period	Teacher name	Course title	Room#
Y	1	Acosta	Tchr Aide	Z2
Y	1	Acosta	IBHstAm2/HEcCv	Z2
Y	2	Acosta	IBHstAm2/HEcCv	Z2

NOTE: When multiple tables are used, only related records that exist in both tables will be displayed on the Change Form

A table can also be linked to another table to allow you to edit data. For example, the **STU** table can be linked to the **FRE** table to edit data for existing records in **FRE**. Run the following **LIST** query using two tables then close out the datasheet.

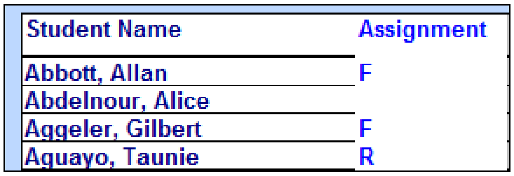
LIST STU FRE STU.NM FRE.CD



LIST STU FRE STU.NM FRE.CD

Student Name	Assignment
Abbott, Allan	F
Abdelnour, Alice	

Click the mouse on the **CHANGE** button and the data in the **FRE.CD** field can now be changed. Notice Ayrianna Abea has a blank record, which could be edited even though the **Assignment** field is blank.



Student Name	Assignment
Abbott, Allan	F
Abdelnour, Alice	
Aggeler, Gilbert	F
Aguayo, Taunie	R

CHANGE COMMAND

The **CHANGE Command** can be used to create blank records in a table, which can then be edited with the **CHANGE** button. The following Query will allow you to create a record in the **FRE** table for every student in the school. This will allow you to load Free and Reduced Meal information utilizing the **CHANGE** Button.

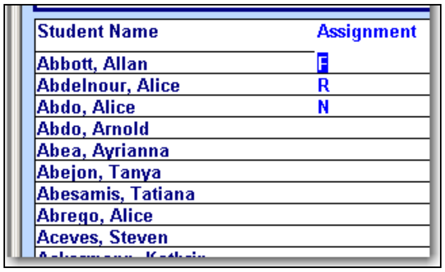
CHANGE STU FRE FRE.SN TO STU.SN

After the new records have been created in **FRE** run the following **LIST** query then close out the datasheet.

LIST STU FRE STU.NM FRE.CD IF FRE.SN = NULL

NOTE: Be sure you have a fresh backup before running any CHANGE COMMAND.

Click the mouse on the **CHANGE** button. Lunch codes can now be entered by using either the **TAB** key or the **Down/Up arrows**.

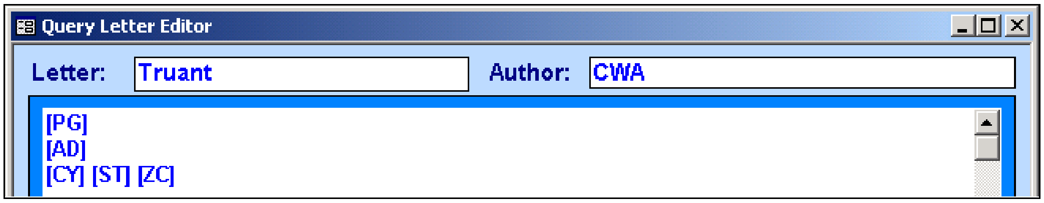


Student Name	Assignment
Abbott, Allan	F
Abdelnour, Alice	R
Abdo, Alice	N
Abdo, Arnold	
Abea, Ayrianna	
Abejon, Tanya	
Abesamis, Tatiana	
Abrego, Alice	
Aceves, Steven	

QUERY LETTERS

The **LETTERS** button is used to merge data into a formatted letter. The letters are first created from the **LETTER EDITOR** button. A query statement is then utilized to pull data from tables and fields. The **LETTER** button will merge the data from the query into the letter selected. To create a letter in **Query Letter Editor**, click the mouse on the **Add** button. The cursor will automatically display in **Letter**: to enter the letter name. Press **Tab**. The **Author:** field will automatically display the current user's name.

Press the **Tab** key until the **cursor** displays in the white text box. A school heading and date is not required. When the letter is generated, a school heading will automatically be created with the school name, address, and the current date at the top of the letter. **This heading will not display in the letter editor but will print when submitted**.



Letter: Truant   Author: CWA

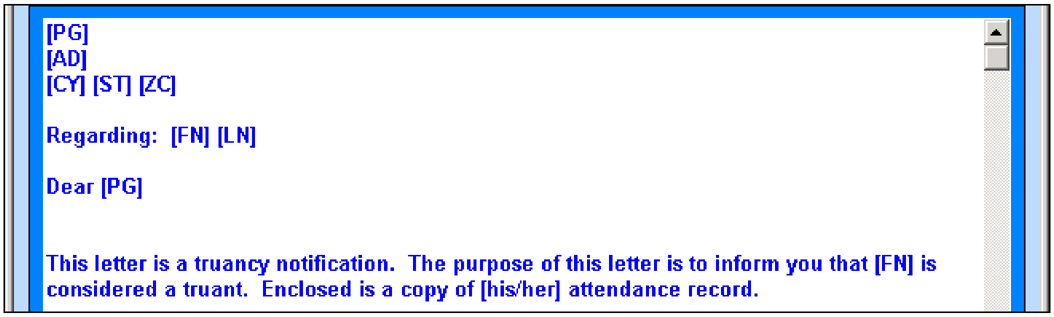
[PG]
[AD]
[CY] [ST] [ZC]

An address heading should be created for the individual receiving the letter. For example, a letter sent to a parent/guardian use the following fields:

PG = Parent/Guardian
AD = Address
CY = City
ST = State
ZC = Zip Code

On the first line type **[PG]** and press **Enter**. The cursor will drop down to the second line. Type **[AD]** and press **Enter**. The cursor will drop down to the third line. Type **[CY] [ST] [ZC]** and press **Enter**.   **ALL field codes MUST have a square bracket surrounding them and there must be a space between each field but no space within the brackets.**

Type the remainder of the letter combined with text and field codes. An example of a letter is displayed below. When the Letter is generated a query function is available that will insert either **[he/she]** or **[his/her**] in the letter for the proper sex but the sex code **must** be used in the query statement. Be sure to capitalize **[He/She]** if it is the first word in a sentence. **For example, on the second line where his/her is used, if the sex code is F the above letter will read "a copy of her attendance record".**



[PG]
[AD]
[CY] [ST] [ZC]

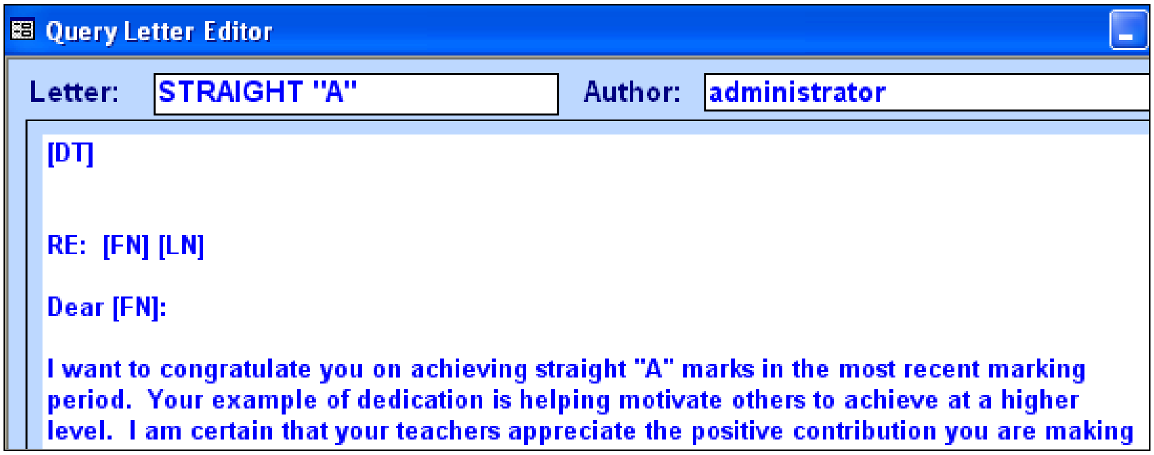
Regarding: [FN] [LN]

Dear [PG]

This letter is a truancy notification. The purpose of this letter is to inform you that [FN] is considered a truant. Enclosed is a copy of [his/her] attendance record.

After the letter is complete, click the **Exit** button at the bottom of the form. Once the letter has been created a query can be generated through the **Query** option and the **Letter** function is utilized to generate the letters. **Remember that each field code used in the letter MUST be in the query statement or this area will be blank when the letter prints.**

The following example is a letter created for straight “A” students. The letter has been previously created in **Query Letter Editor**. Several queries need to be generated to separate out data prior to selecting the **LETTER** button to create the letters,



Letter: STRAIGHT "A"   Author: administrator

[DT]

RE: [FN] [LN]

Dear [FN]:

I want to congratulate you on achieving straight "A" marks in the most recent marking period. Your example of dedication is helping motivate others to achieve at a higher level. I am certain that your teachers appreciate the positive contribution you are making

The first query is generated to clean out the print tag (QT) field:
CHANGE STU QT TO " "

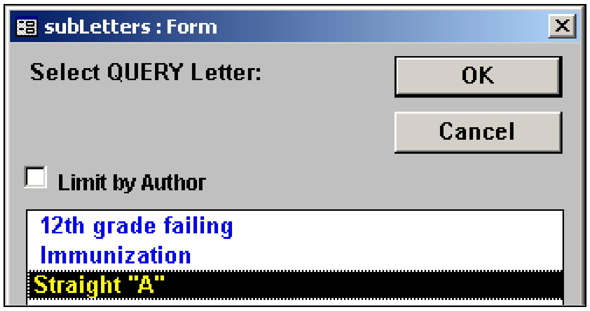
The **KEEP** query will select only students that have a grade in the M1 field:
KEEP STU GRD IF GRD.M1 # " "

The QT field will be tagged with an “N” for all marks other than “A”:
CHANGE STU GRD STU.QT TO N IF GRD.M1 ; A

A list can be generated to list the "A" students for verification:
LIST STU GRD CRS STU.NM CRS.CO GRD.M1 BY STU.NM IF STU.QT = " "

The query can be generated with the fields that need to be merged into the query letter:
LIST STU STU.FN STU.LN IF STU.QT = " "

After the query is generated click the mouse on the **LETTER** button and select the letter. Click the mouse on the **OK** button and the letter will be generated.



12th grade failing
Immunization
Straight "A"