



# **Infinite Campus**

## **Ad Hoc Reporting Basics**

# Ad Hoc Reporting Basics

## Overview

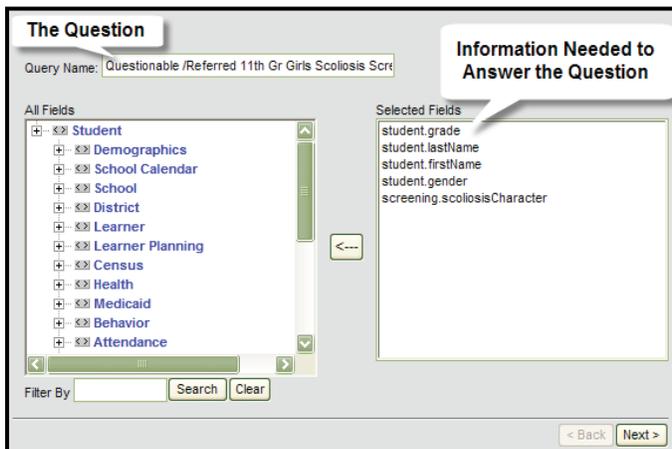
The Ad Hoc Reporting module allows a user to create reports and run queries for various types of data in Campus. Ad Hoc queries may be used to find data relating to students, staff, all people and courses. These queries may be exported from Campus or used to filter canned reports throughout Infinite Campus. Additionally, a tool is available in the Ad Hoc module to create form letters and complete a mail merge using fields from the Campus database.

## Basic Ad Hoc Vocabulary

- **Field** – A chunk of information like a name, an address, a date, a student’s grade or status. We assemble a set of fields that we want as output or that we want to find or filter the results of our query.
- **Columns** – Our results are made up of columns defined by the fields we included in the query and selected for output.
- **Table** – The answer to the query is a table of data.
- **Filter** – Filter is used by Infinite Campus to describe the set of specifications we’re using to answer our question. It is also used to describe the criteria we set to specifically answer our question or define the results we want. We filter some or all of the fields we include to narrow down the data to just the results we want. For example; students that are currently active, dates after August 10<sup>th</sup>, only the parent’s primary mailing address.
- **Query** – The question we want answered or the specifications for the data we want to extract from Infinite Campus. We also use query to refer to the set of specifications and instructions we’re building and saving in the Ad Hoc tool to get our question answered. Query is at times used to describe a Filter in Campus.

## Ad Hoc Vocabulary Example

The nurse stopped by the office and said she needs a list of all 11th grade girls who had a questionable scoliosis screening or were referred after their first screening. First, start with the **fields** needed: first name, last name, grade, gender, and scoliosis screening. Next, add the criteria to **filter** the data: 11th grade, female, scoliosis screening status. The results will be organized as **columns** of data in a **table** to answer the original **query**.



**The Query (Question)**

**The Table (Answer to the Question)**

**Column**

11th Grade Girls Scoliosis Records:2

student.grade	student.lastName	student.firstName	student.gender	screening.scoliosisCharacter
11			F	Q
11			F	R

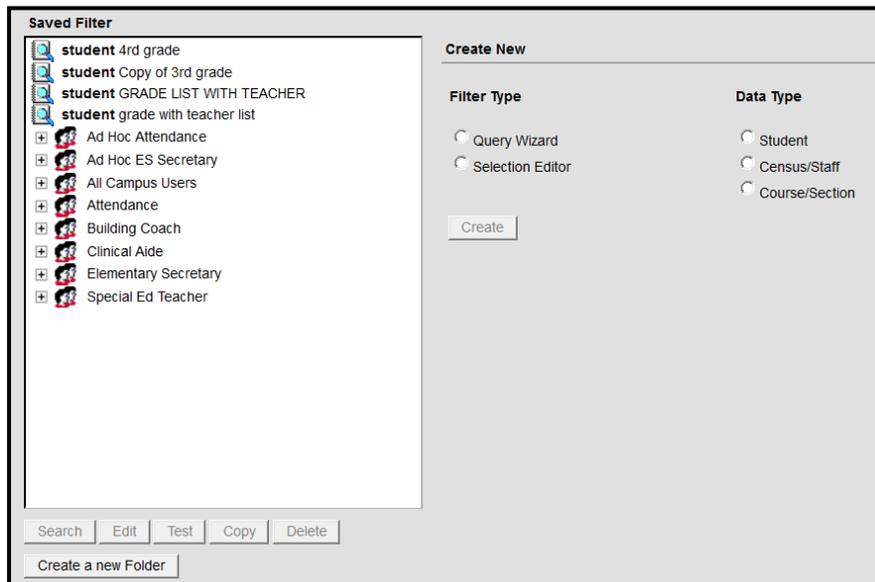
## Saved Filters

- From the **Index**, expand **Ad Hoc Reporting** and select **Filter Designer**.
- Existing Ad Hoc filters are listed in the Saved Filters window. The first filters on the list are your personal Ad Hoc Filters.
- The bottom of this window lists folders with the  icon. The filters inside folders shared among all WCSD staff who are members of that Campus group.
- Because these folders are shared among WCSD staff, changes you make to the filter will affect everyone. **We request that you make a copy of the filter and edit that copy instead of making changes to the shared filters.**

## Copying Filters

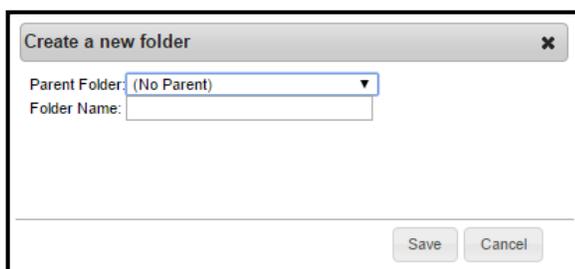
Copying working filters out of the shared folders can make a great starting point for a new filter.

- To copy a filter, click the  next to the folder icon to expand the folder.
- Select the filter in the list you wish to copy and click the **Copy** button. Click **OK** when the message appears that the filter has been copied. A copy of the filter will be added to your Saved Filter list with “Copy of” added to the filter name.



## Organizing your Filters Into Folders

1. From the main Filter Designer screen, select **Create a new Folder**.
2. Enter a folder name and click **Save**. Parent folder can be left at (No Parent).
3. If you want to create a folder within a folder, you would create the “main” (parent folder) first and then create a new folder, choosing the existing Parent Folder you wish to put it in. This allows you to create a nested hierarchy of folders for even more organization.



## Deleting Filters

1. Click to select the filter you wish to delete.
2. Click the Delete button. Confirm you wanted to delete the filter by clicking **OK**.

## Exercise: Copying and Organizing Filters

Exercise 1: Copy an existing filter from one of the shared folders available to you into your personal filters.

1. Pick one of the shared folders available to you.
2. Click the  next to the folder icon to expand the folder.
3. Pick any of the Ad Hoc filters in that folder.
4. Press the **Copy** button.
5. Note that the filter appears at the top of the list with "Copy of" added to the title.

Exercise 2: Create a folder

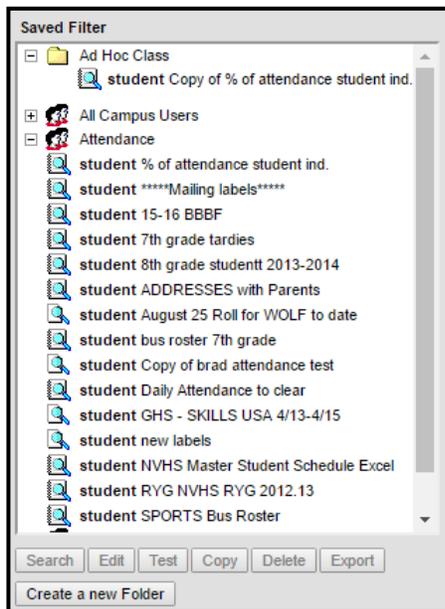
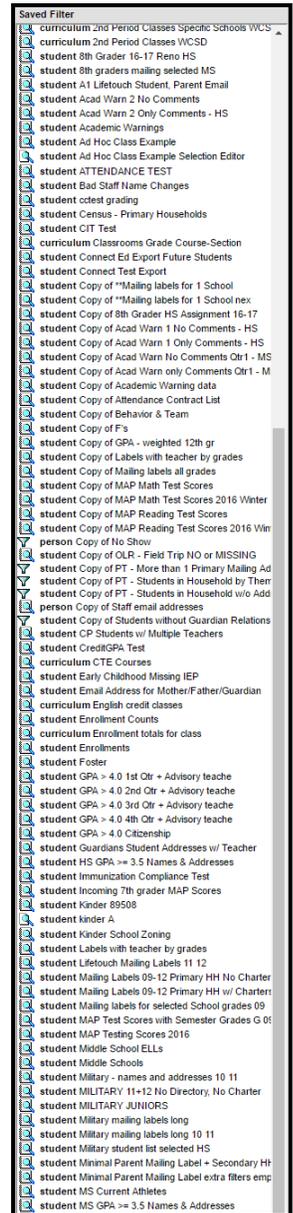
1. Click the **Create a new Folder** button.
2. Click into the **Folder Name** field and type 'Ad Hoc Class'. Leave the Parent Folder at (No Parent).
3. Click **Save**.

Exercise 3: Move a filter into the folder you just created.

1. Click to select the filter you created in Exercise 1.
2. Click and drag the filter over the folder created in Exercise 2 and drop it onto that filter.
3. Check the confirmation message to confirm the filter was copied into the correct folder and press **OK**.

Exercise 4: Delete a filter

1. Click to select the filter you moved into a folder in Exercise 3.
2. Click the Delete button. Confirm you wanted to delete the filter by clicking **OK**.



Is your list of filters starting to look like mine? Pages of filters named 'Copy of Copy'? Consider adding some folders to organize your filters.

## Create a Filter with the Query Wizard

Start by naming your filter and adding the fields that contain the information you need and will help you reduce the results to just the ones you need.

1. Select the first radio button **Query Wizard** under **Create New** from the main Filter Designer screen.
2. Select a Filter **Data Type** - Student, Census/Staff or Course/Section.
  - Student Data queries return data that would be found on tabs in the Student Information > General sections of Campus. Other data associated with students can also be included.
  - Census/Staff queries return data found on tabs in the Census > People section of Campus.
  - Course/Section queries return data from a school's courses and sections.
3. Click the **Create** button. Campus will load the Field Selection Screen.

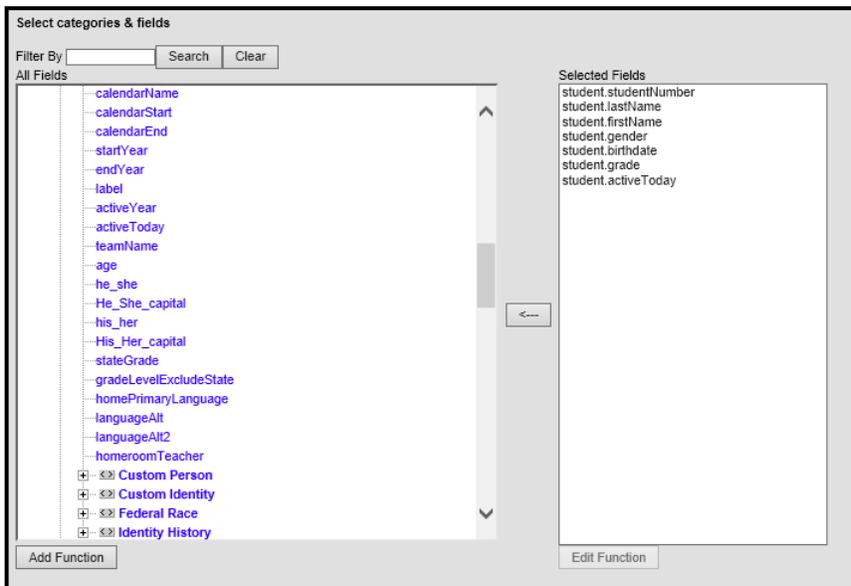


\*Query Name:

Short Description:

Long Description:  +

4. A **Query Name** is required. The Query Name should be task descriptive. A **Short Description** can be entered, this will appear as a tooltip when browsing the Saved Filter list. A **Long Description** can also be entered with much more room to describe the query.
5. The All Fields list displays sections of available data you may include in your results and use to filter the results. These roughly correspond to sections or tabs within Infinite Campus. Expanding the  next to a section displays available fields and possibly some additional sections of fields.
6. Clicking a field name will put that field into the list of Selected Fields for inclusion in your Ad Hoc filter results.



Select categories & fields

Filter By:  Search Clear

All Fields

- calendarName
- calendarStart
- calendarEnd
- startYear
- endYear
- label
- activeYear
- activeToday
- teamName
- age
- he\_she
- He\_She\_capital
- his\_her
- His\_Her\_capital
- stateGrade
- gradeLevelExcludeState
- homePrimaryLanguage
- languageAlt
- languageAlt2
- homeroomTeacher
- Custom Person
- Custom Identity
- Federal Race
- Identity History

Selected Fields

- student.studentNumber
- student.lastName
- student.firstName
- student.gender
- student.birthdate
- student.grade
- student.activeToday

Add Function Edit Function

7. Field names can be searched by entering a field name in the **Filter By** field and clicking **Search**. Pressing **Clear** will restore the full list of field names.
8. Remove unwanted fields from your Ad Hoc filter by clicking the <— button between the All Fields and the Selected Fields lists.
9. **Save** will save your filter to the folder set in the Save To: setting. By default this is the base level of your user folder, you can choose a different folder to save the filter into. You can also select User Groups and save your filter into the shared folders, sharing it with others. Note that choosing this option will move the filter out of your personal folder. Make a copy and save that to the User Groups if you wish to save a personal copy of the filter.
10. **Save & Test** will save your filter and display the results of your Ad Hoc filter.

**Note:** The results appear in a pop-up window and may be blocked by your browser by default. If a second window with your filter results fails to appear, check your pop up settings and allow pop-ups from <https://campus.washoeschools.net/>. Pop-up settings for popular browsers can be found at:

- Internet Explorer: Tools > Internet Options > Privacy > Pop-up Blocker > Settings
- Chrome: Settings > Advanced Settings > Privacy > Content Settings > Pop-ups > Manage Exceptions...
- Firefox: Options > Content > Pop-ups > Exceptions...
- Safari (macOS): Preferences > Security > Block pop-up windows

## Filter Parameters

Choose the **Filter Parameters** link at the top of the Ad Hoc Query Wizard screen or the **Next** button at the bottom of the screen to set filter parameters that reduce the results to just the students or statuses you're looking for.

ID *Field	Operator	Value
X 1 student.studentNumber		
X 2 student.lastName		
X 3 student.firstName		
X 4 student.gender		
X 5 student.grade		
X 6 student.activeToday		
X 7 student.birthdate		

Set **Operator** and **Value** to only return rows of fields that match the settings you've made.

Available operators will change depending on the type of data in that field. Value should match what Campus displays elsewhere. If you're unsure about how Campus is using a value, leave the Operator blank and examine the results, then add filter criteria for the values you're interested in including or excluding from your results.

- **= (Equals)** - An exact match of the user specified value. *Student.Grade = 12* will return all seniors.
- **<> (Does Not Equal)** - Will return all results that do not equal the user-specified value. *Student.Gender <> M* will return all females or student's whose gender field is null.
- **IN** - Includes multiple values in a comma separated list *Student.Grade IN 10,11,12* will return all 10<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup> grade students.
- **NOT IN** - Not including the list of values. *Student.Grade NOT IN 11,12* will return 9<sup>th</sup> and 10<sup>th</sup> graders.
- **LIKE** - Searches for the text in the field. *courseSection.courseName LIKE history* will return courses that have history in their name such as WORLD HISTORY 1, WORLD HISTORY 2, US HISTORY 1, and US HISTORY 2.
- **NOT LIKE** - Excludes results that have the text anywhere in the field. *courseSection.courseName NOT LIKE history* would return all courses that do not have history in their name.
- **CONTAINS**— Equivalent to the LIKE operator in many cases, CONTAINS optimizes some text searching and matching.
- **SOUNDS LIKE** - Phonetic search that searches for text that have similar sound patterns. *Last name SOUNDS LIKE "Ball"* will return "Bell" and "Boll".
- **> and >= (Greater than, greater than or equal to)** - *Student.Age >= 16* will include students 16 and older.
- **< and <= (Less than, less than or equal to)**
- **IS NULL** - Searches for empty fields and is used often in conjunction with start and end dated statuses to confirm a stu-

dent is currently part of a program. *activeEnrollment.spedExitDate IS NULL* along with the IS NOT NULL example below indicate a student is part of a SPED program.

- **IS NOT NULL** - Returns all records that have data in the field. *activeEnrollment.disability1 IS NOT NULL* will return students with an active disability set in the SPED elements and is used in conjunction with the IS NULL example above.
- **BETWEEN** - Includes the values between (and including) the two values specified. *Student.Grade BETWEEN 02 and 04* will includes students in grades 2, 3, and 4. The BETWEEN operator has additional options for fields containing dates:

7 student.birthdate BETWEEN DATE THROUGH DATE

- **DATE** - Returns data based on the dates specified.
- **TODAY** - Filters data based on dates that occur from a specific date through today or vice versa.
- **TOMORROW** - Filters data based on dates that occur from a specific date through tomorrow or vice versa.
- **YESTERDAY** - Filters data based on dates that occur from a specific date through yesterday or vice versa.
- **DAYS BEFORE** - Filters data based on the number of days prior through the second date set.
- **MONTHS BEFORE** - Filters data based on the number of months prior through the second date set.
- **DAYS AFTER** - Filters data based on the first date set through the number of days after the first date set.
- **MONTHS AFTER** - Filters data based on first date set through the number of months after the first date set.
- **=TRUE** - Is available to include Campus fields set to True. *Student.activeToday =TRUE* is used in many student filters to only return students with a current enrollment.
- **=FALSE** - Is available to include Campus fields set to False.
- **IS TODAY** - Includes dates set to today.
- **IS YESTERDAY** - Includes dates set to yesterday.
- **IS TOMORROW** - Includes dates set to tomorrow.
- **IN THE MONTH** - Includes dates in the month specified.

## Exercise: Creating Student Reports and Using Operators

Exercise 5: Create a simple student report:

1. Choose your main calendar if you have multiple or all calendars available.
2. Use the **Filter Designer** to create a Filter Type **Query Wizard** with the Data Type **Student**.
3. Set the **Query Name** to 'Ad Hoc Class'
4. Add the following fields from the **Student > Demographics** list. Use the Filter By Search if you have trouble finding these fields.
  - student.studentNumber
  - student.lastName
  - student.firstName
  - student.gender
  - student.birthdate
  - student.grade
  - student.activeToday
5. Click **Save & Test**. Another window should pop up displaying a list of all students at the school selected in step 1. Confirm that the number of students listed as Total Records makes sense.

Ad Hoc Class Total Records: 528						
All Records						
student.studentNumber	student.lastName	student.firstName	student.gender	student.birthdate	student.grade	student.activeToday
					00	1

Exercise 6: Add an operator to retrieve a single grade level:

1. Open the Ad Hoc filter created in exercise 5 if you're not currently editing it.
2. Switch to the **Filter Parameters** section of the Ad Hoc Query Wizard.
3. Set *student.activeToday* = **TRUE**. Infinite Campus keeps every student enrolled at a school in the database, even if their enrollment has ended. These students who are no longer at the school will be included in your reports unless you include *student.activeToday* = **TRUE** in your Ad Hoc filters.
4. Select the = operator next to *student.grade*.
5. Set the Value next to *student.grade* to '3' if you're at an elementary school, '7' if you're at a middle school, and '9' if you're at a high school.

ID	*Field	Operator	Value
1	student.studentNumber		
2	student.lastName		
3	student.firstName		
4	student.gender		
5	student.grade	=	3
6	student.activeToday		
7	student.birthdate		

6. Click the **Save & Test** button. Note that Ad Hoc returns 0 records. Why is that? We represent grades as double digit numbers and character codes in Infinite Campus.

Ad Hoc Class Total Records: 0

All Records

All Records

7. Change the Value next to *student.grade* to '03' if you're at an elementary school, '07' if you're at a middle school, and '09' if you're at a high school. Click **Save & Test**.

Ad Hoc Class Total Records: 73

All Records

student.studentNumber	student.lastName	student.firstName	student.gender	student.birthdate	student.grade	student.activ
			F		03	1

5 student.grade = 03

6 student.activeToday

7 student.birthdate

8. Note that Ad Hoc filters and returns data based on the way it stores values, which may be different from the way we commonly think of or reference those values. Check the way Infinite Campus is storing data if your Ad Hoc filters aren't returning the expected results.

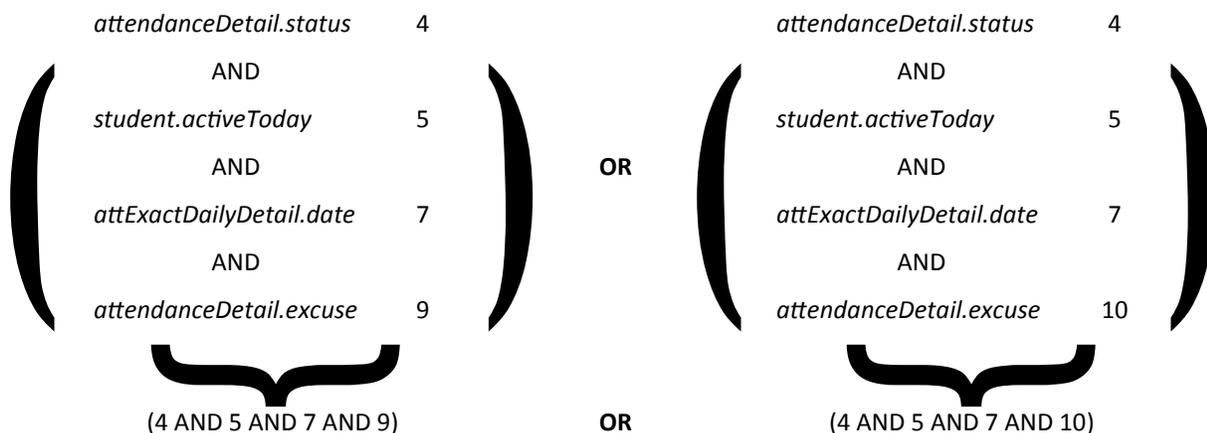
## Logical Expressions

The majority of your Ad Hoc filters will not use Logical Expressions, leaving the box blank. However, occasionally you need to include one value or another value and the existing operators don't give you enough flexibility. Or you'll find a need to assemble a complex set of conditions across multiple operators. The Logical Expression box allows you to set Boolean operators on each of the fields that have an operator set and combine those Boolean operators in flexible ways. Some guidelines for using Logical Expressions:

- Use the ID to the left of the field name to reference that field.
- Every field with an operator set must be referenced in the Logical Expression
- Use the **Add** button to set more operators on a field that has already had an operator set on it.

Example: We need an export of unexcused tardies today to place a Connect call. Unexcused tardies show up with an *attendanceDetail.status* set to 'T' AND *attendanceDetail.excuse* set to 'U' OR with *attendanceDetail.excuse* being NULL. We'll need to filter on the status and either excuse fields. The following filter illustrates how this is set up:

We set *student.activeToday* = 1 and *attExactDailyDetail.date* = today to only retrieve today's tardy students. We also set *attendanceDetail.excuse* set to 'U' and press the Add button and set field #10 to *attendanceDetail.excuse* with the operator set to IS NULL. Without a Logical Expression this filter won't return any results, a student's *attendanceDetail.excuse* will never be NULL and set to U at the same time. To fix this, we set a logical expression based on the following logic:



Parenthesis around the field IDs group the logical expressions so we can reduce each set down to evaluate one or the other. This results in the logical expression (4 AND 5 AND 7 AND 9) OR (4 AND 5 AND 7 AND 10).

## Output Formatting

The Output Formatting section of the Ad Hoc Query Wizard allows you to selectively include columns, set the order that they appear, set sorting, set headers, and other output formatting.

Format the output file/report

Output distinct records

Field	OutputSeq	Sort	Direction	Column Header	Alignment	Formatting	Length
student.studentNumber	<input checked="" type="checkbox"/>						
student.lastName	<input checked="" type="checkbox"/>						
student.firstName	<input checked="" type="checkbox"/>						
student.gender	<input checked="" type="checkbox"/>						
student.grade	<input checked="" type="checkbox"/>						
student.activeToday	<input checked="" type="checkbox"/>						
student.birthdate	<input checked="" type="checkbox"/>						

When set, the **Output distinct records** checkbox will remove duplicate records from the results when all fields in the report are identical. It will not remove duplicates if only some of the fields contain duplicate data. Consider if you can turn off the non-duplicate fields if you wish to remove duplicate values or consider exporting data to Excel and using the Remove Duplicate tool in Excel to selectively remove duplicates while preserving the information you're extracting.

The **Output** checkbox allows you to turn off selected columns while still including their filter parameters you've set. For example, you may wish to turn off the *student.activeToday* field to keep it from cluttering your reports while still only including the currently active students.

The **Seq** field allows you to change the order of fields in the output. You may have added and removed fields while fine-tuning your report and wish to re-order the working report to provide more clarity. Set 1 for the first field output, 2 for the second, etc.

The **Sort** field allows you to define the fields you wish to sort from the columns included in the filter. Multiple fields can be set for sorting by using sort sequence numbers. For example, if the output was to be Last Name, First Name set the *student.lastname* sort field to '1' and the *student.firstname* sort field to '2'. **Direction** allows you to reverse the sorting order.

The **Column Header** fields allow you to set change the computer name fields to something that makes more sense. For example, to label the *student.lastname* column to Last Name and the *student.firstname* column to First Name, set Last Name and First Name respectively in the Column Header fields.

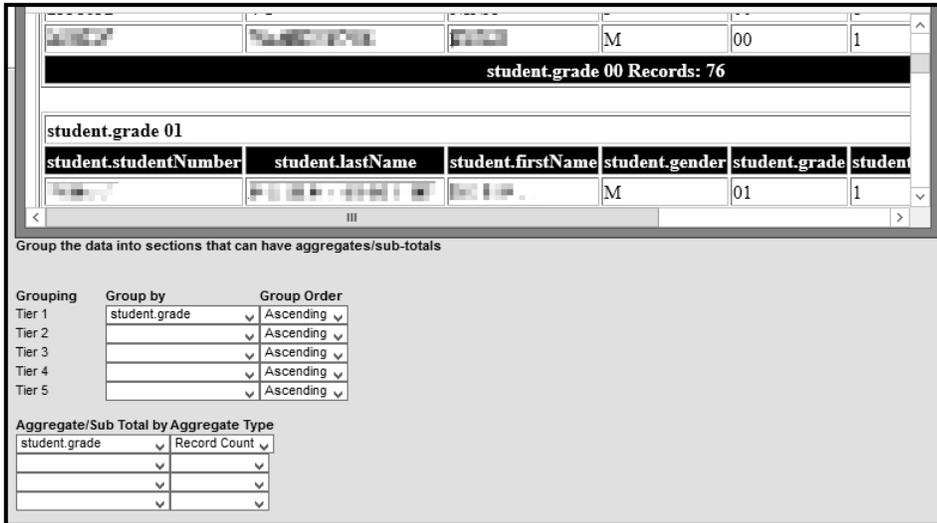
**Alignment** allows you to set Left, Right, and Center text alignment to the output.

The **Formatting** dropdown allows you to select various output formatting rules based on the type of data in that field. Dates and times have a number of Formatting options.

The **Length** field allows you to limit the length in characters of the output.

## Grouping and Aggregation

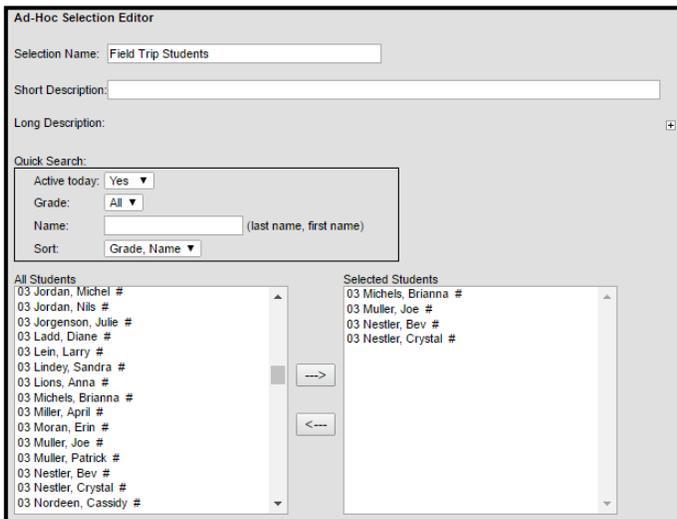
The **Grouping and Aggregation** page of the Ad Hoc Query Wizard allows you to group the output of your Ad Hoc filter on a specific field and perform basic aggregation on fields. For example, I might want the output of my simple student query grouped by grade, with a count of students in each grade. I'd set **Tier 1 Grouping** to *student.grade*, the first **Aggregate/Sub Total by** to *student.grade*, and the **Aggregate Type** to **Record Count**.



## Selection Lists

Selection lists allow you to create a list of specific students and save that list for later use in searches and reports.

From the main **Filter Designer** screen, select the second radio button option, **Selection Editor**. Select **Student** as the data type and click the **Create** button.



Give the Selection a name and choose your “Quick Search” options if needed. Your students will be listed on the left side. Select the students from the All Students list on the left by highlighting the name and clicking the right-pointing arrow key. To remove a student from the selected students list, click the left-pointing arrow key.

Click the **Save** button when finished. The new filter will be listed in the Saved Filters list on the main page of the Filter Designer feature.

## Using Ad Hoc Filters in Searches and Reports

Saved Selection Lists and Ad Hoc Filters can be used as part of a search on the search tab. Student Ad Hoc filters or lists may be used in the student search, Census filters or lists may be utilized when searching for a person, and course/section filters or lists may be used when searching for a course or section.

1. Select the **Search** tab.

2. Choose the type of data to search for (Student, Staff, Course/Section).
3. Select **Advanced Search** from the Search.
4. Select your filter from the list of Saved Filters on the right and click **Search**.
5. Display results will appear on the left side of the Campus session.

Note that for Ad Hoc filters to work with searches all fields but the student number or person ID must be turned off with the Output checkbox on the Output Formatting section of the Ad Hoc Query Wizard.

Ad Hoc filters and Selection Editor lists can also be used in the canned reports Infinite Campus provides.

As an example, mailing labels may be run for an Ad Hoc filter using Census > Reports > Mailing Labels.

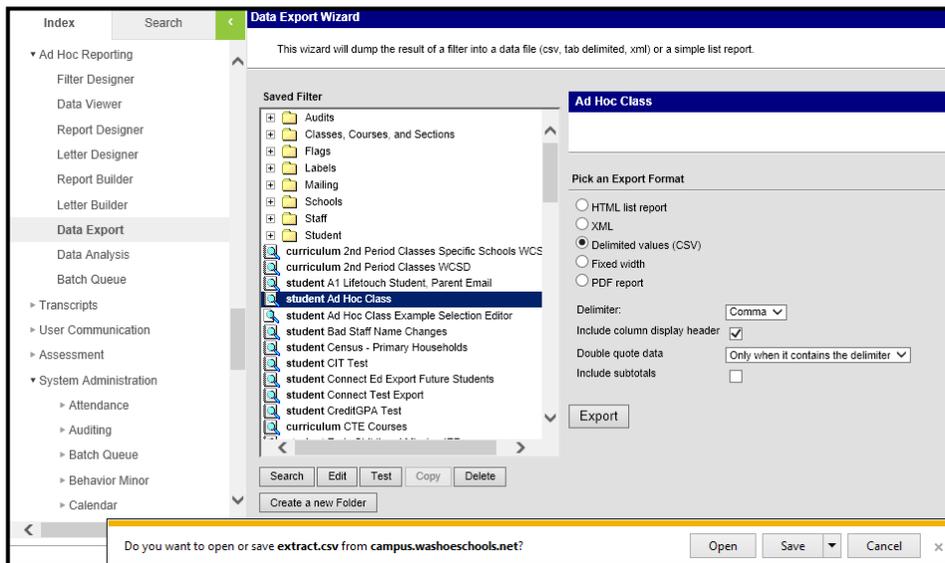
1. From the Index, expand the Census folder by clicking the plus (+) sign next to the folder or by clicking on the name of the folder.
2. From the Index, expand the Reports folder by clicking the plus (+) sign next to the folder or by clicking on the name of the folder.
3. Select the Mailing Labels option from within that folder.
4. Select your Selection Editor list or Ad Hoc filter.
5. Click Generate Report to see a preview of your labels.

## Data Export

Data from your Ad Hoc filters can be exported to Excel or other formats for further analysis or printing. Do the following to export the results of an Ad Hoc filter to Excel:

1. From the Index, expand the Ad Hoc Reporting folder. Select the Data Export option.
2. Select the Filter from the list of saved filters in the left-hand window.
3. Select **Delimited values (CSV)** as the **Export Format** in which to display the filter. This is the most commonly used format for Excel. Other formats include
  - HTML list report – opens report in new Web window
  - XML - for use with systems that support XML.

- Delimited Values (CSV) - Excel spreadsheet
  - Fixed width
  - PDF Report
4. Choosing **Delimited Values (CSV)** opens up some additional options including the Delimiter, including the column header in the output, quoting settings, and the option to include subtotals. The defaults for the options are almost always good.
  5. Click the **Export** button. You will be prompted to save, download, or open a file titled 'extract.csv'.



## Common Fields and Where to Find Them

Where to find some common fields when writing an Ad Hoc filter:

### DEMOGRAPHICS –

studentNumber  
 lastName  
 firstName  
 birthdate  
 grade

activeToday—Used with “= TRUE” operator in most queries to be sure the query only returns students who are currently enrolled.

### CUSTOM PERSON

field trip  
 internet  
 media  
 StudentEmail  
 OnlineEdSvc

### FEDERAL RACE

Race.Ethnicity—Letter indicating race.

Race.EthnicityFed—Number indicating race. Additional TRUE / FALSE fields for each race in this section of Ad Hoc.

### SCHOOL

name

### LEARNER

ACTIVE ENROLLMENT

**STATE REPORTING ELEMENTS**

ResidentSchool—Zoned school number.

**SPECIAL ED ELEMENTS**

disability1

spedExitDate—usually used with “IS NULL” in most queries to indicate the student is currently a Special Ed student.

**SCHEDULE**

enddate (roster) - usually used with “IS NULL” in queries to only return information on active classes and not on classes the student has dropped.

**COURSE/SECTION**

courseName

teacherDisplay

**SECTION SCHEDULE**

termStart

periodStart

**CENSUS****MAILING ADDRESSES**

relatedBy

addressLine1

addressLine2

city

state

zip

Secondary—used to differentiate between a student’s primary mailing address and a secondary address – a ‘1’ in the field indicates the address is designated as a secondary address

phone

**ATTENDANCE\***

\*Attendance is slow and difficult to query in Ad Hoc. The Tardy/Absence Totals report in the Index menu allows you to answer the most common attendance queries like Perfect Attendance.

**ASSESSMENT**

**ALL TESTS**—\*Assessment score fields depend on the test taken. Review the assessment entry on a student’s tab to determine which scores are entered for the assessment you’re interested in.

name

dateTaken

rawScore

scaleScore

percent

result

**CUSTOM TAB: CREDIT GPA**

SchoolYear—SchoolYear should be set to the current school year to return current GPA and credit information.

**CUSTOM TAB: MTSS**

MTSS was custom developed for WCSD and the fields aren’t available in Ad Hoc. Look for the RTI-MTSS report in the Index menu for an overview of MTSS data that can be exported and further filtered in Excel.