Query and Reporting Guide

Synergy® Education Platform

Edupoint®

About This Manual

Edupoint Educational Systems, LLC. develops software with multiple release dates for the software and related documentation. The documentation is released in multiple volumes to meet this commitment.

This document serves as a reference for Edupoint's recommendations and Best Practices for Synergy processes. Due to the complex nature and myriad configurations possible within the Synergy software, it is not feasible to include every possible scenario within this guide.

Conventions Used in This Manual

- **Bold** indicates user interactions such as a button or field on the screen.
- *Italics* indicate the option to select or text to enter.
- Notes, Tips, References, and Cautions display in the margin to provide additional information.

Notes provide additional information about the subject.

Tips suggest advanced options or other ways of approaching the subject.

References list another source of information, such as another manual or website.

Cautions warn of potential problems. Take special care when reading these sections.

Before You Begin

Before installing any of the Edupoint family of software products, be sure to review the system requirements and make sure the district's computer hardware and software meet the minimum requirements.

Software and Document History

Document Version	Release Date	Software Release	Description
4.0	May 2017	2018	Added Focus Tokens in *Edit the Query Manually*

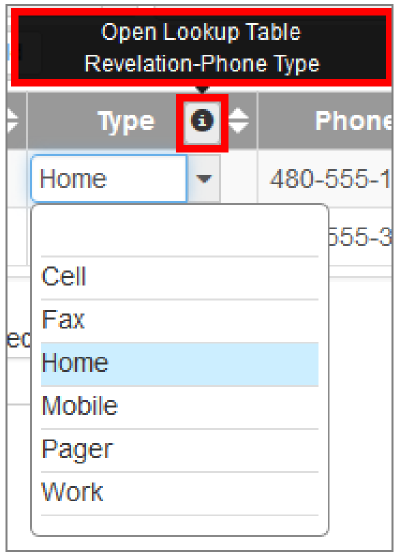
Document Version	Release Date	Software Release	Description
5.0	Dec 2017	2018.01	Updates: • Reorganized the topics and added content. • Added Mail Merge Property definitions to the *Sort/Output Options Tab*. • Added *PAD Security* • Added Synergy Actions to *Report Overview* • Added *Synergy Actions* • Added *Viewing and Managing Scheduled Reports* in *Job Queue* • Modified scheduling reports in *Advanced Tab*
-	Jun 2018	2019	No changes required
6.0	Dec 2018	2019.01	Updates: • Added *Query Using No Show Date* in Query Examples • Added *Auto-Populate Student Information in User Defined Reports* to Save a Query as a Report • Added filtering by query Description to Job Queue and Job Queue Admin • Added editing of recurring jobs from the Job Queue screen in Job Queue • Added the *Attach PDF To Students* section to Sort/Output Tab • Updated District Report Options for Administrator and Counselor filters • Added Report Substitution
7.0	Jun 2019	2020	Updates: • Added an example for Report Substitution • Created the Query-Based Reports chapter and added Manage User-Defined Reports and moved Add Dynamic Lookups on UD Report Interfaces and SQL Server Reporting Services (SSRS) in Synergy
-	Mar 2020	2021	No changes required

Table of Contents

Chapter 1: Lookup Table Setup

Lookup Table Setup

Some drop-downs and checkbox lists use values configured in lookup tables. Hover over a field to view a tooltip icon that indicates which table controls the field.

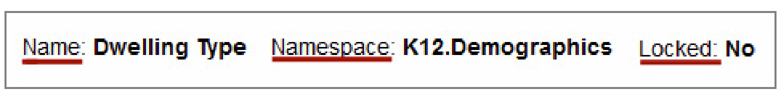


Lookup Table Values Example

Product-owned lookup tables use hard-coded values that are core to the programming and cannot be changed. You can customize other lookup tables to match district specifications and state reporting needs.

Consult the list of lookup tables for your state in the appropriate State Reporting Guide to identify tables that require a specific value.

The **Name** of the table is listed and the **Namespace** lists the business object the table belongs to at the top of the table.The **Locked** value indicates if the table is locked and product-owned.

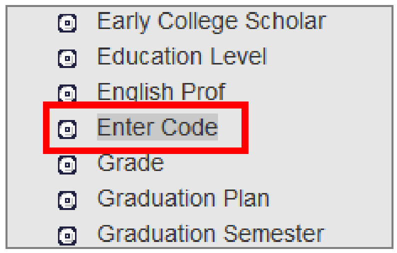


Dwelling Type Lookup Table

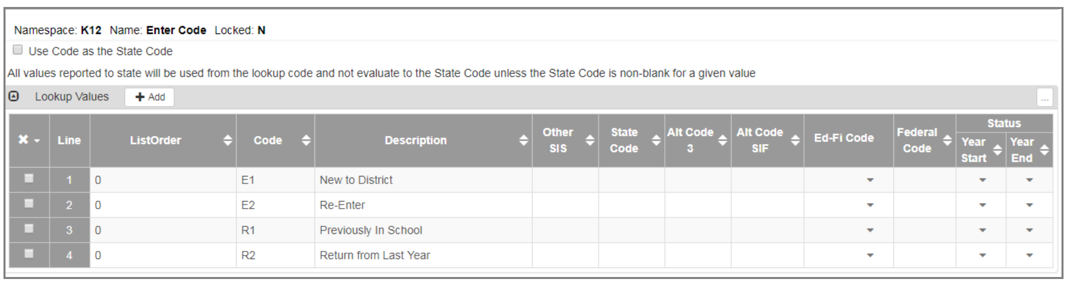
Add Values to Lookup Tables

Hover over the field and click the tooltip icon to open the Lookup Table screen in a new window for editing. This allows you to quickly edit values. Refresh the original Synergy SIS screen after modifying values in lookup tables to view changes.

1. Navigate to **Synergy SIS > System > Setup > Lookup Table Definition**.
2. Locate the appropriate table.



PAD Tree


Namespace: **K12** Name: **Enter Code** Locked: **N**

Use Code as the State Code

All values reported to state will be used from the lookup code and not evaluate to the State Code unless the State Code is non-blank for a given value

Lookup Values + Add

	Line	ListOrder	Code	Description	Other SIS	State Code	Alt Code 3	Alt Code SIF	Ed-Fi Code	Federal Code	Status Year Start	Status Year End
	1	0	E1	New to District								
	2	0	E2	Re-Enter								
	3	0	R1	Previously In School								
	4	0	R2	Return from Last Year								

Enter Code Lookup Table

3. Click **Add** in the Lookup Values section to add a new line.
4. Enter a **ListOrder** to display the list in a specific order, if needed.
5. Enter a **Code**. This value must be unique.
6. Enter a **Description**. This information displays as an option in the drop-down.

The lookup values are sorted by **ListOrder** first, then by **Code**, and then by **Description**.

7. Enter the **Other SIS** code to import data during the conversion process from another student records system.
8. Enter the **State Code**, if assigned.
9. Enter the **Alt Code 3** and **Alt Code SIF** if used for reporting or system interoperability purposes, if needed.
10. Enter the **Ed-Fi Code** if your district is part of the Ed-Fi Alliance, if needed.

See your State Reporting Guide to identify if there is a specific code required.

11. Enter a **Year Start** and/or **Year End** date to activate or deactivate the code, if appropriate.

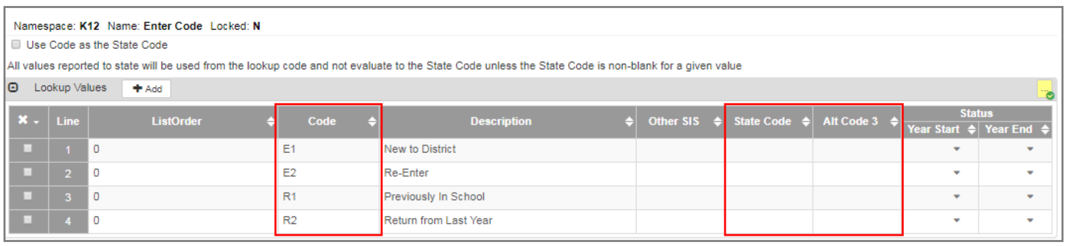
> Inactive codes show in historical data but are not available for selection for new records.

12. Click **Save**.

Assign a State Reporting Code to an Existing Lookup Table Value

> See your State Reporting Guide for more information.

1. Navigate to **Synergy SIS > System > Setup > Lookup Table Definition**.
2. Locate the appropriate table.
3. Enter the appropriate state reporting **Code**, **State Code**, or **Alt Code 3** on a populated Lookup Value line.


Namespace: **K12** Name: **Enter Code** Locked: **N**

Use Code as the State Code

All values reported to state will be used from the lookup code and not evaluate to the State Code unless the State Code is non-blank for a given value

Lookup Values + Add

	Line	ListOrder	Code	Description	Other SIS	State Code	Alt Code 3	Status: Year Start	Status: Year End
	1	0	E1	New to District					
	2	0	E2	Re-Enter					
	3	0	R1	Previously In School					
	4	0	R2	Return from Last Year					

Enter Code Lookup Table

4. Click **Save**.

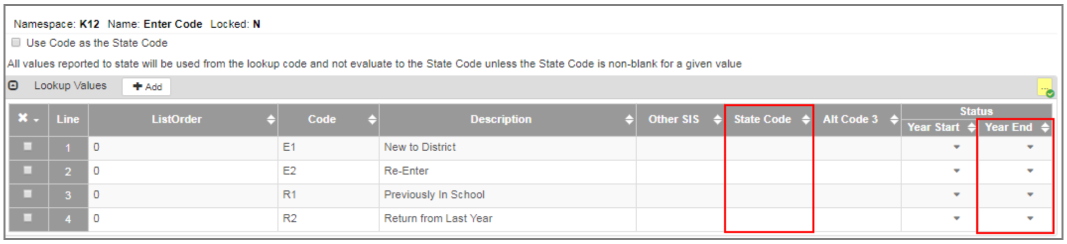
Deactivate a Lookup Table Value

This procedure describes how to deactivate a lookup table value containing codes that are no longer valid. Deactivated values are no longer available for selection but remain in Synergy SIS for historical reporting purposes.

> Do not modify or delete lookup table values that contain outdated state reporting codes. These are still used for historical reporting purposes. Instead, deactivate the value and then add a new lookup table value that contains the updated state reporting codes.

1. Navigate to **Synergy SIS > System > Setup > Lookup Table Definition**.
2. Locate the appropriate table.
3. Remove the text in **State Code** on the lookup value line.

4. Select the last year the lookup table value is valid in the **Status Year End** field.

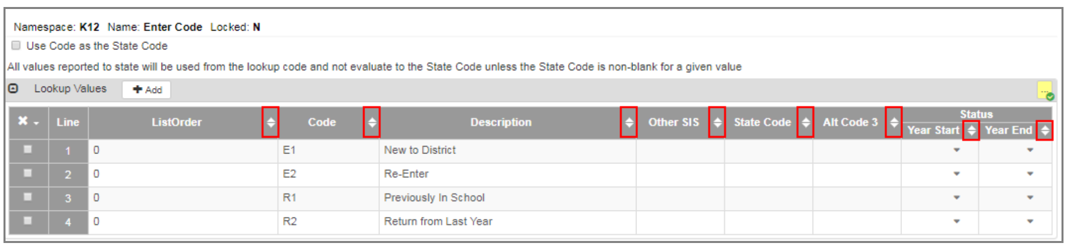


Enter Code Lookup Table

5. Click **Save**.

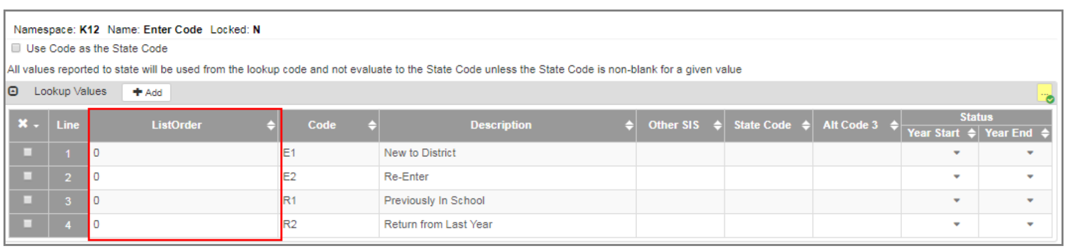
Sort Lookup Values

Click the arrows in any column heading to temporarily change the sort order of the Lookup Values section.



Enter Code Lookup Table

Change the **ListOrder** to permanently modify the sort order.



Enter Code Lookup Table

Lookup Table Definitions

* Indicates there are specific entries required for these lookup tables. Click the lookup table name to be redirected to these specific entries.

^ Indicates there might be state-specific entries required for these lookup tables. Reference your state reporting guide for these values.

Lookup Table	Purpose	Screen	Tab	Section	Field
Revelation.QueryInfo					
Group	Group queries by function (group)	**Synergy SIS > Query**	NA	NA	Group
		Synergy SIS > Query Admin	Public Queries	All Public Queries	Group
			Nominated Queries	Nominations	Query Group
		Synergy SIS > System > Setup > Dashboard Control	NA	NA	Group

Chapter 2: Running Reports

Report Overview

Synergy SIS offers numerous pre-defined reports you can print. You can also customize each report at the time you print it.

Four types of reports display in the PAD tree.

- **Individual** – 200-level reports are Individual reports. These print information for a single student per page and can be printed for multiple students at once.
- **List** – 400-level reports are List reports. These show details for multiple values, such as students or teachers, on one page.
- **Summary** – 600-level reports are Summary reports. These provide numerical totals for each category specified.
- **Extracts** – 800-level reports are Extract reports. These export information from Synergy SIS into a text file that can then import data into another program.

There are several buttons at the top of the screen. They are:

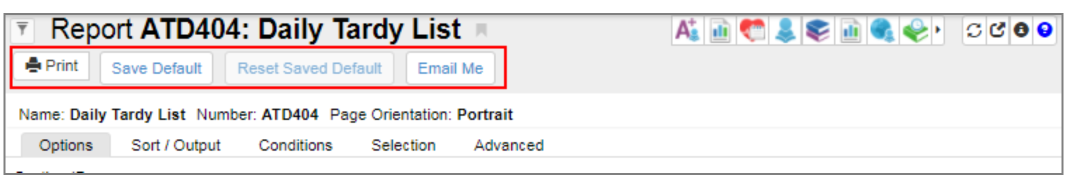
- **Print** – Use to view a PDF of the report. You can save the file or send it to a printer.

> Print options change based on selections made in the **Advanced** tab.

- **Save Default** – Use to save the options you selected as the default options for the report. These settings remain after printing the report, navigating to another tab or screen, and logging out.

> Saving defaults saves the selected options on the **Options** or **Label Setup** tabs. The saved defaults on the **Options** tab are specific to each school and user.

- **Reset Saved Default** – Use to remove the saved default settings
- **Email Me** – Use to send the completed report to your email



Report Interface Screen

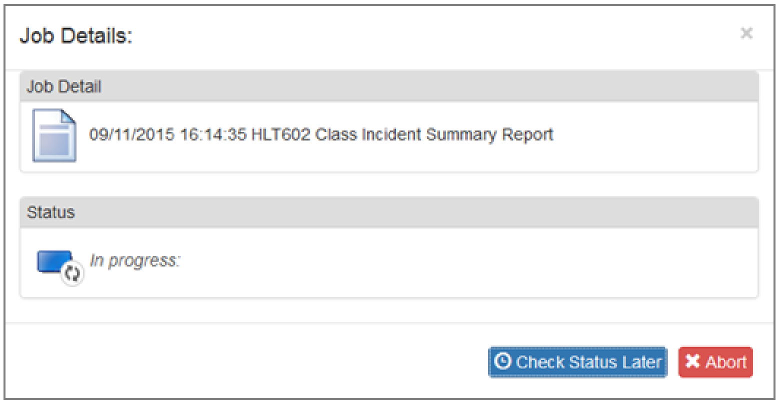
Every report has a set of tabs to define the output of the report.

- **Options** – This tab lists a set of options specific to the report that you can set.
- **Label Setup** – This tab defines the label dimension on reports that print labels, such as GRD802, GRD805, GRD806, and GRD808.
- **Sort/Output** – This tab allows you to change the sort order of the data and the format of the printed report.
- **Conditions** – This tab allows you define conditions to limit the information included in the report to the records that match the condition

- **Selection** – This tab allows you define which students or student groups to include in the report.
- **Advanced** – This tab allows you to schedule when you print reports.

Job Details Window

The Job Details window opens when you click **Print**.



Job Details Window

- Click **Abort** to cancel the report
- Click **Check Status Later** to close the Job Status window.

> You can still review the report and its results from the Job Queue Viewer screen.

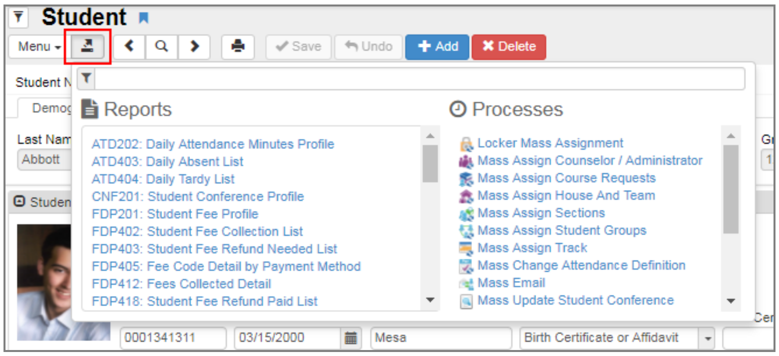
When the report finishes, the Job Status window closes and the report opens in a PDF Viewer.

Synergy Actions

Synergy Actions:

- Displays on any focused to a student
- Includes most reports that have a Student grid in the **Sort/Output** tab, for example, the STU204 contains a Student Transcript Student grid

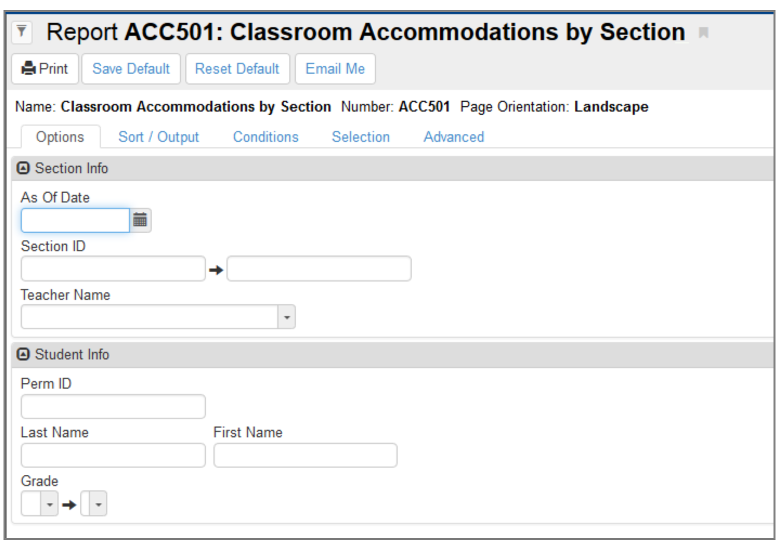
The **Actions** ( ) menu displays reports that are student-based.



Student Screen

Options Tab

This tab lists a set of options specific to the report that you can set.



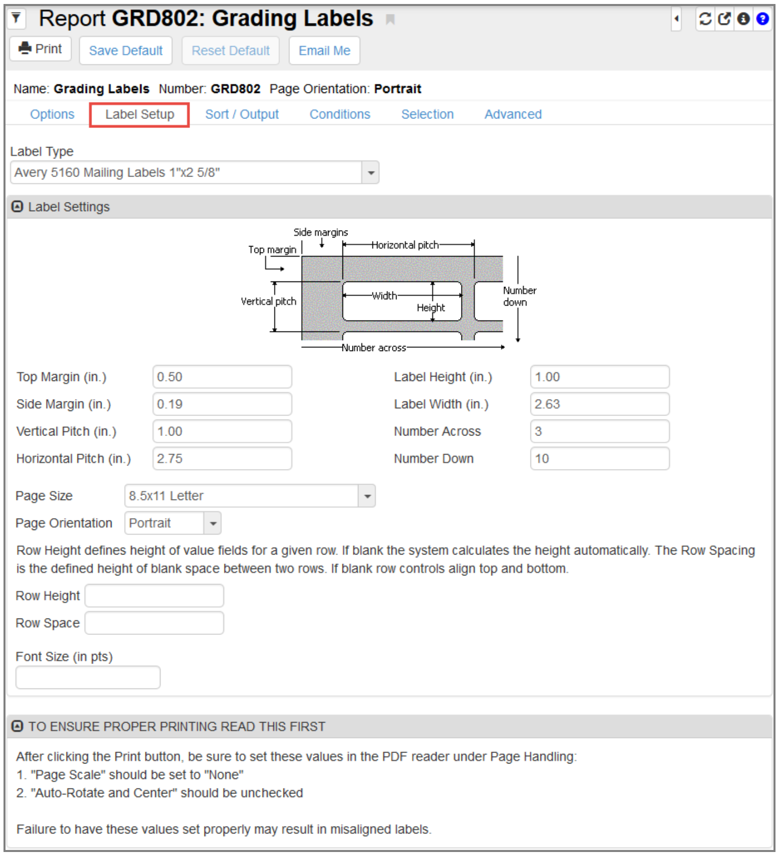
Report Interface Screen

The Synergy SIS guide for the module outlines each of these report-specific options.

Click **Save Default** to use the settings on the **Options** tab each time you run the report.

Label Setup Tab

This tab provides fields to specify the dimensions and orientation of the labels used for printing.



GRD802 – Grading Labels Report Interface Screen

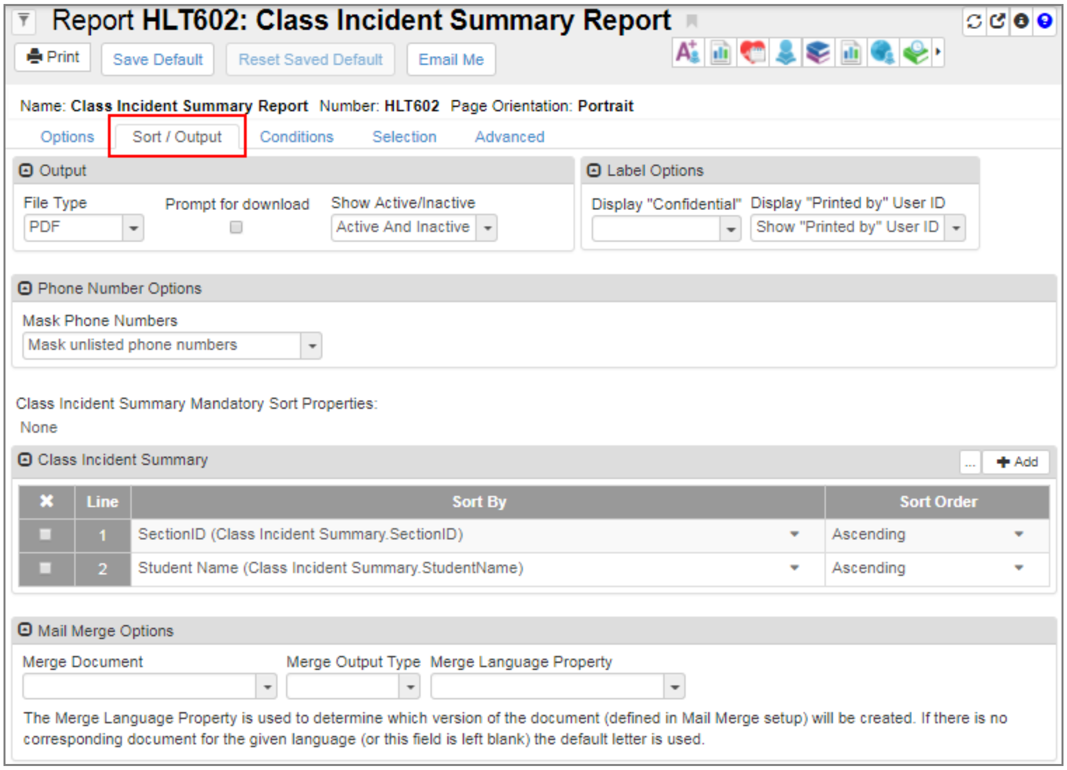
Tab Options:

- **Label Type** – Select the label you use for printing labels.
    - Select one of the **Label Type** options to auto-populate the Label Settings section.
    - Leave the **Label Type** field blank to clear the fields in the Label Settings section and allow you to manually enter the values.

> Leave the **Label Type** blank if the label is not listed in the drop-down.
> Click **Save Default** to use the label settings each time you run the report.

Sort/Output Tab

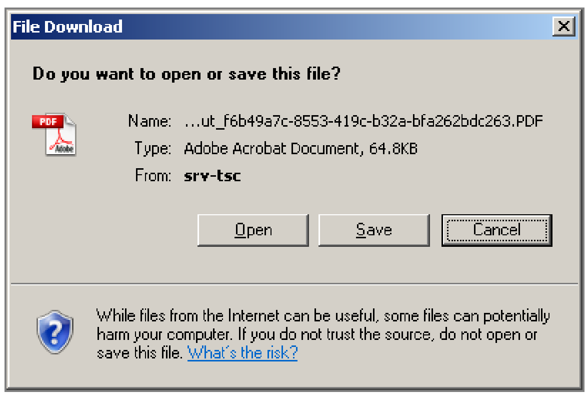
This tab changes the data sort order and the printed report format. You can also attach additional reports and mail merge documents to the report.



Report Interface Screen, Sort/Output Tab

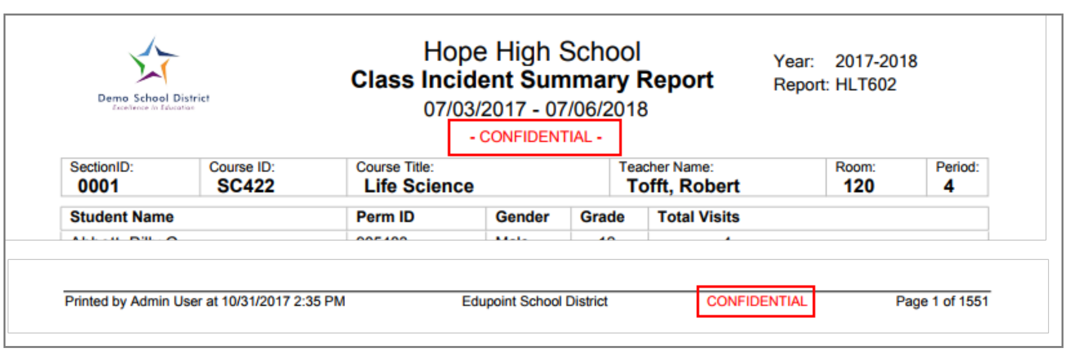
Tab Options:

- **File Type** – The default file type for most reports is *PDF,* but you can generate reports in the following formats:
  - *TIFF Image* – A graphics file
  - *CSV* – A comma-separated values file
  - *Excel* – A Microsoft Excel version 1997-2003 format file
  - *HTML* – A web page in the standard Synergy SIS format
  - *Rich Text* – A document file (basically Microsoft Word format)
  - *Text File* – A plain text file with no formatting, in tab-delimited format
  - *XML* – An extensible markup language file
  - *PDF* – A Portable Document Format for Adobe Reader
- **Prompt for download** – Select to generate a prompt to either save or open the report after it generates.



Report Download Prompt

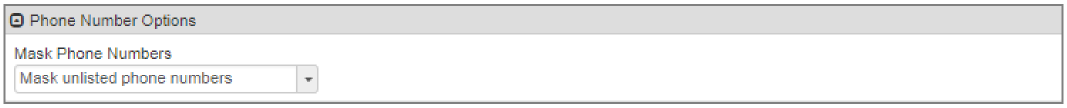
- **Show Active/Inactive** – Select an option to include active, inactive students, or both on the report. Leaving this field blank includes both active and inactive students.
- **Display "Confidential"** – Select an option in to display the word *Confidential* on the report. The options allow you to indicate where the Confidential label displays on the report: *Footer*, *Header*, or *Header & Footer*.



Report Header And Footer With Confidential Label

- **Display "Printed by" User ID** – Select either *Show "Printed by" User ID* or *Hide "Printed by" User ID*. Leaving this field blank shows the *"Printed by" User ID*.

- **Mask Phone Numbers** – Select either *Mask unlisted phone numbers* or *Show unlisted phone numbers*. Leaving this field blank masks unlisted phone numbers.



Report Interface Screen, Sort/Output Tab

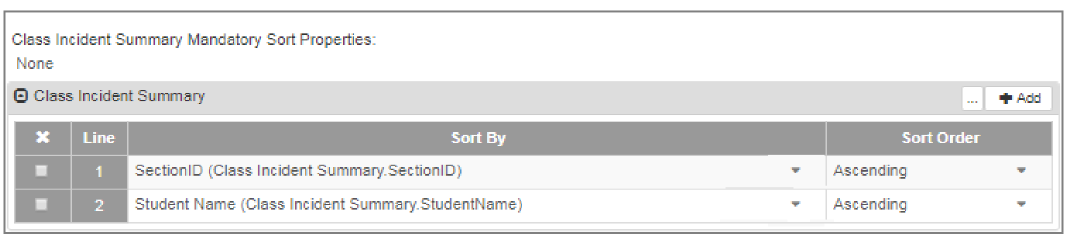
- Mandatory Sort Properties – If the report was set up with a mandatory primary sort, this sort displays as Mandatory Sort Properties and cannot be changed.

  The default sort order displays in the middle of the screen. The properties or fields listed are different for each report. The report sorts by the order the properties are listed. For example, the report below is sorted first by the section ID, then by the student's name.

  - **Sort By** – Select another option to change how the report is sorted.

    The list of properties available for sorting is different for each report.

  - **Sort Order** – Select an option to change the direction of the sort.
    - *Ascending* sorts from smallest to largest value or from A to Z.
    - *Descending* sorts from largest to smallest, or from Z to A.
  - Click **Add** to add a new property to sort by. Select the property from the **Sort By** column and select the direction of the sort from the **Sort Order** column.
  - Select the box in the **X** column to remove the property immediately.



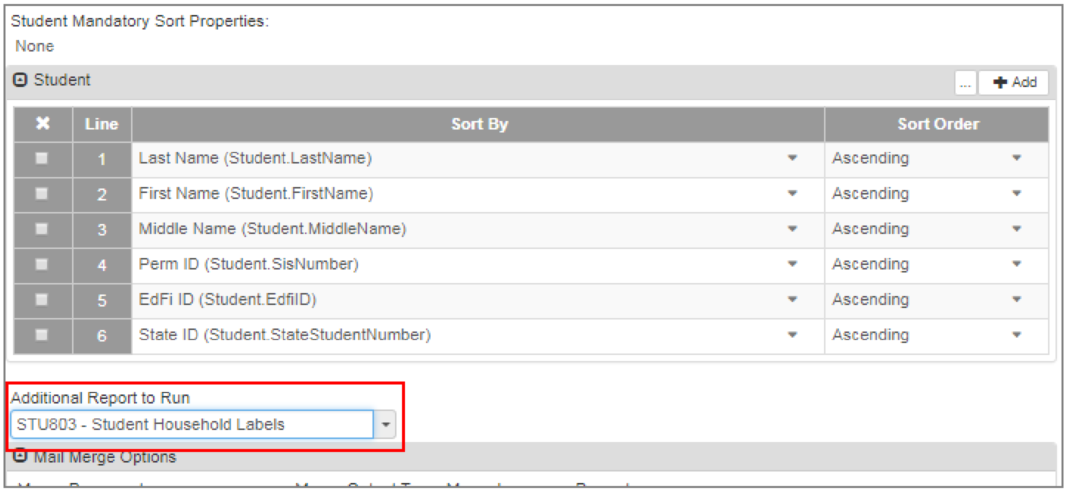
Mandatory Sort Properties

- **Additional Report to Run** – Select to run additional labels for the report in conjunction with the primary report.

  Not all reports have this field.

  - The labels print in exactly the same order as the report with exactly the same students, making it easier to complete a mailing.
  - There are three additional reports currently available:
    - *STU424 – Student Oldest or Youngest* prints one mailing label per household with the information from either the oldest or youngest sibling.
    - *STU802 – Student Mailing Labels* uses the student's mailing address.

- *STU803 – Student Household Labels* uses the parent's mailing address.



Report Interface Screen, Sort/Output Tab

- Mail Merge Options – Select from these options to print the report using a predefined mail merge document.
  - **Merge Document** – Select the mail merge template to use for the report.
  - **Merge Output Type** – Select either *Word Doc* or *PDF*.
  - **Merge Language Property** – Select the language to print the document.
    - *Home Language* – Prints in the language defined by the **Home Language** field on the Student screen.
    - *Language to Home* – Prints in the language defined by the **Language to Home** field on the English Language Learners screen.
    - *Primary Language* – Prints in the language defined by the **Primary Language** field on the Student screen.

> The language currently defaults to the **Home Language** of the student defined on the Student screen. When the merge document prints, it looks up the language of the student and then looks to see if there is a mail merge template saved in that language. If a mail merge template is not available in the student's language, Synergy SIS uses the default language.

> See the *Synergy SIS – System Administrator Guide* to create a mail merge template in 1.0.
>
> See the *Synergy SIS – Mail Merge 2.0 Guide* to create a mail merge template in 2.0.

- Attach PDF To Students – Complete this section on student related reports to automatically attach the document to the **Documents** tab for a student in Synergy SIS. Completing this section on report cards creates electronic or paper copies of report cards and attaches electronic versions to ParentVUE, depending on the rights of the parent/guardian.

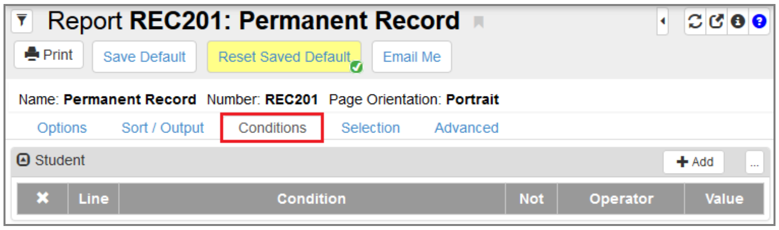
> There are two versions of this section. Report cards use a different version than the reports.
>
> Additional setup may be required for the document to successfully attach to the student record.

- **Attach to Student** – Select this option to attach the document to the **Documents** tab of the Student screen for the students defined on the **Options** tab.
- **Document Category** – Select a category for the document. You must have access to **Doc Category** for it to display.
- **Doc Comment** – Edit the comment if needed. The document's file name displays by default.
- **Attach to ParentVUE** – Select to attach the document to ParentVUE or StudentVUE. This is only visible on student-related reports.
- **Attach Type** – Select whether to print and electronic, paper, or both electronic and paper versions of report cards. This is only available on report cards.

Report Interface Screen, Sort/Output Tab

Conditions Tab

This tab allows you to filter a report separately from the options available on the **Options** tab. Filtering a report limits the information included in the report to the records that match the filter or condition.



Report Interface Screen, Conditions Tab

Conditions compare each record that Synergy SIS would normally include in the report to the condition. If the record matches the condition, Synergy SIS includes it in the report.

A condition has three main parts:

- Which property in the report to examine
- The mathematical operation to use, such as *Equal* or *Not Equal*
- The value to use as the criteria

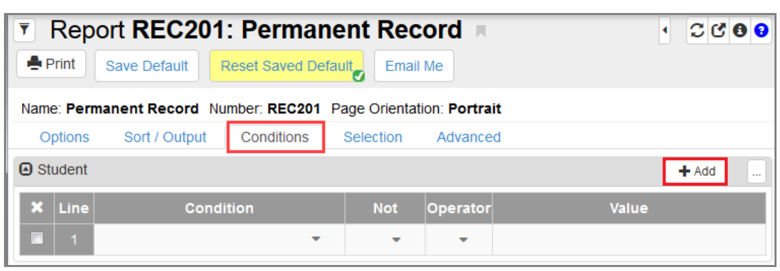
Written out, it would look like this:

Property = Value or **Property ≠ Value**

Tab Options:

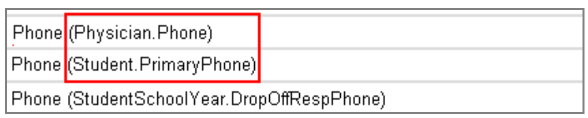
- Click **Add** to create a new Condition.

You can add multiple conditions. A record must match all the conditions entered to print.



Report Interface Screen, Conditions Tab

- **Condition** – Select the property to use for the filter.

> The list of properties available is different for each report. The properties are generally items from the primary table of the report. For example:
>
> - A report about students provides student properties such as the student's language, birth date, city, and so on.
> - A report about sections provides section properties such as the section ID, course title, room number, and so on.
>
> The name of the table where the property comes from displays in parentheses after the name of the property. This is useful for selecting properties with the same name in more than one table. For example, there is a **Phone** property both in the physician records and in the student records.
>
> 
>
>
> *Property List*

- **Operator/Not** – Set the condition to one of the following:

> Selecting *Not* adds a not before the operator. For example, if you set the **Operator** to *Equal To* and select **Not**, the operation becomes Not Equal To.

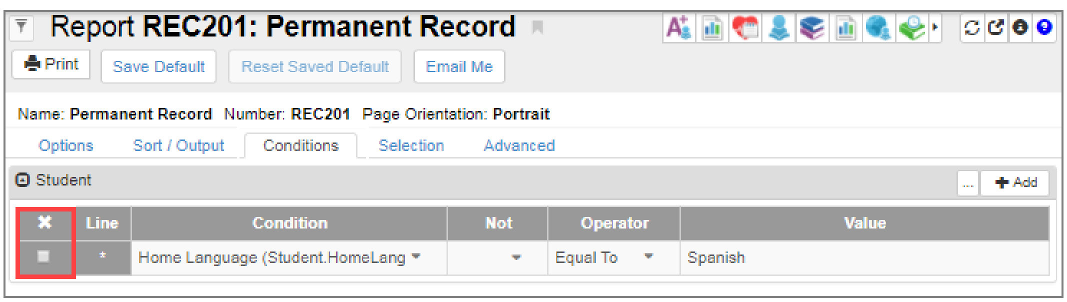
  - *Contains* – The property selected must contain the value entered. For example:
    - If you select *Email* as the property and enter 'yahoo' for the **Value**, the report lists all students with an email address that contains the letters yahoo anywhere such as, billy@yahoo.com, melissa@yahoo.com.
    - If you add **Not**, it lists all email addresses without yahoo in them such as, george@gmail.com, sandra@hotmail.com.
  - *Equal To* – The property you select must be exactly the same as the value entered. For example:
    - If you select *Home Language* as the property and enter *English* as the **Value**, the report lists all students whose home language is English.
    - If you add **Not**, it lists all students whose home language is not English.

- *Ends With* – The property you select must end with the value entered. For example:
  - If the section ID were created with the Course and Period option and you enter *01* as the **Value** for the section ID property in a report, it lists all sections for period 01.
  - If you add **Not**, the report lists all sections not in period 01.
- *Greater or Equal* – The property you select must be greater than or equal to the value entered. For example:
  - If you select *Expected Graduation Year* as the property and enter the **Value** *2009*, the report lists all students with an expected graduation year of 2009 or later (2009, 2010, and so on).
  - If you add **Not**, the report lists only students with an expected graduation year of 2008 or earlier.
- *Greater Than* – The property you select must be greater than the value entered. For example:
  - If you select *Expected Graduation Year* as the property and enter the **Value** *2009*, the report lists all students with an expected graduation year of 2010 or later (2010, 2011, and so on).
  - If you add **Not**, the report lists only students with an expected graduation year of 2009 or earlier.
- *In List* – The property you select must include one of the values entered in the **Value** field. Enter list values in the **Value** field and separate them with a comma. For example:
  - If you select *Grade* as the property and enter the values *1*, *2*, *3*, the report lists all students in grades 1, 2, or 3.
  - If you add **Not**, the report lists students not in grades 1, 2, or 3.
- *Less Than* – The property you select must be less than the value entered. For example:
  - If you select *Age* as the property and enter the **Value** *15*, the report lists all students younger than 15 (14, 13, and so on.).
  - If you add **Not**, the report lists only students 15 or older (15, 16, 17, and so on).
- *Starts With* – The property you select must start with the value entered. For example:
  - If you select *Enter Code* as the property and enter the **Value** *R*, the report lists all students whose enter code started with R (R1, R2, R3, and so on).
  - If you add **Not**, it lists all students with enter codes that do not start with R (E1, E2, and so on).

- **Value** – Enter the value to use for the condition. The value can be numbers or letters and it is not case-sensitive.
  - When using a value from a drop-down, enter either the **Code** or its **Description**. For example, for **Gender** enter either *M* or *Male*.
  - When entering a value for a property with a checkbox, use *Y* for selected or *N* for cleared.
  - When entering a date, enter it in *MM/DD/YY* or *MM/DD/YYYY* format.

> - When using dates in a condition, you must enter a full date as a value, such as 09/01/2009.
> - To filter a date, the most useful operators are:
>   - *Equal To* – List all students who have the same enter date
>   - *Greater Than* – List all students who started after a specific date
>   - *Greater Than or Equal* – List all students who started on or after a specific date
>   - *Less Than* – List all students who started before a specific date
>   - *Less Than or Equal* – Llist all students who entered on or before a date

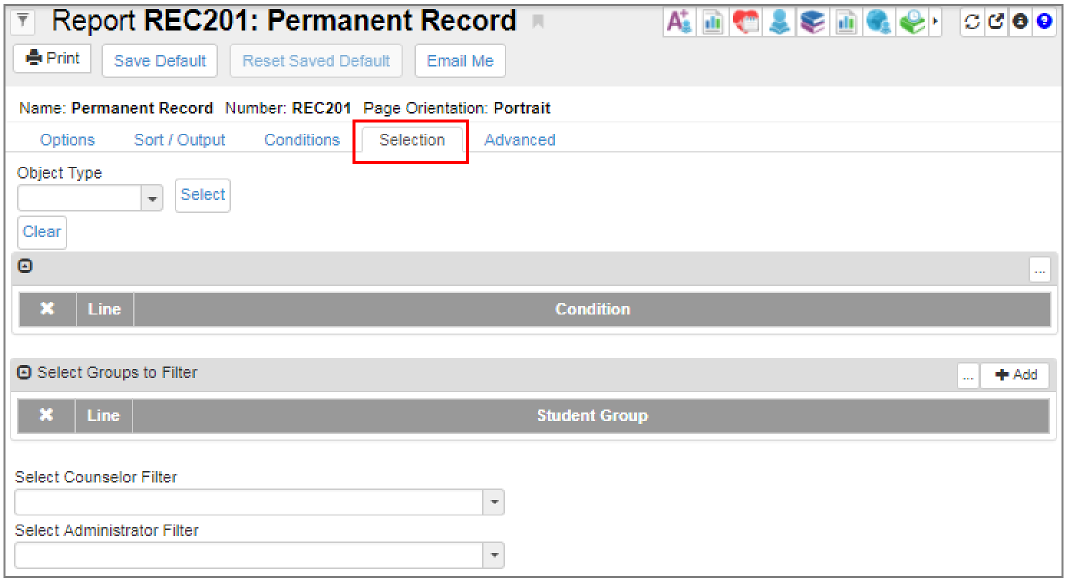
- Select the **X** column to remove the condition.



Report Interface Screen, Conditions Tab

Selection Tab

This tab allows you to filter by Student, Student Group, Counselor, or Staff Member. If the report is a student-based report, you can select the specific students or student groups you want to include in the report. This option is only available if the report is student-based.

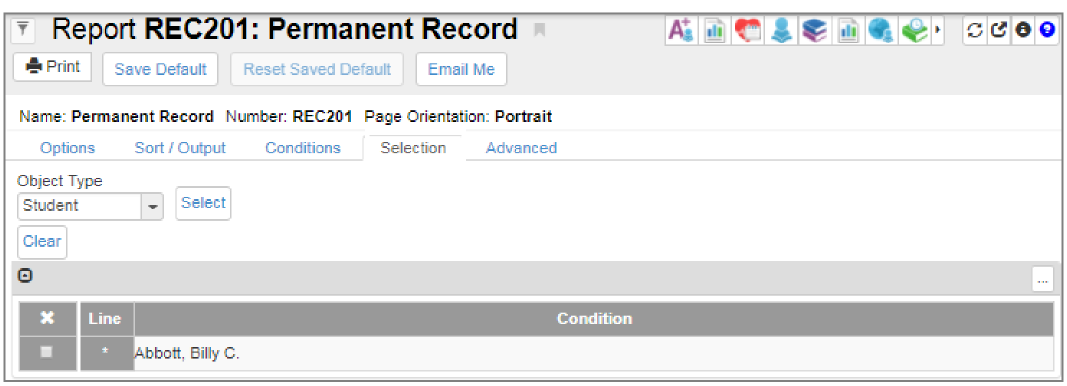


Report Interface Screen, Selection Tab

Tab Options:

Filter by Student

- **Object Type** – Select *Student*.
- **Select** – Click to use the Chooser to add students to the list of students to include in the report.
- Select the box in the **X** column to remove the condition.
- **Clear** – Click to remove the entire list of students as criteria for the report.

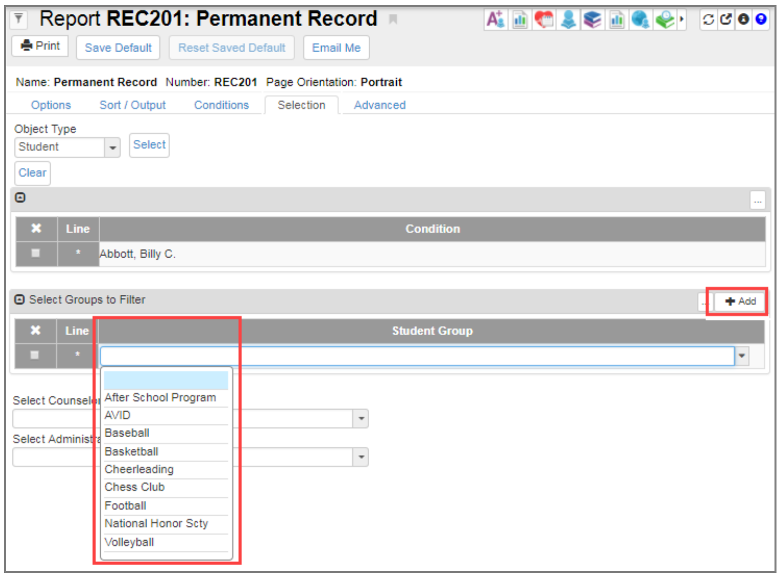


Report Interface Screen, Selection Tab

Filter by Student Group

You can select Student Groups in addition to individual students or as a stand alone condition.

- Click **Add** in the Select Groups to Filter section to add a new line.
- **Student Group** – Select a student group to filter by.

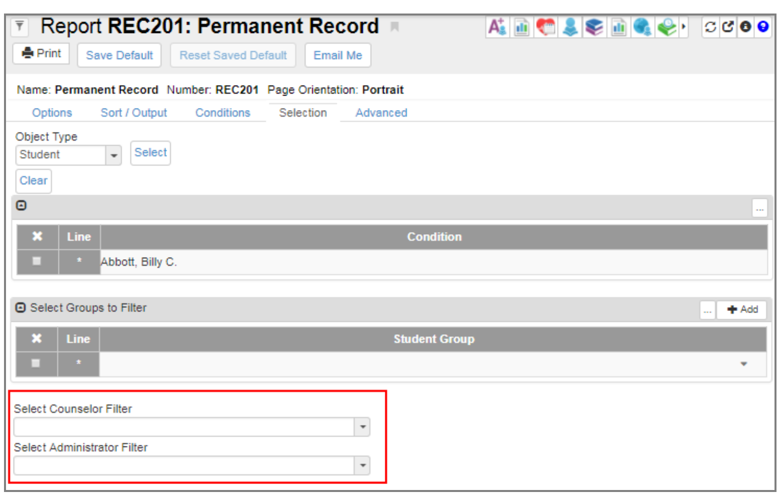


Report Interface Screen, Selection Tab

Filter by Counselor or Administrator

You can select a counselor or administrator in combination with individual students, student groups, or alone.

- **Select Counselor Filter** – Select the counselor to use for the report.
- **Select Administrator Filter** – Select the staff member to use for the report.



Report Interface Screen, Selection Tab

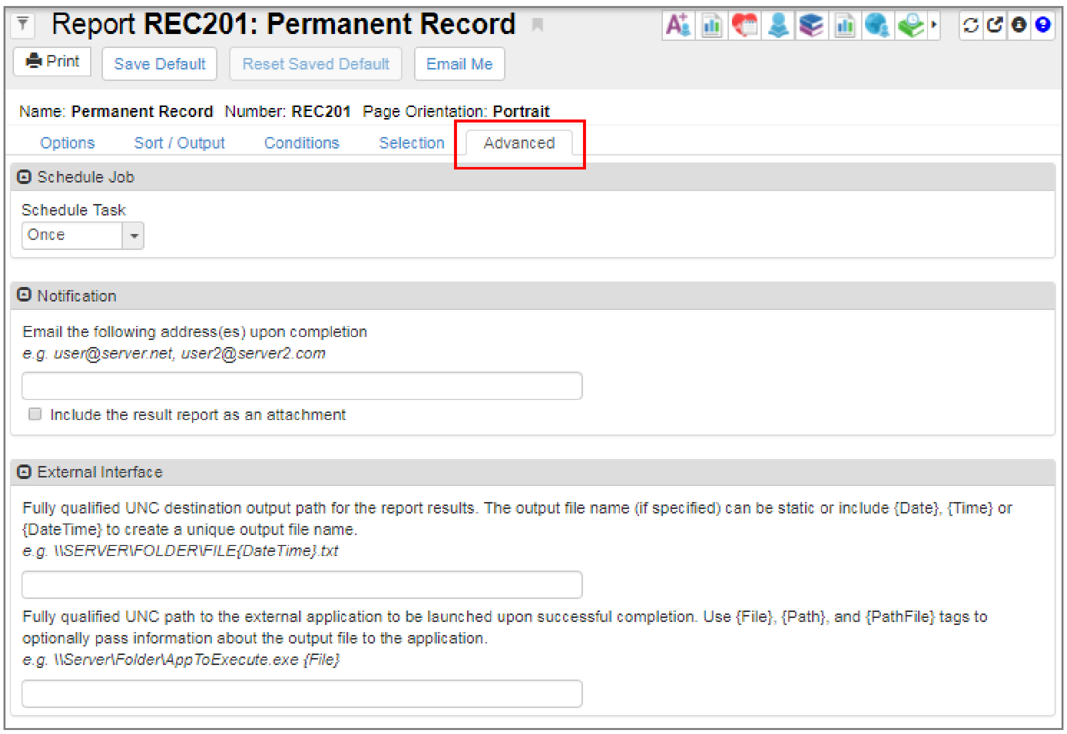
Advanced Tab

By default, when a report prints, it runs once and the options selected on all of the tabs of the interface reset. This tab allows you to run reports on a scheduled basis. When reports are scheduled:

- They run every time with the options selected on all of the tabs of the report interface at the time the report first ran.
- They run based on the year and school in focus.

> Select all of the options to use on the report on the various tabs of the report interface screen.

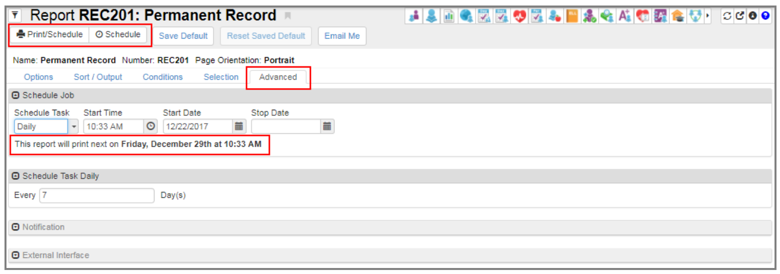
> You must schedule reports for a new school year once New Year Rollover is complete.



Report Interface Screen, Advanced Tab

Tab Options:

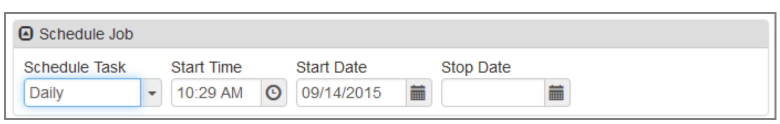
- **Schedule Task** – Select the frequency you want the report to run. You can set reports to run *Once*, *Daily*, *Weekly*, or *Monthly*.

> Additional options display when selecting to schedule a task more than *once*.
>
> - The **Print** button changes to **Print/Schedule** and an additional **Schedule** button displays.
> - A message indicating the date and time the report will print next displays in the Schedule Job section.
>
> 
>
>
> *Report Interface Screen, Advanced Tab*

- **Start Time** – Enter the time of day the report must run if running the report more than *Once*.

> Enter only the time numerals. The system formats the field once entered, for example, 900 formats as 9:00 AM. The default is the time you created the report.

- **Start Date** – Enter the date to start running the report. It defaults to the date you created the report.
- **Stop Date** – Enter date to stop running the report, for example, the date of the end of the school year.

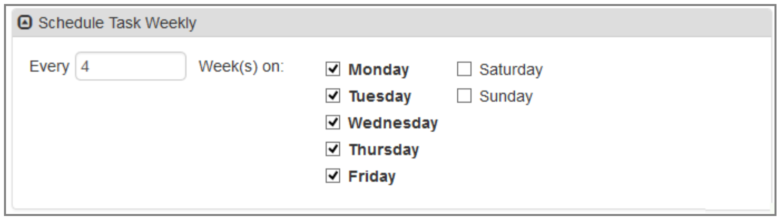


Report Interface Screen, Advanced Tab

- Schedule Task – Select the specific schedule you want the recurring report to run.
  - *Daily* – Enter the number of days between each report run. For example:
    - To run a report every day, enter the number *1*.
    - To run a report once a week, enter *7*.

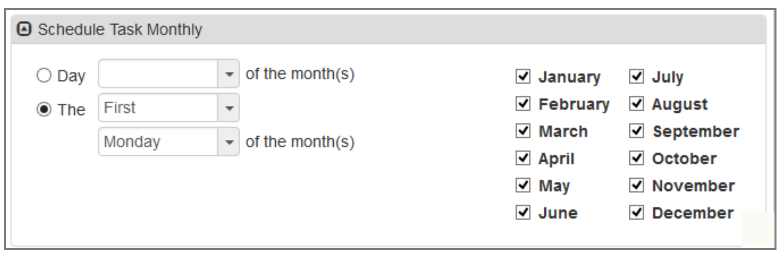
Report Interface Screen, Advanced Tab, Daily

- *Weekly*:
    - Enter the number of **Week(s)** between each report run. For example:
        - To run the report every week, enter *1*.
        - To run the report once every four weeks, enter *4*.
    - Select the days of the week you want the report to run. For example, you could schedule a report to run every week on **Monday**, **Wednesday**, and **Friday**.



Report Interface Screen, Advanced Tab, Weekly

- *Monthly*:
    - Select when to run the report on a **Day of the month**, such as the 1^{st} or the 20^{th} or a specific weekday, such as the *First Monday* of the month.
    - Select which months to run the report.



Report Interface Screen, Advanced Tab, Monthly

- Notification – After the report runs at its scheduled time, you can open and print the results of the report from the Job Queue. However, you must remember to open up the Job Queue and get the report at each scheduled instance. Complete the Notification fields to remind the report users that the report ran, Synergy SIS via email.
  - Enter the email addresses of the users to notify in the field provided. Separate multiple addresses with commas. You must enter the full formatted email address, such as user@domain.com.

    You must configure Synergy SIS to send email using the local email server before sending notifications by email.

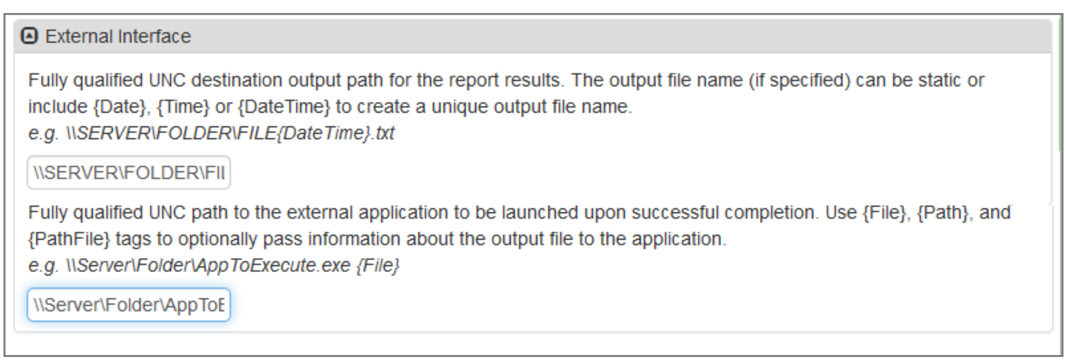
    See the System Configuration content in the *Synergy SIS – System Administrator Guide* for instructions on configuring email.

  - **Include the result report as an attachment** – Select to include the report in the email so users do not have to go to the Job Queue to view or print it.

Report Interface Screen, Advanced Tab

- External Interface – You can save reports as a file to a location on a server. You can use this function to export data from Synergy SIS that you can import or use in another program.
  - Enter the full Universal Naming Convention (UNC) path and file name, such as *\\SERVER\Folder\FileName.txt*, in the field at the top of the External Interface section.

    To include the date and/or time in the file name to create a unique file name, include *{Date}*, *{Time}*, or *{DateTime}* in the name of the file. For example, *File{Date}.txt* saves as *File20090703.txt*.



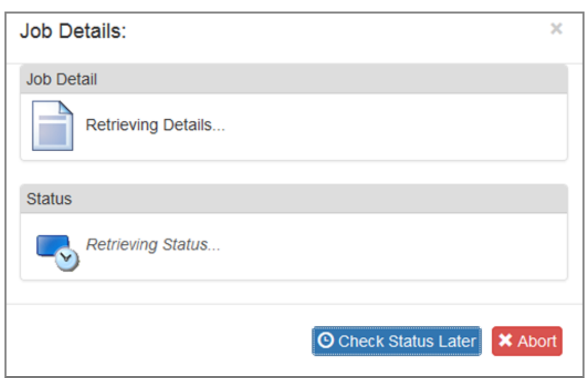
Report Interface Screen, Advanced Tab

- Enter the full UNC path and filename of the program in the field at the bottom of the section, such as *SERVER**Folder**BatchFile.bat*, if another program must start each time the report saves to this file.

> You can pass information about the saved file to the program by using *{File}*, *{Path}*, or *{PathFile}* after the name and location of the program separated by a space or other commands, as *SERVER**Folder**BatchFile.bat {Path}*.

- Select a print option:
  - **Print** – Click to run the report immediately. This option displays when running the report *Once*.
  - **Print/Schedule** – Click to run the report immediately and schedule for the next date/ time indicated in the Schedule Job group box. This option displays when running the report *Daily*, *Weekly*, or *Monthly*.
  - **Schedule** – Click to schedule the report in the job queue. A message displays indicating that the job is successfully scheduled. This option displays when running the report *Daily*, *Weekly*, or *Monthly*.

> When you schedule reports, they run every time with the options selected on all of the tabs of the report interface and the year and school in focus at the time the report first ran. You cannot edit these values after the report runs the first time.
>
> Be sure to set up the report exactly as you want it to run each time before printing or scheduling. To change a previously scheduled report, you must delete/abort the report from the Job Queue and recreate it.



Job Details Window

> See Job Queue for information on viewing and managing scheduled reports.

Chapter 3:
Managing Reports

District Report Options

A footer displays at the bottom of each report with the date, time, and name of the person who printed the report; as well as the name of the district and page number out of total page numbers.

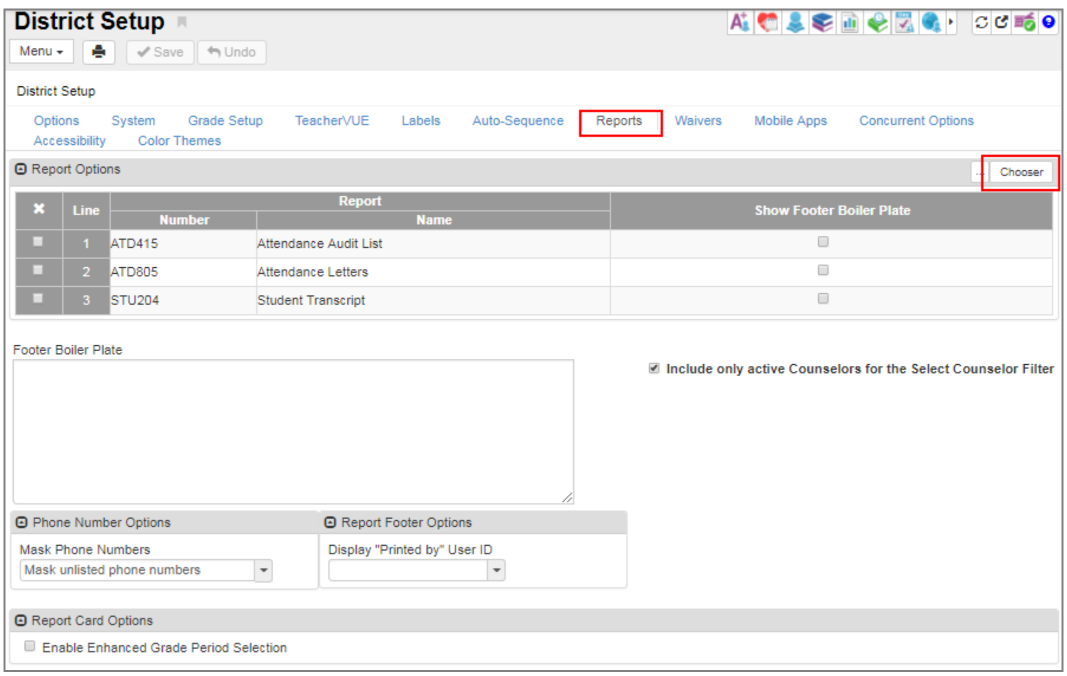
Districts can:

- Create a custom message that displays just above the standard footer.
- Decide to show or not show the name of the person who printed the report.
- Determine how unlisted phone numbers display on reports.

> The custom message functionality is not available on the following reports: STU210, IDS210, and STU602.

Apply Report Options

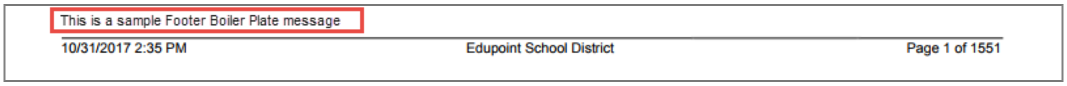
1. Navigate to **Synergy SIS > System > Setup > District Setup**.
2. Select the **Reports** tab.
3. Select the reports you want to display with these options using **Chooser**.



District Setup Screen, Reports Tab

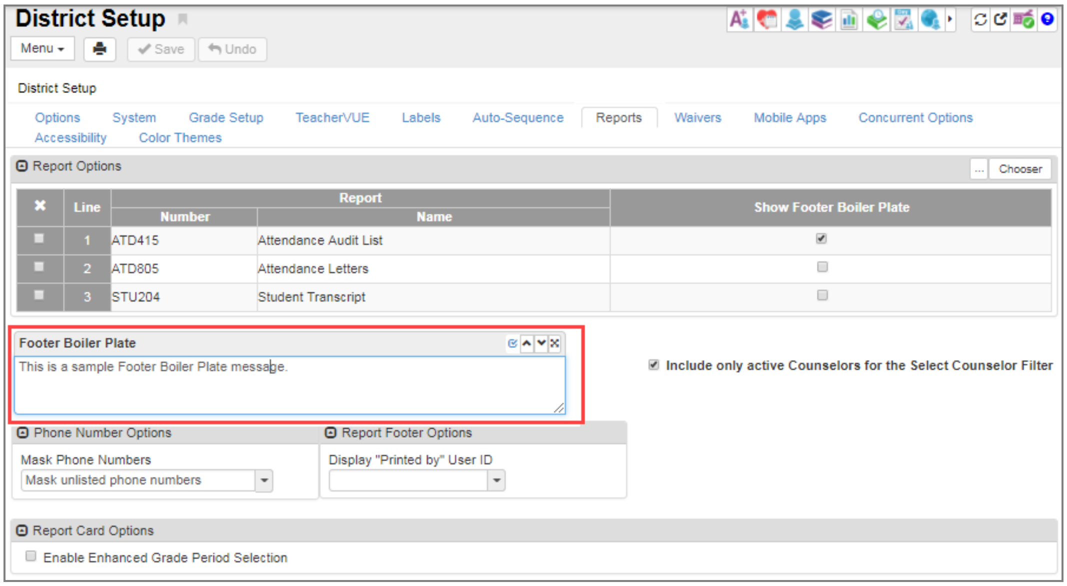
Set Up a Custom Footer

The following steps describe how to customize a footer that displays above the standard footer.



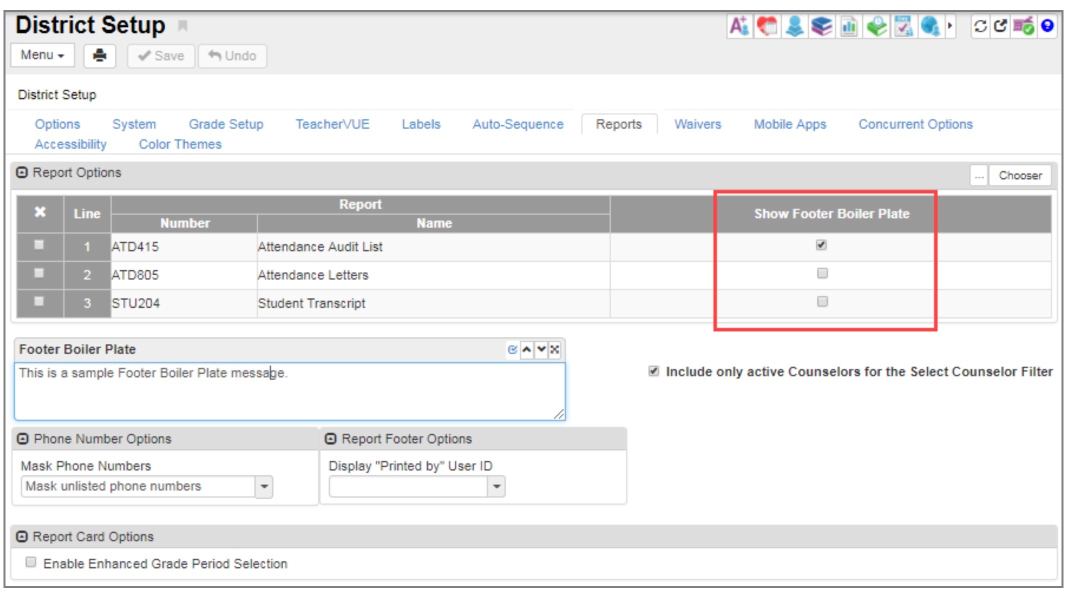
Sample Report Footer Message

1. Enter the custom message in **Footer Boiler Plate**.



District Setup Screen, Reports Tab

2. Select **Show Footer Boiler Plate** for each report to display the message.

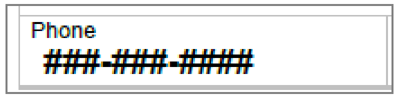


District Setup Screen, Reports Tab

3. Click **Save**.

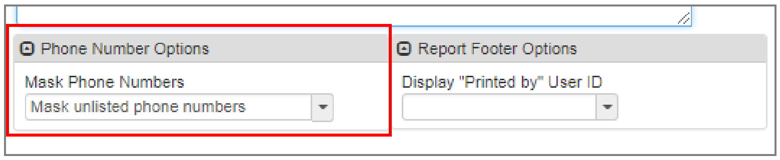
Mask Unlisted Phone Numbers

The following steps describe the options for displaying unlisted phone numbers.



Masked Phone Number

1. Select an option from **Mask Phone Numbers**. Select either *Mask unlisted phone numbers* or *Show unlisted phone numbers*. Leaving this field blank masks unlisted phone numbers.

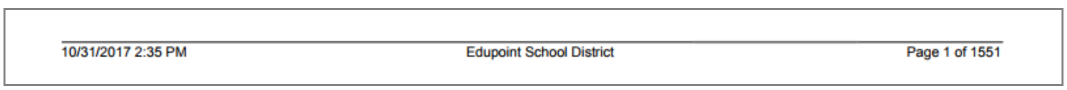


District Setup Screen, Reports Tab

2. Click **Save**.

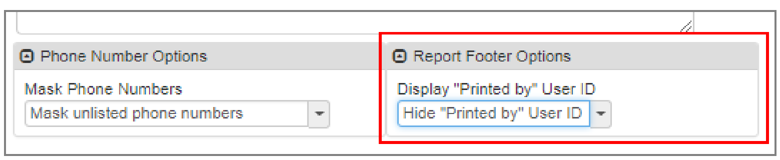
Indicate Who Printed the Report

These steps describe how to display or hide the person who printed the report.



Sample Report Footer With Hidden "Printed By"

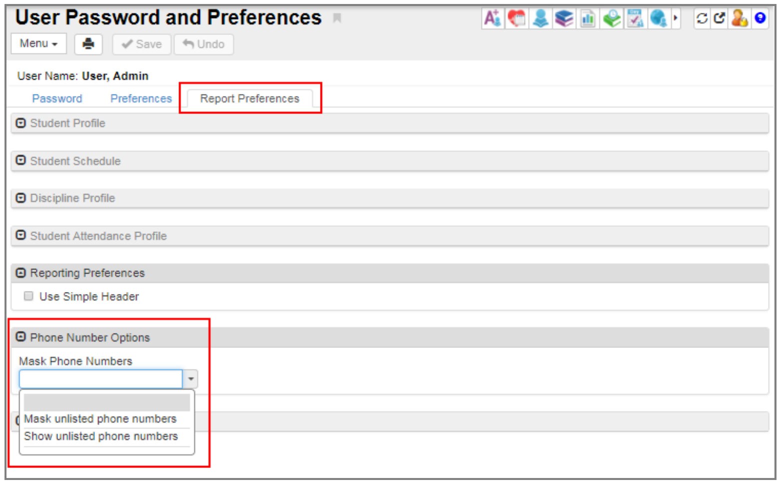
1. Select the option from **Display “Printed by” User ID**.



District Setup Screen, Reports Tab

2. Click **Save**.

Users can override this setting for their printed reports on the **Report Preferences** tab of the User Password and Preferences screen.

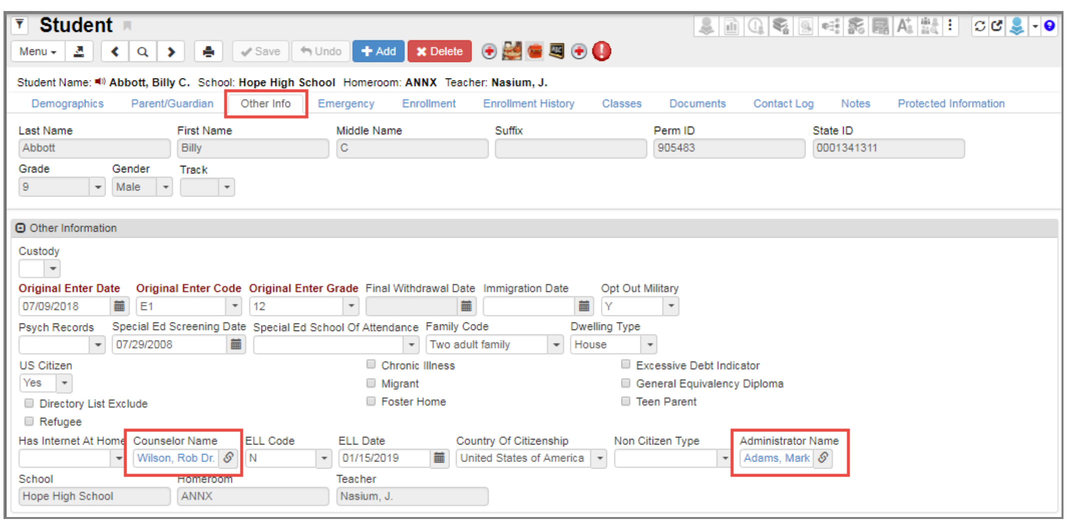


User Password And Preferences Screen, Report Preferences Tab

Administrator and Counselor Filtering

You can filter reports that have the **Select Administrator Filter** and the **Select Counselor Filter** option on the **Selection** tab of the Report Interface screen.

Enable the option on the **Reports** tab of the District Setup screen to only show assigned counselors in the reports drop-down. No setup is required for administrators.



Student Screen, Other Info Tab

Administrator and counselor filtering is available on the following Synergy SIS reports:

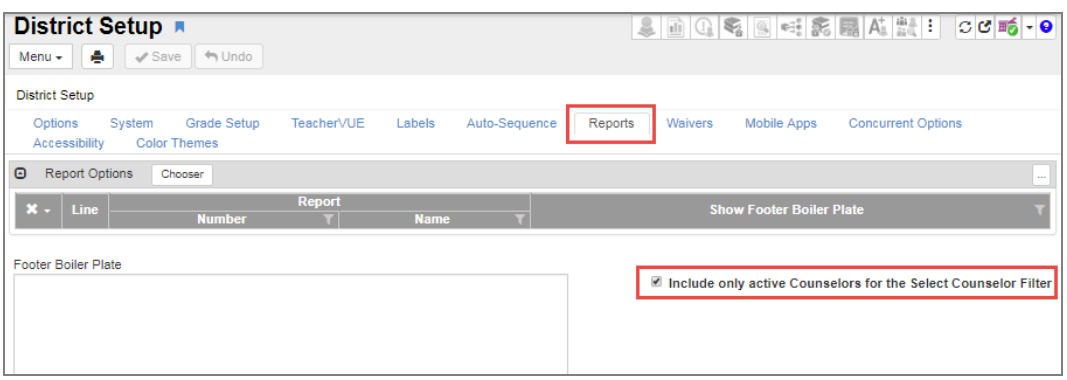
Module	Report Name
Attendance	ATP201 – Period Student Attendance Profile
	ATP401 – Period Attendance List
	ATP402 – Period Student Absence Totals
	ATP409 – Period Absence Count
Course History	CHS401 – Student Credit Check
Discipline Incident	IDS401 – Student Discipline Listing
	IDS403 – Discipline Disposition List
	IDS601 – Discipline Summary by Grade
Grading	GRD401 – Mark Listing by Student
	GRD402 – Mark Failing List
	GRD407 – Mark Exception Report
Health	HLT403 – List Report
Schedule	STU202 – Individual Report
Student	STU404 – List Report

Enabling Active Counselor Filter

Enable the **Include only active Counselors for the Select Counselor Filter** option on the District Setup screen to display only the staff members currently assigned as counselors to students on the **Other Info** tab of the Student screen.

1. Navigate to **Synergy SIS > System > Setup > District Setup**.
2. Select the **Reports** tab.
3. Select **Include only active Counselors for the Select Counselor Filter**.

> All staff displays in the list on the report if you do not select this option.

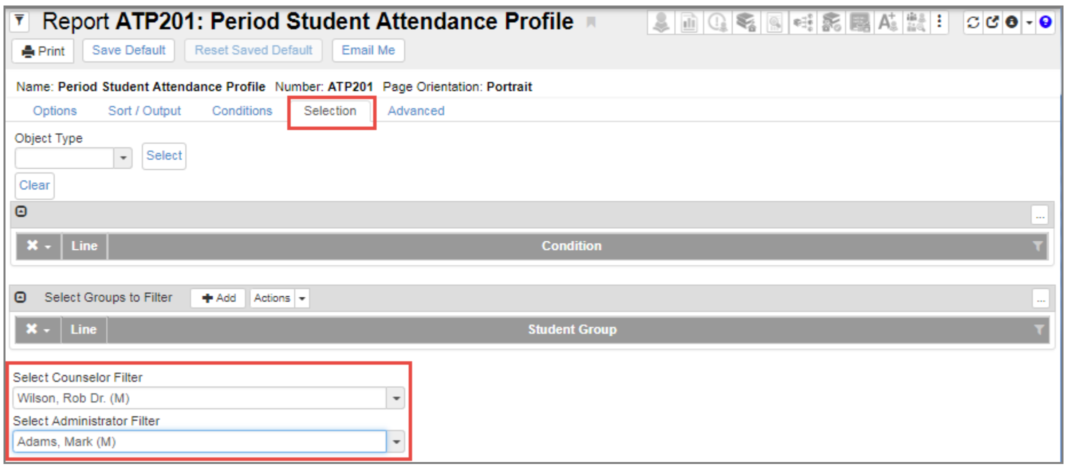


District Setup Screen, Reports Tab

4. Click **Save**.

Filtering Reports

1. Navigate to a report that allows filtering, such as **Synergy SIS > Attendance > Reports Period > Individual > ATP201 – Period Student Attendance Profile**.
2. Select the report options and information.
3. Select the **Selection** tab.
4. Select a counselor in **Select Counselor Filter** to display only students that have that counselor assigned to them.
5. Select an administrator in **Select Administrator Filter** to display only students that have that administrator assigned to them.



CHS401 – Student Credit Check Report Interface, Selection Tab

6. Click **Print**.

Changing a Report Interface

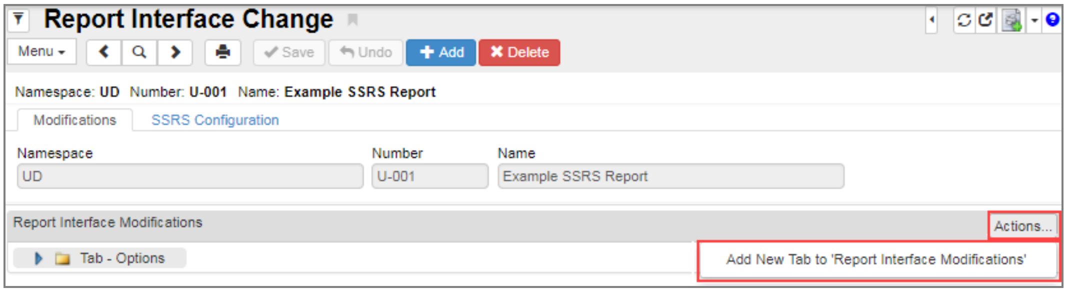
> See the *SIREN Report Designers Guide* for information on changing the layout of a user-defined report.

Use the Report Interface Change screen to customize query-based reports and user-defined (UD) reports. You can change the content onthe **Options** tab of Report Interface screens and add tabs.

1. Navigate to **Synergy SIS > System > Data and Views > Report Interface Change**.
2. Scroll or use Find mode to locate the report to change.

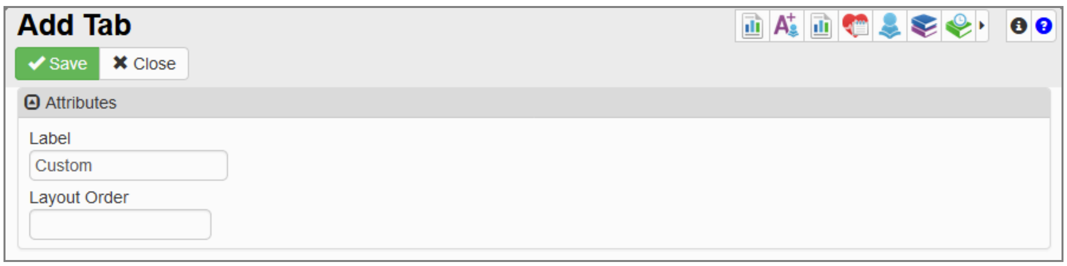
Adding a Tab

1. Select *Add New Tab* from **Actions...** to open the Add Tab screen.



Report Interface Change Screen

2. Enter a **Label** for the new tab.
3. Enter a number in **Layout Order** to indicate where the tab displays relative to other tabs.

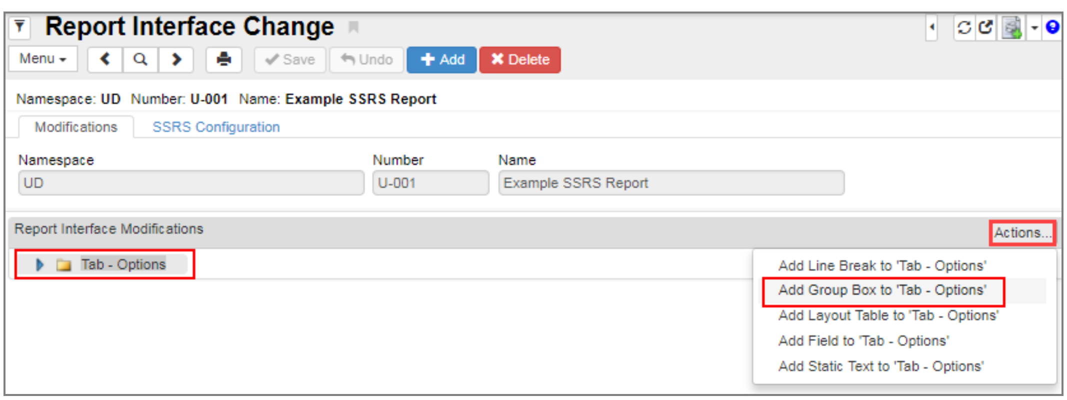


Add Tab Screen

4. Click **Save**.

Add a Group Box

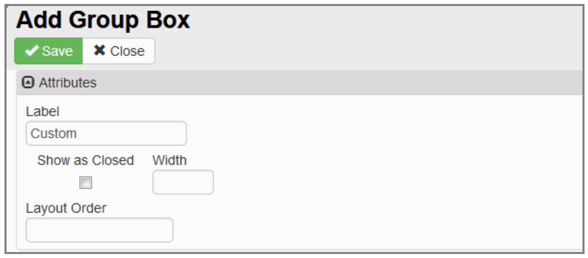
1. Select an object to modify under Report Interface Modifications.
2. Select the *Add Group Box to ' '* from **Actions...** to open the Add Group Box screen.



Report Interface Change Screen

3. Enter properties for the object.

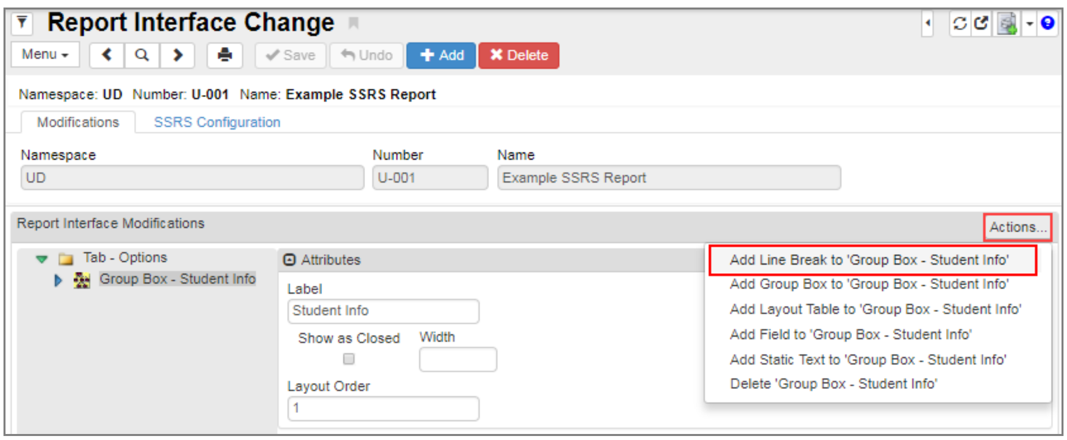
4. Click **Save**.



Add Group Box Screen

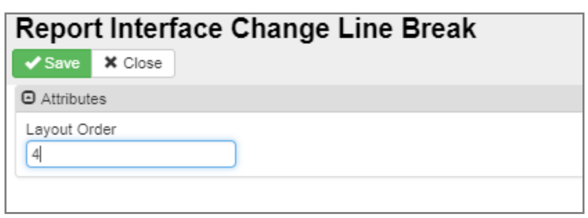
Add a Line Break

1. Select an object to modify in the Report Interface Modifications section.
2. Select the *Add Line Break to ' '* from **Actions...** to open the Report Interface Change Line Break screen.



Report Interface Change Screen

3. Enter the **Layout Order**.
4. Click **Save**.

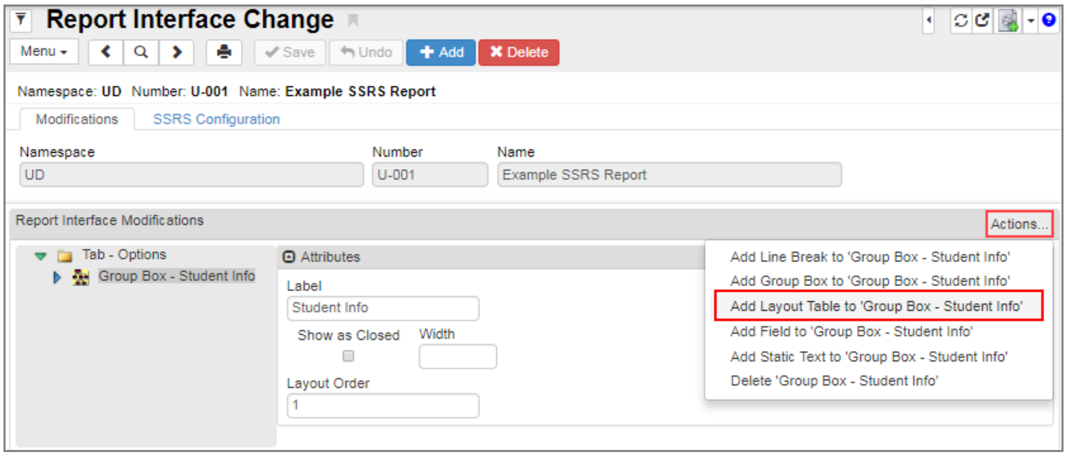


Report Interface Change Line Break Screen

Add Layout Table

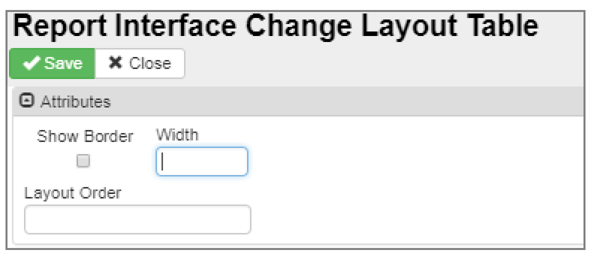
Use Layout Tables to format the information into columns. You can add lines, group boxes, layout tables, and static text to each column.

1. Select an object to modify under Report Interface Modifications.
2. Select the *Add Layout Table to ' '* from **Actions...** to open the Report Interface Change Layout Table screen.



Report Interface Change Screen

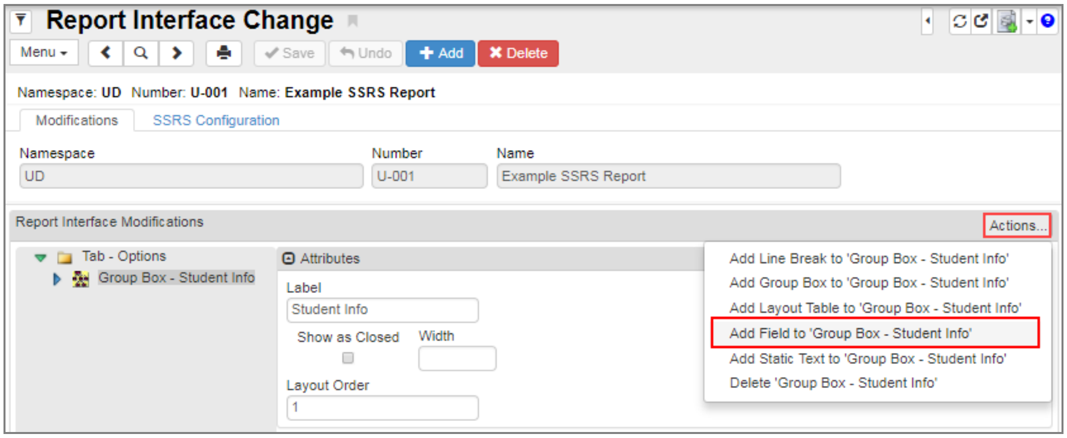
3. Enter properties for the object.
4. Click **Save**.



Report Interface Change Layout Table Screen

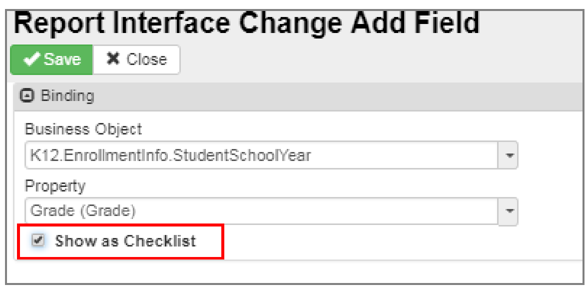
Add Field

1. Select an object to modify in the Report Interface Modifications section.
2. Select the *Add Field to ' '* from **Actions...** to open the Report Interface Change Add Field screen.



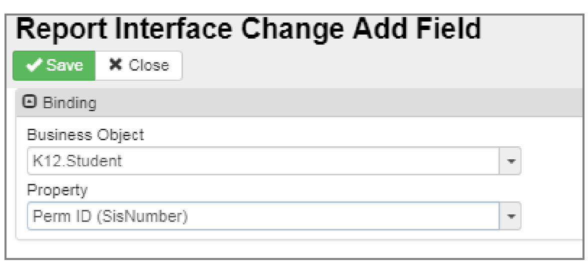
Report Interface Change Screen

Select **Show as Checklist** to allow users to select multiple options from the list when you add a lookup table property to a Report Interface.



Report Interface Change Add Field Screen

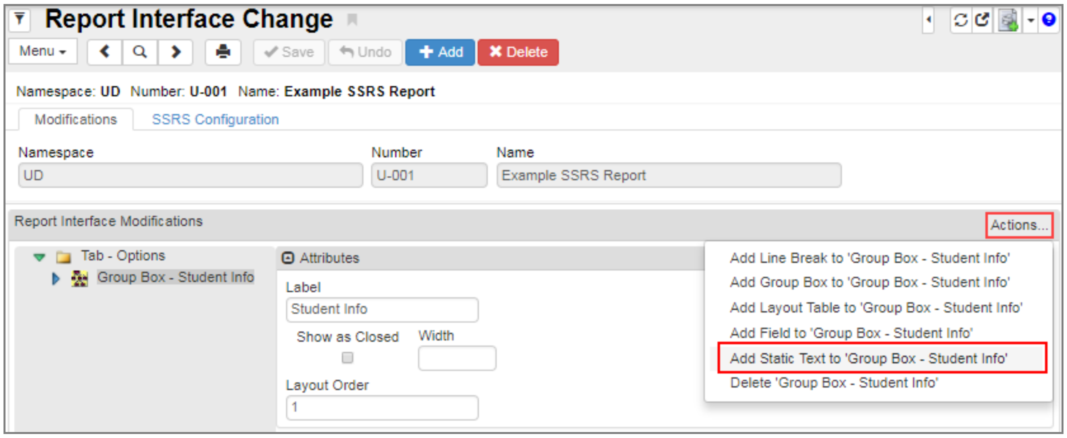
3. Select a **Business Object** and **Property**.
4. Click **Save**.



Report Interface Change Add Field Screen

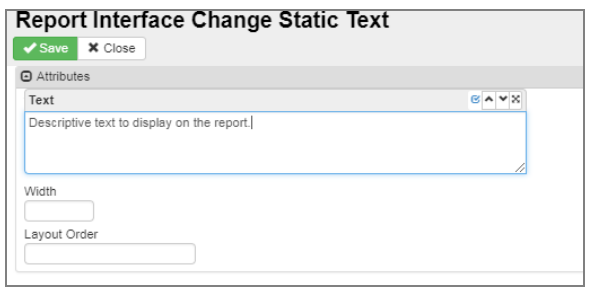
Add Static Text

1. Select an object to modify in the Report Interface Modifications section.
2. Select the *Add Static Text to ' '* from **Actions...** to open the Report Interface Change Static Text screen.



Report Interface Change Screen

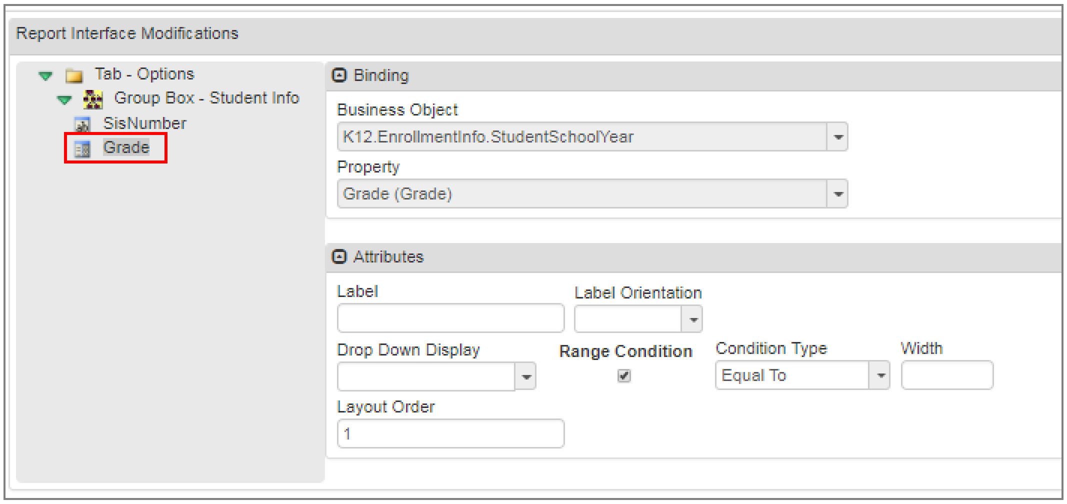
3. Enter the **Text** to display on the screen and report.
4. Click **Save**.



Report Interface Change Static Text Screen

Changing Attributes

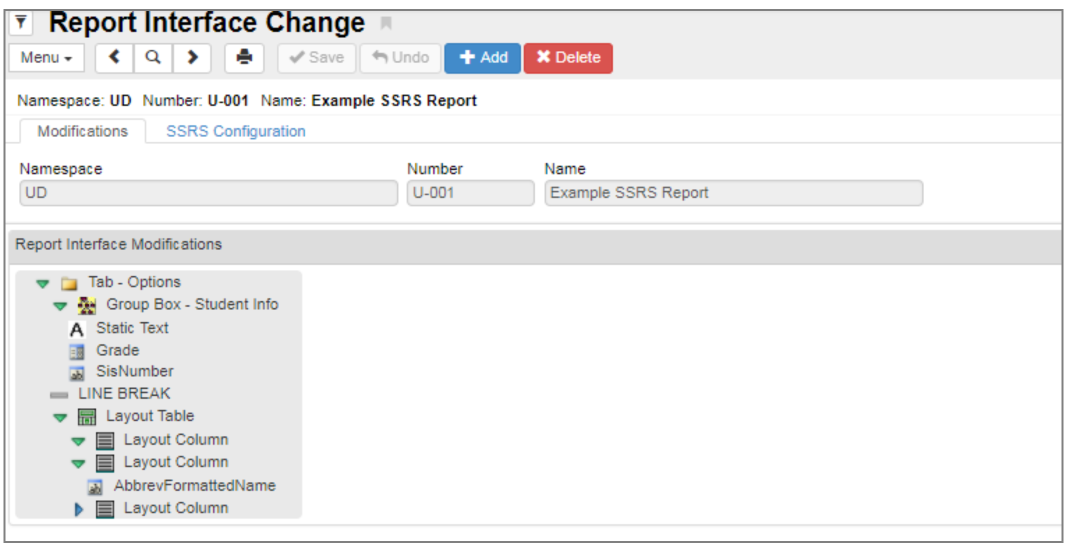
Select the item in the tree to view additional settings. The available settings vary depending on the selected **Business Object** and **Property**.



Report Interface Change Screen

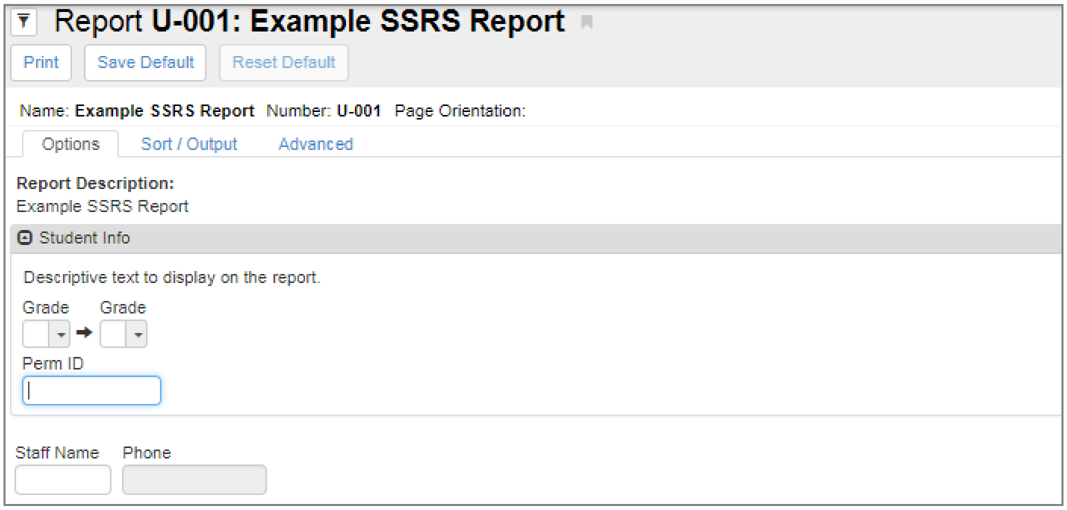
Example

This example shows that a group box, layout table, two layout columns with one field each, and some static text was added on the Report Interface Change screen.



Report Interface Change Screen

The resulting change to the Report Interface screen:

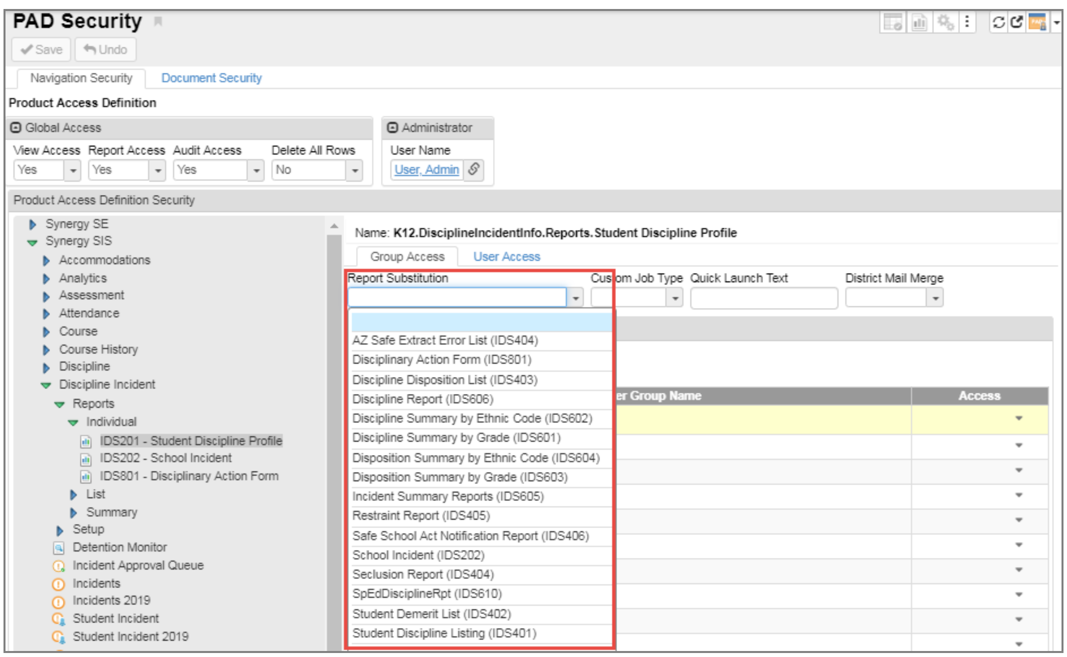


U-001 – Example SSRS Report Interface Screen

Report Substitution

You can use **Report Substitution** in PAD Security to select a different report to use.

1. Navigate to **Synergy SIS > System > Security > PAD Security**.
2. Navigate to a report in the Product Access Definition Security tree.
3. Select the report name in **Report Substitution** on the **Group Access** tab.



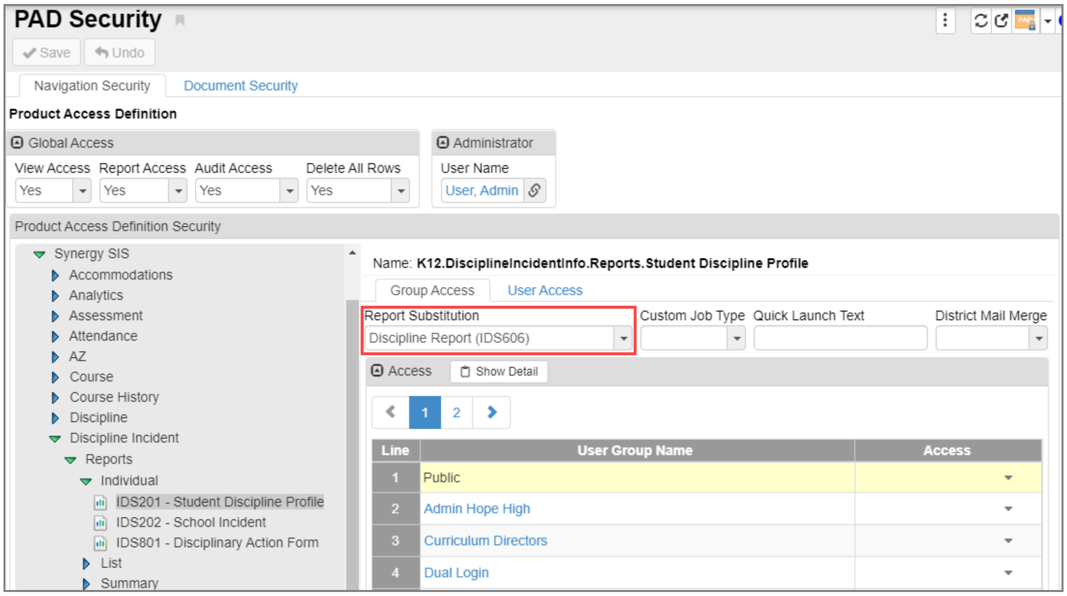
PAD Security Screen

4. Click **Save**. The selected report opens from the PAD tree when you select the original report name.

Report Substitution Example

This example tells you how to replace the IDS606 – Discipline Report with the IDS201 – Student Discipline Profile report.

1. Navigate to **Synergy SIS > System > Security > PAD Security**.
2. Navigate to **Synergy SIS > Discipline Incident > Reports > Individual > IDS201 – Student Discipline Profile** in Product Access Definition Security.
3. Select *Discipline Report (IDS606)* from **Report Substitution**.



PAD Security Screen

4. Click **Save**.

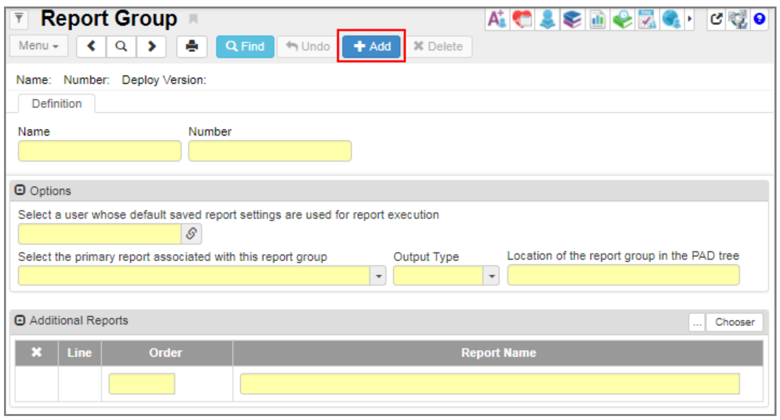
> The IDS606 report substitutes the IDS201 report. Navigate to **Synergy SIS > Discipline Incident > Reports > Individual > IDS201 – Student Discipline Profile** to open the IDS606 report.

Report Groups

Occasionally, you might need to print several reports for a student or group of students. For example, when a student withdraws, the district might want to print several reports. Rather than printing each report individually, you can create and save a report group to streamline this process.

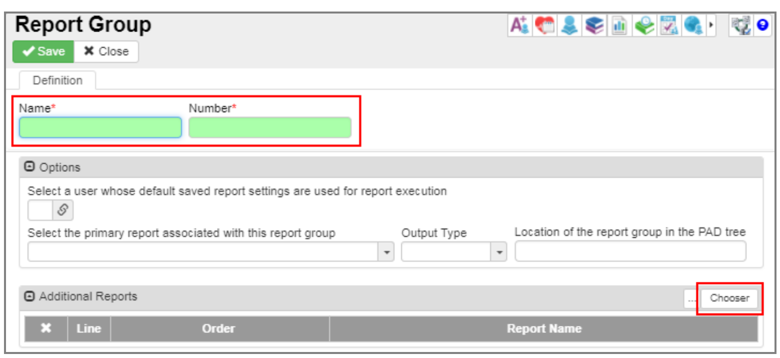
Create a Report Group

1. Navigate to **Synergy SIS > System > Setup > Report Group**.
2. Click **Add**. The Report Group (Add) screen opens.



Report Group Screen

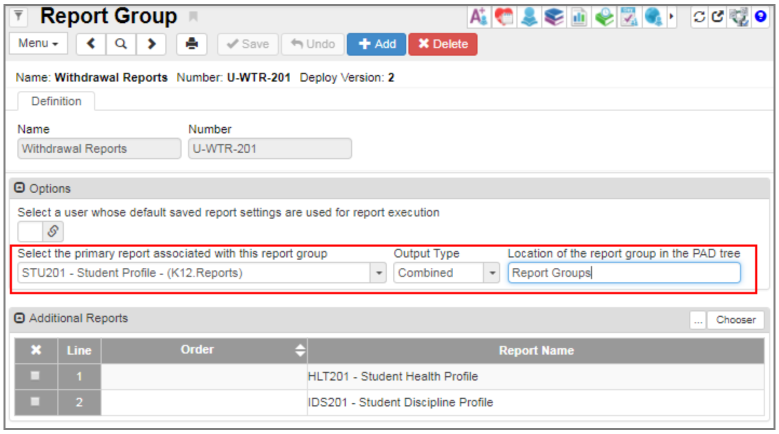
3. Enter the **Name** of the report group and a **Number**. Synergy SIS preferences the number by *U-* automatically when saved to keep the report group with the other user-defined reports in the PAD tree.
4. Click **Chooser** to select the reports to include in the group.



Report Group (Add) Screen

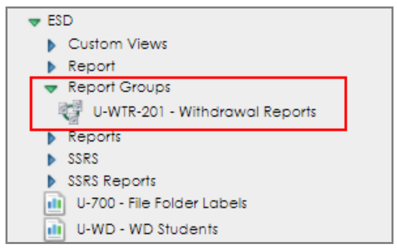
5. Select the report interface used for the group from **Select the primary report associated with this report group**.
6. Select the **Output Type**.
   - *Combined* – Select to print one PDF with all of the reports in the group.
   - *Separate Files* – Select to generate one PDF for each report in the group.

7. Enter the folder in the district PAD tree where the report group must save in **Location of the report group in the PAD tree**.



Report Group Screen

8. Click **Save**. Saved groups display in the district PAD Tree as shown below.

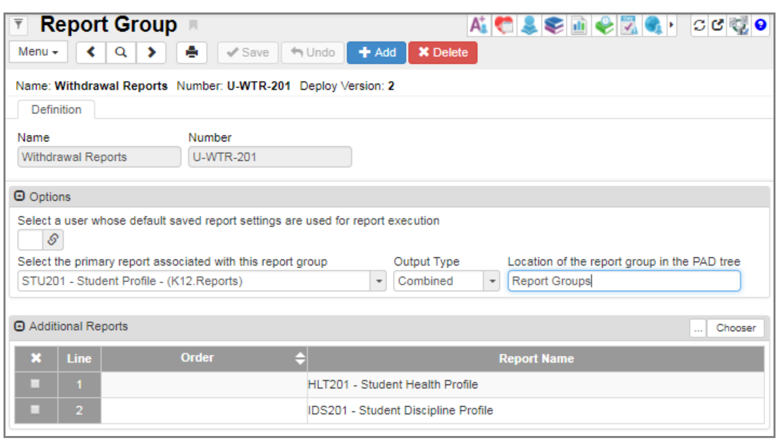


PAD Tree

> The group uses the Report Interface of the selected primary report when printing the report group. Be sure this report has the options needed for all other reports in the group.

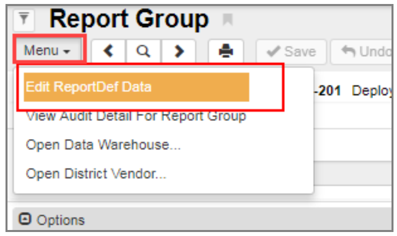
Edit or Delete a Report Group

1. Navigate to **Synergy SIS > System > Setup > Report Group**.
2. Locate the group.



Report Group Screen

3. Make changes as needed.
    - To remove a report from the group, select the **X** column.
    - To delete the entire group, remove all reports in the group first, then click **Delete**.
    - To change the **Name** and/or **Number** of the group, select *Edit ReportDef Data* from the **Menu**. The **Name** and **Number** fields turn white and you can edit the text.



Report Group Screen

4. Click **Save**.

Synergy Actions

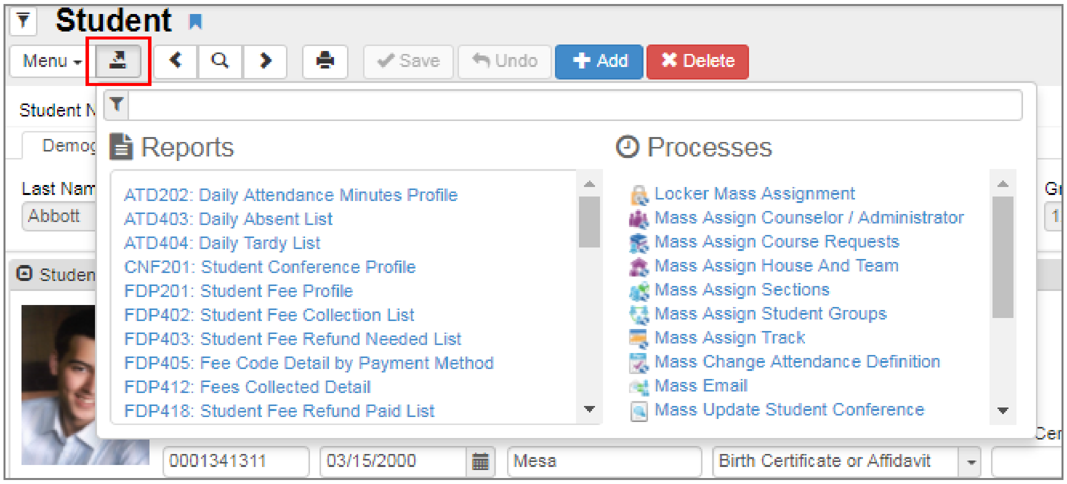
You can execute reports for the student currently focused on the screen from the **Actions** () drop-down.

> Actions work the same on all screens the icon displays on.

1. Navigate to a student screen. For example **Synergy SIS > Student > Student** or **Synergy SIS > Attendance > Period Attendance**.
2. Locate a student to modify.

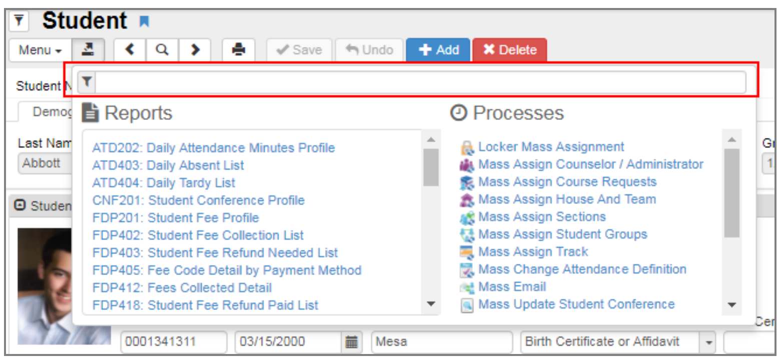
>  does not display until you focus on a student.

3. Click .
4. Select the appropriate report to execute.



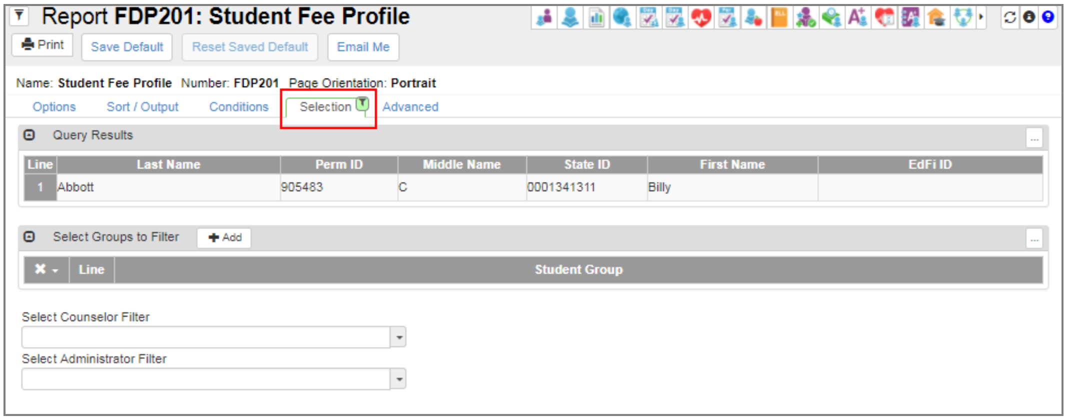
Student Screen

Enter text in the filter field to locate a report without scrolling.



Student Screen

- Run a report by selecting the report name.
- Open the report by hovering over the report name and clicking . The report opens in a new window with the report interface and displays the student in focus in the **Selection** tab.



FDP201 – Student Fee Profile Report Interface Screen, Selection Tab

> If the selected report is a list or summary report, a message displays to confirm parameters before printing. Click **OK** to open the report interface and display the student on the **Selection** tab.

Job Queue

Once you submit a job, such as reports or processes like the New Year Rollover, it's status displays in the Job Queue Viewer and the Job Q Adm Viewer.

- The Job Queue Viewer lists all of the jobs submitted by the user currently logged in to Synergy SIS.
- The Job Q Adm Viewer lists all jobs regardless of user.

Both allow you to delete jobs, view the results of the job to print, and view the details of the job itself.

Job Queue Viewer

Navigate to **Synergy SIS > System > Job Queue > Job Queue Viewer**.

Each job displays with its submission and completion date and time. Also, the state of the job is indicated by an icon, as shown below:

Waiting

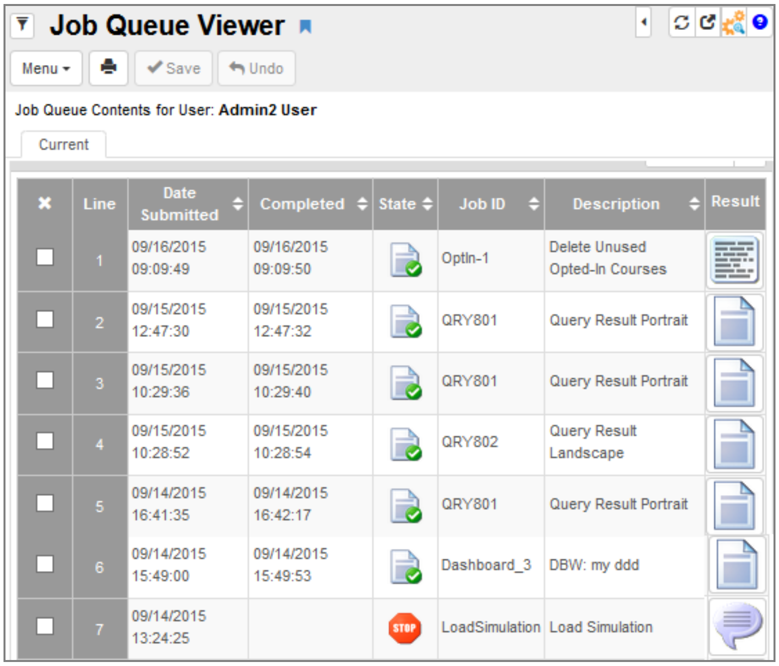
In Progress

Completed

Error

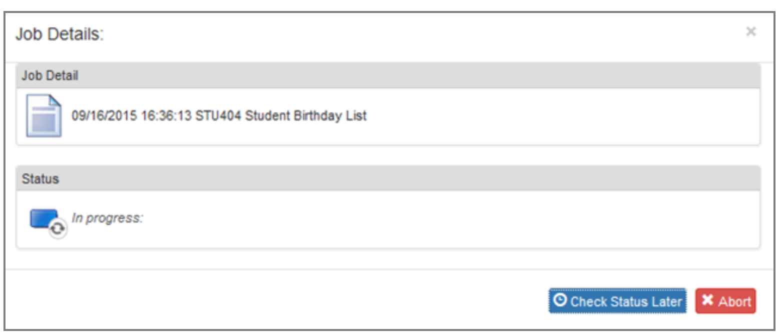
The **Job ID** and **Description** display for each job as well. For reports, these are the report ID and the name of the report.

- To view the result of the job, click the icon in the **Result** column. The results open in a new window, generally in PDF format. For jobs still in progress, click the **Result** icon to open the Job Status screen.



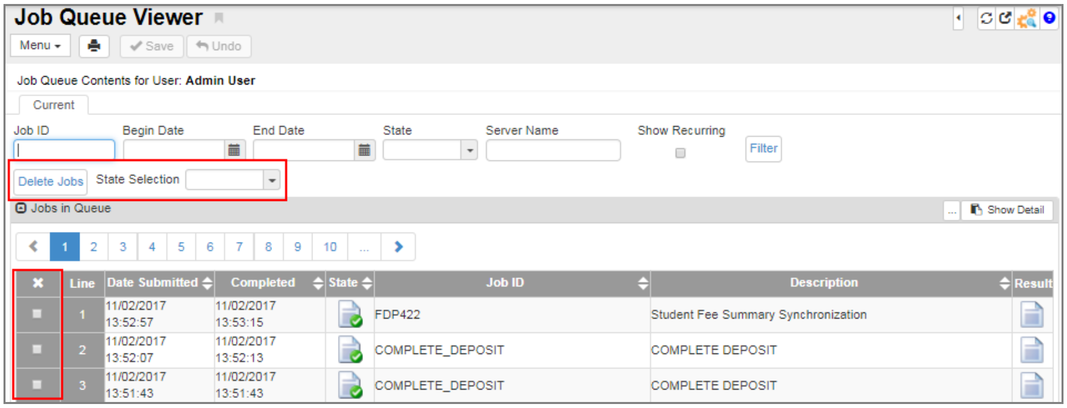
Job Queue Viewer Screen

- Click **Abort** to cancel the job on the Job Status screen.
- Click **Check Status Later** to close the Job Details window. You can still view the job and its results from the Job Queue Viewer screen.



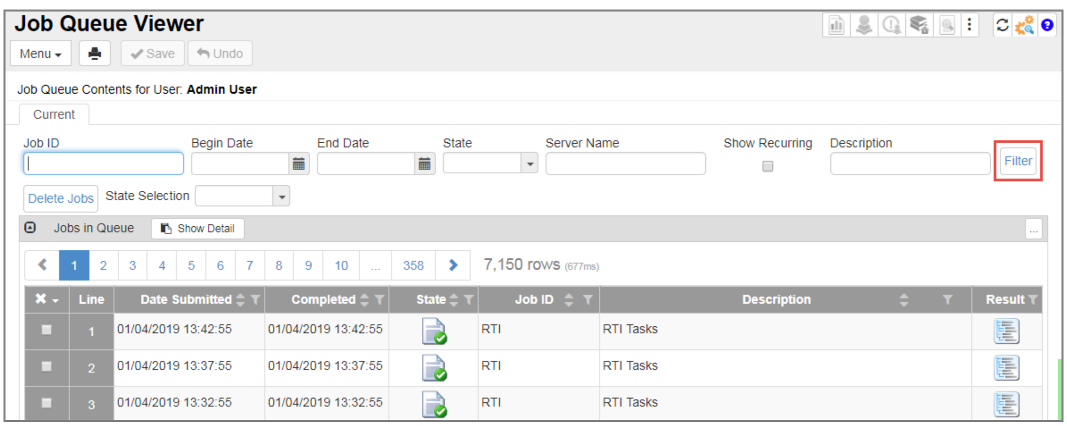
Job Details Window

- To delete a job from the queue, select the **X** column and click **Save**.
- To delete all the jobs at a particular state, select the state from **State Selection** and click **Delete Jobs**.



Job Queue Viewer Screen

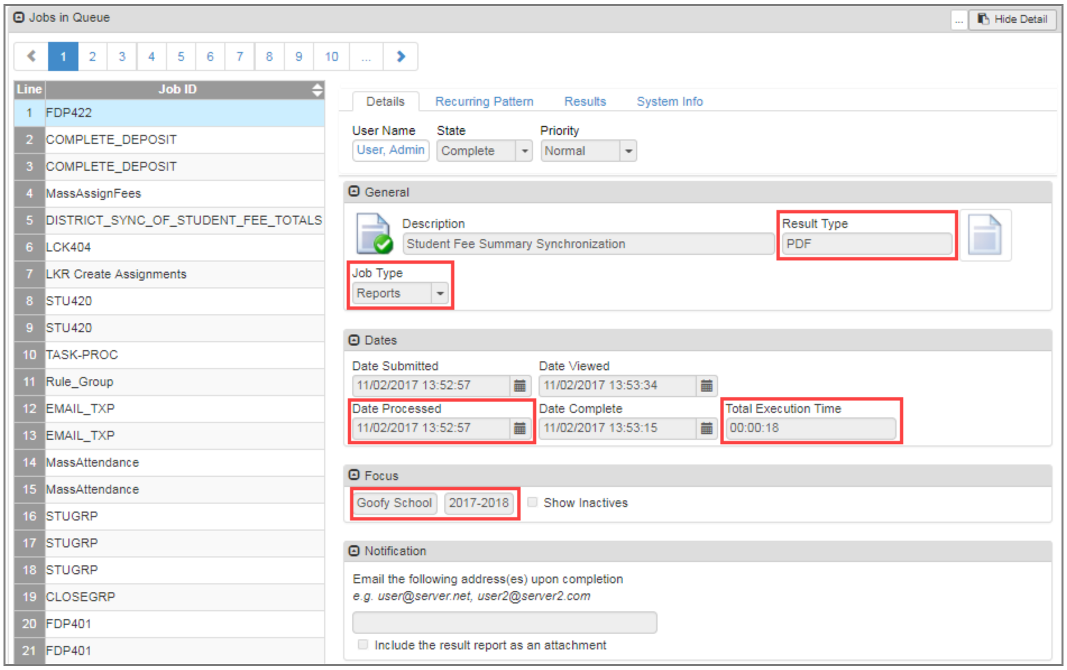
- To filter the list of jobs displayed, enter the criteria to filter and click **Filter**. You can filter jobs by:
  - **Job ID** – Enter all or part of the ID.
  - **Begin Date** and **End Date** – Enter a range of dates.
  - **State** – Select a job status.
  - **Server Name** – Enter the name of the process server used to process the job.
  - **Show Recurring** – Select to show recurring jobs in the list.
  - **Description** – Enter text to filter based on the query **Description**.



Job Queue Viewer Screen

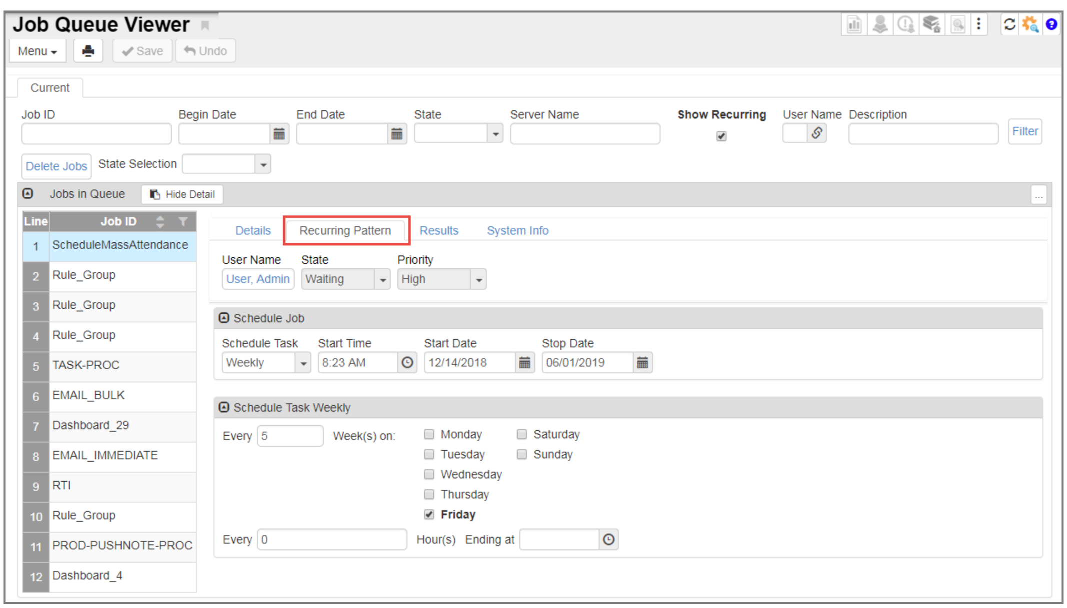
- Click **Show Detail** to view additional information about each job. The detailed information about each job displays to the right. Synergy SIS highlights the job displaying detailed information in blue to the left. To switch to another job, click the job on the left.

- The **Details** tab displays by default. In addition to the information shown on the main screen, this tab shows the **Result Type**, the **Job Type**, the **Date Processed**, the **Total Execution Time**, and the **Focus** the job ran from.



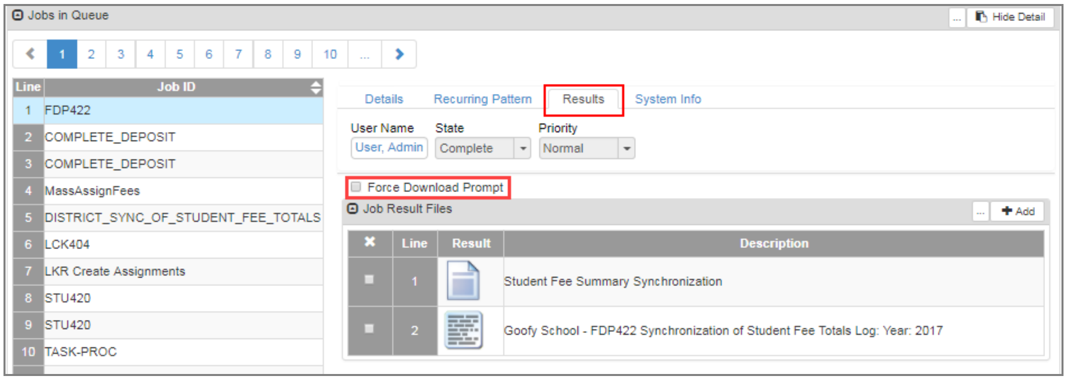
Job Queue Viewer Screen, Jobs In Queue Detail

- Select the **Recurring Pattern** tab to view the schedule of any recurring jobs and to edit recurring job schedules.



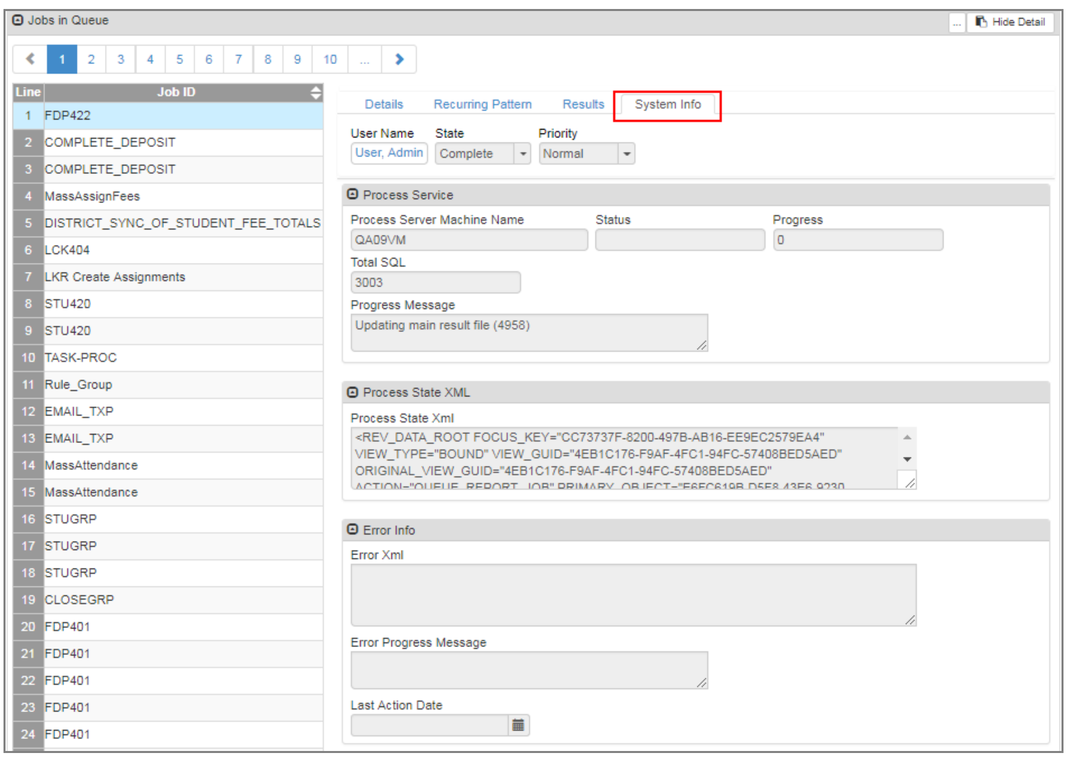
Job Queue Viewer Screen, Jobs In Queue Detail, Recurring Pattern Tab

- Select the **Results** tab to view the results of the job by clicking the icon, as you would from the main screen. To have the results bring up a prompt to save or open the results file, select the **Force Download Prompt** option.



Job Queue Viewer Screen, Jobs In Queue Detail, Results Tab

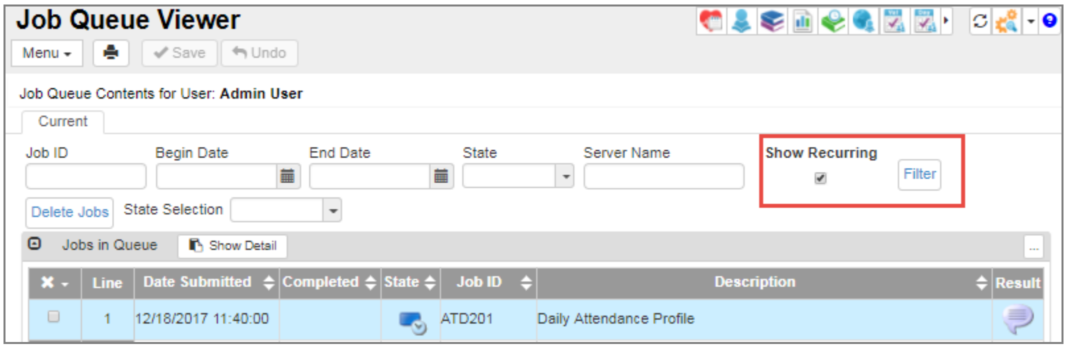
- Select the **System Info** tab shows the name of the process server used to process the job. If the job is still processing, the **Progress** field shows how far the job has progressed. If the job generates an error, the top part of the error message displays in the **Progress Message** field.
    - The **Process State XML** field contains more information for developers.
    - The **Error Info** section shows the full text of the error message.



Job Queue Viewer Screen, Jobs In Queue Detail, System Info Tab

Viewing and Managing Scheduled Reports

1. Click and click **JobQueue Viewer** or navigate to **Synergy SIS > System > Job Queue > Job Queue Viewer**.
2. Select **Show Recurring**.
3. Click **Filter**.



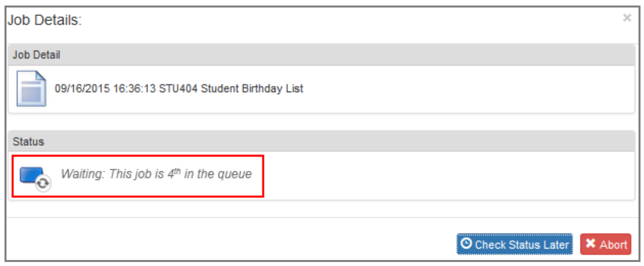
Job Queue Viewer Screen

- Click **Show Detail** to change the settings for a scheduled job.
- Select a job and click **Delete Jobs** to unschedule the job.

Job Queue Admin

The Job Queue is administered from the Job Q Adm Viewer screen. This screen has all of the same functionality and features of the Job Queue Viewer screen. However, all the jobs from all users display in the Admin Viewer rather than just the jobs of the logged-in user. In addition, the Admin Viewer allows you to adjust the priority of each job.

The main purpose of the Admin Viewer is to diagnose problems with the queue and to adjust the status of jobs waiting in the queue. When users start reporting that the job is listed 2nd, 3rd, or 4th in the queue, there might be a problem with the job queue and it must be investigated from the Admin Viewer.



Job Details Window

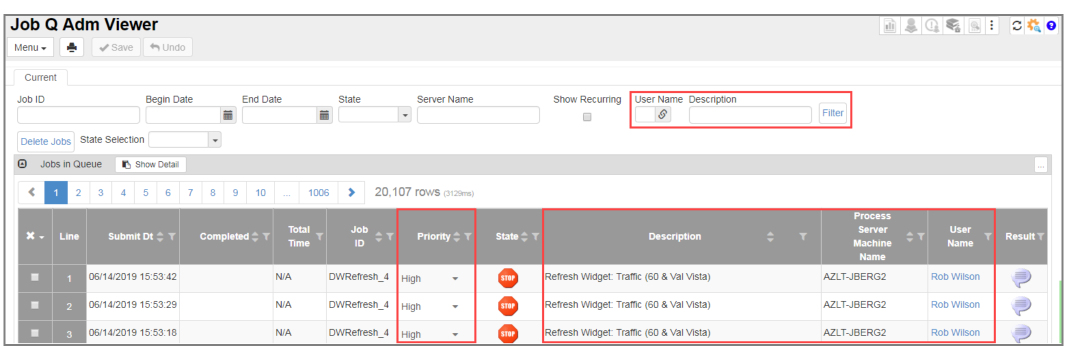
In the Admin Viewer, three additional columns of information display:

- **Priority** – When a user submits a job, it has the priority of *Normal*.
    - If a job is still waiting that might delay the queue, you can adjust the job's priority to *Low* to allow later jobs with a priority of *Normal* to finish first.
    - If there is an urgent job that is waiting, you can switch its priority to *High* to set that job to process next.
- **Process Server Machine Name** – Lists the server that ran the job
- **User Name** – Lists the user name

> Click to locate a user to filter jobs by and click **Filter**.

- **Description** – Enter text to filter based on the query **Description**.

All other functions are the same as the Job Queue Viewer.



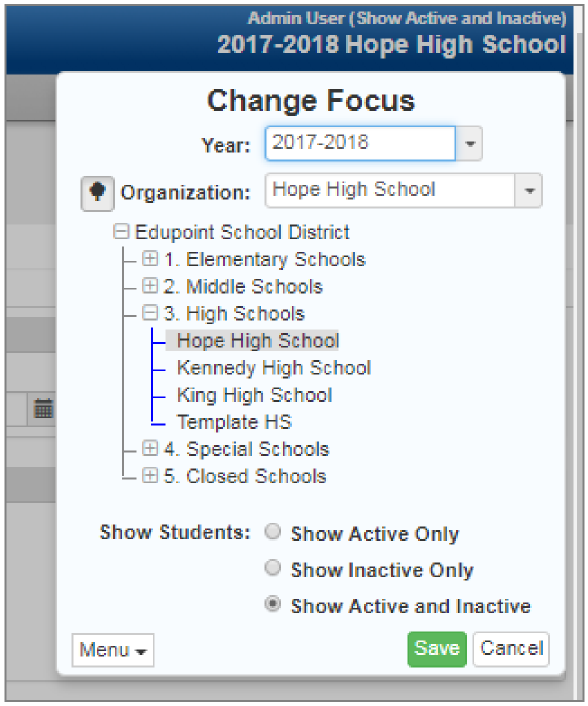
Job Q Adm Viewer Screen

Chapter 4: Simple Queries

Simple Query Using Find

In addition to locating the exact record to view on-screen, the Find mode function can act as a quick report writer. Use the fields on a screen to build a query. Find mode works in any Synergy SIS screen. To use Find mode to produce a quick report:

1. Adjust the focus to select the school and year to include in the report.
2. Select whether to include active or inactive students.



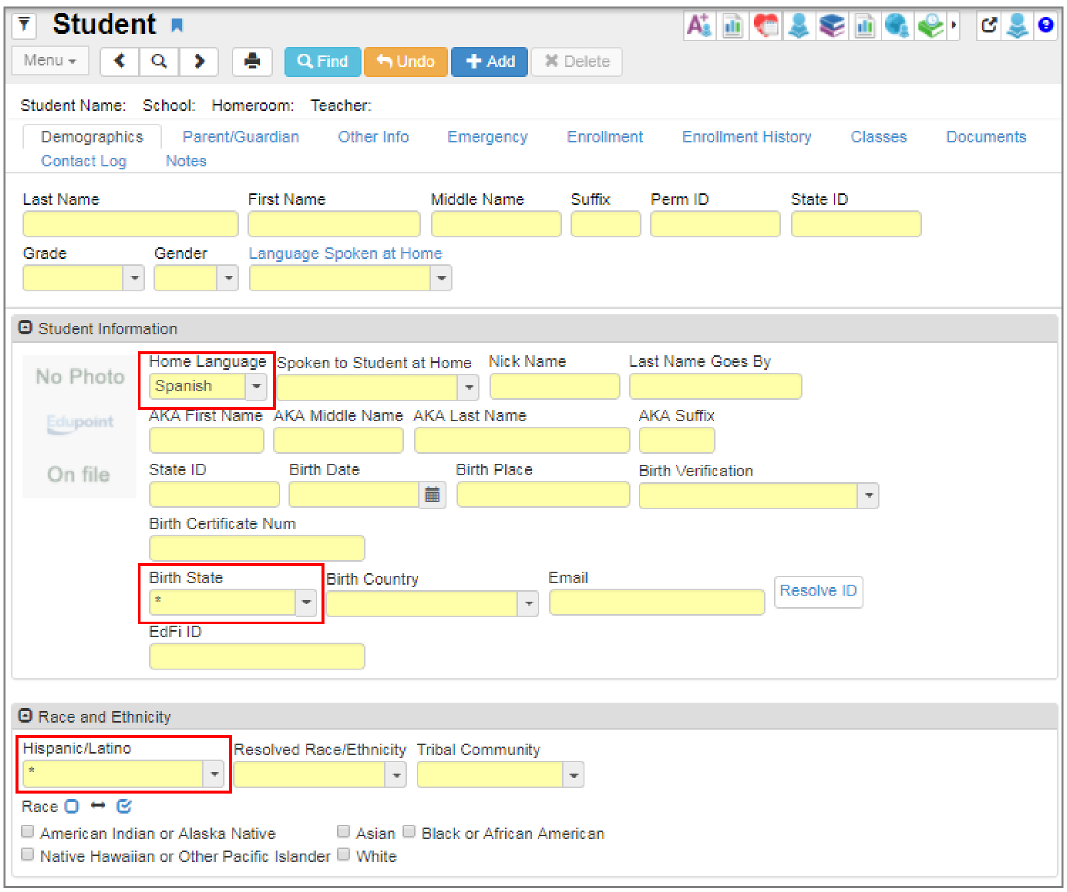
Current Focus

3. Open the screen with the information for the report. For example, open the Student screen if running a report that contains student information.

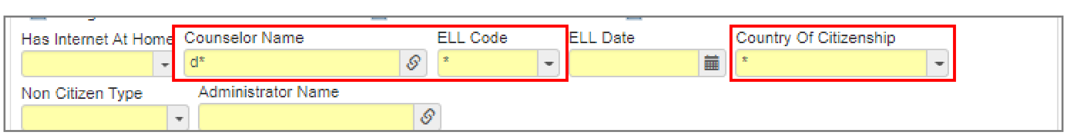
> Click if the screen is not already in Find mode. All of the fields are yellow when a screen is in Find mode.

4. Identify the fields to use in the query:
   - Enter an asterisk (*) in the field to include the field in the query, but not look for a specific value.

> **First**, **Middle**, and **Last Names** and **Perm ID** are included in all queries by default when launched in this manner and do not require an asterisk (*).
>
> - You can select fields on multiple tabs before clicking **Find** to create reports that are more complex.
> - You cannot include fields in grids in the Find mode results, such as the Phone grid on the Student screen or the Students grid on the Class Grades screen.

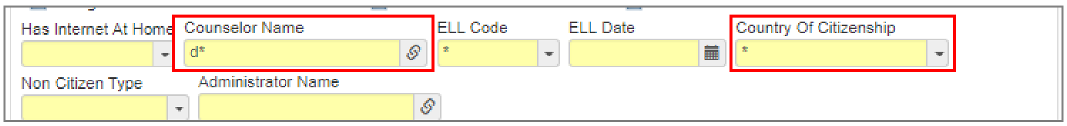


Student Screen, Demographics Tab



Student Screen, Other Info Tab

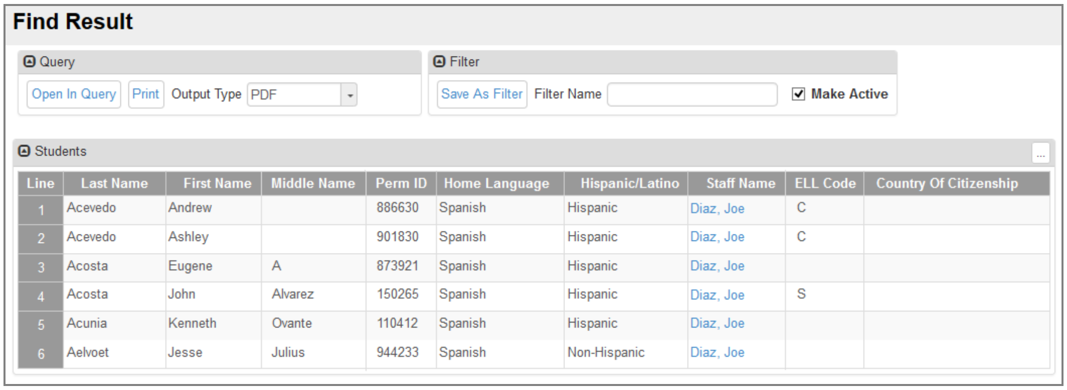
- Select the criteria from a drop-down in the appropriate field. For example, to show only students with a home language of Spanish, select *Spanish* from **Home Language**.
- Filter any field by adding conditions. For example, enter text or numbers into the field to limit the results.
  - To exactly match the text entered, enter the text or numbers.
  - To match by the starting portion of the field, enter the first part of the text to match followed by the asterisk (also known as a Starts With criteria). For example, entering *d** in the **Counselor** field lists all of the students who have a counselor whose last name starts with *d*.



Student Screen, Other Info Tab

  - To match the last part of the field, enter the asterisk followed by the text. This is also known as an Ends With criterion. For example, entering **di* in the **Counselor** field lists all of the students who have a counselor whose last name ends with *di*.
  - To find the text in any part of the field, enter an asterisk followed by the text followed by another asterisk. This is called a Contains criterion. For example, entering **dia** in the **Counselor** field lists all of the students who have a counselor whose last name contains *dia*.
- Use operators to filter the information included in the Find results. Operators include =, <, > , or < > (for not equal). This is particularly useful for date fields. For example, entering >= *9/1/15* in the **Enter Date** field returns all students whose enter date is greater than or equal to *9/1/2015*. You can use operators with numbers, dates, or text.

5. Click **Find** to view the results. The Find results open in a new screen. You can print the results as a report, save them as a filter, or open them in a query.



Find Result Screen

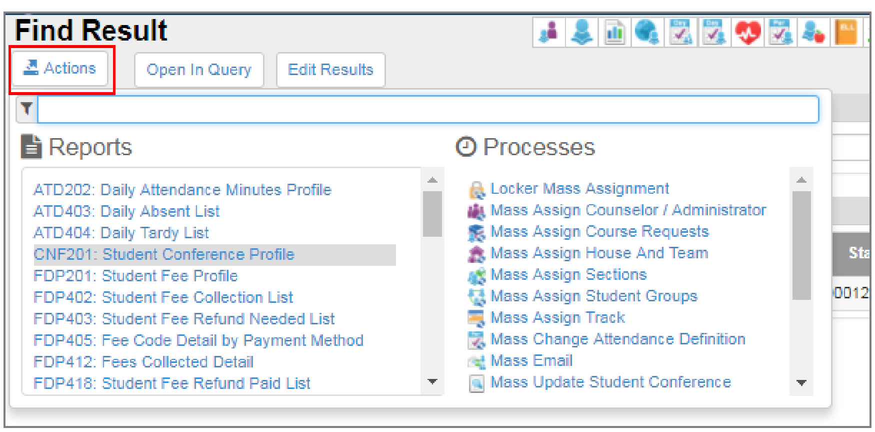
Some fields are mandatory for the Find results, regardless of where the asterisks are placed. For example, the Student screen always includes the student's **Last Name**, **First Name**, **Middle Name**, and **Perm ID**. The District Course screen always includes the **Course ID** and **Course Title**.

Using Synergy Actions

After executing a query, you can use Synergy Actions to modify the output beyond the boundaries of the report.

From the Query Results screen:

1. Click **Actions**.



Find Result Screen

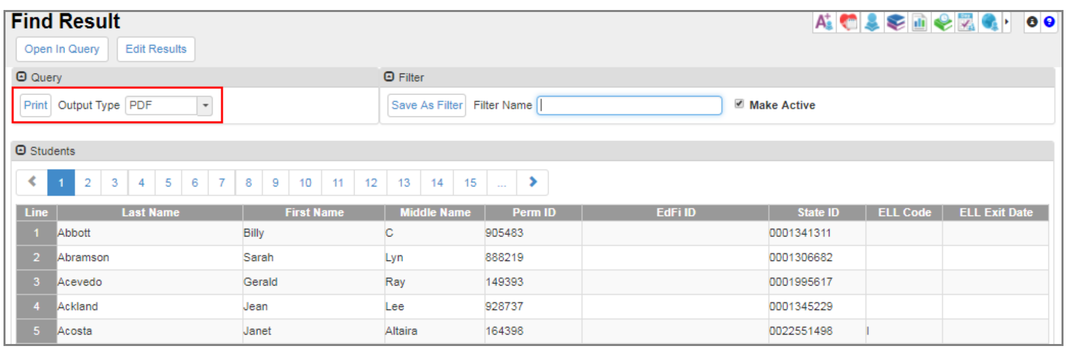
2. Select a report.
3. Make changes to the output using the report interface.
4. Click **Print**.

Using the Query Results

Print Query as a Report

You can print the results of the query using the Find Result screen.

1. Create a Simple Query.
2. Select the **Output Type**. By default, the results print as a PDF file to the screen. The possible file types are:
    - *TIFF Image* – A graphics file
    - *CSV* – A comma-separated values file
    - *Excel* – A Microsoft Excel version 1997-2003 format file
    - *HTML* – A web page in the standard Synergy SIS format
    - *Rich Text* – A document file (basically Microsoft Word format)
    - *Text File* – A plain text file with no formatting, in tab-delimited format
    - *XML* – An extensible markup language file
    - *PDF* – A Portable Document Format for Adobe Reader
3. Click **Print**.

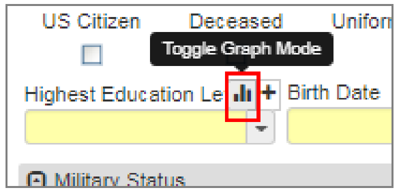


Find Result Screen

View as a Chart

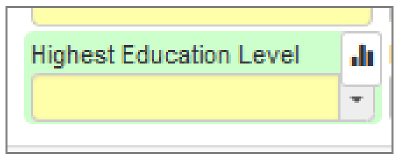
Find mode can also produce some basic charts based on the fields on the screen.

1. Hover your mouse near the right corner of a field to display the graph icon.



Parent Screen

2. Click the icon. The field is highlighted in green.



Parent Screen

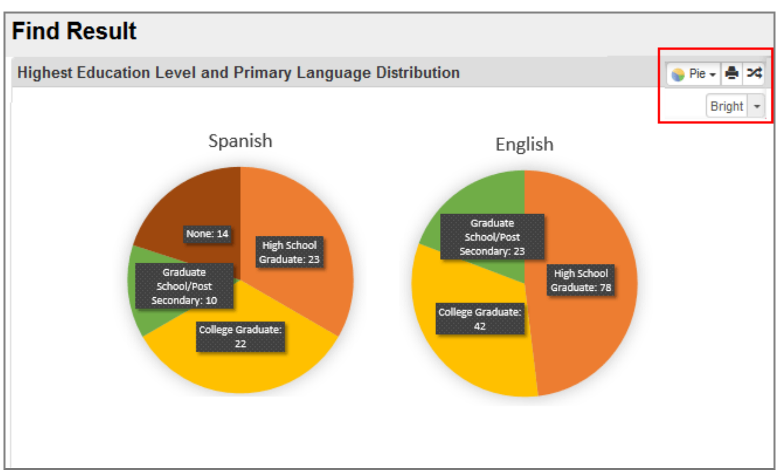
3. Select another field if needed.

> You can select a field from any two tabs of the same screen but you can select only two fields at a time.

4. Click **Graph**. The graphs open in the Find Result screen.

Parent Screen

5. Customize the graphs by type, color, and results or print the graph using the buttons in the right corner.

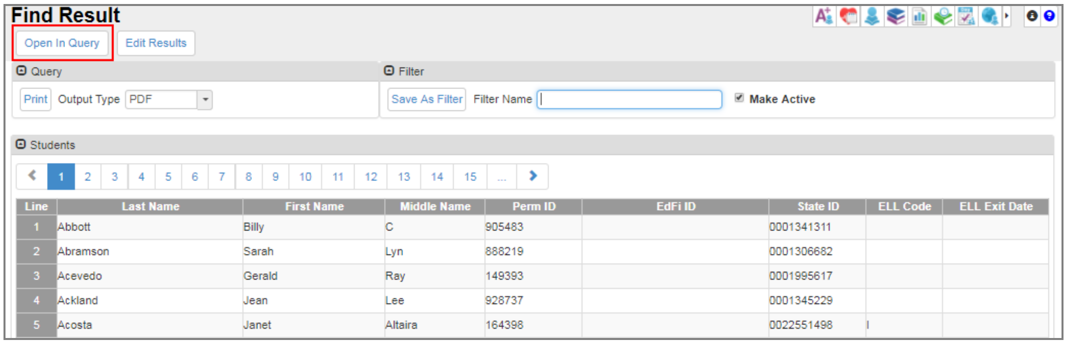


Find Result Screen

Create a Query

You can use Find mode to create a query that you can add functionality using the Query screen.

1. Create a Simple Query.
2. Click **Open in Query**. The results open in the Query screen.



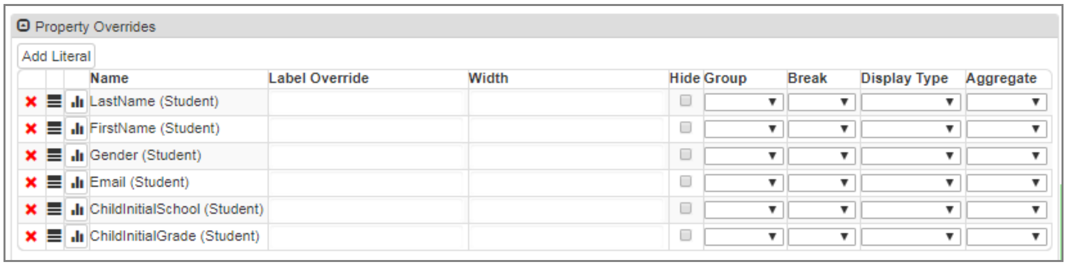
Find Result Screen

See Introduction to Query for more information about customizing the query.

Chapter 5: Customizing Query Output

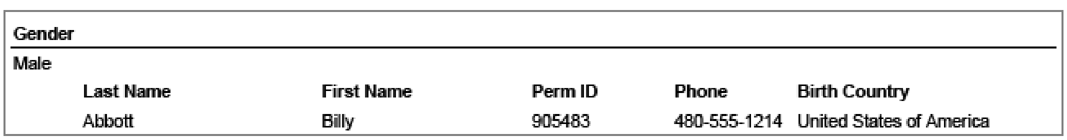
Customizing Query Output

You can make some simple customizations to the display of the query in the Property Overrides section on the **Columns**tab of the Query screen.



Query Screen

- **Label Override** – Enter a new heading to change the default label heading. The default heading is the name of the property, such as *Perm ID* or *Gender*.
- **Order** – Enter the new order number. If two properties have the same number, the order defaults to alpha by **Name**.
- **Width** – Enter the new width in inches. Works in PDF output only.
- **Hide** – Select the option to hide a property so that the query calculation uses it but does not display it on the report. Generally, this is for hiding the link fields in more complicated queries, as outlined in Advanced Queries. However, you can use it so that a property used for sorting or filtering does not display on the report.
- **Group** – Select the *Group #* to group options based on a property. You can use each of the properties listed to group the records with the same value in the property together. Because you can create multiple groups, Group 1 is the first property to group, Group 2 is the second, and so on. When you group a property, Synergy SIS removes it from the columns and places it at the top of each page where the group records display. This must be used with the **Break** option.



Gender

Male

Last Name	First Name	Perm ID	Phone	Birth Country
Abbott	Billy	905483	480-555-1214	United States of America

Grouped By Gender

> You must sort the query in the same order as the groups for groups to work correctly. See the Sort section for more information about sorting.

- **Break** – If using the **Group** option to group the records, insert a break into the report to allow the group information to display. While the group information displays at the top of the page, it is rare that the groups split exactly at the end of the page. Without the break, the records still group but the group does not display on the report.

- The *Group* break inserts information about the group and repeats the header information but does not start a new page at the start of each group.

Australia, Commonwealth of

Last Name	First Name	Gender	Perm ID	Phone
Laurence	Jonathan	Male	167792	480-555-9641

Belgium, Kingdom of

Last Name	First Name	Gender	Perm ID	Phone
Renard	Amanda	Female	950761	480-555-5668

Group Break

- The *Page* break starts a new page at the start of each new group in addition to repeating the group and header information.

Hope High School
Query Result Portrait

Year: 2009-2010
Report: QRY801

Birth Country

Australia, Commonwealth of

Last Name	First Name	Gender	Perm ID	Phone
Laurence	Jonathan	Male	167792	480-555-9641

Page Break

- **Display Type** – Select how to display properties that are drop-downs. Properties that are drop-downs have a **Code** and a **Description**. For example, the code for gender is *M* but the description is *Male*.
    - *Default* – Select to allow Synergy SIS to select the best fit for the property. Usually the default is the **Description** but in cases where the description is very long, the **Code** is usually used (such as with **Enter Codes**).
    - *Both* – Select to have the **Code** display before the **Description**, separated by a hyphen.

Last Name	First Name	Gender	Perm ID	Phone
Ahlstrom	Linda	F - Female	120451	480-555-0641
Waters	Victor	M - Male	153227	480-555-0325
Louden	Karen	F - Female	901958	480-555-2962

Display Both Option

- **Aggregate** – Select an option to display the information.
    - *None* – Select to remove the remove an option.
    - *Average* – Select to have the found records display an average of the records found. Query adds all values and calculates the average. You can only use with numeric values either integers or decimals.
    - *Count* – Select to display the number of found records instead of each individual record. Must be identical to be counted. For example, the parent **Relation** of *Mother* or **Grade** of *5*. If **Relation** returns, *Mother*, *Step-Mother*, and *Grandmother*, they are counted as three separated groups.
    - *Max* – Select to display the record with the maximum value.

- *Min* – Select to display the record with the minimum value.
- *Sum* – Select to add all the values of the found records. You can only use with numeric values either integers or decimals.

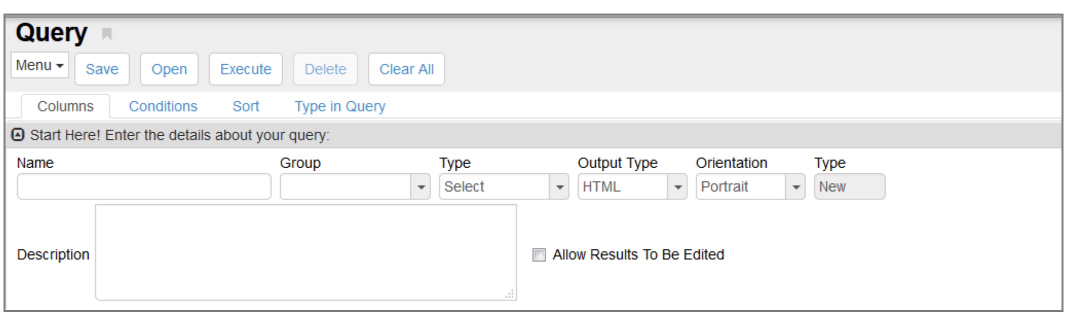
Save a Query

While the information selected on the **Columns**, **Conditions**, and **Sort** tabs is different for every query, you must save the basic information recorded at the top of the Query screen for every query.

1. Enter a short **Name** for the query.
2. Enter a longer explanation of the query in **Description**.
3. Select the **Group** to assign to the query. The **Group** categorizes the data from the query to make it easier to find in a long list. The groups are customized for each district using the Lookup Table Definition screen.

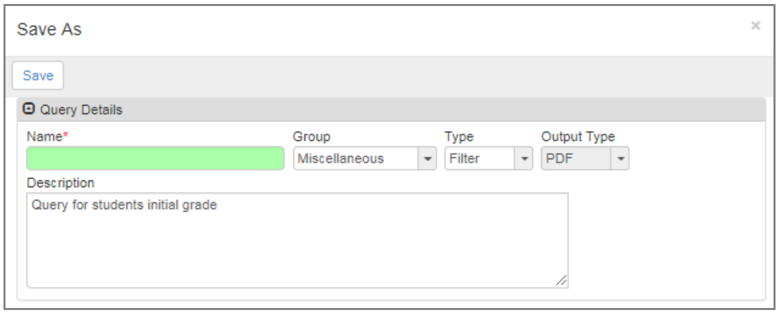
> The default **Type** of query is *Select*, which indicates this query shows information from the Synergy SIS database. You can change this default type but it is not recommended. *Update*, *Delete*, or *Insert* makes a direct change to the database. Only experienced users should attempt this.

4. The **Output Type** shows the default output format for the query.
   - *TIFF Image* – A graphics file
   - *CSV* – A comma-separated values file
   - *Excel* – A Microsoft Excel version 1997-2003 format file
   - *HTML* – A web page in the standard Synergy SIS format
   - *Rich Text* – A document file (basically Microsoft Word format)
   - *Text File* – A plain text file with no formatting, in tab-delimited format
   - *XML* – An extensible markup language file
   - *PDF* – A Portable Document Format for Adobe Reader
5. Select the **Orientation** to use in the printed output, either *Landscape* or *Portrait*. The Labels orientation is covered in the Labels section.



Query Screen

6. Save the Query:
    - Click **Save** to save the query to the list of queries for the logged-in user.
    - Select *Save As* from the **Menu** to rename the Query.



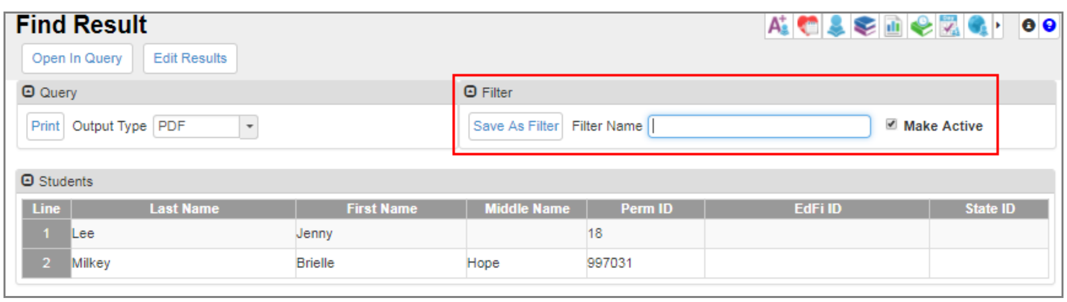
Save As Query Screen

Filters from Queries

You can use Find mode to create a filter to apply to a screen.Using the filter reduces the number of records displayed making it easier to scroll through the records. For example, you can apply a filter to the Student screen that finds all students in Grade 09 that are English Language Learners with a **Code** of newly identified.

Creating a Filter

1. Create a Simple Query.
2. Enter a **Filter Name**.
3. Select **Make Active** to turn the filter on immediately.
4. Click **Save As Filter** to save the new filter.

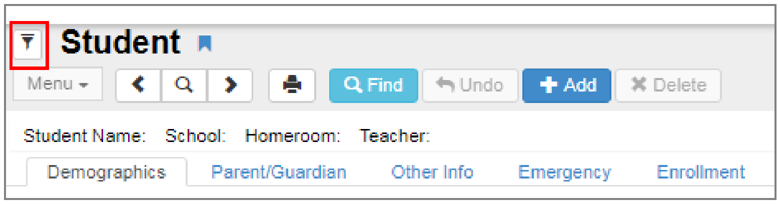


Find Result Screen

Applying Filters

All screens display . When a filter is activated, the screen displays .

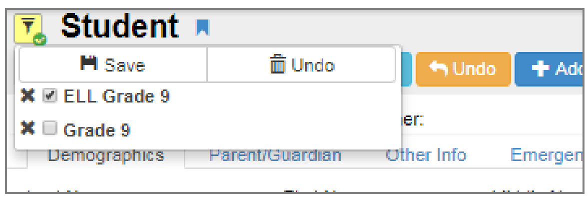
1. Click the icon.



Student Screen

2. Make a selection:
   - Select the filter name to activate it, deactivate it, or choose another filter.
   - Click **X** next to the filter to delete it.

> Deactivate the filter prior to deleting it to completely remove it from the system.



Student Screen

3. Click **Save**.
4. Click **Find** to view a list or use the scroll buttons to view the records that match the filter one at a time.

Save a Query as a Report

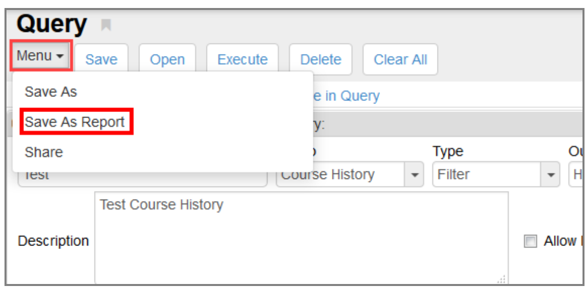
You can save queries as reports. One advantage to saving queries as reports includes allowing anyone with access to the report to run it without having to have extensive knowledge in writing or running queries. You can also schedule reports to run at regular intervals. You can auto-populate the student information in user-defined reports.

See Reports for more about working with reports

A report saved from a query obeys all conditions saved in the query. To update the report, remove the conditions from the query and save the report again.

To save a query as a report:

1. Select *Save As Report* from the **Menu**. The Save User Report screen displays.



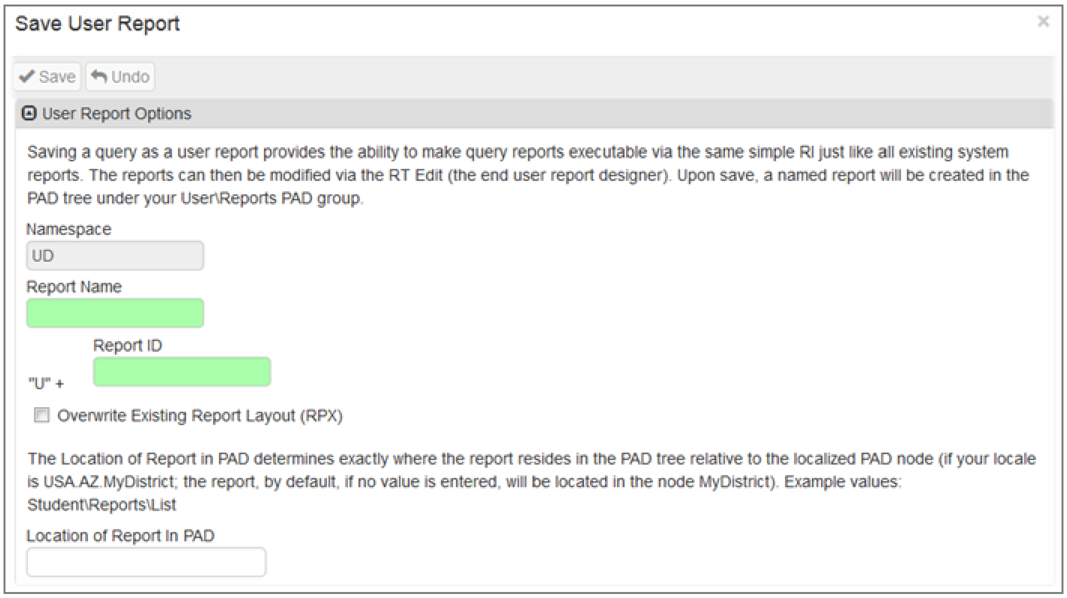
Query Screen

2. Enter the **Report Name** as you want it to display in the User PAD Tree.
3. Enter a **Report ID**.
4. Select whether or not to **Overwrite the Existing Report Layout** and to **Overwrite the Existing Query Data** by selecting or clearing the boxes if a report exists with the same **Report ID**.

The report layout is the information defined by the **Output Type** and the Property Overrides. The query data is the actual properties selected.

5. Select where to save the report in the User PAD tree by entering the folder structure in the **Location of Report in PAD** field. To indicate subfolders, separate folder names with a \.

   > See Managing User-Defined Reports for more information about the User PAD Tree.



Save User Report Screen

6. Click **Save**.

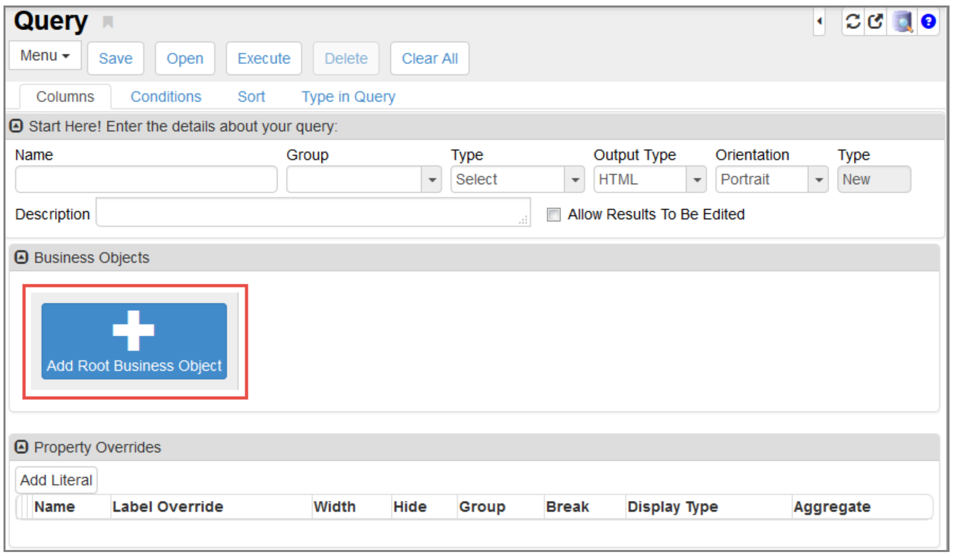
Auto-Populate Student Information in User Defined Reports

User-defined report screens can auto-populate the **Perm ID**, **First Name**, and **Last Name** fields with the information of the last student referenced in the current Synergy session.

Student User-Defined Report That Populates Student Information

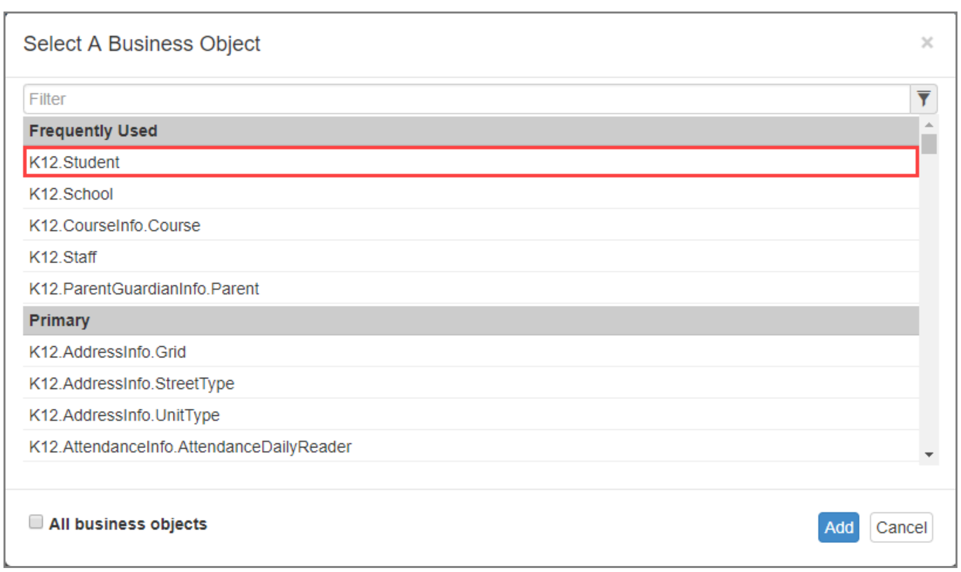
The Student (STU) user-defined report must include the *K12.Student* business object (BO) to auto-populate the student's **Perm ID**, **First Name**, and **Last Name** fields on the user-defined report screen.

1. Navigate to **Synergy SIS > Query > Query**.
2. Click **Add Root Business Object** to open the Select A Business Object window.



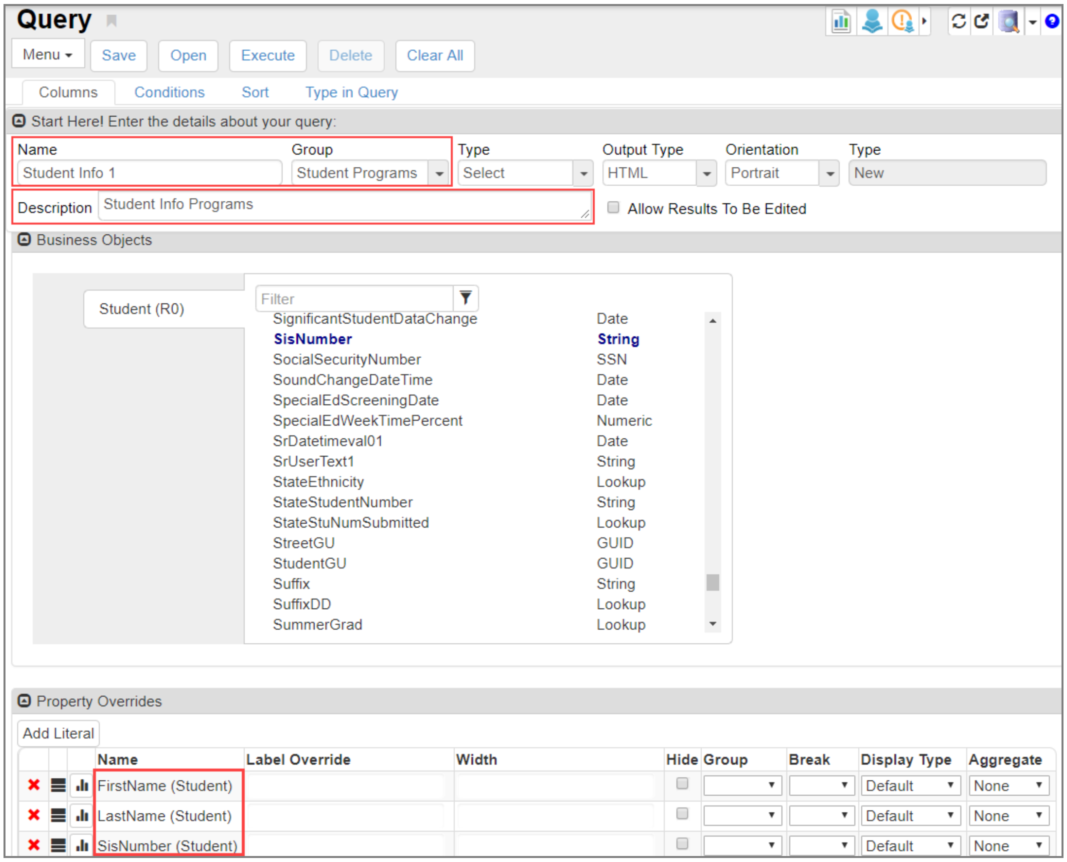
Query Screen

3. Select *K12.Student* BO in the Frequently Used section.



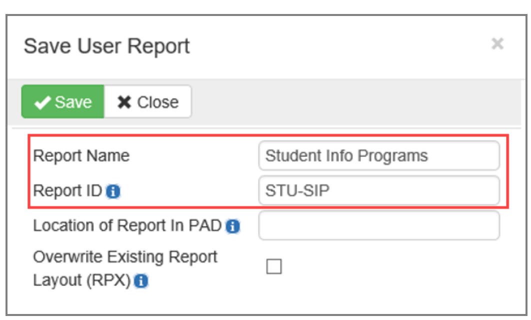
Select A Business Object Window

4. Select the properties: **FirstName**, **LastName**, **SisNumber**, and any other necessary property. The selected properties display in the Property Overrides section.
5. Enter the query **Name**.
6. Select a **Group**.
7. Enter the query **Description**.



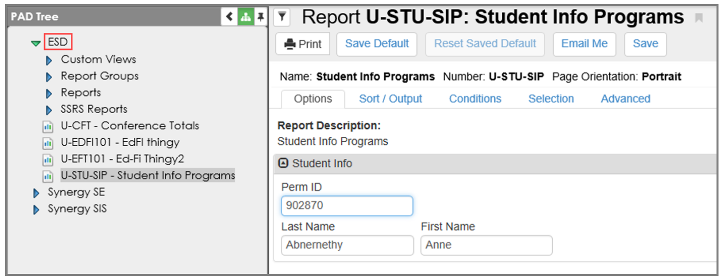
Query Screen

8. Click **Save**.
9. Select *Save As Report* from the **Menu**.
10. Enter the **Report Name**.
11. Enter the **Report ID**.
12. Enter the **Location of Report In PAD** if needed.



Save User Report Window

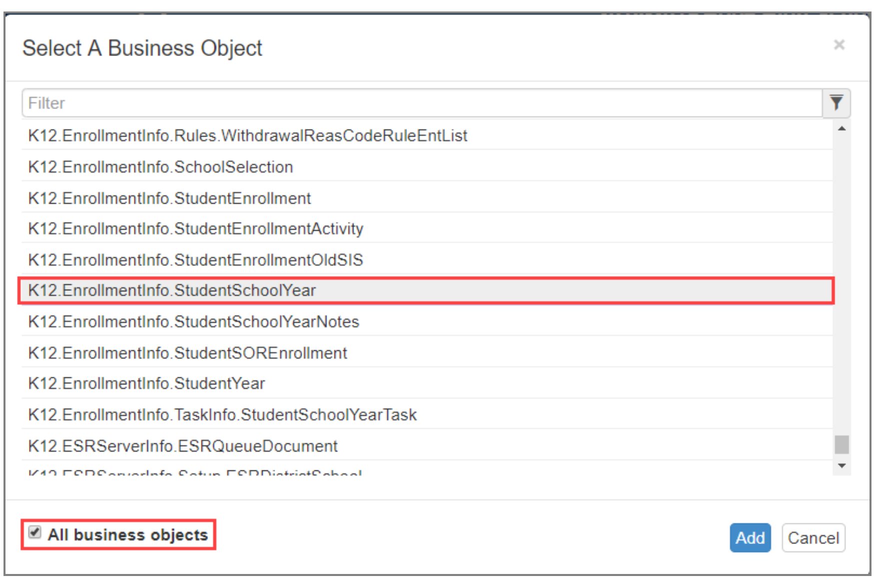
13. Click **Save**.

> When you select the user-defined report from ESD on the PAD Tree, the **Perm ID**, **Last Name**, and **First Name** are blank unless the user queried a student record during the current Synergy session. These fields auto-populate with the student's information when a query runs.
>
> 
>
>
> *User-Defined Report Interface Screen*

Student School Year (SSY) User-Defined Report That Populates Student Information

The Student School Year (SSY) user-defined report must include the *K12.EnrollmentInfo.StudentSchoolYear* BO with the property *StudentGU* to auto-populate the student's **Perm ID**, **First Name**, and **Last Name** on the UD Report screen. However, the fields do not display on the UD report unless the properties are selected from the joined *K12.Student* BO.

1. Navigate to **Synergy SIS > Query > Query**.
2. Click **Add Root Business Object** in the Business Objects section to open the Select A Business Object window.
3. Select **All business objects**.
4. Select *K12.EnrollmentInfo.StudentSchoolYear* BO from the list.



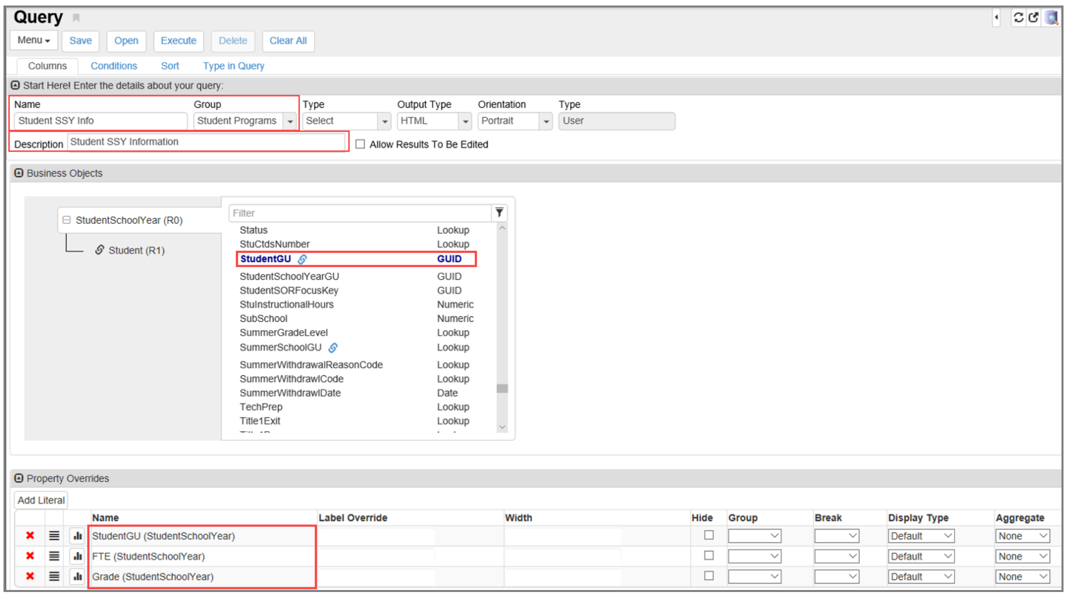
Select A Business Object Screen

The *StudentSchoolYear* BO properties display in the Business Objects section.

5. Select the *StudentGU* property. The selected properties display in the Property Overrides section.

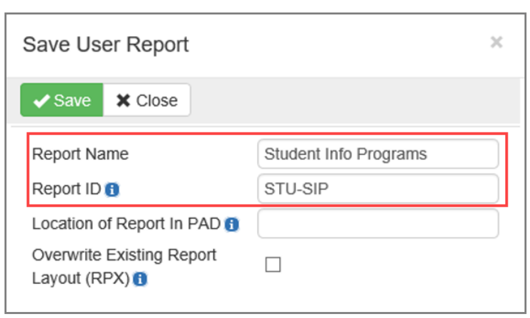
> When you select *StudentGU*, the *K12.Student* BO is automatically joined to the *K12.EnrollmentInfo.StudentSchoolYear* BO.

6. Select other appropriate properties. In this example, *FTE* and *Grade* were selected.
7. Enter a query **Name**.
8. Select a **Group**.
9. Enter the query **Description**.



Query Screen

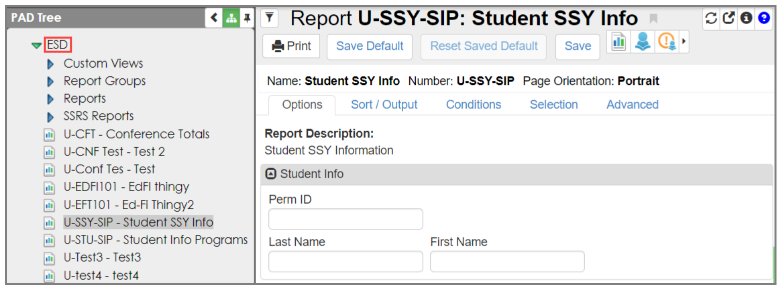
10. Click **Save**.
11. Select *Save As Report* from the **Menu**.
12. Enter the **Report Name**.
13. Enter the **Report ID**.
14. Enter the **Location of Report In PAD** if needed.



Save User Report Window

15. Click **Save**.

When you select the user-defined report screen from ESD on the PAD Tree, the **Perm ID**, **Last Name**, and **First Name** fields are blank unless the user queried a student record during the current Synergy session. These fields auto-populate with the student's information when a query runs. The fields display on the report only when their properties are selected from the joined *K12.Student* BO in query.



User-Defined Report Interface Screen

Chapter 6: Basic Query

Introduction to Query

A query is a way to define a custom report in Synergy SIS. A query can pull together any information in Synergy SIS.

- You can save the query so you can run it more than once.
- You can save it as a report so you can schedule it to run in the future.

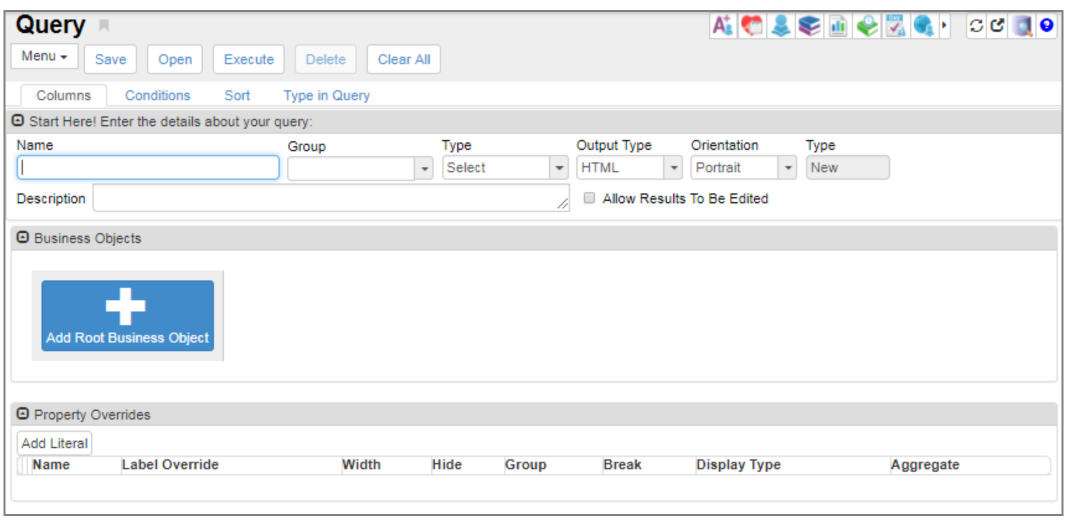
Navigate to **Synergy SIS > Query > Query**.

The Query screen contains the following tabs:

- **Columns** – Selects the pieces of information included in the query. It can also customize how the information displays. It is called **Columns** because the information selected displays in the output report in columnar format.
- **Conditions** – Filters the information included in a query. For example, if you select student information on the **Columns** tab, the **Conditions** tab can define which students' information to include.
- **Sort** – Defines the order the information displays.
- **Type in Query** – Use to enter a query by typing it in directly instead of using the first **Columns**, **Conditions**, and **Sort** tabs to guide the query construction.

Click **Validate** on the **Type in Query** tab for any query to verify it is formatted it correctly.

Typing a query is only for advanced users who are familiar with the conventions of the query language in Synergy SIS.



Query Screen

On the **Column** tab, use the Business Objects section to find the data to display in the report and the Property Override section to display the data.

- Business Objects allow you to access the SQL database in a secure and safe manner.
- Properties are columns within the SQL database tables.

Defining the Content

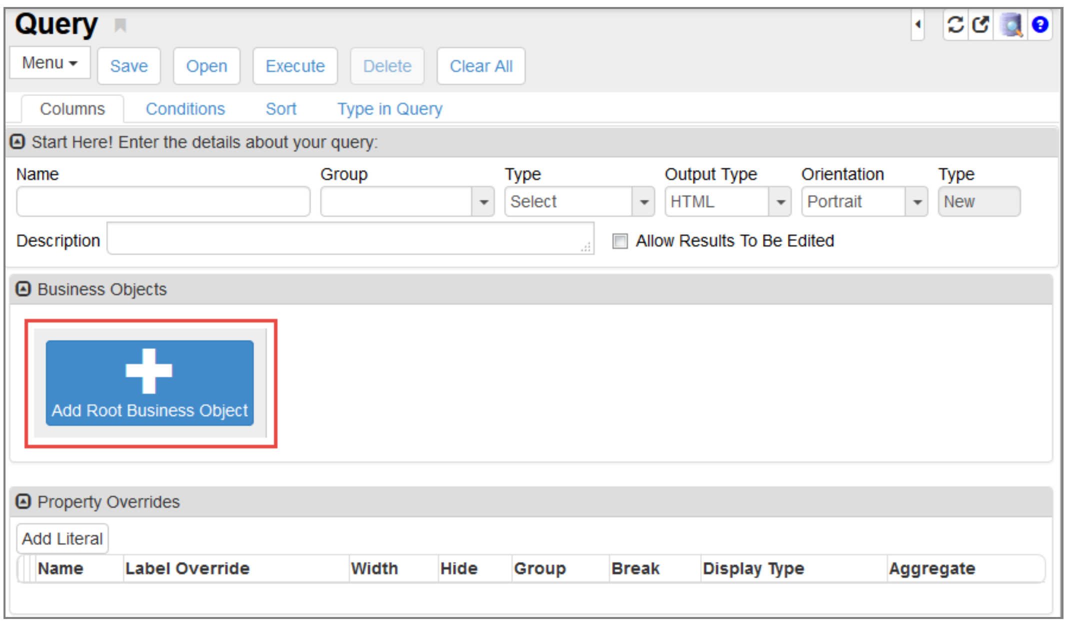
The first part of creating a query is selecting what information displays in the final report. You can include any of the information contained within Synergy SIS in a query. Selecting the information for the query is done on the **Columns** tab.

You can begin a Query Using Find. Click **Open as Query** on the Find Result screen to view the Query screen with Business Objects and Property Overrides already populated.

Selecting Properties

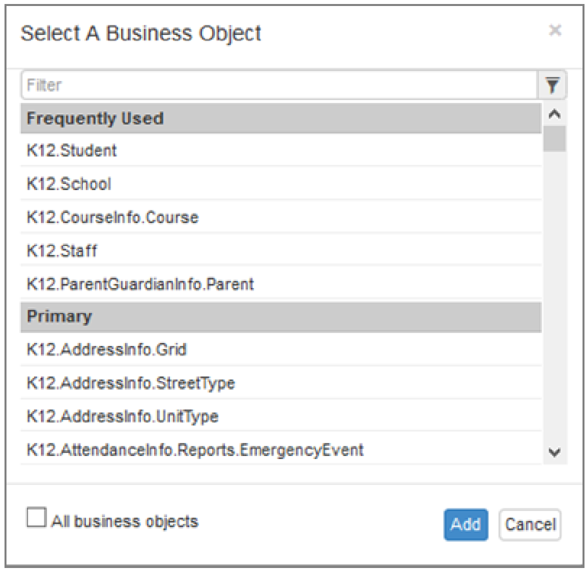
To select what information to include in the query, complete the following steps:

1. Click **Add Root Business Object** in the Business Objects section to open the Select a Business Object window.



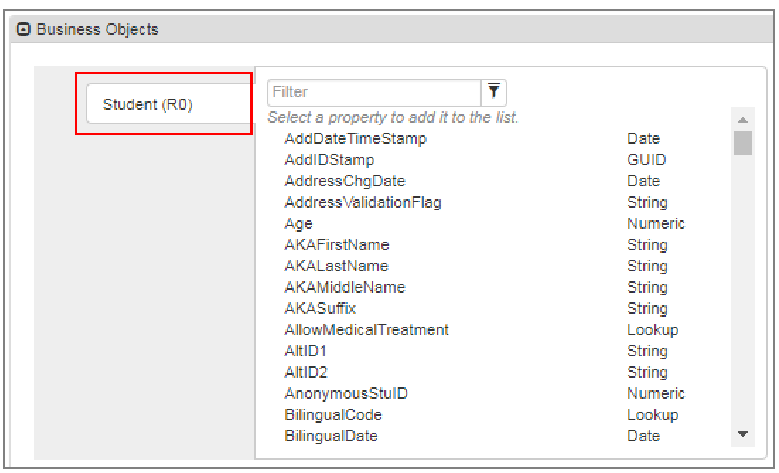
Query Screen

2. Click the name of the business object to use in the query. There is a Frequently Used list of business objects or tables, such as Student, Course, etc. and a list of Primary business objects.



Select A Business Object Window

The selected object displays on the left and the Properties associated with the selected business object display on the right. Properties are pieces of information about the selected business object, such as Birth Date or Last Name for the Student object.

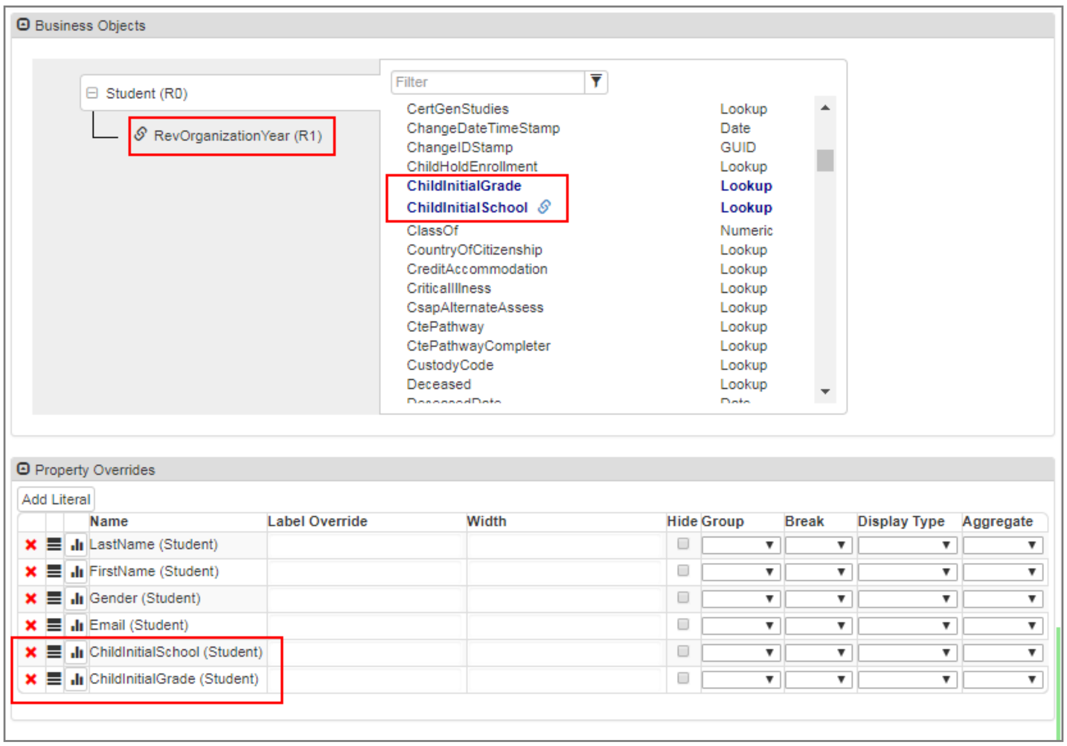


Query Screen

3. Click the name of the Properties to include in the query.
    - You can scroll through the list of properties on the right.
    - Some Business Objects contain .
        - Click to select the business object only. The Business Object displays in the Business Objects tree.

          See Create a Query Using a Link Field for more information about using linked fields.

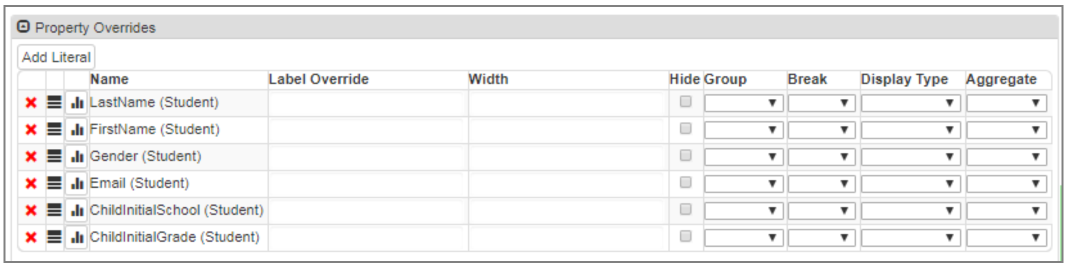
        - Click the name to select the property to select both. The name displays in blue and the property displays in the Property Overrides section.



Query Screen

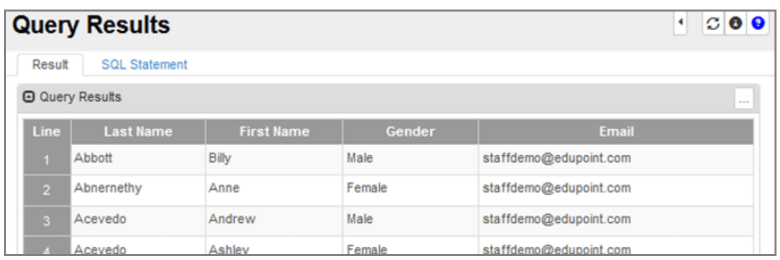
4. Continue adding properties until all the needed information displays in the Property Overrides section. At this point, you created a basic query.
   - Click **Clear All** to clear the query and start over.
   - Drag and drop a property to a new location to reorder the columns.
   - Click **X** next to the property to delete a property from the report. The property is instantly removed from the list.

> See Advanced Queries for instructions on how to use show **All Business Objects**, **All Properties**, and the **Add Literal** button.



Query Screen

5. Click **Execute** to see view the results of the query. The query displays in the format selected (the default is HTML). If the information is correct, you can save the query or make further customizations.



Query Results Screen

> You can click **Execute** as many times as needed to test the query.

6. Click **Save**.

> See Save a Query for more information.

Applying Conditions to Limit Output

Setting conditions for a query limits the information included on the query to the records that match the condition or conditions.

Conditions compare each record that Synergy SIS would normally include in the report to the condition. If the record matches the condition, Synergy SIS includes it in the report.

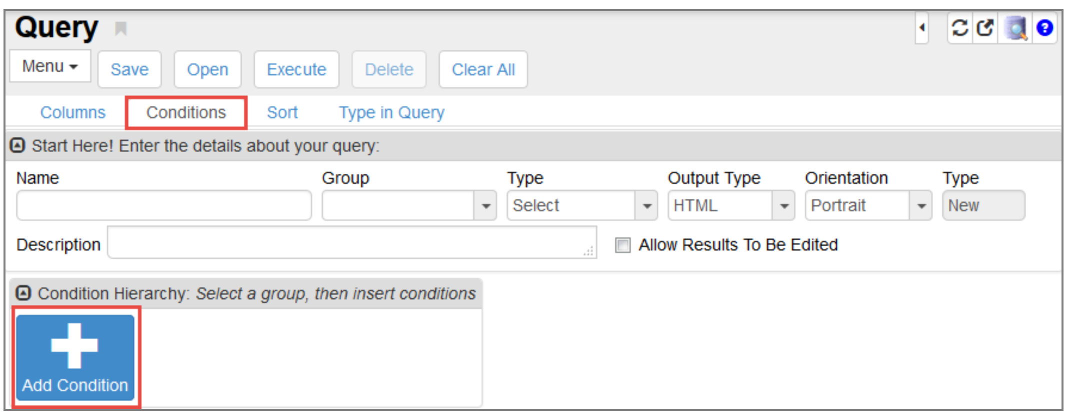
A condition has three main parts:

- Which property in the report to examine
- The mathematical operation to use, such as *Equal* or *Not Equal*
- The value to use as the criteria

Written out, it would look like this:

Property = Value or **Property ≠ Value**

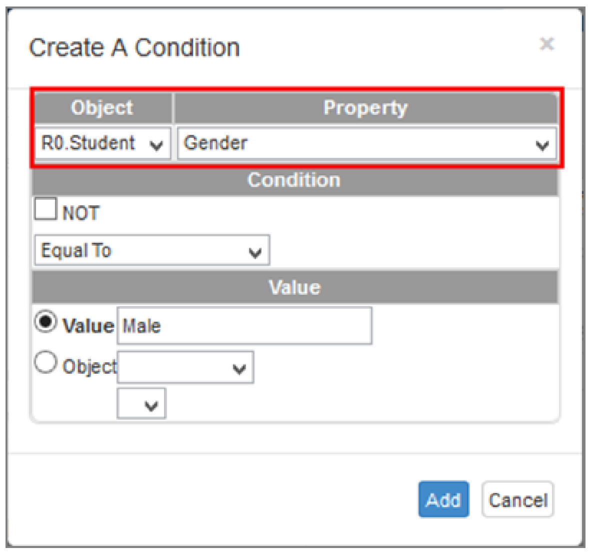
1. Select the **Conditions** tab.
2. Click **Add Condition**. The Create a Condition window opens.



Query Screen, Conditions Tab

3. Create the condition.
   - **Object** – Select the object with the property to use. The only objects available are those objects added to the query.
   - **Property** – Select the property based on the selected **Object**.

> You can use any of the properties of the object for the condition and not just the properties added to the query.
>
> Any property contained in the objects being queried can be used to condition the output regardless of whether the property is displayed in the output (are not listed in **Property Overrides** section.)



Create A Condition Window

   - **Operator/Not** – Set the condition to one of the following:

> Selecting *Not* adds a not before the operator. For example, if you set the **Operator** to *Equal To* and select **Not**, the operation becomes Not Equal To.

     - *Contains* – The property selected must contain the value entered. For example:
       - If you select *Email* as the property and enter 'yahoo' for the **Value**, the report lists all students with an email address that contains the letters yahoo anywhere such as, billy@yahoo.com, melissa@yahoo.com.
       - If you add **Not**, it lists all email addresses without yahoo in them such as, george@gmail.com, sandra@hotmail.com.

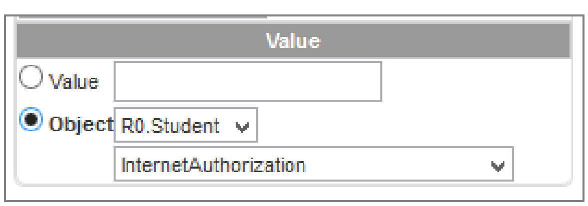
- *Equal To* – The property you select must be exactly the same as the value entered. For example:
  - If you select *Home Language* as the property and enter *English* as the **Value**, the report lists all students whose home language is English.
  - If you add **Not**, it lists all students whose home language is not English.
- *Ends With* – The property you select must end with the value entered. For example:
  - If the section ID were created with the Course and Period option and you enter *01* as the **Value** for the section ID property in a report, it lists all sections for period 01.
  - If you add **Not**, the report lists all sections not in period 01.
- *Greater or Equal* – The property you select must be greater than or equal to the value entered. For example:
  - If you select *Expected Graduation Year* as the property and enter the **Value** *2009*, the report lists all students with an expected graduation year of 2009 or later (2009, 2010, and so on).
  - If you add **Not**, the report lists only students with an expected graduation year of 2008 or earlier.
- *Greater Than* – The property you select must be greater than the value entered. For example:
  - If you select *Expected Graduation Year* as the property and enter the **Value** *2009*, the report lists all students with an expected graduation year of 2010 or later (2010, 2011, and so on).
  - If you add **Not**, the report lists only students with an expected graduation year of 2009 or earlier.
- *In List* – The property you select must include one of the values entered in the **Value** field. Enter list values in the **Value** field and separate them with a comma. For example:
  - If you select *Grade* as the property and enter the values *1*, *2*, *3*, the report lists all students in grades 1, 2, or 3.
  - If you add **Not**, the report lists students not in grades 1, 2, or 3.
- *Less Than* – The property you select must be less than the value entered. For example:
  - If you select *Age* as the property and enter the **Value** *15*, the report lists all students younger than 15 (14, 13, and so on.).
  - If you add **Not**, the report lists only students 15 or older (15, 16, 17, and so on).

        - *Starts With* – The property you select must start with the value entered. For example:
            - If you select *Enter Code* as the property and enter the **Value** *R*, the report lists all students whose enter code started with R (R1, R2, R3, and so on).
            - If you add **Not**, it lists all students with enter codes that do not start with R (E1, E2, and so on).

- **Value** – Enter the value to use for the condition. The value can be numbers or letters and it is not case-sensitive.
    - When using a value from a drop-down, enter either the **Code** or its **Description**. For example, for **Gender** enter either *M* or *Male*.
    - When entering a value for a property with a checkbox, use *Y* for selected or *N* for cleared.
    - When entering a date, enter it in *MM/DD/YY* or *MM/DD/YYYY* format.

> - When using dates in a condition, you must enter a full date as a value, such as 09/01/2009.
> - To filter a date, the most useful operators are:
>   - *Equal To* – List all students who have the same enter date
>   - *Greater Than* – List all students who started after a specific date
>   - *Greater Than or Equal* – List all students who started on or after a specific date
>   - *Less Than* – List all students who started before a specific date
>   - *Less Than or Equal* – Llist all students who entered on or before a date

- **Object** – Select the object that has a status for the property, such as an error code. First, select the business **Object**, then select the property below it.



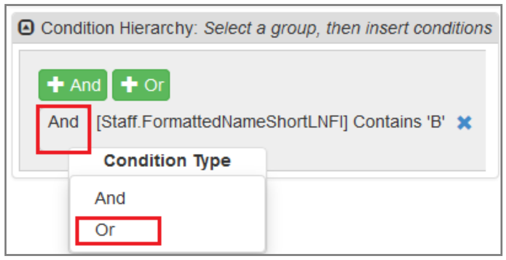
Query Screen, Conditions Tab

4. Click **Add** to save the condition to the query.

Condition Groups

By default, conditions are added as an **And** condition type. After adding the And condition type, you can switch it to an **Or** condition type by right-clicking on the word **And** and clicking **Or** in the **Condition Type** menu.

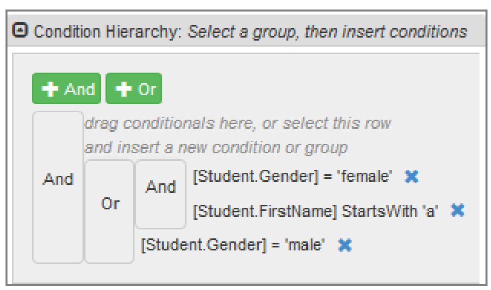
- An **And** condition type means that the records must meet both conditions in the group for the query to include it.
- An **Or** condition type means that the records must only meet one of the conditions in the group for the query to include it.



Query Screen, Conditions Tab

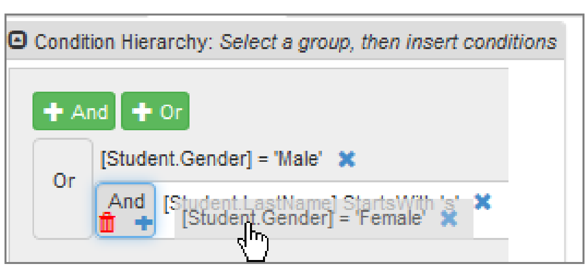
Changing the Condition Hierarchy of the Condition Group

- Click [+ And] [+ Or] to insert a condition group.



Query Screen, Conditions Tab

- Click + in the **And**/**Or** box to insert a condition. Groups can be nested and you can add an unlimited number of groups and conditions to create very complicated conditions.
- Click X to remove the condition.
- Click the trash icon to delete the condition group.
- Rearrange conditions by dragging them with your mouse.

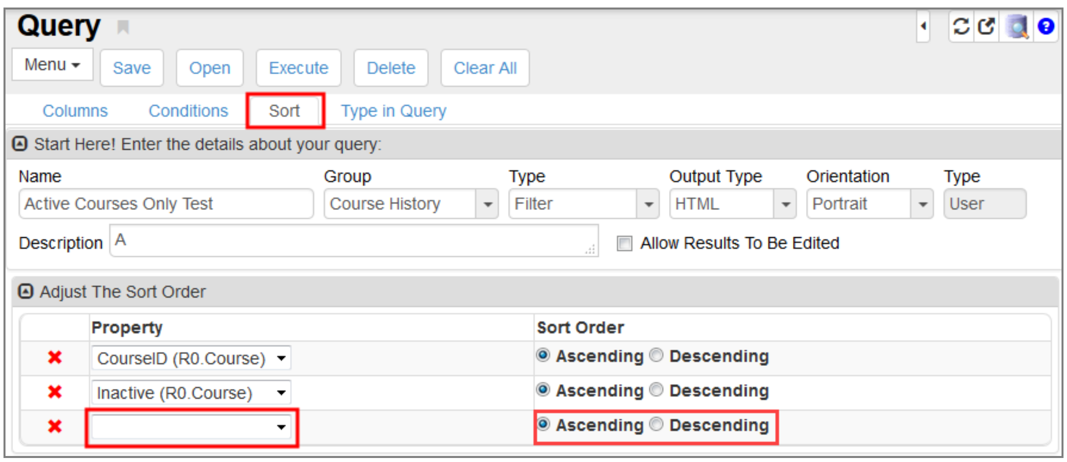


Query Screen, Conditions Tab

Selecting Sort Order

Setting the sort order determines the display order of the records included in the query. If you do not select a sort order, the records sort by the default sort order of the primary object. For example, the Student object always sorts by **Last Name** unless otherwise chosen.

1. Click the **Sort** tab.
2. Select the **Property**. Only the properties already selected for use in the query on the **Columns** tab are available.
3. Change the direction of the sort by selecting it from the **Sort Order** column if needed.
   - **Ascending** sorts from smallest to largest value or from A to Z.
   - **Descending** sorts from largest to smallest or from Z to A.



Query Screen Sort Tab

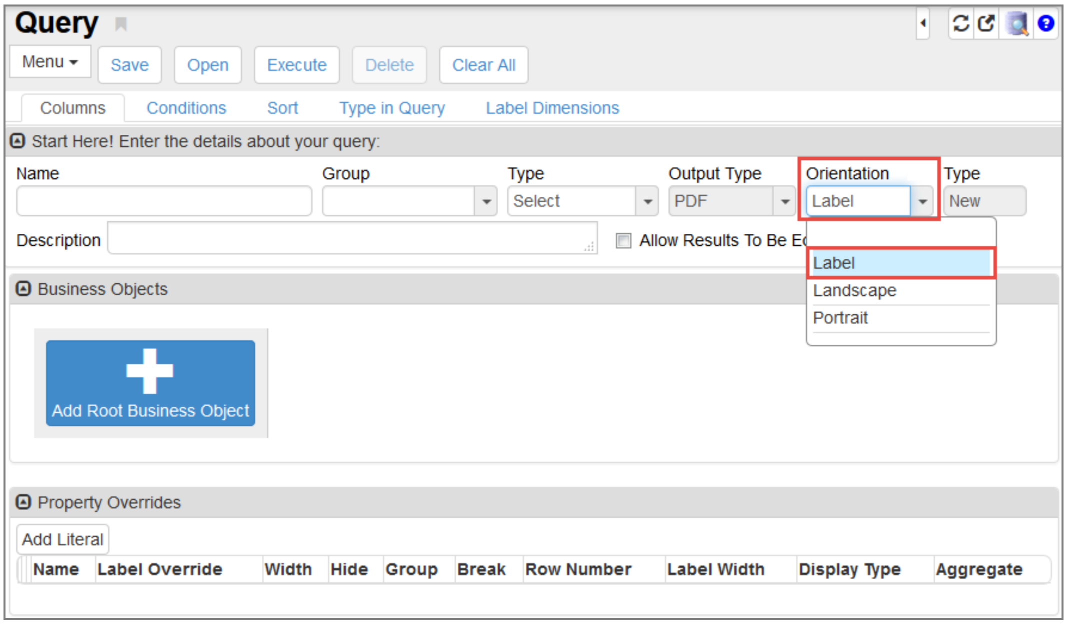
4. Add additional properties in the same way. The sort occurs in the displayed order of the properties on the **Sort** tab. For example, in the sort shown above, the properties sort by Last Name, then First Name.

> Click **X** to delete a property from the sort. It no longer displays.

Labels

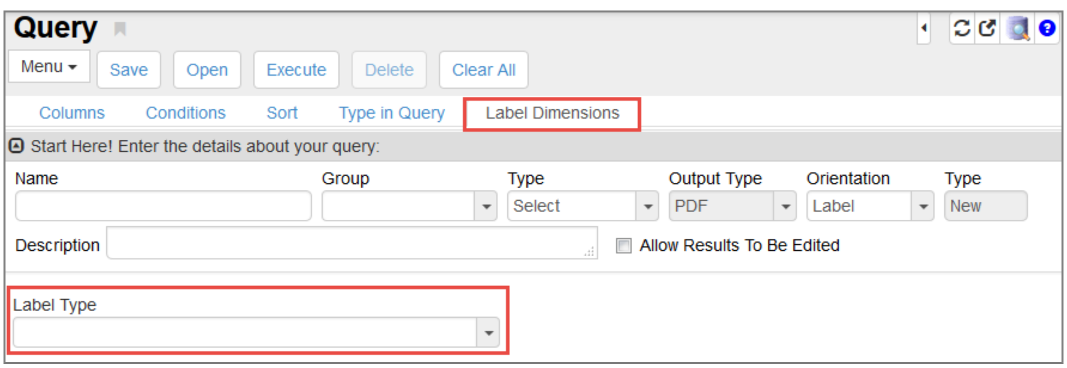
Labels are a special category of queries that allow queries to print on standard label formats.

1. Select the columns, conditions, and sort as needed to create the query.
2. Select *Label* from **Orientation**.



Query Screen

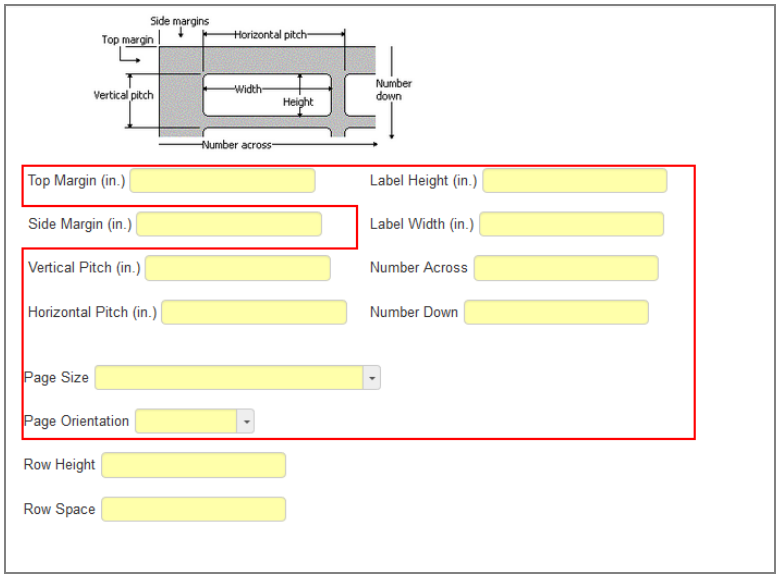
3. Select the **Label Dimensions** tab to select and format the label.
4. Select the **Label Type** to use.



Query Screen, Label Dimensions Tab

> Labels are defined at **Synergy SIS > System > Setup > Label Detail**. See the *Synergy SIS – System Administrator Guide* for more information about defining labels.

Only adjust **Top Margin (in.)**, **Label Height (in.)**, **Side Margin (in.)**, **Label Width (in.)**, **Vertical Pitch (in.)**, **Number Across**, **Horizontal Pitch (in.)**, **Number Down**, **Page Size**, and **Page Orientation** if printing custom labels or the commercial labels need a slight adjustment after testing the settings.

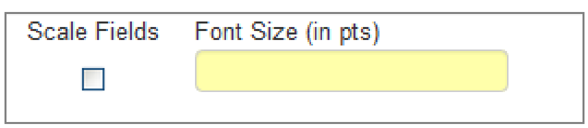


Query Screen, Label Dimensions Tab

5. Enter the value in **Row Height** to specify how much space each of the fields needs on a label.
6. Enter a value in **Row Space** to specify how much white space is between each row.

The system calculates the height automatically if **Row Height** and **Row Space** are blank.

7. Select **Scale Fields** to shrink or expand the fields in the label to fit the selected label size.
8. Enter a minimum **Font Size** if needed.



Query Screen, Label Dimensions Tab

Chapter 7: Managing Queries

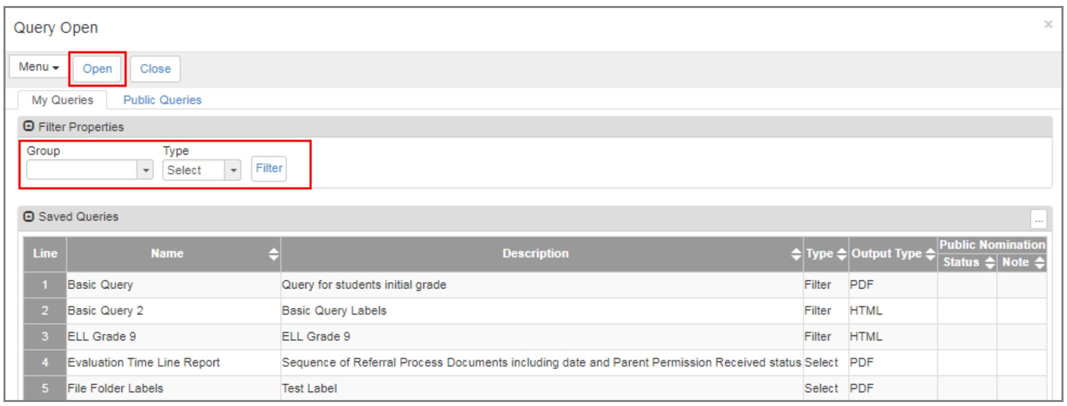
Open a Query

You can open any query you saved in your list of queries or you can open a public query.

1. Navigate to **Synergy SIS > Query > Query**.
2. Click **Open**. The Query Open screen displays.

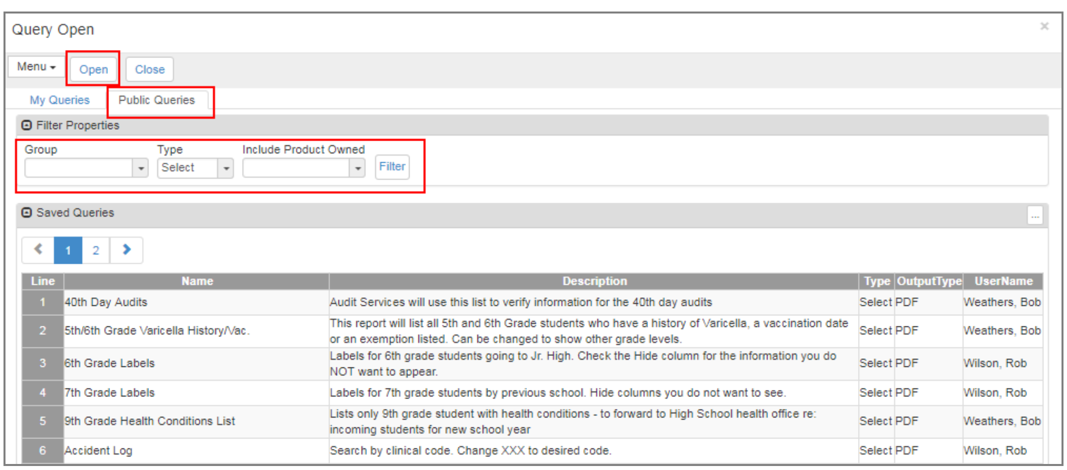
Query Screen

- The **My Queries** tab lists all of the queries you saved.
- To filter the list of queries, select the **Group** and/or **Type** of query and click **Filter**.
- To open one of your queries, double-click the row or select a query and click **Open**.



Query Open Screen

3. Select the **Public Queries** tab to select a query saved for everyone to use in Synergy SIS.
   - To filter the list of public queries, select the **Group**, **Type**, and/or **Include in Product Owned** and click **Filter**.
   - To open a public query, double-click the row or select a query and click **Open**.



Query Open Screen, Public Queries Tab

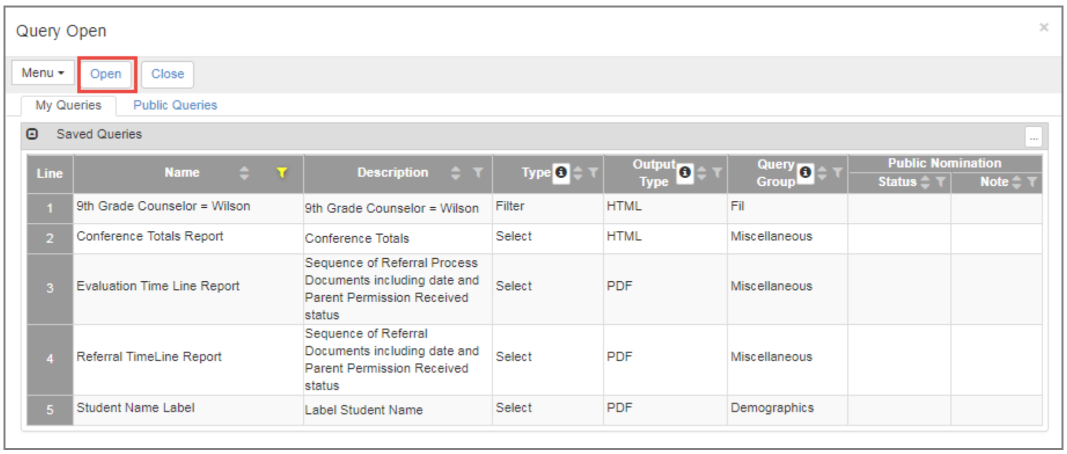
Delete a Query

To delete a query from the list of saved queries for the current user:

1. Navigate to **Synergy SIS > Query > Query**.
2. Click **Open**. The Query Open screen displays.

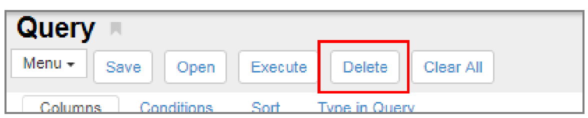
Query Screen

3. Double-click the row for the query to delete or select it and click **Open**.



Query Open Screen

4. Click **Delete**.

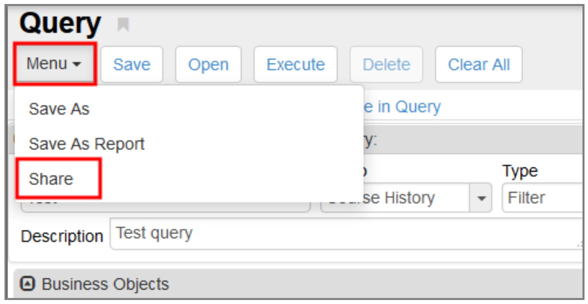


Query Screen

Share a Query with Other Users

The *Share* option provides users with a quick way to nominate a query for public use.

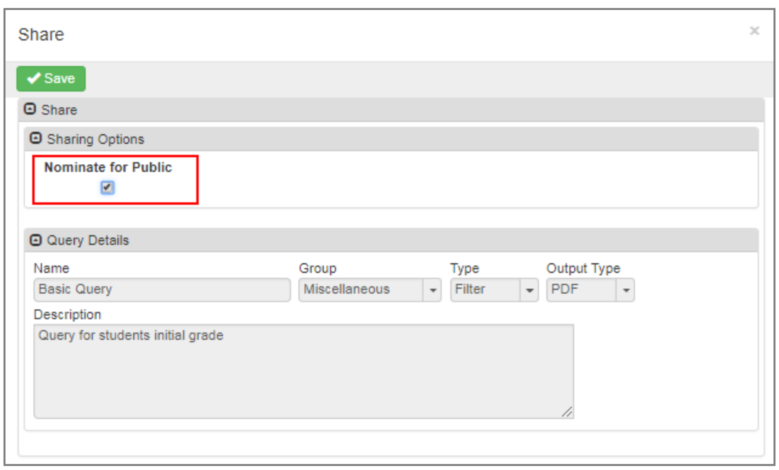
1. Select *Share* in the **Menu** on the Query screen.



Query Screen

2. Select **Nominate for Public** to select the query for public use. The query displays on the **Nominated Queries** tab of the Query Admin screen for use by all users.

> Public queries must be reviewed and approved by administrators before the query is listed as a public query. See Manage Public Queries for more information about public queries.



Share Screen

Manage Public Queries

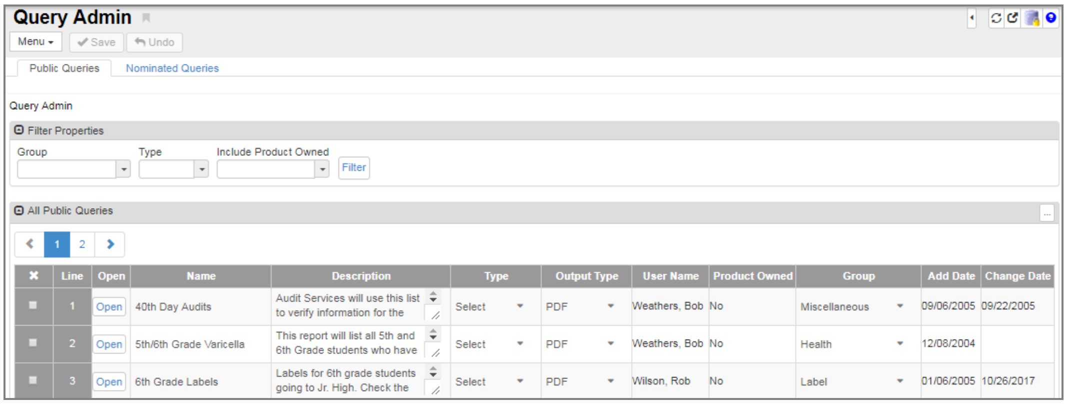
When users create queries that all the Synergy SIS users in their district can benefit from, they can nominate to share them as public queries. Use the Query Admin screen to manage the public queries and review the nominated queries.

Public Queries

1. Navigate to **Synergy SIS > Query > Query Admin**. All of the queries approved for the public queries display on the **Public Queries** tab.
2. Select the filter to apply from the **Group**, **Type**, and/or **Include Product Owned** queries and click **Filter**.
3. Edit the information about the query directly in the row.
    - You can edit the **Name** and **Description** by typing your changes in the fields. Include any special instructions about how to customize the report in **Description**.
    - You can select a different **Output Type** to change the default format for the query.
        - *TIFF Image* – A graphics file
        - *CSV* – A comma-separated values file
        - *Excel* – A Microsoft Excel version 1997-2003 format file
        - *HTML* – A web page in the standard Synergy SIS format
        - *Rich Text* – A document file (basically Microsoft Word format)
        - *Text File* – A plain text file with no formatting, in tab-delimited format
        - *XML* – An extensible markup language file
        - *PDF* – A Portable Document Format for Adobe Reader
    - You can use the **Group** to categorize queries to make them easier to find in a long list. The groups are customized for each district using the Lookup Table Definition screen.
    - Click **Open** to review the query in the Query screen.

- Click the **X** column next to the query and click **Save** to delete a public query.

> You can change the **Type** of query by selecting it from the drop-down but this is not recommended. The *Select* type shows the data from the database for reports, but *Update*, *Delete*, or *Insert* make direct changes to the database and only experienced users should attempt it.



Query Admin Screen

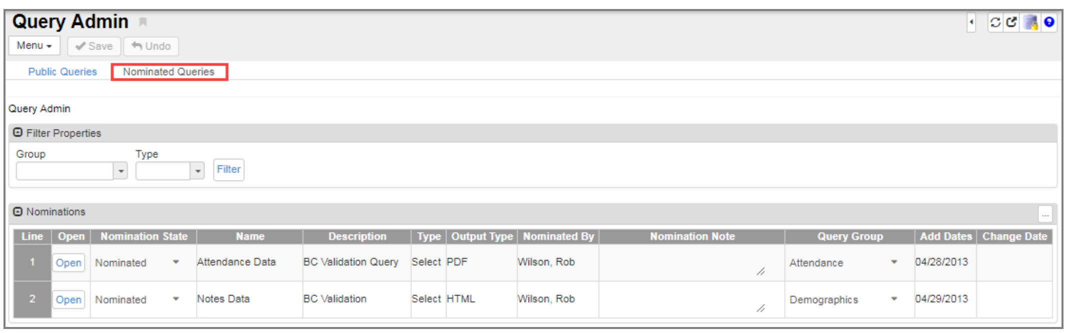
4. Click **Save** to save the changes.

> The **User Name** indicates who created the query and cannot be changed.
>
> If the query came with Synergy SIS, the **Product Owned** column displays *Yes*. User-created queries display *No*. The **Product Owned** column entry cannot be changed.

Approve or Reject Nominated for Public Queries

1. Select the **Nominated Queries** tab.
2. Filter the list by selecting the **Group** and/or **Type** and click **Filter**.
3. Click **Open** to review the query in the Query screen.
4. Enter information in the columns:
    - **Query Group** – Change the group the query is assigned before approving or rejecting the nominated query
    - **Nomination Note** – Add a note to indicate that the query needs more work before acceptance or the reason why you rejected the query.
    - **Nomination State** – Select either *Approved* or *Rejected* from the **Nomination State** column. Once approved or rejected. The query is removed from the list of nominated queries.
        - If the query was approved, it displays on the **Public Queries** tab.
        - If the query was rejected, it still displays in the user's list of queries but it does not display in the Query Admin screen.

> You can change and save the note and group without changing the nomination state.



Query Admin Screen, Nominated Queries Tab

5. Click **Save** to save the changes. The **Nomination Note** and current **Nomination State** of the query displays in the user's Query Open screen.

Chapter 8: Advanced Techniques

Create a Query Using a Link Field

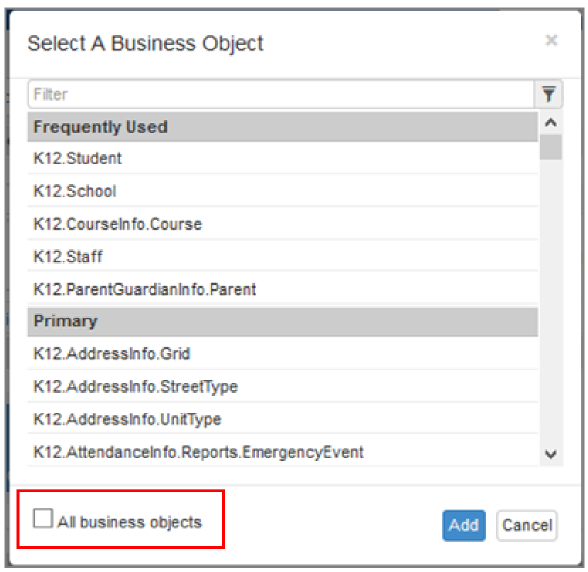
You can create queries from multiple business objects by linking the business objects via a common property. The common property is referred to as a link field.

When working with multiple business objects, selecting the initial business object is critical. Not all business objects are linked, so a business object may not be available for linking if you selected the incorrect business object first.

For example, to create a query with information about a section and the students enrolled in the section, select the *ClassStudent* object or *StudentClass* object first and not the *Student* object.

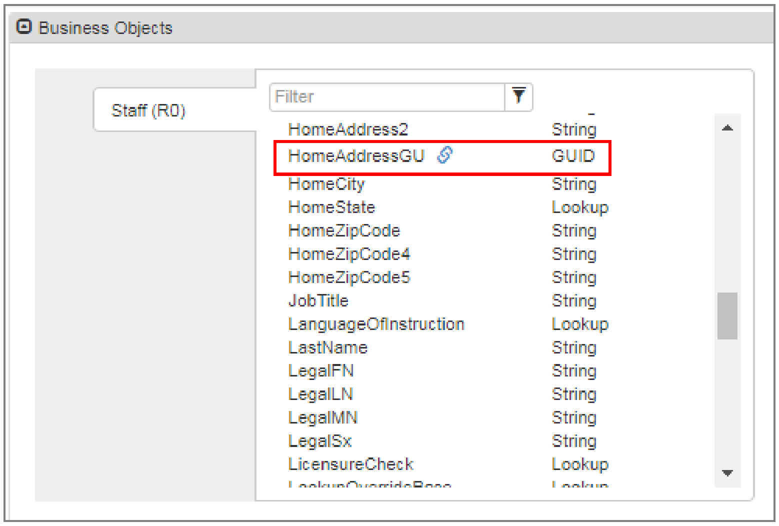
Select the Business Objects to use in the query.

A limited number of business objects display by default. You can view all business objects by selecting **All business objects**.



Select A Business Object Window

The selected business object displays on the Business Objects section to the left and the properties associated with it display to the right.

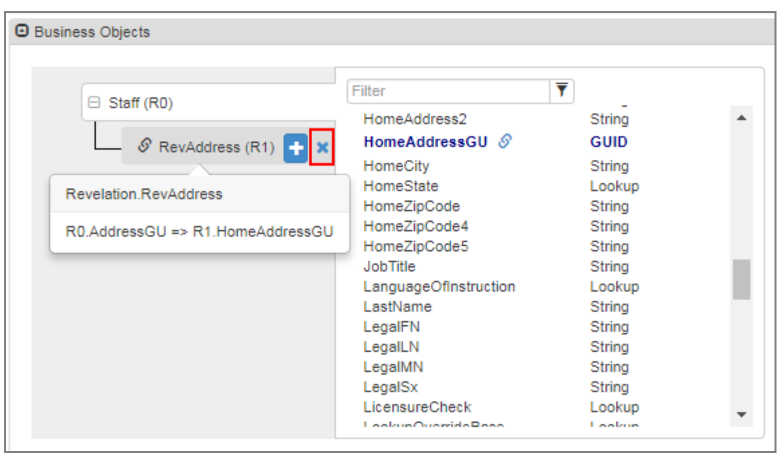


Query Screen

- When selecting a business object that links to another business object, you can add the business object with or without the property.
  - Click to add just the business object.
  - Click the name of the property to add both.

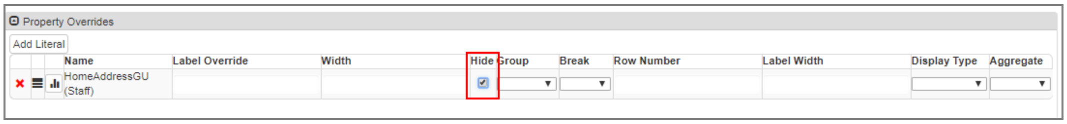
> In the example, the property links to RevAddress.

- Hover your mouse over the business object in the Business Objects section and click **X** to remove a business object from a query.



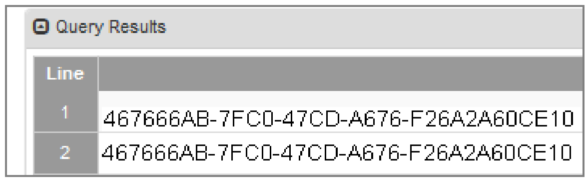
Query Screen

- Select **Hide** in the Property Overrides section to hide the link field.



Query Screen

When you add a link field to a query, it is strongly recommended that you set it to hide from the Query Results. While the field is essential to the query to tie the business objects together, the data contained in the link field is generally a several-digit hexadecimal number that does not add meaning to the final results.

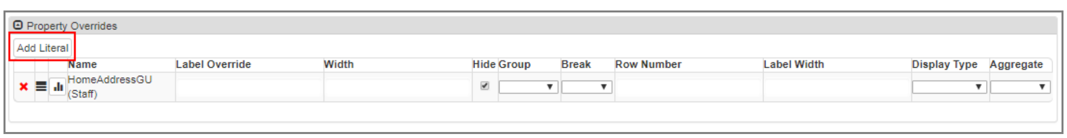


Query Screen

Add Fixed Text

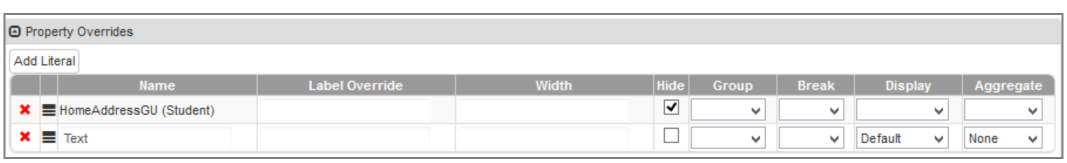
You can add a special type of property to queries called the Literal property. The Literal property adds a fixed text value as a column to any query.

1. Navigate to **Synergy SIS > Query > Query**.
2. Click **Add Literal** to add a new line to the section.



Query Screen

3. Enter a **Name** for the Literal Property Override. The text in the **Name** field displays in the query results.
4. Modify the rest of the property values as needed.



Query Screen

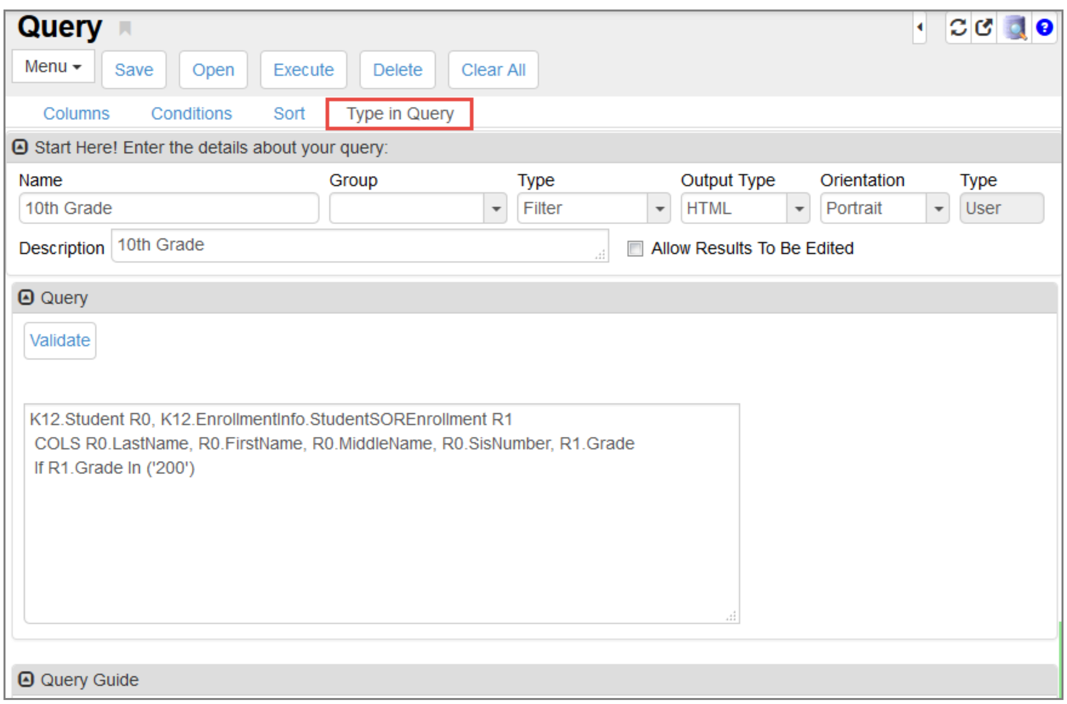
Manually Edit the Query

Occasionally, you might want to edit a query manually. For example, with a query that has a condition with a date, you might want to change the date each time the query runs. This tab can also be used to insert a query you received from another user.

> Look for curly quotes at the beginning and end of query when you cut and paste from another application. They make the query invalid.

1. Navigate to **Synergy SIS > Query > Query**.
2. Select the **Type in Query** tab.
3. Edit text in the Query field as necessary. In the example above, the query runs for a specific Course ID. Change the Course ID to run the query for a different course.
4. Click **Validate** to ensure you formatted the query correctly based on Synergy query standards.

> Click **Validate** on any query to verify the query is valid.



Query Screen, Type In Query Tab

Parts of a Query

In text format, each query has four sections:

- One to define the business objects
- One to list the properties
- One to define the conditions
- One to define the sort order

The conditions and the sort sections are optional but every query must have the business objects and properties sections.

Business Object

The format for the business object section is:

BusinessObject R#, BusinessObject R# (LinkField,R#LinkField,)

- Each business object is assigned a sequential number following the letter *R*. When referring to the business object in the rest of the query, it is referred to by the *R#*.
- When a business object is linked to another business object using a Link Field, the names of the link fields follow the business object. These link fields tie the objects together. The first link field is the field in the current business object and the second link field is the link field from the other business object preceded by its *R#*.

Business Object Section Example

```
K12.Student R0, K12.EnrollmentInfo.StudentSOREnrollment R1,
K12.ScheduleInfo.Section R2 (SectionGU,R1.HomeroomSectionGU,),
K12.Setup.SchoolRoom R3 (RoomGU,R2.RoomGU,)
```

Properties

The format for the properties section is:

COLS R#.PropertyName, R#PropertyName (Width,LabelOverride,Hide,GroupBreak,Group#)

- You must precede the properties section with the word *COLS*. *R#* indicates the business object that the property comes from.
- If there are any property overrides defined for the property, they display after the property name in the order indicated above in parenthesis. If you are not using a property override, use a space instead.
  - The Hide override is either blank or use the word *Hide* to turn on the Hide function.
  - The break is *GroupBreak*, *PageBreak*, or blank.
  - The Group value is the word *Group* followed by the number of the group.
  - The Label Override value is surrounded by single quotes.

Properties Section Example

```
COLS R0.FormattedName, R0.BirthVerification (,,Hide), R1.EnterDate,
R1.EnterCode, R1.HomeroomSectionGU (,,Hide), R2.RoomGU (,,Hide), R3.RoomName
(.1,'GU',Hide,GroupBreak,Group1)
```

Conditions

The format for the properties section is:

IF R#.PropertyName Operator Value AND R#.PropertyName Operator Value

- Operators can be *In*, *Start/StartsWith*, *Contain/Contains*, *End/EndsWith*, =, <, > , <=, >=, *!=*, < > , or *NOT*.
- Indicate the condition groups with *AND/OR*.
- Surround values with single quotes.
- Use parentheses to group nested conditions.

Conditions Section Example

```
If R4.CourseID ='IT01'
```

Sort

The format for the properties section is:

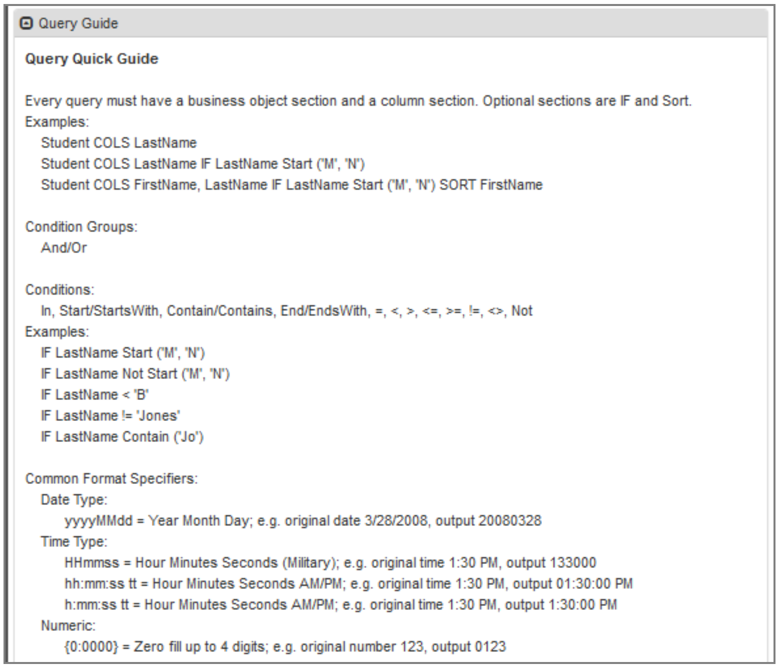
Sort R#.PropertyName, R#.PropertyName Desc

- The section always starts with *Sort*.
- List the properties in the order you want them sorted, separated by commas. The sort is ascending unless followed by *Desc*.

Sort Section Example

```
Sort R0.FormattedName
```

There is a quick refresher guide on the format for queries at the bottom of the **Type in Query** tab.



Query Guide

Query Quick Guide

Every query must have a business object section and a column section. Optional sections are IF and Sort.
Examples:
Student COLS LastName
Student COLS LastName IF LastName Start ('M', 'N')
Student COLS FirstName, LastName IF LastName Start ('M', 'N') SORT FirstName

Condition Groups:
And/Or

Conditions:
In, Start/StartsWith, Contain/Contains, End/EndsWith, =, <, >, <=, >=, !=, <>, Not
Examples:
IF LastName Start ('M', 'N')
IF LastName Not Start ('M', 'N')
IF LastName < 'B'
IF LastName != 'Jones'
IF LastName Contain ('Jo')

Common Format Specifiers:
Date Type:
yyyyMMdd = Year Month Day; e.g. original date 3/28/2008, output 20080328
Time Type:
HHmmss = Hour Minutes Seconds (Military); e.g. original time 1:30 PM, output 133000
hh:mm:ss tt = Hour Minutes Seconds AM/PM; e.g. original time 1:30 PM, output 01:30:00 PM
h:mm:ss tt = Hour Minutes Seconds AM/PM; e.g. original time 1:30 PM, output 1:30:00 PM
Numeric:
{0:0000} = Zero fill up to 4 digits; e.g. original number 123, output 0123

Query Screen, Type In Query Tab

Focus Tokens

You can use Focus Tokens in the **Type in Query** tab. If a query begins with *K12.Student*, the results correspond with the current focus by default. However, if you begin a query with a business object other than *K12.Student*, you can use the following tokens to change the focus.

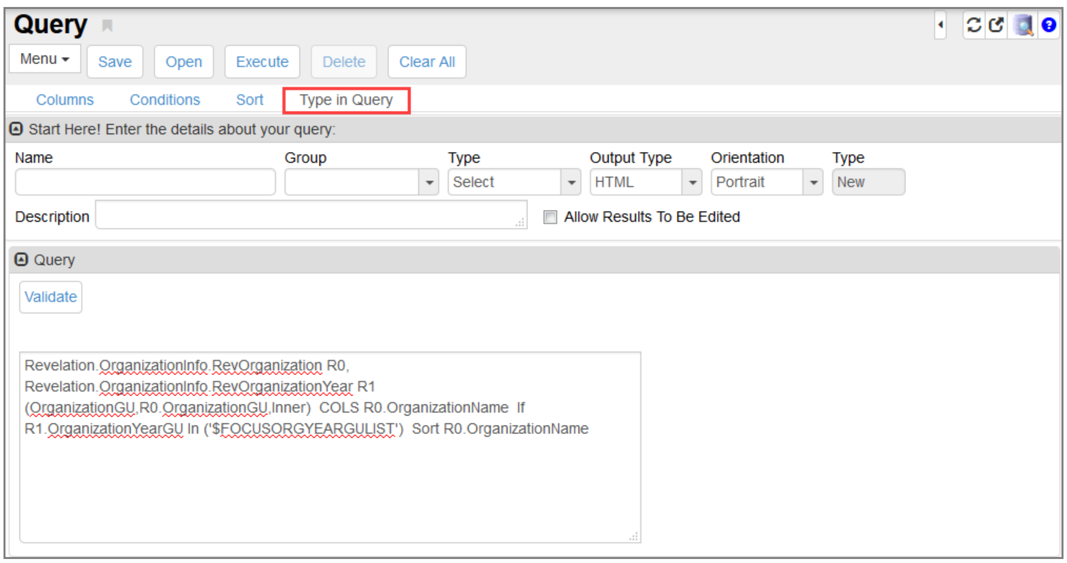
- *$FOCUSORGGU* – Revelation.OrganizationInfo.RevOrganization.OrganizationGU of currently focused Organization.
- *$FOCUSYEARGU* – Revelation.OrganizationInfo.RevYear.YearGU of currently focused year/extension.
- *$FOCUSNUMERICYEAR* - Revelation.OrganizationInfo.RevYear.SchoolYear of currently focused year. This does not take the extension into account.
- *$FOCUSORGYEARGULIST* – List of Revelation.OrganizationInfo.RevOrganizationYear.OrganizationYearGU properties for every Organization contained in the current focus. Used when focused to the District or on a branch node (such as Elementary Schools, High Schools, etc). Use with *In List* condition. OrganizationYearGUs encompass the Organization, Year, and Year Extension.
- *$FOCUSORGYEARGUATLEAF* – Revelation.OrganizationInfo.RevOrganizationYear.OrganizationYearGU of currently focused organization. NULL when focused to district or branch. OrganizationYearGUs encompass the Organization, Year, and Year Extension.
- *$DATE* – Today's date. Used in arithmetic operations to limit results to a date in the past/future. Useful for creating date ranges. (for example, *$DATE-30*)

Example: List all Organizations displaying in the currently focused Organizational branch

```
Revelation.OrganizationInfo.RevOrganization R0,
Revelation.OrganizationInfo.RevOrganizationYear R1
(OrganizationGU,R0.OrganizationGU,Inner)
COLS R0.OrganizationName
If R1.OrganizationYearGU In ('$FOCUSORGYEARGULIST')
Sort R0.OrganizationName
```

Example: List all schools having a year extension of any kind in the current school year (2016)

```
Revelation.OrganizationInfo.RevOrganization R0,
Revelation.OrganizationInfo.RevOrganizationYear R1
(OrganizationGU,R0.OrganizationGU,Inner), Revelation.OrganizationInfo.RevYear
R2 (YearGU,R1.YearGU,Inner)
COLS R0.OrganizationName, R2.SchoolYear
If R2.SchoolYear ='$FOCUSNUMERICYEAR'
Sort R0.OrganizationName, R2.SchoolYear
```



Query Screen, Type In Query Tab

Query Examples

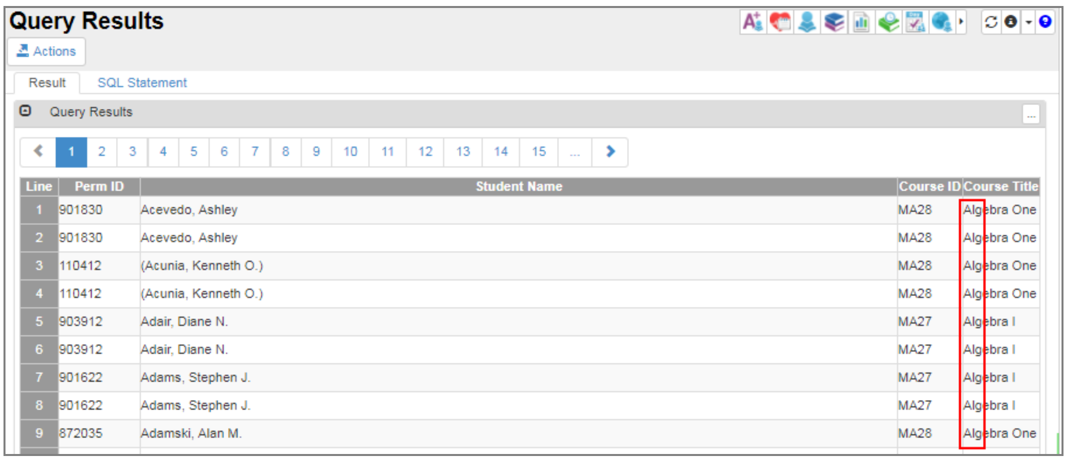
An Excel spreadsheet containing the Query Examples is available on the Edupoint FTP site.

The spreadsheet also contains examples of queries used with Dashboard widgets.

See *Synergy SIS – Getting Started with Synergy SIS* for more information about implementing widgets from queries.

Query Condition BEGINS WITH

A query that returns all courses that begin with 'Alg' in a student's course history.



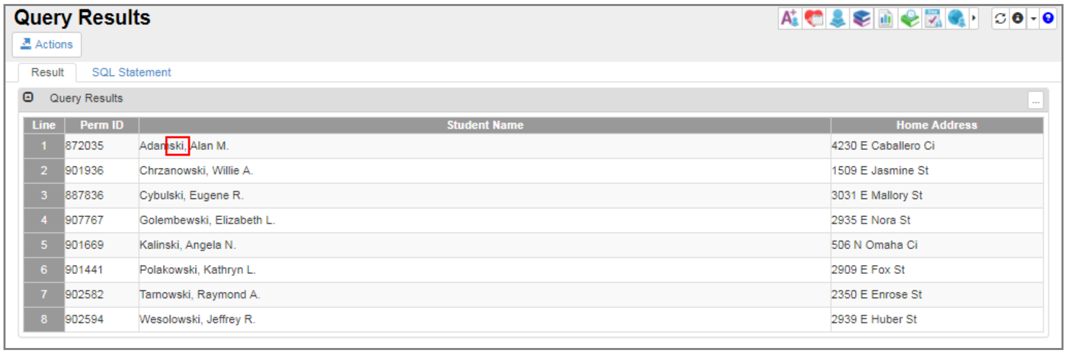
Line	Perm ID	Student Name	Course ID	Course Title
1	901830	Acevedo, Ashley	MA28	Algebra One
2	901830	Acevedo, Ashley	MA28	Algebra One
3	110412	(Acunia, Kenneth O.)	MA28	Algebra One
4	110412	(Acunia, Kenneth O.)	MA28	Algebra One
5	903912	Adair, Diane N.	MA27	Algebra I
6	903912	Adair, Diane N.	MA27	Algebra I
7	901622	Adams, Stephen J.	MA27	Algebra I
8	901622	Adams, Stephen J.	MA27	Algebra I
9	872035	Adamski, Alan M.	MA28	Algebra One

Query Results Screen

```
Student R0, K12.CourseHistoryInfo.StudentCourseHistory R1
COLS R0.SisNumber, R0.FormattedName, R1.CourseID, R1.CourseTitle
If R1.CourseTitle Start ('alg')
```

Query Condition ENDS WITH

A query that returns addresses for students whose name ends in 'ski'.



Query Results

Actions

Result | SQL Statement

Query Results

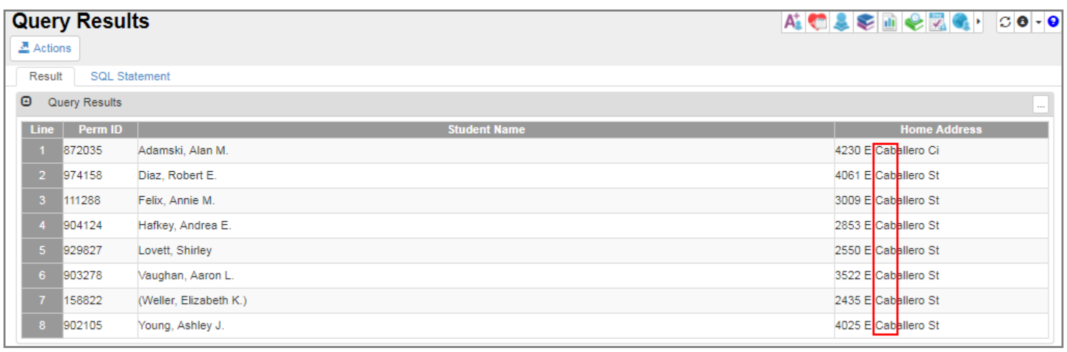
Line	Perm ID	Student Name	Home Address
1	872035	Adamski, Alan M.	4230 E Caballero Ci
2	901936	Chrzanowski, Willie A.	1509 E Jasmine St
3	887836	Cybulski, Eugene R.	3031 E Mallory St
4	907767	Golembewski, Elizabeth L.	2935 E Nora St
5	901669	Kalinski, Angela N.	506 N Omaha Ci
6	901441	Polakowski, Kathryn L.	2909 E Fox St
7	902582	Tarnowski, Raymond A.	2350 E Enrose St
8	902594	Wesolowski, Jeffrey R.	2939 E Huber St

Query Results Screen

```
Student R0
COLS R0.SisNumber, R0.FormattedName, R0.HomeAddress
If R0.LastName End ('ski')
```

Query Condition CONTAINS

A query that returns all students whose addresses contain 'cab'.



Query Results

Actions

Result | SQL Statement

Query Results

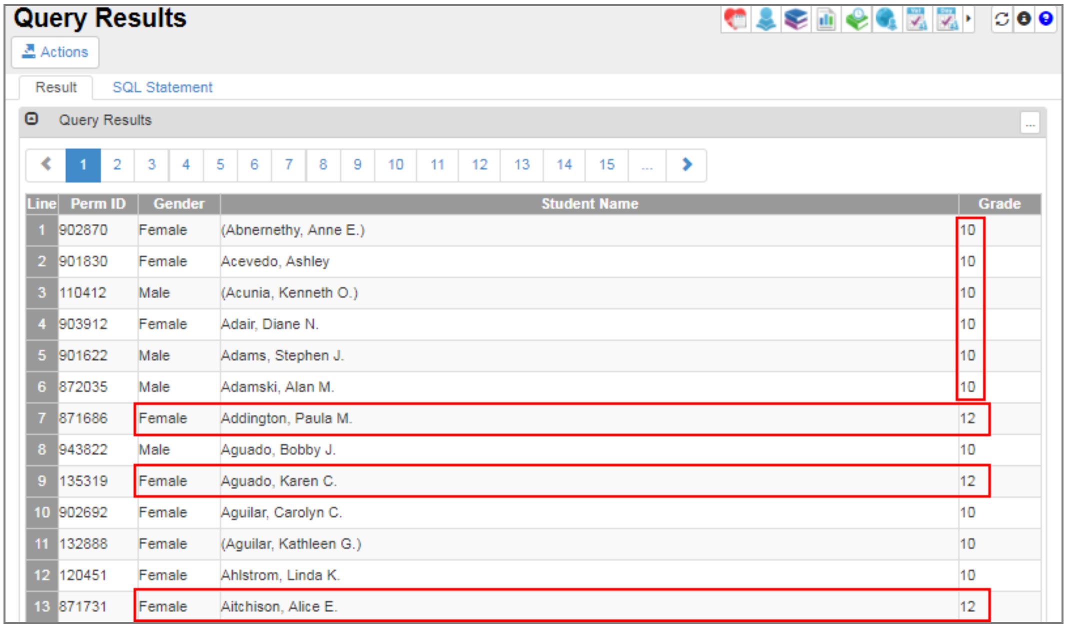
Line	Perm ID	Student Name	Home Address
1	872035	Adamski, Alan M.	4230 E Caballero Ci
2	974158	Diaz, Robert E.	4061 E Caballero St
3	111288	Felix, Annie M.	3009 E Caballero St
4	904124	Hafkey, Andrea E.	2853 E Caballero St
5	929827	Lovett, Shirley	2550 E Caballero St
6	903278	Vaughan, Aaron L.	3522 E Caballero St
7	158822	(Weller, Elizabeth K.)	2435 E Caballero St
8	902105	Young, Ashley J.	4025 E Caballero St

Query Results Screen

```
Student R0
COLS R0.SisNumber, R0.FormattedName, R0.HomeAddress
If R0.HomeAddress Contain ('cab')
```

Query Using OR in IF Statement

A query that returns addresses for all students in 10th grade or 12th grade who are female.



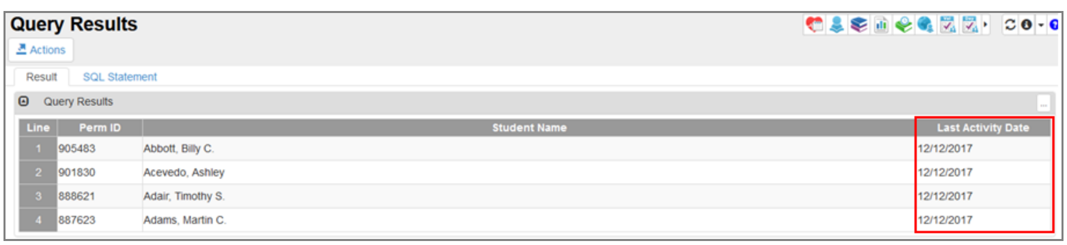
Line	Perm ID	Gender	Student Name	Grade
1	902870	Female	(Abnernethy, Anne E.)	10
2	901830	Female	Acevedo, Ashley	10
3	110412	Male	(Acunia, Kenneth O.)	10
4	903912	Female	Adair, Diane N.	10
5	901622	Male	Adams, Stephen J.	10
6	872035	Male	Adamski, Alan M.	10
7	871686	Female	Addington, Paula M.	12
8	943822	Male	Aguado, Bobby J.	10
9	135319	Female	Aguado, Karen C.	12
10	902692	Female	Aguilar, Carolyn C.	10
11	132888	Female	(Aguilar, Kathleen G.)	10
12	120451	Female	Ahlstrom, Linda K.	10
13	871731	Female	Aitchison, Alice E.	12

Query Results Screen

```
Student R0, K12.EnrollmentInfo.StudentSchoolYear R1
COLS R0.SisNumber, R0.Gender, R0.FormattedName, R1.Grade
If R1.Grade ='10' Or (R1.Grade ='12' And R0.Gender ='F')
```

Query Using $DATE in IF Statement

An Enrollment Activity query where the Last Activity Date is today.



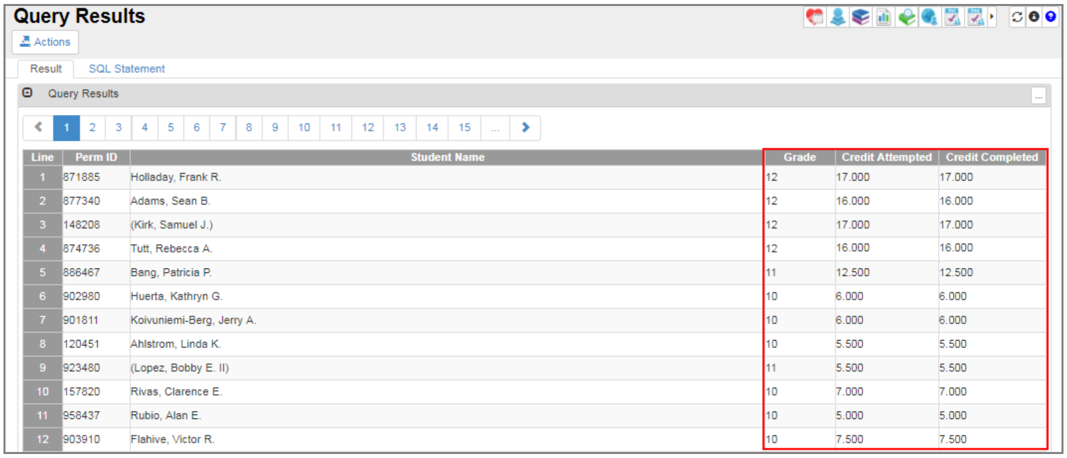
Line	Perm ID	Student Name	Last Activity Date
1	905483	Abbott, Billy C.	12/12/2017
2	901830	Acevedo, Ashley	12/12/2017
3	888621	Adair, Timothy S.	12/12/2017
4	887623	Adams, Martin C.	12/12/2017

Query Results Screen

```
Student R0, K12.EnrollmentInfo.StudentSchoolYear R1,
K12.EnrollmentInfo.StudentEnrollment R2
COLS R0.SisNumber, R0.FormattedName, R2.LastActivityDate
IF R2.LastActivityDate ='$DATE'
```

Query Using Aggregate SUM

A query at a high school that returns students with their Grade, Credits Attempted, and Credits Completed totals where the Credits Complete is less than 20.



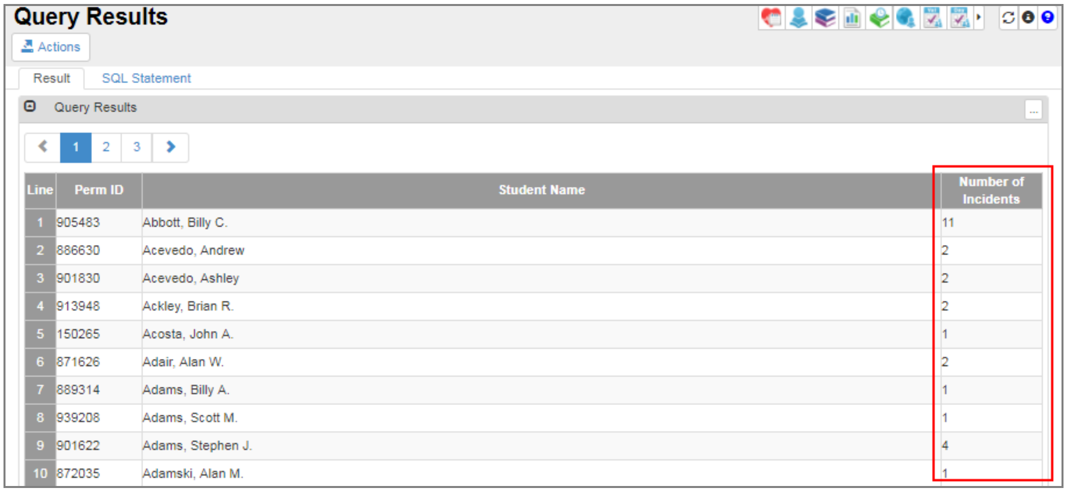
Line	Perm ID	Student Name	Grade	Credit Attempted	Credit Completed
1	871885	Holladay, Frank R.	12	17.000	17.000
2	877340	Adams, Sean B.	12	16.000	16.000
3	148208	(Kirk, Samuel J.)	12	17.000	17.000
4	874736	Tutt, Rebecca A.	12	16.000	16.000
5	886467	Bang, Patricia P.	11	12.500	12.500
6	902980	Huerta, Kathryn G.	10	6.000	6.000
7	901811	Koivuniemi-Berg, Jerry A.	10	6.000	6.000
8	120451	Ahlstrom, Linda K.	10	5.500	5.500
9	923480	(Lopez, Bobby E. II)	11	5.500	5.500
10	157820	Rivas, Clarence E.	10	7.000	7.000
11	958437	Rubio, Alan E.	10	5.000	5.000
12	903910	Flahive, Victor R.	10	7.500	7.500

Query Results Screen

```
Student R0, K12.EnrollmentInfo.StudentSchoolYear R1,
K12.CourseHistoryInfo.StudentCourseHistory R2
COLS R0.SisNumber, R0.FormattedName, R1.Grade, R2.CreditAttempted
(,,,,,,,,Sum), R2.CreditCompleted (,,,,,,,,Sum)
IF R2.CreditCompleted <'20'
```

Query Using Aggregate COUNT in IF Statement

A query that counts the number of discipline incidents per student.



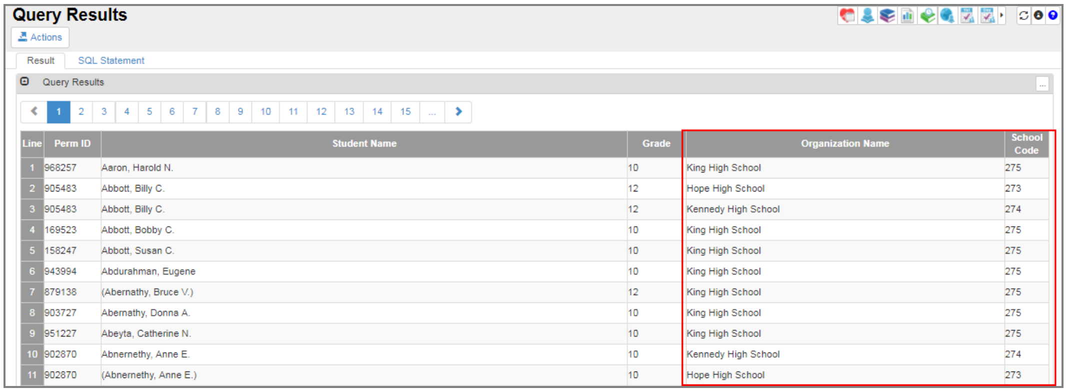
Line	Perm ID	Student Name	Number of Incidents
1	905483	Abbott, Billy C.	11
2	886630	Acevedo, Andrew	2
3	901830	Acevedo, Ashley	2
4	913948	Ackley, Brian R.	2
5	150265	Acosta, John A.	1
6	871626	Adair, Alan W.	2
7	889314	Adams, Billy A.	1
8	939208	Adams, Scott M.	1
9	901622	Adams, Stephen J.	4
10	872035	Adamski, Alan M.	1

Query Results Screen

```
Student R0, K12.DisciplineInfo.StudentIncidentDiscipline R1
(StudentGU,R0.StudentGU,Inner), K12.DisciplineInfo.SchoolIncident R2
(SchIncidentGU,R1.SchIncidentGU,Outer)
COLS R0.SisNumber (,,,,Group1), R0.FormattedName (,,,,Group1), R2.IncidentID
(,'Number of Incidents',,,,,,,Count)
```

Query with a Manual Join

A school query ran against the district that is manually joined (uses a link field) to bring in the school table with Organization field that displays the School Code.



Line	Perm ID	Student Name	Grade	Organization Name	School Code
1	968257	Aaron, Harold N.	10	King High School	275
2	905483	Abbott, Billy C.	12	Hope High School	273
3	905483	Abbott, Billy C.	12	Kennedy High School	274
4	169523	Abbott, Bobby C.	10	King High School	275
5	158247	Abbott, Susan C.	10	King High School	275
6	943994	Abdurahman, Eugene	10	King High School	275
7	879138	(Abernathy, Bruce V.)	12	King High School	275
8	903727	Abernathy, Donna A.	10	King High School	275
9	951227	Abeyta, Catherine N.	10	King High School	275
10	902870	Abnernethy, Anne E.	10	Kennedy High School	274
11	902870	(Abnernethy, Anne E.)	10	Hope High School	273

Query Results Screen

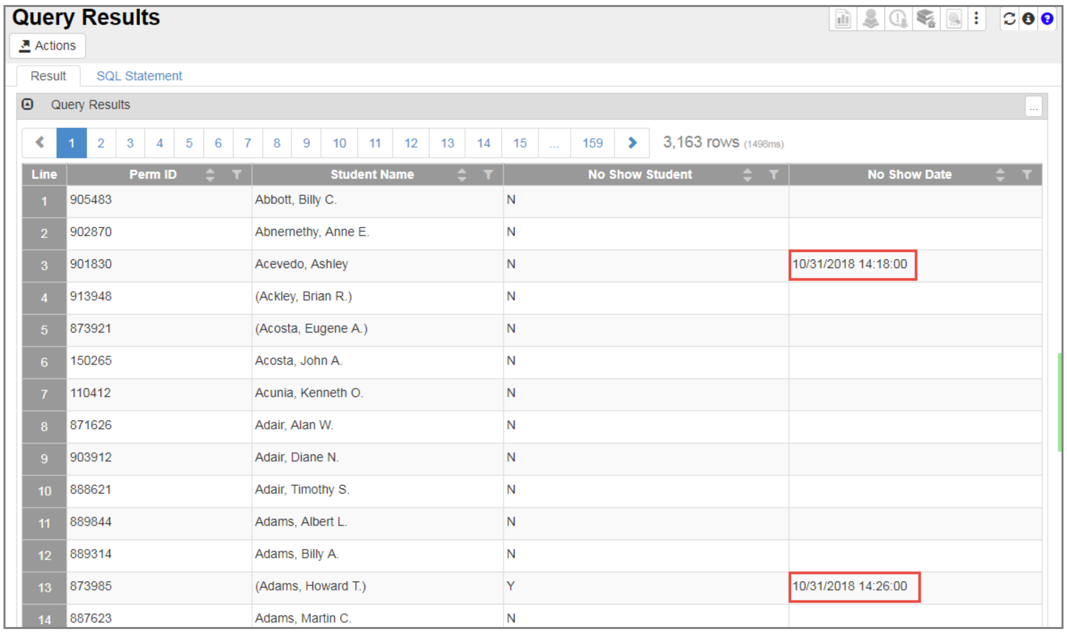
```
Student R0, K12.EnrollmentInfo.StudentSchoolYear R1,
Revelation.OrganizationInfo.RevOrganizationYear R2
(OrganizationYearGU,R1.OrganizationYearGU,Outer),
Revelation.OrganizationInfo.RevOrganization R3
(OrganizationGU,R2.OrganizationGU,Outer), K12.School R4
(OrganizationGU,R3.OrganizationGU,Outer)
COLS R0.SisNumber, R0.FormattedName, R1.Grade, R3.OrganizationName,
R4.SchoolCode
If R1.Grade ='10' Or R1.Grade ='12'
```

Query Using No Show Date

A query ran against school enrollment to display the last date and time of the no show for students.

> The No Show Date column is empty if the student does not have a No Show status.

```
Student R0, K12.EnrollmentInfo.StudentSchoolYear R1
COLS R0.SisNumber, R0.FormattedName, R1.NoShowStudent, R1.NoShowDate
```



Line	Perm ID	Student Name	No Show Student	No Show Date
1	905483	Abbott, Billy C.	N	
2	902870	Abnernethy, Anne E.	N	
3	901830	Acevedo, Ashley	N	10/31/2018 14:18:00
4	913948	(Ackley, Brian R.)	N	
5	873921	(Acosta, Eugene A.)	N	
6	150265	Acosta, John A.	N	
7	110412	Acunia, Kenneth O.	N	
8	871626	Adair, Alan W.	N	
9	903912	Adair, Diane N.	N	
10	888621	Adair, Timothy S.	N	
11	889844	Adams, Albert L.	N	
12	889314	Adams, Billy A.	N	
13	873985	(Adams, Howard T.)	Y	10/31/2018 14:26:00
14	887623	Adams, Martin C.	N	

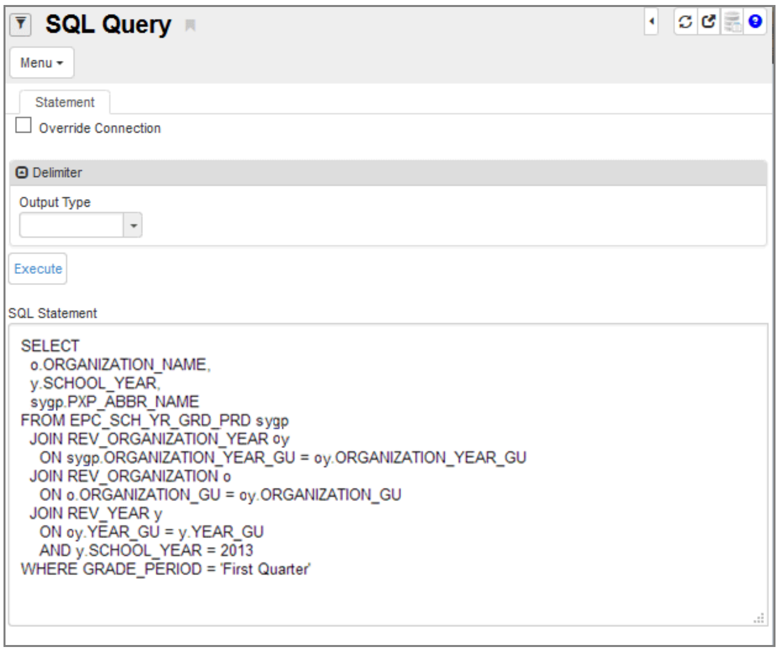
Query Results Screen

Chapter 9:
SQL Query and SSRS in Synergy

Run a SQL Query

Synergy provides the ability to run a SQL query on the Synergy database or another database. You can view the results within Synergy.

1. Navigate to **Synergy SIS > Query > SQL Query**.
2. Enter a query in the **SQL Statement** field.
3. Click **Execute** to run the query. Only select queries process. The query results display in a new screen.



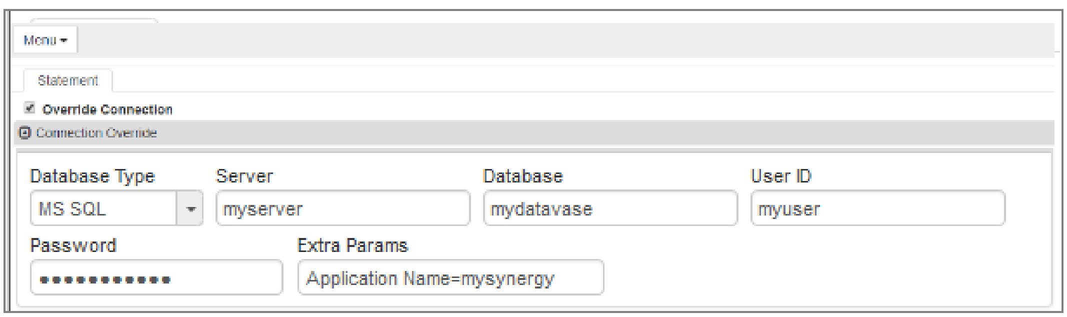
SQL Query Screen

Run SQL Queries from Other Databases

You can also execute queries on databases other than the Synergy database.

1. Navigate to **Synergy SIS > Query > SQL Query**.
2. Enter a query in the **SQL Statement** field.
3. Select **Override Connection**. The Connection Override group box displays.
4. Enter the connection information for a different database.
    - **Database Type** – This is the kind of database server used in the connection. The options are *MS SQL* or *Oracle*.
    - **Server** – This is the IP address or machine name of the database server.
    - **Database** (MS SQL) – This is the database connection.
    - **User ID** – This is the User ID used to access this database.
    - **Password** – This is the password used to access this database.
    - **Extra Params** – This includes any extra parameters to add to the connection string.

> Queries executed from this screen pass directly to the database, bypassing all business logic and security. Users who have access to this screen can see any data stored in the database.



SQL Query Screen

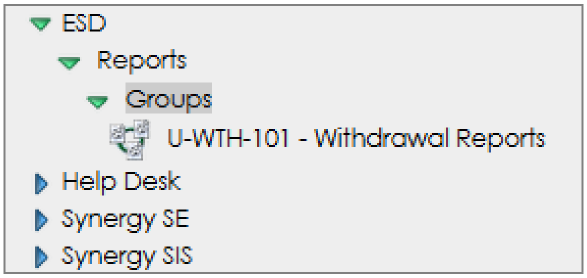
5. Click **Execute** to run the query.

Chapter 10: Query-Based Reports

Manage User-Defined Reports

The folder structure and report names in the User-Defined folders (also known as the UD PAD Tree or User PAD Tree). The UD PAD Tree is located above the Synergy SIS folders in the Navigation Tree.

The name of the top-level folder is the abbreviation of the district name (in the example below, ESD for Edupoint School District) and cannot be changed. This abbreviation comes from the Locale defined in the license key. Synergy SIS creates the folders and reports underneath this folder when a user saves a query as a report.



UD PAD Tree

The folder structure can quickly become disorganized because users can create reports and folders in the Navigation Tree (or PAD Tree) by saving queries as reports (as outlined in Save a Query as a Report).

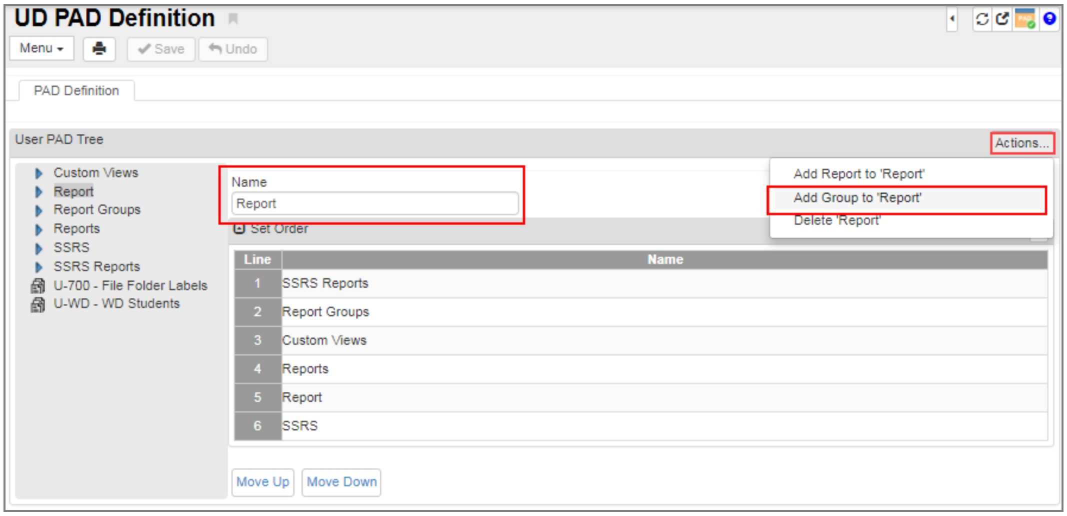
1. Navigate to **Synergy SIS > System > Setup > UD PAD Definition**. The folders and reports from the UD PAD Tree display in the User PAD Tree section.
2. Click the triangles to expand the tree to view additional folders.

UD PAD Definition Screen

Adding Folders

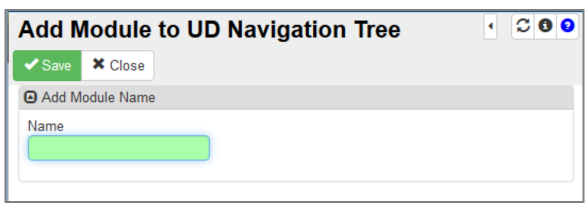
Add a Group Folder

1. Select *Add Group to '<ReportName>'* from **Actions…**. The Add Module to UD Navigation Tree screen opens.



UD Pad Definition Screen

2. Enter the **Name**.

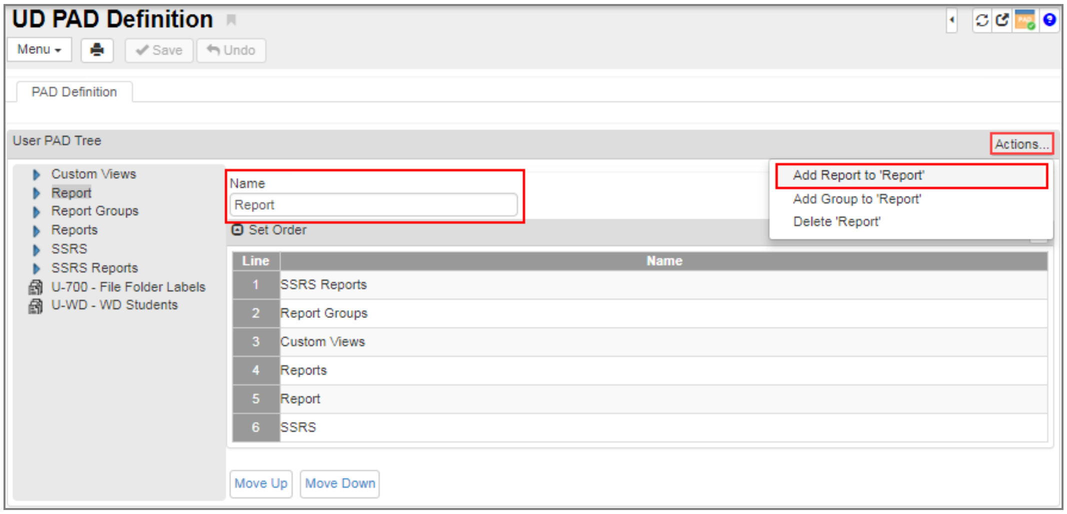


Add Module To UD Navigation Tree Screen

3. Click **Save**.

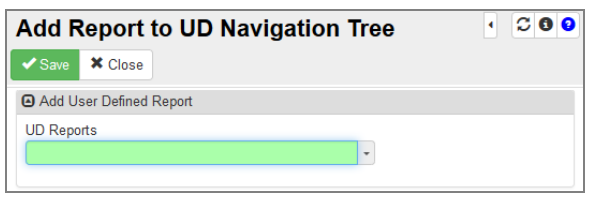
Add Folder to a Group Folder

1. Select *Add Report to '<ReportName>'* from **Actions...**. The Add Report to UD Navigation Tree opens.



UD PAD Definition Screen

2. Select the report to add from **UD Reports** . Only previously saved user-defined reports display.



Add Report To UD Navigation Tree Screen

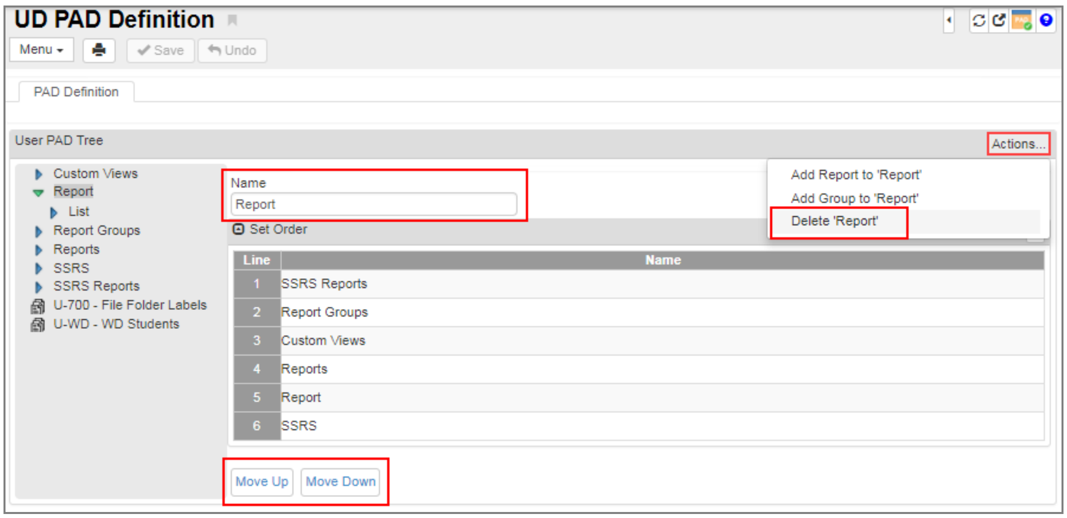
3. Click **Save**. The report is added to the tree.

Modify Folder

Select the folder name to make modifications on the right side of the screen.

- Edit the **Name** if needed.
- Click **Move Up** or **Move Down** to move the folder to a new location.
- To delete the folder:

  1. Select *Delete '<ReportName>'* from **Actions…**.
  2. Click **Yes** to confirm the deletion. Deleting the folder deletes all folders and reports stored in that folder.



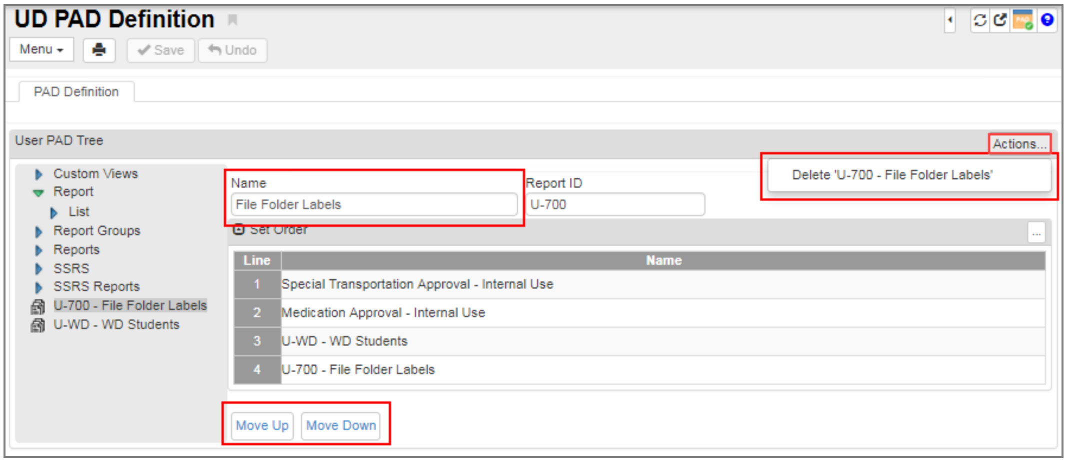
UD PAD Definition Screen

  3. Refresh the screen when finished to see the new folder structure.

Modify Report

Select the report to make modifications on the right side of the screen:

- Edit the **Name** and **Report ID** if needed.
- Click **Move Up** or **Move Down** to move the report to a new location.
- To delete the report:
    1. Select *Delete 'ReportName'* from **Actions…**.
    2. Click **Yes** to confirm the deletion.



UD PAD Definition Screen

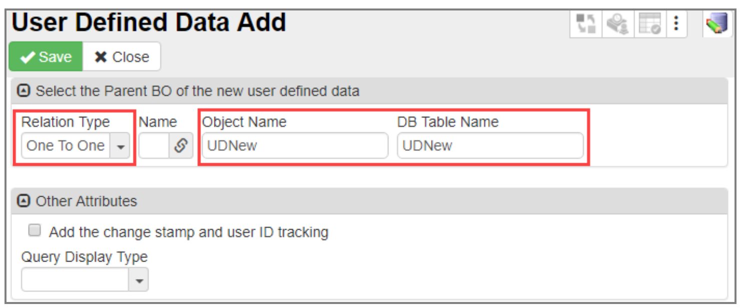
3. Refresh the screen when finished to see the new folder structure.

Add Dynamic Lookups on UD Report Interfaces

1. Create a query.
2. Create a User Defined report.

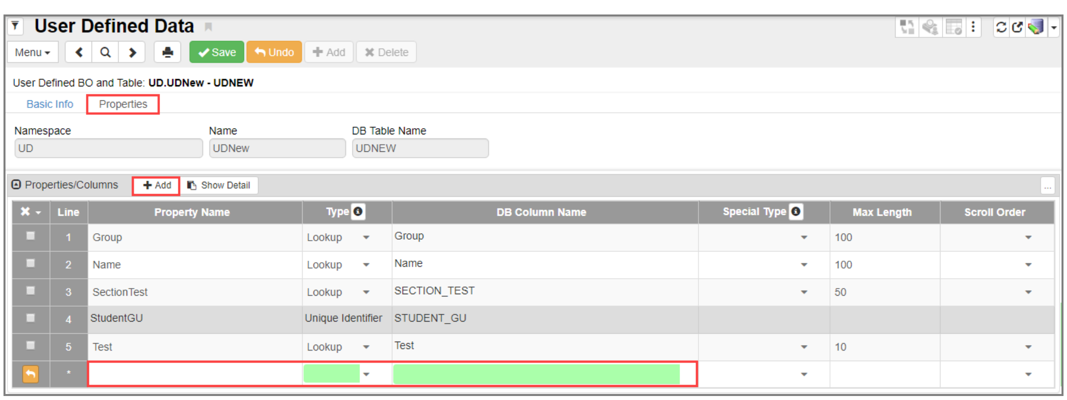
> See *Synergy SIS – Query and Reporting Guide* for more information on creating a query and User Defined reports.

3. Add fields to user-defined report on the User Interface Change screen.
4. Navigate to **Synergy SIS > System > Data and Views > User Defined Data**.
    a. Click **Add** to open the User Defined Data Add screen.
    b. Select *One To One* for the **Relation Type**.
    c. Enter the **Object Name** and **DB Table Name**.



User Defined Data Add Screen

    d. Click **Save**.
5. Select the **Properties** tab.
    a. Click **Add** in the Properties/Columns section.
    b. Enter the **Property Name**.
    c. Select the **Type**.
    d. Enter the **DB Column Name**.



User Defined Data Screen, Properties Tab

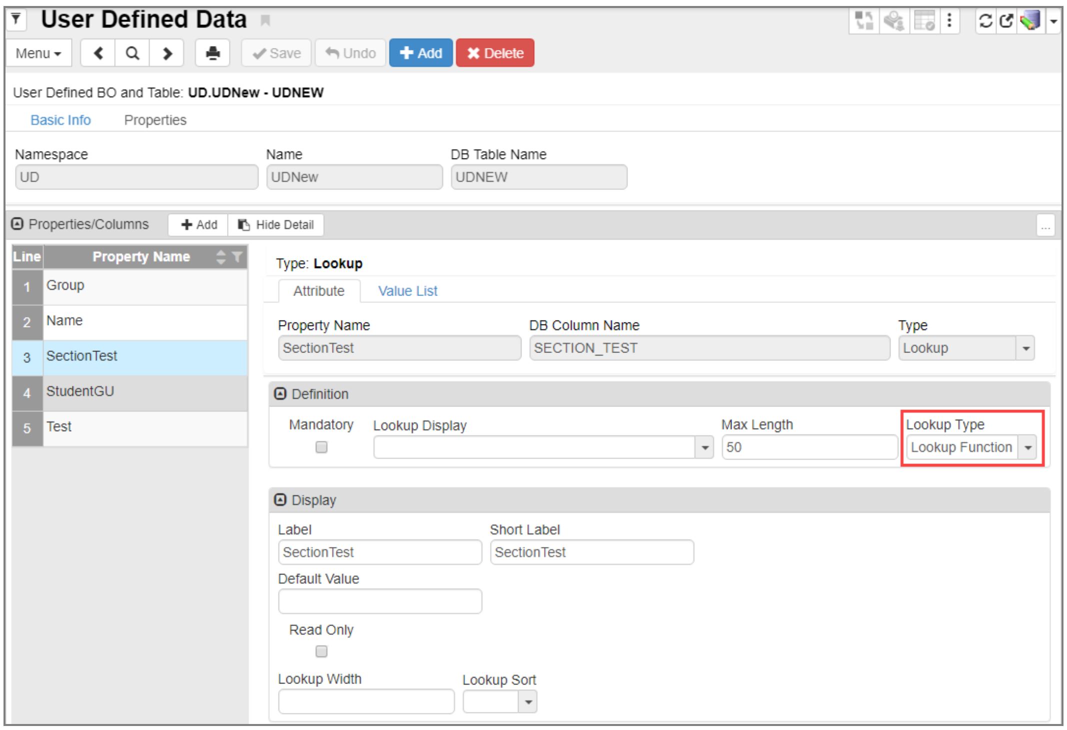
    e. Click **Save**.

f. Click **Show Detail**.

g. Select *Lookup Function* as the **Lookup Type**.

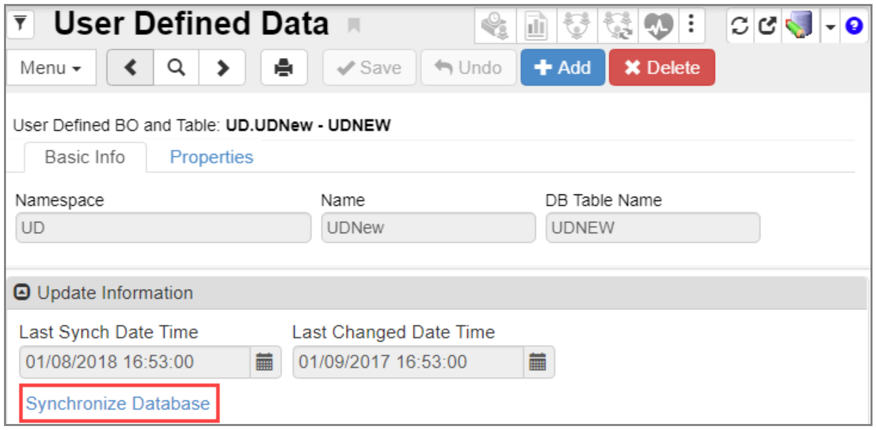
> If the **Lookup Type** is not selected, the property is not treated like a lookup function.
>
> If you synchronize and the **Lookup Type** changes, synchronize it again.
>
> You can add the lookup only on report interfaces. Therefore, it does not display in the list on the View Change screen or Design Configuration tool.

h. Click **Save**.



User Defined Data Screen, Properties Tab, Properties/Columns Detail

6. Select the **Basic Info** tab.
   a. Click **Synchronize Database**.



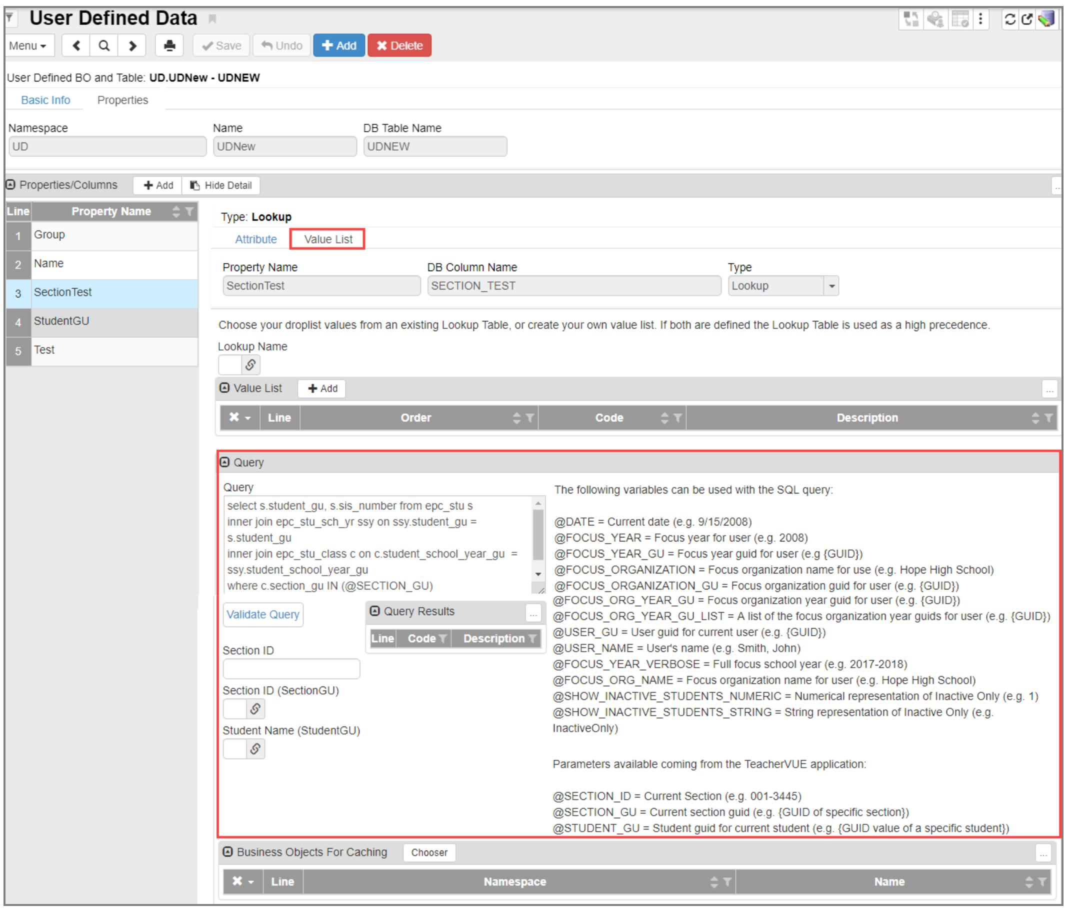
User Defined Data Screen

7. Select the **Properties** tab.
   a. Select the property you added a lookup function for and click **Show Detail**.
   b. Select the **Value List** tab in the Properties/Columns detail.
   c. Enter a **Query** in the Query section.
   d. Click **Validate Query** to determine if the query is valid. The results display in the Query Results section.

> The Query Results section displays a maximum of 16 rows.

e. Enter the **Section ID**, **Section ID (SectionGU)**, or **Student Name (StudentGU)** as needed.

> These parameters come from TeacherVUE. When these TeacherVUE fields display on the report interfaces in Synergy, the lookup does not display any values.
>
> These values are only used as temporary values for validating the query. They are not there once you leave this screen or refresh the data. These values have no impact on the actual lookup when used on the report interface.
>
> When a query is dependent on these TeacherVUE values, type the query with the assumption that multiple results can display (IN List option versus an '=' operator).



User Defined Data Screen, Properties Tab, Properties/Columns Detail, Value List Tab

> The static and predefined variables display on the right. They are based on the current context and focus values and start with '@'.

f. Click **Chooser** in the Business Objects for Caching section to locate a BO.

User Defined Data Screen, Properties Tab, Properties/Columns Detail, Value List Tab

> The Business Objects for Caching section displays a list of BOs that can be used as additional caching keys.
>
> Changes made to the BO added in this section refresh the lookup values. For example, if a Student list is based on Migrant status, the Student BO must be added. Any changes to that BO clears the lookup and rebuilds it the next time it is accessed.
>
> The lookup results are cached by OrganizationYearGU by default.

SQL Server Reporting Services (SSRS) in Synergy

Synergy can run SQL Server Reporting Services (SSRS) reports. SSRS is a server-based report generation software system from Microsoft that enables users to quickly and easily generate reports from Microsoft SQL Server databases. You can save these reports to the PAD tree like any other user-defined report. You can pass parameters to the SSRS query by adding fields to the SSRS report interface in Synergy SIS.

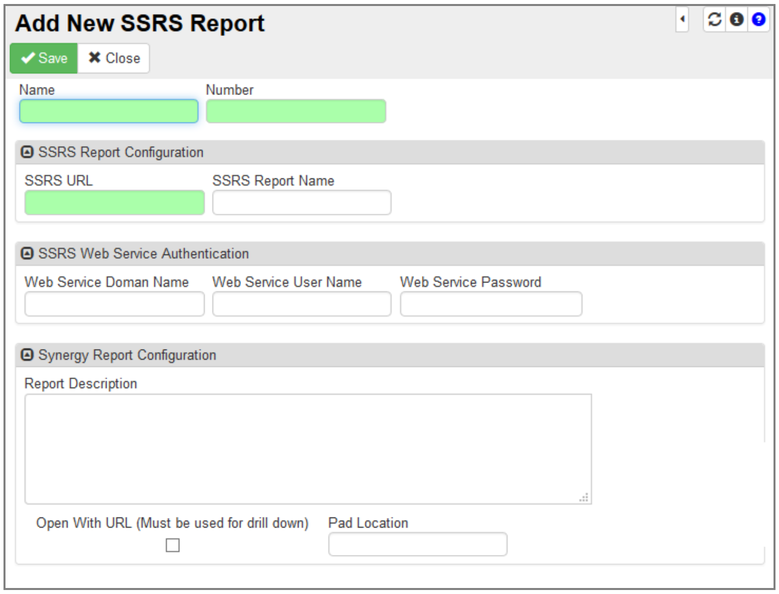
1. Navigate to **Synergy SIS > System > Data and Views > Report Interface Change**.
2. Click **Add**. The Add New SSRS Report screen opens.
3. Enter the **Name** of the report as you want it to display in the PAD tree.
4. Enter the **Number** of the report as you want it to display in the PAD tree.
5. Enter the URL of the SSRS server in the **SSRS URL** field and the full path to the SSRS report to run in the **SSRS Report Name** field.
6. Enter the account information to run the SSRS report in the **Web Service Domain Name**, **Web Service User Name**, and **Web Service Password** fields.

   > These credentials must have the appropriate rights on the SSRS server to execute the report.

7. Enter a **Report Description** as you want it to display on the new report interface.
8. Select the **Open With URL** option to open the SSRS report from the SSRS server and use any of the data manipulation features of the SSRS report.

   > If you clear this option, Synergy SIS returns a PDF version of the SSRS report.

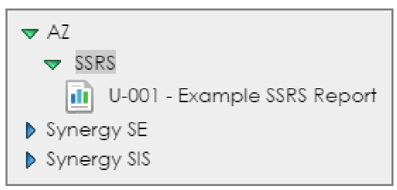
9. In the **PAD Location** filed, enter the location in the PAD tree where you wish to save the report. Separate folders with a '\'.



Add New SSRS Report Screen

10. Click **Save**.

User Defined SSRS Report Example



Synergy SIS PAD Tree

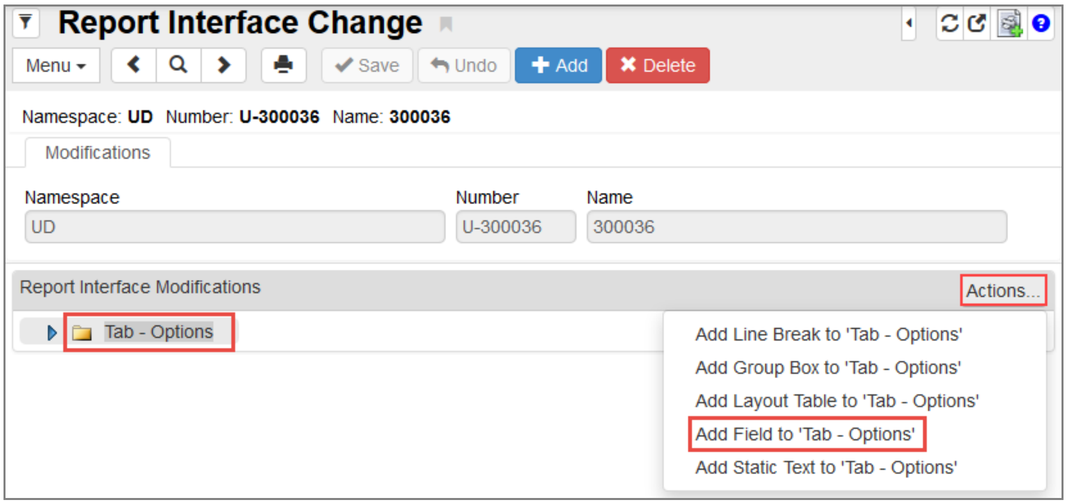
Pass a Parameter to an SSRS Report

By default, Synergy SIS passes the following parameters to any SSRS report launched from Synergy SIS.

- @DATE = Current date (e.g. 9/15/2008)
- @FOCUS_YEAR = Focus year for user (e.g. 2008)
- @FOCUS_YEAR_GU = Focus year guid for user (e.g. {GUID})
- @FOCUS_ORGANIZATION = Focus organization name for user (e.g. Hope High School)
- @FOCUS_ORGANIZATION_GU = Focus organization guid for user (e.g. {GUID})
- @FOCUS_ORG_YEAR_GU = Focus organization year guid for user (e.g. {GUID})
- @FOCUS_ORG_YEAR_GU_LIST = Focus organization year guid list for user (e.g. {GUID}, {GUID}, …)
- @USER_GU = User guid for current user (e.g. {GUID})

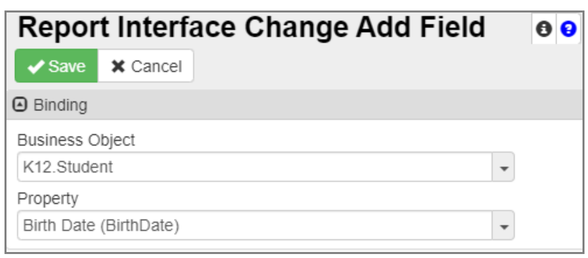
In addition to this list, you can use the Report Interface Change screen to add fields that pass as parameters to the SSRS reporting engine.

1. Navigate to **Synergy SIS > System > Data and Views > Report Interface Change**.
2. Scroll to the SSRS report you want to pass a variable to.
3. Select the **Tab – Options** folder in the Report Interface Modifications tree.
4. Select *Add Field to 'Tab – Options'* from **Actions...** to open the Report Interface Change Add Field screen.



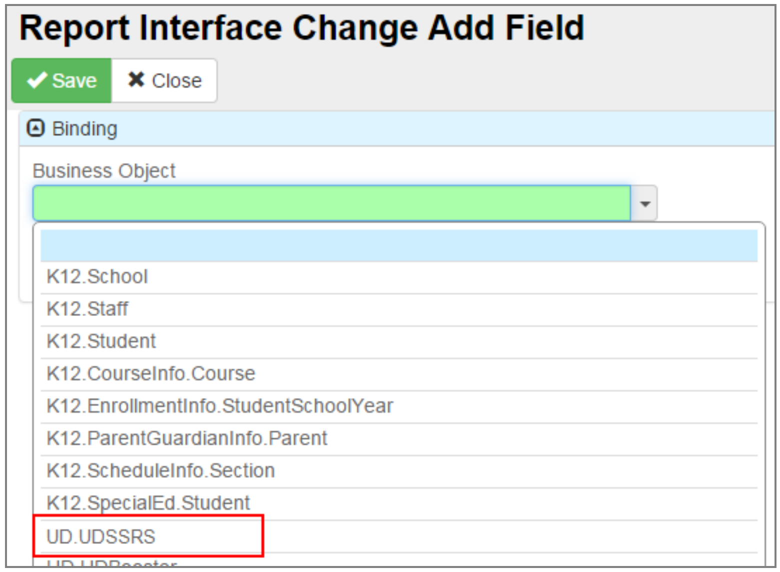
Report Interface Change Screen

5. Select the necessary **Business Object** and **Property** to add.

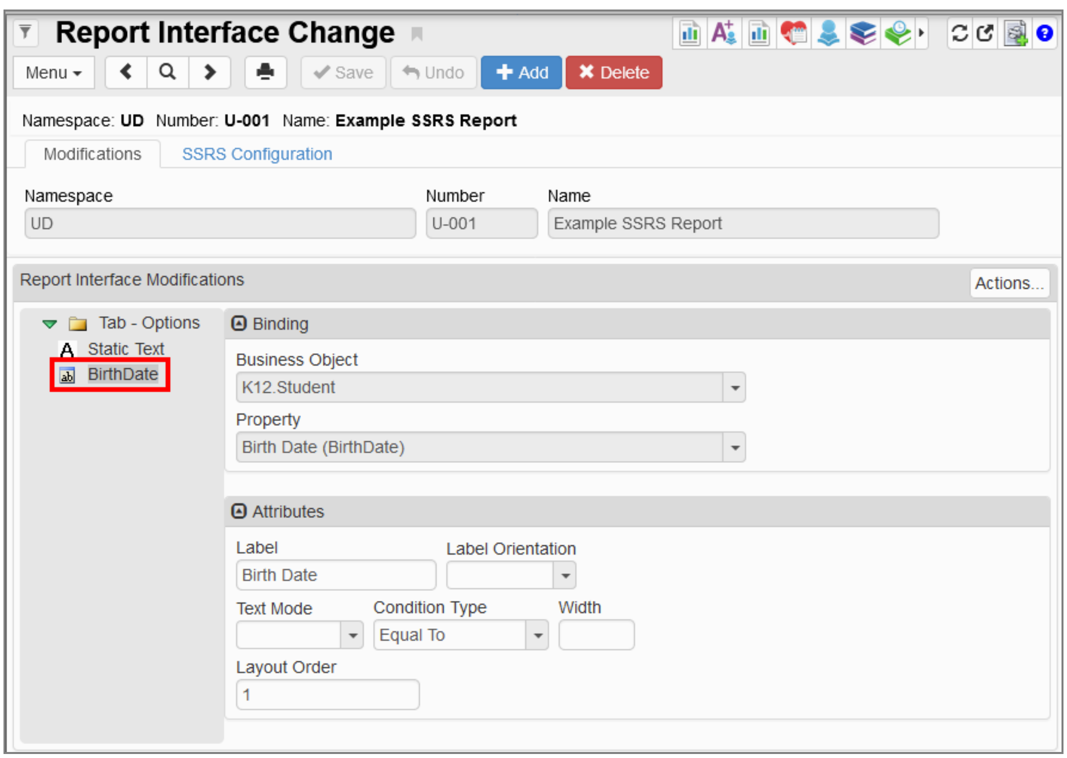


Report Interface Change Add Field Screen

The **Business Object** field filters automatically to a specific group of Synergy business objects as well as all user-defined business objects. Edupoint recommends that you create a user-defined business object and property to use for SSRS parameters to avoid potential conflicts with future Synergy updates.

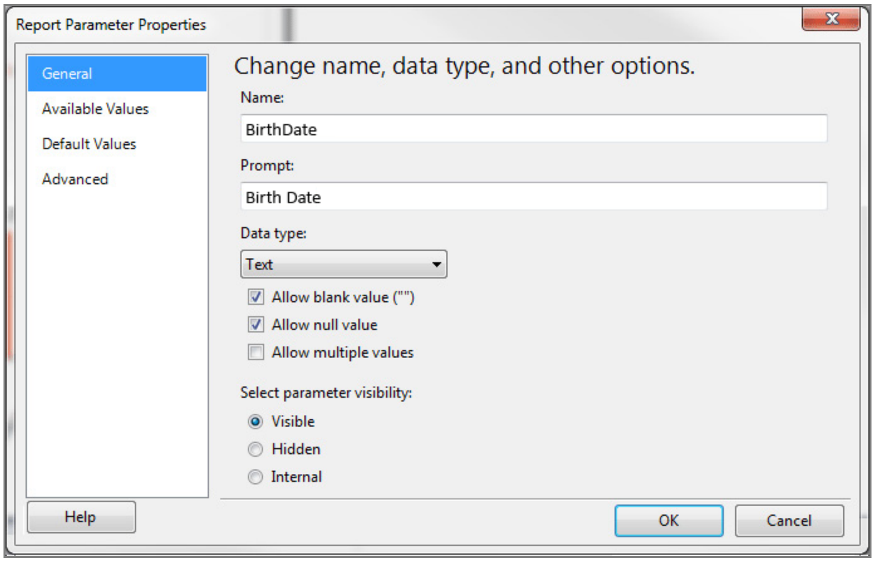


Report Interface Change Add Field Screen



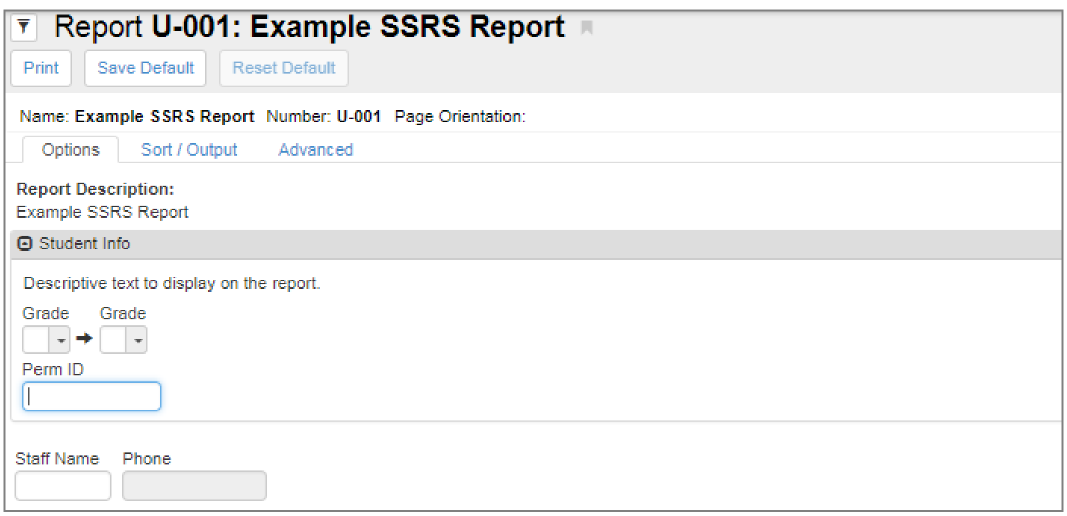
Report Interface Change Screen

6. Add the parameter in the SSRS project. You can use this parameter in your SSRS report.



Report Parameter Properties Screen

7. Navigate to the SSRS report in the PAD Tree.
8. Enter a value in the added fields to pass that value to the SSRS report.
9. Click **Print** to launch the SSRS report.



SSRS Report Output Example

Chapter 11: Job Queue Reports

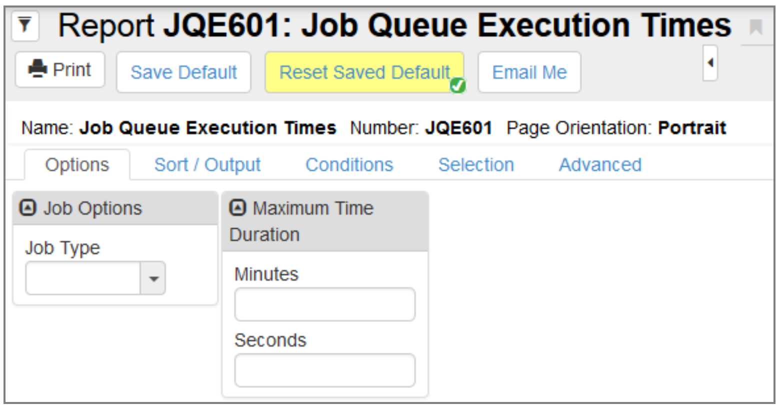
JQE601 – Job Queue Execution Times

Synergy SIS > System > Job Queue > Reports > Summary

The Job Queue Execution Times report lists the amount of time it took to process each of the jobs listed in the queue.

For each amount of time, it shows the number of jobs that took that long to process in the **Count** column and the percentage of jobs that represents in the **Overall** column. For example, in the first line of the report below, 87 jobs took less than 1 second to process (00:00:00), which represents 7.08% of all jobs.

The threshold represents what percentage of jobs processed in that amount of time or less. For example, in the report below, 80% of the jobs processed in 15 seconds or less.



JQE601 – Job Queue Execution Times Report Interface Screen

Report Options:

- **Job Type** – Filter the report output to include processed jobs based on Job Type.
- Maximum Time Duration – Filter the report output to include all the jobs with minutes and seconds less than or equal to the **Minutes** and **Seconds** entered in these fields.

Hope High School
Job Queue Execution Times

Year: 2014-2015
Report: JQE601

TotalTime	Count	Overall	Threshold	
00:00:00	52	0.51%	0.51%	
00:00:01	1182	11.59%	12.10%	
00:00:02	2034	19.95%	32.05%	
00:00:03	1434	14.06%	46.11%	
00:00:04	956	9.37%	55.48%	
00:00:05	739	7.25%	62.73%	
00:00:06	576	5.65%	68.38%	
00:00:07	462	4.53%	72.91%	
00:00:08	354	3.47%	76.38%	
00:00:09	276	2.71%	79.08%	
00:00:10	**216**	**2.12%**	**81.20%**	**Threshold: 80%**
00:00:11	182	1.78%	82.99%	
00:00:12	181	1.77%	84.76%	
00:00:13	127	1.25%	86.01%	
00:00:14	120	1.18%	87.18%	
00:00:15	88	0.86%	88.05%	
00:00:16	79	0.77%	88.82%	
00:00:17	69	0.68%	89.50%	
00:00:18	**58**	**0.57%**	**90.07%**	**Threshold: 90%**
00:00:19	64	0.63%	90.69%	
00:00:20	48	0.47%	91.16%	
00:00:21	26	0.25%	91.42%	
00:00:22	42	0.41%	91.83%	
00:00:23	28	0.27%	92.11%	
00:00:24	31	0.30%	92.41%	
00:00:25	26	0.25%	92.67%	
00:00:26	28	0.27%	92.94%	
00:00:27	14	0.14%	93.08%	
00:00:28	20	0.20%	93.27%	
00:00:29	26	0.25%	93.53%	
00:00:30	18	0.18%	93.70%	
00:00:31	18	0.18%	93.88%	
00:00:32	16	0.16%	94.04%	
00:00:33	20	0.20%	94.23%	
00:00:34	18	0.18%	94.41%	
00:00:35	11	0.11%	94.52%	
00:00:36	9	0.09%	94.61%	
00:00:37	6	0.06%	94.67%	
00:00:38	18	0.18%	94.84%	
00:00:39	11	0.11%	94.95%	
00:00:40	**9**	**0.09%**	**95.04%**	**Threshold: 95%**
00:00:41	12	0.12%	95.16%	
00:00:42	7	0.07%	95.22%	
00:00:43	13	0.13%	95.35%	

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JQE601 – Job Queue Execution Times Report Output

JQE602 – Jobs by Hour

Synergy SIS > System > Job Queue > Reports > Summary

The Jobs By Hour report lists each hour of the day with the status of the jobs for that hour and how many jobs processed at that time.

JQE602 – Jobs By Hour Report Interface Screen

Report Options:

- **Job Type** – Filter the report output to include processed jobs based on Job Type.
- **State** – Filter the report based on the state of the jobs included in the report.
- **Show Errors** – Select to include jobs not completed because of errors in the totals for the report.

Hope High School
Jobs by Hour

Year: 2014-2015
Report: JQE602

Hour	State	Count
12 AM	6	8
1 AM	6	97
3 AM	6	2
4 AM	6	21
4 AM	Error	3
4 AM	Complete	1
5 AM	Complete	13
5 AM	6	64
5 AM	Error	3
6 AM	Complete	4
6 AM	6	107
7 AM	6	261
7 AM	Error	27
7 AM	Complete	30
8 AM	Error	11
8 AM	6	732
8 AM	Complete	44
9 AM	5	7
9 AM	6	934
9 AM	Complete	133
9 AM	Error	31
10 AM	Error	40
10 AM	In Progress	2
10 AM	6	1163
10 AM	Complete	163
11 AM	6	1092
11 AM	5	10
11 AM	Error	30
11 AM	Complete	207
0 PM	6	887
0 PM	5	8
0 PM	Complete	252
0 PM	Error	64
1 PM	5	12
1 PM	Complete	117
1 PM	6	1037
1 PM	Error	21
2 PM	Error	27
2 PM	6	1156
2 PM	5	3
2 PM	Complete	180
3 PM	5	2
3 PM	In Progress	1
3 PM	Error	29

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JQE602 – Jobs By Hour Report Output

JQE603 – Jobs by Type

Synergy SIS > System > Job Queue > Reports > Summary

The Jobs by Type report lists all the types of jobs, including each report, and a count of how many of each type of job processed.

JQE603 – Jobs By Type Report Interface Screen

Report Options:

- **Job Type** – Filter the report output to include processed jobs based on Job Type.
- **Show Errors** – Select to include jobs not completed because of errors in the totals for the report.

Hope High School
Jobs by Type

Year: 2014-2015
Report: JQE603

JobID	Desc	Count	Errors
ACC501	Classroom Accommodations by Section	28	
ACC502	Classroom Accommodations by Student	26	
ACC503	Classroom Accommodations by Accommodation	18	
ADM475	Average Daily Membership	70	
ADM601	Cumulative ADM/Absence Rate Report	5	
ADM602	Student Count Report	10	
ADM640	Current Year ADM	29	
ADM675	Average Daily Membership Summary	12	
ADS201	Student Discipline Profile	16	
ADS401	Student Discipline Listing	7	
ADS402	Student Demerit List	5	
ADS403	Discipline Disposition List	6	
ADS601	Discipline Summary by Grade	6	
ADS602	Discipline Summary by Ethnic Code	7	
ADS801	Disciplinary Action Form	11	
ATD201	Daily Attendance Profile	45	
ATD202	Daily Attendance Minutes Profile	17	
ATD401	Daily Student Absence Totals	84	1
ATD402	Daily Attendance List	56	
ATD403	Daily Absent List	66	
ATD404	Daily Tardy List	21	
ATD405	Daily Perfect Attendance List	42	
ATD406	Daily Student List by Attendance	26	
ATD407	End Of Year Attendance List	53	
ATD412	Student Gain Loss	22	
ATD413	Class Reduction Summary	27	
ATD414	Student Days Enrolled	10	
ATD415	Attendance Audit List	26	
ATD601	Daily Attendance Summary	28	
ATD603	Monthly ADA Detail	11	
ATD604	Monthly ADA Summary	19	
ATD605	Cumulative Enrollment Totals	23	
ATD608	Monthly ADM Summary	12	
ATD616	Student Attendance Summary	44	
ATD626	200 Day Accountability Report	1	
ATD627	Director's Membership and Attendance Report	1	
ATD628	Director's Vocational Class FTEADA Report	1	
ATD629	Director's Vocational Class FTEADM Report	1	
ATD801	Attendance Sheet	42	2
ATD802	Attendance Sheet	13	12
ATD805	Attendance Letters	32	3
ATD806	Class Attendance Reminder	66	10
ATP201	Period Student Attendance Profile	97	
ATP401	Period Attendance List	87	
ATP402	Period Student Absence Totals	78	4
ATP403	Period Perfect Attendance List	12	

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JQE603 – Jobs By Type Report Output

Chapter 12: Security

Security Overview

The PAD Security screen (**Synergy SIS > System > Security > PAD Security**) and the Security Definition screen (**Synergy SIS > System > Security > Security Definition**) define security for each of the screens discussed in this guide. This section outlines the security location for each of the screens within Security Definition.

Edupoint recommends that users only secure reports through PAD Security instead of the Security Definition screen.

See the *Synergy SIS – Security Administrator Guide* for more details regarding security definitions.

Query and Reporting Security Definitions

Screen	PAD Location	Tab	Grid/Pop-Out Screen	Field	Security Node
Job Queue Viewer	**System > Job Queue**	**Current**	All	All	Revelation.JobQueueInfo.JobQueue
			Results tab in Jobs in Queue Detail	All	Revelation.JobQueueInfo.JobQueueResultGrid
Job Q Adm Viewer	**System > Job Queue**	**Current**	All	All	Revelation.JobQueueInfo.JobQueue
			Results tab in Jobs in Queue Detail	All	Revelation.JobQueueInfo.JobQueueResultGrid
Query	**Query**	N/A	N/A	**Name, Group, Type, Output Type, Orientation, Type, Description**	Revelation.Query.RevQuery
		Type in Query	All	All	Revelation.Query.RevQuery
		Columns	Business Objects	All	Revelation.Query.BusinessObjectGrid Revelation.Query.BusinessObjectProperty
			Property Overrides	All	Revelation.Query.AllPropertyGrid
		Conditions	All	All	Revelation.Query.ConditionTree
			Create a Condition	All	Revelation.Query.RevQueryCondition
		Sort	All	All	Revelation.Query.RevQuerySort
Query Admin	**Query**	**Public Queries**	All	All	Revelation.Query.QueryPublicGrid
		Nominated Queries	All	All	Revelation.Query.QueryEvalGrid
SQL Query	**Query**	**Statement**	All	All	Revelation.Query.QuerySQLUI
Add New SSRS Report	**System > Data and Views > Report Interface Change**	N/A	All	**Name, Number, Pad Location**	Revelation.ReportDef
				All except **Name, Number, Pad Location**	Revelation.SSRSConfig

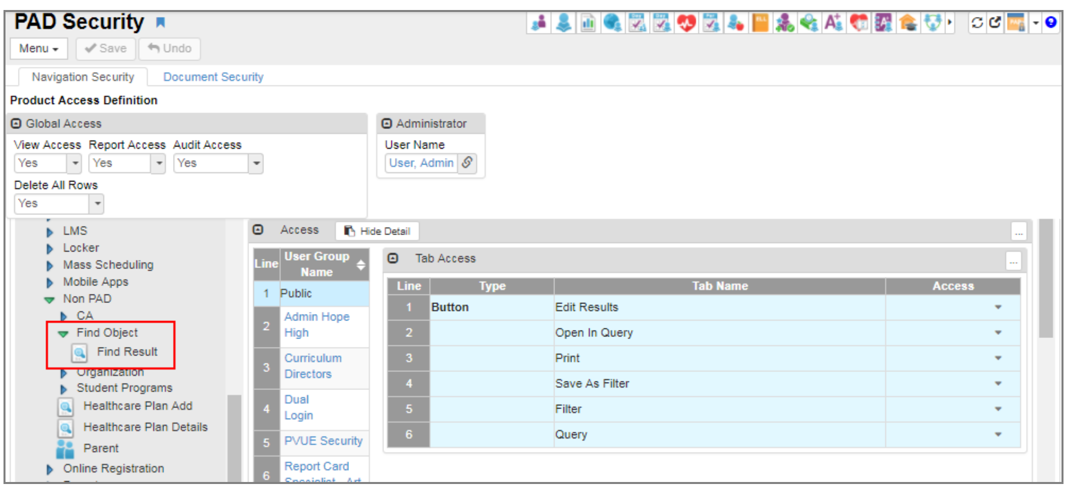
Query and Reporting Security

Use the PAD Security screen to change whether users can see various buttons and tabs on the screens.

- **Group Access** tab – Allows configuration of document tabs and buttons for user groups
- **User Access** tab – Allows configuration of document tabs and buttons for specific users

Controlling Buttons on Find Results Screen

1. Navigate to **Synergy SIS > System > Security > PAD Security**.
2. Navigate to **Synergy SIS > Non PAD > Find Object > Find Result** in Product Access Definition Security.
3. Select the row that contains the **User Group Name** on the **Group Access** tab or find and select the user on the **User Access** tab.
4. Click **Show Detail** to display the document properties.
5. Select the type of **Access** for the group or user.
6. Click **Save**.



PAD Security Screen