ReportWorks

ReportWorks is PowerSchool's new reporting tool. ReportWorks is designed to give PowerSchool administrative users a drag-and-drop interface for creating custom reports.

In this class, you will learn to create the following types of reports:

- Mailing labels
- Student lists
- Student schedules
- Cross Tab
- Form letters

Getting Started

To access ReportWorks, log on to PowerSchool and use one of the two paths:

1. On the Start Page main menu, click **ReportWorks**

   or

2. On the Start Page main menu, click **Reports > Setup > ReportWorks**
3. On the Launch ReportWorks page, click **Launch**

   ReportWorks will launch as a separate application using Java™.

   Your username and password are the same as the username/password for logging into PowerSchool admin. The only case where this is not true is if the user is also setup to access PowerTeacher Administrator and within PowerTeacher Administrator the user changes the username/password. When this occurs, the user will need to use the PT Admin username/password to access ReportWorks.
4. Enter the username and password, and click **Login**.

   When you log on, the ReportWorks start page gives you three choices: create a report project from a template, start a new report project from scratch, or open an existing report project.

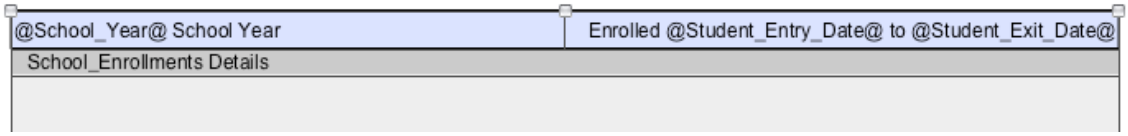
   In the first activity, in order to become familiar with how ReportWorks works, you'll look at a report project based on a template.

Activity 1: Student Schedules from a Template

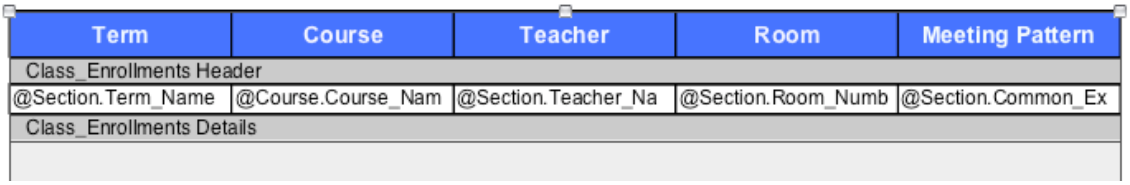
First, look at an example of a pre-fabricated report project in ReportWorks that can do almost everything you need to do with Student Schedules. When you need a report in a hurry, templates are a good way to go.

1. Log on to ReportWorks, and click **Project based on a template**
2. Select **Student Schedule List**, and click **Create**
3. Click the **Layout** tab, and click **Preview**; you'll see examples of the student schedules

4. Click **Edit** to look at how the report is set up
5. You'll see several data objects arranged on the report project's grid:



6. Every data object has an @ sign at the beginning and at the end; between @'s you see the field name and its table location in this order: parent.child.fieldname; for example: @Student.Enrollment.School_Name@
7. To get more information about how the report is constructed, click **Tools** > **Inspector**
8. In the lower left corner of the table in the Layout, click **Table Group.** The Table Group Inspector will list the two levels of the report project. The outer level is the student's general information, while the inner level is the student's schedule information
9. Click the **Class_Enrollments** level in the Inspector to see how the student's schedule information is arranged:



10. Also in the lower left corner, you'll notice that the author of this report has incorporated a date stamp; click the date stamp to see in the Text Inspector how it was created

Creating Labels

Labels are about the simplest, most straightforward report in ReportWorks. The dimensions of the labels are already set; all you have to do is choose which brand and label number you want; then arrange the text in the labels.

Activity 2: Create Mailing Labels

In this activity, you'll create a basic Avery 5160 label with the student's first name, last name, address, city, state, and zip. You will also set a Boundary (filter) that will confine the report to active students only.

1. To start a new report project, click **+add** in the upper-left corner of the screen, and choose **Add Project**
2. The new report project will be named Untitled Report
3. Right click **Untitled Report** and select **Load Report**
4. Click the **Details** tab, and give your project a title that includes your initials, such as `Student Mailing Labels_gb`
5. Give your project a description, such as `Avery 5160 labels`
6. For the Data Set, click **Student : Basic**.
7. Click **Scope** to set Boundaries (filters) and Runtime Controls (choices of groups of students)
8. Click **Boundaries**

9. In the bottom part of the page, click **Student** to expand the data set
10. Click **Demographic** to expand that set
11. Drag **Student_enrollment_status** into the main part of the page
12. Make sure the operator in the Add Filter box is set at **=**
13. Type `0` in the field after the operator, and click **OK**
14. Click **Layout**
15. From the Data Set at the bottom part of the page, drag the **Student** data object into the main part of the page
16. On the Dataset Key Element box that appears, click **Labels,** then click **OK**
17. Click in one of the labels, and on the right of the ReportWorks toolbar, click  to open the Inspector
18. In the Labels Inspector, under Avery Product Number, choose **5160: Address Labels**
19. Double click inside the first label so that it has a light-red border around it
20. In the Data Set at the bottom of the page, click **Contact** to expand that set of data objects
21. Drag the **FirstLast_Name** data object to the first label
22. Move your cursor to the bottom, left corner of the **FirstLast_Name** data object and resize that object to match the size of the label
23. In the Text Inspector, click after the **FirstLast_Name** data object
24. Press ENTER/RETURN to start a new line
25. Drag the **Mailing_Street** data object onto the **FirstLast_Name** data object
26. In the Text Inspector, click after the **Mailing_Street** data object
27. Press ENTER/RETURN to start a new line
28. Drag the **Mailing_City** data object onto the the **FirstLast_Name** data object
29. In the Text Inspector, click after the **Mailing_City** data object and type a comma and a space
30. Drag the **Mailing_State** data object onto the the **FirstLast_Name** data object
31. In the Text Inspector, click after the **Mailing_State** data object and type a space
32. Drag the **Mailing_Zip** data object onto the the **FirstLast_Name** data object
33. Enlarge the field, so that it fits the entire label: double click in the cell so that the resizing handles appear; place your cursor on the bottom right corner and drag it to fit
34. Click **Preview**
35. Click **Edit** to close the preview

Activity 3: Add a Logo to Your Labels

Now it's time to personalize your labels with the school mascot.

1. Click the first label, so that it has a light-red border around it
2. On your PSU CD, go to the **ReportWorks** folder, and find the file called mini_tiger.png
3. Re-size the ReportWorks window so that you can see both it and the mini_tiger.png file at the same time

4. Drag the mini_tiger.png to the first label
5. In the Image Import box, click **Image Shape**
6. Re-size the label text, so that the image has room
7. Click the **Tools** menu and choose the **Font Panel**; change the font of the label text to be 10 point
8. Click **Preview** to see your results
9. Click **Edit** to close the preview

Creating Student Lists

Labels were a snap with ReportWorks. Now it's time to turn your attention to a different report project. This project will show you how to use some of the design features in ReportWorks. You'll start by getting students' names, gender, and ethnicity; then you'll sort that student list by students' last names.

Activity 4: Create a Simple Student List

1. Start a new report project: click **+add** in the upper-left corner of the screen, and choose **Add Project**
2. The new report project will be named Untitled Report
3. Right click **Untitled Report** and select **Load Report**
4. Give your project a title that includes your initials, such as `Simple Student List_gb;` then give it a description
5. Select the **Student : Basic** Data Set
6. Click the **Scope** tab
7. Click **Layout**
8. From the Data Set at the bottom of the page, drag the **Student** data set into the main frame
9. For the Dataset Key Element, click **Table** and then **OK**
10. Click **Contact** to expand the set
11. Drag **Last_Name** to the first cell of the table
12. Drag **First_Name** to the second cell of the table
13. Click **Demographic** to expand the set, and drag **Ethnicity** to the third cell of the table
14. Drag **Gender** to the fourth cell of the table
15. Re-size the placeholder, so that it takes up the entire page
16. Click **Preview**; you'll see a sample list of students
17. Click **Edit** to close the preview

Activity 5: Format the Student List

The list is working well so far; you have appropriate spacing between the students. But it's quite plain. It could use a little bit of dressing up. In this activity, you'll change fonts and colors, and add a header to your report project.

1. Re-size the first and second columns so that they take up most of the row
2. Re-size the third and fourth columns, so that each column width is appropriate to the data; remember, the full data object name might be `@Demographic.Ethnicity@`, but you have to make the column only wide enough to show one letter
3. Now you're going to put the school name at the top of each page; click the **Table Inspector**, and click **Header**
4. Drag **School_Name** into the first cell of the Student Header
5. Click in the Text Inspector after the School_Name data object; type a space and `Student Roster`
6. Click the box next to the word **Standard** on the "Student Header" to merge the four cells into one
7. Click the **Tools** menu and choose the **Font Panel**
8. Select the Student Header text and use the Font Panel to change the font size to 18 bold
9. Re-size the placeholder to be tall enough for the text, and as wide as the table
10. Use the Text Inspector to center align the text in the placeholder
11. Click the outer border of the header, so that it has a light-red line around it
12. Click the **Paint/Fill Inspector** (paint bucket), and click **Fill**
13. Click the black square, and choose a different color
14. Click **Preview** to see your progress
15. Click **Edit** to close the preview

Activity 6: Alternating Row Colors

So, you have a colored background for your page header. But what about the rows of student names themselves? Wouldn't they benefit from a little color, too? The problem is, if you make every row the same color, nothing really stands out. It would be better to use a color for every other row.

1. Click the word **Standard** on the Student Details row
2. Choose **Add Alternate** so that you can have a different color for the alternate rows
3. Click the **Paint/Fill Inspector** (paint bucket), click **Fill**, and choose a color; your best bet is to use a light, subtle gray color
4. Click **Preview** to see how the data will look; the gray rows will be the even-numbered ones
5. Click **Edit** to go back to the design of your table
6. Click the word **Alternate** on the Student Details row, and choose **Standard;** use the Paint/Fill Inspector to give the odd-numbered rows their own color
7. Click **Preview** to see how it looks
8. Click **Edit** to close the preview

Activity 7: Sort the Data and Add a Page Number

You've previewed the report a couple of times. You can see that the report will clearly span more than one page. Now that you know that, it makes sense to have page numbers so that when you print the report, it's easier to keep the pages in order.

Now you'll sort the students by last name, making the data easier to read.

Sorting

1. Click inside the table, then click **Table Inspector** on the Inspector Pane
2. Click **Contact**, then click **Last_Name** and drag the **Last_Name** data object to the Sort area of the Table Inspector

Page Numbering

3. In the Data Set's first column, click **Page of PageMax** and drag it to the bottom of the page, below the edge of the table
4. To get the page number to the center of the page, expand the placeholder so that it's the width of the page, and then center align the text using the Text Inspector
5. Click **Preview**
6. Click **Edit** to close the preview

Creating a Report Containing a Student Schedule

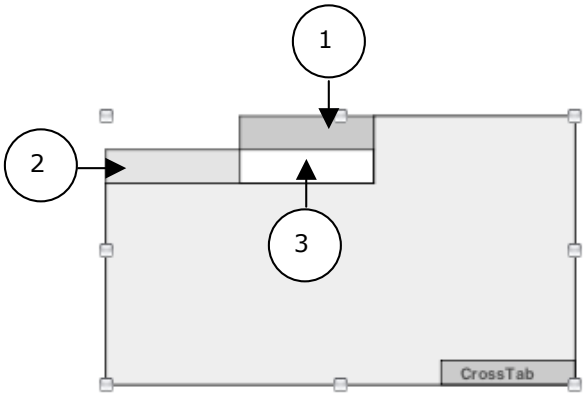
How many times during a school year do you need a document containing a student class schedule? With ReportWorks you can make a report that is just a table containing the schedule, or you can place a schedule in other types of documents, such as a letter to parents. A convenient template is included with ReportWorks, making this project very easy to create.

Activity 8: Create a Student Schedule

1. Log on to ReportWorks, and click **Project based on a template**
2. On the list of templates, click **Student Schedule List**, and click **Create**
3. Name and describe the project (include your initials in the name), and make sure the Data Set is **Student : Basic + Schedule**
4. Click **Scope** and set up appropriate Boundaries and Runtime Controls
5. Click **Layout**; then click **Preview** to see whether the template pulls the information you want in your report
6. Click **Edit**, and using the techniques you've learned in this course, modify the project to fit your needs

Creating a Cross Tab Report

The Cross Tab Report in ReportWorks is similar to a PivotTable in Excel. It's a report that shows how sets of data intersect; for example, it could show student populations broken down by both gender and ethnicity. The Cross Tab report project layout looks like this:



1. Column field – one unique value in each column
2. Row field – one unique value in each row
3. Data field – where the column meets the row

You can use a data object modifier such as "count" to get the results you want. "Count" is one type of modifier in the group called Aggregate Modifiers, which can be used as in this example:

Aggregate Modifiers

Format: @[modifier].[Data Object]@

Example: @count.Ethnicity@

Result: Displays count of each Ethnicity code within a group in a table

Modifier	Description
total	Calculates the total for numerical values
average	Calculates the average for numerical values
count	Provides a count of how many data objects are in a list or group
max	
min	

Activity 9: Create a Demographics Summary

1. Click **+add** under the Projects pane to start a new report project
2. The new report project will be called Untitled Report; right-click the name and then click **Load Project**
3. Click the **Details** tab; change the Project Name to `Student Demographics`, and give it a description
4. For Data Set, choose **Student : Basic**
5. Click **Scope**
6. In the Data Set pane, click **Student** to expand the data set
7. Set a Boundary by clicking **Demographic**
8. Drag **Student_enrollment_status** into the Boundaries pane
9. Make sure the operator in the Add Filter window is =
10. Type `0` in the blank field
11. Click **Layout**
12. Drag the **Student** data object to the Layout pane, choose **Cross Tab** from the Data Key Element dialog, and click **OK**
13. Click **Demographic** to expand the object, and drag **Gender** to the Column field
14. Click **Ethnicity** and drag it to the Row Field
15. Click in the Data field, and type `@count@`
16. Click **Preview** to see your results so far; then click **Edit** to make further changes

Activity 10: Change the Cross Tab Report's Format

The report is showing useful data. But the format could be a little better. Fortunately, ReportWorks has built-in formats to help make your data stand out a little better. In addition, since this is sensitive information, you'll add a watermark to your report – the word CONFIDENTIAL. To make the watermark easier to manage, you'll explore how to use layers in ReportWorks. Using layers will help you move the watermark independent of the Cross Tab data.

1. Click the border of the Cross Tab to activate the Cross Tab Inspector
2. At the bottom of the Inspector window, click **AutoFormat**
3. Choose **Classic 3** for Table AutoFormat, and click **OK**
4. Click **Preview** to see the results
5. Select the **Page Inspector** on the Inspector pane, to add a new layer for the watermark
6. Click **Add**; then click **Rename**
7. Rename your new layer `Watermark`
8. Click the eye next to Layer 1, to temporarily hide the Cross Tab data
9. Re-size the ReportWorks window so that it takes up about half of your screen
10. On the PSU CD, navigate to the ReportWorks folder, and click the file called **Watermark**; drag the file to the ReportWorks window
11. Click **Layer 1**, and then click **Rename**; call this layer `Data`

12. Click the eye next to Data to make it visible again
13. Click the layer **Watermark**, then click and drag the watermark to move it around

The advantage to putting the watermark in its own layer is that it's easier to manage independent of the data. In the next activity, you're going to use an existing form letter in conjunction with ReportWorks, and you'll see that being able to show and hide will be incredibly useful.

Using ReportWorks to Fill in Forms

It might be a letter to parents, it might be a 504 plan, it might be a permission slip. You can't get too far in your school day without having to fill out a form for multiple students. ReportWorks has some tools to make this a little bit easier.

You'll go through two different examples. In the first example, you'll use an existing permission slip, which is in a PDF format, and use ReportWorks to help fill in the fields. In the second example, you'll copy and paste some text directly into the ReportWorks window, and edit the text.

Activity 11: Use a PDF Letter, and Add Data objects

In this activity, you already have a PDF form letter that you can just drag and drop into the report project Layout window.

1. Create a new report project, titled PDF Form Letter
2. For the Data set, choose **Student : Basic**
3. Click **Scope**
4. Click **Layout**
5. Drag the **Student** data object into the layout
6. For the Data Key Element, choose **Table**, and click **OK**
7. Resize the table to take up the entire Layout page
8. Re-size the ReportWorks window so that it takes up only half the screen
9. On your PSU CD, go to the ReportWorks folder, and find the file called `Permission_Slip.pdf`
10. Drag the Permission Slip file to the Layout window
11. In the Image Import box, click Image Shape
12. Click **Tools > Inspector**, so that you can manage your document's layers
13. Click **Page Inspector** so that you can see the existing layer, Layer 1
14. Re-name Layer 1 as `Background`
15. Click the lock, so that the background layer with the school letterhead does not move
16. Click the letterhead in the layout area, and try to move it
17. Go back to the Page Inspector, and click **Add** so that you create a second layer
18. Rename the second layer `Data`
19. Click the **Data** layer, so that the data objects you add will be on that layer
20. Drag **FirstLast_Name** to the line that reads `To the parents of _____`
21. In the first column of the Data Set, click **Date** and drag **Date** to the line that reads `Date:` `_____`

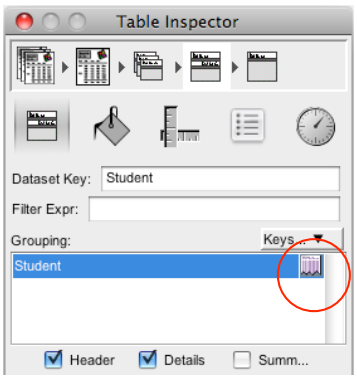
22. Click the **Tools** menu and then click **Format** Panel
23. Click **Mar 8** to change the date format
24. Change the date format to MMMM d, YYYY
25. Click **Preview** to see an example of your work
26. Click **Edit** to close the preview

Activity 12: Create an Impromptu Form Letter

Sometimes you have a form letter file that a colleague has given you. It's not quite what you need, but it's a good start.

Using ReportWorks, you can take the existing text and modify it for your purposes.

1. Create a new report project, titled PDF Form Letter, and choose the **Student : Basic** data set
2. Click the Scope tab, and set whatever Boundaries and Runtime Controls are appropriate
3. Click **Layout**
4. Drag the **Student** data object to the Layout area
5. For the Dataset Key Element, click **Table** and then **OK**
6. Re-size the table, so that it takes up the whole page
7. You want to have only one student's name per page; click **Tools > Inspector**; the Table Inspector should be active
8. Under the word Grouping, click the gray square next to the word Student; the button will change from a gray square to a picture that looks like a torn piece of paper:



9. Double click **Student Details** in the gray area to make that row active
10. Click the button next to the word "Standard" so that the four cells become one
11. Move your cursor to the top of the gray row, so that your cursor becomes a double-headed arrow:

12. Click and drag the **Student Details** gray area down to the bottom of the table so that you have the maximum area to work with
13. Click and drag the **FirstLast_Name** data object to the middle of the page

14. Resize that field to about half of the page so that you have some extra room to add text
15. Double-click the text box to add text to it
16. From your PSU CD, open the file called `permission slip.rtf`,
17. Copy the text from that file, and paste it into the ReportWorks window
18. Edit the line which reads "`no later than _____`"; replace the underline with a date
19. Click **Preview**
20. Click **Edit** to close the preview

Publishing and Unpublishing a Project

In order to use your reports in PowerSchool, you must publish them. Publishing a project makes it a report. Once you have published a report to a school, it appears in that school's list of ReportWorks reports. The only way you can remove a report from PowerSchool's list is to go back into ReportWorks and unpublish it.

Activity 13: Publishing a Project

1. After you finish a project, click the **Publish** tab
2. Give your report a name and a description
3. Select the Output Type
4. Select the PowerSchool Application that will use the report
5. Select an appropriate category
6. Select the schools that will use the report and click the arrow pointing to the Published Schools box

   After you choose the schools, the Security Groups function becomes active.
7. Select the security groups who need access to the report and click the arrow pointing to the Published Security Groups box
8. Click **Publish**

Activity 14: Unpublishing a Project

1. Launch ReportWorks
2. Right click the name of the project, and click **Load Report**
3. Click the **Publish** tab
4. At the bottom of the page click **Unpublish**

Managing and Using ReportWorks in PowerSchool

PowerSchool administrators must set up ReportWorks within PowerSchool:

- Set report categories
- Set preferences
- Give access to ReportWorks Developer users

Report categories are needed in the publishing phase of creating a report. The categories you establish here populate a dropdown menu on the Publish page.

In ReportWorks Preferences you will edit report queue and developer preferences.

Activity 15: Setting Categories and Preferences

1. Log on to PowerSchool
2. On the main menu click **System > ReportWorks Administration**
3. On the ReportWorks Administration page, click **Report Categories**
4. Click **Add New Report Category**
5. In the blank field, type the name of a category for a type of report. You might have reports that contain only demographic information, so a Demographics category could be made available.
6. Click **Submit**
7. Repeat steps 4, 5 & 6 for all the categories you need
8. Click **ReportWorks Administration** in the breadcrumbs; then click **ReportWorks Preferences**
9. For the ReportWorks Scheduler Node, type the IP address of the node in your system where Reports will be run
10. Enter the IP address of the load balancer
11. For the Number of Concurrent Report Jobs, select the number of report jobs that can be running at the same time
12. For the Completed Report Retention Period select the number of days that reports will be retained in the ReportWorks queue
13. For the ReportWorks Application Timeout, set the number of minutes of inactivity before the ReportWorks developers' report creation application requires re-login
14. Click **Submit**

ReportWorks report developers need permission to use the ReportWorks report creation application. You give this permission in the user's Security Settings.

Activity 16: Setting Up ReportWorks Developer Users

1. Log on to PowerSchool
2. Navigate to the record of the staff person to be a ReportWorks Developer
3. In Security Settings, select **Yes** on the line for "ReportWorks Developer user?"
4. Click **Submit**

Using ReportWorks Reports in PowerSchool

Running a ReportWorks report is very intuitive except for a couple of things:

- ReportWorks reports have their own location in PowerSchool—a tab on the Reports page
- ReportWorks has its own report queue

So, here's how you use it.

Activity 17: Using Reports in PowerSchool

1. Log on to PowerSchool
2. Click **Reports**
3. Click **ReportWorks**
4. The reports will be sorted by category. Click the name of the report you want to run
5. On the report's Runtime Parameters page, select the appropriate parameters for your desired results
6. Under Scheduling, select **Run Now**, and click **Submit**
7. In the Report Queue, you will see two tabs; click **ReportWorks** if it is not already selected
8. Your report will be in the Queued Reports panel. If its status says Pending, at the top of the pane, click **Refresh** occasionally until the job's status says Completed
9. When the report's status says Completed, click **Completed**
10. Your report will be displayed in whatever format was chosen at the time the report was published in ReportWorks