STEDFast Data Warehouse

Washington County Public Schools



Admin User Manual

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Chapter 1 - Accessing and Navigating STEDFast

Module 1 - Logging Into STEDFast

The STEDFast system can be accessed from any web browser (Firefox, Chrome, Internet Explorer, Safari, etc.) Some features will work in a limited manner on iPads and other tablets, but you need to be using a standard computer and web browser to access all of the features. Future releases will have better mobile support and be more usable on devices like tablets and smart phones.

To Access and login to STEDFast:

- 1. Open your computer's web browser.
- 2. In the Address Bar, type in https://stedfast.wcs.k12.va.us
- 3. You should see the login screen:



www.pentaho.com | Contact Us



4. Login using your e-mail username and password.

Module 2 - User Interface

The STEDFast user interface should be familiar since it is based on standard concepts of other computer programs you are already using.

File Menu:

- New Generate new reports
- Open Saved reports
- Save Save current report for later use
- Manage Work with your saved reports
- Properties
- Log Out Logout and exit STEDFast

View Menu:

- Browser Show or hide the folder browser (for saved reports)
- Workspace Show reports that are queued up
- Use Descriptions for Tooltips Shows small popups over user interface elements
- Themes Change colors and skins
- Language Change language for interface
- Refresh Reload the current view

Help Menu:

- Documentation See the built-in online user manual
- Pentaho.Com Visit the software vendor's website
- About See information about the current version

Toolbar:

	Open an existing report	
**	New Interactive Report	
	New Analyzer Report	
	New Dashboard Report	
	Edit content	
	Save current report	
<u> </u>	Save-As current report	
	Show or hide workspace	
	Show or hide folder browser	

Chapter 2 - Premade Reports

Several reports have been premade based on input from principals and administrators. These premade reports make it easy to quickly get information in a predesigned layout and template. Some of the reports are customizable to enable you to look at data in different ways. If you have ideas for other premade reports, please let us know.

There are three types of premade reports available in STEDFast:

- Interactive Report An interactive and easy-to-use web-based reporting interface. This tool allows end-users to create simple ad-hoc reports without needing a programmer or report designer. Features include:
 - o Drag-and-drop interface
 - o Inline formatting, filtering, sorting, and summary calculations
 - What You See Is What You Get (WYSIWYG) report design and editing
 - o Report templates for quick access
 - Output to PDF and Excel
- Analyzer Interactive analytical reporting for non-technical business users. Quickly analyze business information in chart or graphic form. Features include:
 - Drill into data using visual analysis
 - o Narrow down data to understand or exclude outliers
 - Conditional formatting to visually contrast data points
 - o Many forms of visualizations: bar chart, pie chart, scatter graph, heat map, etc.
- Dashboards Interactive dashboards allow you to view data at a glance. Features include:
 - o Drag-and-drop interface allows you to quickly assemble content
 - o Embed reports created with other tools into a single dashboard
 - o Link multiple reports together for on-the-fly visualizations

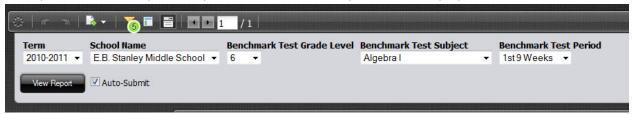
Module 3 - View a Premade Interactive Report

This report will allow you to display scores for a single term, school, grade, test subject, and test period. The scores will be displayed for each student and grouped by teacher. For each teacher, an average score will be displayed for all their students and there will be a grand total average at the end of the report.

- 1. If the folder browser is not visible, click the *Toggle Browser* button to display it.
- 2. Double-click on Benchmark Testing in the Browse window.
- 3. Double-click on *Training* in the *Browse* window.
- 4. Scroll down through the list of reports until you find the one titled Interactive Report Student Scores. Double-click on that report to open it.
- 5. This report will show student scores by teacher for a given term, school, grade, subject, and period. Click on the Prompts icon to display the drop-down boxes that we will use to define our report.



6. Once you click the *Prompts* icon, you should see the *Prompts* window display:



- 7. The report will auto-refresh as the prompts are changed. Since this takes a while each time you change a prompt, uncheck the *Auto-Submit* box so that the report will not refresh until we are finished setting our prompts.
- 8. Go ahead and select one of the terms from the *Term* drop-down list.
- 9. The schools you see will be determined by your security rights as setup in the system. Principals will only have rights to view data at their particular school. Make sure you have a school selected for the *School Name* prompt.
- 10. Select a grade from the *Benchmark Test Grade Level* prompt. Again, this will reflect the grades you have access to in the system.
- 11. For the *Test Subject* prompt, you will need to make sure you select a subject that will have data for the grade you previously selected.
- 12. Select a period from the *Benchmark Test Period* drop-down list.
- 13. Click the View Report button to generate the report based on the prompts you have selected.
- 14. You can see several elements of this report on the first page. The report is titled *Student Scores by Teacher*.
- 15. You will see a heading for each teacher followed by rows for each student in that teacher's class. After all the students for a particular class are displayed, you will see an average for that teacher's class.
- 16. Scroll through the pages of the report using the arrows at the top:

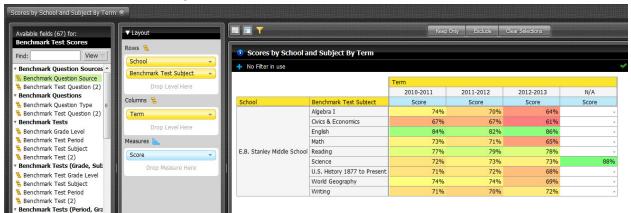


- 17. You can also type in a page number in the box followed by <ENTER> to jump directly to a page within the report. Go ahead and type in the last page number of the report followed by <ENTER> to jump to the last page.
- 18. One the last page, you will see the final teacher's average score followed by a line listing the school-wide average for the benchmark test you selected.

Module 4 - View a Premade Analyzer Report

We will now look at a simple Analyzer Report to show you the basics of using that interface.

- 1. If the folder browser is not visible, click the *Toggle Browser* button to display it.
- 2. Double-click on Benchmark Testing in the Browse window.
- 3. Double-click on Training in the Browse window.
- 4. Scroll down through the list of reports until you find the one titled *Analyzer Scores by Subject*. Double-click on that report to open it.
- 5. Click the *Toggle Browser* button again to hide the data browser and give you more space for the report.
- 6. You should now see something similar to this:

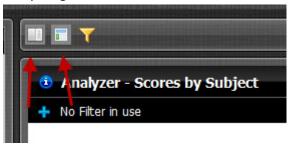


- 7. The column down the left shows you all the available fields from the *Benchmark Test Scores* data source. You may notice that some of the fields are duplicated under multiple headings. These are different views of the same data to make it easier to build certain types of reports and graphs. If you scroll down you will see:
 - a. Benchmark Test Data (multiple views)
 - b. Course Information
 - c. Measures
 - d. School Terms
 - e. Schools
 - f. Sections
 - g. Students
 - h. Teachers
 - i. Time

Note: More information on the available data fields can be found in Appendix A of this training manual.

8. The next column shows you the data that is currently being used to build this particular report. You can see that the rows are made up of the school (again, your assigned school is preselected) and then by test subject within that school. The columns are broken up into the terms that are currently loaded in the system. Finally, the overall benchmark test score is used as the

- measure for the report. Conditional formatting is used to allow you to quickly determine your best scores (green) versus your worst scores (red).
- 9. The main report window has buttons to show or hide the available fields columns and the layout panel. If you are looking at a large report, it is helpful to hide those options after you have everything selected.



This pre-made *Analyzer Report* can be further modified if you would like. We will now narrow down this report to only show one year and further break-down the subjects by teacher.

1. Click the Funnel icon to display the filter window.



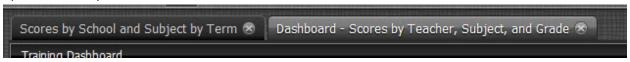
- 2. Drag Term from the Columns section of the Layout Browser up to the Filters window.
- 3. From the pop-up menu, click *2011-2012* to select it and then click the single right-pointing green arrow to move *2011-2012* to the *Included* list and then click *OK*.
- 4. The report will now refresh to only display scores from the 2011-2012 term.
- 5. To further break this report down by teacher, scroll down the *Available Fields* column until you see the *Teachers* heading. Drag the field named *Teacher (4)* to the *Layout* window directly under *Benchmark Test Subject*.
- 6. The report will refresh to show the teachers for each subject. It displays the teacher number rather than their name though. The reason for this is that teacher names may change over time, so our primary index is the teacher number. It would be helpful to display their names as well.
- 7. Click the drop-down arrow beside *Teacher* in the *Layout Browser*. Go down to *Show Properties* and select *Teacher Last Name*.
- 8. The report will refresh to add a column for teacher name.

Module 5 - View a Premade Dashboard Report

We will now look at a dashboard report that allows you to drill-down into data from one screen.

- 1. If the folder browser is not visible, click the *Toggle Browser* button to display it.
- 2. Double-click on Benchmark Testing in the Browse window.
- 3. Double-click on *Training* in the *Browse* window.
- 4. Find the file titled *Dashboard Scores by Teacher, Subject, and Grade* and double-click on it to open.

- 5. Click the *Toggle Browser* button again to hide the data browser and give you more space for the report.
- 6. The new file will open in another tab in the user interface. If you kept the *Analyzer Report* open from the last module, you will still see it listed as another tab. You can keep several reports open at once if you would like.



7. You will see in the very top window options to select a school and term. Since you are restricted to only the schools you have access to, you may only have one option in the *Select a School*: drop-down list. Go ahead and select a school and term:



- 8. Click the small arrow beside *Prompts* to hide the prompt window to give you more room for the charts.
- 9. The top chart labeled *Scores by Grade* will show you a bar chart with the aggregate score of all benchmark tests for the term and school you selected with a separate bar for each grade. There may be a special grade labeled *N/A* for test subjects that are not tied to a particular grade (similar to End of Course SOL tests.)
- 10. The bottom two charts may be showing no data or erroneous data right now. They are not updated properly until you select a grade from the top chart.
- 11. Double-click on a grade to update the bottom left chart with data related to that grade.
- 12. The bottom left chart should now show you scores by testing period with a separate bar for each subject. The data in this chart is filtered based on the school and term you selected from the *Prompts* section as well as the grade that you double-clicked on in the top chart.
- 13. The bottom right chart may still be showing no data or erroneous data.
- 14. Double-click on one of the bars in the bottom left chart to update the bottom right chart.
- 15. The bottom right chart should now be showing you scores by teacher with a separate bar for each section. Again, the data in this chart is filtered by the prompts and the selections you chose in each of the other charts. You can double-click on a different test period and subject in the bottom left chart to see the bottom right chart updated accordingly.

Chapter 3 - Creating Your Own Reports

You will now use the reporting interface to create your own Interactive Report and Analyzer Report. As seen in the last chapter, there are also Dashboard Reports available. Dashboard Reports are more complicated and require programming knowledge and more advanced reporting writing skills.

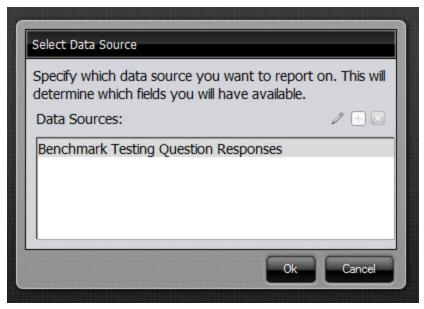
Module 6 - Create an Interactive Report

During this module, you will create an interactive report from scratch that will show you average scores by teacher for a given term, grouped by subject and test period.

- 1. If you have any reports open, go ahead and click the X on the report tab to close them.
- 2. If the data browser is currently displayed, click the Toggle Browser icon to hide it.
- 3. You should now see the main window with options to create new reports:



- 4. Click on the New Report button to open a new Interactive Report.
- 5. A pop-up window will display asking you to select a Data Source. Make sure that Benchmark Testing Question Responses is selected and then click OK.



- 6. You may get a window with a little information about *Pentaho Interactive Designer*. If you get this window, click the *Get Started* button.
- 7. You will get a blank report template to begin with. There may be tooltips displayed on different elements of the interface. Turn these tooltips off by unchecking the box at the bottom right *Show tips on startup*. Then, click the *Hide Tips* button at the bottom right.



- 8. The left column of the screen should be showing you all the data fields that are available for your report. Unfortunately, the *Interactive Report* interface does not allow us to group the fields into appropriate blocks like in some of the other tools. You can see all the available fields under the *Data* tab in the left column.
- 9. Click on the *Formatting* tab in the left column. The options here are grayed out because we do no currently have anything selected. Once you start adding data to the report, you can use this table to format the font, alignment, color, etc.
- 10. Click on the *General* tab in the left column next. This tab allows you to select a template for your report. You can also turn the tooltips back on that we turned off earlier in the exercise.
- 11. Click the Select... button under Template to bring up the list of available templates.



12. Use the arrow to scroll to the right until you find the template labeled *Indented – Cobalt*. Click on the template to select it and go back to the design screen.

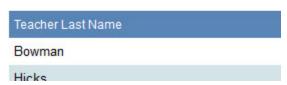
You will now have a blank report reflecting the template that we just chose. We will now start customizing the report.

- 1. To get started, we need to give the template a name. Double-click where it says *Untitled* to pop-up a box to edit the report name. Type in *Average Scores by Teacher*.
- 2. In the left column of the interface, click the tab labeled *Data* to display the available fields once again.



Scroll to the bottom of the list of fields until you see Teacher Last Name. Drag Teacher Last
 Name over to the report design canvas so that you get a vertical green line on the left side of
 the report. Let go of the mouse button to place Teacher Last Name onto the report.

Average Scores by Teacher



- 4. Scroll back to the top of the list of available fields and drag *Score* over to the report design canvas to the far right of the report until you get a vertical green line. Let go of the mouse button to place *Score* to the right of *Teacher Last Name*.
- 5. We need to now group the items so that they make more sense. We'll start out by grouping the items by subject.
- 6. Scroll down through the list of available fields until you see *Benchmark Test Subject*. Drag it above the heading for the previous data fields until you get a horizontal green line. Horizontal green lines tell the reporting interface that you want to group the report by this field. Your report should now look similar to the following:

Average Scores by Teacher

Benchmark Test Subject: Algebra I -

Teacher Last Name	Score
King	72%
Widener	70%

Benchmark Test Subject: Civics & Economics -

Teacher Last Name	Score
Confere	63%

7. Let's further group the scores by testing period. In the list of available fields, drag *Benchmark Test Period* over to the report canvas immediately under *Benchmark Test Subject* until you get a horizontal green line. Let go of the mouse button to further group the report by test period.

We now have a basic report built that shows us average scores by teacher and grouped by both subject and test period. It would be nice to see some averages based on our grouping and add some formatting for better readability.

- 1. To display averages by group, click on the *Score* column on the report. The interface will cross-hatch the column to show that it is selected. Right-click to bring up a pop-up window, go to *Summary* and choose *Average*.
- 2. The report will now show rows at the end of each grouping that will display the overall average for that grouping. The summaries do not have a description, so let's add some text to describe the group average.
- 3. Double-click on the report in the blank space immediately to the left of the *Benchmark Test Period* summary average. In the pop-up window that appears, type in *Test Period Average* and then <ENTER>.



4. Scroll down until you see a summary line for the *Benchmark Test Subject*. Double-click on the report in the blank space immediately to the left of the *Benchmark Test Subject* average and type *Test Subject Average* in the pop-up window that appears followed by <ENTER>.



- 5. Go to the last page of the report and find the overall average for the report. Double-click on the report in the blank space immediately to the left of the overall average and type *Overall Average* in the pop-up window that appears followed by <ENTER>.
- 6. The last page of your report should now look similar to this:

	D	ecember 18, 2012 @ 01:43
Test Period Average	65%	
Benchmark Test Period: 3rd 9 Weeks •		
Teacher Last Name	Score	
Crawford	91%	
Test Period Average	91%	
Test Subject Average	68%	
Overall Average	72%	
Overall Average	12%	

Let's now apply some formatting for better readability.

 Scroll back to the first page of your report. Click the text Test Period Average and then hold down your <CTRL> key to also select the actual average displayed on the report. Both the description we manually entered and the average for the test period should both be selected and display cross hatches on the report.

2. Click the *Formatting* tab in the left column. Change the font size to *12pt* and click the *B* icon to make the text bold.



- 3. The report will refresh to show the period summaries with the larger font and bolded.
- 4. Scroll down through the report until you find the first instance of *Test Subject Average*. Select both the description and the average as we did before. Make this font *14pt* and *Bold*.
- 5. Scroll to the last page of the report and find the overall average. Select both the description and average as we did before and make this font *16pt* and *Bold*.

This report now has some useful data and is formatted and grouped for readability. However, it is displaying data for all terms, schools, and grades that you have access to. It would be helpful if you could choose particular terms, schools, and grades to narrow the data down further. Fortunately, this is easy to do with an *Interactive Report*.

1. On the toolbar above your report, click the button to display the *Prompts* window.



- 2. In the left column, click back on the Data tab to display the available fields once more.
- 3. Scroll down near the bottom of the available fields until you find *Term*. Drag *Term* over to the *Prompts* window.
- 4. Uncheck the *Auto-Submit* box so that you do not have to wait for the report to refresh each time you make a change.
- 5. Scroll through the available fields until you find *School Name*. Drag *School Name* over to the *Prompts* window beside *Term*.
- 6. Scroll through the available fields until you find *Benchmark Test Grade Level*. Drag *Benchmark Test Grade Level* over to the *Prompts* window to the right of the previous two fields.
- 7. In the *Prompts* window, go ahead and select an available term, school, and grade level. Click the *View Report* button to generate the report based on your selections.
- 8. You will now only be seeing report data that matches your selections.

This report can be exported in case you want to save it to your computer or printout a hard copy.

1. On the toolbar above the report, click on the *Export* icon.



- 2. Note that you can export in several different formats.
- 3. Choose PDF from the menu and the report will now open in Adobe Acrobat Reader.
- 4. You can print the report or save it to your computer.
- 5. Close the PDF report.

You will now save this report for future use.

1. On the main toolbar, click the Save icon.



- 2. In the Save As window that pops up, double-click on Benchmark Testing.
- 3. Custom folders are setup for you to save your own personal reports. Where you save to varies depending on whether you are a principal or a central office administrator.
 - If you are a principal, double-click on the *Principals* folder followed by your school level, and then finally your school initials.
 - If you are a central office administrator, double-click on *Central Office* and then your title or area of responsibility.
- 4. Type a name for the report in the *Filename:* box and then click the *Save* button.
- 5. The report will be saved to your custom folder using the name you specified.

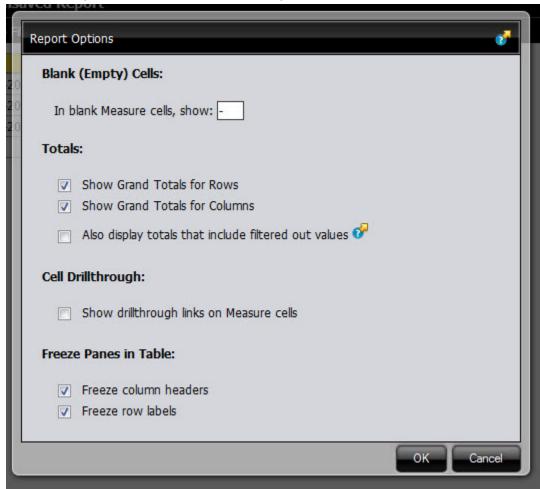
Reports saved to your custom folder can be seen and run by other users, but cannot be changed or deleted by them. In addition, if they run your report, it will still be restricted by the data they can see and will not show data from your school unless they have access to it.

Module 7 - Create an Analyzer Report

During this module, you will create a new *Analyzer Report* to analyze benchmark test data by different classes of students. You will use filters to narrow down the dataset and conditional formatting to visualize the scores.

- Close any reports that you have open and close the folder browser if it is open. You should see
 the main welcome screen displayed. Click on New Analysis to begin working on a new Analyzer
 Report.
- 2. When the *Select Data Source* window pops up, make sure *Benchmark Testing: Benchmark Test Scores* is highlighted and then click *OK*.
- 3. Since we are working with benchmark test data, the measure that we are concerned with is *Score*. Scroll down through the available fields until you get to the *Measures* section. Drag the *Score* field over to the *Layout* panel under the *Measures* section.

- 4. The report will update to show the average measure across all terms, schools, grades, etc. that your user account has access to.
- 5. Scroll through the available fields window until you see the heading School Year Quarters. Drag Term over to the Rows section of the Layout panel.
- 6. The report will refresh to show a separate row for each term.
- 7. Click on Report Options at the bottom of the Layout panel. Check the boxes for both Show Grand Totals for Rows and Show Grand Totals for Columns and then click OK.



- 8. The report will refresh to show a grand total average for all terms.
- 9. Scroll back up through the list of available fields until you find the section named Benchmark Tests. Drag Benchmark Test Subject over to the Layout panel immediately under Term in the Rows section.
- 10. The report will refresh to further break down the terms by subject.

Term	Benchmark Test Subject	Score
	Algebra I	77%
	Civics & Economics	68%
	English	83%
	Math	74%
2010-2011	Reading	76%
	Science	71%
	U.S. History 1877 to Present	74%
	World Geography	75%

Suppose we now want to compare scores among genders. Let's add that data to the analysis and do some conditional formatting to more easily visualize the data.

- 1. Scroll through the list of available fields until you find the *Students* section. Drag the *Student Gender* field over to the *Layout* panel under *Columns*.
- 2. The report will refresh and add columns for both *Female* and *Male*. In addition, it will add grand totals for both columns and rows.
- 3. Right-click on the word *Score* over one of the columns. In the pop-up menu, go to *Conditional Formatting* and choose *Color Scale: Green-Yellow-Red*.
- 4. The report will refresh to color the individual cells based on a color scale of Green being best, Yellow being average, and Red being worst.

What if instead of looking at the data based on gender, we want to view it based on disadvantaged or homeless status?

- 1. In the *Layout* panel, click on *Student Gender* and then start dragging it towards the bottom right of the screen. A trash can appears as you drag the field. Drag *Student Gender* into the *Trash Can* to erase it from the report.
- 2. In the list of available fields, find the *Students* section again. Drag the field labeled *Disadvantaged Students* over to the *Columns* section of the *Layout* panel.
- 3. The report will refresh to add columns Disadvantaged and Non-Disadvantaged students.
- 4. Find the *Homeless Students* field under the *Students* section and drag it over to the *Layout* panel immediately under *Disadvantaged Students*.
- 5. The report will refresh to add *Homeless Students* as another column heading. What can we tell about *Disadvantaged Students* versus *Homeless Students*?
- 6. Drag the Homeless Students field to the trash and drag Neglected/Delinquent Students over the to the Layout panel immediately under Disadvantaged Students. What can we tell about Disadvantaged Students versus Neglected/Delinquent Students?

Finally, let's add a filter to narrow down the data.

1. Click on the Funnel icon to display the Filters window.

- 2. In the list of available fields, scroll down to *School Year Quarters* and drag *Term* over to the *Filters* window.
- 3. In the box that pops up, select 2011-2012 and click the right-facing green arrow to move it over to the *Currently Included* side and then click *OK*.
- 4. The report will update to only show the included term.

You will now save this report for future use.

1. On the main toolbar, click the Save icon.



- 2. In the Save As window that pops up, double-click on Benchmark Testing.
- 3. Custom folders are setup for you to save your own personal reports. Where you save to varies depending on whether you are a principal or a central office administrator.
 - If you are a principal, double-click on the *Principals* folder followed by your school level, and then finally your school initials.
 - If you are a central office administrator, double-click on *Central Office* and then your title or area of responsibility.
- 4. Type a name for the report in the *Filename*: box and then click the *Save* button.
- 5. The report will be saved to your custom folder using the name you specified.

Reports saved to your custom folder can be seen and run by other users, but cannot be changed or deleted by them. In addition, if they run your report, it will still be restricted by the data they can see and will not show data from your school unless they have access to it.

Chapter 4 - Summary, Further Reading, and Future Changes

Summary

This has hopefully given you a good overview of the main reporting features in the STEDFast system. The data you are looking at is read-only, so you do not have to worry about messing anything up. Also, any of the premade reports that are available cannot be overwritten by your user account, so do not worry about making changes to them. You can use the Save As option to save a copy of your modified report to your home directory. Do not be afraid to play around with different reports and options in the program.

If you have ideas for reports, please let us know. If you are attempting to build your own report and get stuck on something, we would be glad to help you with that as well.

Further Reading

- http://wiki.wcs.k12.va.us/stedfast/start The newest version of this document along with other relevant information can always be found at this link.
- http://www.pentaho.com/ Makers of the Pentaho Business Intelligence Suite that is used to build the STEDFast Data Warehouse.
- http://infocenter.pentaho.com/ Online documentation for the Pentaho Business Intelligence Suite.
- http://en.wikipedia.org/wiki/Data_warehousing General information about Data Warehouses
- http://en.wikipedia.org/wiki/Fact_table Description of the fact tables used to store measures (like benchmark test scores) for quick lookups.

Future Changes

- We are working on automating the import of data so that when a new benchmark test period is completed, the data from those tests will be made available very quickly.
- Adding the last three years' worth of SOL test data.
- Attendance and discipline information from PowerSchool.

Appendix A - Available Fields in STEDFast

Benchmark Testing Data Source

This data source contains information related to benchmark testing using Moodle.

Benchmark Test Table

This table contains information about the benchmark tests.

- Benchmark Test Name Name of the benchmark test in Moodle (normally the subject plus period)
- Benchmark Test Period Period benchmark test was taken (i.e.: 1st 9 weeks)
- Benchmark Test Grade Level Grade of the benchmark test (N/A for end-of-course tests)
- Benchmark Test Subject Subject of the benchmark test (similar to SOL test subjects)
- Benchmark Test Question Text The text of the question (not available for all tests and not easily readable for those where it is available)
- Benchmark Test Question Type The type of question (i.e.: multichoice)
- Benchmark Test Question Source Where the question came from (i.e.: teacher created, released SOL question, etc.)
- Benchmark Test Question Name The name used for the question in Moodle (can be used to match up scores by question with the actual test question in Moodle)

Course Table

This table contains information about the courses.

- Base Course Number The main course number from PowerSchool
- Block Courses Is the course a block course (Block or Non-Block)
- Distance Courses Is the course a distance course (Distance or Non-Distance)
- Elite Courses *Is the course an Elite Learning course (Elite or Non-Elite)*
- Emory and Henry Courses Is the course an Emory & Henry Course (Emory & Henry or Non-Emory & Henry)
- Governors School Courses Is the course a Governor's School Course (Governor's School or Non-Governor's School)
- Honors Courses Is the course an Honors course (Honors or Non-Honors)
- Virginia Highlands Courses Is the course a Virginia Highlands Course (VHCC or Non-VHCC)
- Course(5) Course Number, Alternate Course Number, State Course Number, Name, Credit Value) – This is a special item that gives us a unique course identifier based on the items listed after the field name. Properties that may change will always show the original content from when the field was first created.

Term Table

This table contains information about the terms and semesters.

- Term *The term as named in PowerSchool (2008-2009, 2009-2010)*
- Trimester The trimester as named in PowerSchool (T1, T2, T3)
- Mini The mini semester as named in PowerSchool (M1, M2, M3)
- Semester The semester as named in PowerSchool (S1, S2, S3)
- Quarter The quarter as named in PowerSchool (Q1, Q2, Q3)

School Table

This table contains information about the schools. The school information is stored by date, so we will know who the principal was during a particular school year, not just the current principal.

- School Level The level of the school (High, Middle, Elementary, CTE)
- School (3) School Number, State School Number, Principal This is a special item that gives us a unique school identifier to match up with other data based on the school number, state school number, and principal. Properties that may change will always show the original content from when the field was first created.

Section Table

This table contains information about course sections.

Section – The section number of the benchmark test as stored in PowerSchool

Student Table

This table contains information about students and is built from PowerSchool data.

- Asian Students Is the student's race Asian (Asian, Non-Asian)
- Black Students Is the student's race Black (Black, Non-Black)
- CTE Completers Is the student a CTE completer (CTE Completer, Non-CTE Completer)
- CTE Displaced Homemaker Students Is the student a CTE Displaced Homemaker (Currently) unused)
- CTE Nontraditional Students Is the student a CTE Non-Traditional (CTE Traditional, CTE Non-Traditional)
- CTE Single Parent Students Is the student a CTE Single Parent (CTE Single Parent, Non-CTE Single Parent)
- Disabled Students Is the student classified as disabled (Disabled, Non-Disabled)
- Disadvantaged Students Is the student classified as disadvantaged (Disadvantaged, Non-Disadvantaged)
- Hispanic Students Is the student's ethnicity Hispanic (Hispanic, Non-Hispanic)
- Homeless Students Is the student classified as homeless and if so, what type of homeless (Non-Homeless, Doubled Up, Hotels, etc.)

- Native American Students Is the student's race Native American (Native American, Non-Native American)
- Neglected/Delinquent Students Is the student classified as Neglected or Delinquent (Non-Neglected/Delinquent, At Risk, Juvenile Detention, etc.)
- Pacific Islander Students Is the student's race Pacific Islander (Pacific Islander, Non-Pacific Islander)
- Primary Disability Students Does the student have a primary disability and if so, what type (Non-Primary Disability, Emotional Disturbance, Autism, etc.)
- Student Gender What is the student's gender (Male, Female)
- Title I Health Students Is the student flagged as Title I Health (Health, Non-Health)
- Title I Math Students Is the student flagged as Title I Math (Math, Non-Math)
- Title I Reading Students Is the student flagged as Title I Reading (Reading, Non-Reading)
- Title I Students Is the student flagged as Title I (Title 1, Non-Title 1)
- Title I Support Students *Is the student flagged as Title I Support (Support Services, Non-Support Services)*
- White Students Is the student's race White (White, Non-White)
- Student (3) Student Number, Student Last Name, Student First Name This is a special item
 that gives us a unique student identifier based on student number, student first name, and
 student last name. If a student's name changes, we can still track them in the database.
 Properties that may change will always show the original content from when the field was first
 created.

Teacher Table

This table contains all the information about teachers.

- Teacher First Name Teacher's First Name
- Teacher Last Name Teacher's Last Name
- Teacher (4) Teacher Number, State Teacher Number, Teacher Last Name, Teacher First Name

 This is a special item that gives us a unique teacher identifier based on teacher number, state teacher number, first name, and last name. If a teacher's name changes, we can still track them in the database. Properties that may change will always show the original content from when the field was first created.

Time Table

This table contains information about every date in the database. It allows us to look at a particular date and see the term, semester, quarter, etc., that corresponds to that date. It can be used to group or sort data in your reports.

- In Session Was school in session on this date (In Session, Holiday, Vacation, etc.)
- Years What year are we looking at?
- Months What month are we looking at?

Appendix B - Revision History

- 1. 12/17/2012 Initial version released in Draft format. Still need to add information for Chapter 4.
- 2. 12/18/2012 Chapter 4 information added. Corrections to some data fields. Further proofreading and error corrections.