PowerSchool Customization #2 - Coding Basics

HTML, CSS, LTK, PSHTML and Tools



About the Trainer

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- Valley Christian Schools Southern California
- 1200+ students Preschool
 12
 PowerSchool since 2003









English -> Spanish Father -> Padre

English -> English Father -> Parent 1

LTK Documentation

- search the built-in help: "Localization" or "Translation"
- PowerSource KB 74801 (v9)
- The Administrator User Guide combines many guides into one large document. (over 2,700 pages!!!)
 - o v11 <u>https://support.powerschool.com/article/79085</u> (Page 894)
 - v12 <u>https://support.powerschool.com/article/80644</u> (Page 856)

Enabling Page Translation and Security

- Enable Individual Page Translation
 - System Page and Data Management Localize
 PowerSchool Settings tab
- Group Security
 - Enable the Language Translator checkbox
 - Some issues with using roles, stick with Group Security

Translating in PowerTeacher & Parent/Student Portal

- Teachers portal
 - login with a teacher account with appropriate group security
- Parent/Student Portal
 - o add /public/home.html?translator=true
 - Must have a parent account AND admin account with translator permissions to do this

Translating Parent/Student Portal

/public/home.html?translator=true





Start Page > System Administrator > Page and Data Management > Localize PowerSchool

Functions

Attendance Daily Bulletin

Enrollment Summary

Master Schedule

Dashboard

Special Functions

Teacher Schedules

Reports

System Reports ReportWorks

Page Localization Settings

1			
Text	Data	Help Text	Settings

Page Localization

Enable individual page translation in PowerSchool



Functions

Attendance Daily Bulletin Enrollment Summary Master Schedule Dashboard Special Functions Teacher Schedules

Reports

System Reports ReportWorks sqlReports

People

Student Search Staff Search

Edit Group

Option	Value
Group Number	9
Group Name	Administrator
Access Level	View & Modify \$
Page Level Permissions	Overridden Page Permissions
Can Modify Schedules	Yes, in any year
PowerScheduler Access	
Language Translator/Customizer	
Report Queue Priority	0.Httmest 💠
Accessible Log Types	Discipline





ocalize Page			
Choose locale *	English		
			Retrieve Text
Text for translation		Search:	
Text Key 🗢	Default Text	Translated Text	
	🖂 🖂 Page 1 o	f 0 → ► 100 \$	o records to view
			Submit







Copy and Add: copies a translation to all the other rows in the grid with the same default text



revert to default text

Useful English Translations

- Admin Home
 - Browse Parents -> Browse Parent Accounts
 - \circ Staff -> Employees
- Student left menu
 - Family -> Siblings
 - \circ Cumulative Info -> GPA/Credit Info
- PK3/PK4 Grade Level labels on Start Page
 - \circ $\,$ must translate in both Text AND Data areas
- Parent/Student Portal
 - Parent Portal Account Creation labels/text
 - Class Registration -> Course Requests
- Silliness!

Customization Tools



CPM

CPM (Custom Page Management) NOT a folder! CPM stores custom pages in the database and there is a web interface for working with them.

Before version 12.1

Start>PS Administrator>Custom Pages

• Separate portal requiring separate account

12.1 and later

Start>System>Page and Data Management>Custom Page Management

- Within admin portal, no separate account required.
- Must setup permissions



CPM

The "What's New in PowerSchool 12.1" presentation has screenshots of how to enable the new CPM

- "What's New in PowerSchool 12.1" on PowerSource at <u>https://support.powerschool.com/</u> <u>exchange/view.action?download.id=958</u>
- Presented on the PowerSchool Insider Episode 54

Custom Page Manager in Admin Portal

PowerSchool	Start Page > System Administrator		l	Î	٠
Functions Attendance Daily Bulletin	System Administrator				
Enrollment Summary	Attendance				
Dashboard Special Functions	Attendance Bridge Synchronization	Synchronize one or two-way attendance bridge records.			
Teacher Schedules	Data Management				
Reports	Assign New Student Numbers	Replaces student numbers with new ones.			
System Reports	AutoComm Setup	Set up AutoComm functions.			
Enterprise Reports State ()	AutoSend Setup	Set up AutoSend functions.			
	Change Course Number	Changes a course number system-wide.			
People	Clear Activities	Clears students activities.			
Student Search	Custom Fields / Screens	Creates and edits fields and screens for staff and students.			
Contact Search	Direct Database Export (DDE)	Exports information from database directly.			
Enroll New Student	Page and Data Management	Manage/Customize Data and Pages			
New Staff Entry	Photo Management	Import and/or delete student and teacher pictures.			
New Contact Entry	Special Operations	Runs programs affecting the whole system.			
Setup					
School	Grades				
System					

New Setup Page

PowerSchool	Start Page > System Administrator > Page and Data Managem	ent 🖸 🖏 🖢	
Functions	Page and Data Management		
Attendance Daily Bulletin Enrollment Summary Master Schedule	Database Management	Custom Page Setup	
Dashboard	Manage Database Extensions	Manage Tables ar	
Special Functions Teacher Schedules	Custom Field Data Migration	Migrate legacy custom fields to database extensions. (District Only)	
Reports	Page Management		
System Reports	Custom Staff Screens	Setup of custom staff screens.	
ReportWorks	Custom Student Screens	Setup of custom student screens.	
People	Custom Pages Import/Export	Import and Export Custom Pages.	
Student Search	Custom Page Setup	Enable/Disable Customization and Migrate Custom Pages.	
Staff Search	Custom Page Management	Create/Edit Custom Pages and Customize Built In Pages.	
Enroll New Student New Staff Entry	Localization		
New Contact Entry	Export Localization	Export Locale Translations.	
Setup	Import Localization	Import Locale Translations.	
District	Import Localization Status	View in progress and completed imports.	
System Personalize	Localize PowerSchool	Localize the PowerSchool, Online help, PowerTeacher and ReportWorks applications.	

New Setup Page

Personalize

PowerSchool	Start Page > System Administrator > Page and Data Management > Custom Web Page Setup	ß	3	l	4
Functions Attendance Daily Bulletin	Custom Web Page Setup				
Enrollment Summary	Enable Custom Web Page Management				
Dashboard Special Functions Teacher Schedules	 Enabling this option will result in custom web pages being stored and retrieved from the database instead of the custom web root direct Once this option is enabled and the server is restarted current customizations will not work unless they have been migrated to the new f An opportunity to migrate those web pages will be provided as an additional step immediately upon checking the 'Enable Custom Web F 	ory. ormat. Page Ap	oplicatio	n'	
Reports System Reports ReportWorks	box. Enable Custom Web Page Application			Sav	/e
People	Migrate Existing Custom Pages				
Student Search Staff Search Contact Search Enroll New Student New Staff Entry New Contact Entry	Choosing to migrate existing custom pages will copy all of the pages located in the custom web page directory into the database where function as they currently do. With Custom Web Page Management enabled all additional customizations, whether new or modifications pages, must be made through the Custom Web Page Management module. This migration process can be run as often as needed. Pages we be overwritten.	they wi to exis with the	l continu ting cus same n	ue to tom ame w Migra	'ill te
Setup District					
System					

Link to New CPM

PowerSchool	Start Page > System Administrator > Page and Data Mar	nagement 🖸 🖏 📕 🖶
Functions	Page and Data Management	
Daily Bulletin Enrollment Summary Master Schedule	Database Management	Custom Page Management
Dashboard	Manage Database Extensions	5 5
Special Functions Teacher Schedules	Custom Field Data Migration	Migrate legacy custom fields to database extensions. (District Only)
Reports	Page Management	
System Reports ReportWorks	Custom Staff Screens	Setup of custom staff screens.
	Custom Student Screens	Setup of custom student screens.
People	Custom Pages Import/Export	Import and Export Custom Pages.
Student Search	Custom Page Setup	Enable/Disable Customization and Migrate Custom Pages.
Staff Search Contact Search	Custom Page Management	Create/Edit Custom Pages and Customize Built In Pages.
Enroll New Student New Staff Entry	Localization	
New Contact Entry	Export Localization	Export Locale Translations.
Setup	Import Localization	Import Locale Translations.
District	Import Localization Status	View in progress and completed imports.
System Personalize	Localize PowerSchool	Localize the PowerSchool, Online help, PowerTeacher and ReportWorks applications.

-

The OLD Custom Page Manager!

DoworSchool			Welcome, Jason Spring	el Help Sign Out
FOWEISCHOOL			School: Apple Grove High Sch	ool Term: 18-19 Year
Start Page > System Administrator > Page a	nd Data Management > Custom Page Management			! 🗎 🗢
Custom Pages			UI Examples	mport/Export Setup
Site Structure	Customized Page 🐡 Original Page 者			
🕂 🧀 admin	HI H2 H3 H4 H5 H6 B I S U = = - I O	e P6 fs 👔 <a td="" 🖌<="" 😻=""><td></td><td></td>		
🕂 💼 apps				
🕂 🚞 demo				
⊕ 🛅 flash				
🕀 - 🧰 fti				
🕂 🚞 guardian				
🖭 💼 healthinfo				
🖭 🧰 images				
🕂 🧰 messages				
🖭 🧰 pds				
ptds_scripts				
🕂 🧰 public				
🗈 🧰 scripts				
🕀 🧰 sped				
🗈 🧰 sqlReports				
🗉 🧰 subs				
🗈 🧰 system				li.
🗈 🧰 teachers	Publish	Cancel	Save	
🖲 🦳 webutil 🖲 🚞 widaet	Version			
+ Add - Delete				

The NEW Custom Page Manager!

D PowerSchool	Welcome, PowerSchool Admin Help Sign Out
	School: District Office Term: 18-19 Year
Start Page > System Administrator > Page	and Data Management > Custom Page Management 🛛 🔹 📱 🚔
admin	Q Q Q Q ∽ ~ ∷ ⁺↓ 1 2 3 4 5 6 B <i>I</i> ⊻ 7 P X ⊟ ⊟ − ⊕
flash	Customize Page
- in ftl	
guardian	Save Draft Publish
- 💭 images	
- 🛺 messages	
public	
- 🚛 scripts	
🟭 system	
teachers	
e 🤐 webutil	
widgets	
wildcards	
- Jan xte	
apple-touch-icon-114x114.png	1
apple-touch-icon-120x120.ph	
apple-touch-icon-144x144.ph	
apple-touch-icon-152x152.ph	
apple-touch-icon-60x60 png	
apple-touch-icon-72x72 png	
apple-touch-icon-76x76 png	
favicon-128.png	
favicon-16x16.png	
favicon-196x196.png	

The NEW Custom Page Manager!

Features You Have Wanted:

- Access multiple files
- Delete folders and sub-folders/files with 1 click
- Syntax highlighting for over 110 languages (HTML, CSS, jQuery...)*
- Search and replace with regular expressions
- Highlight matching parentheses
- Code folding
- Multiple cursors and selections

Side-By-Side View

D	PowerSchool		Welcome, PowerSchool Admin Help Sign Out
iu -			School: District Office Term: 18-19 Year
Start Pag	e > System Administrator > Page and I	Data Management > Custom Page Management	🗹 🗞 ! 🚔
	admin	Q Q Q D ~ ~ [] [†] 1	3 1 5 5 B <i>I</i> ⊻ ∓ P ▼ ≔ ≔ − ⇔
	flash	Customize Page	Extract to Keys Preview Keys Preview Page
þ-	. 🛺 ftl		
	🗐 guardian	Save Draft Publish	Snippets C Templates
	infosnap		
		home.html ×	
	accountmanagement_add_stu		
	accountmanagement_edit_acc	Editable	Original
	accountmanagement_edit_gua	1	1 html
	accountmanagement_profile.h		2 - <html></html>
	accountmanagement_student_		3 * <head></head>
	accountmanagement_students		4 <title>~[text:psx.ntml.guaralan.nome.grades_ana_at</title>
	astrondeneo html		6 ~[x:QuickLookupSchoolIdValidation]
	attendance.ntm		7 ~[SetPostValue:psportal=auardian]
	attendance_not_available.ntml		<pre>8 ~[if.prefschool.sgshowpa=1]~[SetPostValue:showSGFG</pre>
	attendancedatesall html		9
			<pre>10 <h1>~[text:psx.html.guardian.home.grades_and_atten</h1></pre>
	bulletin net evoileble html		<pre>11 ~[brij_render:common-ps;:GuardianHomeTabs]</pre>
	bulletin_not_available.ntm		12 - <div class="box-round"></div>
	builetin_popup.ntini		13 start student content
	categorydescr.ntml		14 * <alv la="quickLookup"></alv>
	commontDatailsPopus html		15 16 ~[SetPostValue:skinDontPrintFilter-1]
	bomo html		17
	home not available html		18 ~[if#G.isauardian]
	home_not_available.ntml		19 ~[if#hideAttDistrict.prefyear.ATT_QuickLookupH
	"" nome_school_access_disabled		20 ECat Deat Values att avialel askurbi da t 11

Access/Edit Multiple Files



Major Editor Improvements

PowerSchool		Welcome, PowerSchool Admin Help Sign Out School: District Office Term: 18-19 Year
Start Page > System Administrator > Page and	Data Management > Custom Page Management	
admin admin flash fti guardian infosnap mefs	Q Q	I B I U ↔ P X I ⊞ ⊟ − I C I rs Preview Keys Preview Page C Templates
accountmanagement_add_stu	Editable	Original
accountmanagement_edit_gua accountmanagement_profile.h accountmanagement_student accountmanagement_student accountmanagement_students asmtdescr.html attendance_not_available.html attendancedates.html attendancedates.html attendancedates.html bulletin_not_available.html bulletin_popup.html changesrecorded.html commentDetailsPopup.html home_not_available.html home_school_access_disable	<pre>1 k!DOCTYPE html> 2</pre>	<pre>1 k!DOCTYPE html> 2 < html> 3 < head> 4 <title>~[text:psx.html.guardian.attendance.attendan 5 ~[wc:guardian_header] 6 7 <h1>~[text:psx.html.guardian.attendance.meeting_att 8 <!-- title--> 9 ~[if#hideAttendance.prefschool.mobiledisablepp_att= 10 < div class="box-round"> 11</h1></title></pre>

Hide Original: Space to Code

PowerSchool	Welcome, PowerSchool Admin Help Sign Out
	School: District Office Term: 18-19 Year
Start Page > System Administrator > Page and	Data Management > Custom Page Management 🔀 🤹 📘 🚔
admin admin flash guardian infosnap morfs accountmanagement_add_st	Q Q Q Q
accountmanagement_edit_ac	c Editable
accountmanagement_edit_gu accountmanagement_profile. accountmanagement_studen attendance.html autoemailsetup.html changesrecorded.html chome.ntml home_not_available.html home_school_access_disable	<pre>1 k!DOCTYPE html> 2 <html> 3 < head> 4 <title>~[text:psx.html.guardian.attendance.attendance]</title> 5 ~[wc:guardian_header] 6 7 <h1>~[text:psx.html.guardian.attendance.meeting_attendance_history] ~(studentname)</h1> 8 <l title=""> 9 ~[if#hideAttendance.prefschool.mobiledisablepp_att=1] 10 ~ div class="box-round"> 11 div class="feedback-note">~[text:psx.html.guardian.attendance.attendance.disabled_by_school] 12 13 [else#hideAttendance] 14 ~ div class="box-round"> 15 <l content="" start="" student=""> 16 ~[SetPostValue:skipDontPrintFilter=1] 17 ~ dable border="1" cellspacing="0" cellpadding="2" align="center" bordercolor="#dcdcdc" class="grid"> 18 ~ dtr owspan="2" align="left"> 19 18 ~ dtr owspan="2" feetters" bordercolor="#dcdcdc" class="grid"> 14 ~ div class="box-round"> 15 <l content="" start="" student=""> 16 ~ [SetPostValue:skipDontPrintFilter=1] 17 ~ table border="1" cellspacing="0" cellpadding="2" align="center" bordercolor="#dcdcdc" class="grid"> 18 ~ dtr owspan="2" feetters" bgclor="#f6f6f6"> 19 ~ th rowspan="2" feetters" bgclor="#f6f6f6"> 10 ~ th rowspan="2" feetters" bgclor="#f6</l></l></l></html></pre>

All Old Capabilities Still There

Data Management > Custom Page Management

	9	\mathbb{Q} \mathbb{Q} \backsim \checkmark \square \mathbb{C} \mathbb{Q} \square \checkmark \square \mathbb{C} \square								
	Cust	omize Page 09/26/118_11:51:27AM (Draft) Extract to Keys Preview Keys Preview Page								
	Cours D									
	Save D	ratt Publish								
	home.html 🗙 attendance.html 🗙									
u										
C	Editat	ble								
SI	1	html								
h	2 -	<html></html>								
t_	3 -	<head></head>								
ts	4	<title>~[text:psx.html.guardian.attendance.attendance]</title>								
	5	~[wc:guardian_header]								
	6									
hl	7	<h1>~[text:psx.html.guardian.attendance.meeting_attendance_history] ~(studentname)</h1>								
	8	title								
	9	~[if#hideAttendance.prefschool.mobiledisablepp_att=1]								
	10 -	<div class="box-round"></div>								
	11	div class-"foodback-noto"- m- [toxt:nex htm] quandian attendance attendance disabled by sche								

Understanding CPM Security

PowerSchool Start Page > Insufficient Access Privileges **Functions Insufficient Access Privileges** Attendance **Daily Bulletin Enrollment Summary** Insufficient access privileges to view the requested screen. Master Schedule Click your browsers "Back" button to return to the previous screen. Dashboard **Special Functions Teacher Schedules** Reports System Reports

<u>NO</u> security groups start out with access to CPM

People

ReportWorks

Student Search Staff Search

Navigate to admin group...

PowerSchool	Start Page > System Administrator	> Groups			! 🖶
Functions Attendance Daily Bulletin	Groups				
Enrollment Summary					Add Groups
Master Schedule Dashboard		Filter:			
Teacher Schedules	Group Number	Group Name	Access Level	Report Queue Priority	
Reports	1	PowerSchool Sysop	View & Modify	0	
	2	Office Staff	View Only	0	
System Reports ReportWorks	3	Counselors	View & Modify	0	
	4	Registrar	View & Modify	0	
People	5	Group 5	No Access	0	
Student Search	6	Group 6	No Access	0	
Staff Search	7	Group 7	No Access	0	
Enroll New Student	8	Group 8	No Access	0	
New Staff Entry	9	Administrator	View & Modify	0	
New Contact Entry	10	Principal	View & Modify	0	
Setup	11	Test Access	View Only	90	
School	12	Group 12	No Access	0	
System Personalize	13	Group 13	No Access	0	

...or create a new one just for CPM

PowerSchool	Start Pa	age > System Administrato	> Groups		! ÷
Functions Attendance Daily Bulletin	Gro	oups			
Enrollment Summary Master Schedule					Add Groups
Dashboard			Filter:		
Special Functions Teacher Schedules		Group Number	Group Name	Access Level	Report Queue Priority
Reports		1	PowerSchool Sysop	View & Modify	0
		2	Office Staff	View Only	0
System Reports ReportWorks		3	Counselors	View & Modify	0
People		4	Registrar	View & Modify	0
49 P - CPM Access No Acc					No Access
New Staff Entry		9	Administrator	View & Modify	0
New Contact Entry		10	Principal	View & Modify	0
Setup		11	Test Access	View Only	90
School		12	Group 12	No Access	0
System Personalize		13	Group 13	No Access	0

Navigate to Overridden Page Permissions

Edit Group	
Option	Value
Group Number	1
Group Name	PowerSchool Sysop
Access Level	View & Modif <mark>y</mark>
Page Level Permissions	Overridden Page Permissions
Can Modify Schedules	Yes, in any year 📀
PowerScheduler Access	
Language Translator/Customizer	
Report Queue Priority	0 Highest

Modify Page Permissions

Start Page > System Administrator > Security > Groups > Edit Group > Overridden Page Permissions

Overridden Page Permissions - PowerSchool Sysop

Pages that display here have a permission set to a specific level instead of the Group Access Level.

Filter: customization		Set all pages
Page	Click here to	Permi
1. customization/extendedschema.html		None
2. customization/home.html	switch this	None
3. customization/setup.html		None
	group to Full	
Click link to view all Groups' settings	Access	

Option: Create dedicated role to grant access to CPM

PowerSchool	Start Page > System Administrator > Roles Administration > User Acce	ss Roles > Edit User Access Role : P - CPM Access	! 🚔
Functions Attendance Daily Bulletin	Edit User Access Role		
Enrollment Summary	Definition Export/Edit Enterprise Reporting		
Master Schedule Dashboard	Name	P - CPM Access	
Special Functions Teacher Schedules	Description		
Reports		Approximately 1024 characters left	
System Reports ReportWorks	Enabled	ø	
People	PowerTeacher Pro Read Only Admin Access		
Student Search	Manage Locked Reporting Terms		
Staff Search	Security group assigned to the role	P - CPM Access	
Contact Search	Document Attachment Categories		
New Staff Entry New Contact Entry		Delete	Submit
CPM Alternative



A great alternative CPM editor created by a power user: "Blue Steel CPM" (Exchange ID 749)

- Upload multiple files
- Search for files
- Filter by plugin names

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Blue Steel Custom Page Management (CPM)

[b]PowerSchool 12.1 Users[/b] Make sure you have access to the stock CPM before using. A new more functional version of Custom Page Management (CPM). This was created to have a better interface to CPM and make it easier to customize. [ul] [*]Ctrl+S or Command+S to save [*]Multiple file upload [*]Search [*]Show Customizations only [*]Snippets - ability to create your own reuseable pieces of code to insert [*]Templates - ability to ... [View More]

Categories:

Custom Web Pages

Products:

PowerSchool 12.x, PowerSchool 9.x, PowerSchool 8.x, PowerSchool 10.x, PowerSchool 11.x

Additional Details:

2258 downloads

+97 votes

Modified: 1/7/2019 Size: 2.18 MB

Dissecting a PowerSchool Page

Special Page extensions .htmlr

Tip: Student pages are in "frames". To use these special extensions right-click (ctrl-click) on the link to them and "Open link in new tab"

Render the page in the browser but do not process special PowerSchool tags.

.htmlt

View the unrendered (server-side) page code in the browser window

Right-click (Windows) or Control-click (Mac) on a PowerSchool page and choose "Inspect" or "View Page Source" to see the rendered (client-side) code.

Additional Tools

- A proper text editor
 - Notepad++ for Windows -<u>https://notepad-plus-plus.org/</u>
- BBEdit for Mac -

https://www.barebones.com/products/bbedit/

BBEdit 12

It doesn't suck.®



Learning Resources



- CPM and Blue Steel CPM have PS templates
- W3Schools
 - o <u>https://www.w3schools.com/</u>
- UI Examples PowerSchool's UI Demo Page
 - o /admin/ui_examples/home.html
- HTML CSS JS: The Client-Side Of The Web
 - o <u>https://html-css-js.com/</u>
- PowerSchool HTML/CSS/JS Fiddle
 - o <u>https://jsfiddle.net/aplarsen/vtunbs8s/</u>
- Inspect PowerSchool pages (view source or "inspect")

More Reference



- PSHTML Developer site <u>https://support.powerschool.com/developer/</u>
- Eric Schaitel's Customization Documentation

https://support.powerschool.com/exchange/view.action?download.id=772

- The PowerSchool User Community
 - **PowerSource Forum:** <u>https://support.powerschool.com/forums/main.action</u>
 - **PSUG Group:** <u>https://groups.io/g/PSUG</u>

Shared Customizations

- PSUG California
 - o <u>https://www.psugcal.org/</u>
- PowerDataSolutions

- KNOWLEDGE
- o <u>https://powerdatasolutions.org/</u>
- PowerSource Exchange
 - o <u>https://support.powerschool.com/exchange/main.action</u>
- Aurora Educational Technology
 - o <u>https://auroraedtech.com/</u>
- Marcia Brenner Associates
 - o <u>https://mba-link.com/</u>



The Languages of Customization

JavaScript/JQuery

SQL



HTML



<html> <title>HTML</title> <body> This is HTML! </body> </html>

What is HTML?

- HyperText Markup Language
- Developed in 1990s
- Used to create elements that will be interpreted visually by a web browser

W3C Standards

--- Most browsers generally comply with the World Wide Web Consortium (W3C standards)
Browser Market Share



러 Browser Market Share Worldwide July 2017 (for map);^[1] rank/share in December 2018^[2] Google Chrome (62.4%) Safari (14.56%) **Firefox** (5.1%) UC Browser (4.17%) **Opera** (3.13%)

Source: https://en.wikipedia.org/wiki/Browser_wars

StatCounter Global Stats Browser Market Share Worldwide, July 2017

Browser Market Share



Source: https://en.wikipedia.org/wiki/Browser_wars

```
<! DOCTYPE html>
                                               Basic HTML Page
<html>
   <head>
       <title>Page Title</title>
       <script src="someJavaScriptFile.js" type="text/javascript"></script>
       k href="someCssFile.css" rel="stylesheet">
   </head>
   <body>
       Page Content Goes Here.
   </body>
</html>
```

- The DOCTYPE declaration defines the document type
- The text between <html> and </html> describes the web document
- The text between <head> and </head> contains meta-data about the file as well as links to external resources
- The text between <body> and </body> describes the visible page content

HTML Tags

--- HTML tags are keywords (tag names)
surrounded by angle brackets:
<tagname>Content</tagname>

- HTML tags normally come in pairs like and
- Self-closing or standalone tags have no closing tags (
 <hr/>)
- The first tag in a pair is the opening tag, the second tag is the closing tag
- The closing tag is written like the opening tag, but with a slash before the tag name

HTML Attributes

<div id="uniqueIdentifier">

```
<span class="classValue">
```

<input type="text" name="inputName">

- Attributes provide additional information about an element
- Attributes are always specified in the start tag
- Attributes come in name/value pairs like: name="value"
- Tags may have multiple attributes

HTML Attributes

```
<div id="uniqueIdentifier">
```

```
<span class="classValue">
```

<input type="text" name="inputName">

id and class are common

- id is used by Javascript to uniquely identify an element to add functionality. No two elements should ever have the same id in one document
- The **class** attribute is mostly used to apply a CSS style. It can also be used by JavaScript to identify a group of elements. Many elements can share the same class.

Heading Tags

Define headings with the <h1> to <h6> tags

<H1>Heading 1</H1> <H2>Heading 2</H2> <H3>Heading 3</H3>

Heading 1

Heading 2

Heading 3

Paragraph and line break tags

- Define paragraphs with the tag. Each paragraph element will typically be followed by a double-space.
- Define single line breaks with the
> tag. It's one of the tags that doesn't need an end tag.

Paragraph and line break tags

My Heading

<h1>My Heading</h1> My first paragraph. I can have line breaks in the code but they will be ignored. There will be extra lines before and after the paragraph. This is a new paragraph.
 It has manual line breaks.
 The new lines are "single-spaced".

My first paragraph. I can have line breaks in the code but they will be ignored. There will be extra lines before and after the paragraph.

This is a new paragraph. It has manual line breaks. The new lines are "single-spaced".

Text formatting

Note: These tags are "deprecated", which means you're really supposed to use CSS styles to comply with modern standards, but these "old school" text formatting tags are still pretty common.

- or : Bolds text
- <i> or : Italicizes text

This is an example of a bold tag This is an example of italicized text

This is an example of a **bold tag** This is an example of *italicized text* Links are defined with the <a> ("Anchor") tag

Link me to Google

Link me to Google

Images

Note: The image file must exist independently of the page in the location specified

Images are defined with the tag

<img src="images/html/mountain.jpg"

```
alt="mountain" width="120" height="100" />
```



Attributes

- **src** Relative path to image file.
- **alt** Specifies alternate text if image cannot be displayed.
- width width in pixels
- height height in pixels

Only the src attribute is required.

Comments

Use <!-- and --> to insert comments in HTML.

Comments are not displayed by the browser, but they can help document your HTML.

<!-- Write your comments here -->

Unordered Lists (Usually "bullets")

Start an unordered list with the tag. Each list item starts with the tag



- Item 1
- Item 2
- Item 3

Ordered Lists (Usually "numbers")

Start an ordered list with the tag. Each list item starts with the tag

```
    Item 1
    Item 2
    Item 3
```

1. Item 1

- 2. Item 2
- 3. Item 3

2 types of elements: Block vs Inline

BLOCK

_ __ __

Start and end with a new line

Examples:

- <h1>
- •
- •
- <div>

INLINE

Usually displayed without line breaks

Examples:

-
- >
- <a>
-

Header Text

This text is contained within a paragraph tag. The paragraph tag is a block level element. Therefore, its contents will be rendered with a new line preceding and following the content.

The <div> element

- The **<div>** element is a block level element that can be used as a container for other elements.
- The **<div>** element has no special meaning. It has no required attributes, but style and class are common.
- Because it is a block level element, the browser will display line breaks before and after it.
- When used together with CSS, the **<div>** element can be used to style blocks of content.

A common use of <div> in PowerSchool

```
<!-- start of content and bounding box -->
<div class="box-round">
more code inside here
</div>
```

Adams, Corby 10 4 AGHS1



The element

- The **** element is an inline element that can be used as a container for text.
- The **** element has no special meaning. It has no required attributes, but style and class are common.
- Unlike <div>, the element does not generate a line break.
- When used together with CSS, the element can be used to style parts of the text

The element

<H1>Demonstration of an inline element within a block element</H1>

Demonstration of an inline element within a block element

CSS

Cascading Style Sheets



Cascading Style Sheets (CSS)

Styles define how to display HTML elements

- Styles are achieved by defining CSS declarations.
- There are two parts to a CSS declaration:
 - **Property** Identifies which feature will be styled
 - \circ $\,$ Value Describes how the feature will be styled
- Separate the two parts with a colon {color:red}

<H1>Demonstration of an inline element within a block element</H1>

Demonstration of an inline element within a block element

CSS Declaration blocks

Declaration Blocks consist of multiple declarations contained within curly braces. Each declaration is separated by a semicolon.



Where does CSS go?

• External stylesheets

k href="/images/css/screen.css" rel="stylesheet">

- Embedded in the <head> tag
 <style>p {font-size:12px;}</style>
- Inline

Paragraph text

* There are complex rules for which styling wins
out. Google "CSS Specificity."

How does CSS know what to style?

• An inline style only applies to the element itself

<H1 style="color:green">Heading Contents</H1>

- Otherwise HTML elements are matched through selectors
 - \circ * matches all tags
 - p matches all paragraph tags
 - div matches all <div> tags
 - \circ .classname matches all elements with that class
 - Combinations: div.box-round
 will only match <div> tags that have class="box-round"

CSS Selector Examples

```
h1 {
  font-size:180%;
  font-weight:bold;
  margin:25px 20px;
  line-height:1.5em
}
.intro {
  background-color: yellow;
```

}

Matches all <h1> elements

<h1>This is my header</h1>

Matches all elements with a class of "intro"

<div class="intro">This div will
have a yellow background.</div>
Embedded vs External

• If you embed CSS in a page in the <head> area, it will only apply to that page.

```
<style type="text/css">
H1{
color:green;
}
</style>
```

• External styles are written in a separate document and can be linked to multiple HTML documents. This is a great way to achieve consistency across an entire website

<link rel="stylesheet" type="text/css" href="myStylesheet.css"/>

CSS Beginner Tip

- See the Documentation Reference Plugin or W3Schools for more on CSS.
- CSS can be very daunting for the beginner.
- Start by applying the CSS classes already available in PowerSchool.
 - Using existing PS CSS is good advice even for more advanced users. It keeps your customizations looking like other PS screens, and consistency is good for your users.

Using PowerSchool CSS styling

The default style sheet is referenced on existing pages and can be referenced in custom pages as follows.

<link href="/images/css/screen.css" rel="stylesheet" media="screen">

Styled as a Button

Styled as a Button

Using PowerSchool CSS styling

<h1>The In Page Title</h1> <div class="box-round"> <h2>Section Title</h2> A paragraph of text.

</div>

The In Page Title

Section Title

A paragraph of text.

```
<body>
    <div id="container">
        <div id="usercontext-bar" role="banner">Breadcrumbs</div>
        <div id="content">
            <div id="nav-main">
                <div id="nav-main" role="navigation">
                    <h3>Functions</h3>
                </div>
            </div>
            <div id="content-main">
                <h1>Page Name</h1>
                <div class="box-round">
                    <h2>Box Header</h2>
                    Content
                </div>
            </div>
        </div>
    </div>
</body>
```

HTML V	CSS ▼	
<pre>1 - <body> 2 - <div id="container"> 3 - <div id="usercontext-bar" role="banner">Breadcrumbs</div></div></body></pre>		
4	Breadcrumbs	
<pre>6</pre>	Functions	Page Name
10 - <div id="content-main"> 11 - <h1>Page Name</h1></div>		Box Header
12 - <div class="box-round"></div>		
13 ▼ <h2>Box Header</h2>		Content
14 - Content		
16		
17		

https://jsfiddle.net/aplarsen/vtunbs8s/

Tables

Year/Term	Grd Lvl	Course number	Course	Earned Credit	Q1	Q2	S 1	S2
17-18 S1	10	CS3000	Computer OS	0.5	B+	B+	B+	
17-18 YR	10	ENG1000	English 1	0.5	B-	С	C+	
17-18 S1	10	LS1000	Home Repair	0.5	В	в	в	
17-18 S1	10	OPstudy	Open Study	0.5	в	F	D+	
17-18 S1	10	PE10	Phys Ed 10	0.5	Α	А	Α	
17-18 S1	10	MAT2000	Pre-Calculus	1.0	A-	A-	A-	
17-18 YR	10	SOC2100	World History	0.5	C+	C+	C+	

Tables

- Best and worst part of HTML
- Should NOT be used for layout of page sections

 This used to be the preferred way of design...in the late 1990s



- CSS has rendered this obsolete
- **DO** use to display tabular data

	thead>	<+r>				
			Student Grade Level Date of Birth			
	(+ h = = -)>					
<	/tnead>	>				
	1		Brandon Adair	Student	Grade Level	Date of Birth
			12 12	Brandon Adair	12	12/13/1996
				lana Williama	0	5/9/2000
			Jane Williams	Jane Williams	0	5/6/2000
			885/8/2000	Jillian Bordeaux	1	9/6/2007
			Jillian Bordeaux			
			9/6/2007			
<	/tbody>	>				

Tables

- defines a table
- > defines a table row
- defines a table datum (cell)
- defines a table header (cell)
 Works mostly the same as a , but applies styling to
 make the headers stand out
- <thead>, , and <tfoot> can be used to group content, but are not necessary

Table styles in PowerSchool

See the UI examples or the Customization Reference plugin for how to style different types of tables in PowerSchool.

• UI Examples

/admin/ui_examples/home.html

• Customization Reference Plugin

https://support.powerschool.com/exchange/view.action?download.id=772

Automatic zebra striping!

Column 1 Header	Column 2 Header
Column 1 / Row 1	Column 2 / Row 1
Column 1 / Row 2	Column 2 / Row 2

Gridlines!

Column 1 Header	Column 2 Header
Column 1 / Row 1	Column 2 / Row 1
Column 1 / Row 2	Column 2 / Row 2

Sortable columns!

Text 🕈	Integer	Date
Alpha	10	1/1/2000
Bravo	22	12/25/2013
Charlie	199	7/4/2013
Delta	3	10/31/2012

Lets users narrow down the table



Forms



Forms Intro

- Take inputs from users
- Send content to a receiving page
- Receiving page acts on content and displays a result
 - $\circ~$ PowerSchool does all of the action on the back end.
 - Receiving pages only need to display result



<form action="/admin/changesrecorded.white.html" method="POST"> Input Label <input type="text" name="[students]first_name" value="" /> <div class="button-row"> <input type="hidden" name="ac" value="prim"> ~[submitbutton] </div> </form>

Form Template

<form action="/admin/changesrecorded.white.html" method="POST">

action

The page that will receive the form content and be displayed when the form is submitted

Form Template

<form action="/admin/changesrecorded.white.html" <pre>method="POST">

method

• GET

- Default
- Converts all form variables into querystring and submits to address bar
- \circ $% \left({{{\left({{{\left({{{\left({1 \right)}} \right)}} \right)}}}} \right)$ Limited in amount of content it can hold

• POST

- \circ $\,$ Puts all variables into body and sends to receiving page $\,$
- Much higher limit in amount of data

Input Names

Each form input should have a name attribute

<select name="grade">
 <option selected value="">select a grade...</option>
 <option value="9">Freshman</option>
 <option value="10">Sophomore</option>
 <option value="11">Junior</option>
 <option value="12">Senior</option>
 </select>

Selecting "Sophomore" and submitting the form via GET would take the browser to: receiving_page.html?grade=10

Form Inputs - Name

<input type="text" name="[students]first_name" value="" />

If you want the input to save to the database....

Form inputs for core fields:

<input type="text" name="[Table_Name]Field_Name" value=""/>

- Text Inputs value="" is required to ensure that the current value will be retrieved from the database to display for existing records
- Checkboxes use value="1" for boolean (true/false) fields

Form inputs for database extension fields (one-to-one) <input type="text" name="[PrimaryTable.ExtensionGroupName]Field_Name" value=""/>

Input Types

- <input type="text">: one-line text box
- <input type="password">: one-line text box that hides content
- <input type="checkbox">: on/off seletion
- <input type="radio">: like a checkbox, but only one can be selected
- <input type="button">: button that can have an action when clicked
- <input type="submit">: button that submits form
 - ~[submitbutton] is PowerSchool shortcut
- <input type="hidden">: displays nothing, passes parameter
- <select></select>: drop-down box
 - o <option></option>: each line in a drop-down box
- <textarea></textarea>: Multi-line text box

AC values <div class="button-row"> <input type="hidden" name="ac" value="prim"> ~[submitbutton] </div>

PowerSchool forms must have an **action (ac)** value to successfully modify data. The required action depends on the portal being customized.

Portal	Required AC
Admin	<input name="ac" type="hidden" value="prim"/>
Teacher Portal	<input name="ac" type="hidden" value="webasmt"/>
Public Portal (Guardian)	<input name="ac" type="hidden" value="autosendupdate"/>
Public Portal (Student)	PowerSchool security prevents updates from the public portal when logged in as a student

Role of FRN = "File Reference Number"

FRNs are used to indicate to PowerSchool the current record which must be accessed from the database.



Database

FRN and RN

- ~(frn) is the PS HTML tag used to retrieve or set the current record.
- ~(rn) is the PS HTML tag used to retrieve the current unique id (dcid).
- FRNs are often found in HTML links.

Demographics

The above link will navigate the user to the demographics page and retrieve data for a student in the database with a dcid of 332.

- Once on this page, the use of the ~(frn) tag would result in a return of the value 001332.
- The use of the \sim (rn) tag would result in a return of the value 332.

Using submitted values

The receiving page can use the values sent with the form

- PowerSchool tag: ~(gpv.parameter_name)
 - "Get Parameter Value"
 - A parameter is something that is passed from one page/function/procedure/program to another
 - \circ $\,$ Works with both GET and POST $\,$
- Example:
 - Code: You selected grade: ~(gpv.grade)
 - \circ Output: You selected grade: 10
- GPV can be used to display a selection, search the database, or decide page control logic

Sending values in links

Values can also be sent to the receiving page via links.

• Parameters passed via the URL are visible in a page's address. They are listed following the page name, preceded by a question mark, and separated by ampersands.

myPsServer/admin/somePage.html?gender=F&grade_level=12

If the above were the current address of a page in PowerSchool, the parameters could be accessed as follows.

- ~(gpv.gender) Result=F
- ~(gpv.grade_level) Result=12

```
<form action="gradelevelroster2.html" method="GET">
>
   Option
   Value
 >
   Grade Level
   \langle td \rangle
   <select name="grade_level">
   <option value=""><option value="-2">PK3<option</pre>
value="-1">PK4<option
value="0">K<option>1<option>2<option>3<option>4<opti</pre>
on>5<option>6<option>7<option>8<option>9<option>10<o
ption>11<option>12
   </select>
   <div class="button-row">~[submitbutton]</div>
</form>
```

Example of sending a gpv to a custom report

Grade Level Roster

Choose a Grade Level			
Option	Value		
Grade Level	PK3 PK4 K 1 2 3 4 5 6 7 8 9 10 11 12	bmi	

https://.../gradelevelroster2.html?grade_level=3&btnSubmit=

	Grade	Last	First
GradeLastFirst	3	Adams	Jennifer
select grade_level, last_name, first_name	3	Ainsworth	Cole
where	3	Berg	Stephanie
~(curschoolid) in (0, schoolid) and enroll_status = 0	3	Birkeland	Casey
and grade_level = <mark>~(gpv.grade_level)</mark> order by lastfirst	3	Bourassa	Vanessa
;]	3	Bradshaw	Charidee
~(grade_level)	3	Brakke	Rosally
~(last_name) ~(first_name)	3	Brandt	Alan
	3	Braton	Kelly
[/tlist_sql]	3	Brooks	Nicholas

Example of receiving a gpv in a custom report (grade_level=3)

PSHTML



<html> <title>HTML</title> <body> This is HTML! </body> </html>

<HTML>

PSHTML

- PowerSchool's special brand of HTML.
- Add special codes and commands to interact with your server and data.
- Begin with a tilde character (~) and contain commands enclosed in parenthesis or square brackets.
 - o ~(curyearid)
 - o ~[x:username]
- Prior to delivering content to a browser, the PowerSchool server replaces PS HTML with the appropriate traditional HTML content.

PSHTML

Tip: Student pages are in "frames". To use these special extensions right-click (ctrl-click) on the link to them and "Open link in new tab"

Tip: Learn by inspecting PowerSchool pages with **htmlr** or **htmlt**

https://yourserverURL/admin/students/parentsguardian.html?frn=0012

Render everything EXCEPT for PSHTML tags https://yourserverURL/admin/students/parentsguardian.html<mark>r</mark>

View completely unrendered (server-side) code
https://yourserverURL/admin/students/parentsguardian.html?t

	https://yourserverURL/admin/students/parentsguardian.html <mark>?frn=0012</mark>									
5	PowerSchool		Wel	come, 51 z51	Help	Sigr	n Out			
			School:	District Office	Term:	18-19	Year			
Start Page	> Student Selection > Parents				ð.		۲			
Pare Adair, Bra Paren	nts 🛊 💵 🏗 🛕 andon 12 3 A AGHS1 t Information									
Mothe	er's Name	Adair, Willima	E							
Day	time Phone	1-555-555-9027								
Fathe	r's Name	Adair, Adam								
Day	time Phone									

https://yourserverURL/admin/students/parentsguardian.html<mark>r</mark>

~[wc:commonscripts] ~[wc:admin_header_frame_css] ~[text:psx.html.admin_students.parentsguardian.start_page] >
~[text:psx.html.admin_students.parentsguardian.student_selection] >~[text:psx.html.admin_students.parentsguardian.parentsguardian1]
~[wc:admin_navigation_frame_css] ~[wc:title_student_begin_css]~[text:psx.html.admin_students.parentsguardian.parentsguardian2]~
[wc:title_student_end_css]

~[text:psx.html.admin_students.parentsguardian.parentsguardian_information]	
~[text:psx.html.admin_students.parentsguardian.mothers_name]	
~[text:psx.html.admin_students.parentsguardian.nbsp_nbsp_daytime_phone]	
~[text:psx.html.admin_students.parentsguardian.fathers_name]	
~[text:psx.html.admin_students.parentsguardian.nbsp_nbsp_daytime_phone1]	

https://yourserverURL/admin/students/parentsguardian.htmlt

```
<!DOCTYPE html>
<html lang="en">
<!-- start right frame -->
<head>
<title>~[text:psx.html.admin students.parentsquardian.parentsquardian]</title>
~[wc:commonscripts]
<link href="/images/css/screen.css" rel="stylesheet" media="screen">
<link href="/images/css/print.css" rel="stylesheet" media="print">
    <script language="JavaScript" src="/scripts/contact.js"></script>
</head>
<body>
<form action="/admin/changesrecorded.white.html" method="POST">
        ~[wc:admin_header_frame css]
~
[text:psx.html.admin students.parentsquardian.mothers name]
                   \langle td \rangle
                       <input type="text" id="current mother" name="[01]mother" value="" size="40"</pre>
onInput="contactFunctions.checkNameChange('mother', '~(frn)');">
```
Where to learn more



- PSHTML Developer site <u>https://support.powerschool.com/developer/</u>
- Eric Schaitel's Customization Documentation

https://support.powerschool.com/exchange/view.action?download.id=772

- The PowerSchool User Community
 - **PowerSource Forum:** <u>https://support.powerschool.com/forums/main.action</u>
 - **PSUG Group:** <u>https://groups.io/g/PSUG</u>

Common PSHTML tags

PS HTML	Description	Example
~(curstudid)	Current Student ID	
~(studentname)	Student Name	
~(cursecid)	Current Section ID	
~(curschoolid)	Current School ID	0
~(curyearid)	Current Year ID	28
~(curtermid)	Current Term ID	2800
~(schoolname)	School Name	District Office
~(yearname)	Current Year Name	2018-2019
~[time]	Current Time	03:38 PM
~[short.date]	Current Date	02/17/2019
~[x:username]	Current User	z51, 51
~[x:userid]	Current User ID	721
~[x:studsinset]	Count of Students in Current Selection	5005
~[displaypref:districtname]	Display a district value from the prefs table	Apple Grove Unified School District
~[prefschool:curfgname]	Display a school value from the prefs table	

Fields

Most fields can be displayed with ~([table]field_name)

- ~([students]last_name)
- ~([students]home_room)
- ~([01]last_name) The table number can also be used
 But do you really want to remember numbers?

Database extensions:

~([PrimaryTable.ExtensionGroupName]field_name)

~([Students.U_Students_Extension]DistrictID)

Data Access Tags (DAT)

Type of PSHTML that provide simple access to data on:

• HTML Pages, Object Reports, Form Letters, Quick Exports, List Students, Report Cards

Access to:

• Students fields, GPA, Honor Roll, Attendance, Scheduling

DAT Supplement: <u>https://support.powerschool.com/d/55742</u> These are a full session topic on their own

DAT Examples

- ~(*gpa method="Weighted" Grade="9,10,11,12")
- ~(tests;name=ACT;score=Composite;which=best;type=num; result=value;format=##0)
- ~(*period_info;1(A);course_name)
- ~(per.att;1(A);A;Q2)
- ~(*DABS)
- ~(*honorroll method="High Honors" term="S1")

Wildcards

- Wildcards contain reusable content that appears in the same format in several PS pages.
- Wildcard content is stored in the wildcards folder in the PS web root.
- Headers, footers, and navigation code is commonly kept in wildcard files.

🖓 🗤 🟭 webutil				
- 🛺 widgets				
🚛 🌆 wildcards				
- jowerteacher_version.txt				
admin_aoscreate.txt				
- 📄 admin_bulletin.txt				
admin_edit_staff_security.txt				
- admin_footer.txt				
- admin_footer_css.txt				
- 📄 admin_footer_frame.txt				
admin_footer_frame_css.txt				
- 📄 admin_header.txt				
- admin_header_css.txt				
- 📄 admin_header_frame.txt				
admin_header_frame_css.txt				
- 📄 admin_header_frame_sched.b				
admin_header_frame_sched_c				
- admin_header_lunch_css.txt				
- admin_interactive_I18n_conter				
- 📄 admin_interactive_I18n_none.t				

Wildcard Syntax

~[wc:wildcard_file_name]

- Wildcard files all have an extension of .txt
- The wildcard file name specified in the tag must contain the name of the file *without* the extension name.

admin header frame.txt

- admin interactive 118n none.1

admin header frame css.txt

admin_header_frame_sched.to admin_header_frame_sched_c admin_header_lunch_css.txt admin_interactive_I18n_conter

~[wc:admin_header_frame]

Conditional Logic (IF tag)

~[if{#identifier}.{expression}]
 {true_render}
[else]
 {false_render}
[/if]

- {#identifier} Optional. Used when nesting multiple IF tags. Prefixed with a number sign(#)
- {expression} Required. A comparison expression to test for a true/false result
- {true_render} Optional. Rendered if the expression returns true
- {false_render} Optional. Rendered if the expression returns false.

Using with ~(gpv)

~[if] tags are often used in conjunction with ~(gpv.xx) tags

For example, a custom report might have a parameter passed named 'gender'. This parameter could be accessed using the following tag: ~(gpv.gender)

```
~[if.~(gpv.gender)=M]
Male
[else]
Female
[/if]
```

Special IF tags

~[if.district.office]
~[if.is.a.school]
~[if.mac]
~[if.win]
~[if.isstudent]
~[if.isguardian]

Example

~[if#distCheck.district.office] ~[if#winCheck.win] **District office on Windows** [else#winCheck] District office on Mac [/if#winCheck] [else#distCheck] ~[if#winCheck2.win] ~(schoolname) on Windows [else#winCheck2] ~(schoolname) on Mac [/if#winCheck2] [/if#distCheck]

School: District Office



"District office on Mac"

Text Tags

~[text:psx.html.admin_students.parentsguardian.parentsguardian_information]

~[text:psx.html.admin_students.parentsguardian.mothers_name]

~[text:psx.html.admin_students.parentsguardian.nbsp_nbsp_daytime_phone]

~[text:string_key_name] itml.admin_students.parentsguardian.fathers_name]

~[text:psx.html.admin_students.parentsguardian.nbsp_nbsp_daytime_phone1]

Text tags retrieve text from PowerSchool's localization definitions.

Localization allows users to change the language used in a PowerSchool implementation, or translate individual words and phrases.

Use text tags for customization?

Tips

- If no need to translate, just use regular labels
 Example: <title>Grade Level Roster</title>
- You can copy **EXISTING** text tags in PowerSchool (*Caution: sometimes PS changes text keys*)
- You can **CREATE** your own keys in the Custom Page Manager

Creating your own text keys

- 1. Highlight your text
- 2. Choose
 - "Extract to Keys"



Creating your own text keys

- 1. Highlight your text
- 2. Choose
 "Extract to
 Keys"
- 3. New key automatically created

୬ ସ ସ		3456	BI
omize Page	02/17/2019, 02:41:41PM (Active)	Extract to Keys	Preview Keys
raft Publish	02/17/119, 09:34:34PM (Draft)	Snippets	Contraction Templa
delevelroster1.	.html 🗙		
<html> <head> <title>Grad <!-- require</td--><td>e Level Roster</td></title></head></html>	e Level Roster		

<title>~[text:psx.htmlc.admin.reports.psugme.gradelevelroster1.grade_level_roster]</title>

Error - "String key was not found!"



This error is fairly common.

- You customize a page
- PowerSchool updates the page and changes the text key.
- Your customization is now referencing a text key that no longer exists.

Solution

- Don't use stock text keys
- Use page fragments to customize
- Update your customization to refer to the new key

Error - "String key was not found!"

FIXED!

Home Address	1	Home Address	
String key was not found!		Street, Apt/Suite	1337 Greymont Ave
City, State, Zip		City, State, Zip	Jackson
Geocode		Geocode	
			Validate

~[text:psx.html.admin_students.generaldemographics.street]

~[text:psx.html.admin_students.generaldemographics.street_aptsuite]

Tlist_SQL

A way to embed an SQL Query into your custom pages Separate SQL class!

The basics

```
~[tlist_sql;
    SQL Query goes here;]
    Row Template goes here
[/tlist_sql]
```

Tlist_SQL

- The code in the Row Template will be repeated for each record returned by the query
- 2. Columns in each
 record are
 referenced using
 ~(column name)
- 3. The columns in the Row Template must be in the same order as the query

```
<thead>
     Name
        School Number
        Principal
        Address
     </thead>
  ~[tlist_sql;
        SELECT name, school_number, principal, address
        FROM schools
        ORDER BY sortorder
     ;]
        >
           ~(name) 
           /td>
           ~(principal)
           ~(address)
        [/tlist_sql]
```

Tlist_SQL



Name	School Number	Principal	Address
Apple Grove High School	100	Pat R. Smith	
Apple Grove High School 2	200	Pat R. Smith	Apple Grove High School 833 Maple St Jackson, MS 39203
Apple Grove High School 3	300	Pat R. Smith	Apple Grove High School 833 Maple St Jackson, MS 39203
Cherry Hill Middle School	600	Terry Kaste	Cherry Hill Middle School 545 Ellis Ave Jackson, MS 39209
Washington Elementary	700	Alex McQuaid	Washington Elementary 415 Claiborne Ave Jackson, MS 39209

Tips for developing Tlist_SQL

- Develop and test queries in a querying tool. Then paste the query into your tlist_sql tags.
- PowerSchool will not respond with an error message if the query has an error; there simply won't be any data rendered.
 - However, tlist_sql errors will appear in the PowerSchool log (System
 > System Logs > System Log > View Current System Log File).
- Tlist_sql is not limited to generating table rows. It can also be used to create options for <select> inputs, or any solution that would require repeated code for each result from a query.

Final Tips

- Open existing PowerSchool pages to see how they are constructed
- Use the PS Templates in CPM
- Refer to UI Examples
- Download plugins from PowerSource Exchange
- Be brave!

Credits

Adam Larsen/Aurora Educational Technology

- Past presenter at PSUG ME https://auroraedtech.com/
- Eric Schaitel/Marcia Brenner Associates
 - (Content adapted from Customization Reference Plugin) https://support.powerschool.com/exchange/view.action?download.id=772