

Process Analysis Web System:

User Manual

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History

Process Analysis Web System (PAWS) originally grew out of my longstanding interest in computer applications in psychology. Over the years, I developed many applications for collecting data. As computers and software have advanced over the years, I have had to periodically abandon previous projects and start all over again. PAWS originally started as a way to administer questionnaires using web browsers (after abandoning my Turbo Pascal program). I started this in 1997. In late 1999, the Nashville Health Disparities Coalition received a grant from the Centers for Disease Control and Prevention to spend a year planning a community-based participatory research project to reduce health disparities in diabetes and cardiovascular disease among African Americans living, working, going to school, and worshipping in North Nashville. I joined this project, Nashville REACH 2010, as part of the evaluation team working with colleagues at the Metro Health Department and Meharry Medical College. This is when I decided to adapt the software for administering questionnaire online into a tool for collecting and managing process evaluation data. Psychological Assessment Web System (PAWS) become Process Analysis Web System (PAWS). Over the next seven years, I gradually added more capabilities to PAWS and made upgrades to how it managed data. Each time I have used PAWS for a new project, I have added more capabilities. It is now approaching the point of being ready to be deployed by others.

Purpose

PAWS is a web-based tool for managing process evaluation data for community-based participatory research projects. It can be set up on a single server and accessed by all personnel who are working on a project, regardless of where they are located. The web interface allows PAWS to be used by anyone who has access to the internet. Any data that is added to the PAWS database is available to all other users in real time. It has utilities that allow users to view and edit the data, and the data can be easily transferred to a spread sheet or statistical analysis software. It also has capabilities that allow the user to generate reports and summaries of individual data files. Many of the capabilities of PAWS can be created and managed through a web-based user interface.

Overview

The main interface for PAWS is a website with the starting page being named “index.asp”. The three letters after the period in the page name, “.asp”, refers to active server page technology. Active server pages contain code that is executed on the server and used to create web page content on demand. This allows the data, pictures, and content to be determined just before the page is sent to the user’s web browser. The opening web page has modules that can be easily configured in order to determine the content and functionality of the web site. Some pages can be exposed to the public while other pages and functions require a user name and password to be accessed. The details of how to configure this web site requires some programming skills and will be covered in the PAWS programming manual.

Pages off the main page can expose any content that can be coded into HTML and placed on a web page. Many programs such as Word and Powerpoint allow content to be saved as HTML code, and thus can become a page that is linked to from the main page. Pages that expose the content of a database can also be displayed. These pages have buttons that allow the user to add new items to the database, including uploading files from the user’s computer, and an optional button to allow the database to be edited.

This opening page is the staging point for accessing all of the functionality of PAWS. There are two sets of buttons that can easily be configured giving access to many different pages. PAWS is built in a way that allows modules (Like the side menu of buttons) to be configured in one file and then appear on all pages in the site. Other items like title, banner, and colors can be changed by changing the appropriate module file.

Functional Elements of a PAWS web site

Table 1 shows the elements of PAWS web pages, the names of the files, and a description of the content.

Table 1: Elements of a PAWS web page.

#	Name of element	File Name	Description
1	Global variables	Globalvars.asp	Sets the title, and location variables for data files and style descriptions
2	Banner	Banner.asp	Specifies the picture at the top of the page, and the large welcoming text
3	Header	Header.asp	Specifies the buttons at the top of the page. The specification includes the button name, the type of resource activated by clicking the button (HTM, ASP, or ASPX), and a parameter that makes the resource public or

			private. A private resource can only be viewed by someone who is logged onto the web site. The header also has a field that displays the user name and log on status.
4	mission	Mission.txt	A mission statement that is displayed below the top row of buttons
5	Side Menu	Sidemenu.asp	Specifies the buttons at the left side of the page. The specification includes the button name, the type of resource activated by clicking the button (HTM, ASP, or ASPX), and a parameter that makes the resource public or private. A private resource can only be viewed by someone who is logged onto the web site.
6	template	Template.asp	A template for a page that presents information and graphics. It has all of the elements in place except content. To create new page on the site, you edit content and save it under a different name. You then give a button on the side Menu or header the same name in order to give the user access to the page.
7	data	Data.asp	A template for a page that exposes a database. This page allows users to view, add, and edit data into a database. You will have to edit the page name and create a database on the server in a location described in globalvar.asp. You then save the page with a different name and create a corresponding button on the side menu or the header.
8	Log on	Log_on.asp	This is the page that you link to in order to allow users to log on and access the protected features of the web site. To put this on the site, you create a button with the name "Log_on", an instruction that it is an "asp" page, and set the value to make it public.

In addition to the content that is available from the main web page, PAWS has a web-based system for creating, editing, and deploying web-based data collection forms. This part of PAWS allows the user to create forms and other functional web pages and to link these together into

scripts. The scripts can be made available publically, or can be placed behind a user name and password log on.

Table 2 describes the elements of the PAWS data collection system.

#	Name of element	File Name	Description
1	Starting Page	Process_Evaluation.asp	This is the page that you link to off the PAWS main page (or any other page you happen to be on) in order to start using the data collection system.
2	Log on	Logon.asp	This is the logon page that is the gateway to the data collection system. This is the only way to get into the system because it sets important variables.
3	PAWS Controller	PAWS_Controller.asp	This is the heart of the PAWS system. It keeps track of forms and scripts and determines the next thing to be done.
4	PAWS choose	PAWS_Choose.asp	This is the main menu that displays all of the scripts that are available. There are two levels of users. An administrative user is able to see and access all of the scripts, including those that allow building and editing forms and scripts. A normal user is only able to see the scripts you determine are needed for the process evaluation data collection.
5	Administration Site	AdministerSite.asp	This is a page that exposes a number of the underlying tables used to manage PAWS. This allows the administrator to view and modify these online.
6	Users	Data_users.asp	This is the table that contains the user names and passwords. It also has fields for a complete description of each user.
7	Script Registry	ScriptRegistry.asp	This is a table that has a list of all of the scripts that are available to PAWS_Choose.asp along with a code that controls access level (0 all

			can access, 1 only administrators can access)
8	New Script	Script_NewScript	An interactive form for creating new scripts
9	Add Form	Script_AddForm	Allows the user to create a new data collection form
10	Form Editor	Script_FormEditor	Allows the user to edit a form
11	Table Editor	Script_TableEditor	Will edit any access table in the Web site's database
12	Administer	Questionnaire_administer.asp	This is the part of PAWS that is used to gather form-defined data from users. Each form is defined in a file name "form_xxxx" where xxxx is the name of the form. Each form creates a data file named "save_xxxx" where xxxx is the name of the form. That data can be made visible on the web site by creating a button named "save_xxxx" and a page named "save_xxxx" using the data.asp template.
13	Choose_templates	Choose_templates	This is a table that defines multiple choice templates for use in forms and questionnaires.

PAWS Website Administration

There is a page named "AdministerSite.asp" that can be used to administer the web pages and the data collection capabilities. This is very similar to the opening page, "index.asp" except that there is a separate side menu named "sideMenuAdmin.asp". This menu has buttons that allows the user to administer different elements of the site. The buttons that are currently configured on "sideMenuAdmin.asp" are in Table 3.

#	Name of element	File Name	Description
1	Administer Site	AdministerSite.asp	This is the web page you link to in order to administer different features of the site.
2	Administration side menu	SideMenuADMIN.asp	Sets up the buttons that can be used to administer key data files necessary to the functioning of the site.
3	User database	Data_users.asp	This is the file that has the usernames, passwords, and other information for each user. There will be a button for this on the

			side menu. Clicking the button will expose the contents of the user database, and will expose buttons that allow the user to add or edit the user database.
4	Script Registry	ScriptRegistry.asp.	The script registry contains a list of all scripts that will appear on the PAWS_choose.asp page. There will be a button that shows the scripts, and allows the user to add or edit scripts. There is also a script available in the script registry for adding new scripts.
5	Multiple choice templates	Choose_templates.asp	The forms in PAWS rely on a database of multiple choice templates. These templates are stored in a table called choose_templates. The button on the side menu will allow the user to see, add, and edit this table.
6	View Forms	View_Forms.asp	This allows you to view the contents of a form. There is a list of the forms and a "Start" button. Highlight the form you wish to view then click Start.

How do I do that?

This section of the manual contains instructions on how to perform different actions using PAWS.

How do I log on?

1. Click the button at the top of the page labeled "log_on".
2. This takes you to the log_on page.
3. Type in your user name
4. Type in your password
5. Click the "Log On" button
6. You will get a pop up message telling you whether or not you were successful in logging on.
7. When you are successful. Figure 1 shows that you will see the user name and status on the header.

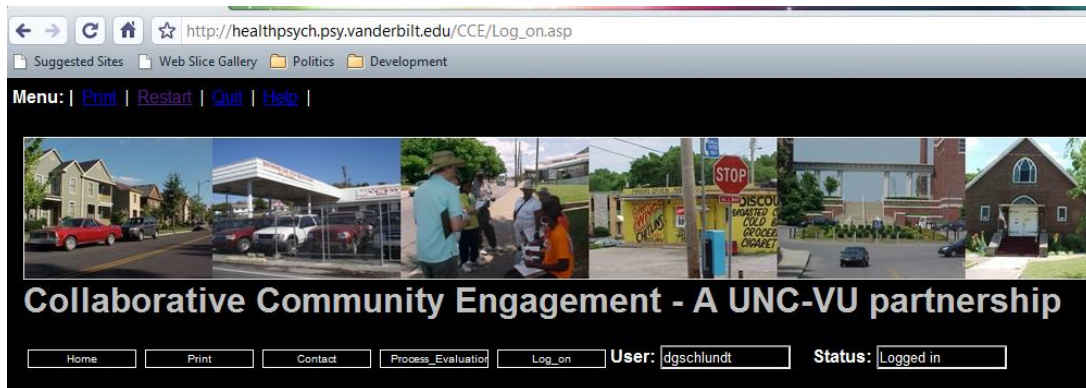


Figure 1: A successful log in will display User and Status

How do I add Content to a Table?

Figure 2 shows what you will see when you call up a page that exposes a data table. The example is a page called resources.

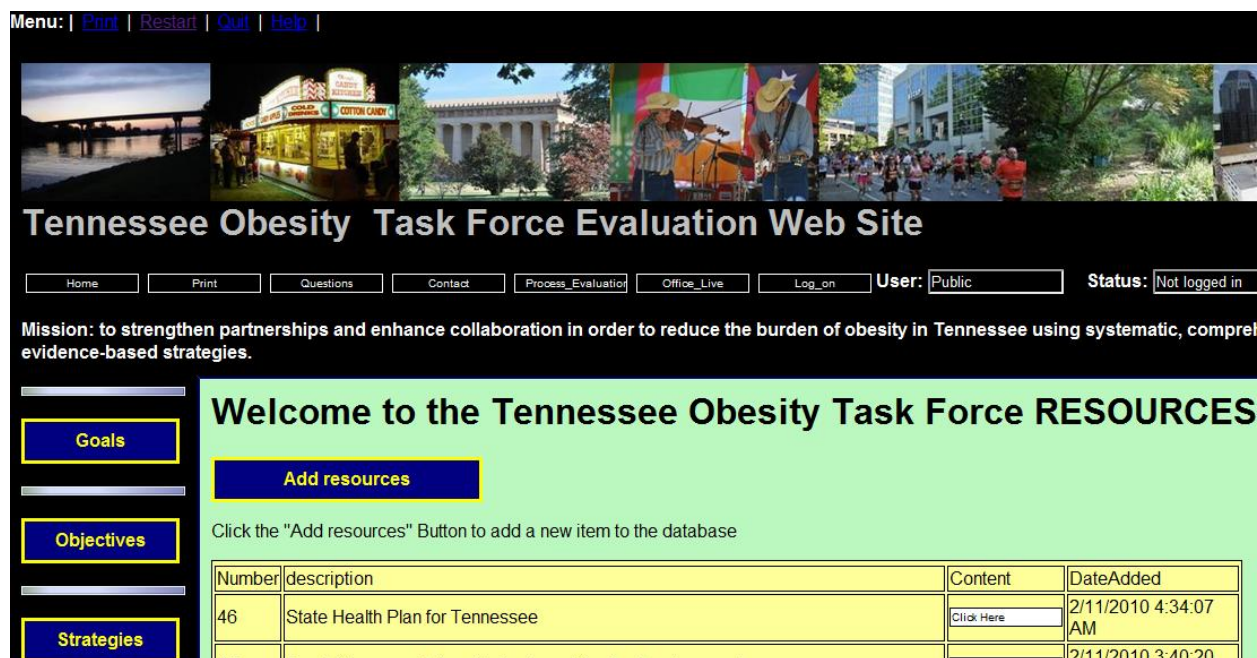


Figure 2: Example of a page that exposes a data table

The yellow table shows each of the current entries in the data table. In the content column, there is a button that allows one to link to the resource by clicking the button. All items in the data table are exposed this way.

To add a new line to the table.

1. Click on the “add resources” button. The name on the button will change according to the name of the table.

- When you click the “add” button, you will see a table that contains all of the fields in the file. You can enter data to this table to add a new record to the database. See figure 3 for an example.
- If you want something to appear as a link, type or copy and paste a URL (e.g., <http://healthpsych.psy.vanderbilt.edu/tot/additem.asp>) into the data field. When the page is rendered, a well-formed URL will be replaced with a “link” button that allows the user to access the resource.
- When all fields have been completed, click the save button and the record you created will be displayed after the page is refreshed in the browser.

The screenshot shows a web browser window displaying the Tennessee Obesity Task Force (TOT) application. The page title is "Tennessee Obesity Task Force (TOT)". The mission statement is: "Mission: to strengthen partnerships and enhance collaboration in order to reduce the burden of obesity in Tennessee using systematic, comprehensive, multidisciplinary, and evidence-based strategies." The user is logged in as "User: dgschlundt". The form contains the following data:

Number	30
description	
Content	
DateAdded	5/9/2010 5:25:16 PM

Below the form, there is a "Save your work" section with a "Save" button. There is also an "Upload a File" section with an "Upload" button and a text box showing "No file uploaded".

Figure 3: Page that allows addition of a record to a table

To upload a file and create a link to the file

- Follow the steps to add a record to a table. When you see the page that has the empty fields displayed, there will be a button at the bottom (see figure 3) below the “Save” button labeled “Upload”. Click this button.
- Figure 4 shows what the upload page looks like.
- Click on the button labeled “Choose File”. This will take you to a windows dialogue that will allow you to navigate on your computer to the folder that contains the file. Choose

that file. The name of the file will appear next to the “Choose File” button when you return to the page.

4. If you are satisfied that this is the file you wish to upload, click on the “Upload” button which is just below the “Choose File” button.
5. You will be informed of the status, the URL, and the size of the file in the boxes just below the “Upload button”.
6. When you are satisfied, click the button labeled “Finish” at the bottom of the page. This will return you to the page that allows you to add data to a table. If there is a field in the table with the word “link” in the title, the URL of the uploaded file will be added to that box. If not, you can copy and paste the link to the desired field. The link appears at the bottom of the page (see Figure 5).

Upload a File to the Document Folder

File Upload Tool

Choose File No file chosen

Upload

Click 'Choose File' to start

After Choosing File Click 'Upload'

Information

Calling Page is

resources

Finished

Figure 4: Page for uploading files

Tennessee Obesity Task Force (TOT)

Number	<input type="text" value="30"/>
description	<input type="text"/>
Content link	<input type="text" value="http://healthpsych.psy.vanderbilt.edu/TOT/Documents/COI_list_Log_94.p"/>
DateAdded	<input type="text" value="5/9/2010 6:12:50 PM"/>
Use the buttons below to operate this utility	
Save your work	<input type="button" value="Save"/>
Upload a File	<input type="button" value="Upload"/> <input type="text" value="http://healthpsych.psy.vanderbilt.edu/TOT/Documents/COI_list_Log_94.pdf"/>

Figure 5: How an uploaded file is returned to the additem.asp page

How do I edit a table?

1. Use the side menu to navigate to the table you wish to edit. You may have to log on to view the table.
2. At the bottom of the table, there is a button labeled "TableEditor". Click this button. You will typically have to be logged on in order to use this feature. See figure 6.
3. This will take you to the table editor page (see figure 7).
4. You will see the fields in the table displayed, with a row of buttons above the fields. One column has the field name, the next column has the contents of a record. You change the contents of the box to change the data in the table.
5. The buttons are used to navigate through the table. "Forward" moves to the next record, "Back" goes to the previous record. "Add" will insert a new record in the table. "Delete" will remove the record you are viewing.
6. None of the changes you make are save until after you click the "Save" button. This will save all of the changes you have made, and return you to the page that displays the contents of the table.

20	TOT minutes for April 8, 2009	Click Here	1/18/2010 4:30:21 PM
21	Minutes Jan 13, 2010 task force meeting	Click Here	1/22/2010 4:28:58 PM
22	January Task Force Newsletter	Click Here	1/22/2010 4:31:06 PM
23	TOT February News Letter	Click Here	2/3/2010 5:23:30 PM
24	TOT February 2010 Meeting Agenda	Click Here	2/3/2010 5:24:10 PM
25	History of the TOT	Click Here	2/4/2010 1:45:20 PM
26	TOT organizations	Click Here	2/4/2010 1:46:33 PM
27	TOT Agenda Feb 10 2010	Click Here	2/4/2010 1:47:57 PM
30	There are Poor Places To Live	Click Here	4/1/2010 10:21:17 AM
31	Implementing Strategies for Early Childhood Nutrition	Click Here	4/14/2010 4:13:11 PM

TableEditor

Figure 6: The TableEditor button

strategies.

Calling Page Table documents Online of

Forward Back Add record Delete record Save

1 ID

2 Description

3 Download Link

4 DateAdded

Figure 7: The Table Editor Page and its Controls

Add a new Page to the web site?

1. Decide if you want the page to be accessible from the top menu (header.asp) or the side menu (SideMenu.asp). Open the corresponding file in a text file editor (note pad will work).
2. Figure 8 shows you the contents of the SideMenu.asp file.
3. To add a page, increase the value of "numsites =" by 1. In figure 8, it is 13 and you can add a page by changing it to 14.
4. Copy three consecutive statements (sites(n,1)=name, sites(n,2) = type, sites(n,3) = security) and paste them at the end of the list of statements. Change the first index value (to the a number that matches numsites. Figure 9 shows what adding a public page called "Humorous.asp" would look like.
5. Save the file to the website.
6. There are two template files, "template.asp" and "data.asp". Template is used to add a content page. It will have all of the elements of other PAWS pages, except the content area is blank.

Use HTML to add content to this section of the page (Figure 10 shows the location within the file).

7. Save the file under the new name (it should match the name and type in the menu file). It will now appear on every page and be accessible when the button on the menu is clicked.
8. If you wish to add a page that exposes a data table, you must first create a new access table in the file "MasterPaws.db". You will have to use Microsoft Access to do this. Figure 11 shows an example of an Access file in design view.
9. Once you have the data table created, use the template "data.asp" to set up the page. Open data.asp in a text editor. Figure 12 shows the destination variable that you will need to change to tell the page what data table to access. Change "PAGENAME" to the name of the access table you wish to display.
10. Save the file "data.asp" under a new name. The new name is the name of the access table followed by asp. For example, to add demographic table, you would save "data.asp" as "demographic.asp".


```
1 | 
2 | numsites = 13
3 | dim sites(25,3)
4 | ' three columns
5 | ' 1=name
6 | ' 2 = type (1=htm, 2=asp, 3=aspx)
7 | ' 3 = security (0 = open, 1 = secure)
8 | sites(1,1) = "Goals"
9 | sites(1,2) = 2
10 | sites(1,3) = 0
11 |
12 | sites(2,1) = "Objectives"
13 | sites(2,2) = 2
14 | sites(2,3) = 0
15 |
16 | sites(3,1) = "Strategies"
17 | sites(3,2) = 2
18 | sites(3,3) = 0
19 |
20 | sites(4,1) = "Resources"
21 | sites(4,2) = 2
22 | sites(4,3) = 0
23 |
```

Figure 8: Contents of the SideMenu.asp file

```

59
60 sites(14,1) = "Humorous"
61 sites(14,2) = 2
62 sites(14,3) = 0
63

```

Figure 9: What a new page added to a menu looks like

```

45 <!--#include file='sideMenu.asp' -->
46 </td>
47 <td class="main" valign="top" >
48
49 ***** ADD CONTENT HERE *****
50
51
52
53 </td>
54 </tr>
55

```

Figure 10: Where to add content to the template.asp file

content in the database has been disabled Options...

Field Name	Data Type
Sex	Text
race	Text
Age	Text
education	Text
employed	Text
income	Text
zip	Text
Date	Date/Time
time	Date/Time
usernumber	Text
maritalstatus	Text
area	Text
work	Text

Figure 11: A data file in ACCESS design view


```
<%=  
destination = "PAGENAME"%>  
<!--#include file='globalvars.asp' -->  
<!--#include file='Paws_Uutilities.asp' -->  
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 1  
3 <html xmlns="http://www.w3.org/1999/xhtml">  
3 <head>
```

Figure 12: The destination variable that controls the table that is displayed in "data.asp"