

Final Project

BYU IS 520

Dr. Gove Allen

# Brio Payroll Project

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4/14/15

## Executive Summary

Brio Home Health & Hospice is a company that connects clinicians with patients who want to receive care from the comfort of their own home. They are located in Draper, Utah and have been growing for several years. It uses a system called Kinnser to manage and schedule its clinicians. Kinnser has a payroll system but it is not very robust and requires a lot of man hours to come up with a useable payroll. I have created a macro that will automate the process of creating the payroll and formatting it for company use. The manual payroll process can take up to three days and they hired someone to specifically help out with that process. This program will help lower costs and free up time for employees to do other work.

The program will scrape data from the Kinnser website and format it to be usable. This will be done daily to keep a log of all clinician activities. Every two weeks, a payroll will be created from this data accounting for any penalties clinicians incurred by late paperwork. The payroll will be formatted and printed out to be sent to each clinician.

## Implementation Documentation



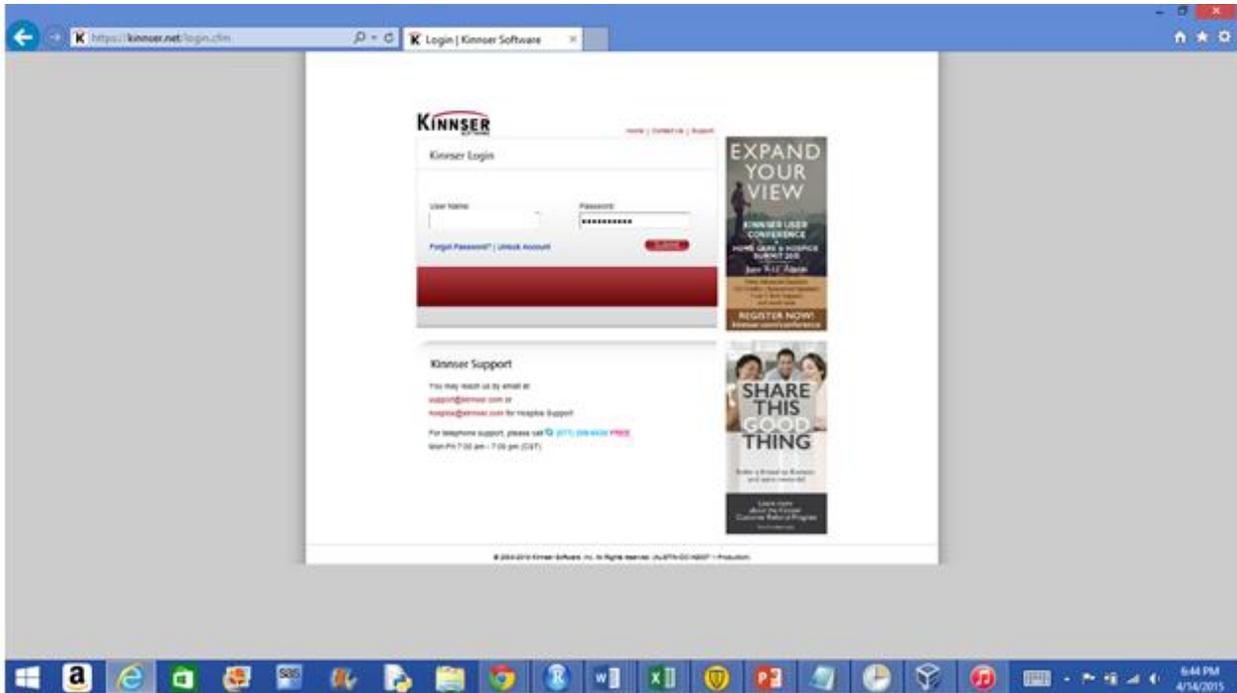
Using the wonderful ribbon wizard I was able to create three buttons in a new ribbon, the Brio Ribbon. The three buttons are

- “Download Past Due Log” button – which downloads a the Past Due Log from Kinnser
- “Download Clinician Schedule” button – which downloads the Clinician Schedule
- “Create Payroll” button – Creates a payroll for the company

\*Sensitive information has been removed.

### Past Due Log Button

The first button downloads a daily Past Due Report from the website Kinnser. Kinnser is the clinician manager that the company Brio uses. It signs into the webpage with a saved username and password.



After it logs in it navigates to the correct webpage and downloads all the data into an excel file.

Go To File View Search Help

Kinnsler Support will be closed on Wednesday April 15th from 11:45am (CST) until 1:15pm (CST) for a departmental meeting. Thank you for your patience.

### Past Due Visits Report

4/14/2015 To Excel

Patient	MR #	Task	Assigned	Status	Target Date
1.	7	HHA Visit		Returned for Review	01/10/2015
2.	0	HHA Visit		Returned for Review	01/13/2015
3.	0	HHA Visit		Returned for Review	01/17/2015
4.	3	OT Evaluation		Pending Clinician Signature	01/19/2015
5.	0	HHA Visit		Returned for Review	01/20/2015
6.	0	OT Visit		Not Started	02/05/2015
7.	0	PT Re-Evaluation		Not Started	02/11/2015
8.	0	PTA Supervisory Visit		Not Started	02/11/2015
9.	0	HHA Visit		Returned for Review	02/14/2015
10.	0	OT Visit		Not Started	02/15/2015
11.	1	Consent		Not Started	02/16/2015
12.	0	Admission Case Conference		Saved	02/16/2015
13.	0	OT Visit		Not Started	02/22/2015
14.	6	HHA Visit		Not Started	02/23/2015
15.	2	OT Evaluation		Pending Clinician Signature	02/24/2015
16.	2	HHA Visit		Pending Clinician Signature	02/25/2015
17.	0	HHA Visit		Returned for Review	02/28/2015
18.	0	OT Visit		Not Started	03/01/2015
19.	3	OT Visit		Not Started	03/06/2015
20.	2	HHA Visit		Pending Clinician Signature	03/06/2015
21.	1	HHA Visit		Pending Clinician Signature	03/07/2015
22.	2	HHA Visit		Pending Clinician Signature	03/07/2015
23.	1	HHA Visit		Pending Clinician Signature	03/08/2015
24.	0	OT Evaluation		Not Started	03/08/2015
25.	2	Admission Case Conference		Saved	03/09/2015
26.	6	HHA Visit		Not Started	03/09/2015
27.	9	PT Visit		Not Started	03/11/2015
28.	9	PT Visit		Not Started	03/12/2015
29.	3	LPN DM PM		Not Started	03/12/2015
30.	0	PT Evaluation		Not Started	03/13/2015
31.	2	HHA Visit		Pending Clinician Signature	03/13/2015
32.	5	HHA Visit		Not Started	03/13/2015

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1			3/20/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
2			3/23/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
3			3/24/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
4			3/26/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
5			3/26/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
6			3/27/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
7			3/30/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
8			3/30/2015	PTA Visit	\$65.00	0	\$0.00	Completed									
9			3/17/2015	HHA Visit	\$18.00	19	\$0.00	Completed									
10			3/19/2015	HHA Visit	\$18.00	19	\$0.00	Completed									
11			3/24/2015	HHA Visit	\$18.00	19	\$0.00	Completed									
12			3/26/2015	HHA Visit	\$18.00	19	\$0.00	Completed									
13			3/31/2015	HHA Visit	\$18.00	19	\$0.00	Completed									
14			3/9/2015	MSW Evaluation	\$0.00	0	\$0.00	Completed									
15			3/9/2015	MSW Visit	\$0.00	0	\$0.00	Completed									
16			3/20/2015	MSW Evaluation	\$0.00	0	\$0.00	Completed									

The data is

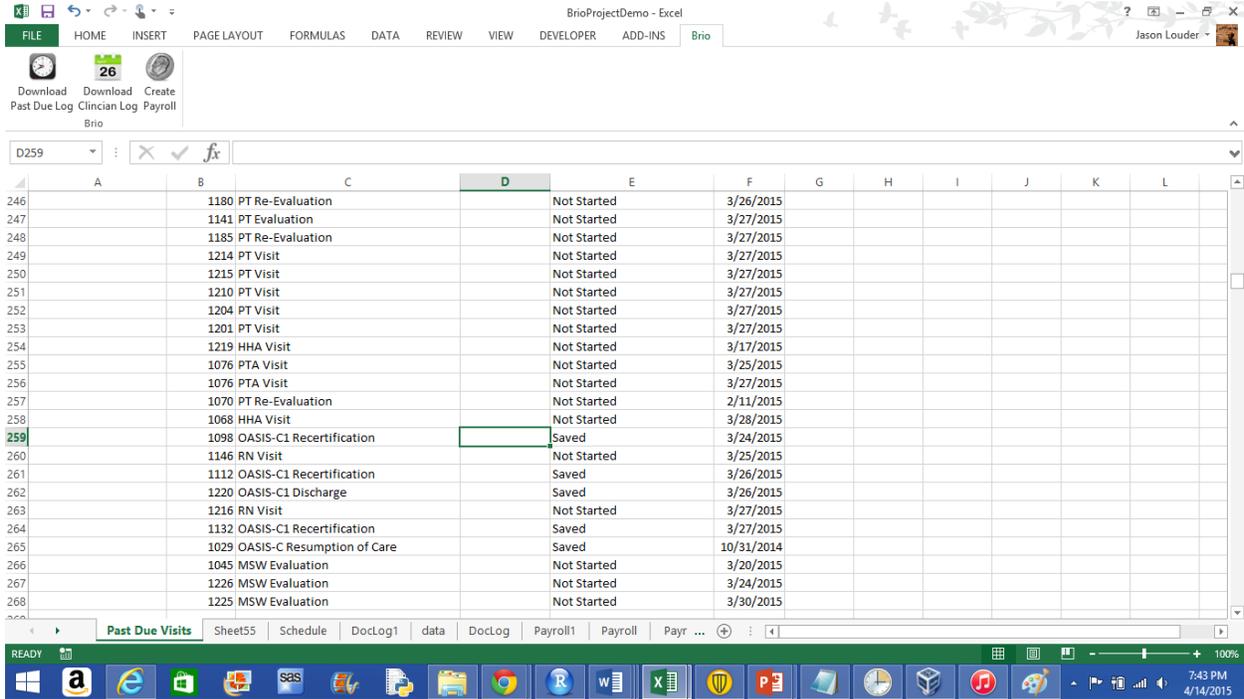
- copied to the “data” worksheet
- cleaned by removing any excess details from the webpage
- ordered according to Clinician Name and Date
- checked against a reference table on another sheet to make sure that each task is billable

	A	B	C	D	E	F	G	H	I
1	Billable Visits	Non-Billable Visits	All Tasks	QA Compliant	Late Tasks	Payable Tasks	Days Lat		
2	Admission	48hr F/U Call	Completed	Returned for Review	Not Started	Completed	<		
3	COTA Visit	Admission Case Conference	Not Started	Returned w/ Signature	Saved	Exported	<		
4	HHA Visit	Admit Order	Pending Clinician Signature				<		1
5	LPN DM AM	Aide Care Plan	Reopened				>		1
6	LPN DM Noon	Aide Supervisory Visit	Returned for Review						
7	LPN DM PM	Case Conference	Saved						
8	LPN Visit	Case Conference and 60 Day Summary	Submitted to Case Manager						
9	MSW Evaluation	CMS 485	Submitted with Signature						
10	MSW Visit	Consent	Exported						
11	OASIS-C Discharge	Discharge Order	Returned w/ Signature						
12	OASIS-C Recertification	Discharge Summary							
13	OASIS-C Resumption of Care	Get Authorization							
14	OASIS-C Start of Care	Lab Results							
15	OASIS-C Transfer	LPN Supervisory							
16	OASIS-C1 Discharge	MD Order							
17	OASIS-C1 Recertification	NONMC							
18	OASIS-C1 Resumption of Care	OASIS-C Discharge (Non-Billable)							
19	OASIS-C1 Start of Care	OASIS-C1 Discharge (Non-Billable)							
20	OASIS-C1 Transfer	Other Document							
21	OT Discharge	Patient Communication							
22	OT Evaluation	Patient Health History							
23	OT Re-Evaluation	Physician Order							

If it is not billable it is deleted from the sheet

If it is billable it is

- copied from that “data” worksheet and moved to the “Past Due Visits” Sheet
- added to the other entries
- checked to make sure there are no duplicates.
  - if a duplicate, the new duplicate is deleted.
- ordered according to Clinician and Date



### Clinician Schedule Button

This button will download the Clinician Schedule Report. Like the previous button, it navigates to the login page and logs into Kinnser. It then navigates the parameter webpage for the Clinician Schedule where it fills in the appropriate start and end date information. Here vba will put in today’s date for the end date and the beginning date which will be the beginning of the month of that pay period.



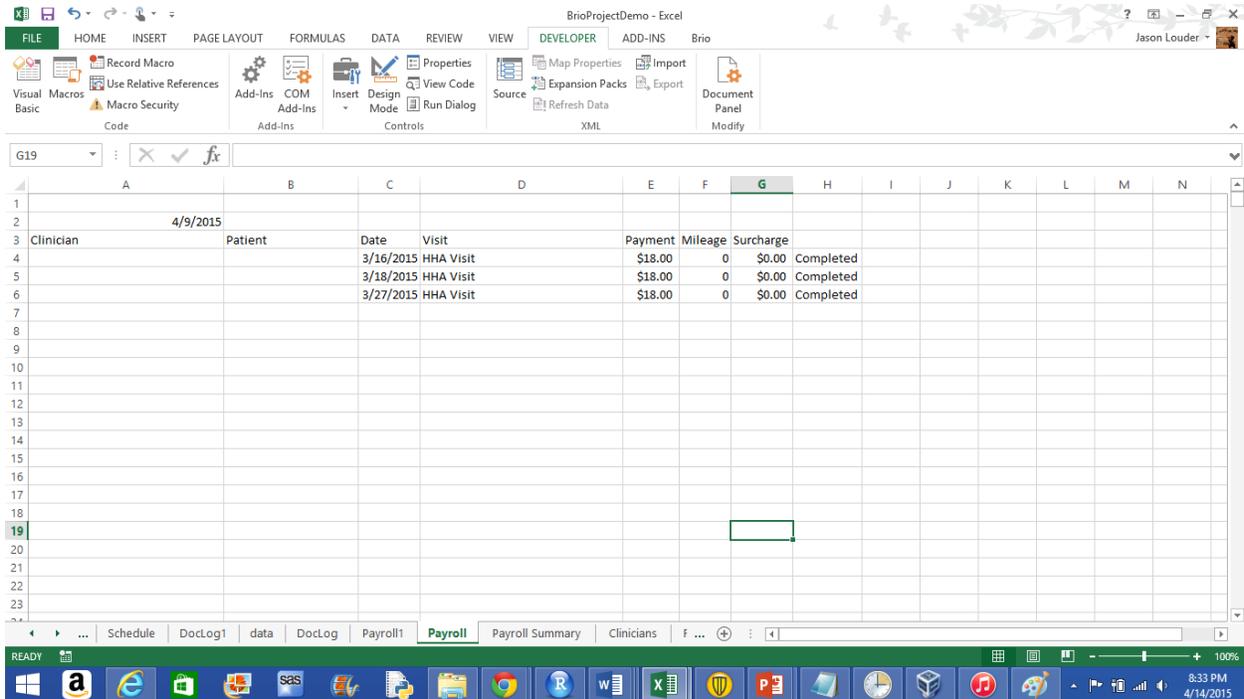
It downloads the data from the webpage. There could be multiple pages so it will have to navigate through each page and download each webpage of data.



After it is cleaned it is sent from the data sheet to the “DocLog” sheet where it is compiled with all the other pages of Clinician schedule from Kinnser.

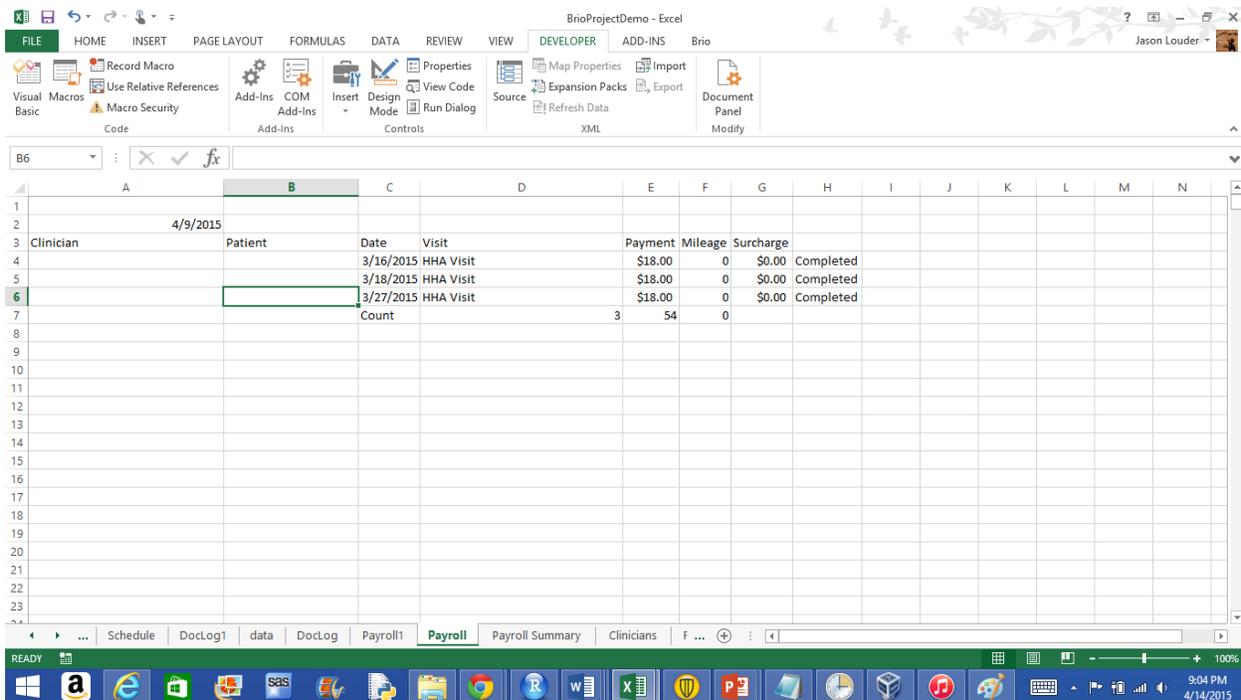
## Payroll Button

The payroll macro uses the previous data from the other two macros. The payroll button orders the “DocLog” sheet. It then makes a new entry in the “payroll” sheet where it puts at the top the date of the payroll and column names. It then starts copying lines from the “DocLog” until the clinician changes.



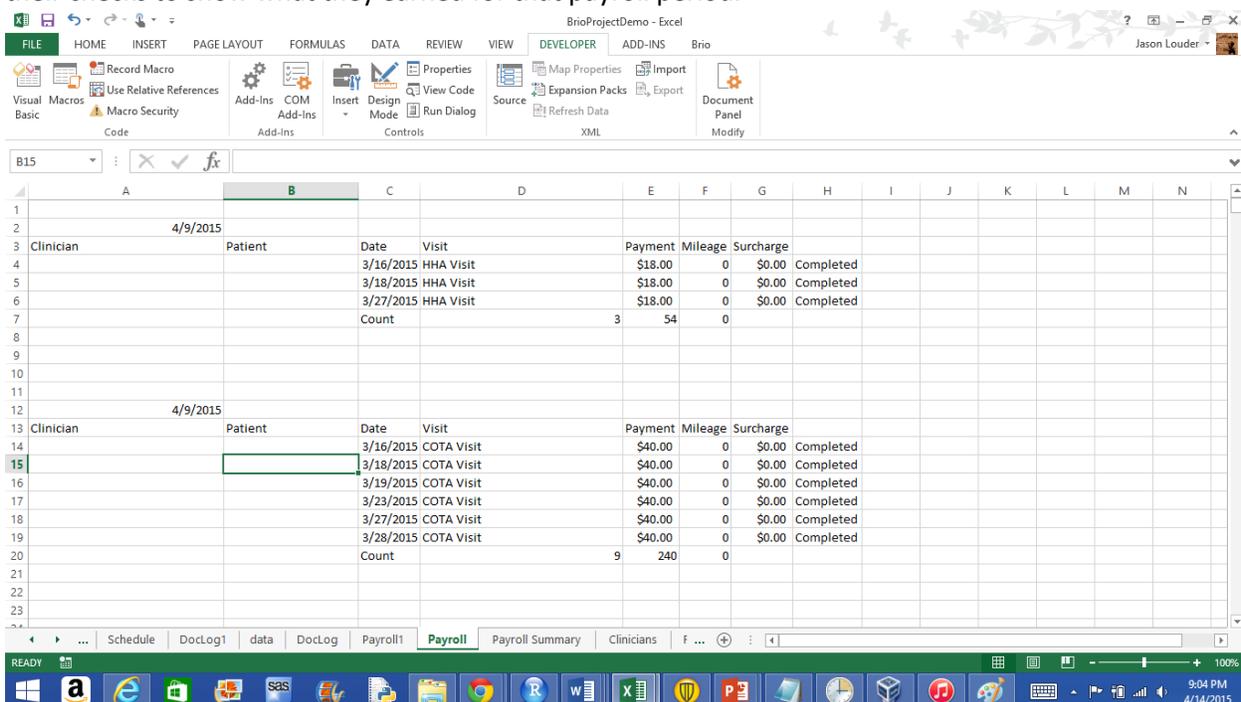
Excel looks one row ahead in the “DocLog” and when the clinician changes

- vba looks at the “Past Due Visit” sheet to check to see if the clinician has any past due visits that match any visits that are on that week’s payroll
  - If they do it copies that information and deducts a percentage of the payment that was past due in the payment column
- summarizes the clinician’s visits.
  - While it had been copying rows, the vba code was keeping a running total of the number of visits each clinician made and the total payment owed in separate variables.
- It then pastes these figures along with a summary of the mileage right below the last line of the clinician’s entries.



After vba copies the number of visits and total payment owed it clears the variables and prepares for a new clinician entry. Excel skips forward several rows to make it easier to cut the payroll sheet and give it to the clinician. When it skips forward it puts the date and then the row below it puts the column names again. It then does the same process as described before until it reaches the end of the sheet.

This sheet will be the payroll that the company will print out and give to their employees with their checks to show what they earned for that payroll period.



## Learning and Conceptual Difficulties

I learned quite a bit about html, how it works, and how vba can interact with it. Each webpage has its own objects and methods that vba can access and manipulate. I also learned loops really well and how to loop through lots of data and different ways to optimize it. Instead of going through the whole data it can start at a place and will only go as long as certain condition are met. I also learned how to do a loop within a loop really well. I learned how to use an array and its advantages over individual variables.

I'm still working on automating the system to run daily, where the computer will use the task scheduler to automate opening excel and running different macros. Theoretically it should work as I tested it with Dr. Allen but it has not been thoroughly vetted so I have not fully implemented yet. I almost have completed a macro that will add two columns to the clinician schedule log and calculate their mileage bonus depending on if the traveled more than 15 miles. I found out how useful it is to save objects and properties to a variable for easier access so that they didn't have to be typed out the whole time. I learned about software development and how tricky it can be. It is hard to predict what obstacles will come up. I worked with a company that liked what I was doing and saw how it worked and wanted to add more functionality. This can be a good thing but can make the project grow and grow and drag out forever. The developer needs to explain the costs and benefits of adding additional pieces.

I'm actually going to be working with the company for the next month trying to get the software in a condition where they could sell it to other companies. Many companies who do similar things and use the same website have the same problem as Brio. Their payroll compilation takes a long time and want an easier automated system. I will be adding a few more user friendly features like a userform to enter the login name and password.

## Assistance

Dr. Allen helped me on a few parts of using VBA to automate navigating the internet and googling the very occasional problem but other than that, it is all my code.