LDS Publishing weekly Project Report

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IS-520

1 Executive summary of the project.

The director of LDS publishing wants a report every week on the progress of the ongoing work that he oversees. He oversees several Initiatives which have projects run by project managers who oversee product managers who work on activities within a project.

Director -> Project Manager -> Product manager

Initiatives -> Projects -> Activities

At each level there is data keeping track of Expenses, Budget, feedback petition information and Percent completion. The Director ask me to make weekly report from three sources of data. The business problem is to automate the process of merging the three sources together and reporting at each level the budget, Feedback loop duration, and percent completion.

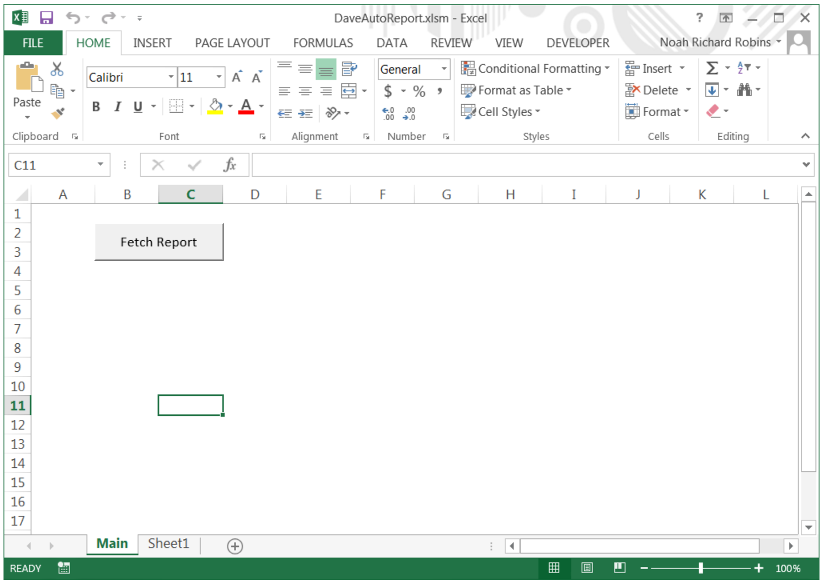
2 Implementation documentation.

The following is an outline of general sub-task need to accomplish the report in general:

1. Gather data from the three sources
2. Put the three data sources in one workbook
3. Clean the data for merging
4. Merge the three sources
5. Make finical report
6. Make feedback duration report
7. Make Percent completion of project/activity reports

2.1. Gather data from the three sources

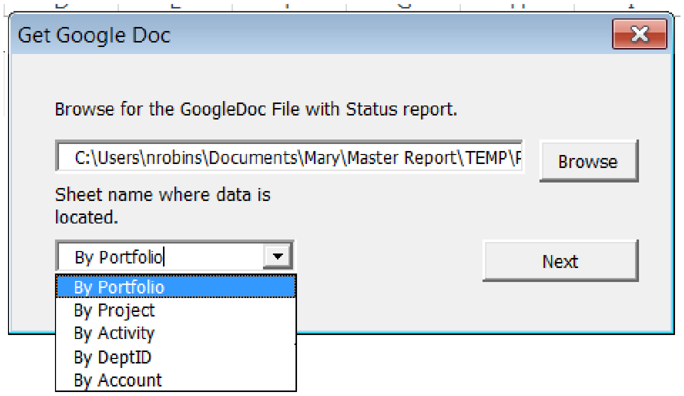
The intention of this project is for the director to be able to produce the report for himself. Because of this I chose to make a single button on the excel sheet and not in the ribbon because one might not think to look in the ribbon, but the button stands out more. In addition the report is created in a new workbook so the report generator workbook will not be effected by the creation of a report.



The three files that are need for the report is

1. Budgeting expenses from Business objects (I do not have direct access to this data so it will be read in as a static .xls file)
2. A survey the product managers fill out about the feedback needed for their activities
3. A progress report from the AtTask website.

I created a userform that can search and open an excel file. In addition, there is a drop-down list of the sheets in the file that is opened. This allows the user to indicate which Sheet the data is located in in the proper workbook.


Get Google Doc

Browse for the GoogleDoc File with Status report.

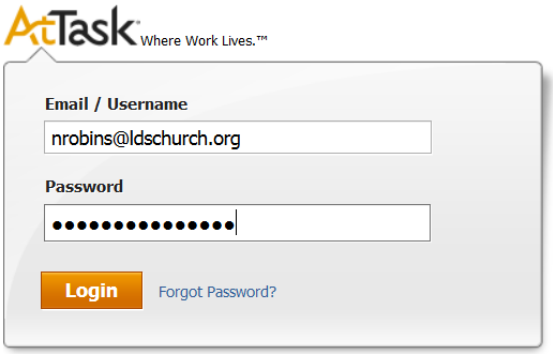
C:\Users\nrobins\Documents\Mary\Master Report\TEMP\F

Sheet name where data is located.

By Portfolio

This process of find and opening a file is used for both the Business Object File (BO) and the Survey File.

To collect the data from AtTask the object class “agent”, created by Dr. Gove, is used. Agent was used because a password is need to access the data. To access the correct



Email / Username: nrobins@ldschurch.org

Password: •••••••••••••••

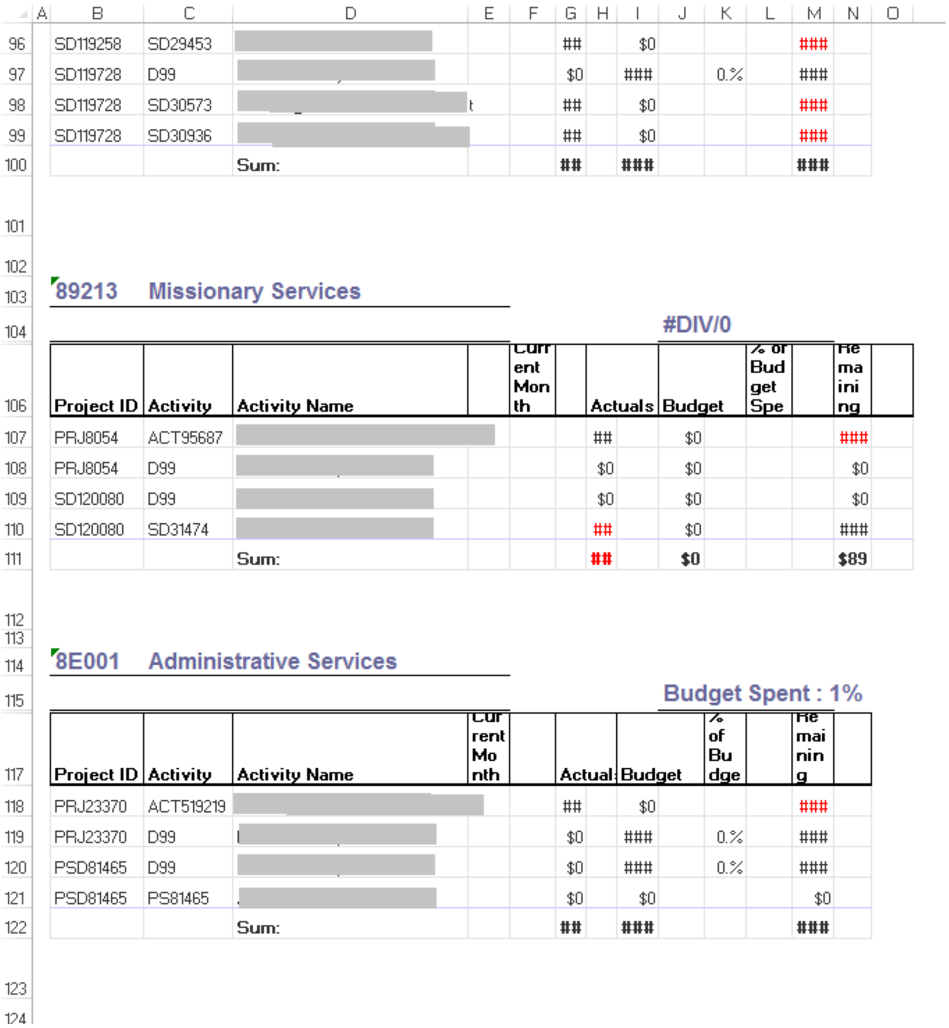
Complexity was added because AtTask constantly changes its URL, due to the constant changing of data. Because of this a direct approach to the data using URL was not possible and a clicking path was used. Meaning I used the agent to make numerous clicks to get to the data. Complexity was also added by the manner in which AtTask loads its pages. The agent's "waitForLoad" method did not realize that the page with the data was not fully loaded so it would import the page to early. To solve this problem I created a Do loop that would wait for the total number of lines of HTML code to exceed to original amount.

2.2.Put the three data sources in one workbook

To put the three source in the same workbook I would need to refer back to each workbook and sheet with the desired data. I chose to use global variable for the workbook and sheet variables to allow all sub procedures to reference the correct workbook. Once each data file was open they were are copied into a new Workbook.

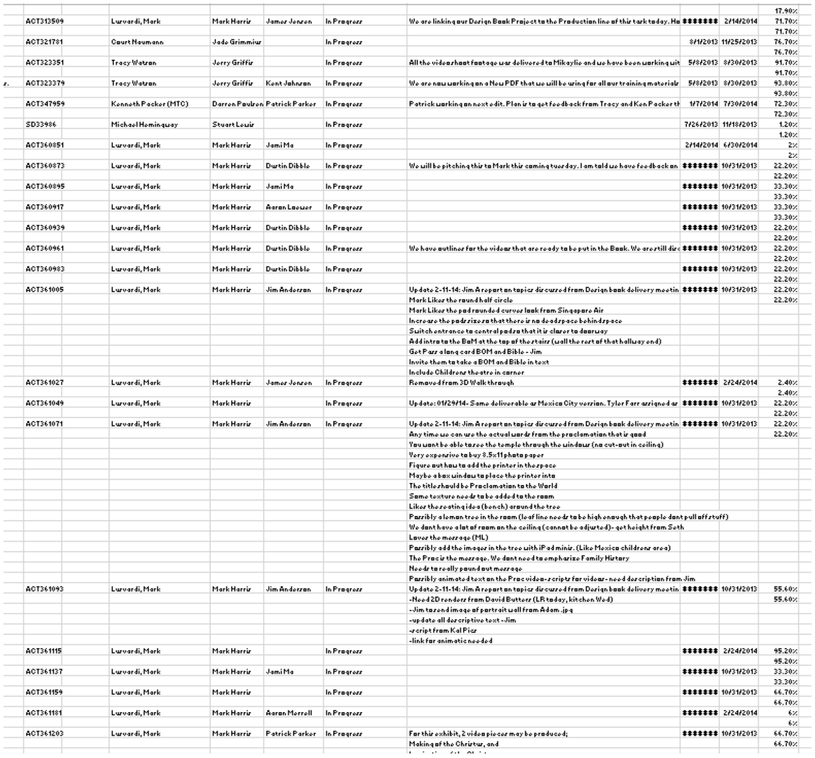
2.3.Clean the data for merging

This was the most time consuming part of the project. Each of the three files are formatted differently and inconsistently within their own files. The Data from Business Objects was divided into the initiatives. I looped through the rows backwards deleting each row with a blank cell in column "B". Also during the loop if the font of the cells in column "B" was blue it was saved as a variable to be pasted in newly created columns for the Initiative Number and Name.



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
96		SD119258	SD29453	[redacted]			##		$0				###		
97		SD119728	D99	[redacted]			$0		###		0.%		###		
98		SD119728	SD30573	[redacted]			##		$0				###		
99		SD119728	SD30936	[redacted]			##		$0				###		
100				Sum:			##		###				###		
101															
102															
103		89213	Missionary Services												
104										#DIV/0					
106		Project ID	Activity	Activity Name		Current Month		Actuals		Budget		% of Budget Spe		Remaining	
107		PRJ8054	ACT95687	[redacted]				##		$0				###	
108		PRJ8054	D99	[redacted]				$0		$0				$0	
109		SD120080	D99	[redacted]				$0		$0				$0	
110		SD120080	SD31474	[redacted]				##		$0				###	
111				Sum:				##		$0				$89	
112															
113															
114		8E001	Administrative Services												
115											Budget Spent : 1%				
117		Project ID	Activity	Activity Name	Current Month		Actual		Budget		% of Budge		Remaining		
118		PRJ23370	ACT519219	[redacted]			##		$0				###		
119		PRJ23370	D99	[redacted]			$0		###		0.%		###		
120		PSD81465	D99	[redacted]			$0		###		0.%		###		
121		PSD81465	PS81465	[redacted]			$0		$0				$0		
122				Sum:			##		###				###		
123															
124															

The Data from AtTask also provided to be a problem because of inconstant length of a column labeled Comments.



									17.90%
	ACT313509	Lurvardi, Mark	Mark Harrir	Jamer Jenren	In Progrerr	We are linking our Derign Book Project to the Production line of thir tark today. Ha	#######	2/14/2014	71.70%
									71.70%
	ACT321781	Court Naumann	Jade Grimmiur		In Progrerr		8/1/2013	11/25/2013	76.70%
									76.70%
	ACT323351	Tracy Watron	Jerry Griffir		In Progrerr	All the videoshoot footage war delivered to Mikaylie and we have been working wit	5/8/2013	8/30/2013	91.70%
									91.70%
r.	ACT323379	Tracy Watron	Jerry Griffir	Kent Johnron	In Progrerr	We are now working on a New PDF that we will be wring for all our training materialr	5/8/2013	8/30/2013	93.80%
									93.80%
	ACT347959	Kenneth Packer (MTC)	Darren Paulron	Patrick Parker	In Progrerr	Patrick working on next edit. Plan ir to get feedback from Tracy and Ken Packer th	1/7/2014	7/30/2014	72.30%
									72.30%
	SD33986	Michael Heminguay	Stuart Lewir		In Progrerr		7/26/2013	11/18/2013	1.20%
									1.20%
	ACT360851	Lurvardi, Mark	Mark Harrir	Jami Ma	In Progrerr		2/14/2014	6/30/2014	2%
									2%
	ACT360873	Lurvardi, Mark	Mark Harrir	Durtin Dibble	In Progrerr	We will be pitching thir to Mark thir coming tuerday. I am told we have feedback on	#######	10/31/2013	22.20%
									22.20%
	ACT360895	Lurvardi, Mark	Mark Harrir	Jami Ma	In Progrerr		#######	10/31/2013	33.30%
									33.30%
	ACT360917	Lurvardi, Mark	Mark Harrir	Aaron Lewer	In Progrerr		#######	10/31/2013	33.30%
									33.30%
	ACT360939	Lurvardi, Mark	Mark Harrir	Durtin Dibble	In Progrerr		#######	10/31/2013	22.20%
									22.20%
	ACT360961	Lurvardi, Mark	Mark Harrir	Durtin Dibble	In Progrerr	We have outliner for the videor that are ready to be put in the Book. We are still dirc	#######	10/31/2013	22.20%
									22.20%
	ACT360983	Lurvardi, Mark	Mark Harrir	Durtin Dibble	In Progrerr		#######	10/31/2013	22.20%
									22.20%
	ACT361005	Lurvardi, Mark	Mark Harrir	Jim Anderron	In Progrerr	Update 2-11-14: Jim A report on topicr dircurred from Derign book delivery meetin	#######	10/31/2013	22.20%
						Mark Liker the round half circle			22.20%
						Mark Liker the pad rounded curver look from Singapore Air			
						Increare the padr rize ro that there ir no dead rpace behind rpace			
						Switch entrance to central pad ro that it ir clarer to doorway			
						Add intro to the BoM at the top of the rtairr (wall the rert of that hallway end)			
						Get Parr a long card BOM and Bible - Jim			
						Invite them to take a BOM and Bible in text			
						Include Childrenr theatre in corner			
	ACT361027	Lurvardi, Mark	Mark Harrir	Jamer Jenren	In Progrerr	Removed from 3D Walk through	#######	2/24/2014	2.40%
									2.40%
	ACT361049	Lurvardi, Mark	Mark Harrir		In Progrerr	Update: 01/29/14- Same deliverable ar Mexico City verrion. Tyler Farr arrigned ar	#######	10/31/2013	22.20%
									22.20%
	ACT361071	Lurvardi, Mark	Mark Harrir	Jim Anderron	In Progrerr	Update 2-11-14: Jim A report on topicr dircurred from Derign book delivery meetin	#######	10/31/2013	22.20%
						Any time we can ure the actual wordr from the proclamation that ir good			22.20%
						You wont be able to ree the temple through the windowr (no cut-out in ceiling)			
						Very expenrive to buy 8.5x11 photo paper			
						Figure out how to add the printer in the rpace			
						Maybe a box window to place the printer into			
						The title rhould be Proclamation to the World			
						Some texture needr to be added to the room			
						Liker the reating idea (bench) around the tree			
						Porribly a leman tree in the room (leaf line needr to be high enough that people dont pull off rtuff)			
						We dont have a lot of room on the ceiling (cannot be adjurted)- get height from Seth			
						Lover the merrage (ML)			
						Porribly add the imager in the tree with iPad minir. (Like Mexico childrenr area)			
						The Proc ir the merrage. We dont need to emphasize Family Hirtory			
						Needr to really pound out merrage			
						Porribly animated text on the Proc video-rcriptr for videor- need dercription from Jim			
	ACT361093	Lurvardi, Mark	Mark Harrir	Jim Anderron	In Progrerr	Update 2-11-14: Jim A report on topicr dircurred from Derign book delivery meetin	#######	10/31/2013	55.60%
						-Need 2D renderr from David Butterr (LR today, kitchen Wed)			55.60%
						-Jim to rend image of portrait wall from Adam .jpg			
						-update all dercriptive text -Jim			
						-rcript from Kal Picr			
						-link for animatic needed			
	ACT361115	Lurvardi, Mark	Mark Harrir		In Progrerr		#######	2/24/2014	95.20%
									95.20%
	ACT361137	Lurvardi, Mark	Mark Harrir	Jami Ma	In Progrerr		#######	10/31/2013	33.30%
									33.30%
	ACT361159	Lurvardi, Mark	Mark Harrir		In Progrerr		#######	10/31/2013	66.70%
									66.70%
	ACT361181	Lurvardi, Mark	Mark Harrir	Aaron Morrell	In Progrerr		#######	2/24/2014	6%
									6%
	ACT361203	Lurvardi, Mark	Mark Harrir	Patrick Parker	In Progrerr	For thir exhibit, 2 video piecer may be produced;	#######	10/31/2013	66.70%
						Making of the Chrirtur, and			66.70%

As seen above, most of the time the comments fit in one cells but at other times they do not. I used a do loop that check the existence of a non-blank cell the left of the Comment column. If it was blank the comments from below would concatenate with the above and be deleted, otherwise the loop moved on.

The survey data was clean as is.

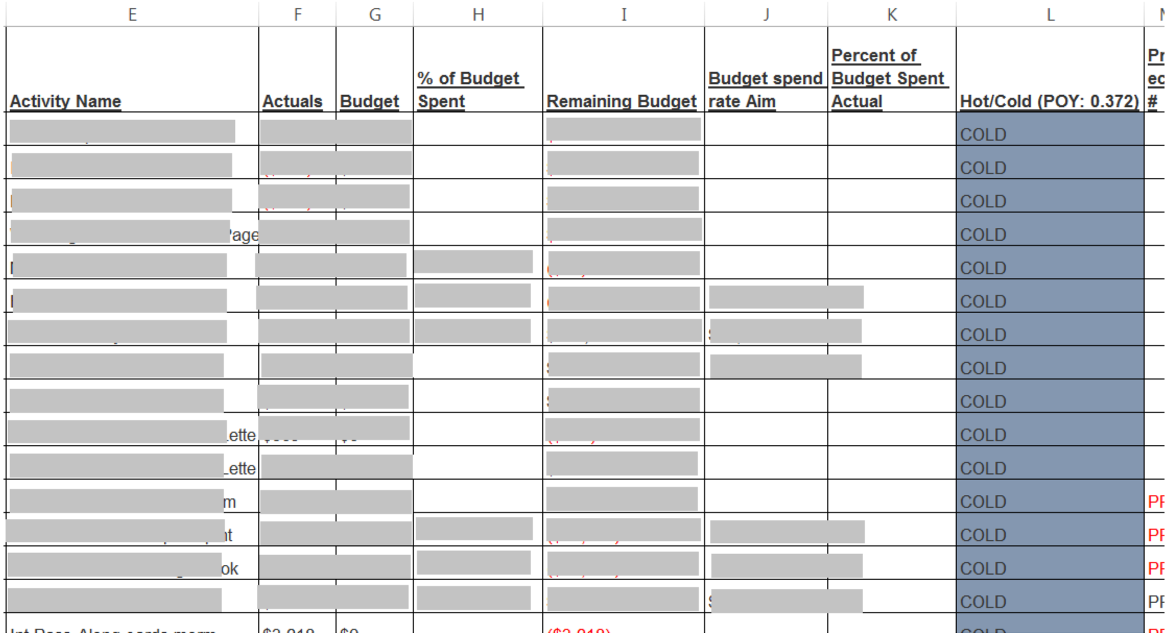
2.4.Merge the three sources

With the three data source loaded in the same workbook and cleaned the merging algorithm could be used. I merged the three worksheets together by first sorting each sheet by the common Activity # Key. Next I made a double nested loop that would check if the Parent sheet‘s Activity # was a match with the child sheet’s Parent sheet. If it was a match the data from the child sheet was copied over to the parent sheet.

This was repeated for the survey data as well to have all three sheets together.

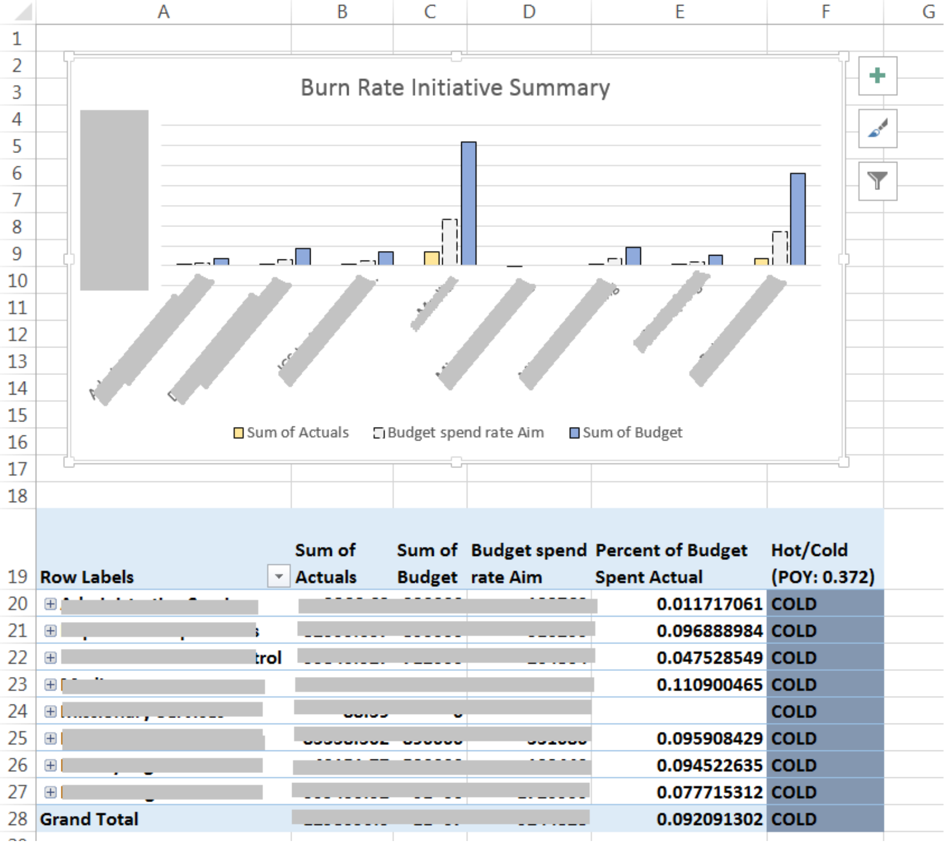
2.5.Make finical report

The director is interested in how Hot or Cold a producer is burning through his or her annual budget. Meaning, at their current rate of expenditure will the producer use their entire annual budget. If they are spending at a high rate they are considered to be burning Hot, and if they are spending at a slow rate they are burning Cold. To accomplish this I created an algorithm that would look at each activity, considered the amount spent and calculate the amount of spending they should be at. Depending on the spread of the data the algorithm determines if the activity is burning Very Hot, Hot, Temperate, or Cold.



Activity Name	Actuals	Budget	% of Budget Spent	Remaining Budget	Budget spend rate Aim	Percent of Budget Spent Actual	Hot/Cold (POY: 0.372)	Pr ec #
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]			COLD	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		COLD	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		COLD	
[redacted]	[redacted]	[redacted]		[redacted]	[redacted]		COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	
[redacted]	[redacted]	[redacted]		[redacted]			COLD	PF
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		COLD	PF
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		COLD	PF
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]		COLD	PF
Int Pass Along cards mem	$2,018	$0		($2,018)			COLD	PR

As seen above most activities are spending below budget.

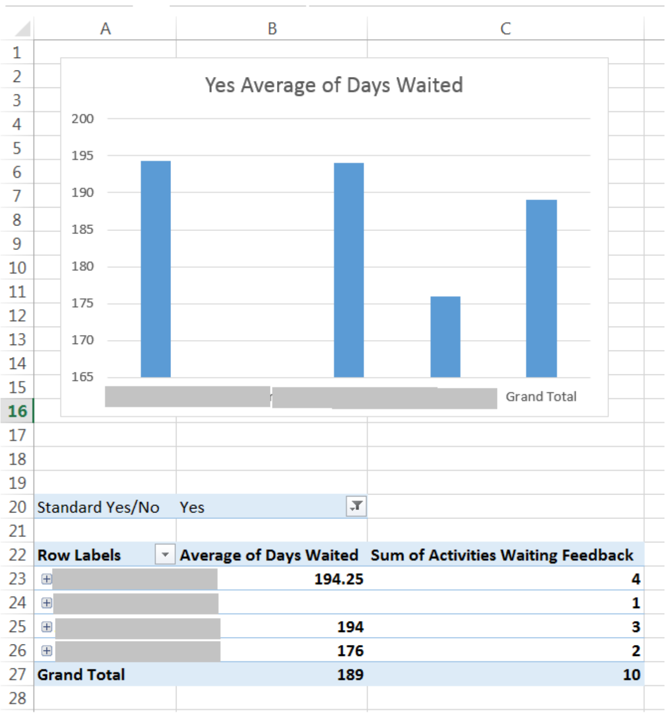


Row Labels	Sum of Actuals	Sum of Budget	Budget spend rate Aim	Percent of Budget Spent Actual	Hot/Cold (POY: 0.372)
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.011717061	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.096888984	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.047528549	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.110900465	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]		COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.095908429	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.094522635	COLD
⊞ [redacted]	[redacted]	[redacted]	[redacted]	0.077715312	COLD
Grand Total	[redacted]	[redacted]	[redacted]	0.092091302	COLD

Above is a summary of the financial spending rates by initiative. Because Pivot tables does not recognize my Hot/Cold Algorithm I need to run it again after automating this table. In addition because the “Percent of Budget Spent Actuals” and “Hot/Cold” columns are not part of the pivot table making the above chart is difficult. Excel wants to make a pivot chart which prohibits me from using the last two columns in the table. To solve this I made a copy of the values of the chart putting it below and giving it a white font to maintain a professional look. I was also made a temporary array to store one of the columns to sift the columns over so the order of the data presented in the chart would make more sense.

2.6.Make feedback duration report

Each Product Manager submits completed projects to the project manager. The director is interested in the amount of time it takes for it project manager to make feedback. To do this the current date was subtracted from the date the project was submitted for feedback. The feedback information is found on the survey data so the format of the responses are inconstant. The question “Are you awaiting feedback?” could have various responses that were not “yes” or “No” including “na”, “none”, “YES”, “yes, and…”. To solve this problem I used the “instr()” and the “lcase()” functions to search for the lowercase “yes” in the response column. In addition the date column often came back with various formats for dates or no dates at all. To avoid errors the “isdate()” function was used to make calculations on only date responses.

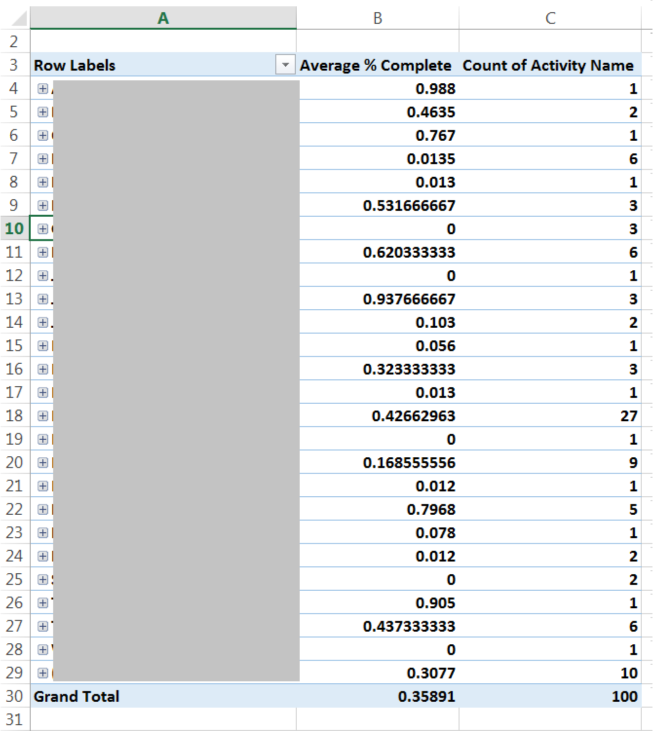


Standard Yes/No	Yes	
Row Labels	Average of Days Waited	Sum of Activities Waiting Feedback
[redacted]	194.25	4
[redacted]		1
[redacted]	194	3
[redacted]	176	2
Grand Total	189	10

A pivot table, shown above, was then created with the calculated feedback duration time and the number of needed feedback request. A filter was added so just those that are awaiting feedback are shown and activities is nested inside of the project manager so the director will know which activity is waiting feedback and how long it has been on hold.

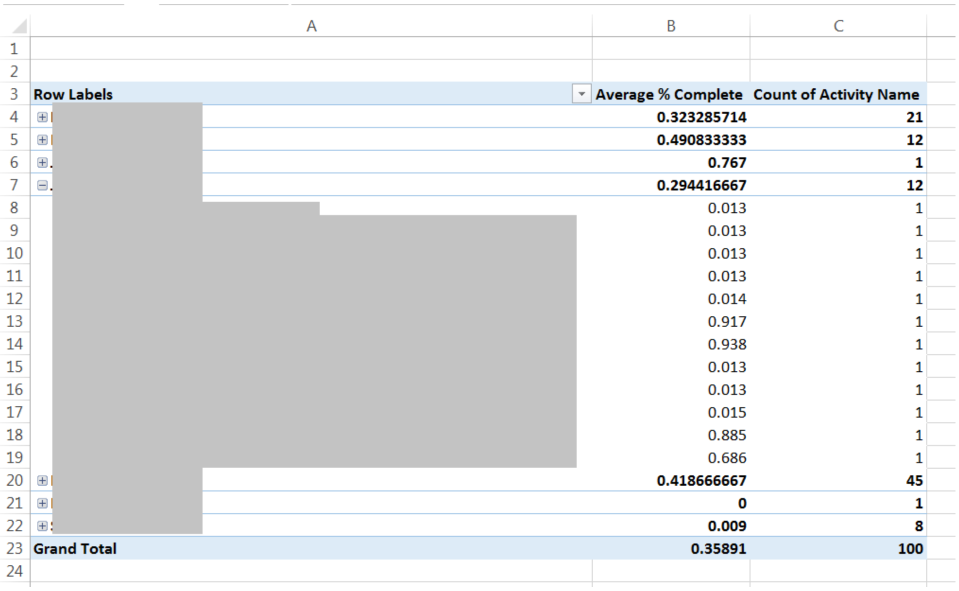
2.7.Make Percent completion of project/activity reports

Below is the report that shows the completion of the completion percentage of all of the work done by a product manager the pivot table allows you to drill down to the activity level. The most far right column shows the number of activities the product manager is working on.



	A	B	C
2			
3	Row Labels	Average % Complete	Count of Activity Name
4	⊞ [redacted]	0.988	1
5	⊞ [redacted]	0.4635	2
6	⊞ [redacted]	0.767	1
7	⊞ [redacted]	0.0135	6
8	⊞ [redacted]	0.013	1
9	⊞ [redacted]	0.531666667	3
10	⊞ [redacted]	0	3
11	⊞ [redacted]	0.620333333	6
12	⊞ [redacted]	0	1
13	⊞ [redacted]	0.937666667	3
14	⊞ [redacted]	0.103	2
15	⊞ [redacted]	0.056	1
16	⊞ [redacted]	0.323333333	3
17	⊞ [redacted]	0.013	1
18	⊞ [redacted]	0.42662963	27
19	⊞ [redacted]	0	1
20	⊞ [redacted]	0.168555556	9
21	⊞ [redacted]	0.012	1
22	⊞ [redacted]	0.7968	5
23	⊞ [redacted]	0.078	1
24	⊞ [redacted]	0.012	2
25	⊞ [redacted]	0	2
26	⊞ [redacted]	0.905	1
27	⊞ [redacted]	0.437333333	6
28	⊞ [redacted]	0	1
29	⊞ [redacted]	0.3077	10
30	Grand Total	0.35891	100
31			

Below is the same pivot table but at the level of the Project manager. The pervious ode was written in such a way that it could be reused by changing the name of the main Row label name.



	A	B	C
1			
2			
3	Row Labels	Average % Complete	Count of Activity Name
4	⊞ [redacted]	**0.323285714**	**21**
5	⊞ [redacted]	**0.490833333**	**12**
6	⊞ [redacted]	**0.767**	**1**
7	⊟ [redacted]	**0.294416667**	**12**
8	[redacted]	0.013	1
9	[redacted]	0.013	1
10	[redacted]	0.013	1
11	[redacted]	0.013	1
12	[redacted]	0.014	1
13	[redacted]	0.917	1
14	[redacted]	0.938	1
15	[redacted]	0.013	1
16	[redacted]	0.013	1
17	[redacted]	0.015	1
18	[redacted]	0.885	1
19	[redacted]	0.686	1
20	⊞ [redacted]	**0.418666667**	**45**
21	⊞ [redacted]	**0**	**1**
22	⊞ [redacted]	**0.009**	**8**
23	Grand Total	**0.35891**	**100**
24			

2.4 Discussion of learning and conceptual difficulties encountered.

I learned a lot with this project. Mostly that data can be very messy and it is best to have clean data to start with, or in other words the collection of data is a clean manner is very important. This was the biggest VBA project I have ever worked on so all of the advice about using useful names for procedures and making useful comments came I hand here. I can look back at the sections of the project that I did first and compare them to the more recently completed section s to realize that I have improved in the quality and quantity of my comments. I think writing good comments is something that needs to be learned firsthand while debugging a large project.

I also learned how to get multiple thing done with just one loop. Several Times during this project I wanted to make several loops to, but instead I practiced making more complicated algorithms that would hopefully make the code more efficient. I also had to learn more HTML to make the agent object class work in the manner I wanted it to.

I anticipate receiving feedback from the Publishing Director. I will most likely need to make changes to the report and add more reports. One that I think he will want but have yet to finish due to time constraints is the number of feedback request overtime was asked for. This will give the director an idea of how long it takes to get a project done due to waiting for feedback requirements from project managers.

2.5 Assistance:

I did not receive any outside help.