Corey Petersen

Family Budget

Executive Summary

My wife and I have struggled over the years to develop and stick to a budget that works for us. The spreadsheet that I have created overtime seems to be much too complex and time consuming for us to maintain. I have also tried many other solutions (e.g. Mint.com) to try and streamline the process, but nothing seems to be comprehensive enough for our planning needs. We need a solution that has an easy-to-use interface and yet complex enough to keep track of all the unique details of our budget.

"Budget Dreamland" is the answer to this qualm. It is an easy-to-use budget program with a simple interface. Users can insert expenses and income, compare program data with online sources, run reports as well as other common tasks.

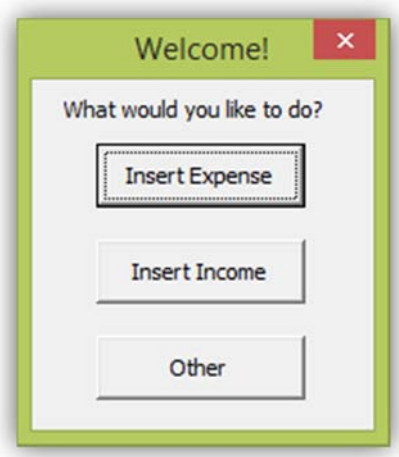
Implementation Documentation

Feature: Welcome Form

What?
An initial "Welcome" form appears with the most common tasks readily available.

Why?
Often a person will opening budgeting software with the intent of inserting a quick entry without further need of analysis. This feature allows the user to first focus on these highly used entry insertion tasks.

How used?



The form automatically appears when a user opens the budget file. The user can either select "Insert Expense" or "Insert Income" in order to go directly to those forms. In addition, the user to access other features of the budget program by selecting "Other."

Feature: Insert Expense

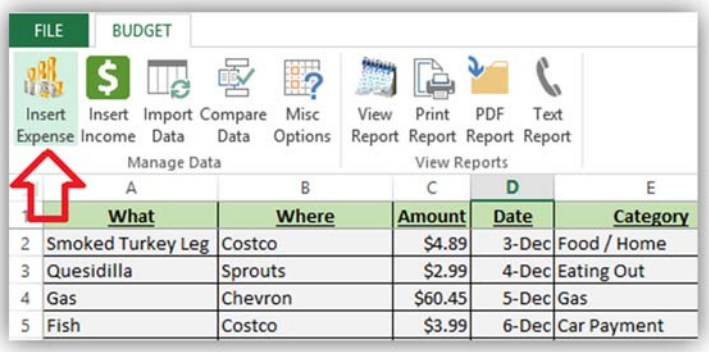
What?

Users are able to insert expenses including details such as what, where, amount, date, category, how, and whether or not to include a copy of the receipt.

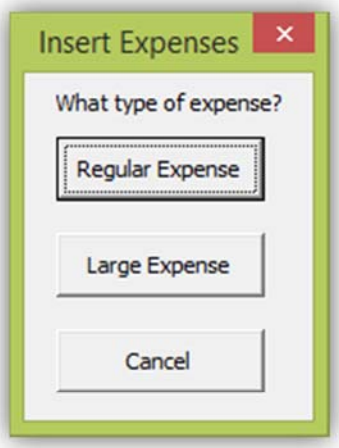
Why?

Inserting an expense is a basic feature of any budget. In addition, the receipt copying feature allows the user to gain ready access to important documentation as needed.

How used?

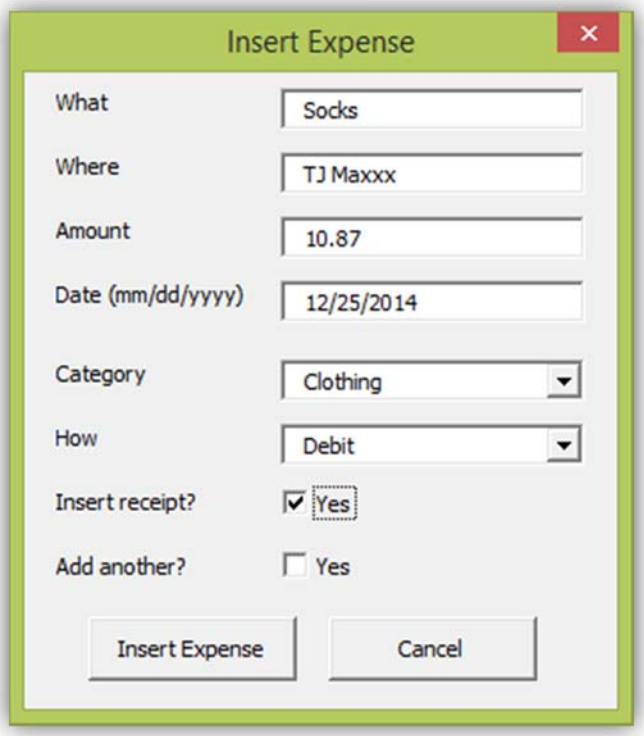


From the “Budget Ribbon” click on “Insert Expense.”



Users choose from "Regular" or "Large" (e.g. infrequent) expenses.

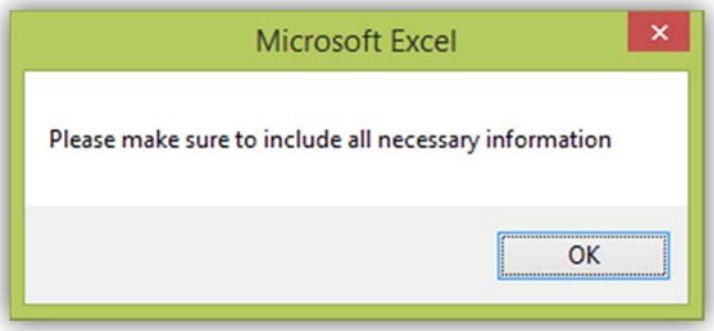
Note: Users may select "Cancel" as well to close the dialog box without taking further action. Many forms include this feature.



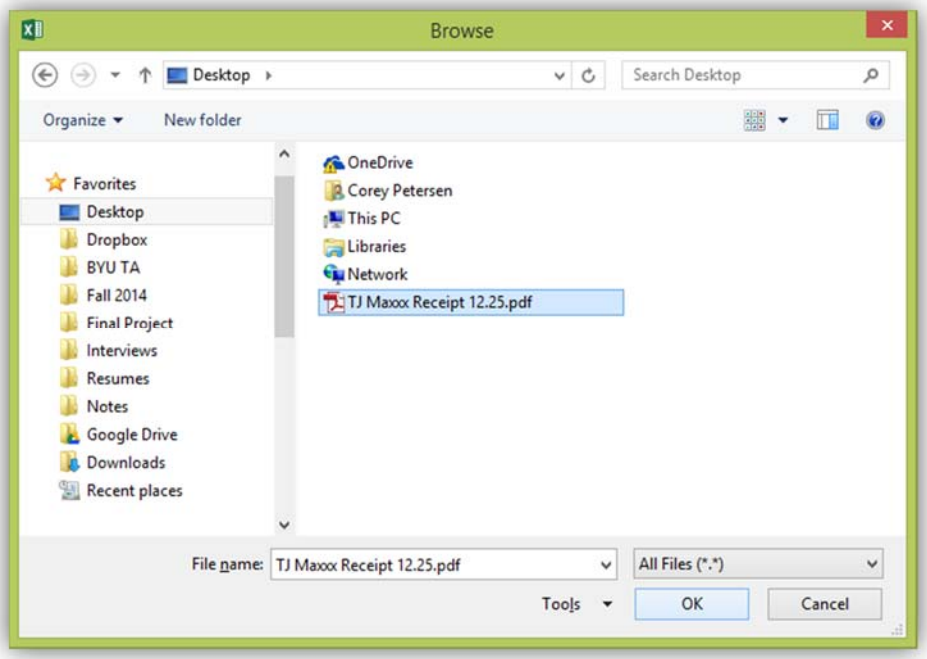
Users insert/select all information related to the expense.

Note: "Insert receipt?" feature is discussed further below.

Note: If "Add another?" is selected, once this entry is recorded the "Insert Expense" form will reappear allowing the user to enter an addition expense.

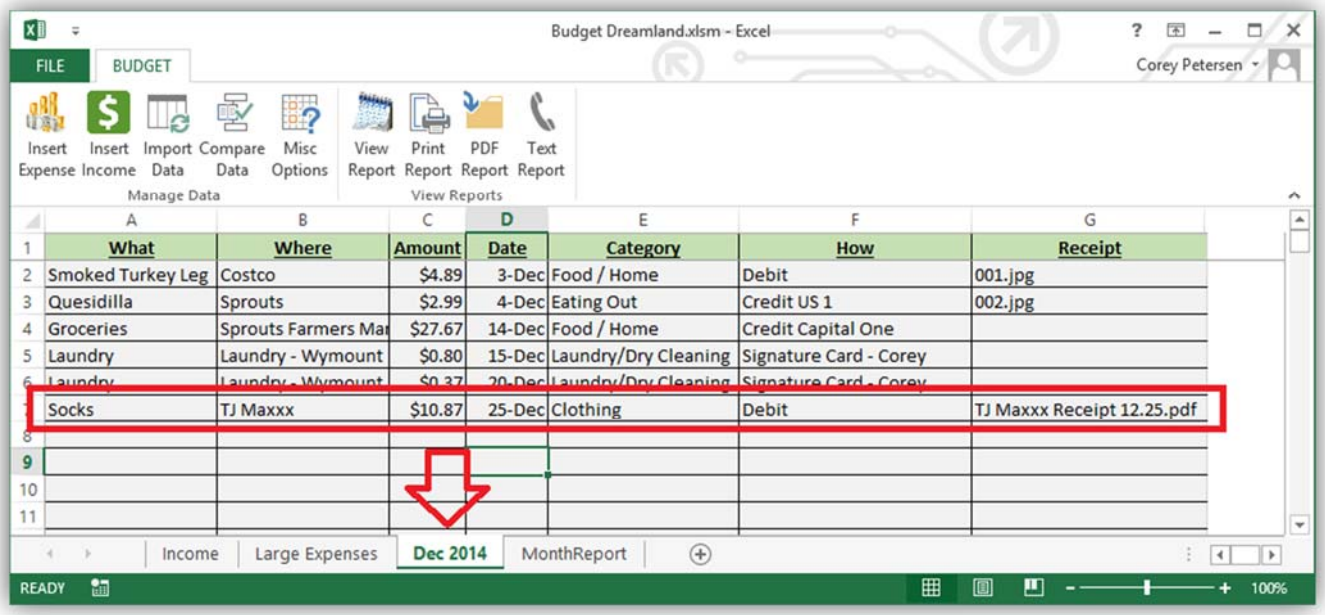


If not all information is entered, an error message will appear. After the user clicks "OK" the "Insert Expense" form will be shown will all previously entered information.

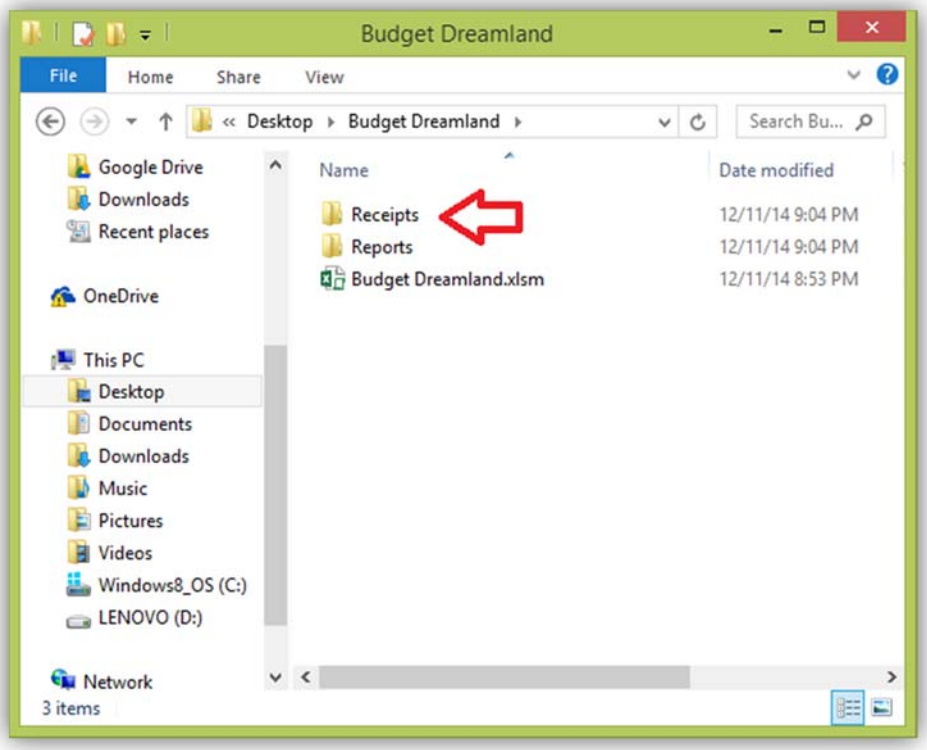


If "Insert receipt?" option is checked, once a user clicks on "Insert Expense" this dialog box will appear allowing the user to select the receipt file.

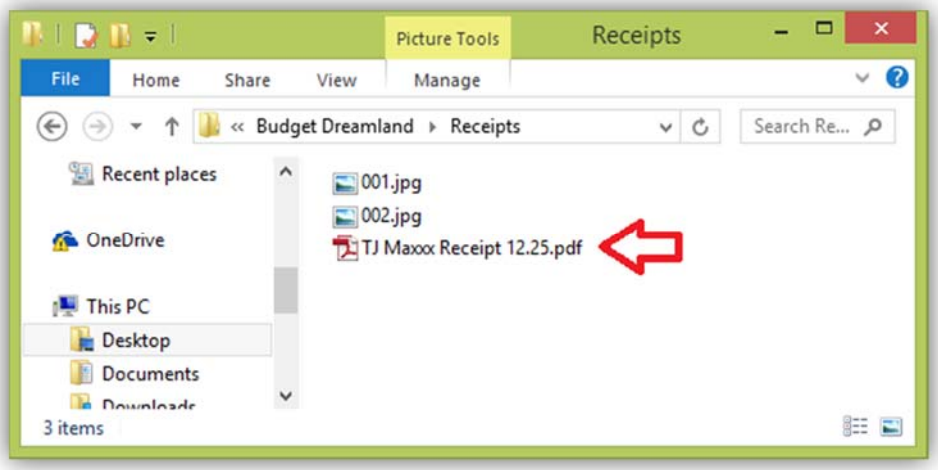
Information entered/selected is then saved to the appropriate month worksheet. If a worksheet for a particular month does not already exit, a new worksheet will be created. *Note: name of receipt file names is include in the far right column.*



	A	B	C	D	E	F	G
1	What	Where	Amount	Date	Category	How	Receipt
2	Smoked Turkey Leg	Costco	$4.89	3-Dec	Food / Home	Debit	001.jpg
3	Quesidilla	Sprouts	$2.99	4-Dec	Eating Out	Credit US 1	002.jpg
4	Groceries	Sprouts Farmers Mar	$27.67	14-Dec	Food / Home	Credit Capital One	
5	Laundry	Laundry - Wymount	$0.80	15-Dec	Laundry/Dry Cleaning	Signature Card - Corey	
6	Laundry	Laundry - Wymount	$0.37	20-Dec	Laundry/Dry Cleaning	Signature Card - Corey	
7	Socks	TJ Maxxx	$10.87	25-Dec	Clothing	Debit	TJ Maxxx Receipt 12.25.pdf
8							
9							
10							
11							



If the user saved a receipt, a copy of the file is place in a folder called "Receipts."



Using the file name recorded in the expense entry, the user can location the corresponding receipt for the expense.

Feature: Insert Income

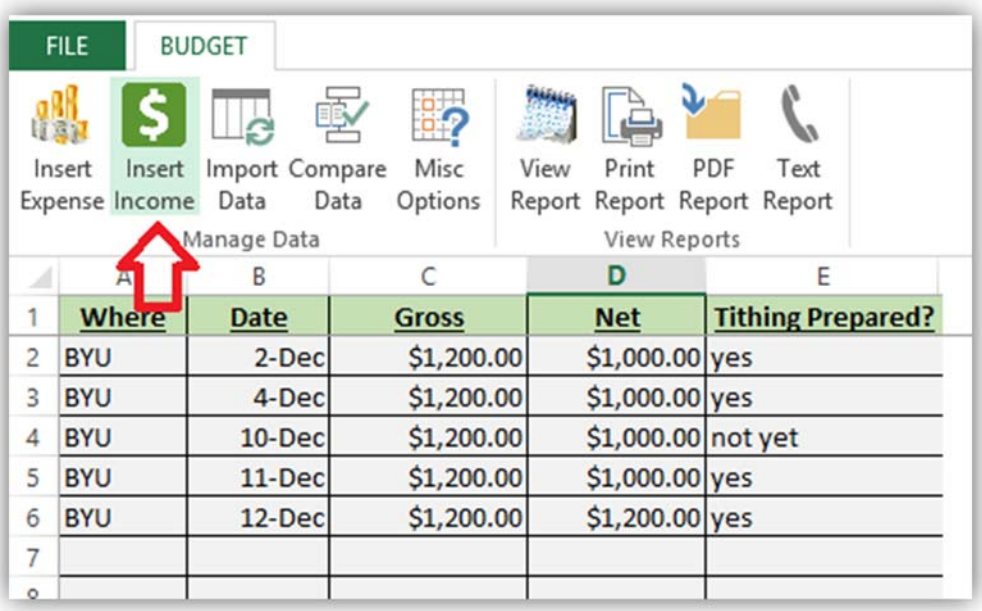
What?

Users are able to insert income entries including details such as where, date, gross amount, net amount and note whether or not they have already prepared tithing for that income.

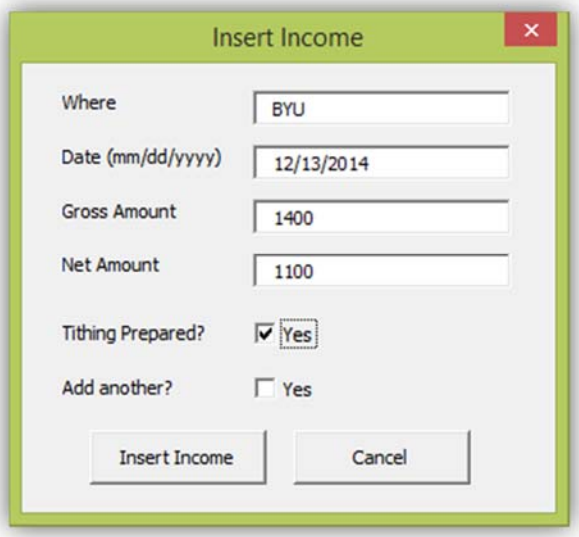
Why?

Inserting income entries is another basic feature of any budget. The "Tithing Prepared" feature will allow users to easily note outstanding tithing payments.

How used?



Users click on "Insert Income" from the "Budget" tab.



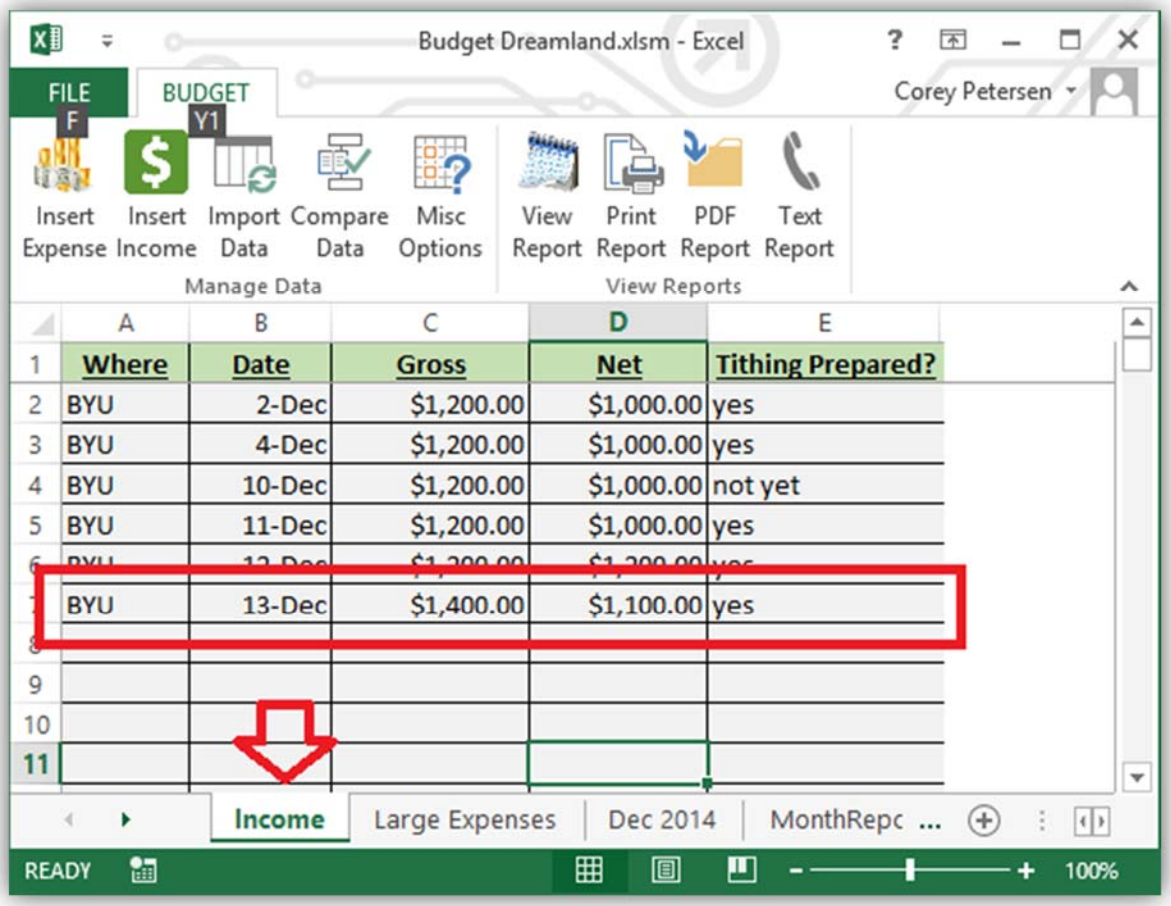
Users fill out all information on the form at appears.

Note: The user in this example selects "Yes" for the "Tithing Prepared?"

Note: If "Add another?" is selected, once this entry is recorded the "Insert Income" form will reappear allowing the user to enter in additional income.

Income information is automatically inserted under the “Income” tab.

Note: users can use this tab to easily identify income for which tithing payments are outstanding.



Where	Date	Gross	Net	Tithing Prepared?
BYU	2-Dec	$1,200.00	$1,000.00	yes
BYU	4-Dec	$1,200.00	$1,000.00	yes
BYU	10-Dec	$1,200.00	$1,000.00	not yet
BYU	11-Dec	$1,200.00	$1,000.00	yes
BYU	13-Dec	$1,400.00	$1,100.00	yes

Feature: Import Data

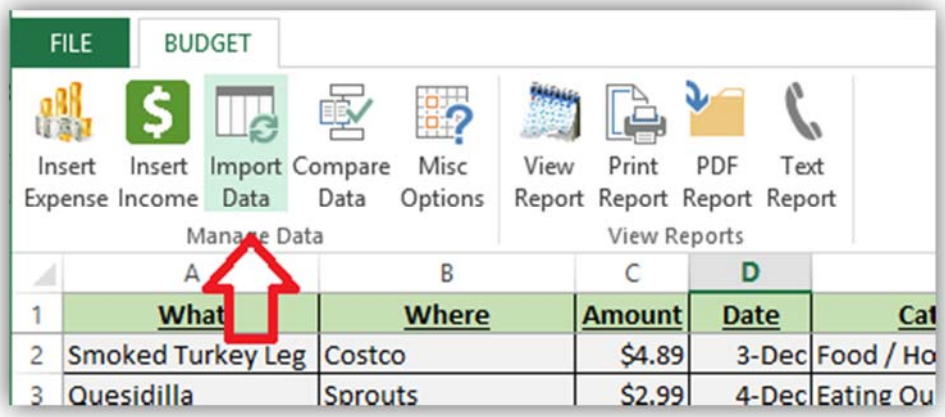
What?

Users are able to open webpages for their financial institutions to order to copy and paste recent transactions.

Why?

This feature allows the user to prepare to utilize the “Compare Data” feature.

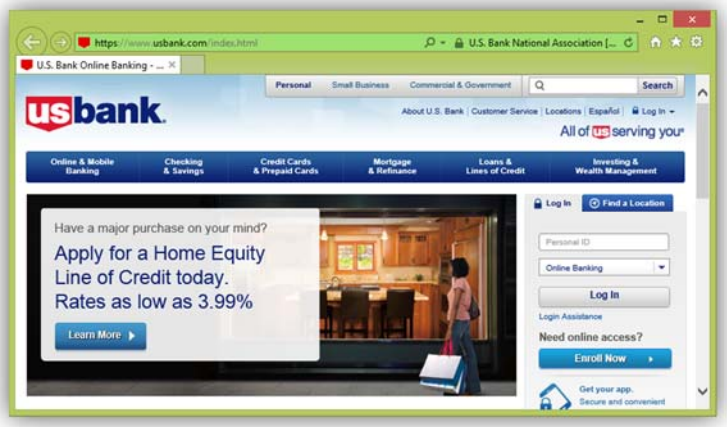
How used?



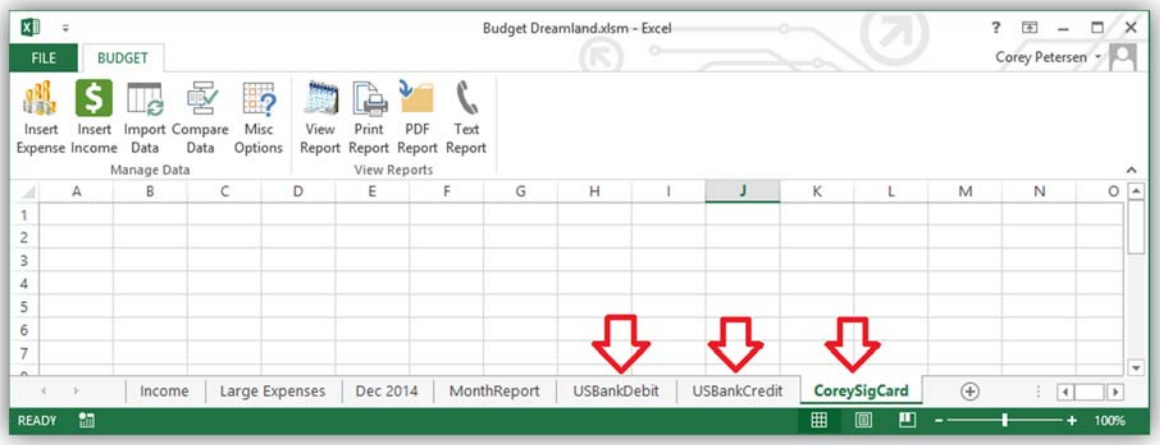
Users select “Import Data” from the “Budget” tab.

Users then click on “Import Data” to confirm that they want to proceed.

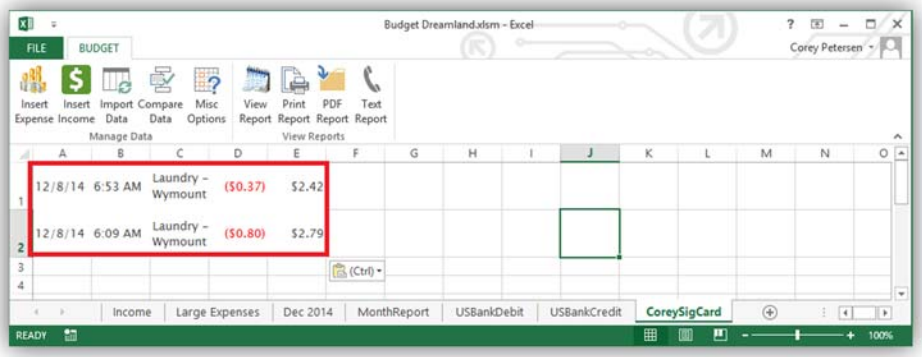
Internet Explorer windows automatically pop up directly the user to their bank and signature card accounts to log in.



In addition, new tabs are created in the budget workbook in preparation for the user to copy and paste data into the workbook for further analysis.



Finally, users copy and paste data from their financial websites to the corresponding worksheets. The worksheets are now prepared for the “Compare Data” feature.



Feature: Compare Data

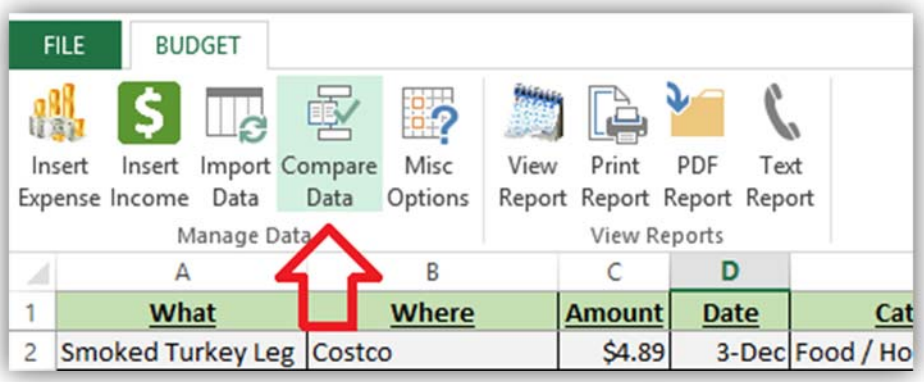
What?

Users are able to compare data they have imported from their online financial institution databases with data already found within the budget workbook. Any data not already found in the budget workbook can be easily added.

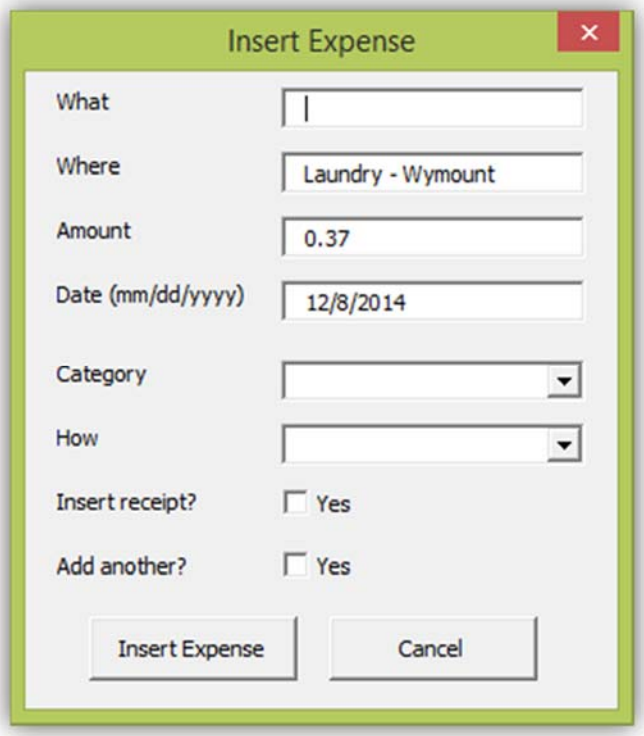
Why?

Often people forget to insert certain expenses within their budget reports. This feature allows users to make sure their expense log is up-to-date with online databases from their financial institutions.

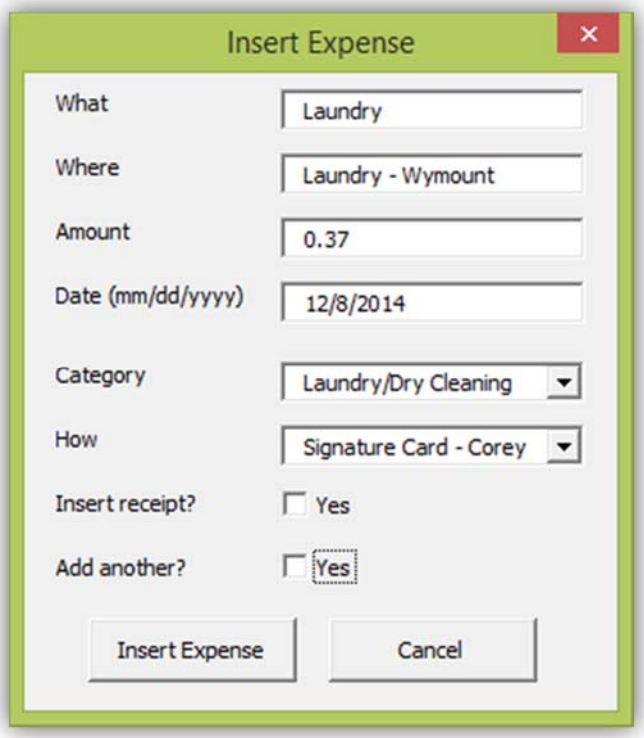
How used?



Users select "Compare Data" from the "Budget" tab.

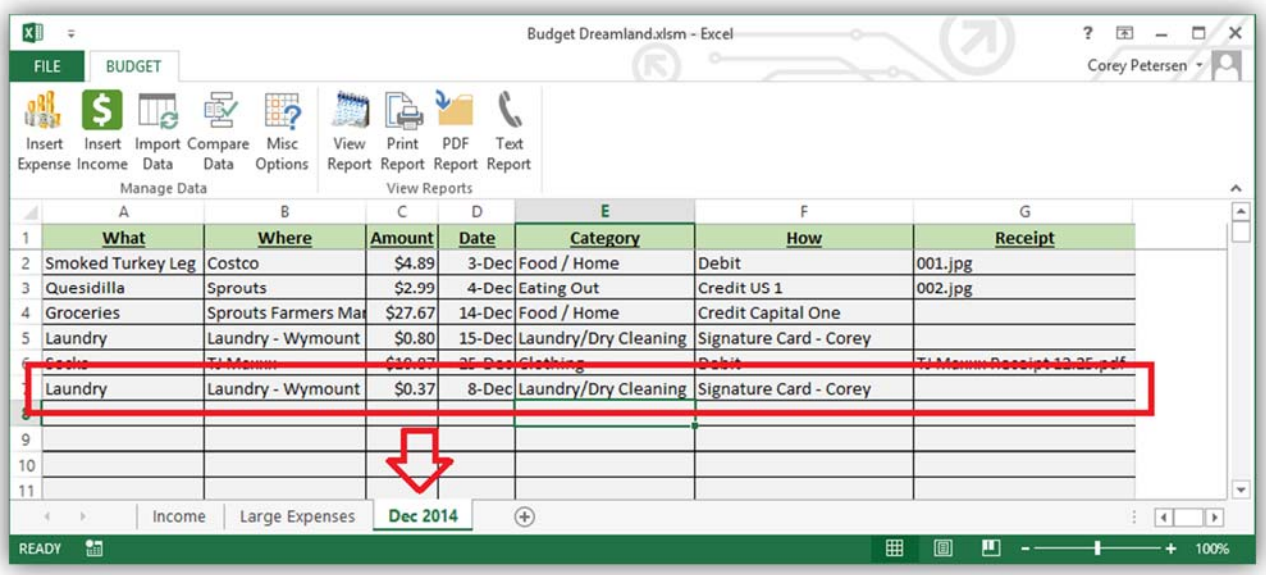


For all expenses found in the imported data which are not already included in the budget workbook an "Insert Expense" form appears with populated with where, amount, and date information that was gather from the imported data.



Users fill out the remaining information to complete the form and click "Insert Expense."

Information then is automatically stored in the appropriate month worksheet. As with other expense insertions, if a worksheet for a particular month does not already exit, a new worksheet for that month will be created.



	What	Where	Amount	Date	Category	How	Receipt
2	Smoked Turkey Leg	Costco	$4.89	3-Dec	Food / Home	Debit	001.jpg
3	Quesidilla	Sprouts	$2.99	4-Dec	Eating Out	Credit US 1	002.jpg
4	Groceries	Sprouts Farmers Mar	$27.67	14-Dec	Food / Home	Credit Capital One	
5	Laundry	Laundry - Wymount	$0.80	15-Dec	Laundry/Dry Cleaning	Signature Card - Corey	
6	Socks	TJ Maxxx	$10.97	25-Dec	Clothing	Debit	TJ Maxxx Receipt 12.25.pdf
7	Laundry	Laundry - Wymount	$0.37	8-Dec	Laundry/Dry Cleaning	Signature Card - Corey	

Feature: Misc Options

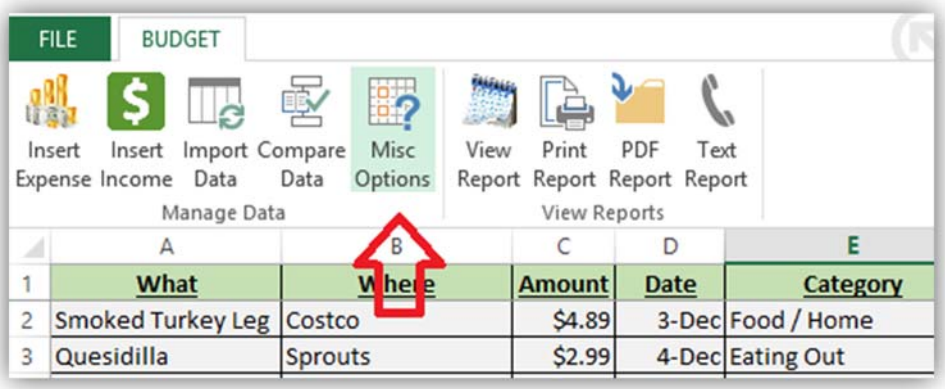
What?

Users may choose from three additional options: “Calculate State Tax I Owe”, “Pay Off Credit Cards”, and “View Paycheck.”

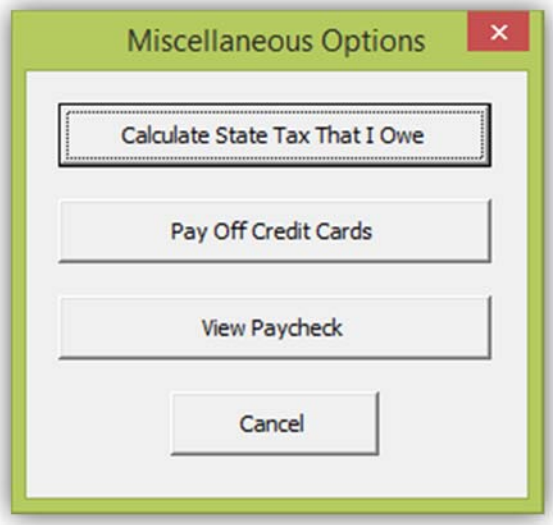
Why?

Calculating state tax a person owes can be a laborious process (e.g. pulling information from various websites, calculating tax owed). This feature completes this for the user automatically. “Pay Off Credit Cards” and “View Paycheck” are very common tasks users will engage in as they work with their budget.

How used?



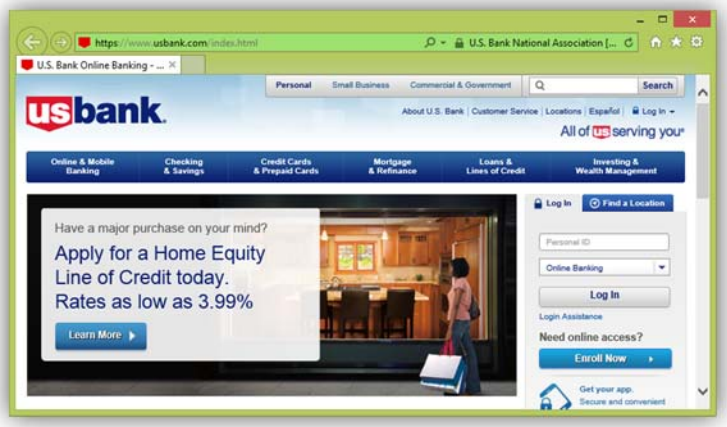
Users select “Misc Options” from the “Budget” tab.

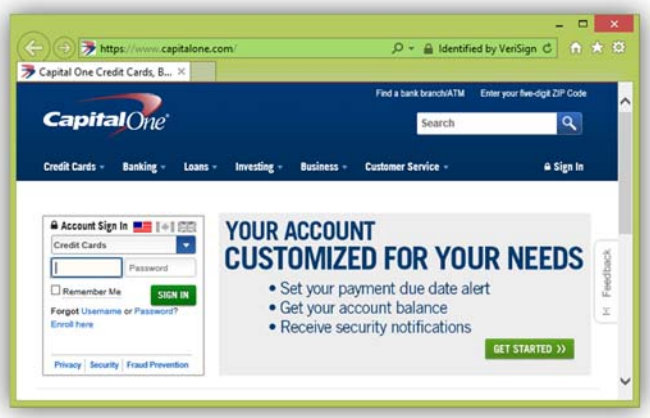


Users choose from the “Calculate State Tax I Owe”, “Pay Off Credit Cards”, and “View Paycheck” buttons.

Note: the “Calculate State Tax I Owe” is still under construction for this version of Budget Dream Land.

When the user clicks on “Pay Off Credit Cards” Internet Explorer windows pop up with the login pages for their various financial institutions.





When the user clicks on “View Paycheck” an Internet Explorer window pops up with the login pages for the website containing their paycheck information.

Feature: View Reports

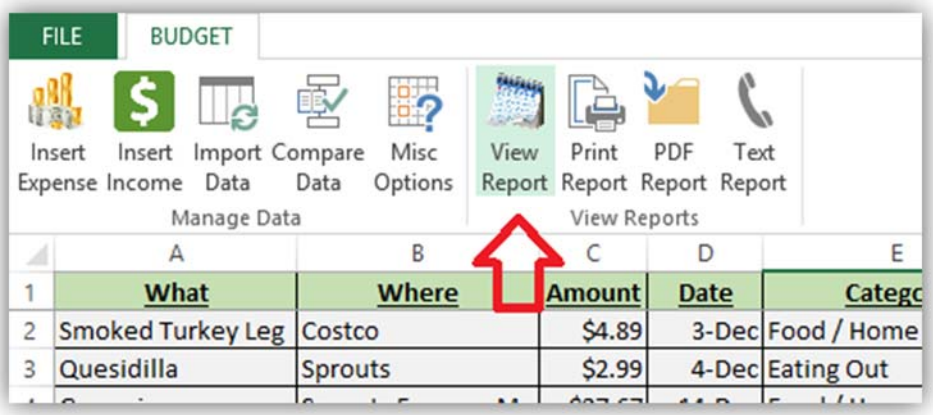
What?

The group "View Reports" will be discussed as one feature. This group contains the option for users to create a month's expense report including budgeted vs. spent figures as well as that month's expense report by category. Addition features in the "View Reports" Group include print report, save report as PDF, and text report.

Why?

A simple report helps a user to visualize their expenses and look for desirable and undesirable trends in their data.

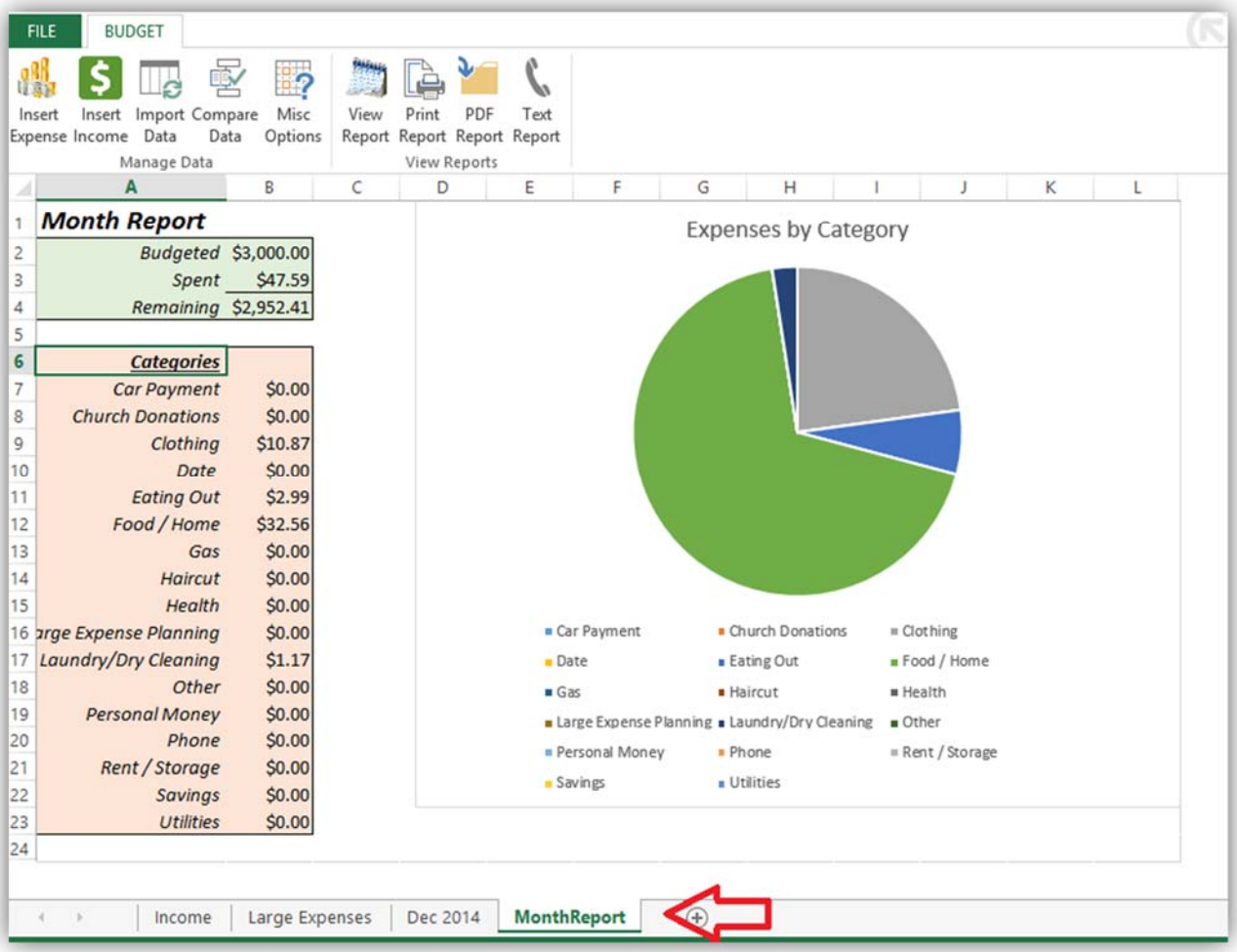
How used?

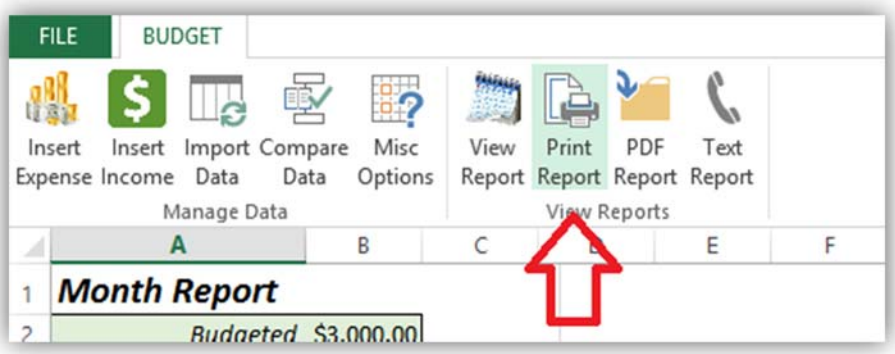


User selects "View Report" from the "Budget" tab.

A “MonthReport” worksheet is created. At the top left in green is a simple report of budgeted expenses vs. current expenses. Below in orange is a list of total expenses by category. To the right, a pie chart is generated to give the user a visual of current expenses by category.

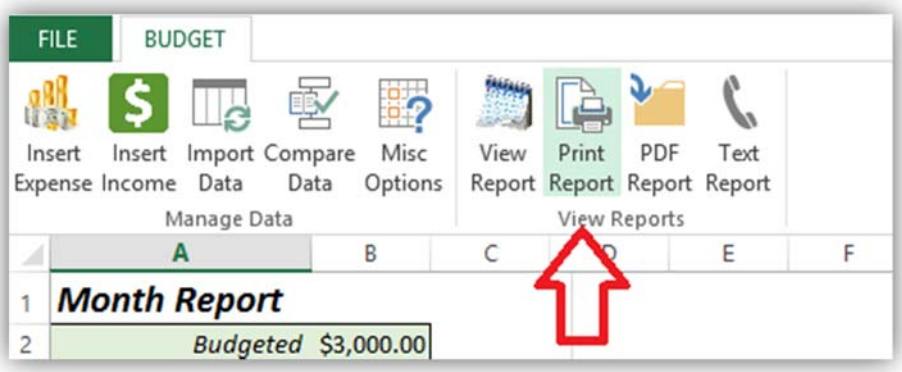
Note: currently this feature only works for the corresponding “Dec 2014” worksheet. Future versions will allow for a monthly report to be generated for any month.



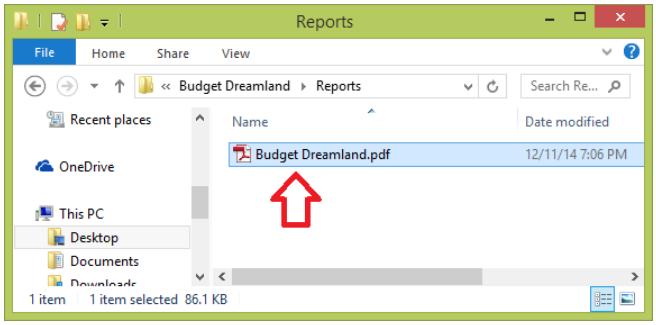


Users may print the report by clicking on "Print Report."

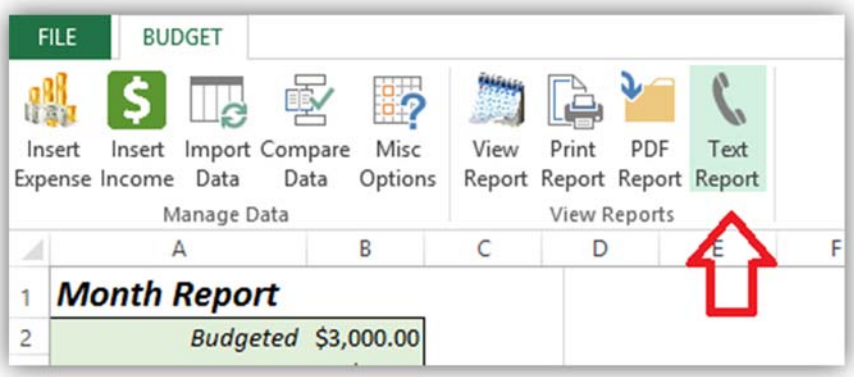
Note: this feature currently only selects the first printer listed in print settings.



Users may save a PDF of the report by clicking on "PDF Report."



Note: this feature, though it worked properly previously, recently broke and will be fixed in later versions.



By selecting "Text Report" users may send a text message to themselves with the budgeted expenses vs. current expenses portion of the report.

Notes: this feature is still under construction.

Learnings and Conceptual Difficulties

What did I learn?

Most of the following concepts I learned via online forums, the Microsoft website as well as recording and modifying macros:

- How do you run code when a workbook initially opens?
- How do you copy and paste a file into a specific folder (note: initial learning done via online, then aided by the TA)?
- How do you select a certain worksheet using a variable in the worksheet name?
- How do you format a newly created worksheet?
- What are the limitations
- How do you create a pie chart?
- How do you convert the month from numbers (e.g. “12”) to letters (e.g. “Dec”)?
- How do you identify whether or not an item is found within a worksheet?
- How do you add borders around a range of cells?
- How do you print?
- How do you open multiple webpages and have them stay open?
- How do you put a tab at the end of a row of tabs in the ribbon?

What was I unable to complete as proposed?

Import data from financial websites

- I tried recording a macro and using the “Get external data” feature but most financial institutions would simply not allow me to copy the data from online and paste it into a workbook. I built a workaround into the file by having the user copy and paste the data into the workbook instead of directly importing the data. The TA mentioned I should continue to research but it may not be possible to download this data as it may be too well protected.

Calculate State Tax That I Owe

- Similar to above, Amazon (the main website I use for this feature) would not allow me to copy the relevant data from my order history. I need to research this feature future to see if I can get this to work in future versions of this program.

Choose from a Variety of Reports

- I built a simple report system that is tied directly to the “Dec 2014” expense log. I simply ran out of time to add in a variety of reports. I also want to make this feature dynamic so that you could choose different months for the report.

PDF Report

- This feature was working earlier. Once I put in the “Print Report” feature, however, it stopped working and I could not figure out why. I need to further research this.

Text Report

- Though I used the code from class for this feature, it appears there is a missing variable input for the class module “modGmail.” I need to do further research as well as ask the professor of what may be missing to be able to include this in future versions of this program.

Assistance

I received some assistance from both TAs: Nathan Dudley and Blaire Pang. A number of topics which I received help with from Nathan and Blaire include:

- How do I populate the expense worksheet properly adding data under previously recorded data?
- How do I work around financial website lock down?
- How do I select the filename portion of a file path?
- How do I copy and paste a file using VBA?