## September 24, 2013 6:05 PM

#### The new changes are as follows:

- 1. The Tcalc report can now use any of the three assessment year's inverted ratios for time analysis. It is tied to the assessment year drop down box in cell C2.
- 2. You can now have just one assessment year populated on the Sale Data tab and still do filtered ratio study queries. You should know that the greatest value of this program is utilized with all three assessment years in the database.
- 3. The default inverted ratio test (for query purposes) will always be done on the oldest assessment year available first.
- 4. I removed over 13,000 sales since they were not needed for testing. There are still over 2,000 sales.
- 5. I added more to the text box note on the Sale Data Tab. I added significantly to the Notes tab which you can see in the attached class notes; especially page two.

#### September 22, 2013 4:55 PM

#### The new changes are as follows:

- 1. I changed all value year names from "EMV 20XX" to "20XX EMV" to match the Tcalc labels. The 20XX EMV label on the Tcalc data tab will now update itself.
- 2. I hid all columns after column V the Sale Data tab for their own protection.
- 3. I added information to the notes box on the Sale Data tab.
- 4. The notes tab itself now includes all of my notes for this Tcalc merger.

## September 16, 2013 8:13 AM

#### Current changes include:

- 1. I added a warning to the Time Trend Graph output which only appears if the user has time adjusted the sales or filtered (constrained) the ratio query. This is for notification purposes only.
- 2. I added and updated all of the notes from the DOR pertaining to the use and methodology behind the time trend program. They now reside below the time trend graph.
- 3. I altered the text angle on the ratios on the "stats only" tab for better visual.

## September 06, 2013 12:01 AM

# **2013** Ratio Study Template & Time Trend Program for Microsoft Excel

September 5<sup>th</sup>, 2013

I am nearing the end of the New Ratio Study/Tcalc program. It is in beta testing right now. Since there was at least four different ways in which to make these two programs reside

together, I chose the one that I feel is the most efficient and involved the most conservative amount of new VBA code.

The setup and programming work took some serious deliberation especially since the sales going into a Tcalc run have to meet an inverted ratio rule that the queried sales do not. That said, I pulled it off so that the end user just has to know how to click a single button with the mouse. How sad is that!

Here are some decisions I made along the way:

- 1. I managed to work in the Tcalc Macro button right next to the Extract Sales Button.
- 2. I retained one single database BUT added an inverted ratio field as the last column in the sale data area. This field won't appear in the query but it does affect the query when you click the Tcalc button.
- 3. The current allowable inverted ratio range is 50% to 200%. I hard coded and hid these perimeters rather than making them adjustable to the end user. They are easy to change by unlocking the spreadsheet with the passcode.
- 4. I chose to use the "Time Sale Price" rather than the "Adj sale Price" in the Time Line Trend. The user can then run a Tcalc test on sales before or after time adjustment. This might be inappropriate from the mandated rule, but the results could be interesting.
- 5. I chose to use the oldest market value of the three possible years due to the Tcalc requirements of a 21 month sales study time line. With some more programming it could be a selectable item.
- 6. I chose to use the parcel number as a user selectable field. It makes the most sense for stratification purposes and it may be moot anyway since you can so finely tune your query prior to the Tcalc run.
- 7. I did not include the tabs for Farm regions, Apt Comm Ind Regions, and Res Regions. I didn't think they were necessary but I could be wrong. They are an easy addition.
- 8. Since the Tcalc program has been integrated (and automated) into the Ratio Study template, we cannot risk the end user playing around with the Tcalc module (adding rows, columns, etc.). As such, the program is locked down. I will see what I can do about the sorting functionality.
- 9. I presumed that the user will want to end the Tcalc run by landing on the Time Trend Graph.
- 10. I set a minimum number of five sales that must meet the inverted ratio rules in order to run a Tcalc report.
- 11. I added the date range and the parcel range to the Time Trend Graph output report for identification purposes. I also added the date of the Tcalc run.
- 12. I setup the print area for the Time Line Trend Graph. I could build a macro to print the Tcalc sales data if needed.