# JOHNSON MAPPING SOFTWARE & PLOTTING SEMINARS

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*Deed Plotter+for Windows (by Greenbrier Graphics)& the All Topo Maps (by iGage Mapping Co.)*
*"Computer Plotting of Legal Descriptions for the Layman©" Seminar*
*"Real Estate Mapping Computer Tools©" Seminar - "All Topo Maps - General Software Training Seminar"*

Deed Plotter and All Topo Users:

I thought that this might be the best format to present this combination problem.

First, I LOOKED only at the JPG file that contained the legal description and inputted the important metes and bounds stuff into this word processor file, as seen below. It was necessary to LOOK only because the Deed Plotter can NOT read the content of a graphics (PDF or scanned file), but CAN read the content of a word processor file. (See the JPG file on the last page.)

Here is the list of call that I gleaned from the graphic description.

S01°32'08"E, a distance of 69.70 feet
N69°37'13"E, a distance of 53.90 feet
N73°28'04"E, a distance of 115.33  feet
N80°04'54"E, a distance of  69.40 feet
N85°21'15"E, a distance of 88.80 feet
S87°30'15"E, a distance of  74.01 feet
S81°44'08"E, a distance of  83.38 feet
S77°37'46"E, a distance of  100.87 feet
S75°56'50"E, a distance of  125.24 feet
S76°43'07"E, a distance of  128.97 feet
S76°02'59"E, a distance of  315.78 feet
S76°04'36"__, a distance of  199.86 feet   (Note that the "E" or "W" was missing in the text ).
S01°29'17"E, a distance of  1090.94 feet
S89°45'38"W, a distance of  1110.59 feet
N04°29'53"W, a distance of  383.51 feet
N37°50'20"W, a distance of  312.24 feet
N01°32'08"W, a distance of  616.85 feet

If you count down 14 lines in the 2nd paragraph of your description, you will find  **South 76°04'36"___** without and East or West on the end of the bearing. This is obviously incomplete and so I had to guess. ( I'll later show you the result of those guesses and also of reading 38.80 feet on the graphics instead of the intended 88.80 feet ). You can also find these calls in the body of the eMail so you can copy and paste them into your word processor and test this description with the Demo Version of the Deed Plotter, you pull off my website, www.johnsonmapping.com

Assuming that all is in place AND the Demo is working, here's what to do. ( *The Demo is working*, statement needs a little comment. The Demo is Version 4.14, written for Win 2000 and NT4.0. When Microsoft  release "XP", there was something in there it caused some installation to fail. The Deed Plotter programmer fixed the program with a Version 4.2 that runs just fine in XP, did he did not update the Demo from the V4.14 to 4.2. However, the V4.14 runs in 75% of the XP machines and probably will run on yours. BUT, if you try to run it and get a message about: " Not Left Justified...." or that there are "Spaces on the Left.....", if just failed on you. Not

to fear, I can eMail you one file to overwrite a file on the Demo Installation "EXE" file to

upgrade the Demo to the operating V4.20 version.

Now again assuming that ALL is in place, ( Deed Plotter working and Text file open in the word processor.)  here's what to do.

In All versions of MS Word and Word Perfect up to Version 9, when the Deed Plotter was loaded, it placed a *"Deed Plotter+"* icon at the bottom of your "Tools" drop down menu.  (For Word Perfect V10 and up, the icon did not load and you must do a few manual steps to do what the icon in the other version did automatically.  I attached a PDF file named *"Deed Conversion Manual Method"*, to show you the few steps you need to do to get the same result.

For this example, I guessed that it was "W" at the end of the Line #12 input.

While your metes and bounds language high-lighted in text, click "Tools", then Click "Deed Plotter+" or follow the Deed Conversion Manual Method.
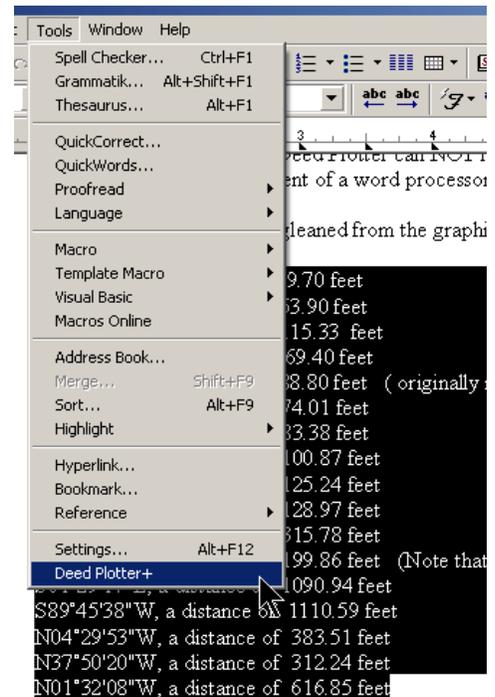
The Deed Plotter will open and paste your data into the Deed Conversion Editor.  Here is the result AFTER I clicked on the TEST button of the right side.  All of the bears that if has found show in **RED**.  All of the distances show in **BLUE.**  If there had been some curve data if would appear in **GREEN.**
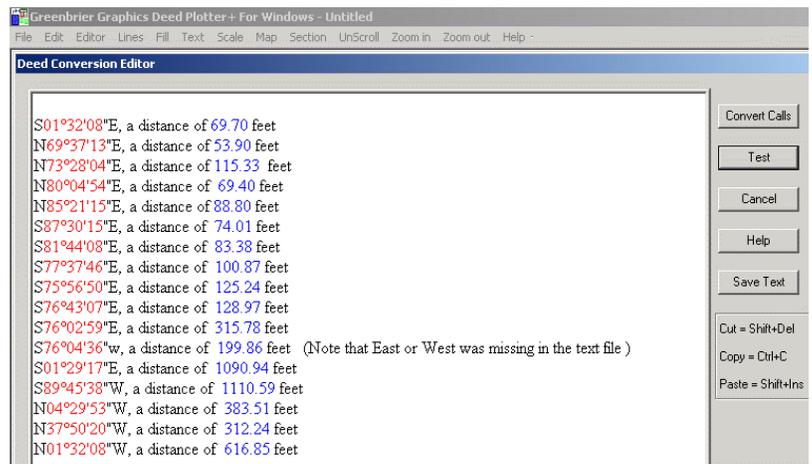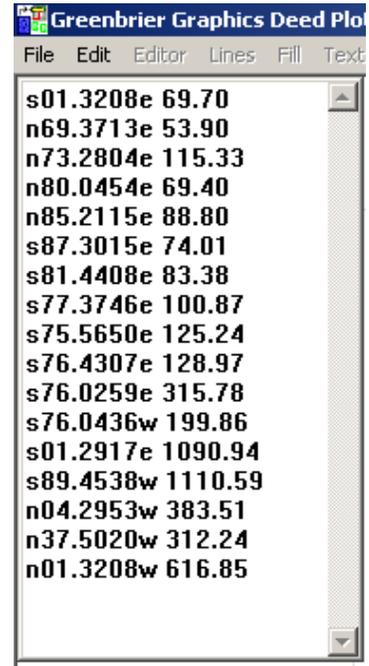
Note, is a call stays a default **BLACK,** then the program did not find it for conversion.  There is something wrong with the syntax of that call.

Now, when you click on the Convert Calls, they are converted into a more abbreviated metes and bounds format, where the "N" or "S" is first, then the bearing. Then a period is placed as substitute degree symbol is added and the minutes and seconds follow, with a final "E" or "W".

Note that there are NO spaces between the elements of the bearing and only ONE period separates the degrees from the minutes. Minutes and seconds are run together.

So, here in the right is the "deed converted" language from the text earlier in this file with a "WEST" guess on Line #12.

**Greenbrier Graphics Deed Plo**

File   Edit   Editor   Lines   Fill   Text

```
s01.3208e 69.70
n69.3713e 53.90
n73.2804e 115.33
n80.0454e 69.40
n85.2115e 88.80
s87.3015e 74.01
s81.4408e 83.38
s77.3746e 100.87
s75.5650e 125.24
s76.4307e 128.97
s76.0259e 315.78
s76.0436w 199.86
s01.2917e 1090.94
s89.4538w 1110.59
n04.2953w 383.51
n37.5020w 312.24
n01.3208w 616.85
```

Again, as noted earlier, there was no "E" or "W" in the original scanned text for input line #12 ( s76.0436___ ), so below shows the result of guessing "W".

Seeing that there is 392.34 feet closure problem with the first run of the data.

When there are large closing errors, the first thing I think of is: "Are there offset calls exposed". That is anything that shows **GREEN** is being considered in the area and closure calculations.

This is a critical piece of data for us to consider. The very first call ( s01.3208e 69.80 feet) was on an offset call of from the W1/4 corner of the Section to the "true" point of beginning. While this call is important for locational purposes, it is really NOT part of the actual parcel.

Tract 1: 29.847 acres      Closure=n79.4609e 392.34 ft
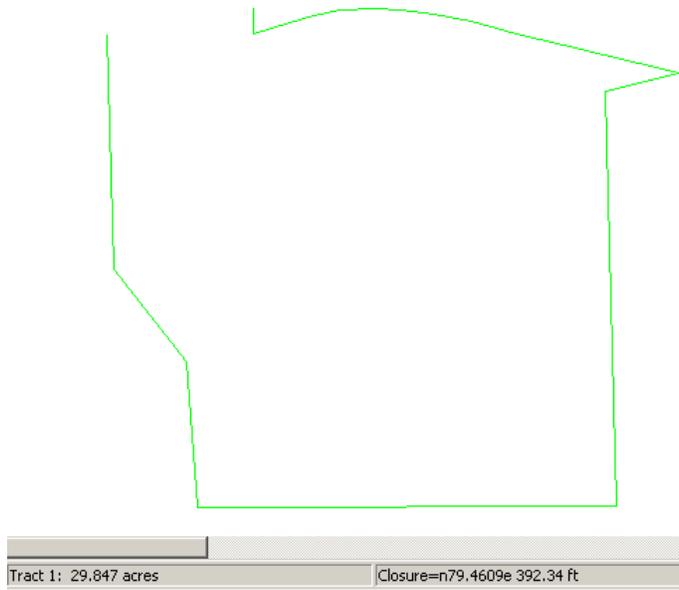
We now need to "hide" this call (and ALL other offset calls) from the Deed Plotter, by adding a " / " at beginning of those offset call input lines.

```
/s01.3208e 69.70
n69.3713e 53.90
n73.2804e 115.33
n80.0454e 69.40
n85.2115e 88.80
```
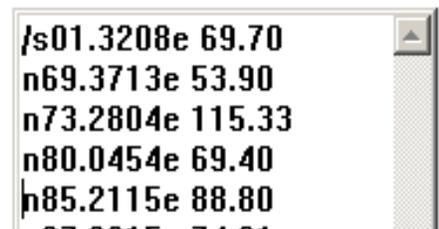
After "hiding" the offset call(s), the closure is still 387.97 feet.  For now, that is okay, but we now know that the offset call(s) are not creating the problem.



Now is it time to use the Analyze feature,  you must click inside the parcel so that it turns green ( or active ), the click on "MAP" on the menu bar and select "Analyze".  What you see here is the result of running the Analyze the first time.

We can see from this suggestion, of using an "EAST" instead of a "WEST" on this call,  there is now a 0.01 feet closing error and the area with that closure is 35.011 acres, which is what we were told on the deed.
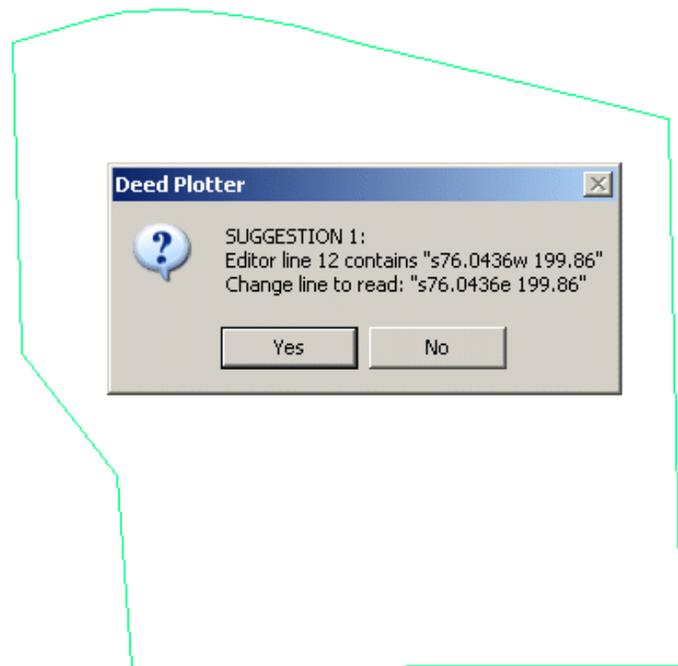
Even though, I think this is probably the correct error correction, you never want to take a suggestion the first time through, because it may have a suggestion.   So when I clicked on NO, it said it did have other suggestions.

It did have another suggestion, but with
the suggested change, the acreage is
different that expected and the nearly a 5
foot, closure hole.

This suggestion is not a good as the first,
but you had to try.  Click NO again and
find that the program ran out of
suggestions.
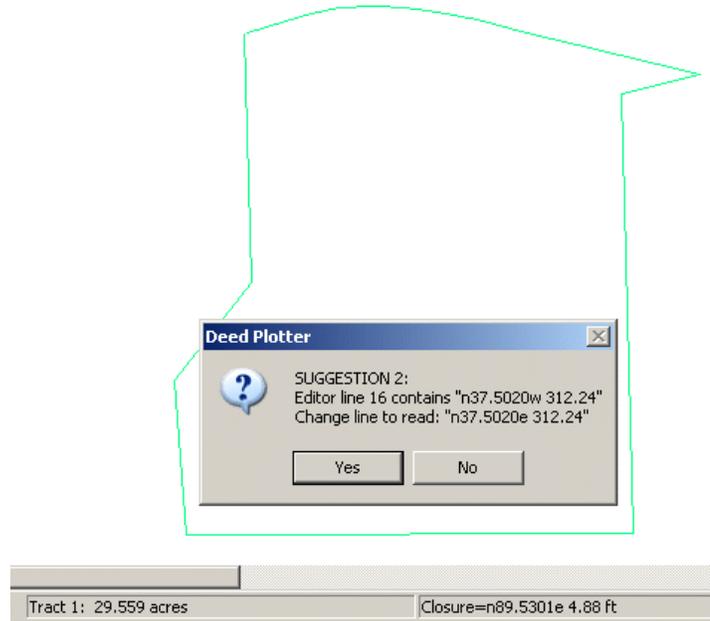
By re-running Analyze again and accepting the 1st suggestion again, the program adds a lower
case "a " to the end of the input line that it thinks should be changed for a better closure.

This is sort of an unusual case where one of the cardinal directions was missing on the end of a
metes and bounds call, this is the time to check your original document to see if there was a typo
there and you have just discovered an error in a recorded deed, mortgage, etc.

Considering that we about to use this description with the All Topo Maps program, I recommend
that you now edit the file again to give this description some PLS reference.  Even though, this
file will NOT be GEO ( geographic coordinate ) smart, by itself, if you print this, you would still
have a reference to the PLS system.

To do this we need to insert a new blank Line #1, then add Corner, Quarter, Section, Township,
Range and PM data.  This description was tied to the West 1/4 Corner of Section 13, T. 8 S., R.
72 W., 6th PM.   So, for this new needed entry, either call:  /sw,nw,13,8s,72w or
/nw,sw,13,8s,72w describes it.  For the first one that language means SW Corner of the NW1/4
and the other is the NW corner of the SW1/4, they are both names for the W1/4 corner, rewritten.

For other more difficult PLS corners, you have to add another 1/4 section text.  For example for
the SW1/16 corner, there are four names, that work. /se,nw,sw  /sw,ne,sw  /nw,se,sw  /ne,sw,sw

To decide which corner name to use, I usually read the next line and see
where it is going.   In this case that next call was S01.3208E ( or in the
first sentence, it says part of the NW1/4SW1/4), so let's use   the NW
corner of the SW1/4, or  /nw,sw,13,8s,72w.

/nw,sw,13,8s,72w
/s01.3208e 69.70
n69.3713e 53.90

While this is the syntax that we'll end up with, when I'm going on in the All Topo Maps, after I get the Deed Plotter worked up the way I like, I go back in an expose the offsets for a moment.

```
/nw,sw,13,8s,72w
s01.3208e 69.70
n69.3713e 53.90
```

You MUST save the file first in the default Deed Plotter format, so Click File, Click Save, Select a Path and give it and Name.  It will be saved with a default  " DES " extension.

The last step needed in the Deed Plotter to use this file with the All Topo Maps, is to "Save As" with a DXF format.   So, press the F2 or Draw with a Mouse Click in the open right side screen, the Click Map, and Click Save As DXF.  With this stroke, you will save the file in the same folder with the same name, but a different extension.

You can now minimize the Deed Plotter and go to the All Topo Maps.

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Let's now find the correct map in the All Topo Maps.  Using the same PLS language at the top of the scanned file that was used in the Deed Plotter, we want to find that same NW corner of the SW1/4, Section 13, Township 8 South, Range 72 West, 6th PM.

So, start your All Topo Maps, and the very first thing you want to do is to think about the Annotation source file.   This file is where everything you do on the face of  the map is recorded.  Good management of this file is critical, because if you don't start new files to correspond with your existing project, it will just keep appending on the last work you did and therefore create one huge file.

Creating a new Annotation Source file is easy by clicking in Annotations, select New and give it a name.  The program will suggest the name of "WP1.hwp" for the first time and WP2.hwp for the 2nd time.  While I it is good that the program makes these uniquely name suggestions, I would recommend that you do NOT use them.  WHY?  Because after 5 or 10 minutes, I ( and probably you ) can't  remember what is in WP1 versus WP2, etc.

I suggest that you name the file to correspond  with your project or some element of your project.  Also, by default,  the program will direct you to the "User" sub-folder of the "ATM7pro" main folder.  Use that folder if you want, but you can redirect it to be saved in whatever folder location you want.   When you do create a new Annotation Source file and name it that name will appear in the 2nd tile on the line just about the Windows Start Bar, as shown.  I created a file and named it: "Deed Conversion Example".

| 10,000 Ft | ▭ | * Deed Conversion Example.hwp |
| --- | --- | --- |
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With the Annotation Source file taken care of, now click on the "Bino Loc" or the "Search by Coordinate Location: button.  When it opens, you can enter some that data you already know.

You can see that I inputted these things: 8, S, 72, W, and 13. Then I used the drop down arrow to select the NW corner and the Sixth PM. Since we are looking for a corner and do NOT want to draw an aliquot part at this time, I want to be sure that the is NO check mark in the Draw box OR that the other three drop down windows have anything in them.
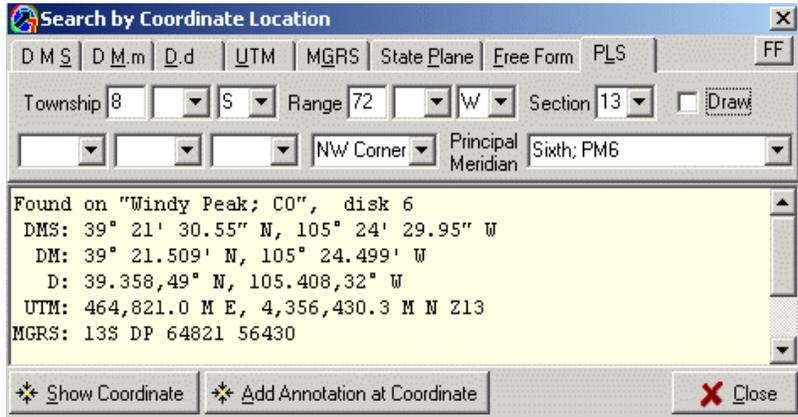
I realize that all of that data in the big box on the bottom is relating to the NW corner of the whole section and we want the NW corner of the SW1/4, but just "hang on" for a flash, that will be taken care of almost immediately. ( You'll see later that if you want to draw some sectional aliquot parts like the N1/2SE1/4NW1/4, you would need to use the Check mark in the Draw box and input those parts into the other three currently blank tiles. Then, I would also click on the 4$^{th}$ drop down and select the Center, but that's another lesson. )

So, now when you click on the "Add Annotation at Coordinate" button, here is what you'll see.

This first window opens to tell you that it has found this location on all three of the maps in this set at the different scales and wants you to select a scale. Let's stay with the 1:24,000 for now. Click OK.
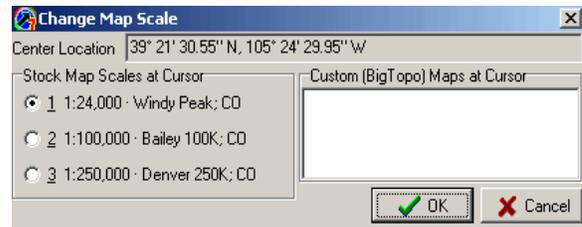
If you have used the option to loaded the map CDs on your hard drive that you use most frequently, this window opens to tell you which CD to put in your CD drive.
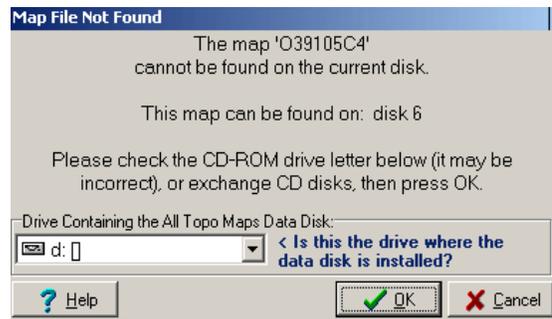
The All Topo finds the 1:24,000 scaled map, opens it, then opens this "Edit New Annotation" dialogue box. We are going to do several things here, but the first is to add the SW 1/4 to the corner location.
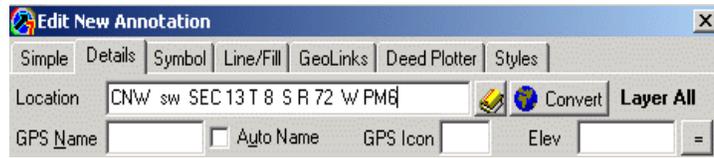
Click on the Details to open that option.
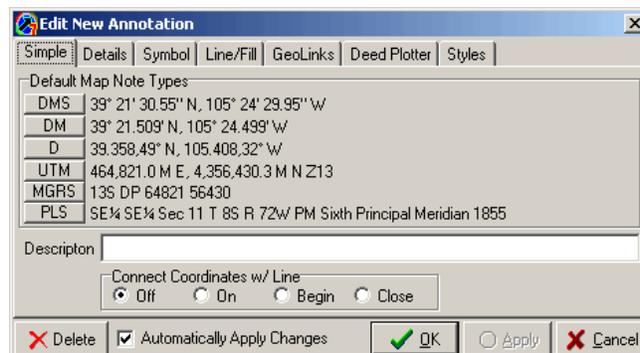
Now in the Location tile, add the SW
after the CNW or corner NW.

This now has been edited to read the NW
corner of the SW1/4 of Sec 13, T8S,
R72W.

Now look again at the option tabs along the top of the "Edit New Annotation" window.
If you do NOT have the DXF Interchange Option ( DXFIO ) loaded that allows the Deed Plotter
and All Topo Maps to work together, then the Deed Plotter tab will NOT be there.  It is an "add-
on" tool to the basic All Topo Maps installation, that costs $150, but I think well worth it in order
to be able to display metes and bounds descriptions with curves over the topo maps

Since it is here, we can use it, so click
on it.

Now, you can see that the DXF
Filename tile is empty, because we
have not loaded a file yet.  Look at the
far right end of the empty box and see
the three small dots on a button.  That
is a Browse button.
Click on it and use the "explorer like"
search tool to find the DXF file that
you want to load and display at this
corner.
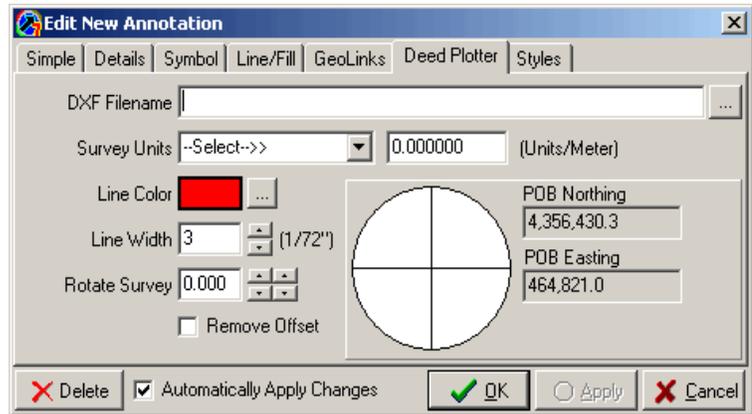
So, Browse to the
correct folder and
click on the right file,
then click Open at the
bottom.
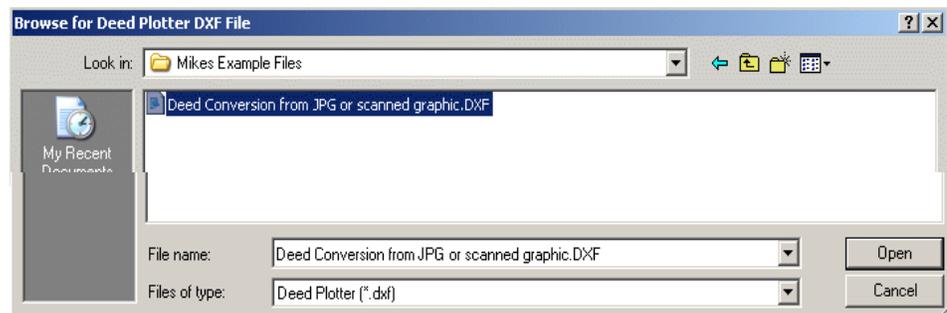
If everything worked, the shape of the parcel you drew in the Deed Plotter and saved as a DXF file will jump on the map and assume the scale of the background map.

It defaults to a RED color and a line width of three, but these and other things can be changed to whatever you want.
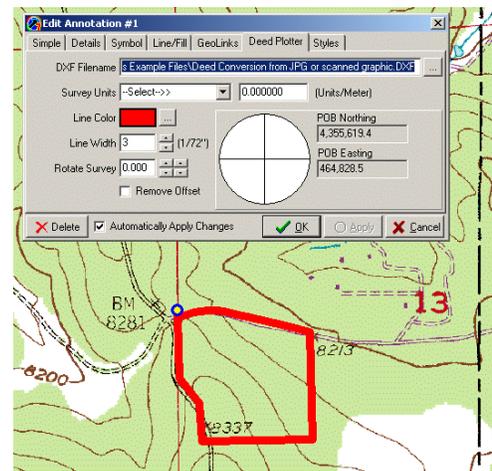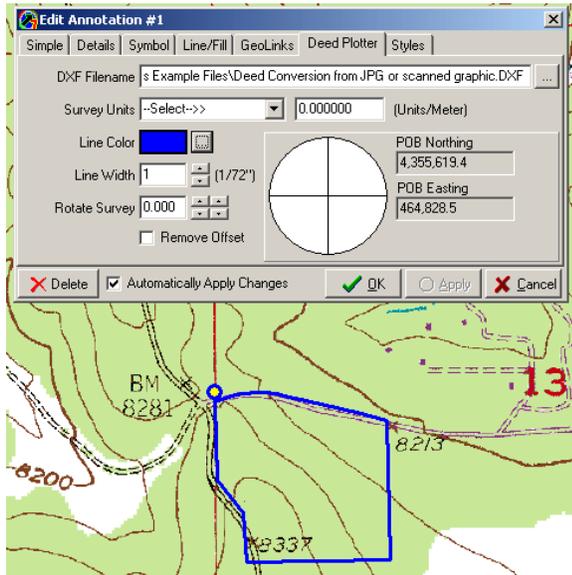




Let's change the line width to 1 and the color to Blue. Click twice on the down arrow on the right side of the 3 then click on the block by the color and change it.

You can also Rotate the survey with the degree and 1/10 degree button to make it appear to fit expectations. You can also "nudge" the parcel around a little with the large "crosshair" circle. When you place you cursor in one of the 1/4 circles and click it will move slightly by the amount of the numbers you'll then see below the POB Easting.

Another thing to note is the Blue Circle with the Yellow center. That is the "symbol" for the location of the coordinate used. Remember, in this case the coordinate was the NW corner of the SW1/4. This point was generated from information included with the PLS tool. Like the DXFIO, the PLS tool is an "add-on" to the basic All Topo installation, but I highly recommend it. At $80, it is NOT expensive and wait until you see what can be done with it.

This coordinate point was created from the use of the Colorado PLS tool which is installed. The PLS tool is driven by the GCDB or Geographic Coordinate DataBase. In the west, the GCDB is maintained by the BLM and is a huge database of the coordinates of ALL of the known surveyed aliquot sectional corners locations. Not all corners have actually been surveyed in and for those that have not the GCDB projects where they should be located. Obviously, the GCDB is a dynamically changing document which is usually available "online" to occasionally update with what has been changed or added from the last one. (The GCDB is maintained by some other government agencies in states where the BLM does not have the presence that it does in the West.)

In any case, by looking that the roads on the north and west sides of this property, it would appear this property was bounded by these roads. However, if it were move down a little to clear the road on the north, then the road on the west would be even more inside the property.
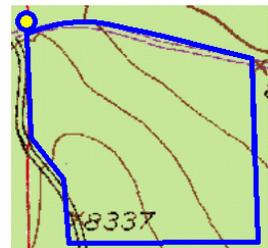
As for the symbol, itself, it can be easily hidden from view, by making the size of this symbol a -1.



Here you see the result of clicking in the "Symbol" button and then clicking several times on the down pointed arrow in the Marker Width category. It was a default 2 when I started. Look at the parcel and see that the symbol dot is hidden at a -1 setting.

With the dot hidden, you can now see that the offset call is visible. I said earlier that I like to leave it visible for just this purpose. That is I can see that it is connect to the correct place. After making that observation, it is time to hide it as we did before. That is a Deed Plotter function, so we can easily bring up the Deed Plotter and add the " / ", go all of the offset lines to hide them again.
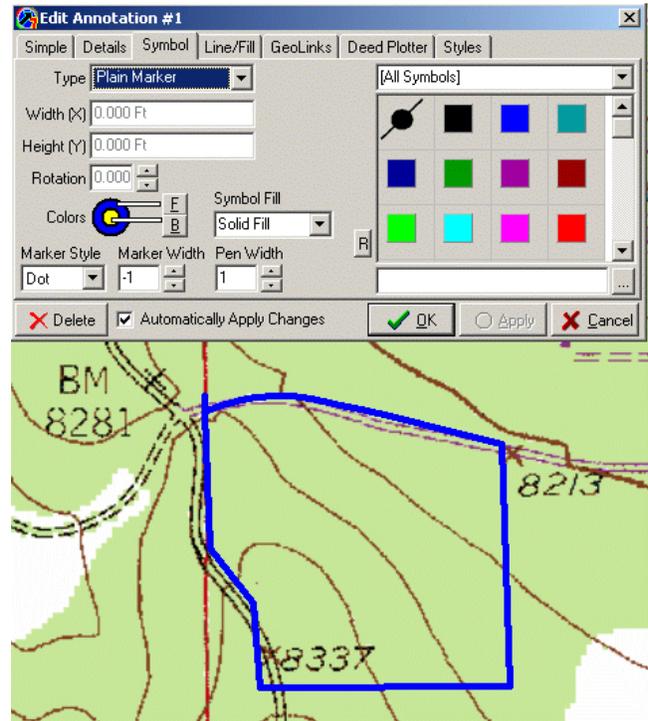
After doing that we MUST re-save the DXF file so that change is reflected here. What really happened when we located a point and brought in a Deed Plotter DXF file, was that the All Topo created a link to that file as shown below. So, if any change takes place in the Deed Plotter file, it has to be re-saved to the DXF so that change will also happen in the All Topo file via the link.
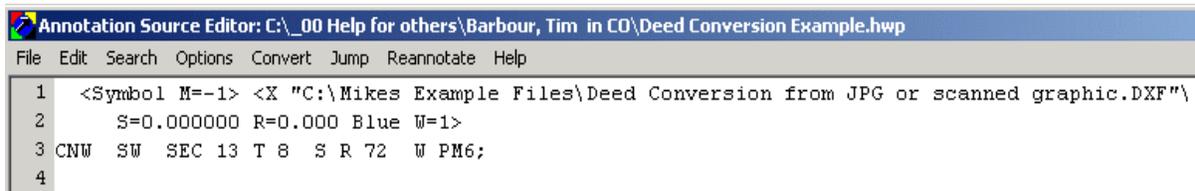


Here is what has been recorded and saved in this Annotation Source file named: " Deed Conversion Example". The <Symbol M= -1> is there because we changed the symbol size from the default M=2 size. Then you can see the link with the path to the file. On the next line the S=0.000 has to be with the distance unit being in feet. The R=0.00 shows that has been no Rotation, then the parcel color is the Blue what we change from the default Red and the Line Width is W=1 which we change from the W=3 in the other window.

So now when we go back into the Deed Plotter and replace the " / " on the offset line, we save, then draw and re-save as DXF under the Map button.



You now expect and are looking for this message that says "do you want to replace it?". You click YES, so that the All Topo can display the changes.

So, now with the hidden offset calls and the DXF re-saved and replaced, you would get this graphic.

There are lots more things you can do to this image, by right clicking with the white drag hand cursor on the symbol location ( or where the symbol is hidden), you can change many elements for this "linked" Deed Plotter image.

Just for reference, I pasted in the original document language below.   Hope this helps you better use the Deed Plotter in connection with the All Topo Maps.



LEGAL DESCRIPTION
PARCEL 1
LOT 1

A PARCEL OF LAND BEING A PART OF THE NORTHWEST ¼, OF THE SOUTHWEST ¼, OF SECTION 13, TOWNSHIP 8 SOUTH, RANGE 72 WEST OF THE 6ᵀᴴ P.M., COUNTY OF PARK, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE WEST ¼ CORNER OF SAID SECTION 13; THENCE S 1° 32' 08" E, AND ALONG THE WESTERLY LINE OF SAID NORTHWEST ¼, OF THE SOUTHWEST ¼ OF SECTION 13, A DISTANCE OF 69.70 FEET TO A POINT ON THE CENTERLINE OF REDSKIN CREEK ROAD, THE POINT OF BEGINNING; THENCE ALONG THE CENTER LINE OF SAID ROAD THE FOLLOWING ELEVEN (11) COURSES; THENCE N 69° 37' 13"E, A DISTANCE OF 53.90 FEET TO A POINT; THENCE N 73° 28'04" E, A DISTANCE OF 115.33 FEET TO A POINT; THENCE N 80° 04'54" E, A DISTANCE OF 69.40 FEET TO A POINT; THENCE N 85° 21' 15" E, A DISTANCE OF 38.80 FEET TO A POINT; THENCE S 87° 30'15" E , A DISTANCE OF 74.01 FEET TO A POINT; THENCE S 81° 44'08" E, A DISTANCE OF 83.38 FEET TO A POINT; THENCE S 77° 37' 46" E, A DISTANCE OF 100.87 FEET TO A POINT; THENCE S 75 56' 50" E, A DISTANCE OF 125.24 FEET TO A POINT; THENCE S 76° 43'07" E, A DISTANCE OF 128.97 FEET TO A POINT; THENCE S 76° 02'59" E, A DISTANCE OF 315.78 FEET TO A POINT; THENCE S 76° 04'36", A DISTANCE OF 199.86 FEET, TO A POINT ON THE EASTERLY LINE OF SAID NORTHWEST ¼, OF THE SOUTHWEST 1/4; THENCE S 1° 29' 17" E ALONG THE EASTERLY LINE OF SAID NORTHWEST ¼ OF THE SOUTHWEST ¼ OF SECTION 13, A DISTANCE OF 1090.94 FEET TO THE SOUTHWEST 1/16 CORNER OF SAID SECTION 13; THENCE S 89° 45' 38" W, AND ALONG THE SOUTHERLY LINE OF SAID NORTHWEST ¼, OF THE SOUTHWEST ¼, A DISTANCE OF 1110.59 FEET TO A POINT; THENCE N 4° 29' 53" W, A DISTANCE OF 383.51 FEET TO A POINT; THENCE N 37° 50'20" W, A DISTANCE OF 312.24 FEET TO A POINT ON THE WESTERLY LINE OF SAID NORTHWEST ¼, OF THE SOUTHWEST ¼; THENCE N 1° 32'08" W, AND ALONG SAID WESTERLY LINE, A DISTANCE OF 616.85 FEET TO THE POINT OF BEGINNING; SAID DESCRIBED TRACT CONTAINING 1,525,053 SQUARE FEET (35.01 ACRES), MORE OR LESS.