

*Attached are the instructions for inserting raster images into AutoCad Map 3D 2006 State Plane Coordinate System.*

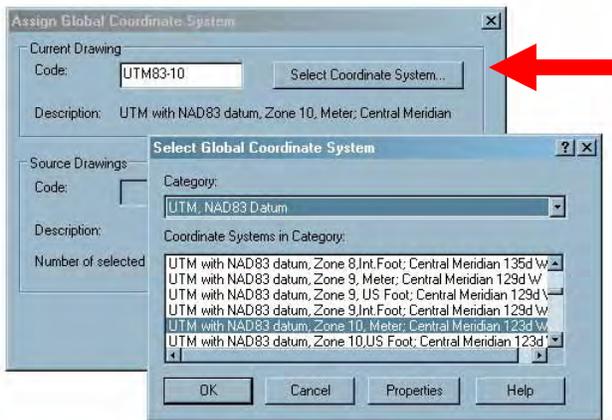
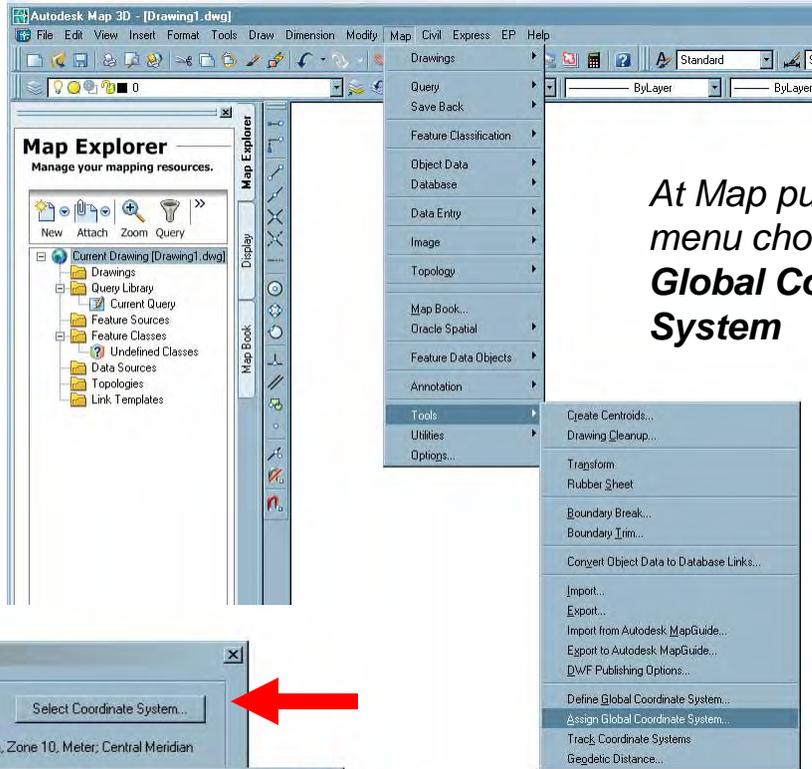
**WHY:** *So much of the time we survey with local assumed datum and insert images to fit that data. Here we are trying to get all data into the State Plane Coordinate System, image and survey data alike. This should give us more flexibility of inserting survey data in the GIS world also. The following is the way that I accomplish this. You may have a different way and that is fine...it is the end result that we want the same.*

*For questions or additional information:*

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*February 26, 2007*

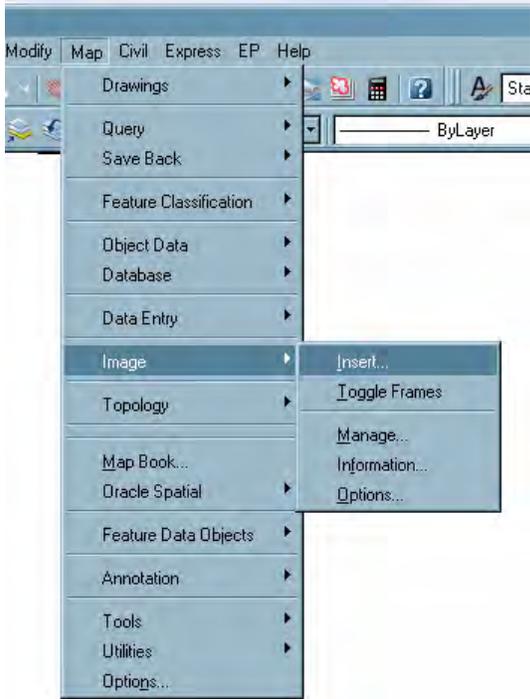
Begin a new drawing. Go to **Map>Tools>Assign Global Coordinate System**.



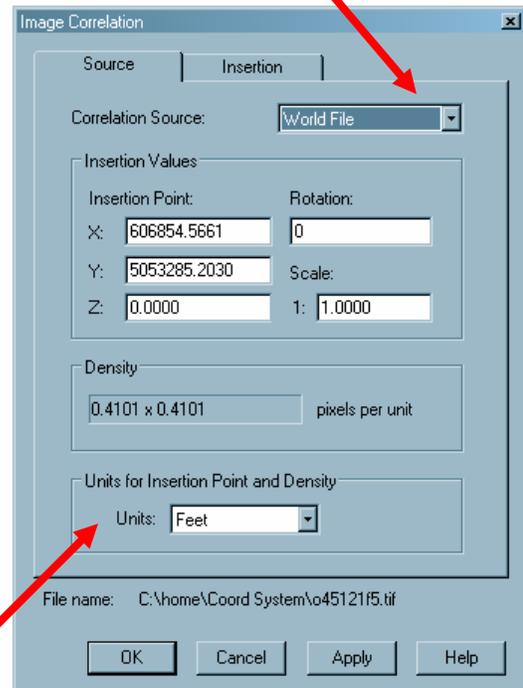
For Current Drawing, select coordinate system of your image(s). In most cases this will be UTM, NAD83, meters. Select **OK** twice to exit this command.

I like to put images on their own layer (as shown below) for more flexibility.

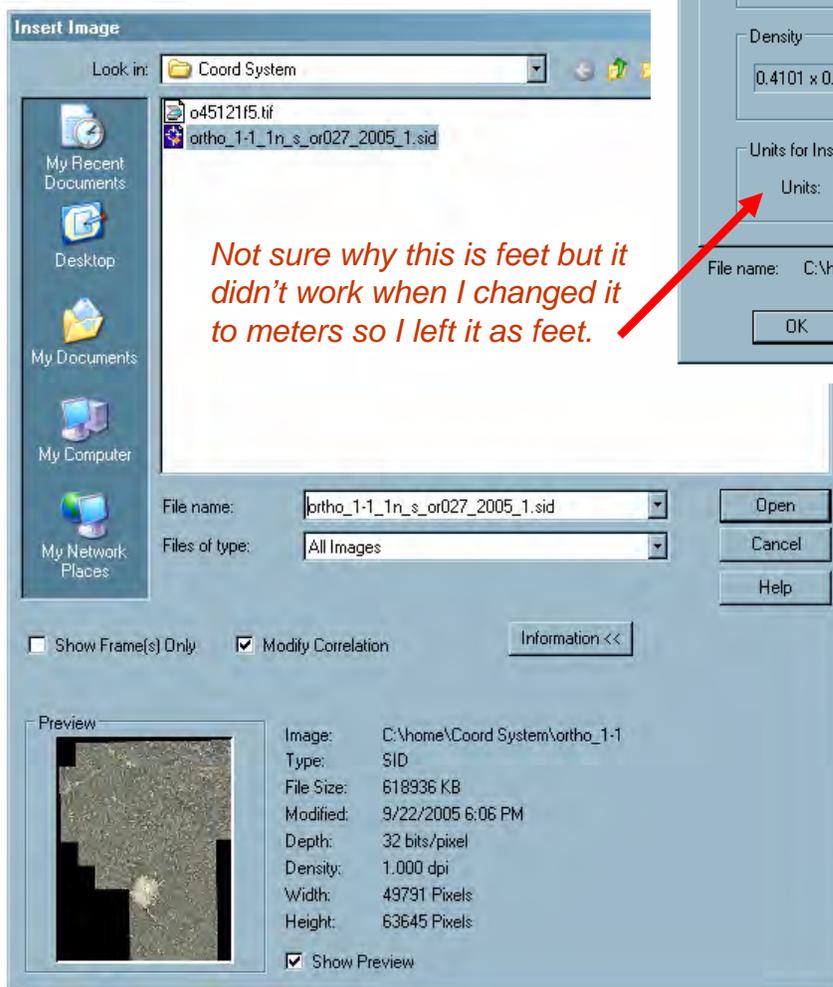




*In Map pull down menu, select **Image>Insert**. Make sure the **World File** is selected and then select **OK**.*

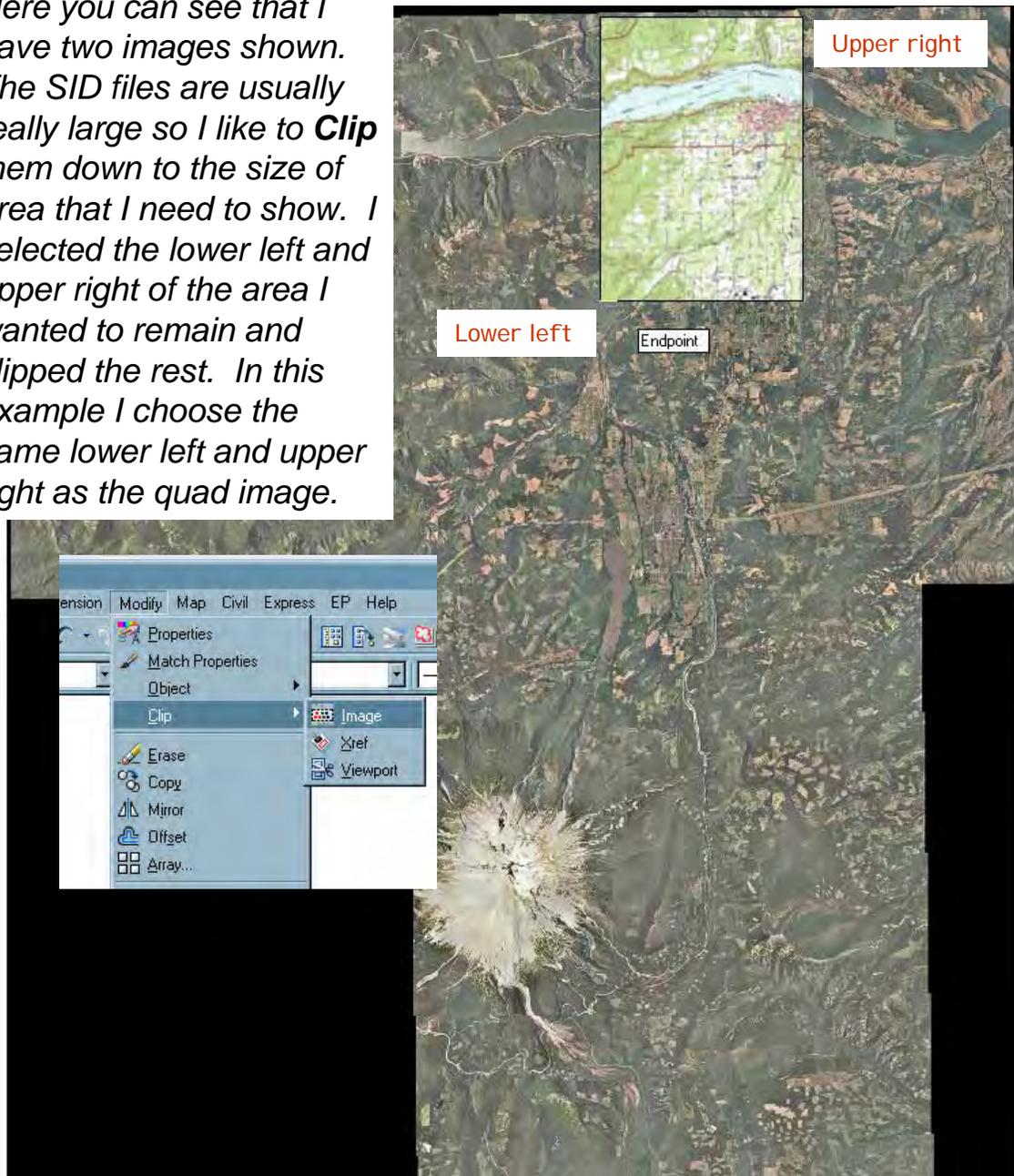


*Not sure why this is feet but it didn't work when I changed it to meters so I left it as feet.*



*Add other images of same coordinate system on their own layer in the same way.*

Here you can see that I have two images shown. The SID files are usually really large so I like to **Clip** them down to the size of area that I need to show. I selected the lower left and upper right of the area I wanted to remain and clipped the rest. In this example I choose the same lower left and upper right as the quad image.

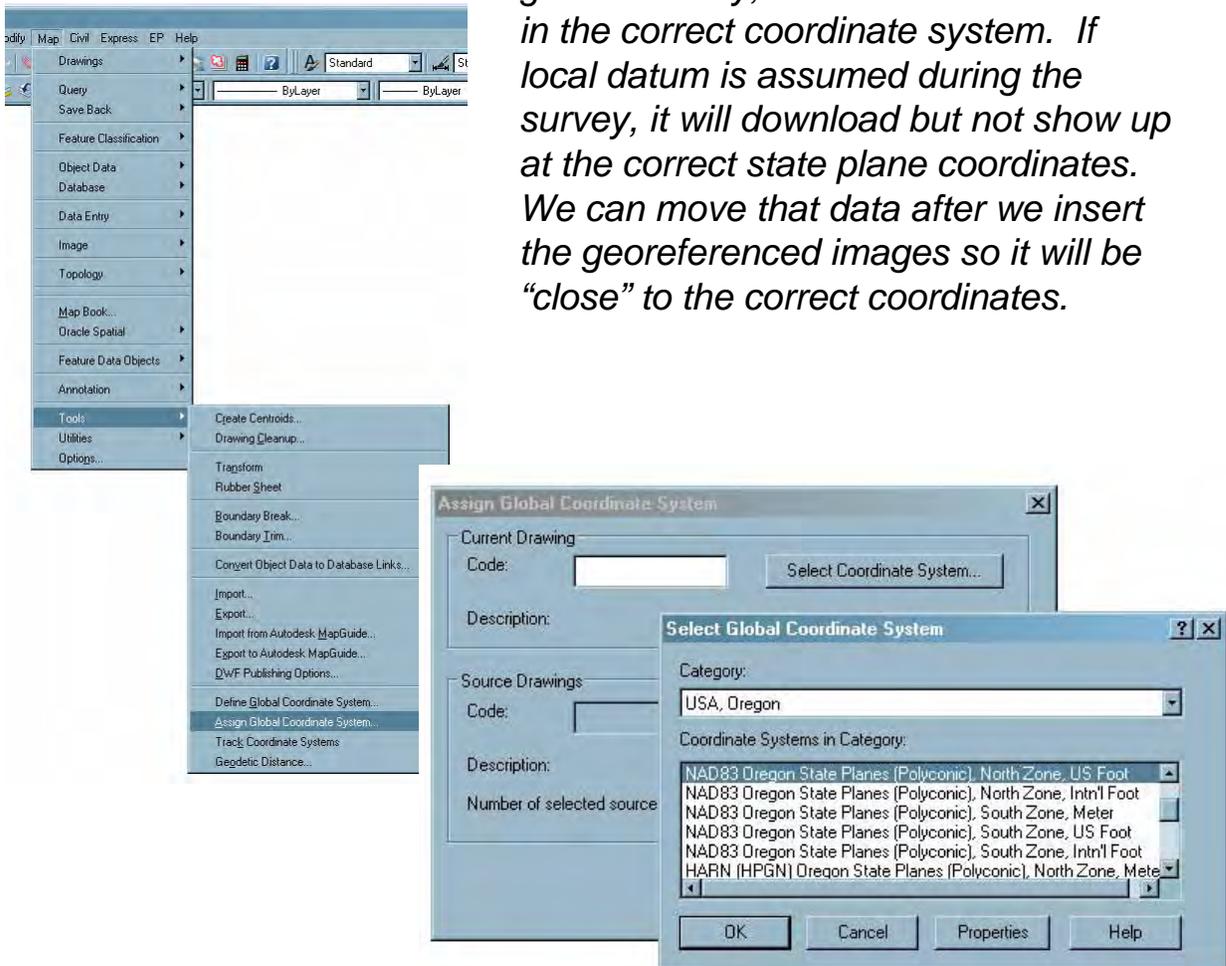


Select **View/Zoom/All** and you should see the full image. Save the drawing in your project directory. Then close the drawing. I like to name the drawing so I know what project it is and that it is the image (ie: hr\_images.dwg).

*Start a new drawing and assign the state plane coordinate system to this current drawing. Save the drawing to your project directory.*

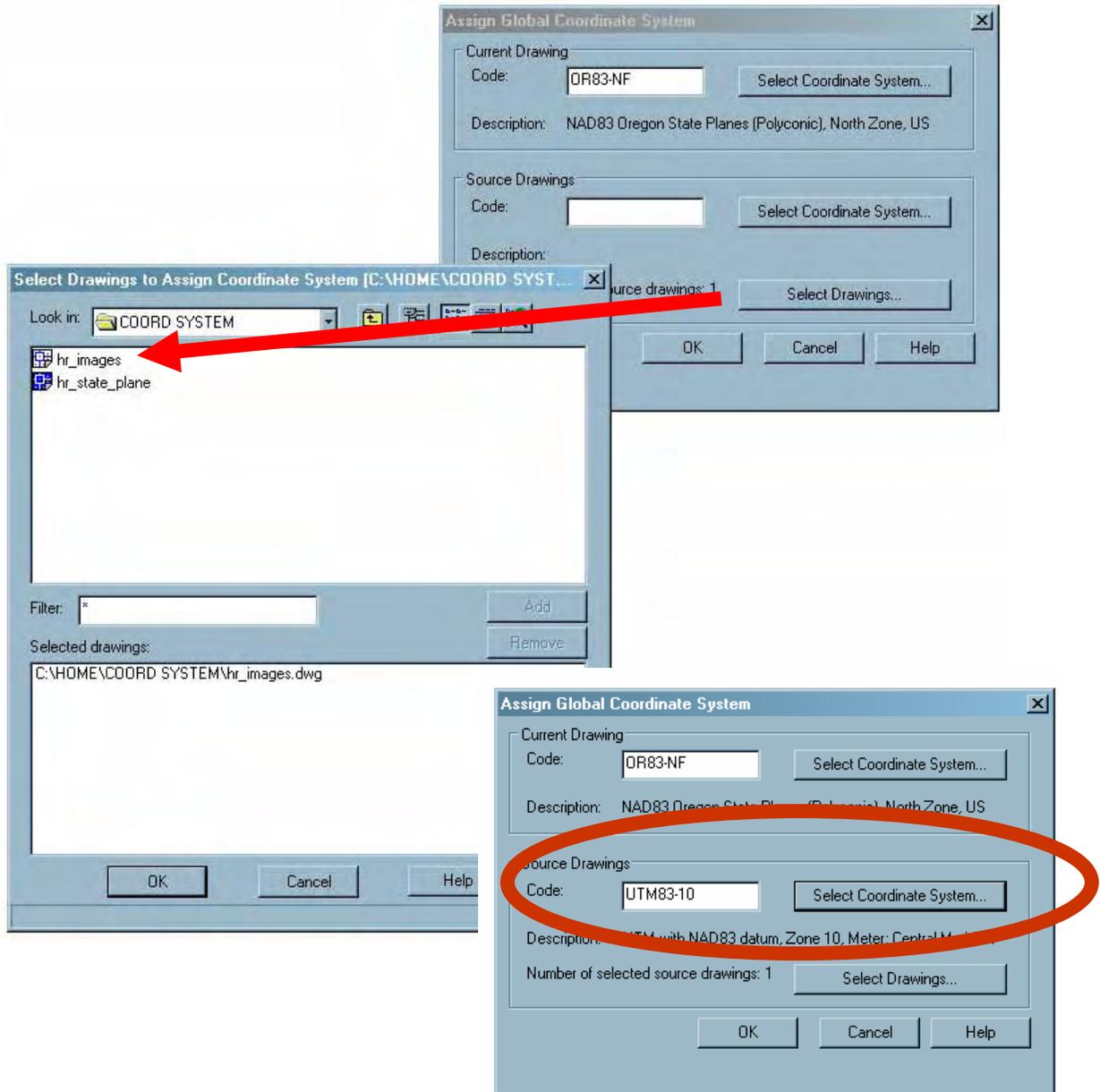
*NOTE: You can assign the coordinate system after you import the survey data for those that have already been imported on previous jobs. It is a good habit to assign the coordinate system first.*

*Download the survey data and if all goes correctly, it should be to scale and in the correct coordinate system. If local datum is assumed during the survey, it will download but not show up at the correct state plane coordinates. We can move that data after we insert the georeferenced images so it will be “close” to the correct coordinates.*



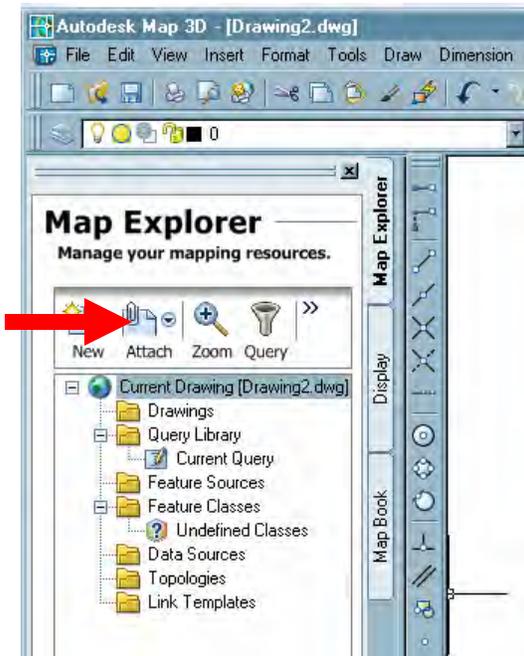
*In this example I have chosen the Oregon State Plane Coordinate System, NAD83, North Zone, US Foot.*

Now it is time to set things up to attach the image drawing to this current drawing. A source drawing needs to be added. Here you will choose **Select Drawings** and choose the drawing you just created. Select **Add** and **OK**. Now choose **Select Coordinate System** of your image drawing. Choose **OK** to exit this command.



Make sure the source drawing shows the correct coordinate system for that source and not your current drawing.

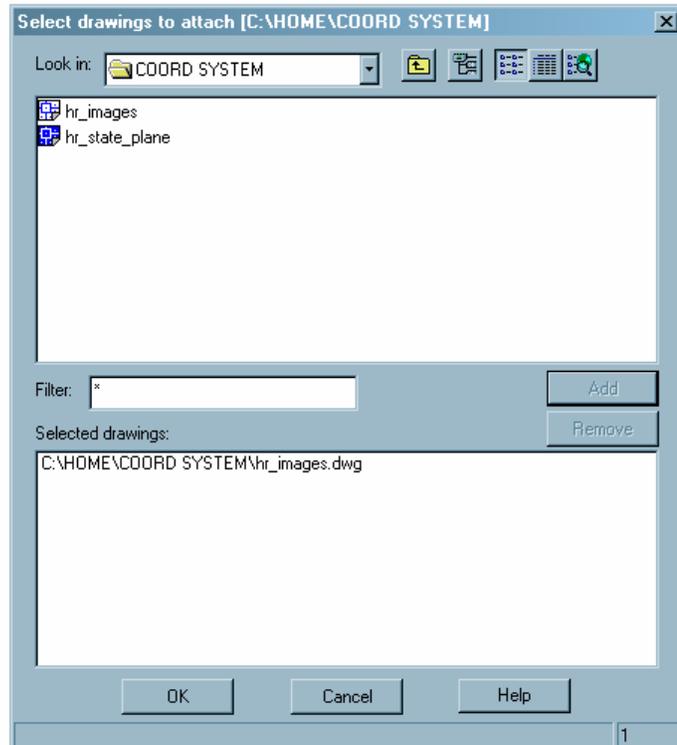
Make sure the Task Pane is on. This is found under the pull down menu **Map>Utilities>Task Pane**.

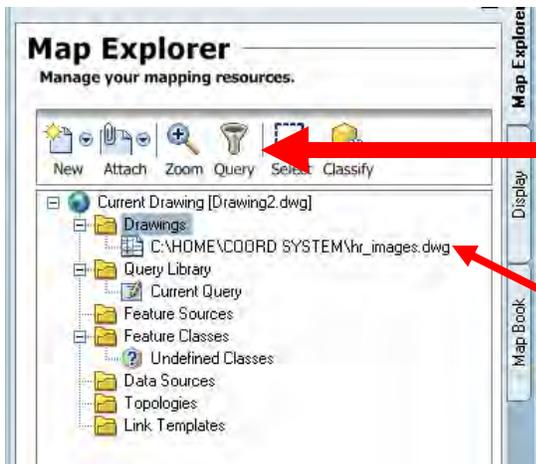


Select the **Attach** icon and choose **Drawing**.



Next, select the image drawing that was saved previously. Pick **Add** and then **OK**.

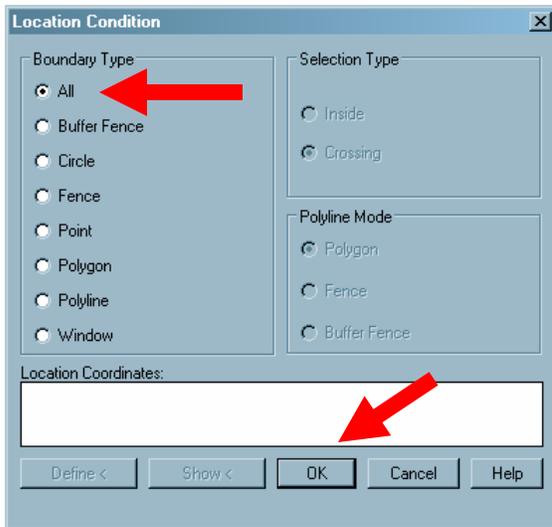
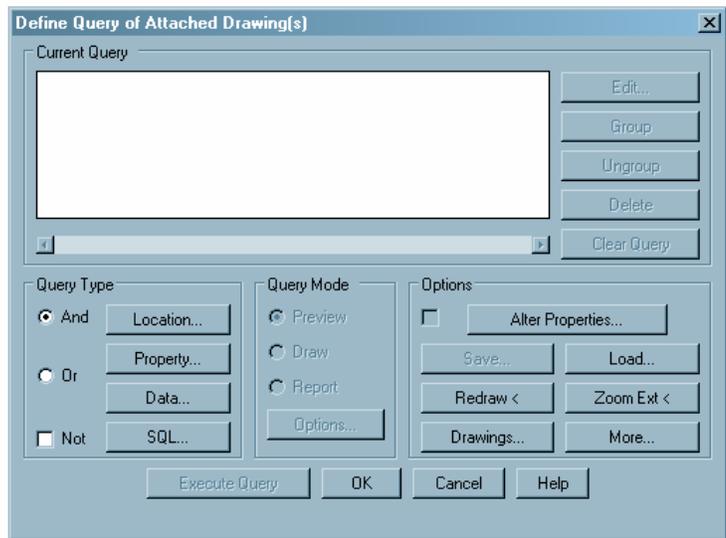




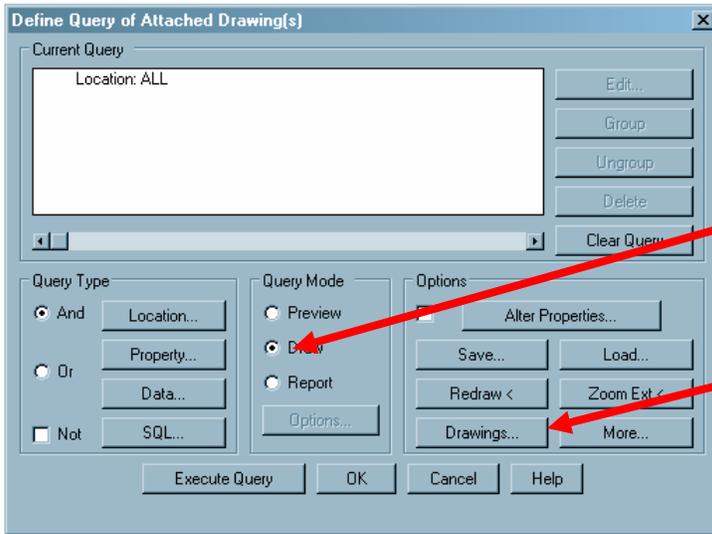
Select **Query** icon

Note that the source drawing shows up here

Select **Location**

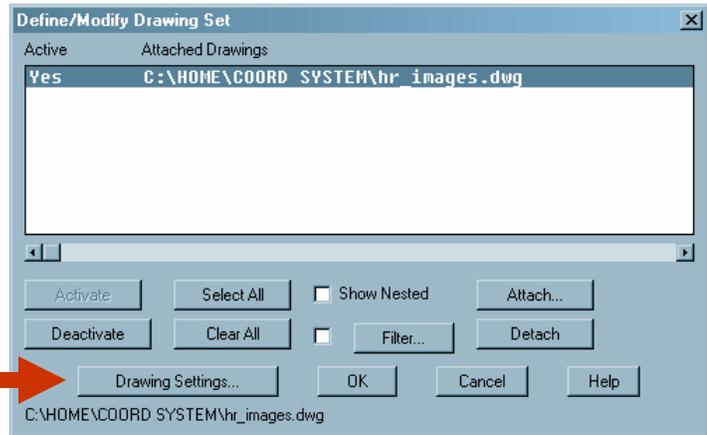


Select **All**, then **OK**

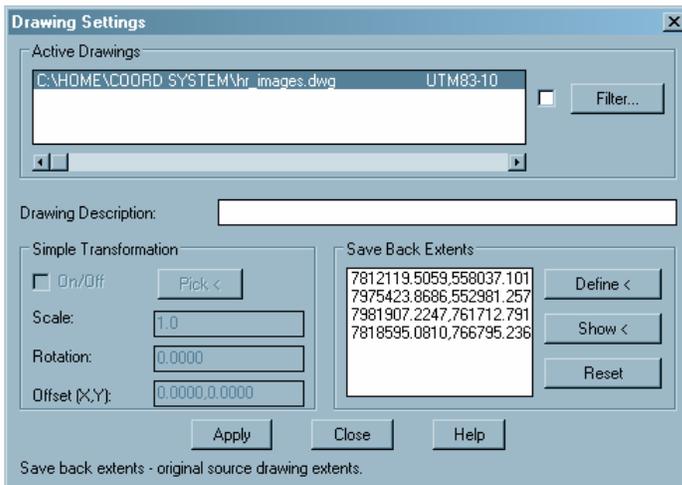


Make sure the **Draw** is selected under the **Query Mode**.

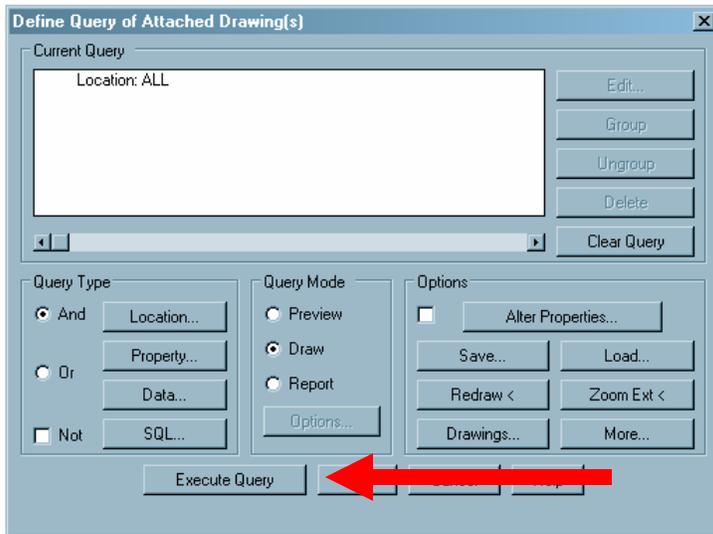
Next, select **Drawings** under **Options**



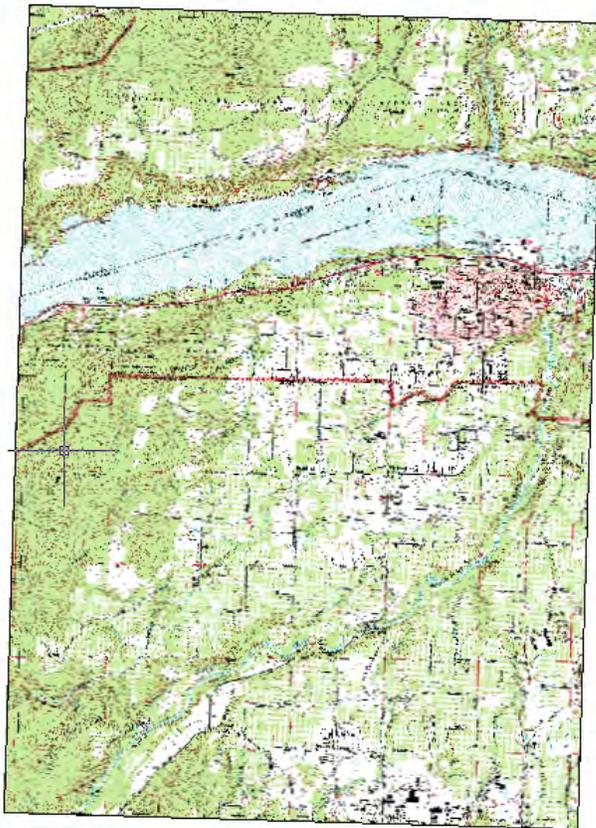
Highlight drawing file and then select **Drawing Settings**



Highlight drawing file and then select **Apply, Close** and **OK** to exit command. Note: The coordinates in the **Save Back Extents** window should be your state plane coordinates.



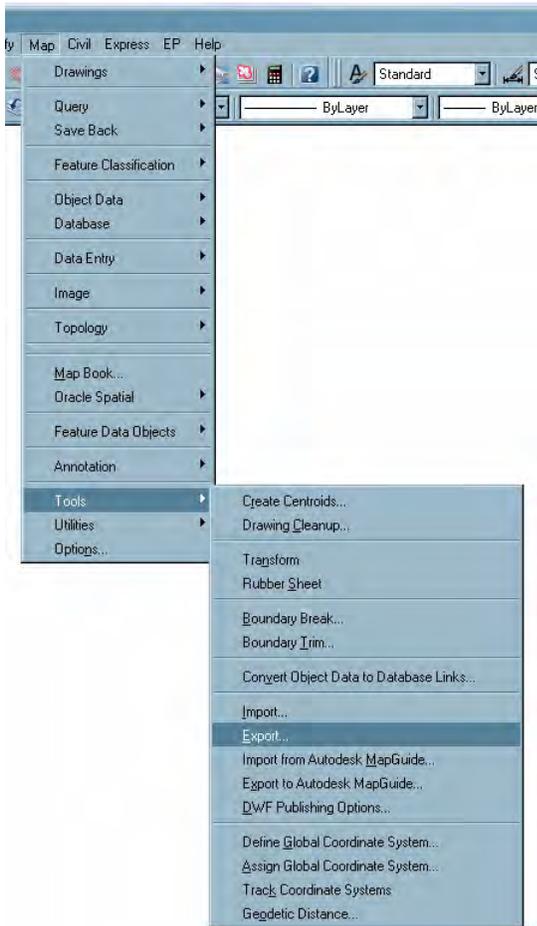
Choose **Execute Query**. You may need to zoom to extents to see your image drawing. Save your drawing.



Your image drawing should now be shown in the current drawing with the correct state plane coordinate system. You may need to **Zoom to Extents** to see the image.

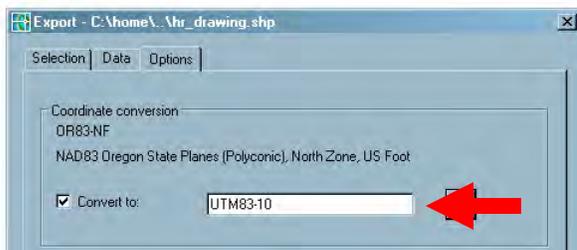
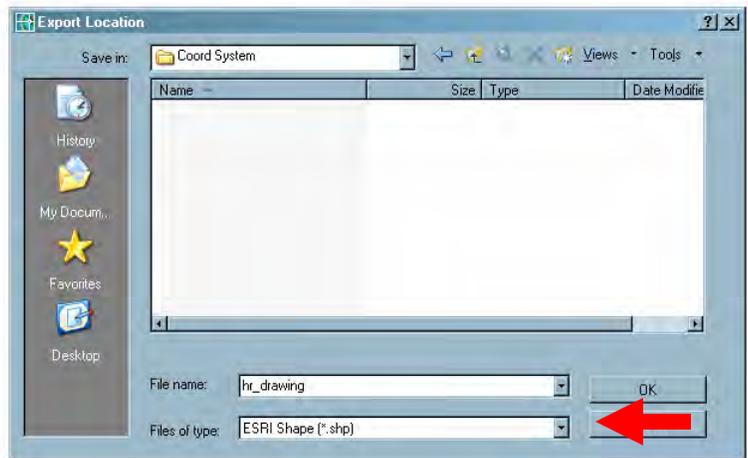
At this point, you can move your points to align with the images (if survey was assumed local datum). The points can then be exported through Eagle Point so that you can have an updated text file for your project folder. Remember that the elevations may still be assumed if not tied in to a known benchmark.

The project drawing has source drawings linked to it and will need to access the source drawing when in use (via local drive, network, or CD). The source drawing has image files linked to it and will need to have access to the image files when in use.



*To save your drawing so that it can be used in ArcView or ArcGIS, export as an ESRI Shape.*

*Follow Export dialog box for Selection and Data. You may need to play with this some. There are a lot of options and I have not explored them all at this time).*



*Be sure to convert drawing to coordinate system for images (UTM, NAD83, Z10) under the Options tab. This will save all the files needed to use in GIS.*