

Preparing a GPS-Enabled Geodatabase for Use With Existing Data

November 14, 2007

To create a personal geodatabase that will work with your existing data and allow you to collect GPS information, such as worst estimated accuracy and average estimated accuracy to use with the validation tool, you will need to follow the steps below.

Note: If you have shapefiles that are defined in different coordinate systems, you will need to create a separate geodatabase for each coordinate system. GPS Analyst will not be able to work with feature classes that have different coordinate systems than the geodatabase in which they reside.

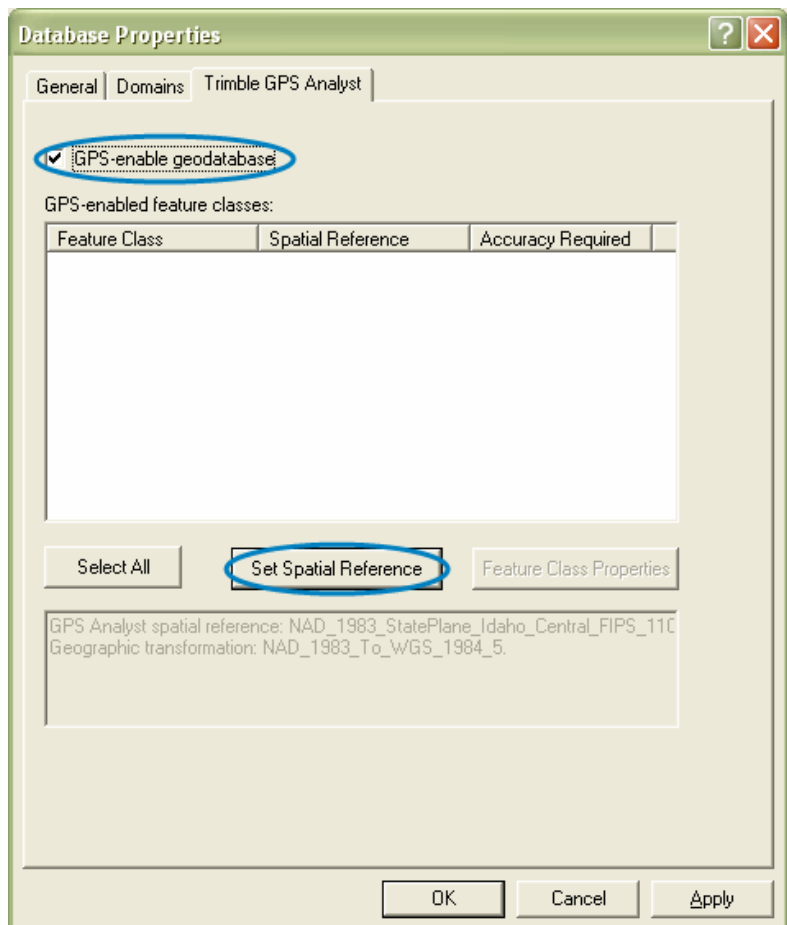
Open ArcCatalog, navigate to the folder where you want to store the geodatabase, right-click on that folder, go to New and then Personal Geodatabase. Click on the new geodatabase to name it.

Right-click on the geodatabase you just created in ArcCatalog, and click on Properties. Click on the GPS Analyst tab, and then click on Set Spatial Reference.

Import the spatial reference directly from one of the shapefiles you are going to use in the geodatabase by clicking Import and navigating to that shapefile.

Accept the XY domain, and do not forget to change the minimum elevation in the Z domain to -1000 to avoid any trouble checking in data that was collected near sea level.

Once you click OK and are back in the Database Properties, you will want to make sure you check the box to GPS-enable geodatabase before clicking OK, otherwise, your spatial reference may be lost.

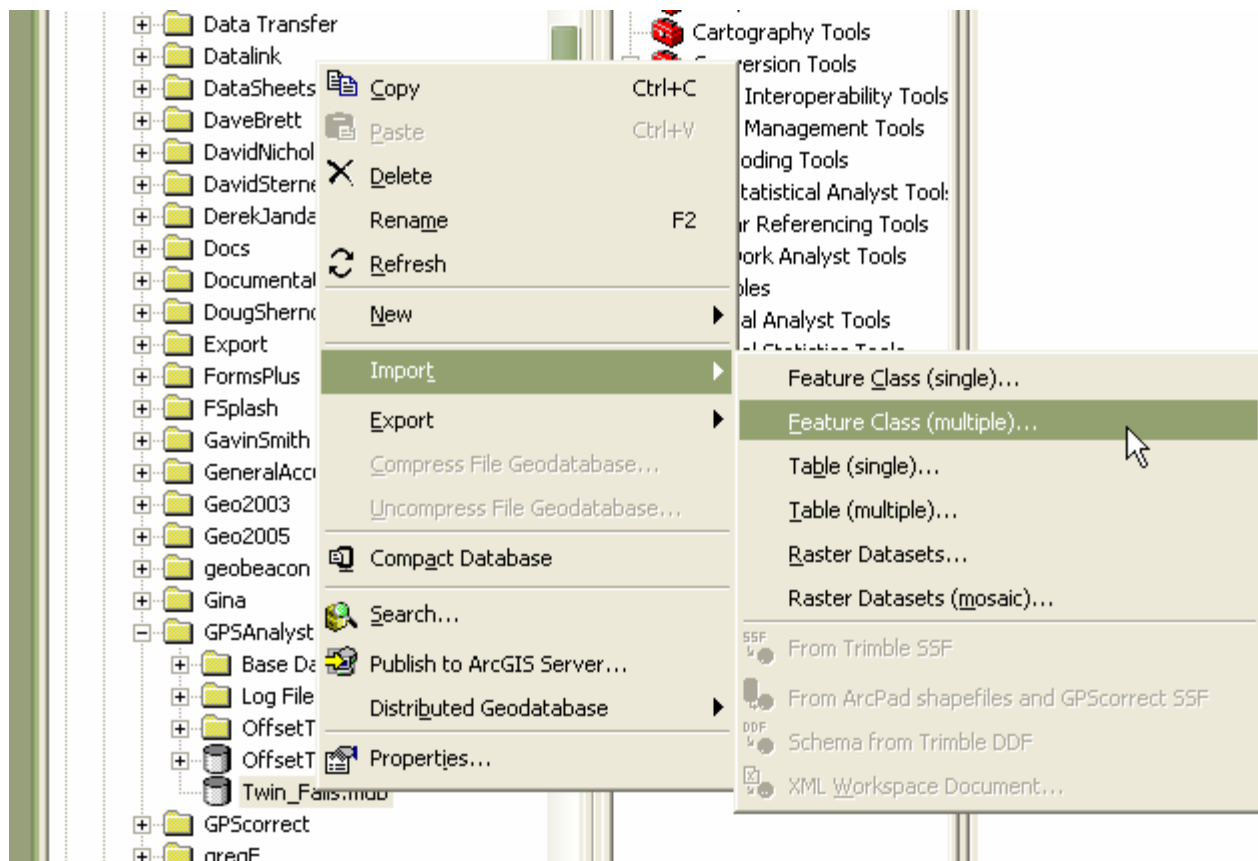


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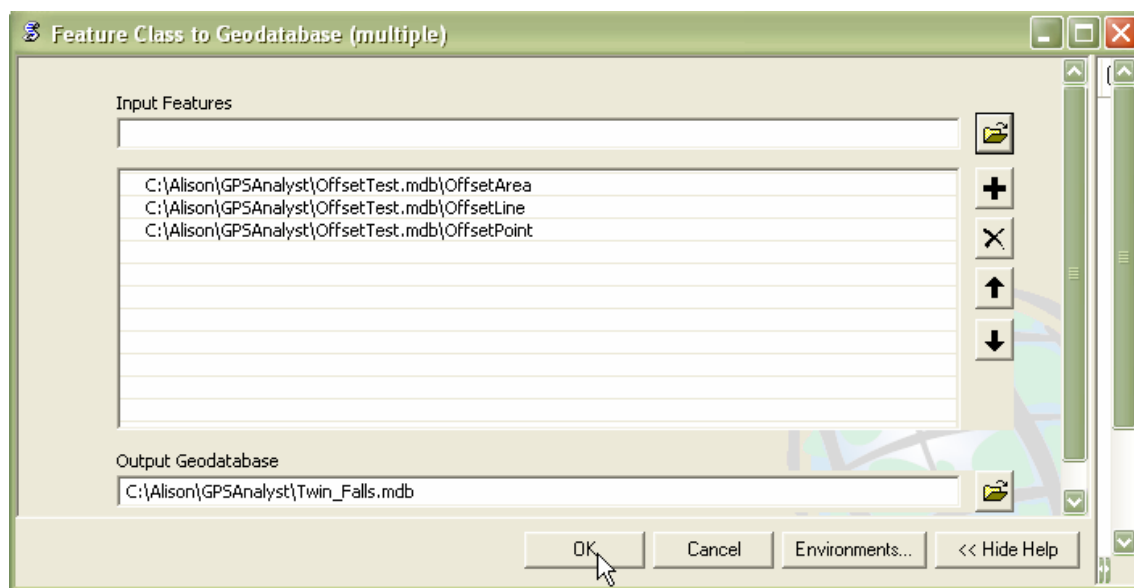
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Import the shapefiles into the geodatabase by right-clicking the geodatabase in ArcCatalog. Go to Import>Feature Class (multiple).



This will bring up the Feature Class to Geodatabase dialog. Browse to and select all the shapefiles or feature classes you want to import, and verify the Output Geodatabase is correct. Click OK, and the files will be imported into the geodatabase.



Now you can specify the estimated accuracy fields for your feature classes.

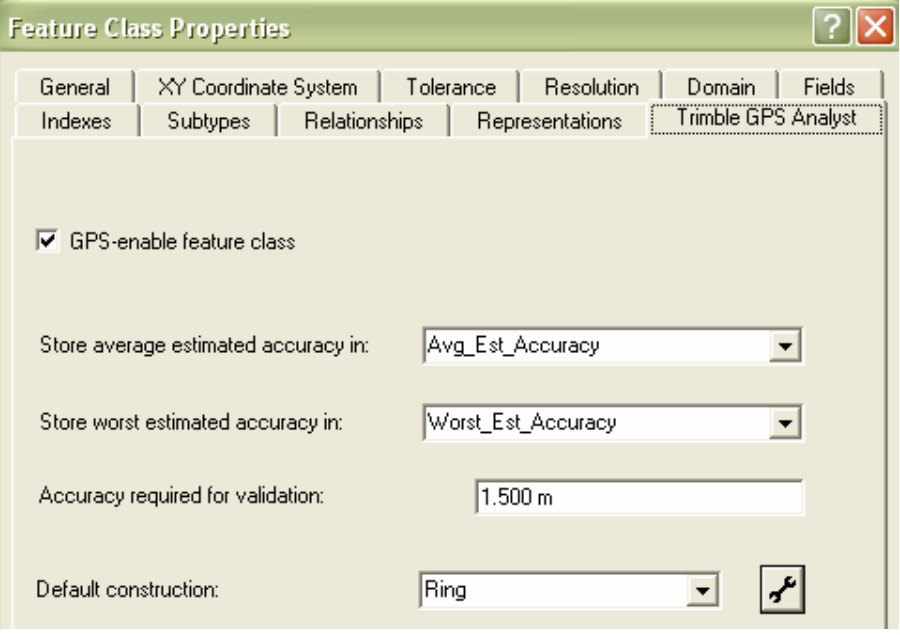
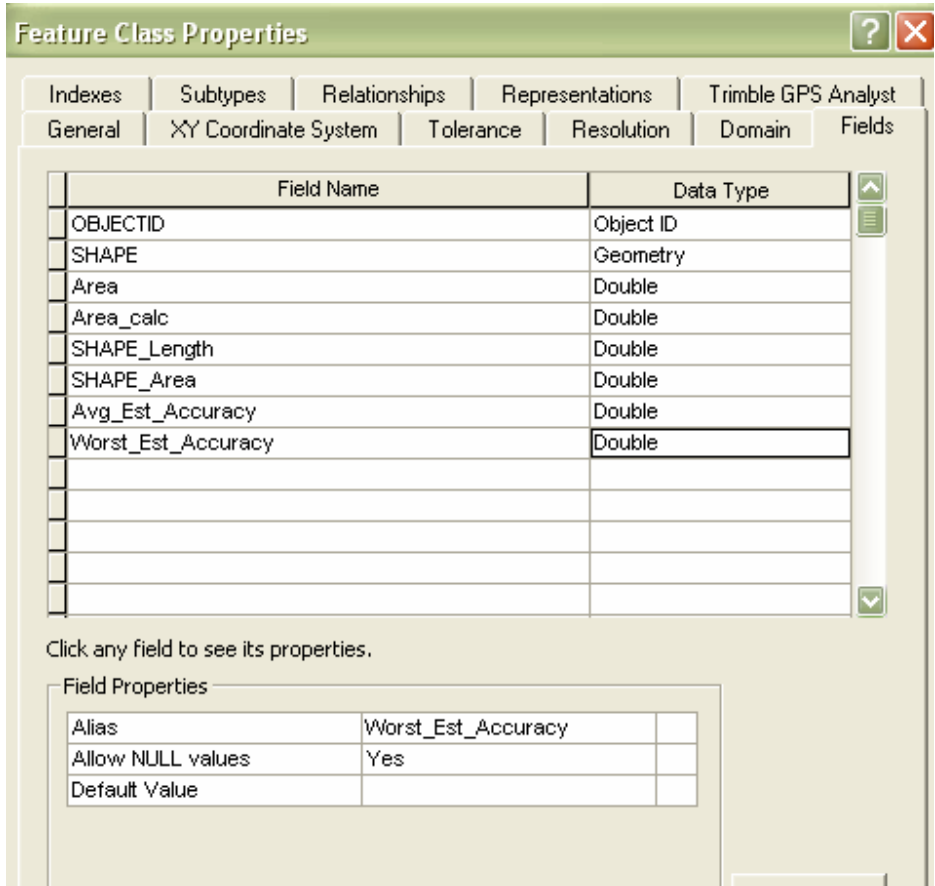
In ArcCatalog, right-click one of the feature classes, and go to Properties.

Click on the Fields tab, and add two new field names:

- Avg_Est_Accuracy
- Worst_Est_Accuracy

Set the Data Type as Double, and make sure the Allow Null Values is set to Yes.

Click Apply, and then go to the Trimble GPS Analyst tab.



Check the box to GPS-enable the feature class.

Set the fields in which to capture the estimated accuracy of the features.

Specify your accuracy required for validation in feet or meters.

Set the default construction to:

- “None” for point features
- “Path” for line features
- “Ring” for area features

Click Apply, and then click OK.

Follow these steps for all the feature classes in the geodatabase, and any new GPS data collected in these feature classes will record the estimated accuracies and be able to use the validation tool in GPS Analyst.