

Appendix J: GeoDatabase based Shake Maps

J.1 Introduction

J.1.1 Purpose

The goal of the document is to show how the USGS Shake Maps (based on shp files) could be converted into GeoDatabase based Shake Maps.

J.1.2 Scope

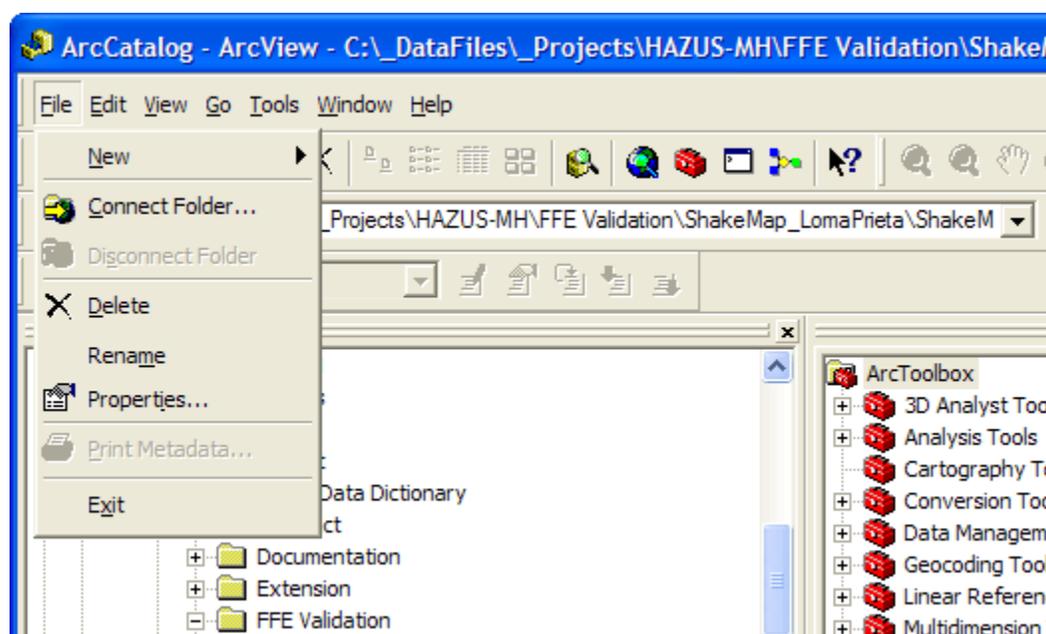
This document describes how SHP file based Shake Maps could be converted into GeoDatabase based Shake Maps in a step by step way. The focus is entirely on what is important to make the new GeoDatabases work with Hazus-MH. This document should not be used as a resource for converting SHP files to GeoDatabases.

J.2 Prerequisites

ArcGIS 9.3 or later (ArcMap and ArcCatalog) should be installed on the computer.

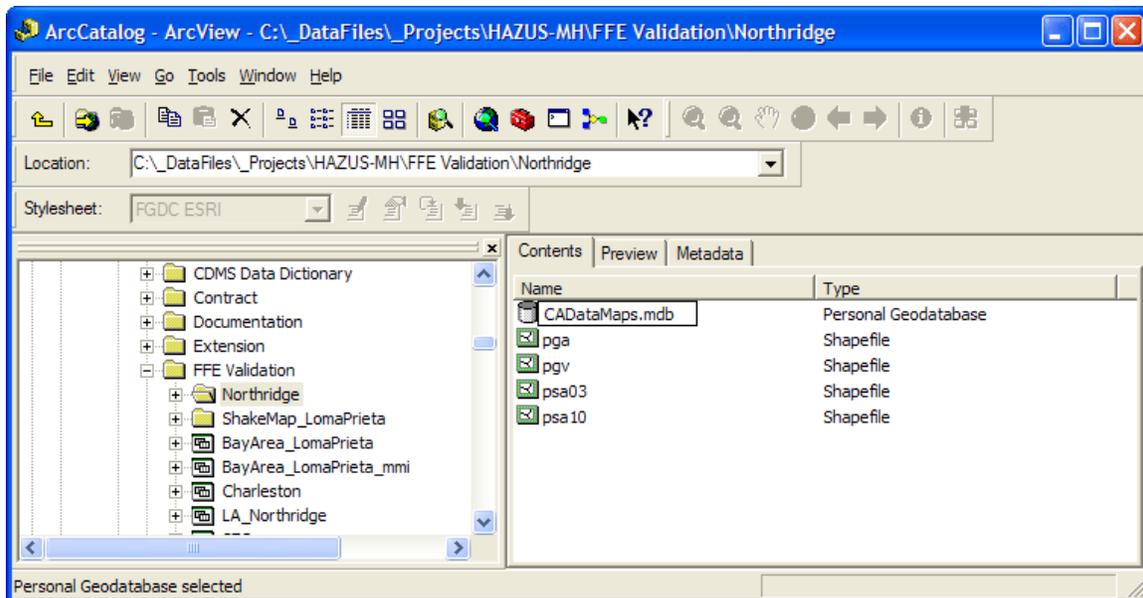
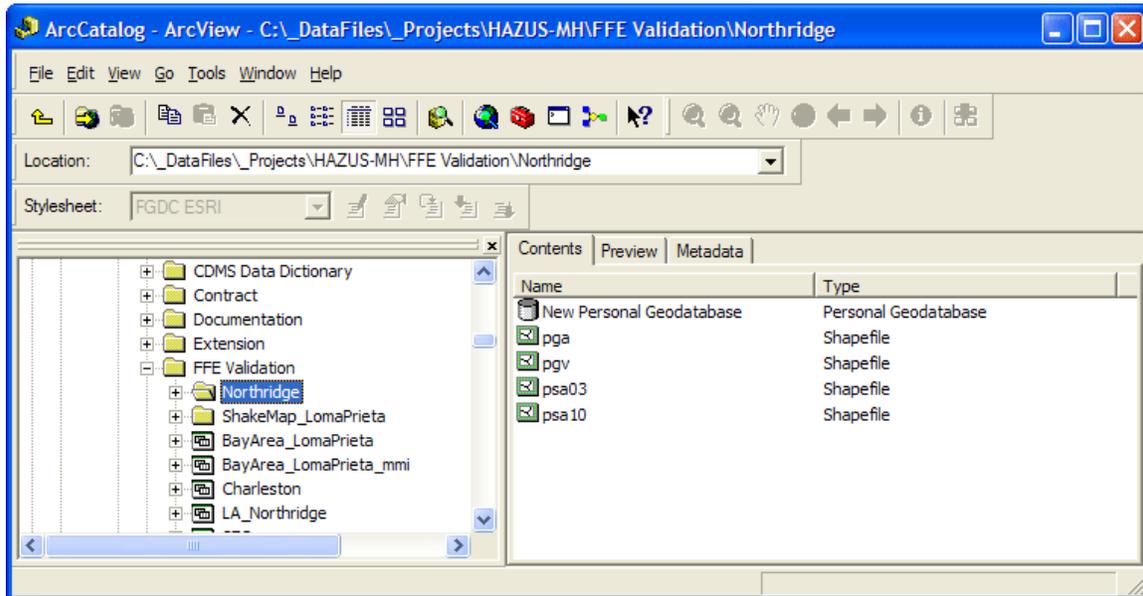
J.3 Creating GeoDatabase based Shake Maps

- 1) Launch ArcCatalog from the Start menu.
- 2) Click on the folder where the new Geogatabase is to be created. In case the folder is not available in ArcCatalog click on **File>Connect Folder** menu and select the folder where the Geodatabase is to be created. Once OK button is pressed on that dialog the folder will be visible in ArcCatalog.



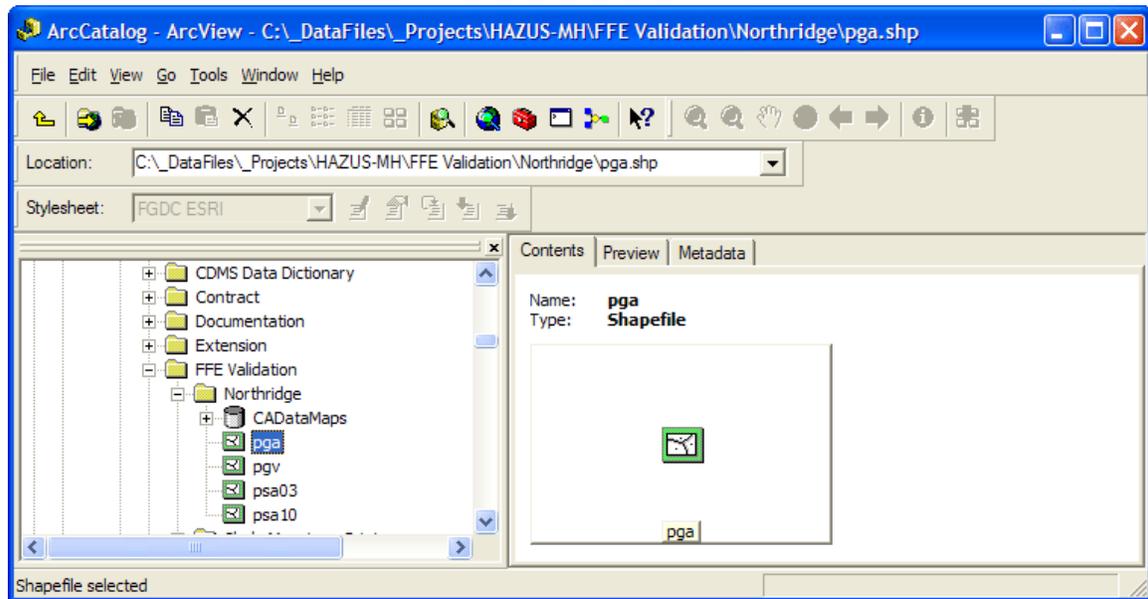
3) Select the folder in TOC in ArcCatalog where the geodatabase is to be created (the one added in the above step), Click on **File>New>Personal Geodatabase** menu to create the new personal geodatabase. By default the name appears as “New Personal Geodatabse”

Change the name using F2 key to what you want for example “CaDataMaps”

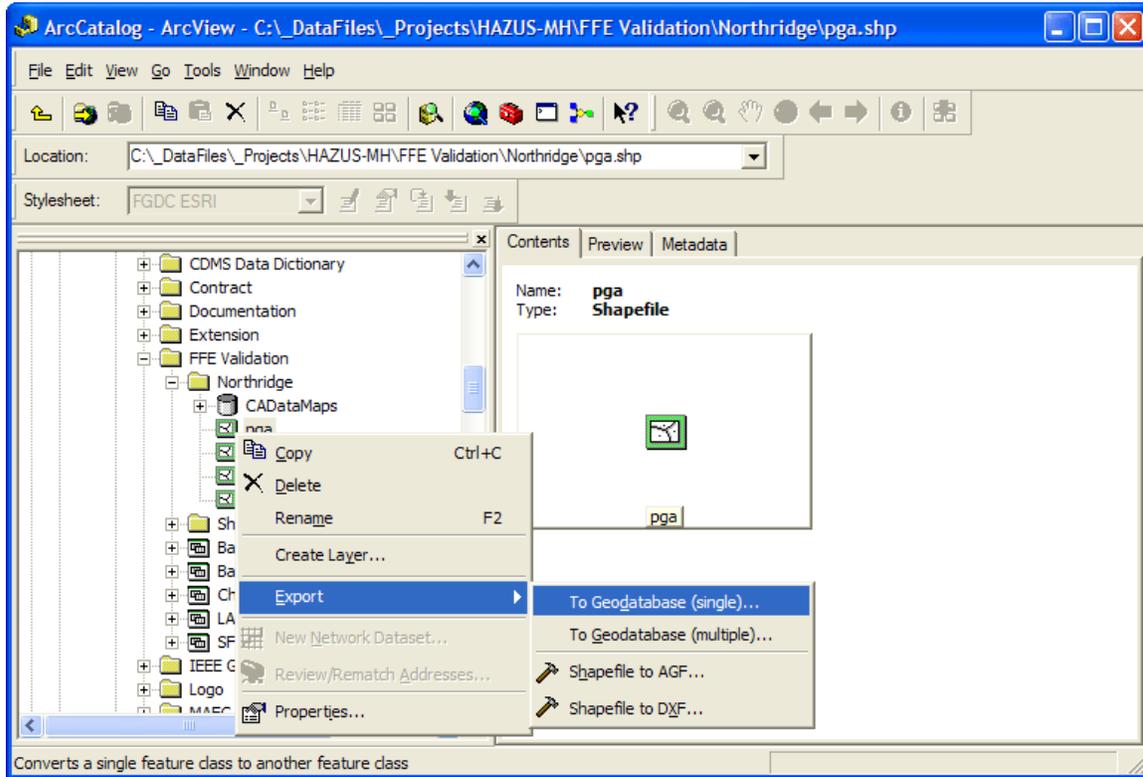


4) Select the folder where the shake maps are located in ArcCatalog's TOC. If the folder is not available in the TOC click on **File>Connect Folder** menu and select the folder where the shake maps are located, press the OK button and the folder will be visible in ArcCatalog's TOC.

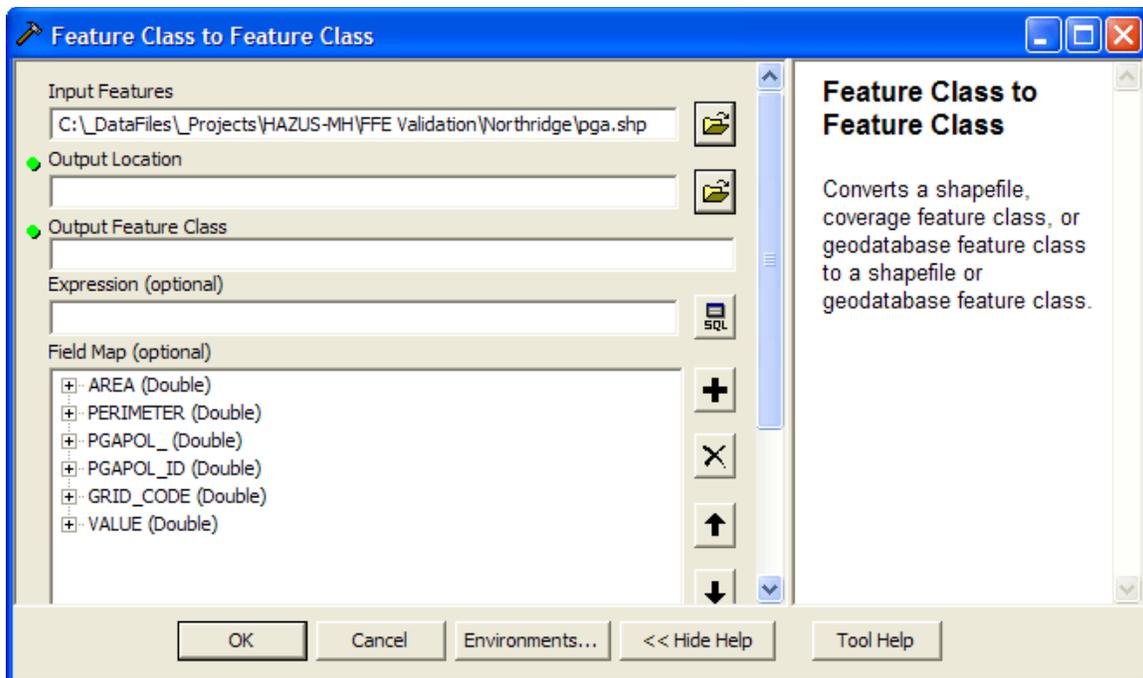
5) Select the Shape file which is to be exported under the connected folder in TOC as shown below:



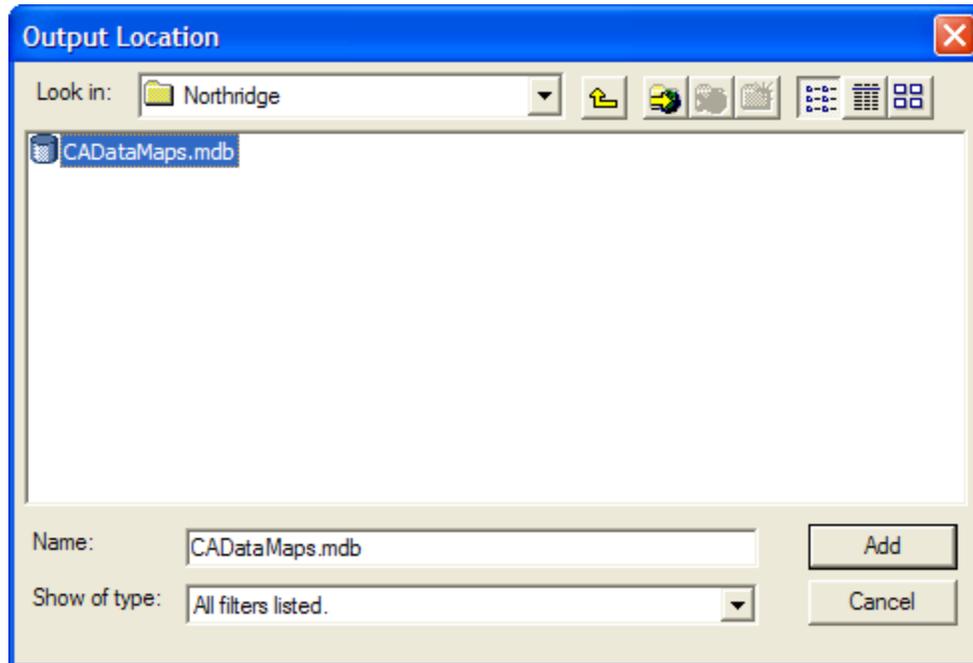
6) Right click and select first option under Export **To geodatabase (single)...** as shown



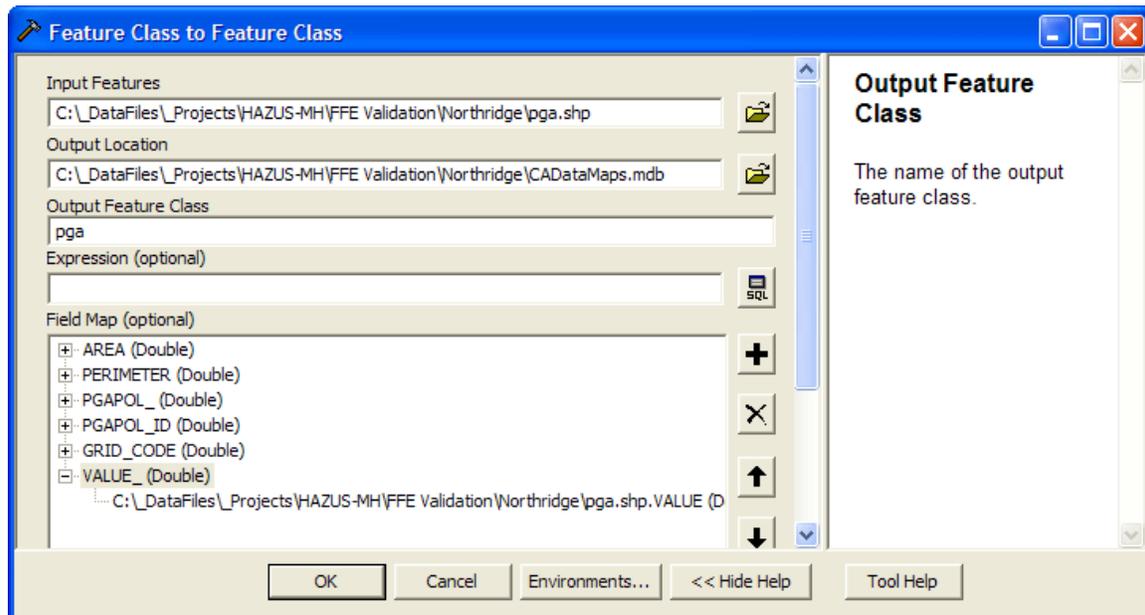
7) The Export option will show the following dialog



8) Click on the browse button for the **Output Location** and select the geodatabase created in step 3.



Give the output feature class a name. In our example, since we are importing PGA data, we gave the feature class the name **pga**



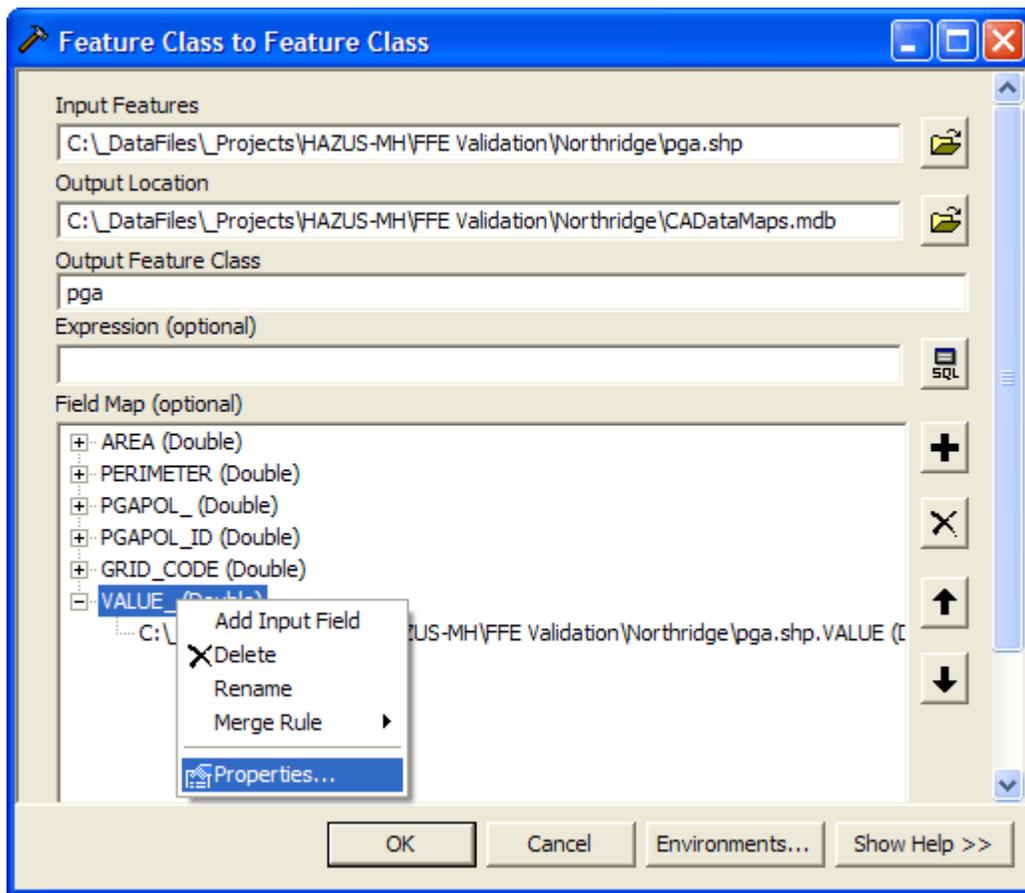
9) The **Field Map (optional)** listbox shows the fields in the input file. Minimal shake maps input requirements in Hazus-MH are the spatial object and the value associated with it. Other fields can be kept in the input file but are not required.

As shown below, Hazus-MH always expects the value field to be named ParamValue.

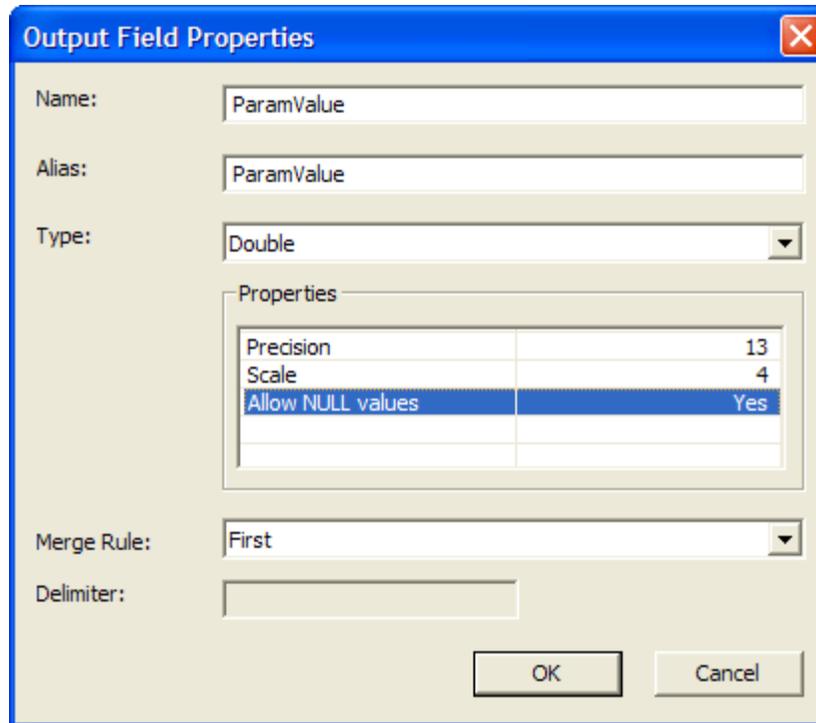
Type of Map	Correct Field Name	Field Type	Valid Values
All user defined Scenario Maps (Shake Maps)	ParamValue	Decimal	Values must be Greater than 0

So in our example the **VALUE_** field is the field that has the pga value, and it needs to be renamed.

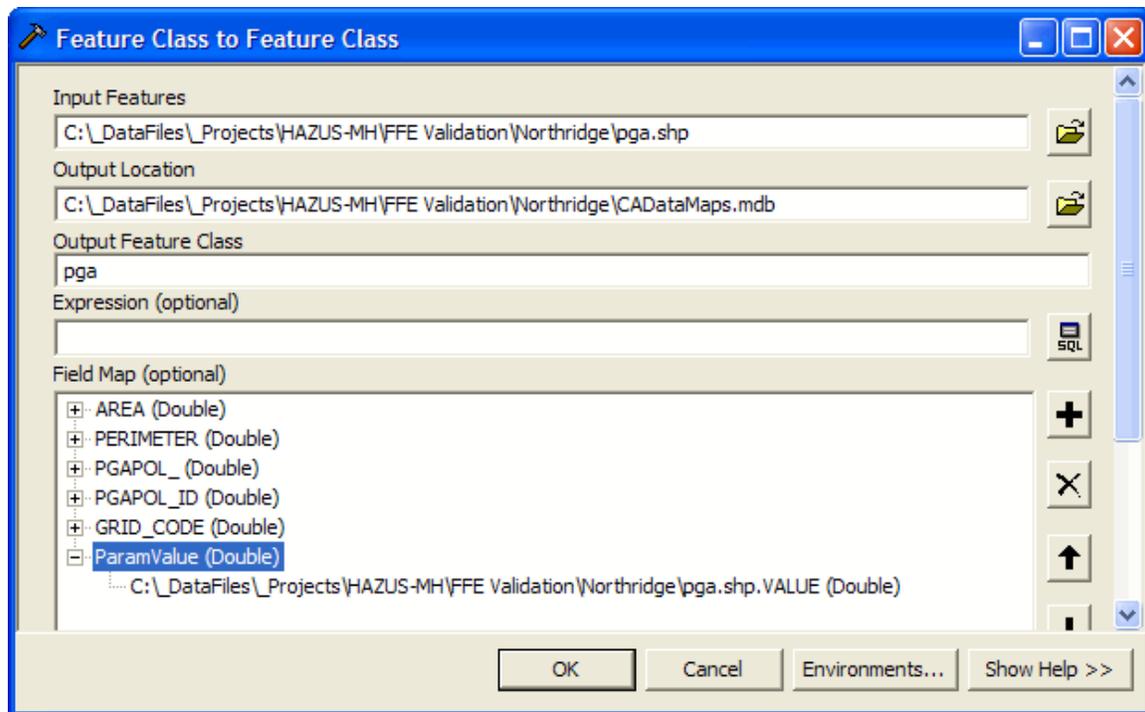
10) Right-click the field VALUE_, and select Properties.



Edit the entries as follows:



11) Now Click OK.



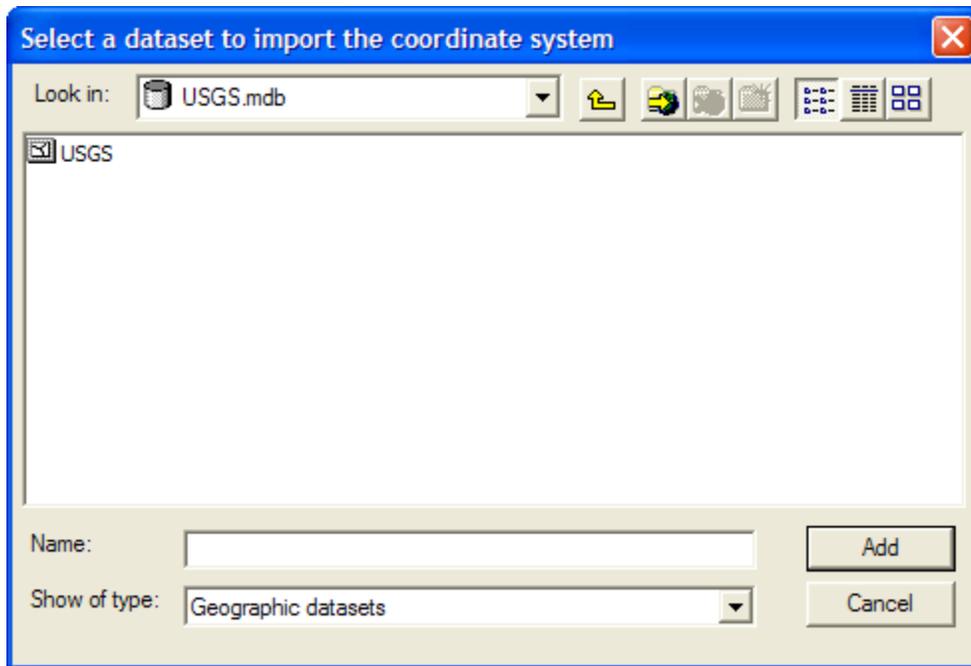
12) Click the **Environments...** button.

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13) Select General Settings and click the browse button for the **Output Coordinate System**

14) Navigate to the <HAZUS-MH>\DATA folder and select “USGS.MDB” and then select USGS feature class.

NOTE: <HAZUS-MH> represents the folder where Hazus-MH is installed (by default, it is c:\Program Files\HAZUS-MH).



15) Click Add. The **Environment Settings** dialog should look like the following:

Environment Settings

^ **General Settings**

Current Workspace

Scratch Workspace

Default Output Z Value

Output Coordinate System
As Specified Below

GCS_North_American_1983

Output has Z Values
Same As Input

Output has M Values
Same As Input

Maintain fully qualified field names

Extent
Default

Top

Left Right

Bottom

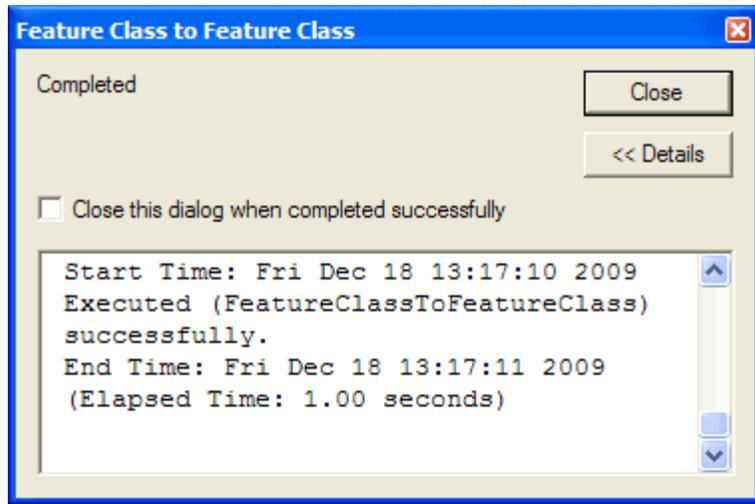
Snap Raster

M Resolution

OK Cancel Show Help >>

Click OK.

16) Click OK again. The conversion process starts showing a progress bar, and when done, the following dialog is shown.



17) Click Close. The conversion process is complete. Now the CADatamaps.mdb data can be used in Hazus-MH as a user-defined hazard.