

Knowledge Base Article

SUBJECT: Editing Attribute Table Using Excel

TICKET: 4066

DATE: 3/8/2011

PRODUCT: ArcGIS Desktop: ArcEditor

VERSION: 10.0

OPERATING SYSTEM: Windows XP

Question:

Exporting data from a shapefile into Excel and then editing and then saving back to the .dbf results in the data being corrupted in each row. Is there a work around to ensure that the data format stays the same through this transfer?

Answer:

Generally, it is not recommended to make any changes to the attributes of a shapefile outside of ArcGIS environment. Data integrity can never be guaranteed if you edit the data using Microsoft Excel or other software packages. Our first recommendation is to re-evaluate your workflow to see if it might be possible to make all changes directly in ArcGIS and eliminate the risk of corrupting your data. However, if this is necessary to make changes using Excel you should be able to make fairly simple changes, such as populating and editing existing attribute fields, without corrupting your data.

There could be multiple reasons that cause the problem you described in your question. These reasons can be grouped into three categories: adding or removing records, incorrect table conversion workflow and incorrect table formatting. See below for more information on each of these topics.

1. Adding or Deleting Records

Keep in mind that it is not possible to add or delete records from an attribute table outside of ArcMap. Adding or deleting records will always result in your original shapefile being corrupted.

Also, beware that the records need to remain in the same order as in the original table and should not be re-sorted. If you are required to sort the records as part of your workflow, create a new field and calculate it with based on the order in which records were originally listed. Use this field to sort the records before saving your changes. See the following ESRI forum post for more information:

<http://forums.esri.com/thread.asp?c=93&f=987&t=302104>

2. Table Conversion Workflow

There are multiple ways to convert tables from .dbf to Excel format and back. Listed below is the workflow that we successfully tested:

1. Make a backup of the original .dbf table
2. Open the original .DFB file in Microsoft Excel
3. Save the file as .xlsx (Excel 2007) or .xls (Excel 2003) format
4. Make changes. Save changes.
5. Open the new Excel table in ArcMap to make sure it looks fine.
6. When using **Excel 2003**, save the table as dBase IV (.dbf) format using the **Save As** option in Excel. When using **Excel 2007**, open the table in ArcMap and use the **Export** option from the attribute table to export the data into dBase (.dbf) table format.
7. Replace the original .dbf component of the shapefile with the updated version.
8. Open the shapefile in ArcMap

3. Table Formatting

Incorrect formatting of the Excel table before it is converted back to .dbf format could cause problems when it is brought to ArcGIS. Some of the common issues include formulas used instead of actual values, field names containing spaces or special characters, numbers formatted as text, etc. See the following posts that provide more information regarding proper formatting of Excel tables:

<http://forums.esri.com/thread.asp?c=93&f=986&t=222194>

<http://resources.arcgis.com/content/kbase?fa=articleShow&d=30727>