



**SDSU**  
presents  
a thesis defense for  
Master of Science  
degree in  
Computer Science

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GMCS 418

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## *Robust CSV to ShapeFile Utility and DBF File Interpreter*

### Abstract

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An improved tool was implemented to create shape files from CSV file, allowing users to select the attributes/fields of their choice and giving privileges to rename the attributes as well. This tool also provides the user with an option to input CSV file with attribute headers.

One major improvement over earlier efforts includes that the user has an option to choose attributes to be stored as a numeric value, rather than as a string, by specifying the size and a precision for the numeric field.

A tool was created from scratch, which displays the hex dump versions of a .dbf file provided by the user. The tool interprets those hex dumps according to their ESRI specified formats. The purpose of this tool was to make convenient for students to understand the structure of dbf files. This tool can be used by GIS professionals as well, for example to examine dbf files that are not performing correctly, and might have small but fatal corruptions.

The first tool can be used by GIS application programmers. The second tool can help students or practitioners understand DBF file format. Departments whose students might profit are geography, geology and computer science.

### Thesis Committee

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Carl Eckberg, Thesis Chair, Department of Computer Science  
Robert Edwards, Department of Computer Science  
Gary Girty, Department of Geology