
Command Reference: WriteTableToShapefile()

Write a table to an Esri shapefile

Version 11.08.00, 2016-01-14

The `WriteTableToShapefile()` command writes a table to an Esri Shapefile, which is a spatial data format that can be viewed in geographic information system (GIS) software and other visualization tools. See:

<https://en.wikipedia.org/wiki/Shapefile>

The table must include columns for longitude and latitude or a column containing Well Known Text (WKT) geometry strings. See:

http://en.wikipedia.org/wiki/Well-known_text

Currently only point and polygon data can be processed but in the future support for well-known text for other geometry types will be added. A future enhancement of this command will allow the geometry feature data to be read from an existing shapefile or other standard spatial data format.

The following dialog is used to edit the command and illustrates the command syntax for point data in separate columns.

Edit WriteTableToShapefile() Command

Write a table to an Esri Shapefile, for use in spatial data processing and visualization. Longitude, latitude, elevation, and other attributes are taken from table columns. The working directory is: C:\owf-gitrepos\cdss-app-tstool-test\test\regression\commands\general\WriteTableToShapefile. The output filename can be specified using \${Property} notation to utilize global properties.

Table ID: Required - table to output.

Shapefile to write:

☒ Point Data ☐ Geometry Data ☐ Attributes

If the data are for a point layer, then spatial information can be specified from separate table columns (below). Otherwise, specify shape data using parameters in the Geometry Data tab.

Longitude (X) column:	<input type="text" value="Lon"/>	Required - column containing longitude, decimal degrees.
Latitude (Y) column:	<input type="text" value="Lat"/>	Required - column containing latitude, decimal degrees.
Elevation (Z) column:	<input type="text"/>	Optional - column containing elevation.

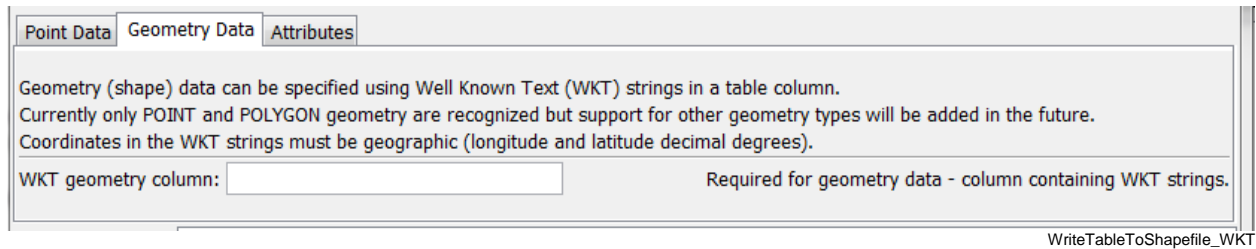
Command:

```
WriteTableToShapefile (TableID="StationMeta", OutputFile="Results/Test_WriteTableToShapefile_LonLat_out.shp", LongitudeColumn="Lon", LatitudeColumn="Lat")
```

WriteTableToShapefile

WriteTableToShapefile() Command Editor for Point Data Parameters

The following figure illustrates the command syntax for layers specified with a geometry data column.



Point Data Geometry Data **Attributes**

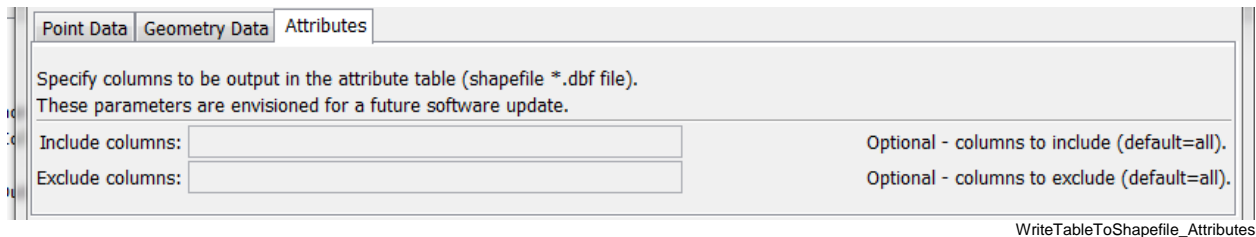
Geometry (shape) data can be specified using Well Known Text (WKT) strings in a table column.
Currently only POINT and POLYGON geometry are recognized but support for other geometry types will be added in the future.
Coordinates in the WKT strings must be geographic (longitude and latitude decimal degrees).

WKT geometry column: Required for geometry data - column containing WKT strings.

WriteTableToShapefile_WKT

WriteTableToShapefile() Command Editor for Geometry Data Parameters

The following figure illustrates the command syntax for specifying columns to include as attributes.



Point Data Geometry Data **Attributes**

Specify columns to be output in the attribute table (shapefile *.dbf file).
These parameters are envisioned for a future software update.

Include columns: Optional - columns to include (default=all).

Exclude columns: Optional - columns to exclude (default=all).

WriteTableToShapefile_Attributes

WriteTableToShapefile() Command Editor for Attribute Parameters

The command syntax is as follows:

```
WriteTableToShapefile (Parameter=Value,...)
```

Command Parameters

Parameter	Description	Default
TableID	Identifier for the table to write. Can be specified using <code>\${Property}</code> notation.	None – must be specified.
OutputFile	The name of the shapefile file to write, as an absolute path or relative to the command file location. Can be specified using <code>\${Property}</code> notation.	None – must be specified.
Longitude Column	The name of the table column that contains longitude.	None – must be specified.
Latitude Column	The name of the table column that contains latitude.	None – must be specified.
Elevation Column	The name of the table column that contains elevation.	Elevation is omitted.
WKTGeometry Column	The name of the table column that contains Well Known Text (WKT) geometry strings.	
IncludeColumns	List of column-separated table column names to include as attributes. Currently not enabled.	Include all columns.
ExcludeColumns	List of column-separated table column names to exclude as attributes. Currently not enabled.	Include all columns.

The following example illustrates a CSV table that specifies WKT for points (see WKTGeometry column):

```
"ID","ID_text","Lon","Lat","Name","WKTGeometry"
50263,050263,-105.891940,38.993330,ANTERO RSVR,POINT (-105.891940 38.993330)
50454,050454,-105.476670,39.404720,BAILEY,POINT (-105.476670 39.404720)
50848,050848,-105.266670,39.991940,BOULDER,POINT (-105.266670 39.991940)
```

The following example illustrates a CSV table that specifies WKT for polygons:

```
"ID","ID_text","Lon","Lat","Name","WKTGeometry"
50263,050263,-105.891940,38.993330,ANTERO RSVR,"POLYGON (-105.891940
38.993330,-106 39,-106 37.5)"
50454,050454,-105.476670,39.404720,BAILEY,"POLYGON (-105.476670 39.404720, -
104 39, -103 37.5)"
```

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