

ZoneData Quick Reference

Version 4.0.1

Revision History

1/8/2010 Edited by AECOM Consult, Inc.

4/15/2010 Edited by RSG, Inc.

Syntax:

ZoneData [-flag] [control_file]

Purpose:

1. Create or update fields in the zone file.
2. Copy data fields from a file based on a zone number match with the zone file.
3. Apply custom data processing scripts to manipulate and calculate fields in the zone file based on inputs from several related files.
4. Access fields in an ArcView polygon boundary file based on a point-in-polygon match to the zone coordinates.

Required Keys

NET_ZONE_TABLE	[net_directory] <i>filename</i>
NEW_ZONE_TABLE	[new_directory] <i>filename</i>

Optional Keys

TITLE	Text
REPORT_FILE	<i>Filename</i>
REPORT_FLAG	FALSE {true/false/yes/no/1/0}
MAX_WARNING_MESSAGES	100,000
MAX_WARNING_EXIT_FLAG	TRUE {true/false/yes/no/1/0}
PROJECT_DIRECTORY	<i>Pathname</i>
DEFAULT_FILE_FORMAT	VERSION3 {(2)}
COPY_EXISTING_FIELDS (1)	FALSE {true/false/yes/no/1/0}
NEW_ZONE_FIELD (4)	<i>field_name</i> , [[INTEGER], [10]]
NEW_ZONE_FIELD_# (4)	<i>field_name</i> , [[INTEGER], [10]]
CONVERSION_SCRIPT (5)	[project_directory] <i>filename.shp</i>
DATA_FILE (6)	[project_directory] <i>filename</i>
DATA_FORMAT	VERSION3 {(2)}
DATA_JOIN_FIELD	<i>field_name</i> (3)
ZONE_JOIN_FIELD	<i>field_name</i> (3)
DATA_FILE_# (6)	[project_directory] <i>filename</i>
DATA_FORMAT_#	VERSION3 {(2)}
DATA_JOIN_FIELD_#	<i>field_name</i> (3)

ZONE_JOIN_FIELD_#	<i>field_name</i> (3)
BOUNDARY_POLYGON (7)	[project_directory] <i>filename.shp</i>
BOUNDARY_POLYGON_# (7)	[project_directory] <i>filename.shp</i>
INPUT_COORDINATE_SYSTEM	System, Code, Units (8)
INPUT_ADJUSTMENT_FACTORS	X offset, Y offset, X factor, Y factor (9)
OUTPUT_COORDINATE_SYSTEM	System, Code, Units (8)
OUTPUT_ADJUSTMENT_FACTORS	X offset, Y offset, X factor, Y factor (9)
NET_DIRECTORY	<i>Pathname</i>
NEW_DIRECTORY	<i>Pathname</i>
NET_DEFAULT_FORMAT	[default_file_format] {(2)}
NET_ZONE_FORMAT	[net_default_format] {(2)}
NEW_ZONE_FORMAT	[new_default_format] {(2)}

Reports

ZONEData_REPORT_#	CONVERSION_SCRIPT
	CONVERSION_STACK

Notes

1	If existing fields are not copied, only the basic zone fields are included (ZONE, X_COORD, Y_COORD, and AREA_TYPE)
2	{ VERSION3, BINARY, FIXED_COLUMN, COMMA_DELIMITED, SPACE_DELIMITED, TAB_DELIMITED, CSV_DELIMITED, DBASE, LANL }
3	Field names can be any unique combination of numbers, letters, and underscores. Note that ArcView or dBase field names are limited to 10 characters.
4	This key defines new fields to add to the zone file. The values assigned to these fields are initialized to zero or blank and are typically set using a conversion script. The key can include up to three comma separated values. The first is the field name. This is followed by the field type and the field size. The type options include integer (default, I, INTEGER), floating point (R, REAL, D, DOUBLE), or string (S, STRING, C, CHARACTER). The default size is 10. Floating point fields can be defined with decimal points (e.g., 10.2). Two decimal points are assumed by default.
5	The conversion script key is a file name that includes a TRANSIMS User Program script. Any field in the input zone file can be referenced using the file label IN (e.g., IN <i>field</i>). Any field in the output zone file (including all newly created fields) can be referenced using the field label OUT (e.g., OUT <i>field</i>). All fields in each Data File are referenced using DATA and the key group number. For example, a field in DATA_FILE_2 is accessed as DATA2 <i>field</i> . An additional field called “Z_COUNT” is added to each data file and is set to the number of zones with the same join field.
6	Each data file group consists of up to four keys. The two join fields must exist in their respective files. The appropriate data record from each data file is passed to the conversion script for each zone. The program counts the number of zones with the same join field value and saves this value to the Z_COUNT field added to each data file. This field can be used to proportionally distribute data items to zones based on the number of zones associated with the data record. For example, population and employment data from districts can be distributed equally to each zone within the district by dividing the data by the value in the Z_COUNT field.

7	If one or more boundary polygon keys are provided, ArcView shapefiles with one boundary polygon for each data record are read. The coordinates of the zone are used in a point-in-polygon search to identify the best boundary record for each zone. The data fields from the corresponding polygon are passed to the user program script for processing. The fields are reference in the script using the file name Polygon or Polygon#.
8	System options include: UTM, STATEPLAN, and LATLONG Code is the FIPS code number for the system (e.g., Oregon North = 3601) Unit options include: FEET, METERS, MILES, KILOMETERS, DEGREES, and MILLION_DEGREES.
9	X and Y offsets are added to the coordinate values X and Y factors are multiply the coordinate values