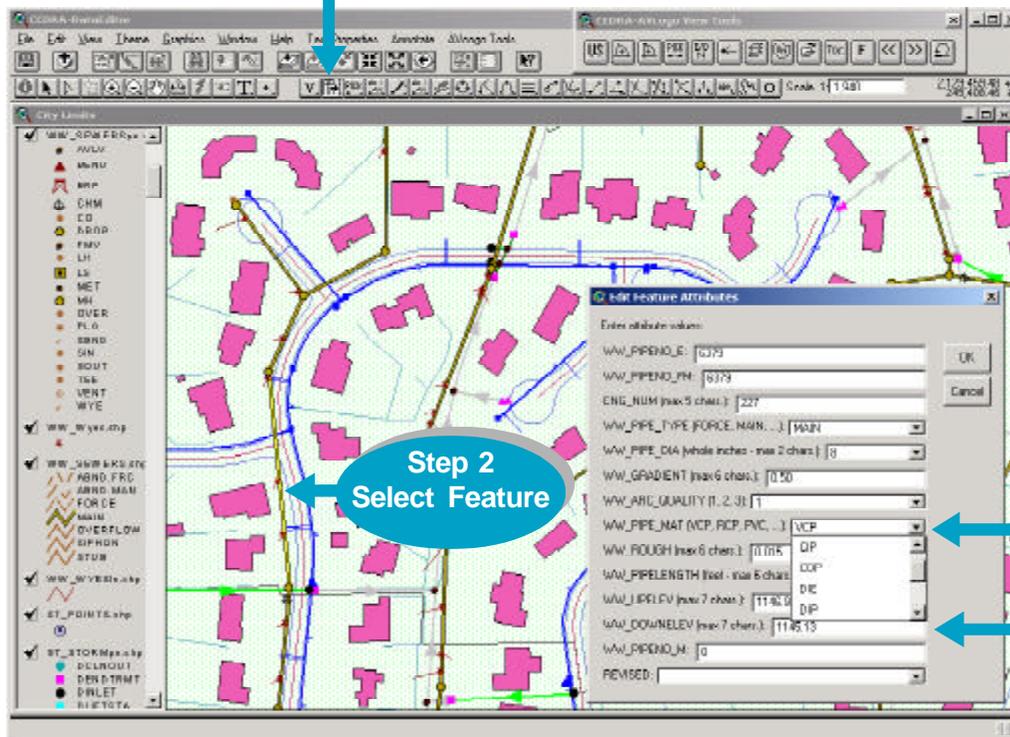# CEDRA-DataEditor™

Attribute Editing and Maintenance
Using ESRI's ArcGIS™ or ArcView® GIS Software

CEDRA 2017

The **CEDRA-DataEditor** is an ideal tool for those involved with data capture and maintenance applications, or those that wish to enhance native **ArcView GIS** or **ArcGIS** table editing functionality. Totally user-customizable, the **CEDRA-DataEditor** allows the user to create, for any theme, a dialog box of attributes (single or multi-column) which can be populated and/or edited without any programming, and without having to start and stop table editing sessions in a **Desktop** or **Server** environment. Users are able to define drop-down choice lists, specify valid numerical ranges and much more. Ideal for those interested in ensuring data quality, attributes which are edited can reside within shapefiles, geodatabases and/or in an unlimited number of related tables.

**Step 1
Select Tool**

**Step 2
Select Feature**

**Step 3
Scroll & Select
and/or
Enter / Edit
Data**

The default display of data in the dialog box may be previous entries, or computed based upon the length, perimeter, or area of the selected feature
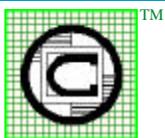
Repeat Steps 2 and 3 as needed

Contact **The CEDRA Corporation** on how to order:

CEDRA-AVcad™ for general feature editing, annotation and CAD tools, **CEDRA-AVcogo™** for comprehensive COGO tools, **CEDRA-AVland™** for roadway and site engineering, **CEDRA-AVparcel™** for parcel mapping and maintenance, **CEDRA-AVsand™** for sanitary, storm and combined sewer modeling, **CEDRA-AVwater™** for water distribution and quality modeling, **CEDRA-DataEditor™** for data entry and maintenance, **CEDRA-DxfExport™** for DXF file exporting.

The CEDRA Corporation

Total CADD for Engineers ™
Bridging Engineering and GIS ™

1600 Moseley Road - Suite 500
Victor, New York 14564

Phone: 585-414-6541
Fax: 585-924-8614

E-mail: cedra@cedra.com
URL: http://www.cedra.com

AUTHORIZED ESRI DEVELOPER and RESELLER

ESRI Technology
AUTHORIZED BUSINESS PARTNER

THE CEDRA-DataEditor™ THEME DATA FILE

To use the CEDRA-DataEditor™, the user prepares an ASCII file named themes.txt, and stores this file in the current working directory. This file will contain various commands that describe all of the theme(s) and the attributes (fields) within the themes which can be edited.

The CEDRA-DataEditor displays, for a selected feature, a dialog box, as shown on the previous page, containing the following information:
- The attributes to be edited,
- The label that should appear in the dialog box to describe the attribute,
- The units of the attribute,
- The valid values that an attribute can have, and
- The valid numeric range for an attribute, if the attribute is a number.

The THEME command is used to denote which theme is to be defined. Below the command is the name of the theme as it appears in the Table of Contents. Below the theme name is the name of the field that can be edited, and below it is the field's description, which appears as the attribute's label in the dialog box.

On the same data line as the name of the attribute, the user may optionally specify the code for the attribute's units, the default setting being 0. The valid units code values are 0 through 5 which denote the following:
- 0 = No units apply to the attribute
- 1 = Feet   or   Meters
- 2 = Inches   or   MilliMeters
- 3 = Acres   or   Hectares
- 4 = Miles   or   Kilometers
- 5 = Square Feet   or   Square Meters

Note that at least one space or blank character must separate the name of the attribute from the units code value.

There is no limit to the number of themes and attributes that can appear in this file. However, in the displayed dialog box a maximum of 15 attributes will appear. If more than 15 attributes are defined for a theme for editing, the dialog box will appear multiple times displaying the attributes in groups of 15, in the order they appear in themes.txt, until all attributes are displayed, or the user aborts the command.

Below the attribute label, the user has the option of entering the RANGE or CHOICES commands, but not both.

The RANGE command is used for number type attributes to indicate the valid range of numbers, inclusive, that an attribute can be assigned. Any value outside this range will cause an error message to be displayed. The range of numbers is defined on the same data line as the command with at least one space separating the values and the command.

The CHOICES command can be used for any attribute, to which one of a set of allowable values can be assigned. No other value can be assigned to the attribute. Below this command the user lists the possible values that can be assigned to the attribute, one per line. The END command terminates the CHOICES command. There is no limit to the number of values that can be listed under the CHOICES command.

Below the RANGE or CHOICES command, the user has the option of entering the DEFAULT command to indicate the default or initial value of an attribute that should be assigned to a feature that is copied into a theme identified in the themes.txt file. Instead of a specific value, the user may enter the commands RETURN_LENTGH or RETURN_AREA to display the appropriate default value.

Instead or in addition to the DEFAULT command, the user may enter the command REMEMBER_LAST for the program to display the last value that was specified in the dialog box.

The command ATTRIBUTE_EQUATION enables the user to display in the dialog box values which are computed in accord with a user specified equation. The equation may reference constants and/or theme attribute values. An equation may also contain:
- Mathematical operators: ^, *, /, + and -,
- Boolean operators: <, >, <>, <= and >=,
- The functions: ABS, ACOS, ASIN, ATAN, COS, SIN, TAN, SQRT, ROUND, TRUNCATE, DEG2RAD and RAD2DEG, and
- The conditional IF() to add decision making capability into the equation evaluation process.

The PW_TYPE command, in conjunction with the CHOICES command enable the user to reference and attribute to an associate table of the theme being edited.

Inserting the /* characters in columns 1 and 2 of a data line denotes a comment line, which will make the themes.txt file easier to read.

PORTION OF A SAMPLE themes.txt DATA FILE

```
/* Identify the Theme to be defined
THEME
WW_SEWERSpn.shp
/* Identify the attributes for editing
/* Attribute 1 : numeric data line item
WW_NODE_KEY
WW_NODE_KEY:
DEFAULT 0
/* Attribute 2 : string data line item
ENG_NUM
ENG_NUM (max 5 chars.):
REMEMBER_LAST
/* Attribute 3 : string combo box item
/* with seven possible choices
WW_NODE_TYPE
WW_NODE_TYPE (DROP, MH, LS, ...):
CHOICES
AVLV
BEND
CO
CROS
DROP
MH
LS
END
DEFAULT MH
REMEMBER_LAST
/* Attribute 4 : numeric data line item
WIDTH 2
WIDTH - in (mm):
DEFAULT 0.0
/* Attribute 5 : value computed from equation
SLOPE
Pipe Slope (%):
ATTRIBUTE_EQUATION
((EZ-SZ)/LEN)*100.0
/* End of Theme definition
END
/* Continue with other themes
```