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attr_mod Documentation
version 2.3
June 23, 2003

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README
attr_mod Documentation

/**
***/ Installation Instructions:
/**
***/ Windows NT: attr_mod is delivered as an email attached file or on a DOS formatted floppy as a self extracting compressed set of files. Set your working directory to the destination directory (e.g. c:\grs) in which you want to place attr_mod and its associated processes.

Copy the file 'setup_at.exe' off the floppy using a process, such as File Manager or Explorer. Then execute this file by selecting it (double click).

This initiates a process that will unzip all the necessary files from the container file to the destination directory.

Windows/WinNT: As long as the destination directory is in your PATH, you can run attr_mod from any directory. If your destination directory is not in your PATH, modify your PATH and add the destination directory to your PATH statement. Your destination directory should not be a system directory that may be deleted during either a product or system software removal or delivery.

attr_mod support:

attr_mod is developed, maintained, and supported by Geographic Resource Solutions of Arcata, CA. Should you need support or information, or if you have

suggestions or feedback, please contact:

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/***/
Program Purpose:
/***/

attr_mod is a dgnfile linkage editting utility that enables modification of mslink numbers, entity numbers, and linkage types. In addition, attr_mod has capabilities to add NULL database records for orphan graphic elements, identify and resolve duplicate linkages, flag invalid linkages, and remove all linkages. Other options include removal of multiple linkages and deletion of elements by mslink values, and changing levels of elements based on entity number. Several other linkage manipulation capabilities exist, as explained in the arguments section below.

Execution: attr_mod is initiated in the WinNT environment in one of two ways, by either starting the GUI or by submitting the perl script command line. The process should be initiated in either a DOS Window or at the MGE Utility Command prompt.

To start the GUI from the command line key-in :

attrmodf

To run the attr_mod process from the coomand line using perl key-in :

perl -S attr_mod.pl [args]

There are a number of options [args] that may be specified when you run attr_mod. You only need to input (on the command line) the options you desire, otherwise process defaults will be used. attr_mod is run by keying in the command line:

/***/
Arguments and options:
/***/

attr_mod options include:

```
   -e      [ element type(s) to process ]
   -l      [ input_level_number ]
   -m
   -A      [ linkage type ] where default is REAL and a value of I or i indicates
INFORMATIONAL>
   -Bl     [ maximum mslink link value to process ]
   -Bu     [ minimum mslink link value to process ]
   -C      [ mslinkConstant ]
   -D      [ LevelNumber ]
   -E      [ entitynumber ]< ,new_entitynumber >
   -F      [ input_filename ]
   -L      [ output_level_number ]
   -M[u]   [ old/new_filename ]
   -O[u]   [ mslink_offset ]
   -R      [ TableName1, TableName2, Relate_TableName,
                    Table1_MslinkColumn, Table2_MslinkColumn ]
   -T      [ tablename ]
   -X
```

where [...] indicates a required flag argument

and <...> indicates an optional flag argument

subject to the following definitions:

-a [linkage_type indicator] to select specific linkage types. Indicate I or i for informational linkages. Default is operational linkages.

-A [output_linkage_type] - indicates to change all linkages types for linkages of the proper entity number (as specified by the -E flag) to the value specified as [linkage_type]. The default is to output REAL linkages; a value of I or i indicates to output INFORMATIONAL linkages.

-Bl [minimum mslink link value to process] indicates to process only linkages with a value >= to the specified minimum mslink value.

-Bu [maximum mslink link value to process] indicates to process only linkages with a value <= to the specified minimum mslink value.

-C [mslinkConstant] indicates to set mslink numbers to the value of the constant. This option does NOT allow concurrent update of database records.

-d indicates to output diagnostic messages.

-D [LevelNumber] - check for duplicate mslink values in the table indicated by the entity number value specified by the -E flag. Move duplicates to the level indicated by LevelNumber.

-Df [flagLevel,flagSize] - check for duplicate mslink values in the table indicated by the entity number value specified by the -E flag. Flag duplicates by placing ellipses of size flagSize on the level indicated by flagLevel.

-DI check for duplicate mslink values in the table indicated by the entity number value specified by the -E flag. For any duplicate found, insert a copy of that record into the database table indicated by the entitynumber with a new mslink number AND modify the linkage's mslink number to correspond with this new mslink number.

-DS suppress 'duplicate mslink found' print messages

-e [element type(s)] specifies the element types to process.

-E [entitynumber] <,new_entitynumber> - indicates the entity number to select/edit AND the new_entitynumber to substitute for selected entity number. Use the -E flag to select/limit operations to elements with linkages of this entity number.

-F [input filename] specifies the dgn filename to process.

-h indicates to list command arguments

-l [input_level_numbers] specifies the levels to process.

-L [output_level_number] specifies the level on which modified elements will be placed.

-m indicates to output the range of mslink values for the entity number specified using the -E option. No entity or mslink values will be altered when using this flag.

-M[u] [filename] specifies to get old/new mslink numbers - space delimited format, from filename. Format requires one pair old/new mslinks per line, sorted in ascending order by the old mslink number. Addition of the 'u' option with

the -M (-Mu) indicates to concurrently update the associated database records as the linkage mslink values are changed.

-N [flagLevel,flagSize] - check for selected elements with invalid linkages as compared to the value specified with the -E argument. Invalid elements will be identified with ellipses of size flagSize placed on flagLevel.

-O[u] [mslink_offset] indicates to add or subtract an offset value to the current mslink values. Addition of the 'u' option with the -O (-Mu) indicates to concurrently update the associated database records as the linkage mslink values are changed.

-r [mslinkFilename] indicates to delete elements refered to in mslinkFilename. The -r by itself indicates to delete only graphic elements. The argument -ra indicates to delete graphics and attributes.

-R [tableName1,tableName2,relate_tableName,Table1_mslinkColumn,Table2_mslinkColumn] this option can only be used with the rel_link.pl script. It is used to relate data of different tables to the same graphic elements.

-s suppress 'no match for mslink ... ' messages

-T [tablename] signifies to isert NULL records into tablename if those records do not exist in tablename.

-TA [tablename] signifies to attach a new linkage to all elements lacking a linkage to a database table and insert NULL records into tablename.

-TAA [tablename] signifies to attach a new linkage to all elements regardless of whether they have an existing linkage to a database table and insert NULL records into tablename.

-U indicates to leave unique attribute linkages, if multiple linkages of the selected entity are found. The first valid linkage will be the linkage left on the element.

-X indicates to strip attribute linkages from all elements processed. This option will strip all linkages, NOT just those of the entity number specified with the -E flag.

/***/
Examples:
/***/

1. Offset mslink values for entitynum 4 linkages on all elements on level 12 by 45000:

perl -S attr_mod.pl -F 147tmp.dgn -E 4 -O 45000 -l 12

2. Modify mslink values for entitynum 4 linkages on all elements on level 12 using the old/new mslink values contained in the file soils.msl, modify entitynum 4 to entitynum 15, set all of these linkages to be 'information' linkages, and move elements with modified linkages to level 22.

perl -S attr_mod.pl -F soils.dgn -E 4,15 -M soils.msl -l 12 -A I -L 22

**an sample old/new mslink file, soils.msl, is delivered with this product.

3. Insert NULL records in table classify (entitynum 9999) based on elements in file wr4.dgn

perl -S attr_mod.pl -F wr4.dgn -l 55 -E 9999 -T classify

```
4. To strip attribute linkages from text elements on level 42 in file wr4.dgn

perl -S attr_mod.pl -F wr4.dgn -l 42 -e 17 -X


/* end of file - full documentation is currently being developed
for additional assistance contact:

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*/
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