

Tyab's Manic Miners .dat processing utility.

This program allows many operations on Manic Miner map .dat files.

The following features are supported:

- scanning a map file for syntax correctness.
- fixing some map errors related to tiles, heights, crystals, and ore.
- resizing a map either larger or smaller.
- merging data from one map into another map.
- replacing the script data with data from a separate file. See the script section below for details.

Simple help is shown by using the -help option.

There are three types of files used by the utility.

- A source .dat file used mainly for source merge tiles, height, crystals, ore.
- An existing destination .dat file that is both input and output. It is read in, possibly merged with data from the source file and written.
- A text file treated as a script to replace the destination script section.

For both the srcmap and outmap, those files are scanned for correctness.

All parameters may be enclosed in double quotes.

Filenames that have spaces need to be enclosed in double quotes.

If outmap does not exist, you can create it by supplying a srcmap and using -copysrc which will copy all srcmap data after fixing into outmap. Any map data in outmap is lost being completely replaced by srcmap. You can use resize and offsets, and they will result in outmap being a different size with the srcmap data at the provided offsets.

If outmap is being created by using -copysrc, then the merge options are not valid since you are already copying over all of the map's data. However as stated above you can use the resize and offset values. This can be useful if creating a larger map from a smaller map and you want the smaller map to be centered in the larger map.

When merging tiles, the original solid rock regular walls are also copied to outmap. This is so any walls that needed them are preserved.

On maps, the origin 0,0 is the upper left corner. Positive offsets move the data towards the lower right. Negative offsets move the data towards the upper left.

After operations, the outmap automatically will have the border tiles all set to solid rock regular which is tile id 38.

On the outmap, resize is always performed prior to merge, you can combine resize and merge in the same operation.

During merge, clipping is done automatically so you don't have to worry about the srcmap being larger than outmap nor worry about offsets. Offsets during merge can be negative and works as expected.

Command Line Options:

-help	display help
-srcmap <i>filename</i>	file name of a source merge .DAT
-outmap <i>filename</i>	file name of a destination .DAT
-overwrite	allow changing existing outmap
-copysrc	outmap is recreated from srcmap, implies -overwrite
-mergeheight	merge height values from srcmap into outmap
-mergecrystal	merge crystals values from srcmap into outmap
-mergeore	merge ore values from srcmap into outmap
-mergetile	merge tile values from srcmap into outmap
-offsetrow <i>number</i>	row offset when merging/copying srcmap into outmap, default 0
-offsetcol <i>number</i>	col offset when merging/copying srcmap into outmap, default 0
-resizerow <i>number</i>	resize outmap rows for tiles,height,resources
-resizecol <i>number</i>	resize outmap cols for tiles,height,resources
-deftile <i>number</i>	value for invalid tiles or resize, default 1 which is a simple ground tile.
-defheight <i>number</i>	value for invalid heights or resize, default 0
-defcrystal <i>number</i>	value for invalid crystals or resize, default 0
-defore <i>number</i>	value for invalid ore or resize, default 0
-mapname <i>string</i>	levelname: value saved in outmap info section
-creator <i>string</i>	creator: value to be saved in outmap info section
-fix	fix invalid/missing tile, height, crystal, ore values. Changes associated errors to warnings.
-script <i>filename</i>	file name of script file to replace outmap's script.
-sincdirs <i>paths</i>	; set of paths to search for included scripts

Options may be specified in any order.

Examples:

Scan a map for correctness:

-srcmap a.dat

Copy a map to a new filename keeping the same size.

-srcmap a.dat -outmap b.dat -copysrc

Copy a map to a new filename and resize the map to be 52 rows and 48 columns

-srcmap a.dat -outmap b.dat -copysrc -resizerow 52 -resizecol 48

Copy a map to a new map with a different size offsetting rows by 10 and columns by 9.

-srcmap a.dat -outmap b.dat -copysrc -resizerow 52 -resizecol 48 -offsetrow 10 -offsetcol 9.

Resize an existing map to be 52 rows and 48 columns.

-outmap a.dat -overwrite -rowresize 52 -colresize 48

Merge the tiles and heights from one map, into another map, offsetting by 10 rows and 9 columns

-srcmap a.dat -outmap b.dat -overwrite -mergetile -mergeheight -offsetrow 10 -offsetcol 9

Use a separate script file for outmap and give list of directories to search for it and included scripts.

-outmap b.dat -script myscript.scr -sincdirs "..;..\scripts;c:\scripts;"

Script File Processing.

Using the `-script` and `-soutdirs` options you may specify a separate script file to replace the script within outmap. The file you give will be read in and it will also include any included scripts using the list of paths you give in `-soutdirs`. This is similar to the `PATH` environment variable in how you format the list of paths to search. The operation is similar to how all compilers find included files.

To find a script file the following process is used:

- The full filename provided in `-script`. If not found, we break the `-script` into a path and filename part.
- The directory where outmap is located.
- Directories where prior scripts were found.
- The ; separated list of paths specified in `-soutdirs`. We try both just the filename and the full filename.

The same is applied to any included script using its filename and any path components.

Within a script file you can use the special comment pragma to include other script files.

```
#pragma include "filename"
```

There is no limit to the depth of included scripts. To prevent duplicate or recursive includes, it does check to see if a file was already included and it will be ignored if included again. This check is based on filename only, so you cannot include two files with the same name from different directories.

WORK IN PROGRESS: Complete script file integrity checking....