<u>**TommySoftware® DXF->T2G Version 1.40**</u>

1 Usage

1.1 Execution

A TommySoftware® file converter can be started either directly or from within a TommySoftware® application. The usage is equal in both cases.

The program does not require any parameter, but optionally, a path can be supplied, that will be used as the standard setting in the file selector boxes. The TommySoftware® applications automatically pass the current standard path for drawings (e.g."C:\WINCAD2\DRAWING").

To be able to call the converter from within a TommySoftware® application, it has to be copied into a specific directory. This is, depending on the application, the directory "SYSTEM\CONVERT" oder "CONVERT" inside the applications's directory. You can call the convert afterwards using the CONVERT DRAWING command in the FILE menu of the application.

Otherwise, you can start the program from within the File Manager or the Program Manager of Windows.

1.2 Handling

To convert a single file, select the CONVERT FILE command in the FILE menu or press the key F2. First a file selector box appears, where you have to enter the name of the DXF file to be converted. Then another file selector box appears, where you must enter the name that the produced T2G file shall receive.

After the file name input, the conversion starts. In the lower right corner of the window, the number of converted lines of the DXF file is displayed. A short beep sounds when the conversion is finished.

To convert a complete directory, select the CONVERT DIRECTORY command in the FILE menu or press the key F3. First a file selector box appears, where you have to select the directory that contains the DXF files to be converted. Then another file selector box appears, where you must select the directory into which the produced T2G files shall be stored.

ATTENTION! When converting a complete directory, files within the target directory might be overwritten without warning! In order to avoid trouble, create a new directory to be used as the target directory.

After the directory name input, the conversion starts. In the lower right corner of the window, the number of converted files and, separated by a slash, the number of converted lines of each DXF file is displayed. A short beep sounds when the conversion is finished.

1.3 Parameters

When converting a DXF file into a T2G file, there are several parameters to set:

Page format   The page format settings is used to determine the origin position relative to the page borders. This setting is stored in the produced T2G file.
Origin   The origin position determines to which position of the page the origin of the DXF file has to be set to.
Scaling factor
    The scaling factor is applied to all object sin the DXF file, including block definitions. It can be used to scale the whole drawing, if this drawing is not in scale 1:1, using the unit inch.
Standard font
    In addition to the name of the standard font, you can enter a width calibration. This value result in a horizontal scaling of the font.
    The standard font in DXF files is 1.33 times wider than the standard font in T2G files (DINDRAFT). Therefore, this value should normally be set to 1.33.
White drawing area
Black drawing area
    This settings determines, wether the converted drawing is to be displayed on white or black drawing area. Depending on this setting, the color 7 of the DXF file is either translated to black or white.
Inheritation by layers
Inheritation by blocks

This setting determines which type of inheritance is to be translated during the conversion. It can be either BYLAYER or BYBLOCK. It is not possible to translate both inheritance types at the same time.

2 Conversion features

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When converting a DXF file into a T2G file, all relevant definitions of line
patterns, layers and blocks (including their attributes) are maintained. The
names of these objects stay unchanged.

As the T2G format can only handle two-dimensional data at the moment, the Z-
coordinates supplied to any other object will be ignored. Objects that are pure
3-D-objects will be converted into aquivalent 2-D-objects.

Texts within DXF files are translated into single-line text objects. Different
font styles will not be translated, any text will use the standard font.
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3 Important file formats

The TommySoftware® conversion programs can handle several different file formats, that can normally be distinguished by their file name extension. Following a short description of the most important file extensions:

DXF   The DXF-Format was initially used by the CAD-System AutoCAD® (registered trademark of AutoDesk Inc.). It became a standard and can be read and/or written by most of the CAD and graphic applications.
DXF files cannot handle filled area that are more complex than quadrangles. Due to this reason, most applications do not export any fillings, or they have to "emulate" complex areas using triangles and quadrangles.
The DXF file format is frequently changing, because each new release of the CAD system stated above results in more or less extensive changes in the file format. Although this change is necessary for progress, it makes it nearly impossible to be up-to-date.

MPG   The format MPG 1.0 is used by all graphical applications of TommySoftware®. It is compact and easy to read. Complex filled areas can be described using lines and Bézier curves. The only restriction is the lack of block definitions.

TVG   The format TVG 1.0 is used by TommySoftware® WINCAD Release 1. It is mainly aquivalent to the MPG format, so both can be converted to each other without any loss of information.

TVL   The format TVL 1.0 is used by most of TommySoftware®'s applications for storing libraries. Its internal structure is similar to MPG and TVG.

T2G   The format TVG 2.0 is used by TommySoftware® WINCAD Release 2. Is is the successor of the TVG format and was extended by block definitions and external references. Furthermore, filled areas can now also be described using circular arcs in addition to lines and Bézier curves.
T2G files are more compact than TVG files. Having the same information content, T2G files use only 70% of the storage in average.

T2L   The format TVL 2.0 is also used by TommySoftware® WINCAD Release 2. It is used to store libraries. Its internal structure is similar to T2G.

VEK   The format VEK 1.0 is used by the vector graphic program MegaPaint® ST since Version 2.3 on the Atari ST. It features complex areas and groups similar to the MPG format.

We wish you success using our applications and this conversion program!

Your TommySoftware® Team.

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