

# Welcome to WinTex 3.32

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## Registering WinTex

I have spent quite few hours on WinTex, as you might guess. However, despite the fact that it's of relatively good quality, I don't feel like releasing it as shareware.

However, if you use WinTex regularly, I respectfully request that you send me a little postcard and drop me a few notes about what you think of Doom and Heretic playing, multi-playing and editing. Of course, the more postcards I'll receive, the more I'll feel motivated :-)

But the idea is rather to see how far this program can go, and how many people are likely to get interested in Doom or Heretic editing. If I receive enough data, I'll post a summary to the net, of course.

Don't send money! I'm not American, I value a few friendly lines much more than money!

If you really can't afford a small stamp to France, then send an e-mail! :-)

My address is:

**Olivier Montanuy**  
**Manoir de Keringant**  
**St Quay Perros**  
**22700 Perros Guirec**  
**FRANCE**

## Thanks

Many thanx to all the WinTex users on the net, especially those who tried the early alpha test versions, that were absolutely lame (pure Visual Basic! real slow!)

Among the guys I'd like to thank:

**Kevin McGrail (HevKev)** for waiting patiently for the Help file (and WinTex, and Deutex 3.3)!

**Marc-Andre Bissonnette** for the early support on WinTex.

**Jean François Fortin** for early bickering (and general support) on WinTex

**Dan Teeter** that made me redesign of the front screen (stop it, Dan, that hurts!)

**Renaud Paquay** for telling me he could use the WinTex alpha (saved me from Dan)

**Steve McCrea** for support, help, and adjustments of the interface.

**Avery Andrew** for the bug reports, and some ideas.

**Tony Muray** for suggestions about the help file.

**Drake O'brien** for finding ugly bugs in both DeuTex and WinTex.

**Dr Sleep** and the Compuserve Action forum for waiting so patienttly :-)

**My thinkpad**, for crashing so elegantly under intense sollicitation.

Me, for doing all the underpaid work, including typing that manual that I hate.

You, for reading that stupid stuff (and lending me your Spitfire).

### Thanks list for DeuTex:

Matt Fell for the DOOM specs.

Brendon Wyber, Raphael Quinet, Denis Moller, Bernd Kreimeier, Bill Neisius, Elias Papavassilopoulos and Keith Wilkins for ideas or exchange of ideas.

Mark Mathews, Per Allansson, Chuck Rossi, James Bonfield for the ports of DeuTex.

## WinTex SET-UP

Check you have **vbrun300.dll** in your windows/system directory. **vbrun300.dll** is available on all serious ftp sites (ftp.cica.idiana.edu, warchive.wustl.edu) and BBS. If you ever used *another Visual Basic tool*, like DoomCAD, chances are that you already have vbrun300.dll on your system.

**Make a new directory** where you will put **wintex.exe**, **lbdeutex.dll**, **threed.vbx**, **deutex.exe** and all your DOOM/HERETIC tools and all the associated **\*.pif** files. I request you make a special directory, because strange things will happen there. Files like errors.txt, output.txt, windeu.ini will be created there. I use damned TEXT files for inter-process communication: No pipes available under DOS and Windoze.

**Declare a new WinTex icon** in your progman, but you needn't set a path. It would be ignored.

**Put the tools you intend to use** (like node builders, reject builders and such) in the WinTex directory, or at least somewhere in your path. Else WinTex can't find them unless you provide a command line with full path specified.

Configure the Command lines for the tools you want to use, or just ignore this if you can do with the default tools.

### List of critical files in this release

<b>wintex.exe</b>	The Visual Basic code.
<b>lbdeutex.dll</b>	Some DeuTex code, Windoze DLL fashion.
<b>threed.vbx</b>	Visual Basic 3D controls. (should be in your system directory)
<b>deutex.pif</b>	To run DOS DeuTex from WinTex.
<b>deutex.exe</b>	DeuTex, DOS version.
<b>deusf.exe</b>	DeuSF, DOS version, to install your WADs on other PCs.
<b>wintex.hlp</b>	This help file.
<b>*.pif</b>	DOS/Windoze Program Information Files. There should be one per utility.

## About WinTex

### WinTex, the ultimate bastard WAD tool from Hell!

WinTex is **an integration tool**: there are many DOOM and HERETIC editing tool around, each specialised in it's own domain. WinTex is here to *make them work together efficiently*. Of course, WinTex has *it's own some special capabilities*, like Texture composition and entry identification.

WinTex doesn't do the main job itself because it would be ridiculous to reprogram stuff that already exist, and because Visual Basic is slow, inefficient, and not always reliable. Instead, WinTex is here only for the cool presentation! The serious business is done by specialised tools, which are all optimised in their own domain, and generally run in DOS.

If I was leading a team of ten programmers, I sure would have built a complete DOOM editing tool. But it would have been far beyond your budget!

However, by using WinTex, it should be real easy for you to build a great **DOOM, DOOM2 or HERETIC** projects, containing not only custom levels, but also **custom textures, graphics, flats, sounds, musics and sprites!**

Of course, **WinTex is mainly built for use with DeuTex**, one of the best and of the most reliable WAD composer and decomposer. But it can also support all the tools you need to build your WAD, provided they run under your version of **MicroSloth Windoze**.

**Note: you need VBRUN300.DLL real bad! Otherwise, WinTex cannot run.**

### About this manual

**This file is not the definitive help file.** It's still very incomplete. Keep in mind that it wasn't written by a native English speaker, so don't expect too much style.

For more insight about DeuTex, read the **DeuTex manual by HevKev**.

Until HevKev has the time to rebuild this file, this help file will be a real mess.

For more insight into DOOM, see the **DOOM UNOFFICIAL SPECIFICATIONS V 1.666** or the book (in preparation): **Tricks of the Doom Guru** by **SAMS Publishing**.

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However, if you intend to infringe the terms of this statement, you better get a good legal advisor, and keep my poor utility out of your dirty business.

If you get your ass sued, trust that I'll try to get my share of your meat, like all the other vulturs. I just hope you taste good.

## WinTex External Tools

### Supported tools to date:

DeuTex	deutex33.zip	(no versions below than 3.3 will work here)
WinDEU	(windeu 5.23)	
DEU	deu521.zip	(and after, if any in that century)
DCK	DCK 2.0	(2.1 and above better supported)
EdMap	EdMap 1.81	
WadEdit	WadEd 1.42	
DoomCAD	dmcad50.zip	(and after)

WadTools	wt2.zip	(and after)
NewWadTools	nwt102a.zip	(and after)
RejectMapBuilder	rmb11.zip	(and after)
BinarySpacePartition	bsp11.zip	(and after)
Text Editor	ted.zip	(included)
Midi2Mus	midi2mus.exe	(included)
Mus2Midi	mus2midi.exe	(included)

### Others?

Anything that eats a (pervert) command line! see [WINTEX.INI File](#)

### Lame windoze tools supported by default

Media Player	Get a real midi sequencer!
Paintbrush	Get a real bitmap editor
Notepad	Get a text editor that supports files above 32k!

## WinTex Initialisation file

The WinTex .INI file, **wintex.ini** (big surprise) should be located in your WinTex directory. It will be created or modified when you use WinTex.

### Command lines structure

All command lines are located in the **[EXTERN]** section.

There is **one command line per tool type**, and that command line is just like any plain DOS command line, except that it contains stuff like `%FILE%` `%WAD%`. These are variables, of course. When WinTex invokes the command line, it substitute those variables by the relevant file name. This is to allow the most flexible command line definition.

**Default command lines** are written in WinTex.ini, the **first time** ou invoke the command. use them **as an example**, if you want to add support for your own commands.

### Names of variables, and what they represent

Names like `%FILE%` or `%WAD%` only indicate the type of file.

**%FILE%** represent a `.txt` or `.bmp` file (depends on what the tool is for)

**%OLD%** represents a old wad file (with `.old` extension) that's a base for reject and nodes.

**%DOOM%** represents the name of the main IWAD with full path.

**%DATA%** represents an additional texture/flat file, used when editing a level

**%WAD%** represents the.wad file the tool shall use or generate.

**%MUS%** represents a `.mus` file. **MUS** format (ID's music format)

**%MIDI%** represents a `.mid` files. **MIDI** format (a very common music format)

**%LEVEL%** represents strings like **E2M3** or **MAP04**, (only for Reject, Nodes and Editor)

<u>Entry</u>	<u>Usage</u>	<u>Example of command line</u>
Nodes	Node builder	<code>bsp %OLD% %WAD%</code>
Reject	Reject builder	<code>rmb %OLD% %WAD% %LEVEL%</code>
Editor	Level editor	<code>deu -w %DOOM% -file %DATA% %WAD%</code>
DeuTex	DeuTex	<code>deutex</code> or <code>deutex -deu</code>
EditText	Text editor	<code>notepad %FILE%</code>
EditTed	DOOM end text	<code>ted %LUMP%</code>
Mus2Midi	MUS to MIDI	<code>mus2midi %MUS% %MIDI%</code>
PlayMidi	Play MIDI file	<code>mplayer %MIDI%</code>
EditBmp	Bitmap Editor	<code>pbrush %FILE%</code>
NewWadTool	WAD browser++	<code>nwt -file %WAD%</code>
WadTool	WAD browser+	<code>wt -file %WAD%</code>

See the section about [level editors](#) for more information about the utilisation of your favourite editor in WinTex.

The special level editors (WinDEU, DCK, Edmap, WadEe, DoomCAD) don't take a command line: WinTex is supposed to know how to handle them. You just indicate the directory. But of course, you can configure WinTex to call a custom editor, with comman line.

WinDEU	WinDEU directory, file <b>windeu.exe</b> had better be there.
DCK	DCK directory, file <b>dck*.pif</b> must be there.
EdMap	Edmap directory,
WadEd	WadEd directory,
DoomCAD	DoomCAD directory, with files <b>doomcad.exe</b> and <b>.ini</b> must be there

**Debug:** If WinTex just refuses to execute your command, or replace it with a default command, then you forgot a crucial variable. WinTex discards invalide lines.





## Using level editors with WinTex

DeuTex is a tool to help you build completely customised DOOM and Heretic conversion. It will help you build PWADs with custom textures, patches and flats. Of course, you might wish to use those custom textures and flats in your level editor.

See the sections about [Textures](#) , [Patches](#) and [Flats](#) to know how to build custom floors, ceilings and wall textures.

Once you have chosen your flats, textures and patches, build a wad that contain only textures and flats. Press on the Tex+Flat button to select only those entries, select a name for your WAD, and press build.

If you got no errors, you are ready to start using that WAD with your editors. But all editors are not able to use that WAD easily, there are two cases:

### **1/ your level editors allows external texture and flat WAD under WinTex**

(DEU, WinDEU, DCK 2.1 for instance.)

When you go under the [Edit Levels](#) windows, and you click on Custom Editor, then your editor will be called with the command line as specified in [Command lines](#) with variables set that way:

%DOOM% will be the main IWAD (doom2.wad, heretic.wad...)

%WAD% will be the level file you want to edit

%DATA% will be the current target PWAD file (your custom textures/flats)

%LEVEL% will be set to ExMy or MAPxx

Hence, provided you configured the command line properly, you should be able to edit your level with your own textures and flats.

If the current target WAD doesn't exist, %DATA% will be blank.

#### **Warning:**

If you are using new flats, you might first need to complete those flats with all DOOM or HERETIC flats, before you feed them to your level editor. Anyhow, you will need to complete the flats, before you use DOOM or HERETIC on the file, else it will lockup during the boot-up sequence. The DeuTex **append** command is used for sprite and flat completion.

#### **DEU Warning:**

Don't put your textures and flats in a file DEU will save into, else they will be destroyed. That's why I have added the %DATA% stuff. How does it work? simple: *deu -file %DATA% %WAD%* so deu reads %DATA%, then your level %WAD%.

### **2/ your level editor doesn't allow external texture and flat WAD**

(DoomCAD for instance.)

Then sorry, there is a solution, but it's a bit dirty: using the deutex **merge** command you will merge your pwad with your IWAD. Then you can edit your level. When you have finished, or when you want to modify the texture and flats, first **restore** the IWAD.

For such level editors, don't use %DATA% on the command line, because %DATA% represents the Texture and Flat WAD, and your Editor cannot use it.

## Overview of WinTex editing principles

### WinTex help service

I've spent a lot of time to put help pop-ups almost everywhere, so I hope you will use them!

- The **Blue Text** usually mean that when you click on it, an information box will pop-up.
- If you **double click on some frames**, then explanations concerning their contents should pop-up.
- If you **press F1** anywhere, it should provide you in-context help for this help file. All the links are not implemented for the moment, so don't expect it will bring you to the right place every time.
- When you press a command, a popping Tutorial Box will tell you what's gonna happen. but you can disable the tutorial mode.

And before you ask: WAD editing is non-trivial, so don't expect WinTex will make you understand it all in 20 seconds. Be patient, read the help, read the DOOM specs, and soon you'll be a DOOM and HERETIC guru like everyone else.

### Using WinTex

WinTex is organised **exactly like DeuTex**, my powerful but uneasy to use tool for DOS, Linux, OS/2 Unix( Sun Sparc, Silicon Graphics and DEC Alpha).

WinTex and DeuTex first need to know **the directory where you put your DOOM or HERETIC** files, unless you set the environment variable DOOMWADDIR (like under Linux/Unix DOOM).

**If you're new to DOOM or HERETIC editing**, I recommend you get a great patch WAD, create a Working Directory, select that WAD as the WAD to be examined and decompose it by pressing extract. Then you can freely invoke the different Editing menus, and see how things go in this patch WAD.

**Don't extract under a given game a patch WAD made for another game**, or it will look real strange!

Once you're ready to create your own patch, **for each PWAD** you intend to make, You should provide to WinTex a specific Working Directory, where it will store all the relevant data for the project.

This directory will contain a very important file wadinfo.txt that **describes what is supposed to be in the WAD you will build**. The subdirectories, will contain all the data relevant to build your WAD.

You will edit the contents of your WAD in the relevant **Editing panels** (available under the Edit menu).

Then you will **build** your WAD from the main window: you will first select which entry types shall be put in your WAD, then you will just press Build, and DeuTex will do the tricky job. Expect that it will complain a lot the first time you use this built!

Then, if you managed to built your WAD, you will check your WAD by pressing **Check**. and you'll read all the complaints that DeuTex will send to you.

Another way of testing your WAD is playing it under DOOM or HERETIC, and see the game lock-up as it does when some entries are incorrect. No, there is no debugger.

Then you will build an installation batch for your files, if they contain Sprites or Flats or a de hacked patch.

It is not possible to call DOOM directly from WinTex, because DOOM runs very slow under Windows, because of memory swapping, so I believe it isn't worth the bother. I could not manage to exit windows, play doom, and come back to windows. This should be possible, from the API calls, but it doesn't work with DOOM: the game just locks.

***Feel like rewriting WinTex in pure C? contact me! I don't have time to do it...***

## **Entry Identification under WinTex**

When you select an entry under one of the editing panel, WinTex will check if this entry has a known name, and if it's the case it will display the entry name in a combo box (a drop box) followed by a short help text.

Should this name contain characters like # this means that there are many names that are similar and represent the same kind of stuff.

The good thing is that you won't need to browse the DOOM SPECS for the name of the entries that define stuff like animated walls, animated floors, sounds, monster names, level names because there is a list associated to the combo box, and you can get entry names from there.

But you will have to replace the # characters by valid characters (sometime, the range of valid characters is indicated, but for sprites, the # characters are used for the viewpoints, which are determined otherwise).

## **Invoking editors from under WinTex**

Most of the time, when **double clicking** on a **picture**, a **sound** or a **text** you will invoke the relevant editor graphic, sound or text editor. The tools used in these circumstances can be customised by editing in WinTex.INI as described in the [Command lines](#) section.

## **Editing Lumps under WinTex**

See the [Changing End Screens](#) section for general principles.

Lumps represent various resources that DOOM and HERETIC need to work, but that you don't usually need to edit.

### **End text of DOOM and Heretic, boot screen of Heretic**

The lumps ENDOOM, ENDTEXT, LOADING are editable under WinTex. What happens is that WinTex calls TED in a full screen windows. You better know how to use TED, check the txt file. ATL-X to exit. ATL-W to write your changes (that will overwrite the previous lump, no back file, you've been warned).

### **Colour palette and colour maps:**

It is most unwise to edit the DOOM or HERETIC palette, PLAYPAL. Beware that if you spoil the first colour palette, and put insane values at colours 247 (DOOM) or 255 (HERETIC) then DeuTex won't be able to determine the transparent colour, and will refuse to work. Simple enough.

Future extension of WinTex might include a way to modify some colours.

The COLORMAP you might wish to recalculate yourself, if you're a brain in picture editing. WinTex won't help you there. see the doom specs.

### **Gravis Ultra Sound configuration**

It's not real optimised, so they say. You might wish to replace that one with a file that is circulating on the net. Though it's text, WinTex can't let you edit it, because it's a Unix text format, not DOS. text editors would miss the newlines (blast them all).

### **Game demos**

The lumps DEMO1 DEMO2 DEMO3 represent game demos, that you can record yourself with DOOM or HERETIC. See the doom command line reference. must be DOOM -record demo1.lmp or something.

Doom and heretic run lame under windoze, so WinTex doesn't even attempt to call them.

### **Other lumps**

Let me know if there is something else we should care about.

## Editing Levels under WinTex

WinTex will enable you to extract levels from a file, using DeuTex, to manage your list of levels, and to modify the levels in that list, by calling your favourite level editor on that level. Normal!

Moreover, if you've built an external WAD redefining textures, patches and flats, WinTex will call the level editor requiring it to load that WAD too (but some editors can't).

And of course, once you've built your level, you can call your favourite node builders and reject builders to build the missing data.

## Building levels

Go under the Edit Level menu. If you have set up your level editors correctly, you should be able to select a WAD in the list, and press on the button that corresponds to your editor, and then this level editor will be called with your level WAD as parameter.

This will work if you already have a list of levels. else you'll have to press **new level** and select a WAD file. WinTex cannot generate level files, so I suggest you first call your level editor without selecting a WAD, create a sketch WAD, save it in a file, and then declare that file by pressing **new level** and pointing to that file (choose a level name for your file first, because WinTex will ignore the the level name that your editor will provide: it's WinTex who decides what level it shall be, not your level editor).

Yeah, this is tricky... I know. No time to change it right now...

## Building Nodes and Reject

Most editors don't build the nodes and reject data themselves, because it's a very specialised job.

It's a good idea to use a dedicated and reliable tool for that.

RMB, REJECT, BSP and IDBSP are examples of such tools.

WARM not supported yet (unless you can figure yourself)

Using WinTex, you should be able to always use the latest release of your favourite tools.

However, if your editor supports some kind of reject and node building, like DEU (which was a precursor) then you should use it when testing your WAD. only when you're satisfied with the layout should you use a real good Nodes (and Blockmap) or Reject builder, because those tools are real slow when they do their job correctly.

## Using Custom textures and patches

See the Editors section for the way to configure your editor for external texture and flat WADs.

The principle is that you first build a WAD with custom textures and Flats, you declare that WAD to your editor (it should be automatic, but for some editors, you need to **merge** the WAD into your main IWAD) then you can use your custom textures and flats from inside your editor.

After that, when all your levels are built, then you built your complete PWAD, using all the different single-level WADs, your custom textures, and your custom flats.

## Using Custom flats

I'm afraid it's imperative to use the **merge** button (see above).  
If your editor is good enough, it could be able to read your custom flats. but most editors can't. even DEU 5.21 had a bug for this!

## **Playing your level**

It's **not recommended to play your level under windows** (too much of a bore).  
So WinTex tries to exit window, and call doom, and go back to window.  
The Windows API call to do that can work...but not with DOOM, apparently. hard luck!  
I'm sorry. I can't help.

## Editing Graphics under WinTex

### What are the graphics?

See the [Changing Graphics](#) section for general principles.

The graphics, are those pictures that are not related to the play field, as opposed to sprites, patches and flats. They are composed of the title screens, the help screens, the end screens, the menu bars, the end titles, everything in the status bar, the fonts...

WinTex will present you a list, with, in that order:

ENTRY NAME	X OFFSET	Y OFFSET	= FILE NAME
(name, in WAD)			(name on disk)

### Special graphics

The fonts are very special. you should never try to use them in a Wall texture, that crashes DOOM.

Under HERETIC, the title screens and the help screens are special too. they are raw 320x200 pictures.

Usually, you'd better replace a graphic by a graphic of the exact same size.

### Adding or removing graphics

Press **new graphic**, and indicate a file a file somewhere in your directories, where you edit your pictures and it will be copied to the relevant subdirectory, and declared in the list.

Press the **dust bin** to delete a graphic from the list, and possibly from the directory.

### Reusing old graphics

Select an old graphic in the list of old graphics, and press **Import**

### Editing your graphic

Double click in the graphics list and you will invoke your favourite graphic editor, if you configured WinTex.INI the right way.

### Setting the graphic entry name

The name of the graphic entry is only meaningfull to DOOM or HERETIC, it bears no relation with the graphic file name. You can change it by **selecting a graphic entry name in the combo box** and pressing **rename**. You'll find it easier, in general, to have a file name equal to the entry name.

### Setting the offsets (insertion points)

Most graphics don't need offsets. But the faces graphic, on the status bar of DOOM, need offsets.

The best is to import a similar graphic from the main WAD, to get an idea of what the offsets should be. But you can press on **face** to set some sort of face offset (sometime they work).

**press apply** to apply your offsets, once you have changed them.

### **Repeating Graphics**

if you don't want to compose a new picture for every graphics you can use the same picture for a serial of graphics. the first graphic of the serial will indicate the picture, the other just say 'repeat previous' (picture).



## Editing Sprites under WinTex

See the [Changing Sprites](#) section for general principles.

This is the description of the sprite editing windows of WinTex.

For more advanced topics, take a look at the [Using WinTex to build Sprites](#) section.

### Description of screen

The sprite editing windows is composed of a list of sprites, and above that a sprite display frame. On the left you find a frame to set the offsets of sprites, and above that a list of old sprites, that you can view, extract and modify. Put a pyjama on your Cyberdemon! On the right, is some experimental stuff that try to indicate the viewpoint of the sprite you're looking at, and the phase of the sprites.

WinTex will present you a list, with, in that order:

ENTRY NAME	X OFFSET	Y OFFSET	= FILE NAME
(name, in WAD)			(name on disk)

### The viewpoints

The view point stuff will indicate you what kind of viewpoint you sprite is for:

top means *front view*, down means *rear view*, center means *all views*, and when you sprite is valid for two viewpoints only the first is indicated. how lame!

### The phases

The phase stuff will tell you the phase for your sprite. it's indication are mostly false, because not adapted to the sprite (yet). oh, why bother looking at this?

The good thing is that Offset stuff! You can set the offset yourself, or choose between normal or weapon. Well, the 'normal' formula is correct, but the 'weapon' formula is only correct X-wise. and it centers your weapon on the screen, which might not be what you want. Y-wise, it's...a pure guess, from the DOOM specs 1.6, and from comparisons. do you have a better formula?

### Adding/deleting sprites

Press **new sprite**, and indicate a file a file somewhere in your directories, where you edit your pictures and it will be copied to the relevant subdirectory, and declared in the list.

Press the **dust bin** to delete a sprite from the list, and possibly from the directory.

### Reusing old sprites

Select an old sprite in the list of old sprites, and press **Import**

### Editing sprites

Double click in the sprite list and you will invoke your favourite graphic editor, if you configured WinTex.INI the right way.

### Setting the sprite entry name

The name of the sprite entry is only meaningful to DOOM or HERETIC, it bears no relation with the graphic file name. You can change it by **selecting a graphic entry name in the combo box** and selecting a viewpoint and phase for your sprite, and then pressing **rename**.

### **Setting offsets (insertion points)**

the only trick is for weapons: their offsets are negative, because they indicate an offset relative to a 320x200 screen, not relative to the center of the sprites.

For ordinary sprites just click on **normal** and that should suffice to position your sprite.

For weapons you will need to clicking on the **Weapon** checkbox, and WinTex will calculate a rough offset, from an approximation formula that mainly works for horizontal offset. You will have to adjust manually, especially if your weapon must not be centred: a fist, for instance, would be best on the right or on the left. The formula is too tricky for me to guess, and that in the DOOM specs doesn't work well, so please someone help me here!

## **Editing Sounds under WinTex**

### **Changing sounds**

See the Changing Sounds section for general principles.

it's easy, provided all you need is WAVE.  
Double click, and the sound plays! real tough.

WinTex will present you a list, with, in that order:  
ENTRY NAME = FILE NAME  
(name, in WAD) (name on disk)

### **What are the sounds?**

You know that, don't you? never heard the scream of the horny imp, when it's about to screw you?  
oink! oink! well, now you know: all you listen and that doesn't sound like music is a sound.  
easy to guess, no?

### **Adding/removing sounds**

Press new sound and select a sound file somewhere in your directories. it will be added to the list, and the file copied to the relevant subdirectory.

### **Changing the sound name**

you can change a sound name so that it corresponds to another sound effect.  
select a name in the combo box, and press rename.

### **Sound formats**

use WAV only, 11025 sample/second. non compressed. 8 bit-sample.  
DeuTex can handle VOC and SUN Audio, but not WinTex. that's life.

### **What are the PC sounds?**

obsolete junk that is played on PC speaker, when no sound card is present.  
Double click for a lovely text file! What can those numbers possibly mean?

## Editing Music under WinTex

### What are the musics?

See the [Changing Musics](#) section for general principles.

The musics are associated to a level and are played continuously when you play the level.

Musics are under very different format from sounds. not possible to reuse a sound as music, or the inverse. Music is only a set of notes to play, so they are small, usually. Music files are usually MIDI or MOD. Only MIDI is supported, but there is a MOD to MIDI converter on the net.

Well, if you double click, nothing will play unless you have used the infamous mus2midi to convert the mus format to MIDI. there is a button MUS to MIDI right for that.

WinTex will present you a list, with, in that order:  
ENTRY NAME = FILE NAME  
(name, in WAD) (name on disk)

### Identifying the musics

use the combo box, as usual.

Look how the names of the DOOM2 musics have been typed!

For Heretic, all the music names are not here, because there is not one music for each level. some music repeat, but I don't know how. so you figure.

### Adding/removing music

press the delete key, or the dust bin.

### Changing the music name

press on rename

### Music formats: Importing from MIDI files

MUS2MIDI and MIDI2MUS are called automatically

You can import music either as MUS (that you get form other WADs) or as MIDI (then WinTex will use MIDI2MUS, which is fast and somehow reliable).

**Warning:** MUS2MIDI sometimes hangs...or so it seems... in fact, it's lost in one helluva loop that won't terminate before you finish your coffee, so go get one. I'm not criticising, because I looked at the code and understood nothing at all, so I can't make it better and would rather shut up.

## Editing Textures under WinTex

### What is a texture?

See the [Changing Wall Textures](#) section for general principles.

A texture under DOOM or HERETIC, is **the pattern defining what is displayed on the walls**. It is not a single graphic file, but rather a combination of graphic files that are called patches. So a Texture is no more than a patchwork... that makes sense, doesn't it? Why a patchwork? so that you can reuse the same graphic file in different situations, and thus generate many kind of wall textures, from a limited amount of graphic patches.

### The two texture lists TEXTURE1 and TEXTURE2.

Textures under DOOM2 are all in a single entry. But under registered DOOM and HERETIC they come in two entries, that you will need to define separately. That's why there is a TEXTURE1 editing window, and a TEXTURE2 editing window!

Beware **not** to redefine the same texture name in **both** windows.

Beware **not** to use TEXTURE2 if you're doing a **DOOM2** level!

### Choose your texture file

Under WinTex, like under DeuTex, the textures are stored in one or more **text files**. These files have a very simple text format, that can be edited by hand if really needed. But It's easier to edit it with WinTex!

If you use NWT, you may have noticed that NWT also can store textures under a Text format, and this is exactly the same as that of DeuTex, for compatibility reasons. So if you're not happy with the texture composer of WinTex, you can still use NWT...

The default name for a texture file is TEXTURE1.TXT or TEXTURE2.TXT.

### Organisation of the screen

The screen is divided in no less than 6 part, which is too much for many people.

- The upper part is the **texture windows**. it contains the texture being composed.
- The lower right part is the **patch frame**, it contains patches that can be used to compose texture.
- The middle part is the **texture definition**, it contains the list of patches currently composing the texture, and buttons to fiddle with those patches.
- The lower part is the **texture file contents**, it contains the list of textures in the currently edited file.
- The lower left part is the **texture file list**. there can be many texture files, but preferably you should only use one, the default one.
- The middle left part is the **list of old textures**, as found in DOOM or HERETIC.

### Creating or Editing a Texture file

Before you start editing textures, you must first select a text file where your texture definitions will be stored. got to the lower left part, and type a name in the text box, and click on it or press return to add this name to the list. If there already are files in the list, then just click on a name of the list. Then press the **Edit button**.

## Loading the contents of another texture file

The **Read File button** enables you to read a texture file, and append the contents to your currently edited file. Typically you will use this option to merge two different texture files, or read some of your old texture files generated by DeuTex or by NWT.

## Selecting a Texture

### Changing the name of the texture

You can enter or modify the name of your texture in the text box situated in the upper part of the texture windows. Beware that if you change the name of a texture, a new texture will be created.

### Selecting the Height and Width of the texture

You can change the height and width of a texture by moving the scroll bars at the top and left of the texture windows.

Any Height between 4 and 128 can be selected, but beware that if you are composing a wall, that texture will be repeated every 128 pixel, so a texture of height below 128 will leave a very ugly mess on the screen. **Use 128 always.**

For Width, only the powers of 2 can be selected, i.e. 4,8,16,32,64,128,256,512, and there is no 1024 option yet (because 1024 is only useful for sky textures, and a real mess to display on a 640x400 screen! hand edit the texture if you need 1024.). **128 or 64 are recommended.**

## Composing the texture

The section about Patches will tell you more about the patches you can use to compose your textures.

### **Warning**

The transparent areas of the patches are **not transparent** when moving the patches. This is because there is no transparent Bitmap under Visual Basic, and the Windows call that is used for moving transparent stuff is much too unreliable to be used here.

**So you roughly place your patch, then precisely adjust it's position** once it is in the texture.

### **Adding a patch**

Browse through the list of new patches, or the list of old patches, at the lower right corner, and select the patch you wish, and it appears in the texture screen, as a floating picture.

**Left click** and your patch will **drop** on the texture. **Right click** and your patch will be **discarded**.

### **Grabbing a patch**

The patches only move when you're in the texture picture, and you hold it by the middle point.

If this is unsuitable, **click on the DeuTex icon** (the Devil) and you will **grab your patch** by the point you just selected on the icon! This is most unnatural to you, but so is the power of the Devil!

### **Moving a patch**

Select a patch in the texture contents list, and use the Up/Down/Right/Left/Bring Front buttons.

If you want to move the patch to a far away place, then click on the list, it will grab that patch. place it where you want. and then delete the previous instance of the patch in the list. easy!

### **Removing a patch**

Select a patch in the texture contents list, and press DELETE.

### **Viewing the old textures**

You might wish to display or modify textures that were already in DOOM or HERETIC. The list of the old textures is huge, and so it is not loaded automatically when you start the editing session. You must press the **Load Old button** to get the old textures.

### **Modifying the old textures**

you need to import them into the texture file. press the import button

## Editing Patches under WinTex

See the [Changing Wall Textures](#) section for general principles.

You need to be in the patch editing windows.  
There you can add patches to your existing patches.

### **Warning**

If there is a file in the New Patches list, that **has the same name as an existing** patch, then **it will redefine that patch**, even if it's not what you desire. This is because for DeuTex the loading of patches is entirely automatic.

**If you want to avoid this, un-select the patches when building your WAD.**

## Defining new patches

Before using new patches in your textures, you must provide a graphic file that will contain your patch. Else WinTex won't allow you to compose a texture with that patch.  
To define a new patch, click on the **New Patch button**, and select a graphic file that will be copied into the new patch list.

## Deleting new patches

If you want to get rid of a patch in the new patch list, select it and press **DELETE**.  
Beware that if your patch was used in a texture, WinTex will not even realise that, but DeuTex will then look for it in the main WAD. If it was really a new patch, and it was really needed, DeuTex will immediately stop building your WAD and report an error.

## Reusing old patches

Under WinTex, you can select a patch from the list of all graphic entries in the WAD.  
However, all those graphic entries shall not be reused. WinTex automatically removes the from the list the Flats, the Fonts, and the Status bar items, because they would crash DOOM.  
You can reuse Sprites (as was done in the famous TRINITY WAD) but if you want to reuse fonts, then you must provide your own fonts as separate patches, with names different from the names of the font in DOOM or HERETIC. Suggestion: use names FNT\_A to FNT\_Z.  
Of course, you can also reuse the old patches, that are situated at the very end of the list.

Now you can learn how to compose your [Textures](#).



## Editing Flats under WinTex

### What are the Flats?

See the [Changing Floors and Ceilings](#) section for general principles.

Flats are the patterns that DOOM and HERETIC use for Floors and Ceilings. Changing those patterns is possible, and much simpler than changing the textures, because these are mere 64x64 bitmaps. Alas, it is also much more tricky, as DOOM or HERETIC can't read external Flats, unless you include all the flats into an external WAD. Same situation as for sprites.

WinTex will present you a list, with, in that order:  
ENTRY NAME                                   = FILE NAME  
(name, in WAD)                               (name on disk)

### How can you change Flats?

Wintex will allow you to specify a list of new Flats. You then will use them for floors and ceilings in your levels. Then you will have to distribute your Flat WAD with DeuSF, and an installation batch containing the line:

```
DeuSF -flats -app <yourflat.wad>
```

That way, each time people will install the WAD on their systems, DeuSF will append all the missing flats at the end of your Flat WAD, and you won't need to distribute them with your WAD!

Alternate option:

```
DeuSF -flats -merge <yourflat.wad>
```

That way, your Flat WAD is merged into the main WAD, which is modified.

### Why use DeuSF for that?

Because it's very secure, and ported to every DOOM environment.

Modifications made by DeuSF are reversible, type:

```
DeuSF -restore <modified.wad>
```

### How to use Flats in your levels?

Level editors should recognise the external Flat PWAD, and then you should be able to use your new Flats as well as the original Flats.

Alas, most editors won't recognise the external flats. Then the only option is to merge your Flat WAD into the main WAD, do your level editing, and then restore your main WAD when you've finished all the level editing business.

#### **Warning**

DOOM flats are **64x64** bitmaps. Heretic also has some **64x65** bitmaps for flats, I don't know why and I don't think the last line is used in fact.

DOOM can take external Flat WADs, but HERETIC 1.0 cannot.

### Animated flats

If you want to redefine an animation with flats, be sure to select (in the identification drop box) one start and one end of animation that exists in your doom.exe or heretic.exe. Then redefine those start and end with the patches you damn please, and put the intermediary steps **in between**.

### **Warning**

If you redefine only the start or only the end of animation, you will crash doom or heretic. There will be no warning.

### **The Flat texture F SKY1, indication of SKY**

The flat named F\_SKY1 is not a real Flat. It is never displayed. It only says to the DOOM or HERETIC engine 'please draw a sky texture instead of a floor and ceilings'.

So F\_SKY1 a Flat that displays a texture! but a very special one, which looks like a fixed landscape very far away. There is no way to animate a sky texture.

If you want to redefine it, proceed like with any other textures, but beware that it needs to be 256x128 minimum, and only 1024x128 will give you a non-repeating sky texture.

Beware also that you will in fact see a mirror image of the texture... Hell knows why!

## Viewing WAD sounds and Graphics under WinTex

Well, what needs to be said? You move in the list, you click on an entry, and is played or displayed. Can't be much easier!

If you think programming windows is easy, well, I beg you help me on the following limitations.

### No texture displayed

You can view the textures in the main WAD, by using the texture editing windows. You can't view the texture redefined in a WAD directly, you must extract those texture first, and then view the files.

### Picture are only half displayed

It's a bug in the API call to display bitmap. I can't find this bug. It seems to be a darned windows bug, since most of the time it works normally. can't be my fault, can it? Windoze sux!

**click twice.** the second time, the picture should display entirely

### Picture scaling can spoil colours

There is a scale option. You'd better leave it to 1, because the Windows call that makes the picture scaling sometimes fails surprisingly on some colours. Why? ask MicroSloth, not me.

**If your colours are crazy, go back to scale 1.**

### Limitations of the entry identification

You can select to view the sounds, the graphics, the flats or the sprites.

This should work with almost every WAD, but as they don't have a correct format, like the main WAD, there must be an entry identification first.

The viewer that is included in WinTex will provide you a list of entries, but the entry identification is not as well crafted as in DeuTex, because DeuTex's entry identification would be too slow, and WinTex doesn't need to be as secure, as it is only a viewer.

Thus sometime you will find names in the list that don't relate to any sound or graphic entry. Don't worry, this is normal, and the viewer will ignore them if you try to display them.

The loading of sounds under HERETIC is real slow. This is normal, because you can't trust the names of sounds in HERETIC, so I have to read a little bit of all the sound entries.

## Displaying information about the WAD contents

The **Show** menu enables you to get information about the contents of a WAD. First, you shall select a **Source WAD** in the source WAD file list

### Selecting a WAD

select a source WAD, by using the directory and file browser.

### Listing the WAD directory (with identification of entries)

This calls DeuTex with -wadir.

If you don't know deutex, the result might look cryptic:

ENTRY NAME	ENTRY SIZE	IDENTIFICATION
------------	------------	----------------

### Displaying entries

see the [Entry Viewer](#) section.

### Listing unused spaces in a WAD

You might wish to know if there is no wasted data in a WAD you've just built with another tool. Tools like DMGRAPH, DMAUD, and DMADDS are well known for the huge amount of data they can waste in a file, due to their simplified WAD handling.

#### **Have a GOOD LAUGH! Look at OLD WADs with this!**

DeuTex will scan the selected WAD and report if it finds parts in the WAD that are not referenced to in the WAD directory. these parts can't be used by DOOM or HERETIC.

#### **Warning:**

On a WAD generated by DeuTex, or modified by DeuTex or NWT there are sometime some little amount of data that will be reported unused. This is normal! don't delete those data! DOOM and HERETIC can't use them, but DeuTex and NWT use them to restore the modified WAD.

And of course, there is the 20 byte header that DeuTex adds to every WAD it builds, so that other tools can recognise the WAD was built by DeuTex.

### Checking a WAD

will check that all the necessary patches and textures are present.

slow because non optimised: but simple and secure.

not checked yet:

- multi-sprite viewpoints

- missing flats

### Checking a Target WAD

Same thing as before, but in the WAD you've just built.

### Using New Wad Tool

calls new wad tool on your WAD.

New Wad Tool is a fast DOS-only tool to fool around with WADs.  
**Don't use this to mess with the contents of your WADs!** no security!

### **Using Wad Tool**

call Wad Tool on your wad. not as powerful as new wad tool.

## **Extracting data from the WADs**

First you must select a **Source Wad**, and a **Data Directory** where the data will be put.

### **Selecting only some entries**

You might not wish to extract all the entry types in your WAD.  
Then you can select only some types. see the [Entry Selection](#) section.

### **Extract entries in a WAD**

pressing the extract button enables you to extract all the selected entries types.  
I repeat: ALL THE SELECTED ENTRY TYPES.  
So If you don't want to extract levels, don't select levels.

### **Extract only one entry**

Go under the relevant editing window.  
single-entry extracting is implemented only for MUSIC, SOUNDS, GRAPHICS, SPRITES, FLATS.  
not levels. why? go figure.

### **Extract old patches (obsolete)**

not needed anymore.

### **Extract old Textures (obsolete)**

not needed anymore.

## **Building a new WAD**

First you must select a **Target WAD** and a **Data Directory** that will contain the necessary informations to build a wad

### **Entry selection**

You might not wish to put all the entry types in your WAD.  
Then you can select only some types. see the [Entry Selection](#) section.

### **Build PWAD**

the WAD will be build with the special PWAD convention.

### **Build IWAD**

the WAD will be built as if it was a main WAD. It had better contain all the necessary entries!

### **Check WAD**

Check the WAD you have just built.

## Merging WADs

DeuTex was the first ever tool to implement that WAD merging feature. If DOOM and HERETIC did their job correctly, you could add as many PWAD as necessary, to replace all the entries you want, and that merging feature would be irrelevant. But alas DOOM has a bug there, and HERETIC seem to have an even greater bug! The merge functions are so necessary to play DOOM and HERETIC files, that a special utility, called DeuSF, has been derived from DeuTex: it's DeuTex limited to the merge functions! And you will often need to distribute it with your installation files (but it's small).

## What's the use of the merging functions

the merge functions of DeuTex enable you:

- to install your WADs containing sprite and flats, for all versions of DOOM and HERETIC, without having to distribute all the internal sprites and flats of DOOM and HERETIC.
- to combine WADs together, especially WADs that redefine textures, sprites and flats (otherwise, most utilities can do that, even DEU. Use DeuTex because it also handles the tricky stuff).
- to install your wad inside your main wad, so that you replace DOOM or HERETIC by your favourite patch (but it's reversible).

There are many way to reach the same general goal, depending on whether you're paranoid about your main WAD, or about the wasted space on your disk, or if you prefer the old DMADDS way of working out this problem.

### Warning:

Don't mix DOOM files with DOOM2 files: it could work, but don't expect miracle.  
Don't mix DOOM files and HERETIC files: it will almost never work.

## Merging a WAD into the main WAD

select a source WAD, **unlock** the main wad directory (so that it appears red) and use the menu **merge - merge PWAD into IWAD**. or press the merge button

## Restoring the main WAD

**unlock** the main WAD directory (security) and as menu **merge - restore IWAD**, or press restore.

## Joining two PWADs

This combines two PWADs together, merging their sprites, flats and even textures. sprites and flats is not a problem  
select a source WAD, and a target WAD.  
the source WAD will be merged into the target WAD. only the target WAD is modified  
If entries are conflicting, those in the source WAD have priority

## Restoring a PWAD

Whatever modification you do to a PWAD, you can restore your PWAD to it's original state, like the main WAD. **Even if you use some other tricky tool** on the WAD, DeuTex **might** be able to restore the PWAD. There is a **\_DEUTEX\_** directory entry that contains data for the



restoration. as long as this data is preserved, and the beginning of the WAD is not modified, DeuTex can restore.

### **Sprite completion**

When you've build a sprite WAD that only replace a subset of the sprites, you shall complete that WAD with all the sprites in DOOM before attempting to play it. the sprite completion command is done for that.

**Warning:** HERETIC version 1.0 can't handle external sprite WADs. use the merge command.

To build sprites, See [Using WinTex to build Sprites](#)

### **Flat completion**

same idea, but for flats.

## **Selecting only some entry types in a WAD**

This is easy: you just check each entry name, on the down-left part of the main screen. there is a special button to select them all, or to select none, or to select only textures, patches and flats, so as to build custom texture and flat PWADs.

## **The patch trick: automatic loading**

The patches are loaded automatically if present in the patches\ subdirectory of your working directory.

un-check patches if you don't want them

## **Output formats**

There is no much of a choice if you're using WinTex. Only the Windows format are supported by WinTex, i.e. Bitmap and Wave sounds.

However, if one of your tools needs something else, like GIF, PPM, AU or VOC, then you can still request that format. but WinTex won't be able to handle it.

### **BMP**

windows bitmap format. Only the 8-bit bitmaps are supported by WinTex. Only the 8 bit and 24 bit format are supported by DeuTex.

### **PPM**

A trivial graphic format, to be used with the freeware package PBM PLUS popular under Unix. Only the P6 (24 bit raw RGB) format is supported by DeuTex.

### **GIF**

Compuserve's Graphic Interchange Format. Popular everywhere.

### **WAVE**

Window's sound format. Only the 8 bit PCM, non-compressed, single channel format is supported.

### **VOC**

Creative voice format. Only the simplest format is supported: 8 bit PCM, non compressed, single channel, single chunk of sound data, no silences, no comments.

### **AU**

SUN System format. Only the simplest format is supported: 8 bit PCM, non compressed, single channel.

## **Source WAD**

### **What is the source WAD?**

This is the WAD that will be used as a source of data, for most DeuTex commands.

### **selecting a source WAD**

browse the directory, click on the WAD file of your choice.

## Target WAD

### What is the target WAD?

This is the WAD that will be used as the destination of some DeuTex commands.

This is the wad that will be built from the entries you've defined

This is the wad that will contain your new textures and flats, if you're editing with new textures and flats.

### Selecting a target WAD

click on the change button, or double-click on the name of the WAD.

### Heretic WAD naming

the convention is that all WADs made for heretic should have a name beginning with **h**, for rather **h\_**, so that they are not confused with the DOOM WADs.

For Strife, it will be the same idea: **s\_**.

## The Working Directory

### What is the Working Directory?

This is the directory structure where all the data files describing your WAD are to be stored, generally in sub directories.

There should be **one** working directory **for every project** you make.

### How to select a new working directory

double click on the directory name, or click on the change button.

The directory selection window appears.

If you type a directory name, just above the directory list, a new directory will be created.

### Contents of the Working Directory

The working directory contains a main file, called WadInfo that describes what is supposed to be present in the WAD you just decomposed, or the WAD you are trying to build.

It will also contain the **batch file for installation**, if you make one.

Usually a sub directory will be created for each entry type that DeuTex needs (for instances, the sub directories TEXTURES, PATCHES, LUMPS ... are created if you edit textures, patches, lumps...)

### Direct access to data in the subdirectories

for some operations, you might wish to gain direct access to your data file. You will find them in the directory. This is especially true if you work with external tools that generate a lot of data, like the raytracers (3D Studio, POVray, AutoCAD). see Making Sprite. With WinTex.

Here is the list of the sub directories, and what they contain.

The names of the subdirectories match the names of the sections in wadinfo.txt.

levels	*.WAD			Single level WADs
lumps	*.LMP			Lumps of raw data (format varies)
musics	*.MUS	*.MID		music files (MUS or MIDI format)
sounds	*.WAV	*.VOC	*.AU	sound files (WAVE, VOC or SUN AUDIO format)
textures format)		*.TXT		Text files (special DeuTex/NWT texture
patches Pixmap)		*.BMP	*.GIF * .PPM	Graphic files (Bitmap, GIF, Portable
graphics	*.BMP	*.GIF	*.PPM	Graphic files (Bitmap, GIF, Portable Pixmap)
sprites	*.BMP	*.GIF	*.PPM	Graphic files (Bitmap, GIF, Portable Pixmap)
flats	*.BMP	*.GIF	*.PPM	Graphic files (Bitmap, GIF, Portable Pixmap)

## WadInfo file

### What is the WadInfo file

This is the directory where all the data files that DeuTex needs are to be placed. There should be one data directory for every project you make

### How to select a new WadInfo file

you can't. Wintex always use wadinfo.txt and wadinfo.bak as the previous file, before modifications.

### Contents of the WadInfo file

That file describes what is supposed to be present in the WAD you just decomposed, or the WAD you are trying to build.

The content of that file should match the contents of the Data Directory.

### Trick

The patches are never mentioned in **wadinfo.txt**.

The loading of patches automatic. all the graphic files that match a path name will be included in the WAD, unless you unselect the patches with the Entry Selection section.

### Format of wadinfo.txt

You don't need to know that format, unless WinTex goes crazy and you have to modify that file by hand.

for each **subdirectory** of the Data Directory there is a correspondent entry in **wadinfo.txt**, that describe the contents of that directory.

for instance, the SPRITES contained in the WAD are described in the [SPRITES] section, and the graphic file that define those sprites are in the SPRITES subdirectory of the data directory.

### Sections format

It's the same as what is displayed in the list boxes.

**ENTRY** [**Xinsrpt**] [**Yinsrpt**] [= **FILENAME**] [\*]

**ENTRY** is an **entry name** (8 characters max, no space).

**Xinsrpt** is an optional **X insertion point** only relevant for graphic and sprites.

**Yinsrpt** is an optional **Y insertion point** only relevant for graphic and sprites.

**= FILENAME** is an optional **= sign**, followed by the **root name of the file** defining the entry.

If this sign and a root file name is not specified, the entry name is used as root file name.

**\*** is an optional **\* sign**, it indicates that this entry is exactly the same as the previous one.

Don't put this indication on the first entry defined in a section!

### Example of sound definition:

DSOOF

DSPISTOL = BANG  
DSSHTGUN \*

*It means that the file DSOOF.WAV or .VOC will define the DSOOF sound entry, that the file BANG.WAV or .VOC will define the DSPISTOL sound entry, and that the DSSHTGUN sound entry is exactly the same as DSPISTOL, so there is no need to specify a file name.*

**Example of sprite definition:**

PLAYA2A8 45 80 = HOMERA2  
PLAYA3A7 \*

*it means that the BMP or GIF file HOMERA1 will define the entry PLAYA2A8, and that this entry will be placed at insertion point (45,80). Then the entry PLAYA3A7 will be the exact same entry as PLAYA2A8, so there is no need to specify an insertion point or a BMP or GIF file.*

**Valid sections**

[LUMPS]	the list of raw data files
[LEVELS]	the list of WAD files that contain one single level (others are ignored)
[TEXTURES]	the list of files that contain textures definitions (the last one has priority)
[SOUNDS]	the list of sound files
[MUSICS]	the list of music files
[GRAPHICS]	the list of graphic entries
[SPRITES]	the list of sprites
[FLATS]	the list of floors and ceilings

there is no [PATCHES] section: Patches names are determined automatically by DeuTex)  
there is no [PNAMES] section: Patch names list is built automatically by DeuTex)



## Using WinTex to redefine Sprites

### *DIFFICULT*

### Redefining sprites: what for?

You can change the appearance of:

- **monsters**. Want to fight Barney or the Energiser Bunny?
- **objects**. Want to replace those Stimpack by a donnut?
- **weapons** and **missiles**. Want a to toast your pals with a flame thrower?
- **add viewpoints** to some flat objects. Want to replace barrel by a PC, and see the view change as you turn around it?

Generally, the sprites are used for all the stuff that can move, and for the decorations.

### The Sprites Tricks

- Always use **colours that are close to the DOOM or HERETIC palette**, depending on your target game.
  - **Smooth your sprites**. Averaging between pixels, or more complex treatments, will greatly reduce the Aliasing effects on your sprites: they will grow or shrink without losing too much of their quality.
  - **Quantize the colours of your sprites**, down to the DOOM or HERETIC palette, by using a professional tool. Usually, Raytracers output their images in 24 bit format, unsuitable for DOOM or HERETIC. WinTex cannot display them, and DeuTex will have to quantize them.
  - **Make smooth and natural animations** as even the best looking sprites will look mechanic, if it's arms and legs are rotated along only one axis, and only a few parts of it effectively move.
  - **Don't make front view** of your sprite, they look ridiculous. See that no DOOM sprite is ever seen directly from front, always a few degrees to the left or to the right.
  - **Don't be afraid of adding viewpoints**: most sprites under DOOM or HERETIC only have a subset of the 8 viewpoints, but your replacement sprite, being usually asymmetric, might require more viewpoints than are available in the original sprite. **DeuTex and DeuSF will handle that for you, and they are the only tools that can do that!**
- Warning:** please don't forget viewpoints!

### Sprite naming convention in DOOM and HERETIC

- the **sprites names** have 4 letter (except the artifacts).
- Then comes a letter that defines **the phasis** (A,B,...Y,Z...) when the sprite is displayed
- Then comes **a number** define the viewpoint (1 is front, 3 is left, 5 is back, 7 is right, 0 means always the same, whatever the viewpoint).
- Then **optionally** comes another letter and number, with the same meaning. But the sprite will be displayed in reverse, **allowing to use the same picture for the left and right view of a sprite**, if it is **symetric**. This trick is often used, even when the sprite is not entirely symetric, and so the weapon of the sprite appears to change from left to right hand! who cares?

### Why use WinTex with sprites?

Because DeuTex is the only tool that can change the number of available viewpoints in the main WAD. If there is a sprite which has the same right view and left view, DeuTex enables

you to change it into two viewpoints, one for the left, one for the right!  
Ideal if your sprite is not symmetric! ideal to make an 8-viewpoint barrel, for instance!  
And of course, you can do the inverse, reducing the number of available viewpoints, to save space in your WAD, is always possible.

## Why use WinTex rather than NWT with 3DS or AUtoCAD?

Typically, when you generate a set of sprites, using AutoCAD or 3D Studio, you will make a first try, build a WAD with it, try it, notice that a few things are not correct, make modifications, and rebuild a new WAD, and this many times, before you reach perfection. If you use **NWT** you will need **each time** to re-load all the set of sprites, and type the offsets of course.

If you use **WinTex**, you declare your sprites, and set their offset **once and for all**. Then, for each new set of sprite you generate you will just press on the build wad button, and that's all!

Of course, you shall generate your sprites in the Data Directory, and more precisely in the SPRITES. Else, no problem, but you'll have to make a file copy.

## Using WinTex with sprites

You will first select a Working Directory. this is the place where all your sprites .BMP will be stored by WinTex.

- Go under the Edit menu, and select Edit sprites.
- Declare new sprites one by one by choosing a name in the sprite list, typing the relevant data to replace the '#' characters so that it makes a valid sprite name. you can rename the sprite later if you made an error. see the discussion above on sprite naming convention. Click on new sprite and select your BMP file. it will be copied to the relevant place.
- For each sprite, select an insertion point and **press on apply**. Simple enough: if your sprite is a weapon, press on weapon (and WinTex will tell doom to center it on the screen), if your sprite is an ordinary monster or thing, press on **normal**. This is not automatic, because WinTex cannot guess what is a weapon and what is not, and you might wish to achieve **special effects** by playing with the insertion points.
- double click on your sprite to invoke the BMP editor (you can change it).
- when your list of sprites is complete, press **done**, save the file, and go back to the main menu.
- In the main menu, select only the sprites (for security), select a name for your WAD to be built, and and press **build**.
- when your WAD is built, you can distribute it. but **before you can play it** all the sprites in DOOM or HERETIC will need to be appended to that wad. click on **add sprites**
- **Later**, if you want to change the picture of your sprites (because you redraw them, or re-generated them with 3DS) just copy the new files to the **sprites\** subdirectory of your working directory.

See the Sprite Editing section, for the technical stuff.

## Using WinTex to redefine Sounds

### EASY

### Redefining sounds, what for?

You can change the sound effects that are played when the **monster scream or die**, when the **weapons are fired**, when the **missiles explode**, when the **door open**.... Under heretic, you can also change the **ambience sounds** (random sounds). You cannot change the music here. It is not under a sound effect format.

### The Tricks

Your sounds shall preferably sample at 11025 sample/second, and imperatively 8 bit per sample without compression. Remove the silences, they waste data.

Filter your sounds to reduce the noise level.

Take care to cut the eventual noise of the recorder. those clicks sound bad in DOOM!

Don't make too big sounds. the sound compress very bad with the archivers, and your WAD will be huge. also, DOOM cannot play big sounds (max is around 10 seconds).

### Using WinTex with sounds

You will first select a Working Directory. this is the place where all your sounds .WAV will be stored by WinTex.

- Go under the Edit menu, and select **Edit sounds**.

- Declare new sounds one by one by choosing a name in the sound list, Rename the sound later if you made an error. Click on **new sounds** and select your WAV file. it will be copied to the relevant place.

- double click on your sound to play it, click on edit to edit it with your own program.

- when your list of sounds is complete, press **done**, save the file, and go back to the main menu.

- In the main menu, select only the sound (for security), select a name for your WAD to be built, and and press **build**. Then you can play your wad directly.

See the [Sound Editing](#) section, for the technical stuff.

## Using WinTex to redefine Musics

### EASY

### Redefining musics, what for?

You can change the musics that are played in background as your blast through the levels.

### The music tricks

The **musics** in DOOM and HERETIC are under a special **MUS** format, that few people ever bothered to understand. you can convert your **MIDI** files to MUS, by courtesy of IDsoftware, and back from MUS to MIDI by courtesy of Joachim Erdfeld (just\_joe). These are external programs, because the source was not available or too strange to be integrated in WinTex. There is **no MOD converter** know to me, hence it's not called by WinTex. Many sound cards will crash if you try to play **a music with too many simultaneous notes**. A bad example is the music of TRINITY (the GUS is meant to play techno, not J.S. Bach).

### Using WinTex with musics

You will first select a Working Directory. this is the place where all your sounds .WAV will be stored by WinTex.

- Go under the Edit menu, and select **Edit musics**.
- Declare new musics one by one by choosing a name in the music list, preferably a name that corresponds to the level the music will be played in. Rename the music later if you made an error. Click on **new music** and select your MUS file. it will be copied to the relevant place. Click on **new midi** and you can choose a MIDI file, that will go through conversion by MIDI2MUS.
- double click on your music to play it, but you had better converted it to MIDI before, because Windows can play MIDI sounds, but not MUS sounds (I'm not gonna write a MUS driver).
- when your list of musics is complete, press **done**, save the file, and go back to the main menu.
- In the main menu, select only the musics (for security), select a name for your WAD to be built, and and press **build**. Then you can play your wad directly.

See the [Music Editing](#) section, for the technical stuff.

## **Using WinTex to redefine lumps**

***VERY EASY***

### **Redefining lumps: what for?**

You can change the end screen of DOOM and HERETIC, and the start screen of HERETIC.

You can change the demos of the game.

You can also replace the lumps by anything you like, but you will need another tool to edit them.

later, the possibility to edit color palettes may be added

### **Using winTex with lumps**

See the [Lump Editing](#) section, for the technical stuff.

Mainly DeuTex will call the relevant editor. TED is used for the end and start screen, because it's a good tool and then there is no need to rewrite it.



## Using WinTex to change graphics

### **QUITE EASY**

### Redefining graphics: what for?

You can change the title screens, the names in the menu, then end level screen, and the status bar item, like the faces. This is much easier than changing sprites.

Under HERETIC, changing some big picture like the title and end screen is not possible, unless you treat them as lumps. This restriction should be removed some day... Still, you can view them.

### The Graphics Tricks

- most graphics have insertion point set to zero (press void)
- the faces have very strange insertion point (-2,-5) and so press face, or rather proceed by imitation. It is easy to crash the game with a bad insertion point.

### Using WinTex

You will first select a Working Directory. this is the place where all your graphics .BMP will be stored by WinTex.

- Go under the Edit menu, and select **Edit graphics**.
- Declare new graphics one by one by choosing a name in the graphics list, and replace the '#' by the relevant characters. Rename the graphics later if you made an error. Click on **new graphics** and select your BMP file. it will be copied to the relevant place.
- **double click** on your graphics to edit it with your the .BMP viewer.
- when your list of graphics is complete, press **done**, save the file, and go back to the main menu.
- In the main menu, select only the sound (for security), select a name for your WAD to be built, and and press **build**. Then you can play your wad directly.

See the [Graphic Editing](#) section, for the technical stuff.

## Using WinTex with Levels

### **NOT REALLY EASY**

### Why use WinTex with levels?

WinTex will allow you to call your favourite level editor **with your flat and texture PWAD** if you just built one. It will also allow you to **call external node builders** (like BSP) or **reject builder** (like RMB) on your levels, if your editor doesn't do that very specialised and time consuming job

You can also **change the level names**, or **group many levels** in your WAD.

### The Level Tricks

- WinTex treats **each level independently**, so you must **provide a single-level WAD** for each level you want to add in your final WAD.
- WinTex doesn't care about the internal name of your level in the single level WAD, but only one level (the first one found) will be read if there are many.
- WinTex will declare your level according to the name you specify (by clicking on **rename**) so it's easy to move a level!

### Using WinTex

Nodes and reject need to be rebuilt each time you modify the level map.

You shall ask to build the nodes before you want to play a level.

Build the reject only on your definitive version, unless you want to experiment with some special effects (like blind monsters...see the RMB doc)

See the [Level Editing](#) section, for the technical stuff.

See the section about [Level Editors](#) to know how to use WinTex with your editor.



## Using WinTex to redefine wall textures

### ***DIFFICULT***

### Redefining textures and patches, what for?

You can **change the appearance of the walls** by changing the patches (parts of wall, or complete wall) and the textures (placement of the patches on the wall).

You can **change the animated walls**, and make actual films playing in the game (very short sequences only).

### The texture and patch tricks

- To make **pass-through walls**, or **semi-transparent** walls (like windows, glasses) you must only use **one single patch** in the texture, or get the mother of all Hall of Mirrors.
- You can change the animations, but then enclose your new animation frames between the start frame and end frame of the animation you modify. Don't abuse on the number of frames, or the game may crash. 4 is safe, 16 is abusive, but seems to work. Don't invert the start and end frames of an animation, or the game will lock-up.
- All the patches you declare will be put in your PWAD, if they are referenced in any textures. loading of patches is automatic.
- Combining animations is a foolish thing. Happy experimenting.

### Using WinTex with patches and textures

There are two specialised sections in WinTex: one for patches, one for textures.

First compose your patches, and declare them in the patche section.

See the [Texture Editing](#) and [Patch Editing](#) sections, for the technical stuff.

See the section about [Level Editors](#) to know how to use your texture WAD with your editor.

## Using WinTex to change floors and ceilings (flats)

### *DIFFICULT*

### Redefining flats: what for?

You can add some **custom ceilings or floors** to your levels, or **change the animations** of the floors, so that they have more or less frames.

### The Flat Tricks

- There must **not** be any **transparent pixels** in a floor or a ceiling
- The **sky is not a flat**, it's a special kind of texture. See the texture editing section.
- You shall try to **smooth your flats**, and **avoid repetitive patterns**, like grids, else you will suffer from the moire effect (very ugly at long range).
- When you redefine an **animation for flats**, you must **enclose your own frames between** the frames that are referenced as **start** and the one that is referenced **as end** of animation cycle, in that order. Those frames are indicated in WinTex. **The game will lock-up if you invert or forget one of start or end of animation. no warning!**

### Using WinTex to change flats

You will first select a Working Directory. this is the place where all your sprites .BMP will be stored by WinTex.

- Go under the Edit menu, and select Edit sprites.
- Declare new flats one by one by choosing a name in the sprite list, and typing the relevant data, when needed, to replace the '#' characters. your flats can have any name, preferably one that isn't already used by the game. be original. Click on new flat and select your BMP file. it will be copied to the relevant place.
- double click on your flat to invoke the BMP editor (you can change it).
- when your list of flats is complete, press **done**, save the file, and go back to the main menu.
- In the main menu, select only the flats (for security), select a name for your WAD to be built, and and press **build**.
- when your WAD is built, you can distribute it. but **before you can play it** all the sprites in DOOM or HERETIC will need to be appended to that wad. click on **add flats**

See the [Flat Editing](#) section, for the technical stuff.

See the section about [Level Editors](#) to know how to use your floor and ceiling WAD with your editor.

