

# MW12 Textures - Replace/resize texture with hex editing

When unpacked with DGI's tools, each texture comes in 2 parts: the *Header* and the *Texture Data*. The *Header* contains information about the texture such as dimensions and type. The *Texture Data* is the actual data that makes up the texture. If you want to resize a texture, changing the *Header* is required.

Name	Date modified	Type	Size
19_F7_OF_00_texture.dat	8/01/2023 2:03 PM	DAT File	342 KB
20_F7_OF_00.dat	8/01/2023 2:03 PM	DAT File	1 KB
20_F7_OF_00_texture.dat	8/01/2023 2:03 PM	DAT File	171 KB
21_F7_OF_00.dat	Header	DAT File	1 KB
21_F7_OF_00_texture.dat	Texture data	DAT File	171 KB
22_F7_OF_00.dat	8/01/2023 2:03 PM	DAT File	1 KB

Textures in MW12 are DDS with a type of either DXT5, DXT1, or R8G8B8A8. DXT5 and DXT1 are the most common so you should stick with those. DXT5 supports different levels of transparency/alpha but DXT1 doesn't.

## Header format

These are the important parts of the header, shown in HxD:

HxD - [C:\Users\shr00m\Desktop\UVBugatti\Texture\5C\_53\_OF\_00.dat]

File Edit Search View Analysis Tools Window Help

16 Windows (ANSI) hex

5C\_53\_OF\_00.dat

Offset(h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	Decoded text
00000000	00	00	00	00	01	00	00	00	07	00	00	00	00	00	00	00	.....
00000010	00	00	00	00	00	00	00	00	00	00	00	00	4D	00	00	00	.....M...
00000020	20	00	00	00	00	02	00	02	01	00	01	00	01	0A	00	00	.....

DDS Type:

4D = DXT549 = DXT347 = DXT1FF = A8R8G8B81C = R8G8B8A815 = B8G8R8A8

Usage

Dimension

Flags 20 if the texture sampler is Normal, Effects, Crumple, Emissive, Lightmap30 if the texture sampler is anything else

Width

Height

Depth

ArraySize

MostDetailedMip

MipLevels

these are in UInt16

## Before you replace a texture

Using the above reference, check what the original texture **type** and **dimensions** and **MipLevels** are before you do anything else. Then you can either make your new texture the same, or resize it as well.

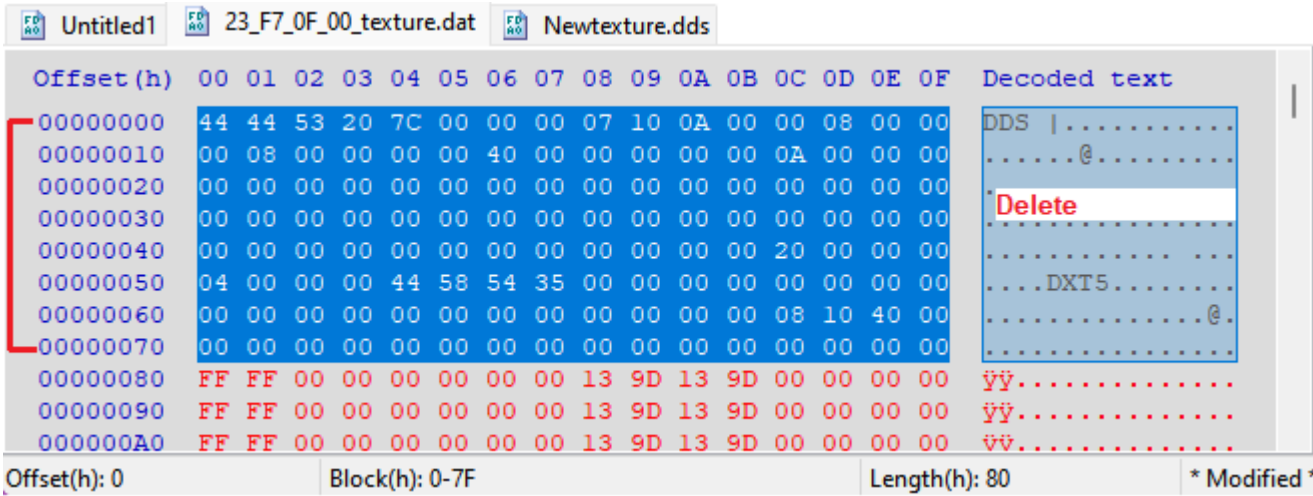
## Replace but keep original type and dimensions

1. Save your new texture as the same **DDS** type with MipMaps generation enabled.
2. Open the original Texture Data **(.dat)** and new texture DDS **(.dds)** in HxD.
3. Scroll to the end of the original **.dat** and note the offset of the last line.

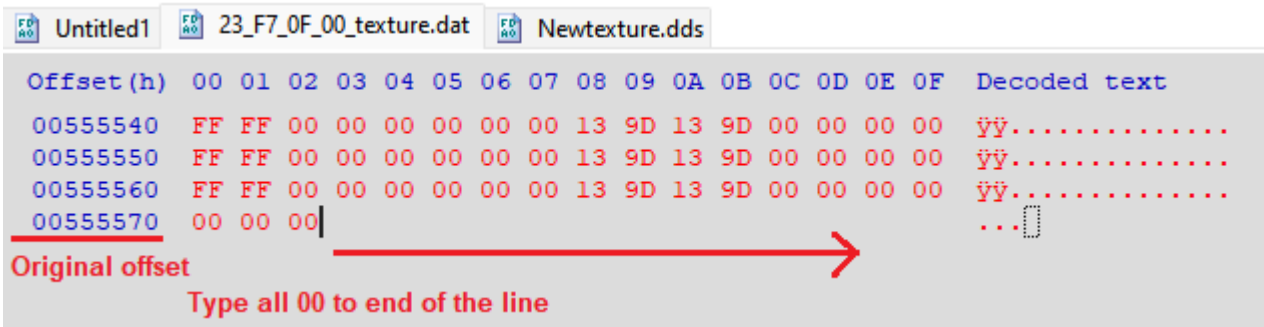
Untitled1 23\_F7\_OF\_00\_texture.dat Newtexture.dds

Offset(h)	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	Decoded text
00555510	FF	FF	00	00	00	00	00	00	A9	6C	CC	63	55	56	54	55	ÿÿ.....@lîcUVTU
00555520	FF	FF	00	00	00	00	00	00	2A	64	AC	63	3F	3F	7F	7F	ÿÿ.....*d-c??..
00555530	FF	FF	00	00	00	00	00	00	6A	6C	8D	5B	FC	FE	FE	FD	ÿÿ.....jl.[übbý
00555540	FF	FF	00	00	00	00	00	00	0B	64	CC	63	65	67	69	55	ÿÿ.....dîcegiU
00555550	FF	FF	00	00	00	00	00	00	CB	6B	EB	63	EE	AA	EE	AA	ÿÿ.....Ěkěcí`î`
00555560	FF	FF	00	00	00	00	00	00	CB	63	CB	63	00	00	00	00	ÿÿ.....ĚcĚc....
00555570	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	.....

4. Select all of the data (CTRL+A) in your new **.dds** and copy it (CTRL+C)
5. Paste it into the original **.dat**, making sure all of it was overwritten. (CTRL+A and CTRL+V) There cannot be any leftover from the original.
6. At the top of the **.dat**, delete the data from offset 00 up to and including offset 70 (DEL key)



7. Scroll to the end of the .dat (it will be shorter than the original file now) and type in 00's to equal the offset you noted before in step 3.

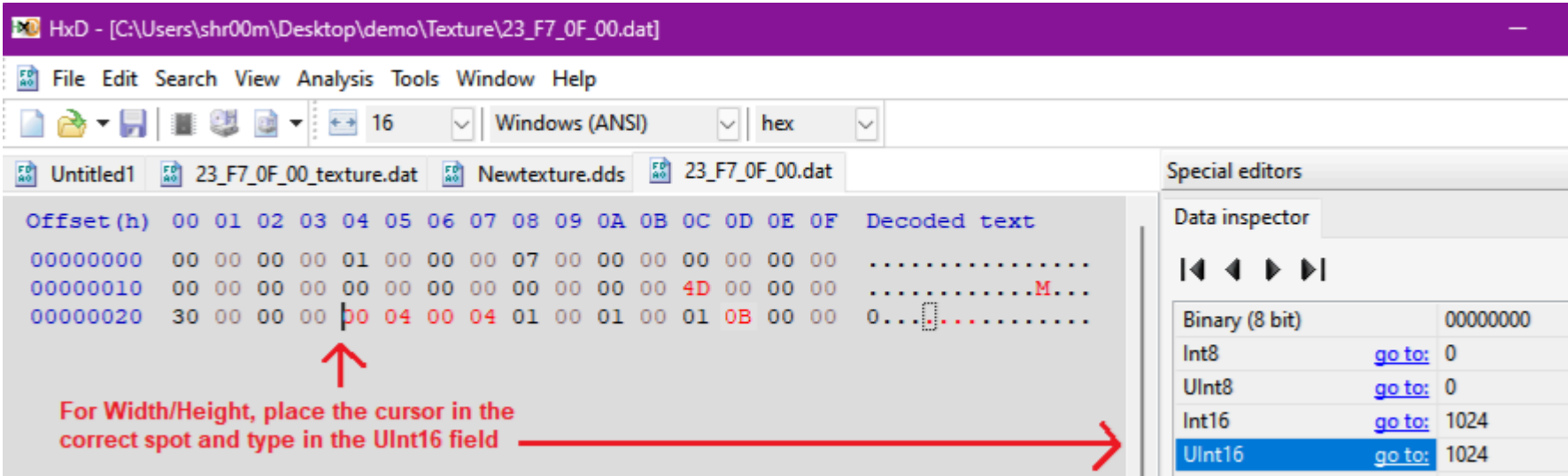


8. Save changes.

### Replace and resize or change original type

1. Save the new texture as the DDS type you need, with MipMaps generation enabled.
2. Open the original Texture Data (.dat) and new texture DDS (.dds) in HxD.
3. Select all of the data from your new .dds and copy it.
4. Paste it into the original .dat, making sure all of it was overwritten. There cannot be any leftover data.
5. At the top of the .dat, delete the data from offset 00 up to and including offset 70.
6. Scroll to the end of the .dat and type in 00's to equal the offset corresponding to the new dimensions (see *Offset Table* for examples)
7. Save changes.
8. Open the Header .dat and edit the **Width**, **Height**, **DDS Type** and **MipLevels** according to the new texture.

Offset Table	
DXT5 - Dimensions	End Offset
64x64	1570
128x128	5570
256x256	15570
512x512	55570
1024x1024	155570
2048x2048	555570
4096x4096	1555570
1024x512	AAAF0
2048x1024	2AAAF0
DXT1 - Dimensions	End Offset
64x64	AF0
128x128	2AF0
256x256	AAF0
512x512	2AAF0
1024x1024	AAAF0
2048x2048	2AAAF0
1024x512	155570
2048x1024	555570



The example above is a DXT5 at 1024x1024 with MipLevel of 11 (0B in hex)

9. Save changes.

### How to determine the MipLevels, height and width of any given DDS:

