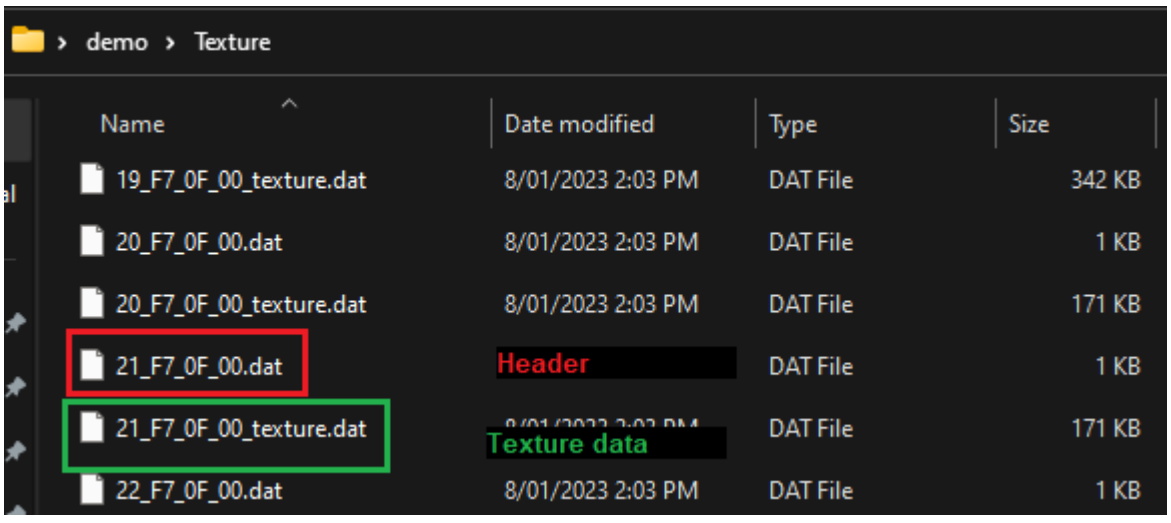
MW12 Textures - Replace/resize texture with hex editing

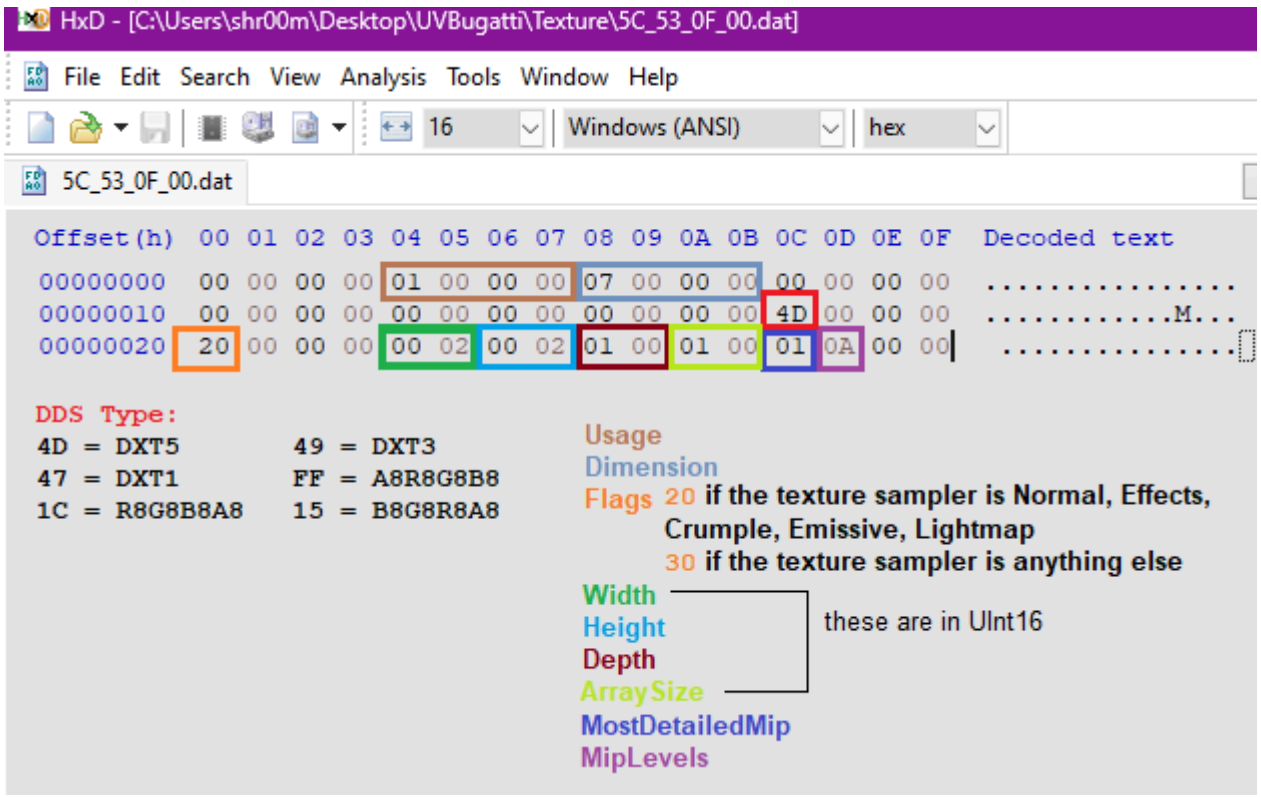
When unpacked with DGI's tools, each texture comes in 2 parts: the *Header* and the *Texture Data*. The *Header* contains information about the texture such as dimensions and type. The *Texture Data* is the actual data that makes up the texture. If you want to resize a texture, changing the *Header*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



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:

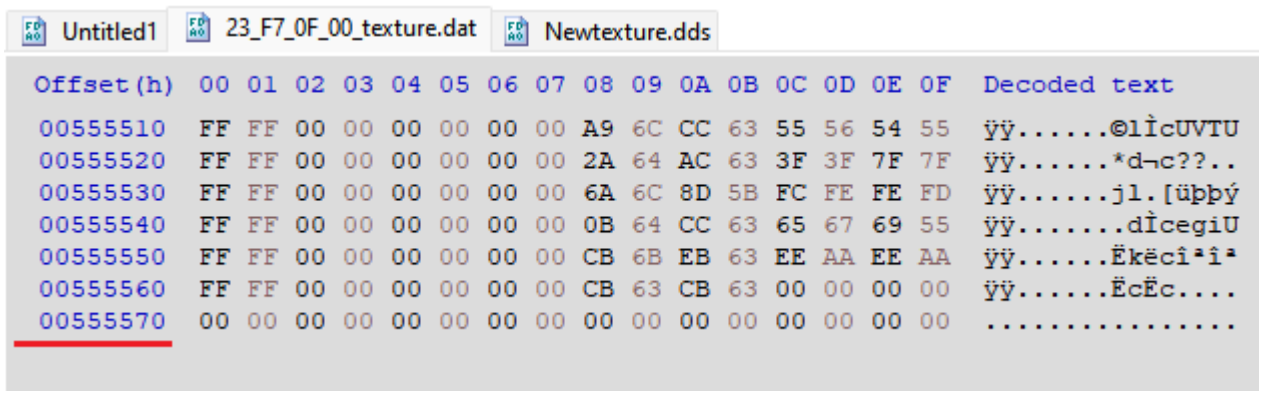


Before you replace a texture

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.



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)

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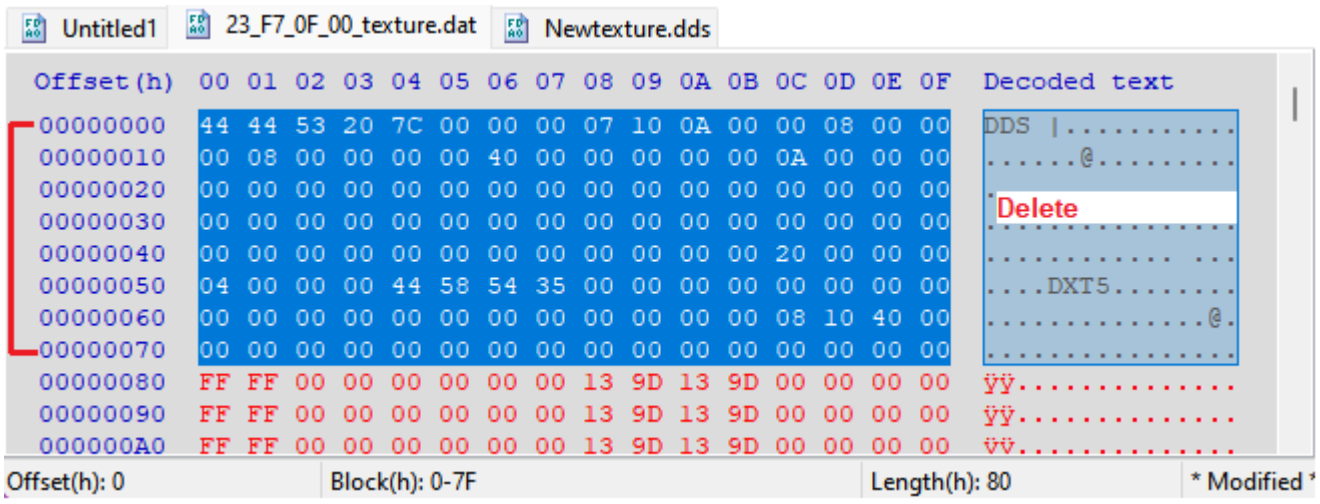
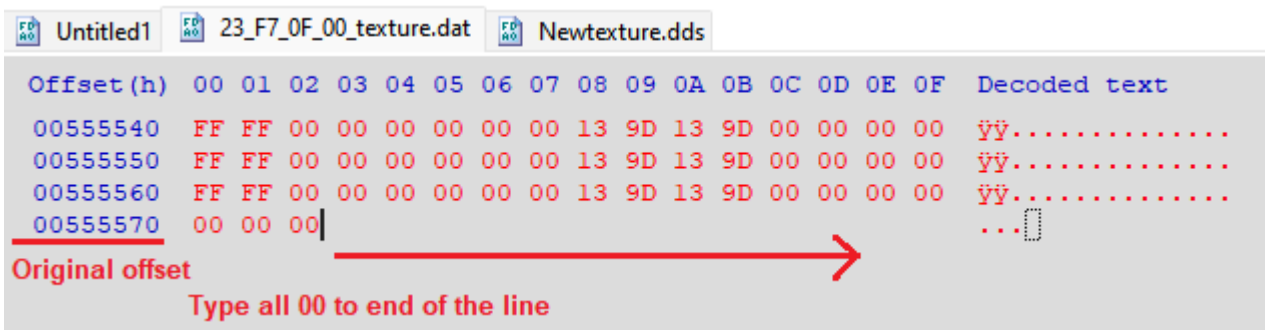


7. Scroll to the end of the **.dat** (it will be shorter than the original file now) and type in 00's to equal the offset you noted before in step 3.



8. Save changes.

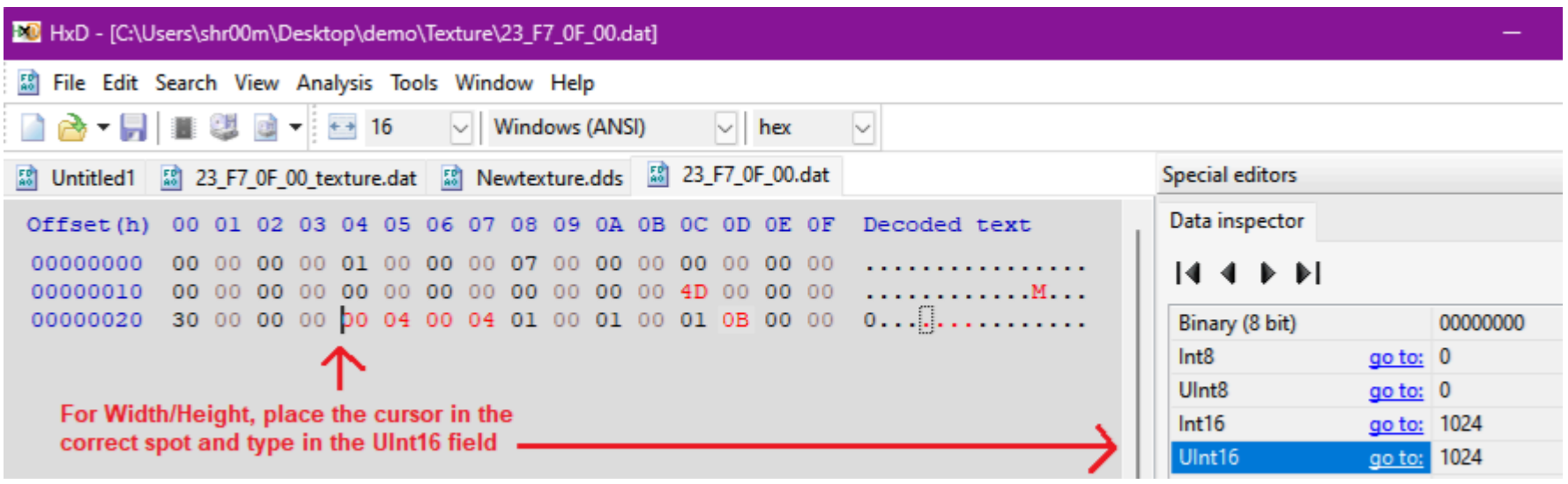
Offset Table

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

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.



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: