Tileset Graphics creation for NSMBDS with

NitroPaint

Part 1 - Tileset Graphics

...and my hatred for NSMBe's graphics editor importer...

Since I began working with NSMBDS hacking, I have consistently encountered a significant issue with NSMBe's Graphics Editor. The problem arises during the process of importing custom graphics. While the tool performs well overall, it often results in a noticeable degradation in color depth quality. Depending on the specific graphics being imported, this can sometimes lead to substantial fidelity loss.

As a result, I have been exploring the use of NitroPaint as an alternative. My goal is to preserve the quality of my custom graphics without compromise.

Yep, I'm that nitpicky
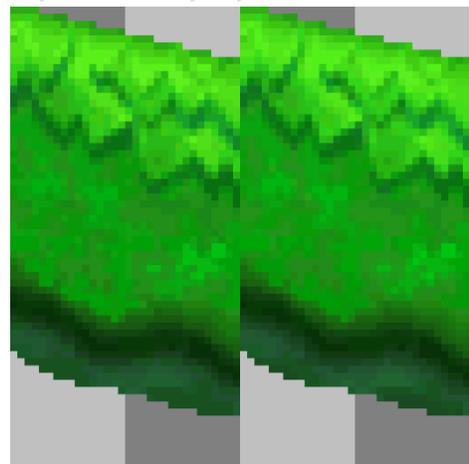
Post NSMBe Import | Original

This only bypass the graphics import process in NSMBe you'll still use the Map16 and Objects Editor in NSMBe to make your tileset usable, I've decided to write this guide because it CAN get technical and complicated to understand.

This is NitroPaint
General purpose DS graphics editor

https://github.com/Garhoogin/NitroPaint
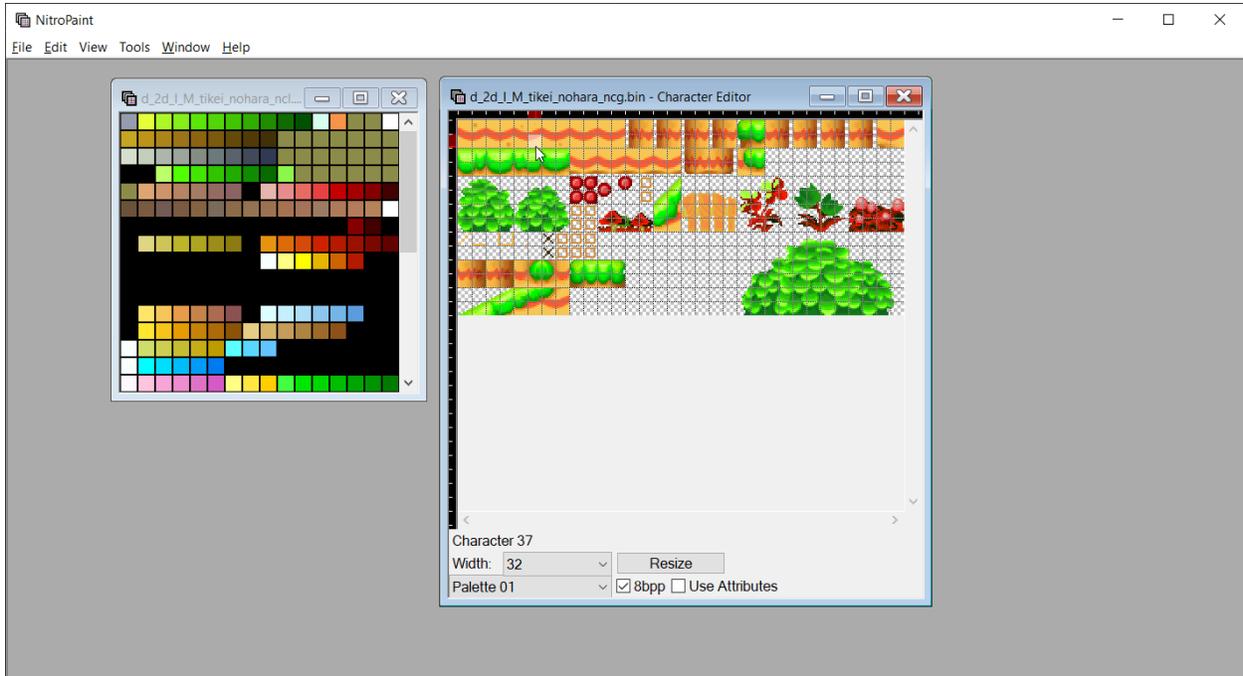
This guide focuses solely on the creation of graphics and does not cover navigation or usage of NitroPaint. For detailed instructions on using NitroPaint, please refer to the user manual linked below.

NitroPaint User Manual

We also are going to make use of one more tool.

Aseprite
It's a paid tool but the source code is available on GitHub, and you can compile it yourself or use any other program that allows you to edit graphics with an index color table

This tool is not necessary in this guide; however, it is still very useful for creating color limited graphics.

Tiled Palette Quantization
Useful tool for reducing color count but keeping the image quality relatively the same

Creating a new Sprite Sheet
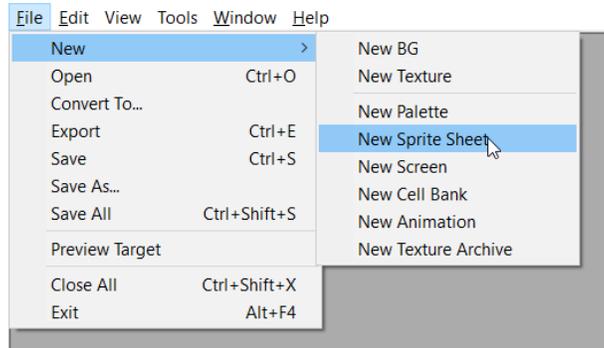
First you create a New Sprite Sheet and set Color Mode to **8 bit**
Mapping to **Char 2D**, and format to **RAW Compressed** then click on **create**
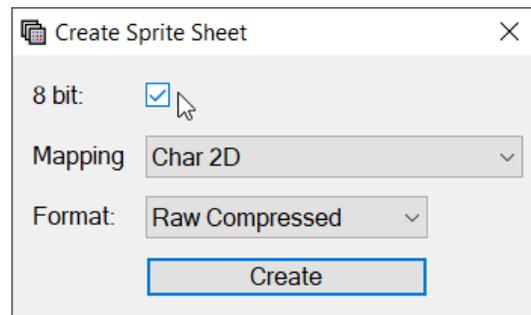
It should also automatically create a palette to go along with but close the palette window.
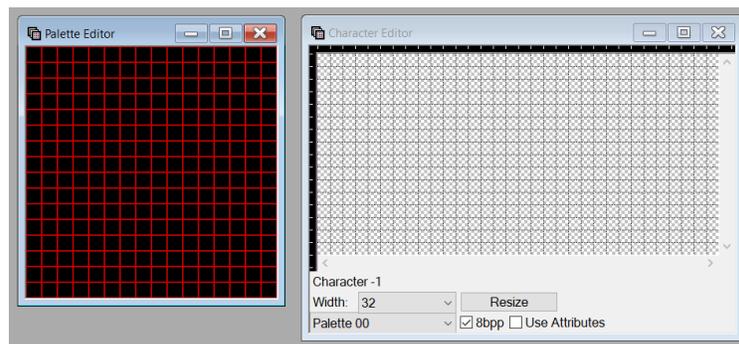
Click on resize and set the height to **14**, this is the size of the tileset space in NSMBDS

Creating a New Palette
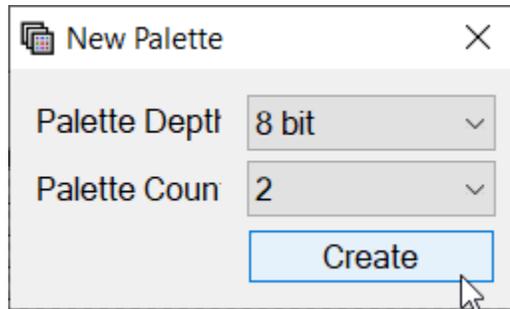
When creating it, make sure to set the **Palette Depth** to 8 bit and **Palette Count** to 2
it only creates 2 palette "pages"
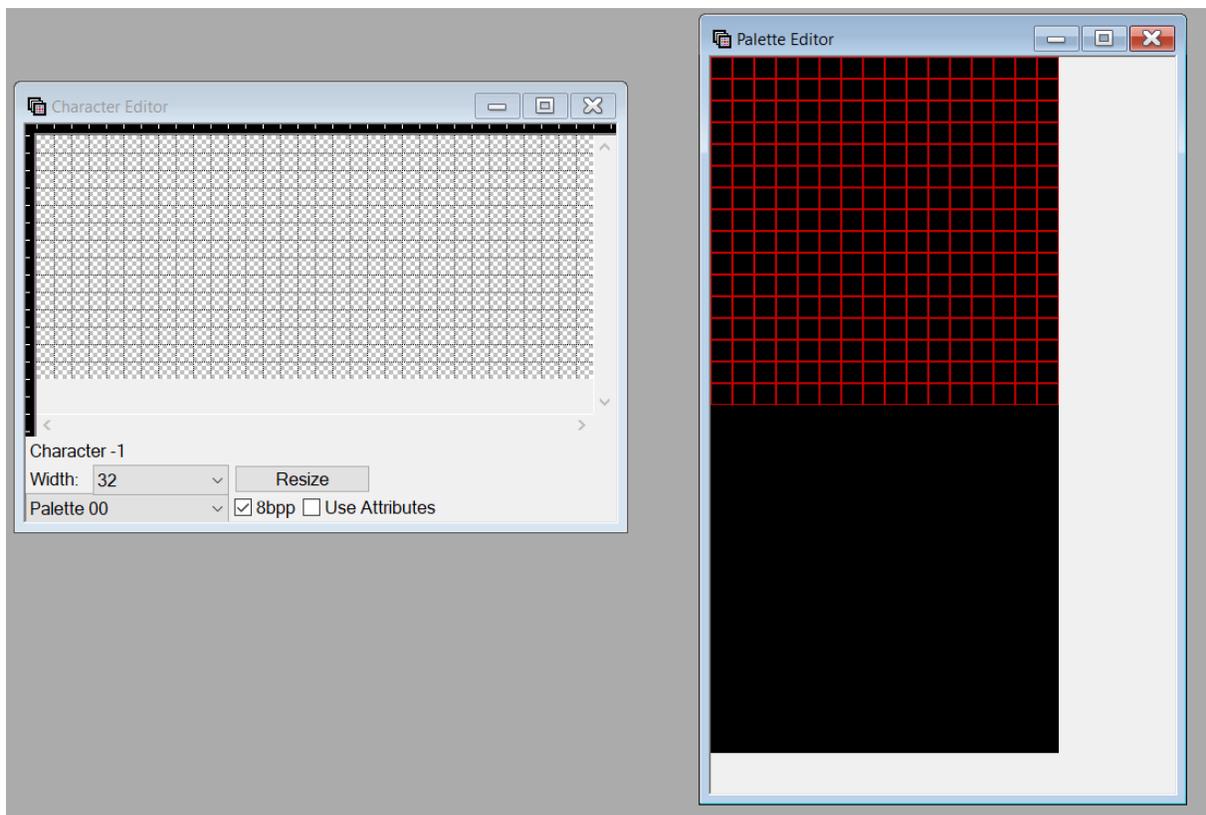
It should look like this, now we move over to Aseprite

Here, I have a simple tileset prepared. It uses 256 colors arranged by luminance. It is crucial to maintain an organized palette index to facilitate the creation of multiple palettes while ensuring their positions remain unchanged. Any alteration to the palette's index order can disrupt the appearance of the graphics in NitroPaint. To prevent this, set the color mode to "Indexed" in Aseprite.
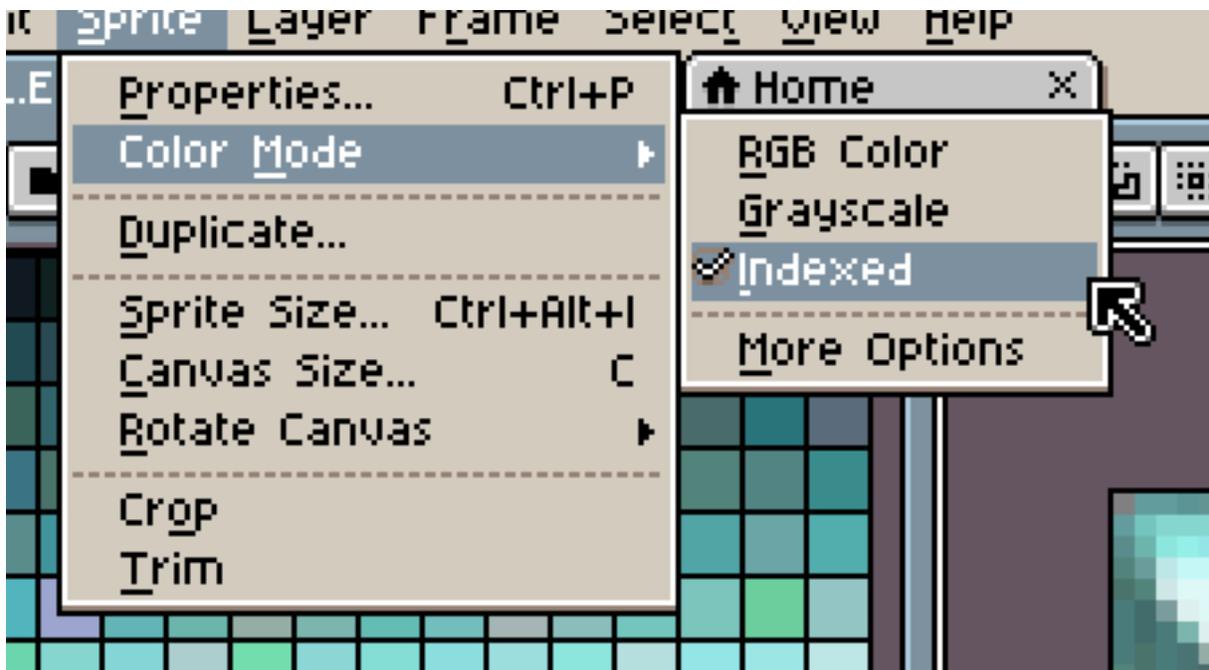
Now, save the palette in the **.aseprite** format. One of the great features of Aseprite is that it allows you to open palettes as image files for direct editing.
We will take advantage of this functionality. Open the saved palette, then save it again, this time as a **.PNG** file.
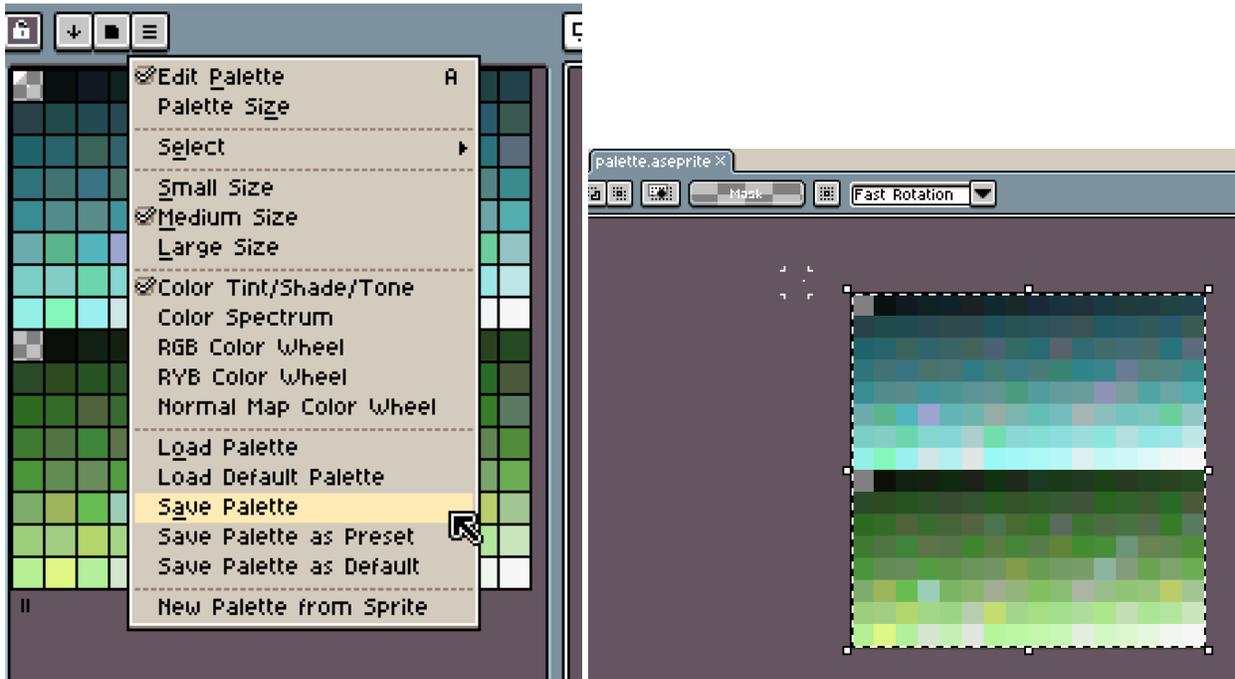
Next, switch to NitroPaint. Select the entire region of the first palette "page," then click on "Import" and load the palette file we previously saved as a ".png", it should look like this:
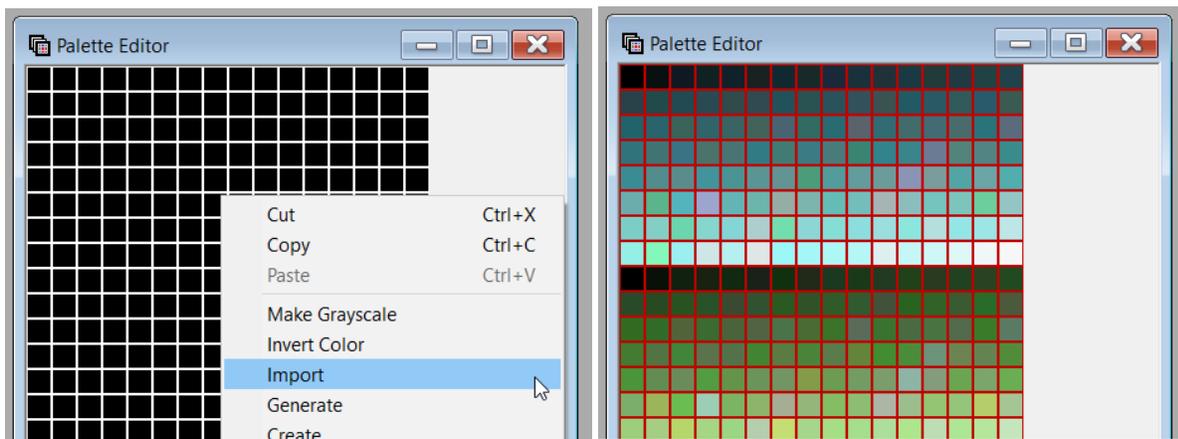
! Congratulations !

You've successfully imported the first palette of your tileset!

This is the same process for any 2nd, 3rd or 4th palette, but you select a different ''page'' for each new palette you wanna import.

Where you change the palette "page"

Make sure to select the all 256 color slots in the palette editor before importing the ".png"
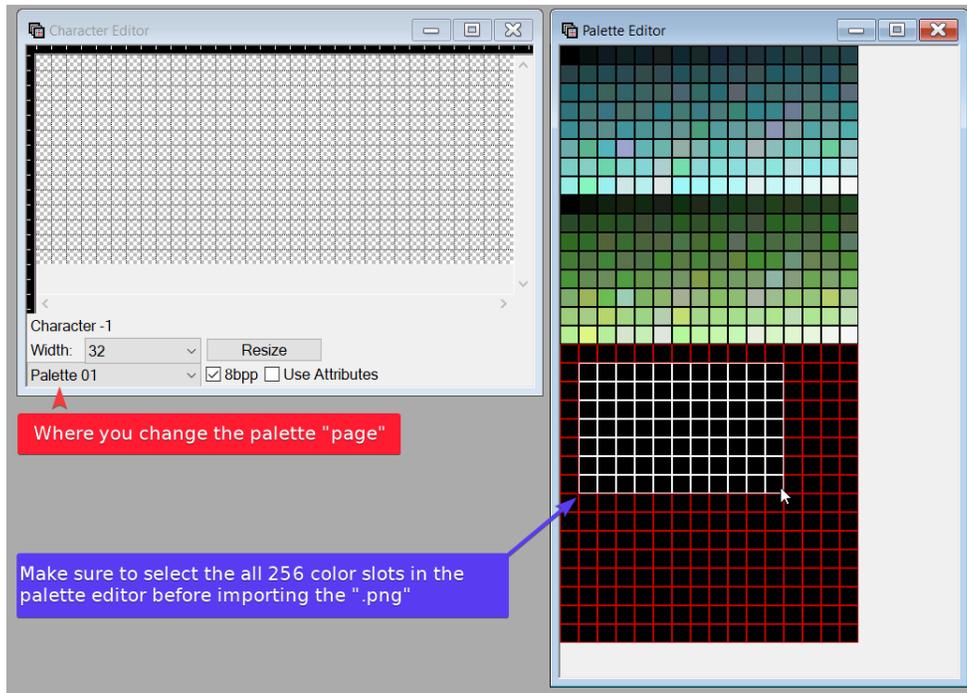
A reminder: Although the colors may change, ensure that the index positions remain unchanged at all times!
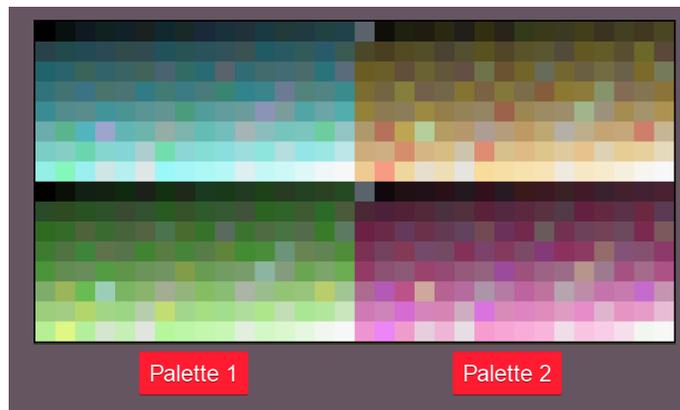
Palette 1   Palette 2

Importing the Tile Graphics

With the tileset colors loaded in the palette editor, you can now import the actual graphics. The process is straightforward: copy the tileset you prepared earlier in Aseprite and paste it into the character editor.
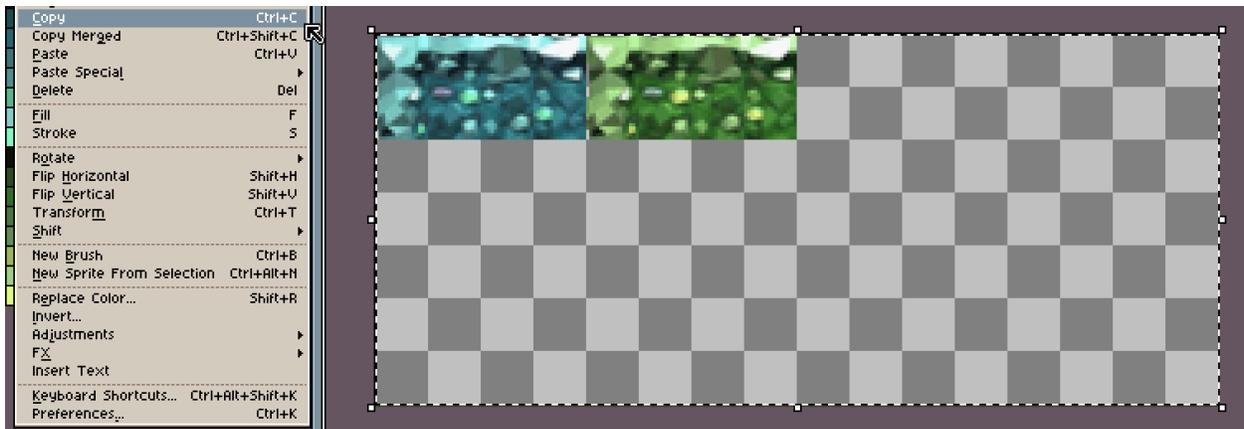
A popup will appear stating that the palettes do not match and offering an option to reindex the graphics–click "Yes."
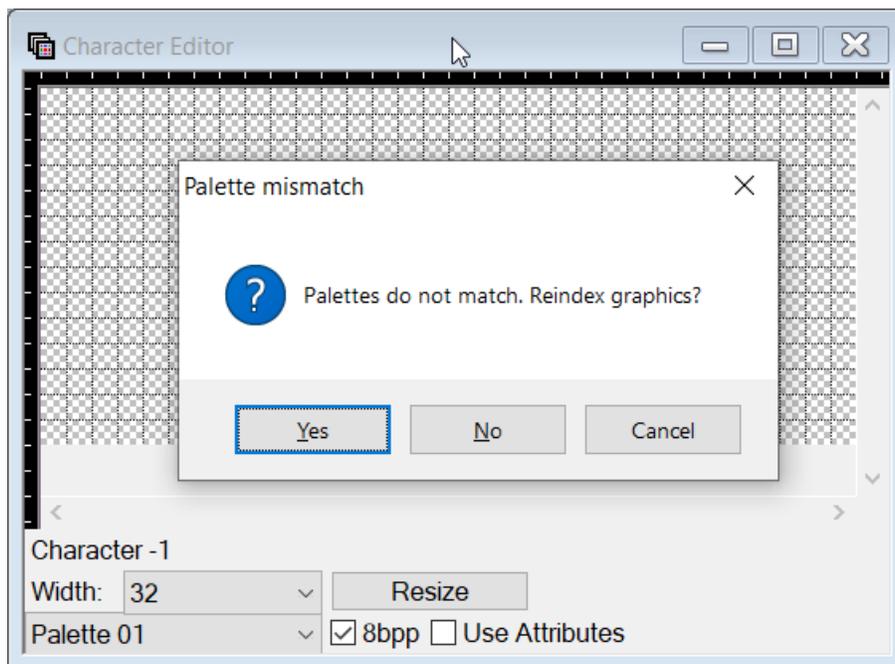
A new window will open. Leave the settings unchanged. If desired, you can enable the "Enhance Colors", though its exact function is unclear. Finally, click "Import."
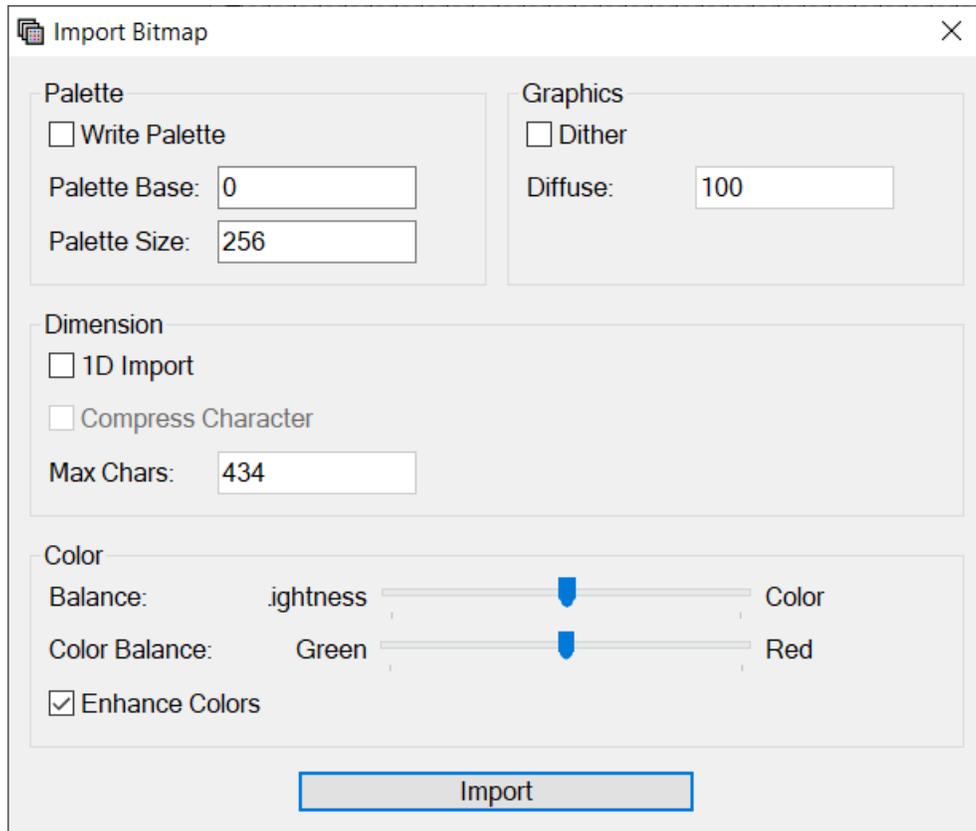
And Ta-da! You finally have a multi-palette tileset in NitroPaint!
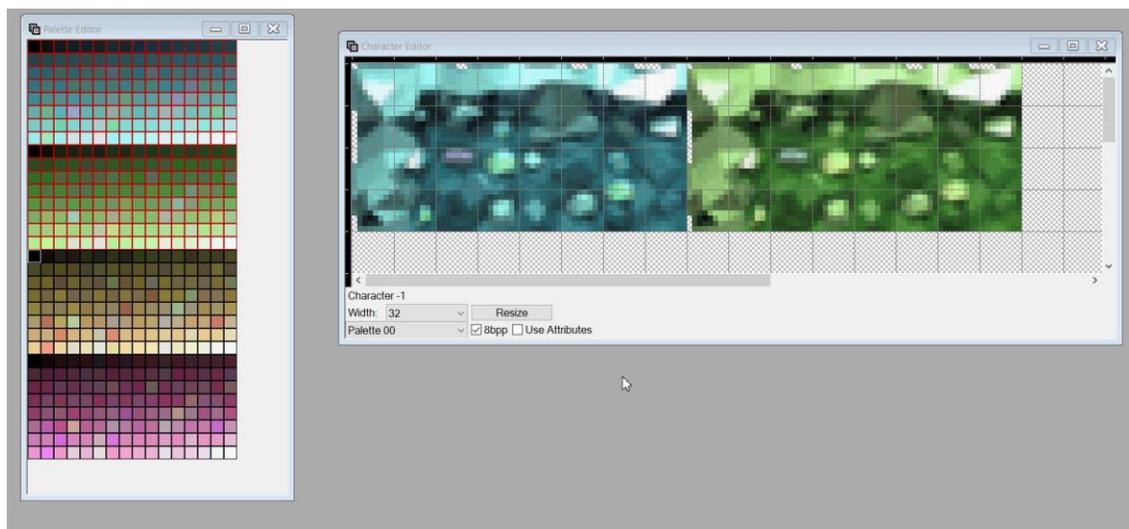
One Last thing before saving the Character Editor (ncg) and the Palette Editor (ncl)
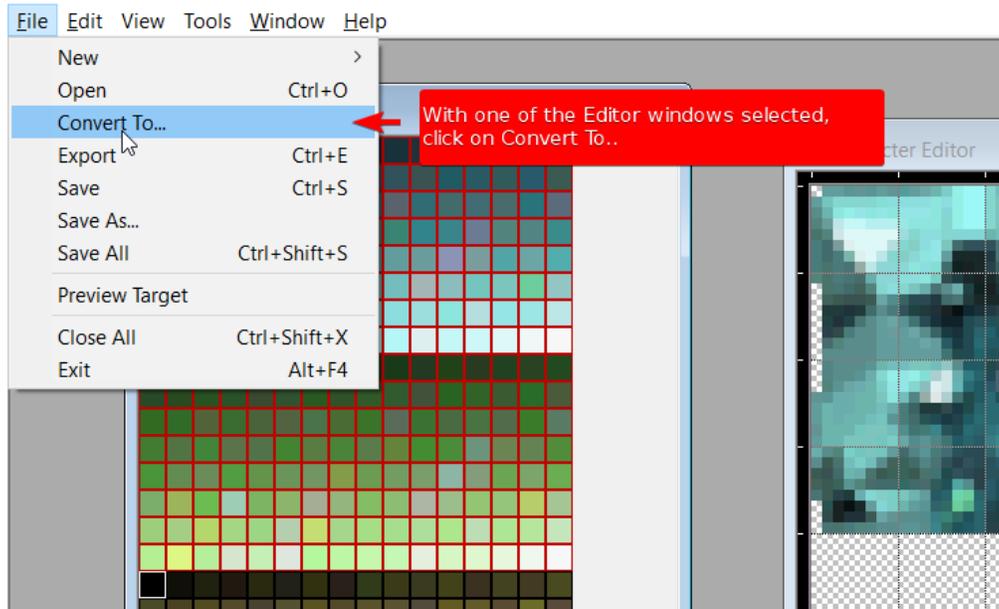
Set format to **Binary** and the compression format to **LZ77**
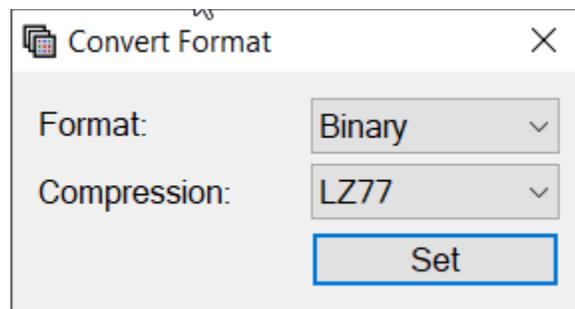
Now you can save the files, I saved them as
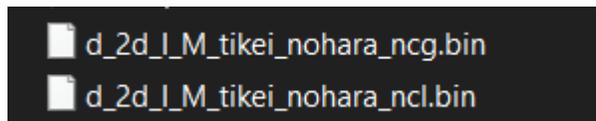
Which means im replacing the tileset graphics for the overworld. This is just a example, you can use any other tileset, specially ones that are duplicates.

Then you just open your NSMB DS rom and go find the named files in the rom browser and replace them with the modified files.
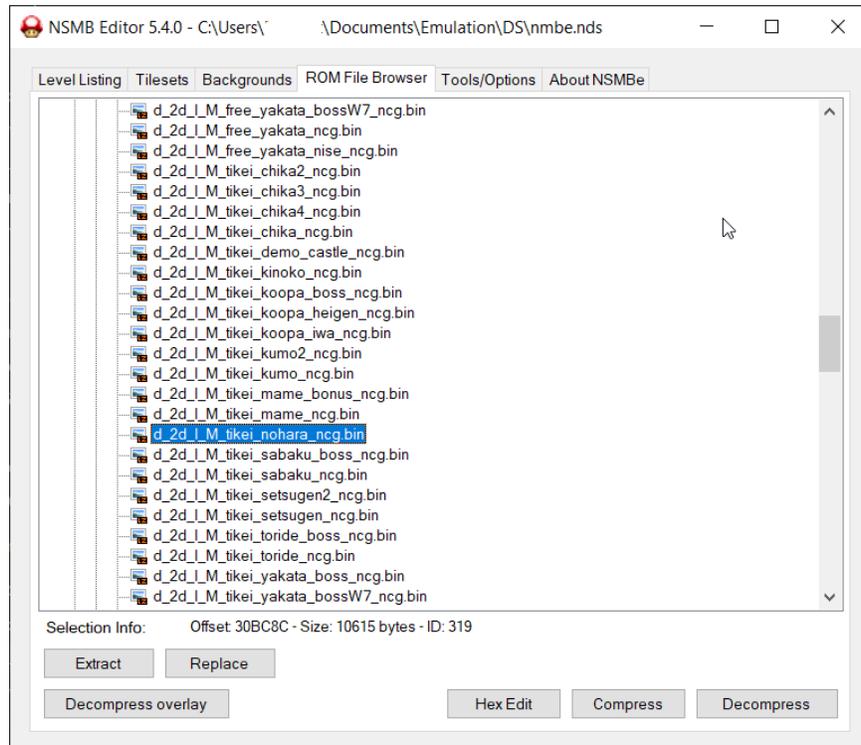
Then open the tileset you replaced with the tileset editor and work on it, you just bypassed the importing the graphics via the graphic editor, now your tileset don't have any quality loss.