Super Robot Wars GC SCR Editor by Dashman

A little guide about how to use this thing.
* All these programs are made with Java, make sure you have it installed.

1) Preparing the files:

First of all, extract the file *add00dat.bin* from the ISO (either with Dolphin or with GC Rebuilder). Place the **Bin Splitter** program in the sam folder and use it to extract all its files into a folder with a command like this one:

java -jar bin_splitter -s add00dat.bin extract_folder

That will create the folder extract_folder (if it didn't exist already) and fill it with the extracted files.

Notice how every file's name is just a number indicating their order inside the file. Considering this, we'll say file A is “before” file B if the number given to A is smaller than the one given to B. Likewise, we'll say file A is “after” file B if A is bigger than B.

2) File types:

Among the extracted files, there's several different types. This program only takes care of 3 of them:

- **BM6 files**. These hold the image data in tile format.
- **BM7 files**. These hold the palettes for the BM6 files.
- **SCR files**. These hold information on which tiles from BM6 files are used to form graphics.

These 3 types are always grouped together following these simple rules:

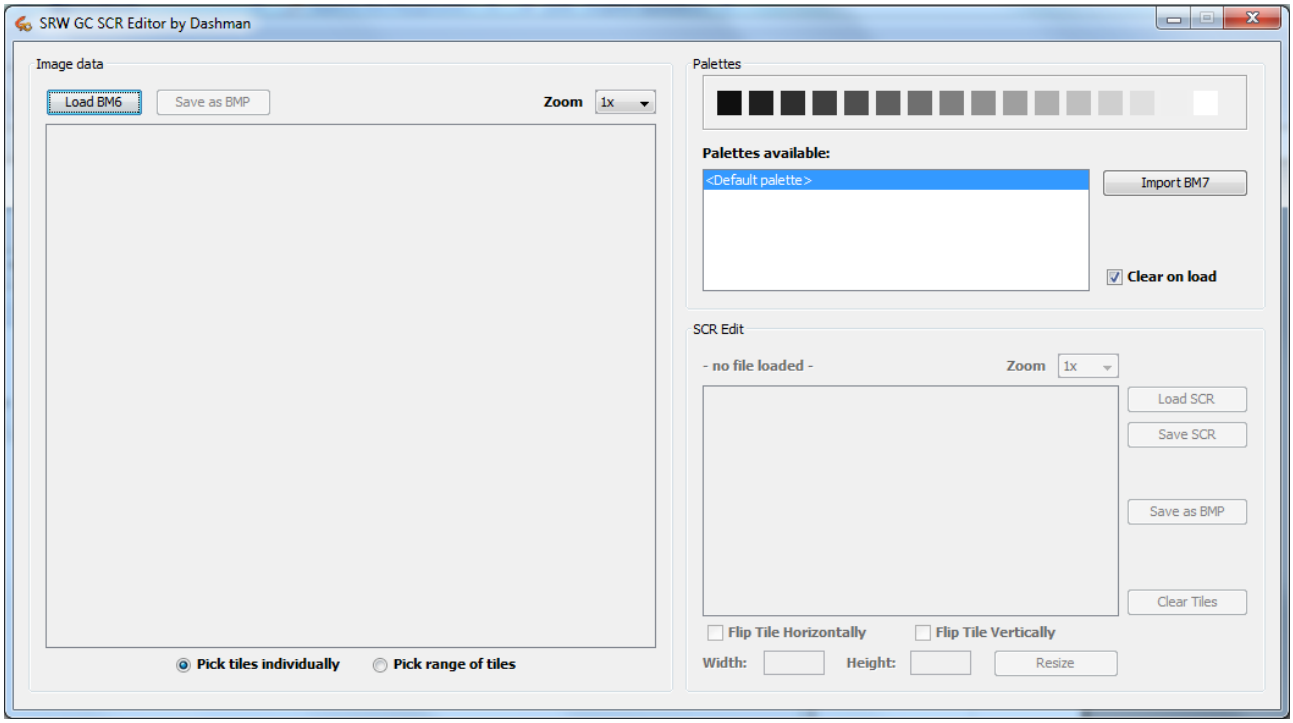
- BM6 files always have at least one BM7 assigned.
- If there's no BM7s after the BM6 file, the BM7 for this palette is the last seen BM7. For example, the BM7 for *3517.BM6* would be *3512.BM7*, which would also be the BM7 for *3519.BM6* (and many others).
- If a BM6 is followed by one or many BM7s, that or those are its palettes. For example, *0518.BM6* is followed by *0519.BM7*, *0520.BM7*, *0521.BM7*, *0522.BM7* and *0523.BM7*; these are its palettes.
- A BM6 can have one, none, or several SCR files related to it. They're always after the BM6 (and the BM7(s) if present)

Knowing these rules, it's easy to tell **groups of files** with a glance in the file explorer (if the files are ordered by name). Taking into account there's **3500+** files in the extracted folder, it would be a good idea to locate the groups of files that are interesting for edition and copy them to other less crowded folders.

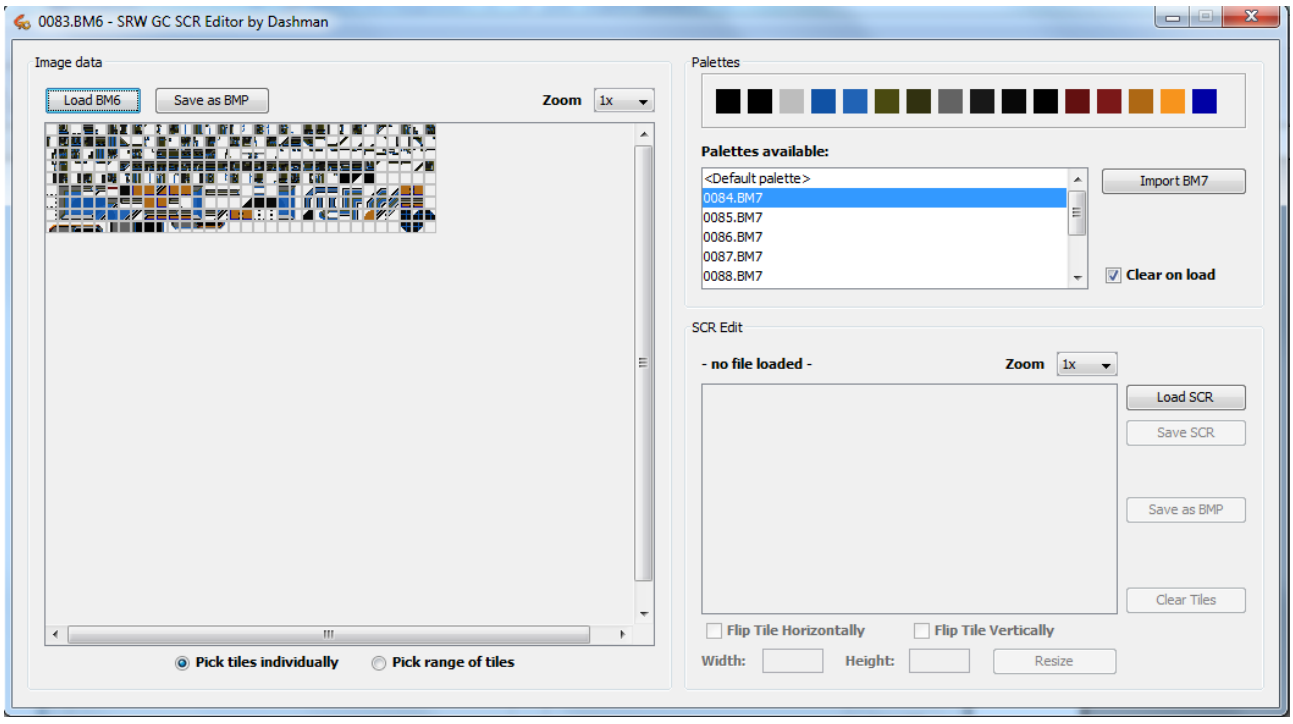
To know which files are interesting, you'll have to use the **SCR Editor**.

3) The editor.

Double-click on **SRW_GC_SCR_Editor_v1.0.jar** and this is what you'll see:

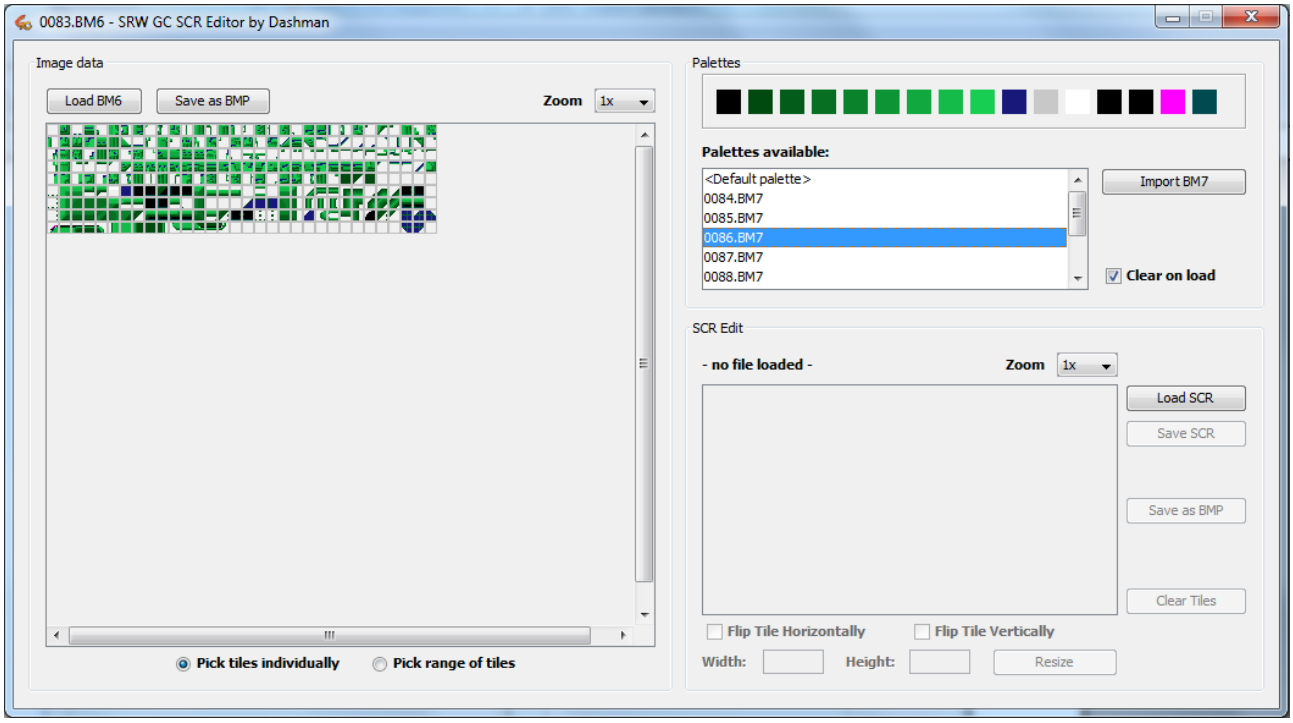


Let's see how this works. First of all, use the **Load BM6** button and open a BM6 file inside the extracted folder. We'll be using *0083.BM6* in this example:



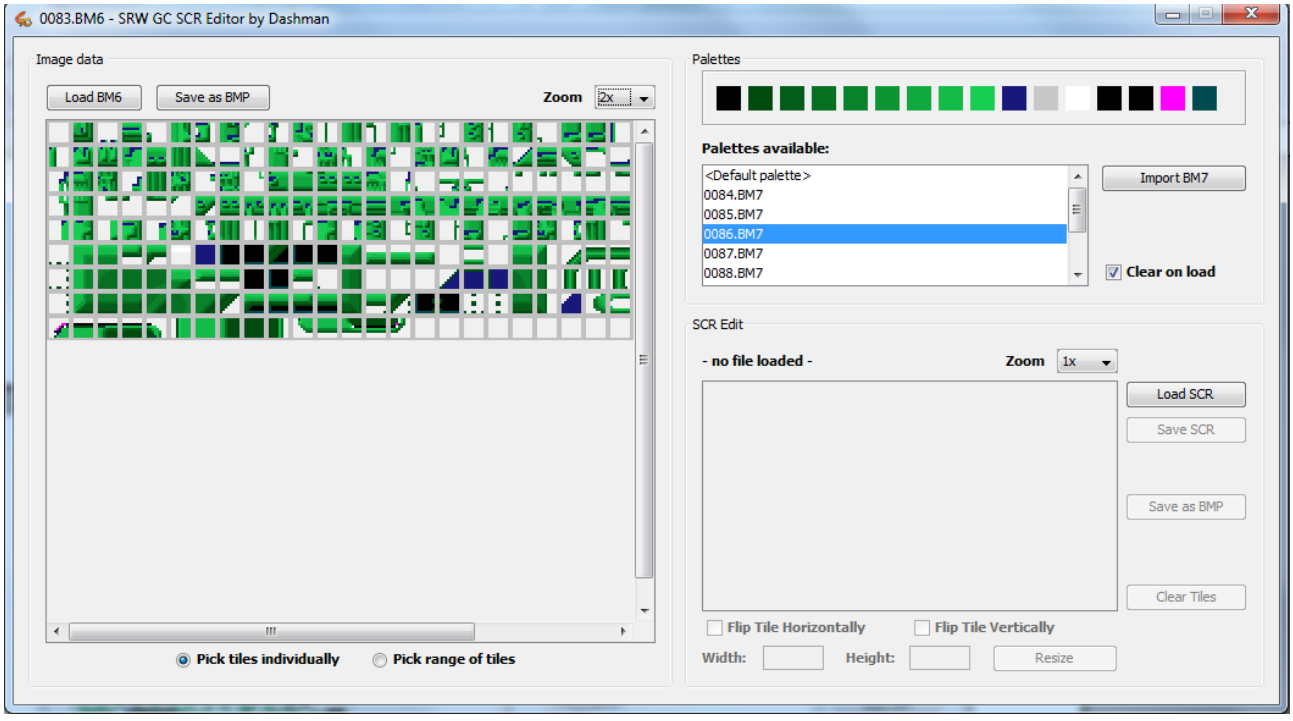
As you can see, the image data inside the BM6 is displayed on the left, and a list on the right has been filled with the available palettes found in the same folder as the BM6. These palettes have to be present in the same folder, or you'll be stuck with the default palette.

Selecting a different palette from the list will have a visible effect on the image:

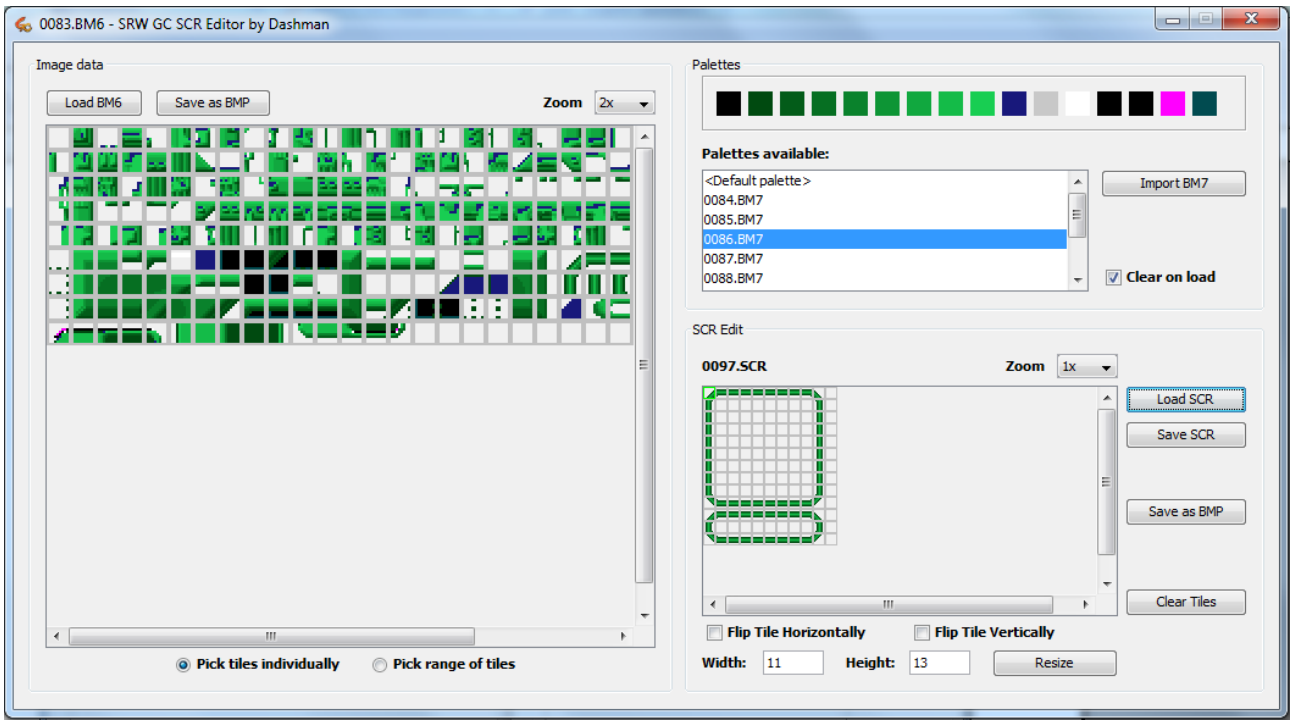


Additionally, you can load extra palettes with the **Import BM7** button. If you use the **Save as BMP** button, you'll save a BMP file with the image data using the currently selected palette.

Does the image look too small? You can set the Zoom to 2x or 3x to see the tiles more clearly:



This is all good, but the image looks like random gibberish, right? Don't worry, let's load an SCR file (with the **Load SCR** button) and you'll see things more clearly. For this example, we'll use the file *0097.SCR*.



Now this makes more sense. Notice how the top-left tile in the SCR window is highlighted in green. That's our *working tile* for editions and can be changed by simply clicking on another tile.

More on that later, let's take a look at the options:

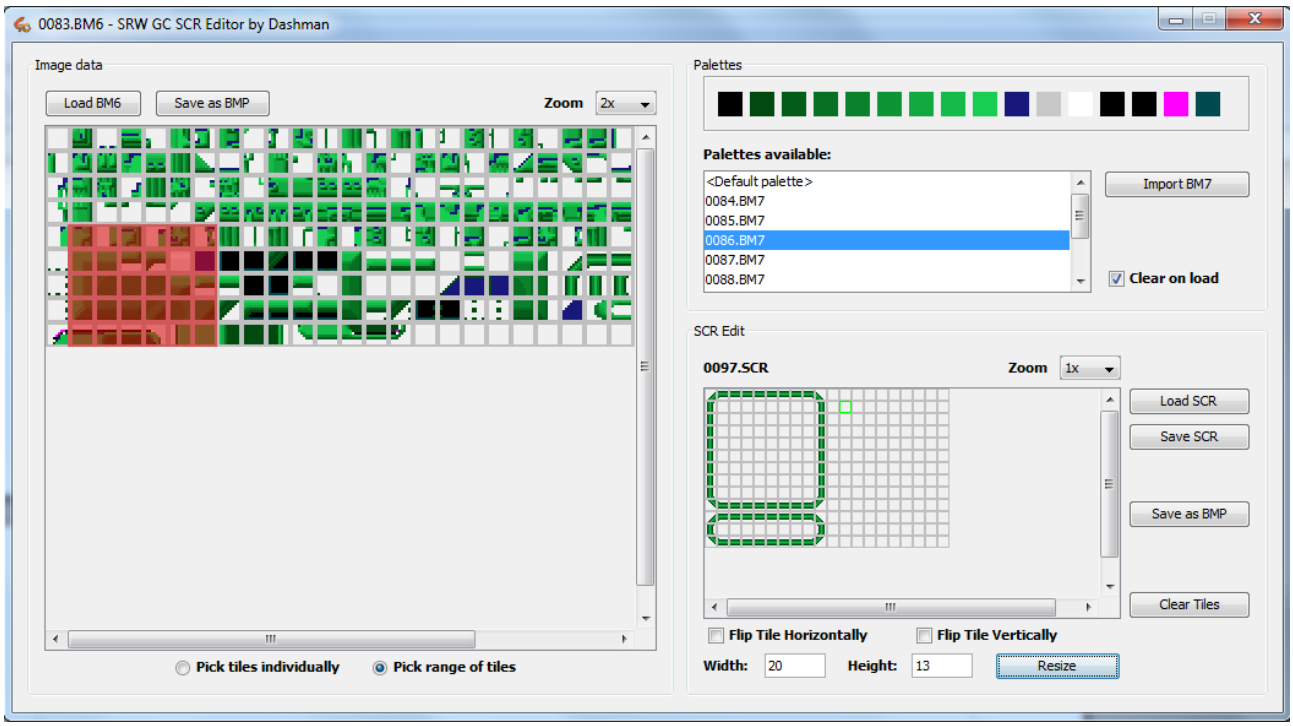
- **Save SCR**: Saves the current SCR to another file, with all the editions you may have done to it.
- **Save as BMP**: Same as the button in the *Image Data* section, but the image saved is the one displayed in the *SCR Edit* one. Keeping a BMP file of the original look of the SCR files you want to edit is advisable.
- **Clear Tiles**: Assigns all tiles in the *SCR Edit* section the first (top-left) tile in the image, which is traditionally the "empty" tile.
- **Flip Tile Horizontally / Vertically**: These options are not available for all SCRs, and you'll most probably not use them (they're apparently not used for text). Selecting one of these options will make the working tile be mirrored one way or the other (or both).
- **Resize**: Give the SCR image the dimensions (in tiles) specified in the *Width* and *Height* fields.

But **how do we edit the tiles in the SCR image**?

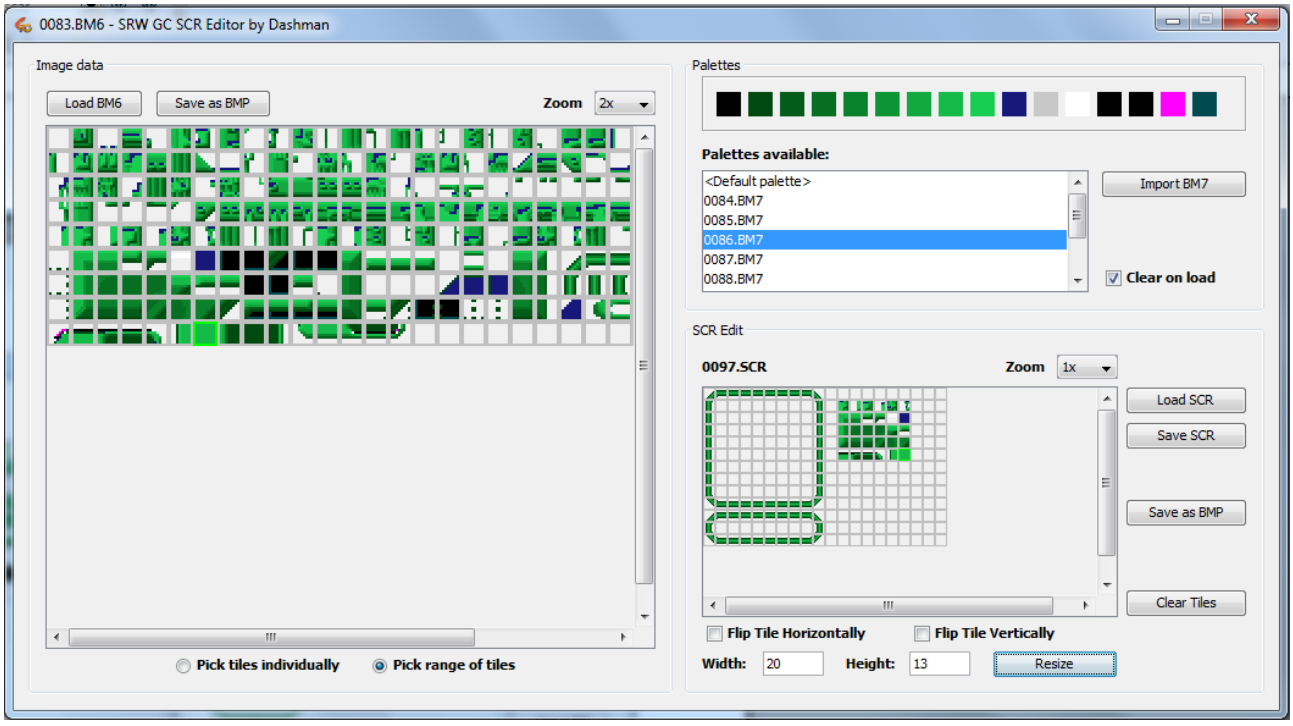
The short answer is: click on a tile in the image window (left). The tile you clicked on will be assigned to our current *working tile*, and the following tile in the SCR image will become our new *working tile*.

That would be the default effect, that is, if the **Pick tiles individually** option is selected (under the image window). The behaviour is a bit different when we choose **Pick range of tiles** instead, so let's illustrate this with an example.

First of all, resize the SCR to something wider, say 20x13, select *Pick range of tiles*, and click on an empty tile in the SCR to make it our *working tile*.



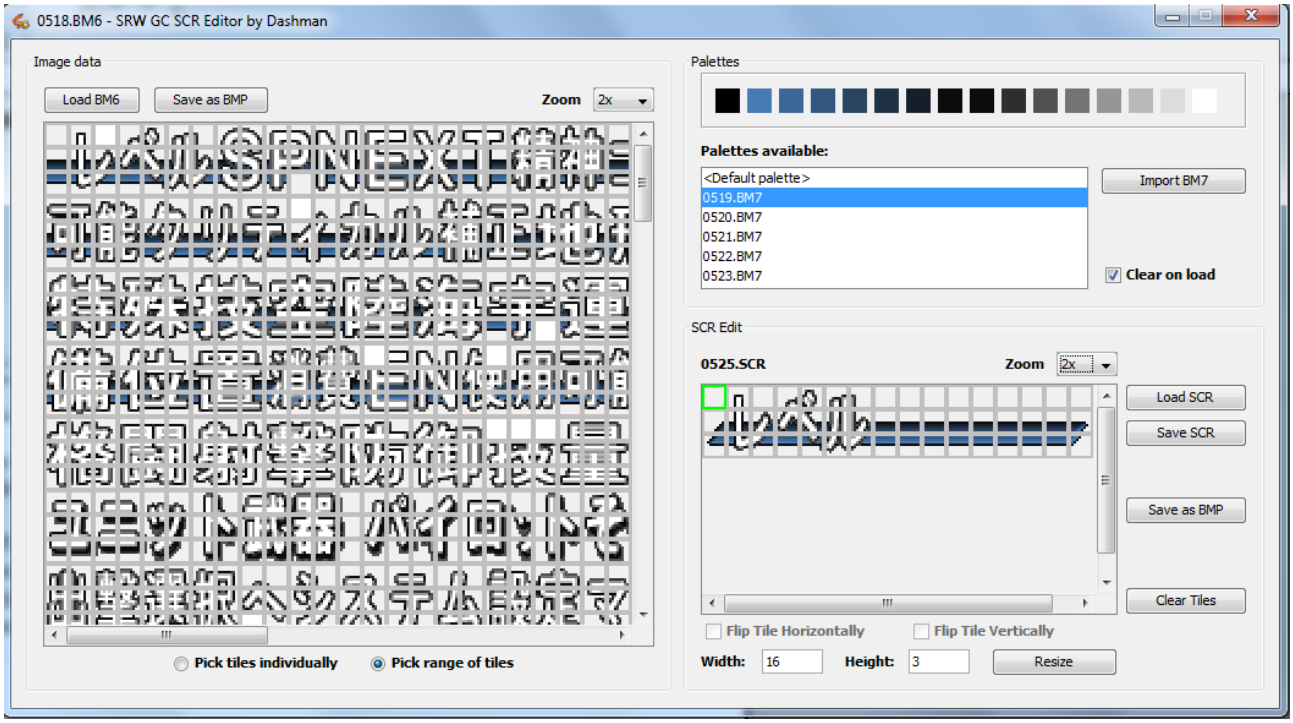
See the reddish area? That's photoshop, the program won't look like that. We're going to assign that area to our SCR. To do this, you have to make **two clicks**: one on the top-left tile of the highlighted area and another on the bottom-right one. This is what you'll get:



As you can see, the selected area is assigned to our SCR and the working tile is set to the bottom-right tile assigned. A couple of things to remember:

- This **only** works from left to right and top to bottom, otherwise you'll get a warning message. And yes, it's because I'm lazy.
- If you picked a range of tiles too big for the SCR to contain, it just assigns what it cans, so don't worry too much about it.

This probably was a very lame example, but its use becomes more apparent in files with text like *0518.BM6*:



But of course, you'll see the use of this once you have edited the image data.

4) Editing the image data.

Well, editing the image data is outside of the scope of this manual. However there's a couple of hints and tips I can throw in here.

- First of all, it's almost imperative that you save the image data as a BMP. Not only because it's good for reference, but also because you'll most probably want to duplicate its palette in your image editing program and apply it to your edited image.
- The colours in the palette are not that important. The order of the colours is. See the image above this text? The “bands” under the “Level” are shown in blue. Internally, the pixels of the bands simply say the number of the colour from the palette that they use, which happen to be blue. If you turn an RGB image with blue colours into an indexed one and the blues are assigned to another position (like the positions of the grays), you'd get a very different result when this palette is applied.
- Some palettes, like the one in the picture above, have repeated colours, and most importantly, the one used for transparency (the first one) can be the same as other ones used in the image. To avoid problems, edit the palette you use in your image editing tool and set the transparency colour to one that is never used in the visible part of the image. Keep in mind that the colour won't be kept when reinserting the image data (they're in the BM7s).
- The dimensions for your edited image only have one restriction: both width and height must be a multiple of 8 (because the tiles are 8x8). This mean **your edited image can be bigger than the original**. At least in theory (haven't tested it yet, but from the structure I don't think it will pose a problem).
- Keeping the “empty” tile on the top-left doesn't seem to be mandatory. I'd recommend keeping it though. Who knows if the game makes something out of it.

- Image editing programs have options for displaying grids on top of the image. An 8x8 grid helps knowing if you're keeping things inside the tiles you want.
- There's no real restriction for the shape of SCR files either. The game will only draw whatever you give it (starting from the top-left tile to the bottom-righ) at the programmed position. Of course, menu SCRs should keep their original dimensions to avoid funny stuff, but stuff like location cards and stage names? Not nearly as dramatic.

5) Reinserting images.

To turn your edited BMPs back to BM6s, use the **BMP Tiler** program with the following command:

java -jar bmp_tiler.jar <edited_bmp> <BM6_file>

For example:

java -jar bmp_tiler.jar 0518_edited.bmp 0518.BM6

Make sure the BMP is indexed using the appropriate 16-colour palette. Only BMP files are supported, sorry.

With the newly generated BM6 file, you can start editing the existing SCR files to show the proper tiles from the edited images.

To “repack” all your edited BM6s and SCRs into add00dat.bin, you'll have to replace the originally extracted files and use the **Bin Splitter** inside the folder with the extracted files, like this:

java -jar bin_splitter.jar -m add00dat.bin file.list

This will generate an *add00dat.bin* file inside the extracted files folder. You can replace the original in the ISO using GC Rebuilder.

6) Final words.

And that's about everything you need to know, I guess. Hopefully it wasn't too long and I explained things properly. Happy editing!

Dashman.