

How to Create a Basic Circuit Type Generally Track – by gust.mrqs

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1 - Beginning

In this tutorial I'll try to help you guys in creating a basic circuit-type track with runoffs, kerbs, dithering and those small things. I'll not explain objects placing and how to create the whole scenery since it's an exercise of creativity and we have some video tutorial explaining the basics.

I strongly recommend you to read "A rough guide to making quality tracks" (<http://forum.racesimcentral.com/showthread.php?t=294063>) by Crowella and watch the "Video tutorials" by DiSi! (<http://forum.racesimcentral.com/showthread.php?t=320449>), before, during and after reading this tutorial.

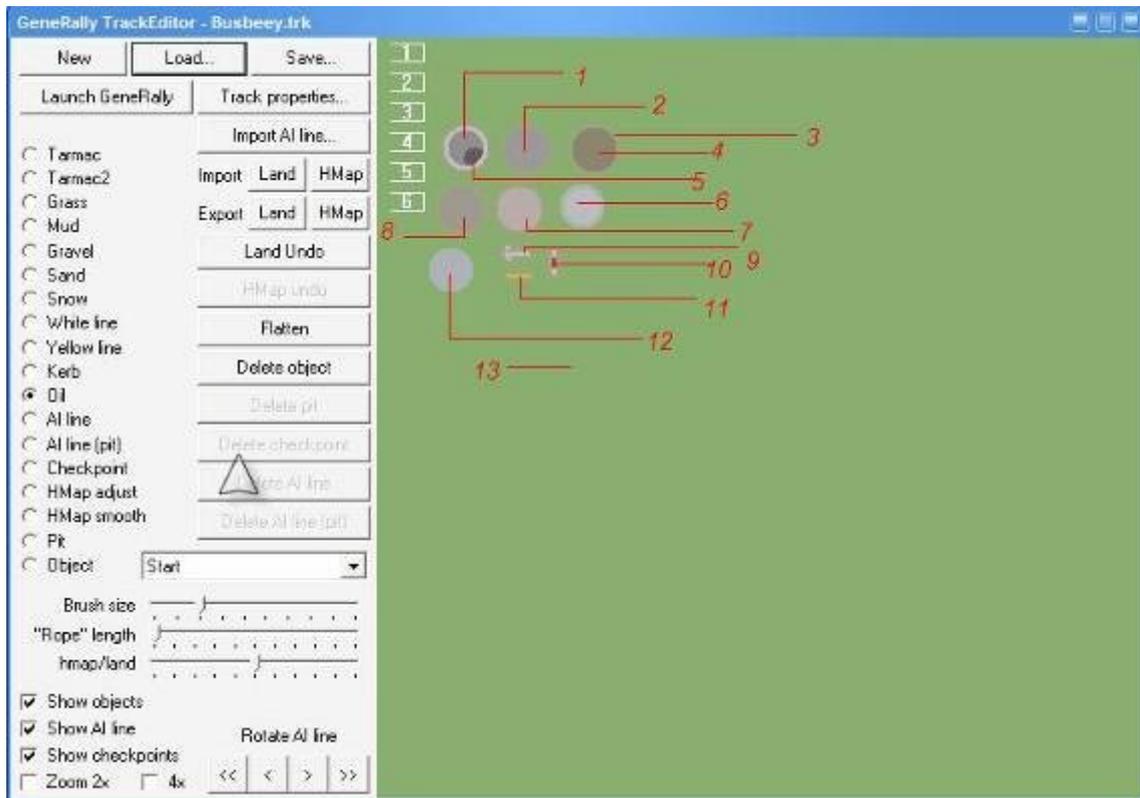
Well, for this tutorial you'll need:

- Ms Paint – Most necessary, if you don't have it, try using another simple image editing program.
- Adobe Photoshop – It's only really needed for drawing the white line borders of the track. You can also try different image editing programs, but I'll teach how to do it using Adobe Photoshop CS2.
- A .bmp file with the default Track Editor Palette. (I'll teach how to create one on item 2)

2 – Creating your basic palette .bmp file

This is a very important part of the track and will help you when drawing the LMap of your track in an external editor.

First of all, open the Track Editor and select a new track. Then click on each of the LMap options and draw a small thing in the track as shown in the picture:

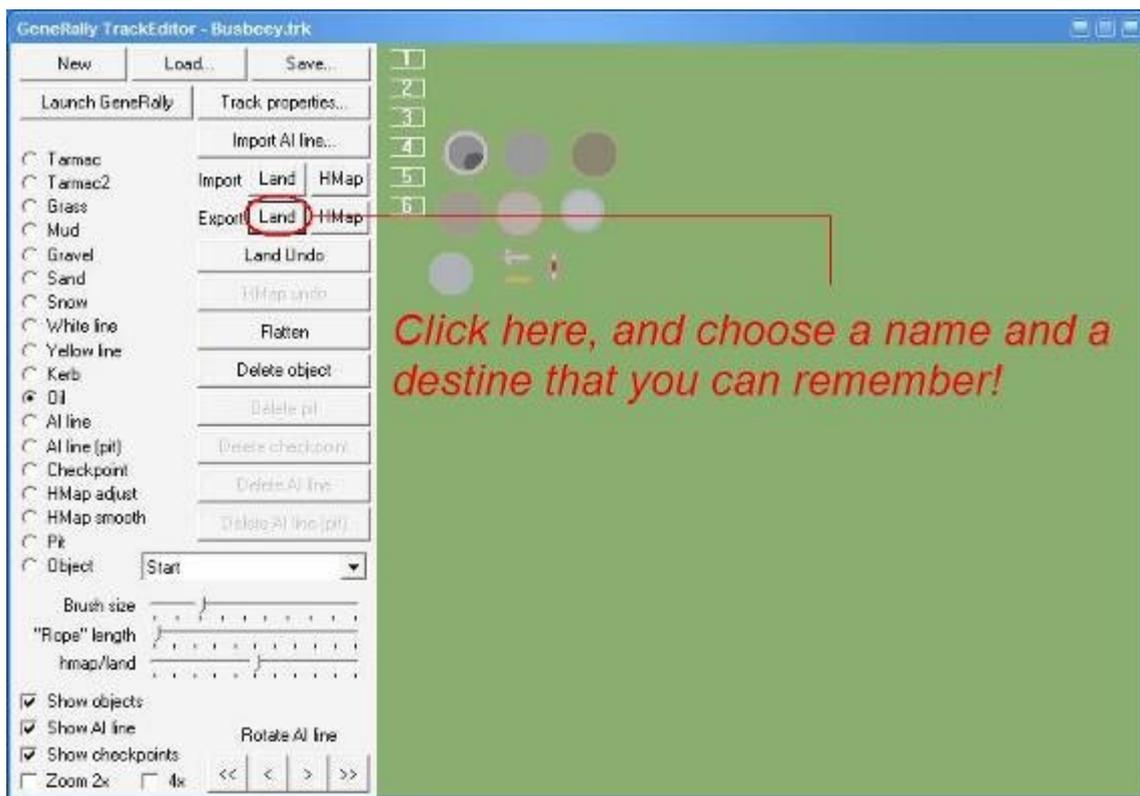


You can see that there are 13 color in the GeneRally palette. I'll explain each of them.

1. This is the darker tarmac. You can draw it choosing the Tarmac option and clicking with the left mouse button.

2. This is the light tarmac. You can draw it choosing the Tarmac2 option and clicking with the left mouse button.
3. This is the dirt. You can't choose it at the left menu, but if you draw anything (Except Ice and Snow) on the regular grass, It will border the selected color.
4. This is the mud. You can draw it choosing the Mud option and clicking with the left mouse button.
5. This is the oil. You can draw it choosing the oil option and clicking with the left mouse button on an existing piece of Tarmac or Tarmac2.
6. This is snow. You can draw it choosing the Snow option and clicking with the left mouse button.
7. This is Sand. You can draw it choosing the Sand option and clicking with the left mouse button.
8. This is Gravel. You can draw it choosing the Gravel option and clicking with the left mouse button.
9. This is the white color. You can draw it choosing the White Line option and clicking with the left mouse button.
10. This is the red color. You can draw it choosing the Kerb option and clicking with the left mouse button.
11. This is the yellow color. You can draw it choosing the Yellow Line option and clicking with the left mouse button.
12. This is Ice. You can draw it choosing the Snow option and clicking with the right mouse button.
13. This is Grass. You can draw it choosing the Grass option and clicking with the left mouse button, but it is the base of the track.

Done that, it's high time for us to export these textures. You can do this by clicking on the "Export LMap" button, as shown in the pic:

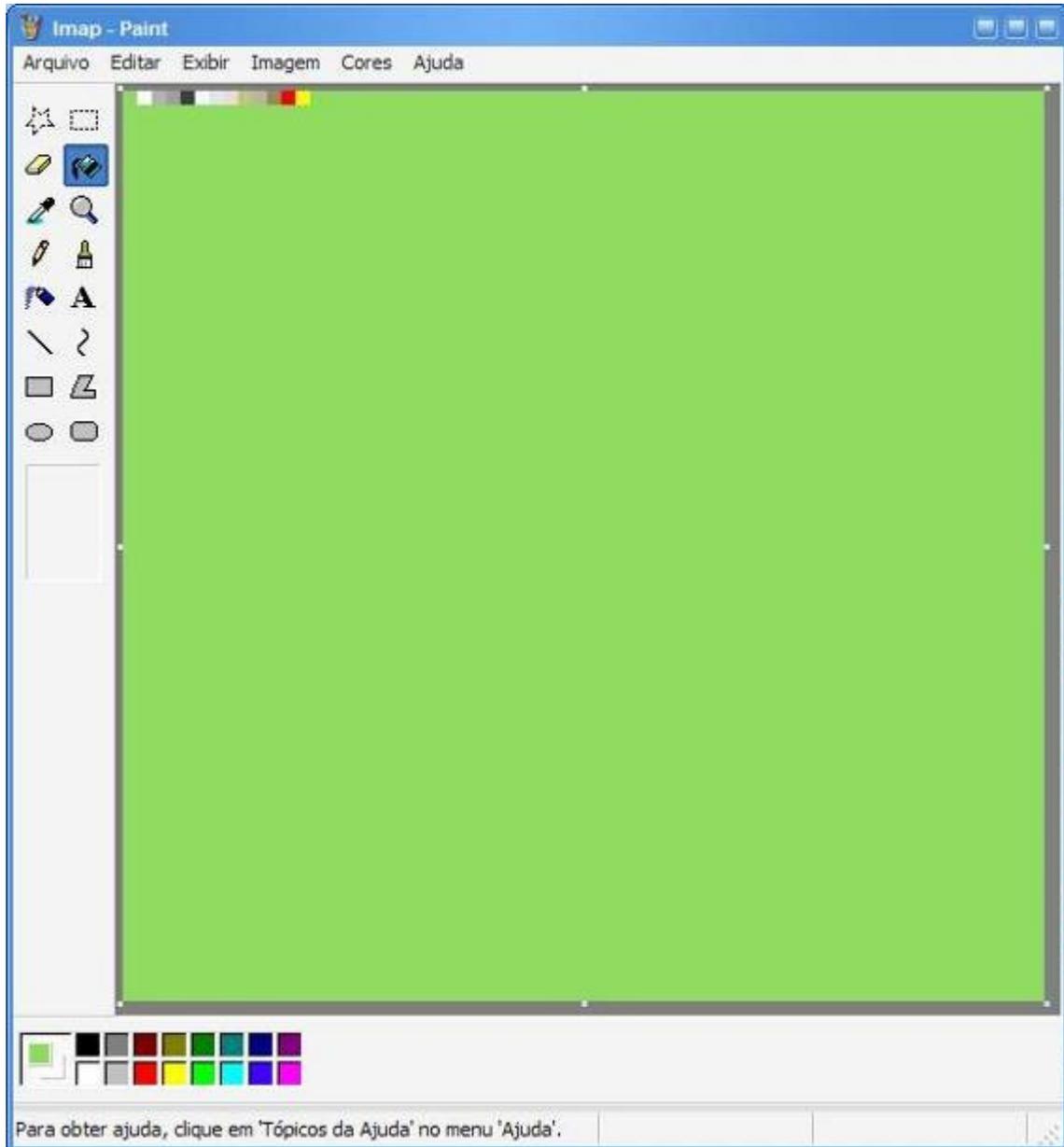


Now, to keep things clear, open with paint the .bmp that you exported right now and start making very small squares (about 10x10 pixels) on one of the corners from the screen (to avoid mess) with each of the 13 colors.

Ps: When opening the .bmp with the paint you should notice three things. First: You can't draw all the color shown in the color picker of MSPaint. The colors will automatically turn into a GR palette color. Second: You'll notice that you can draw using the regular black. But THIS IS NOT OIL. It'll

be shown as black in the TE too, but in-game, it'll be the same thing as number 3 (Dirt). Third is a bit complicated: You may only use .bmp files that are generated in Track Editor. By this you can prevent some color mistakes. *E.g.* If you start a track from scratch (Clicking on the New... option in MSpaint) or past a LMap into a new one, the colors shouldn't work. Even If you are using a color index from TE, pasted in the LMap. To prevent this, only edit .bmp's generated in TE.

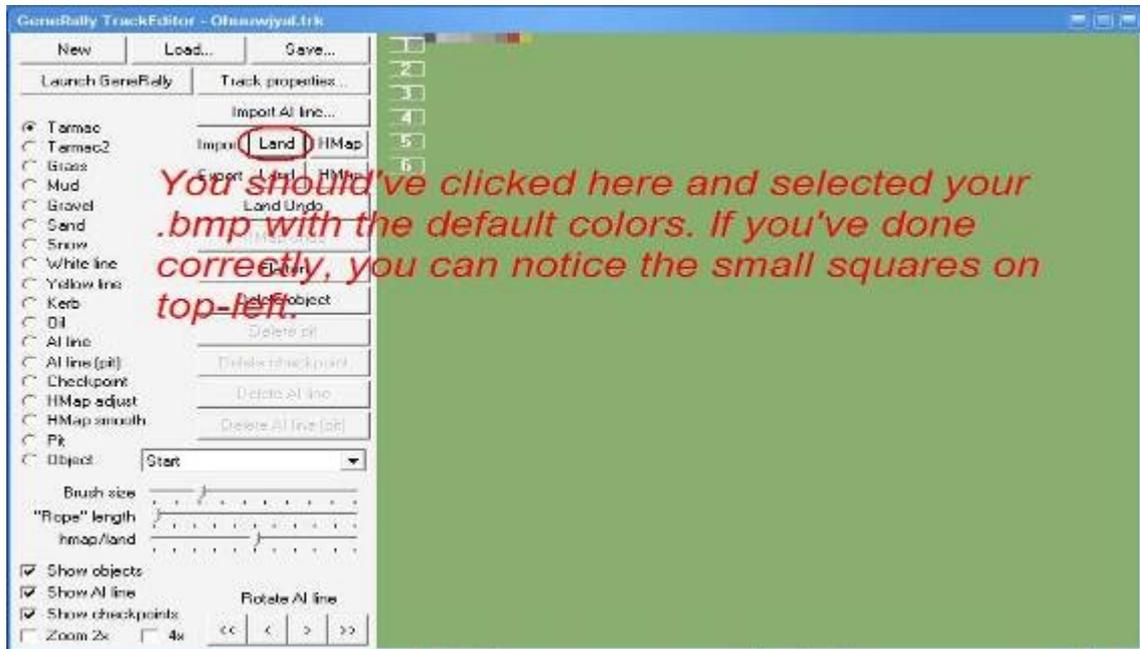
After drawing your squares, clear the rest of the .bmp, like on the picture.



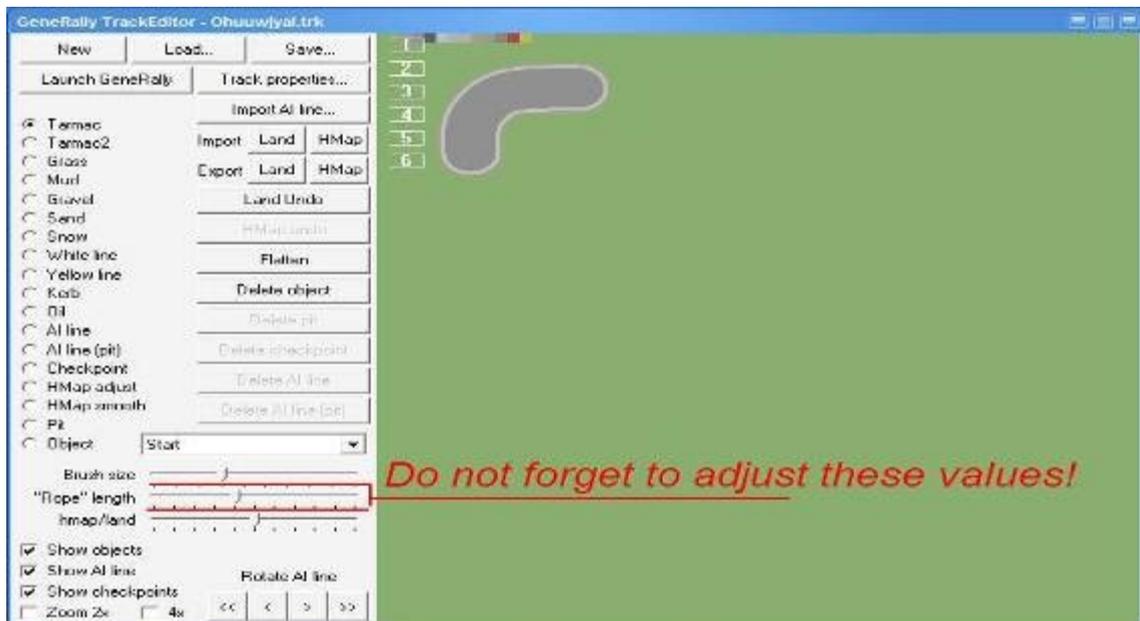
So now, you have your own GeneRally palette .bmp file!

3 – Creating the basic layout of the track

Now the fun begins! First, open the Track Editor and click on the **Import LMap** button and choose your .bmp with all the TE colors. See the picture:

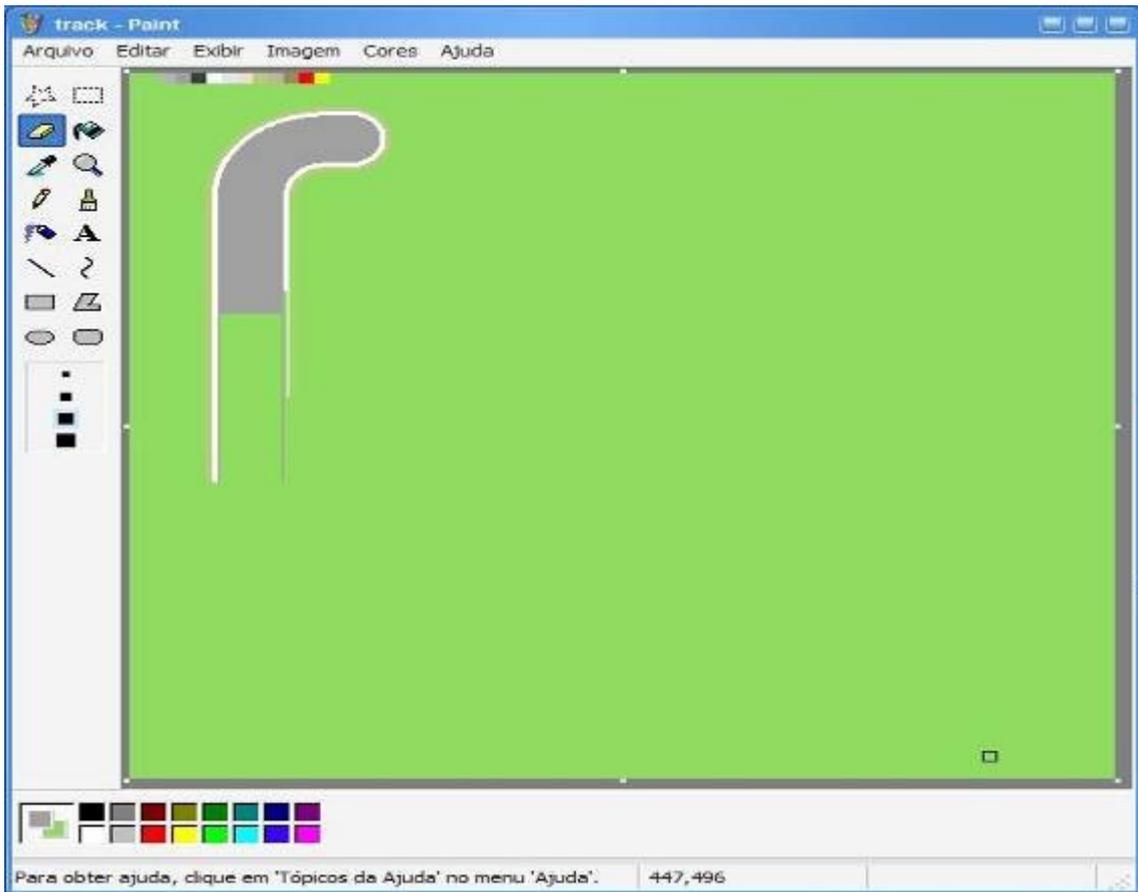


Now, it's important to imagine how the track will be. Imagine how many straights, curves, etc. After this, start designing the first curve of the track using the Tarmac color (**Do not forget to choose an appropriate brush, according to the World Size you've chosen and a good "Rope Length", this will help your track to be smoother. Too small and you curves will be edgy. Too big and you can't draw curves where you want them to be**), like this:

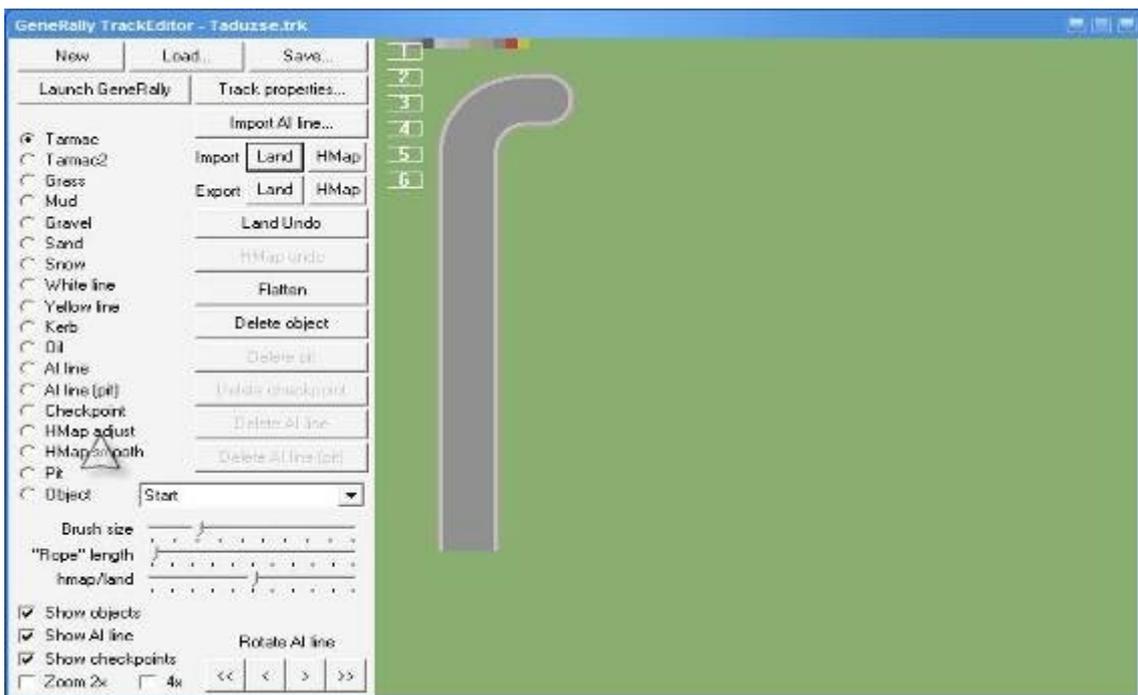


The first curve is ok, but you want a perfect straight. It's quite hard doing them using only the Track Editor. So let's go into external editing. Click on the **EXPORT LMAP** button and save you .bmp with the provisory name of the track, and open it with Paint. Now, continue drawing a straight from where the curve ended with matching the colors. See the picture for a better understanding:

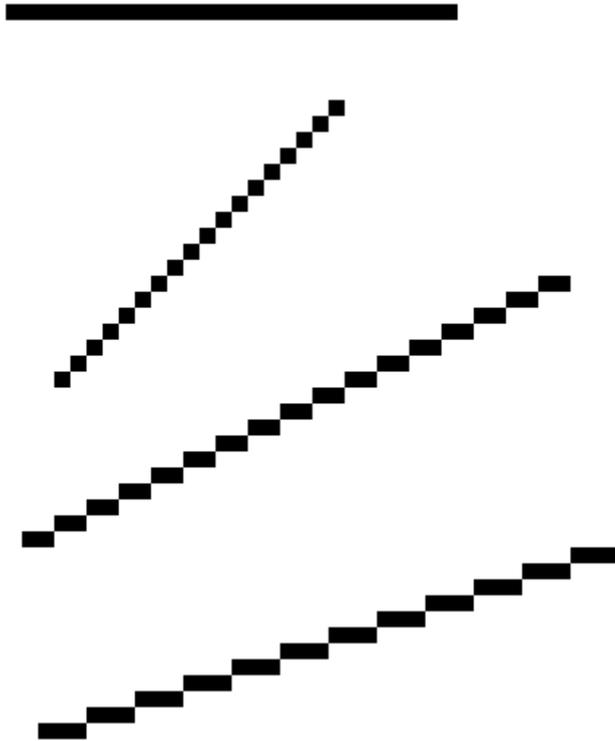
Important note: **DO NOT** erase or recolor the white and dirt borders at this stage. You'll surely need them in the future.



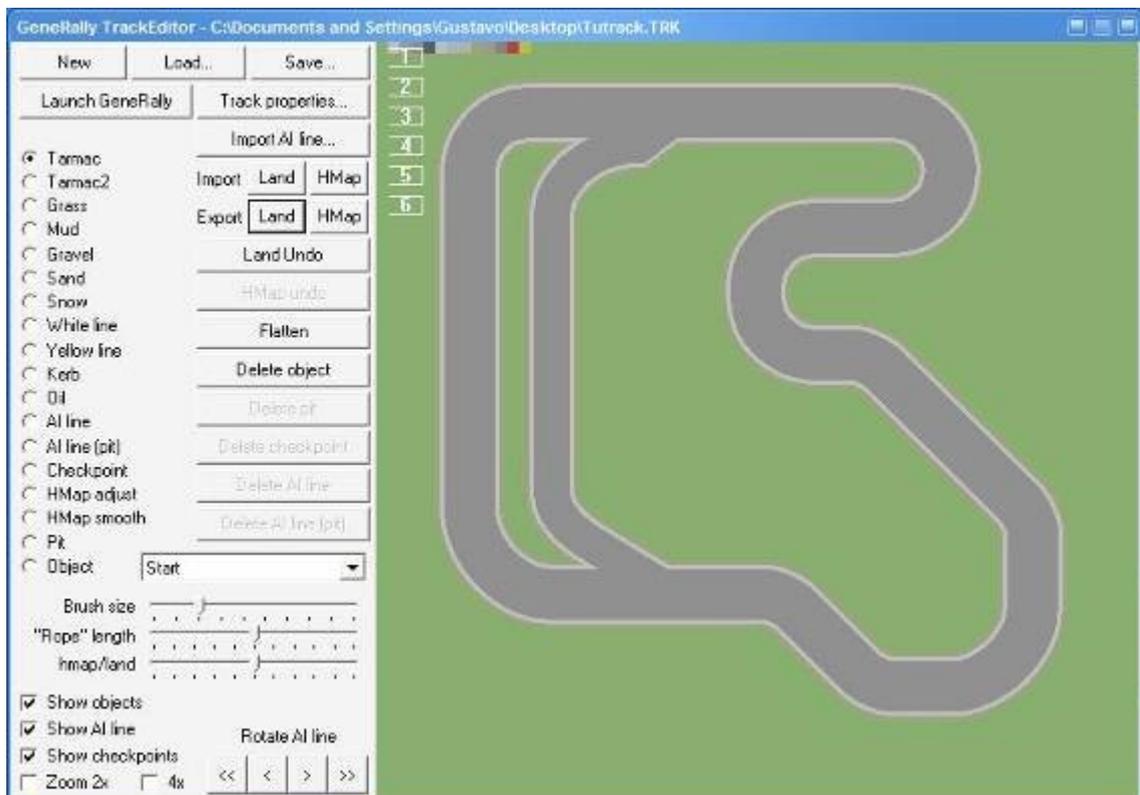
Save the file (Ctrl S). Now back on TE, click on the **IMPORT LMAP** button and select the .bmp of your track that you've just modified. Now your TE should be displaying something like this:



Repeat the same process in the whole track, including basic pit lane. For better results, I recommend starting with easy straight angles, like 0°, 90° or 45°. You should even try easy pixels formations, like angled straights with 2x1 or 3x1 pixels, as shown on the pic.



After all this process you're done with your main layout.
See how my track looks like:

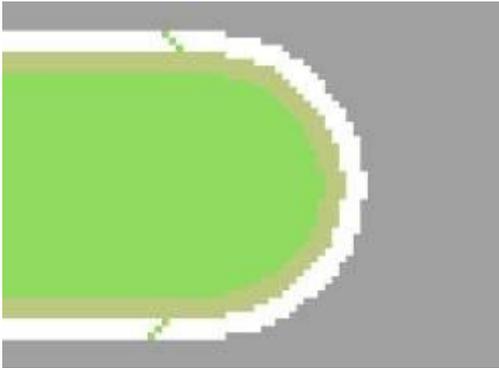


4 – Base LMap improving: Border Lines, Kerbs and Runoffs

Now that you have your basic layout, we can start improving it to be less “generalistic” and more elaborated. First step we are going to do the kerbs.

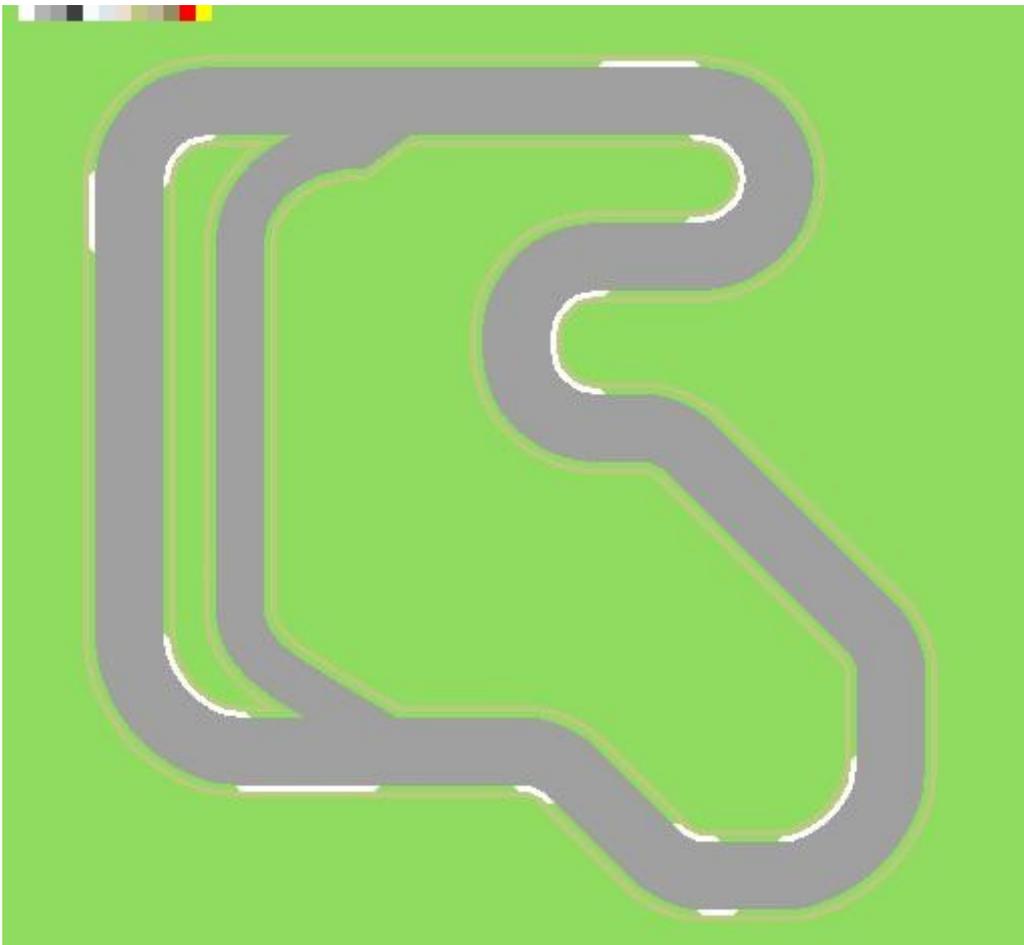
4.1 – Creating Kerbs

Remember that white and brown borders of the track? They are essential for creating the kerbs. Open your track LMap using paint. (Make sure you’re opening the latest version. Otherwise, go in TE and export your currently track .bmp). Then, select the grass color (Green) and start delimitating where your kerbs should be, cutting **ONLY** the white line. Here goes a pic for a better understanding.



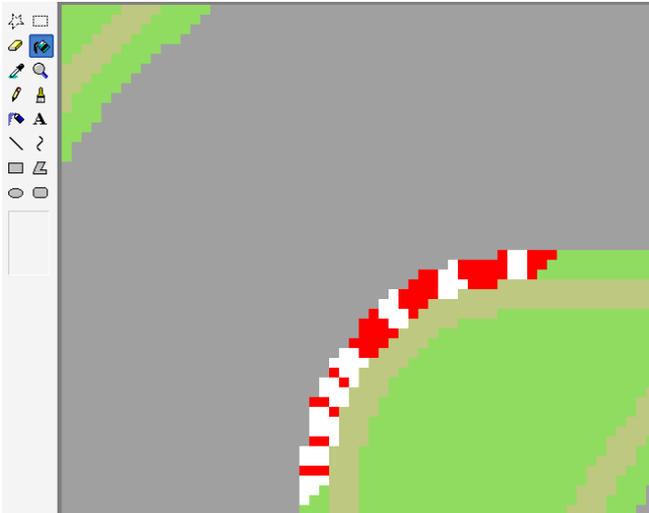
After this, paint with green the white parts that are not intended to be kerbs. Remember **NOT TO PAINT OR MODIFY** the brown border.

When done, your track should be similar to this:

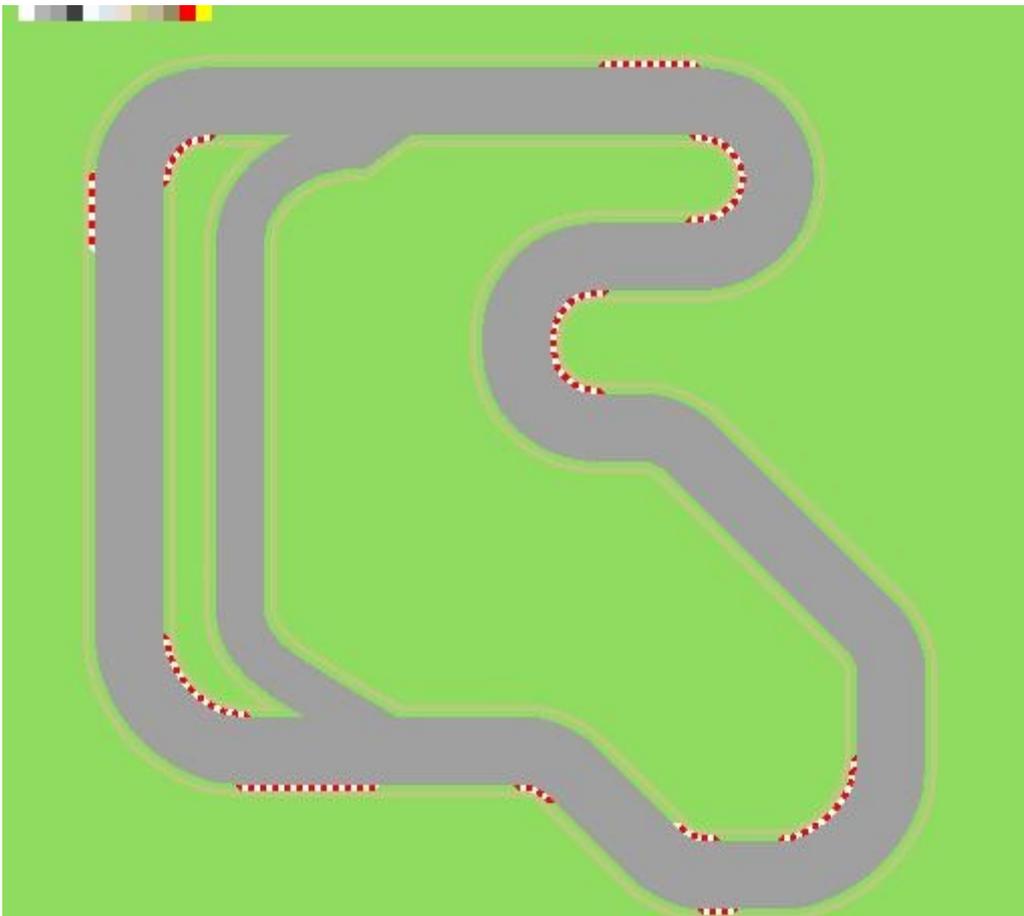


Now carefully, pick up the other kerb color (e.g. red) and start drawing lines separating the kerb colors, and paint them, like in the picture:

Ps: There's an alternate process while doing kerbs. Select the eyedropper tool and click with RIGHT mouse button in the other kerb color and with the LEFT mouse button in the kerb. Then select the eraser tool and adjust the erase size by pressing CTRL - or +. After this, pass the eraser (it should be in the other kerb color) clicking with the **RIGHT** mouse button in the kerbs, creating the colors.



This is a boring job, I know. But this makes your track look real good and here you just need patience. So, be patient and you're going to enjoy a really good track! Here's my example:

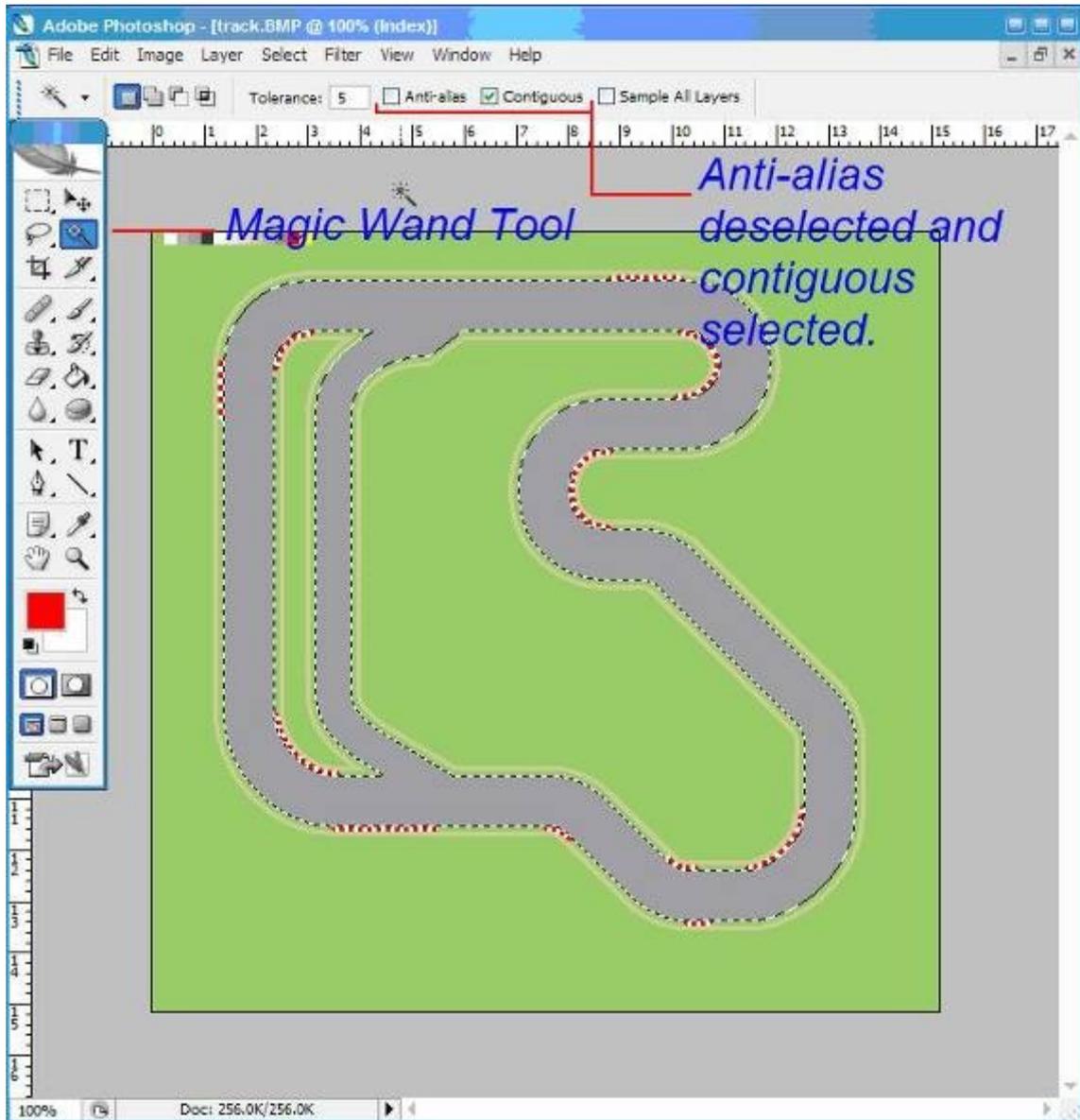


So, here it is. Let's go to the next step: creating the border lines of the track.

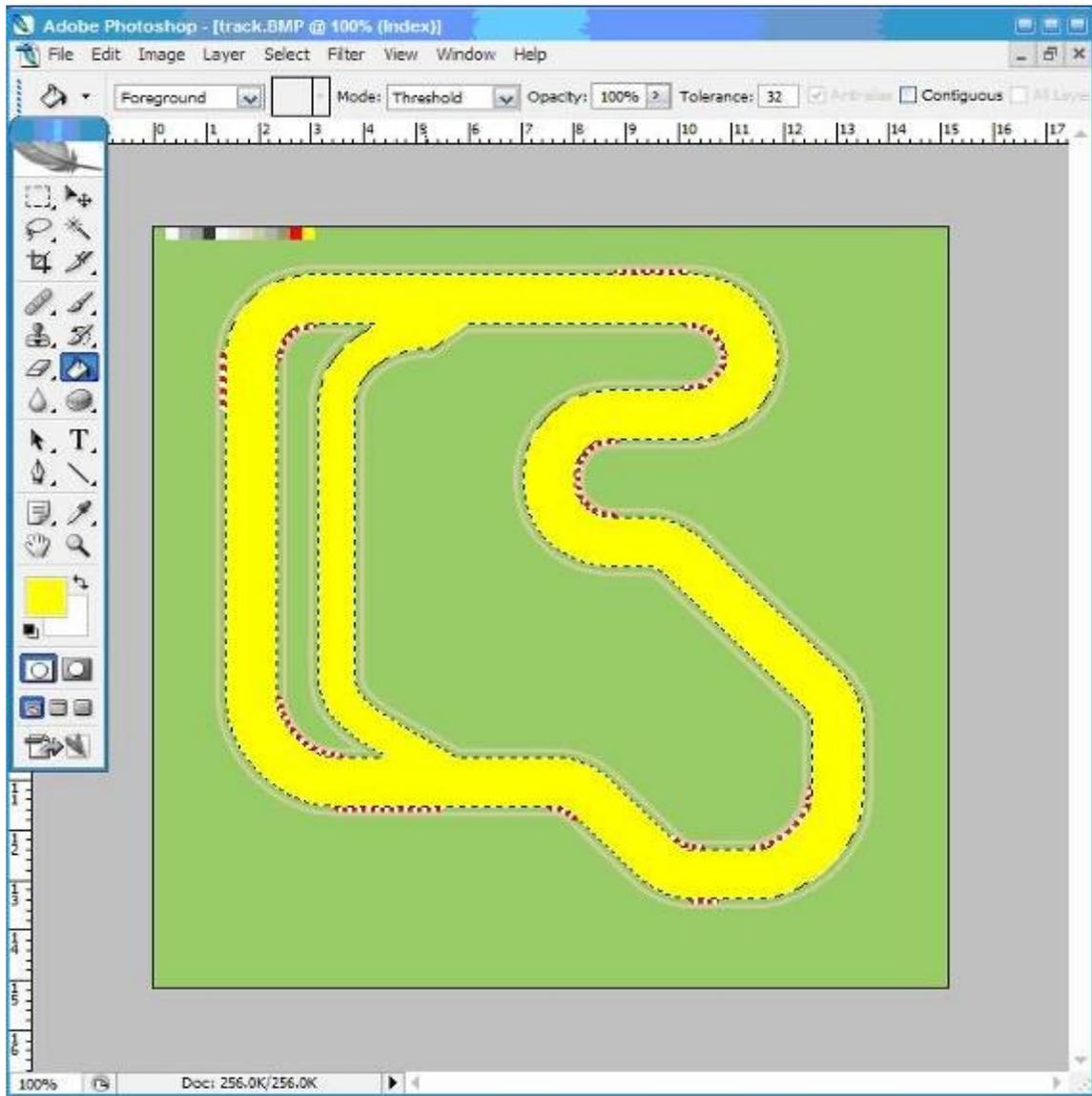
4.2 – The Track Borders

Unless you're planning to do an old school race circuit, you're going to need some border lines on your track. **This is the only step that we're going to use Adobe Photoshop.** Of course you can do this in Paint, but you'll need a lot of free time to create the borders pixel by pixel.

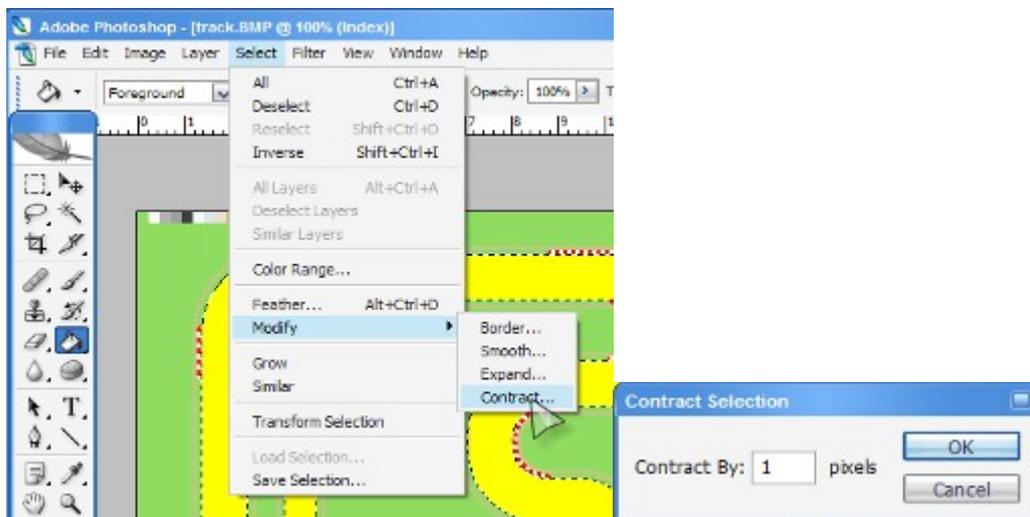
So, let's work. Open your Adobe Photoshop and open your track. Select the Magic Wand Tool by clicking on it in the right menu or pressing W, making sure the "Anti-alias" checkbox on the top-left is unmarked and the contiguous checkbox is marked, and click on the main tarmac surface.



Then, with a brush or the paint bucket tool, paint the selected area with the color you want your borders to be. **Remember to select the color using the Eyedropper (E) tool and clicking on the small squares on the top.** Otherwise, you'll experience some colors and incompatibility problems. In my case I've chosen yellow.

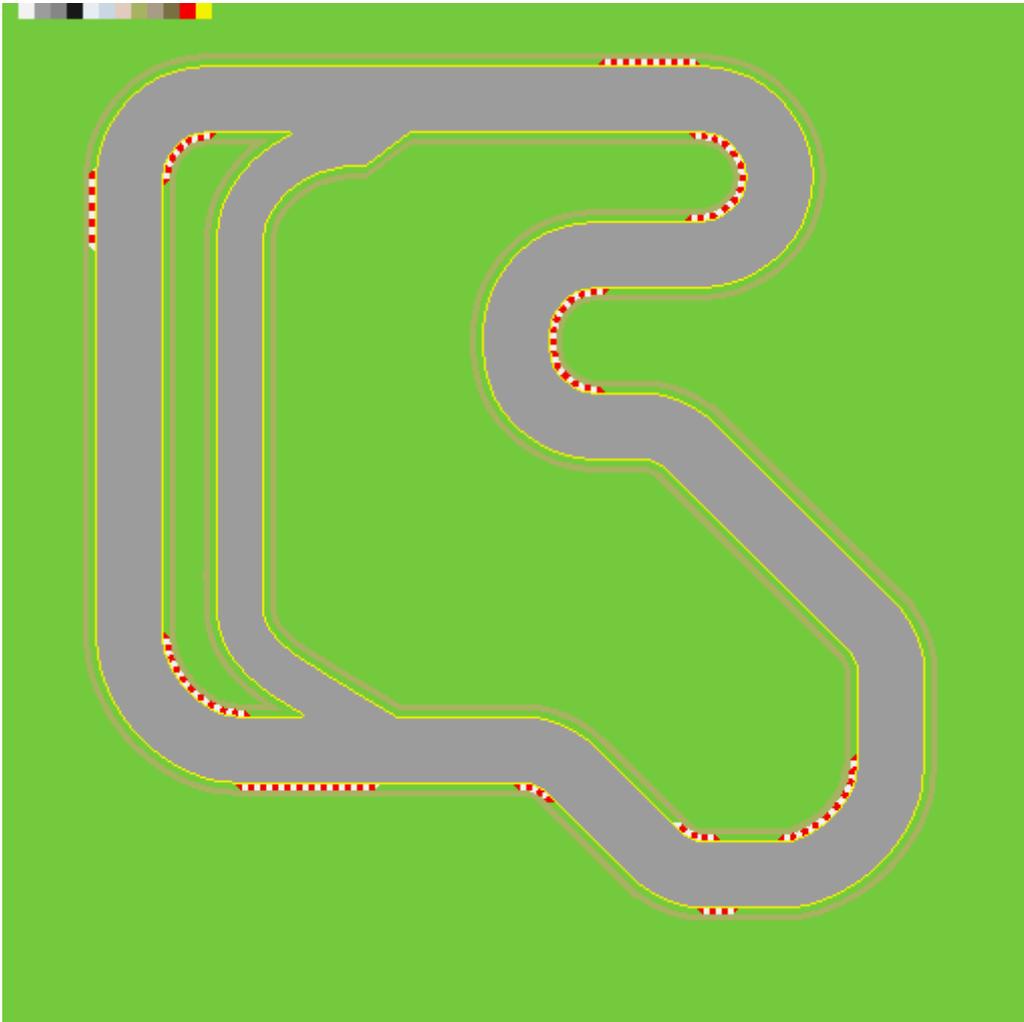


After that, go to *Select* → *Modify* → and click on the option *Contract...* A new window will pop-up and you should type the width (In pixels) of your track borders (I recommend typing 1 for tracks with World Size bigger than 100).



After clicking in the OK button, keep the selection and with the brush or the paint bucket tool, paint the track with the desired tarmac color, always remembering to choose the color using the Eyedropper tool and clicking on the small squares on the track.

After this, press Ctrl + D, save your track and close Photoshop. Your track should be at this stage:

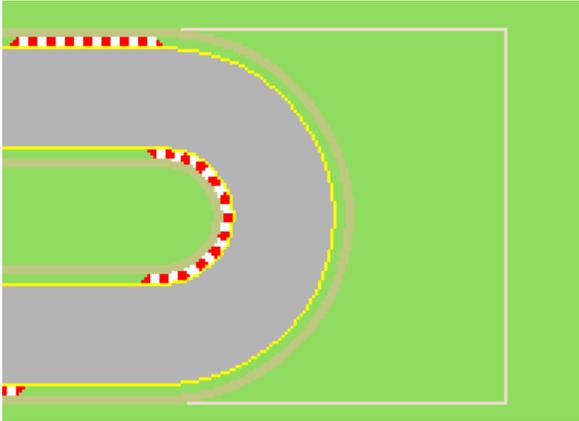


Now we're done with track borders! Let's go into runoff areas creating.

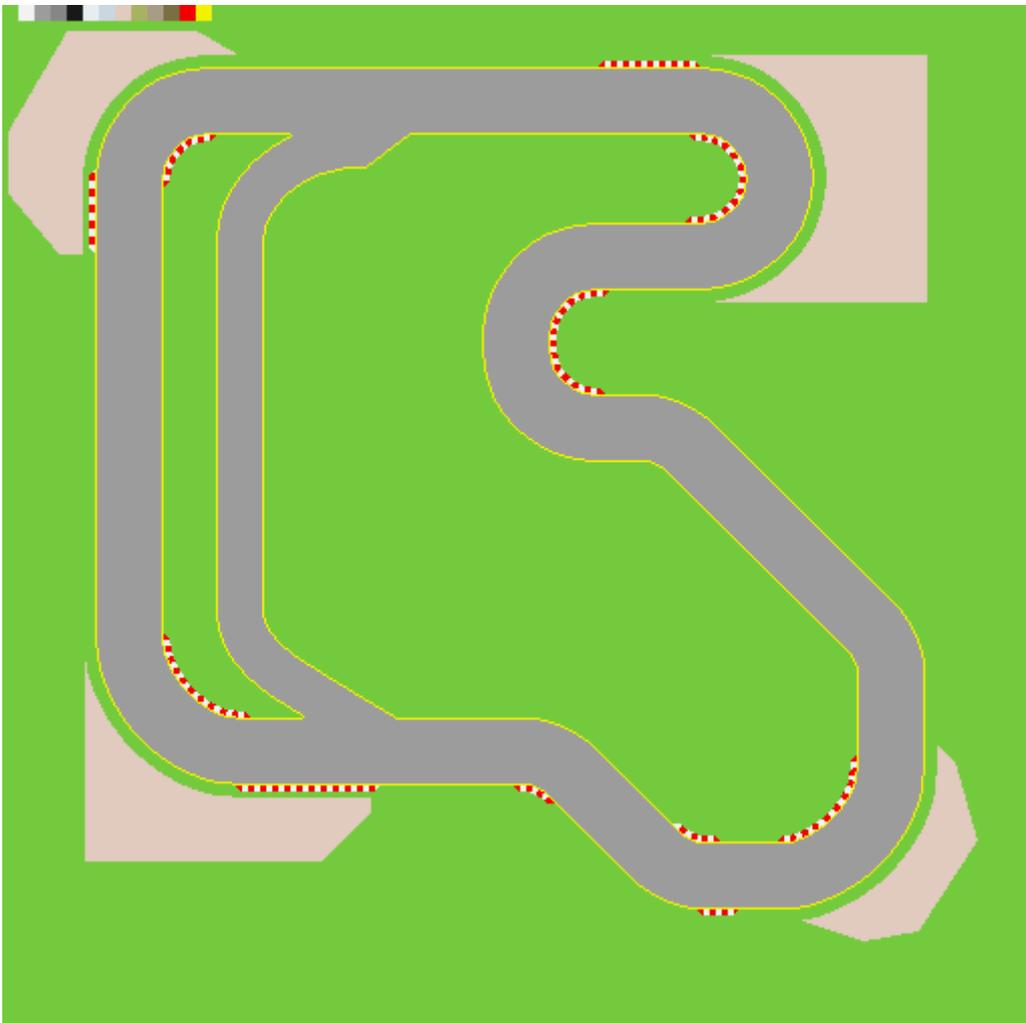
4.3 – The Track Runoffs

Now it's time for us to focus on the safety of the track. Runoffs are quite easy to do, you just have to drawn some sand traps around the track and it should be fine. Well, there are some tips that can improve your track and help on its good looking.

So, let's start: Remember those brown borders? Finally we're going to use them. They'll help creating a grass border between track and the runoffs. It's not so good when we have runoffs close to the track that we have sand spreading on the race line. This step is quite easy. First, we need to decide the runoff's shape. It can be round, squared or a polygon (I prefer the latter because it's easier to put concrete wall around them!). After deciding its shape, open the track .bmp with paint, select the sand with the eyedropper tool, and choose the line or curve line tool (depending on the type of the runoff you've chosen). Then, star drawing the runoff using the brown line as a face of the runoff and paint it with sand.



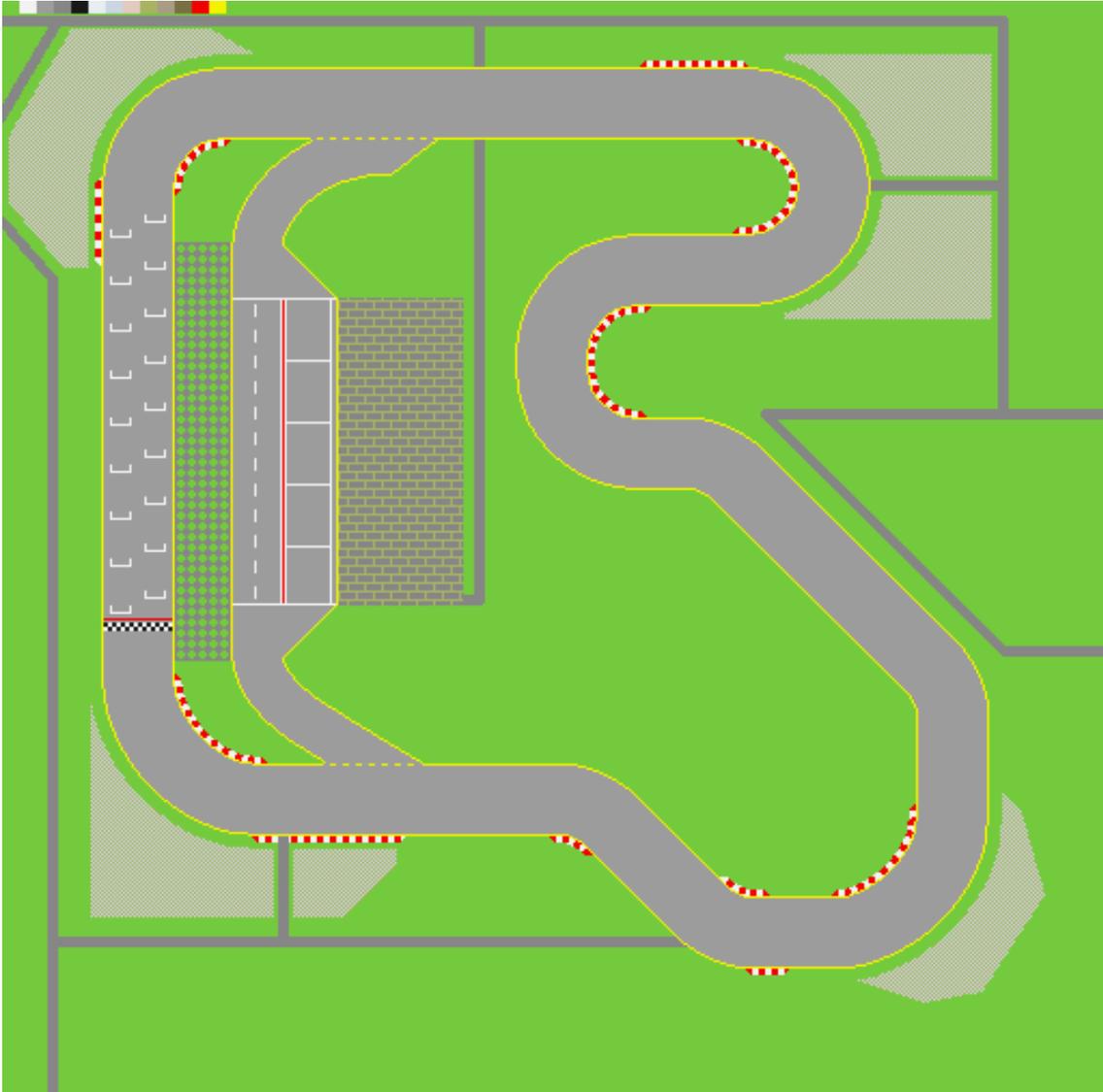
After doing all the desired runoffs, use the paint bucket tool and paint the brown border using the grass color.
Here's my track:



Our track is almost completed!
Just small things to go!

5 – Final Touches on the LMap

By final touches I mean creating the pit lane, LMap for the scenery and adding the dithering, as fixing small bugs and adding small details to LMap. I'll not explain how to create pit lane, LMap for the scenery or small details since they're relatively easy to do and not so much practice is required, only creativity. I'll just explain dithering. But you can see how my track is after receiving these small details on the LMap.



5.1 – Dithering

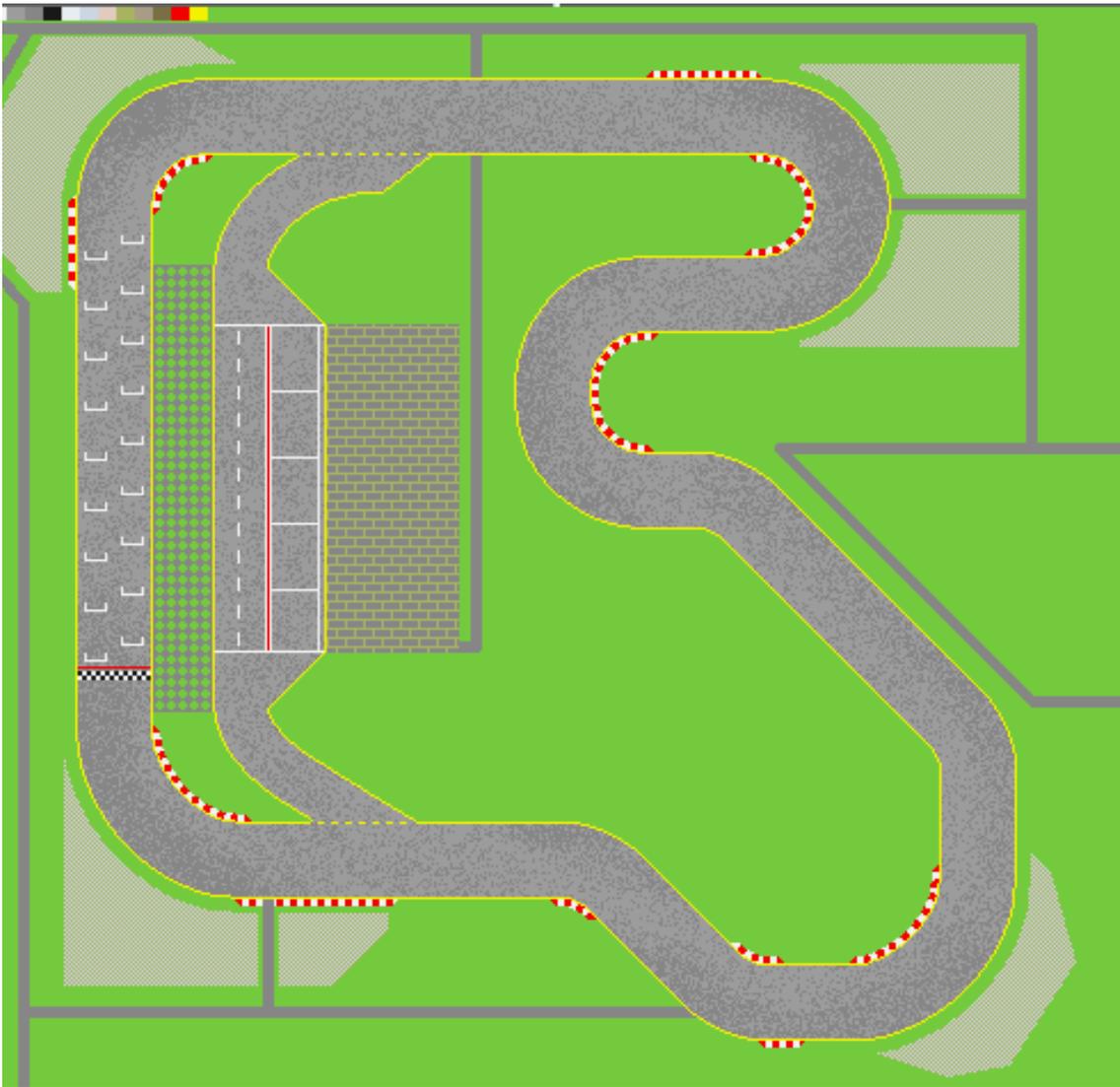
Now let's go into dithering!

Open your track bmp with paint. But before start dithering, press CTRL A and then CTRL C. Then, if you've chosen the dark tarmac at the beginning, pick up the light tarmac, or vice-versa. Choose the spray paint tool, and adjust for a bigger size by pressing Ctrl + a few times. Now spray the track with the tarmac. Don't care if you paint kerbs, runoffs or some are off the track. In my opinion, for a better looking, concentrate the spraying in the curves, to look more real. Like this:

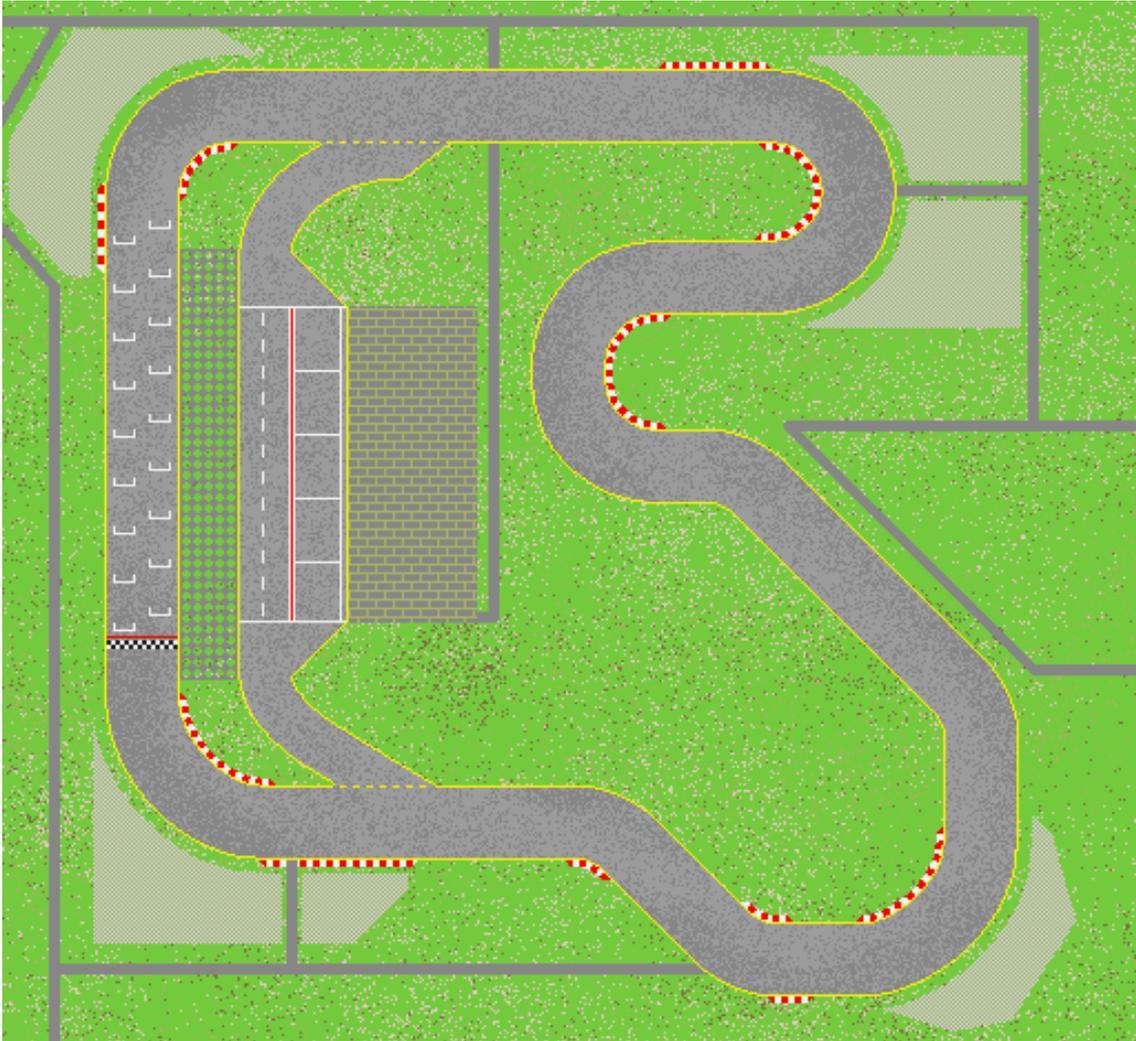


Then, with the eyedropper tool, select the eyedropper tool and select the first tarmac color with the **right mouse button**. (In my example it was the light one).

After doing this, press CTRL V and you'll notice that you pasted your track before you had dithered it. Do not deselect the track. Otherwise, click on the second option in the box right under the brushes (Where you select the brush size). Your track should look like this:



Repeat the same process with this color, but now experimenting with different colors. Do not forget to Press CTRL A and CTRL C before start painting and selecting the grass color with the right mouse button. It should be like this.



When you finish your LMap do not forget to delete the small squares at the top, otherwise they'll be out of place.

6 – The Final Work

After all this work your LMap should be done and your track ready for object placing, HMap creating and for the AI Lines and Checkpoints.

Following these processes and having creativity your track should something like this:



7 – Legal Disclaimer

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