War at Sea Card Generator Silhouette Tutorial

This tutorial will cover how to create the assets used on the various unit cards. In this tutorial, I will not assume any level of familiarity with photo editing software and will be catering toward a free Photoshop alternative know as GIMP. If you are familiar with image editing software and have any suggestions for improvement to this guide, please feel free to contact me on either Facebook or via our Discord server.

Getting Started

Installing Image Manipulation Software

To get started, go ahead and download a copy of GIMP. This is a free and open-source alternative to Adobe Photoshop and has many of the same features. For our purposes, this software is sufficient. Once you have installed GIMP, head on over to http://www.shipbucket.com/. This site is going to be our best friend when it comes to having a starting point for most of our assets. Shipbucket contains tons of drawings of both ships and aircraft that we can use to create our silhouettes and blueprint drawings. Play around with the site a little and explore. The navigation is straight forward and organizes ships by nation and type.

Exploring the Project Repository

Once you are comfortable with Shipbucket, check out the assets folder of the project repository on Github. Feel free to explore and see all the assets that are currently available. When you are done, open the silhouettes folder. Notice that it is subdivided into ships and planes. To start out, we are going to only be focusing on the ships. Drill down into the ships folder, from here you can see it is organized by nation. Inside each nation's folder are the silhouettes for each of that nation's unit. For each unit, there are three different assets:

1. A plain silhouette
2. A silhouette with a white drop shadow
3. A blueprint

The naming convention for each of these files is important as the generator program expects them to have a particular naming pattern. For the silhouette with the white drop shadow, the script expects the image to have the same name as the class of the ship, and for the name to be all lower case. For the blueprint, the program expects the file to be named the class of the ship, followed by blueprint. The example below illustrates the naming scheme where the class of the ship is "county".

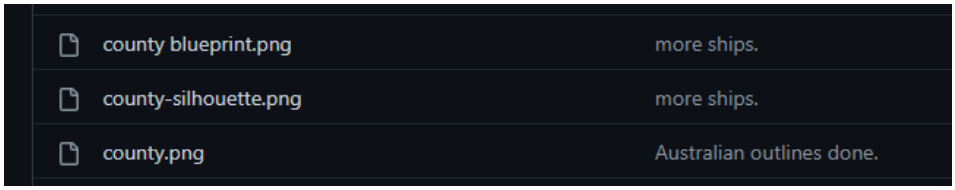


Figure 1: Naming Pattern

As for the silhouette image, it is currently not used by the script. The silhouettes are maintained as a separate asset for backup images in case they are needed.

Some nations will share the same class of ship (e.g. Australia shares the Leander class with the United Kingdom), in cases such as this the assets simply need to be copied over nation with which the ship class is shared.

Asset Tracking

There exists a spreadsheet that tracks the progress for each of the three assets described in the prior section for each unit. This spreadsheet is publicly viewable and editable, so please be sure to check off anything that you have done to prevent duplicate effort.

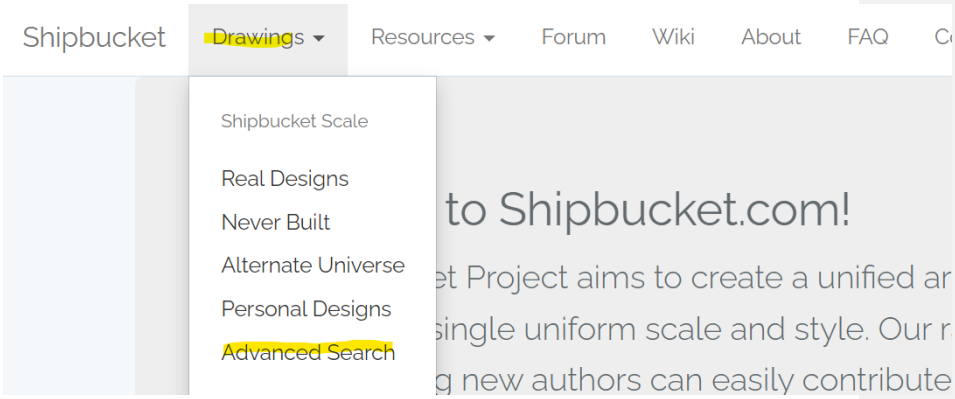
Making the Assets

For this tutorial, we are going to make the assets for the Leander Class light Cruiser. This ship class is shared between multiple nations and will allow us to check off any unit that is a Leander class in the spreadsheet.

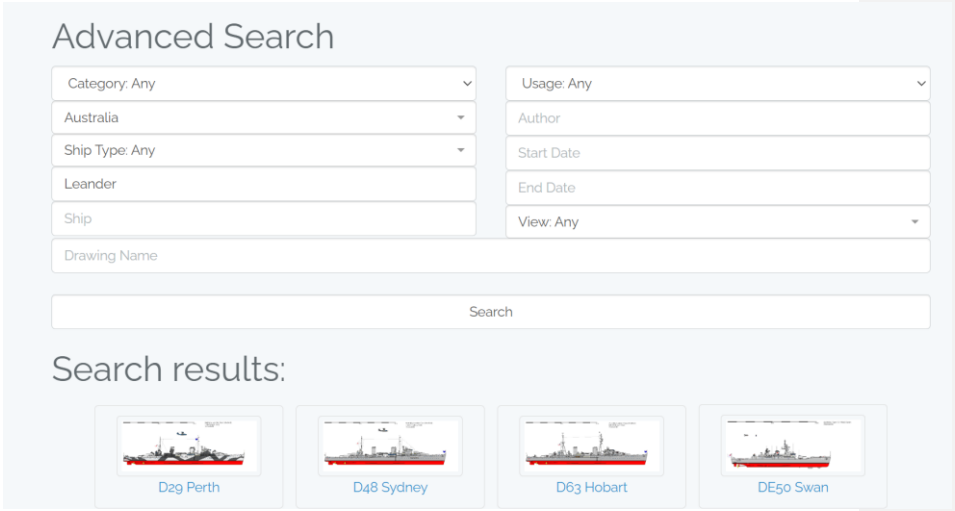
The Plain Silhouette

To make the plain silhouette, we are going to go find a base image on shipbucket, then remove the background, blackout the ship, then clean up the image and save it.

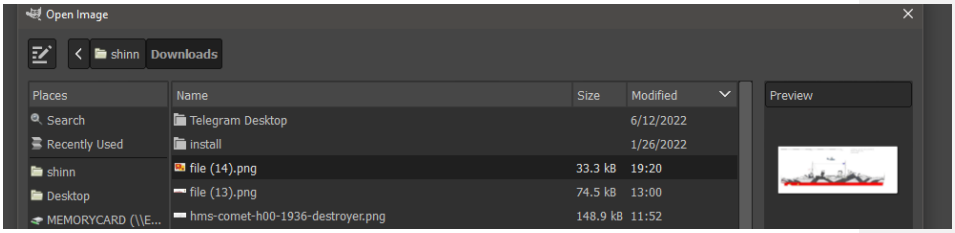
1. Go to http://www.shipbucket.com/
2. From the top navigation bar select the drawings drop down, then select “Advanced Search”



3. The advanced search will allow you to refine you search quickly and easily. For now, let's search for ships of the Leander Class that were operated by Australia

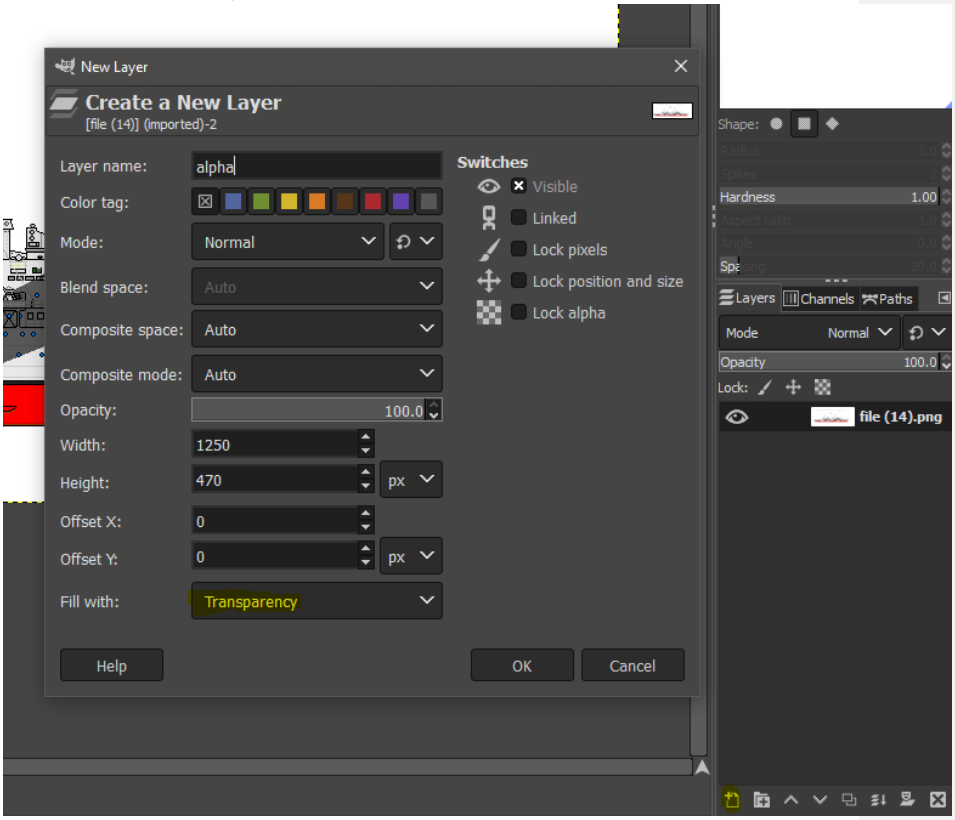


4. From here we can see that there are four, lets select Perth. Once selected, you will be given the option to show the full-size image. Follow the link for the full-size image then save the picture.
5. Once you have the image downloaded, open gimp, then from the menu bar select file -> open. Navigate to the downloaded image of Perth using the open image dialog, then open it.



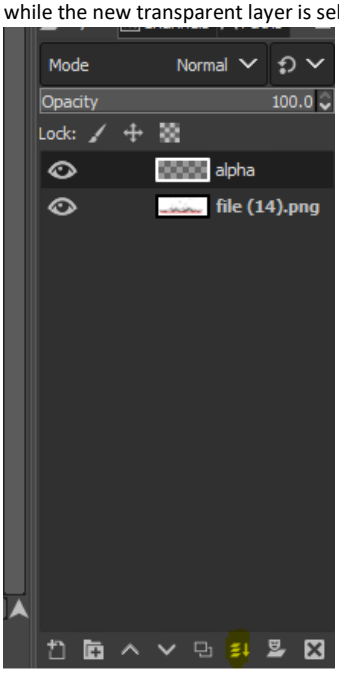
6. Once the image has been opened in GIMP, we need to add a new transparent layer to the image. This will allow us to remove the background from the image. In the bottom right corner of the GIMP window, select the add layer icon. This will present you with a New Layer dialog. You may leave all of the options as the default except for the "Fill with" option.

It should be set to “Transparent”



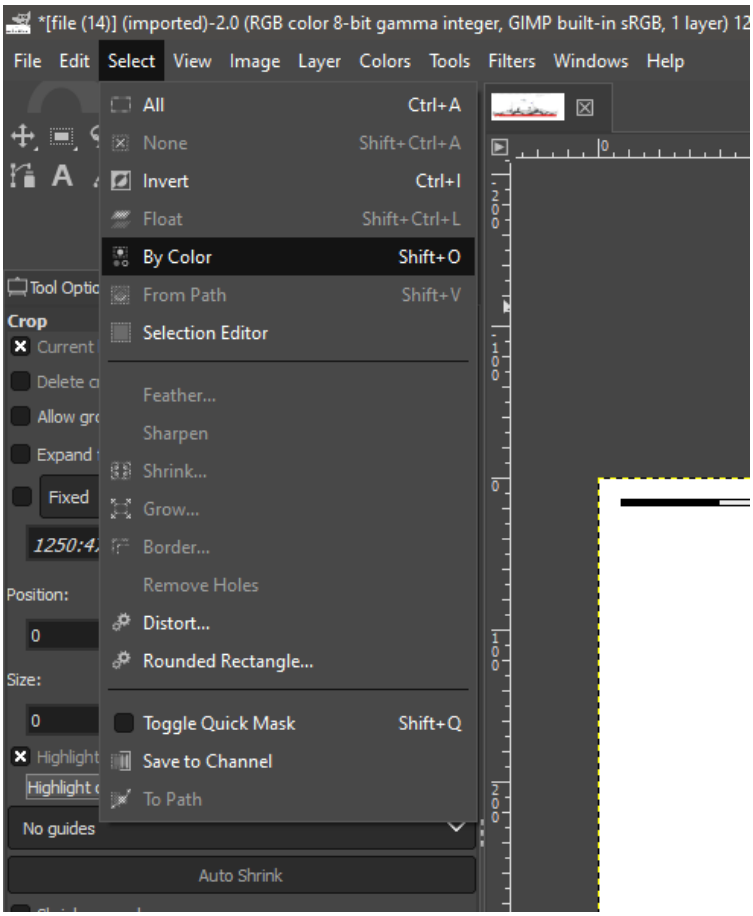
7. You should now see two layers in the layers menu (bottom right). We now want to flatten these layers into a single image. Select the merge layer down button in the bottom right

while the new transparent layer is selected.



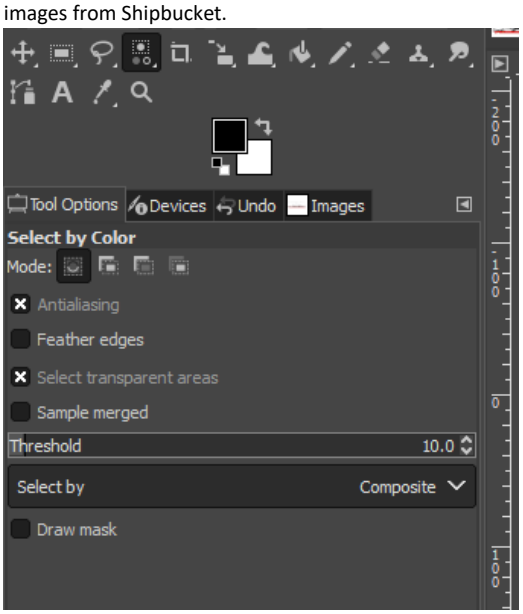
8. Once the layers are merged, the next step is select the image background and remove it. To do this, we are going to use the select by color tool. From the menu bar, click select -> By

color

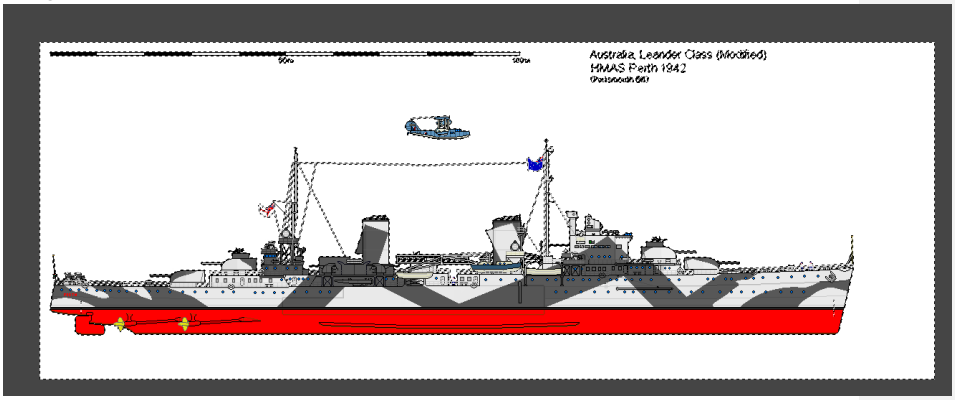


9. A new options dialog will appear on the left-hand side of the screen. There you should see an option to adjust the threshold value. This value is used to determine what colors should be considered within the range of the original select color. The higher the threshold, the more range of colors will be selected when using this tool. The lower the threshold, the fewer colors will be selected. I have found that a threshold of 10 seems to work the best for

images from Shipbucket.

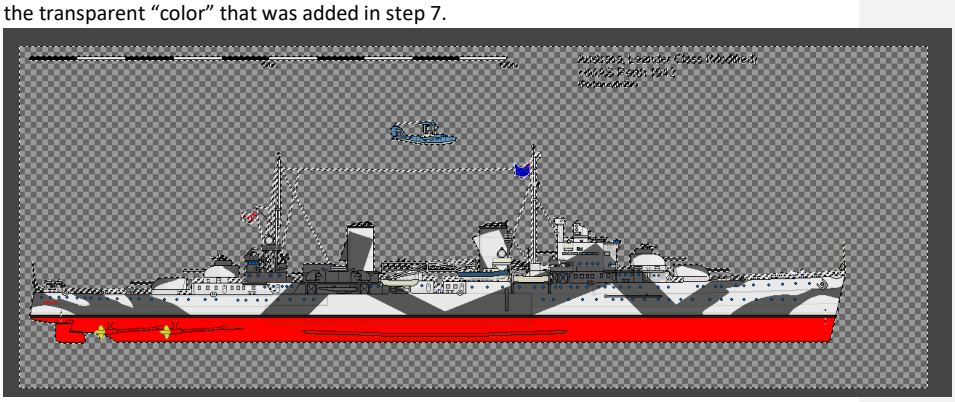


10. After adjusting the threshold, go ahead and select the white background. You should see moving black and white lines appear on the boarder of all objects that touch the white background.

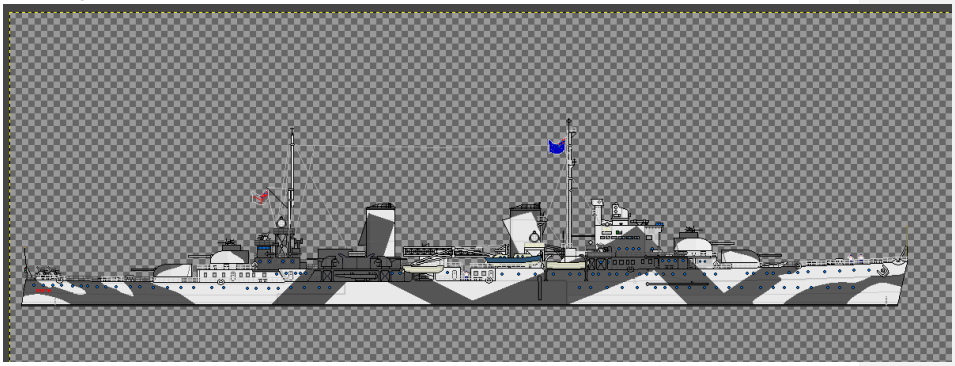


11. You may now hit the delete key on the keyboard, this will erase all items that are currently selected (e.g the background). This will leave you with a light grey and dark grey checkered background where the white was. This is the be expected, this checked pattern represents

the transparent “color” that was added in step 7.

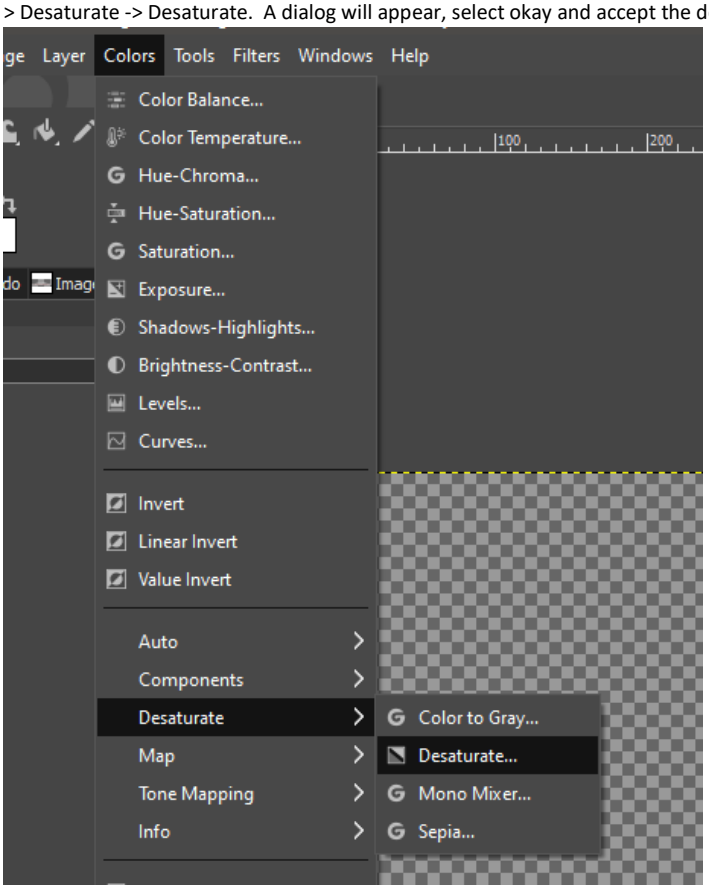


12. You can now begin deleting other unnecessary components of the image. For example, the scale, ship name, aircraft, and hull below the water line. You can do this by either using the eraser tool, or by using the square select tool. If using the square select, draw a box using the tool. Once the box is draw over the portion you want to delete, hit the delete key. This tool will ensure that you are deleting with straight lines, so it is advisable that you use this tool to remove the hull below the water line. When you are done, you should have the following

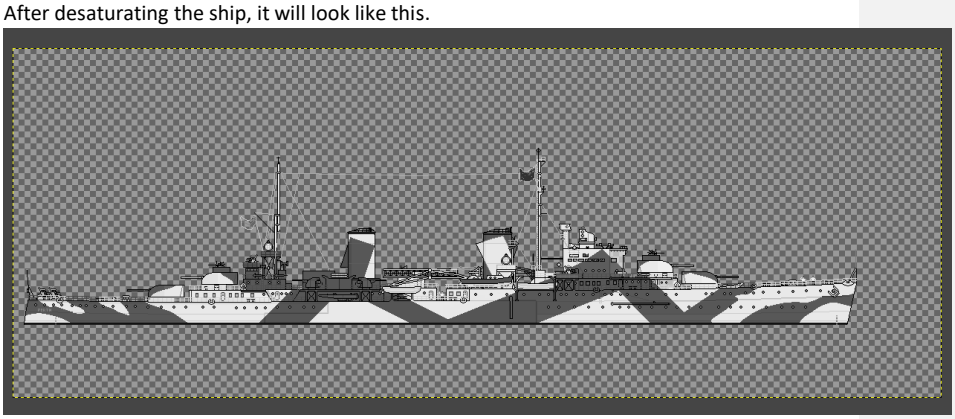


13. Now that we have the basic shape that we want for the ship, we need to remove all the color from the ship. We can do this by desaturating the ship. From the menu, select Colors -

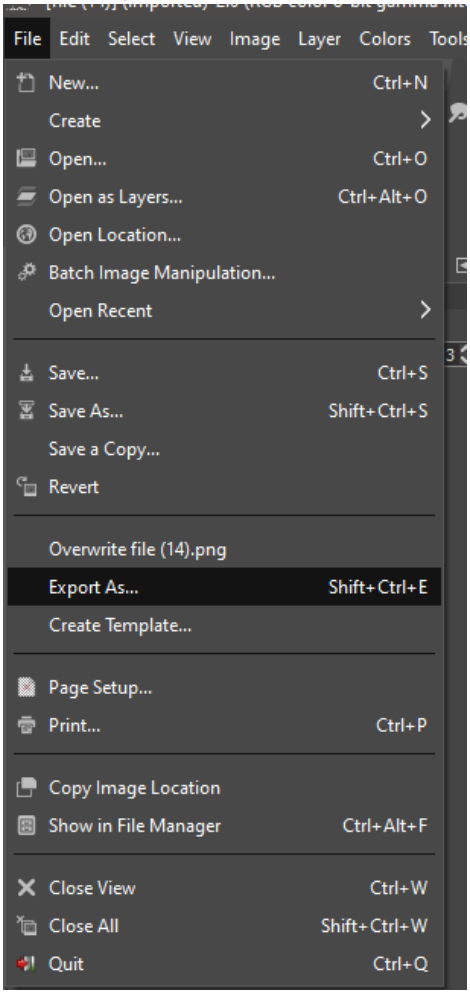
> Desaturate -> Desaturate. A dialog will appear, select okay and accept the defaults.



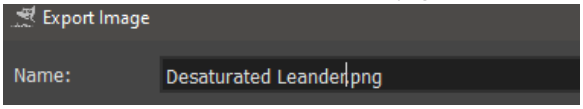
14. After desaturating the ship, it will look like this.



15. Almost there, the last steps are blacking out the all the colors and then resizing the image. At this point, you should save the ship as it currently is as the direction for creating the blueprint require the desaturated version of the ship. To save as a png (the file type we need for the generator) select file-export as

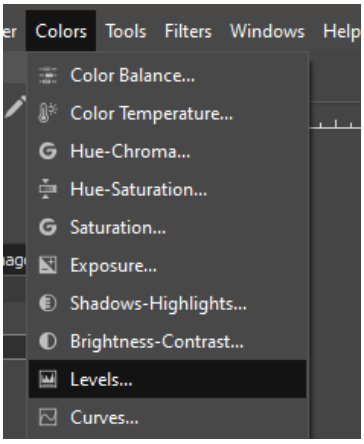


16. Give the file a name and make sure it has a png extension.



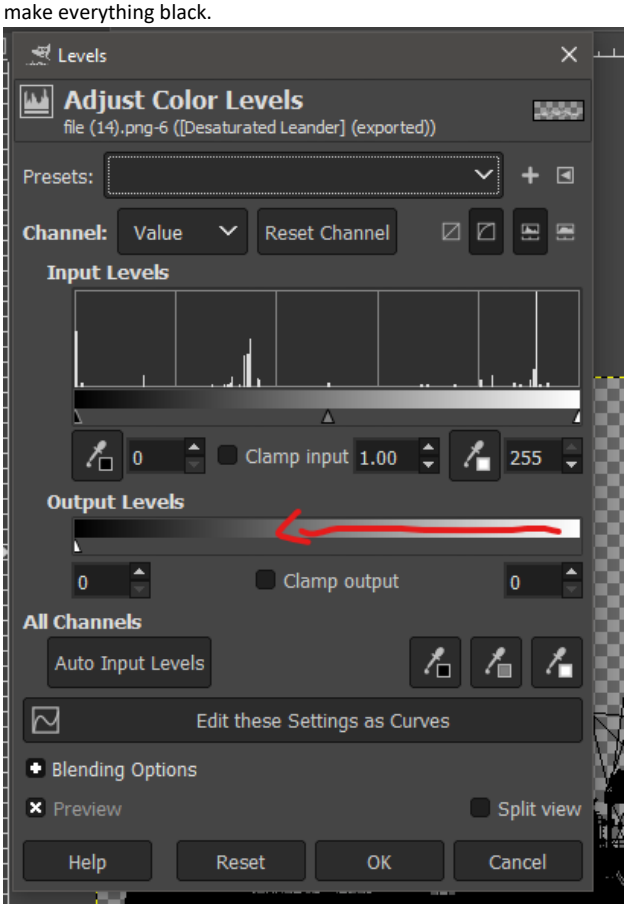
17. Click export. In the following dialog, accept the defaults and click export again.

18. Now that we have our base for the blueprint, lets continue with the silhouette. From the menu bar, select colors -> levels.

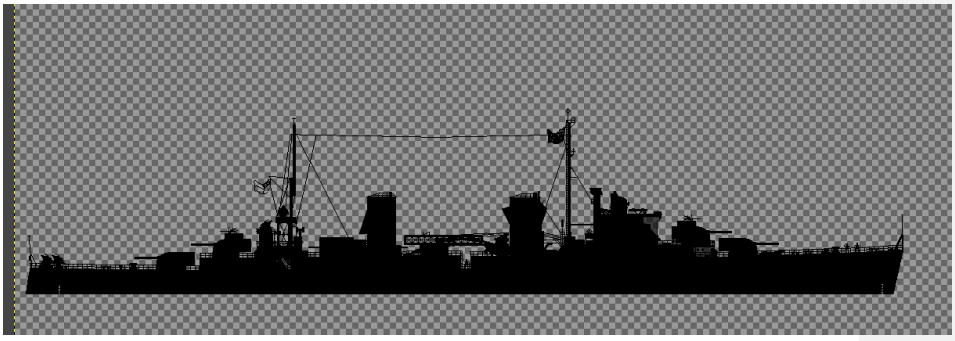


19. In the dialog that appears, drag the right-hand right arrow on the second slider all the way to the left. This will change the range of all light colors, making them darker. In fact, it will

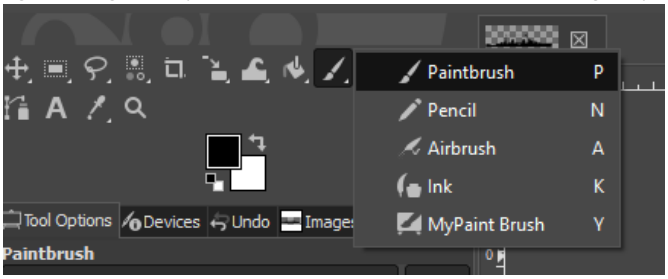
make everything black.



20. After hitting okay, your ship should look like this



21. At this point, the ship may need some touch ups. For example, where the water level indicator lines on the hull were there are now empty spaces. Go ahead and use the pencil tool to fill them in. Select the pencil tool by either using the keyboard command “n” or by right clicking on the paint brush icon in the toolbox, then selecting the pencil

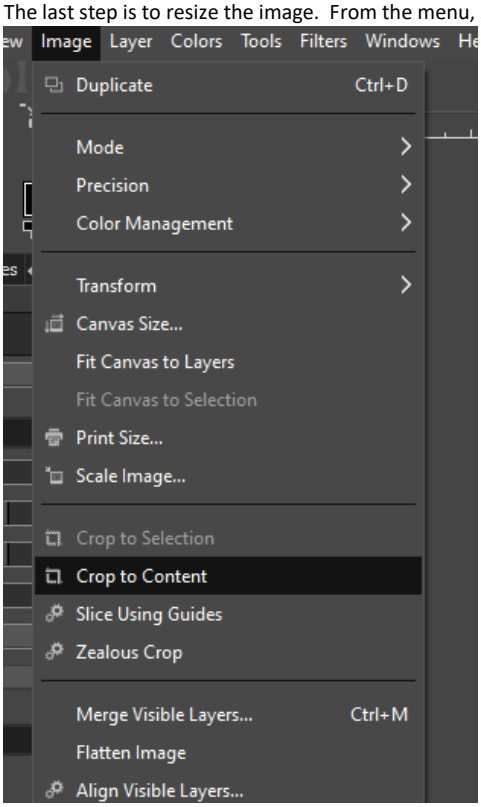


22. In the tool options that appear, be sure to set the size to one, otherwise you may draw over too much. Setting it to one allows you to fill in individual pixels. Using the pencil, fill in the holes left by the water line indicators.

23. There will also be some transparent portions near the bridge that should not be there, fill those in too as well as the flags.

24. When you are done, you should have the silhouette

25. The last step is to resize the image. From the menu, select image -> crop to content



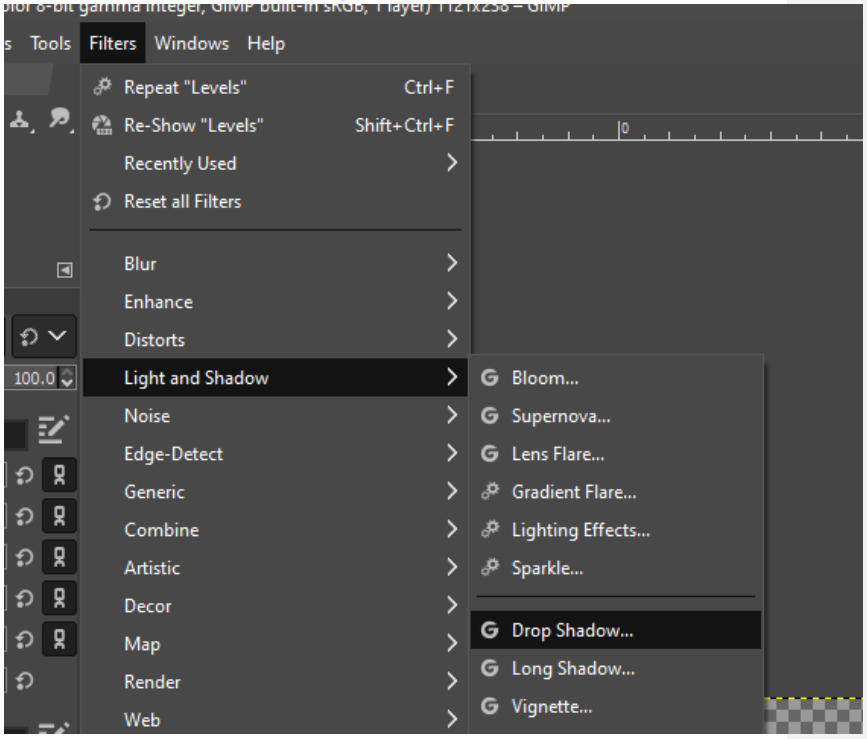
26. That will leave you with the properly formatted silhouette

27. Save this like you did in steps 15 -17, being sure to save it as the name of the class – silhouette (see the example in Figure 1: Naming Pattern)

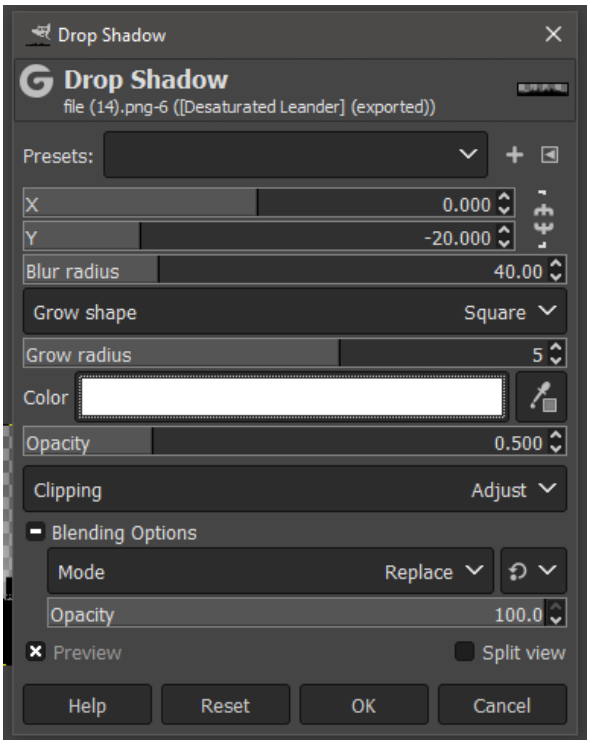
Making the Silhouette with Drop Shadow

To make the silhouette with drop shadow, we are going to take the silhouette made in the prior section, apply a drop shadow filter to it, then resize the image.

1. Open the silhouette png we made in the prior section.
2. From the menu bar, select filters -> light and shadow -> drop shadow

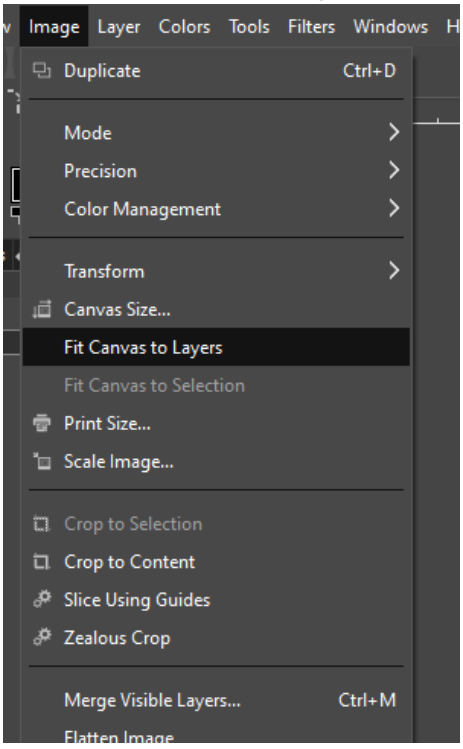


3. Apply the following settings in the dialog that pops up. Also be sure to “break” the chain between the x and y value by clicking on it, otherwise the x and y values will mirror each other

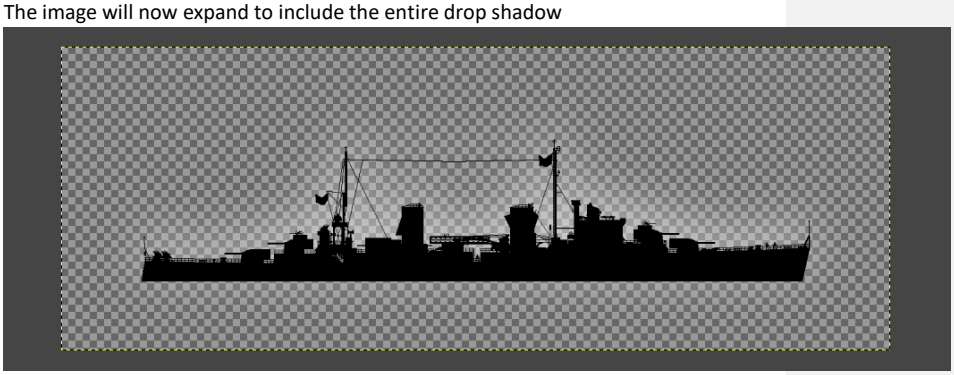


4. Click okay. You should see the following now

5. Go to the menu bar and select image -> fit canvas to layers



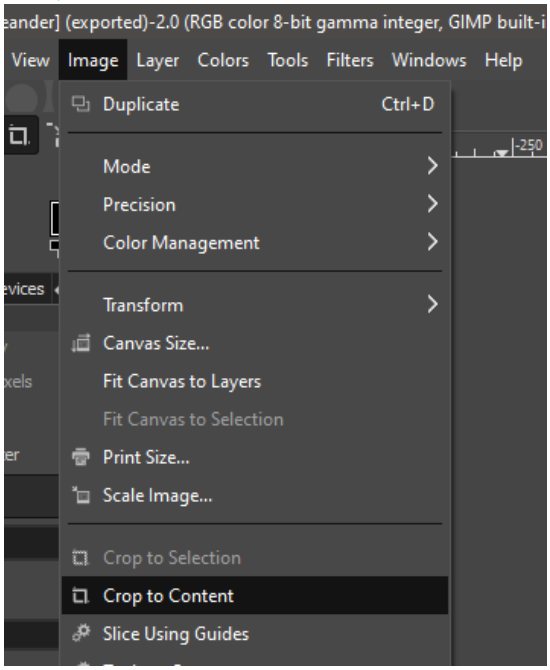
6. The image will now expand to include the entire drop shadow



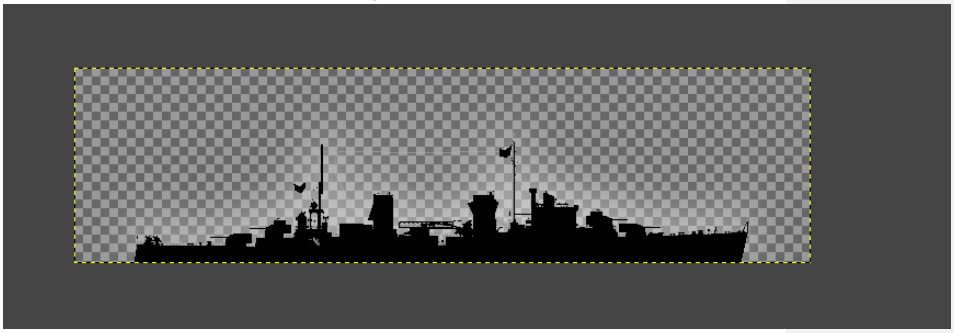
7. Lastly, crop the image using the crop tool to remove everything past the bottom of the hull of the ship. The crop tool is in the toolbox, the 5th option from the left

8. Be sure to crop out only the bottom portion of the image, everything above the bottom of the hull should be included

9. Once the crop has been applied, resize the image. From the menu bar, select image -> crop to content



10. You should now be left with the following



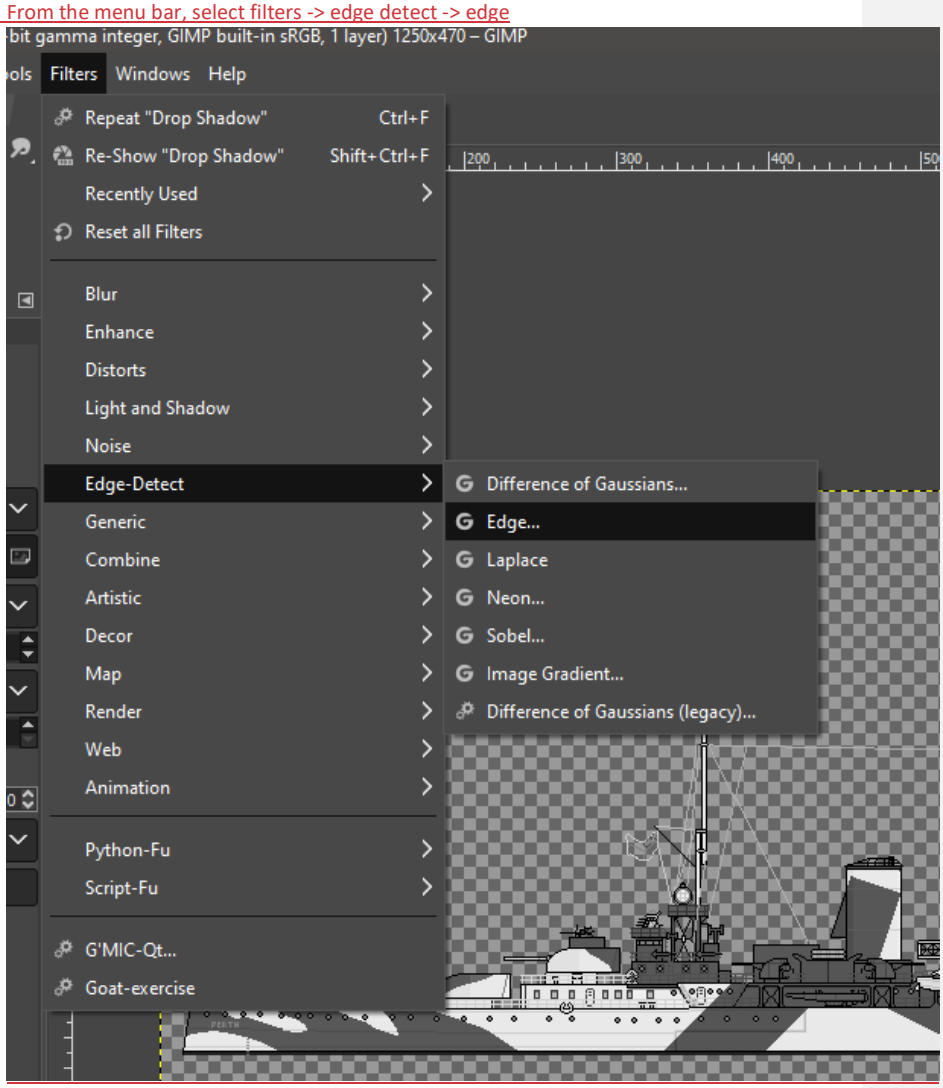
11. Export the image as a png, saving it as just the name of the ship class in all lowercase letters.

Creating the Blueprint

Here we will use edge detect on a black and white image to create a blueprint-like image.

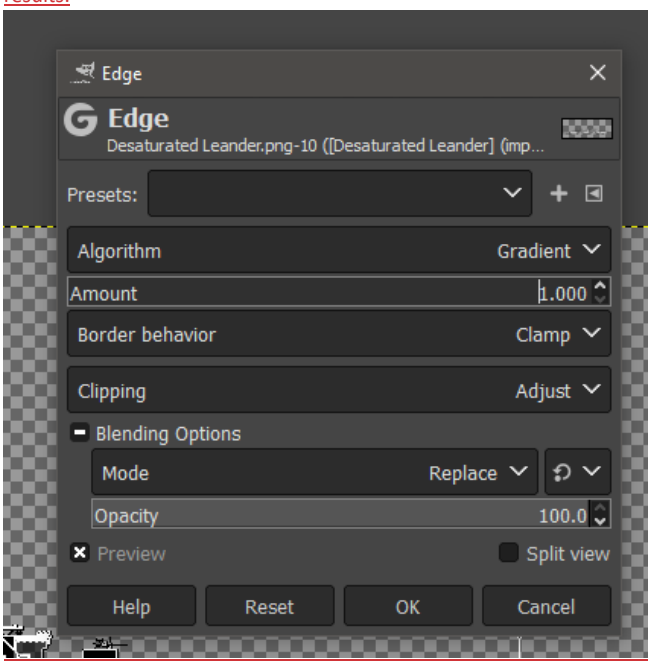
1. Open the desaturated Leander image that we saved as part of making the initial silhouette.

2. From the menu bar, select filters -> edge detect -> edge

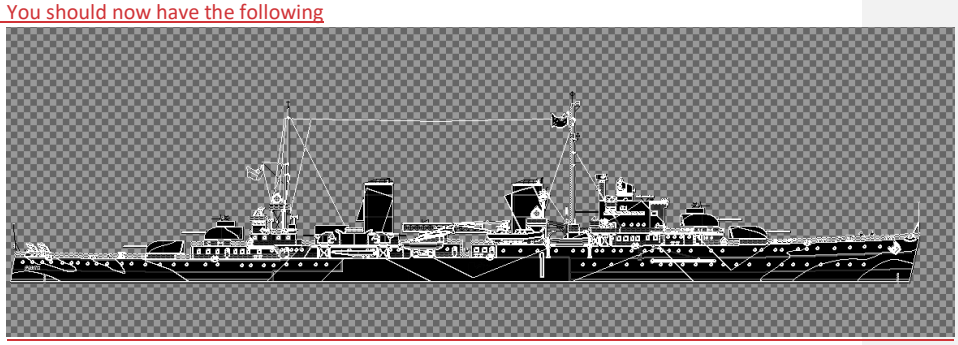


3. Here you will have to play around with the settings to find what looks best for the particular boat. I have found that the gradient algorithm with an amount of 1 typically gets the best

results.

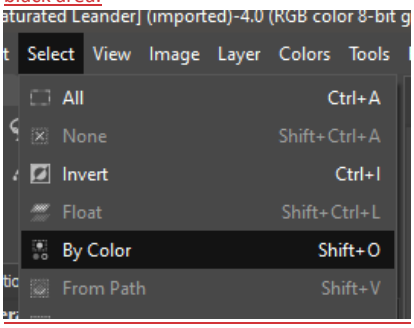


4. You should now have the following

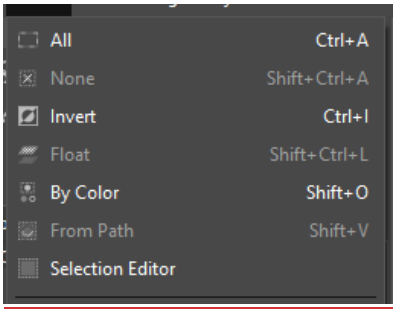


5. The next step is to remove everything that is not a line. Using the select by color tool, lets remove all of the dark black colors. From the menu, pick select -> by color. Then click on a

black area.

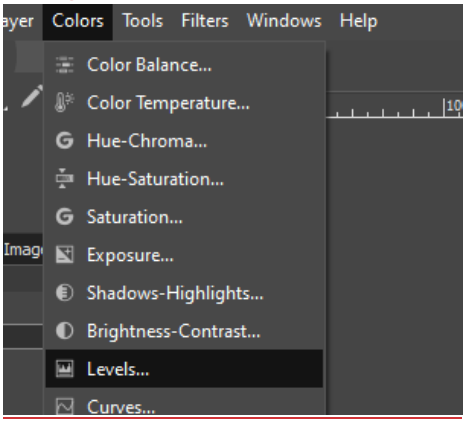


6. You should see a lot of the ship highlight with a selection indicator. When this happens, hit the delete key.
7. Now clear your selection by clicking select -> none

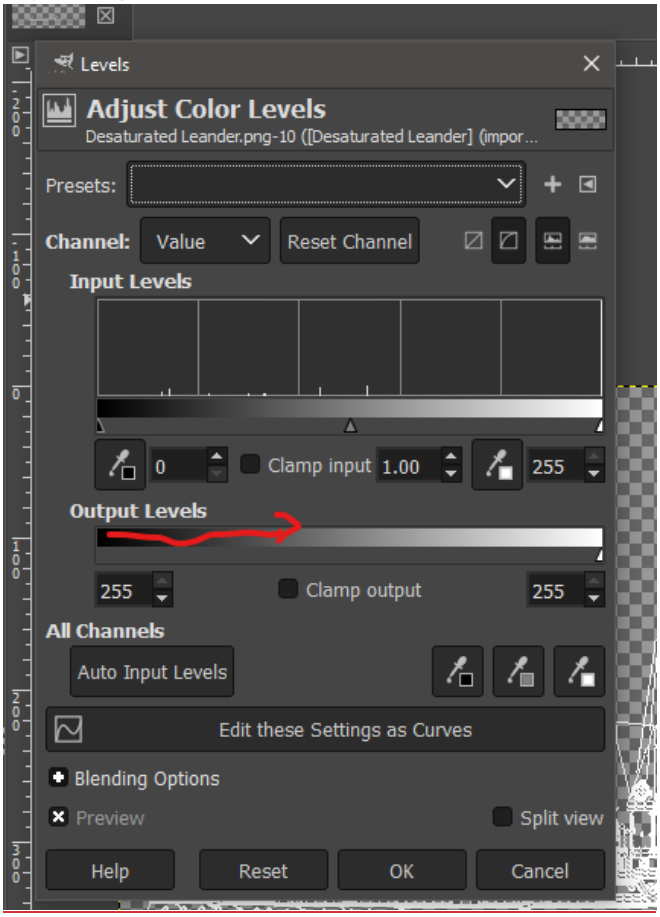


8. You should be left with the following

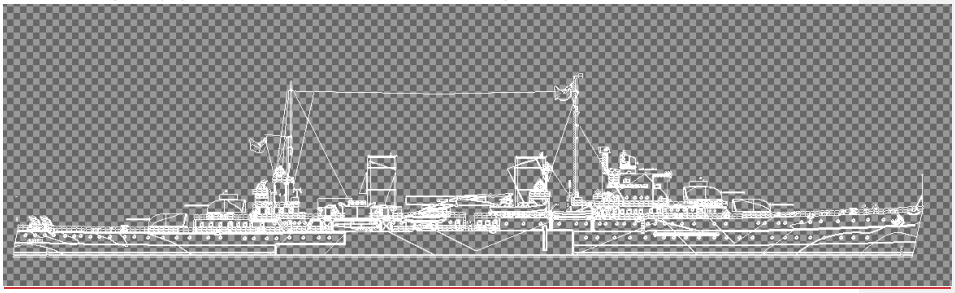
9. Now we want to make all of the dark colors white, the opposite of what we did in step 21 of creating the silhouette. From the menu, select colors -> levels



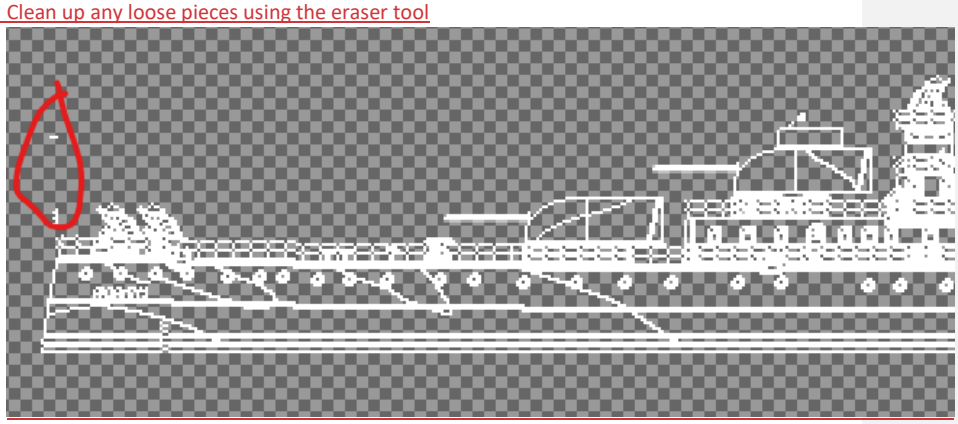
10. In the dialog that pops up, slide the black slider (left side) of the Output Levels slider all the way to the right



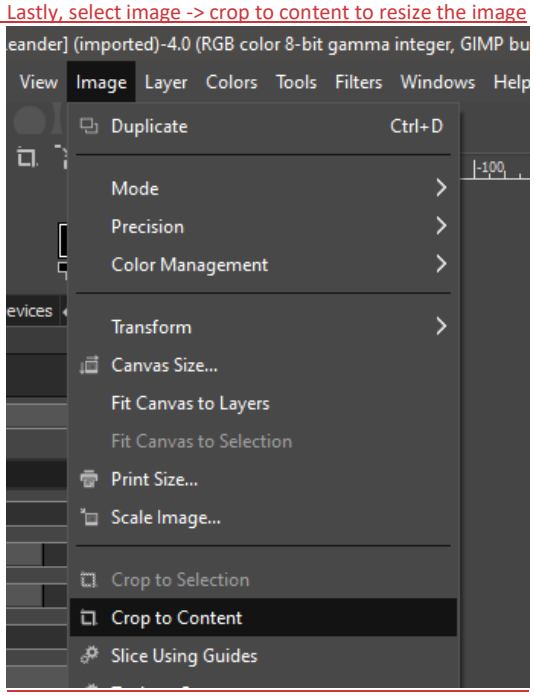
11. After clicking okay, you should be left with the following



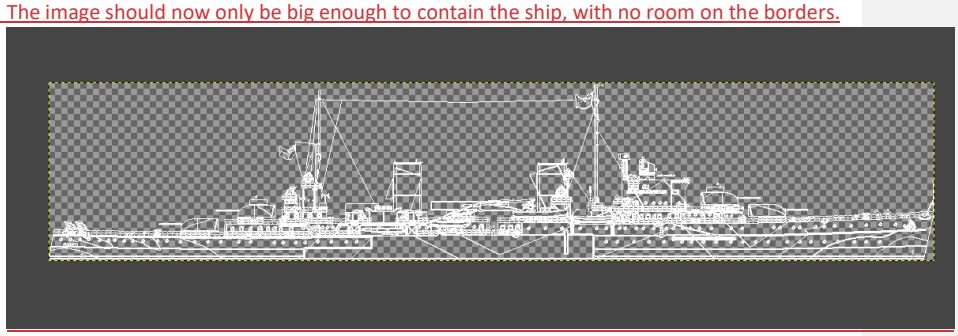
12. Clean up any loose pieces using the eraser tool



13. Lastly, select image -> crop to content to resize the image



14. The image should now only be big enough to contain the ship, with no room on the borders.



15. Export the image as a png, named the class of the ship followed by blueprint, all lowercase (e.g. leander blueprint.png).

Contributing the Assets

Currently, all assets are stored as part of the software repository on Github. Given that contributing to the repo itself via a merge request, and would require you to create a github account and learn how to use it, it is likely easier to just post the images to the discord server. There is a special "asset-sharing" channel made just for this purpose.