



Adobe Photoshop

Adobe Photoshop is one of the most famous raster graphics editors. It has comprehensive image processing tools such as lasso tool, Selection tool, crop tools etc. Photoshop's powerful and comprehensive image processing functions make it the preferred software for image editing in graphic design, post-retouching, website building, game production and other fields. This tutorial will focus on the matting and image stitching functions of Photoshop. In addition, we will also introduce some basic knowledge about Photoshop, such as how to import files and how to save the project.

Tutorial Overview

1. Introduction to Photoshop User Interface.
2. Open/import image files.
3. Matting and stitching project for beginner.
4. Saving/Export the image file.



Part 1. Introduction to Photoshop User Interface.

This is an introduction to Photoshop’s default window modes and workspace elements. It will help you understand the default user interface of Photoshop and customize the personalized workspace.



Workspace Elements

There are 5 main workspace elements in Photoshop. Being familiar with the location of these elements will make you more efficient when working with Photoshop. (Figure 1.1)

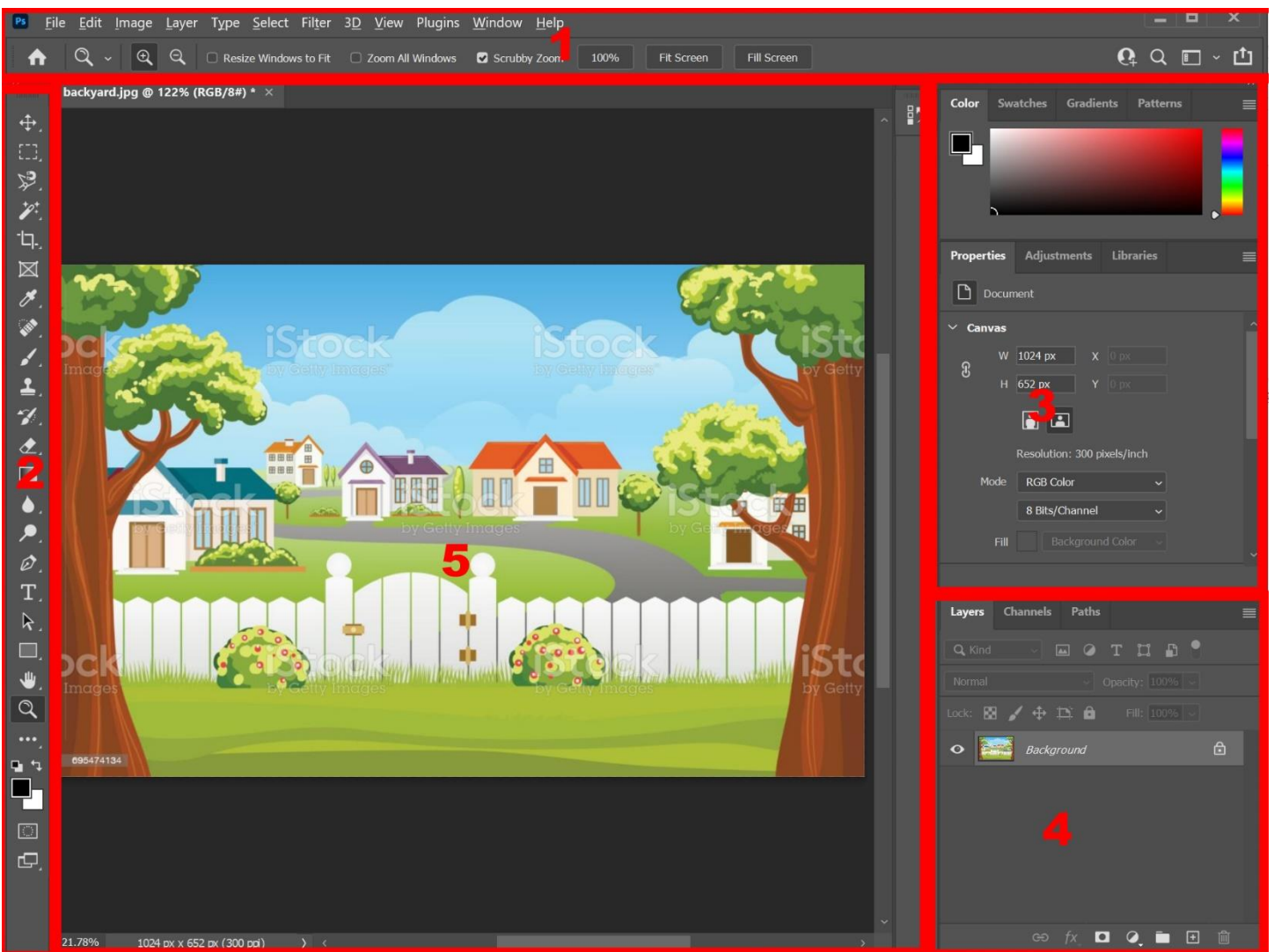


Figure 1.1 Default window of Photoshop

1. Menu Bar: You can use this menu to find the operation or tool you want to perform.

2. [Toolbox](#): Common tools can be found here. (Tips: Hovering over each of the tools prompts out a detailed description and the demonstrated animation of the tool.)
3. [Color, swatches, gradients, patterns](#): You can set or view the properties about Color, swatches, gradients, and patterns here.
4. [Layers, channels, Paths](#): You can set or view the properties about Layer, channels, paths, and patterns here.
5. [Image Window](#): The main editing window, the final exported effect will be displayed here.

Windows Modes

In Photoshop, users can change the window modes(workspace) according to the type of picture they want to edit. (Figure 1.2)

1. Find **Window** button in menu bar and click.
2. Hovering over the **Workspace** option.
3. Choose the windows modes you want.

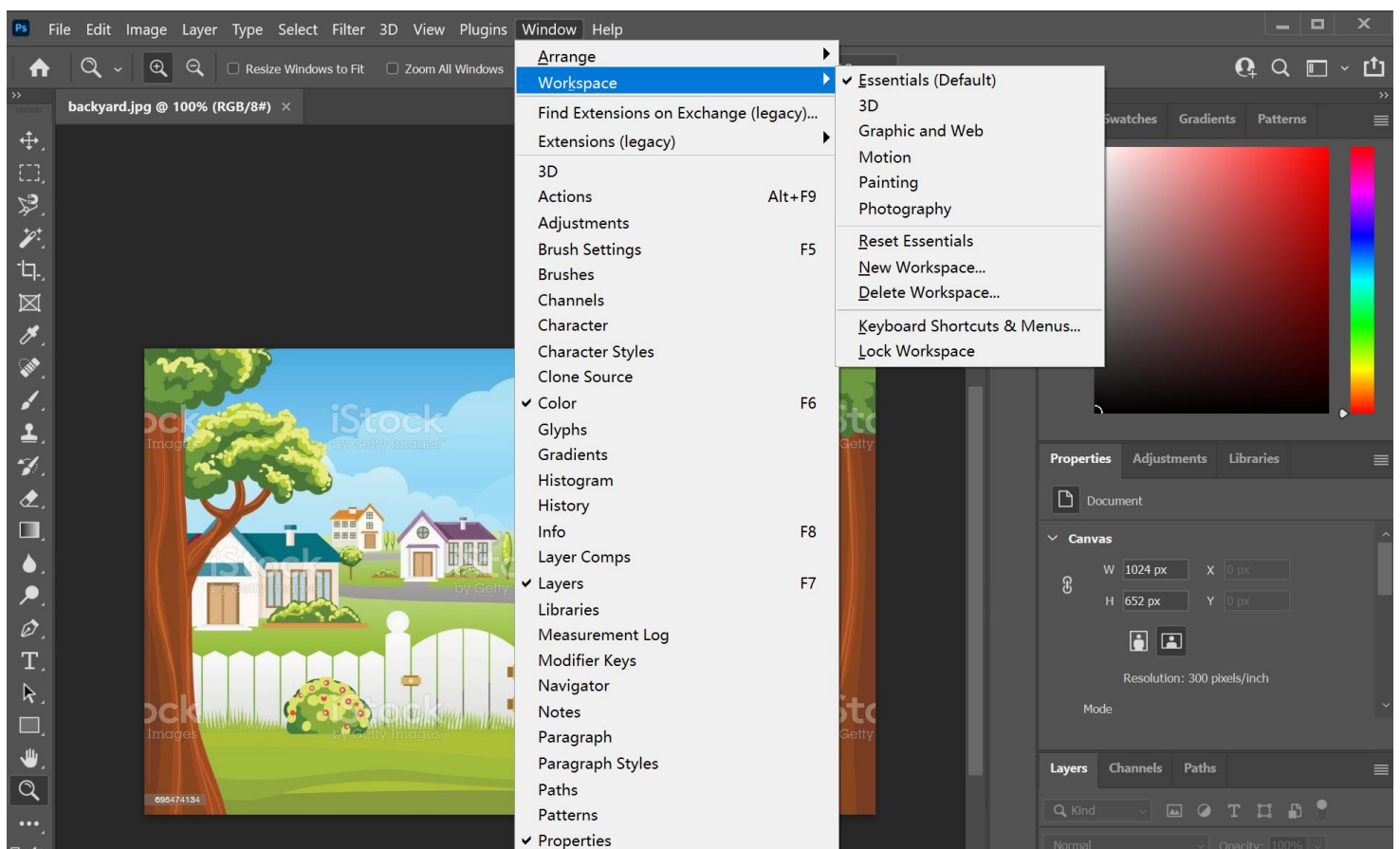


Figure 1.2 Change Windows Modes

In this Tutorial, we will use Essentials/Default Windows Modes



Part 2. Open/import image files.

The power of Photoshop lies in image processing, not image creation. Therefore, before proceeding to the project, we need to learn how to open or import image files. This part will introduce how to open/import image files.



Import By Scripts

Before we import the image file, we will need to open **Load Layers** Window first:

1. Find **File** button in menu Bar and click it.
2. Hovering over the **Scripts** option.
3. Find **Load File into Stack** and click it (see figure 2.1), then a **Load Layers** Window will show up (see figure 2.2).

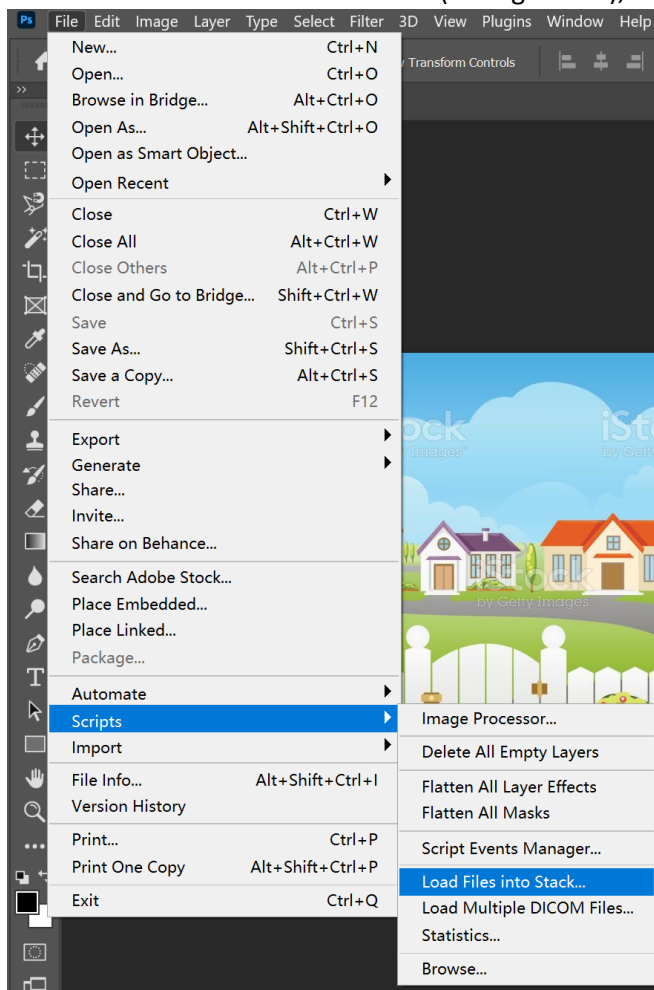


Figure 2.1 Load File into Stack

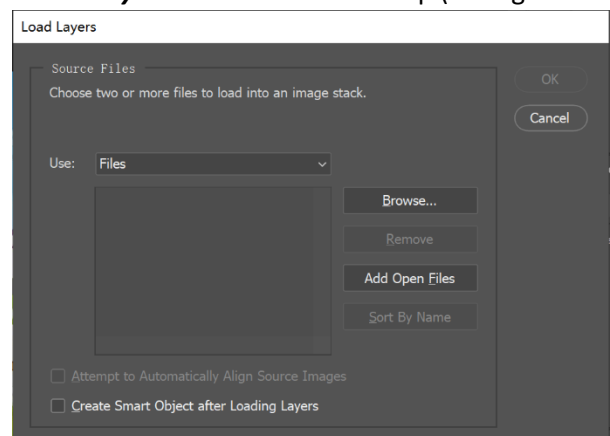


Figure 2.2 Load Layers Window

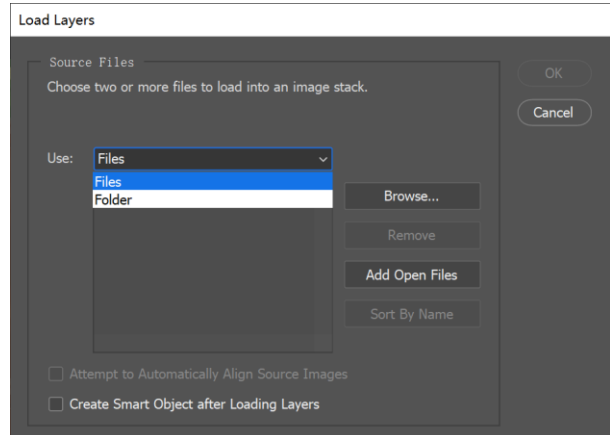


Figure 2.3 Choose import method

Photoshop allows user to import image by single files or whole folders. (See figure 2.3) Click the option box after **Use**, you can choose to import files or folder.

Import files:

1. After selected **Files** option, click the **browse** button.
2. Find the single image file you want to import and click **Open**.
3. Then you will see the image file you choose shown in the layers box. (See figure 2.4)
4. Repeat the above steps until all images are imported.

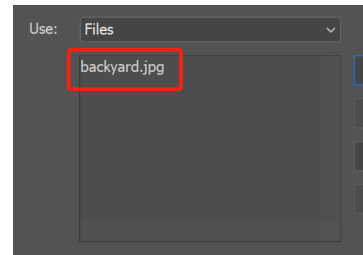


Figure 2.4 import single image file

Import folder:

1. After selected **Folder** option, click the **browse** button.
2. Find the folder contain the image files you want to import and click **OK**.
3. Then you will see all the image in the folder you choose shown in the layers box.
4. Repeat the above steps until all images are imported.

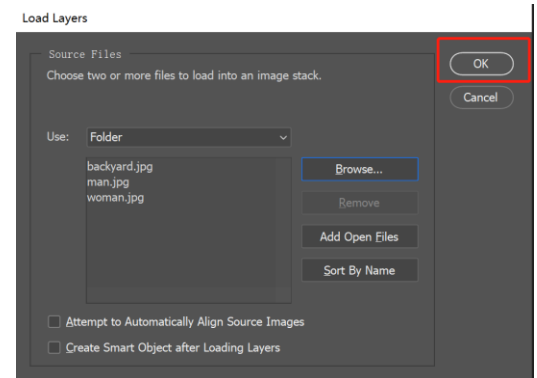


Figure 2.5 The OK button

After Imported all image file in Load Layers Windows, you will need to click OK button on the upper right conner to import all image files you choose into layers. (See Figure 2.5)

Then you will see that all files have been imported successfully and shown in the layers.

Warning: At least two image files need to be selected in this way, otherwise the OK button cannot be clicked.

Sometimes the pictures you import cannot be seen in the image window. That is because of the layer order, which we will mention later.



Import By Dragging the Picture

In addition to importing through scripts, Photoshop has a more flexible and easier way for beginners to import pictures, which is dragging pictures directly into the Image Window to import pictures:

1. Open the Photoshop window on the desktop and find the picture you want to import.
2. Hold down the left mouse button and drag the picture into the Image Window of Photoshop.
3. Release the left mouse button, and the image will be imported successfully. (See Figure 2.6)

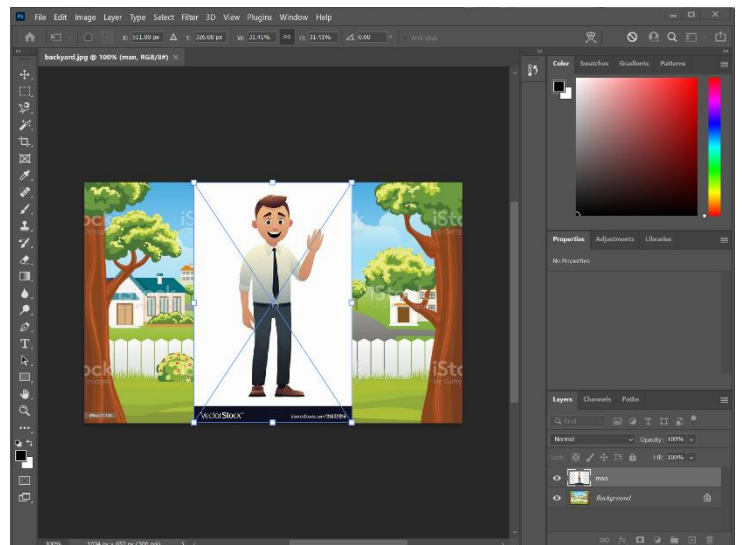


Figure 2.6 Import successfully

In this part, we have introduced two ways to import images: through script and direct dragging. Importing through scripts can save a lot of time when users need to import a large number of image files, while dragging and importing directly is more flexible and simpler.



Part 3. Matting and stitching project for beginner.

In this part, we will introduce the knowledge you need to know and the usage of some tools in Photoshop through an easy matting and stitching project.



Something you need to know

- **Smart Object and Rasterized layer:** After we import the image material, in the layer view, we will find an icon looks like "document" in the lower right corner of our image material. (See Figure 3.1) It means this layer is a **Smart Object**.

When you try to edit a smart object, the system will report an error.(See Figure 3.2)

Therefore, we need to rasterize the layer: Right-click the smart object layer in the layer window, find the **rasterized layer** option and click. (See Figure 3.3)

After rasterizing the layer, we will find that the icon in the lower right corner of the layer has disappeared, and the layer can be edited at this time. (See Figure 3.4)

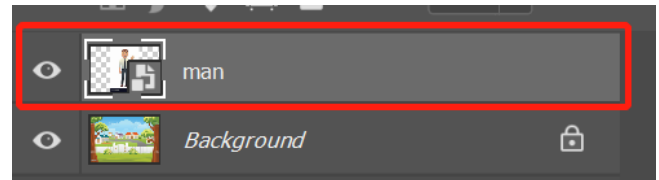


Figure 3.1 Smart Object

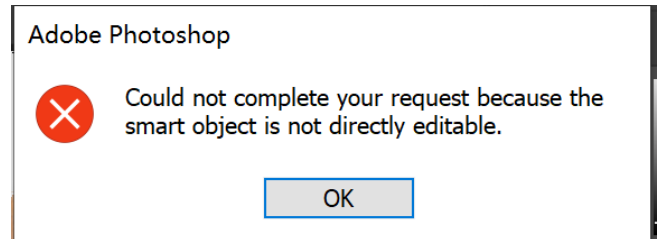


Figure 3.2 Report Error

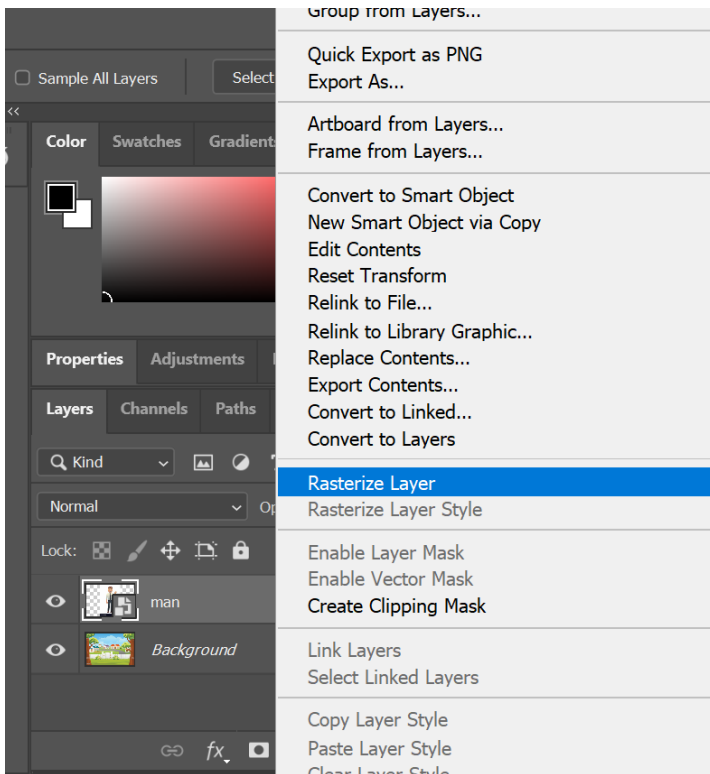


Figure 3.3 rasterized layer

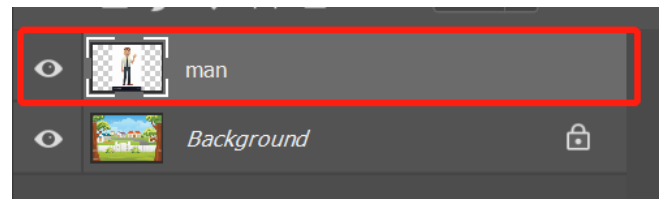


Figure 3.4 After rasterized

Tips: It is recommended to rasterize the layer immediately after importing the image to make the subsequent image processing smoother and more efficient.

- **The Order of layers:** As said before, the order of the layers will affect the output of the picture. The upper layer will block the lower layer, so it is important to pay attention to the order of the layers.

(See Figure 3.5) In this picture, the man is blocked by the background, because the man's layer is below the backyard layer, so we need to change the order of the layers.



Figure 3.5 man be blocked

The method of changing the order of the layers is very simple. We only need to click the left mouse button on the layer that we want to change the order and hold, then drag it to the position where we want to place it.

Tips: Some layers with a "lock" icon cannot be moved. (See figure 3.6)
We have to left click on the "lock" to unlock and then we can change their positions.

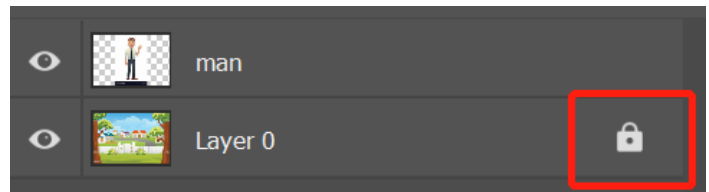










Figure 3.6 lock icon



Introduction of selection tools

The essence of matting is to select and cut out a part of the picture material that we need. Photoshop provides many selection tools:

- **Marquee Tool**
 - Rectangular Marquee Tool: Makes a selection in the shape of a rectangle. 
 - Elliptical Marquee Tool: Make oval and circular selections. 
- **Lasso Tool**
 - Lasso Tool: Make free-hand selection. 
 - Polygonal Lasso Tool: Make selections by connecting straight lines. 
 - Magnetic Lasso Tool: Make selections that snap to edges in an image as you drag. 
- **Selection/Magic Wand Tool**
 - Object Selection Tool: Finds and automatically selects an object inside a defined region. 
 - Quick Selection Tool: Makes a selection by finding and following the edges in an image. 
 - Magic Wand Tool: Select an area base on its color. 

These tools can be found in the Toolbox on the left. Tools of the same type are categorized together and need to be called up by clicking it with the right mouse button, and then clicking the left mouse button to switch. (See Figure 3.7)

For this picture, we can use the **Magic Wand Tool** to select the background and then *select the Inverse, or directly use the **Object Selection Tool** to select the man. You can even use **Lasso Tool** to outline the man bit by bit. All the above selection tools can achieve the effect of selecting the shape of the men.

*Select Inverse: You can choose the inverse of the selected area of the layer. Usually used with the Magic Wand Tool, use the Magic Wand Tool to select a monochrome background, and then Select Inverse, we can get the shape of the object. Right-click on the Image Window when there is a selected area, the left-click the **Select Inverse** option. (See Figure 3.8)

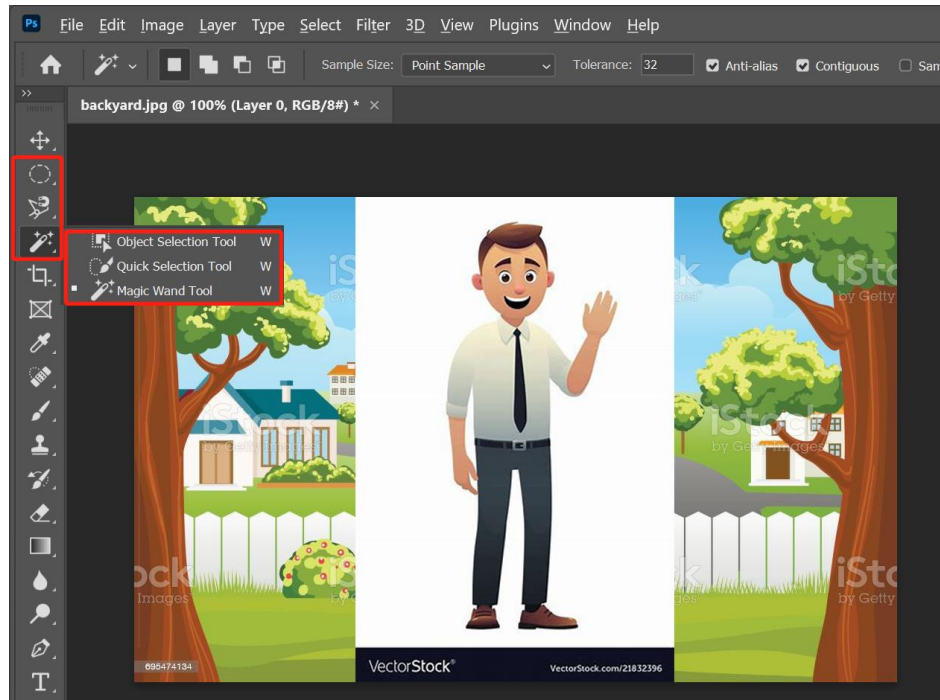


Figure 3.7 The position of Tools

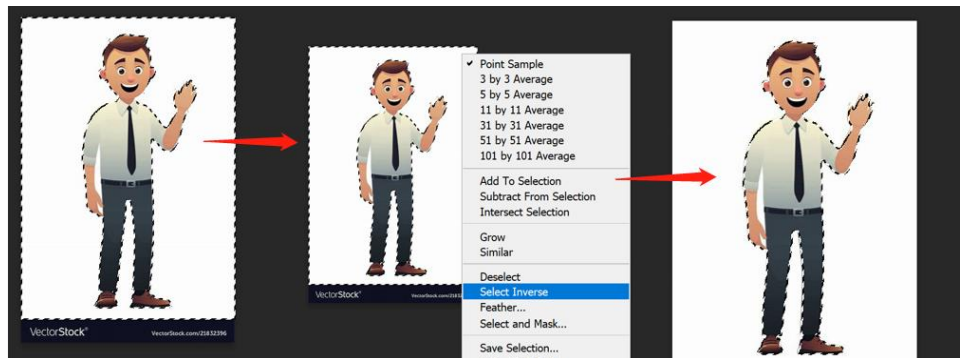


Figure 3.8 Select Inverse

Tips: The selected area in the layer will be outlined by a dynamic dashed line.

The layer being edited is surrounded by a white frame in the layer window. You need to pay attention to the layer that is being operated. Operations on the wrong layer will affect subsequent operations.

(See Figure 3.9)

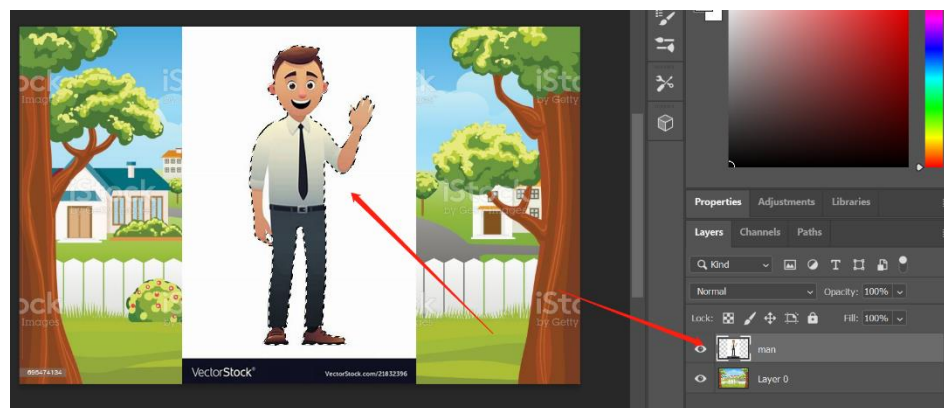


Figure 3.9 Example of Selection

When you do not need to select or want to select a new area, it is recommended to use the shortcut key **Ctrl + D** to deselect the area.



Matting and stitching

Just like selecting the area, there is more than one way to cut out the image of the man and stitch it with the background:

- **Select Inverse and delete the extra part:** For simple Matting and stitching, this is the most recommended method. Select Inverse first, then press **DELETE** button on the keyboard, the extra part will be deleted. (See Figure 3.10)
- **Layer Via Copy:** Copy the selection area into a brand-new layer. Right-click the selection area and select the **Layer Via Copy** option. Then press the *eye icon next to the man layer or directly delete the man layer. Then you can get the same effect as Figure 3.10
- **Layer Via Cut:** Cut out the selection area and copy it into a brand-new layer. Right-click the selection area and select the **Layer Via Cut** option. Then press the eye icon on the left of the man layer or directly delete the man layer. Then you can get the same effect as Figure 3.10



Figure 3.10 After delete the extra part

*Eye icon: In the layer window, there is an eye icon on the left side of each layer, click it to hide the content of the layer. (See Figure 3.11)

Tips: When deleting extra parts, pay attention to the layer being edited. Switching the editing layer will not cause the selection area to disappear.

Some parts that have not been deleted or selected can be Deleted/erased with the magic wand tool or the eraser tool.

The layer content hidden by clicking the Eye icon will not be displayed in the exported image.



Figure 3.11 Eye Icon

These three methods have the same effect when performing simple picture editing, but when dealing with complex images, they have their own advantages, and users need to judge and choose the method they like.



Part 4. Saving/Export the image file.

Photoshop has its own file saving format: Photoshop format (end with .PSD, .PDD, .PSDT). In this format, all layer contents will be saved, even hidden layers will be saved. Photoshop can also export pictures to the format you want, such as .jpg, .png or even .pdf.



Save as Photoshop file

We will first introduce how to save files in Photoshop format.

1. Find and click **File** option in menu bar.
2. Find and click ***save/save as** option. (See Figure 4.1)
3. Select/modify the file name and save type, then select the save location, then click save.

Tips: You can also use the shortcut key **Ctrl + S/ Shift + Ctrl + S** to **save/ save as**.

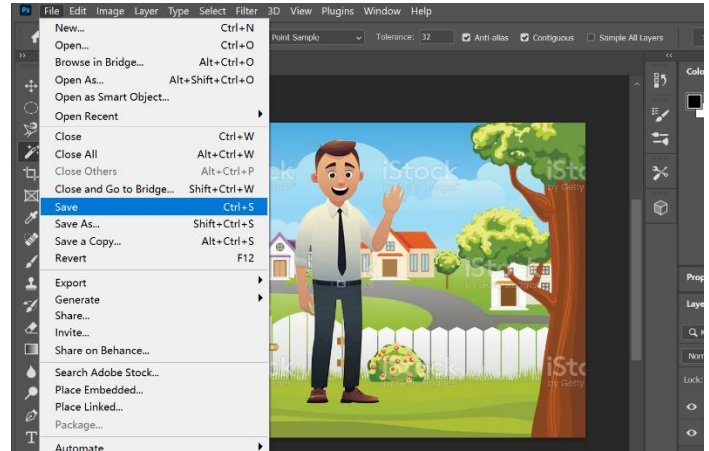


Figure 4.1 Save Option

***save/save as:** In a brand-new project, there is no difference between save and save as, however, if you open an existing Photoshop file, save will directly save the changes in this Photoshop file, while save as will recreate a new Photoshop file without change the original file.



Export the image file

Now we will introduce how to export file in common image file format.

1. Find and click **File** option in menu bar.
2. Find and hover over the **Export** option.
3. Find and click **Export As..** option.
4. An Export As Window (See Figure 4.2) will shows up.
5. Select the format you want at **Format**, and you can also scale the exported image.
6. Then Click **Export** and choose the export location.

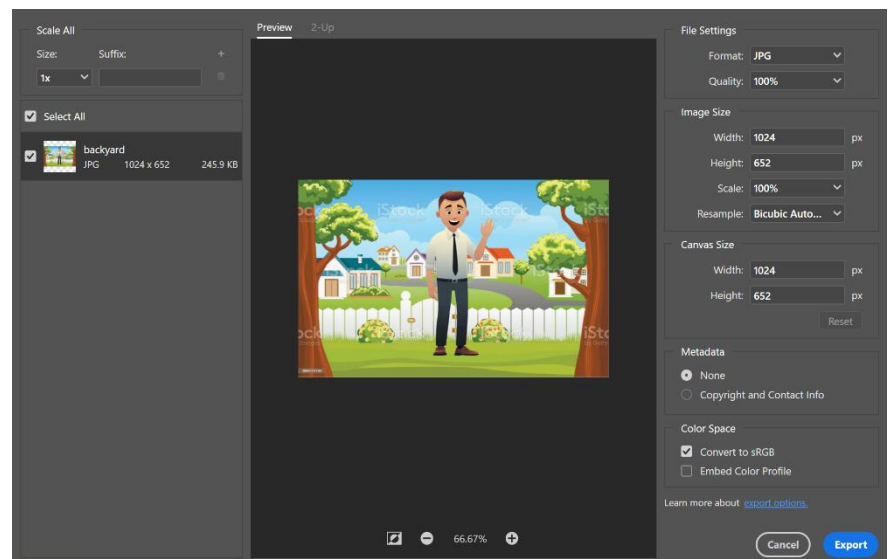


Figure 4.2 Export As Window

Conclusion

After reading this tutorial, you should now be familiarized with Photoshop's User Interface, and how to open, import image file, how to do simple matting, stitching, and how to save/export the image file. This tutorial introduces two different image import methods and their advantages. Introduce some selection tools, and a simple demonstration project about how to do simple matting and stitching. Finally, we introduced the methods of saving and exporting the image files.