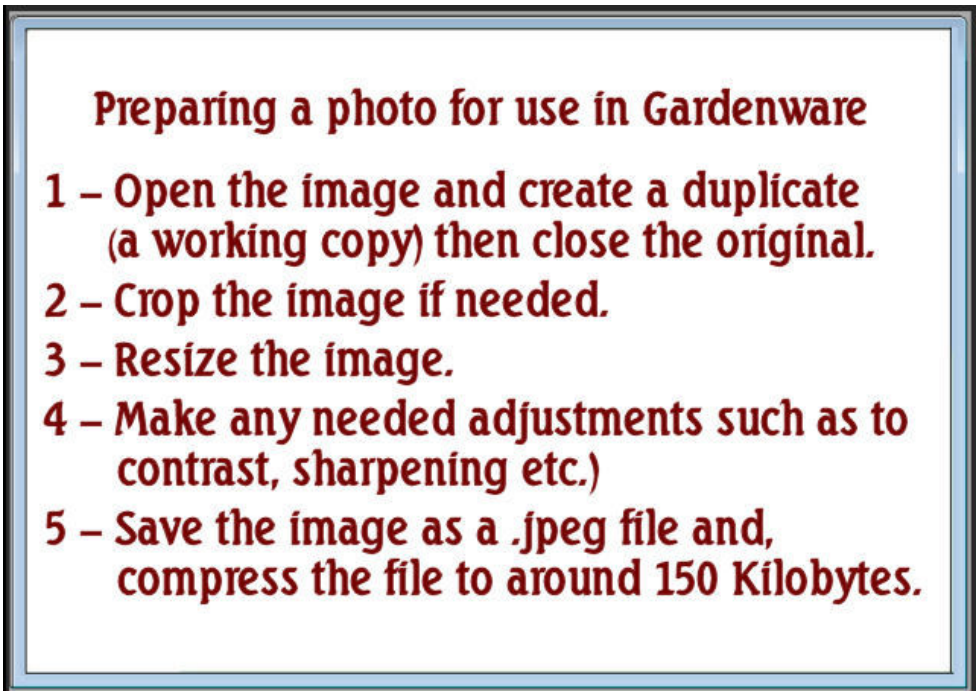
Resizing photos for use with Gardenware using Paint.net

When talking with Gardenware users, we find that many do not have or use an image editing program. In addition to the functions of cropping and improving the appearance of a picture, an image editor is a valuable tool for resizing photos for use with Gardenware. We plan, as time permits, to introduce several free or reasonably priced image editors. We will only touch on some of the basic features of each but we will give a step by step instruction on re-sizing images for use with Gardenware.

Gardenware has the capability of resizing large images to fit the provided space on Gardenware signs but the process of resizing multi-megapixel files straight from a typical digital camera can severely slow the print speed. We did a test. A 12 megapixel photo took about four and a half minutes to resize and print on a Gardenware sign. That was with a new computer that has gobs of memory and a really fast processor!

A resized image, in the neighborhood of 150 KB (Kilobytes) will print with Gardenware just as well and look at least a good as huge files and will print just as fast as your printer can print.



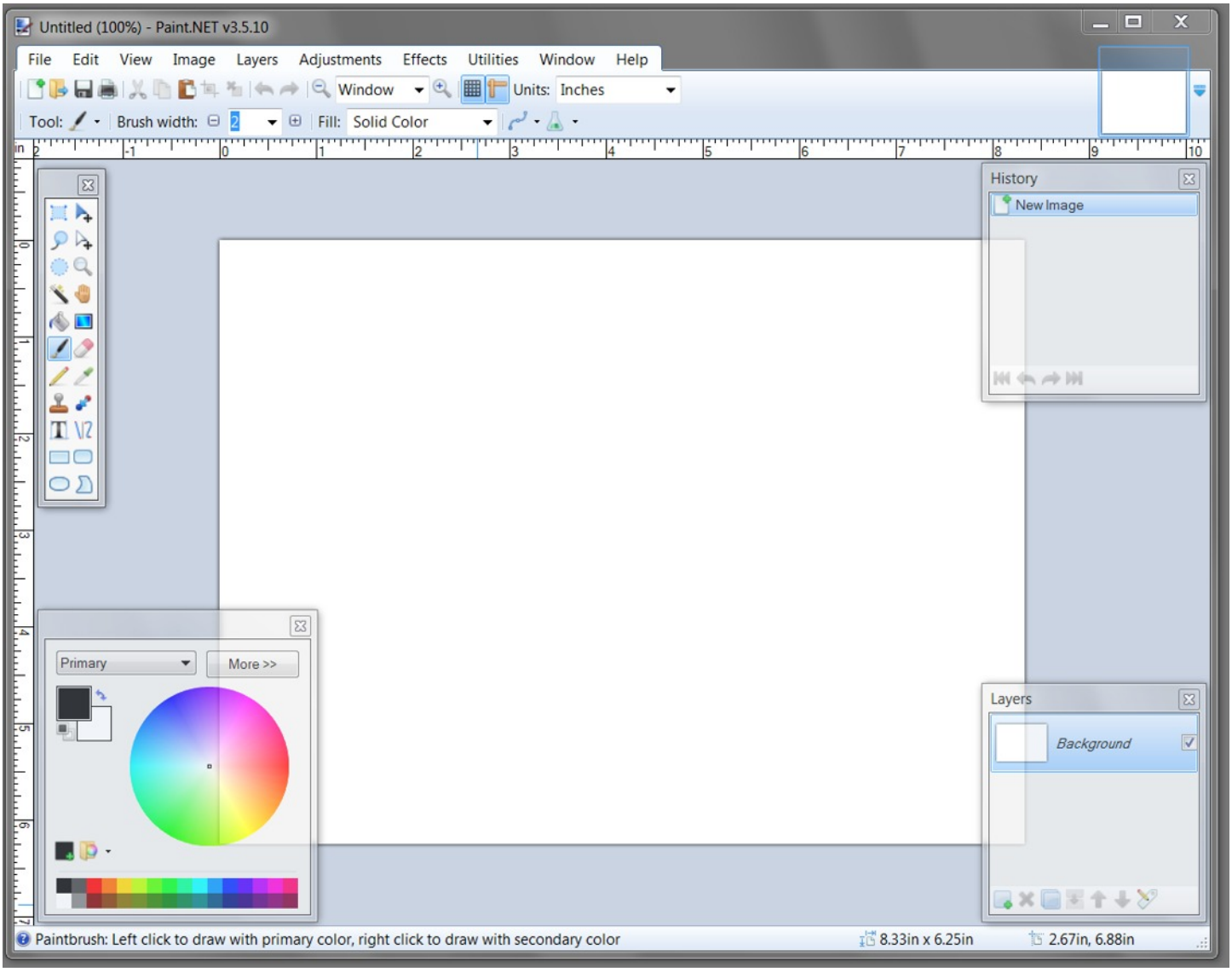
No matter what photo editor is used, my approach to preparing an image for use with Gardenware takes these steps.

After doing it a few times you will find it takes just a few minutes to prepare your images for use with Gardenware.

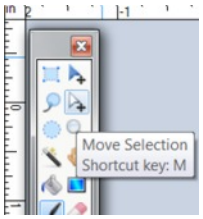
This discussion deals with the **Paint.NET** photo editing program. Paint.NET is a totally free downloadable program. It has many of the features found in high-end programs. It is easy to use and uses very little hard drive space. There is a built-in help system. It works great for improving a photo and is very easy to use for resizing typical camera photos. A little guidance on downloading is covered at the end of this document. If you choose to try the program be sure to read this section. It could save some frustration on downloading the correct file the first time.

I had better get this out up front. Don't bother going farther if you don't have Windows XP (Service Pack 3), Windows Vista (Service Pack 1 - almost all were upgraded automatically) or Windows 7. I tested it on an XP (Service Pack 2) computer and the installation program let me know that the computer wasn't adequate.

If you don't know what system you are using or what service pack is installed just right-click on **Computer** or **My Computer.** A drop down list will appear. The bottom item on the list will be **Properties**. Click on it. A window will appear that displays your computer system information.



Here is the Paint.NET workspace. The panels at the corners of the image space may be moved around anywhere you wish them. You may even turn them off by clicking the **X** on the upper right corner and re-display them by going up to the **Menu Bar**, clicking on **Window** then clicking on the one you wish to turn on.

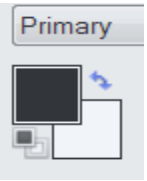


The **Tool Bar** in the upper left has most of the tools you will use to manipulate your images. Click on the **Tool Bar** to activate it then hover your cursor over a tool icon for a pop up that gives the name and a keyboard shortcut to activate the tool.

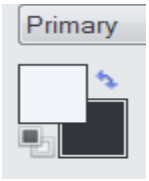
The **History** panel is a really neat feature. It records every action you perform on an image in a list. Your last action will be shown at the bottom of the list. You may click on any action in the list to see what was done. If you have made a change and want to compare it to what it looked like before the change just click on one action then the other to view the before/after effect. If you want to eliminate some of your actions simply go up the list and click at a place that looks good to you and you may start over. You may experiment without risk. It is *very* handy!

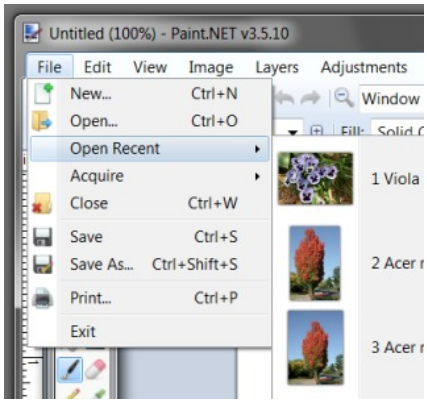
The bottom right panel displays the layers in the image. You may turn the layers on and off to view the effects you have created within the given layer. If you are not familiar with layers, you might think of them as panes of glass placed on top of your image with different adjustments or effects on each pane. You may have as

many layers as needed. Each one might be for a specific purpose such as improving contrast, adding text, sharpening or any of a number of effects. Layers allow you to effect changes to the image without making changes to the image you started with. Each layer can be worked on without directly affecting the others and can be re-visited and changed or even deleted if need be.



The fourth panel is the color selection panel. I should mention the two overlapped squares in the upper right corner of the window. These squares indicate the colors that are currently selected as the **foreground** and **background** colors. If you click on the curved arrow, they will swap. If you insert text or draw with a pen tool, the foreground color will be used. If you erase something, the color that will be exposed will be the background color. The color selection feature lets you pick the foreground and background colors. We won't be using color selections for this exercise so I'll turn it off.

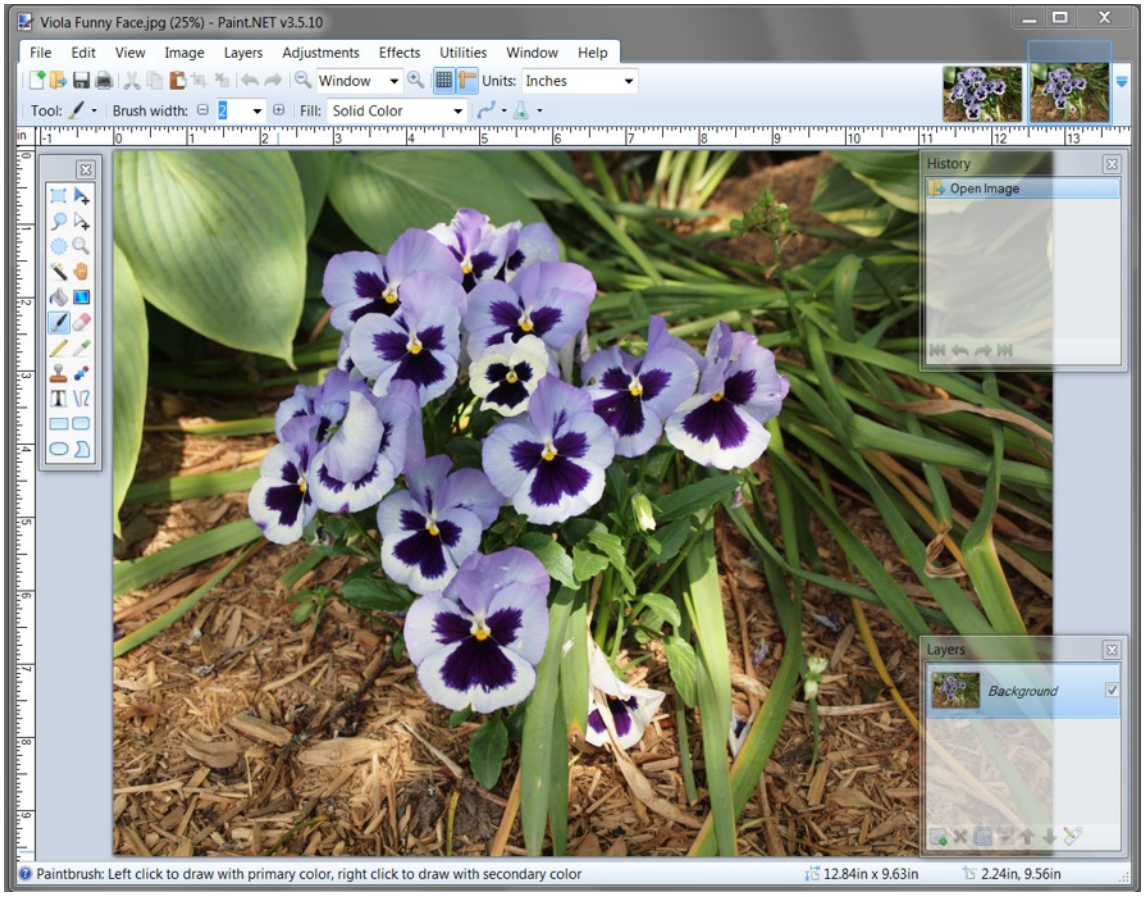




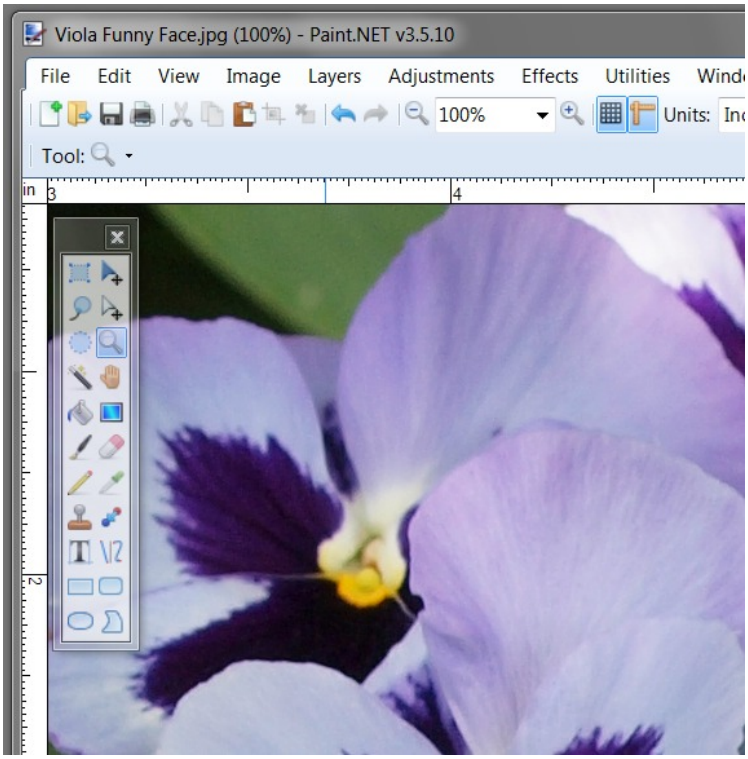
Our main purpose here is resizing an image from a large file to a small file for fast and easy use. I've stored a picture of a viola from previous use.

You, of course, may open most any image stored on your system that is in a fairly standard format like .jpg, .tif., etc. Paint.NET does not open raw files. You are best off using the .jpg format commonly used by your digital camera.

On opening the file, we have…



If you look in the upper left corner you will see the name **Viola Funny Face.jpg (25%)**. That tells us that we are looking at the photo displayed at only 25% of its full size. I'll take it up to full size and show a part of the picture to give you an idea of the true image size on the next page.



The size displayed now shows 100%.

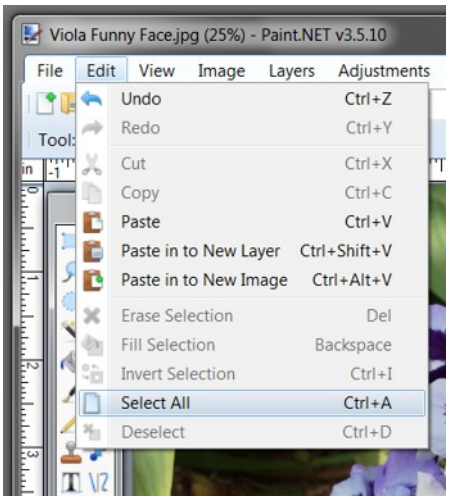
This should give you a good idea why things work better with a re-sized image for use with Gardenware.

Note: If you choose to try Paint.NET here's a hint. To zoom, select the magnifying glass icon - the **Zoom Tool** (common in many programs). To zoom in like this just click on the image. To zoom out, simply right click on the image. More clicks equals more zoom in or zoom out. Simple.

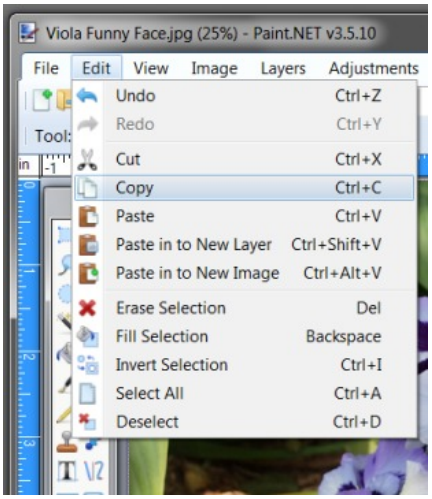
Step One (finally!) to resize an image for use with Gardenware - Make a duplicate "working" image

As we don't want to damage our original image, the first and safest thing to do, with any photo editor, is to make a working copy of the image. In Paint.NET start by selecting the entire image.

At the **Menu Bar,** click on **Edit.** From the drop down window click on **Select All** or use the keyboard shortcut. Hold down the **Ctrl** key and press **A**.



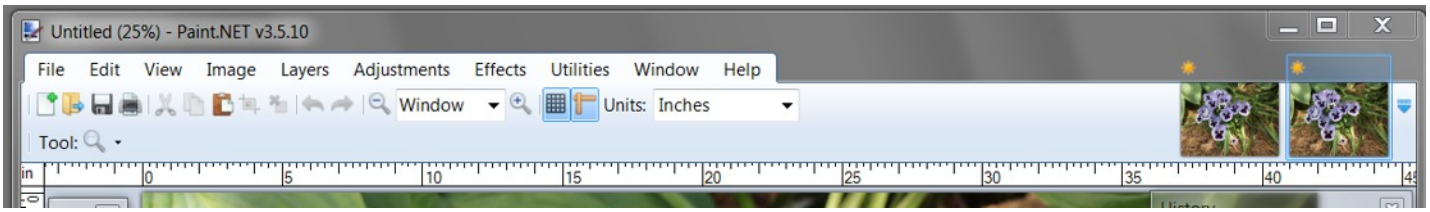
Click on **Edit** once more and from the drop down window click on **Copy** or use the keyboard shortcut **Ctrl+C**.



The last step in making a duplicate copy is to click on **Edit** once more and from the drop down list click on **Paste in to New Image.**

The keyboard shortcut is shown as holding down the **Ctrl** and the **Alt** key then pressing the **V** key. This shortcut isn't nearly as widely used as the shortcuts for **Copy (Ctrl+C)** and **Paste (Ctrl+V)**. Those two are worth remembering as they are used in lots of programs.

Okay. The first step is complete but you wouldn't know it by looking at your screen. There are no visible changes. However if you look at the top right of the screen where the thumbnail of the original was displayed there are now two thumbnails displayed

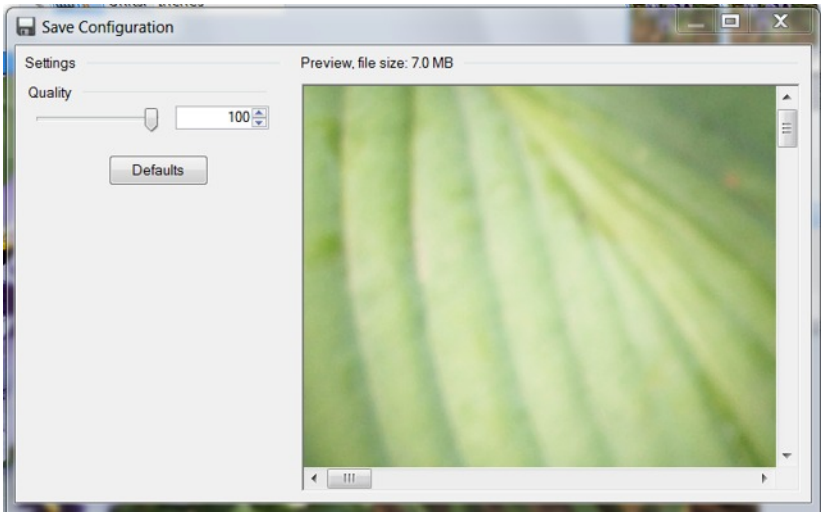


With the left-most thumbnail highlighted the name displayed at the top left of the image is **Viola Funny Face**. Clicking on the right most thumbnail will display the name **Untitled.** Just to be sure that the original is safe, click on it and a red X will appear in the upper right corner. Click the red X to close and protect the original. When given options, you may choose **Don't Save** because we haven't changed anything or if you are feel insecure, you may click the top one to **Save** and **Close** the image.

If you choose to **Save,** a second window will pop up and I would recommend saving the original at a quality level of 100%.

Now we have a working copy and the original is saved untouched.

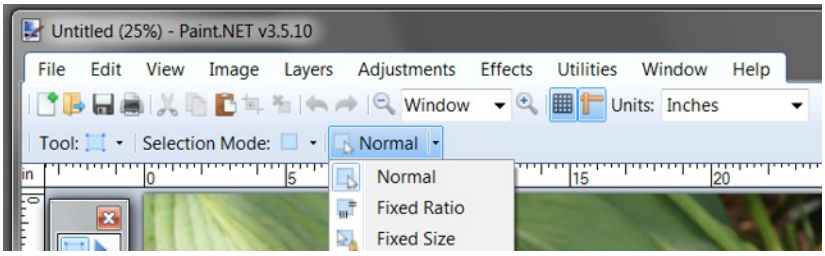
You may note that the file size shown just above the image window is 7.0 Megabytes. That would be 7168 Kilobytes. We will end up with the file size around 150 Kilobytes or about 1/47th the size.



Step Two - Look the image over and determine whether or not cropping will be beneficial. If so, crop it.

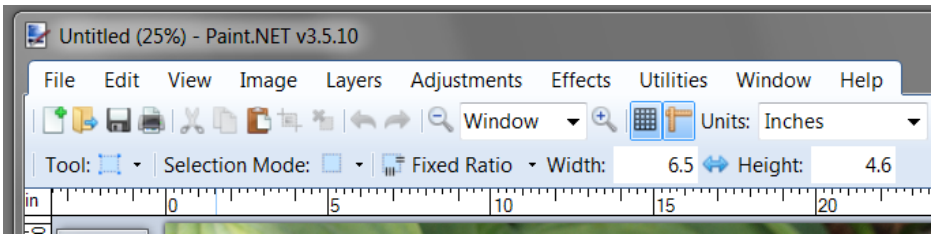
I think that there is too much area in this image that doesn't feature the viola so I'll crop it. Most photo editors have a dedicated crop tool. Paint.NET does not. In Paint.NET the **Rectangle Select** tool is used to define the crop area. The keyboard shortcut - just press **S**.

When you click on the **Rectangle Select** tool some new options pop up above the ruler.



The important one here is the one labeled **Normal.** If your picture is a tall narrow one such as a typical tree photo just stick with **Normal.** On the other hand, if your picture would likely fill the space available on a Gardenware sign, drop the list down and select **Fixed Ratio.** A little further right and up a bit is the option to select measurement. When you drop the list down you may select inches, pixels or centimeters. The actual size of the space allotted is 970 pixels wide by 685 high but most Gardenware users are more comfortable with inches so we will use a very close equivalent of 6.5 inches wide by 4.6 high.

With a photo like the Violas that has adequate width and height to fill the space on Gardenware signs, click on the **Fixed Ratio** option in the drop down list under **Normal.** When you do that, a couple additional fields are displayed - **Width** and **Height.** If you are using pixel measurement enter a width of 970 and a height of 685. If you are using inches, as we are, enter a width of 6.5 and a height of 4.6. This defines the ratio of height to width. These are not actual measurements, but a ratio.



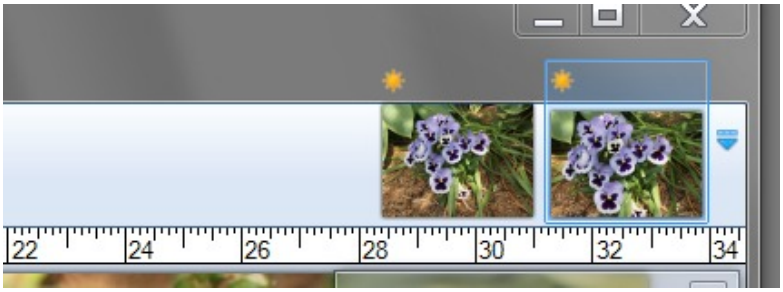
Fixed Ratio Values:

Pixels:	
Width	970
Height	685
Inches:	
Width	6.5
Height	4.6

Next we select the crop. I usually start at the upper left corner of where I think I want to begin my crop and drag the cursor to the right and downward to the point where I think the crop should end. As you drag your cursor you will find that the fixed ratio you entered will be maintained and a transparent blue haze will cover the selected area as we see below. You may move the selected area by using the *second* arrow from the top in the tool bar. The top arrow will move the entire selection. If you are not happy with your selection, I find the easiest way is to just click on the image to clear the selection and do it again.

When you are happy with your selection click **Edit** on the **Menu Bar** and click **Copy** (or Ctrl+C) then click on **Edit** once more then on **Paste in to a new image** just as we did to make our working copy.

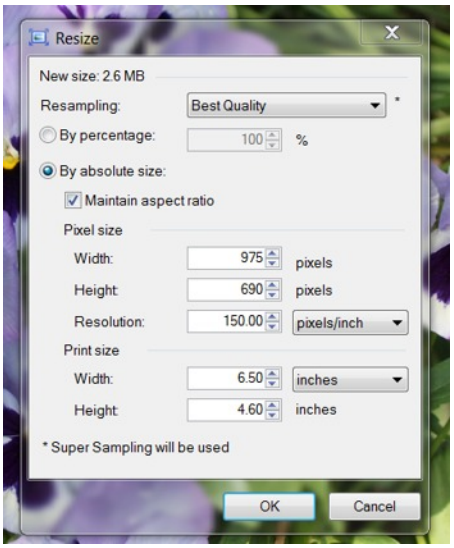
The cropped image will be displayed and you will see the thumbnail image displayed next to what was our working copy.



OK, we have cropped the image to improve the presentation of the Viola and done it with a ration of width to height that will fill the photo space in a Gardenware sign.

The next step is to actually resize the image. If you look at the dimension right here to the left it is showing a width of 34 plus inches. We'll take that down a bit in the next step.

Step three - Resize the image



Go to the **Menu Bar** and click on **Image.** From the drop down window click on **Resize**. The **Resize** window will pop up. Be sure that the **Maintain aspect ratio** checkbox is checked. It normally is.

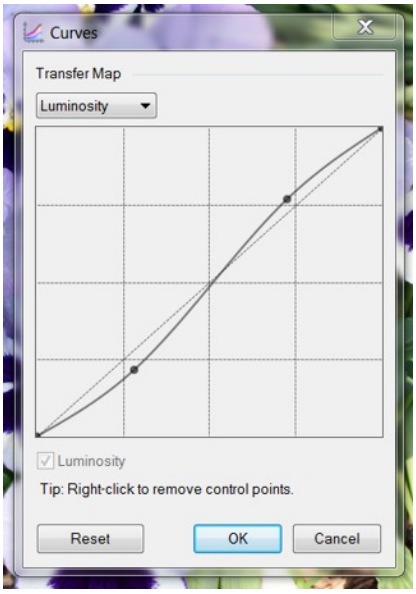
Next, go the **Resolution** field and enter 150 pixels/inch. That is kind of an arbitrary value but it works well.

Next fill in the width - 970 if you are using pixels or 6.5 if you are using inches and you will see that the program automatically fills in the height for you because of the ratio to which we cropped the image. The only thing left to do is click **OK** and the image will be re-sized.

That is how to deal with an image that will fill the space allotted for a photo on a Gardenware sign. However, if your image is tall and narrow like the one shown here, the process is slightly different. When you crop, you need not crop to a specific ratio. Just make a nice looking crop. When you go to the resize window make sure the **Maintain aspect ratio** box is checked and enter the **150 pixels/inch** as before but in this situation ignore the **Width** field and enter a height of **685** if you are working in pixels or **4.6** if in inches. You will see that the program calculates the width based on your crop.

Step four - Image adjustments

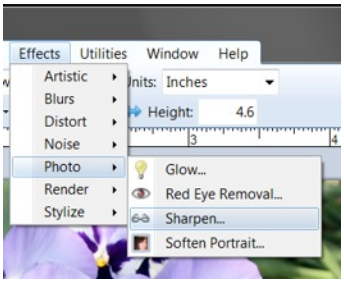
Though it is not part of the size reducing procedure, this would be the best time to make any needed adjustments to the image. The usual adjustments consist of lightening or darkening, adding contrast and sharpening. The Viola image looks pretty good but I like to be sure so I generally try adding a little contrast and a little sharpening to see if it improves the image. There are several ways to deal with contrast. There is the **Brightness/Contrast** selection under **Adjustments o**n the **Menu Bar** that provides sliders for each. In the same group is **Auto Levels.** It might work for you. It is a one-click adjustment.



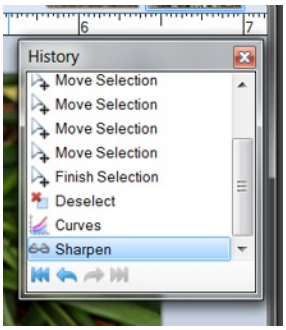
My favorite (also in Adjustments), is **Curves.** When you click on **Curves** this window displays. The diagonal line represents tonal values from black at the bottom left to white at the top right. Values in the top/left triangle are lighter than your image and values in the bottom/right triangle are darker. You may click on a point anywhere along the line and drag it into the lighter areas or the darker areas. The line was straight when the window popped up but I have made an adjustment to the darker and lighter areas forming a soft S curve that often improves an image. The two dots are anchor points that were created where I clicked to drag the line

To lighten the entire image click on the middle of the line and pull it up/left. To darken it pull down/right. You can even put anchor points along the line and drag the area between them up or down for very selective control.

Play around with curves a little. I think you'll find it a useful tool.



A little sharpening is often useful. You'll find it under **Effects** on the menu bar. Click on **Photo** and you'll see **Sharpen.** Sharpening in Paint.NET is controlled by a very simple slider. Right is more and left is less. Be sure you don't oversharpen. Oversharpening can make an image look harsh and can create halos along the edges of an object.

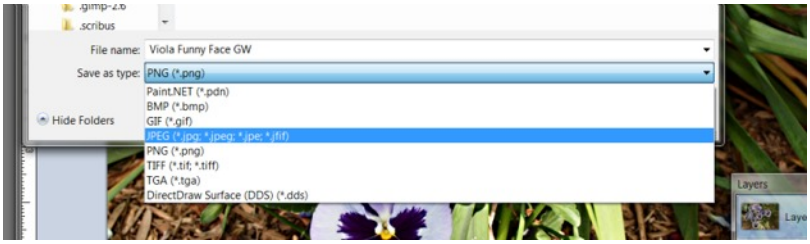


Use the **History** window to check your work. If you want to compare before an effect and after, in this case Sharpen, just click on the the previous action and the image will appear as it was before Sharpen. To see the effect of sharpen once more just click on Sharpen. If you find you don't like something you have done, simply click above the point where you are not pleased and you may start again from that point. The previous actions below that point will be eliminated. Just back up and start over. This is a very useful feature!

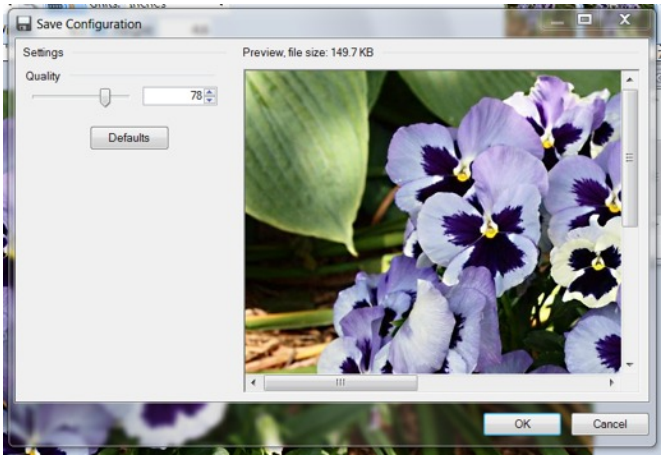
I don't want to take the time and space to elaborate on image adjustment but do want to encourage you to explore and experiment. At this point the image is cropped, re-sized and adjusted.

The final step - Save the image as a .jpg file sized for use with Gardenware.

From the **Menu Bar** select **Save.** A navigation screen will pop up. This is where you name this new image. We'll make this one Viola Funny Face GW. The "GW" is to let me know that this image is resized for use with Gardenware. If the **File Type** is not already showing as **.jpg**, drop down the list and select it - <u>this is important.</u> Gardenware can handle **.bmp** and **.gif** files but **.bmp** are unnecessarily large files and **.gif** is limted to 256 colors and not suitable. Use **.jpg**.



When you have named the image and specified the file type, navigate to where you wish to store your Gardenware friendly photo files. You may already have set up a place for them. As an option, the folder that contains all of your Gardenware files has folders set up and named for each of the Gardenware libraries. The location of the Gardenware files varies depending on which version of Windows you are using - check the manual or you may give us a call if you have questions. In fact, you may store your Gardenware friendly photos <u>almost</u> anywhere on your computer, as long as you can find them again when you need them. There is one ironic exception. *Strangely, if you put them in the My Pictures or Pictures folder that Microsoft Windows has provided for such purposes, they may not be visible to the Gardenware program.* For a complete discussion of this situation go to our blog, www.gardenware.typepad.com, and read the April 14th post or you may do an internet search for **Gardenware news and tips**.



When you have navigated to the folder for your resized photos, click **Save**. A popup window will display a part of the image, display the current file size above the image and a slider off to the left. Just move the slider until the file size shown above the images is about 150 KB.

That's it! The photo is ready to be attached to Gardenware library item for printing on signs and Hang Tags.

Well, that seemed to take a long time and maybe a little complex but that's only because we have tried to lead you through the process and explain each step. In fact it only takes a few minutes to prep an Image for use with Gardenware. Let's take a summary look at what we did.

1. Save the Orignal image - Select the original, copy it, paste it into a new image and close the original - 7 mouse clicks

2. Crop if needed - Look the image over and see if cropping will help. If so do it. About 6 mouse clicks plus entering the width and height ratio. No clicks if the image is OK.

3. Resize the image - 4 Mouse clicks max plus entering the 150 resolution value and the width or height value.

4. Adjust the image if needed - A person could play with adjustments ad infinitum but to do a quick contrast adjustment using Curves and a little sharpening took me 9 mouse clicks. If the image is good - 0 clicks.

5. Storing and compressing the image about 9 clicks plus typing in a new name. This one varies because your computer will likely remember where you chose to store, saving several of those 9 clicks.

We're talking about 20 to 35 clicks. When you have done it a few times it takes maybe 3 to 5 minutes to prep an image and store it.

Paint.NET is really a nice program. The price can't be beat and it has the essential tools to easily adjust and resize your images. If you have questions feel free to post them on the blog or give a call. We're not experts with Paint.NET but have used it enough to be fairly comfortable with it. There is a strong user's group and there have been a number of plug-ins or add-ons for the program available for download. There are also a number of online tutorials for the program. Some are a little esoteric. Look for the beginner's tutorials.

Paint.Net is available from several sources on the Internet. If you wish to try it, search for Paint.Net. You will find several sites offering the free download. We recommend using the Softonic site. You could also type **paint-net.en.softonic.com/download** in your address bar to go directly to the site. The others are all good but for some reason they seem to design their sites to mislead you into downloading something other than Paint.NET. The Softonic site is very straightforward. The program is small. It downloads and installs quickly and easily. When installed just click on the new Paint.NET icon on your desktop and you are ready to go! There is complete HELP documentation online.

To use these Gardenware prep instructions to their best advantage with Paint.NET, you might find it easier to print them for use beside your computer rather than on-screen.

Almost all freeware publishers are more than glad to accept donations to help with the ongoing development costs. Consider a donation if you think the program as worthwhile as we do.

As usual, if you have questions or problems, be sure to give us a call or send an e-mail. We'll be glad to help if we can.

Thanks for using Gardenware.