

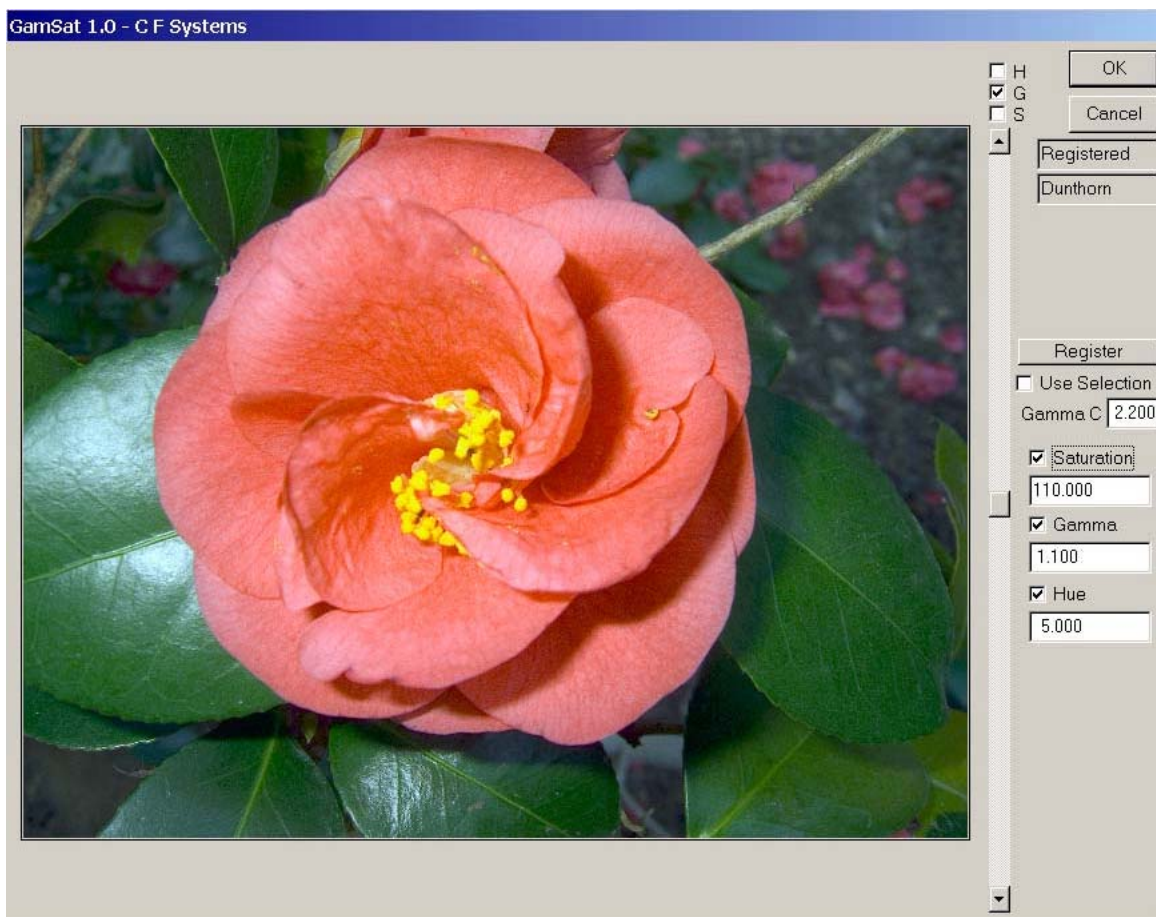


GamSat  
Adobe Photoshop\* Plug-In  
User's Manual  
Release 1.0  
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### Fast Track

First, install the GamSat.8bf file in the Photoshop filters folder (for more detail see Installation). **GamSat** is intended for use with unaltered images and is generally much less effective on an image that has already been "corrected" in Photoshop.



We recommend using our **ColorIntegrity** or **NegPos** plug-ins (or their **Auto** versions) to get a good starting image that has color integrity before using **GamSat**. Images from those sources will already be in 16-Bit/Channel RGB color format, which **GamSat** requires. If you start with an 8-Bit/Channel image, it will have to be converted (Image→Mode→16-Bits/Channel) before **GamSat** can be used (more about the best way to do that below). Then start the C F Systems filter **GamSat** (for more detail see Using GamSat). You should see something similar to the large dialog box shown above.

At this point you can try the controls. The scrollbar individually adjusts saturation, gamma, and hue. Which one the scrollbar controls is set by the checkboxes above the scrollbar or by clicking in the appropriate value box. Although these adjustments all represent departures from true color integrity, the adjustments will be made while preserving color integrity insofar as that is possible, resulting in enhanced images that have a more natural look than if the adjustments were done by typical methods. The action of **GamSat** is sluggish compared with our other plug-ins, as there is no good way to speed up the required calculations. You may have to wait several seconds to see a change reflected in the preview image, and for large image files it may take a minute or two to do the final conversion when you click OK to return to Photoshop.

The demonstration version of **GamSat**, which can be converted to a paid version, expires in 30 days after first use. (See below and ReadMe.txt for details.) When you purchase **GamSat**, the key that you receive will also work with some of our other plug-ins,

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## Introduction

C F Systems **GamSat** is a Photoshop filter plug-in that is intended to operate on positive images output from our **NegPos** or **ColorIntegrity** plug-ins (or their **Auto** versions). It is used to make adjustments to the saturation, gamma, and/or hue of a color image to enhance its appearance without unnecessarily damaging its color integrity. The importance of color integrity and how it is easily lost while doing commonly recommended Photoshop adjustments is explained in <http://www.c-f-systems.com/ColorIntegrity.html> and in mathematical terms in *Color Integrity CFS-243* available at <http://www.c-f-systems.com/PhotoMathDocs.html>. These adjustments are typically done incorrectly in Photoshop.

This version of **GamSat** will only work on PCs, not Macs. We do not have facilities for Mac programming.

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## Installation

We have not provided an installation program, but have taken the same approach as Adobe has in distributing "RAW" conversion plug-in revisions. You have downloaded a zip file which contains this PDF manual and a file GamSat.8bf. All that needs to happen is the GamSat.8bf file needs to be put in the Photoshop filters folder. For an all-default installation, that folder will be

C:\Program Files\Adobe\Photoshop x\Plug-Ins\Filters

where "Photoshop x" specifies the version of Photoshop. If your installation is not the default, you probably already know how to find the corresponding filters folder on your system. If you are unable to find the folder we suggest using the Windows "find files or folders" to locate it. Find files or Search is on the Start menu, and a search for file names of "\*.8bf" should locate the folder. The Filters folder should have a number of other files with 8bf extension already in it. Once the GamSat.8bf file has been placed in the folder, Photoshop will automatically configure for **GamSat** the next time it is started.

## Using GamSat

**GamSat** is intended to operate on positive images output from our **NegPos** or **ColorIntegrity** plug-ins. The output from those plug-ins is already in the correct form. When not using those plug-ins, the requirement is that the working file *must* be in 16-Bits/Channel RGB mode (scanners which scan at 12-Bits/Channel and produce a 16-Bits/Channel file are fine). Most scanners deliver positive scans as "gamma-corrected" images by default. **GamSat** is intended to operate on gamma-corrected images. On PCs this correction gamma ("Gamma C") is nearly always 2.20. If this is not the case, you will be aware of it and you should set Gamma C in **GamSat** appropriately. Most users should studiously avoid changing Gamma C.

If the image cannot be obtained in 16-Bits/Channel mode, it is permissible to convert an 8-Bit/Channel image to 16-Bits/Channel using Image→Mode→16-Bits/Channel. If you must convert an 8-bit image, there are several rules which will lead to better results if they are followed. If you plan to use Image→Image Size to *increase* the number of pixels in the image, do so *after* converting to 16 Bits/Channel and *before* using **GamSat**. Also, if you plan to use sharpening filter treatments and you do *not* plan to increase the pixel count, do some or all of the sharpening *after* converting to 16 Bits/Channel and *before* using **GamSat**.

With the window with the working image active, use the Photoshop Filter menu: Filter→C F Systems→GamSat. The C F Systems entry should be near the bottom of the Filter menu. A window will appear that looks like the one shown above in **Fast Track**, where the first try at your positive image will replace the flower image in the above. At this point you can try the controls. The scrollbar will adjust saturation, gamma, and hue, individually. Which one the scrollbar controls is set by the checkboxes above the scrollbar or by clicking in the appropriate value box.

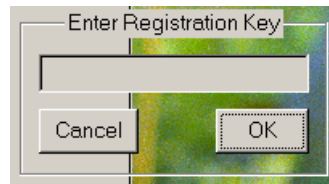
Values can also be directly entered into the appropriate box. Saturation can vary from 0 to 400, with 100 being normal; unchanged. Gamma can vary from 0.1 to 9.9 with 1.0 being normal; unchanged. Hue can vary from -89.9 to 89.9 with 0.0 being normal; unchanged. The checkboxes above each of these indicates whether the value is to be used in forming the image, and affect both the preview and final images. The primary intent of these checkboxes is to allow easy comparison of a proposed change with the original image.

The Use Selection box regulates whether any selections that have been made will be observed. **GamSat** will operate only on the selected area(s) if the box is checked, and the selection may be feathered.

The action of **GamSat** is sluggish compared with our other plug-ins. You may have to wait several seconds to see a change reflected in the preview image, and it may take a minute or two to do the final conversion when you click OK to return to Photoshop.

## Registration

The current version of **GamSat** will operate for a 30 day trial period, after which a registration key will be required to make it function. See the ReadMe file for information on obtaining a key. When you have a key, customarily delivered by e-mail, copy the key from the e-mail using control-C or Edit→Copy. Press the Register button and a transparent dialog box will appear:



Paste the registration key into its box and click OK. Then click either OK or Cancel on the **GamSat** filter box and the registration will be complete. Once the key has been entered, it is difficult for anyone to cancel it - putting other information in the box at some later time will not cancel the key.