

# The MathWorks MATLAB<sup>®</sup> and Adobe<sup>®</sup> Photoshop<sup>®</sup> Read Me

The MATLAB files in this folder create a Photoshop Toolbox in MATLAB. This toolbox creates an easy to use workflow for scientist and researchers using MATLAB and Photoshop in combination. This is a set of MATLAB m files that expand MATLAB functions and allow MATLAB users to call Photoshop commands directly from the MATLAB command prompt. This enables the ability to get and set pixel values directly in MATLAB and then view in either MATLAB or Photoshop.

MATLAB is a high-level language and interactive environment that enables you to perform computationally intensive tasks faster than with traditional programming languages such as C, C++, and Fortran.

For more information about The MathWorks and the MATLAB product please find their home page here: <http://www.mathworks.com>

## **System requirements**

This project requires an operating system that can run both Photoshop and MATLAB simultaneously.

## **How to install?**

### **Adding Paths in MATLAB**

The following steps will allow you to call the Photoshop methods without having to be in the Photoshop folder.

1. From the MATLAB menu go to the File → SetPath dialog
2. Click on *Add with Subfolders...* and select the *MATLAB* folder that is part of your *Adobe Photoshop CS3* install
3. Click Save and then Close
4. From the MATLAB menu go to the File → Preferences dialog
5. Click on the *General* tree (at the top on the left)
6. Click on the *Update Toolbox Path Cache*
7. Click Apply and then OK

## **How to use?**

1. Launch Photoshop CS3 and then MATLAB.
2. At the MATLAB prompt navigate to the *tests* subfolder of *MATLAB* folder in the path you added above.
3. Type *testall*;
4. Photoshop and MATLAB will run a series of tests and give you a final report.

## ***Integrated Help in MATLAB***

After following the “How to install” instructions above, a *Photoshop Toolbox* is now in your MATLAB help. Click Help -> Full Product Family Help. You will see a *Photoshop Toolbox* with sub menu items.

## ***Known Issues***

1. Large documents may cause the Macintosh to crash. Both Photoshop and MATLAB consume a lot of memory so watch out for large Photoshop files.
2. *pslaunch* is not working on the Macintosh (It is recommended to start Photoshop and then start MATLAB.) See the *Photoshop Toolbox* help for more information on manually fixing this problem.
3. Quitting Photoshop without quitting MATLAB will loose the connection to MATLAB. (Type *unloadlibrary('psmatlab')* in MATLAB to force a disconnect. Any *ps\** command will start a fresh connection.
4. Getting pixels from layers with adjustments on them does not work. Flatten your Photoshop document or rasterize your Photoshop layer is a work around
5. The 64 bit version of MATLAB will not work with Photoshop.
6. MATLAB Version 7.1 (R14) SP3 or later required