

GigaPX2Pano

Utilities for gigapixel images

Bighignoli Michele
June 2013

Introduction

GigaPX2Pano is a program tool capable of converting gigapixel images into a set of small image files compatible with the most used web browser viewers: **PanoJS3**, **OpenZoom**, **Zoomify** and **Deep Zoom**. The program can open **RAW** files (a true rgb uncompressed file, not camera specific), **KRO** files (created with Kolor Autopano) and **Tiff/bigTiff** files.

It's very easy to use the program: it embeds the supported viewers which are preconfigured and ready to run, while a power user has the chance to customize the basic page proposed or integrate the viewer in an existent web page.

The program doesn't need much memory, thus it can be used successfully with a 32-bit operating system. Using a test image of 76,8 gigapixel it ran smoothly and all procedures were completed with success.

Free, Lite and Pro

GigaPX2Pano is offered in three different versions : **Free**, **Lite** and **Pro**. The **Free** version is free for personal or commercial use.

Differences between the versions:

	FREE	LITE	PRO
Maximum image side dimension (width or height)	1.000.000 pixels	1.000.000 pixels	100.000.000 pixels
Maximum image size	1,0 gigapixel	1,6 gigapixel	No limits
Can select the destination directory	NO	NO	YES
Can select the resizing filter	NO	NO	YES
Can change the Jpeg quality of the exported tiles	NO	YES	YES
PanoJS3	YES	YES	YES
OpenZoom	NO	YES	YES
Zoomify	NO	YES	YES
Deep Zoom	NO	YES	YES

Using the software

As stated in the introduction, the program is very easy to use. Before proceeding with the conversion, the user has to select the input file (the image to be processed). Click “**Input file**” and select the image. The tool can open **RAW**, **KRO** and **bigTIFF** files. Only files with **8-bit** per channel are supported at moment.

When a RAW file is selected, a new small window appears asking the width and the height of the image (this data is not stored in the file). While the width or the height value is typed in the proper input box, the program automatically calculates the value of the other dimension.

[PRO] Free and **Lite** versions always save the files in the same folder (or directory) as the source image. The **Pro** version allows the user to select a different folder for the output file. This could be useful to save time in moving the images after conversion, and it could also be useful to increase the conversion speed if the computer has two or more physical hard disks (one physical disk with two or more partitions counts as one disk). Saving the images to a different disk (relative to the position of the source image) dramatically reduces the disk heads movements, increasing the read/write operations speed.

Click “**Output directory**” and choose the disk/folder you want.

[!] If this field is left empty the program saves the images in the same directory as the source file. To clear a previous selection double click the “**Output directory**” input box.

“**Tile size**” is, normally, 256 and this value can be changed only when “**PanoJS**” or “**None**” is selected.

[PRO] [LITE] Set the **quality** of the generated Jpeg tiles (100 is the best quality. Don't use a value of 70 or less, or the quality of the final files could be insufficient).

[PRO] “Resizing filter” indicates the algorithm to be used to scale the images. “**Nearest**” is the fastest, but it offers the worst scaling quality. “**Lanzcos**” gives the best quality, but it requires longer time to scale the tiles.

[PRO] [LITE] Select the preferred **viewer** clicking the respective button.

To start the procedure click “**Split**”. Depending on the image dimensions the conversion process could take from some minutes to some hours. When all the images are processed the “**View**” button becomes active. Click it, and the browser should open showing the giga image. Now it's possible to explore the picture zooming in and out and panning the view in any direction.

[!] When “**OpenZoom / Zoomify**” is selected, the “View” button opens the **OpenZoom** viewer only. To view the image using **Zoomify** open the destination directory and open the file “**zoomify.html**”.

[!] Depending on the operating system restrictions or browser security settings, some viewer could not work locally. In this case try a different viewer or upload the tiles on a web site.

Contacts

Website : **www.bigmike.it/gigapx2pano**

Support : **gigapxtools@bigmike.it**