

How to avoid ghosting in anaglyph panoramas caused by the color compression of normal JPEG images

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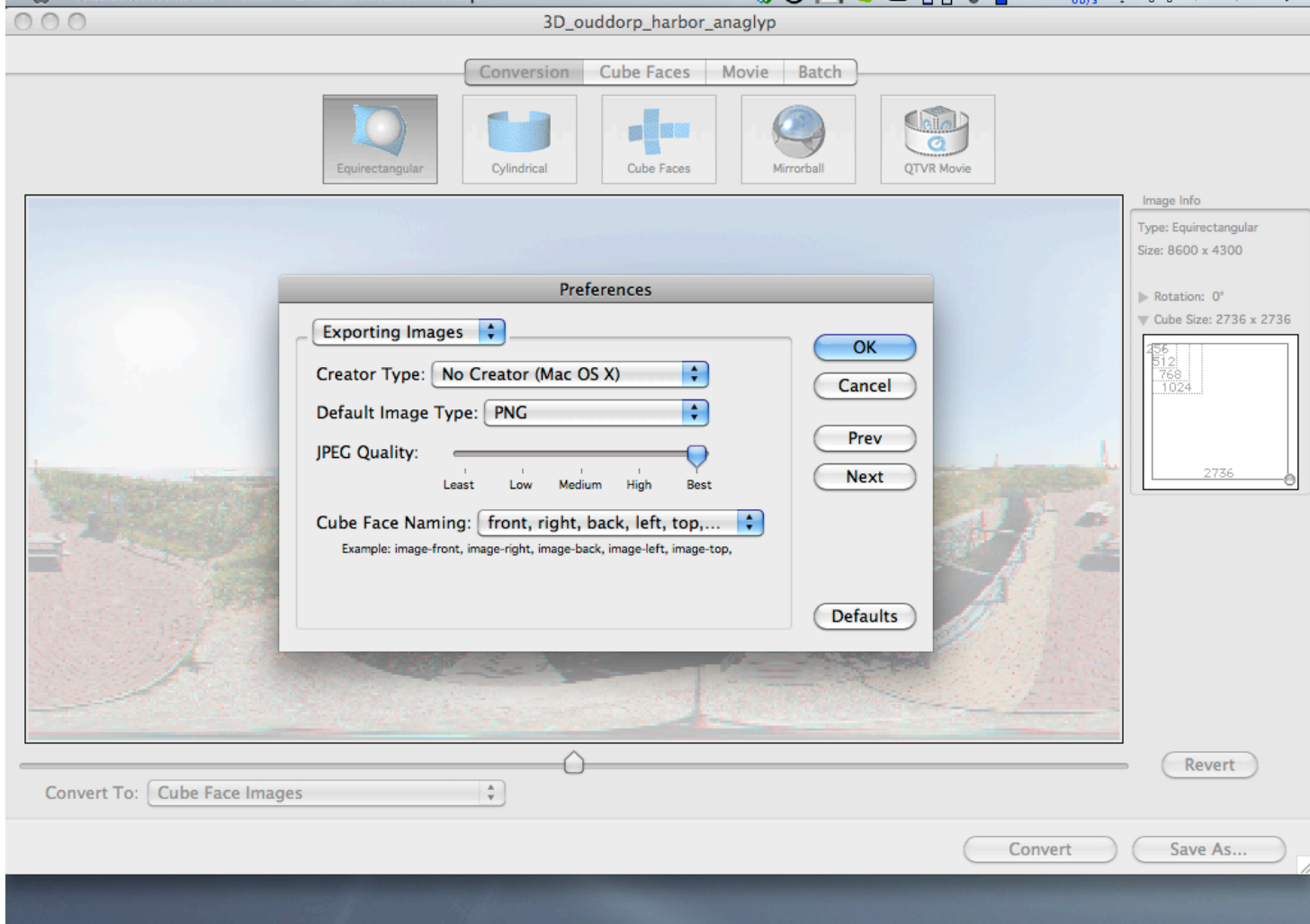
With Pano2VR version 3.1 or higher you can use a PNG (or TIFF) anaglyph equirectangular without the need to convert the equirectangular to tiles before you can make a 3D panorama (to clarify the name, tiles are also often named cube faces or cubes).

All you have to do is to set the compression quality setting of the JPEG tiles for Flash, HtmlCss3, WebGL to 90 or higher. By doing this all tiles will be automatically compressed without color subsampling so color ghosting will be avoided.

If you are using Pano2VR version 3.1 or above then you can skip the rest of this tutorial, if not continue with the steps below.

1- Convert the anaglyph equirectangular and save the tiles in PNG (or TIFF) format.

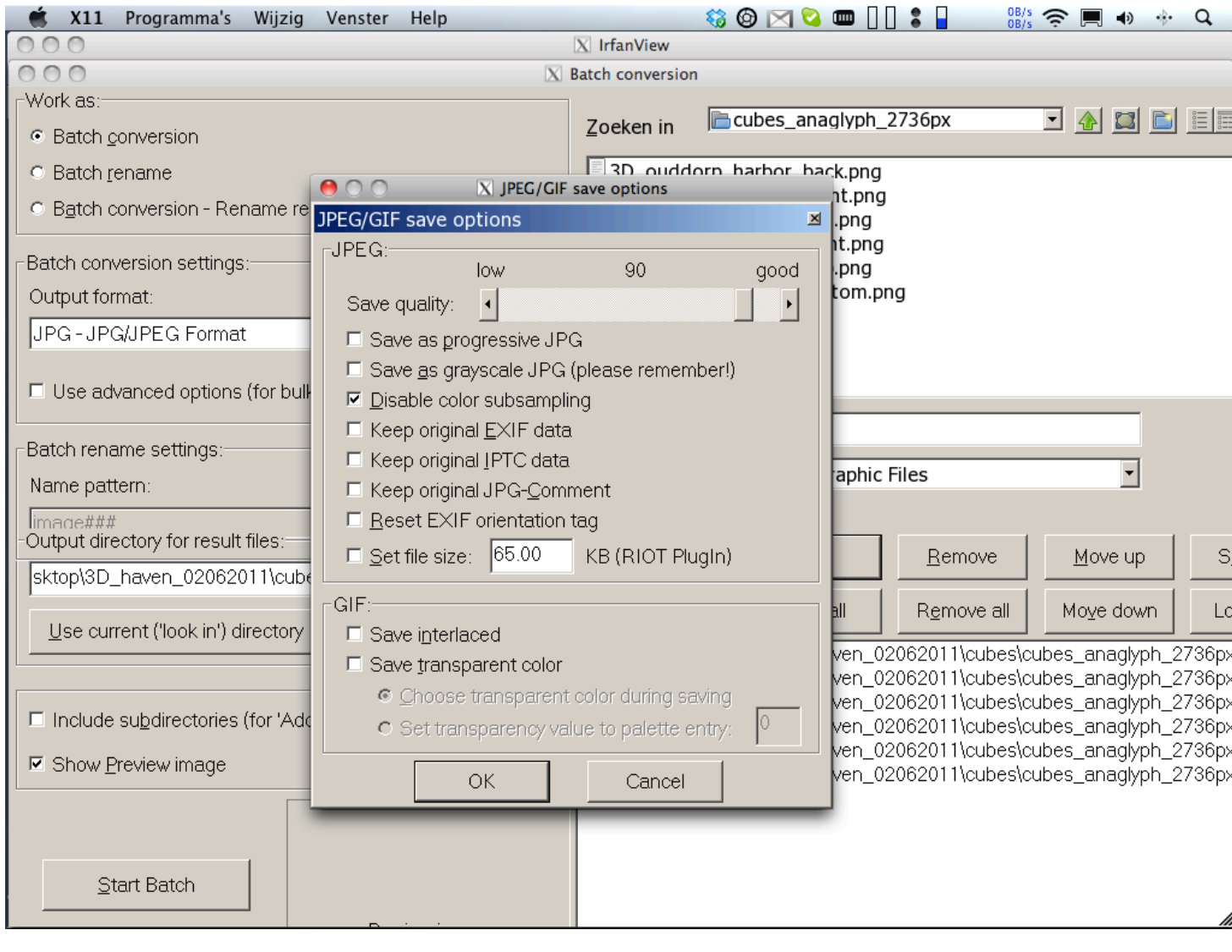
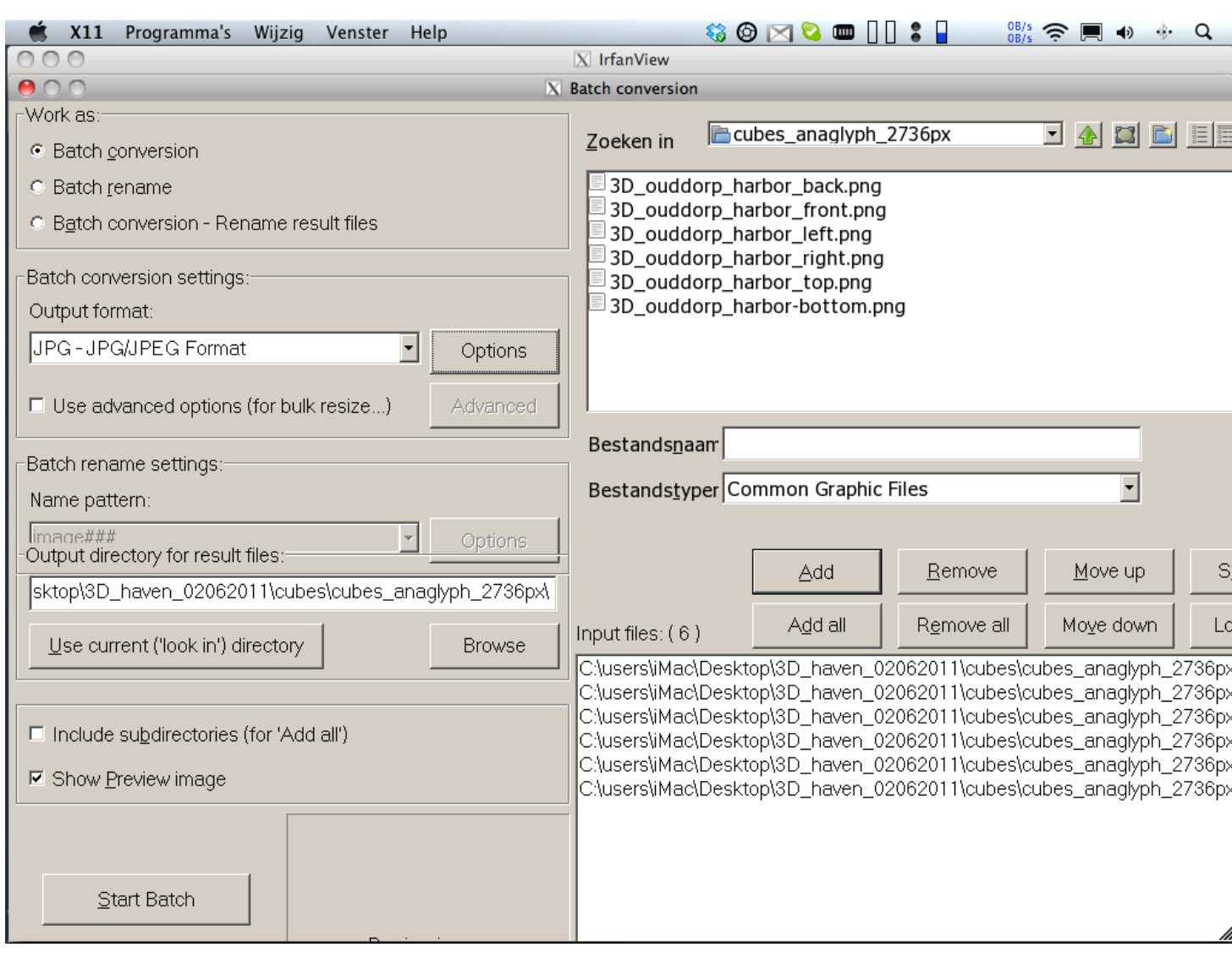
I use CubicConverter for Mac OSX for this but the conversion can also be done in other panorama software like f.i. Pano2VR.



2- Now the tiles need to be converted from PNG (or TIFF) to a special JPEG format to get color ghosting free tiles.

This can be done by loading the tiles in Photoshop and then save them with the "SaveForWeb" menu option (quality 75 is fine).

If you don't have Photoshop you can use IrFanView, for converting the tiles (IrFanView is a free Windows app that also runs in OSX with Wine). Choose the Batch Conversion menu option of IrFanView, load the tiles, set the output option to "Disable color subsampling" and quality 90 and convert the PNG (or TIFF) tiles to special JPEG images without color compression with the "Start Batch" button.



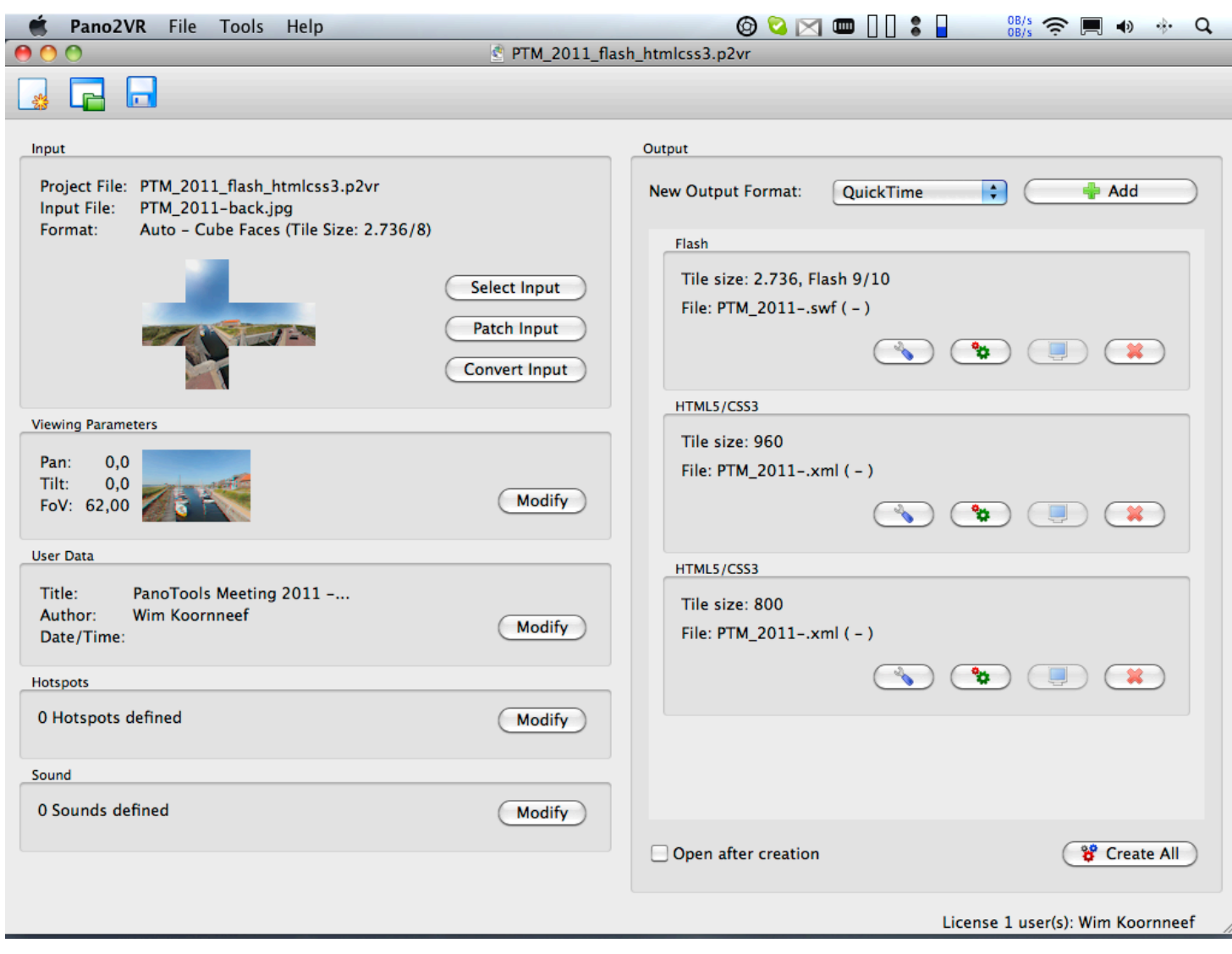
3- With the special JPEG tiles you can make a panorama that will be free of color ghosting.

I will describe how to do this with an older version of Pano2VR, if you use a different app then perhaps you get an idea how to use the tiles in your application.

Load the tiles in Pano2VR and check the tile size of input and output size.

The tile size of input and output must be set the same for the Flash panorama.

In case you also make HtmlCss3 output then set the tile size for this to whatever you normally use.



4- Make the Flash and HtmlCss3 output.

After this the Flash panorama contains the special JPEG tiles and is now ghostfree and ready for use.

If you only output Flash panoramas then you can skip the rest of this tutorial.

5- For HtmlCss3 panoramas only.

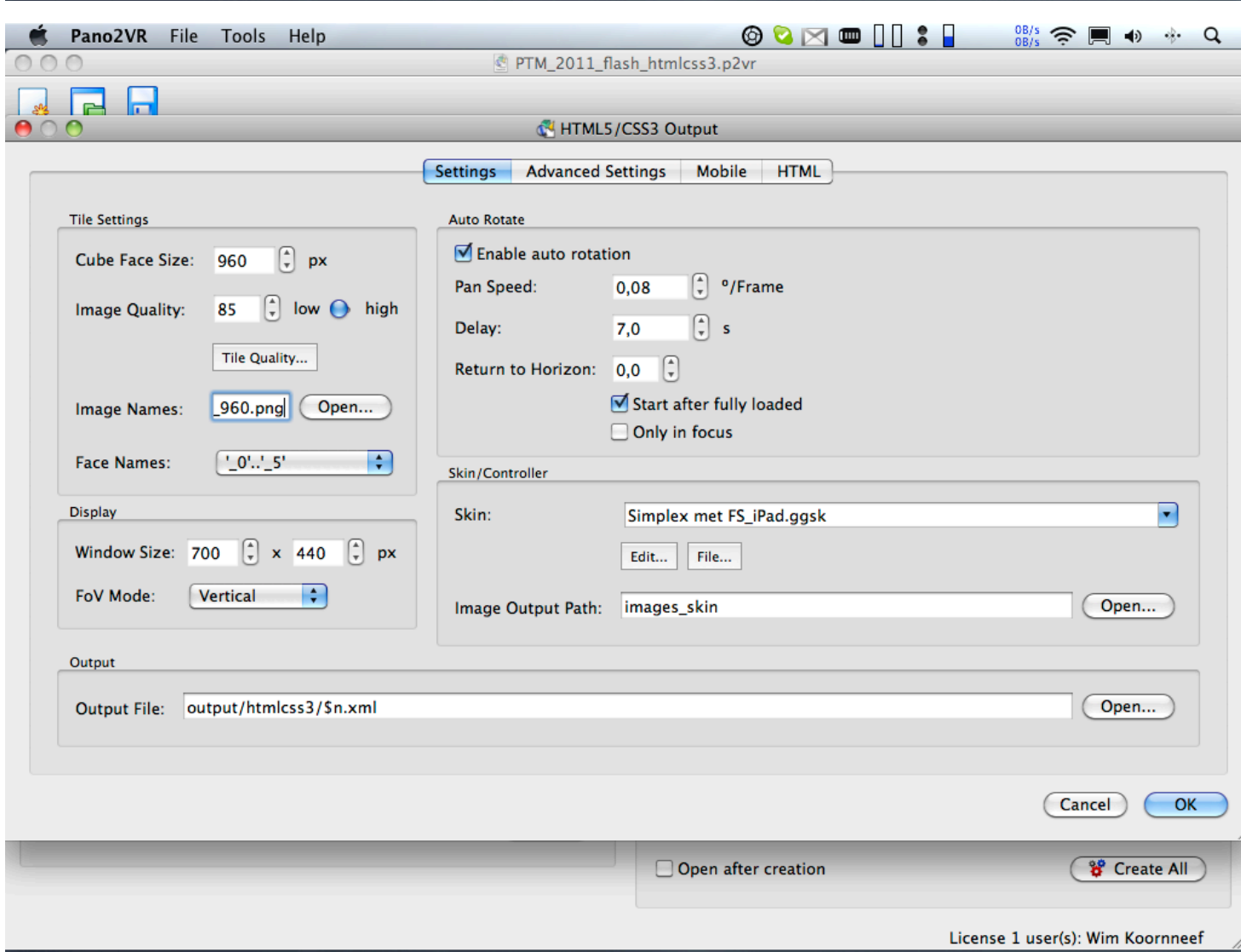
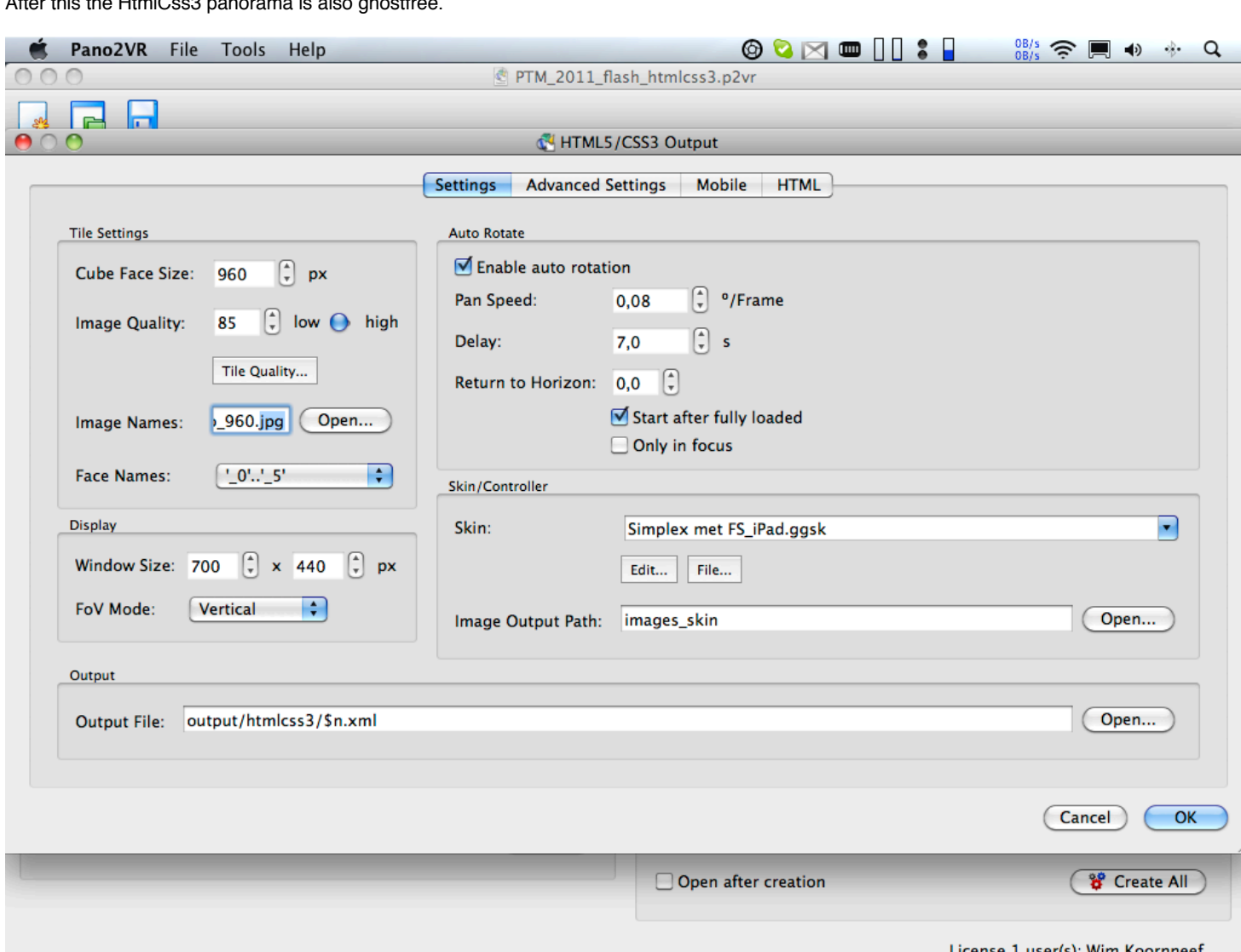
Save a copy of the .xml file of the HtmlCss3 output (stored in the project folder).

Change the file extension of the HtmlCss3 tiles from ".jpg" to ".png" in the Output tab and run the output for the HtmlCss3 panorama a second time.

Convert the PNG tiles (stored in the Tiles folder of the project) with IrFanView or Photoshop's "SaveToWeb" to special JPEG tiles just as you did in step 2 with the large tiles for the Flash panorama.

Replace the normal JPEG tiles with the special JPEG ones, replace the .xml file with the saved copy and delete the PNG tiles if you like.

After this the HtmlCss3 panorama is also ghostfree.



You are finished :-)

This tutorial is made with the same screenshots I used for my talk about how to make a 3D panorama with a single camera and PTGui at the PanoTools Meeting 2011 in Vienna.

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