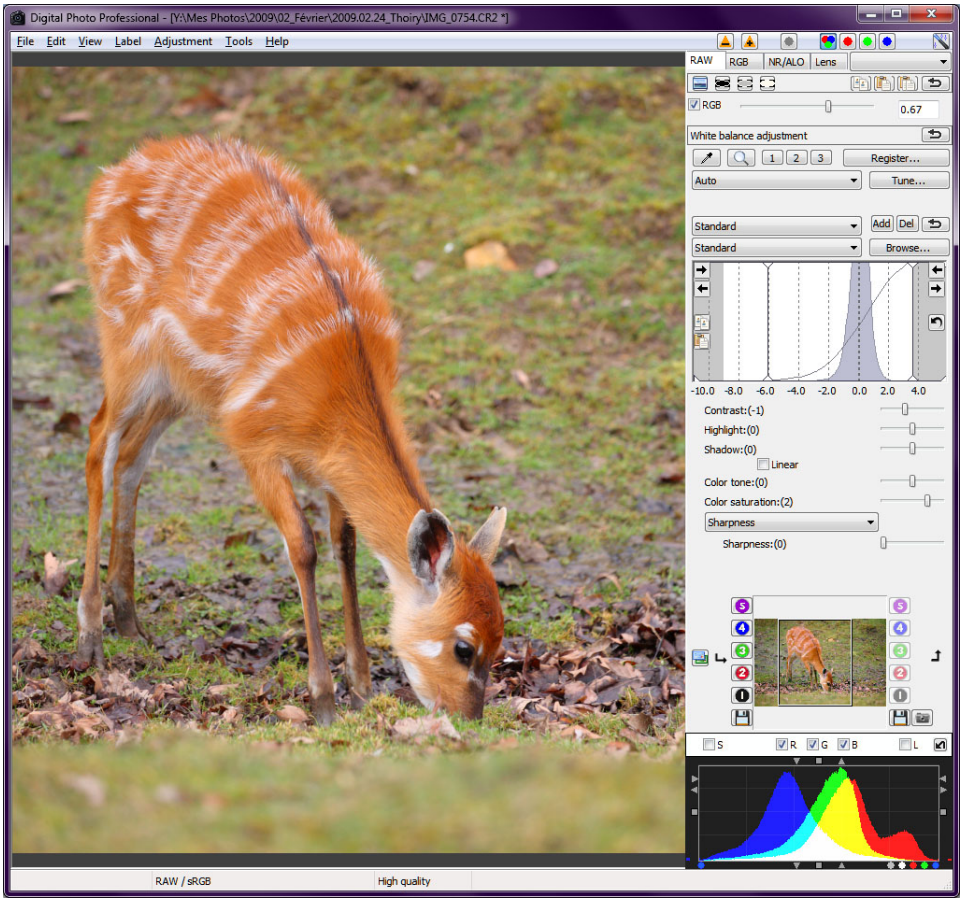
DPP++ 11.1
USER MANUAL



Manual. Ver. 1.0

DPP++
Pushing DPP further

This document covers all the functions offered by DPP++. Videos tutorials and discussion forums are also available online. For more details, go to:

http://digitol.free.fr/doku.php?id=dpppp:home

1. General Information

1.1. What is DPP++?

DPP++ is a plugin-like program for the Canon Digital Photo Professional (DPP) software . It adds the following functions to DPP:

1. The ability to adjust locally certain parts of the image depending on their colors.
2. The ability to define several RAW conversions (layers) and to blend them using control points.
3. The ability to add some post-processing functions such as watermarking, framing, date stamping.
4. The ability to maintain a list of favorite recipes and to rapidly copy/paste a recipe using buttons rather than menus. This allows to apply saved recipes when desired easily.
5. The ability to save for each shot until 5 different conversions (snapshots) in just 1 click. This allows to compare different raw conversions for a given shot instantly.
6. The ability to maintain a list of custom picture styles. So it is no more necessary to click on the browse button and to search for a picture style file each time you want to apply a custom picture style. After adding a picture style to the list, it will be there each time you use DPP. You will have just to click on the list and to choose the picture style you want to apply.
7. The ability to display an RGB/Luminance Histogram inside the RAW tab. This allows to avoid switching continuously between the RAW tab and the RGB tab just to look at the RGB or Luminance histogram. Furthermore, this new histogram can display alerts on a channel basis (Red, Green, Blue, RGB, Luminance) and can display statistical data including the position of the center of mass of the histogram. Furthermore this histogram is interactive which means that you can change the black and white points directly in the RAW tab.
8. The ability to control the white/black points of the RAW histogram with extreme precision.
9. The ability to adjust exposure automatically based on 4 criteria : placing the histogram center of mass at the center, saving whites, saving blacks, saving both blacks and whites.
10. The ability to display composition guides in the trim tool : Gold lines / Rule of Third lines / Diagonals / Golden Spiral / Golden Rectangles / Golden Triangles.
11. The ability to preview each color channel (Red, Green, Blue) individually and to display overexposure and underexposure warnings based on each color channel.
12. The ability to adjust white balance using 3 color sliders : Cyan ⇔ Red, Magenta ⇔ Green, Yellow ⇔ Blue.
13. The ability to save the custom crop ratios defined with the trim tool. The new crop ratios can be saved automatically and retrieved automatically.
14. The ability to display a tool similar to the measure tool of Photoshop, which allows to correct the angle of a picture by drawing a line on the horizon or on a wall in the picture.
15. The ability to display a magnifier tool to see at a big size the pixel currently under the mouse cursor and its RGB and HSL values.

The program works under Windows systems only.

1.2. How to install, launch and close DPP++

DPP++ is just one executable file. So there is no installation procedure. When using DPP++, the best way to launch it, is to copy it somewhere and to create a shortcut for it on your desktop. Then use this shortcut instead of DPP's shortcut because DPP++ will automatically launch DPP. So you don't need to launch DPP yourself. To close DPP++, just close DPP and DPP++ will be closed automatically after a few seconds.

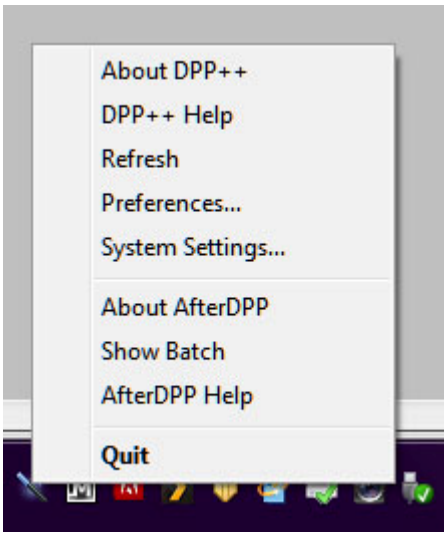
1.3. Trial Version of DPP++

The trial version is unlimited in time but has less functions than the full version. However, it allows you to check if DPP++ works well under your configuration. See the table below to know the differences between the trial and the full versions.

Feature	Trial Version	Full Version
Blending and Local Adjustments	A message is printed on pictures	Yes
Magic Rule	Yes	Yes
Copy/Paste Recipe Buttons	Yes	Yes
Composition guides	Diagonals	Diagonals, Thirds, Gold, Spiral, Triangles, Rectangles
Channels in RGB Histogram	Green, Blue	Red, Green, Blue, Luminance
Alerts on channel basis	Green, Blue	Red, Green, Blue, RGB, Luminance
Save of custom crop ratios	Limited to 2	Unlimited
Save of custom picture styles	Limited to 2	Unlimited
Auto Exposure	Blacks	Blacks/Whites/Center of Mass
Control of RAW Histogram	No	Yes
Statistical Data	No	Yes
Snapshots	5	5
Recipe List	3	Unlimited
White Balance Adjustment	Green, Magenta	Red, Cyan, Green, Magenta, Blue, Yellow
Magnifier Tool	RGB and HSL values not displayed	RGB and HSL values displayed
Preview of individual channels	Green	Red, Green, Blue

1.4. The Program Menu

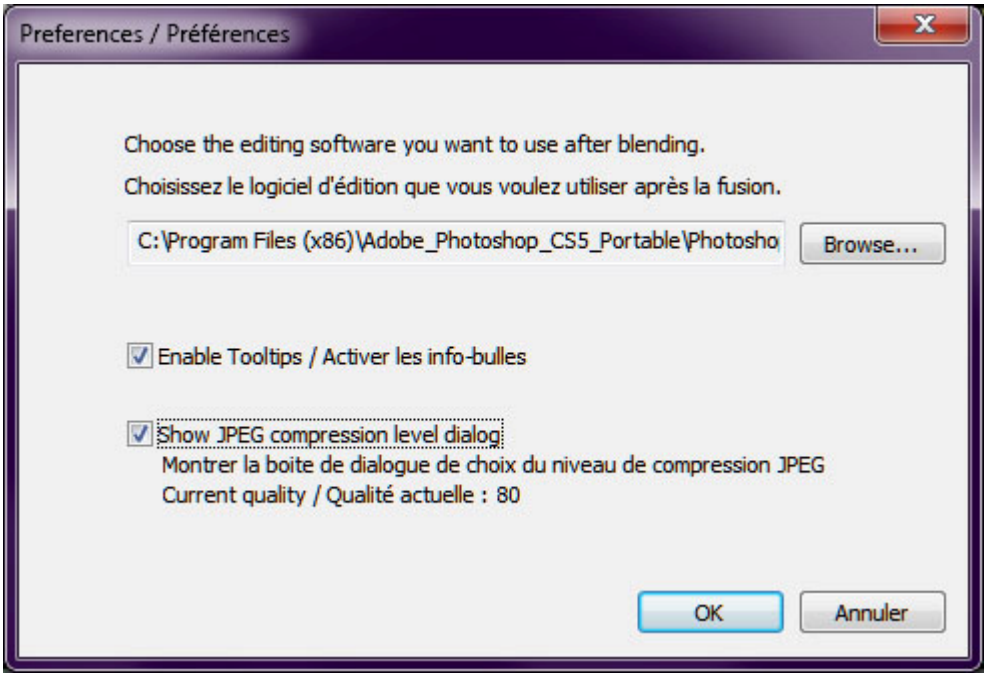
Click on the program icon in the notification area to access the program menu. The main items you'll probably need are "Preferences" and "System Settings".



1.4.1. Preferences

The preferences dialog box allows :

1. To choose the editing software that can be called after local adjustments and/or blending are done (see Chapter 4).
2. To enable or disable the program tooltips.
3. To enable or disable the display of the dialog bow that allows to choose the jpeg compression quality when local adjustments or blending are done.



1.4.2. System Settings

If you encounter problems when running DPP++, system settings may help to resolve them. See section 4.7.1 for more details.

1.5. What to do if it doesn't work

If the DPP++ extensions don't appear, check the following points:

1. Check that you are using DPP 3.11.10 or above. You can download it here or here.
2. Put the tool palette in docking mode. Go to Menu “Tools/Preferences/Tool Palette/Tool Palette display in Edit Image Window” and choose “Docking display”.
3. Use the edit image window when editing. In the main window select some pictures and then press CTRL+right arrow or choose from the main menu, “View/Edit in Edit Image Window”.

Remember that DPP++ is for Windows Systems only.

1.6. Why does the DPP++ extensions appear sometimes and disappear sometimes?

DPP++ extensions appear only when DPP or DPP++ is the active window (the window that have the focus). For instance if you put DPP's window besides Notepad's window, and if you click on the notepad window, then the notepad window becomes active and DPP++ extensions disappear. But if you click on DPP's window then DPP becomes the active window and DPP++ extension should appear. When you click on the DPP++'s program icon in the notification area, in this case the DPP++'s window is active and the extensions should also appear.

1.7. For windows 7 users

If you encounter some corrupted displays, you will need to use an Aero theme. If some corrupted displays occurs. you can correct the display by clicking on the program icon to display the program menu and then choose “Refresh” but it's better to use an aero theme.

If you don't see the program icon in the notification area, you'll need to enable it yourself. Click with the right mouse button on an empty area in the task bar, then choose properties then Task Bar tab then customize button. Then enable the icon and notifications display for DPP++ Plugin application.

1.8. Links

Web Site: http://digitol.free.fr/doku.php?id=dpppp:home

Forums: http://digitol.free.fr/forum/index.php

Videos: http://www.youtube.com/user/DPPPlusPlus/

E-mail: dppplus@gmail.com

2. RAW Edit Extensions

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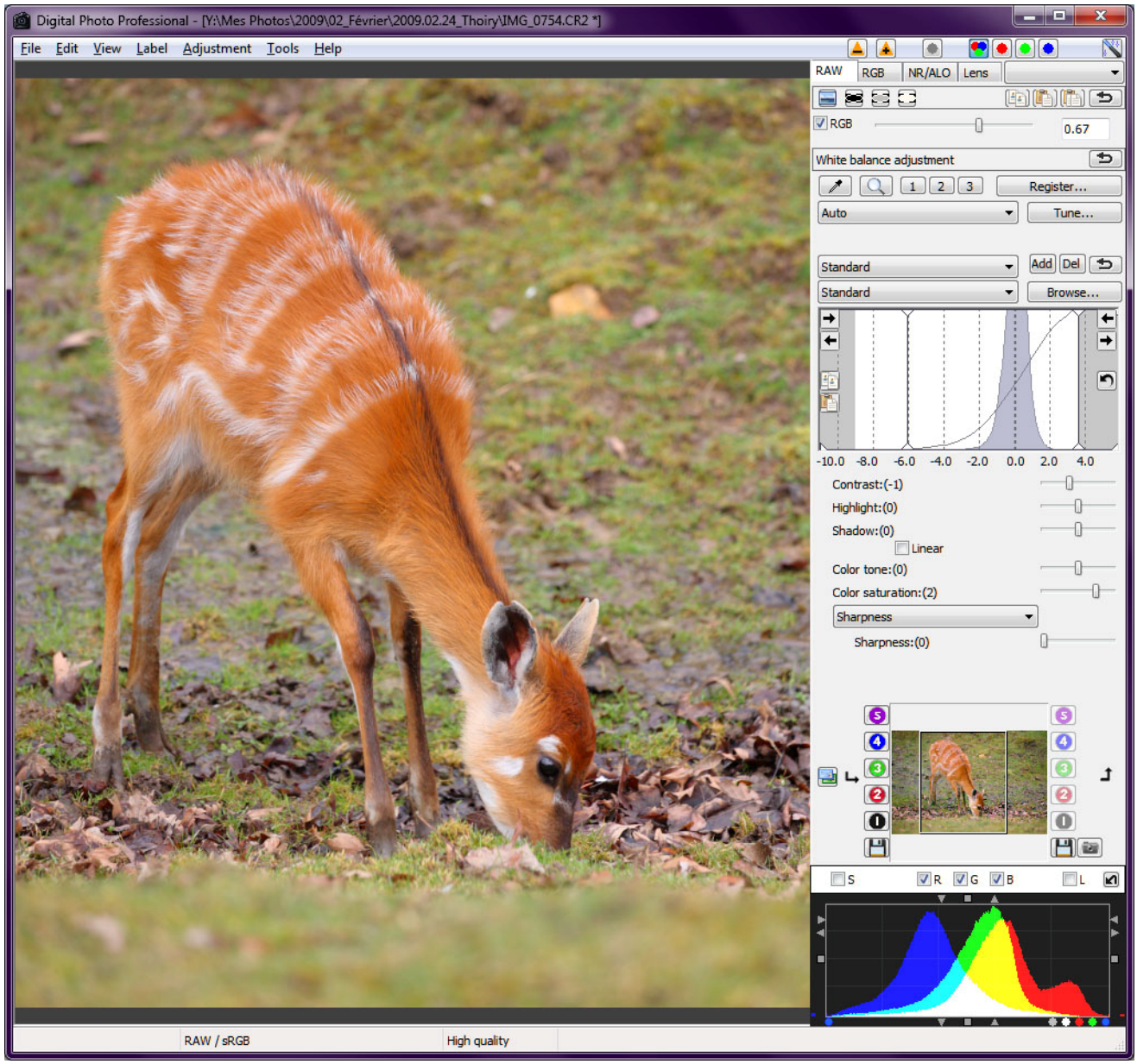
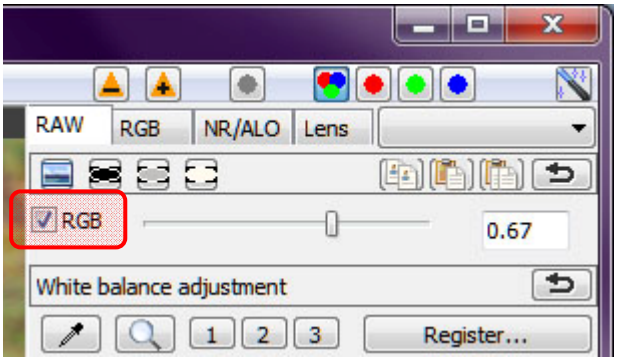


2.1. RGB Histogram

Displaying an RGB and Luminance Histogram inside the RAW tab allows to avoid switching continuously between the RAW tab and the RGB tab just to look at the RGB/Luminance histogram. However, note that the displayed RGB/Luminance histogram is based on the part of the picture that is displayed at the screen. This has an advantage over the native RGB/Luminance histogram of DPP because DPP displays its histogram for all the picture no matter if you have define a crop area or not. With this new histogram you can see the histogram just for the crop area or more precisely the area that is currently displayed on the screen (if you have zoom in for instance). As this histogram is based on the displayed pixels, if you want a very accurate histogram you have to calibrate your screen.

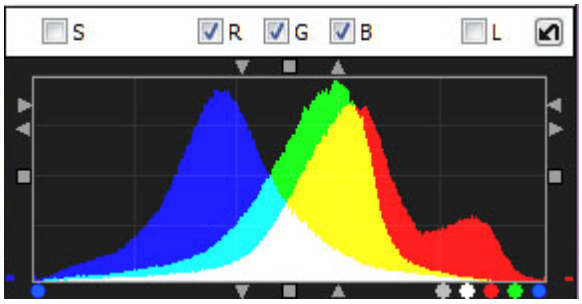
2.1.1. How to show/hide the new RGB histogram

Click on the RGB checkbox to show/hide the new RGB histogram.



2.1.2. How to use the new RGB histogram

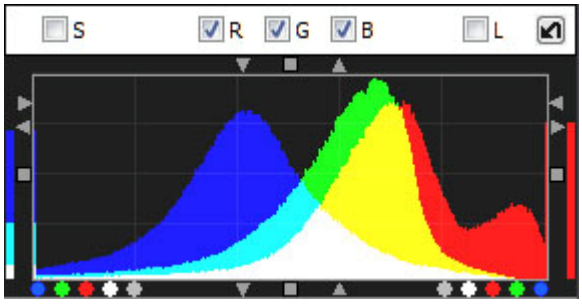
- Click on the R, G, B checkboxes to show/hide the corresponding channel.
- SHIFT-Click or CTRL-Click or ALT-Click on the R, G, B checkboxes to display the corresponding channel alone or with other channels.
- Click on the L checkbox to choose between the RGB and Luminance histogram.
- Drag and drop the small squares at the left and at the right of the histogram to change respectively the black point and the white point in the input level.
- Drag and drop the small squares at the bottom and at the top of the histogram to change respectively the black point and the white point in the output level.
- Click on the small arrows to change the black/white points with a high precision. Each click moves the point by 1 unit. You can also control the white/black point of the RGB histogram using the keyboard arrows or the mouse wheel, after a first click.
- Click on the arrow in the top right of the histogram to reset the positions of the white/black points.



2.1.3. Clipping Alerts

2 thick bars have been added at the left and at the right of the RGB histogram. These bars simply duplicate respectively the levels 0 and 255 of the histogram. They allow a better visibility when clipping occurs. Furthermore, display of alerts about pixels that have their values at 0 or 255 have been added on a channel basis. The general rules for displaying alerts are as follows:

- The display of a small red circle indicates a clipping in the red channel.
- The display of a small green circle indicates a clipping in the green channel.
- The display of a small blue circle indicates a clipping in the blue channel.
- The display of a small white circle indicates a clipping in the 3 channels.
- The display of a small gray circle indicates a clipping in the luminosity channel.
- If the clipping is occurring in the shadows, the alert is displayed at the left.
- If the clipping is occurring in the highlight, the alert is displayed at the right.
- If there is a majority of clipped pixels, the alert is displayed at the top.

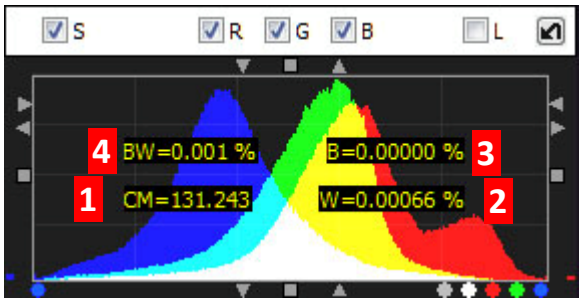


Here are some examples on how these alerts work:

- *Example 1* : There are pixels which have value 0 in the red channel –> a small red circle is displayed at the bottom left of the RGB histogram.
- *Example 2* : In the green channel, there are a majority of pixels which have value 0 –> a small green circle is displayed at the up left of the RGB histogram.
- *Example 3* : There are pixels which have value 255 in the blue channel –> a small blue circle is displayed at the bottom right of the RGB histogram.
- *Example 4* : There are a majority of pixels which have value 255 in the three channels –> a small white circle is displayed at the up right of the RGB histogram.

2.1.4. The Statistical Data

Precise statistical Data about the RGB histogram can be displayed. Use the "S" checkbox to show/hide the statistical data.

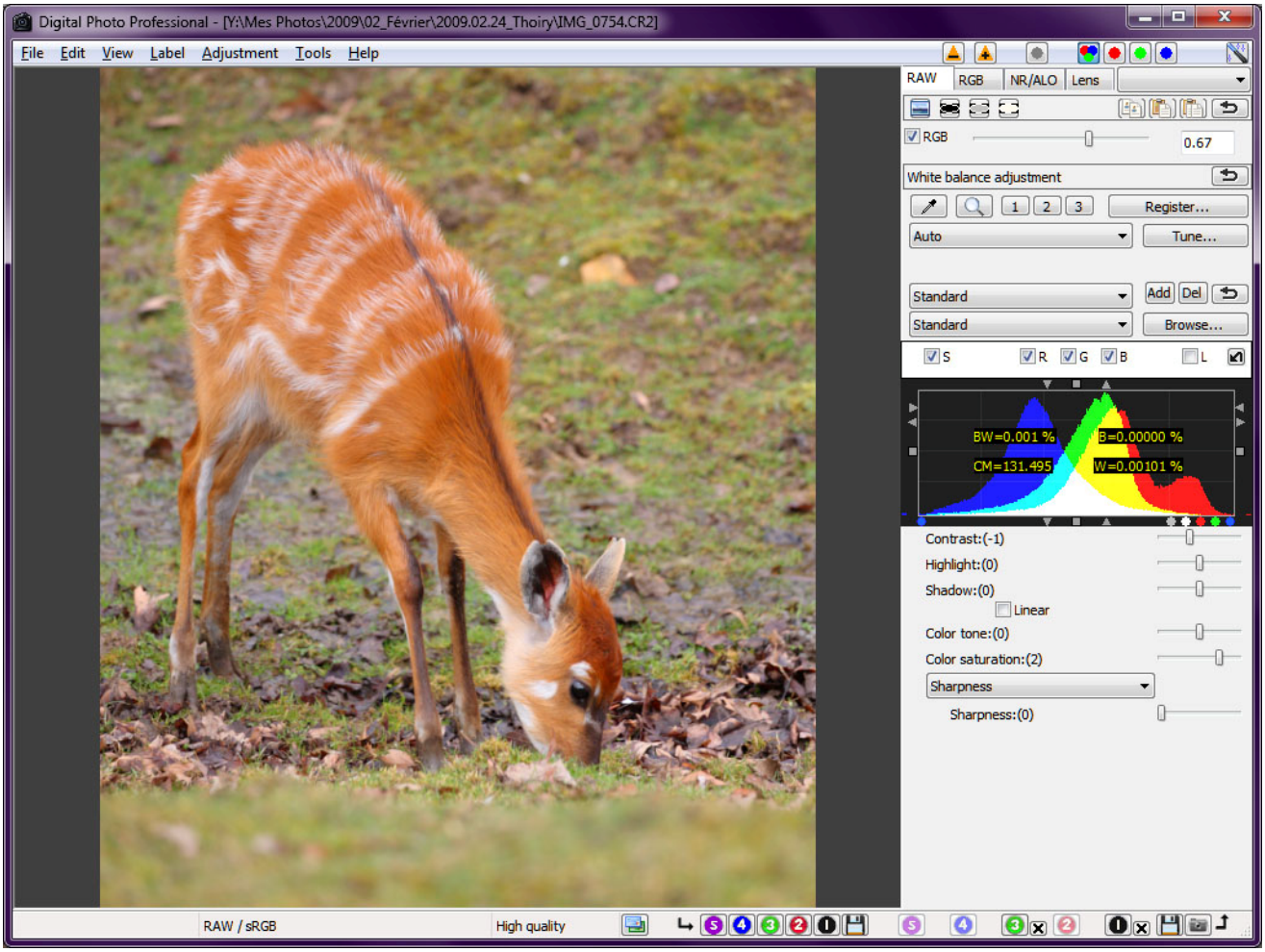


1. Center of mass of the histogram : this information allows to know exactly where the center of mass of the histogram is located. For a normal shot taken in normal light conditions, a good exposure should place the center of mass at 127.5 (255/2). For a night shot it should be shifted at left. For snow shots, it should be shifted at right.
2. Percentage of white pixels (pixels which have their value at 255)
3. Percentage of black pixels (pixels which have their value at 0)
4. Percentage of white and black pixels (pixels which have their value at 0 or 255)

Note that the displayed percentage data are related to the channel currently displayed in the RGB histogram. For instance, if you display only the Blue channel, then the displayed percentages concern the pixels which have their blue value at 0 or 255. If you display more than one channel then the displayed percentages are related to the pixels that have their values at 0 or 255 in the 3 channels simultaneously.

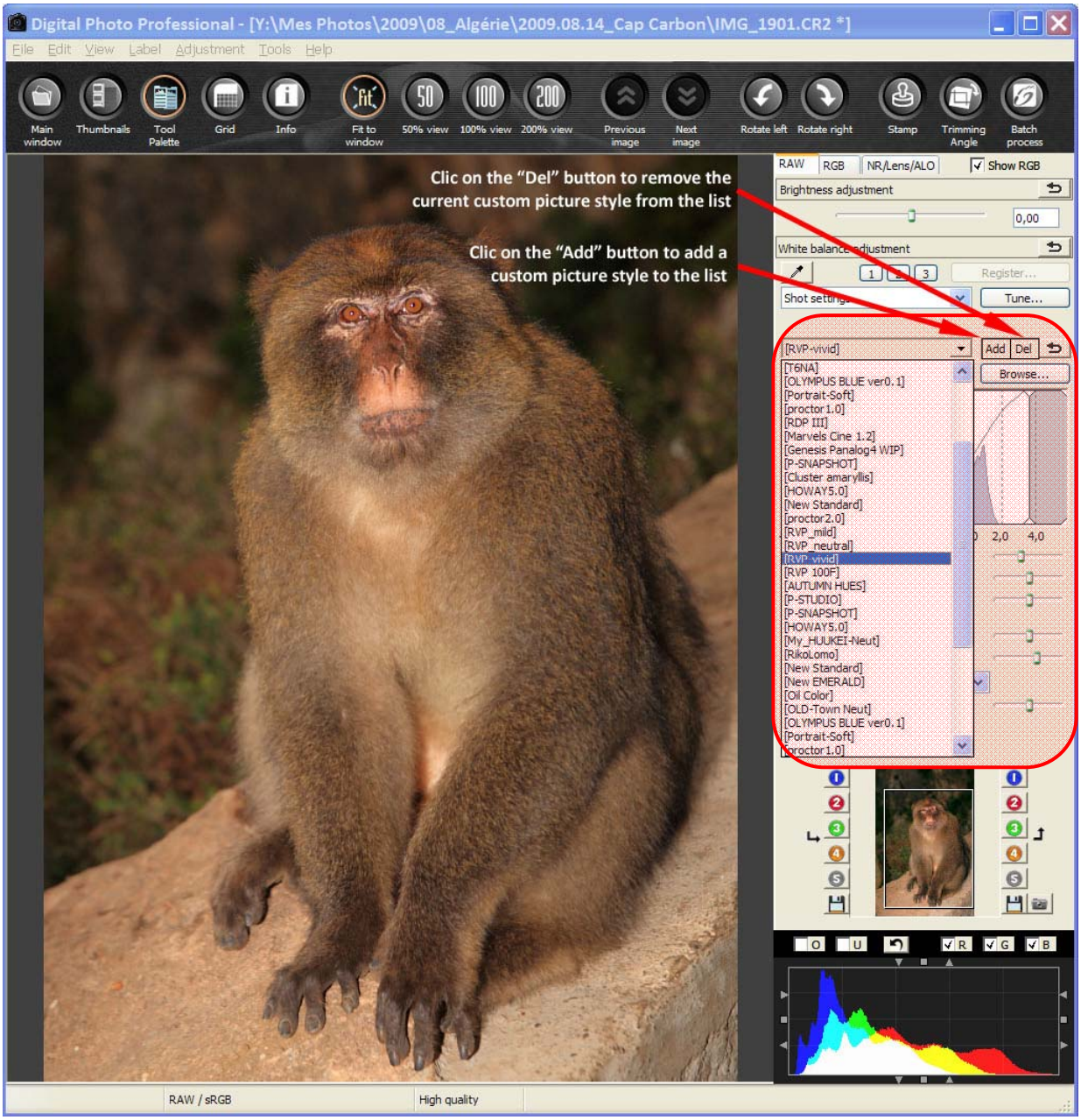
2.1.1. RGB Histogram Position

Note that if the DPP's window height is too small, the RGB histogram (if enabled) will be displayed instead of the RAW histogram. You can try to hide the DPP toolbar and/or the windows taskbar to increase the available height.



RGB histogram is displayed instead of the RAW histogram because the DPP's window height is too small here.

2.2. Picture Styles List Extensions



One thing that is very annoying with DPP is that each time you want to apply a custom picture style, you have to click on the browse button and search for the picture style file in your hard drive. DPP++ allows to display a new list for picture styles. The picture styles added to the list will be there each time you use DPP. So if you want to apply a custom picture style just select it from the list.

- Click on the "Add" button near the list to add one or several[1] picture styles to the list.
- Click on the "Del" button to remove the current custom picture style from the list.
- After clicking on the list, you can navigate rapidly between the custom picture styles by using the mouse wheel or the keyboard arrow keys.

[1] To add several pictures styles at once, use shift-click in the windows file dialog.

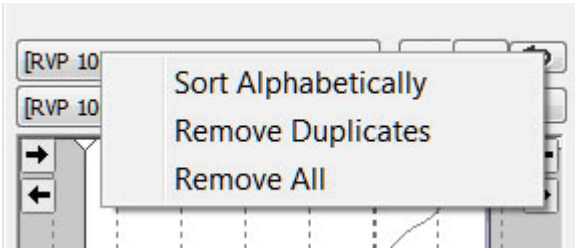
2.2.1. How to Sort the Picture Style List

You can sort the list of custom picture styles as you like. To sort the list, first drop it down, then press CTRL+ up arrow key or CTRL + down arrow key to move the current style up or down in the list. Note that you cannot change the position of standard styles and that you cannot delete a standard picture style from the list.

2.2.2. The picture style contextual menu

If you RIGHT-Click on the picture style list, a menu will be displayed. This menu allows to :

- Sort the picture styles alphabetically.
- Remove duplicated picture styles from the list, in case you have added to the list, the same picture style several times.
- Remove all picture styles from the list. Note that this will not delete the picture style files from the hard drive.



2.3. Snapshots Extensions

It is possible to save until 5 different conversions for each shot. The conversion settings include all the settings that are saved in a recipe (including for instance RGB settings). Actually, the snapshots are saved as separate recipe files in a "Snapshots" subdirectory under the shot directory. So the RAW files are never modified.

- The buttons numbered 1 to 5 at left allow to create the snapshots for the current shot and those on the right allow to recall them.
- When a snapshot has been created an 'x' button appears allowing to eventually remove the snapshot. Note that when a snapshot is removed, it is sent to the recycle bin. So it is still possible to restore it if it was deleted by mistake.

- When no 'x' button appears, this means that no snapshot has been created for the corresponding button.
- To compare rapidly different created snapshots, you can switch between them by selecting a snapshot and then by using the arrow keys or the mouse wheel to navigate between the snapshots.

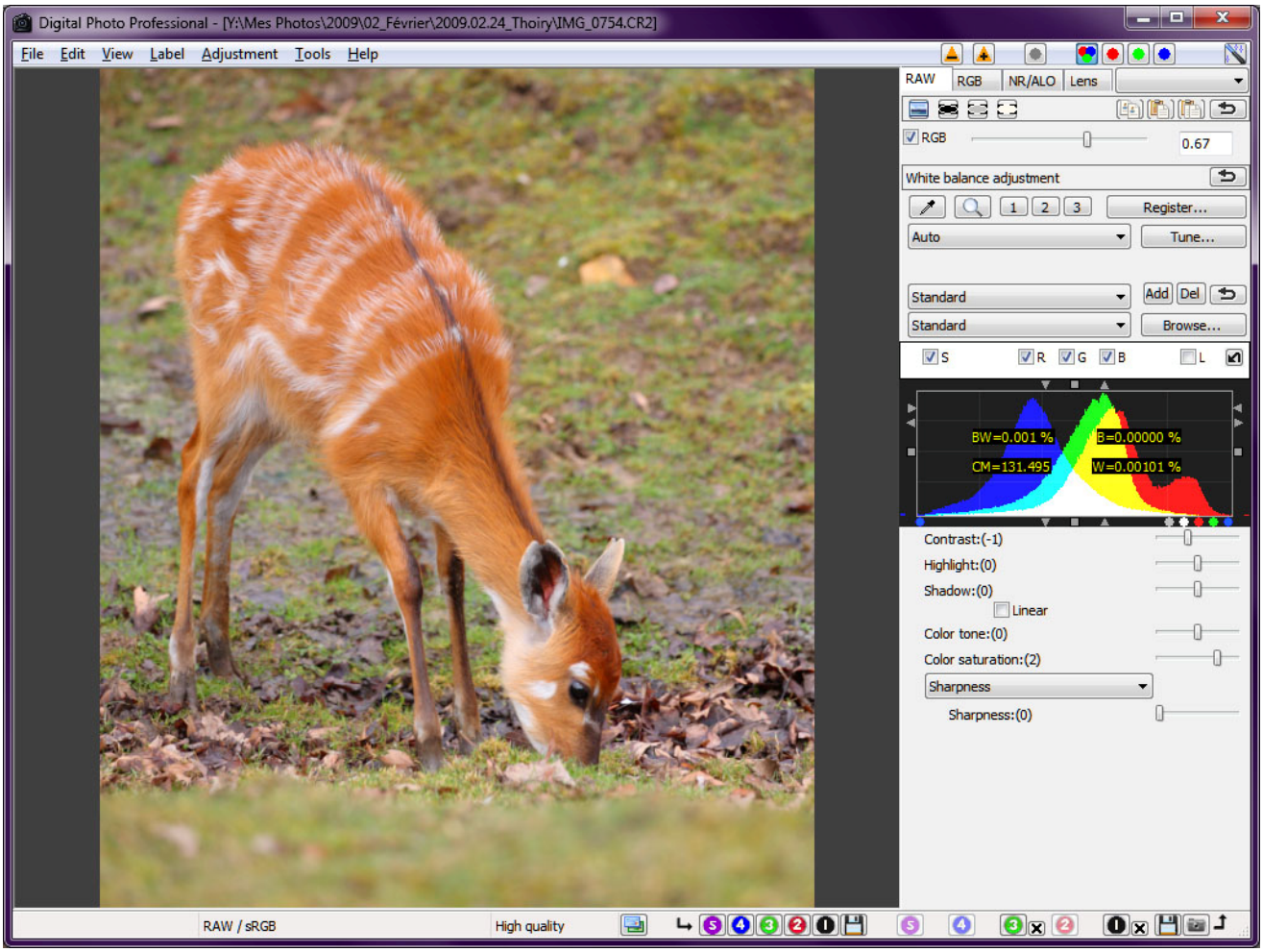
Note that in addition to DPP++ Snapshots, you can also save the current conversion parameters in the RAW file itself. Indeed Canon RAW files can save 2 sets of conversion parameters:

1. One is the set used by the camera during the shot.
2. The second one can be saved by DPP itself.

If you want to save the current set of settings in the RAW file use the left floppy button. To recall it use the right floppy button. The camera button allows to recall the conversion parameters used by the camera when the shot was taken.

2.3.1. Snapshots Extensions Position

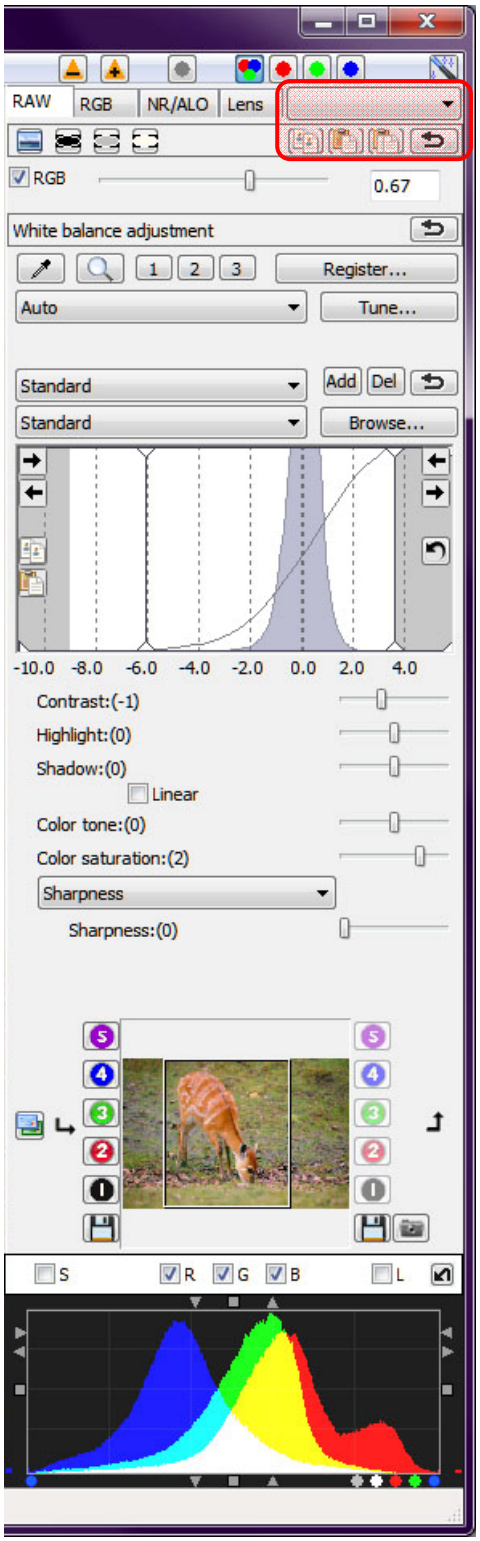
Note that if the DPP's window height is too small, the snapshots extensions will be displayed in the status bar. You can try to hide the DPP toolbar and/or the windows taskbar to increase the available height.

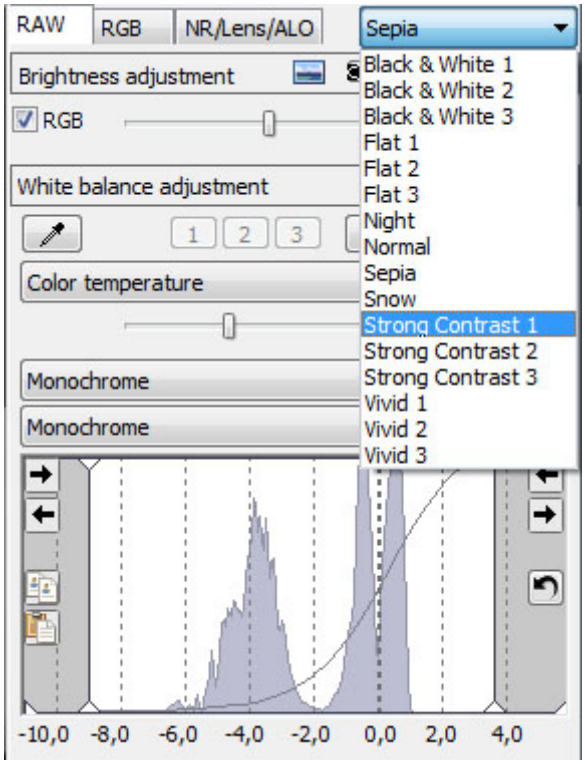


Snapshots extensions are displayed in the status bar because the DPP's window height is too small here.

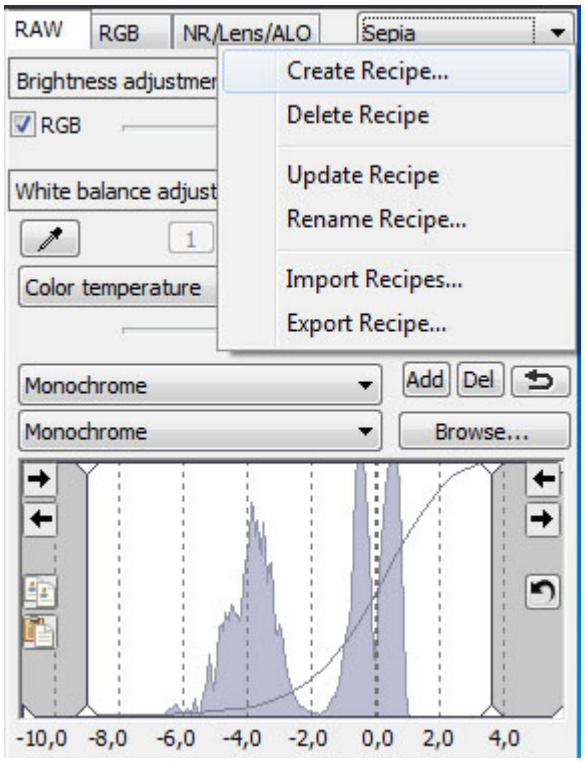
2.4. Recipes Extensions

It is possible to have a list of saved recipes that can be reused on different shots. Unlike other DPP++ extensions that appear only in the edit tool, this list is also available in the main window. This allows to select several shots in the main window and then apply a given recipe to them just by selecting the corresponding recipe in the list.





If you click with the right mouse button on the list button, the following menu appears:



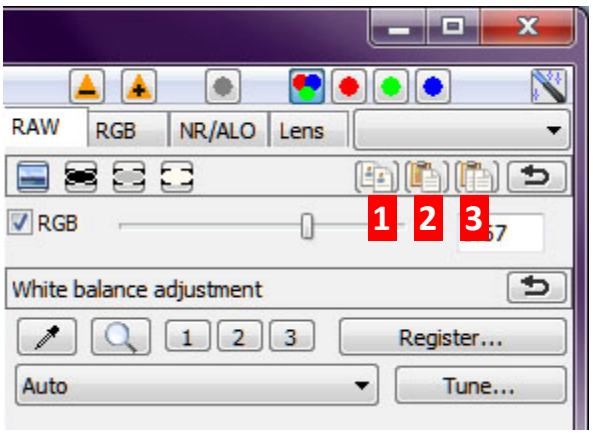
This menu allows to :

- Create a new recipe based on the current settings and save it in the recipe list.
- Delete the recipe that is currently selected in the list. If no recipe is selected, this menu item will be grayed. Note that when a recipe is removed from the list, it is sent to the recycle bin. So it is still possible to restore it if it was deleted by mistake. However, you will have to restart DPP++ to see it again in the list.
- Update the recipe that is currently selected in the list with the current conversion parameters.
- Rename the recipe that is currently selected in the list.
- Import existing recipes and add them to the recipe list.
- Export the recipe that is currently selected and save it under the desired name and location.
- To compare rapidly the effect of different recipes, you can switch between them by selecting a recipe in the list then by using the arrow keys or the mouse wheel to navigate between the saved recipes.

To apply a given recipe to a set of shots, use the main window of DPP: select the desired shots and then just select the desired recipe from the list.

2.4.1. Copy/Paste Recipe Buttons

DPP++ offers 3 buttons to rapidly copy/paste recipes.

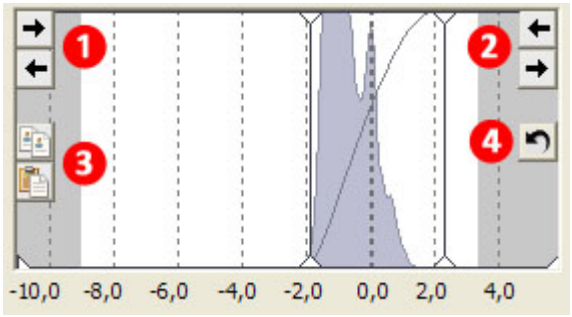


1. This button allows to copy the current recipe to the clipboard.
2. This button allows to paste the copied recipe to the current edited picture.
3. This button allows to paste the copied recipe to all pictures present in the edit window.

In the main window, buttons 2 and 3 have the same behavior. They allow to paste the copied recipe to all selected pictures.

2.5. Raw Histogram Extensions

Adjusting black and white points in the RAW histogram rather than in the RGB histogram seems to provide better results. Unfortunately DPP doesn't provide an easy way to control these points, especially the white point where a small movement of the slider provides a strong change in the picture. That's why buttons that allow a precise control of these points have been added in DPP++.

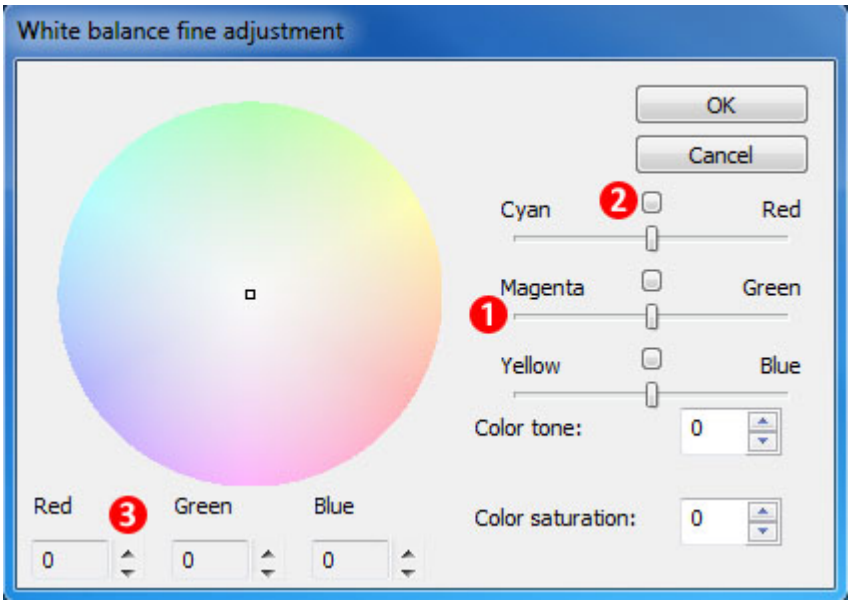


1. These buttons allow to control with high precision the black point of the RAW histogram. After a first click, it can also be controlled using the Left/Right keyboard arrows or the mouse wheel.
2. These buttons allow to control with high precision the white point of the RAW histogram. After a first click, it can also be controlled using the Left/Right keyboard arrows or the mouse wheel.
3. These buttons allow to copy/paste the white/blacks points of the RAW histogram to use them on another shot.
4. This button allow to reset the white/blacks points of the RAW histogram.

2.6. White Balance Extensions

It is possible to adjust the white balance using 3 color sliders:

- Cyan <==> Red
- Magenta <==> Green
- Yellow <==> Blue

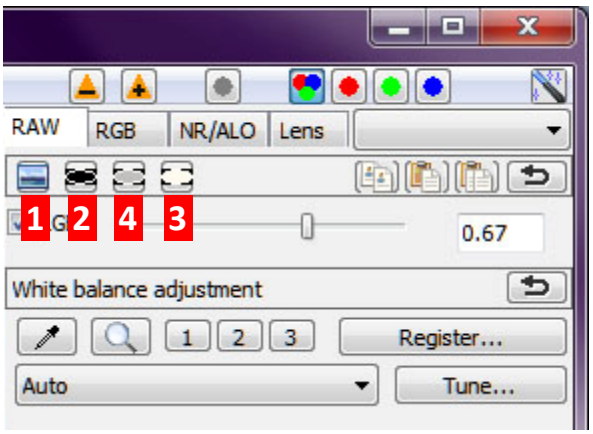


First, in the tool palette click on the DPP **"Tune..."** button, then:

1. Use these sliders to adjust the corresponding colors.
2. Use these buttons to reset the sliders to 0.
3. Use these arrows to adjust the corresponding color with high precision.

2.7. Auto-Exposure Extensions

The auto-exposure extensions allow to adjust automatically the brightness slider of the RAW tab. This function can operate in 4 different modes :

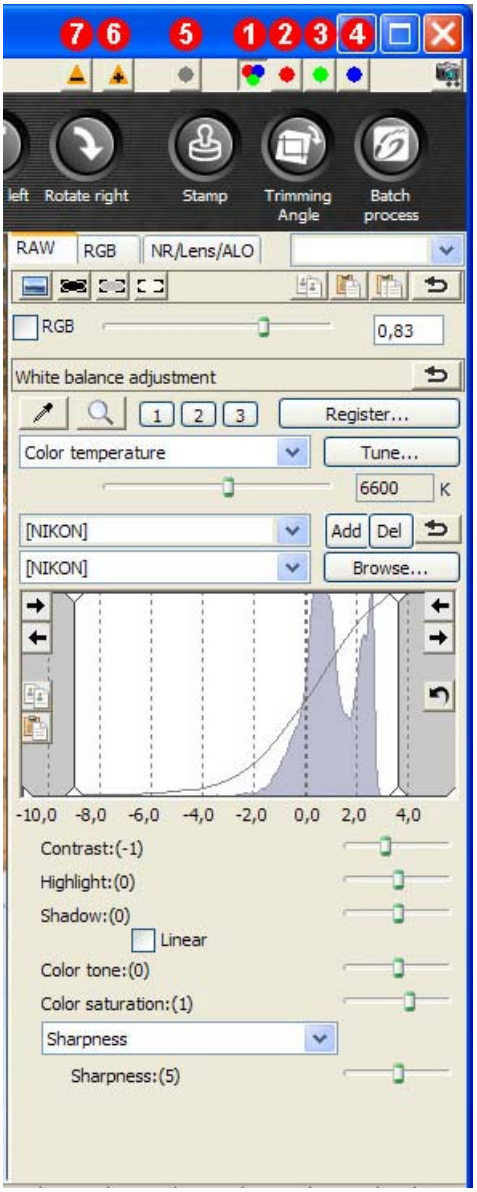


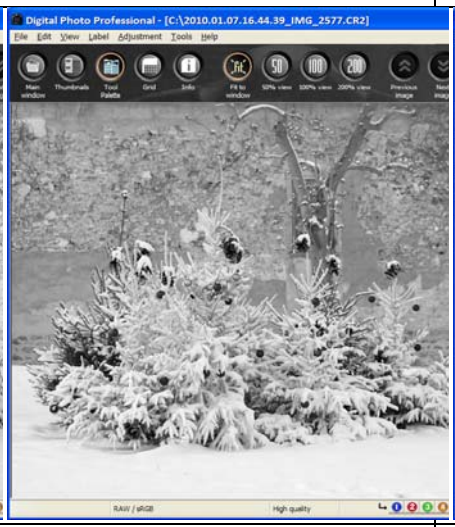
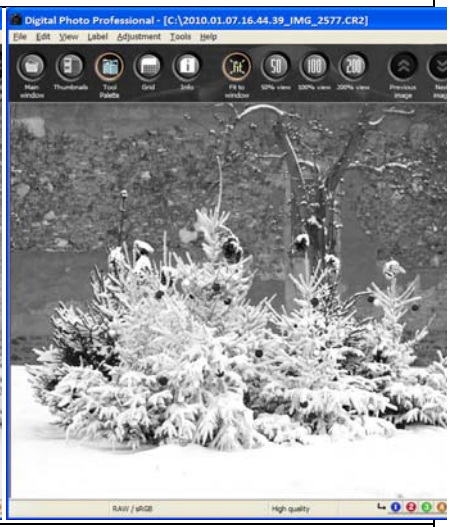
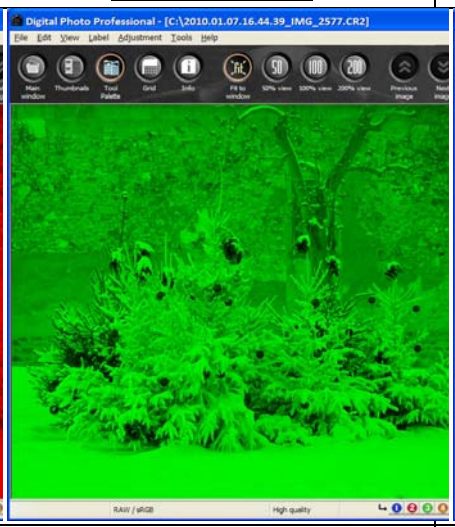
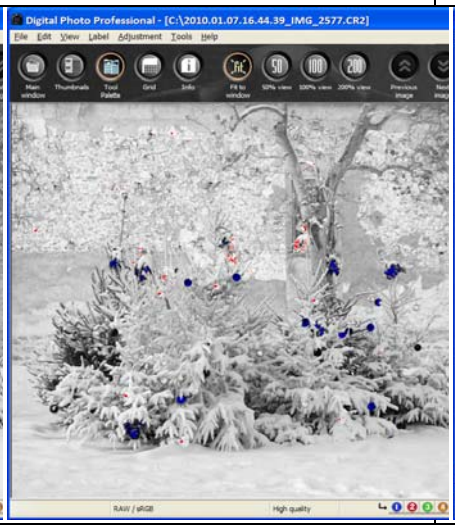
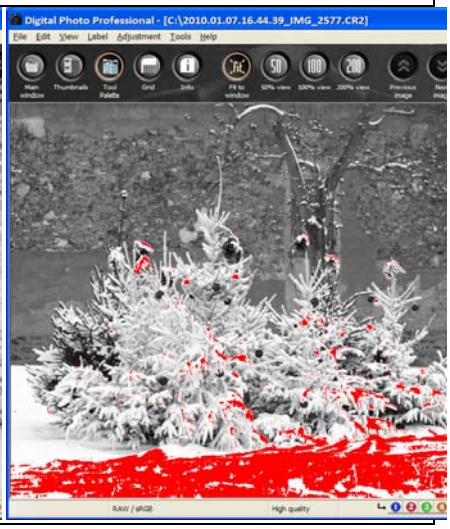
1. Use this button to adjust the exposure so as to locate the center of mass of the histogram as near as possible to the center. This is for shots taken in normal conditions of lighting.
2. Use this button to adjust the exposure so as the percentage of black pixels is as minimum as possible. Useful for night shots.
3. Use this button to adjust the exposure so as the percentage of white pixels is as minimum as possible. Useful for snow shots for instance.
4. Use this button to adjust the exposure so as the percentage of white pixels and black pixels are both as minimum as possible. Useful in most cases. However you will probably need after that to adjust the white and black points in the RAW histogram to improve contrast.

2.8. Channel Views Extensions

Channel views extensions allow to see a preview of each color channel (Red, Green, Blue) of the image. Overexposure and underexposure warnings, based on each color channel can also be displayed.

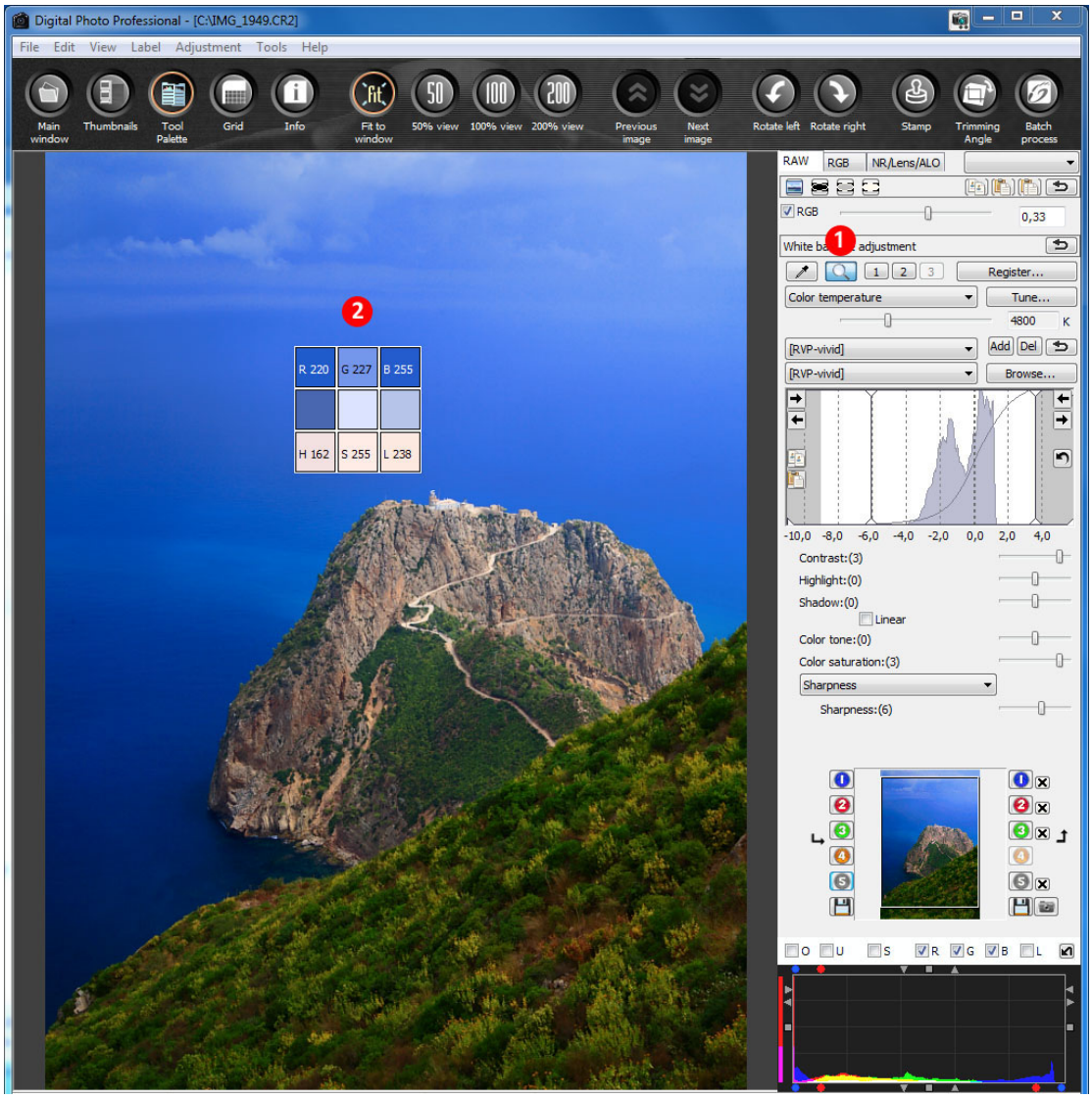
1. Use this button to return to normal view (display of the 3 color channels).
2. Use this button to display a preview of the RED channel.
3. Use this button to display a preview of the GREEN channel.
4. Use this button to display a preview of the BLUE channel.
5. Use this button to display/hide a gray-level preview of the selected channel.
6. Use this button to display/hide overexposure warnings in the selected channel.
7. Use this button to display/hide underexposure warnings in the selected channel.



Gray-level preview of the RED Channel	*Gray-level preview of the GREEN Channel*	*Gray-level preview of the BLUE Channel*
		
Colored preview of the RED Channel	*Colored preview of the GREEN Channel*	*Colored preview of the BLUE Channel*
		
Gray-level preview of the RED, GREEN and BLUE Channels	*Gray-level preview of the RED Channel with overexposure and underexposure warnings*	*Gray-level preview of the BLUE Channel with overexposure and underexposure warnings*
		

2.9. Magnifier Tool

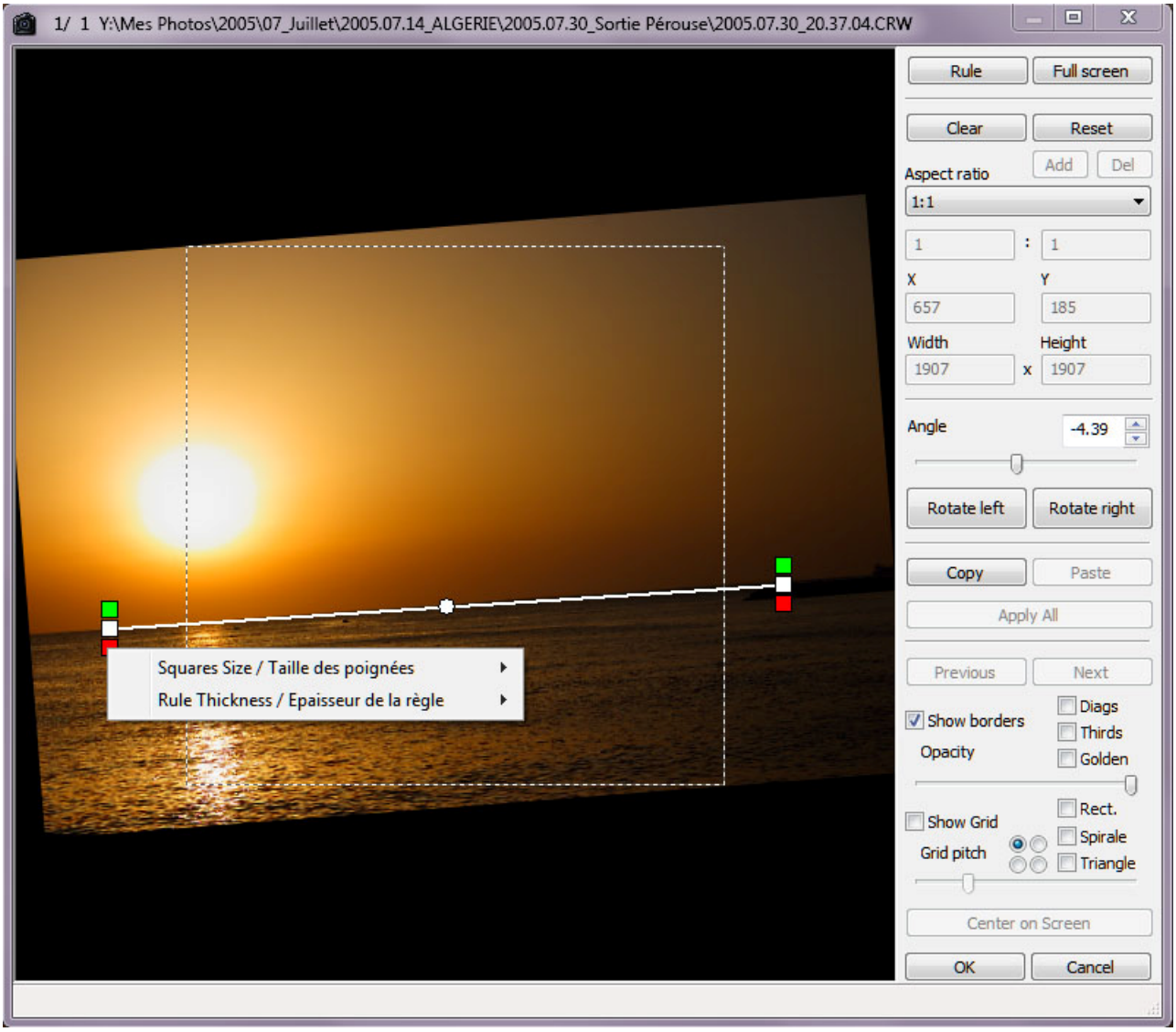
The magnifier tool allows to see at a big size the current pixel under the mouse cursor and its 8 direct neighbors pixels. It also displays the RGB (Red, Green, Blue) and HSL (Hue, Saturation, Luminosity) values of this pixel, as it is displayed on the screen (not from the picture file). This may be useful when looking for a particular pixel to adjust custom white balance, or when checking over or under exposed pixels.



1. Use this button to enable or disable the magnifier tool.
2. Move the mouse over the picture. This matrix follows automatically the mouse cursor movements. It displays at the center of the matrix the current pixel under mouse cursor and around its neighbors pixels. It displays also the RGB (Red, Green, Blue) and HSL (Hue, Saturation, Luminosity) values of the pixel at the center. These values are calculated directly from the pixel as it is displayed on the screen, not from the picture file.

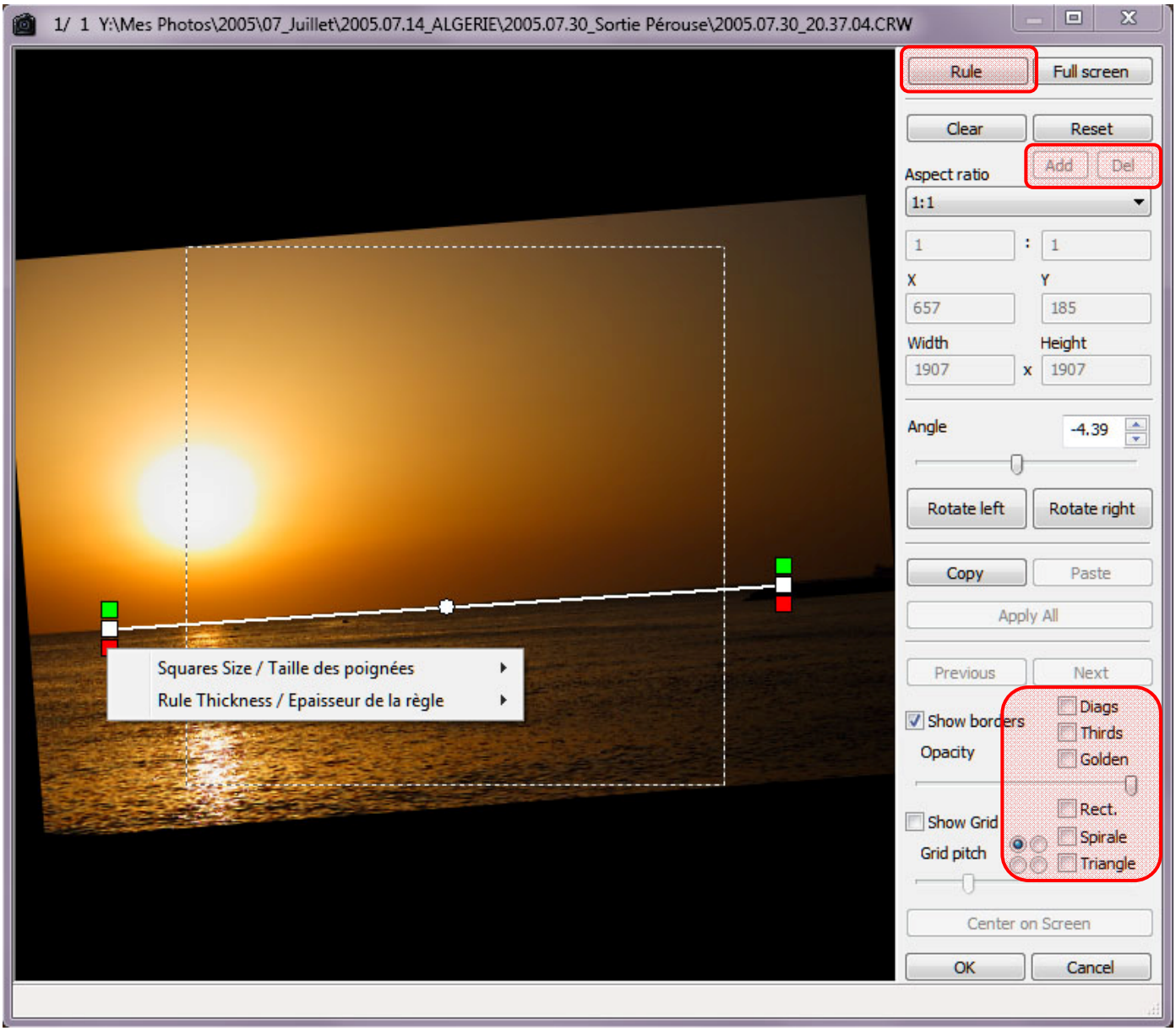
Note that when the magnifier tool is enabled, the matrix appears automatically when the mouse cursor is over the picture and disappears automatically when it leaves the picture window.

3. Trimming Tool Extensions



The Trimming Tool extensions consist mainly in 3 functions:

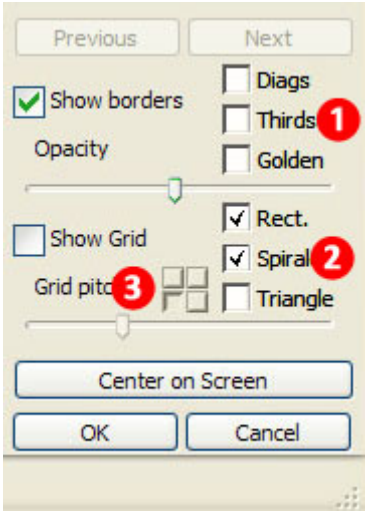
1. The composition guides.
2. The rule tool.
3. The crop ratios extensions



3.1. The Composition Guides

DPP++ adds 6 composition guides to DPP Trimming Tool:

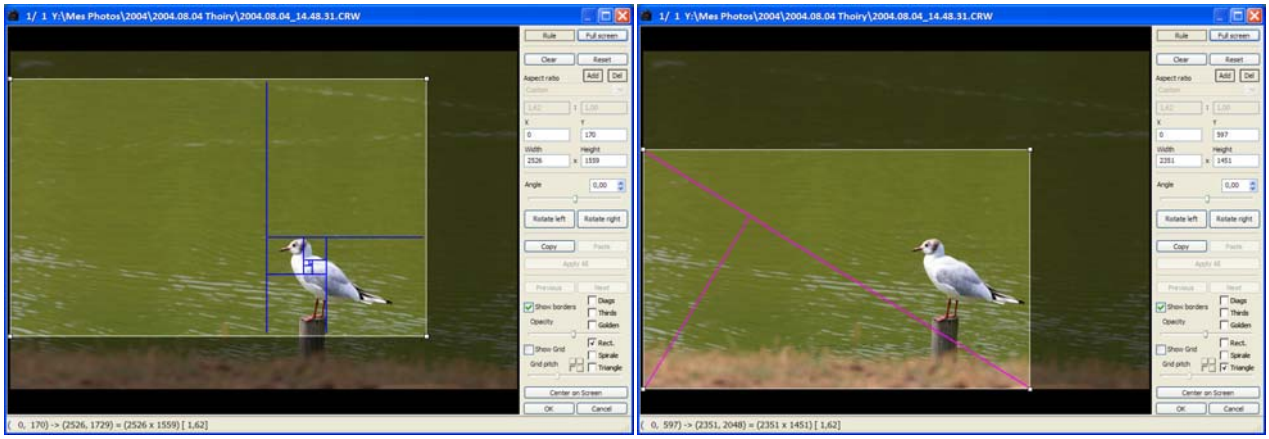
- Diagonal Lines
- Rule of Thirds Lines
- Golden Lines
- Golden Spiral
- Golden Triangles
- Golden Rectangles



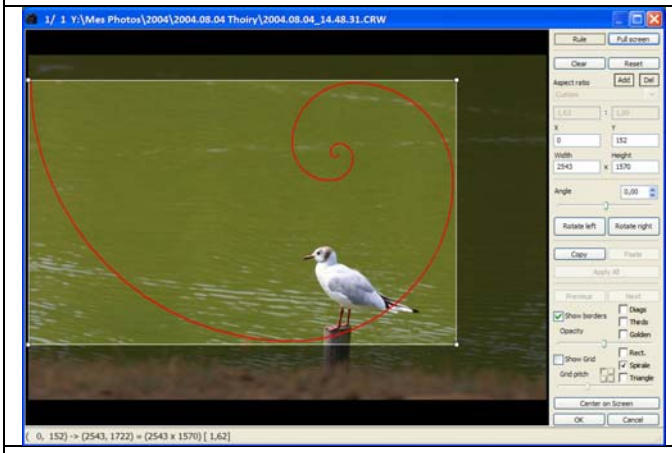
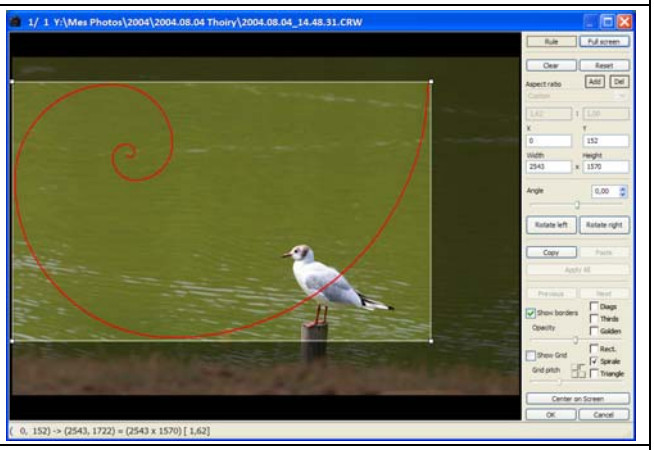
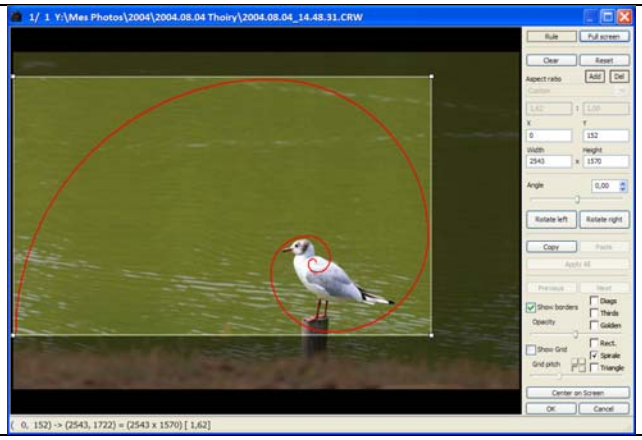
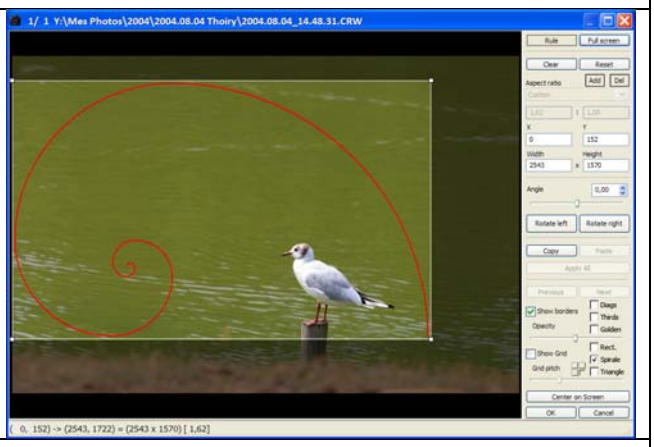
1. These checkboxes allow to display the “Diagonal Lines”, the “Rule of Thirds Lines” and the “Golden Lines”
2. These checkboxes allow to display the “Golden Rectangles”, the Golden Spiral” and the “Golden Triangles”.
3. When using “Golden Rectangles”, Golden Spiral” or “Golden Triangles”, you have to choose from which corner the drawing starts. These four buttons allow to choose the start corner.

If you are not familiar with the composition methods, you can read the following page:
Golden Section and Photography

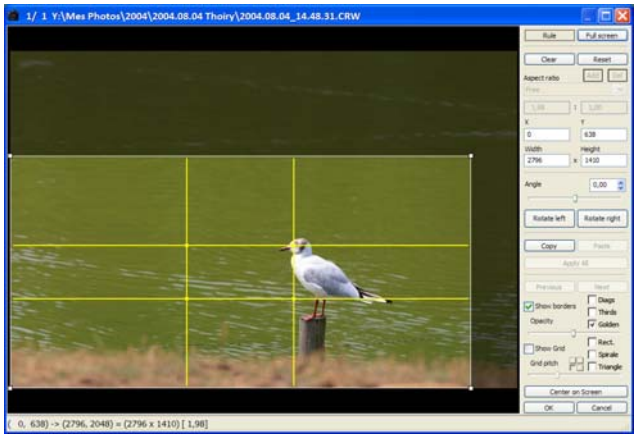
3.1.1. Golden Rectangles and Golden Triangles

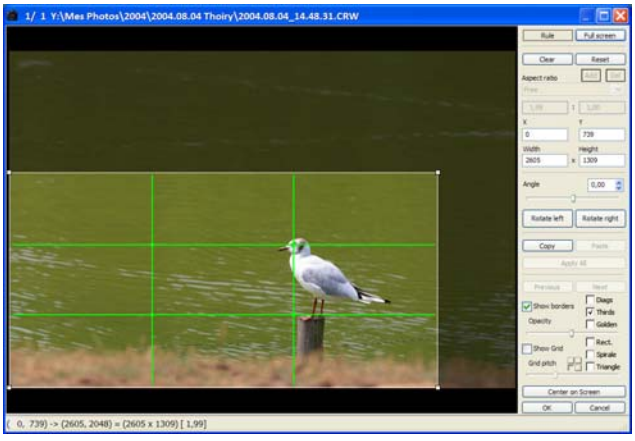


3.1.2. Golden Spirals

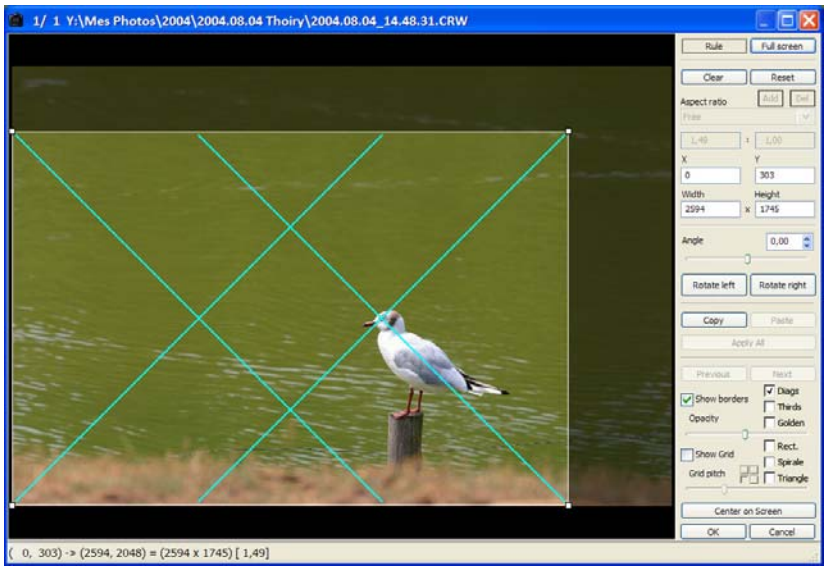
SPIRAL STARTING FROM THE UPPER LEFT CORNER	SPIRAL STARTING FROM THE UPPER RIGHT CORNER
	
	
SPIRAL STARTING FROM THE BOTTOM LEFT CORNER	SPIRAL STARTING FROM THE BOTTOM RIGHT CORNER

3.1.3. Golden Lines and Thirds Lines





3.1.4. Diagonal Lines



3.1.5. A tip on using the golden spiral or golden rectangle guides

When you use the golden spiral as a guide of composition, and if you have the choice to define a crop ratio (for instance if your image is to be displayed on the web and not to be printed on a particular format paper), it is better to define a crop ratio of 16,18:10 or 10:16,18 to achieve the best possible approximation of a golden spiral. This ratio is the golden ratio.

Don't define the ratio as 1,618 : 1 or 1:1,618 because DPP will replace it by 1,62:1 or 1:1,62.

3.2. The Rule Tool

The rule tool allows to correct the angle of a picture by adjusting a line on the horizon or on a vertical wall in the picture.

3.2.1. How to use the rule

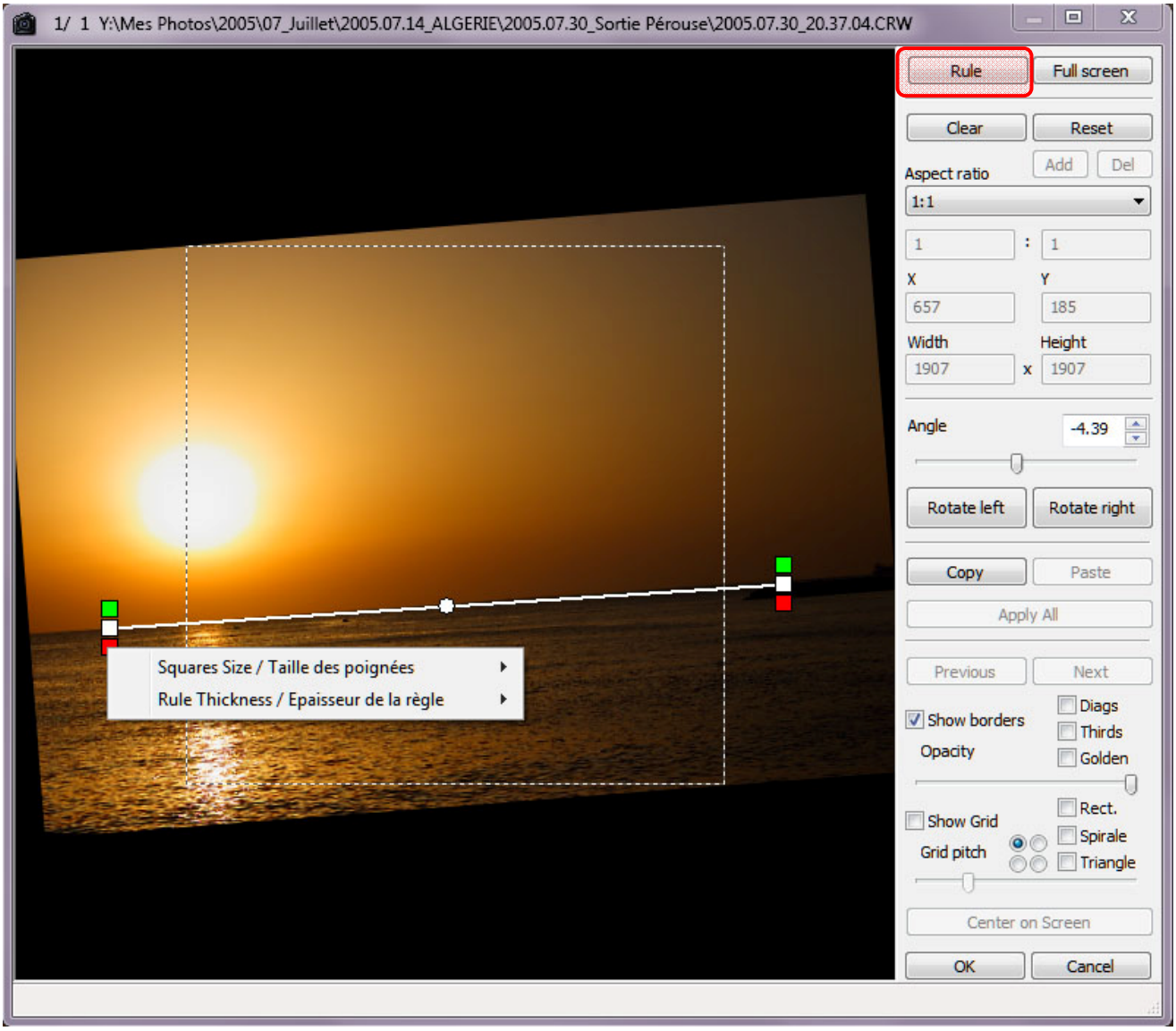
- Launch the Trimming/Angle Adjustment Tool of DPP.
- Click on the “Rule” button to show/hide the rule.
- Click on the white squares to adjust the rule on the horizon.
- Click on the green squares to apply the rotation.
- Click on the red squares to hide the rule.

A faster method to use the rule is:

- Click on the central circle to move the whole rule.
- SHIFT-Click on the white squares to rotate the rule around its center.

3.2.2. Configuration

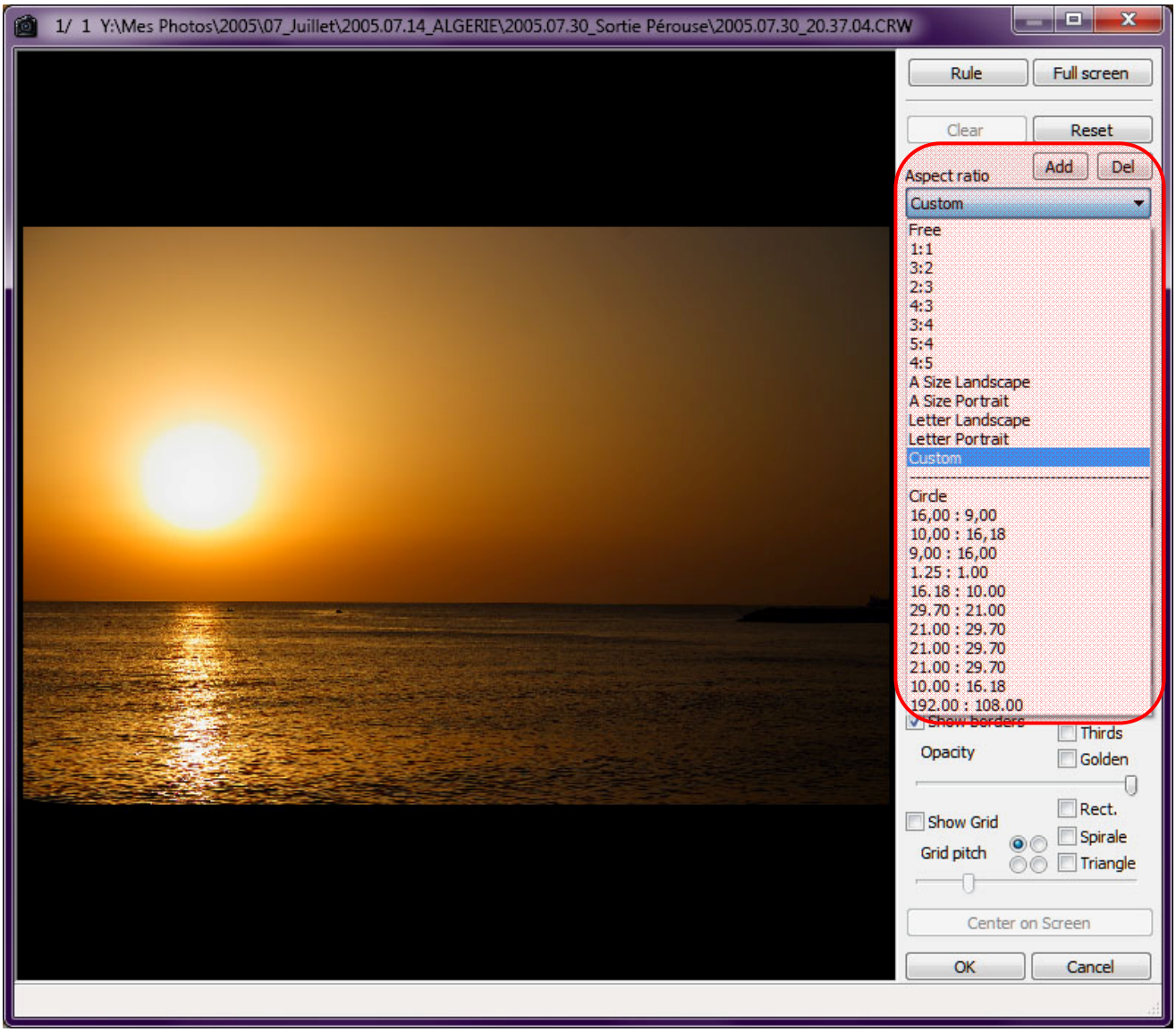
RIGHT-Click on the squares. A menu appear allowing you to choose the squares size and the rule thickness.



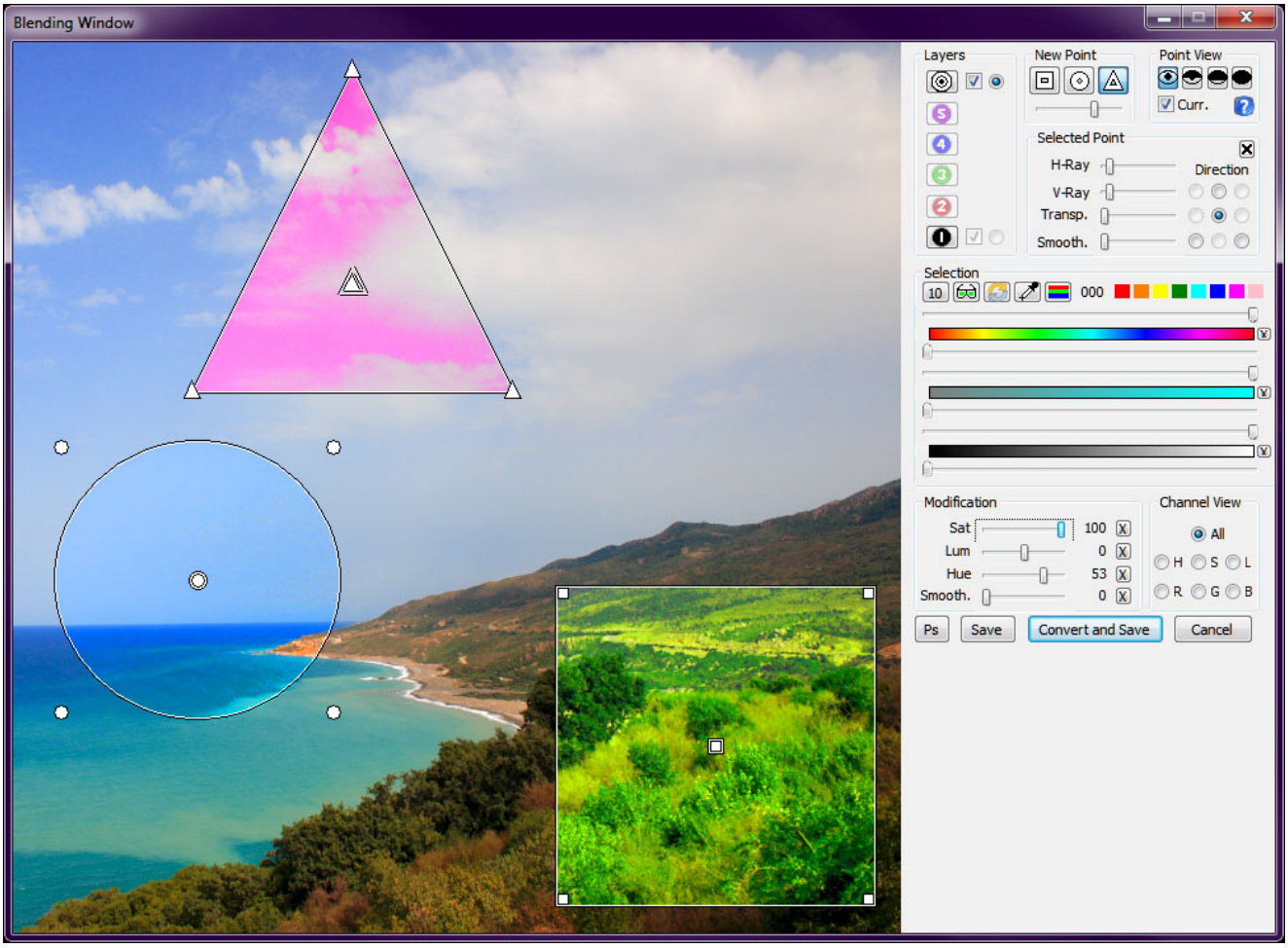
3.3. The Crop Ratios Extensions

The crop ratio extensions allow to save your custom crop ratio, so as you don't need to enter them each time you need them. They are automatically added to the predefined DPP crop ratios list.

- Choose Custom in the Aspect Ratio combo box and enter the values of the new ratio.
- Click on the “Add” button to save the new aspect ratio. It is then automatically added to the list of aspect ratios.
- Click on the “Del” button to remove a previously saved aspect ratio. You cannot remove predefined aspect ratios.



4. Local Adjustments and Blending Extensions



4.1. What are local adjustments?

Local adjustment is the technique that allows to process a part of the image differently from the rest of the image. For instance, to lighten the shadows in a given part of the image or to decrease the saturation of reds in another part. In DPP++, local adjustments consist mainly into 2 steps:

- **Selection:** this step consists in defining the pixels of the image you want modify.
- **Modification:** this step consists in defining the changes you want to apply to the selected pixels.

4.1.1. Selection

The selection step aims at defining as precisely as possible the pixels that you want to modify. In DPP++, you can use 2 types of selections to choose these pixels:

- Spatial Selection: you can indicate the location of the pixels you want to modify thanks to the 3 available types of control points: rectangles, circles, triangles. Try to be as precise as possible when defining your control points because the smaller the control points are, the faster the processing will be (since there will be less pixels to process).

- Color Selection: for a more precise selection you'll need in general to combine the spatial selection with color selection, which means that you can for instance select only the red pixels in a given location of the image. In DPP++, there are 6 colors parameters you can combine to select the desired pixels
    1. *Hue:* you can select pixels based on their color hue (red, blue, cyan, orange, etc.).
    2. *Saturation:* you can select pixels based on their color saturation.
    3. *Luminosity:* you can select pixels based on their luminosity (highlights, shadows, etc.).
    4. *Red:* you can select pixels based on their red value.
    5. *Green:* you can select pixels based on their green value.
    6. *Blue:* you can select pixels based on their blue value.

Of course, you can combine all these factors as you like, for instance to select pixels in a given location of the image that have a green hue, very saturated, and dark.

4.1.2. Modification

The modification step consists in defining which changes you want to apply to the selected pixels. In DPP++ you can modify 3 parameters : Hue, Saturation, and Luminosity.

Combining these 2 steps allows to achieve numerous processing, for instance:

- select only the pixels that are not very saturated and increase their saturation
- select only the pixels that are very saturated and decrease their saturation
- increase the saturation for all colors except the skin
- change the hue of trees from green to red
- etc.

Important Note

All processing done during local adjustments are applied to the converted pixels produced by DPP. This means that the local adjustments are applied to the RGB data, not the RAW data.

4.2. What is blending?

RAW files use often 12 or 14 bits to code the light information. They usually contain more data than a single conversion process can display. For instance, sometimes in DPP, you can produce either a conversion where the sky is well exposed but the ground is underexposed, or a conversion where the ground is well exposed but the sky is overexposed. So the RAW file contains the needed information but DPP cannot extract it in one single raw conversion.

The technique of blending consists in producing several conversions from the same RAW file and then to merge them into one single image, so as to have all parts of the image well exposed. This technique can also be applied in other cases, for instance when the picture contains several different light sources, that requires different white balances.

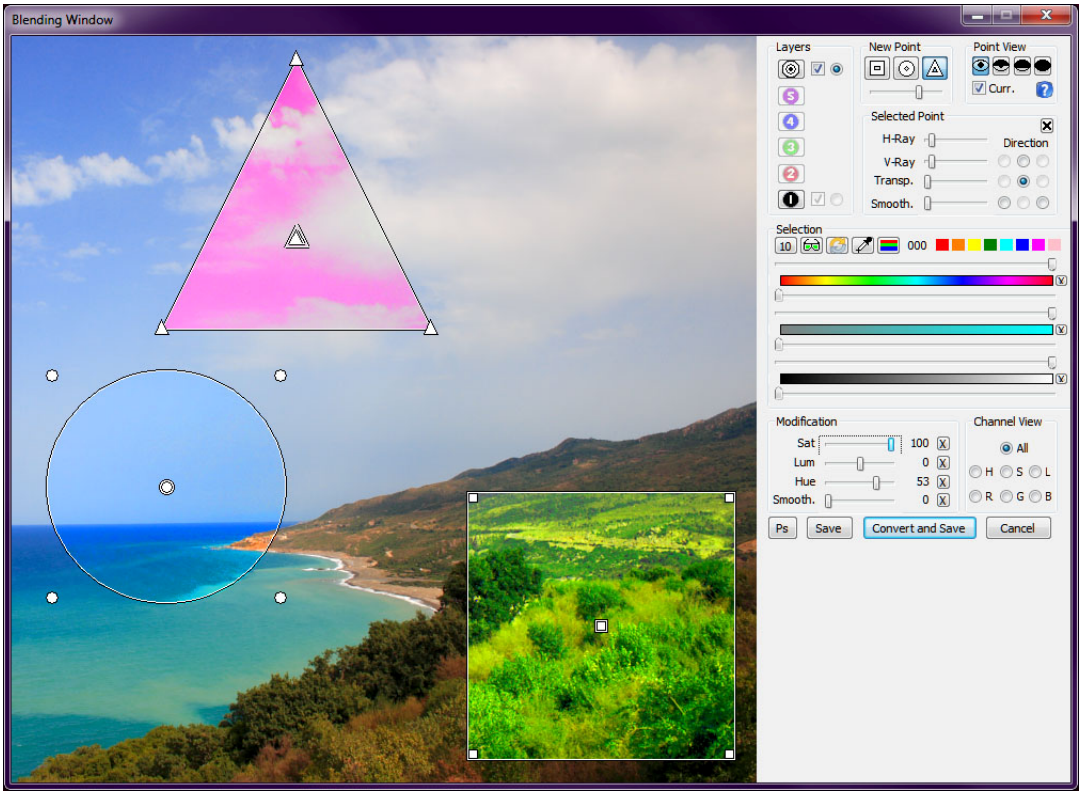
DPP++ allows to create and merge until 5 different RAW conversions. Each conversion will produce a layer and then thanks to the DPP++ control points you can indicate which layer to use in which part of the image.

4.2.1. Before / After Comparisons

Here are some pictures comparing before and after conversions using the blending feature of DPP++. All the before pictures were converted using the neutral picture style with all cursors at 0.

4.3. Control Points

Control points allow to choose the part of the image that will be affected by the blending or the local adjustment. In DPP++, 3 types of control points are available : rectangles circles, triangles. Note that the currently selected control point is indicated by a thicker border at its center.



4.3.1. How to create a new control point

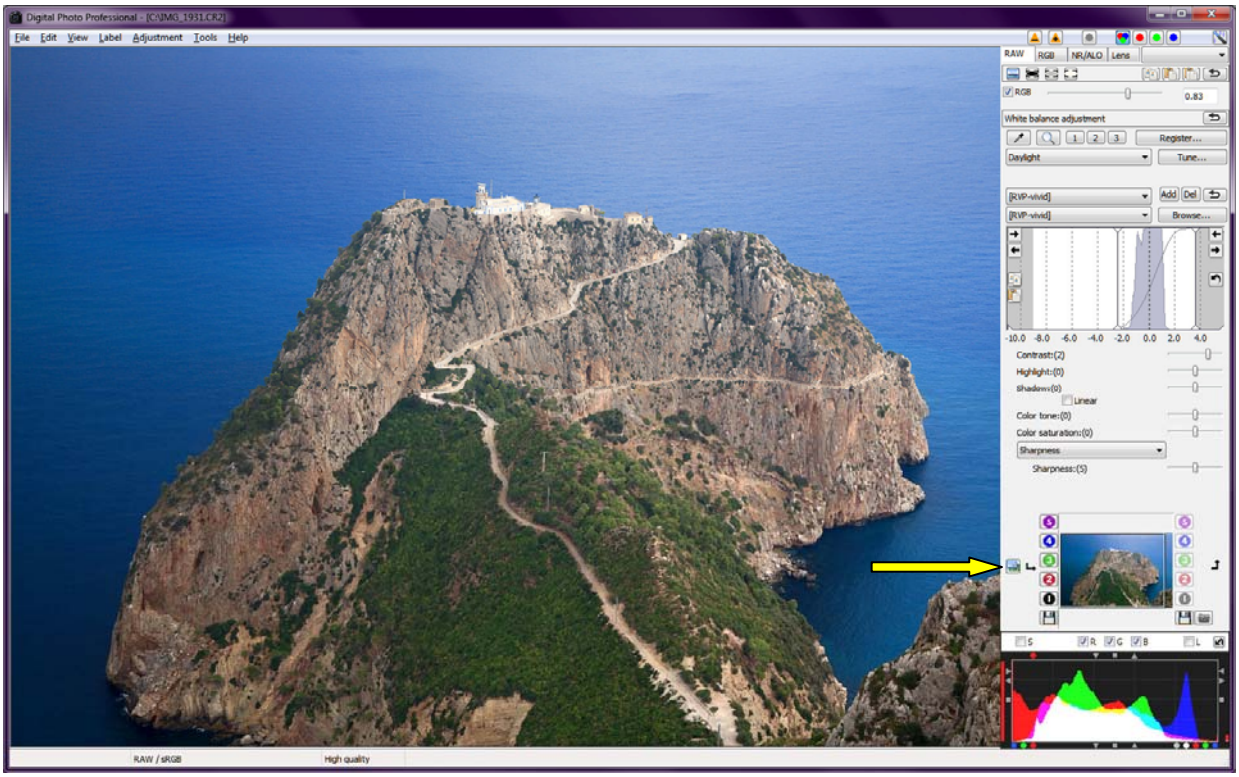
To create a new control point, first select the type of control point you'd like to use (See "New Point Group Box" Section below), then select a layer to which the control point will belong (See "Layers Group Box" Section below) and finally click where you'd like to create the control point on the picture. The selected layer should be active, which means that its checkbox must be checked.

4.3.2. Operations on control points

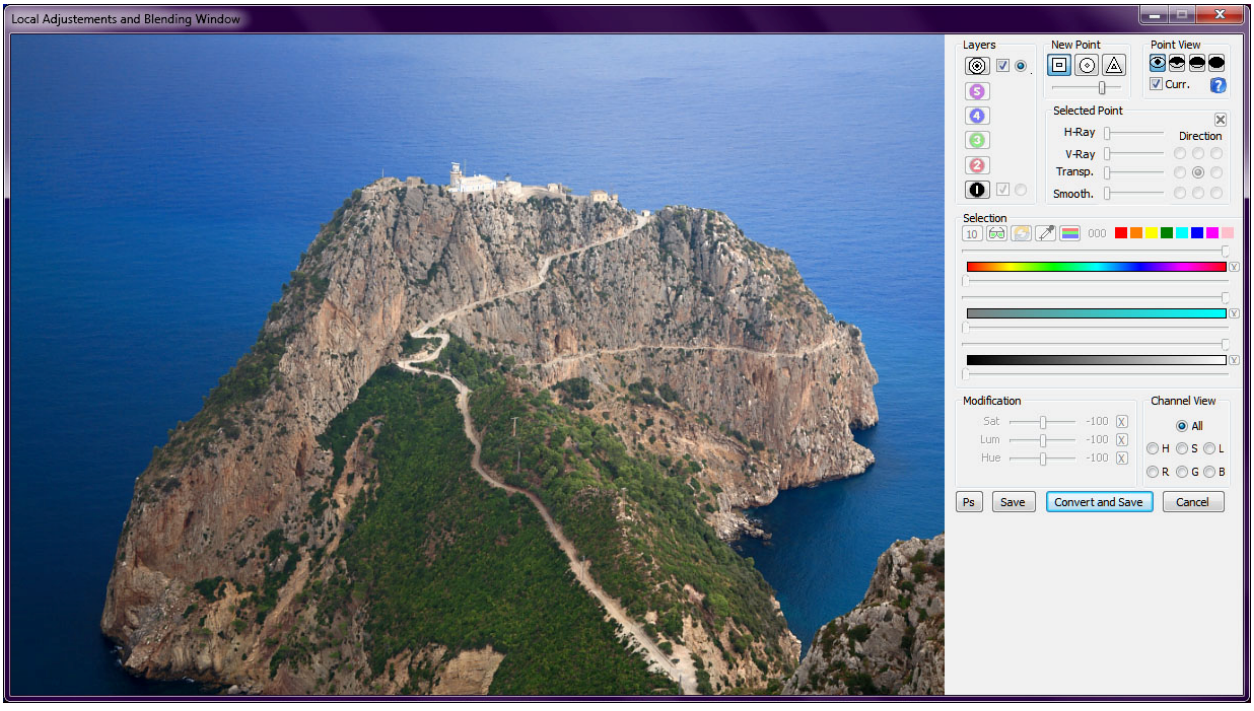
- Drag the center of a point to change its position.
- Drag a corner of a point to change its size.
- A simple click on a point's center changes its view mode (See "Point View Group Box" Section below).
- SHIFT-Click on a point changes its type (rectangle, circle, triangle).
- ALT-Click on a point hides/shows the other control points.
- CTRL-Drag the center of a point to duplicate the control point within the same layer.
- CTRL-C and CTRL-V allow to duplicate a point from one layer to another layer.
- Double-click on the center of a point enlarges it to the whole image.
- Double-click on the corner of a point enlarges it to the corresponding image corner.
- SHIFT-Drag a corner of a point changes its size in a symmetric way.

4.4. Short Local Adjustments Tutorial

To better understand what local adjustments are and how they work in DPP++, we start with a short tutorial before seeing in details each element of the interface. Here is the picture we will use in this tutorial.

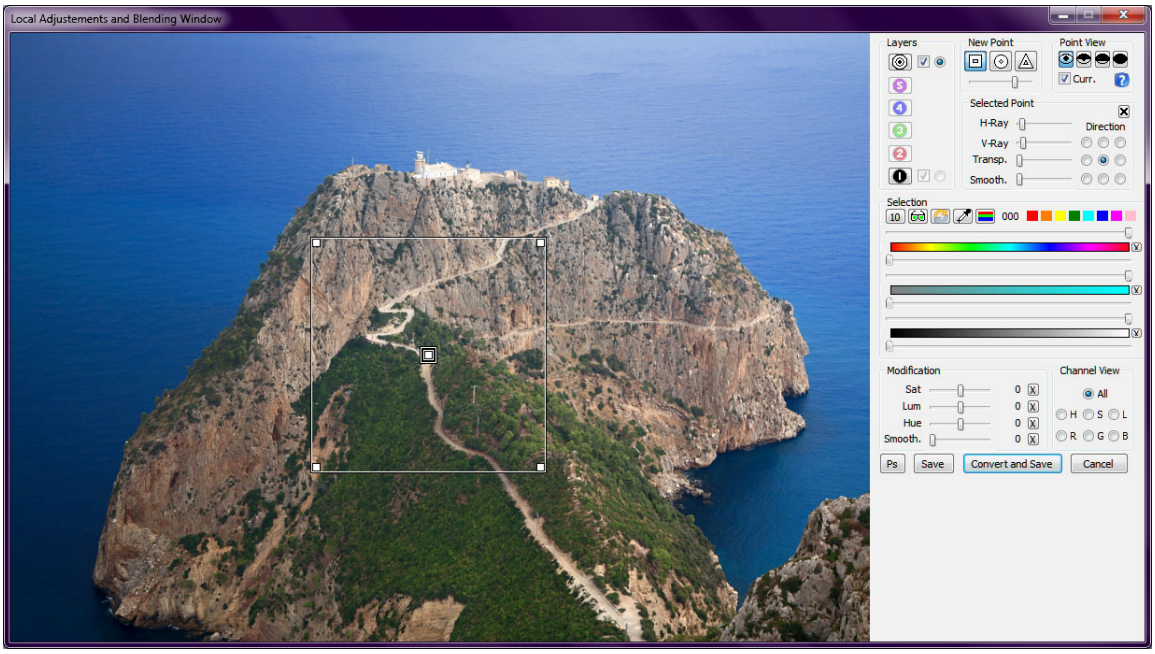


We start by calling the "Local Adjustments and Blending" window of DPP++. To do this, we click on the button indicated with a yellow arrow on the above picture.

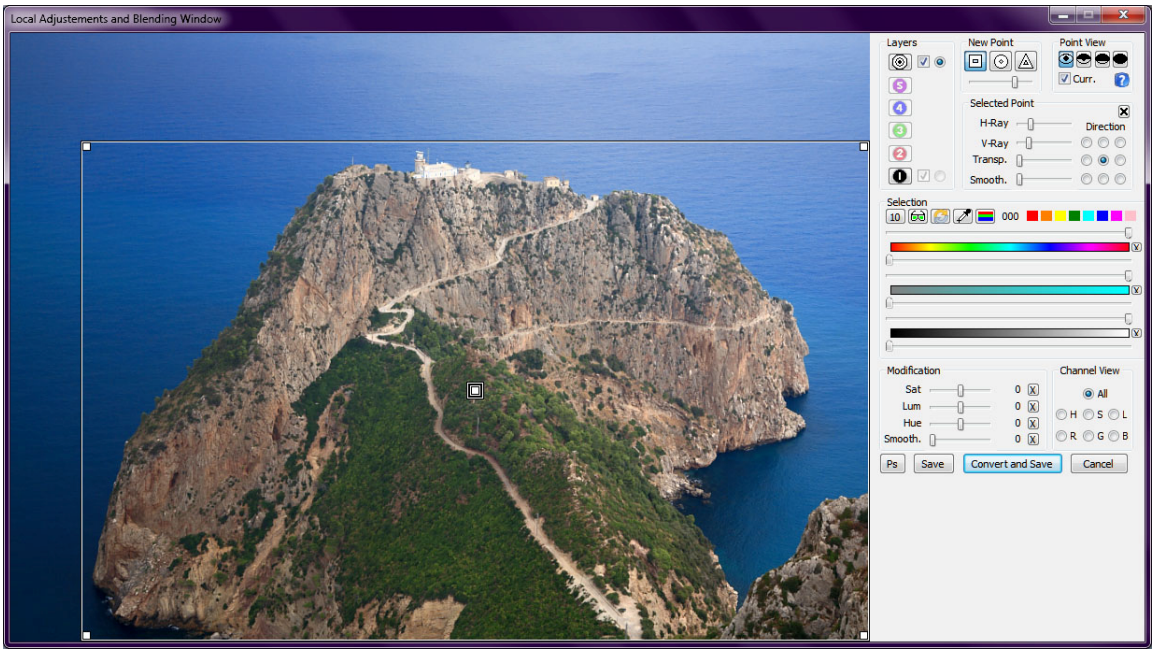


As we can see in the previous picture, 2 layers are already available for us: the bottom layer 1 and the top layer (without number). The layer 1 represents the background layer containing the picture (we will see the role of other numbered layers later). It is not possible to create control points on this background layer. This is why its checkbox and its radio button are grayed. The top layer without number is the layer that will contain the picture after local adjustments are applied. We will use this layer to create the control points for local adjustments.

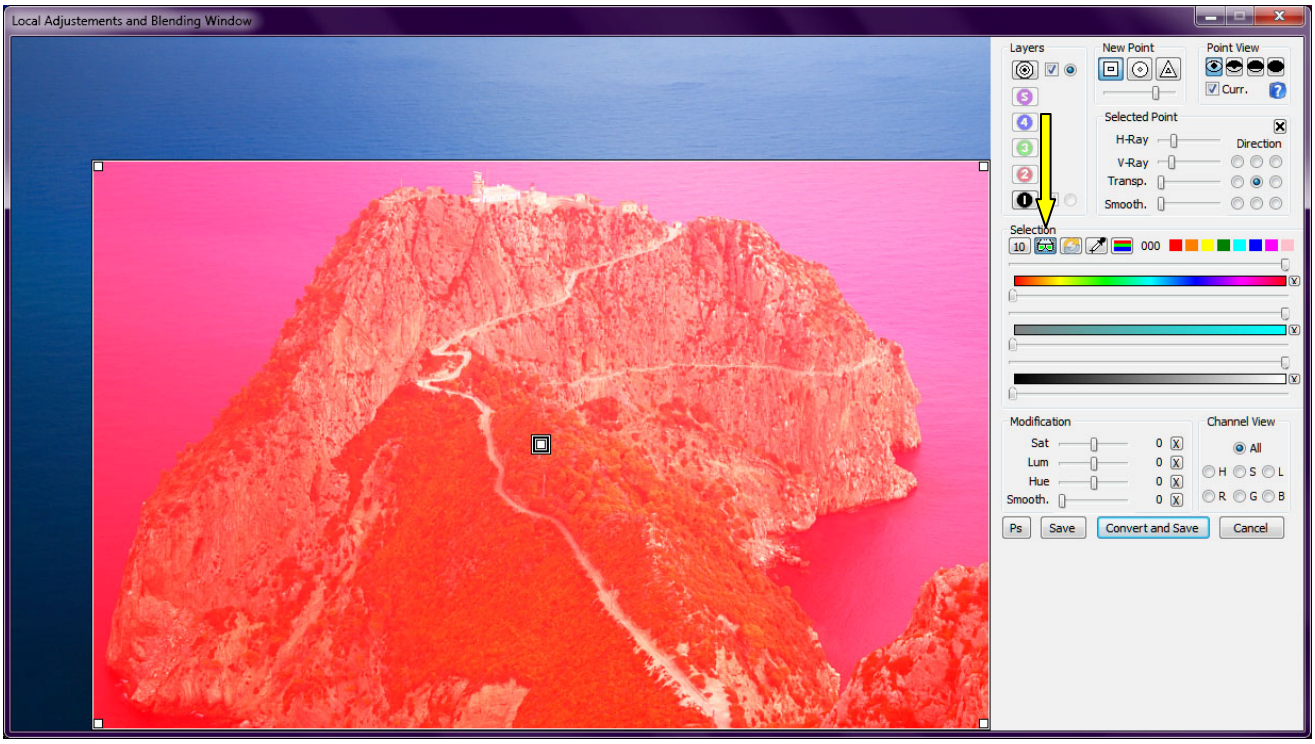
Let's suppose we want to make the colors of the trees more vivid without affecting the rest of the picture. We first create a control point on the top layer by clicking on the picture.



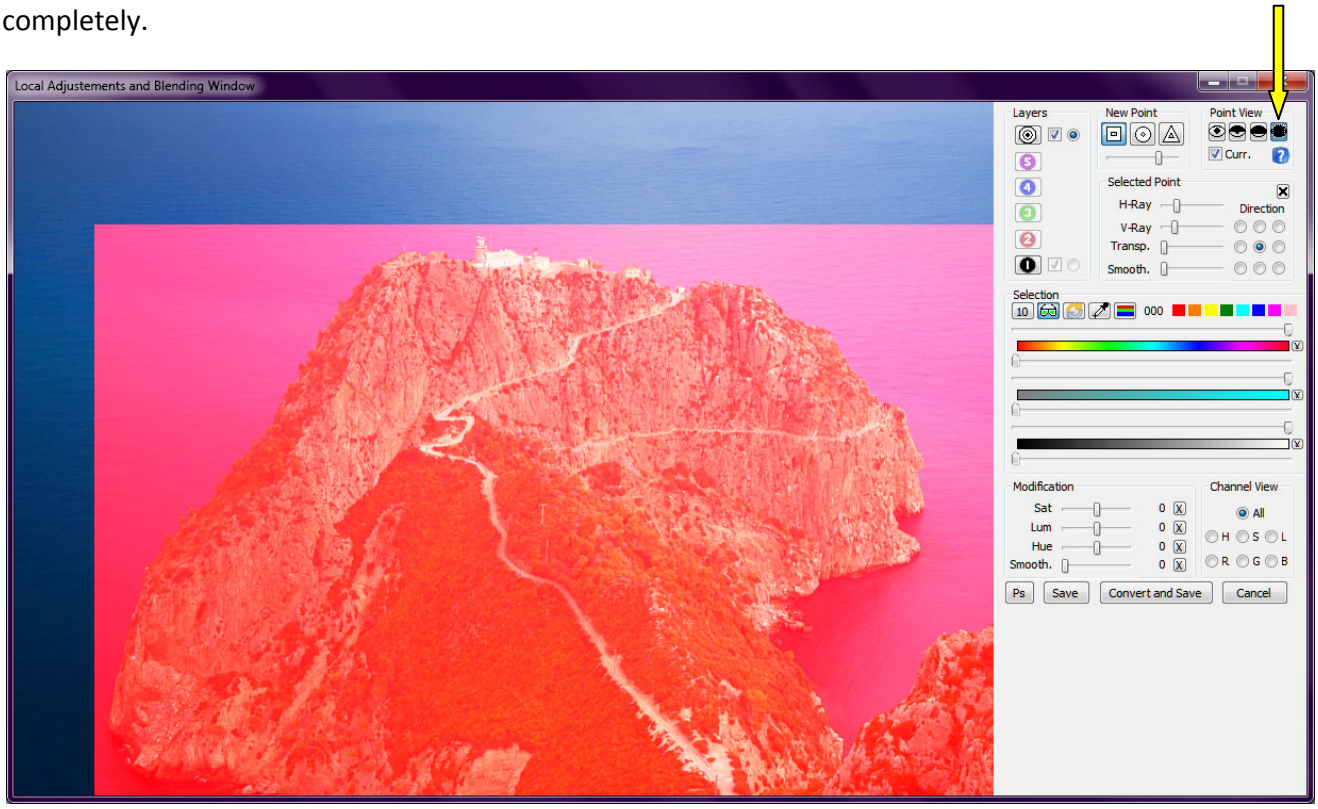
Then we change the size and position of the control point to cover all the trees. Note that it's better to increase the size of the control point just to cover what is needed because the smaller the control point is, the faster the processing will be (since there will be less pixels to process).



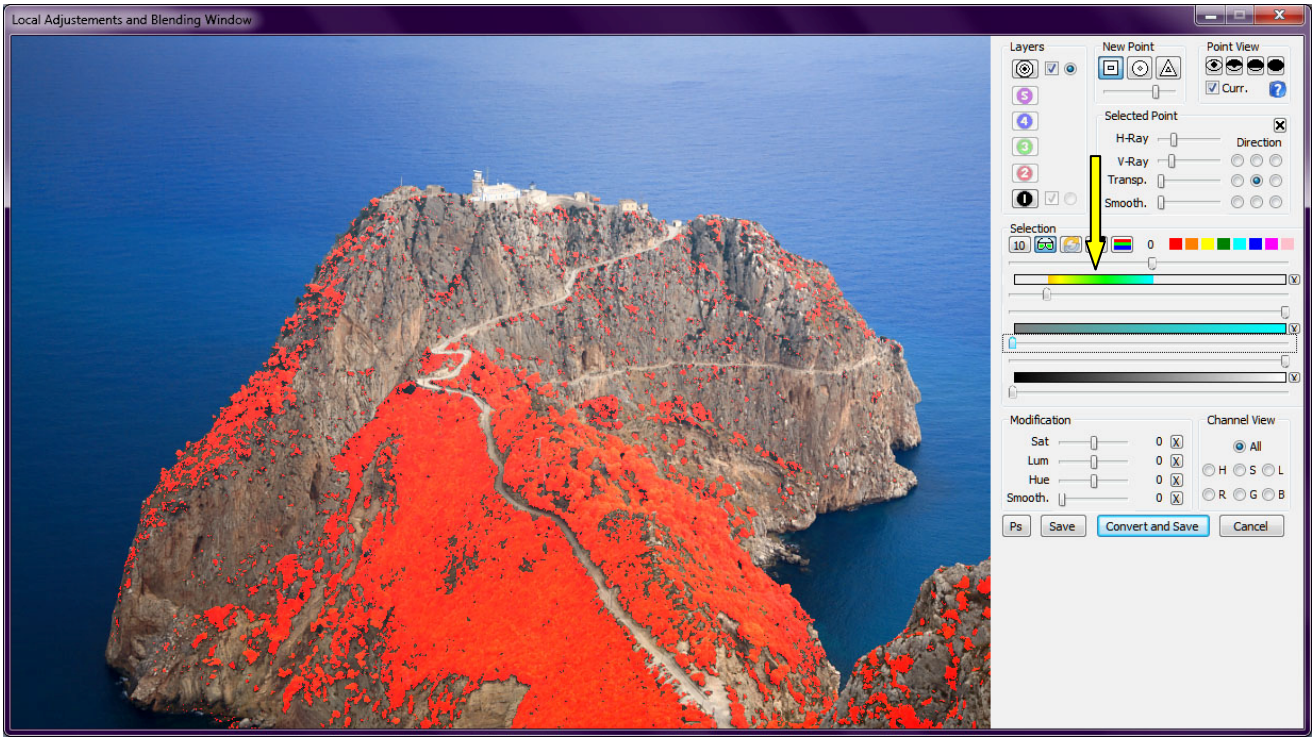
We can enable the mask feature (glasses button) to see the selected pixels. For the moment, all the pixels contained in the control point are selected.



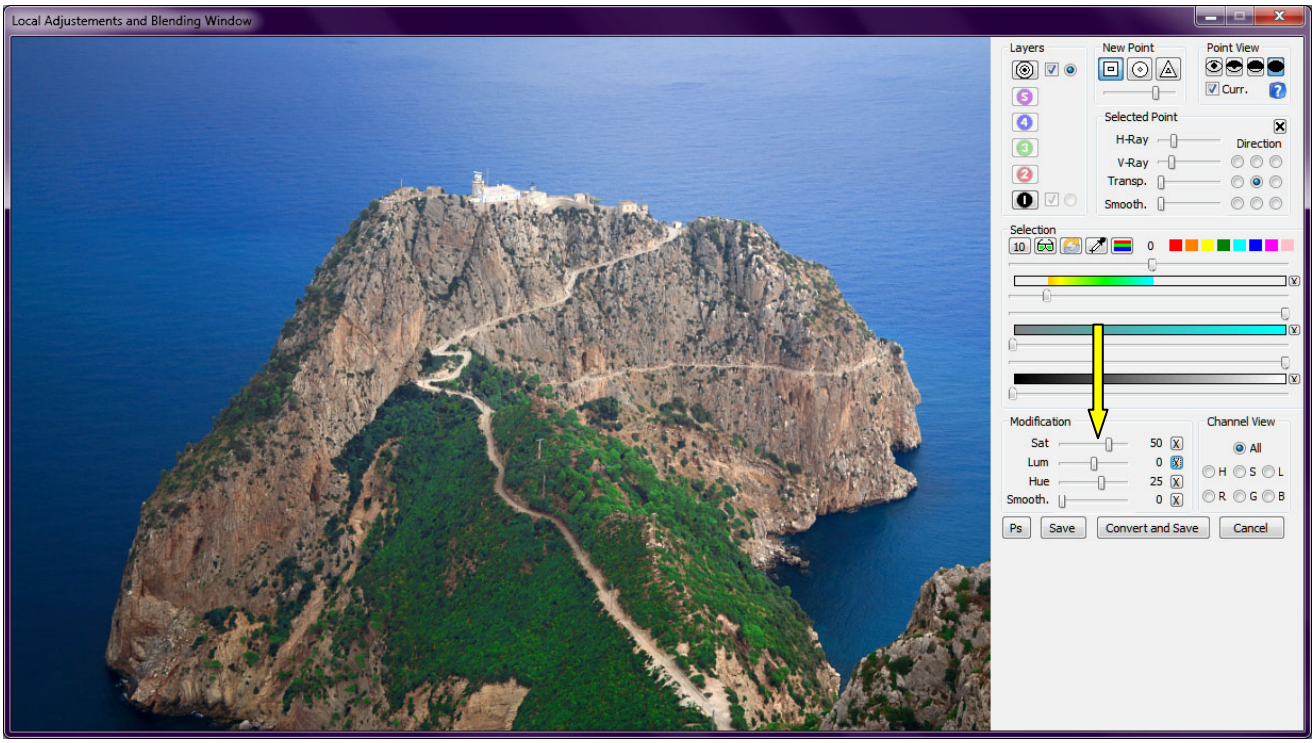
We can also change the view mode of the control point to better see our picture. Here we hide it completely.



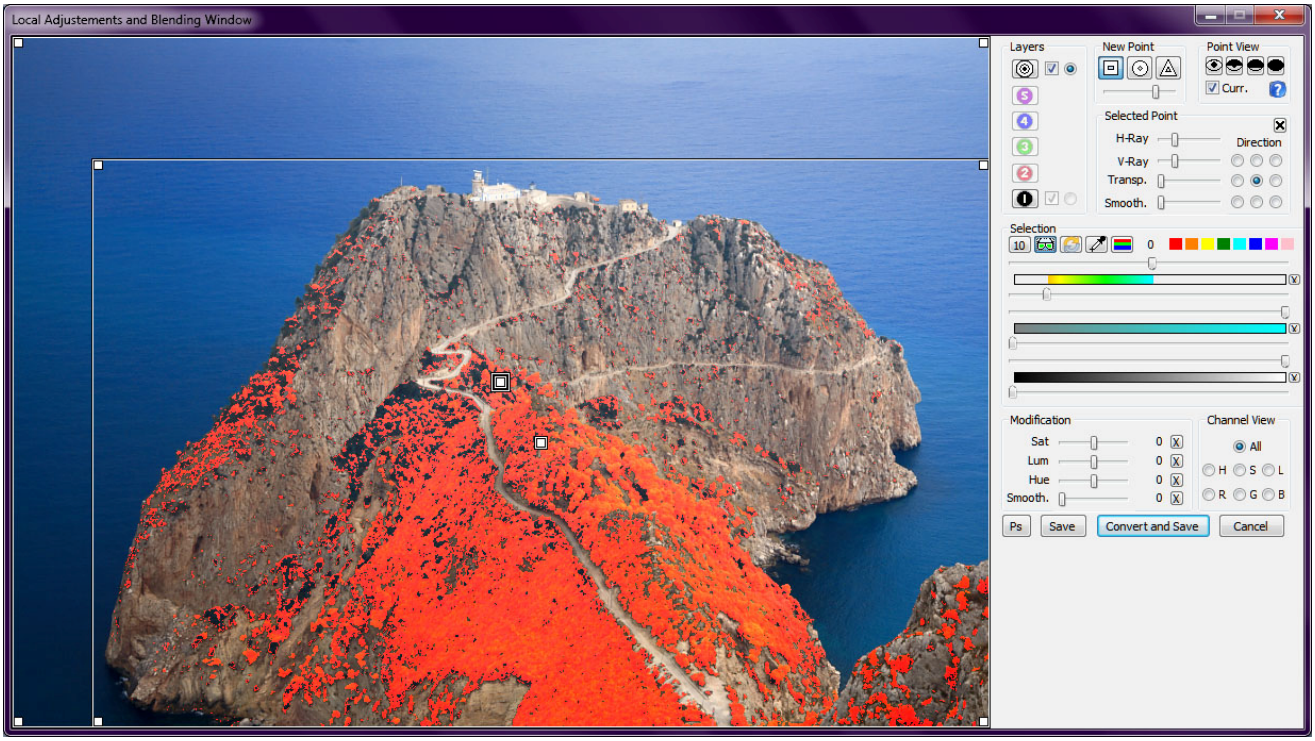
As the trees, here, are the unique elements of the picture that have a green hue, we choose to use the hue sliders to define our selection (in other cases, it is also possible to use other sliders: saturation, luminosity, etc. and even combine them to define the selection).



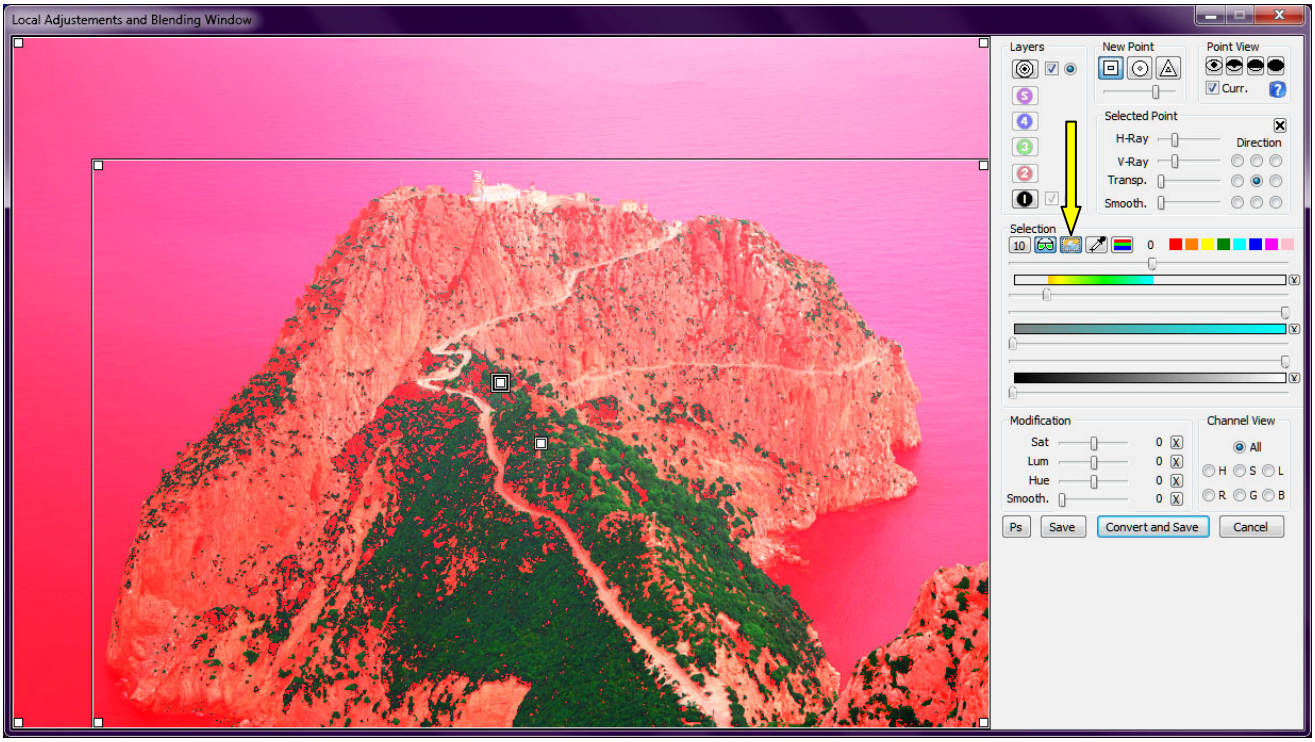
Now we disable the mask display and we change the hue (25) and the saturation (50) of our selection to make it more vivid. That's it.



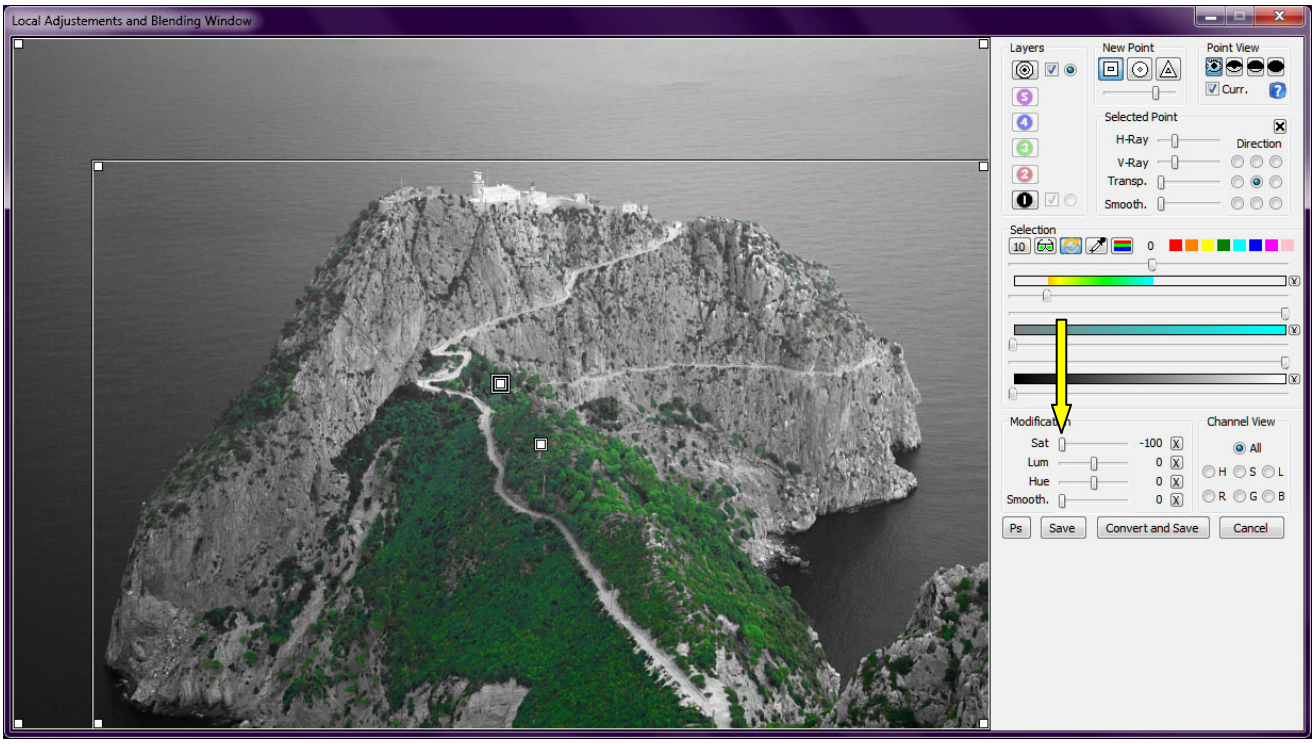
Let's suppose now we want to put all our picture in black and white except the trees. To do this, we start by duplicating (CTRL-C, CTRL-V) our previous control point (to retrieve the same selection) and increase the size of this new control point to cover the whole picture. Note that we did also come back to the full view of control points and did enable again the mask display.



Since we want to put in black and white all the picture except the trees, we have just to invert the selection of our new control point by clicking on the invert button.



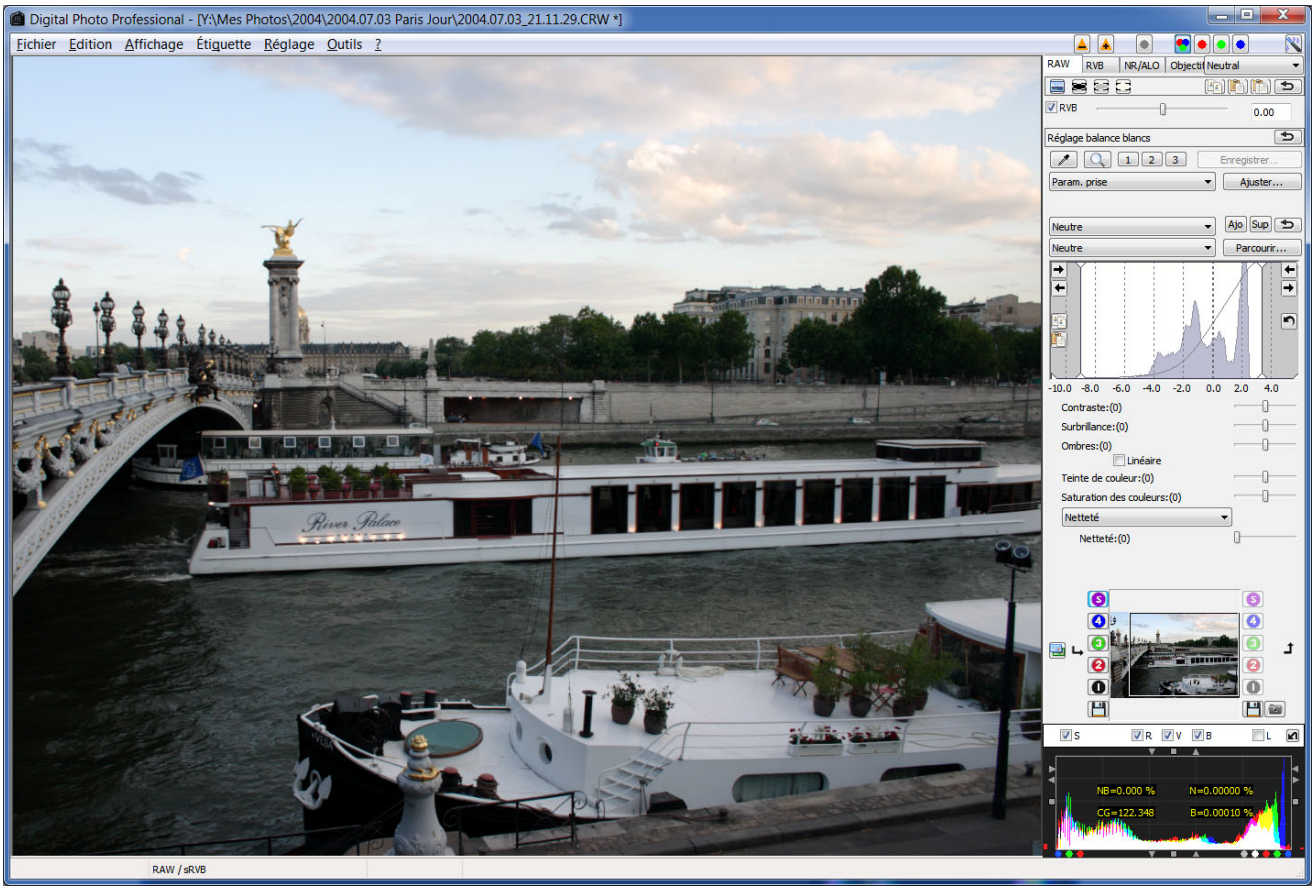
Now all the picture is selected except the trees. So we have just to decrease the saturation to achieve what we want (and disable the mask display).



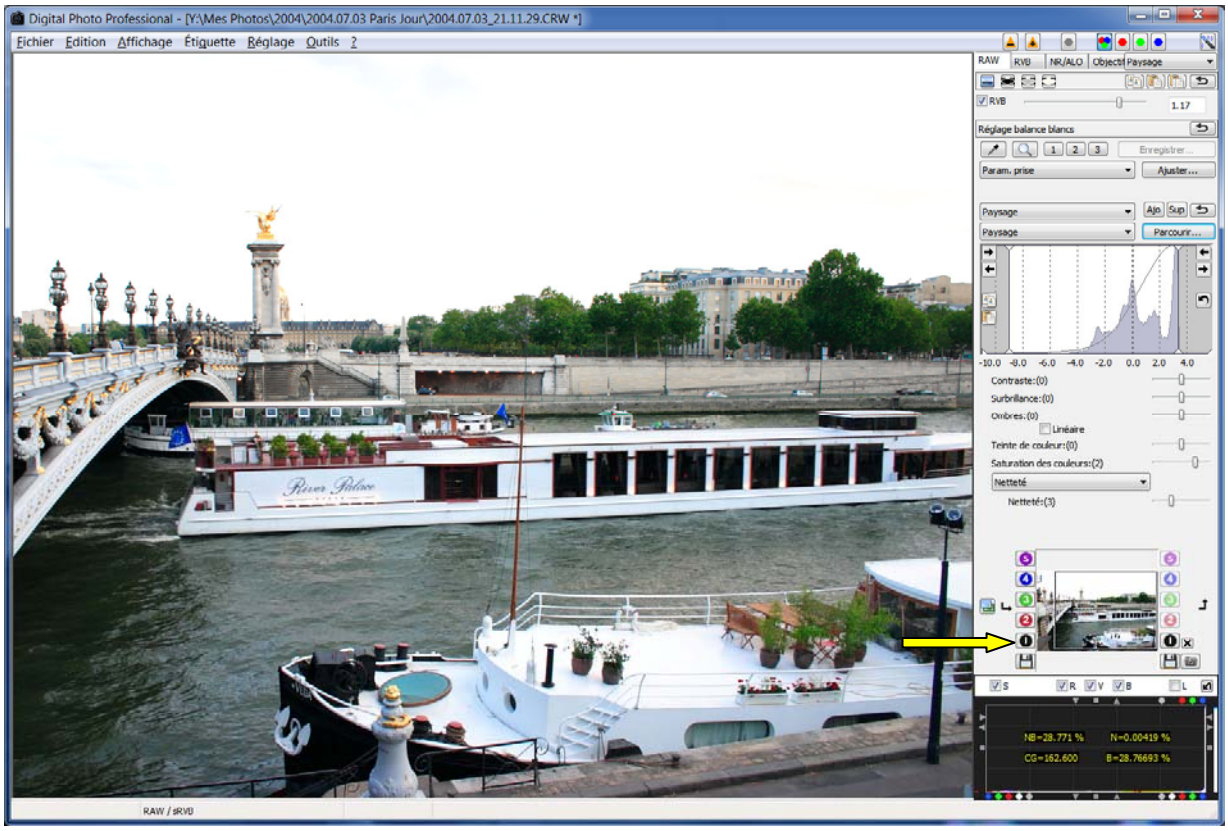
4.5. Short Blending Tutorial

To better understand what blending is and how it works in DPP++, we will start with a short tutorial before seeing in more details each element of the interface.

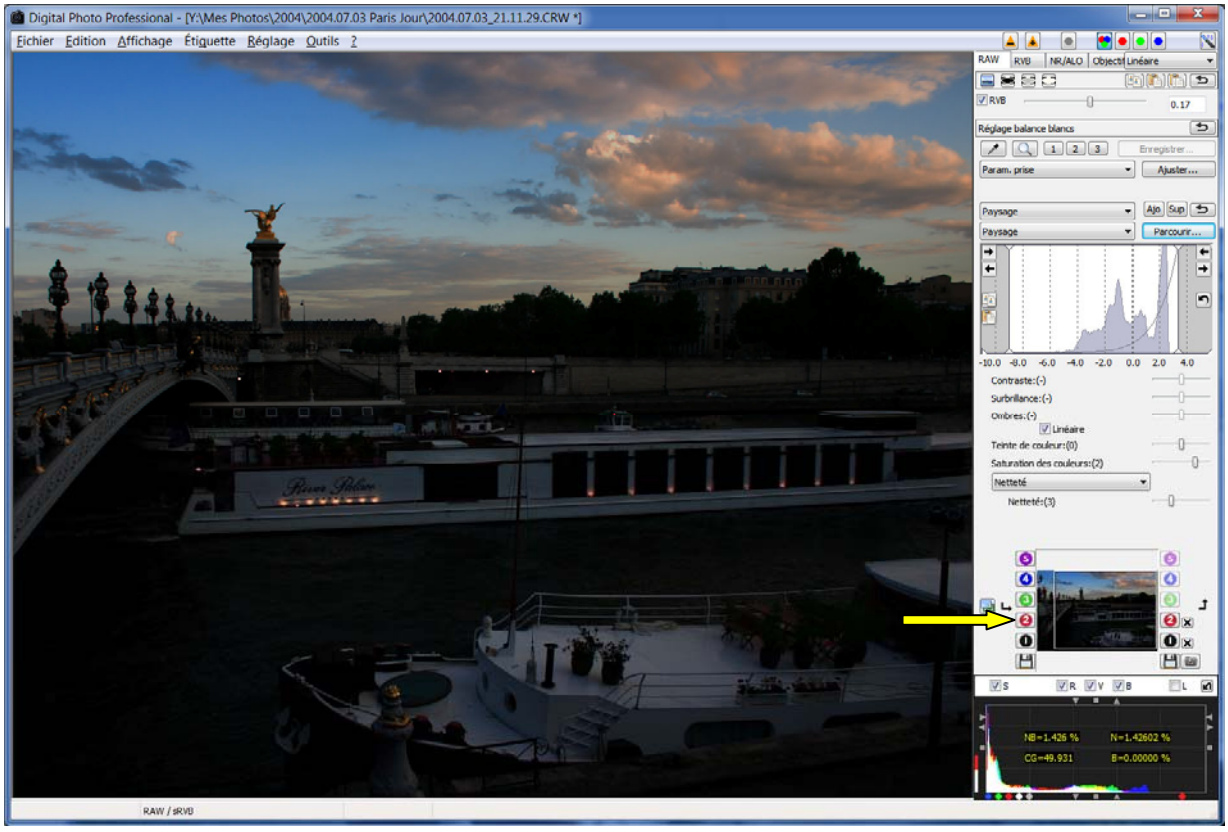
Here is the picture (neutral style with all cursors at 0) that we will use in this tutorial.



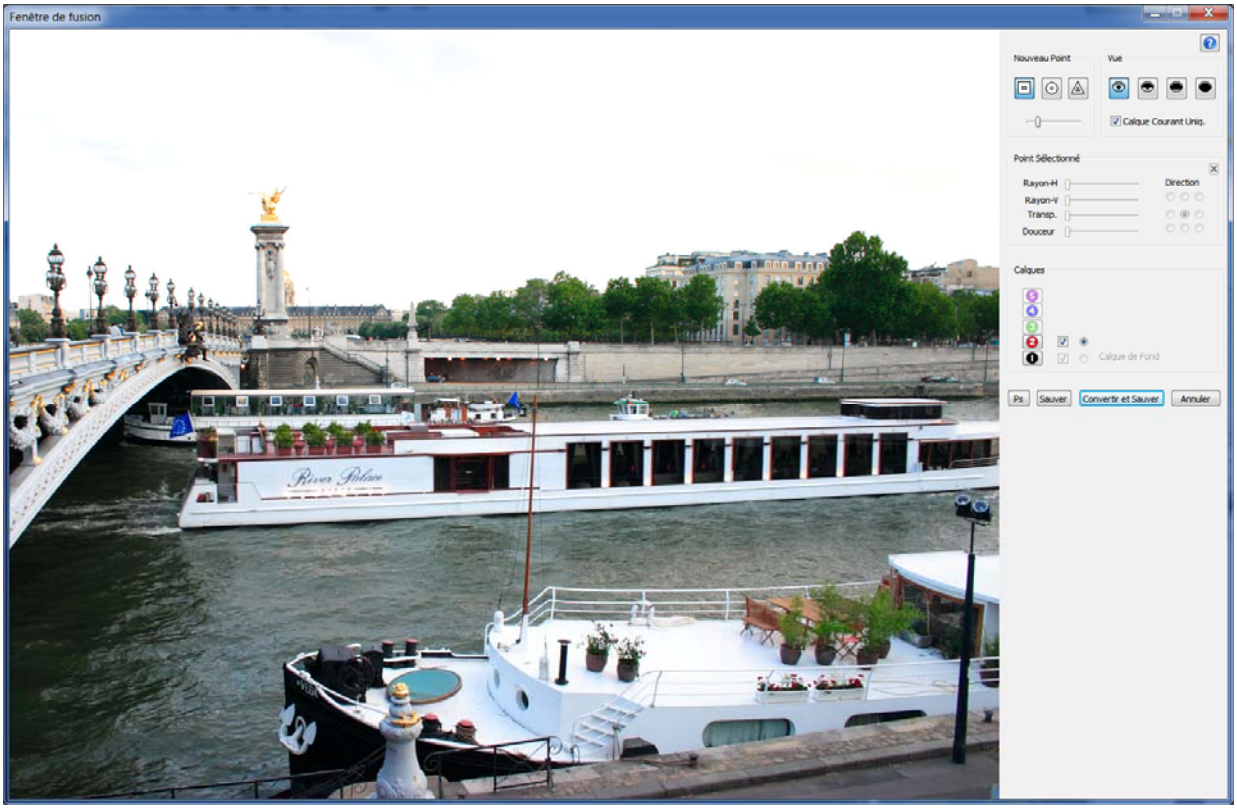
We start by creating a first conversion of this shot by using the "Landscape" picture style and by adjusting the exposure so as the ground is well exposed. Note that in this first conversion we don't mind if the sky is overexposed as we will create another conversion for the sky later. We save this first conversion as a snapshot in the black button 1.



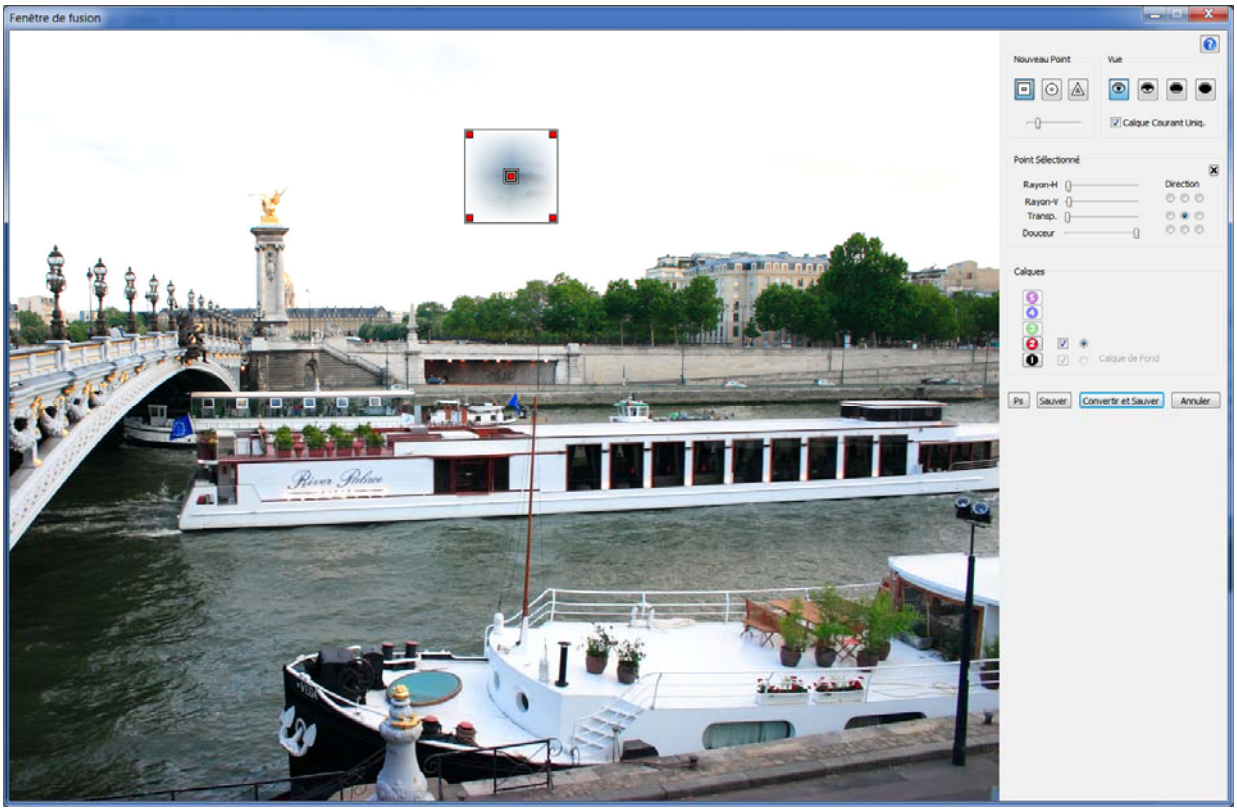
Then, we create a second conversion so as the sky will be well exposed. For this purpose we use the linear mode of DPP which is very efficient to retrieve highlights. Note that this time we don't mind if the ground is underexposed as we have already created a first conversion for the ground. We save this second conversion as a snapshot in red button 2.



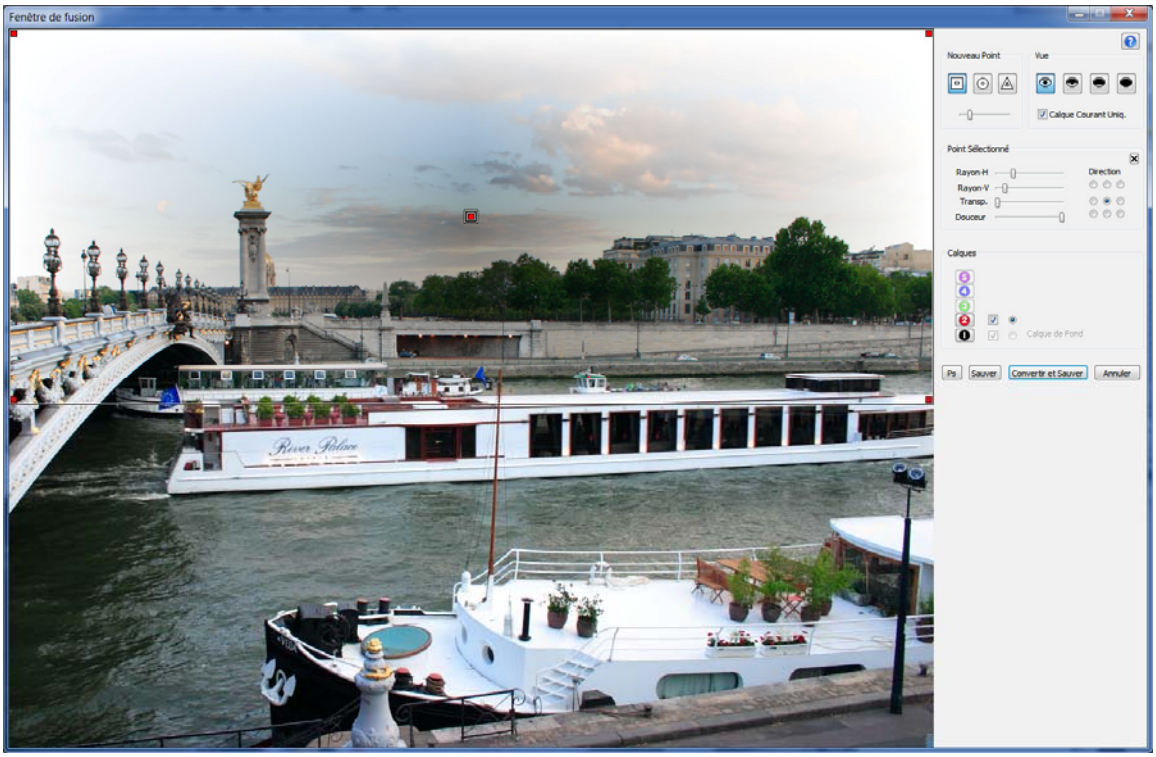
Then we call the "Local Adjustments and Blending" window of DPP++. For the moment, only the first layer corresponding to the first conversion is visible.



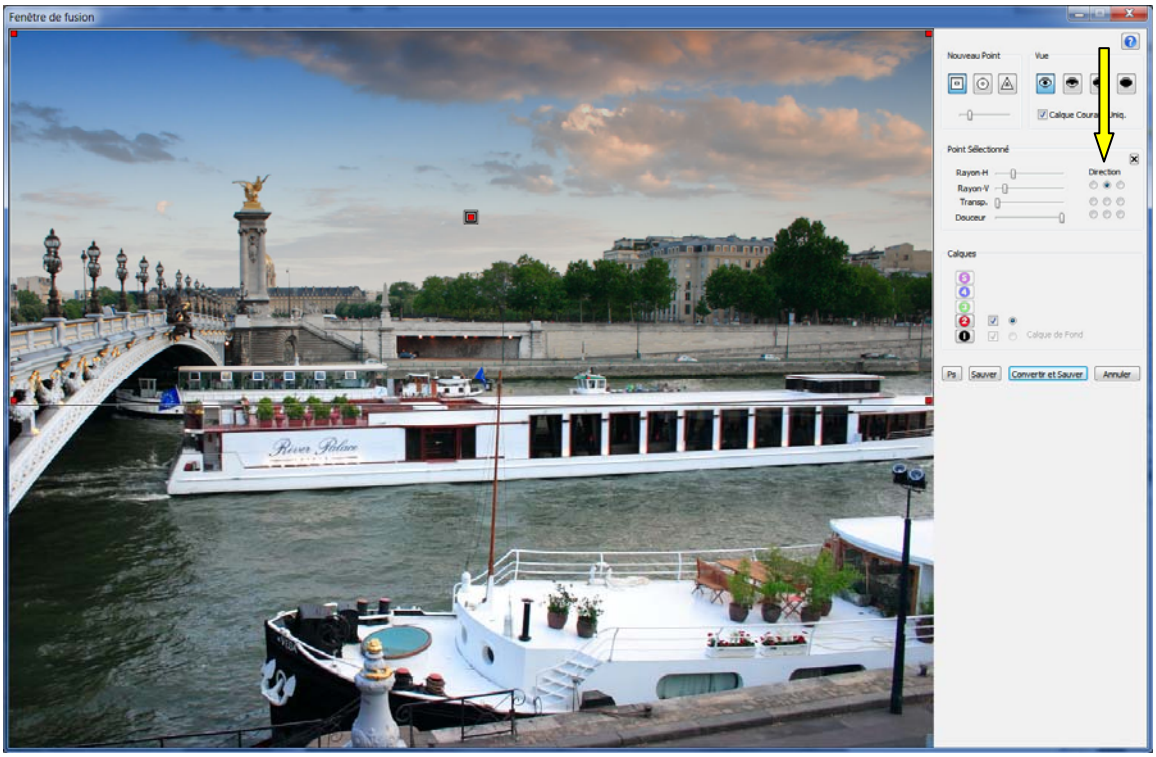
Now, we create a control point in the second layer corresponding to the second conversion (for the sky). As we can see, a small part of the sky starts to be visible.



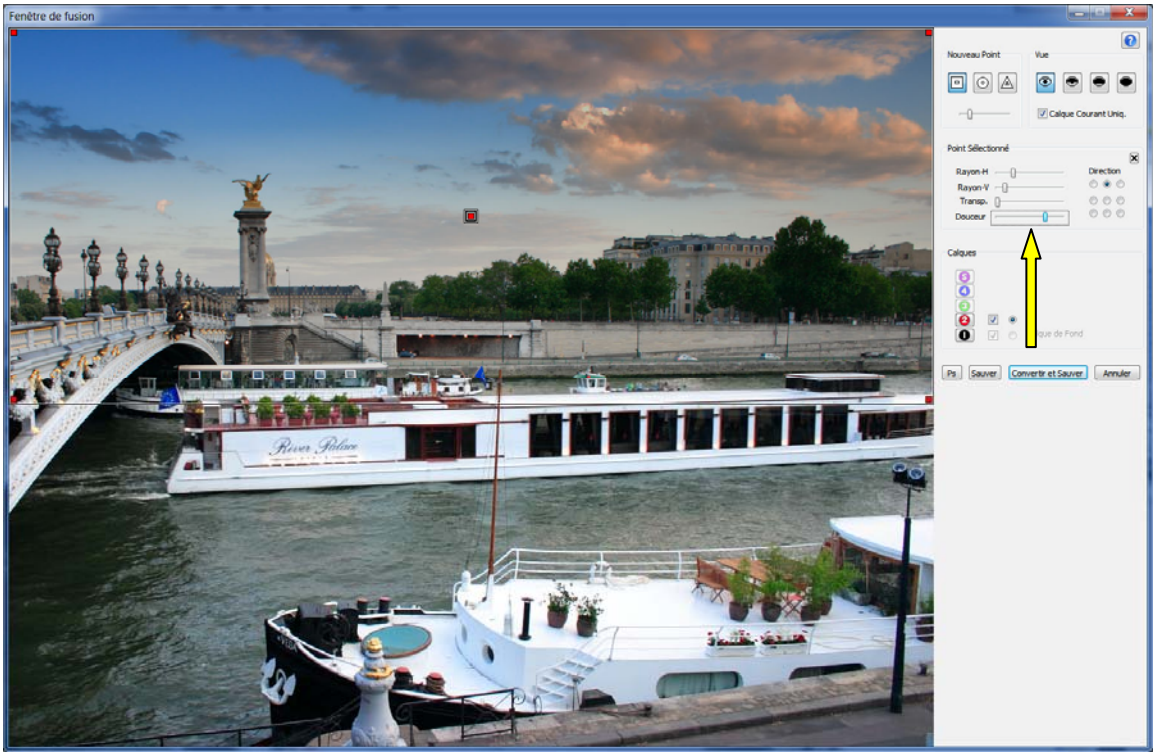
We then increase the size of the control point to cover all the sky.



As we can see in the picture above, the sky is well visible in the center of the control point but its visibility decreases when we start to leave the center towards the borders. This is due to the blending direction that is central by default. To have a more visible sky, we need here a blending direction that starts from top to down, which means that at the top of the picture we will see the layer 2 and when we move down, the layer 2 (sky) will disappear progressively while layer 1 (ground) will appear progressively.



For the moment the progression of the blending is linear. If we want to give the sky a stronger presence, we can decrease the smoothness slider.



And here is the final resulting picture.

4.6. "Local Adjustments and Blending" Window

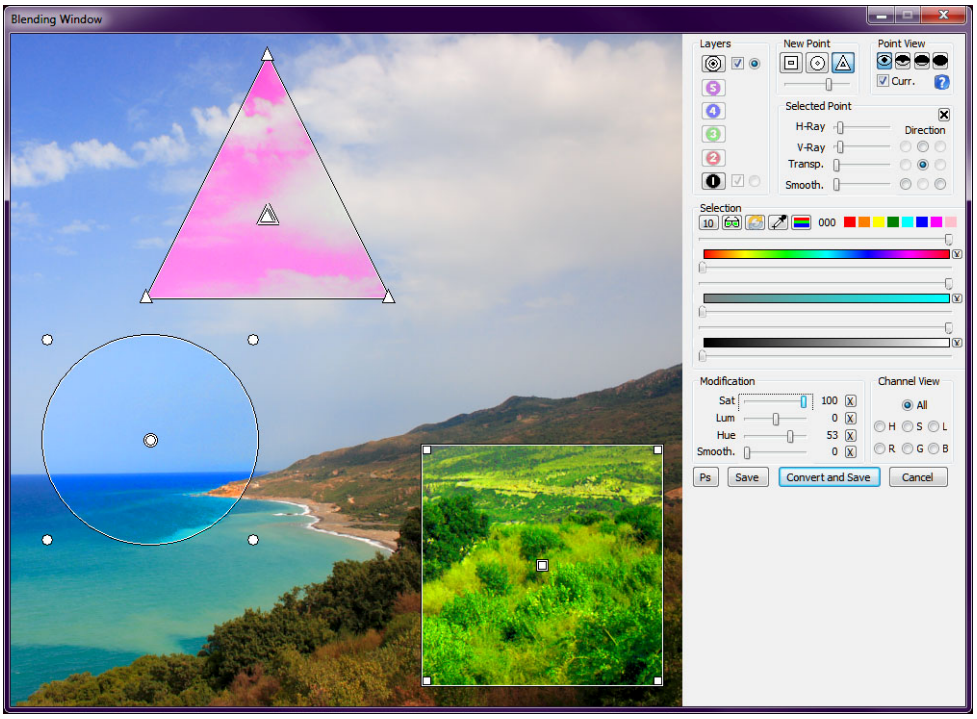
The "local adjustments and blending" window can be called from DPP with a click on this button:

DPP++ starts then to build the layers that will be used in the "local adjustments and blending" window. These layers are built from the snapshots created for the shot (see "Snapshots Extensions" Section).

The blending feature requires at least 2 layers to be possible since blending occurs always between 2 layers. So if you want to use blending, start by creating at least 2 snapshots.

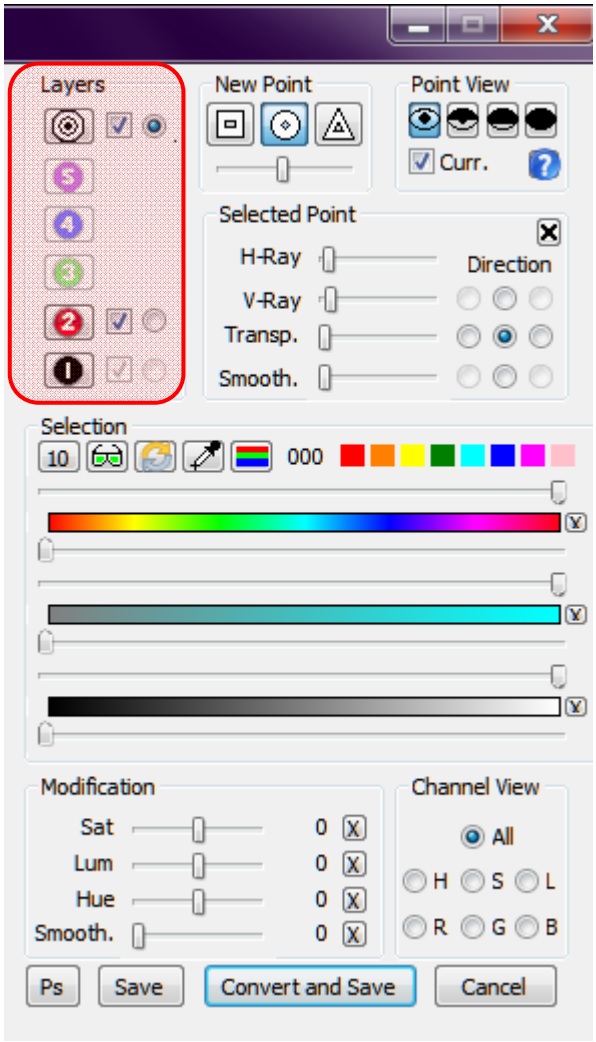
The local adjustments feature requires at least 1 layer to be possible. If you call the "local adjustments and blending" window without having created any snapshot, then DPP++ will create one automatically for you from the current conversion parameters. So you will be able to use at least the "local adjustments" feature.

After a few seconds, the "local adjustments and blending" window will appear. This window is composed of 2 parts : the picture area where you can create your control points and a tool palette. We will see now in details the role of each element of the tool palette.



4.7. "Layers" Group Box

The "Layers" group box show the layers that are created from the snapshots in DPP. If a layer doesn't have next to him a checkbox and a radio button, this just means that no snapshot has been defined for the corresponding layer in DPP.



The layers numbered from 1 to 5 are used for blending. The first layer (number 1) is the background layer. It cannot be disabled and it is not possible to create control points on this layer.

The top layer without number is a layer that is used for local adjustments. If you want to apply local adjustments to the picture, you have to create control points on this top layer.

If you are used with Photoshop, you should know that the way the layers works in DPP++ is a little different from Photoshop. Indeed in DPP++ only the bottom layer is visible at the beginning. The above layers are not visible until you create control points on them. For instance, suppose you have created 2 snapshots in DPP, then you'll have 2 blending layers (1 and 2 for example) in the blending window. At the beginning only layer 1 will be visible in the blending window. But if you create a control point in layer 2 then the layer 2 will become visible at the position of the corresponding control point.

As we can see in the above picture, there is 1 checkbox and 1 radio button near the defined layers.

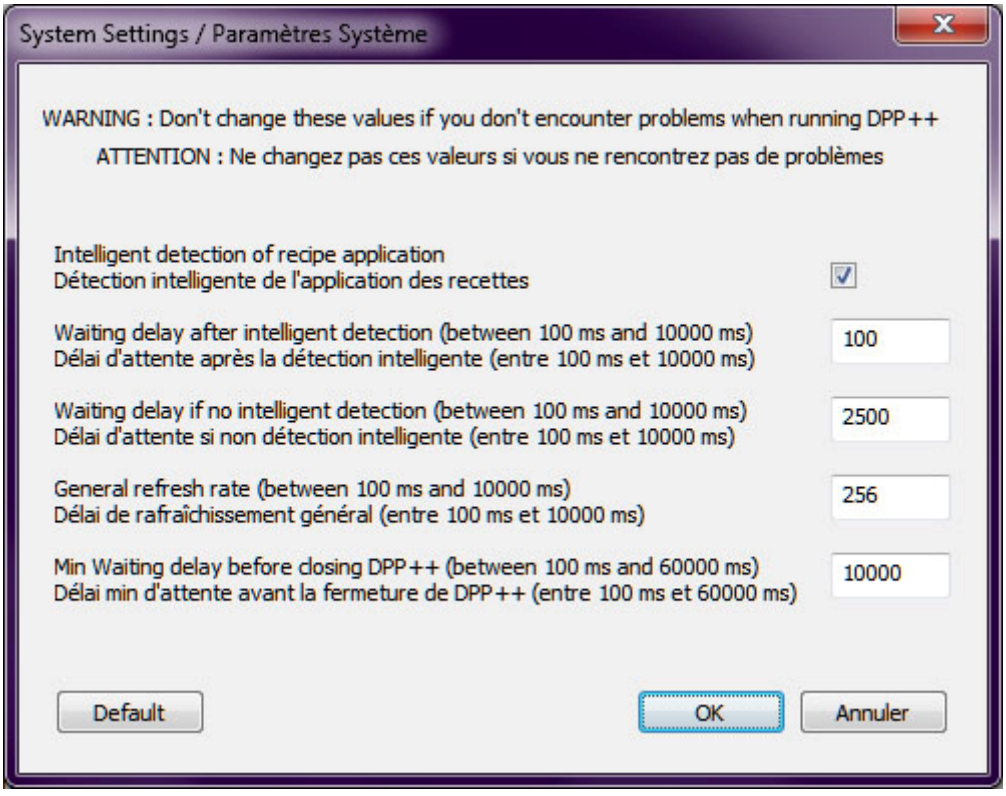
The checkbox allows to enable or disable the layer corresponding. If a layer is disabled, it will not be included in the resulting image even though it contains control points. It will just be ignored. So, by using this checkbox, it is possible to compare rapidly between the resulting image with and without the modifications we define. Before adding a control point to a layer, the corresponding layer must be enabled.

The radio buttons, allows to select the layer where we want to create a control point. Note that we cannot create control points on the background layer, neither disable it.

Finally, it is also possible to click on the numbered buttons themselves. A click on a numbered button displays the corresponding layer alone. If you click again on the same button then it returns to the display of the result image. *Be aware when using this feature because if you forgot to return to the display of the result image, then you will see no difference when you create control points, since it will just display the corresponding layer not the result image*.

4.7.1. What to do if the displayed layers don't correspond to the defined snapshots ?

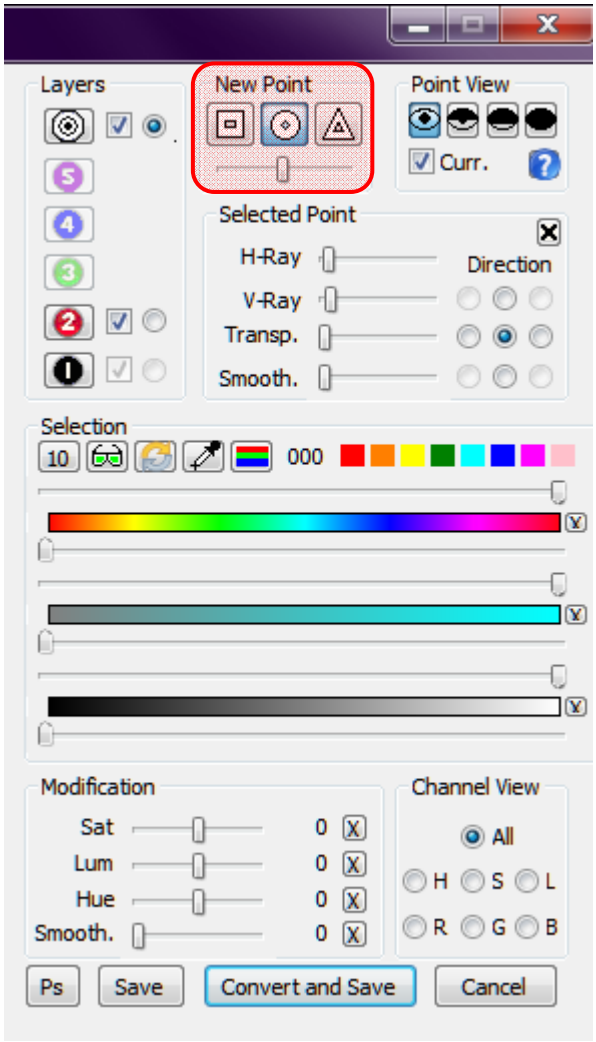
When calling the blending window, if you notice that some of the saved conversions don't appear correctly in the corresponding layers, this is probably due to the fact that DPP++ needs to wait more time for DPP recipe application. You can increase this waiting time using the program menu (See Section 1.4). Click on "System Settings" item. The following window will be displayed.



Uncheck "Intelligent detection of recipe application" and in "Waiting delay if no intelligent detection" (second value) choose 10000. This will force DPP++ to wait for DPP recipe application 10 seconds. So if you have 3 layers, you'll wait 30 seconds before the blending window appears. Of course this is too long, but if it works, you can then try to decrease the delay progressively and see when it starts not working.

4.8. "New Point" Group Box

The New Point group box allows to choose the type of control point that are created when clicking on the picture. 3 types of control points are available : rectangle, circle, and triangle. The slider below the 3 buttons allows to choose the initial size of the control point.



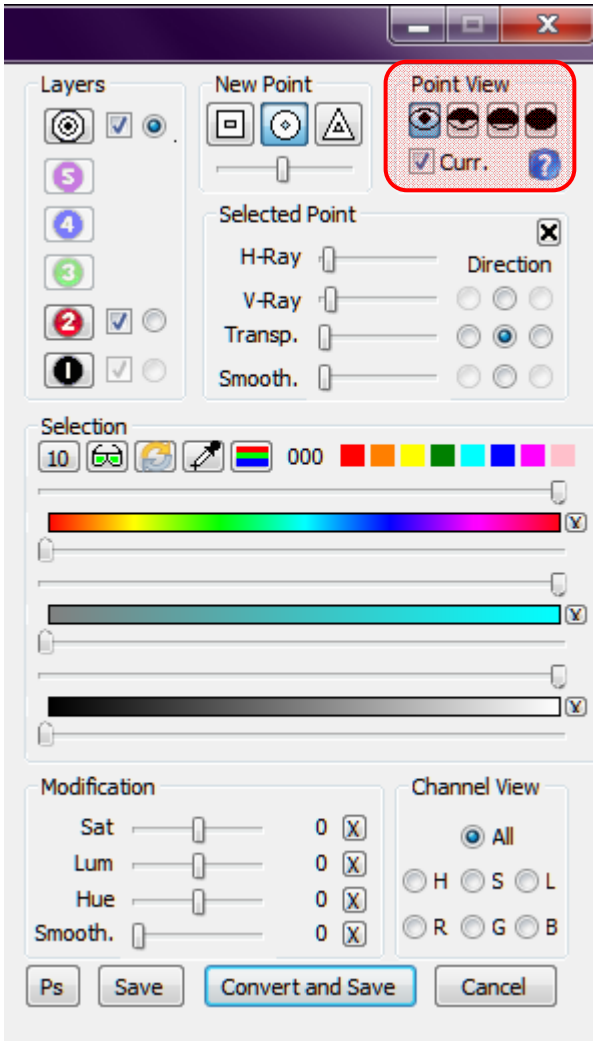
4.9. "Point View" Group Box

The Point View group box allows to choose how the DPP++ control points are displayed. 4 view modes are available (from left to right) :

1. Full-View: the control points are fully displayed with their center, corners, and borders.
2. Half-View: the center and the corners are displayed but not the borders. This allows to better see the impact of the modifications in the boundary between the control points and the rest of the picture while keeping a full control on the size and position of the control points.
3. Quarter-View: only the center of the control points is visible. This allows an even better view of the modifications but only the position of the points is still controllable.
4. Hidden: this hide the points completely but if a point has been selected before, it is still possible to change its blending or local adjustments parameters and see their impact on the picture.

The checkbox under the 4 buttons, when checked allows to display only the control points that belong to the currently selected layer and hide all other points belonging to other layers. The question mark button reminds some useful shortcuts.

Note that the "Point View" buttons have effect on all control points. If you want to change the view of only one particular control point, just click on it several time until you reach the desired view.

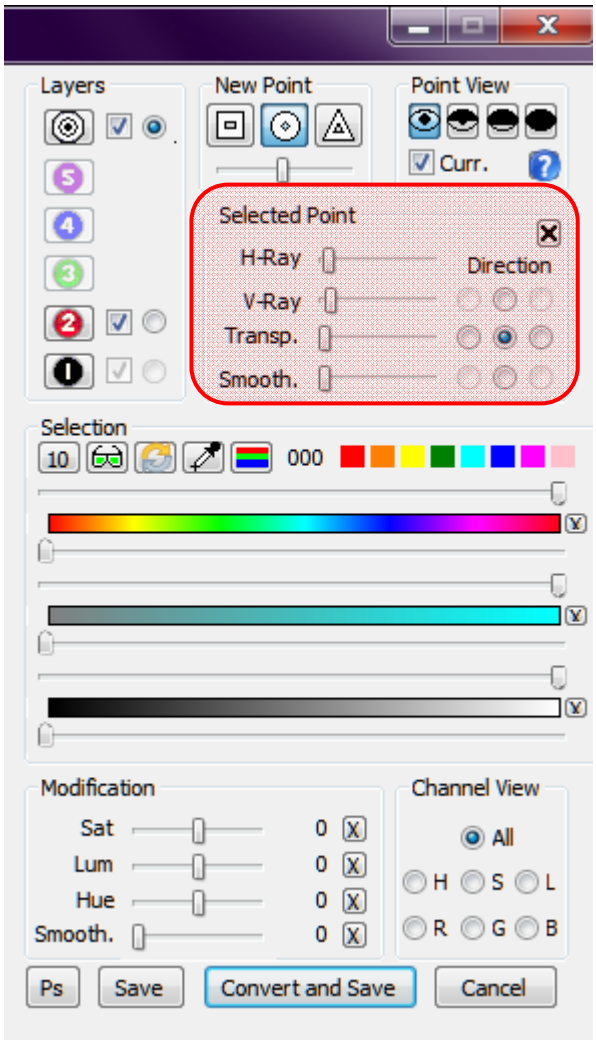


4.10. "Selected Point" Group Box

The "Selected Point" group box allows to modify some parameters of the currently selected control point:

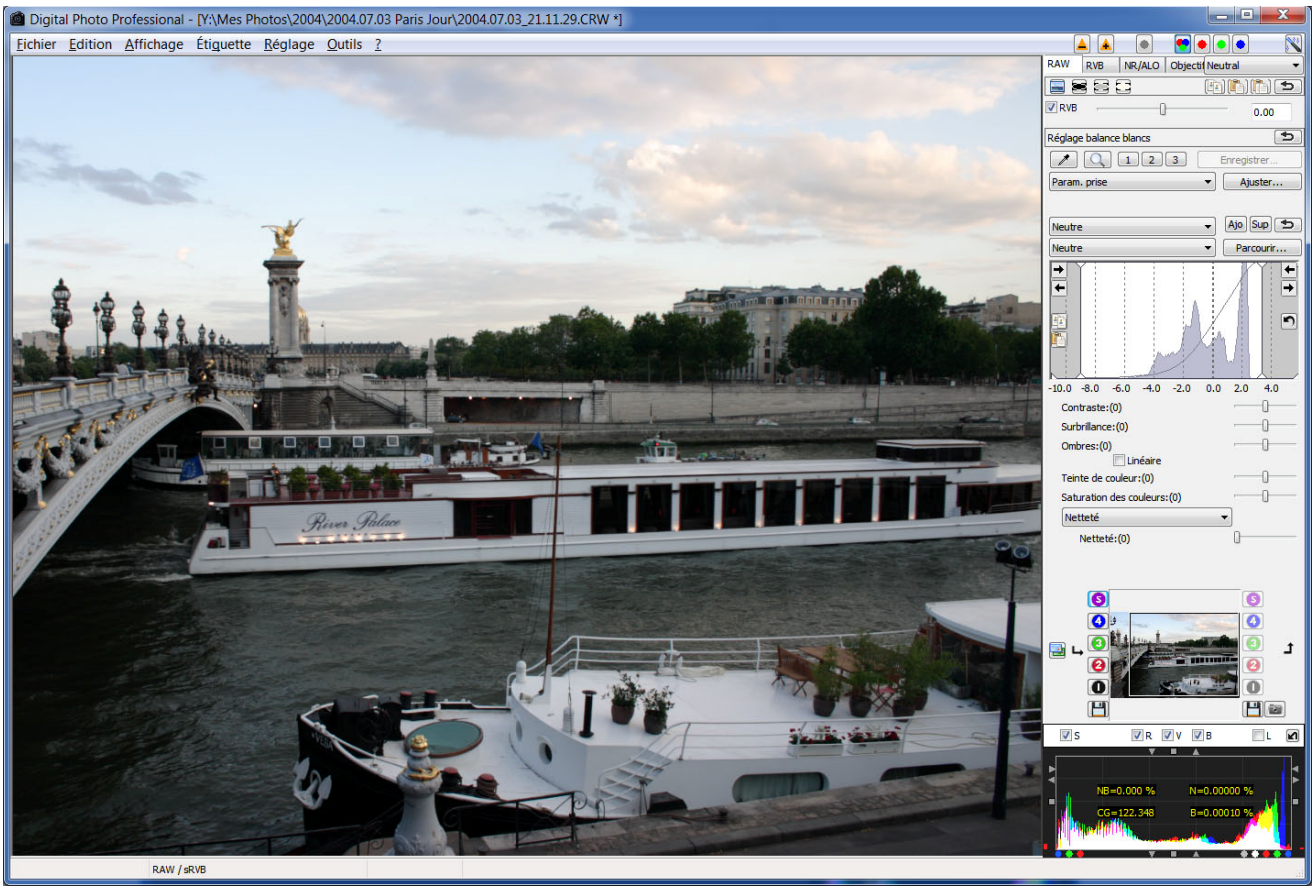
- H-Ray : is the horizontal length of the control point. If you need to increase this length more than the screen width, you need to use this slider.
- V-Ray : is the vertical length of the control point. If you need to increase this length more than the screen height, you need to use this slider.
- Transp. : is the transparency of the control point effect. If set to 0 then the effect is fully visible. If set to maximum then the effect is not visible at all.
- Smooth. : is the smoothness of the control point effect. Works together with the direction parameter. See example below.
- Direction : is the direction of the control point effect. Works together with the Smoothness parameter. See example below.

Note that these parameters are valid both for "Local Adjustment" and "Blending" control points.

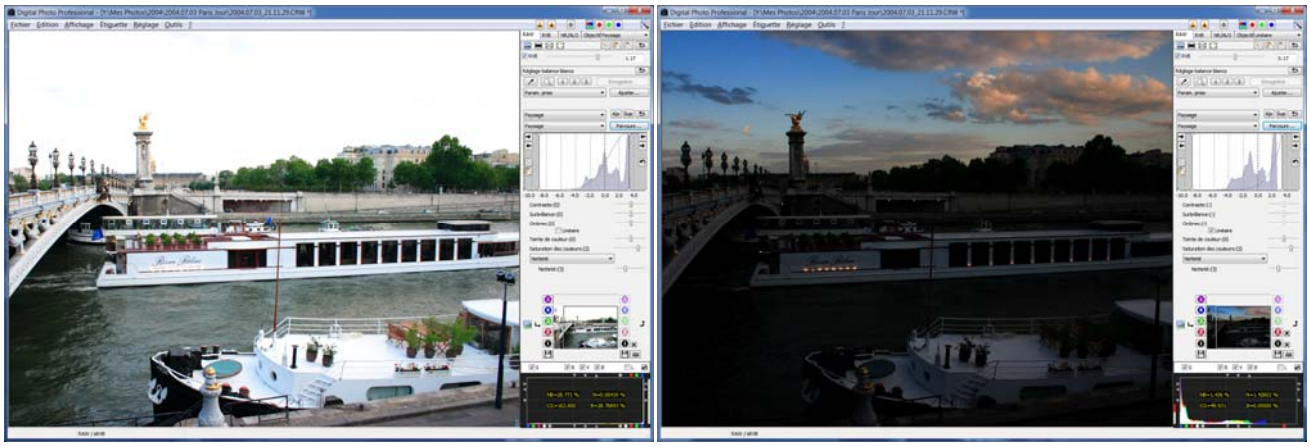


4.10.1. Example

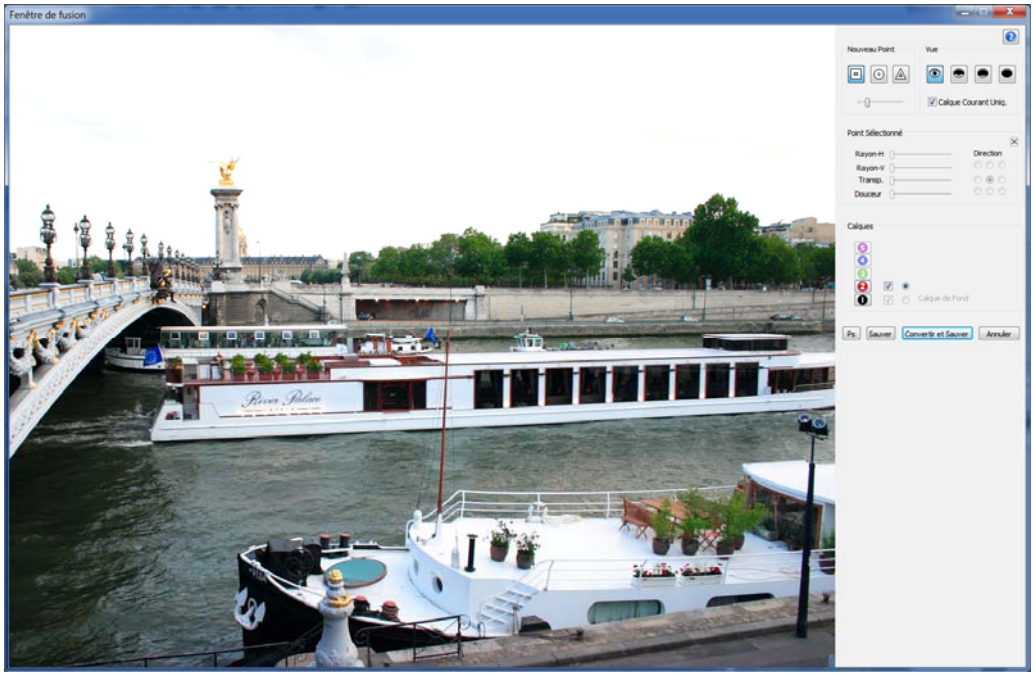
Let's see an example to better understand how the Smoothness parameter works together with the direction parameter. Let's take the picture we have used in the short blending tutorial.



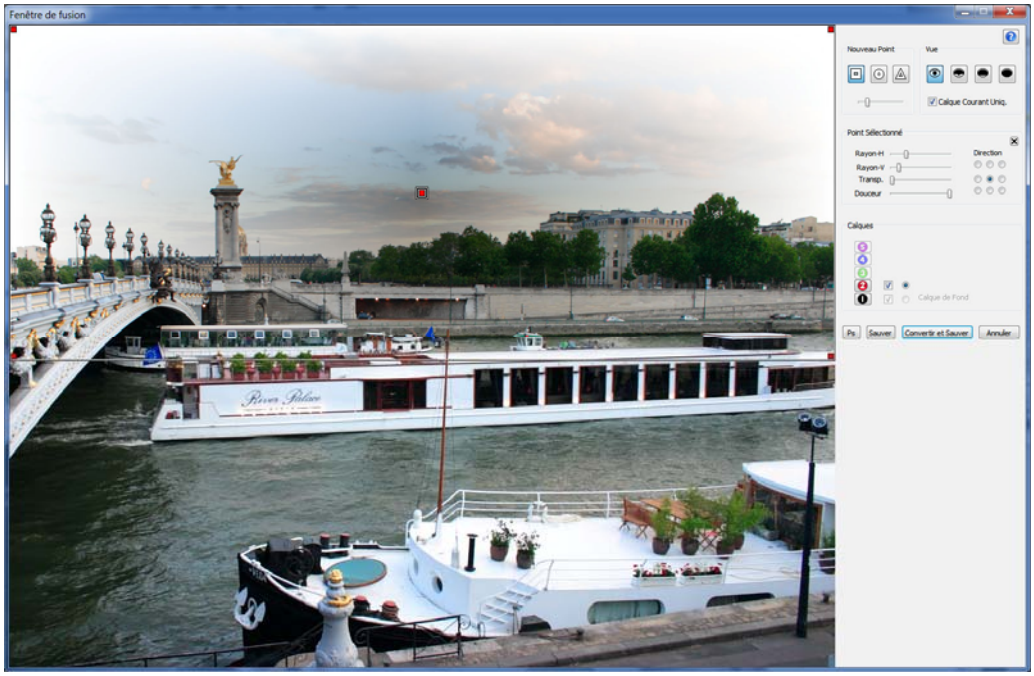
For this picture we have defined 2 conversions : one for the ground and another one for the sky.



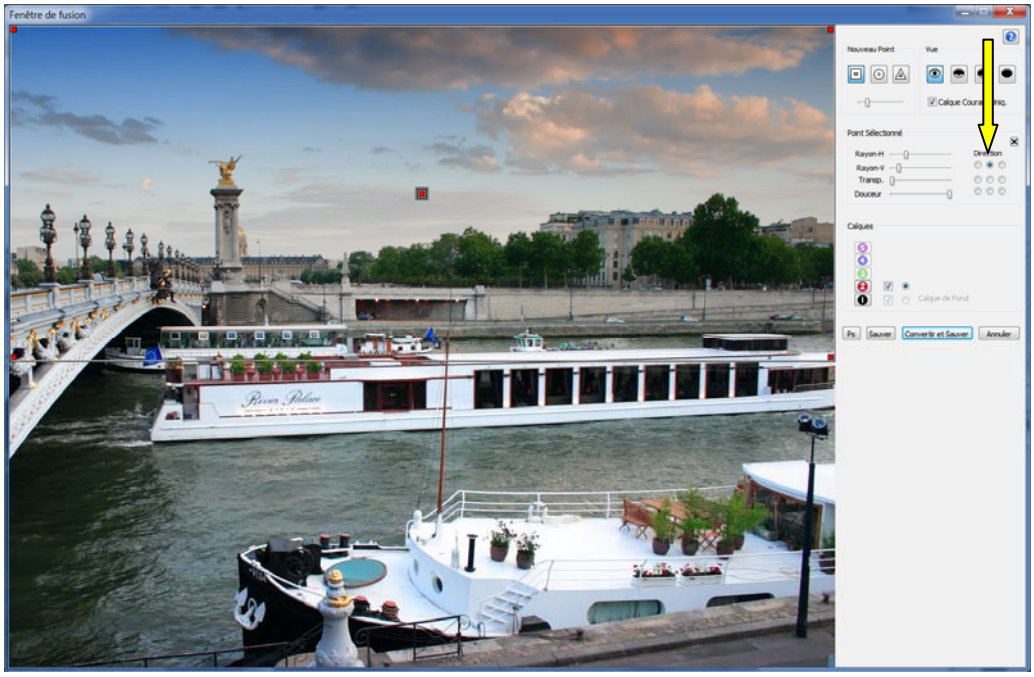
So, in the "Local Adjustments and Blending" window of DPP++ we have 2 layers : Layer 1 for the ground and Layer 2 for the sky. For the moment, only Layer 1 is visible.



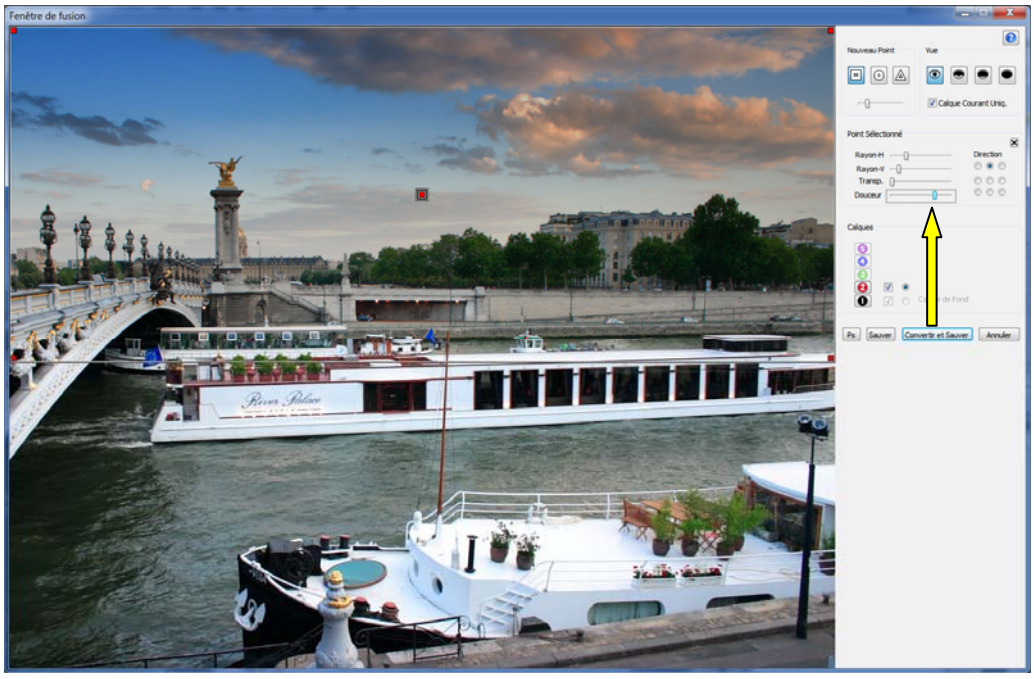
If we create a control point on Layer 2 with Smoothness set at maximum and direction set at central, you can see that at the center of the control point, the Layer 2 (sky) is well visible and while we move towards the corners of the control point, the Layer 2 starts to disappear while Layer 1 starts to appear. This progression is completely linear which means that at the center of the control point the pixels are exactly the same as in Layer 2 while at the corners they are exactly the same as in Layer 1 and in between they progressively move from Layer 2 to Layer 1. This ensures a smooth transition between the 2 layers and avoids the halo effects we can see in some HDR pictures.



However, in the previous picture the central direction of the blending is not very suited as the sky is at the top of the image while the ground is at the bottom. So a blending direction going from top to down will be better, as we can see in the following picture.



If we want to give the sky a stronger presence in the picture, we have to decrease the smoothness slider.

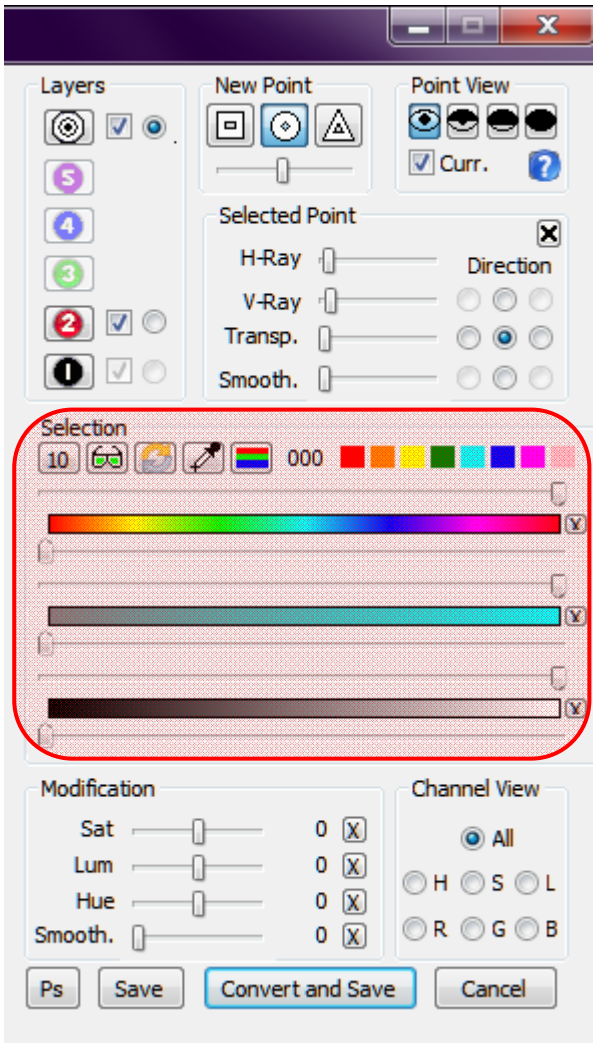


Note that if we put the Smoothness slider at 0 then the control point will show only the pixels of Layer 2 and no continuous transition between the 2 layers will be achieved.

Note also that when creating a "Blending" control point, the default value for the Smoothness is set at maximum, while for a "Local Adjustment" point it is set 0 because for "Local Adjustment" points we usually want to apply the local adjustment to all pixels of the control point in the same manner.

4.11. "Selection" Group Box

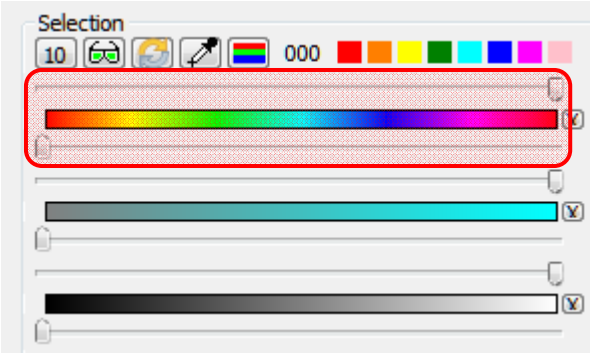
The "Selection" group box allows to define a selection of pixels that will be affected by the local adjustment or blending. We will see in the following sections the role of each element of this group box.



4.11.1. Hue Sliders

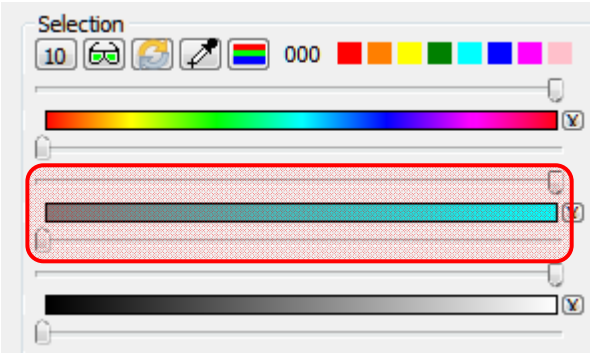
The hue sliders allow to select pixels that have a hue in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Hue values vary from 0 to 255. You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.

As the set of hues is circular (the hue 0 follows the hue 255) you can define a range where the end value is inferior to the start value. For instance if you put the end slider at 16 and the start slider at 235, then this will define the following range of hues : from 235-->255 and from 0-->16.



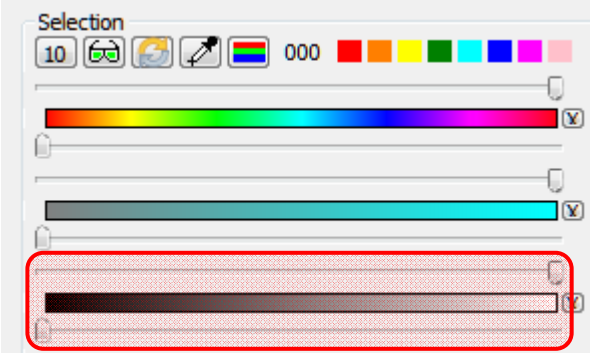
4.11.2. Saturation Sliders

The saturation sliders allow to select pixels that have a saturation in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Saturation values vary from 0 (at left) to 255 (at right). You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.



4.11.3. Luminosity Sliders

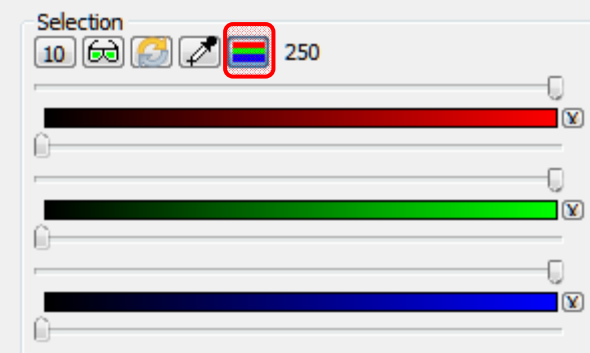
The luminosity sliders allow to select pixels that have a luminosity in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Luminosity values vary from 0 (at left, shadows) to 255 (at right, highlights). You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.



4.11.4. RGB Button

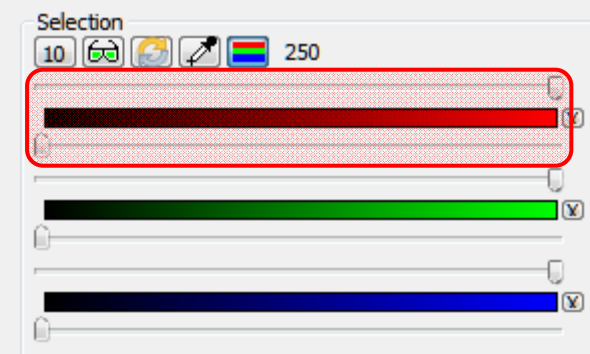
Sometimes it is not possible to achieve the desired selection using only the Hue, Saturation and Luminosity (HSL) sliders. The RGB button allows to refine the selection using 3 additional parameters : the Red, Green and Blue values of the pixels.

When clicking on the RGB Button, the Hue, Saturation and Luminosity sliders are hidden and the Red, Green and Blue sliders are displayed (see below). Note that the RGB sliders don't replace the HSL sliders but they complete them. To come back to HSL sliders click on the RGB button again.



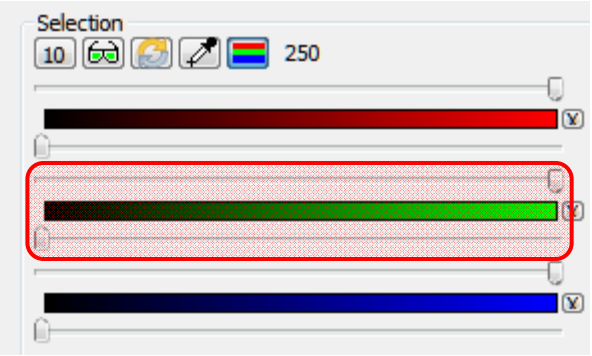
4.11.5. Red Sliders

The Red sliders allow to select pixels that have a Red value in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Red values vary from 0 (at left) to 255 (at right). You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.



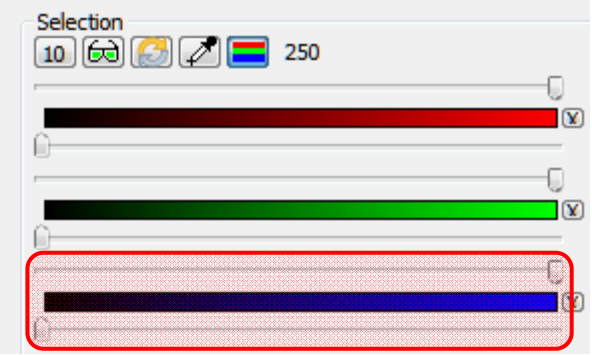
4.11.6. Green Sliders

The Green sliders allow to select pixels that have a Green value in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Green values vary from 0 (at left) to 255 (at right). You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.



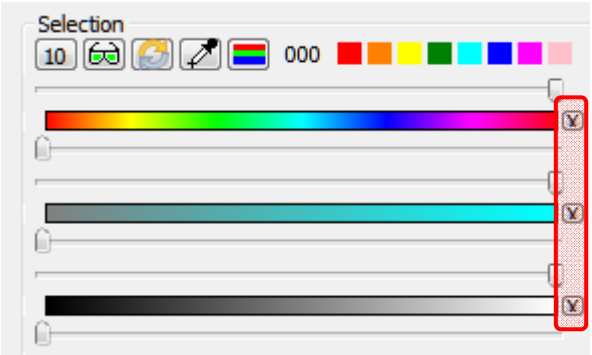
4.11.7. Blue Sliders

The Blue sliders allow to select pixels that have a Blue value in a given range. 2 sliders are available to define this range : the bottom slider defines the start value of the range and the top slider defines the end value of the range. Blue values vary from 0 (at left) to 255 (at right). You can move the sliders using the mouse or the keyboard arrows. The keyboard arrows allow to define the desired range with maximum precision.



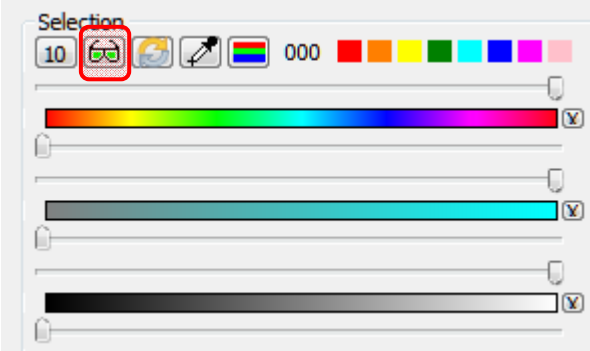
4.11.8. Reset Buttons

The reset buttons allow to reset the start and end values of the corresponding sliders to respectively 0 and 255.

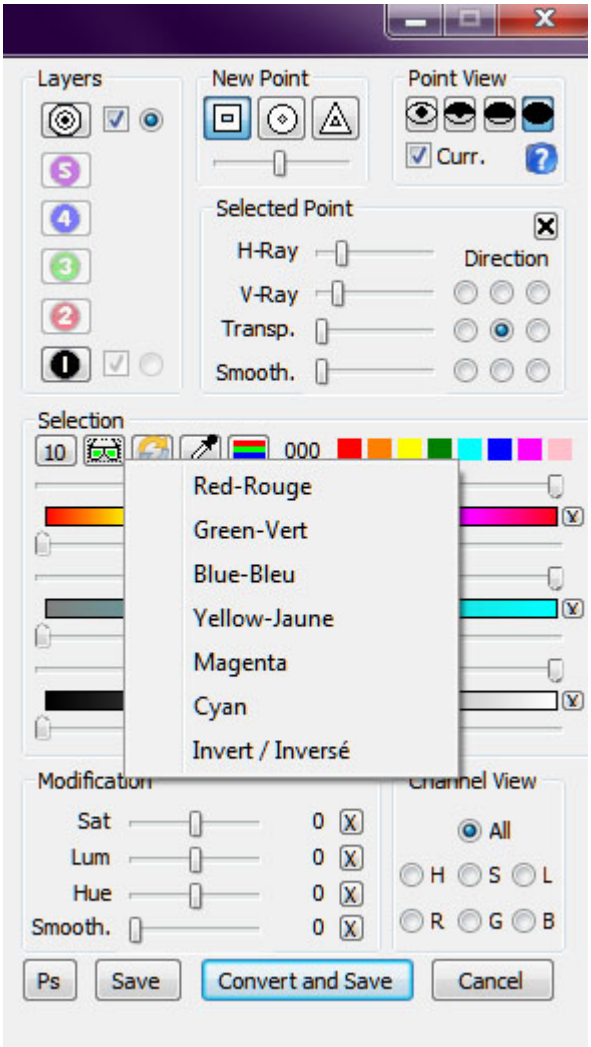


4.11.9. Mask button

The mask button allows highlighting the current selected pixels.



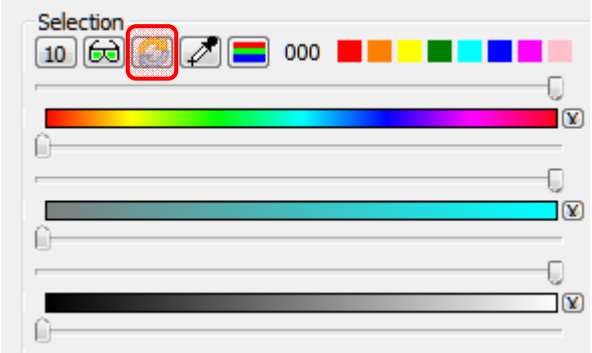
Depending on the colors of the selected pixels, it might be useful to change the mask color to see with a better precision which pixels are currently selected. To display the mask color menu, just *right click* on the mask button.



7 mask colors are available: red, green, blue, yellow, magenta, cyan, and inverted.

4.11.10. Invert Selection Button

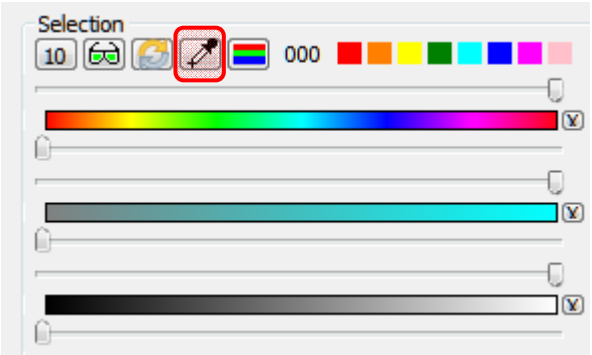
The Invert Selection button allows to invert the current selection. Sometimes it may be easier to define a selection and then invert it rather than trying to define it directly. For instance if you want to put in black and white a whole picture except the pixels that have a red hue, you can define a selection based on the red hue and then invert that selection and finally de-saturate it (as example, see the second part of the "Short Local Adjustments Tutorial" section).



4.11.11. Dropper Button

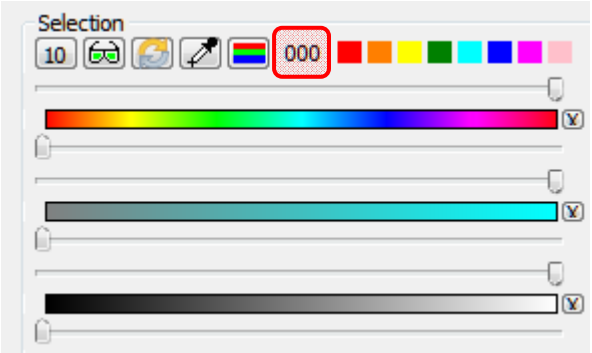
The dropper button allows to adjust the values of the selection sliders depending on the clicked pixel. Click on this button and the click somewhere on the picture. The Hue, Saturation and Luminosity sliders will change automatically to reflect the HSL values of the pixel you clicked on. If the RGB button is clicked then it is the RGB sliders that will change instead of the HSL sliders. To leave the dropper mode click again on the dropper button.

This button may be used as a starting point of a selection. For instance you can click on a pixel that have the hue you want to select. But if you stop here you will select only the pixels that have exactly the same hue, saturation and luminosity as the clicked pixel. Of course this will be probably not enough. So, after clicking on the pixel you'll need first to reset the Saturation and Luminosity sliders and then increase a little the range of the hue sliders. This will allow you to select the pixels that have almost the same hue as the clicked pixel.



4.11.12. Slider Value

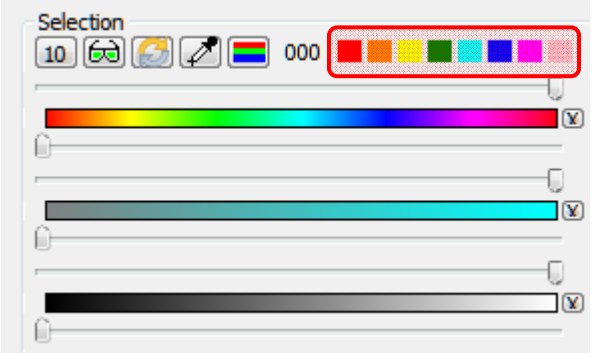
The slider value displays the value of the currently selected slider.



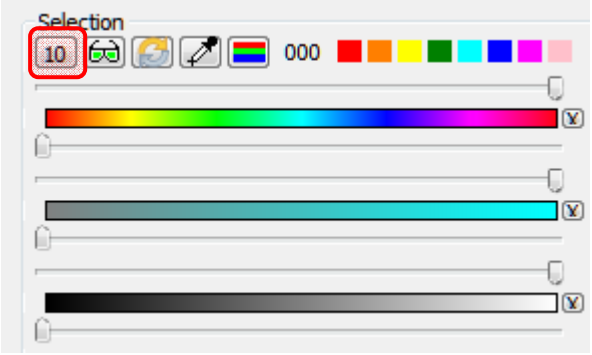
4.11.13. Hue Color Buttons

The Hue Color Buttons allow to select a given range of hues rapidly. 8 ranges of hues are available (from left to right) : Red, Orange, Yellow, Green, Cyan, Blue, Magenta, Pink.

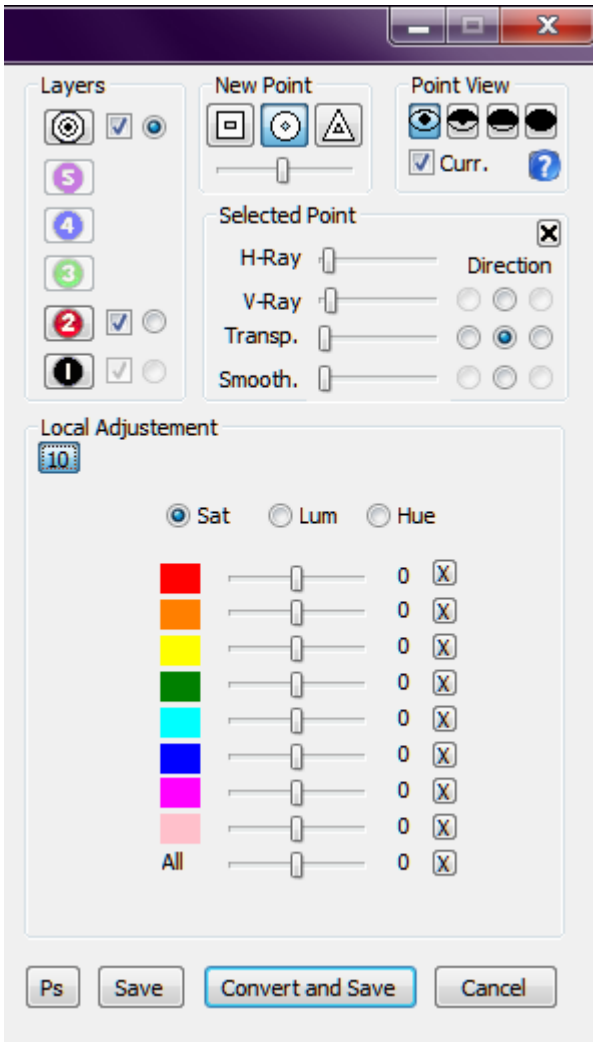
Clicking on one of these buttons will adjust the hue sliders automatically to the corresponding hues.



4.11.14. Old Local Adjustments Interface



This button allows switching between the interface for local adjustments of old version 10.3 and the new interface. The interface of version 10.3 has been kept because it is simpler even though it is less powerful than the new interface. The old interface allows a selection based on hues only.



- Use the radio buttons (Sat, Lum, Hue) to select the parameter you'd like to modify : saturation, luminosity or hue.
- Use the sliders to choose the hues you'd like to modify and the level of the modification.
- Use the slider "All" to apply the modification to all hues.
- Use the buttons 'X' to cancel the modifications.

4.12. "Modification" Group Box

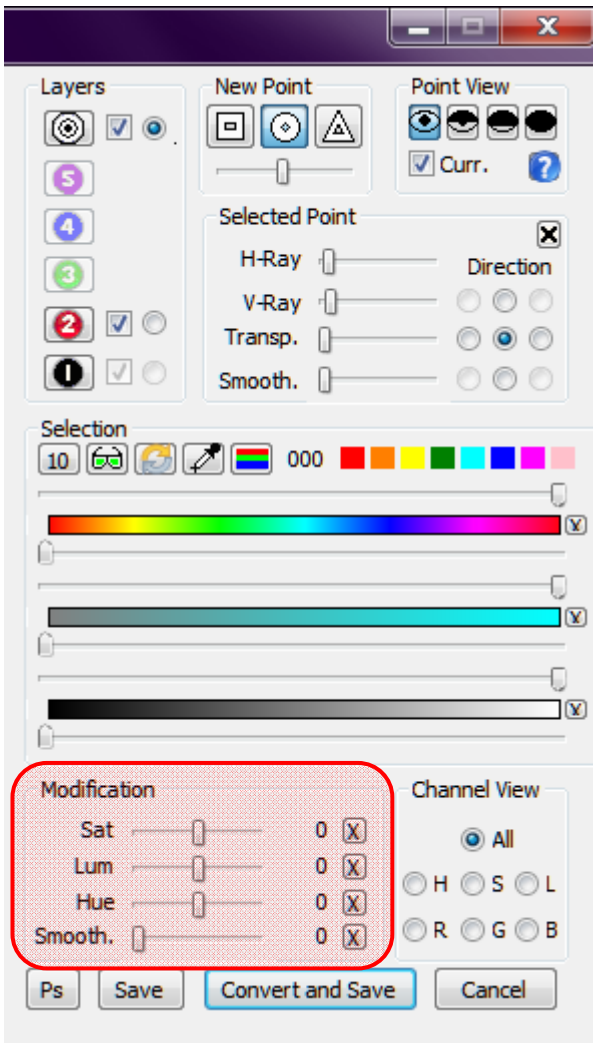
The "Modification" group box contains the elements that allow to modify the selected pixels. Note that the content of this group box change depending on the currently selected control point.

4.12.1. "Modification" Group Box for "Local Adjustments" Control Points

If the currently selected control point is a "Local Adjustments" control point (a point that belongs to the "Local Adjustments" layer) then the group box contains the following 4 elements :

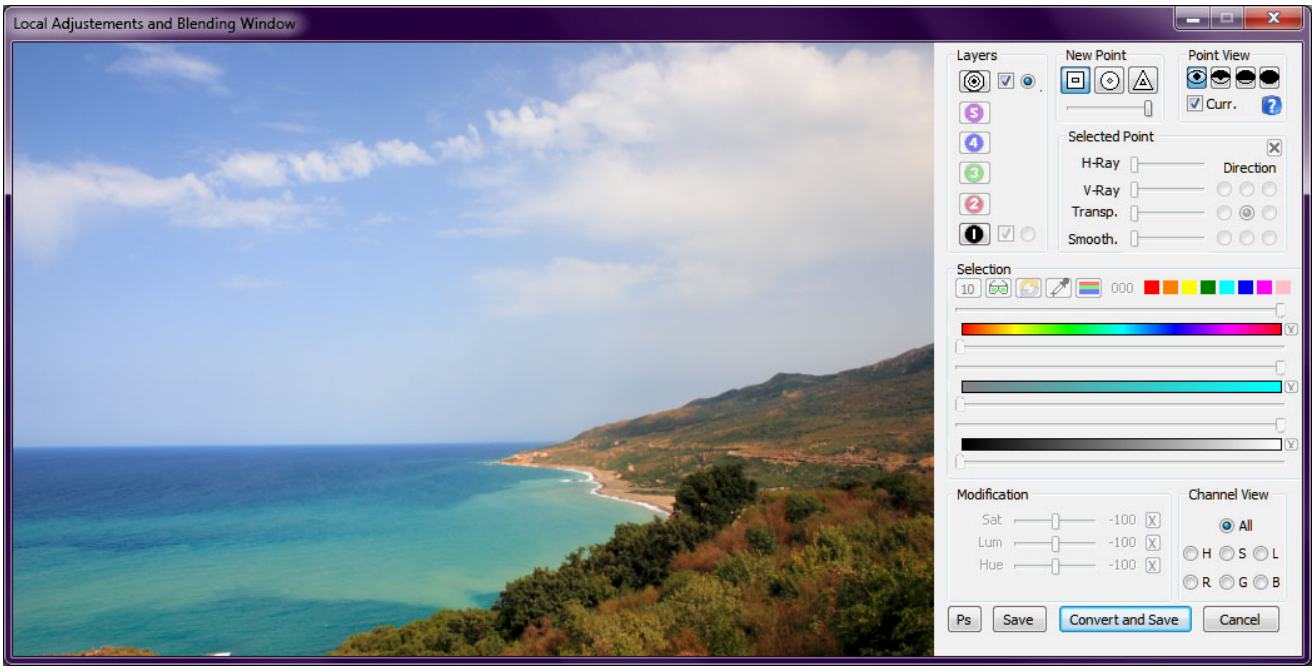
- Sat : this slider allows to change the saturation of the selected pixels.
- Lum : this slider allows to change the luminosity of the selected pixels.
- Hue : this slider allows to change the hue of the selected pixels.
- Smooth : this slider allows to apply the previous changes smoothly.

The 'X' buttons near the sliders allow to reset them.

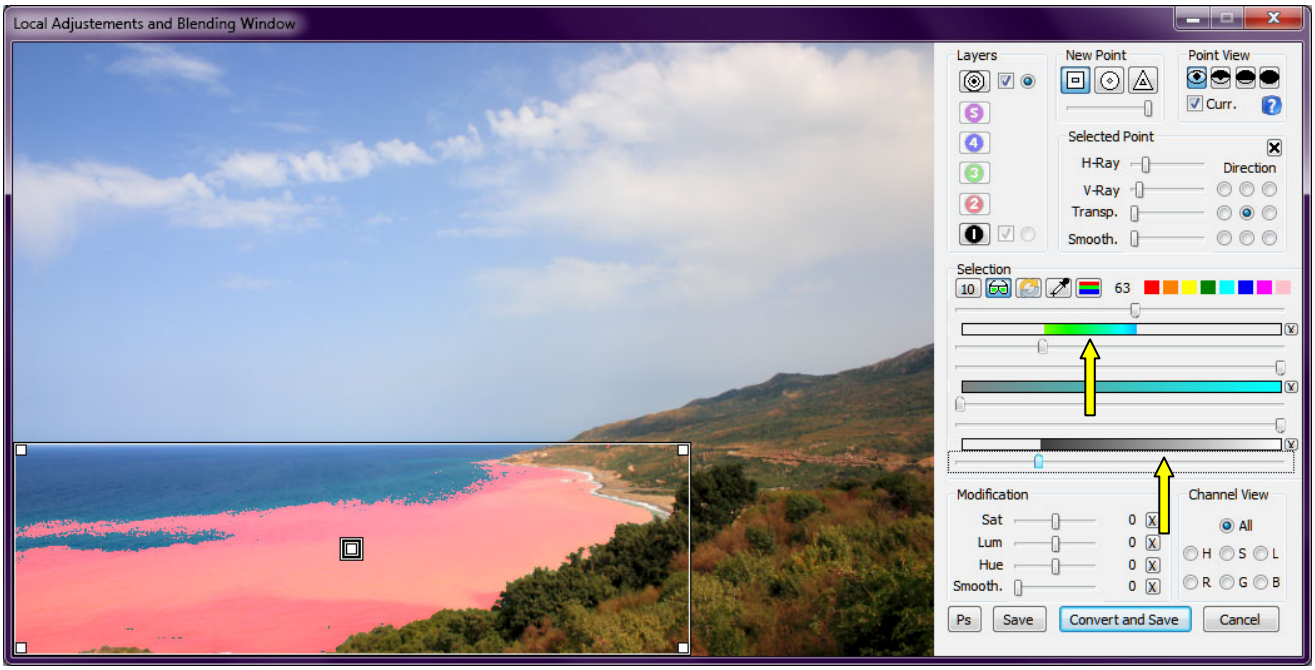


Let's see an example to show the usefulness of the "Smooth." slider.

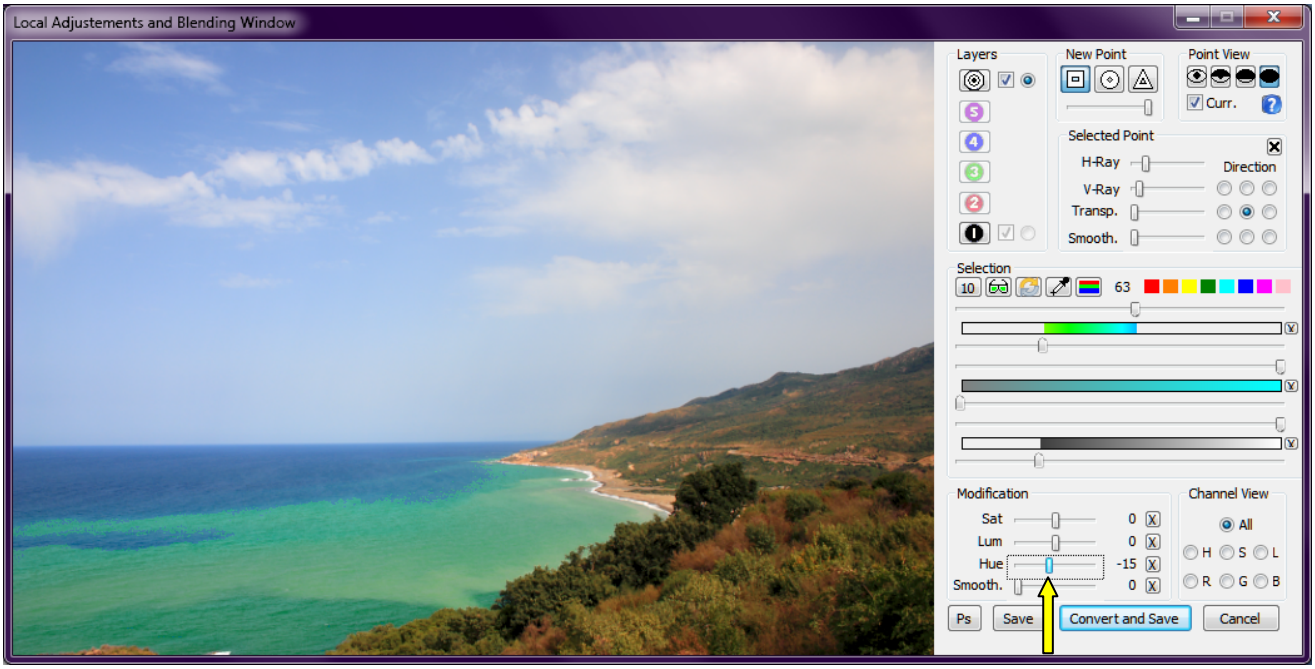
Let's suppose we have the following picture and we want to make the cyan/green part of the sea more green.



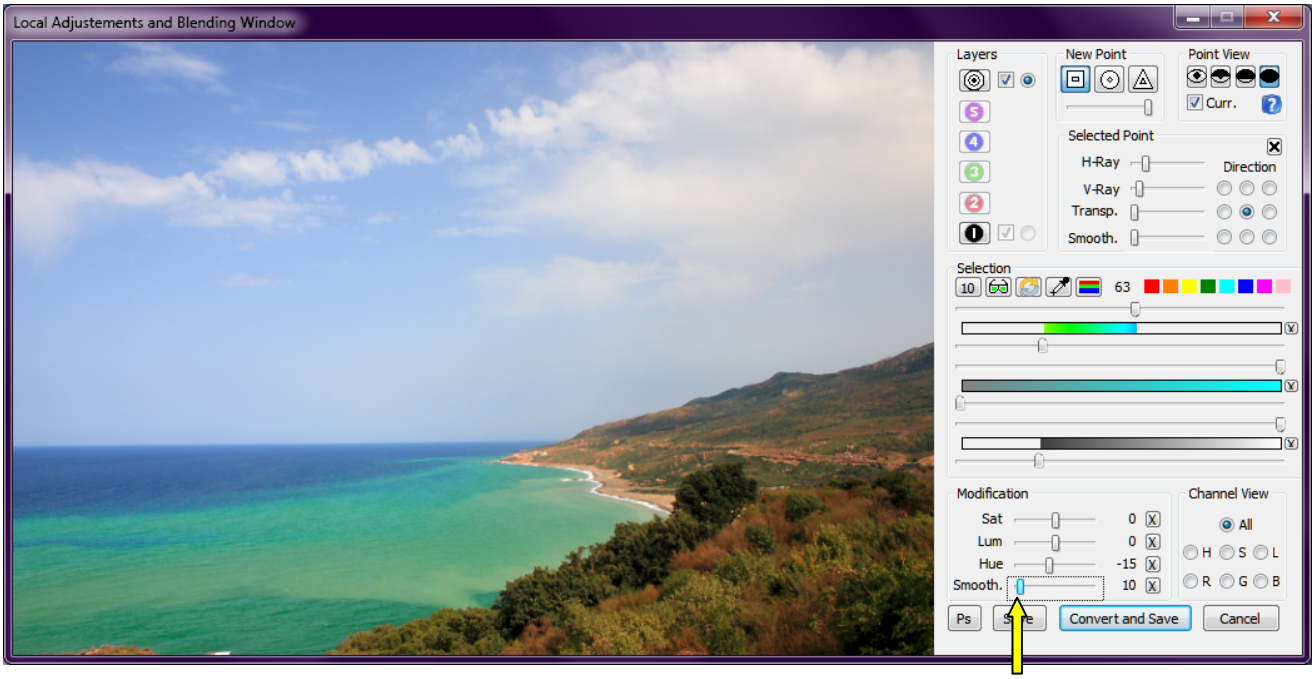
We start by defining a selection for the cyan/green part of the sea. We use here the hue sliders to select the desired part of the sea and the luminosity sliders to eliminate from our selection the vegetation that have a dark green hue.



Then we decrease the hue to -15 to make our selection more green. But as we can see the transition between the green part of the sea and the blue part is too much visible.



To make this transition smoother we use the "Smooth." slider.

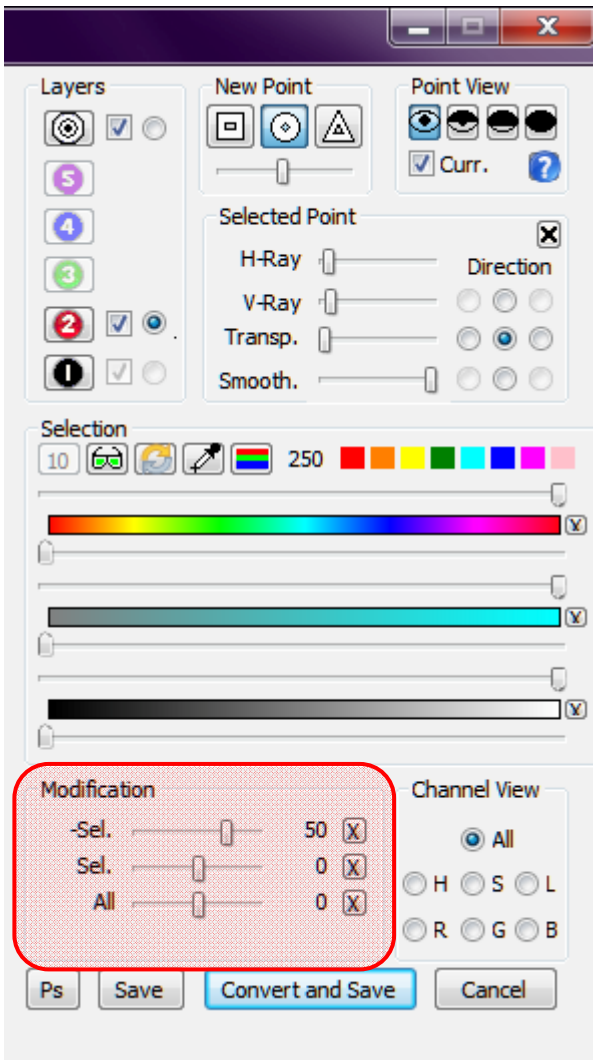


4.12.2. "Modification" Group Box for "Blending" Control Points

Now, let's see the content of the "Modification" group box is the selected control point is a "Blending" control point (a point that belongs to a blending layer). This will be probably the most hard part to understand in DPP++. So you will have to play with it a lot to understand how it works. Even though most of the time, you will not need to use this part; however in some particular cases, it might be useful.

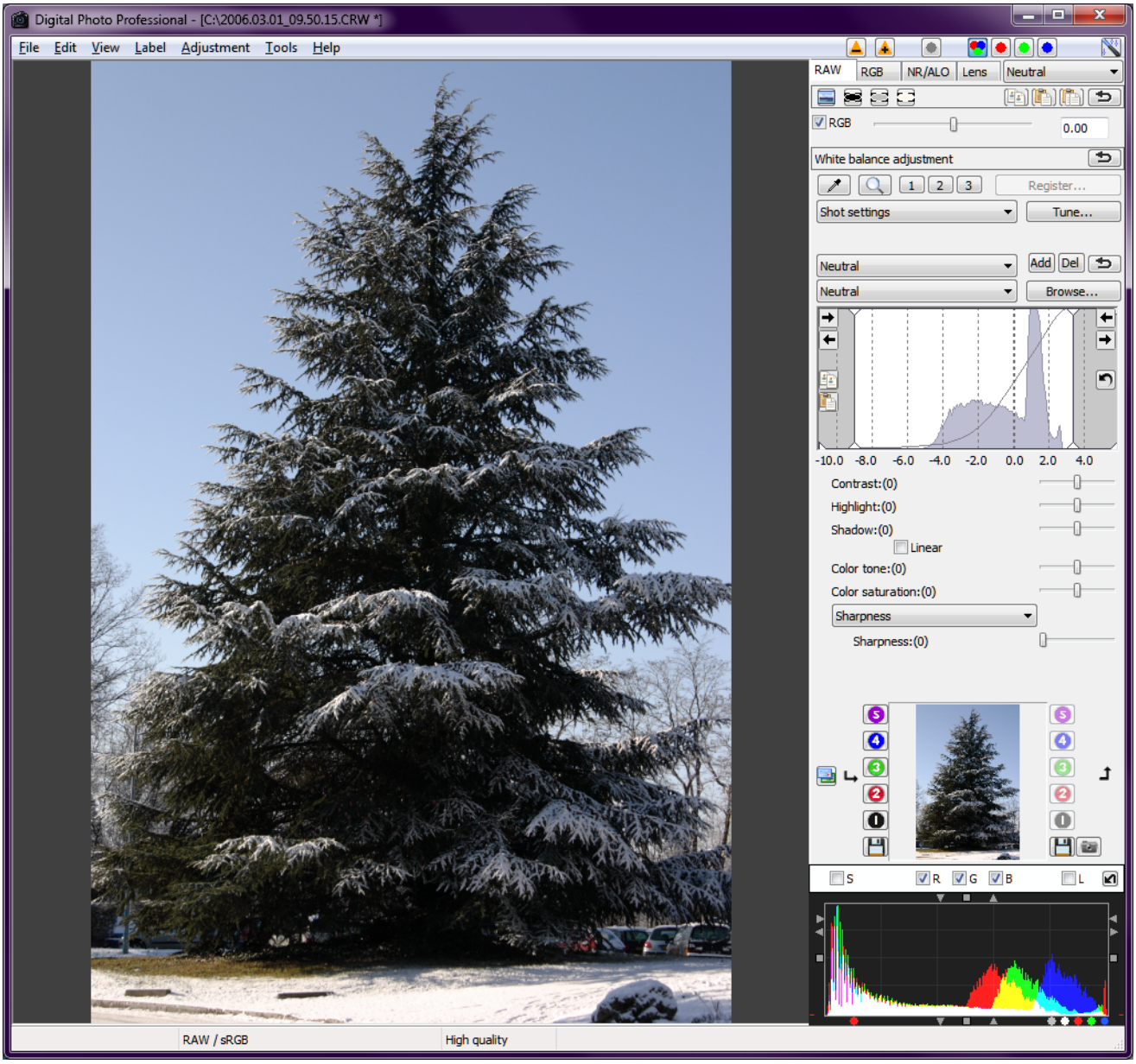
If the currently selected control point is a "Blending" point, then the "Modification" group box contains the following 3 sliders :

- "-Sel" slider : allows to adjust the transparency of the blending for unselected pixels.
- "Sel" slider : allows to adjust the transparency of the blending for selected pixels.
- "All" slider : allows to adjust the transparency of the blending for selected and unselected pixels.

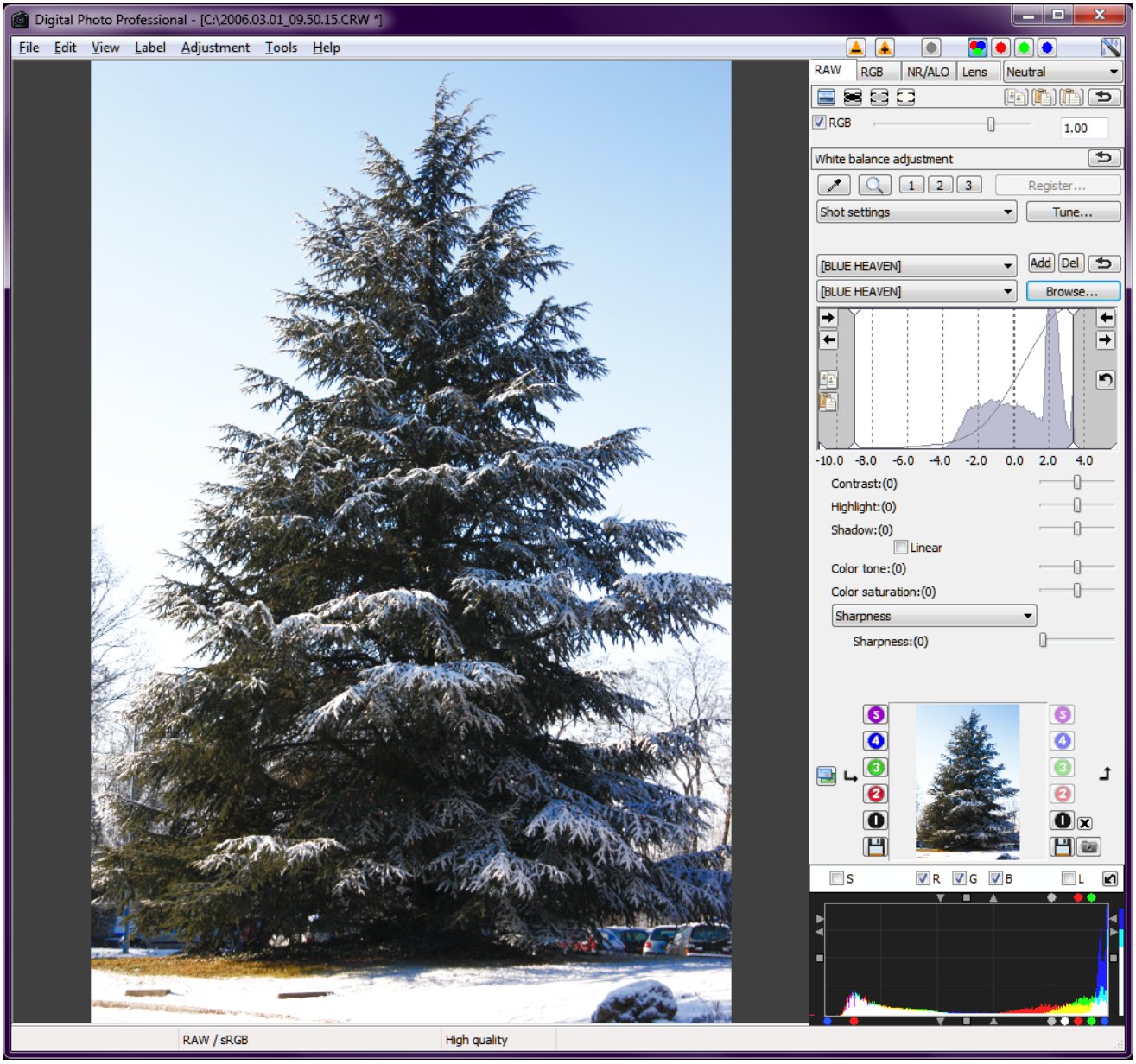


To better understand how these sliders work, let's take an example.

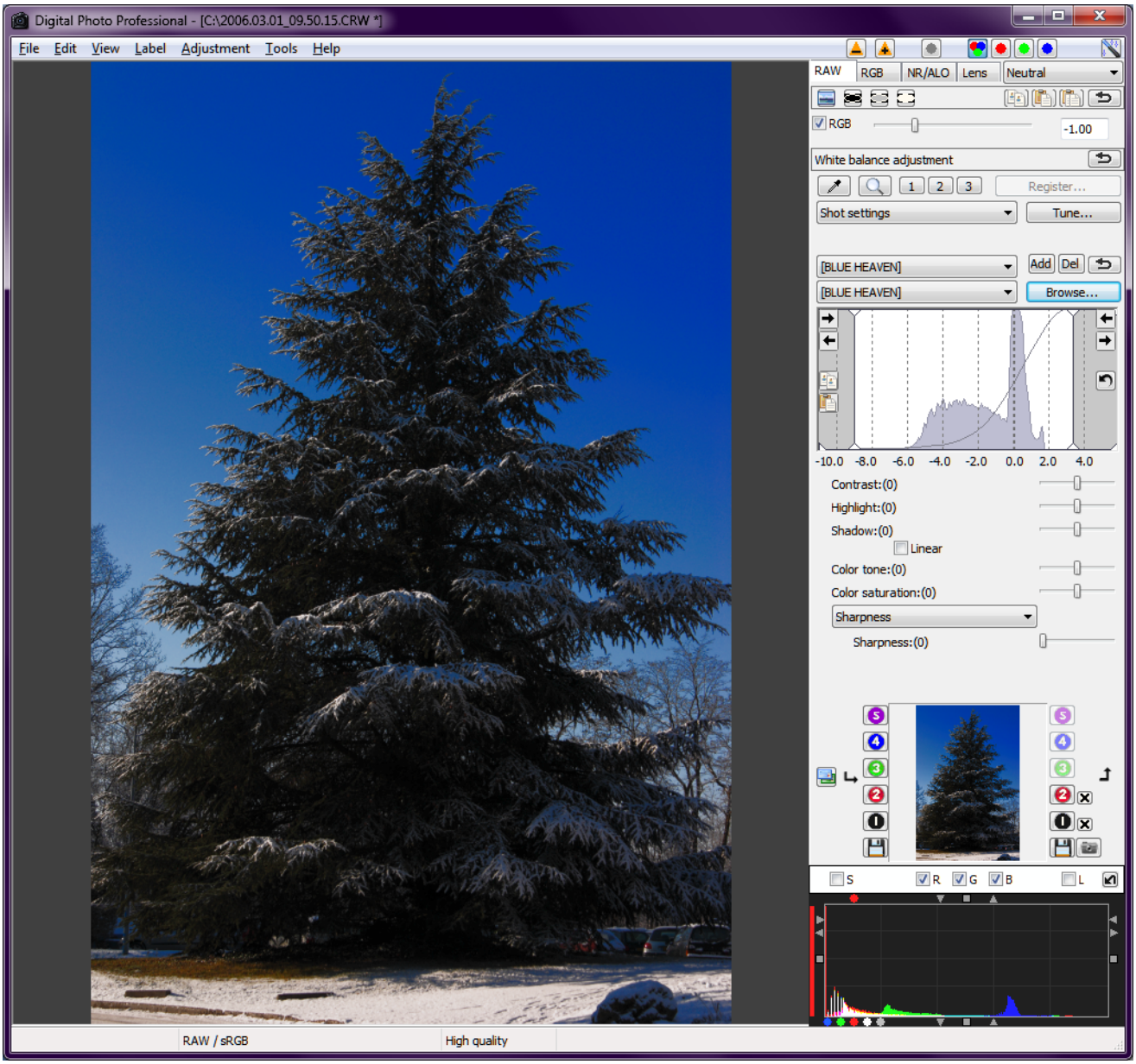
Here is the picture we will use (neutral style and all cursors at 0) in this example. We would like to have a deeper blue sky and a lighter tree.



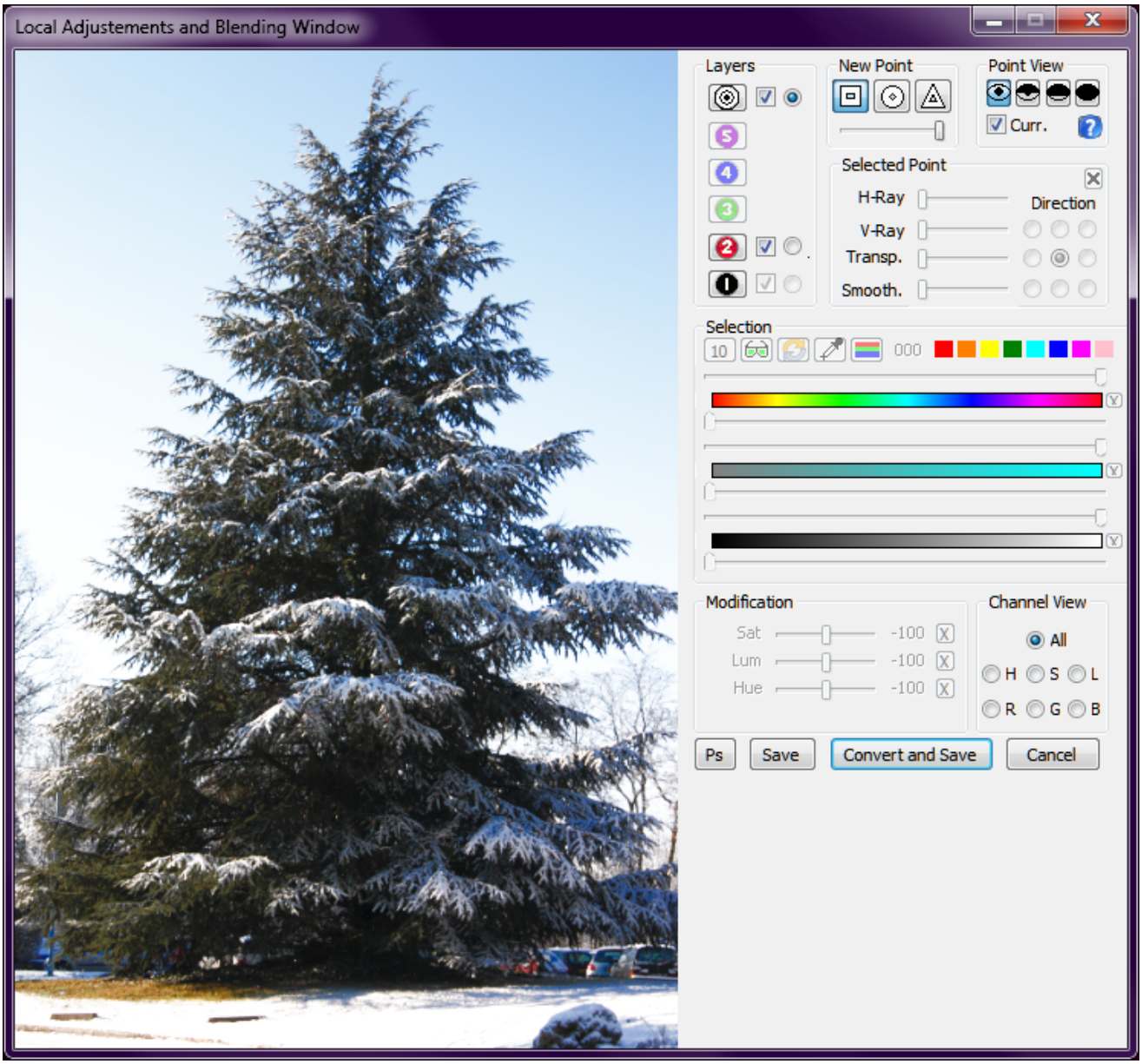
We start by creating a conversion to slightly lighten the tree and save this conversion in button 1. Note that we use the "BLUE HEAVEN" picture style here.



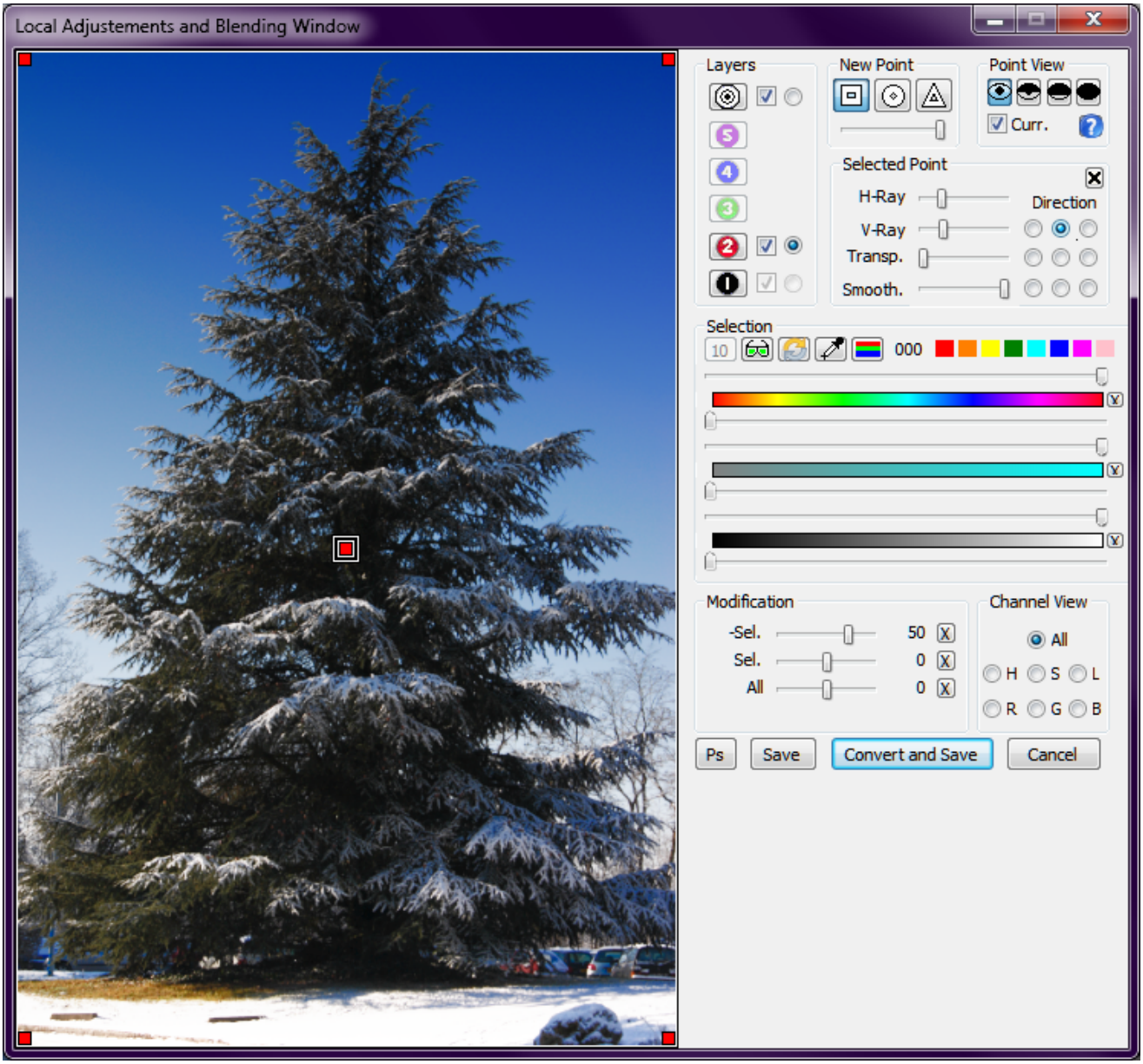
Then we create a second conversion for the sky and save it in button 2.



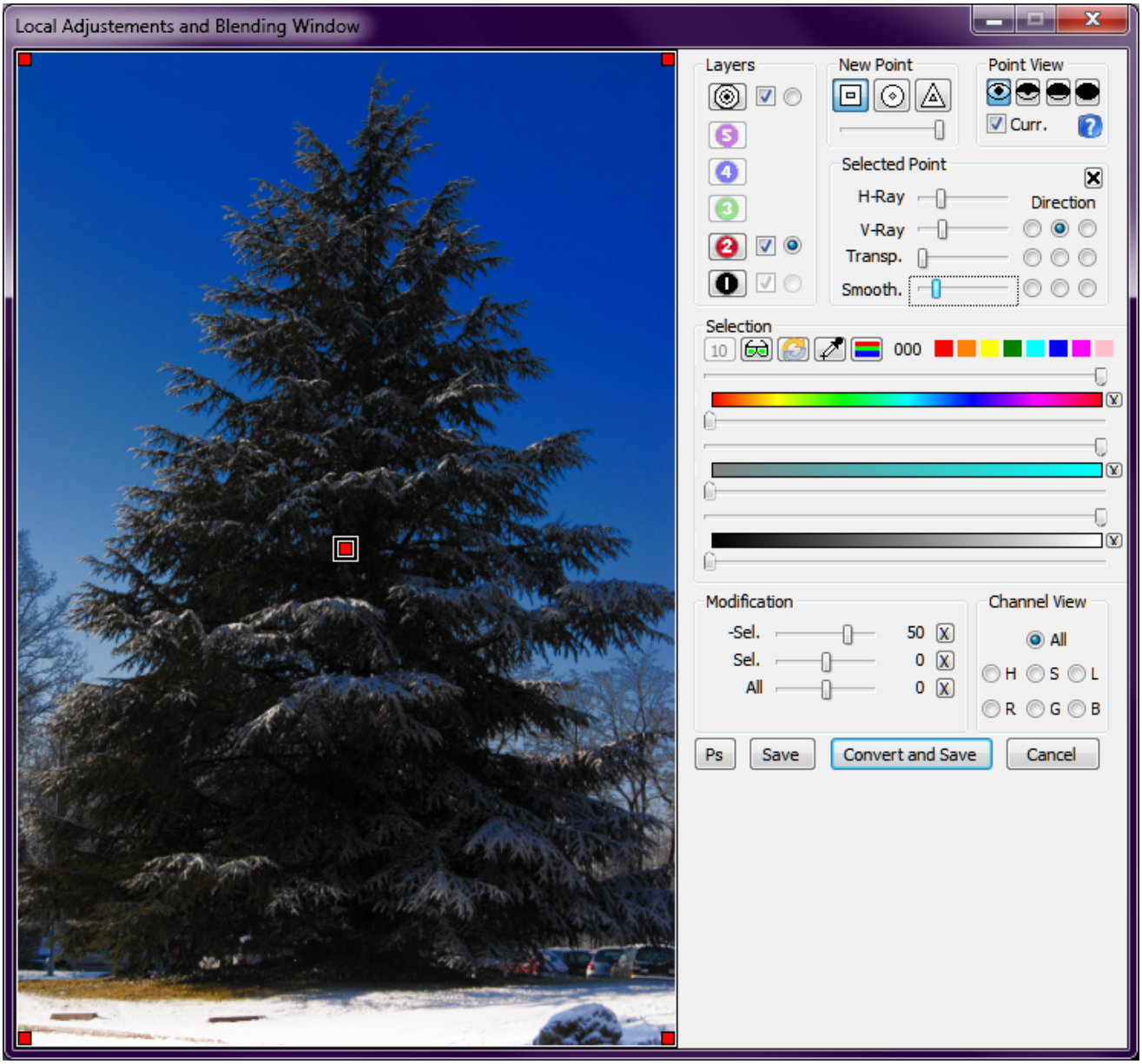
Then we call the "Local Adjustments and Blending" window.



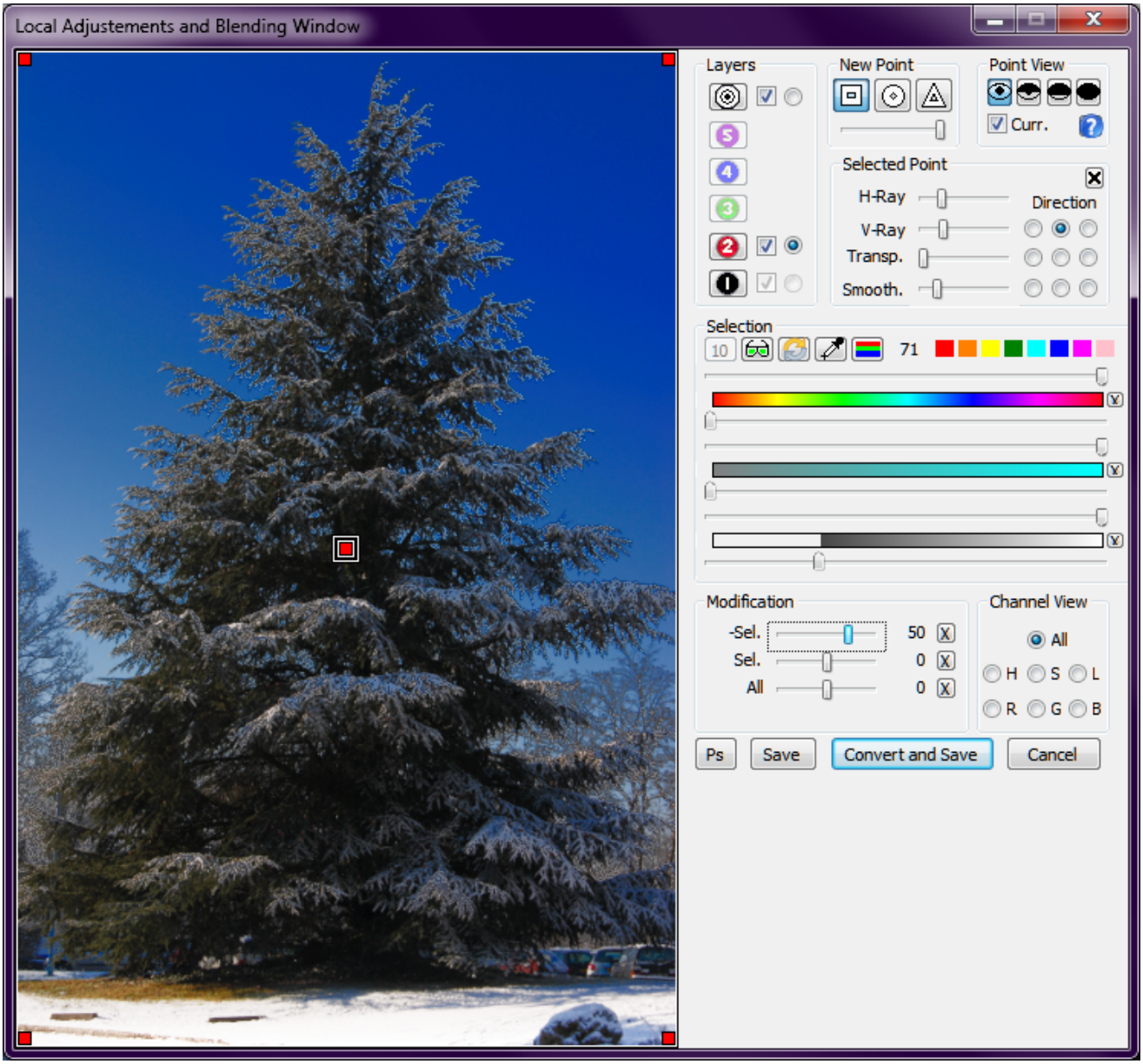
We select layer 2 and create a control point covering the whole picture. Note that we use the "Top-->Down" direction for the blending.



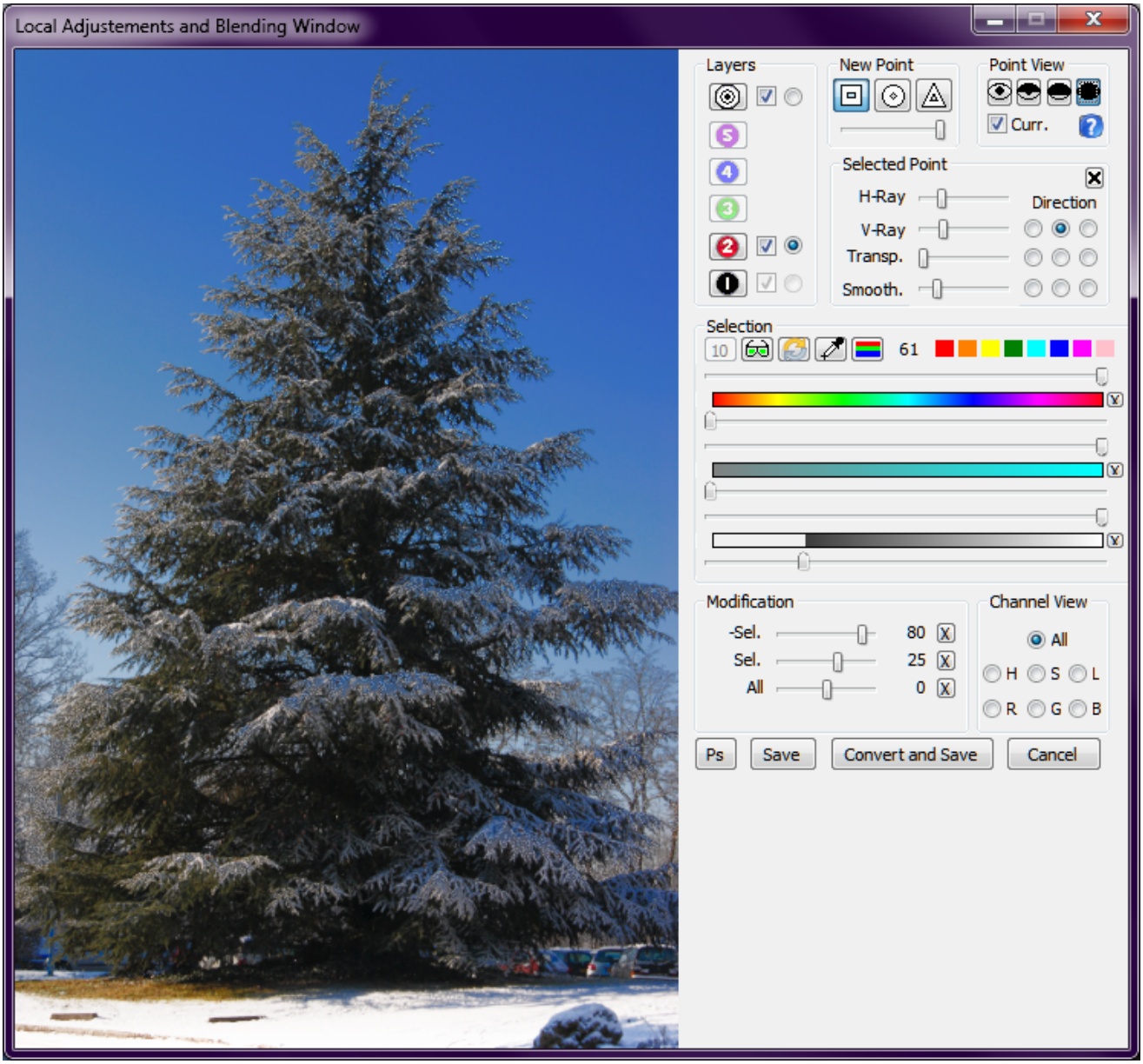
We decrease the smoothness of the blending to give the sky a deeper blue. However as we can see in the picture, the tree also becomes darker. But we would like the tree not be affected by the blending (only the sky). How to do this ?



To do this, we exclude the darker pixels from the blending. So we adjust the Luminosity slider to exclude the darker pixels of the tree.



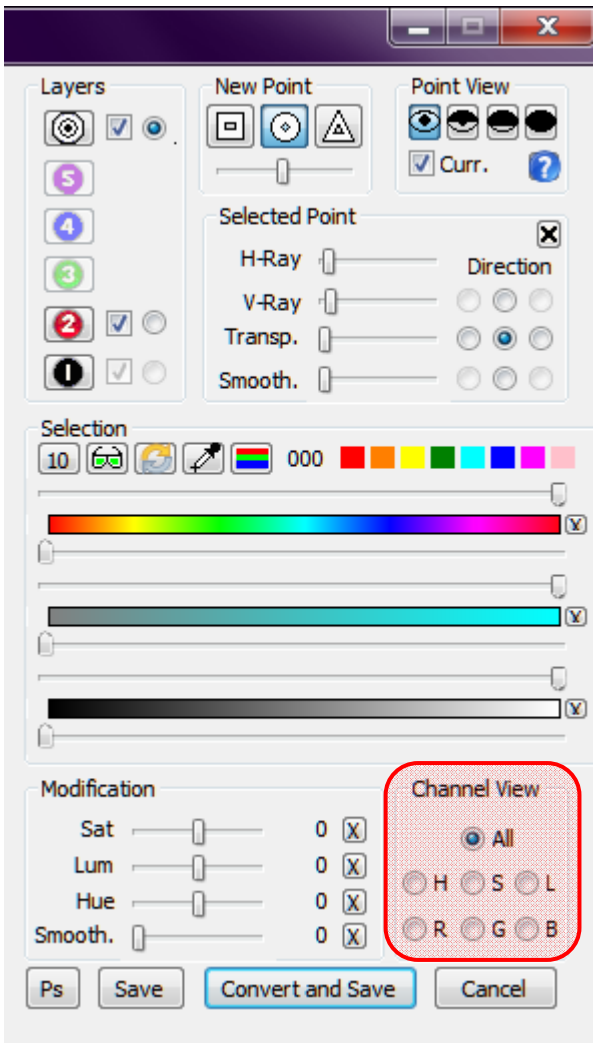
To improve the transition between the unselected pixels and the selected pixels, we adjust the transparency of both pixels by increasing the "-Sel slider" to 80 and the "Sel" slider to 25.



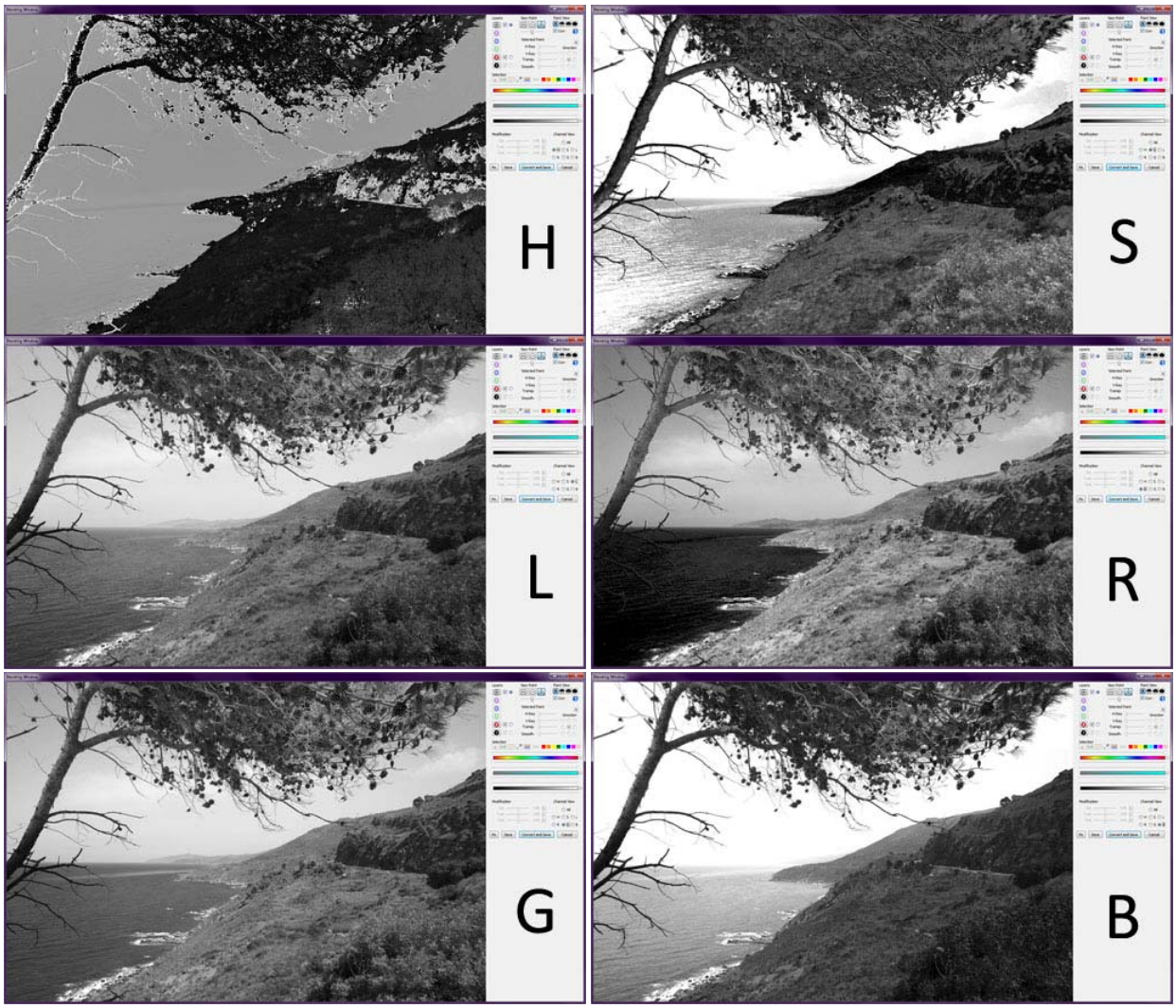
Here is the final before/after comparison. Note that you will have to play with these sliders sparingly else the transition between the blended pixels and the not blended ones will be too much visible.

4.13. "Channel View" Group Box

When making a selection, it can be useful to first see the picture through different channels. This might help to choose which slider(s) to use for the selection. Indeed, if an object is contrasted through a given channel, it will be easier to use the slider corresponding to this channel to define the selection.



The channel view radio buttons allow displaying the picture through the 6 available channels:
H: hue, S: saturation, L: Luminosity, R: Red, G: Green, B: Blue.
The lighten areas in the picture correspond to the pixels that have the highest values in the corresponding channel. The darken ones correspond to low values.

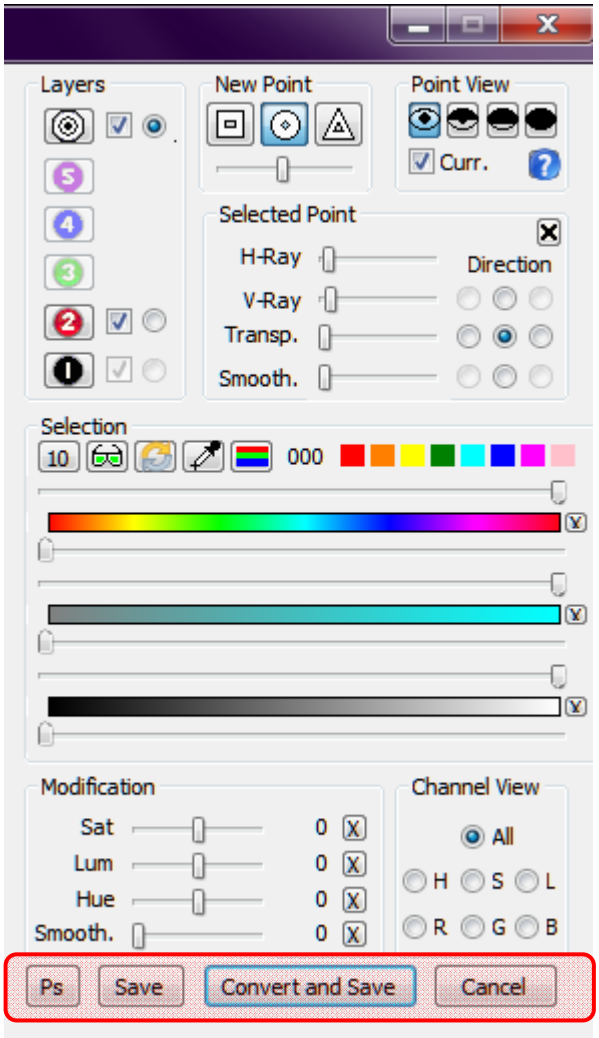

H
S
L
R
G
B

4.14. Closing Buttons

The 4 closing buttons allow to leave the "Local Adjustments and Blending" window in 4 different ways.

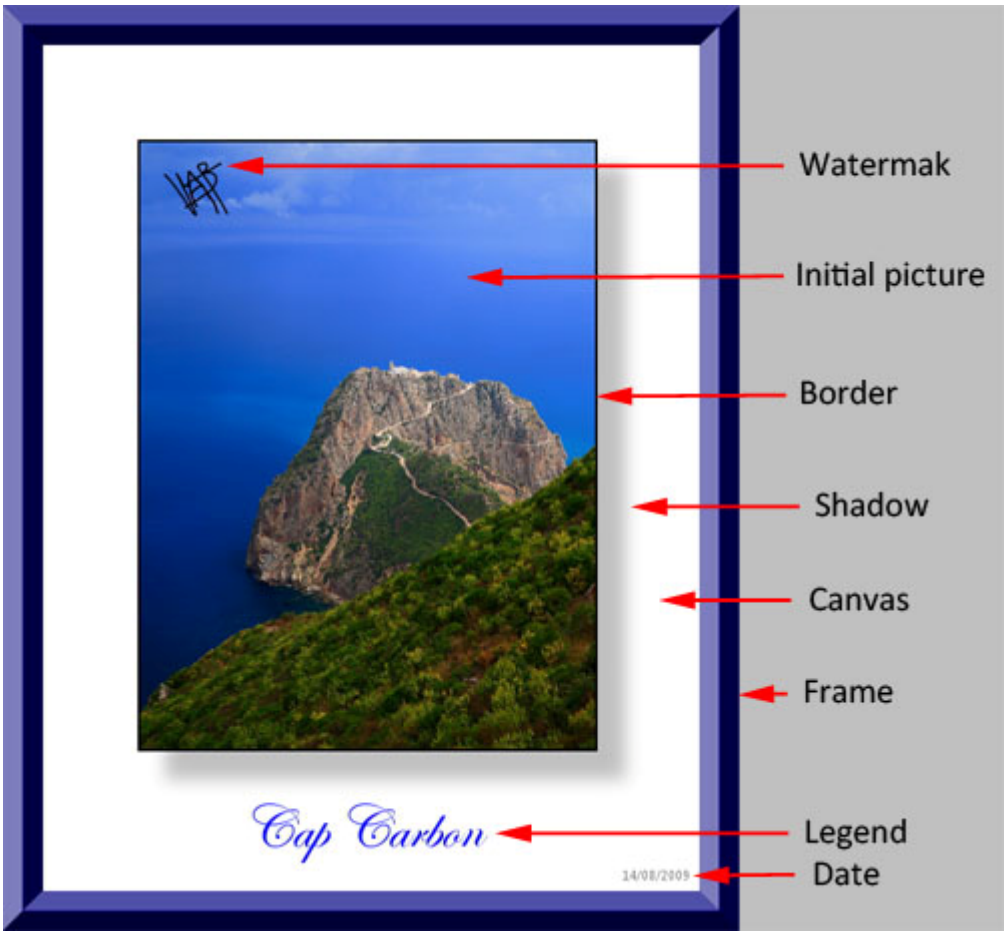
1. The "Ps" button saves the defined control points, launches the blending and/or the local adjustments processing, and finally opens the resulted image in Photoshop or any other editing program. You can specify the editing program you want to use thanks to the "Preferences" item of the program menu (See Section 1.4 : "The program menu").
2. The "Save" button just saves the defined control points and returns to DPP window.
3. The "Convert and Save" button saves the defined control points, launches the blending and/or the local adjustments processing, and return to DPP window when finished.
4. The "Cancel" button returns to the DPP window without saving the defined control points.

Note that the control points are saved in a file with the same name as the picture name and with the ".brp" extension in a subfolder "snapshots" under the folder containing the picture file.



5. AfterDPP Extensions

5.1. What is AfterDPP?



AfterDPP is a plugin included in DPP++. It enhances DPP by adding some useful post-processing functions. The picture above is an example of the kind of images you can obtain directly within DPP by using AfterDPP plugin.

You can have access to AfterDPP extensions through the **batch process window of DPP (CTRL-B)**.

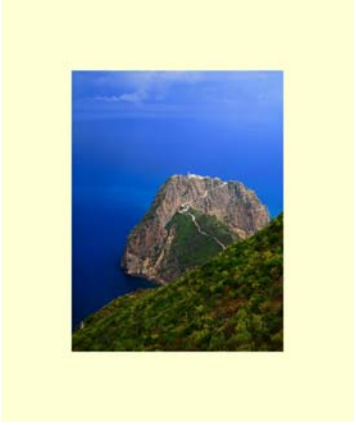
AfterDPP completes DPP by adding the following post-processing functions:

1. Add watermarks to converted pictures.
2. Stamp converted pictures with date of shots, automatically extracted from EXIF info.
3. Choose between 15 different algorithms to resize converted pictures (for instance, famous lanczos)
4. Add final sharpening to final resized pictures.
5. Add frames to converted pictures.
6. Add shadows to converted pictures to provide 3D effect
7. Add legends to converted pictures.
8. Add borders to converted pictures.
9. Add canvas to converted pictures.

AfterDPP is for Windows systems only.

5.2. Examples of Post-Processed Pictures

Here are some examples of pictures obtained using AfterDPP. There are so many other possibilities. It's up to your imagination!

<table>
<tr>
<td>  </td>
<td>  </td>
<td>  </td>
</tr>
<tr>
<td>  </td>
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</td>
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<tr>
<td>  </td>
<td> 
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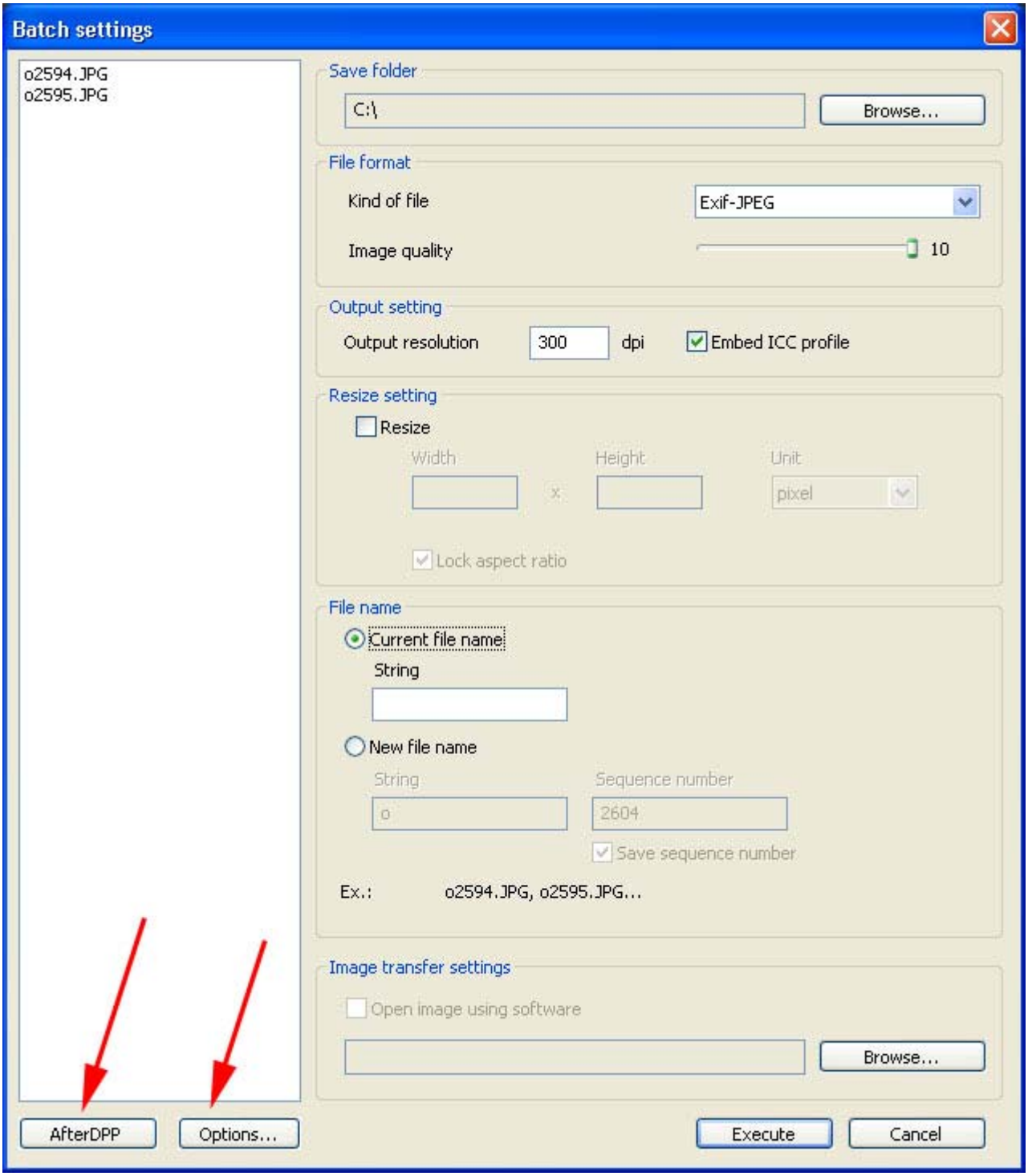
<td>  </td>
</tr>
</table>


Cap Carbon
Cap Carbon
14/08/2009

5.3. How to Launch AfterDPP?

You can have access to AfterDPP extensions through the **Batch process window of DPP** (CTRL-B).



As you can see, After DPP adds 2 new buttons to this window:

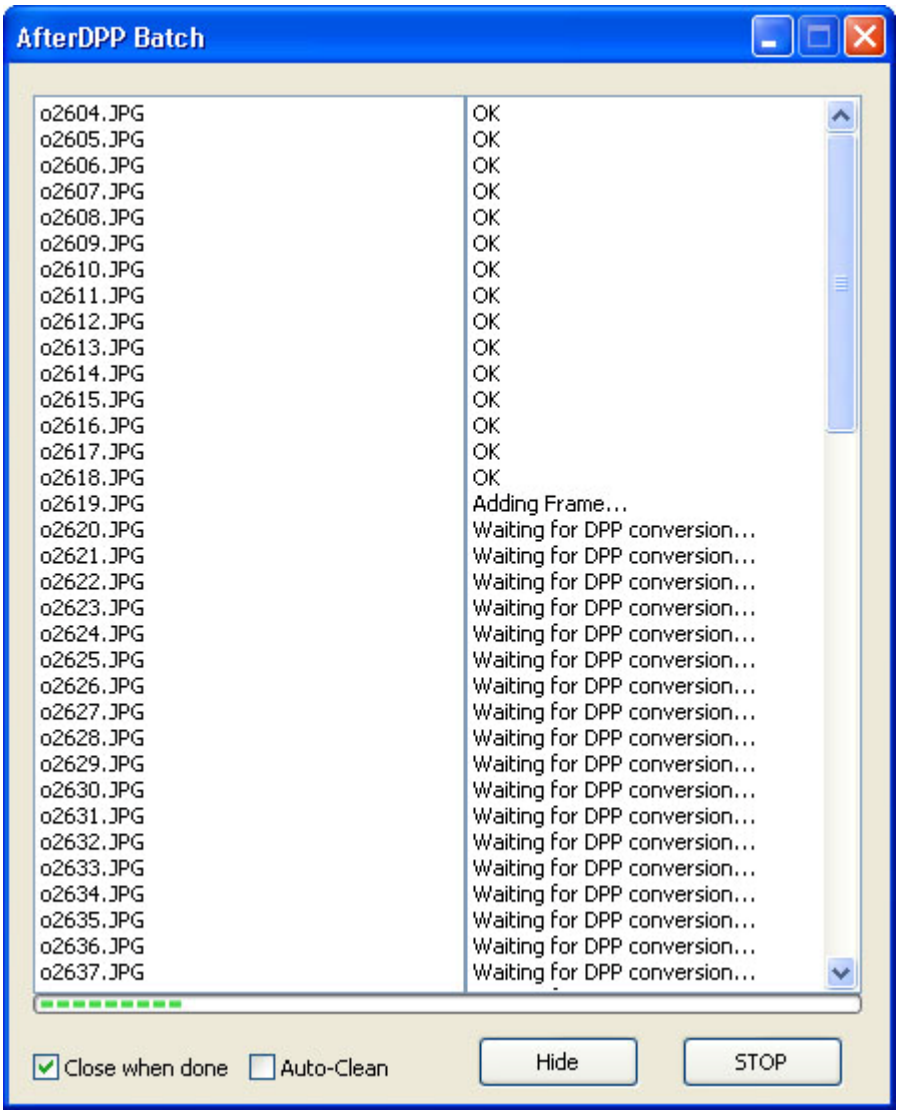
1. **AfterDPP Button**: allows launching DPP conversion of the selected files followed immediately by AfterDPP post-processing. If you click on this button you don't need to click on the DPP Execute button. AfterDPP will invoke DPP to convert the selected files and then will apply the post-

processing functions to the converted files. A click on this button will open the AfterDPP Batch Window.

2. **Options Button**: this button allows configuring the post-processing functions that will be applied to the selected files. A click on this button will open the AfterDPP Options window.

5.4. AfterDPP Batch Window

The AfterDPP Batch window allows following the status of post-processing operations done by AfterDPP.



The left column shows the files that are currently in the batch list.

The right column shows the status of each file. The status can be one of the following item:

- OK: the file has been post-processed correctly.
- Waiting for DPP conversion: AfterDPP is waiting for DPP conversion to be finished.
- AfterDPP is processing: means that AfterDPP is currently post-processing the file (Adding Border, Adding Watermark, Adding Date, etc.).
- Cancelled: the post-processing of the file has been cancelled by the user.

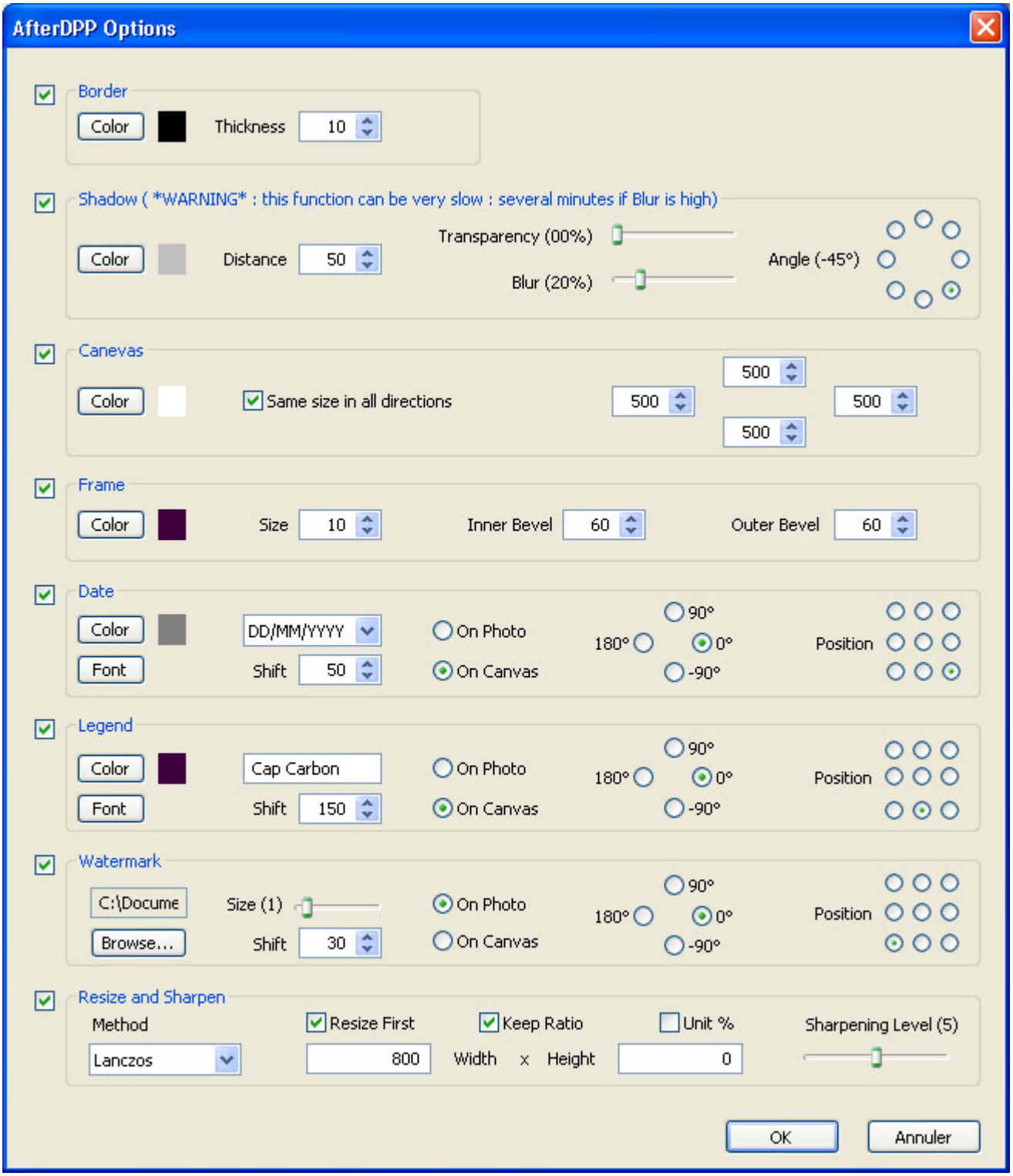
The AfterDPP batch window offers also 4 functions:

- The Hide button allows hiding the AfterDPP batch window. The AfterDPP batch window can be restored through the DPP++ menu that appears when you click on the DPP++ icon in the notification bar (Show Batch)

- The STOP button allows canceling the post-processing of files that are still waiting for DPP conversion.
- The "Close when done" checkbox allows to automatically closing the batch window when post-processing of all files is done.
- The "Auto-clean" checkbox allows removing automatically from the list, the files for which the post-processing is done.

5.5. AfterDPP Options Window

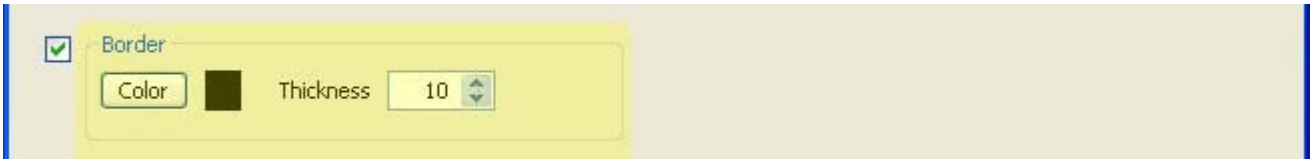
The AfterDPP Options Window allows to choose and to configure the functions that will be applied during AfterDPP post-processing. The checkboxes at the left allow to enable or disable a given post-processing function. Each function is described in following sections.



5.6. Adding a Border

To add a border to the picture, open the AfterDPP Options window, then enable the Border checkbox and then :

- Click on the color button to choose the color of the border.
- Choose a value for the border thickness.



5.7. Adding a Shadow

To add a shadow to the picture to give it a 3D effect, open the AfterDPP Options Window, then enable the Shadow checkbox and then:

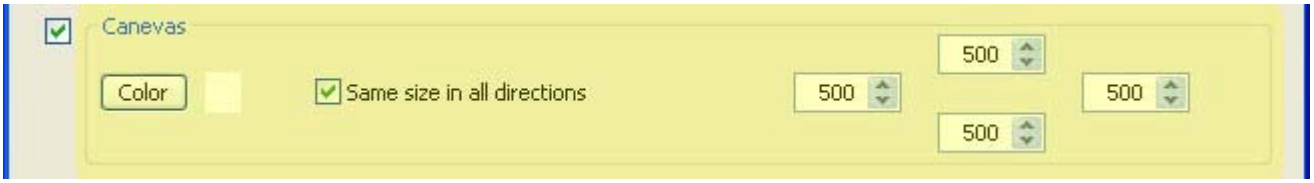
- Click on the color button to choose the color of the shadow (gray is recommended).
- Choose a value for the distance between the shadow and the picture.
- Choose the transparency level of the shadow
- Choose the blur level of the shadow
- Choose the angle of the shadow

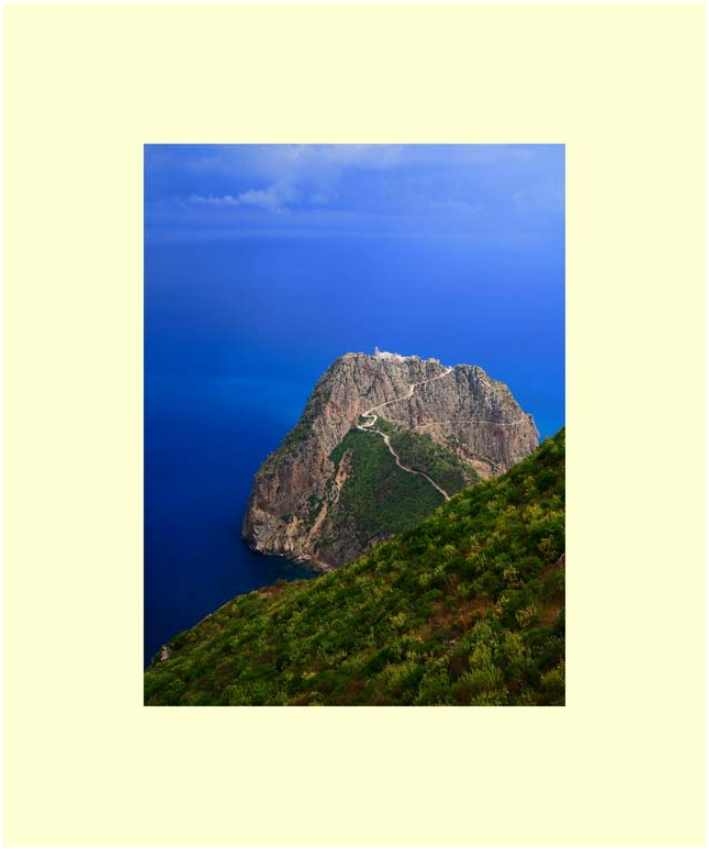
Warning: this function may be very slow, especially if the blur value is high (it may take several minutes to finish).

5.8. Adding a Canvas

To add a canvas to the picture, open the AfterDPP Options window, then enable the Canvas checkbox and then:

- Click on the color button to choose the color of the canvas.
- Enable the "Same size in all directions" checkbox if you want to have the same extent at left, right, top and bottom.
- Choose the values for the canvas extension in each direction.





5.9. Adding a Frame

To add a frame to the picture, open the AfterDPP Options window, then enable the Frame checkbox and then:

- Click on the color button to choose the color of the frame.
- Choose a value for the size of the frame (more precisely the central part of the frame).
- Choose a value for the size of the inner bevel.
- Choose a value for the size of the outer bevel.

5.10. Adding the Date

To add the date of the shot (extracted from the EXIF data) to the picture, open the AfterDPP Options window, then enable the Date checkbox and then:

- Click on the "Color" button to choose the color of the date.
- Click on the "Font" button to choose the font of the date.
- Click on the format list to choose the format of the date.
- Choose a value for the distance between the date and the end border of the picture (shift).
- Choose whether you want to add the date on the picture or on the canvas (if you have added one).
- Choose the orientation of the date.
- Choose the position of the date in the picture.

5.11. Adding a Legend

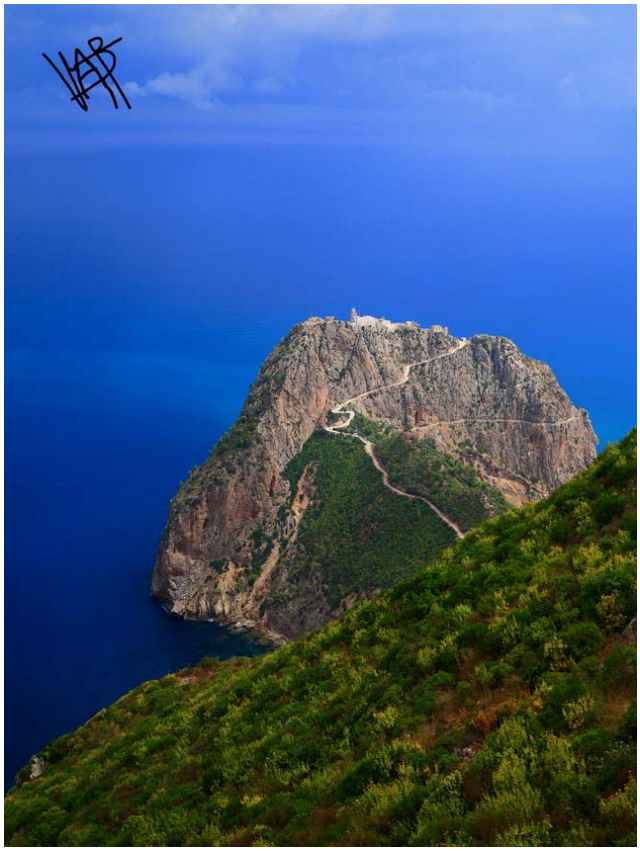
To add a legend to the picture, open the AfterDPP Options window, then enable the Legend checkbox and then:

- Click on the "Color" button to choose the color of the legend.
- Click on the "Font" button to choose the font of the legend.
- Enter in the edit box the text of the legend.
- Choose a value for the distance between the legend and the end border of the picture (shift).
- Choose whether you want to add the legend on the picture or on the canvas (if you have added one).
- Choose the orientation of the legend.
- Choose the position of the legend in the picture.

5.12. Adding a Watermark

To add a watermark to the picture, open the AfterDPP Options window, then enable the Watermark checkbox and then:

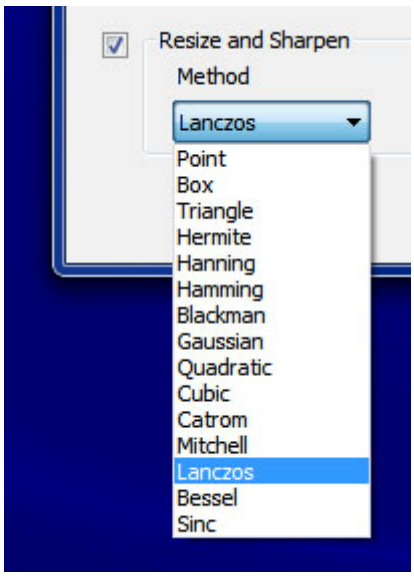
- Click on the "Browse" button to choose the image file that will be used as a watermark. It is recommended to use transparent gif or png so as the watermark background will be transparent.
- Choose a value for the size of the watermark. If you set the size to 0 then AfterDPP will not modify the size of your watermark. If you choose another value then AfterDPP will resize your watermark depending on the size of the picture (1=10% of the size of the picture, 2=20%, etc.). This may be useful if you work with different picture sizes and don't want to bother to resize manually the watermark each time.
- Choose a value for the distance between the watermark and the end border of the picture (shift).
- Choose whether you want to add the watermark on the picture or on the canvas (if you have added one).
- Choose the orientation of the watermark.
- Choose the position of the watermark in the picture.



5.13. Resize and Sharpen

AfterDPP allows you to resize the picture using 15 different algorithms. To resize and sharpen the final picture, enable the "Resize and Sharpen" checkbox and then:

- Choose the resize method you want to use (Lanczos is recommended).



- Choose a value for the width and the height of the resized picture.
- Choose a value for the sharpening level. This sharpening will be applied of course after the resizing.
- Check the "Unit %" checkbox if you want to indicate the width and the height in percentage of the initial size of the picture.
- Check the "Keep Ratio" checkbox if you want to preserve the aspect ratio of the picture. In this case you have to indicate only the width or only the height size of the final picture. AfterDPP will put automatically a '0' in the other size, which means that it will be calculated automatically by AfterDPP to preserve the aspect ratio.
- Check the "Resize First" checkbox" if you want the initial picture to be resized first before the post-processing functions will be applied to it. The advantage of this, is that the post-processing will be faster (especially if you use the shadow function) since it will be applied to a smaller picture. However the size of the final picture will be larger than the values you indicated since borders, canvas, and frames may be added to the resized picture.