

REALGRAIN 2

PLUG-IN

USER'S GUIDE

BY IMAGENOMIC

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Realgrain 2 Plug-in User's Guide

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Contact Imagenomic at <http://www.imagenomic.com/contact>

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INTRODUCTION

If you long for the darkroom age, the soft, warm graininess of the silver halide film, or you seek to infuse that fuzzy, retro look or perhaps enhance your digital photos by simulating the greater range and texture of traditional film media, then Realgrain™ is the plugin for you.

Realgrain features versatile methods for simulating the grain patterns, the color and the tonal response of different films and different scan resolutions to convey a truly film-like image effect.

Because Realgrain enables you to automatically adjust the grain size based on the physical image dimensions, it can dynamically render accurate grain patterns for varying image sizes.

Realgrain's controls for grain balance, tonal and color fine-tuning enable you to generate superior output quality and picture vibrancy, and are simple and easy-to-use for a truly intuitive workflow experience. Realgrain also features a toning toolkit for simulating traditional B&W toning effects such as Sepia, Platinum and others.

Plus, Realgrain comes with a comprehensive precision preset library for most popular color and B&W films enabling a wide range of out-of-box film effect options. You can also capture your own signature workflow through custom presets tailored to your specific requirements and individual photographs.

TECHNICAL SUPPORT

Technical support is available via Imagenomic's website at <http://www.imagenomic.com/support>

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INSTALLATION

- REQUIREMENTS
- MODIFYING REALGRAIN PLUG-IN INSTALLATION
- INSTALLING LICENSE KEY
- RUNNING REALGRAIN PLUG-IN

REQUIREMENTS

Realgrain Plug-In works with both 8-bit and 16-bit images and is compatible with Adobe Photoshop CS5/CS6/CC and Adobe Photoshop Elements 8/9/10/11.

The following are the minimum system requirements:

- Microsoft Windows® XP/7/8
- 1GB free RAM
- 100MB free hard drive space
- 1280x800 screen resolution

- Mac OS X 10.6.x/10.7.x/10.8.x
- 1GB free RAM
- 100MB free hard drive space
- 1280x800 screen resolution

RUNNING REALGRAIN PLUG-IN

For Adobe Photoshop and Adobe Photoshop Elements click on the Filter menu and select Imagenomic > Realgrain

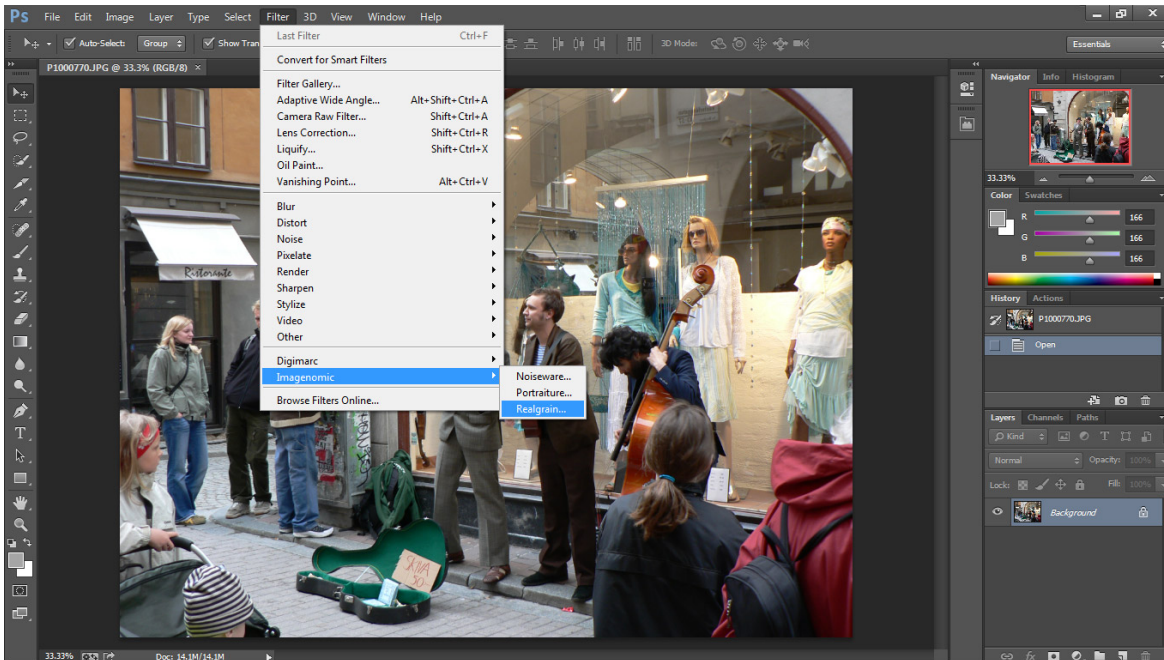


Figure 1: Running Realgrain Plug-in from Adobe Photoshop CC

INSTALLING LICENSE KEY

To install the license key open the "About Realgrain" window by clicking on the "About" button and click on the "Install License" button. The "License Key Installation" window will show where you can enter your license information.

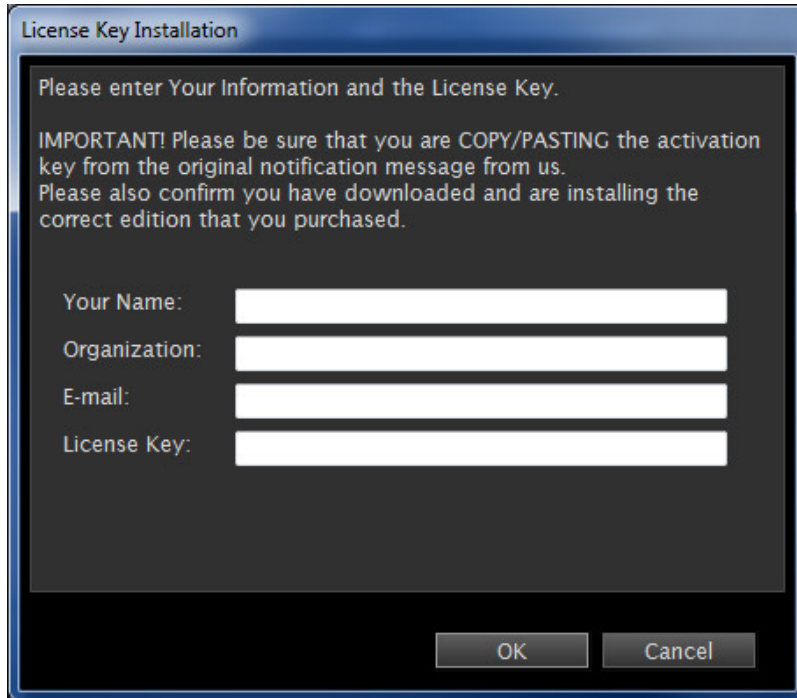


Figure 2: License Key Installation window

KEY FEATURES

- ADDING GRAIN
- ADJUSTING TONE
- ADJUSTING COLOR
- B&W CONVERSION
- TONING IMAGES

ADDING GRAIN

Realgrain features versatile methods for simulating the grain patterns of different films and scan resolutions to convey a truly film-like image effect. You can add luminance or color grain adjusted by the tonal range, balanced by the brightness and colors and by grain size.

ADJUSTING TONE

Realgrain features intuitive tone adjustment tools including the Tone Adjustment Curve display. For quick results, you can use built-in tone presets or manually fine-tune the settings for brightness and contrast in the highlights, midtones and shadows.

ADJUSTING COLOR

You can adjust the hue, saturation and brightness separately for spectral color ranges.

B&W CONVERSION

You can convert your images into Black&White and use the color mixers to fine-tune each color contribution to the resulting tone.

SPLIT-TONING

The toning toolkit enables simulation of traditional B&W toning effects such as Sepia, Platinum and others, as well as split-toning effects.

BASIC USE

- DEFAULT SETTING
- USING PRESETS
- PREVIEW AND CONTROLS

ADDING GRAIN

Default Setting

When you start Realgrain Plug-in for the first time, the filter is set to the "Default" setting. The main preview window will automatically display a copy of your image processed at the "Default/Reset" setting. The "Default/Reset" setting resets all control settings to their respective zero (0) or other default position. You can further adjust it using the many controls. You can examine the result, which will be automatically rendered in the preview area, by using the zoom, split-screen and panning tools as well as compare with the original by using click (and hold) with the left mouse button in the preview area.

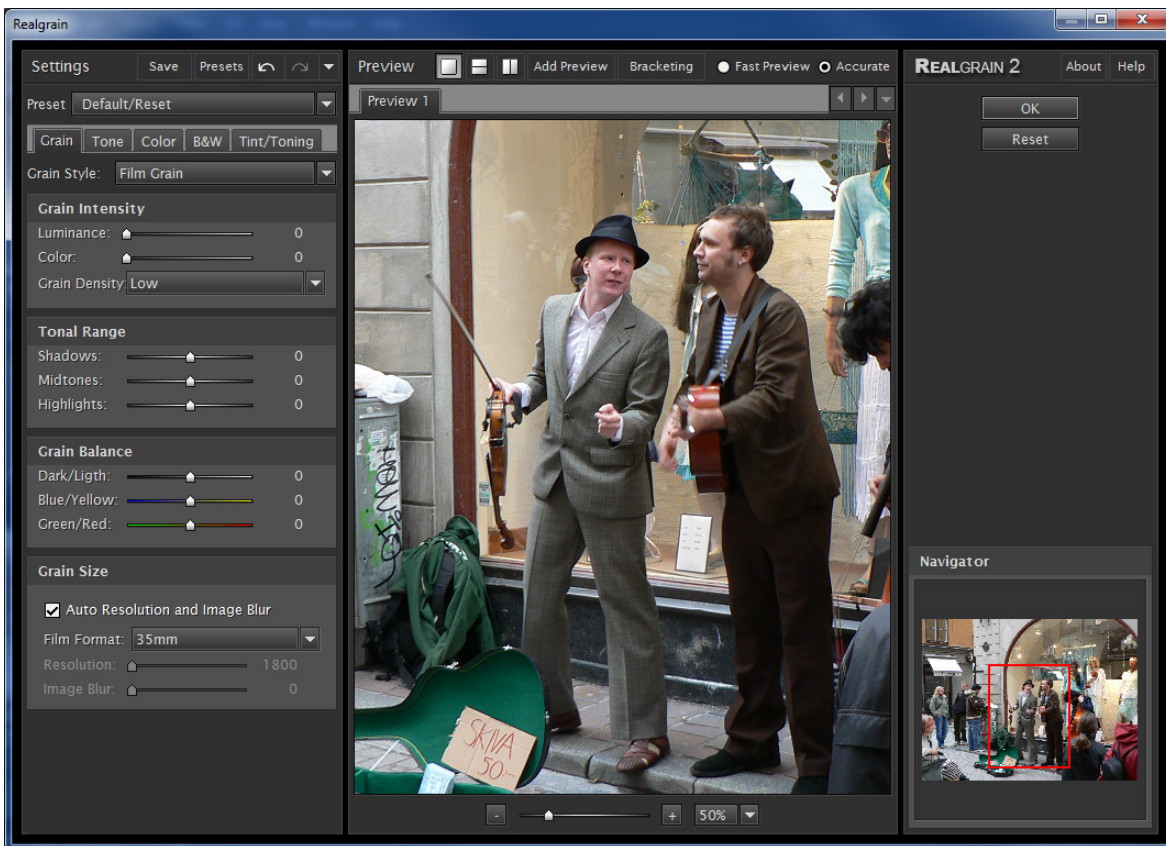


Figure 3: Realgrain Default/Reset preset

Using Predefined Presets

In addition to the "Default/Reset" setting, Realgrain provides a comprehensive precision preset library for most popular color and B&W films, split toning, grain and other effects enabling a wide range of out-of-box options. These presets are organized into various groups corresponding to film or effect types, such as Color Films, B&W Films, Grain Effects, Split Toning and Other Effects. Each of these groups contains the respective presets for particular category. For example, for simulating Fujicolor Press 400 film, you would select the film type from the Preset combo box, Color Films group. Generally on start-up, Realgrain will default to the last used filter settings.

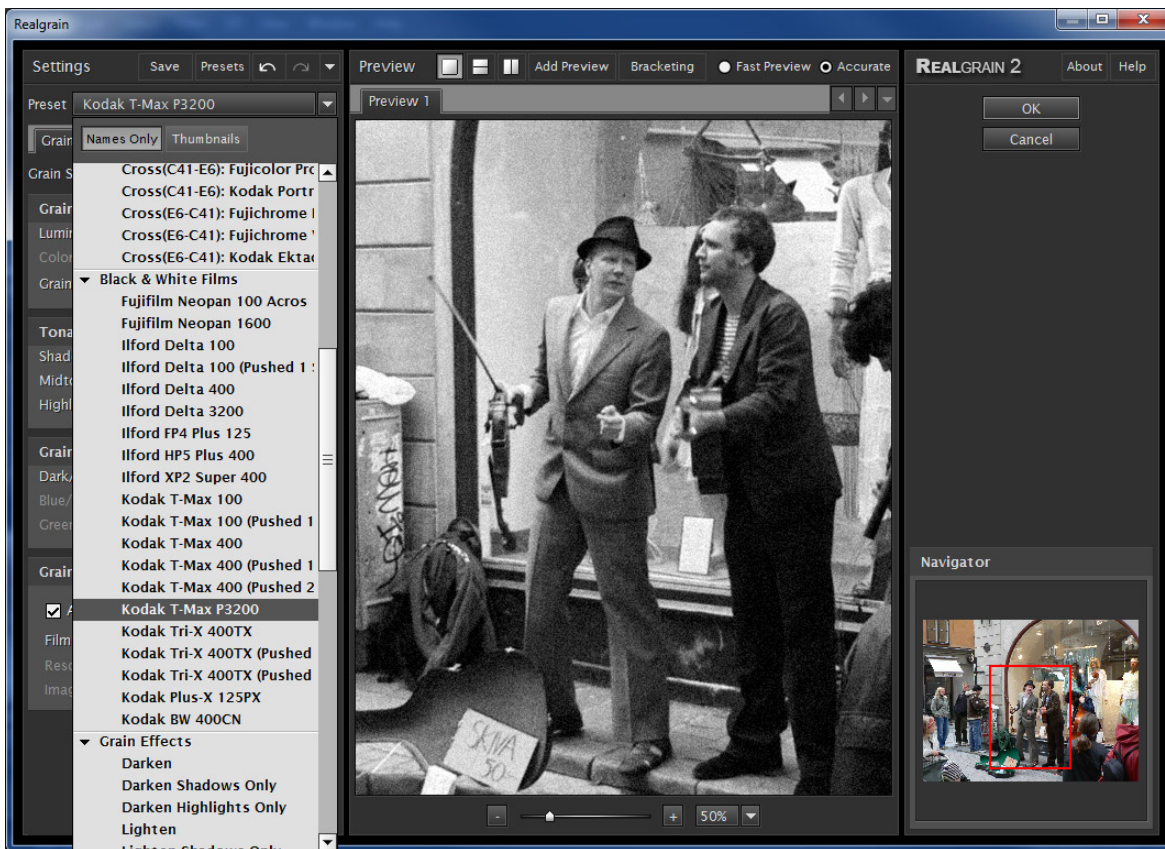


Figure 4: Realgrain predefined preset Kodak T-Max P3200

FILTER PREVIEW

The preview window displays a processed copy of the image. Realgrain updates the visible part of this preview in real-time when you apply a filter setting or modify any individual parameter. Once the filtering operation is completed you can click (and hold) on the processed image with the left mouse button to view the original image or to use panning. To zoom, you can use the [-]/[+] buttons located under the preview window. The zoom value can vary from 10% to 800%.

When zooming out, the processing speed can degrade as the preview will have to handle larger number of pixels. To speed up the preview update, you can choose "Fast Preview" which may slightly affect the preview accuracy. Choosing "Accurate" will show the exact result of the final processing.

In addition you can view the image in a horizontal or vertical split mode with original (top or left window section) and processed (bottom or right window section) copies both visible in the main window area. Analogous to the single view mode, you can click to pan or to see the original image.

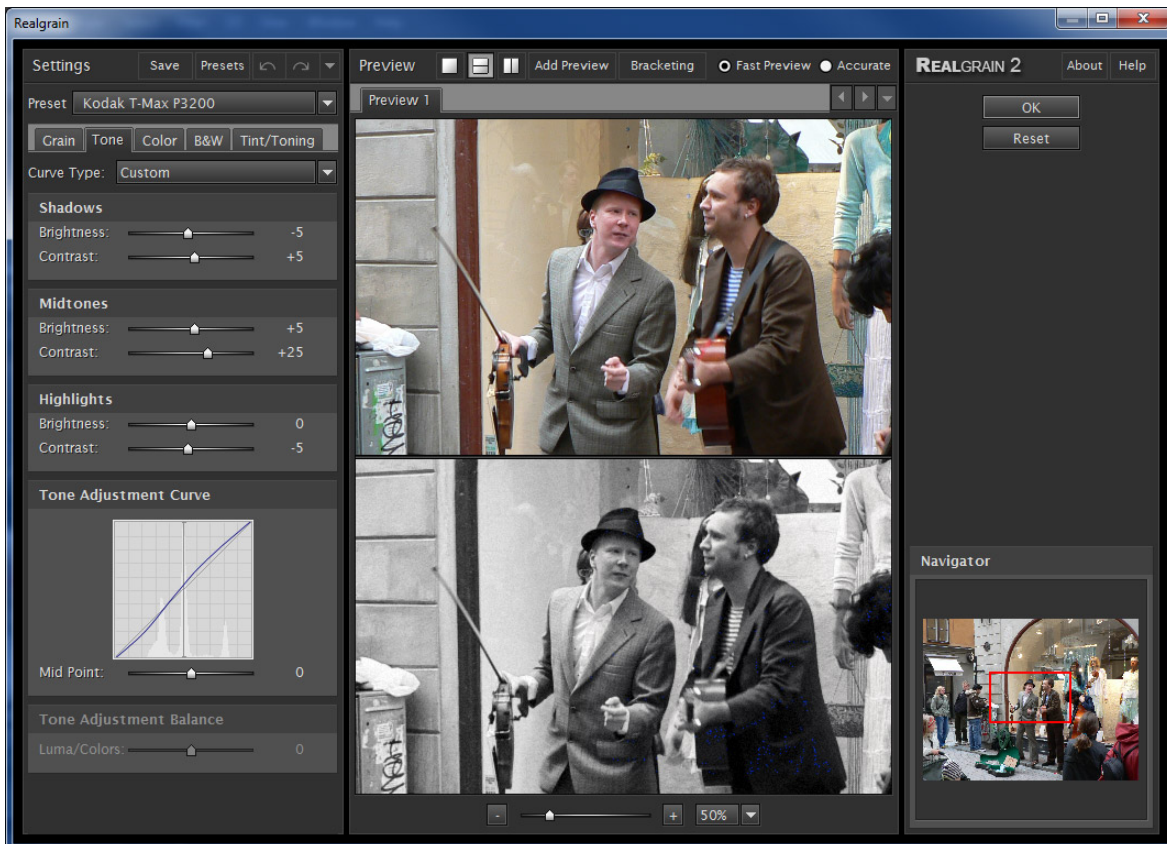


Figure 5: Filter Preview in vertical split mode zoomed at 50%

Preview window navigation controls

In addition to mouse panning, you can use mouse wheel to scroll vertically and Ctrl-wheel to scroll horizontally. You can also zoom using the Alt-Wheel. Zoom-in can be also activated with Ctrl-click and zoom-out with Alt-click. Right-click on the preview image area will display context pop-up menu with zoom, display mode and tool selection.

NAVIGATOR WINDOW

The Navigator window allows navigating the image by dragging the red square cursor or by clicking on a different area of the image. The corresponding area of the image is then displayed in the main preview window.

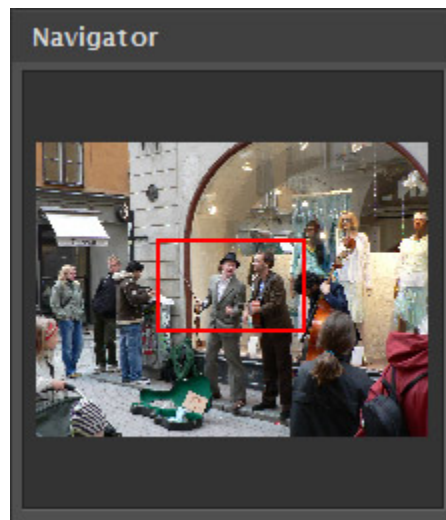


Figure 6: Navigator window

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ADVANCED USE

- FINE-TUNING GRAININESS
- ADJUSTING TONE
- ADJUSTING COLOR
- B&W CONVERSION
- SPLIT-TONING
- MULTIPLE PREVIEWS AND BRACKETING
- PHOTOSHOP ACTION AND SCRIPTING SUPPORT
- KEYBOARD AND MOUSE CONTROLS

FINE-TUNING GRAININESS

Filter controls

Realgrain provides a number of presets that simulate the different kinds of films and effects that reflect the unique grain patterns, texture and warmth of each individual film. In addition, Realgrain filter control sets provide a wide range of fine-tuning for achieving your desired effects. The controls are grouped into five functional sets - "Grain Style","Grain Intensity","Tonal Range","Grain Balance" and "Grain Size" - to enable an intuitive and effective workflow. Each set is explained in more detail in the following sections.

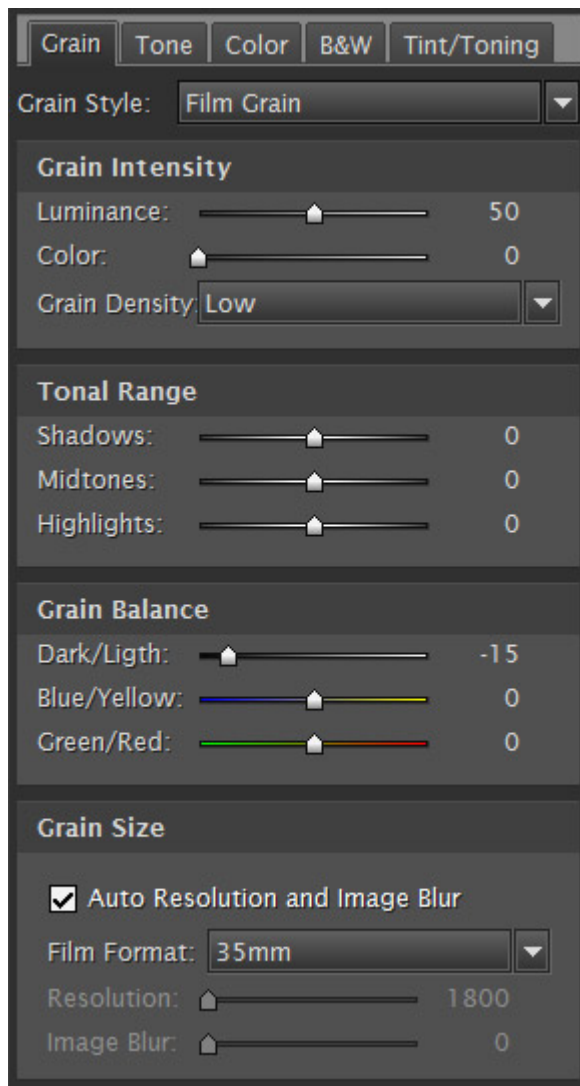


Figure 7: Grain controls

Grain Style

You can choose between two settings for Film Grain and Digital Noise to emulate the respective effects of film-like grains vs. the sensor noise of a digital camera.

Grain Intensity

You can set the degree of graininess, grain density or distortion separately for luminance (i.e. B&W grains) and color grains.

Tonal Range

You can adjust the graininess by tonal range separately for *Shadows*, *Midtones* and *Highlights*. Typically, most of the films result in grainier midtones rather than shadows or highlights. Therefore, you can achieve film-like grain across the entire tonal range.

Grain Balance

You can also balance the graininess for three parameter pairs – Dark&Light for luminance (B&W) grain, and Green&Red and Yellow&Blue for the color grain. For example, by setting positive values for Dark&Light you can brighten up the image by inducing lighter grain. Similarly, by adjusting the Green&Red or Yellow&Blue you can change the image tint by inducing more of a particular color grain.

Grain Size

Grain size is defined differently for Film Grain and Digital Noise.

For the Film Grain, if the “Auto Resolution and Image Blur” is checked, Realgrain automatically calculates the grain size based on the selected film format and the dimensions of the image. Furthermore, to achieve even more film-like perception the amount of blur is also determined pro grammatically based on the specified grain intensity in addition to the film format and image dimensions. You can choose between 35mm and 120 film formats.

For example, if the image is 16MPixel at 4992X3328 and the selected film format is 35mm, Realgrain would calculate the “scanning” resolution that would have resulted in the 16MPixel image and scale the grain size accordingly to 3600dpi. Thus, based on your initial desired film format and the image dimensions, Realgrain emulates grain size that would have resulted from a physical scan from 35mm frame or other film format at the given resolution.

Alternatively, you may manually set custom resolution between 1800dpi and 7200dpi and image blur value between 0 and 40.

For adjusting the spatial characteristics of the Digital Noise, you can use Fine, Medium or Large grain size controls.

ADJUSTING TONE

Realgrain provides several tone adjusting controls and predefined presets. You can also view and fine-tune your settings using the Tone Adjustment Curve.

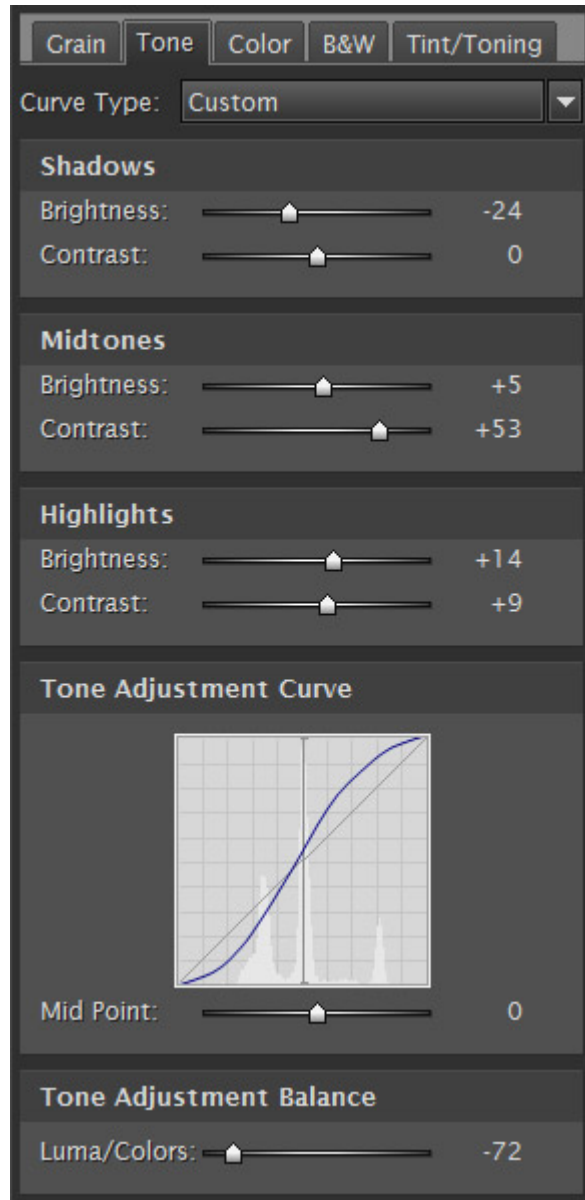


Figure 8: Tone controls

You have the option of selecting a pre-defined curve type –such as Linear, Medium Contrast, Strong Contrast etc. or to define your own tone curve using the many controls. You can adjust the brightness and contrast separately for Shadows, Midtones and Highlights and observe the changes to the tone curve. Additionally, you can baseline Grey level using the Mid Point controls in the curve display area. The Tone Curve preview also features a Luminosity Histogram.

Using the Tone Adjustment Balance slider, you can adjust contrast and brightness between two extreme settings – for Luminance only or for all three Color channels (RGB) together. The negative values are for tone adjustment using mostly Luminance while positive values are for tone adjustment using mostly Colors.

ADJUSTING COLOR

Realgrain provides several controls for adjusting spectral colors. You can adjust hue, saturation, and brightness for values between -100 and +100 per color range. You can also use the master saturation and hue sliders for adjusting the saturation and hue levels for all color ranges.

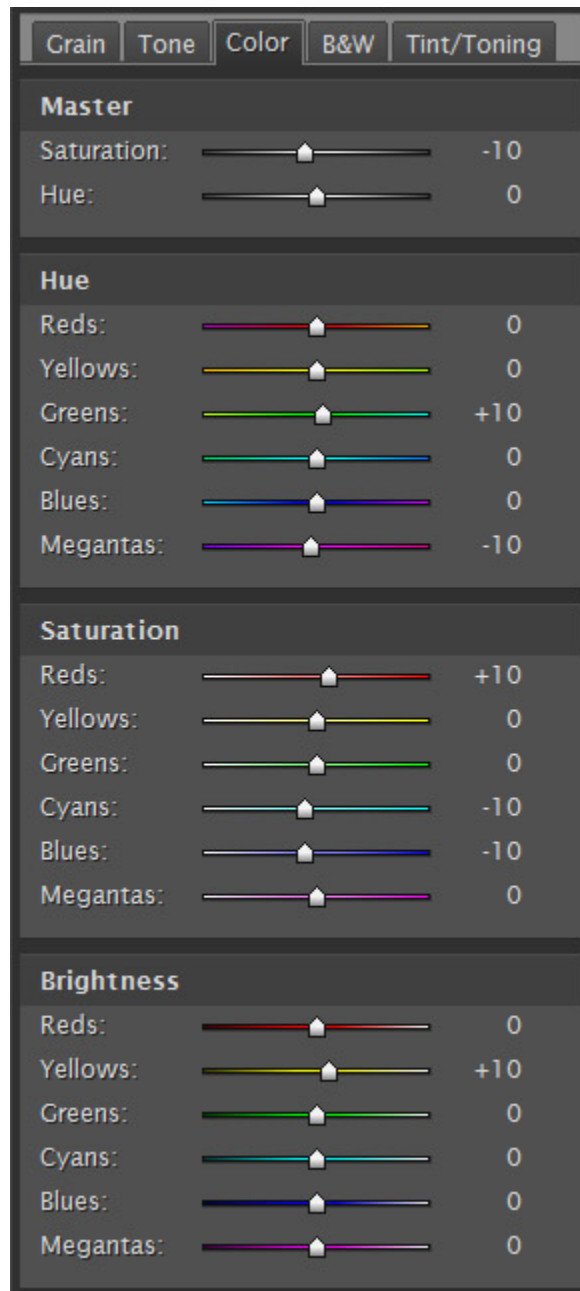


Figure 9: Color controls

B&W CONVERSION

Realgrain enables flexible controls for Black&White conversion.

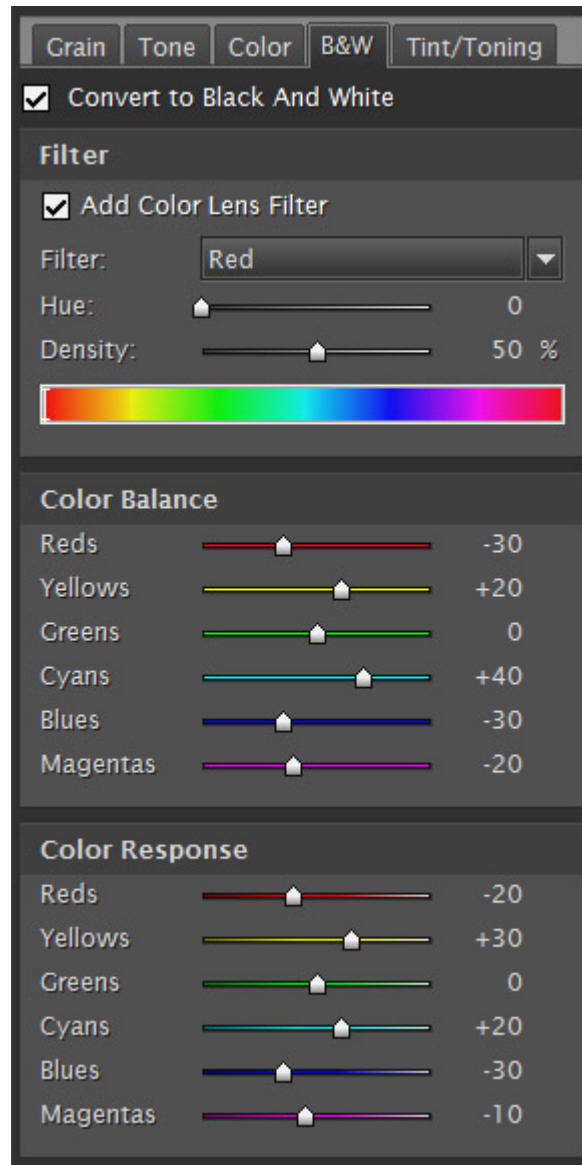


Figure 10: B&W conversion controls

As a default method, it de-saturates the image to remove the color information. The additional controls allow for specifying each color's contribution to the resulting tone.

Each of the "Color Balance" controls set the relative amount of each respective color in the resulting Grey tone. For example, positive values for the Reds increase the amount of Reds at the expense of all other colors thus keeping the overall brightness at the same level.

In contrast, the “Color Response” controls set the degree of sensitivity for the conversion of each particular color range. For example, positive values for the Reds result in lighter Greys for the Reds without affecting the brightness for other color ranges.

Realgrain also features a versatile Color Filter simulation tool for B&W photography. You can select from pre-defined list of presets or manually adjust the filter hue and density.

TINT/TONING

The toning toolkit enables the simulation of traditional B&W toning effects such as Sepia, Platinum and others, as well as split-toning effects. Realgrain provides controls for toning strength and Green&Red and Yellow&Blue balance.

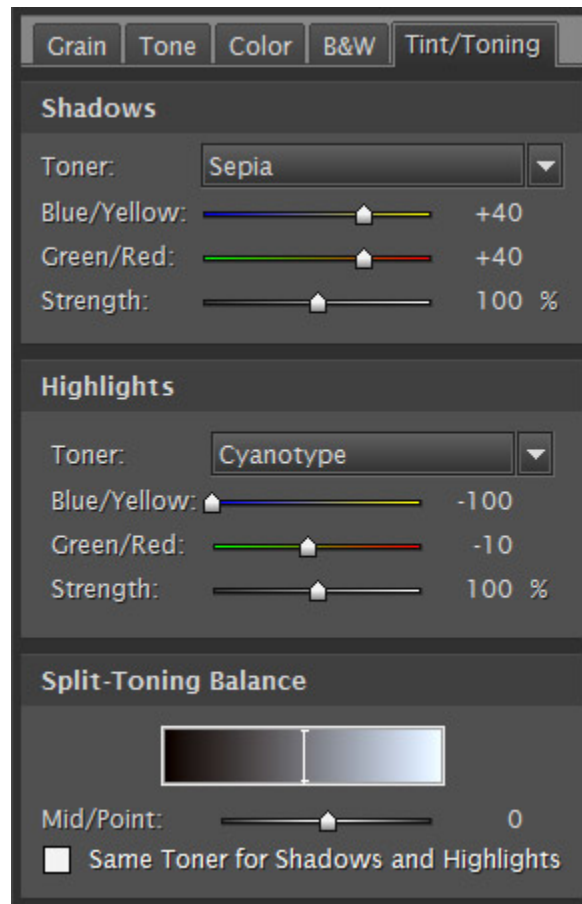


Figure 11: Tint/Toning controls

For the split-toning effects, the color toning can be specified separately for Shadows and Highlights, or for a single tone effect you can check the “Same Toner for Shadows and Highlights” to equalize the values for both tonal ranges. Using the split-toner balance you can baseline the Shadows/Highlights by operating the Mid-point slider.

Although the toning effects are intended to colorize B&W images, you can also use these controls to add or correct tint in color images.

SAVING SETTINGS TO CREATE NEW FILTER PRESETS

You can create your own custom presets by using the "Save" button. You can choose to save the custom settings from each or any combination of the three control sets. Custom Presets can be saved in Groups (e.g. for specific clients or assignments) and can be annotated with additional details.

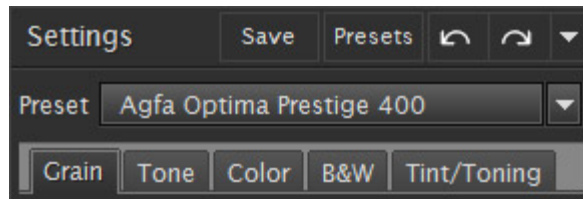


Figure 12: Save, Delete, Undo and Redo buttons

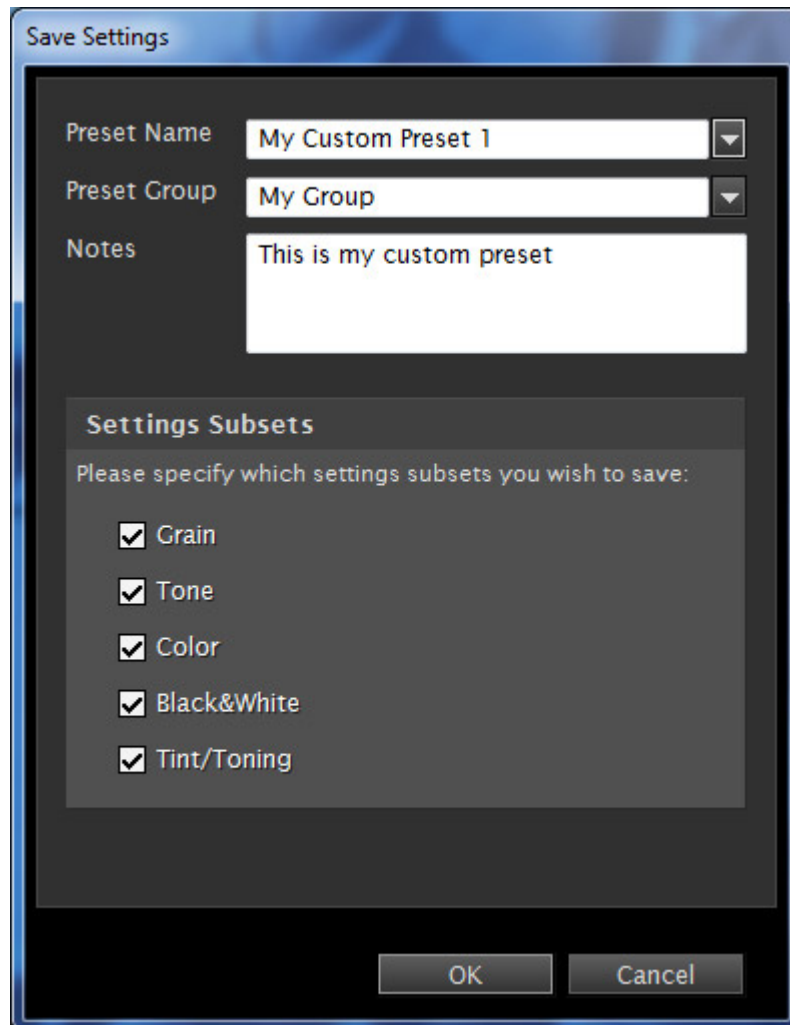


Figure 13: Save Custom Filter Settings window

UNDO/REDO FILTER OPERATION

You can revert or re-apply the last settings used by clicking the "Undo..." and "Redo..." button controls next to the preset combo-box or by using CTRL+Z or CTRL+Y keyboard combinations respectively. These controls can be also accessed by right-clicking on a slider control.

MULTIPLE PREVIEWS AND BRACKETING

Multiple Previews

The Realgrain preview feature provides a mechanism for opening multiple preview windows, up to 100 for the same image file. This allows you to compare different filter settings by simply switching between preview tabs. The filter settings will be automatically set to their respective values for each preview. To create a preview, right-click on the "Preview" title and select "Add Preview". To close a preview, select "Close Preview" and the current preview will be closed. You can also "Close Other Previews" which will close all other previews and keep only current preview.

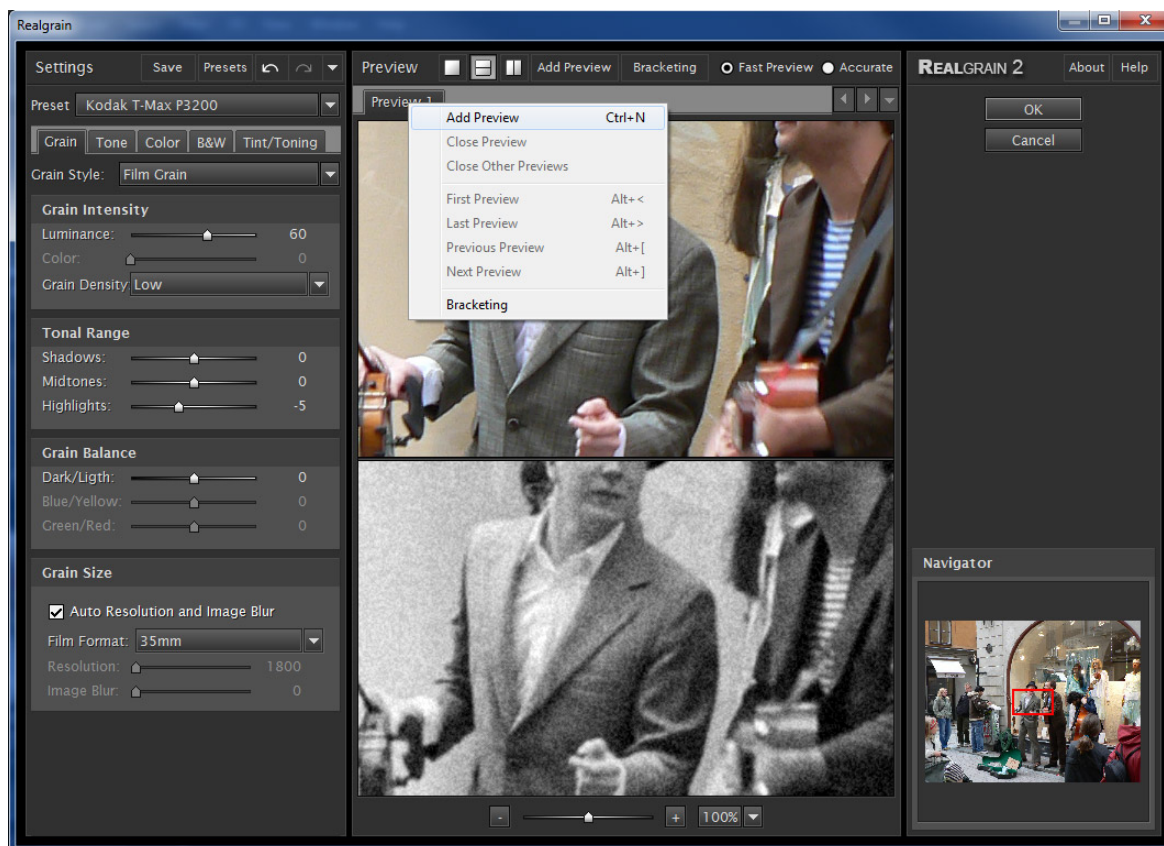


Figure 14: Preview pop up menu

Alternatively, you can add a new preview by clicking on the “Add Preview” button on the top of the preview window.

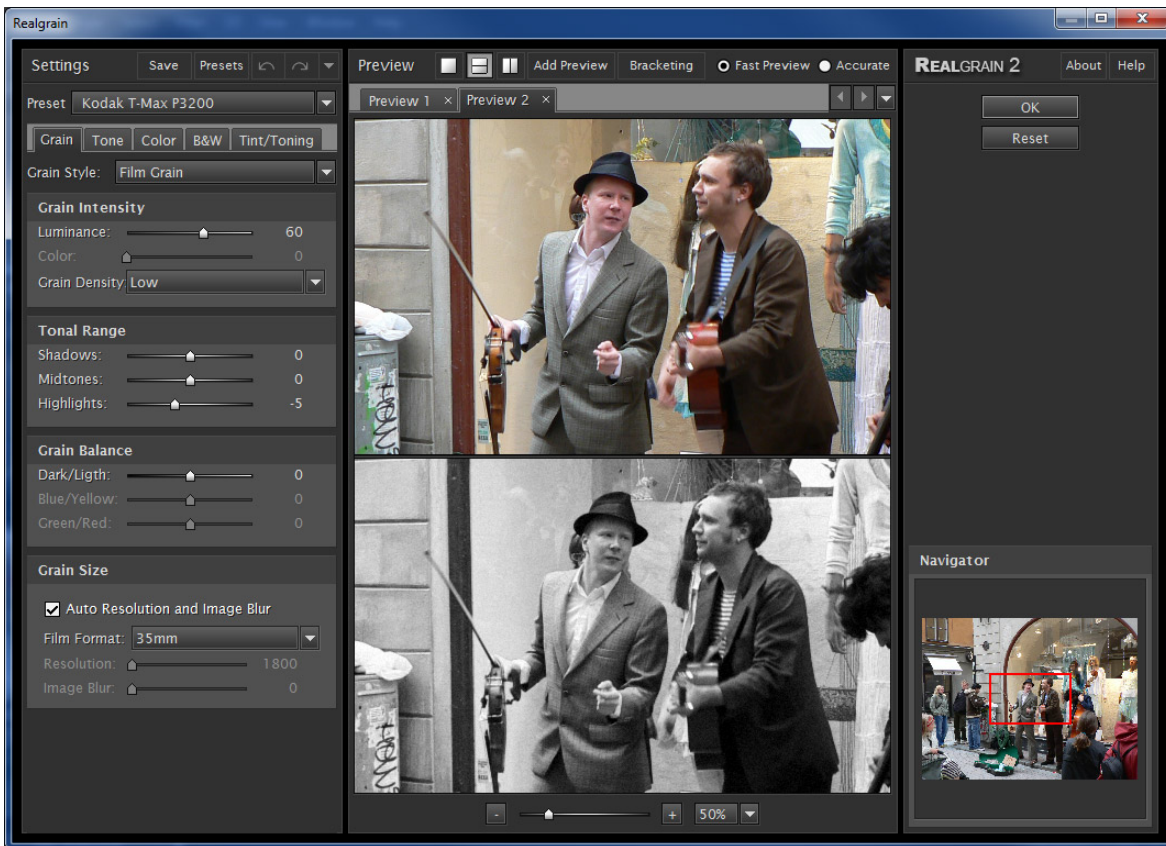


Figure 15: Two preview tabs

Bracketing

In addition to creating custom multiple previews, Realgrain provides an automated bracketing feature for quickly generating a preset series of previews. For each original setting, the bracketing creates the selected number of previews with the specified bracketing interval.

To bracket or to set up a bracketing preset, click on the "Bracketing" button. You can choose to replace already open previews or add the new previews to the existing tabs.

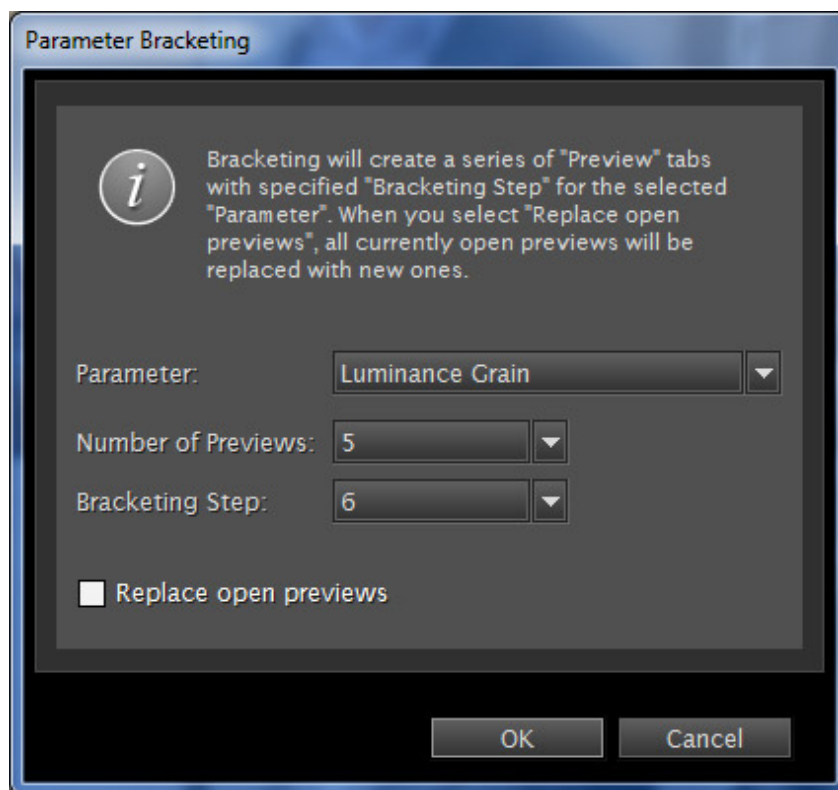


Figure 16: Parameter Bracketing window

Once the preset is created, it will appear in the same menu selection. When using bracketing, you can view the name of the respective bracketing parameter and its absolute value on the preview tabs. A tab will also reflect custom changes made to the bracketing parameters values for a given preview. In addition, the mouse roll-over of any inactive preview tab will display a tool tip that would specify the parameter value differences relative to the parameter values of the currently open preview. Bracketing can be also activated by right-clicking on respective slider controls in the Filter section.

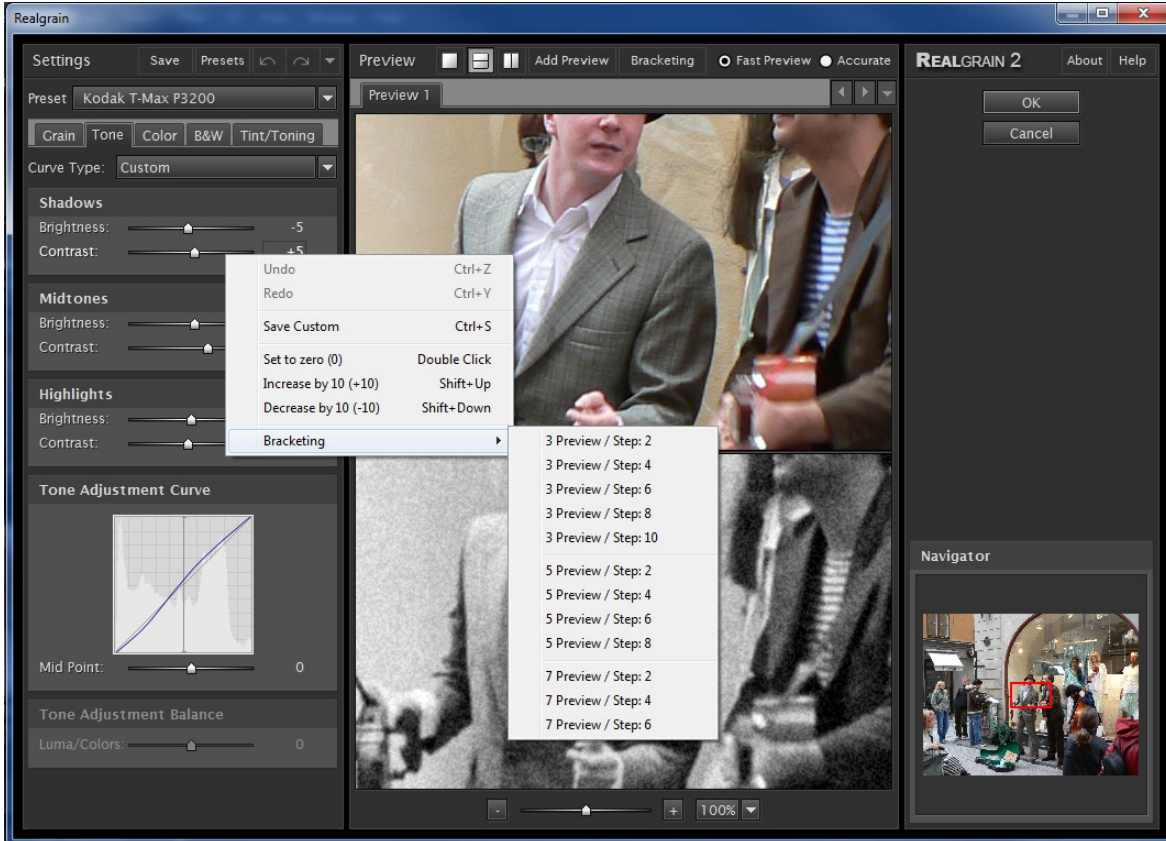


Figure 18: Bracketing Parameter Name and values in preview tabs and Right-click pop up menu with bracketing options

RESIZING REALGRAIN PLUG-IN WINDOW

The Realgrain Plug-in window can be resized by dragging the lower-right corner of the window. You can adjust the size of the window to better fit your screen resolution and processor speed. You can click the "OK" button to remember the current size or "Cancel" to restore the previous size.

PHOTOSHOP ACTION AND SCRIPTING SUPPORT

Realgrain Plug-in provides full action and scripting support within Photoshop. The recorded actions contain all Realgrain Plug-in adjustable parameters including graininess, tone, and color parameters.

KEYBOARD AND MOUSE CONTROLS

Section	Windows	Mac	Description
Preview window	Space+Click	Space+Click	Panning
	CTRL+Click	Command+Click	Zoom in
	ALT+Click	Option+Click	Zoom out
	Ctrl + Plus	Command +Plus	Zoom In
	Ctrl + Minus	Command +Minus	Zoom Out
	Ctrl + 0	Command +0	Zoom to 10%
	Ctrl+Alt + 0	Command +Option+0	Zoom to 100%
	Mouse wheel	Mouse wheel	Vertical scroll
	Ctrl+Mouse wheel	Command+Mouse wheel	Horizontal scroll
	Alt+Mouse wheel	Option+Mouse wheel	Zoom
	Right Click	Right Click	Context menu
	Ctrl+N	Command+N	New Preview
	Alt + [Option + [Previous Preview
	Alt +]	Option +]	Next Preview
	Alt + <	Option + <	First Preview
Alt + >	Option + >	Last Preview	
Ctrl+Alt+F	Command+Option+F	Full Preview mode	
Ctrl+Alt+V	Command+Option+V	Vertical split preview mode	
Ctrl+Alt+H	Command+Option+R	Horizontal split preview	
Sliders	Up/Down keys	Up/Down keys	Increase/Decrease by 1
	Shift+Up/Down keys	Shift+Up/Down keys	Increase/Decrease by 10
	Tab/Shift+Tab	Tab/Shift+Tab	Change sliders
	Right Click	Right Click	Context menu
	Mouse wheel	Mouse wheel	Increase/Decrease by 1
	Shift + Mouse wheel	Shift + Mouse wheel	Increase/Decrease by 10
	Ctrl+Z	Command+Z	Undo
Ctrl+Y	Command+Y	Redo	
	Ctrl+S	Command+S	Save Current Settings
Plug-in window	Alt	Option	Switch between Cancel and Reset