

WebRotate 360 Product Viewer

USER GUIDE v5.0

Rev: Apr 15, 2024

Contents

About this Product.....	3
Why WebRotate 360®?.....	4
SpotEditor Overview	4
Image Import and Advanced Settings	5
Instant Non-Destructive Preview	6
Instant Crop-Resize	7
Instant Photography Filters.....	9
Clipping Path Tools.....	10
Image Watermarking	12
Publishing.....	13
Publishing Templates	15
Animated GIF Publishing.....	16
Zip Publishing for Amazon	17
Hotspots	19
Dynamic Hotspot Positioning.....	19
Rendering Settings	20
Content Options.....	22
Hotspot Actions	25
Viewer Interface and Controls	27
Interface.....	27
Controls.....	27
Web Integration.....	28
Free Plugins.....	28
Copy & Paste.....	29
Embed via iFrame	29
API	30
Extended API.....	34
Analytics.....	36
Appendix.....	39
Image Production and Equipment	39

Suggested Image Requirements	42
Troubleshooting.....	43
Go PRO.....	43

❖ About this Product

WebRotate 360 Product Viewer is a simple and powerful suite of tools for showcasing your products and digital work online or offline.

There are three main components that comprise the WebRotate 360 Product Viewer Suite. First is our powerful publishing software, SpotEditor (Windows & macOS) that provides a complete workflow for creating finalized product views from your JPG or PNG images.

The second component is a viewer or published media that is outputted by SpotEditor. These small viewer packages are usually uploaded somewhere online and then integrated on your web pages. Consider [PixRiot®](#) which is our dedicated web hosting solution for best performance.

The viewer can also work offline or embedded into mobile apps via APIs. Here's offline examples for [iPad](#) and [Android](#).

There's also a set of plugins and add-ons that we have developed for popular eCommerce, CMS, and 3D design platforms. These modules add extra features that greatly simplify the viewer integration. For a complete list of plugins, visit this page:

<https://www.webrotate360.com/products/cms-and-e-commerce-plugins.aspx>

Note that the viewer package doesn't require any server-side technologies because it consists of just a couple of JavaScript and CSS files included on your web pages. When a page with a product view is loaded inside your browser, the code contained in these scripts uses optimized techniques to download configured images and resources from your hosting servers or PixRiot and then renders them seamlessly according to your product viewer configuration.

You don't have to know JavaScript or other programming languages to make it work. All you need is our desktop publishing software that allows creating complete product views in just a few mouse clicks. In addition to a variety of publishing templates and skins, the software also includes powerful image editing tools fine-tuned for 360 product photography and 3D renderings as well as nearly a hundred of configurable settings.

Download the latest version of the product for either Windows or macOS:

<https://www.webrotate360.com/products/webrotate-360-product-viewer.aspx>

❖ Why WebRotate 360®?

- Fine-tuned for eCommerce with real businesses in mind.
- Developed by professional agency that has been commercially producing 360 product photography and interactive 3D content for clients worldwide since 2009.
- Unique desktop publishing software with real-time batch image editing, watermarking, etc.
- [Free plugins](#) for popular eCommerce, CMS, and 3D design platforms, including WordPress, Magento, OpenCart, Prestashop, Joomla!, Blender, and more.
- Optimized for mobile devices.
- Extensive hotspot support for advanced interactivity with granular control.
- No server scripts or browser widgets are required.
- Lightweight and fast with a great variety of integration options.
- Published media is designed for commercial deployments of any size.
- Highly customizable (sizes, features, colors, skins, hotspots, templates, etc.)
- API (Application Programming Interface) for advanced customizations.
- Can be used with any number of websites & products (FREE and PRO licenses).
- Host on your own web hosting / servers - no extra fees or vendor lock-in.
- Utilize the same published media across third-party marketplaces such as Amazon.
- Optimized web hosting with content management options is available via [PixRiot](#).
- Continuously tested on all major web browsers and mobile devices.
- Dedicated full-time support in the U.S. ([PRO and Enterprise licenses](#)).
- Available as FREE, PRO and ENTERPRISE editions.
- With its first release dating back to 2010, the software is now trusted by thousands of small and large businesses around the world, including professional photo studios, marketing agencies, web design companies, artists, 3D designers, manufacturers and a like.

❖ SpotEditor Overview

Creation of the finalized product views is done in a few simple steps using provided WebRotate 360 SpotEditor software:

- Import your original images via the New Project form.
- Test instant seamless 360-degree preview and edit viewer dimensions and settings as needed.
- Publish to your computer and preview offline in selected web browser or [WebRotate 360 QuickView](#).
- Upload the media to your web server, FTP, or [PixRiot](#).

Image Import and Advanced Settings

Start a new project via new project button  on the left side of the application window. The New Project form has a single field to specify where your folder with source images for the import is located. These can be images that you have already produced (resized, optimized, etc.) or the ones that came straight out of your camera or 3D rendering software. You may leave this field blank and add images later using Rows tab (see #2 [here](#)).

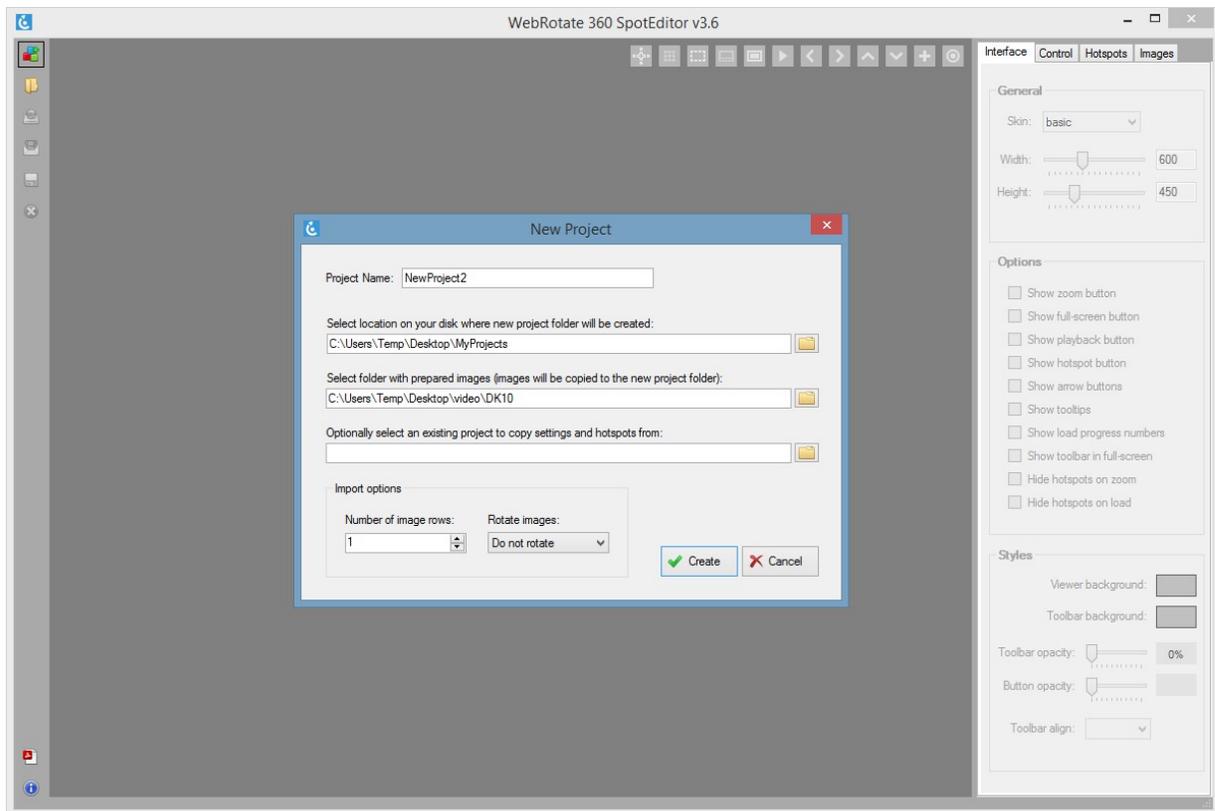
In addition to the source image folder, enter the project name and the location of the new project on your computer. Note that your source images are copied to the new project location and will not get affected.

When working on a multi-row project, enter the number of rows in your source folder under Advanced which is set to one row by default. You may also add or remove rows later under the Images - Rows tab. Learn more about our advanced multi-row 360 views [here](#) and [here](#).

Use Template (Copy Project) option to set the location of an existing WebRotate 360 project to copy settings from ([video tip](#)). This can be a life-saver when working on a large number of uniform products (e.g., shoes, bags, and similar).

v5 of SpotEditor comes with two third-party integration options you can also select under Advanced: 1) Noxon 360 turntable integration that you can learn more about [here](#) and 2) Blender project integration to synchronize with the new publishing capabilities we have included in WebRotate 360 Turntable Animator for Blender ([learn more](#)).

If the resolution of imported images is too big, a notification will pop up to confirm whether you would like to optimize your images for best performance upon import. If you are working with a large set of images and/or don't have a lot of computer RAM, select "Yes", which by default will auto-resize imported images to 2000px on a widest side.

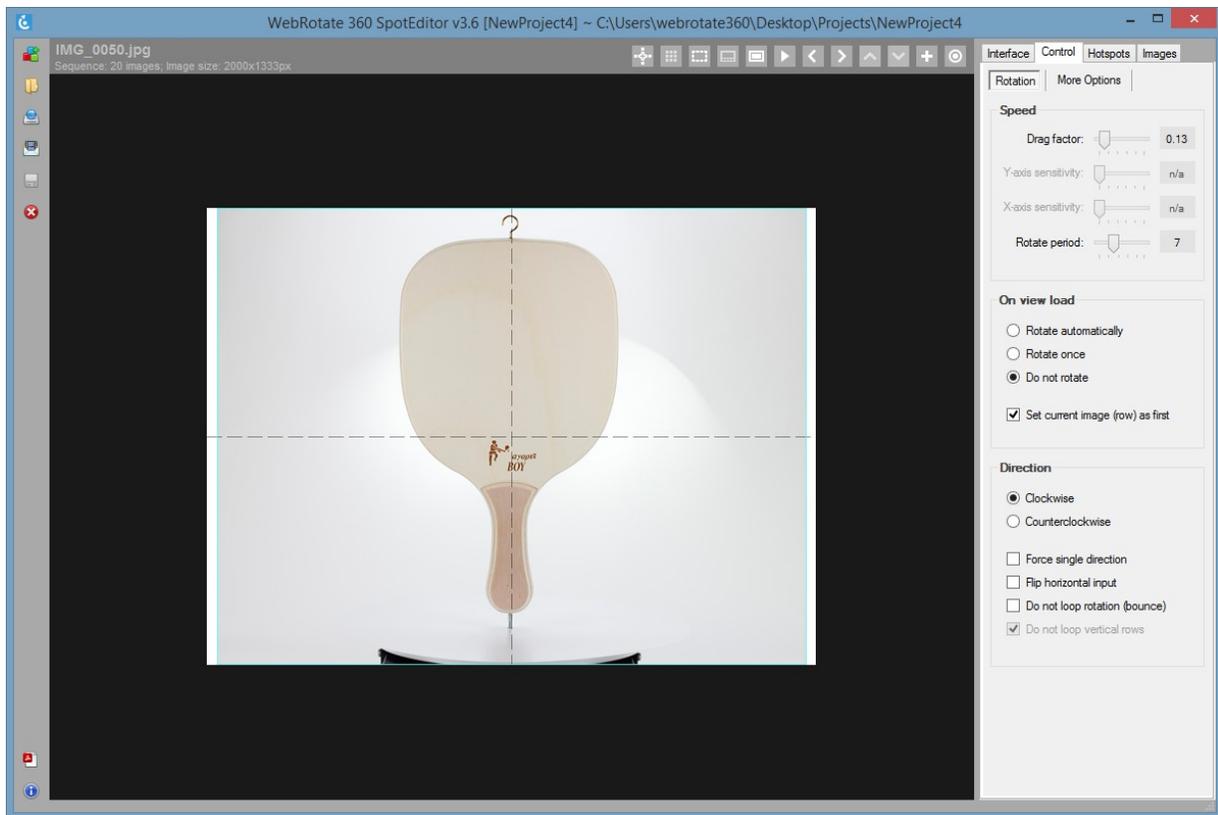


Instant Non-Destructive Preview

SpotEditor Preview mode (on by default) instantly renders all images, watermarks, image filters, etc. to show how the images will be cropped and scaled, and how they will perform inside a browser once the 360 product view is published. Same applies to the drag & playback speed settings, rotation direction, zooming, inertia effects, clipping path, i.e most of the settings in the right-hand tabs – all is instantly applied to every image “on the fly” inside the preview.

You can turn this preview mode on and off using the toolbar at the top of the window, but it's usually more convenient to have it “on” to see the actual image presentation as you go through various image editing steps inside the software. For example, you can update your viewer dimensions on the Interface tab and then adjust the image crop area under the Images tab, and then see everything applied instantly inside the preview as you go through the images (via mouse wheel, dragging them with your mouse, the arrow buttons in the toolbar or arrow keys).

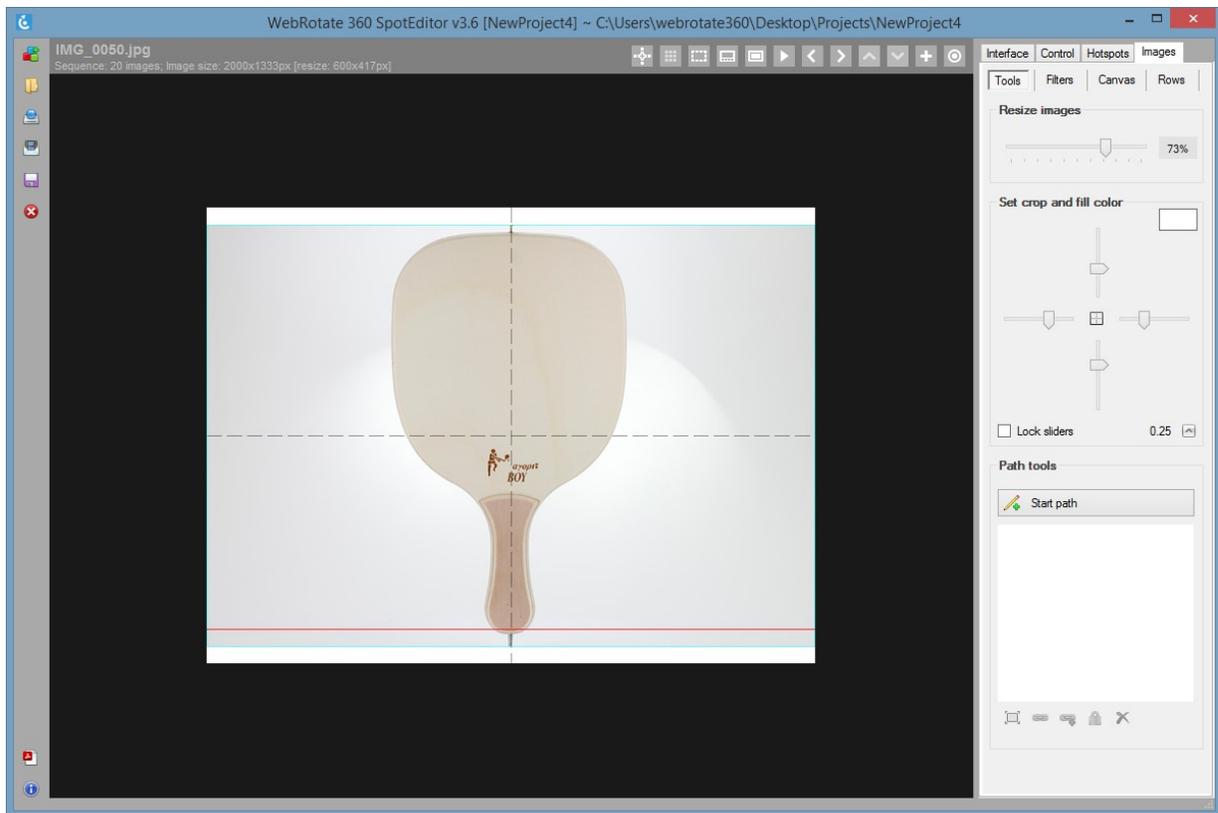
Use the toolbar buttons to turn on/off the center guides, grid guides, image edge guides and the viewer toolbar guide (shows the edge of the viewer toolbar via a red line).



Instant Crop-Resize

Crop function consists of four sliders, one for each side of the image. You can drag horizontal or vertical sliders either “locked” to shift the crop area left and right or top and bottom simultaneously, or “unlocked” to add or remove crop space on either side of the images. The crop is applied to all images inside the preview instantly and doesn't affect the imported originals even after the project is published or saved, so you can change your crop (and any other project setting or filter or watermark) later on as needed.

To expand or contract the crop sliders at the same time, press the ALT (Option on macOS) key while moving the crop sliders in either direction ([video tip](#)). Click on the reset icon  at the center to reset your crop edits.



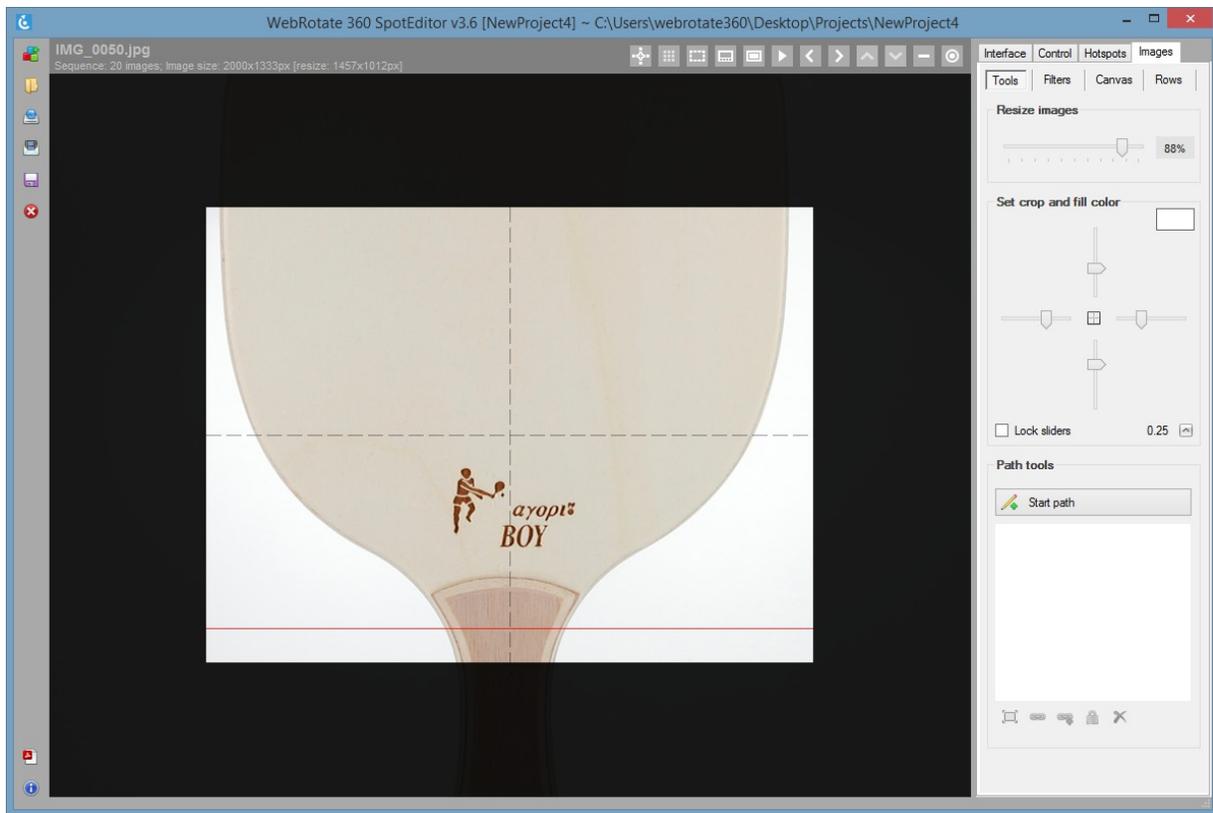
If the maximum amount of crop that can be applied by default using the sliders is not sufficient for your images, add more via arrow button  at the bottom of the crop panel.

Note that your source images are never permanently cropped. It's only when you publish the project that the software applies these edits to the images it copies to your configured published directory.

Now you can adjust your zoom & full-screen image dimensions simply by moving the Resize images slider to the left (i.e. below 100% which is equal to the dimensions of your original imported images).

When you start moving the Resize slider, it automatically switches to zoomed-in image presentation. Click zoom-out button on the toolbar at the top to go back to the fitted preview mode. All images inside the preview are instantly resized without affecting the originals so you can instantly verify that all look right at a given resize level.

See this [video tip](#) for more details on how to size your 360 viewer in SpotEditor.



As with the crop edits, the image resize is not applied to your source images so it can be modified at any time. It's also worth noting that hotspots, watermarks and path tools can be added or edited further either before or after crop & resize as the software will scale and/or reposition them accordingly.

Read more about how the resize setting affects your published images under the [Publishing section](#) below.

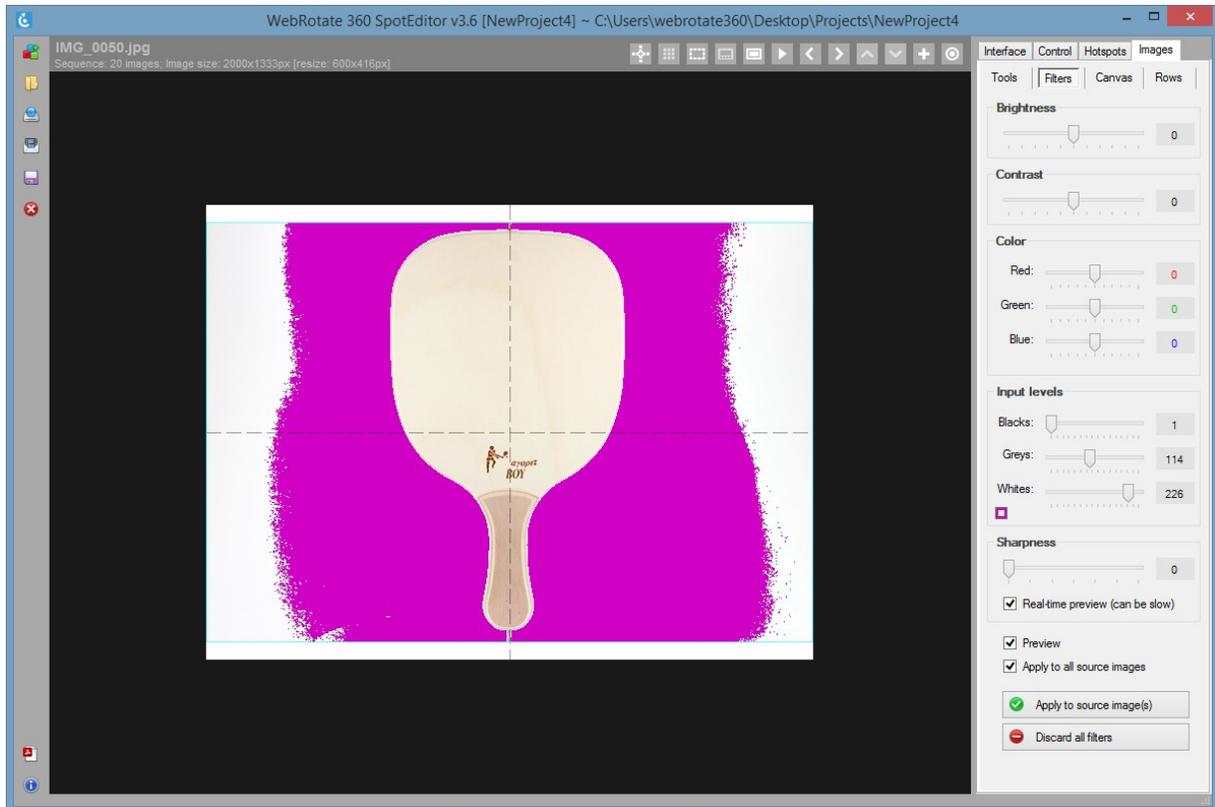
Instant Photography Filters

Images->Filters has standard photography filters such as brightness, contrast, color balance, levels and sharpness. The power of these filters is that you can see their effect on all images inside the preview instantly.

Most often you would use the Input Levels settings to adjust both your background exposure and your image contrast by slightly adjusting the sliders there. For white backgrounds, move the Whites to the left and Blacks to the right and then adjust the mid-tones (Greys) as needed to maintain image contrast.

There's also a handy background color helper tool  under Input Levels that allows you to see image areas that are either white or non-white (other color options are being added). So if you click the box once, everything that is non-white will be highlighted in pink. And if you click it again, all image areas

that are white will be highlighted in pink. This can help greatly when you need to overexpose the highlights using Levels just enough to have most of the image background in white, while maintaining a reasonable product / object exposure.



It's also possible to permanently apply all image filters to your original images via the Apply to source image(s) button. You can either apply the filters to the current image or to all images in your product view at once if the "Apply to all source images" checkbox is selected. Being able to permanently apply the filters to your original images allows you to selectively fix certain images (color issues, low contrast, underexposed images, etc.).

Normally, you would NOT want to apply the filters to your originals to have the flexibility to adjust the filter settings later. The software will still apply all filter edits to the outputted images on Publish.

Clipping Path Tools

Changing Input Levels, as described previously, may not always work for achieving pure white background in your images, especially, if there's not enough contrast between your product and the image background. Also, often your product images may contain certain studio artifacts that will remain

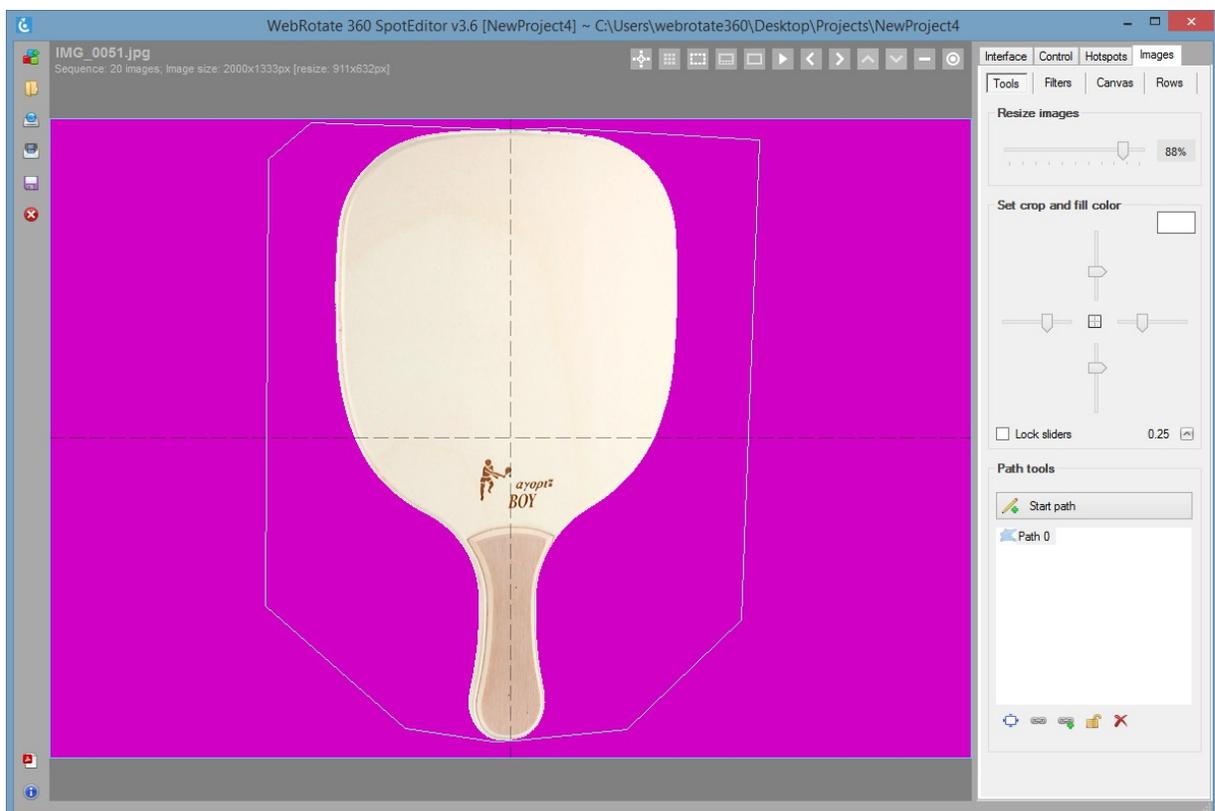
in the images even after you cropped the images to your required viewer dimensions. Such artifacts may include fishing lines, product stands, lightboxes, turntable, etc.

Path Tools section under Images->Tools can help with these kinds of issues in 360 product photography. Simply start a new path by hitting the Start Path button  and then circle around any part of your current image view that has to be removed. Once you connect the current path selection, it will be immediately filled with your current fill color, masking the unwanted area. Note that you can change the fill color under the “Set crop and fill color” section located at the top of the same tab.

You can add multiple selections for the same path on any of the images in your view until you hit the Stop path button. Once path is stopped, rename the path as needed by double-clicking on its name or start a new path accordingly.

It's also possible to apply existing path to any of the images in the view selectively by hitting the chain icon located at the bottom of the section as you go through the images. To apply selected path to all images at once, use the second chain icon  with the plus.

Often you would just circle your product around and simply hit the Inverse Path button to clip all surrounding areas at once as shown in the screenshot below.



Remember that you can add more than one path selection to a single path before it stopped or create more than one path, consisting of its own multiple selections and then propagate all path selections to any other image that needs the same clipping or apply it to all images at once using the chain icons.

If you need to move current path with all of its selections, just drag it with your mouse to a new position. You may also lock any finished path using the lock icon  such that it doesn't move accidentally as you work through remaining image edits and viewer configuration.

It's also easier to work with the Path tools while the viewer preview mode is off and your images are presented in full view. To turn the preview off, hit the Viewer box preview button  in the toolbar at the top and then press Zoom-in in the same toolbar to expand the images.

As with the other edits in SpotEditor we discussed in the previous sections, these path edits are not applied to your original (source) images permanently, so you can change or remove them at any time.

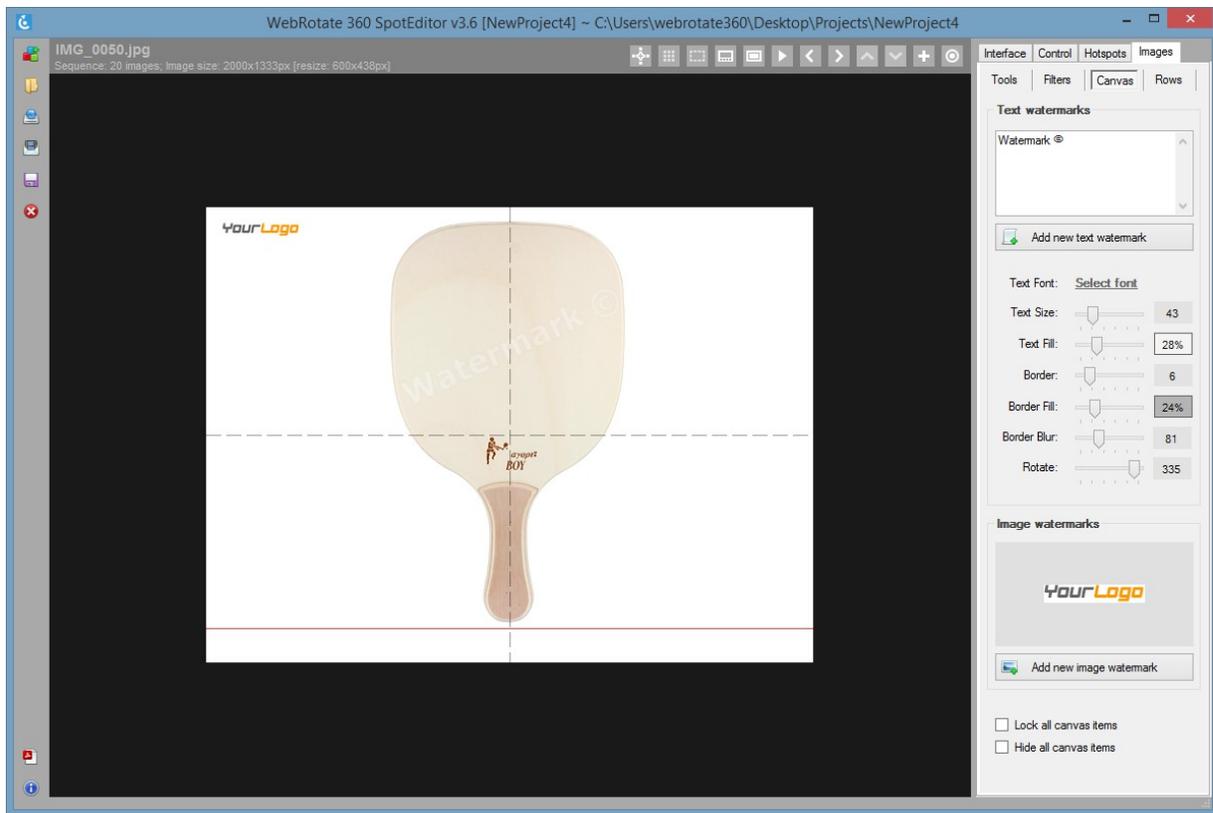
Image Watermarking

Image watermarking controls are located under Images->Canvas. These are permanent watermarks that are rendered on all of the outputted images on publish. The watermarks can help protect your images on the web and/or secure your work as you share your work with a client. They are often used to convey additional information inside the images.

There are two types of image watermarking: (1) text watermarks that you can quickly create using your own wording and (2) image watermarks that you prepare upfront and which you can add using the Image Watermarks section at the bottom of the same tab.

Once you see a new watermark in the preview screen, you can move it with the mouse to position within the images.

To delete an existing watermark, select it with your mouse inside the preview and then press the Delete key (Fn + Backspace / Delete on Mac). You can also lock all watermarks at once to prevent them from accidental movement or hide them all together for the final delivery to your client.

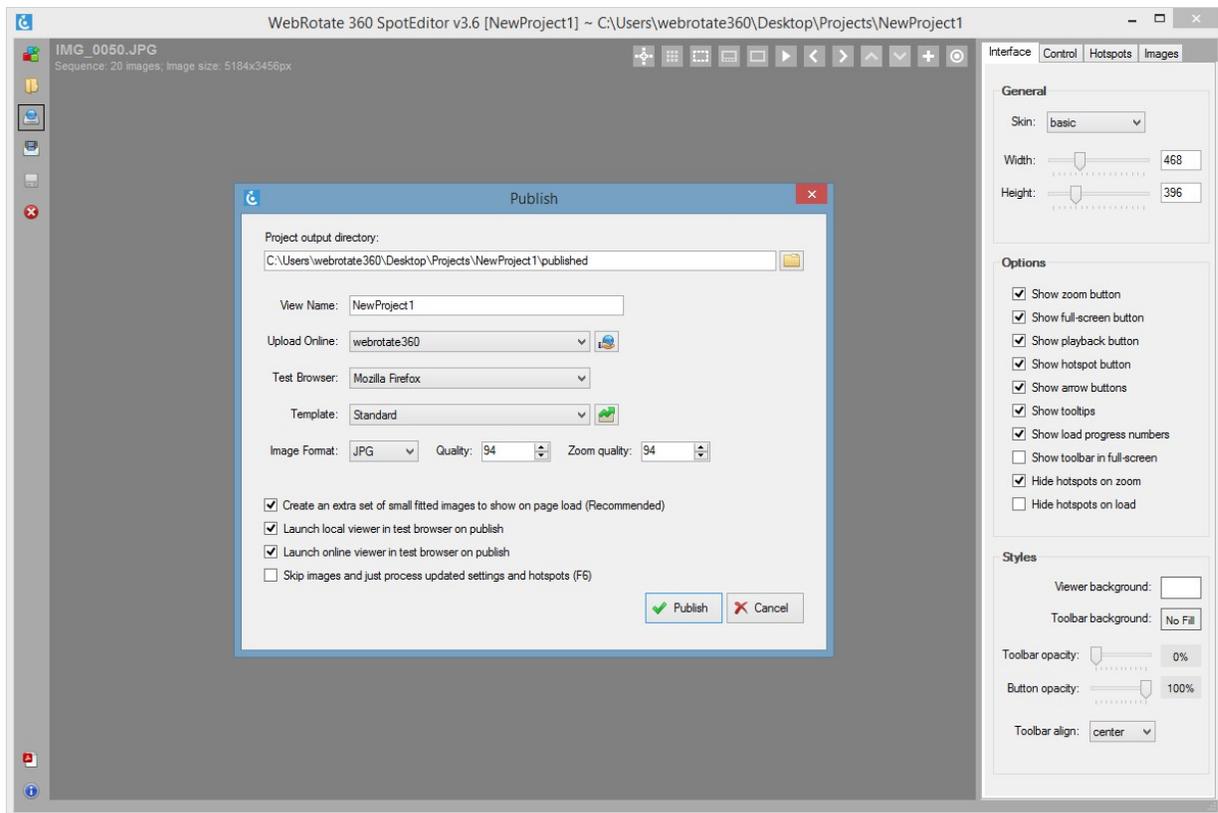


Publishing

To finalize your edits and create a redistributable viewer package (folder), just hit the Publish button  on the left-side toolbar of the main application window.

Here you can change the output directory for your published work (default is a folder named *published* located in the root of your project folder). This can be useful when publishing multiple views for the final delivery to your client as you can publish several projects into the same folder to eliminate any duplication in your delivery and give it a nice structure.

It's possible to configure one or more FTP connections to upload your work directly to FTP on Publish. Note that you can either upload a complete product view with scripts and an html sample or just the product folder with image assets and a configuration file (to use with our [plugins](#), for example, as scripts and html have been already integrated there). Click the small button  next to the Upload Online drop-down to configure your FTP connection where you can also find the "Upload assets only" checkbox.



To preview a product view in any of the test browsers located under the Test Browser drop-down, check the “Launch local viewer...” option and hit Publish.

Most modern browsers have extra security that blocks asynchronous file loading when it’s done *locally*, i.e. when the local files are loaded from your hard-drive by an html page in your browser and without the use of a local web server. WebRotate 360 Product Viewer relies on such asynchronous loading as this greatly improves viewer performance and maintainability. This may result in situations where your product views will not load when tested locally (e.g. by double-clicking a published html page with the view in Explorer or Finder) unless you slightly alter your browser configuration as per the summary [here](#).

On Windows, we now offer [WebRotate 360 QuickView](#), which is a small application that allows viewing your published media without a web browser. The QuickView app has to be installed separately (download [here](#)). It can be then selected under the Test Browser drop-down and will automatically launch when you double-click a .view file that you will find in the published folder of your SpotEditor project.

Another important option on the Publish form is “Create extra set of fitted images to show on page load”, which is shown as Recommended.

When it's checked, SpotEditor will automatically create and integrate two sets of images into your product view on publish ([video tip](#)). First set consists of small fitted images that load immediately on page load. The second set consists of high-resolution images that are loaded on demand and incrementally when user hits zoom or full-screen. Small fitted images are auto-sized on publish by the software such that they fit into your specified viewer dimensions as configured under the Interface tab. This makes initial viewer loading very fast and the images look sharp since we are not relying on the automatic low-quality image resizing by a web browser.

If the checkbox is not checked, your published view will include just a single set of images (usually, relatively large) as configured under Images->Tools-Resize. This makes initial viewer loading slower but may produce instant high-quality zooming and full-screen presentation when user hits either zoom-in or full-screen button.

Check the last option to make your published media compatible with [PixRiot](#). We recommend to keep this setting always checked so you don't have to republish your work, should you decide to upload it to PixRiot later on.

Publishing Templates

You can select a publishing template from the list of available templates via the Template drop-down on the Publish form. A publishing template is a simple html page that embeds your published product view in a certain way to achieve desired presentation. You can review the html output after it's published in the output directly and either copy & paste the scripts on to your own web page or use it on your website as-is. Note that the publishing templates do not affect viewer configuration (xml) settings – they just show different ways the viewer script can be integrated on the web. For specific integration parameters that can be passed from a web page to the viewer, refer to the [API section](#) below.

These are the publishing templates that are currently available in SpotEditor (additional templates are available [here](#)).

Standard

Simple integration, showing the most basic embedding method limited to a single product view on the same page. Viewer dimensions are fixed via CSS at the template header.

Responsive

Fully responsive viewer integration that can scale both horizontally and vertically inside your responsive website layouts.

Mobile full page (iFrame)

Full-page integration that dynamically scales the viewer to fit browser window. Great for iFrames embedding and it's the same template that is used in PixRiot for viewing and embedding.

Full-screen only

Activate the full-screen mode on click or tap somewhere on your web page. This can be used with a static image thumbnail, hyperlink or any other element on a page.

Multiple embedded views

Add more than one product view on the same page. This template integrates just two product views as an example using the same published configuration & images.

JavaScript API

Simple template output, showing all available API calls in action with notes and comments where applicable.

Shortcode

This template removes the need for the viewer initialization snippet on your pages by embedding all initialization settings directly inside an html element(s). This can simplify your website integration with various CMS platforms, especially when there're multiple 360 product views on the same page.

Spin on page scroll

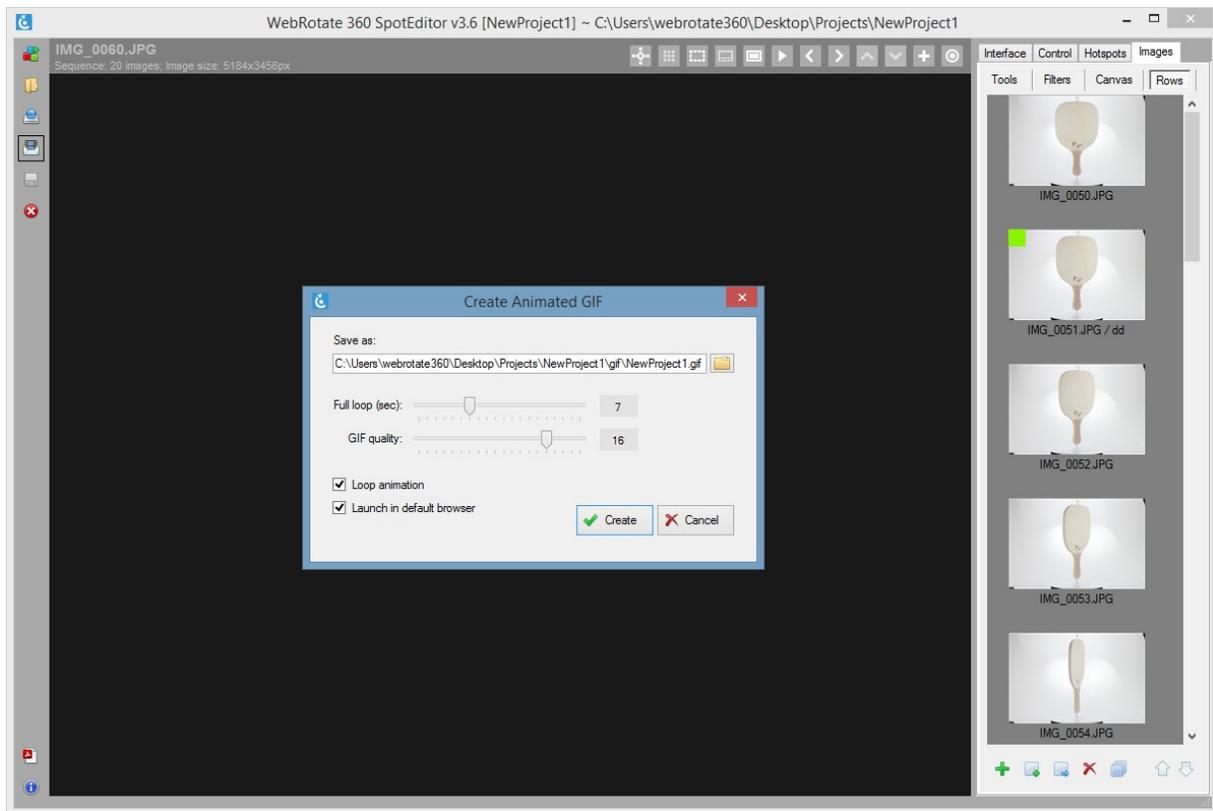
Available for testing page scroll integration that allows spinning the view when user scrolls a web page and which can be activated under Control->More Options.

Animated GIF Publishing

In addition to publishing interactive product views as described earlier, it's also possible to publish your image sequences into high-quality animated GIF files.

To publish an animated GIF, click on the icon with a strip of film inside an envelope located on the left-hand side of the application window. Then select the output location, the number of seconds for a complete loop, desired image quality, and hit Create to launch a quick preview in the default browser.

All watermarks, batch crop & resize, image filters, levels, etc., are applied to your animated GIFs in exactly the same way as it's done with the interactive views we reviewed in the previous sections. Playback speed control, image quality, rotation direction and the bounce effect are also supported and work and configured using the same controls.



This animated GIF feature allows you to quickly share a draft of a product spin with your client or your colleagues by simply attaching it via email as a regular image. It can be also used for social sharing and product marketing on eBay, Twitter, Facebook, Pinterest, on your website or blog, etc.

Zip Publishing for Amazon

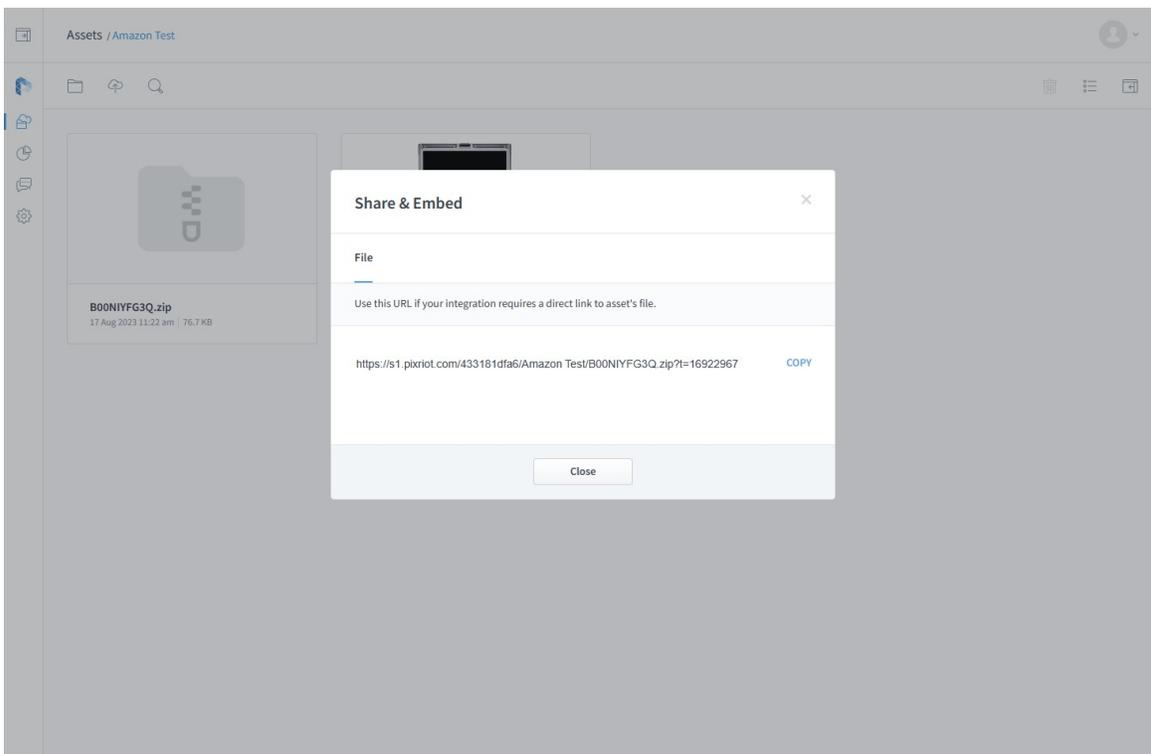
The latest release of SpotEditor now comes with the ability to publish zip packages containing processed images that are fully compatible with Amazon. This means you can effortlessly create interactive 360 product views using SpotEditor for your website or your clients' websites, as well as conveniently package and upload these views directly to your Amazon listings.

This feature is not limited to just Amazon. The ability to generate packaged and conveniently sized 360-degree product images proves useful for other applications as well.

To utilize this feature, simply click the new Zip button located in the application toolbar on the left side of the main window. Then, set your zip SKU (unique product identifier, if different from the project name), specify its Amazon compatibility, choose the desired image quality, and press OK.



Upload your zip to PixRiot to get a shared link you can use in your Amazon vendor dashboard:



❖ Hotspots

Advanced hotspot support is one of WebRotate 360's key features. Hotspots can be either dynamic, showing either as small graphic elements (indicators) or custom polygons that move with your product images at pre-defined trajectories or they can be static and placed as static content somewhere within the viewer.

Dynamic hotspots can be configured to activate your content (e.g., images, text, videos, custom html snippets) as interactive popups on mouse hover or click or a touchscreen tap. These popups can be positioned either relative to the hotspot indicator or the viewer container. They can be also configured to expand within viewer boundaries or centered on a page as "lightbox" popups.

Static hotspots, on the other hand, do not activate any popups as they themselves represent a variety of different content types (i.e. images, text or custom html snippets).

Both types of hotspots can be assigned actions that range from navigating to a page URL to label actions for timed animation sequences.

Dynamic Hotspot Positioning

Switch to the Hotspot tab on the right-hand side of the main application window in SpotEditor and select New Hotspot . Edit hotspot settings and assign hotspot content as described in the following section then press Ok.

If it's a dynamic hotspot that "follows" the product images, move your mouse cursor to the position in the current image where you would like to see the hotspot and press the left mouse button to create a new indicator position. Move to the next image (via mouse wheel, arrow buttons on the toolbar, spacebar key, arrow keys) and click again while following the hotspot trajectory.

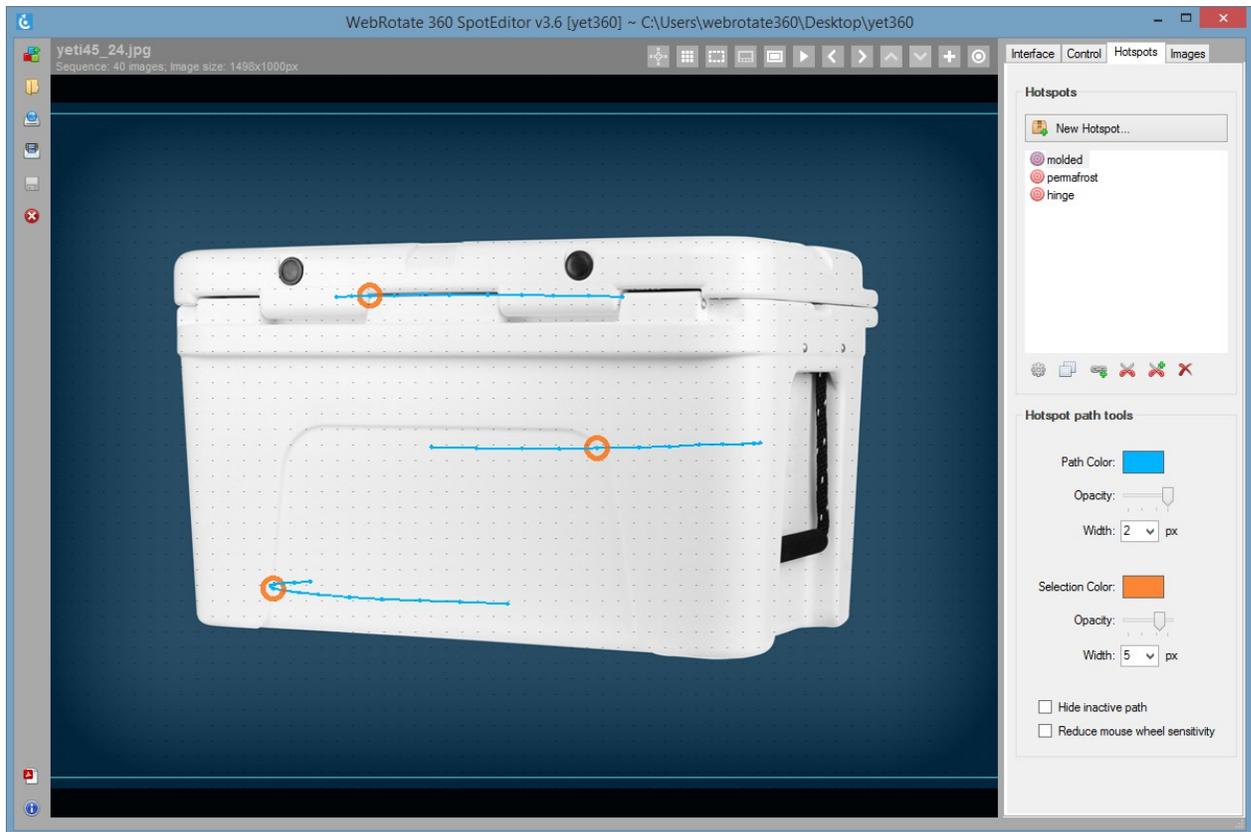
You can drag the current indicator position with your mouse or adjust its position by pixel via Ctrl + arrow keys (Option + arrow key on macOS).

To help with precise placement and smooth hotspot trajectories, there's a magnify tool as summarized in [this overview](#) as well as the new auto-path feature that you can read more about [here](#) under Hotspot Auto-Path.

To delete the current hotspot position, press the Delete key (Fn + Back / Delete key on Mac) or use the "scissor" button in the hotspot toolbar under the list of hotspots.

Other hotspot toolbar buttons allow: (1) propagating your current position to all images (if you want it to be positioned at same spot, (2) removing all hotspot positions from the images where they have been already added, (3) duplicating current hotspot or (4) deleting the entire hotspot.

Use the Hotspot Path Tools on the same tab to change color, opacity and the width of your hotspot trajectories and indicator preview circles to make them more visible on your images while editing hotspots.



If you have many hotspots, it can be useful to hide other hotspot trajectories while working on the current path. You can do this by selecting the Hide inactive path checkbox on the bottom of the same tab.

Rendering Settings

Select from the list of “Render As” options to configure whether your hotspot will be dynamic such that it can move with product images, or static, e.g., a logo, a thumbnail, or a comment located in a fixed position.

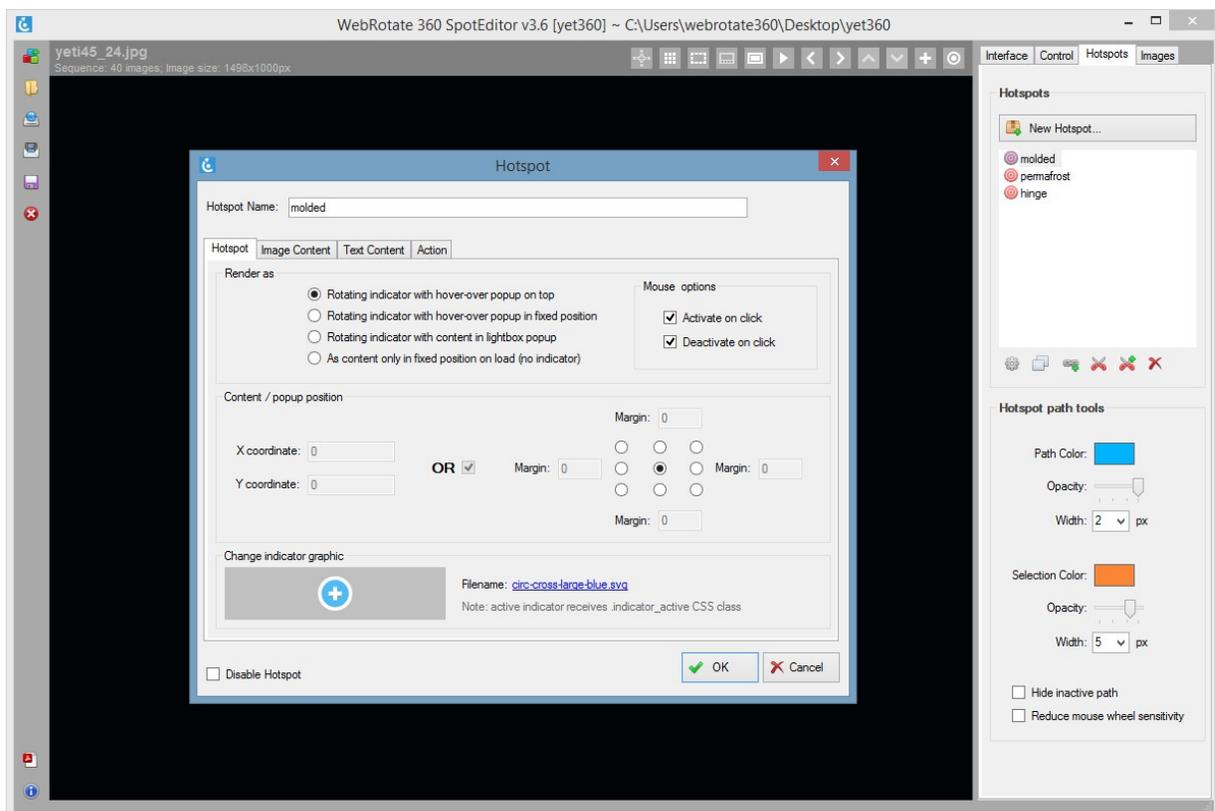
There're currently four rendering options to choose from:

- (1) Rotating hotspot indicator with the hover-over popup on top of the indicator.
- (2) Rotating indicator with the hover-over popup presented in a pre-defined fixed position.
- (3) Rotating indicator with content in lightbox popup.
- (4) Hotspot content rendered in a pre-defined fixed position immediately upon completion of viewer loading. Hotspot indicators are not used in this case.

The first three options create a dynamic hotspot with a hotspot indicator that you manually position on selected images. The last rendering option outputs static (fixed) content only.

Use Activation options to configure how the popups will be activated and deactivated, i.e., on mouse hover, touchscreen tap or a mouse click.

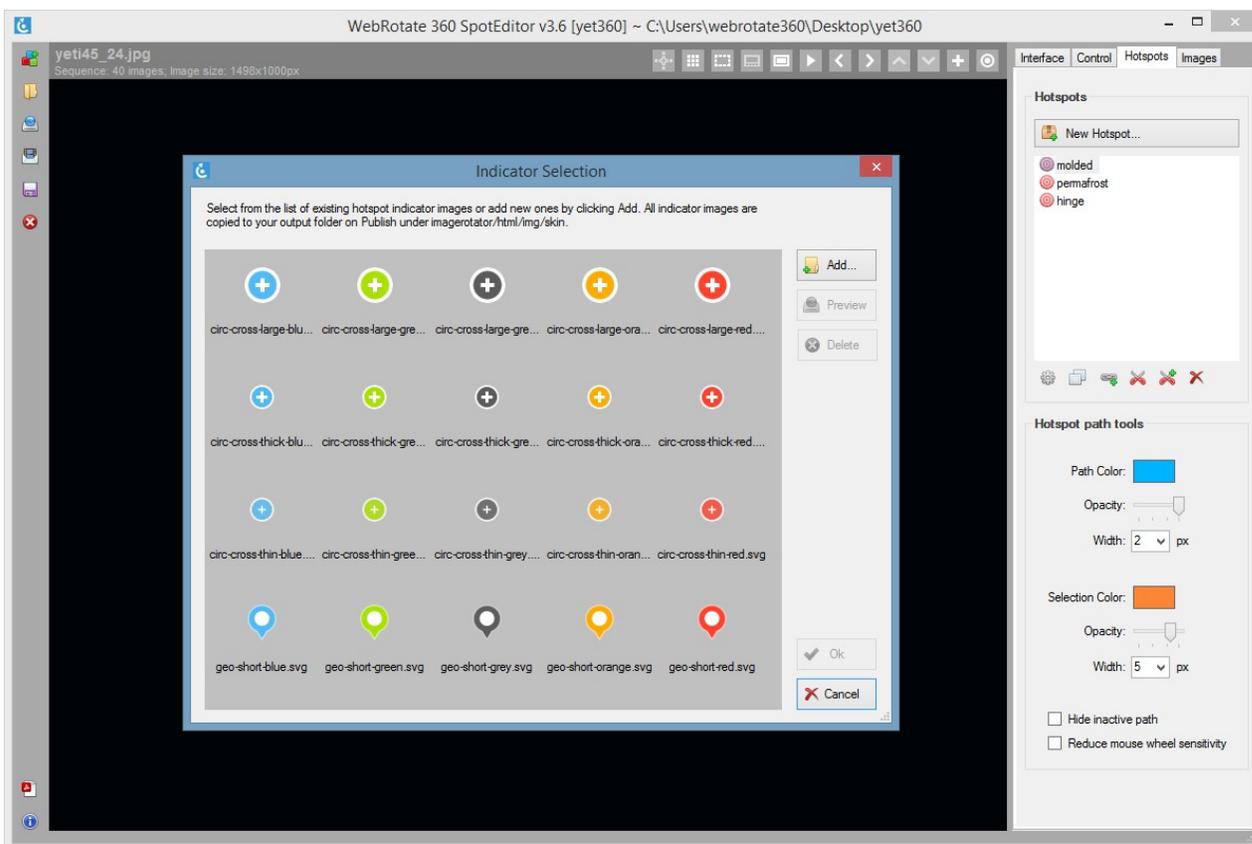
All rendering options except the third (lightbox) allow using content & popup positioning controls located in the middle of the Hotspot tab to specify how to position the popup content relative to the hotspot indicator (option 1) or viewer container (option 2, 4).



To change a hotspot indicator image, use the Indicator graphic section at the bottom of the same tab. Just click somewhere in the grey box to bring up the Indicator Selection form where you can also import custom indicator shapes (SVG, PNG, GIF or JPG).

There's also a set of new style settings available via Styles->Configure next to the indicator selection box (not visible in the screenshot above), where you can assign indicator animation, content links, responsive indicator dimensions, etc.

Note that if you are familiar with CSS, you can customize "activated" state of the indicator image via `.indicator_active` CSS class that is assigned to the indicator element upon activation. Each hotspot also receives `.name_indicator` class where name is a hotspot name that you give the hotspot on the Hotspot form.



Content Options

Use either the Image Content tab or the Text Content tab to specify the content of your hotspot. If "Rotating indicator with content in lightbox popup" is selected under "Render As", you may combine an image and text content accordingly.

To show just a single image (JPG, PNG, SVG or GIF) activate the Image Content tab and click the open folder icon to locate the image on your hard-drive. The image will be copied "as-is" to your SpotEditor project repository and will be copied further to your output folders upon publish.

Image presentation can be configured on the Image Content tab using these settings:

(1) Max Width

Maximum width of the popup image in pixels.

(2) Min Width

Minimum width of the popup image in pixels. This setting will be considered only if Scale Responsively is checked and the viewer is configured to be responsive (see Responsive template or Mobile full-page / iFrame template on the Publish form under Templates).

(3) Scale Responsively

If checked, the hotspot image will resize automatically with the viewer as long as the viewer is configured to be responsive - see Responsive template or Mobile full-page / iFrame template on the Publish form under Templates. In the case of the Mobile full-page template (which is also used in PixRiot embed codes and previews), the popup image is not auto-scaled until the page or iFrame width gets smaller than the configured viewer width as specified under Width on the Interface tab.

(4) Cover background in lightbox

This means that your lightbox image is not simply squeezed to fit proportionally into the lightbox as it ensures that the image covers the entire lightbox space without any see-through gaps. This may result in some parts of the image not being visible (depends on the image proportions relative to viewer size) but may produce a nicer presentation when you need to zoom in on a certain product feature or simply need to cover the lightbox space completely.

(5) Show close button in lightbox

If selected, there will be a small "close" button in the right corner of the lightbox popup. The icon for this button is designed to be visible on both dark and light backgrounds, but if you decide to customize it for your 360 product views, the image name is `lightbox_close.svg` and it's located in the published skin folder and is the same for all skins.

(6) Active on click in lightbox

This setting controls whether lightbox should respond to clicks or taps outside of the close button. If it's checked and there's no action assigned on the Action tab, a click or tap inside the lightbox will simply close the lightbox. If action is assigned, it will be launched accordingly.

If it's not checked, nothing happens on click or tap unless user hits the close button. A notable exception to this rule is when you have an embedded URL link in your lightbox text that you can enter

under the Text Content tab. So when there's an empty URL (not linked to any website) inside the text content, a click on tap on the hyperlink will trigger a hotspot action if it's assigned on the Action tab. Otherwise, such hyperlink will just navigate to your linked website.

The Text Content tab has two modes of operation:

(1) Simple text presentation

Any text that you enter in the multi-line text field will be rendered “as-is” and according to the various text formatting options configured inside the tab. You can also use HTML markup as well as inline CSS styles.

Note that the Padding field follows standard CSS padding rules, where the padding value of 15,20 means that the top and bottom padding is 15px, while the left and right padding is 20px. The padding value of 15,20,30,40 means that the top padding is 15px, right is 20px, bottom is 30px and the left padding is 40px.

Since v4, if the lightbox rendering option is selected on the first tab of the Hotspot form, we introduced advanced capabilities in the Text Content tab such as embedded third-party content (e.g YouTube), scrollable content and a fully responsive popup presentation, including page centering. To find more details about how this is done, see #2 [here](#).

(2) Custom presentation

This mode is activated by checking “Use custom styles” at the bottom of the tab. When it’s checked, the default popup styles you see on the right of the Text Content tab are ignored.

As in 1) you may use inline styles or rely on your existing stylesheets or use .hotspot_cdata CSS class which is automatically appended to the wrapper element of such “unstyled” content ([see example](#)).

Here’s an example HTML markup using inline CSS that you may cut and paste in the text field on the Text Content tab to see it in action:

```
<div style="padding:0px 6px 15px 6px; margin:0; line-height:18px; background-color:#FAFAFA; color:#727272; width:216px; border:1px #eee solid; font-family: verdana; font-size:12px;" >
  <h4 style="font-size:12px; font-weight:bold; color:#468AC1; padding:5px 0 5px 8px; margin:0; border-bottom:1px solid #ddd;">
    NEW HTML CONTENT
  </h4>
  <p style="padding:7px 0px 0 8px; margin:0;">
    Edit these hot-spots as HTML markup in SpotEditor and use any design you need with:
    <span style="color:red">Colors, </span>
    <b>Fonts, </b>
    <span style="font-size:13px; color:black;">Sizes,</span>
    <em>bullets</em>, images, <a href="http://www.webrotate360.com">URLs</a>, etc!
  </p>
```

</div>

There're several built-in CSS classes that can be also used to control the presentation of the content:

- (1) .hotspot_rollover – each content element receives this class.
- (2) .position_rollover – popups rendered relative to the indicator image or static content elements.
- (3) .lightbox_rollover – all lightbox popups.
- (4) .name_rollover – individual content elements where “name” part is the name given to a hotspot on the Hotspot form.
- (5) .hotspotPopupCloseButton – if there's an element with this class inside a popup content, the popup will not close until user taps this element (doesn't apply to lightbox popups).

Hotspot Actions

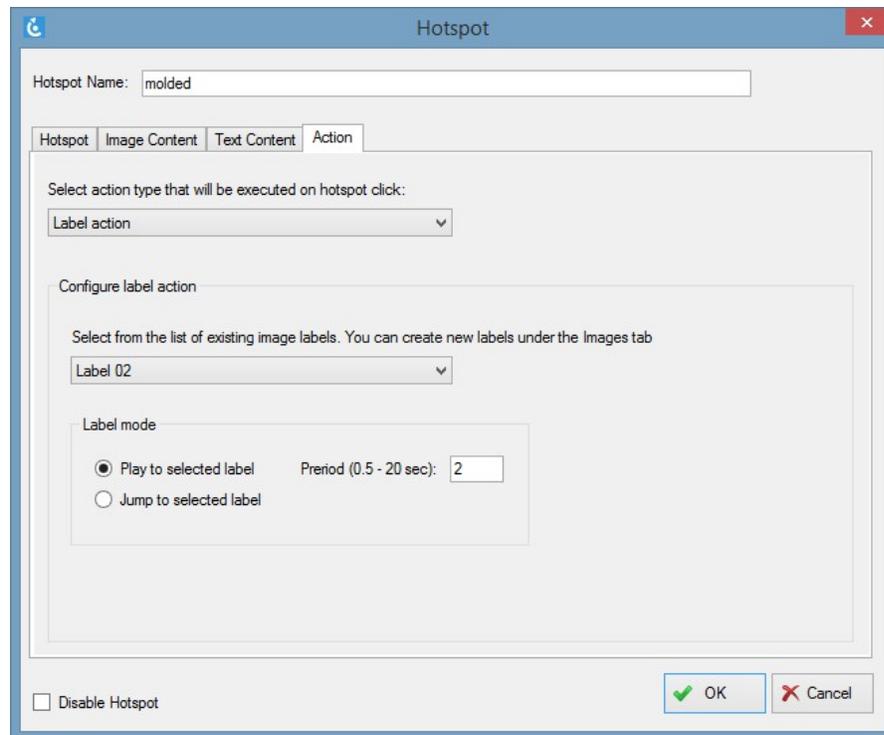
Additional hotspot interactivity can be achieved by allowing users to execute several built-in hotspot actions when clicking or tapping inside hotspot content (or hotspot indicator if there's no content). These actions can be enabled for either dynamic or static hotspots.

Label action

First, create a label for any of your product images under the Images tab inside the List section - just double-click on any of the images and enter a unique label name on the Image Label form (note that each labeled image in the list is marked via a small green box in the left top corner of a thumbnail). Then assign the new label to a Hotspot action under the Actions tab on the Hotspot form as per the following screenshot.

Now you can configure the label action to either jump to the labeled image on click or tap inside the hotspot content (or hotspot indicator if there's no content), or play to the labeled image with configurable speed which is called Period. Period represents the number of seconds it takes to make a full product spin. The playback direction is calculated “on the fly” such that it's the shortest path to a labeled image from the current index

Advanced “Play to Label” options have been introduced in v4 that allow activating, triggering hotspots, zooming to hotspots, etc. It's now also possible to play to a label and activate its settings on start of the viewer. These advanced label options can help with the creation of fully animated product tours and similar.



Control action

This action allows assigning any of the existing toolbar functions currently available in the product viewer (e.g., playback, full-screen, zoom, etc.) to your hotspot actions which can be activated by user on mouse click or tap inside the hotspot content or hotspot indicator.

Same as with the label action, this hotspot action can be assigned to a dynamic or static hotspot, allowing you to override viewer's standard toolbar controls as you wish (i.e., you can hide the default toolbar controls under the Interface tab in SpotEditor and then create static hotspots anywhere inside the viewer with control actions assigned to act as your custom toolbar or provide extra features.

Note that both label and control actions can be also implemented via our APIs as described in the [API section](#) below (or via the API template in the [integration templates](#)). When using the viewer API, you can place your own user interface elements anywhere on your web page that can trigger similar control actions and the label actions as well.

Hyperlink & Reload action

Enter an existing web page URL into the hyperlink text box to allow browsing to the URL on click or tap inside the hotspot content (or hotspot indicator). It's also possible to enter a URL of another product view configuration which is an xml file created under published/360_assets on publish in SpotEditor. Such xml hyperlink action allows drilling down into a number of linked product spins inside the same viewer container via a click or tap inside the hotspot content or hotspot indicator. This can be useful for

product tours, loading additional color combinations, navigating inside architectural 3D views, and similar applications.

JavaScript action

This action can trigger custom JavaScript function on tap or click on the hotspot indicator or inside the hotspot content. To setup this action, enter the name of your JavaScript function in the configuration field. The function receives a single parameter which is an object containing all configuration settings of a hotspot that triggered this action. Note that the same can be achieved using our hotspot APIs as discussed in the [API section](#) below. Example:

```
<script type="text/javascript">  
  function yourCallbackFunctionName(hotspotConfig) {  
    // Handle your custom action here; enter yourCallbackFunctionName under JavaScript action.  
  }  
</script>
```

❖ Viewer Interface and Controls

There're two tabs that define the majority of viewer settings in SpotEditor:

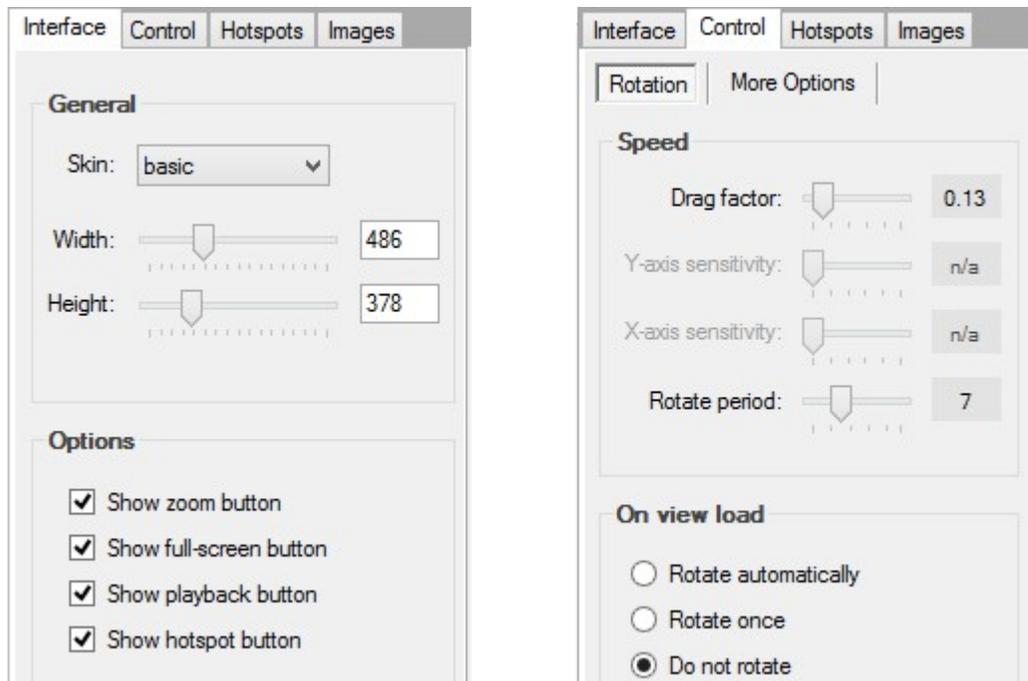
Interface

This tab incorporates options that affect the presentation of the viewer interface. This is where you can: (1) select skin and configure viewer dimensions, (2) change viewer toolbar controls and the behavior of the user interface, (3) specify visual styles such as the viewer background color and the background color and opacity of the toolbar.

Controls

This tab consists of two sub-tabs: Rotation and More Options. Rotation has various settings for configuring rotational behavior such as playback, drag speed and sensitivity, rotation direction, etc. More Options tab has a range of miscellaneous settings that are intended for more advanced use.

For more details, "mouse over" any field input or its label on either of the tabs to see a tooltip with related information.



❖ Web Integration

There are three main approaches to integrating published product views in your website as described below. *Note that if you have issues or questions regarding the integration details or simply need assistance with the integration, just give us a call or [email us](#) using the contact information at the end of this document:*

Free Plugins

Use any of the free plugins that we have developed for most popular e-commerce and CMS platforms. You can find the full list of available plugins in the following URL, and we continue adding new ones on a regular basis:

<https://www.webrotate360.com/products/cms-and-e-commerce-plugins.aspx>

These plugins have all necessary wiring already implemented to make the integration of your published product views pain free. All scripts and the backend have been hooked up as well, so you only need to upload a single folder with published image assets and an xml configuration file located under published/360_assets to a designated location on your FTP or via [PixRiot](#).

Once uploaded, reference a URL of each uploaded xml file under corresponding product in CMS admin according to the instructions we supply for each plugin.

Note that the only folder you need to upload to your FTP resides in the published folder under your SpotEditor project directory under 360_assets. It's auto-created or updated each time you publish a project in SpotEditor. This single folder (usually named after your product or a product code) and all its content can be uploaded to your FTP "as-is".

For specific instructions on how to install and use the plugins, follow this [link](#).

Copy & Paste

Every time you publish a new project in SpotEditor, the software generates a sample HTML file that has everything hooked up according to the publishing template (see [examples](#)) you choose on the Publish form as described earlier in the [Publishing Templates section](#).

This sample html file is located under the published folder in your SpotEditor project directory. In addition to the html example, there're also two directories (they are auto-created on publish as well): (1) 360_assets that holds all of your product & hotspot images and viewer configuration file (xml), and (2) the imagerotator folder that contains all viewer scripts and skins.

This sample html file has a simple markup that can be copied to your own web page almost "as-is", assuming the location of the other folders (i.e., 360_assets and imagerotator) remain the same relative to your own web page where you will be pasting the example markup.

If the location of these two folders is different on your web server, simply update the two JavaScript and a CSS URLs in the <head> section of the sample to point to a correct location of the imagerotator folder on your server. Also update the xml path under the configFileURL parameter to point to the actual location of the uploaded xml file for a given product view on your server.

If you or someone on your team has general understanding of the html technologies (CSS, JavaScript, HTML), using our published html examples as guidelines for integrating the viewer into your website is usually very straightforward. The API section below has additional details that can help explaining how the html examples are configured.

Embed via iFrame

If you don't like to deal with the script integration as described above, or your website technology is not supported via the free plugins, there's always an option to simply embed your published product views "YouTube style" using an iFrame element that you can add on your websites pages as follows:

- (1) Publish your product view in SpotEditor as usual (*for iFrames, we recommend to use 'Mobile full page' template that you can select on the Publish form in SpotEditor*).

- (2) Upload the contents of the published folder to your website via FTP.
- (3) Note the location of the uploaded sample HTML file on your server.
- (4) Add the following line somewhere inside your web page and update the “src” attribute to point to your uploaded html file on your server and set required width & height of the iFrame window accordingly:

```
<iframe src="http://www.yoursite.com/yourUploadFolder/yourSample.html" width="600" height="500" frameborder="0" scrolling="no"></iframe>
```

If using [PixRiot](#) to host your published media, simply drag a single published folder located under published/360_assets of your SpotEditor project to your PixRiot folder and then click the globe button  to get the iFrame embed code automatically.

Please note that PRO and Enterprise version of the product also support Master XML Config & CDN feature that allows using a single viewer configuration file (xml) for multiple product views and hosting the images separately on external servers or content delivery networks (CDN). This feature is integrated in most of our CMS plugins and is covered in the API section below as well as on our blog [here](#).

❖ API

WebRotate 360 Product Viewer can be initialized on your pages in three different ways (download [integration templates](#) to see a few examples):

- (1) as a jQuery plugin
- (2) via API calls
- (3) via *data-imagerotator* attribute

There's a set of required and optional settings that are supplied during viewer initialization in all three cases. In addition to the initialization, the script also exposes a set of APIs for external viewer control and customization as described under the [Extended API](#) section below.

To initialize a viewer instance, first make sure you include the following scripts in the <head> section of your web page:

- (1) jQuery script (viewer comes with a tested version located under imagerotator/html/js).
- (2) imagerotator.js located under imagerotator/html/js in your published folder.
- (3) CSS of your selected viewer skin located under imagerotator/html/css.

Alternatively, if building modular apps via Webpack and similar (e.g. ReactJS apps), consider installing [this NPM package](#) that has everything wired in.

Now you can add an empty HTML element with a class “wr360_player” into your page layout. For example, it may look like this:

```
<div class="your-layout-viewer-parent">  
  <div id="wr360PlayerId" class="wr360_player">  
  </div>  
</div>
```

Note that the wr360_player div element highlighted in bold will inherit the dimensions of the parent container upon viewer initialization so you can control the viewer size using the style of .your-layout-viewer-parent.

Here’s how a simple jQuery plugin initialization may look like for the sample div element above:

```
jQuery("#wr360PlayerId").rotator({  
  configFileURL: "your-viewer-config-xml-path.xml"  
});
```

The same result can be achieved using the API:

```
var viewer = WR360.ImageRotator.Create("wr360PlayerId");  
viewer.settings.configFileURL = "your-viewer-config-xml-path.xml";  
viewer.runImageRotator();
```

The third initialization option (data-imagerotator attribute) doesn’t require adding an empty nested viewer container (.wr360_player) as shown above. Instead you can add the data-imagerotator attribute to any of your HTML elements as follows:

```
<div class="wr360embed" data-imagerotator='{ "xmlfile": " your-viewer-config-xml-path.xml "'}>  
</div>
```

This “shortcode” option has several benefits: (1) it makes it easier to have several product views embedded on the same page, (2) it doesn’t require “forward” declaration of types via the JavaScript includes in the <head> section of a web page, (3) it provides a simple way to “paste” the viewer on any web page by simply copying a small HTML snippet (as long as the page references the scripts listed above), (4) it’s easier to develop server-side viewer integrations as you don’t have to deal with JavaScript in your server scripts.

Below is a complete list of available initialization settings that you can pass next to the required `configFileURL (xmlfile)` setting as per the previous examples. Note that the name in brackets is an equivalent name of each property for the “shortcode” initialization via the `data-imagerotator` attribute.

configFileURL (xmlfile)

Relative or absolute path to your viewer configuration XML file created on project publish in SpotEditor (located under `published/360_assets/your-project-name`).

graphicsPath (graphics)

Relative or absolute path to a skin folder with hotspot indicator images and other image assets; usually located under `imagerotator/img/skin`.

rootPath (rootpath)

`rootPath` can be used to specify an alternative location of your image assets as configured in the published xml via `configFileURL`. When it's set, the viewer will prepend `rootPath` to all image path specified in the viewer configuration xml. This is valuable when you need to store image assets on a dedicated file server or CDN. This can be also used to load a large number of the product views using a single xml file (Master XML Config). Please find more details [here](#).

responsiveBaseWidth (basewidth)

Optional width in pixel (numeric) to make viewer scale not just horizontally, which works by default if a parent container has relative width, but also vertically. It usually represents your published viewer width as per the default page layout before any responsive sizing is applied to a page. When it's set, the height of the viewer is automatically scaled relative to the current viewer width.

responsiveMinHeight (minheight)

If `responsiveBaseWidth` is configured, this can be optionally set to specify the minimum height of the viewer box which can be helpful to control the presentation on small mobile screens.

fullScreenOnClick (fsclick)

When this setting is set to true, the viewer doesn't embed itself into a parent HTML container. Instead, it attaches a click event to the HTML element it was initialized with, which will open the viewer in full-screen (or full browser window) view on click.

inBrowserFullScreen (browserfs)

If set to true, this setting forces viewer to take the entire browser window when full-screen option is activated, i.e. instead of launching in the usual full-screen mode. Even though there's the same flag in xml, this setting is available here to be used in conjunction with `fullScreenOnClick` (described earlier) such that the viewer can decide which mode to use before xml is loaded.

disableRelativeAssets

Set it to true if you are "manually" creating xml config (via your server code, etc.) and need to use absolute image URLs in your viewer config.

googleEventTracking (events)

Set it to true to allow viewer collect Google analytics data about various user interactions with the product view as described under [Analytics](#).

eventTrackingAlias (name)

If `goodEventTracking` is enabled, use this property to specify the name of a product view so that it's recorded against collected analytics in your Google Analytics Dashboard. This name is also passed as a parameter in the `apiReady` callback described below.

eventTrackingCallback

Override Google Analytics tracking. When this callback is setup, all recorded events are passed to this function for your third-party analytics instead. Signature: *callback(category, action, label, value)*.

apiReadyCallback (onready)

Pass this callback to the viewer instance to be notified when it's fully loaded and receive an initialized API object for extended viewer control and customization (see a summary below). Signature: *callback(api, isFullScreen, eventTrackingAlias)*.

configReadyCallback

Use to override xml config settings on-the-fly. It's called upon loading & parsing of config xml file but before its settings are applied. Signature: *callback(xmlDoc, isFullScreen)*.

reloadCallback

When viewer "reload" is triggered by a hotspot hyperlink action, use this callback to get notified about its completion. Signature: *callback(config, isFullScreen)*.

progressCallback (onprogress)

Use this callback to implement a custom loading progress interface. When it's passed, the default progress bar is deactivated. It's also called when the viewer starts/stops loading high-resolution images on zoom (use *isShow* flag in this case). Signature: *callback(isFullScreen, percent, isShow)*. Here's an [example](#) on our blog.

alt

Use for SEO optimization to ensure that an image element (), presenting the current image of a 360 product view has a valid ALT attribute.

[i18n.arrowLeftButtonTooltip](#)
[i18n.arrowRightButtonTooltip](#)
[i18n.zoomButtonsTooltip](#)
[i18n.togglePlayButtonTooltip](#)
[i18n.fullScreenButtonTooltip](#)
[i18n.hotspotButtonTooltip](#)

These settings provide control over the toolbar tooltips (usually visible on mouse hover) and can be used for translations.

Extended API

If you pass *apiReadyCallback* as discussed in the previous section, you will receive an initialized extended API object as the first callback parameter.

This API object (*api*) exposes these three primary interfaces: (1) toolbar interface for external toolbar and playback control, (2) images interface for manipulating image positions, state, and labels, (3) hotspot interface for hotspot operations.

Below is a complete list of available functions exposed via the extended API. **To see each of these calls in actions as well as to learn about specific optional and required parameters, publish a**

test product view using the JavaScript API template in SpotEditor (available on the Publish form or download a set of example templates including the API one [here](#)).

- (1) Toolbar interface. This API interface allows triggering any of the available toolbar functions using your own interface. Note that SpotEditor includes an “empty” skin that removes default toolbar UI that can help with advanced toolbar customizations using this API.

`api.toolbar.zoomToggle()`
`api.toolbar.hotspotToggle()`
`api.toolbar.startLeftArrowRotate()`
`api.toolbar.startRightArrowRotate()`
`api.toolbar.stopArrowRotate()`
`api.toolbar.moveRowUp()`
`api.toolbar.moveRowDown()`
`api.toolbar.playbackStart()`
`api.toolbar.playbackStop()`
`api.toolbar.playbackToggle()`
`api.toolbar.openFullScreen()`
`api.toolbar.rotateOnce()`

- (2) Image interface for manipulating image positions, state and labels:

`api.images.getCurrentImageIndex()`
`api.images.getCurrentRowIndex()`
`api.images.showImageByIndex(indexNum)`
`api.images.showImageByDelta(deltaNum)`
`api.images.getTotalImageCount()`
`api.images.getRowCount()`
`api.images.jumpToLabel(labelName)`
`api.images.playToLabel(labelName, speed or lable config, callback)`
`api.images.onFrame(callback)`
`api.images.onDrag(callback)`
`api.images.onZoom(callback)`
`api.images.zoom(step, optional coordinate)`
`api.images.disableDragControl ()`
`api.images.enableDragControl ()`

- (3) Hotspot interface:

api.hotspots.activate(hotspotName, timeout)
api.hotspots.deactivate(hotspotName)
api.hotspots.trigger(hotspotName)
api.hotspots.onAction(callback)
api.hotspots.onActivate (callback)
api.hotspots.onDeactivate(callback)
api.hotspots.hide(hotspotName, isHide)
api.hotspots.getDynamicHotspots()

(4) Miscellaneous:

api.reload(configFileURL, rootPath, callback, imageIndex, rowIndex)

Loads a different product views in-place (i.e. without page refresh). Can be used for a dynamic color change, in-place loading of associated product parts or additional 3D spaces for panoramic or architectural views, and similar applications.

api.updateDimensions()

Call if your website doesn't rely on CSS for layout responsiveness.

api.delete()

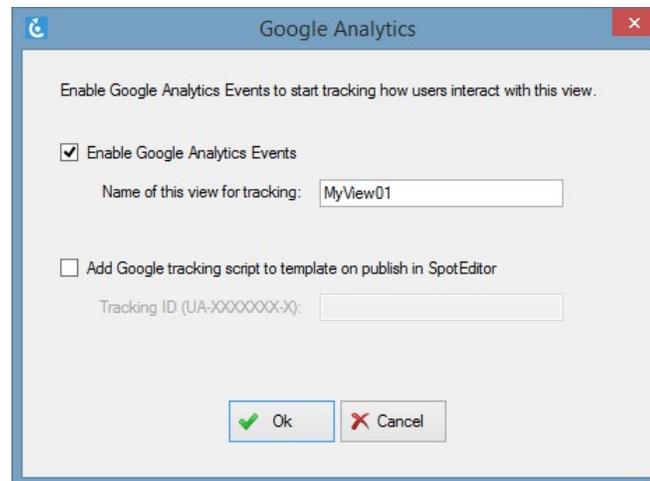
Terminate viewer instance and free memory.

❖ Analytics

Google Analytics integration helps tracking user engagement with your product views using standard Google Analytics dashboard.

To configure the integration, click on the small charts icon  next to the Template drop-down on the Publish form in SpotEditor which will bring up the following dialog.

Check the first box to enable Google Analytics events for this project. If needed, you can also change the name of this project for the purpose of tracking this specific product view inside Google Analytics. This name becomes an event label that you will see once you start browsing WebRotate 360 events in your Google Analytics dashboard (GA dashboard) and will allow you to filter all WebRotate 360 events by the given name.



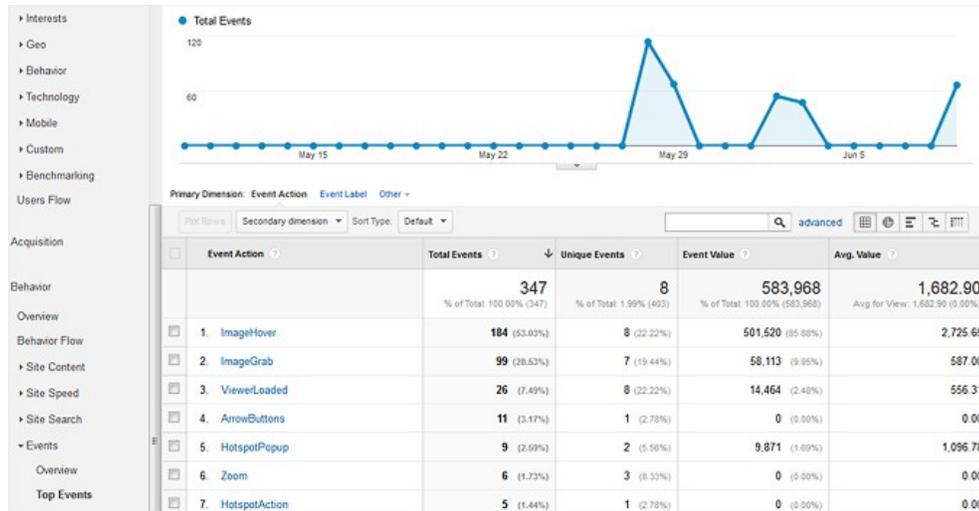
If needed, select the second box to add Google Analytics tracking script to your published html template on publish (automatically). This will require a tracking id which is a code that is automatically assigned to any web property in your GA dashboard. This tracking id usually looks like this UA-XXXXXXXX-X and can be accessed either on the Home page of your Google Analytics (next to the website / property name in the list of properties) or via the Admin page under the Property settings.

If Tracking ID is configured, your published html output will include the standard Google Analytics tracking script, so once the published files are uploaded online, you can start testing the integration right away. If you are integrating a product view into a website that has the Google Analytics script already integrated, copying the template tracking script is not needed (it's there mostly for quick testing or when you need to embed the views via iFrame).

Note that the Google Analytics integration will first check if the standard Google Analytics script is present on the same page where the viewer is loaded and if it can't find it there, it will try to access the script from a parent page if available. This allows integrating the analytics even when your product views are embedded elsewhere via iFrame.

Let's review the types of events that are available for tracking user engagement in your GA dashboard.

All WebRotate 360 events are categorized under *WebRotate360* category so once your published project is live, you can start browsing events that belong to this specific category (i.e, *WebRotate360*). These events will show either under the Real-Time tab of your GA dashboard (under Events) or via the Behavior tab as shown below which doesn't show the real-time results but has more event details and more options for event filtering and navigation.



There are currently 11 event (action) types that are being tracked in WebRotate 360 Product Viewer. Some of these events also include associated time value (in milliseconds) to give you more context for understanding how users engage with the product views. All of these events also include an event label that you can assign on the Google Analytics form in SpotEditor for each product view as noted earlier.

ViewerLoaded

Fired every time a product view is completely loaded. Includes the number of milliseconds it took to load in full.

ViewerReloaded

Similar to ViewerLoaded this event is fired when a product view is reloaded “in-place” via API or a hotspot action (i.e. hyperlink action pointing to an xml file).

ImageHover

Fired when user moves mouse cursor away from a product viewer or starts dragging images with the left mouse button depressed or when a hotspot popup is activated. This event records the number of milliseconds user spent “mouse-hovering” over the product images. Note that the ImageHover event doesn't fire on mobile devices with touch screens.

ImageGrab

Fired when user stops dragging images via mouse or touch. This event includes the number of milliseconds that were spent dragging the images.

Zoom

Fired every time the toolbar Zoom button is clicked (on zoom-in only) or when the zooming function is triggered via double-click (or double-tap) or single mouse tap, if configured. It's also fired when zoom-in is activated using the API.

Playback

Fired every time the toolbar Playback button is clicked (on playback start only) or when the same function is triggered using the API.

ArrowNavigation

Fired every time the toolbar Arrow buttons are clicked (left, right, up or down) or when the same functions are triggered using the API.

Fullscreen

Fired every time the toolbar Full-screen button is clicked (on activation only) or when the same function is triggered using the API.

HotspotsOnOff

Fired every time the toolbar Hotspot On/Off button is clicked or when the same function is triggered via the API.

HotspotPopup

Fired when user deactivates a hotspot popup. This event includes the number of milliseconds that user spent reading or browsing the content of the hotspot popup.

HotspotAction

Fired when user clicks on a hotspot popup that has a hotspot action assigned (i.e hyperlink action, label action, etc.).

You can use [API](#) to override how & where to track the events via `eventTrackingCallback`.

❖ Appendix

Image Production and Equipment

WebRotate 360 Product Viewer works with sequences of JPG and PNG images that can be produced in a variety of ways. For example, the software is often used with 360-degree product photography where a product is placed on a rotating platform while the camera is mounted on a tripod in a fixed position. The platform can be turned manually via a “lazy suzan” DIY turntable, or automatically, using a specialized robotic platform or an “off the shelf” mechanized display stand (there’s always a great variety of such platforms [on eBay](#)).



For example, we have designed and built this handy [DIY turntable](#) for our studio that we used on many assignments. Generally, such manual DIY table and an inexpensive lighting kit will work fine for smaller projects.

For large and heavy products like cars or heavy machinery, a different approach may be required as building a custom rotating platform ([example](#)) and mounting these types of products is either too expensive or generally impossible. So you may consider circling a product around with a camera as described [here](#), or use multiple cameras circling the object at marked increments ([example](#)) or even have a camera attached to a drone.

A basic DSRL camera with 18-55 mm zoom lens or 50mm prime lens will work fine for most ecommerce projects. Some camera manufacturers also include a free remote camera capture & control software such as EOS Utility by Canon that can help with the image capture. Other free alternatives (e.g., [digiCamControl](#)) exist.

Quality 360 product photography may require some practice with lighting, product & camera placement, and other techniques specific to this type of photography. We publish our blog [here](#) where we cover various challenges, working setups, and other options that you may consider for your photography projects.

This software has been successfully used with rendered 3D images produced using various 3D modeling tools such as Blender, 3ds Max, Rhino, Modo, Cinema 4D, and similar applications.



Please refer to your software documentation and / or available plugins for options to export 3D models as sequences of 360-degree images (JPG or PNG) or consider our 3D modeling and rendering [services](#). Here's two articles on our blog that cover this topic for [Blender](#) and [3ds Max](#).

Starting with v3.6 of SpotEditor, we support multi-row 3D views that allow spinning objects both horizontally and vertically. To achieve this effect, the software requires several rows of 360-degree images that are rendered as virtual camera circles an object vertically with a desired vertical increment. For example, there can be 7 vertical increments (rows), consisting of 40 images each. When creating a new project in SpotEditor, you can then specify the number of rows on the New Project form as described [here](#) or add them manually one by one under Images->Rows. You can download [this sample](#) set consisting of 7 rows x 36 images each and import it into SpotEditor for a quick test.

Another unique variation of the multi-row support (a two-row 360 product view) that the product now also supports is discussed in [this article](#).

You may also consider rendering additional sequences of images for animated parts that can be inserted into the main sequence before or after importing the images in SpotEditor. Other interesting spinning effects can be produced by incorporating more complex camera fly-by's, introducing "delays" by slowing down camera (or object) rotation at certain angles, etc.

Suggested Image Requirements

In our projects we usually produce 20 to 40 images per product and this is what we usually recommend to most of our e-commerce clients. High-end marketing presentations may require a higher number of 360-degree images and 72 is often the highest number of images per a single-row spin that we recommend.

A single-row spin of 20 to 40 images offers a good balance between the smoothness of the animation, user wait times, and the amount of efforts required for the actual photography or 3D modeling & rendering and post-production. It's also important to consider the viewer dimensions on the target web page and the use of zooming and full-screen.

For example, let's say your product view is 500 x 375 px and the output images are made twice as large to support x2 zooming (via the Resize image slider under Images->Tools in SpotEditor as described in [Instant Crop-Resize](#)).

This would generally result in 80-100 KB per a JPG image, which is roughly a ~2 MB download for 20 images (assuming they are generic e-commerce images with no background and a decent image quality). With average cable speeds at 12.6 Mbps in the U.S. (as of Q3 2015), there is roughly a 1.3 second wait for a complete product view to load on a page. Going to 40 images per spin or adding additional rows for multi-row 3D viewing with similar image dimensions and compression would increase the average wait times accordingly.

Note that if "Create an extra set of fitted images" is checked on Publish in SpotEditor, the wait is drastically reduced as the software creates an extra set of small fitted images that load upfront on page load instead of the high-res ones. The high-res images are only loaded on demand and incrementally when user hits zoom or turns the full screen mode on.

Also, the viewer always loads a pre-configured "pre-loader" image before the rest of the sequence, so a web visitor has something to look at while the rest of the images are loaded and processed asynchronously.

As of v3.6.2, you can now pause image loading once the pre-loader image is loaded (with a customizable visual text "hint" that alerts your visitors about the availability of the 360 view), so that the full 360 view is only loaded when the user clicks or hovers inside the view. You can enable this option under Control->Rotation tab in SpotEditor.

Troubleshooting

See [FAQ](#) which is updated often or search our [forum](#). If neither helps, please report your issue on our [support page](#).

❖ Go PRO

WebRotate 360 Product Viewer was built by us from ground up in-house in Pasadena, California, with its first commercial release dating back to 2010. Since then, we have released 5 major versions of this product as well as numerous minor releases, CMS plugins, customer one-offs, beta releases and hot-fixes.

Unlike other software on the Web, our product viewing technology utilizes our own extensive experience producing professional 360 product photography (we have been shooting products in 360 degrees for clients since 2009), interactive 3D models, e-commerce websites and other components and software for demanding customers around the globe. Our small and dedicated team has 40+ years of combined software and web development experience so rest assured, you are in the good hands...

Join our customer community today!

To see the full list of features offered by the licensed version of our software, visit this link:

<https://www.webrotate360.com/pricing.aspx>