WebRotate 360 Product Viewer

USER GUIDE v3.5

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* About the Product

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

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

The second component is the actual product viewer package that is outputted by SpotEditor. These small viewer packages are usually hosted somewhere online and then served on your web pages by including a couple of script files in the header of your web pages.

Then there's a set of free plugins and add-ons that we have developed for most popular e-Commerce and CMS platforms. These modules add extra features that greatly simplify the viewer integration with supported third-party platforms. For a complete list of supported platforms please visit this page:

http://www.webrotate360.com/360-viewer-plugins.html

Note that the product 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 such page is loaded in your browser, the code contained in these scripts automatically (and asynchronously) downloads all configured images and resources from your web hosting servers and then renders them seamlessly according to your custom product viewer configuration.

You don't have to know JavaScript or any other programming language or techniques to make it all work. All you need is our desktop publishing software that we provide in the main product download which 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 our powerful image editing tools fine-tuned for 360 product photography and 3D renderings as well as the multitude of configuration settings.

Download the latest version of the product for either Windows or Mac OS X:

www.webrotate360.com/360-product-viewer.html



Why WebRotate 360?

- Fine-tuned for E-Commerce with real businesses in mind.
- Created and used by professional 360 photography studio that have been shooting 360 product photography for real clients and on a regular basis since 2009.
- Unique desktop publishing software with batch image editing, watermarks, FTP, etc.
- Free plugins for popular e-Commerce and CMS such as WordPress, Magento, OpenCart, Prestashop, BigCommerce with additional platform support to be released soon.
- Works on devices such as iPad & iPhone and browsers without Adobe Flash. Also works on older browsers without HTML5 support.
- No server side scripts required all client based.
- Lightweight and fast with quick integration.
- Configuration is done via a separate XML file (automatically created via supplied software), suitable for very large deployments, including CDN, and simple maintenance.
- Highly customizable (sizes, features, colors, skins, templates, etc.)
- API (Application Programming Interface) for advanced customizations.
- Extensive hot-spot support for advanced interactivity with granular control.
- 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.
- 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.
- 4 years since its first release, the software is now trusted by hundreds 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 (works on Windows and Mac OS X):

- Import your original images via the New Project form.
- Preview and edit imported images or update viewer configuration as needed.
- Publish and preview in your local browser and optionally upload the output to your FTP.

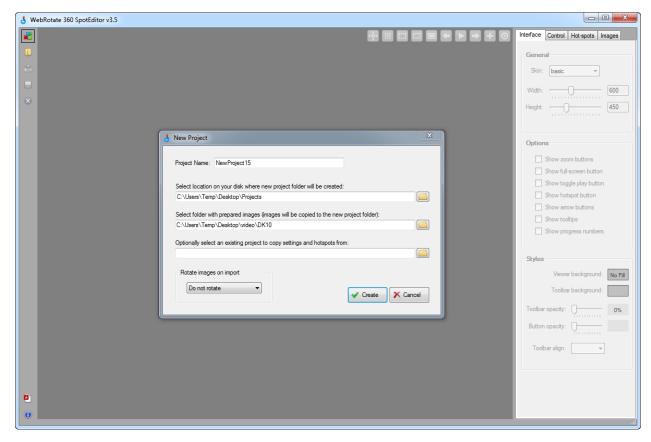
Image Import and Project Copy

The New Project form has a single field to specify where your folder with original images for the import is located. These can be the images that you have already produced (resized, optimized, etc.) or the ones that came straight out of your camera or 3D CAD software.

In addition to the original image folder, please also specify your new project name and the location on your hard-drive where new project files will be created. Note that your original images will not be modified – they are simply copied to the new project location.

If original image dimensions are too large, 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 (by default, this will just auto-resize all imported images to 2000px on a widest side).

There's also an optional project copy path where you can enter an existing WebRotate 360 project to copy all settings from. This can be a life-saver when working on a large number of uniform products (shoes, bags, and similar).

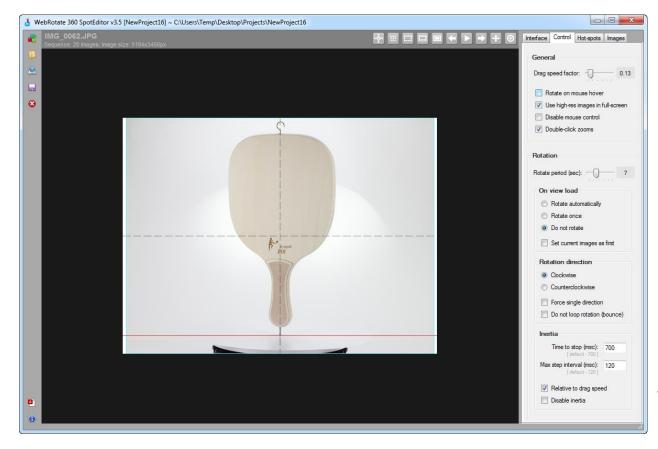


Instant Non-Destructive Preview

SpotEditor Preview mode, which is on by default, instantly renders all images, watermarks, image filters, etc. to show you how the images will be cropped, scaled and perform overall inside a browser once the view is published. Same applies to the drag / playback speed settings, rotation direction, zooming, inertia effects, clipping path and the rest of the settings – all is immediately applied to all images 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 your 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 immediately inside the preview as you move through the images using mouse wheel, dragging them with your mouse, via a spacebar on your keyboard or using the arrow buttons on the toolbar at the top of the window.

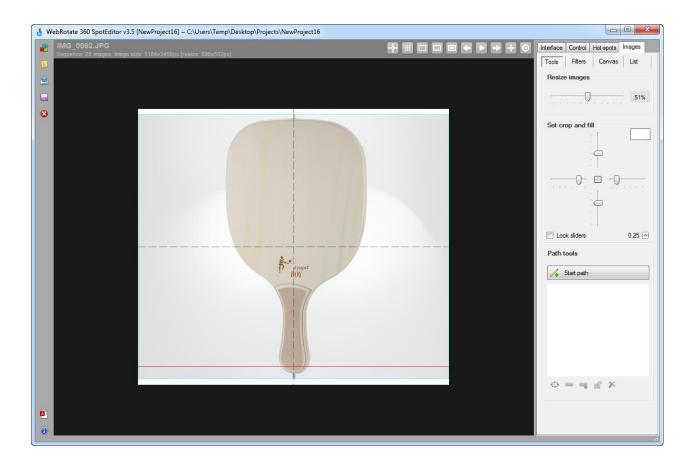
Use the other toolbar buttons to turn on/off the center guides, grid guides, image edge guides and the viewer toolbar guide that shows the edge of the viewer toolbar using a red line.



Instant Crop-Resize

Crop function consists of four sliders, one for each side of the left-hand view. 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 some crop space on either side of the images. The crop is applied to all images inside the loaded preview immediately 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 as needed at any time.

To expand or contract the crop sliders at the same time, press the ALT key while moving the crop sliders either way. Click on the rectangular icon at the center to reset your crop edits.

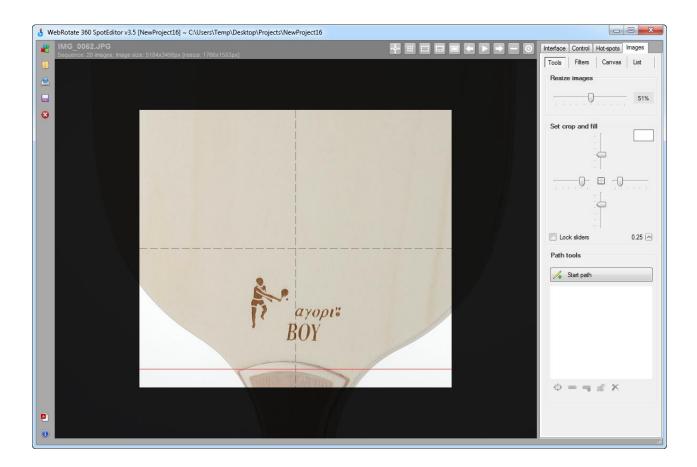


If the maximum amount of crop that can be applied by default using the sliders is not sufficient for your images, fine-tune it with the small arrow on the bottom right of the crop panel.

Note that the only time any images are permanently cropped is when you finally publish the view – the base image set is then copied to your selected publish folder and all edits, filters, clipping path and watermarks are permanently applied to the published copy only.

Now you can adjust your zoom-in & 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 slider, it automatically switches to the full-size zoomed-in image presentation. Just click the zoom-out button on the toolbar at the top to go back to the fitted preview mode. All images inside the preview are immediately resized without affecting the originals so you can instantly verify that all images look right at the given resize level.



As with the crop changes, the image resize is not applied to your imported originals so it can be modified at any time. It's also worth noting that hot-spots, watermarks and path tools can be added even before crop & resize as the software will scale and / or reposition them accordingly.

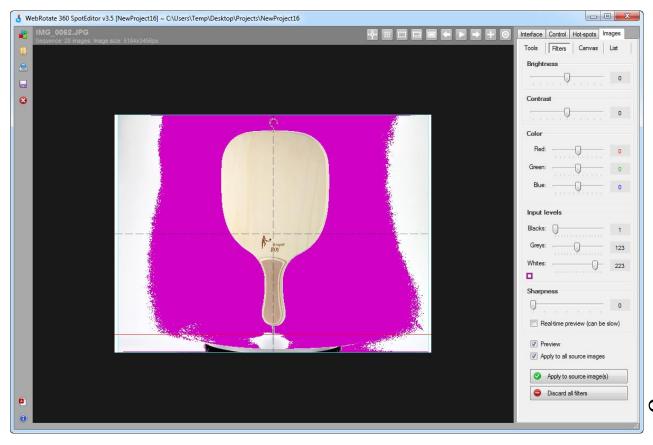
Please read more about how the resize setting affects your published images under the Publishing section below.

Instant Photography Filters

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

Most often you would use the Input Levels settings to adjust both your background exposure and your image contrast by slightly moving the Input Level sliders. 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 the image contrast.

There's also a handy background color helper tool under Input Levels that allows you to see the image areas that is 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 there again, all image areas that are white will be now 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 ether 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 need to apply the filters to your originals to have the flexibility to adjust the filter settings later. The software will still apply all active filter edits to the outputted images on Publish.

Clipping Path Tools

Changing Input Levels as described above may not always work 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 still remain on the images even after you cropped the images to your required viewer dimensions. Such artifacts may include fishing lines, stands, lightboxes, turntable, etc.

To help with this, there's the Path Tools section under Images->Tools designed specifically with the product photography in mind. 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, clipping away the image area underneath it. Not 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 keep adding more path 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.

You can also apply your selected path to any of the images in the view selectively by simply hitting the Chain icon located on the bottom of the section as you go through your images (via mouse wheel, for example), finding the ones that need the same treatment. To apply selected path to all images in your view at once, use the second Chain icon with the plus sign.

Often you would just circle your product around and simply hit the Inverse Path icon to clip all surrounding areas at once as shown in the screenshot below. *Please note that the Inverse Path option is currently not available on Mac OS X*.

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 images that need 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 other 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 showing in full view. To turn the preview off, just hit the Viewer box preview button (filled white rectangle) on the toolbar at top of the window and then press Zoom-in on the same toolbar to expand the images.

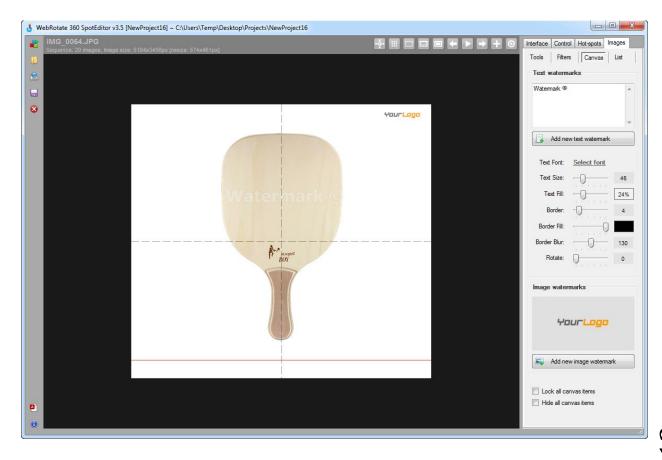
As with the other edits in SpotEditor, these path clipping effects are never permanently applied to your original (imported) images, so you can change or remove them at any time.

Image Watermarking

Image watermarking is 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 communicate your results with a client.

There are two types of image watermarking: (1) text watermarks that you can quickly create using your own wording and then adjust various styles and orientation via a set of sliders underneath, and (2) image watermarks that you prepare upfront and which you add using the Image Watermarks section at the bottom of the same tabe. Once you see a new watermark on left, you can move it with your mouse to position within the images.

To delete an existing watermark, simply select it with your mouse inside the left-hand preview and then press the delete key on your keyboard. 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.

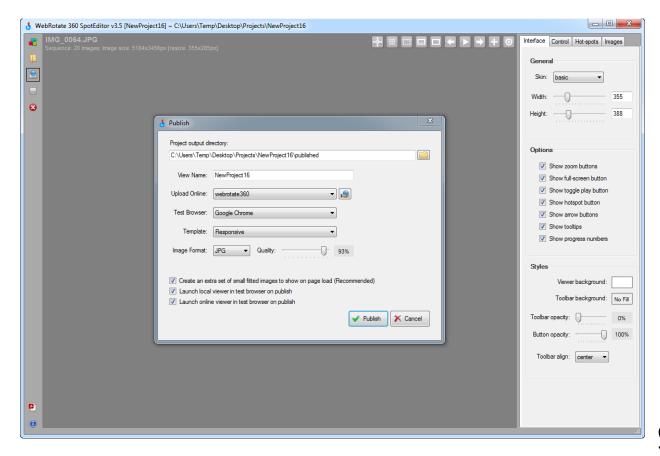


Publishing

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

Here you can change the output directly 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 final delivery to your client as you can publish into the same output folder which will eliminate any folder 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 (this can be used with our <u>plugins</u>, for example, as scripts and html have been integrated there already). Just 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 your product view in any of the test browsers that you can find under the Test Browser drop-down, double check that the Launch local (or online) viewer checkbox is checked and just hit Publish. Please note that the Test Browser selection is currently limited to Safari on Mac OS X.

Some browsers have an extra security measure that blocks asynchronous file loading when it's done *locally* (i.e. when local files or images are loaded by a local html page opened inside your web browser, all residing on your own hard-drive 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 while testing locally (when viewer is loaded online this is never an issue) unless you slightly alter your browser configuration.

Note that when you launch the local previews from inside the software, we take extra measures to circumvent these issues by passing special parameters to your test browser where applicable, but if you are testing your published local product views manually, please refer to this blog post, listing currently available workarounds for the affected browsers.

Please also note another checkbox on the Publish form called "Create extra set of fitted images to show on page load", which is highlighted as Recommended.

When it's checked, the software will automatically create and integrate two sets of images into your product view on publish. First set consists of small fitted images that load immediately on page load. The second set incorporates high-resolution images that are loaded on demand and incrementally when user hits zoom or full-screen. Small fitted images are autoresized on publish by the software such that they fit into your specified viewer dimensions exactly when loaded online. This makes initial viewer loading very fast and at the same time the images look sharp as you are not relying on the automatic low-quality image resizing done by a browser.

If the checkbox is not selected, 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 immediate high-quality zooming / full-screen presentation when user hits zoom-in or the full-screen button.

Publishing Templates

You can also select from the list of available publishing templates via the Template drop-down on the Publish form. A publishing template is just a simple html page that embeds your published product view in a certain way to achieve a 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 pages or use it on your website as-is. Note that the publishing templates do not affect viewer configuration (xml) settings – they just show the 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, please refer to the API section below in the document.

These are the publishing templates that are currently available in SpotEditor:

Standard

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

Responsive

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

Mobile full page

Full-page integration that dynamically scales the viewer to fit into a browser window. Great for mobile devices where you may need to fill 100% of the device screen with a product view.

Full-screen only

Activate a product view in full-screen mode on click or tap somewhere inside 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 viewer configuration & files.

JavaScript API

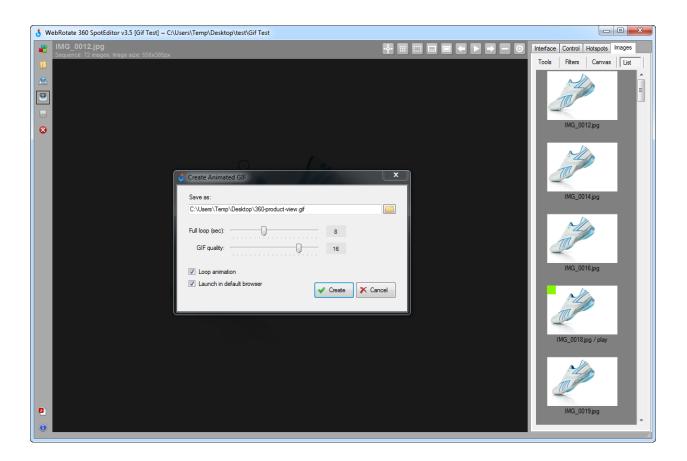
Simple template output, showing all available API calls in action with notes and comments where applicable.

Animated GIF Publishing

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

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

All watermarking, batch crop & resize, image filters, levels, etc., is applied to your animated GIFs in exactly the same way as with the interactive product spins as described in this document. Playback speed control, image quality, rotation direction and the bounce effect are also supported and work and configured using the same controls.



The animated GIF options allows you to quickly share a draft of your product spin with your client or your boss by simply attaching it via email as a normal image. It can be also used for social sharing and product marketing on Twitter, Google+, on your website or blog, etc.

Hotspots

Advanced hotspot support is one of WebRotate 360 Product Viewer key features. Hotspots can be either dynamic, showing as small graphic elements (hotspot indicators) that move with your product images at pre-defined trajectories. Or they can be static and placed as static content somewhere within the viewer box. The dynamic hotspots can be configured to activate your custom content (e.g., images, text, custom html snippets) via an interactive popup assigned to each hotspot and activated on mouse hover or click or a touchscreen tap. This popup box can be either centered over the hotspot indicator or positioned statically (using coordinates or offsets). 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, custom html snippets).

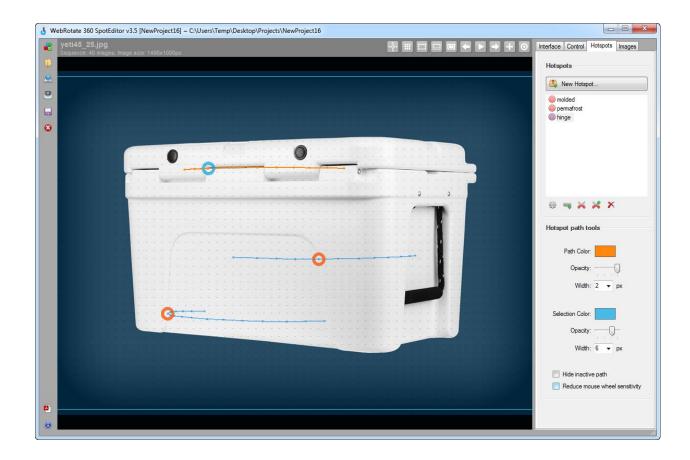
Both types of hotspots can be assigned actions that range from simple URL forwarding to advanced label actions that can animate product rotation to a certain image with a defined speed on click or tap.

Dynamic Hotspot Positioning

Switch to the Hotspot tab on the right-hand side of the main application window and select New Hotspot. Edit hotspot settings and assign hotspot content as described in the following section and select Ok. If it's a dynamic hotspot that will be moving with the product images, simply move your mouse cursor to the position where you would like to see the hotspot indicator on the current image and press the left mouse button to create a new position. Move to the next image via mouse wheel or using the arrow buttons on the toolbar or just hit the spacebar key on your keyboard.

You can also drag the current indicator position with your mouse or move it slightly via Ctrl + Up / Down / Left / Right arrow keys. You can also delete the current position with the Delete key or using the last button on the toolbar under the list with your hotspots. Other toolbar buttons allow: (1) propagating your current position to all images (if you want it to be positioned at same spot as if it was a static hotspot), (2) removing selected hotspot position or (3) removing all hotspot positions from all images where they were placed already.

Use the Hotspot Path Tools on the same tab to change color, opacity and 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 helpful to hide other hotspot trajectories while you are working on the current path. You can do this by selecting the Hide inactive path checkbox on the bottom of the same section.

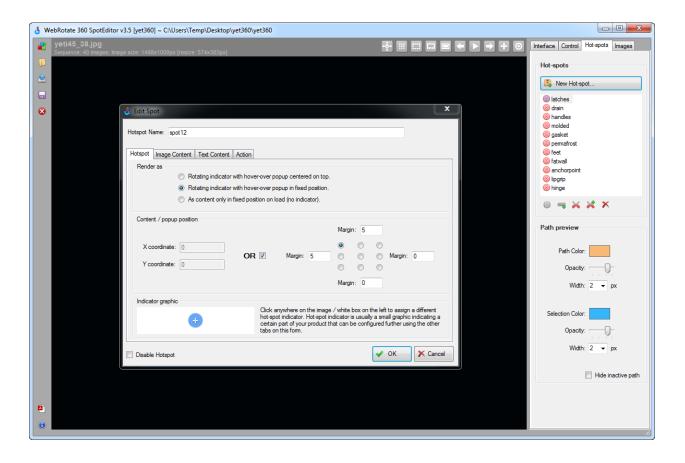
Rendering Settings

Set or update hotspot rendering settings on the first tab of the Hotspot form when creating a new hotspot or updating an existing one. First, select from the list of the Render As options to configure whether your hotspot will be dynamic (moves with product images) or static (e.g., a logo, a thumbnail, or a comment located in a fixed position).

There're currently these three hotspot rendering modes to choose from:

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

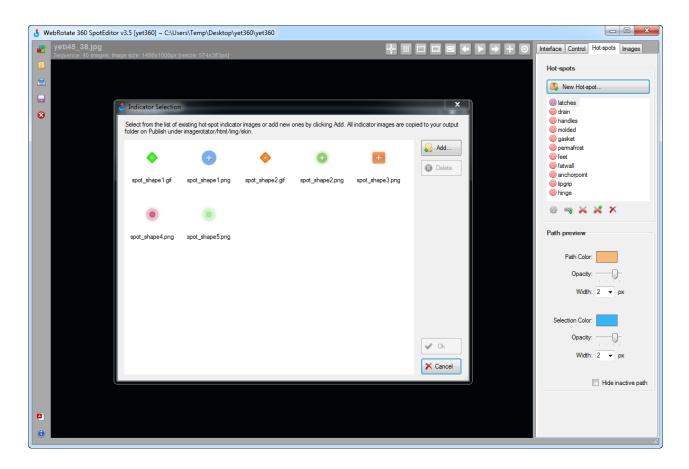
The first and the second options will create a dynamic hotspot. When the second one is selected, the actual hotspot popup is activated (on mouse hover, touchscreen tap or a mouse click) in a fixed position anywhere inside your product view as configured using the content positioning controls on the same tab. You may use this option when you don't want your hotspot popups to overlap product area near your hotspot indicator.



The content / popup positioning controls can be applied to dynamic hotspots to make the popups render in a fixed position as mentioned above as well as to any static hotspots that are activated via the third Render As option.

What this means is that any text or image or HTML markup that you add on the other tabs of the Hotspot form will be placed inside your product view according to the offsets that you define under Content / popup position. Here you can either set XY coordinates of the top left corner of you hotspot content (relative to the top left corner of the product view) or use one of the grid options on the right side that divide your product viewer into 9 slices with optional margins (in pixel).

To change a hotspot indicator image (a blue circle with a white cross in the screenshot above) for your dynamic hotspot, use the Indicator graphic section at the bottom of the same tab. Just click somewhere in the white box under Indicator graphic to bring up the Indicator Selection form where it's also possible to add your custom indicator shapes (PNG, GIF or JPG) into SpotEditor's global indicator library and then use them for any of your dynamic hotspots on demand.



Content Options

There are two tabs on the Hotspot form that allow specifying your Hotspot content options: (1) the Image Content tab and (2) the Text Content tab. Please note that starting with v3.5, it's not possible to add content to both tabs at the same time.

To show just a single image (JPG, PNG, or GIF) inside a popup of a dynamic hotspot or to use this image as the actual static hotspot, just add your image under the Image Content tab by clicking the open folder icon and browsing to the location of your image on your hard-drive. The image will be copied "as-is" into your SpotEditor project repository and will be copied further to your output folders upon publish.

The Text Content tab has two modes of operation. The first is a simple text presentation where any text that you enter in the multi-line text field will be rendered as is and according to the text formatting options you can specify under the text field.

The second mode of the Text Content tab is activated by checking the As HTML markup checkbox at the top of the tab. When it's checked, the main text field is used to enter any of your custom HTML script (i.e markup; without or or <body> elements) with its own styles, hyperlinks, image links, colors, etc. You may use inline styles or rely on your existing style sheets that you might be including on the same pages where viewer will be hosted. Please note that depending on your markup design, it may be necessary to wrap your html markup inside a container with your predefined width and height (e.g., <div style ="width: 300px; height: 300px;"> your markup goes here </div>) to make sure the dimensions are rendered correctly. Here's a sample HTML markup with inline CSS that you may cut and paste into the corresponding field on the Text Content tab (if HTML markup is checked) to see how the HTML markup content works:

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. These actions can be enabled for either dynamic or static hotspots.

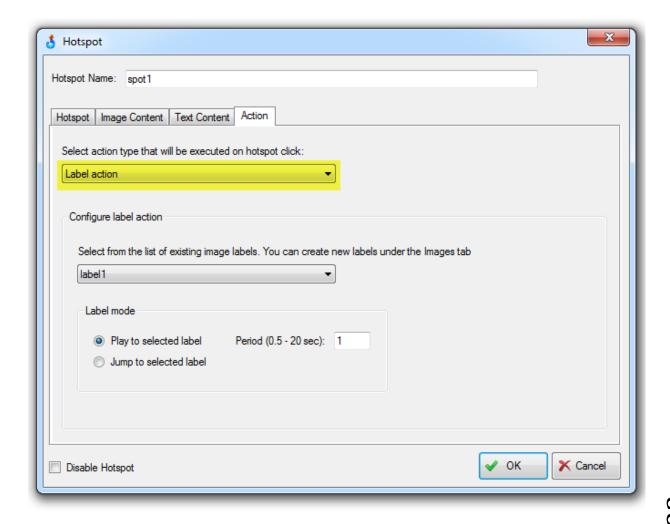
Label action

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 top left corner of the image thumbnail). Then assign the new label to a Hotspot action under the Actions tab on the Hotspot form as per the following screenshot (current action type is highlighted in yellow).

Now you can configure the label action to either jump to a label (i.e., image) on click or tap inside the hotspot content, or play to a labeled image with configurable playback speed which is called Period. Period represents the number of seconds it takes to make a full product spin. For example, the number of 1 indicates that the label playback speed will be 1 second divided by the number of viewer images.

Note that the label playback direction is calculated on-the-fly such that it's the shortest path to a labeled image from the current one.



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 then activated by user on mouse click or tap inside the hotspot content box.

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 your static hotspots with control actions assigned anywhere inside the viewer to act as your custom toolbar.

Please note that both label and control actions can be also implemented via our new API as described in the <u>API section</u> below. 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

Simply enter an existing web page URL into the hyperlink text box to allow browsing to the URL on click or tap inside hotspot content. It's also possible to enter a URL of another product view xml file (the one created for each product view on publish in SpotEditor). This xml hyperlink action allows drilling down into any number of linked product spins inside the same viewer box (i.e., in-place) via a click or tap inside hotspot content. This can be useful for product part exploration, loading additional color combinations, navigating inside architectural 3D views, and similar applications.

Viewer Interface and Controls

There're two application tabs that define the majority of viewer settings and which you can find on the right-hand pane of the main application window. The first one is the Interface tab where viewer skin and toolbar related options reside. The second tab is the Controls tab that has various options for customizing viewer behavior such as playback and drag speed, image rotation direction, inertia effect and other settings. For specific details pertaining each of the settings on either of the tabs, please mouse over either a text label or a tab field itself inside the running application to see an informational popup with helpful information and tips.

Web Integration

There are three main approaches to integrating your published product views on a website (if you have issues or questions regarding the integration details below, or simply need assistance with the integration, please give us a call or <u>email us</u> using the contact details that you can find 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:

http://www.webrotate360.com/360-viewer-plugins.html

These plugins have all necessary wiring already implemented to make the integration of your published product views pain free. All scripts and backend have been hooked up as well, so you would only need to upload a single folder with your image assets and an xml configuration file created on publish in SpotEditor to a designated location on your FTP. Then reference a URL of each uploaded xml file in your backend under corresponding product in your catalog in Admin, inside a CMS page or post (e.g., in WordPress admin).

Note that the only folder that you would need to upload to your FTP resides in the published folder under your SpotEditor project 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 with all its content can be uploaded to your FTP "as-is".

For specific instructions on how to install and use WebRotate 360 plugins, please follow the links on our plugin page <u>here</u>.

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 you choose on the Publish form as described in the <u>Publishing Templates section</u> above.

This sample html file is located under the published folder inside your SpotEditor project. In addition to the html sample, there're also two directories (they are auto-created on publish as

well): 360_assets that holds all of your product & hotspot images, including viewer configuration file (xml), and the second one is the imagerotator folder that contains all viewer scripts and skins.

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

If the location of these two folders will be different on your web server / FTP, 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 your uploaded xml file for a given product view on your FTP.

Embed via iFrame

If you don't like to deal with the script integration as described above, or your website technology is not the one we support 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.
- (2) Upload the contents of the published folder from your project folder to your website FTP.
- (3) Note the location of the uploaded sample HTML file on your FTP.
- (4) Add the following line somewhere inside your web page (update the src attribute to point to your own / uploaded html file on your FTP and set your required width & height of the iFrame window where product view will be loaded):

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

Please note that PRO and Enterprise versions of the product also support Master XML Config & CDN feature that allows using a single viewer configuration file (xml) for multiple product views as well as hosting the actual product images on a separate server or Content Delivery Network (CDN). The same support is also integrated in most of our CMS plugins. This feature is covered in the API section below as well as on our blog here.

⇔ API

WebRotate 360 Product Viewer can be integrated on your pages in two different ways: as a jQuery plugin or via a couple of simple API calls. In both cases, there's also a set of required and optional settings that are used during viewer initialization. In addition to the initialization API, the viewer script also exposes as set of APIs for external viewer control and customization.

To initialize a viewer instance, please 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 viewer skin located under imagerotator/html/css.

Now you can add an empty HTML element with a class equal "wr360_player" into your own 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 parent container that embeds the wr360_player div element highlighted in bold is important as its dimensions will be the actual viewer dimensions once the viewer is loaded. 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 these statements:

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

Below you can find a complete list of available initialization settings that you can pass next to the required configFileURL setting that you see in the above snippets:

configFileURL

Relative or absolute path to your viewer configuration XML file created on project publish in SpotEditor.

graphicsPath

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

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 may be also used to load a large number of your product views using a single xml file (Master XML Config). Please find more details here.

responsiveBaseWidth

This is a viewer width in pixel (numeric) that you can set to allow the viewer window to scale not just horizontally, which works by default if a parent container has a relative width, but also vertically as well. It usually represents your default viewer width as per your base / default page layout design before any responsive scaling is applied. When it's set, the height of the viewer is automatically scaled relative to the scaled width.

zIndexLayersOn

Web browsers have different image rendering engines. Some produce a slight image flicker effect on image rotation inside the viewer when using larger images. WebRotate 360 Product Viewer includes a special flicker prevention module to help with the issue which is enabled by default. This may produce a "double-vision" effect on those PNG images that have a transparent background where you can see a couple of consequent images at the same time. To disable the flicker prevention for such PNG images, please set this setting to false.

fullScreenOnClick

When this setting is set to true, the viewer doesn't embed itself into a parent HTML container. Instead, it uses the actual HTML element that it was initialized with (via the element id as per the sample snippets above) as a click or tap target that launches the viewer inside a full-screen view right away. This way you can have a hyperlink or an image thumbnail that would launch the product view in full-screen on click or tap.

apiReadyCallback(api)

This is a callback function that you can pass to the viewer instance to be notified when it's fully loaded and receive an initialized API object for extended viewer control and customizations (see a summary below).

- i18n.arrowLeftButtonTooltip
- i18n.arrowRightButtonTooltip
- i18n.zoomButtonsTooltip
- i18n.togglePlayButtonTooltip
- i18n.fullScreenButtonTooltip
- i18n.hotspotButtonTooltip

Optional internationalization settings that allow changing the default toolbar tooltips (usually visible on mouse-over).

Extended API

When you pass an API callback via the apiReadyCallback setting as described above, in addition to being notified that the viewer is fully loaded, you will also receive an initialized extended API object via the single callback parameter.

This API object exposes the following two interfaces: the toolbar interface for external toolbar control and the images interface for manipulating image positions and labels. In addition to the two interfaces, there's also a reload call for in-place viewer reload.

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 that can be passed in each of these calls, please publish a test product view using the JavaScript API template in SpotEditor.

(1) Toolbar interface for external control of toolbar functions. This API interface allows triggering any of the available toolbar functions using your own user interface or via some specific logic. SpotEditor also includes an empty publishing skin that removes all default toolbar UI which can help with advanced toolbar customizations using this API interface.

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

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

```
api.images.getCurrentImageIndex()
api.images.showImageByIndex(indexNum)
api.images.showImageByDelta(deltaNum)
api.images.getTotalImageCount()
api.images.jumpToLabel(labelName)
api.images.playToLabel(labelName, speed, callback)
```

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

api.reload(configFileURL, rootPath, callback, reloadImageIndex)

Appendix

Image Production and Equipment

WebRotate 360 Product Viewer works with JPG or PNG images that can be produced in a variety of ways. Most often the software is used with 360-degree product photography which is a pretty much the same process as the regular product photography. The main difference with 360 product photography is that a product is positioned on a rotating platform that can be turned either manually via a "lazy suzan" DIY turntable, or automatically, using specialized robotic platforms or "off-the-shelf" mechanized display stands.



For example, we have designed and built this DIY turntable for our own studio use that can be quite handy on small projects. Generally, such manual DIY table and a cheap lighting kit (like this one that we also use for our on-location work) will work fine for smaller projects.

For large and heavy products like cars or heavy machinery, a different approach to 360 product photography may be required as building a custom rotating platform and / or mounting such products is either too expansive or generally impossible. For such products it's usually more straightforward to either circle your object around with a camera & tripod as described here or position multiple cameras at marked increments around an object.

A basic DSRL camera with 18-55 mm zoom lens or 50mm prime 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 a lot with the actual image capture. Other free alternatives (e.g., <u>digiCamControl</u>) exist. You may also consider our selection of specialized equipment that you can find on our website here.

Quality 360 degree product photography may require some practice with your product lighting, product / camera centering and positioning, and some other topics specific to this type of photography. That's why we write our blog here where we cover various challenges, working setups, and other techniques that you may consider for your own 360 product photography projects.

The software has been successfully used with rendered 3D images produced using various 3D CAD software such as Blender, Autodesk 3ds Max, Cinema 4D, and similar applications.



Please refer to your CAD software documentation and / or available plugins about options for exporting your 3D models as a sequence of JPG on PNG images as your virtual camera moves around an object.

Note that with 3D CAD software you can also achieve great effects by not limiting your virtual camera to just a single plane as you render your images. For example, you may render additional sequence of images for a vertical rotation that you can then append at the end of the combined image set before importing them in SpotEditor. Other interesting effects can be produced by involving more complex camera fly-by's around your object.

Suggested Image Requirements

In our 360 product photography projects we usually produce 20 to 40 images per product and this is what we have been recommending to most of our e-commerce clients in the last 5 or so years. High-end marketing presentations may require a higher number of 360-degree images and 72 is probably the highest number that you would want to produce for the most demanding projects.

20 to 40 images per rotation offer good balance between the smoothness of the animation, user wait times, and the amount of efforts required for the actual photography and post-production. It's also important to consider the viewer dimensions on your destination web pages and the use of zoom and full-screen features. For example, let's say your product view is set at 500 x 375px according to your product page design, and you made your high-res images twice as large to support 2x zooming (via the Resize image slider under Images->Tools in SpotEditor as described in Instant Crop-Resize).

This would generally result in \sim 80-100 KB per a JPG image, which is roughly a \sim 2 MB download for 20 images (assuming they are generic product images for e-commerce with no background and a decent image quality). With an average cable speed at about 7.2 Mbps in the U.S. (as of 2014), this is a \sim 2-3 second wait time for a complete high-res product view to load on a web page.

Note that if "Create an extra set of fitted images" is checked on Publish in SpotEditor, the wait times drastically improve as the software creates an extra set of small / fitted images that will load on your web page instead of the high-res ones. And the high-res images are then only loaded on demand and incrementally when user hits zoom or the full screen button.

In any case, the product viewer always loads the first "pre-loader" image immediately, so your web page visitors have something to look at while the rest of the images are being asynchronously loaded and processed.

Troubleshooting

Below are the issues that have been reported most frequently. If you don't see your issue in this list, please report it on our <u>forum</u> under appropriate forum section.

(1) Image rotation in some browsers (primarily in Google Chrome) may become jerky, slow and unresponsive. If hotspots are present, they will move as if they are detached from the images. This usually happens after a period of user inactivity while a web page with a loaded product view remains open:

This issue is usually caused by disabled image caching inside a web browser as per the HTTP headers received from your web server that force web browsers to not cache any images. Please find more details and a simple solution for Apache servers on our forum in the following link. Microsoft IIS web servers also have similar configuration for client-side caching. Note that JPG & PNG image caching is usually enabled by default by all major web hosting provides. Although it can be manually disabled during website development. http://www.360-product-views.com/forum/viewtopic.php?f=3&t=273&p=471

(2) My PRO (or Enterprise) license.lic is present in the correct location on my web hosting, but it doesn't look like the license was actually applied:

This is specific to Microsoft IIS in that it doesn't allow accessing files with .lic file extension by default. Please either rename the license file to license.txt or add .lic as allowed MIME type via IIS management console under MIME types.

(3) I installed your WordPress plugin and entered a shortcode for my product view as per your instructions, but I can only see the 3 loading bars and nothing happens:

In 99% of reported cases this happened due to an invalid xml path in the config parameter of a shortcode. Please verify that the path is correct. Note that by adding forward slash at the beginning of the config path, you indicate that the rest of the path after the slash is relative to the root of your WordPress installationfolder. You can always just enter a full URL of the xml file on your website (http://www..) and verify that it's actually accessible by pasting the same URL in your browser address bar. If the xml file can be successfully loaded in your browser as-is, you may remove the website name from the URL including http:// and leave the rest, but then make sure you add "/" in the front of the to have a relative path. Using a relative path is only important if your website can be accessed using both http://website and http://www.website and they don't resolve to the same URL.

(4) I'm using one of your free plugins (e.g., Magento, WordPress, OpenCart, Prestashop, etc.) and have purchased the license but my full-screen button still doesn't work:

Please email us at <u>support@webrotate360.com</u> to get commercial version of the script for your plugin.

rev: Sept, 01.2014

(5) When I publish my project in SpotEditor and use Google Chrome or Opera browser to preview my product view locally (before uploading online), the browser window opens up but the product view doesn't load. It works fine when the same product view is uploaded online and viewed on the Internet:

This is a known local security restriction in some browsers that only applies when you load a local product view from your own hard-drive directly in Chrome or Opera browser. Note that SpotEditor takes care of Chrome for your local previews automatically on Publish if you make sure that Chrome is not running before you hit Publish (unless it was previously launched by SpotEditor). For more details about the issue and available workarounds, please refer to the <u>Publishing section</u> or visit this blog post:

http://www.webrotate360.com/Blog/post/Local-Testing-of-360-Viewer-in-Google-Chrome-on-Your-Computer.aspx

❖ Go PRO

WebRotate 360 Product Viewer was built by us from grounds up in-house in Pasadena, California, USA with its first commercial release dating back to 2010. Since then, we have released 4 major versions of this product as well as numerous minor releases, CMS plugins, customer one-offs, beta drops and hot-fixes for new devices and browsers.

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!), e-commerce websites and other components and software for demanding customers around the globe. Our small but very motivated team has 35+ years of combined software and web development experience so rest assured, we can provide top-notch support when it comes to your integration needs.

By joining our licensed customers and supporting our work, you become part of this growing community that knows this immersive product viewing experience offered by our software is here to stay.

To see the full list of features offered by the PRO version of our software please visit this link: http://www.webrotate360.com/360-product-viewer-buy.html



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