AV Bros. Page Curl Pro 2.2

for **Windows** and **Mac OS X**

We are proud to introduce AV Bros. Page Curl Pro 2.2, the filter plug-in (8bf) for Adobe Photoshop and compatible hosts.

AV Bros. Page Curl Pro 2.2 is targeted to help you create an extremely realistic and sophisticated page bend effect (Including the multi-bend option!), using two types of page bending: page curling and page folding.

Thanks to the fact that the unrivalled engine of the plug-in lets you not only bend the image, but also texturize it (using the bump maps), orient it in 3D space (including the perspective distortions) and obtain total control over the process of lighting the image (including the option of dropping internal shadows), we consider AV Bros. Page Curl Pro 2.2 as the multi-purpose plug-in that may be used not only as the page bender, but also as the Texturizer, Lighting lab, etc.

The User Interface of AV Bros. Page Curl Pro 2.2 is extremely convenient and has some unique features that make your work with the plug-in both very efficient and pleasant at the same time.

We are confident that we have developed not only an extremely professional, powerful and convenient product, which power will be obedient to you, but the product, which you have always dreamed about.

AV Bros. Page Curl Pro 2.2 is the product that will increase not only your productivity, but your creativity as well.

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Introduction

We recommend that you read this User Guide. Although AV Bros. Page Curl Pro 2.2 is quite easy to use, but it is really worth to invest some time in reading the manual for being able to use all of the product's powerful capabilities for obtaining the best results quickly. We also recommend that you visit both the Gallery of AV Bros. Page Curl Pro 2.2 and the Tutorials page on our web-site: http://www.avbros.com

Installing

AV Bros. Page Curl Pro 2.2 is a filter plug-in (8bf) for Adobe® Photoshop® and compatible hosts (Such as: Corel® Paint Shop™ Pro®, Adobe® Fireworks®, Corel® Photo Paint®, Ulead® PhotoImpact™ and others.) Please check the list of hosts on our web-site.

Below you will find instructions on how to install AV Bros. Page Curl Pro 2.2 in Adobe® Photoshop®.

> ***Note!*** Taking into account the fact that each host has its own required location where the plug-in must be installed, we recommend that you read the host's manual on installation procedures for a plug-in.

How to install AV Bros. Page Curl Pro 2.2 into Photoshop for **Windows**:

• Close Photoshop.
• Run the **avpagecurlpro22.exe** (**avpagecurlpro22d.exe** for the demo version) setup application.
• When you install the plug-in under Photoshop, the setup of the plug-in automatically determines the plug-in path. So, you just need to check it. But you can also specify the path manually by using the "Browse" button.
• Click the Install button.
• Start Photoshop. **"AV Bros. Page Curl Pro 2.2"** (**"DEMO - AV Bros. Page Curl Pro 2.2"** for demo version) will appear under **Filter > AV Bros** menu.

How to install AV Bros. Page Curl Pro 2.2 into Photoshop for **Mac OS X**:

• Close Photoshop.
• Mount the **avpagecurlpro22.dmg** (**avpagecurlpro22d.dmg** for the demo version) disk image.
• Drag and drop the version of AV Bros. Page Curl Pro 2.2 that is suitable for your release of Photoshop to its plug-ins' folder.
  (To learn more about the versions of AV Bros. Page Curl Pro 2.2, please look through the "Read Me" document.)
• Start Photoshop. **"AV Bros. Page Curl Pro 2.2"** (**"DEMO - AV Bros. Page Curl Pro 2.2"** for the demo version) will appear under the **Filter > AV Bros** menu.

Customer Support

AV Bros. provides our registered customers with professional, fast and free of charge technical support.
If you have questions relating to AV Bros. Page Curl Pro 2.2, then please send them to support@avbros.com
In order to quickly process your support request, please use the following text in the Subject line of your letter: **AV Bros. support request!**

> *Note!* To save yourself some time, please visit our Frequently Asked Questions (FAQ) page: http://www.avbros.com/faq.html

> *Note!* We do NOT provide technical support relating to the image editing application (host.) Please, address such questions to the technical support staff of the host's Developer.

> *Note!* For up to date information about the Customer Support, please visit our site: http://www.avbros.com

Overview

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Overview

A V Bros. Page Curl Pro 2.2 provides you with the possibility of being able to create almost any possible page bend effect, using two types of page bending: page curling (Page Curl) and page folding (Page Fold). Please review the complete List of Features of AV Bros. Page Curl Pro 2.2. But first, learn about the specific Terms that we have used in this User Guide.

Terms

The Host: this is your image editing application. AV Bros. Page Curl Pro 2.2 is the plug-in for your host.

The Page is the object that you are about to bend (to curl or fold). The Page has two sides: the Front side and the Back side.

An Active Layer of the current document is the layer with which you are working in your host. When you start the plug-in, you begin operate with the content of the Active Layer.

The Bend is the result of either the page curling or the page folding process.

The Multi-Bending: this is the term that we use to express the process of bending the page several times during one session of the plug-in.

The Conflict Area of the page is the part of the page where the conflict occurs between the active bend and other bends and where the page cannot be bent. This conflict takes place when the current settings of the active bend cannot be applied without breaking the page's surface.

3D Space is a term of the 3D graphics that is used to describe the virtual area that emulates the real space around us. Unlike 2D graphics, where all objects have only width and height, in 3D space the objects also have depth. Using mathematical terms: if in 2D graphics you use the X and Y-coordinates, then in 3D graphics you use the X, Y and Z-coordinates. The 3D space is represented by the sphere, which we divided in two (2) hemispheres (the Front and the Back hemispheres) for the most convenient orienting the page in 3D space.

The Central Point is the geometrical center of the page and is used as the center of the rotation of the page while orienting it in the 3D space.

The Bump Map is a grayscale image that you can use for producing the 3D-like effect of a texturized page.

The Backdrop is an image that is placed beneath the Page in the Main Preview area and is solely used for indicating the transparency under the curled, folded or transparent parts of the Page.

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List of Features

- The ability to create both the turning page effect (Page Curl) and the folding page effect (Page Fold) (collectively – bends).
- The Multi-bend option: the ability to create several bends within the single session of the plug-in.
- The ability to orient the page in 3D space.
- The ability to specify the desired level of the perspective while orienting in 3D space.
- The ability to work with arbitrarily-shaped images (non-rectangular, with full or partial transparent areas, etc.)
- The total control over the process of creating the surface for a curled or a folded page by adjusting the following parameters of the surface:
  - Angle, Level, Radius, Obliquity, Torsion, Direction and the Limit of the turn (for page curling).
  - Angle, Level, Folding Angle and Direction (for page folding).
- Switching the direction (Upward or Downward) of page curling or folding.
- Adjusting the opacity of the whole page.
- Adjusting the cross-opacity of the page.
- The ability to specify various contents for either side of the page:
  - Content from the active layer.
  - Solid color (custom color, host's foreground or background colors).
  - Image from the file, which may be either tiled or resized to fit.
  - Content from any layer of the current document (This feature is available only for Adobe Photoshop 7.0 and higher.)
- The ability to flip the content of either side of the page.
- Swapping the content of the page's sides.
- The ability to choose between two lighting modes: the Simple and Advanced modes.
- Adjusting the level of the shading in the Simple Lighting mode.
- The total control over the process of lighting the page in the Advanced Lighting mode. This process includes:
  - Adding up to 25 light sources (Direct light sources.) for lighting both sides of the page.
  - Specifying the direction of either light source.
  - Specifying the parameters of the Diffuse Reflection of either light source, including the Color and Intensity of the Diffuse Reflection and the fact of its presence for either side of the page.
  - Specifying the parameters of the Specular Reflection of either light source, including the Color, Intensity and the Specular Exponent of the Specular Reflection and the fact of its presence for either side of the page.
  - Specifying the parameters of the Ambient Light, including its Color and Intensity for either side of the page.
  - Ambient Light Auto-Adjust option.
  - Rendering Inner Shadows with adjustable Opacity and Size. (Inner Shadows are dropped by any existed Light Source upon your choice.)
- The ability to texturize either side of the page by using the grayscale images (called Bump Maps). As a Bump Map you can use either your document's channels or any file.
- The ability to adjust the existed Bump Map inside the plug-in. The following adjustments are available: Blur, Level, Flip Vertical and Horizontal. And you can also Invert (black to white and vice-versa) the existing Bump Map.

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- The ability to make the bent part of the page to be outside the page's initial boundary.
- The ability to make the bent part of the page to be cut into the remaining part of the page.
- The ability to create the "non-complete" page curling effect by adjusting the turn Limit.
- The presence of a transparent area under the curled or folded part of the page.
- Multi-level Undo option.
- Supporting images in RGB, CMYK and Grayscale color modes.
- Specifying the quality of the surface rendering, including the Auto Mode.
- Exporting the result of the render as a PSD file. (Including current Color Profile provided by the host.)
- Exporting the result of the render as a PNG file. (Only for documents in RGB and Grayscale color modes.)
- Fast and high-quality preview.
- Using various backdrops for the Main Preview area:
  - The standard checkerboard.
  - The custom solid color.
  - The content of the active layer of the current document.
  - The content of any layer of the current document. (This feature is available only for Adobe Photoshop 7.0 and higher.)
- Saving and loading settings (cross-platform) of the plug-in.
- The ability to record scripting parameters and be automated by them (Scripting-aware).
- Supporting the "Smart Filters" option of Photoshop CS3.

Work Area

T he work area of AV Bros. Page Curl Pro 2.2 consists of seven (7) primary and two (2) auxiliary windows. (All windows, except the Main window are also known as the palettes.)

For the most convenient operating with the plug-in, the last set position of either window (collectively - the Workspace) is remembered.

> **Note!** You must apply the plug-in if you want the Workspace to be remembered.

Moreover, taking into account the fact that the plug-in has quite a few windows and there are cases when all necessary, at the moment, windows may not fit your screen, we have developed the unique (for user interfaces) solution that allows you to easily switch between various windows located at the same place: these are the buttons that you will see on the captions of those windows.

The primary windows are the following:

• Main window – for executing the basic operations, such as specifying the parameters of page curling/folding, primary previewing, etc.
• Bends window – is necessary if you want to make several bends within single plug-in session.
• 3D-Tranform window – for manipulating the page in 3D.
• Three (3) Lighting windows – for control over the process of lighting the page.
• Bump Mapping window – for manipulating the bump maps while texturizing the page.

The auxiliary windows are the following:

• Document Layers window – for choosing any layer of the current document either as a backdrop for the Main Preview area or as the content of the page's side.
• Document Channels window – for choosing any channel of the current document as the Bump Map.

> **Note!** Using the layer of the current document either as a backdrop for the Main Preview area or as the content of the page's side is only available if you use Adobe Photoshop 7.0 (or higher) as the host. Therefore, the Document Layers window is available for operation only if you use AV Bros. Page Curl Pro 2.2 with that host.

Work Area

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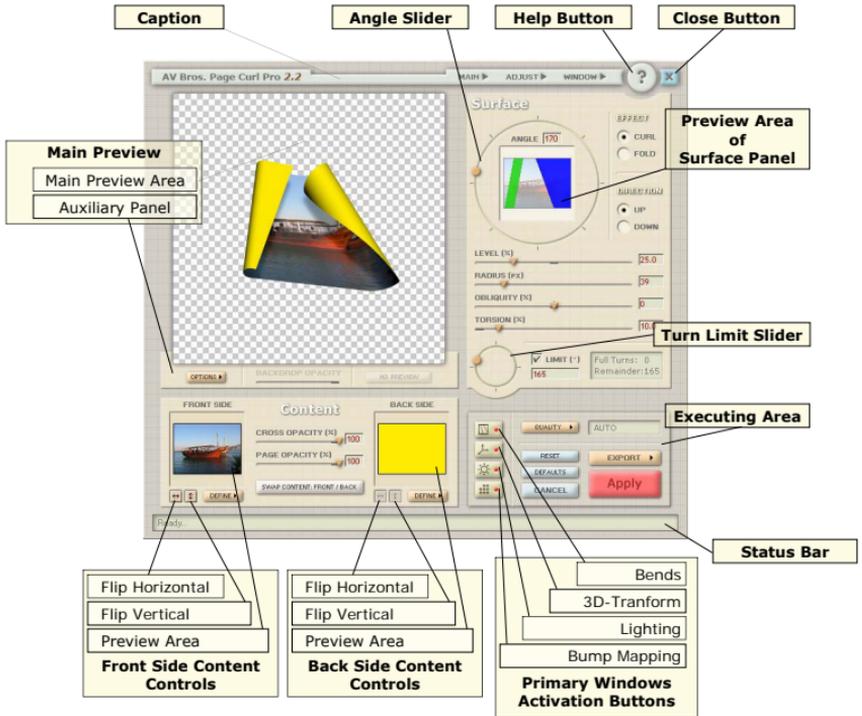
Main Window

The Main window contains various controls that are used for executing the basic operations, such as specifying the parameters of page curling/folding, primary previewing, etc. The Main window consists of the following components:

- Caption
- Main Preview
- Surface panel
- Content panel
- Executing area
- Status bar

Caption is used for dragging the Main window over the screen and contains three (3) menus (The Main menu, the Adjust menu and the Window menu.) and two (2) buttons - the **"X"** (Close) button and the **"?"** (Help/About) button.

Main Preview consists of the Main Preview area and the auxiliary panel. The Main Preview area is used not only for displaying the effect created in the plug-in, but for orienting the page in the 3D space.

The auxiliary panel contains the Options button, the HQ Preview button and the Backdrop Opacity slider. It is used for managing the Main Preview options. For the precise and convenient preview of the effect's current stage, you can use the following options:

- Type of the preview (the real-time or non-real-time preview).
- The ability to enable the Internal Shadow auto-rendering.
- Type of the backdrop for the Main Preview area (the checkerboard, the custom solid color, etc.).
- The ability to show the clipping zone.

Surface panel contains a number of controls that are used for creating the surface of the curled or folded page. These controls are:

- Page Curl and Page Fold effects radio-buttons, for choosing the desired effect.
- Direction radio-buttons for choosing the desired direction (Upward or Downward) of page curling or folding.
- Preview area for showing and choosing the parts of the image, within which the current bend (Page Curl or Page Fold) is applied.
- Controls for specifying the desired shape of the page's surface. These controls are:
  - Angle (for both the Page Curl and the Page Fold effects).
  - Level (for both the Page Curl and the Page Fold effects).
  - Radius (only for the Page Curl effect).
  - Obliquity (only for the Page Curl effect).
  - Torsion (only for the Page Curl effect).
  - Folding Angle (only for the Page Fold effect).
  - Turn Limit (only for the Page Curl effect). There is also the special LCD-like display that shows the specified turn Limit.

Content panel contains a number of controls that are used for operations with the content of either side of the page. These controls are:

- Define buttons for specifying the type of the content for either side of the page.
- The page's Front Side and Back Side preview areas for displaying the defined content of the appropriate side.
- Swap Content: Front/Back button for swapping the content of the page's sides.
- Flip Vertical and Flip Horizontal buttons. Four (4) buttons that let you flip the content of either page's side either vertically or horizontally.
- Cross Opacity slider for specifying the level of the page's cross opacity.
- Page Opacity slider for adjusting the opacity of the entire page.

Executing area contains four (4) buttons for activating other primary windows (Bends, 3D-Tranform, Bump Mapping and Lighting windows) and the controls, which are designed for executing the "output" operations. These controls are:

- Apply button.
- Export button.
- Cancel button.
- Reset button.
- Defaults button.
- Quality button for specifying the quality of the rendering.
- Render Quality Display, which shows you the specified level of the render quality.

Status bar shows the succinct information about each control of the plug-in as soon as you place the cursor over this control.

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Bends Window

The Bends window is one of the primary windows and contains the controls that let you add, delete and manipulate the bends. It consists of the following components:

- Caption.
- "Add", "Add Copy", "Delete", "Up" and "Down" buttons.
- Bends List.
- Status bar.
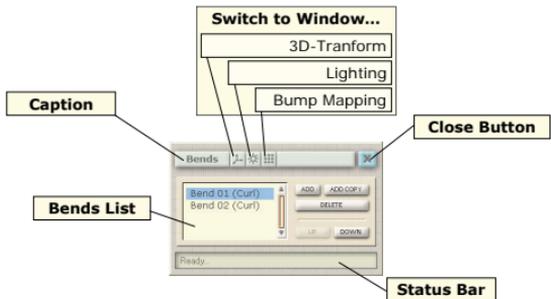
Caption is used for dragging the Bends window over the screen and contains four (4) buttons: the Close button and three (3) buttons for activating other primary windows, except the Main window.

Add, Add Copy, etc. buttons are used for adding and deleting the bends to the List of the bends and changing the order of the bends (Up and Down) in this List.

Bends List shows you (for further choosing) all existing bends (curls and/or folds) of the page.

Status bar shows the succinct information about each control of this window as soon as you place the cursor over this control.

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3D Transform Window

The 3D Transform window is one of the primary windows and contains the controls that let you orient the page in 3D space and consists of the following components:

- Caption.
- 3D Sphere and the Spin slider.
- Flip surface button.
- Display.
- Perspective Level slider.
- Status bar.

Switch to Window...
Bends
Lighting
Bump Mapping

Caption

3D Sphere

Flip Surface

Close Button

Spin Slider

Display

Status Bar
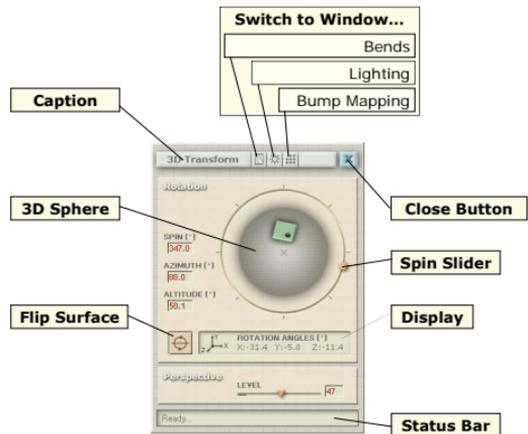
Caption is used for dragging the 3D Transform window over the screen and contains four (4) buttons: the Close button and three (3) buttons for activating other primary windows, except the Main window.

3D Sphere with the Spin slider is the control that was specially designed for the most convenient orienting of the page on 3D hemisphere using the regular 2D mouse.

Flip Surface button flips the page surface. This control, along with the one mentioned above, provides you with the full control over the process of orienting the page in 3D space.

Display shows the Rotation angles values in X, Y and Z coordinates.

Perspective Level slider lets you specify the desired level of the perspective for the page, oriented in 3D space.

Status bar shows the succinct information about each control of this window as soon as you place the cursor over this control.

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Lighting (Simple) Window

The Lighting (Simple) window is one of the primary windows and contains the controls that let you make fast adjustments of the shading and consists of the following components:

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- Caption.
- Shading slider.
- Switch to Advanced Mode button.
- Status bar.

Switch to Window...

Bends

3D-Tranform

Bump Mapping

Caption

Close Button

Status Bar
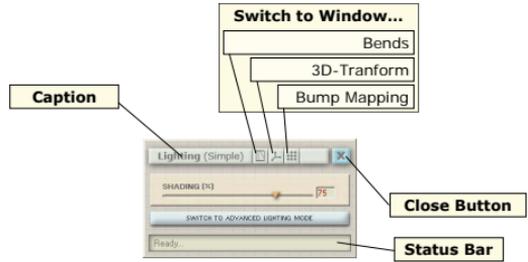
Caption is used for dragging the Lighting (Simple) window over the screen and contains four (4) buttons: the Close button and three (3) buttons for activating other primary windows, except the Main window.

Shading slider is used for fast adjustment of the shading effect on the page.

Switch to Advanced Mode button switches from the Simple to the Advanced Lighting mode.

Status bar shows the succinct information about each control of this window as soon as you place the cursor over this control.

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Lighting (Advanced) Window

The Lighting (Advanced) window is one of the primary windows and contains the controls that let you obtain total control over the process of lighting the page and consists of the following components:

Switch to Window...

Bends

3D-Tranform

Bump Mapping

Close Button

Light Sources

Active

Caption

Light Sources list

Front and Back Hemispheres

- Caption.
- Light Sources panel with several controls on it.
- Active Light panel with a number of controls on it.
- Switch to Simple Mode button.
- Ambient Light button.
- Status bar.

Front / Back Hemisphere Switch

Virtual Object Sphere

Active Light Hemisphere

Status Bar

Work Area

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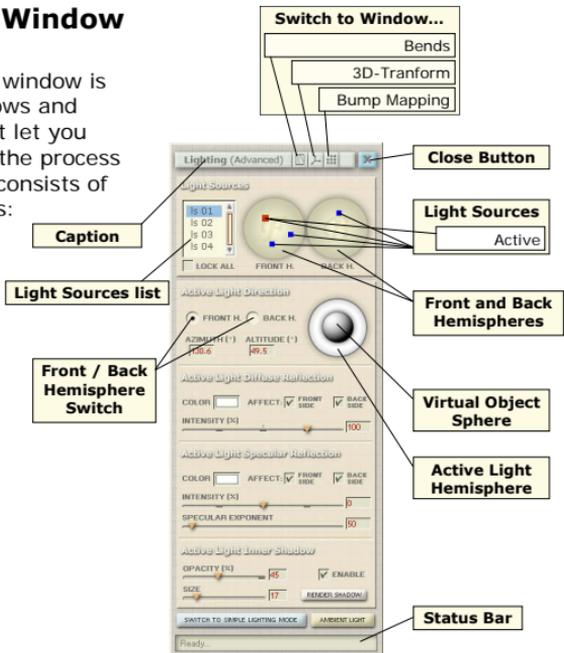
Caption is used for dragging the Lighting (Advanced) window over the screen and contains four (4) buttons: the Close button and three (3) buttons for activating other primary windows, except the Main window.

Light Source panel contains several controls for adding and deleting the light sources on the Light Sphere and choosing them afterwards. These controls are:
- Front and Back Hemispheres special controls.
- Light Sources list.
- "Lock All" check-box.

Active Light panel contains quite a few controls for manipulating the Active light. These manipulations include:
- Position the Active Light on the Light Sphere.
- Specifying the Active Light Diffuse and Specular Reflections.
- Dropping the Inner Shadows.

The controls that are located on the Active Light panel are the following:
- Front and Back Hemispheres radio buttons.
- Special control for position the Active Light source.
- Intensity sliders for the Active Light Diffuse and Specular reflections.
- Color swatches for Active Light Diffuse and Specular reflections.
- Affect Front Side and Affect Back Side check-boxes for either type of Active Light reflections.
- Specular Exponent for Active Light Specular reflection.
- Opacity and Size sliders for the Active Light Inner Shadow.
- Enable Active Light Inner Shadow check-box.
- Render Active Light Inner Shadow button.

Switch to Simple Mode button switches from the Advanced to the Simple Lighting mode.

Ambient Light button activates the Ambient Light palette.

Status bar shows the succinct information about each control of this window as soon as you place the cursor over this control.

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Ambient Light Window

The Ambient Light window is one of the primary windows and contains the controls for adjusting the parameters of the Ambient Light and consists of the following components:
- Caption.
- Intensity sliders for Front and Back sides.
- Color swatches of the Ambient Light for Front and Back sides of the page.
- "Chain" button.
- Status bar.
- Auto-Adjustments check-boxes for Front and Back sides of the page.
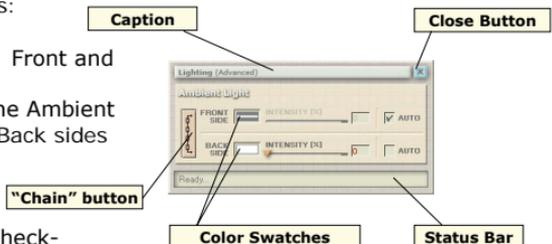
Caption is used for dragging the Ambient Light window over the screen and contains only one (1) button: the Close button.

Intensity sliders are used for adjusting the intensity of the Ambient Light separately for the Front and Back side of the page.

Color Swatches are used for specifying the desired color of the Ambient color by calling the Color Picker palette of the host.

"Auto" check-boxes are used for enabling the Ambient Light's Auto-Adjustment option separately for the Front and Back side of the page.

"Chain" button lets you change the parameters of the Ambient light simultaneously for both sides of the page.

**Status bar** shows the succinct information about each control of this window as soon as you place the cursor over this control.

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Bump Mapping Window

The Bump Mapping window is one of the primary windows and contains the controls for manipulating the Bump Maps for texturizing the page and consists of the following components:

- Caption.
- Blur sliders for the Bump Maps for the Front and Back sides.
- Level sliders for the Bump Maps for the Front and Back sides.
- Flip Horizontal and Vertical buttons for the Bump Maps for either side.
- Invert the content of the Bump Map for either side.
- Define buttons for either side.
- Preview areas for either side.
- Status bar.
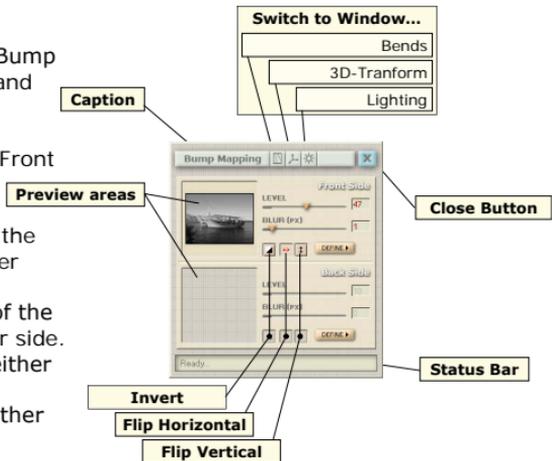
Caption is used for dragging the Bump Mapping window over the screen and contains four (4) buttons: the Close button and three (3) buttons for activating other primary windows, except the Main window.

Blur and Level sliders are used for adjusting the appropriate parameters of the Bump Maps for either side of the page.

Flip Horizontal and Vertical buttons are used for appropriate flipping of the content of either side's Bump Map.

Invert buttons are used for inverting (black to white or vice versa) the appropriate content of either side's Bump Map.

Define buttons let you get access to the menu for choosing the desired operations with Bump Map for either side of the page.

Preview areas display the chosen Bump Map for either side of the page.

Status bar shows the succinct information about each control of this window as soon as you place the cursor over this control.

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Document Layers Window

The Document Layers window is one of the auxiliary windows and contains the controls that are used for choosing any layer of the current document either as a backdrop for the Main Preview area or as the content of the page's side. The Document Layers window is available for operation only if you use AV Bros. Page Curl 2.2 with Adobe Photoshop 7.0 (or higher) and consists of the following components:

- Caption.
- Preview area.
- List of layers of the current document.
- Ok and Cancel buttons.
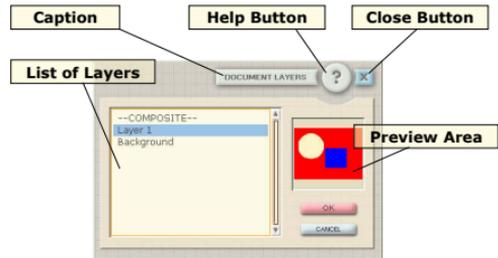
Caption is used for dragging the Document Layers window over the screen and contains two (2) buttons (the Close button and the Help button).

Preview area is used for displaying the content of the selected document's layer.

List of Layers shows you (for further choosing) names of all existing layers of the current document and also the layer, named "Composite", which represents the result view of the current document. (As if the document was flattened.)

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Document Channels Window

The Document Channels window is another auxiliary window and contains the controls that are used for choosing any channel of the current document as the Bump Map. The Document Channels window consists of the following components:

- Caption.
- Preview area.
- List of channels of the current document
- Ok and Cancel buttons.
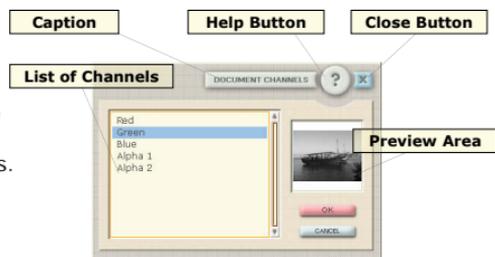
Caption is used for dragging the Document Channels window over the screen and contains two (2) buttons (the Close button and the Help button).

**Preview area** is used for displaying the content of the current document's channel.

List of Channels shows you (for further choosing) names of all existing channels of the current document.

How to Use the Controls, Features and Commands

B elow you will find the descriptions of how to operate with the controls, features and commands of the plug-in. The descriptions are grouped by the location of controls (features or commands) in the Work Area (such as: Main window, Bends window, etc.) of the plug-in. Please, pay special attention to the "Details", while reading the descriptions.

Main Window ··

Main Preview

Preview Area

In AV Bros. Page Curl Pro 2.2 the Main Preview area can be used not only for displaying the current state of the effect, but for orienting the page in the 3D space as well.
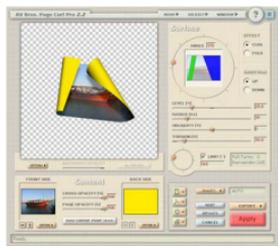
To perform the desired orientation of the page, click on the Main Preview area and then, without releasing the mouse button, start dragging.

Details:
- The possibility to orient the page in the 3D space is available *only* if the Real-Time Preview option is enabled.
- When you orient the page right in the Main Preview area you adjust only two (2) parameters of three (3) of the page's position in 3D space: the Altitude and the Azimuth. The Spin is the third parameter, and could be specified only in the 3D Transform palette.
- By making the mouse double-click on the Main Preview area you can return the orientation of the page to a "2D look", which has the following parameters: Azimuth is set to zero (0) degrees and the Altitude to 90 degrees. The Spin will not be changed.
- For a more accurate orienting of the page, hold down the **Ctrl** (or Mac: **Cmd**) button and only then, click on the Main Preview area and start dragging the page.
- While dragging the page you cannot turn it over or, in other words, you can see only one side of the page. To turn the page over, you should click the Flip Surface button in the 3D Transform palette.

Options Button

The Options button lets you get access to the Main Preview options
menu. These options are:

- Real-time Preview.
- Shadow Auto Rendering.
- Show Clipping Zone.
- Choose Clipping Zone Color.
- Use Solid Color as Backdrop.
- Choose Solid Color for Backdrop.
- Use Current Layer as Backdrop.

Click the Option button and the menu with options will appear. Then
choose the option that you need.

Option: Real-Time Preview

This feature lets you choose between the real-time or non-real-
time previewing of changes that you have made in the plug-in.
All changes are displayed in the Main Preview area. To enable the
Real-Time Preview option, do one of the following:
- Click the Options button on the auxiliary panel of the
  Main Preview and then select the Real-Time Preview
  menu item.
- **Right-click** (or Mac**: Ctrl+click**) in the Main Preview
  area and then select the Real-Time Preview menu item.

Details:
- By default, the Real-Time preview option is disabled.
- A check mark indicates that the Real-Time Preview option
  is selected.
- To cancel the Real-Time Preview option and switch back
  to the Non-Real-Time preview, just select this menu item
  one more time. (The check mark will disappear.)
- If the Real-Time Preview option is enabled, then the
  result of the rendering will be dynamically updated each
  time you make any changes.
- If the Real-Time Preview option is disabled, then the
  result of the rendering will be displayed after releasing
  the mouse's button or finishing editing the edit-boxes.
- Irregardless of what type of the preview is in use, the
  result of the rendering is initially displaying in the draft
  mode. To preview the result of the render in high-quality
  mode, use the HQ Preview button.
- When the Real-Time Preview option is in use, you can
  orient the page in 3D space right in the Main Preview
  area. Just click on the image and then drag it.
- You can increase the accuracy while orienting the image
  in 3D space directly in the Main Preview area. To do that,
  hold down the **Ctrl** (Mac: **Cmd**) button and only then
  click the image and drag it.
- If you want to see the internal shadow rendered in the
  Main Preview, but the Shadow Auto Rendering option is
  disabled, then you will need to click the Render Shadow

button or use the HQ Preview (High Quality Preview)
button. (Even if the Real-Time Preview option is enabled.)
- The plug-in remembers the last used settings.
- We recommend that you disable the Real-Time Preview
option for slow computers.

Option: Shadow Auto Rendering

This feature lets you choose between the real-time or non-real-
time previewing of the process of rendering the inner shadow. To
enable the Shadow Auto Rendering option, do one of the
following:
- Click the Options button on the auxiliary panel of the
Main Preview and then select the Shadow Auto Rendering
menu item.
- **Right-click** (or Mac: **Ctrl+click**) in the Main Preview
area and then select the Shadow Auto Rendering menu
item.

Details:
- By default, the Shadow Auto Rendering option is
disabled.
- A check mark indicates that the Shadow Auto Rendering
option is enabled.
- To disable the Shadow Auto Rendering option, just select
this menu item one more time. (The check mark will
disappear.)
- If both the Shadow Auto Rendering option and the Real-
Time Preview option are enabled, then the internal
shadow will be dynamically rendered each time you make
any changes.
- If the Shadow Auto Rendering option is enabled, but the
Real-Time Preview option is disabled, then you will see
the result or the internal shadow's render only after
releasing the mouse's button or finishing editing the edit-
boxes.
- If the Shadow Auto Rendering option is disabled, then the
result of the internal shadow's render will be displayed
only after clicking either the Render Shadow button or
the HQ Preview (High Quality Preview) button.
(Regardless of the state of the Real-Time Preview
option.)
- The plug-in remembers the last used settings.
- We recommend that you disable the Shadow Auto
Rendering option for slow
computers.

Option: Show Clipping Zone

The ability to show the Clipping
Zone lets you check the position of
the curled or folded image within
the bounds with which your host
provides the active layer.
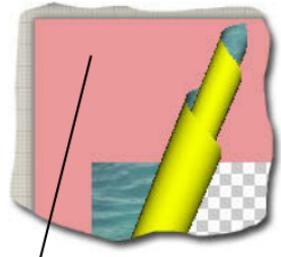
The Clipping Zone.

To enable this feature, do one of the following:
- Click the Option button on the auxiliary panel of the Main Preview and then, select the Show Clipping Zone menu item.
- **Right-click** (or Mac: **Ctrl+click**) in the Main Preview area and then, select the Show Clipping Zone menu item.

Details:
- A check mark indicates that the Show Clipping Zone option is enabled.
- The Clipping Zone shows the bounds with which your host provides the active layer, irregardless of the presence of the selection in the active layer.

Option: Choose Clipping Zone Color

This option lets you choose the Clipping Zone color depending on your image for the most convenient work.
To choose the color, do one of the following:
- Click the Option button on the auxiliary panel of the Main Preview and then, select the Choose Clipping Zone Color menu item.
- **Right-click** (or Mac: **Ctrl+click**) in the Main Preview area and then, select the Choose Clipping Zone Color menu item.

Details:
- The pink color is used for showing the Clipping Zone by default.
- The host's color picker palette will appear as soon as you select the Choose Clipping Zone Color menu item. You should use this palette for choosing the desired color.

Using the Backdrop

The ability to specify the various contents as a backdrop is the amazing feature that lets you accurately position your curled or folded image within the bounds of the document with which you are working.
In AV Bros. Page Curl Pro 2.2 you can choose the type of the backdrop for the Main Preview area. The following backdrops are available:
- The standard checkerboard.
- The customizable solid color.
- The content of the active layer of the current document.
- The content of any layer of the current document. (This feature is available only for Adobe Photoshop 7.0 and higher.
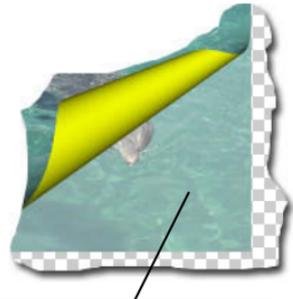
The content of the active layer is used as the backdrop.

To specify the desired backdrop do one of the following:
- Click the Option button on the auxiliary panel of the Main Preview and then select the desired menu item related to the Backdrop.
- **Right-click** (or Mac: **Ctrl+click**) in the Main Preview area and then select the desired menu item related to the Backdrop.

Details:
- Any type of the backdrop that is used in AV Bros Page Curl Pro 2.2 is used just for previewing purposes and will not be rendered after applying the plug-in.
- The standard checkerboard is used as a backdrop by default or if all other backdrop options are disabled.
- If you enable the Use Solid Color as Backdrop option, then AV Bros Page Curl Pro 2.2 takes the last used, for the same operation, color. Only if you select this option for the very first time, then the plug-in uses a white color as the backdrop.
- To let you choose the desired color for the backdrop, the plug-in calls your host's color picker as soon as you select the Choose Solid Color for Backdrop menu item.
- If you use a layer as a backdrop and begin orienting the page in 3D space, then the usefulness of the current backdrop may be decreased.
- If the layer that you use as a backdrop contains the transparent (full or partial) areas, then you should take into account the fact that the backdrop blends into the white color.
- Even if you use Adobe Photoshop 7.0 and higher, you should have more than one layer in your document to enable the Use Document Layer as the Backdrop option. Otherwise, only the Use Current layer as backdrop option will be enabled.
- To make the process of choosing the document's layers for the backdrop more convenient – the special Document Layers Window will appear as soon as you select the Choose Document Layer for Backdrop menu item.
- A check mark indicates which one of the particular options is selected.
- If you want the last used settings to be remembered, you should apply the plug-in.

HQ Preview Button

Click the HQ (High Quality) Preview button to perform the high-quality rendering of the effect's current stage and display the result in the Main Preview area.

Details:
- Any changes that you have made in the plug-in, such as adjusted the control, clicked a button, etc., will reset the HQ preview back to the draft mode. Then click the button again, if

you want to preview the new stage of the effect rendered in high quality mode.

Backdrop Opacity Slider

The Backdrop Opacity feature lets you adjust the opacity of the backdrop, which you have chosen for the Main Preview area.
Drag the Backdrop Opacity slider to specify the opacity of the backdrop.

Details:
- The range of the Opacity's values is between 0 and 100%.
- The Backdrop Opacity slider is only enabled if the content of the layer is used as a backdrop.
- Decreasing the opacity of the backdrop results in the backdrop blending into the white color.
- By default, the opacity of the backdrop is set to 50%.

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Surface Panel

Page Curl and Page Fold Effects Radio-buttons

These controls let you specify which one of the effects you will apply to the active bend: the Page Curl or Page Fold.

For choosing the desired effect, with which the plug-in will operate, click the appropriate radio-button.

Directions Radio-buttons

These controls let you specify the desired direction of the active bending (page curling or folding). Use the Up radio-button for bending the page upward and the Down radio-button for curling or folding the page downward.

For choosing the desired direction, just click the appropriate radio-button.

Level

For Page Curl, the Level control lets you specify the position of the initial boundary of the area within which the current Page Curl effect will be applied. The shape of this area depends on the settings of this effect.

For Page Fold, the Level control lets you specify the position of the folding line or, in other words, the line, along which the page will be folded.
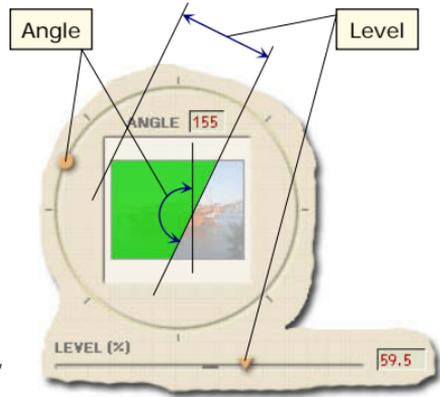
To specify the desired value of the Level, drag the Level slider or enter the appropriate value into the edit box.

> **Details:**
> - The range of the Level's values is between 0 and 100%. The Level set to zero (0) means that any adjustments, related to the surface, that you made will not affect the page. The Level set to 100% means that the entire page will be affected.
> - If there are several bends on the page, then the active bend may oust the bends that are beneath it in the bends' list.

Angle

The Angle control lets you specify the angle on which will be rotated the initial boundary (for Page Curl) or folding line (for Page Fold).

To specify the desired value of the Angle, drag the Angle slider or enter the appropriate value into the edit box.

> **Details:**
> - The range of the Angle's values is between 0 and 360 degrees.
> - The adjusting of Angle of the active bend (if there are several bends on the page) may affect (oust) the bends that are beneath it in the bends' list.

Radius

This control lets you specify the desired value of the radius of the page's curl. The feature is enabled only if you are operating with the Page Curl effect.

Drag the Radius slider to
specify the desired value of
the Radius or enter this value
into the edit box.

Radius

Details:
- The range of the
  Radius' values is
  between 2 pixels and
  6200 pixels.
- Despite the fact that
  you specify the Radius
  in absolute values

RADIUS (PX)   94

(pixels), the engine of AV Bros. Page Curl Pro 2.2 is also
calculate the relative value of this parameter. Moreover, the
relative value is used by default. This is specially made to
provide you with the possibility to apply the plug-in with the
same settings to images that have different dimensions, but
the same, or almost the same, aspect ratio (e.g. the original
image and its thumbnail.) and obtain a similar look of the
effect. But, if you need that the plug-in be applied with
absolute value of the radius, then, of course, you can do it
with ease – just go under Main menu and choose Load settings
(absolute) or Reset Settings to Last Used (absolute) menu
items. Please review the images below to see what the
difference is between using absolute and relative values of the
Radius.

Reapplied
with **relative**
settings

Reapplied
with **absolute**
settings
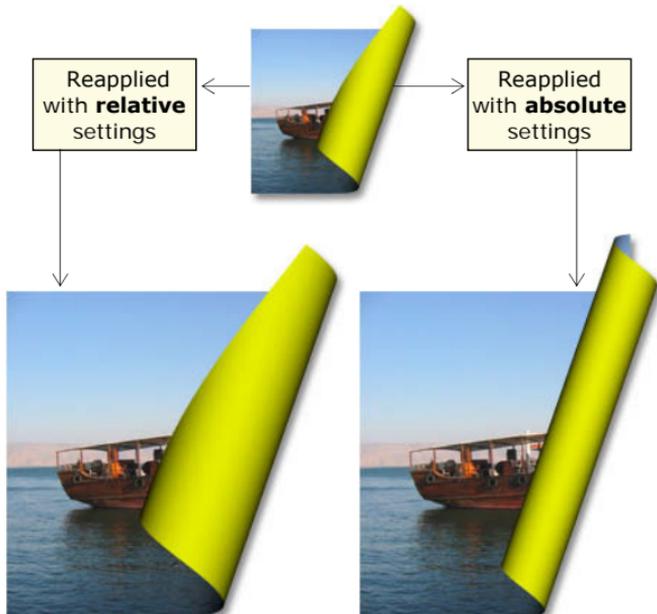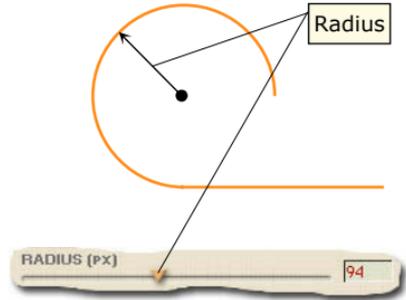
Obliquity

This control lets you specify the desired value of the obliquity while curling the page. The feature is enabled only if you are operating with the Page Curl effect.

Drag the Obliquity slider to specify the desired value of the Obliquity or enter this value into the edit box.
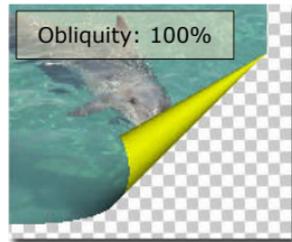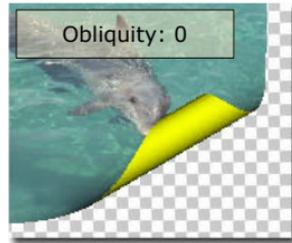
Details:
- The range of the Obliquity's values is between -100% and 100%. The Obliquity set to zero (0) means that the page has the cylindrical look in its curled part. The Obliquity set to either 100% or -100% means that the page has the conical look in its curled part, just the direction of that cone is variable depending on the sign of the Obliquity's value.


Torsion

This control lets you specify the desired value of the torsion while curling the page. The feature is enabled only if you are operating with the Page Curl effect.

Drag the Torsion slider to specify the desired value of the Torsion or enter this value into the edit box.
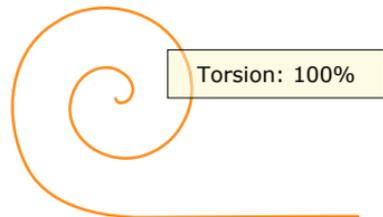

Details:
- The range of the Torsion's values is between 0 and 100%. The greater the value you specify the more the torsion is obtained on the curled page.
- When you use the Torsion option and its value is other than zero (0), then the look of the torsion effect depends not only on the Torsion's value, but on the value of the Obliquity as well. If the Obliquity is set to zero (0), then it does not affect the torsion effect, but the higher the value of the Obliquity the higher is its influence on the torsion effect.

Limit

This control lets you specify the
desired value of the curling limit.
The feature is enabled only if
you are operating with the Page
Curl effect.

Limit: Off

To enable the Limit control,
select the Limit check-box. Then
drag the Limit slider to specify
the desired value of the Limit or
enter this value into the edit
box.

Limit: 90°

Details:
- The range of the
  Limit's values is
  between 0 and
  359'999 degrees.

Limit: 180°

- This unique
  control lets you
  create the "non-
  complete" page
  curl effect and as
  a result there is
  the possibility to
  apply the page curl effect several times to the part of the
  page, which you have chosen for the initial curling.
- Along with the regular edit box where you can see the
  specified value of the parameter, the Limit control has the
  special LCD-like display that shows you the value of the Limit
  in a more convenient way: the number of full turns plus the
  remainder. E.g. If you specify the Limit as 740 degree, then it
  will be shown as: Full Turns: 2; Remainder: 20
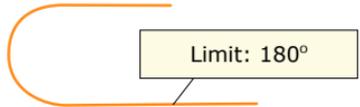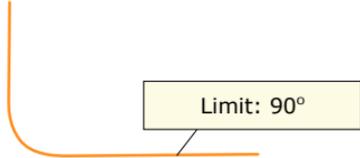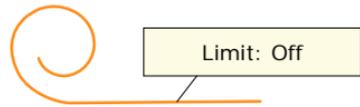
Folding Angle

This control lets you specify
the desired value of the
folding angle while folding
the page. The feature is
enabled only if you are
operating with the Page
Fold effect.
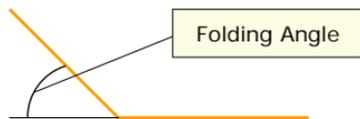
Folding Angle

Drag the Folding Angle
slider to specify the desired value of the Folding Angle or enter this
value into the edit box.

Details:
- The range of the Folding Angle's values is between 0 and 180 degrees. The greater the value you specify, the greater the fold on the page.
- When you fold the page and the Folding Angle's value is less than 90 degrees, then, in some cases, the look of the folded page may not change if you change the Direction (e.g. from Up to Down). This strange situation, at first glance, occurs when both the altitude of the light source(s) and the altitude of the page's position in 3D space coincide and both are 90 degrees. But as soon as you change either of the altitudes, then this "strange" visual effect will disappear.

Preview Area

The Preview area on the Surface panel is used for displaying the location of the bends on the page and for selecting the bend with which you want to operate. (Of course, you can also select the desired bend in the Bends palette.)

For selecting the desired bend just make a single-click on this bend right on the Preview area.

The active bend

Another bend

Conflict area
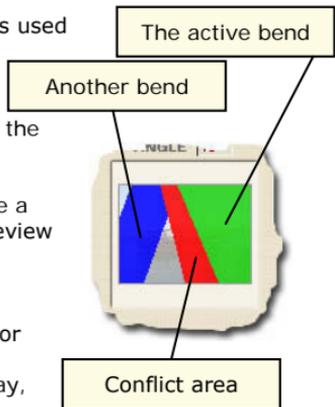
Details:
- The active bend (Page Curl and/or Fold) is indicated by the semi-transparent green-colored overlay, regardless of the number of the bends on the page. Any other bend (if present) is indicated by the semi-transparent blue-colored overlay.
- The shape of the area that is covered by the semi-transparent overlay (green- or blue-colored) is the variable polygon (depended on the settings) for Page Curl and is always the thin line for Page Fold.
- If there is the conflict area on the page (See Terms.), then this area is indicated by the semi-transparent red-colored overlay.
- You cannot select the bend, which is completely in the conflict area.
- Taking into account the fact that the conflict between bends occurs because of the active bend settings, selecting another bend may "resolve" the conflict.

Content Panel

Define Buttons

There are two (2) Define buttons in the plug-in. The first button allows access to the menu for operating with the content of the Front side of the page. The second button has the same function, but only for the Back side of the page.

DEFINE ▶

The following options are available for operation with the content:
- **"From Active Layer" option:** the image from the active layer will be used as the content of the appropriate side of the page.
- **"Foreground, Background and Custom Color" options:** the appropriate side of the page will be filled with the foreground, background or custom color, specified by the host's color picker.
- **"From File – Tile" option:** the appropriate side of the page will be tiled with the image from file. The desired file should be chosen with the help of the standard open file dialog.
- **"From File – Resize to Fit" option:** the appropriate side of the page will be filled with the image (The image will be resized to fit the page's dimensions.) from file. The desired file should be chosen with the help of the standard open file dialog.
- **"Flip Horizontal" and "Flip Vertical" options:** the content of the page's side will be flipped the appropriate way.

If you use the plug-in with Adobe Photoshop 7.0 and higher, then additional options are available for operation with the content:
- **"From Document Layer" option:** the image from either layer of the current document will be used as the content of the appropriate side of the page.
- **"From Document Layer – Trim by Transparency and Tile" option:** the image from either layer of the current document will be used as the content of the appropriate side of the page, but for accomplishing this operation this image will be trimmed by its transparency and then, tiled.
- **"From Document Layer – Trim by Transparency and Resize to Fit" option:** the image from either layer of the current document will be used as the content of the appropriate side of the page, but for accomplishing this operation this image will be trimmed by its transparency and then, resized to fit.

Click the Define button and the menu with options will appear. Then choose the desired option.

Details:
- The plug-in remembers the chosen option. For example, you have chosen the "Background Color" option as the content of the page's side. This means that if you apply the plug-in and then start it again, the plug-in will take the background color of your host as the content of the appropriate page's side, even if you have changed this background color. The plug-in

just knows that it should be the "background color"
irregardless what color it is.
- If you use any (from three) option that lets you operate with
  the document's layer other than the active layer (These
  features are available only if you use the plug-in with Adobe
  Photoshop 7.0 and higher.) then, the bounding rectangle of
  the content of the layer to which the plug-in was initially
  called, is used for trimming any layer's content that you will
  use in the future. (Within the current session of the plug-in, of
  course.)
- If you applied the plug-in to some document and then, you call
  it again to another document, (Or to the same document, but
  that has been changed.) but the content that was used for
  either side of the page does not exist any more, (Because it is
  another or changed document, or because it was the file used
  as the content and this file does not exist any more.) then the
  plug-in will take the host's background color as the content of
  the side, which former content cannot be found.

Cross Opacity

This control lets you
adjust the visibility factor
of the page's back side
through the front side
and vice versa. That lets
you emulate the
situation from real life,
when the back side of
the page is slightly
visible through the front
side and vice versa.
(But, this page may NOT
be transparent by itself.)

Drag the Cross Opacity
slider to specify the cross
opacity of the page or
enter the desired value
into the edit box.
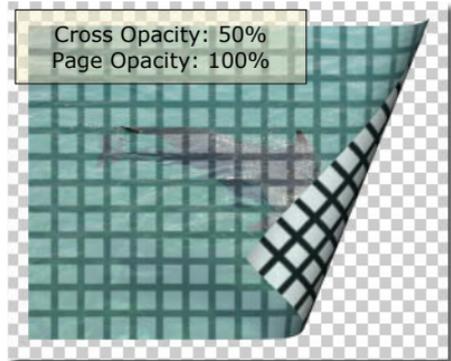
Details:
- The range of the Cross Opacity's values is between 0 and
  100%.
- If you specify the value of Cross Opacity to zero (0), then the
  page looks identical from either side.
- If you specify the value of Cross Opacity to 100%, then you
  cannot see the content of the back side of the page through
  the front side and vice versa.

Page Opacity

This control lets you
adjust the opacity of the
entire page.

Cross Opacity: 100%
Page Opacity: 50%

Drag the Page Opacity
slider to specify the
opacity of the page or
enter the desired value
into the edit box.

> **Details:**
> - The range of the
>   Opacity's values
>   is between 0 and
>   100%.
> - You cannot see
>   the content of
>   the back side of
>   the page through

PAGE OPACITY (%)   100

>   the front side and vice versa, (See
>   the Cross Opacity.) regardless of
>   the value of the page's opacity.
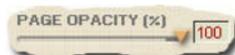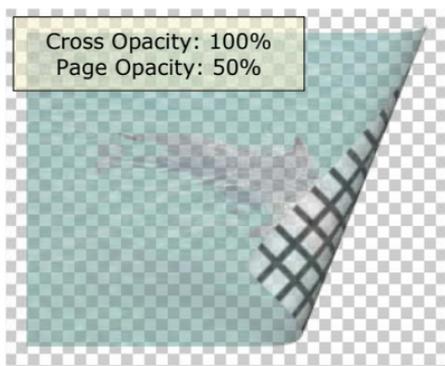
Swap Content: Front/Back Button

This control lets you swap the content of
the page's sides.

SWAP CONTENT: FRONT / BACK

Click the "Swap Content Front/Back" button to perform the swap
operation.

Flip Vertical and Flip Horizontal Buttons

These four (4) buttons let you flip the
content of either side of the page. There are
two (2) buttons for each page's side: one
performs Flip Vertical operation and the
second – Flip Horizontal operation.

Flip Vertical

Click the appropriate button to perform the
flip operation for the content of the desired
side of the page.

Flip Horizontal
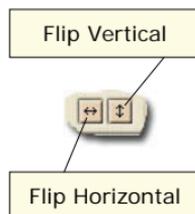
> **Details:**
> - If the solid color is used as the content of the page's side, then
>   the flip buttons related to this side are disabled.

Executing Area

Apply Button

Use the Apply button when you are satisfied
with the effect created inside the plug-in and
you want to see it inside your host.

Export Button

By clicking the Export button you obtain access
to the Export menu.
Then you can choose either "Render Result to
PSD" or the "Render Result to PNG" menu item.

> **Details:**
> - Whether you export the result of the rendering to PSD or PNG
>   it exports irregardless of the dimensions of the document that
>   you are working with. This fact lets you remain calm about
>   whether the bended image is bigger than the working
>   document. Even if it is, the created effect will be exported "as
>   is", without trimming its prominent, outside the canvas, parts.
> - Choosing either of the Export options does not close the plug-
>   in.
> - The Export to PNG option is enabled only if the document is in
>   RGB or Grayscale modes and is disabled if it is in CMYK color
>   mode.
> - While the PSD file in which you export the result of the
>   rendering contains both the resolution and the profiles of the
>   document, the PNG file contains only the resolution of the
>   document.

Quality Button

By clicking the Quality button you
obtain access to the render quality
menu.
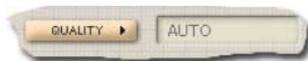
Then you can choose one of the render quality levels (High, Normal,
Low or Draft), or the Auto mode. (In this case the plug-in
automatically specifies the level of the render quality.)
The LCD-like display, located near the button, shows you the specified
level of the render quality.

> **Details:**
> - The higher the level of the rendering quality, the longer the
>   time for rendering. We recommend that you find the
>   compromise between the render quality and time for
>   rendering. (Just take into account the fact that the time for
>   rendering also depends on the image size and the complexity
>   of the effect.) A good solution for finding that compromise is

using the Auto mode of the render quality. In this case the plug-in adaptively specifies the level of the render quality: the smaller your image, the higher the quality of the rendering and the larger the image, the lower the quality of the rendering.

Cancel, Reset and Defaults Buttons

The **Cancel** button closes the plug-in window and cancels all of your recent activity in the plug-in.

The **Reset** button cancels all changes (without closing the plug-in window) to the values you had prior to your changes.

The **Defaults** button cancels all changes (without closing the plug-in window) to the values that were specified as default values by AV Bros.

Bends, 3D Transform, Lighting and Bump Mapping Buttons

These buttons are used for opening the appropriate palette, or activating it, if the palette was already opened.

Click the desired button to open (or activate) the appropriate palette.

> **Details:**
> - When you open the palette, then the LED-like indicator on the appropriate button change its color from the dark red to the bright red.

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Caption

As was mentioned, when we described the Work Area of the plug-in, the Caption contains three (3) menus (**Main**, **Adjust** and **Window**) and two (2) buttons (**"?"** and **"X"**). There are quite a few menu items under these menus. Some of them (**Apply**, **Cancel**, etc.) just repeat the existed and, as a result, already described controls, but some of the menus items may be found only under the appropriate menu and, therefore, they will be described below:

Undo/Redo (Main menu)

These options let you undo the last action in the plug-in and then, if you decide that Undo was not a good idea, Redo (undo the prior undo) it.

To use the Undo/Redo options of the plug-in, go under the Main menu and choose the appropriate menu item or use the **Ctrl + Z** (or Mac: **Cmd + Z**) shortcut. (See the list of Shortcuts below.)

Details:
- AV Bros. Page Curl Pro 2.2 has the multi-level Undo option.
- Your actions may be undone only if they affect or may affect the image. For example, if you select the Enable Internal Shadows check-box in the Lighting (Advanced) palette, then this action may be undone. But if you select the Shadow Auto Rendering menu item under the Options button of the Main Preview, then this action cannot be undone, because this action does not affect the image.

Save/Load Settings (Main menu)

These features let you save the settings, with which you are happy for the one particular image, and, then use two (2) different ways (Load Settings [Relative] or Load Settings [Absolute]) to load these settings into the plug-in for applying to another image.

To use these features of the plug-in, go under the Main menu and choose the appropriate menu item.

Details:
- AV Bros. Page Curl Pro 2.2 saves settings to the file with the extension AVCPS.
- The Settings of AV Bros. Page Curl Pro 2.2 are the platform (Mac OS X/Windows) and document (in most cases) independent.

> **Note!** In some cases the settings, saved for the particular effect, will NOT let you obtain the same effect, when used with the new or changed document. The reason for this "issue" is the following: when you create the effect inside the plug-in, you may use the particular layer or channel of your document (or even an external file) as the page's side(s) content and/or bump map(s). It is obvious that if you change the number (or order) of your document's layers or channels or if you change the paths to the external files, because, for example, you have started working with the plug-in on another computer, then some of the settings will become invalid and as a result the re-created effect will not be the same.

- The AVCPS file contains the data of both the absolute values of the parameters that you have specified and the relative values of these parameters. You can read about the difference between them in the Details of the Radius topic.

- When you apply AV Bros. Page Curl Pro 2.2, the plug-in saves the last used settings by itself. This lets you use these settings afterwards (Not only during the current session of the host, but after restarting it as well.), even if you did not save them by yourself.
- When you start the plug-in, it automatically loads the last used settings using their relative values. But you can switch these settings to their absolute values by selecting the Reset Settings to the Last Used [Absolute] menu item under the Main menu.
- AV Bros. Page Curl Pro 2.2 saves its settings in a file with the extension AVCPS and supports settings of the AV Bros. Page Curl Pro 2.0 and AV Bros. Page Curl 2.0 plug-ins (Files with the extensions AVCPS and AVCS relatively.), but not vice versa! In other words, neither AV Bros. Page Curl 2.0, nor AV Bros. Page Curl Pro 2.0 supports settings of AV Bros. Page Curl Pro 2.2. AV Bros. Page Curl Pro 2.2 does NOT support files with the extension PC12, which were used for saving settings in AV Bros. Page Curl 1.2.

Reset Settings (Main menu)

There are available three (3) different types of Reset Settings in AV Bros. Page Curl Pro 2.2:
- Reset Settings to Last Used [Relative]
- Reset Settings to Last Used [Absolute]
- Reset Settings to Defaults.

To use these features of the plug-in, go under the Main menu and choose the appropriate menu item.

Details:
- As was mentioned, when AV Bros. Page Curl Pro 2.2 automatically saves the last used settings (See Save/Load Settings topic.), it uses by default their relative values. Use the Reset Settings to the Last Used option, for switching between Relative and Absolute values of those settings according to your needs. For example, as was mentioned in the Save/Load Settings topic, when you start the plug-in, it automatically loads the last used settings using their relative values. So, you can switch these settings to their absolute values by selecting the Reset Settings to Last Used [Absolute].
- When you select the Reset Settings to the Defaults option, you reset all settings of the plug-in to the settings, which were pre-defined by AV Bros.

Copy Front Side Content to Back Side and vice versa (Adjust menu)

These features let you copy the content of either side and paste it to another side.

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To use either feature, go under the Adjust menu and choose the appropriate menu item.

Details:
- Despite the fact that you can, without any doubt, define the side's content using the Define button of this side, the Copy Front Side… feature is a convenient way to do this operation, especially when the content of the side is taken from the file.

"?" (Help/About) Button

By clicking on this button, you reach the Help and About menu items.

"X" (Close) Button

This button closes the plug-in and cancels all of your recent activity in the plug-in.

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Bends Window ....

In the Bends window you can add, delete and manipulate the bends.

General Details:
- The maximum number of bends is 25.
- Any bend is fully adjustable at any time within the plug-in session.
- Add, Delete, Move Up and Down operations may be undone, in other words, you can use the Undo option that locates under the Main menu in the Main window or use the **Ctrl + Z** (or Mac: **Cmd + Z**) shortcut.

Bends List

The Bends List shows you (for further choosing) all existing bends (curls and/or folds) of the page.

Select the desired bend in the list to make it active. If necessary, scroll the list.

Bend 01 (Curl)
Bend 02 (Curl)
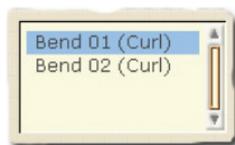
Details:
- Each bend has its unique name, such as Bend 01, Bend 02, etc.
  Next to the name is mentioned what type of bend has been used
  for this particular bend: Curl or Fold.
- The selected (active) bend is marked with the blue color.

Add and Add Copy Buttons

Using these controls you can add the desired number
of bends, which are either defaults or the same as the
active bend. In the first case you use the Add button and in the second
case – the Add Copy button.
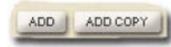
To accomplish the desired operation, you should click the appropriate
button.

Details:
- Each time you add a new bend, it adds to the end of the bends list
  and becomes selected (active).
- The page curl is the default bend. In other words, each time you
  add a new bend, you add the page curl. Of course, after that you
  can change the bend's type to a fold using the Effects radio buttons
  in the Main window.
- When you add a new bend by using the Add button, it will always
  be added with the default settings each time onto the same place –
  bottom right area of the page, irrespective of the page's shape. In
  the Preview area of the Surface panel, you will see the color
  triangle, which represents this bend, in the bottom right corner.
  Once added, the new bend's settings may be changed by using the
  appropriate controls located in the Surface panel.
- Depending on the page's shape and the settings of the existing
  bends, the new bend may be fully or partially added in the Conflict
  area. In this case the new bend will be fully or partially covered
  with the semi-transparent red colored overlay. (See How to Use
  Controls…>Main Window>Surface panel>Preview area.)
- We recommend that you add new bends one by one, for more
  convenient operating with the new bend.
- When you add a new bend by using the Add Copy button, then you
  add a new bend that has the same settings as the selected (active)
  bend. This means that a new bend will look exactly as the active
  bend and will be allocated onto the active bend place, rather than
  the bottom right area of the page as if you use the simple Add
  button. As a result, the new bend will always be covered with the
  semi-transparent red colored overlay and you need to change its
  parameters, if you want this new bend to really bend the page.

Delete Button

Using this control you can delete the unnecessary
bends.

To delete the unnecessary bend, you should select it first in the Bends' list and then, click the Delete button.

Details:
- After deleting the bend, all the rest of the bends will be re-named to keep the continuous style of naming. For example: let's say you have three (3) bends, therefore their names are – *Bend 01*, *Bend 02* and *Bend 03*. If you decide to delete *Bend 02*, you should select it and then, click the Delete button. In this case, *Bend 03* will change its name to the new one: *Bend 02*.
- To delete the bend, you can use not only the Delete button in the Bends palette, but the Delete button on your keyboard as well. Just do not forget to make the Bends palette active before using the keyboard.

Up and Down Buttons

Using these controls you can move the selected bend up and down in the bends' list.

Select the desired bend and then, click the Up button, if you want this bend to be moved up in the bends' list or the Down button, if you want it to be moved down.

Details:
- Moving the bends up or down is necessary for changing the order of the bends. As was already mentioned (See <u>Angle</u> and <u>Level</u> topics.) the order of the bend determines whether the bend will be ousted by another bend, or the other way round - will oust other bends by itself.
- When you move the bend up or down in the list, the look of the bent page in the Main Preview area may change.

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3D Transform Window ··

In the 3D Transform window you can orient the page in 3D space and add, if desired, the perspective look to the oriented page.

### 3D Sphere, Spin slider and Flip Surface button

The 3D Sphere lets you adjust the Azimuth and Altitude of the "central point" of the page. These parameters along with the central points' spin, which is specified by the Spin slider, let you specify the orientation of the page in 3D space. The Flip Surface button lets you use the front hemisphere of the 3D space for orienting the page within the back hemisphere.

3D Sphere   Spin slider

SPIN (°)
347.0

AZIMUTH (°)
88.0

ALTITUDE (°)
58.1

ROTATION ANGLES (°)
X:-31.4 Y:-5.8 Z:-11.4

Flip Surface   Rotation Angles Display
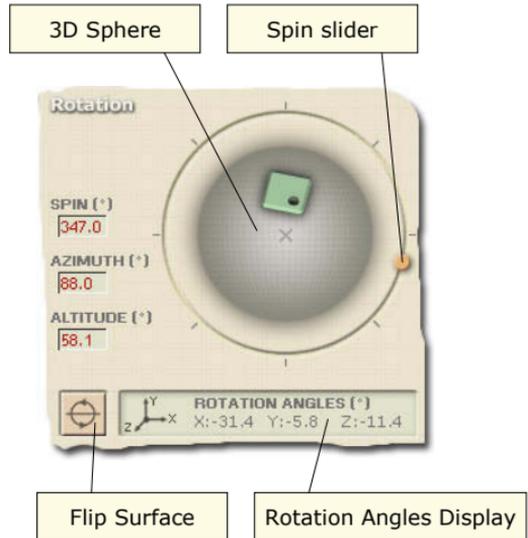
To adjust the Azimuth and Altitude of the "central point" of the page, click the green (brown) square shaped plate on the hemisphere (This plate represents the page.) and drag it or enter the desired values into the edit boxes.

To adjust the Spin of the "central point" of the page, drag the Spin slider or enter the appropriate value into the edit box.

To flip the page's surface, just click the Flip Surface button.

> **Details:**
> - For the most convenient orientation the page in 3D space (Which is always a complicated task when you use the regular 2D user interface.) we have placed the special square plate on the 3D space's hemisphere. This plate has (just like the page) two sides that are colored with green and brown colors. Different sides of the plate let you easily distinguish what side of the page (Front or Back) "looks" at you while orientating the page in 3D space. By default the plate has the green color.
> - The green colored plate corresponds to the front side of the page and the brown colored plate – to the back side of the page.
> - Each time you click the Flip Surface button, you change the side of the page that lies on the hemisphere and the plate changes from the green color to brown or vice versa.
> - To make the manipulation with the page even more noticeable, we have added the special black dot on the plate. By default, this dot is in the bottom right corner of the plate. When you use the Spin slider and/or Flip Surface button, the position of the dot changes.
> - You always operate only with one hemisphere – the front hemisphere.
> - If you need to orient the page within the back hemisphere (In this case you would see the page's back side through the hemisphere, if

one assumes that the hemisphere is transparent.), then you should click the Flip Surface button. (This emulates the operation with the back hemisphere, though you still operate with the front hemisphere.)
- When you click the Flip Surface button, the image on this button changes its color from black to red.
- If the Real-Time Preview option is enabled, then any manipulations in 3D Transform palette are displayed in the Main Preview area.
- There is the special cross-mark in the center of the front hemisphere, to which snaps the plate. This is designed for more convenient position the page strictly horizontally.
- If you hold down the Shift button and only then, click on the plate and drag it, then the page (plate) will snap to the horizontal, vertical and 45 degree axes.
- While preparing the complicated project that contains several bends and orienting this multi-bended page in 3D space, you may find (rarely) that it is difficult to obtain the desired orientation of the page and neither orienting the page on the hemisphere nor using the Spin slider helps. The problem has occurred because you have "lost" the correct position of the initial (front) page's side. (The correct position means that the axe, around which you rotate the page when you use the Spin slider, directs vertically from the page's front side.) The only solution is to make several steps back, (It is simple, thanks to the multi-Undo option of the plug-in.) then find the correct position of the front page and prepare the desired design again. Fortunately, this a very rare situation, thanks to the AV Bros. Page Curl Pro 2.2 convenient UI.

Rotation Angles Display

The Rotation Angles LCD-like display is ONLY targeted to show the values of the rotation angles in the standard (for 3D graphics) X,Y and Z-coordinates.

Perspective Level

The Perspective Level control lets you specify the desired level of the perspective while orienting the page in 3D space.

To adjust the Perspective Level, drag the Level slider or enter the appropriate value into the edit box.

Details:
- The range of the Perspective Level's values is between 0 and 100.
- The more the value of the Perspective Level, the more the "perspective look" you add to the page.
- The point of the page, which has the maximum Z-coordinate (In other words is "closest" to you when you see the Main Preview area.) is used as the "initial" point for applying the perspective. As a result the less the Z-coordinate of the page's point, the greater the perspective level it obtains.

- Even if you bend the page that is not oriented in the 3D space, you can adjust the perspective level.

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Lighting (Simple) Window ···························

When we described the Work area of the plug-in, we have mentioned that the Lighting palette has two (2) modes: the Simple and the Advanced modes. In the Simple mode you can only make the adjustments of the shading.

To adjust the Shading of the page, drag the Shading slider or enter the appropriate value into the edit box.

To switch the Lighting window to the Advanced mode, just click the Switch To Advanced Lighting Mode button.

Details:
- The range of the Shading's values is between 0 and 100%.
- The greater the value of the Shading, the more the page is shaded.

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Lighting (Advanced) Window ·······················

The Advanced mode of the Lighting palette lets you obtain total control over the process of lighting the page.

General Details:
- In AV Bros. Page Curl Pro 2.2 we use the so-called Directional light.

Light Sources Panel

Here you can add the light sources to either Front and/or Back hemispheres and then, select (make active) any source either directly on the hemispheres or in the Light Sources list for further operations. You can also lock all Light Sources in order to prevent an accidental changing their position and existence.

To add the Light Source, choose both the desired hemisphere and the place on this hemisphere where you want to add the Light Source and double-click on this place.

To select the existed Light Source, just click it right on the Light hemisphere or in the Light Sources' list.

To delete the existed Light Source, select it and then, press the Delete button on the keyboard.

| Light Sources list | | Light Sources |
| Front and Back Hemispheres | | Active |

To position the Light Source within the Light hemisphere, click and drag it.
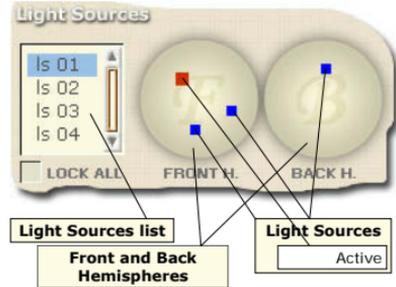
To lock all existed Light Sources, just select the Lock All check-box.

Details:
- You can add up to twenty five (25) Light Sources to the Front and/or Back hemispheres.
- You cannot delete ALL Light Sources - at least one (1) will remain in any case.
- You can drag the existed Light Source within both hemispheres irrespective of the fact on which hemisphere it was initially placed.
- To place the Light Source in the same place, but onto other Light hemisphere, switch the radio buttons (Front hemisphere to Back hemisphere or vice versa.) in the Active Light Direction area, which is described in the next topic.
- If you need to delete the Light Source, you can also select it right on the hemisphere and then, **right-click** (Mac: **Ctrl+click**.) and choose the Delete menu item from the menu that will appear.
- The Lock All option prevents either any displacement of the Light Sources and makes it impossible to add the new or delete the existing Light Source, but lets you adjust other parameters of the active Light Source.
- To place the Light Source right on the center of the hemisphere, (This is the central point on the hemisphere's surface with Azimuth equal to 0 degree and Altitude equal to 90 degrees, rather than the physical center of the hemisphere.) you should select the Light Source and then, **right-click** (Mac: **Ctrl+click**.) and choose the Center menu item from the menu that will appear.

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Active Light Panel

Active Light Direction

After selecting the Light Source, you can specify the direction of the Light Source or, in other words, the Light Source's position on the Light sphere.

Active Light Hemisphere

Virtual Object Sphere

To specify the direction of the Light Source do the following:

- Move the mouse onto the Light hemisphere's area. Once moved, the small ball that represents the Light Source will appear.
- Click and drag this small ball to specify the desired direction of the Light Source or enter the desired values of the Azimuth and Altitude into the appropriate edit-boxes.
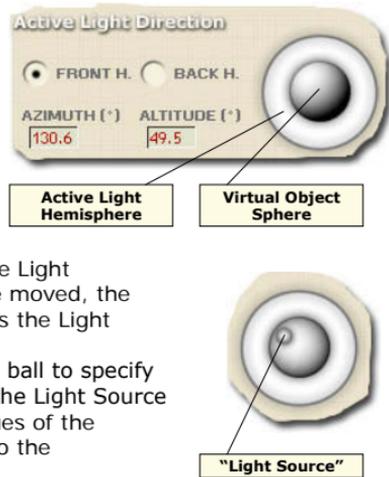
"Light Source"

To change the location of the Light Source from the Front Light hemisphere to the Back one or vice versa – select the appropriate radio button.

Details:
- There is the specially prepared sphere (Virtual Object sphere) inside the Light sphere. The Active Light illuminates this sphere, so you can see the spot of the light, which vary depending on the Active Light's parameters. And, though, this is not an accurate previewing of the Active Light, this spot lets you assume how the Active Light will light on the page. This is particularly relevant if the Real-Time Preview is disabled.
- When you finish adjusting the direction of the Active Light, the small ball that represents the Light Source will disappear. This is specially designed for the most convenient previewing the spot of the Active Light.
- When you adjust the direction of the Active Light by dragging the small ball over the Light hemisphere, the Active Light makes the same movements on the appropriate Light hemisphere in the Light Sources panel.

Active Light Diffuse Reflection

Here you can adjust the Diffuse Reflection of the Active Light. The controls that are available for this adjustment, work the following way:

- Intensity: drag the slider to specify the desired intensity of the Diffuse Reflection of the Active Light or enter the desired value into the edit-box.
- Color: click on the swatch to call the host's Color Picker and choose the desired color of the Active Light's Diffuse Reflection.
- Affect: select the Front Side and/or Back Side check-box(es) to specify whether the Active Light affects either the Front and/or Back side of the page and as a result the presence of the appropriate Diffuse Reflection.

Details:
- The range of the Intensity values is between -500 and 500. The default value is 100.
- When you adjust the parameters of the Active Light's Diffuse Reflection (Color and Intensity), you can see the specified parameters on the Virtual Object sphere (See the Active Light Direction topic.) irrespective of the fact of whether or not the Affect check-boxes are selected or not. But if the Real-Time Preview option is enabled, then you can to see the result of your manipulation in the Main Preview too, but yet in consideration of the fact whether or not the Affect check-boxes are selected or not.
- If the Intensity value is set to zero (0), then this means that the Diffuse Reflection does not exist at all and as a result, the Virtual Object sphere becomes black. (If, of course, the Intensity of the Active Light Specular Reflection is also set to zero or below zero.) As for the page, it also becomes black, but only if the Intensity of the Active Light Specular Reflection is set to zero too (or below zero) and if there are no other light sources with the positive Intensities of the Diffuse and/or Specular reflections.
- The possibility to specify the "negative" Intensity (Means that the Intensity is below zero (0).) of the Diffuse Reflection lets you obtain interesting lighting effects. It is obvious that this option makes sense only if you have more than one light source.

Active Light Specular Reflection

Here you can adjust the Specular Reflection of the Active Light. The controls that are available for this adjustment, work the following way:

- Intensity: drag the slider to specify the desired intensity of the Specular Reflection of the Active Light or enter the desired value into the edit-box.
- Specular Exponent: drag the slider to specify the desired value of the Specular Exponent or enter the desired value into the edit-box.
- Color: click on the swatch to call the host's Color Picker and choose the desired color of the Active Light's Specular Reflection.

- Affect: select the Front Side and/or Back Side check-box(es) to specify whether the Active Light affects either the Front and/or Back side of the page and as a result the presence of the appropriate Specular Reflection.

Details:
- The range of the Intensity values is between -500 and 500. The default value is 0.
- The range of the Specular Exponent values is between 0 and 1000. The default value is 50.
- When you adjust the parameters of the Active Light's Specular Reflection (Color, Intensity and Specular Exponent), then you can see the specified parameters on the Virtual Object sphere (See the Active Light Direction topic.) irrespective of the fact of whether or not the Affect check-boxes are selected or not. But if the Real-Time Preview option is enabled, then you can see the result of your manipulation in the Main Preview too, but yet in consideration of the fact whether Affect check-boxes are selected or not.
- If the Intensity value is set to zero (0), then this means that the Specular Reflection does not exist at all and as a result, the Virtual Object sphere becomes black. (If, of course, the Intensity of the Active Light Diffuse Reflection is also set to zero or below zero.) As for the page, it also becomes black, but only if the Intensity Active Light Diffuse Reflection is set to zero too (Or below zero.) and if there are no other light sources with the positive Intensities of the Diffuse and/or Specular reflections.
- The more the Specular Exponent, the less the diameter of the spot of the Active Light's Specular Reflection and vice versa. The adjustment of the Specular Exponent is one of the methods of emulation of the different materials in 3D graphics: the less the diameter of the spot of the Active Light's Specular Reflection, the more metallic is the material and vice versa.
- The possibility of being able to specify the "negative" Intensity (Means that the Intensity is below zero (0). Sometimes also called: the subtracting intensity.) of the Specular Reflection lets you obtain interesting lighting effects just as in case with the Diffuse Reflection, only with the specifics of the Specular Reflection. It is obvious that this option makes sense only if you have more than one light source.

Active Light Inner Shadow

This part lets you enable the dropping of the Inner Shadow onto the page after bending this page and adjusting the parameters of this shadow. The controls that are available

for this adjustment, work in the following way:
- Enable check-box: select the check-box to enable dropping the Inner Shadow.

- Opacity: drag the slider to specify the desired value of the Opacity of the Inner Shadow or enter the desired value into the edit-box.
- Size: drag the slider to specify the desired value of the Size of the Inner Shadow or enter the desired value into the edit-box.
- Render Shadow button: click this button to render the Inner Shadow if the Shadow Auto Rendering option is disabled.

Details:
- The range of the Opacity values is between 0 and 100%. The default value is 75%.
- The range of the Size values is between 2 and 100. The default value is 5.
- You do not need to click the Render Shadow button if the Shadow Auto Rendering option is enabled, the inner shadow will be generated automatically.
- If you have several Light Sources, then you can separately enable the Drop Inner Shadow option for each Light Source that you want to be used for dropping the Inner Shadow.
- If your image contains the transparent areas, then the Inner Shadow will not be visible on these areas.

Ambient Light Sub-Palette

This is the separate sub-palette of the Advanced Lighting palette for adjusting the ambient light. The controls that are available for this adjustment, work in the following way:
- Intensity: drag the slider to separately specify the desired intensity of the Ambient Light for either side of the page or enter the desired value into the appropriate edit-box.
- Color: click on the swatch to call the host's Color Picker and choose the desired color of the Ambient Light for either side of the page.
- "Chain" button: click this button if you want the parameters of the Ambient Light for both sides of the page to be changed simultaneously.
- "Auto" check-boxes – select the particular check-box to enable the Ambient Light's Auto-Adjustment option for the appropriate side of the page.

Details:
- The range of the Intensity values is between 0 and 100%. The default value is 0%.
- While lighting the page you change the color of page's pixels. But in many cases it is very important to preserve some areas of the page from changing their colors. For example, if you bend a cut out part of the image, set the light source(s), drop the internal shadows, etc. and you need the non-bent area of this part to remain the same after applying the plug-in for further seamless cutting into the main image. This is the task, for which the Ambient Light's Auto-Adjustment option is designed. When you enable this option, the plug-in's engine adaptively adjusts the ambient light to keep the original color of any pixel of some "specific" areas of the page from changing their color while adjusting the light source(s). To become "specific", the area should have its Altitude equal to 90 degrees or, in other words, the area should be parallel to the background. And one more condition, which is necessary for the Ambient Light's Auto-Adjustment option to work correctly – the light source(s) should be the white colored one(s) with the positive intensity.

Bump Mapping Window

In the Bump Mapping window you can specify whether you will texturize the page (by using the bump maps) and if you do, then specify what bump map you will use for this purpose and adjust its parameters.

General Details:
- Taking into account the fact that the effect of the texture is simulated, thanks to the Directional Light and the Bump Maps, you should leave at least one Light Source (Directional) that lights on the page's side, which you want to texturize.
- The Ambient Light, as the only source of the lighting, is not enough for texturizing the page. Moreover, even if there are one or more Directional Light Sources that light on the page, but the Intensity of the Ambient Light is much higher than the Intensity of other Light sources, then the texturizing effect (if present) will be decreased.
- You may ask, why use the texturizing option of the plug-in, rather than the texturizer that is included in some hosts. Here is the answer: the built-in host texturizer (Even if it is a high-quality one.) cannot provide you with the correct result when you bend the image and orient it in 3D space. The reason is simple. The texture is the function of the appropriate lighting of the surface, therefore when you use the image that was texturized inside the host and then, you use our plug-in for bending and/or orienting the image in

3D space, you use this texturized image without the correct
information about lighting. And only by using the internal
texturizing option of the plug-in will it let you obtain the correct
result. Therefore you are able to produce the highly realistic effect
of the texture on the page that was bent and/or oriented in 3D
space.

Level and Blur

There are separate Level and Blur sliders for
each side of the page in the Bump Mapping
palette. These controls let you adjust the Level
of the bump map and/or blur the bump map
while texturizing the page.
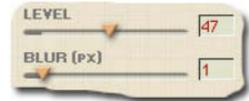
Drag the appropriate slider to specify the desired value of the parameter of
the bump map for either side or enter the desired values into the edit-
boxes.

Details:
- The range of the Level's values is between 0 and 100.
- The range of the Blur's values is between 0 and 100 pixels.
- The current settings of the lighting (Which you have specified in the
  Lighting (Advanced) palette.) determine whether dark areas of the
  bump map (Which is always a grayscale image.) are "responsible"
  for heights and the light areas – for depressions or vice versa. If
  you do not want to change the lighting settings, but need to switch
  depressions to heights or vice versa, then you can use the Invert
  Content (Black to white or vice versa.) button of the appropriate
  side.
- The size of the texture's virtual depressions and heights depends
  not only on the Level and Blur values, but on the current settings of
  the lighting as well. In other words, the look of the texture will be
  changed after changing the lighting settings, even if the Level
  and/or Blur parameters have not been changed.
- By adjusting the Level parameter you emulate the changing of the
  flatness of the texture or, in other words, the size of the texture's
  virtual depressions and heights. The more the value of the Level,
  the more the size of the texture's virtual depressions and heights.
- When you blur the bump map, you emulate the changing of the
  smoothness of the texture. The more the value of the blur, the
  smoother the texture.
- When you preview the changes of the Level and Blur parameters in
  the Preview area of the Bump Mapping palette, then you should be
  aware that you will not notice the changes of the Level parameter,
  but you will definitely notice the changes of the Blur parameter.

Invert, Flip Vertical and Horizontal Buttons

There are separate Invert content,
Flip Vertical and Flip Horizontal
buttons for each side of the page in
the Bump Mapping palette. These
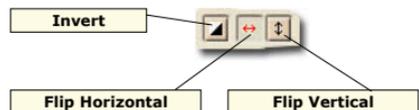
buttons let you invert (black to white or vice versa) the content of the
bump map for either side and flip the content of either side's bump map
either vertically or horizontally.

Click the appropriate button to execute the desired action for either side.

Define Buttons

There is a separate Define button for each side of the page
in the Bump Mapping palette. These buttons allow access to
the menu for choosing the desired operation with the bump mapping.
These operations are the following:
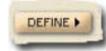
- No Bump Mapping: means that no bump mapping will be applied to
  the page's side, even if you have chosen a bump map before.
- From Document Channel: means that after selecting this menu item
  the auxiliary Document Channels window will appear, so you can
  choose the desired channel for the content of the bump map.
- From File – Tile: means that after selecting this menu item the
  standard open file dialog will appear and you will be able to choose
  the desired image from the file, which will be converted into the
  grayscale image and used as the bump map. For accomplishing this
  task, the image from the file will be tiled.
- From File – Resize to Fit: the same procedure as above, except that
  the image from the file will be resized to fit the page.
- Flip Vertical, Horizontal and Invert: these menu items just repeat
  the functionality of the appropriate buttons described above.

Click the Define button of the appropriate side and after the menu appears,
select the desired menu item.

....

How TOs

B elow you will find the general HOW TOs, which will help you to operate
with the plug-in. In some cases, these HOW TOs will refer to the
appropriate topic of the User Guide. In other cases you will be provided
with the detailed instructions.

> **Note!** We have in mind that AV Bros. Page Curl Pro 2.2 is
> properly installed under your image editing application (host).

How to use AV Bros. Page Curl Pro 2.2 with the particular image?

1. Start your host and open (or create) the document that contains the
image with which you want to operate.

2. Now go under the appropriate menu of your host and start AV Bros.
Page Curl Pro 2.2. (In Adobe Photoshop it is menu Filter>AV Bros.>AV
Bros. Page Curl Pro 2.2.)

> **Note1:** Be sure that the document is in the color mode
> supported by the plug-in (RGB, CMYK or Grayscale).
> **Note2:** By default, AV Bros. Page Curl Pro 2.2 uses the image,
> which is the content of the active layer of the current document,
> as the Front side of the page and the host's background color as
> the content of the Back side of the page. But then, when you
> start the plug-in next time, the content of either side will depend
> on the last used settings.

3. Use the controls of the plug-in to create the desired effect. Read the
User Guide to learn how to use these controls.

How to make the page fold effect, rather than the page curl (or vice versa)?

1. To change the type of the effect just click the appropriate radio-button
(e.g. Fold) on the Surface panel of the plug-in's Main window.

2. Use the controls of the plug-in to create the desired effect. Read the
User Guide to learn how to use these controls. Pay attention to the Details.

How to make the curled (folded) part of the page to be beneath the main part of the page?

1. Click the Down radio-button on the Surface panel of the plug-in's Main window.

2. Use the controls of the plug-in to create the desired effect. Read the *User Guide* to learn how to use these controls. Pay attention to the Details.

How to make the bended (curled and/or folded) part of the page to be outside the document canvas?

1. Taking into account the fact that while bending (curling or folding) the page in AV Bros. Page Curl Pro 2.2, you can preview the page entirely, regardless of whether it has been clipped by the canvas or not, we recommend that you enable the Show Clipping Zone feature to have an idea of whether your image is clipped or not and if yes, then how it is clipped.

2. If you have made this kind of adjustments, in which the bended (curled and/or folded) part(s) of your image is outside the canvas, then you have two possibilities to obtain the desired design in your host:

- You can click the Apply button to make the plug-in remember the current settings (Another solution is use the Save Settings feature.) and then, when you obtain the created image clipped in your host, simply Undo the operation in the host. Then extend the canvas, so the bent image has enough space to avoid being clipped (Just be sure that the source image is in the separate layer, rather than in the Background layer or any other layer with the protected transparency.) and apply the plug-in to the source image one more time.

- Once you are happy with the effect, use the Export feature of the plug-in. Then close the plug-in and open (import) the file that you just exported. Read the *How to Use the Controls, Features and Commands>Main Window>Executing Area>Export Button* topic to learn more about the Export option.

How to accurately position the bended part of the image from the active layer with regard to other images (layers' content) of the current document?

AV Bros. Page Curl Pro 2.2 has an extremely helpful feature that lets you use various backdrops for the Main Preview area. Thanks to this feature it is possible to easily solve this task. Read the *How to Use the Controls, Features and Commands>Main Window>Main Preview>Using the Backdrop* topic to learn more.

How to place an image onto the back side of the page?

AV Bros. Page Curl Pro 2.2 provides the user with powerful management and control of the content of the page's sides. Read the *How to Use the Controls, Features and Commands>Main Window>Content Panel* topic to learn more.

How to obtain the transparent area under the bent part of the page?

The transparent area under the bent (curled and/or folded) part of the page is generated automatically, just be sure that the active layer is not the background layer or the layer with the protected transparency.

> **Note!** If the active layer is the background layer or the layer with the protected transparency, then the area under the bent part will be filled with a background color that is specified in your host.

How AV Bros. Page Curl Pro 2.2 operates with the selection?

1. If there is a selected area in the image then, when you start AV Bros. Page Curl Pro 2.2, it operates solely with this area. When you apply the plug-in, you obtain the result within the selection boundary in the host. It should be understood that depending on the plug-in settings, the part of the bent image may be clipped by the selection as soon as you obtain the result inside the host.

2. If you do not want the resulting image to be clipped by the selection, then you should do one of the following:

> - Use the Export feature of the plug-in. Then close the plug-in and open (import) the document (.PSD file) that you just exported. This document will contain the bent, but not clipped image.
> - You can copy the content of the selected area to the new layer (Just do not forget to deselect.) and apply the plug-in to it. Although, you should be aware that this solution may not be acceptable in some cases. (Not because of any restrictions from the plug-in side, but because of the design issues.)

> **Note!** Here we want to repeat the statement from the Details of the Showing the Clipping Zone topic: The Clipping Zone shows the bounds with which your host provides the active layer, irrespective of the presence of the selection in the active layer. In other words, despite the presence of the selection that may clip the curled (folded) page, you will not see any changes in displaying the Clipping Zone in the Main Preview area just as if there is not any selection.

How to bend (curl and/or fold) the image several times?

1. There is the special option in AV Bros. Page Curl Pro 2.2 that lets you add several bends to the image. (Read the Bends topic of the User Guide.) Using this option is the best way to bend the page several times. Moreover, this option lets you bend the page several times within one session of the plug-in.

2. If in the statement: "The possibility to bend the page several times within ONE session of the plug-in", the word "one" is not critical, then, in some cases, you can use the solution that was prepared for the regular version of the plug-in (AV Bros. Page Curl 2.0). Here is that solution: thanks to the fact that AV Bros. Page Curl 2.0 operates with the arbitrary-shaped images, you can apply the plug-in several times to previously non-curled (folded) areas. Just call the plug-in several times. To avoid artifacts, be sure that the next curling (folding) does not affect the previously curled (folded) part of the page.

> **Note!** Using method #2 is quite limited when you use AV Bros. Page Curl Pro 2.2. This is not because of the limitation from the plug-in side, but because method #1 provides much more powerful possibilities. The point is that when AV Bros. Page Curl Pro 2.2 operates with the multi-bent page (method #1), the plug-in's engine calculates the correct mathematical surface each time for each bend. But if you use method #2 and call the AV Bros. Page Curl Pro 2.2 to already bended image, then the plug-in (Irregardless of whether it is the regular or the Pro version.) uses the bent page as a regular image and as a result, the bent part is just the content of this image, rather than a mathematically correct surface. Therefore, you cannot correctly bend an image in many situations when using method #2 (While orienting in 3D space, dropping internal shadows, texturizing, etc.), though, in fact it is correct and may provide absolutely affordable results in some simple cases.

How to make the "non-complete" curl?

It is possible to prepare the "non-complete" curling effect, thanks to the Limit of the turning - the unique feature of AV Bros. Page Curl Pro 2.2. To prepare such an effect, do the following:

1. Select the page curl, for which you want to specify the Limit of turning, to make it active. (You can select the desired page curl either in the list of the bends in the Bends palette or right in the preview area of the Surface panel. By the way, if you have started the plug-in for the very first time, then there is only one default bend – page curl, which is already active. Please read the topics *How to Use the Controls, Features and Commands>Main Window>Surface Panel>Preview Area* and *How to Use the Controls, Features and Commands>Bends Window* to learn more about the controls. Pay attention to the Details.)

2. Select the Limit check box and specify the desired value of the Limit of the turning. Then adjust the parameters of the page curl effect (Angle, Level, etc.) to obtain the desired look of the "non-complete" curling effect.

How to orient the page in 3D space?

In AV Bros. Page Curl Pro 2.2 you can orient the image (By the way not only for further bending! See the *How to use the plug-in in non-standard way* topic.) in two ways:

1. Using the controls on the 3D Transform palette. Be sure that the palette is active. If it is not, then click the 3D Transform button in the Main window to activate this palette. Please read the topic *How to Use the Controls, Features and Commands>3D Transform Window* to learn more about the controls. Pay attention to the Details.

2. If the Real-Time Preview option is enabled, then you can orient the page in 3D space right in the Main Preview area. Read the following topic: *How to Use the Controls, Features and Commands>Main Window>Main Preview>Preview Area*. Pay special attention to the Details.

How to texturize the page?

In AV Bros. Page Curl Pro 2.2 you can texturize either side of the page by using the grayscale images (called Bump Maps). As a Bump Map you can use either your document's channels or any file.

1. Be sure that the Bump Maps palette is active. If it is not, then click the Bump Maps button in the Main window to activate this palette.

2. Define the desired bump map, which will be used for texturizing the appropriate page's side, using the Define button.

3. Use the controls of the palette to operate with the chosen bump map. Please read the topic *How to Use the Controls, Features and Commands>Bump Mapping Window* to learn more about the controls. Pay attention to the Details.

How to drop an internal shadow?

In AV Bros. Page Curl Pro 2.2 you can let either light source drop the internal shadow. This amazing feature provides the bent page with the extremely realistic look. To drop the internal shadow(s) do the following:

1. Be sure that the Lighting (Advanced) palette is active. If it is not, then click the Lighting button in the Main window to activate this palette. (If you are using the plug-in for the very first time, you also need to click the Switch To Advanced Lighting Mode button, which is in the bottom of the

Lighting (Simple) palette. Do the same if the Lighting (Simple) palette was the last used lighting palette.)

2. In the Lighting (Advanced) palette, choose the Light Source that you want to drop the Internal Shadow. (Choose it either in the list of Light Sources or right on the appropriate Light hemisphere.) Enable dropping internal shadows option for chosen light source. (If you have several light sources, then you can enable this option for either of them.) Then adjust the parameters of the Inner Shadow(s) by using the appropriate controls. Read the following topics: *How to Use the Controls, Features and Commands>Lighting (Advanced) Window>Light Sources Panel* and *How to Use the Controls, Features and Commands>Lighting (Advanced) Window>Active Light Panel>Active Light Inner Shadow*. Pay special attention to the Details.

How to use AV Bros. Page Curl Pro 2.2 in a "nonstandard" way?

AV Bros. Page Curl Pro 2.2 is not only the unrivalled page bender, but also has a few powerful options (Orientation in 3D space, Texturizing and Lighting) and thanks to them the plug-in can be used as a high-quality Texturizer, Lighting effects creator and for orientating images in 3D space. This is what we call "Using the plug-in in a nonstandard way".
So, you can use these options of the plug-in for any image even when you do not need to bend it. Just open the image that you want to texturize, etc. inside your host, start our plug-in and use its powerful possibilities.
To learn more about either option, read the appropriate topic of this User Guide.

Keyboard Shortcuts

Apple Mac OS X keyboard abbreviations:
Command – Cmd
Shift – Shft

PC Windows keyboard abbreviations:
Control – Ctrl
Shift – Shft

Command	Keyboard Shortcut	
	Mac OS X	**Windows**
Toggle Simple Lighting Palette	Cmd+**E**	Ctrl+**E**
Toggle Advanced Lighting Palette	Cmd+**J**	Ctrl+**J**
Toggle Ambient Light Palette	Cmd+Shft+**J**	Ctrl+Shft+**J**
Toggle 3D Transform Palette	Cmd+**T**	Ctrl+**T**
Toggle Bump Mapping Palette	Cmd+**M**	Ctrl+**M**
Toggle Bends Palette	Cmd+**B**	Ctrl+**B**
Undo	Cmd+**Z**	Ctrl+**Z**
Redo	Cmd+**Y** (Cmd+Shft+**Z)**	Ctrl+**Y** (Ctrl+Shft+**Z)**
Save Settings	Cmd+**S**	Ctrl+**S**
Load Settings	Cmd+**L**	Ctrl+**L**
Export Render Result as PSD	Cmd+Shft+**S**	Ctrl+Shft+**S**
Export Render Result as PNG	Cmd+Shft+**E**	Ctrl+Shft+**E**
Toggle Show Clipping	Cmd+**H**	Ctrl+**H**

AV Bros. Page Curl Pro 2.2
for Windows and Mac OS X