

# PixelShield™

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## The Problem: Lost Revenues from Infringement of Stock Images

In a 2007 study entitled "Infringements of Stock Images and Lost Revenues"<sup>1</sup>, the Stock Artists Alliance (SAA) found an annual license infringement rate of 5.8% for a sample set of images posted online. The SAA noted that infringement rates may be higher for market leaders.

According to a partner in the study, "90% of the copyrighted images used online are used in a way that infringe the owner's rights"<sup>2</sup>, although not all have commercial use licenses. The SAA projected that for a market leader, one million rights managed images licensed at \$600 per image would yield 67,000 infringements in a one-year period, representing a market value of about \$67 million per year when projected for the global market. This number includes only online infringement, and does not include smaller archives and self-marketing photographers.

## The Solution: PixelShield Technology

PixelShield helps protect high-resolution online images from being downloaded in order to prevent copyright infringement. The patent-pending technology presents images to website visitors in such a way that the visitor *cannot* download the original image. Encryption technologies require users to download or install additional software. Even Flash® requires regular updates in order to continue to function properly. Asking the user to install or run programs can drive users away from a site. PixelShield requires only that the user have a standard web browser.

PixelShield does the following without JavaScript or Flash®, all without requiring the website visitor to download *any* additional software or plug-ins:

1. Prevents right-click download
2. Prevents drag-and-drop of image onto desktop
3. Prevents image from being saved in user's cache
4. Prevents Google® from cataloguing the image for its image search technology.

Photographers, graphic designers, stock image providers, and photo sharing websites can use PixelShield to present high-quality images without fear that a high-resolution images will be downloaded, rendering obtrusive watermarks unnecessary.

### References:

1. [http://www.stockartistsalliance.org/files/SAA\\_Infringements\\_Report\\_2007a.pdf](http://www.stockartistsalliance.org/files/SAA_Infringements_Report_2007a.pdf)
2. <http://www.businesspundit.com/interview-with-picapp-co-founder-eyal-gura/>



## The Technology: Allows for Flexible Levels of Security

PixelShield is designed to strike a balance between protection and ease of use for website visitors. However, the algorithm is also flexible. Password protection and other encryption techniques can be layered on top of PixelShield, while still ensuring that the end-user does not need additional software.

Additionally, existing technology can keep out those who should not have access, but once a user gains access to the site, he or she is free to download any and all images. PixelShield provides the extra layer of security against those users who might use the content that they are supposed to see, and pass it on to others.

## The Technology: Applications In Publishing & other Online Content

Just as PixelShield is flexible in the tradeoff between security and ease of use for website visitors, it also flexible in its application. PixelShield can protect text stored as an image in the same way that it stores traditional photographs.

Some content providers, such as the online version of the Wall Street Journal, protect their content, but the content is not protected from theft by the subscribers themselves. PixelShield can be used by a content provider to prevent subscribers from cutting and pasting entire articles to email to others. Likewise, corporations may want to share information with employees, but protect that information from being disseminated to outside parties, whether intentionally or unintentionally. PixelShield can be incorporated into a corporate intranet in order to present content to authorized parties without allowing those users to download it.

## Final Note:

PixelShield protects online content in a way that mitigates many of the downsides of encryption. It is a significant defense against theft that strikes a unique balance between level of protection and ease of use for website visitors, and is applicable for online content in several industries.

For sales questions or general inquiries, please contact:

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## Appendix A: Comparison of Solutions

	PixelShield	Flash (standard dynamic flash file)	JavaScript Protection	Transparent Image Overlay
Prevents Right-Click to download?	✓	✓	✓	✓
Even when Javascript is disabled?	✓	✓		✓
Displays image when user doesn't have the necessary version of Flash?	✓		✓	✓
Prevents Drag-and-drop to desktop to download?	✓	✓	✓	✓
Even when Javascript is disabled?	✓	✓		✓
Prevents indexing by Google® images?	✓			
No links to original images appear in the HTML source	✓	✓		
Image protected in the browser's Cache?	✓			
Requires NO third-party software for display (beyond standard browser)?	✓			✓
Requires NO Programming? (beyond a single line of HTML to add the image to the page)	✓			
Requires No Flash Programmers?	✓			✓
Requires No Javascript Programmers?	✓	✓		✓

## Appendix B: Potential Savings (\$0.20 to \$1.00 per picture per month)

# Photos Protected	Monthly Cost of PixelShield	Estimated Annual Lost Revenues from Infringement <sup>1</sup>	Net Annual Savings From Protecting Images <sup>2</sup>	At what piracy rate does cost of protecting images break even? <sup>3</sup> (compare to 5.8% average)
100	\$100/mo	\$3,480	\$2,280	2.0%
1,000	\$500/mo	\$34,800	\$28,800	1.0%
20,000	\$8,000/mo	\$696,000	\$600,000	0.8%
100,000	\$20,000/mo	\$3,480,000	\$3,240,000	0.4%

1. Table uses the following assumptions from Stock Artists Alliance (self-described as "conservative" estimates): Licensing fee of \$600 per image, with 5.8% infringement rate.
2. Estimated Annual Lost Revenues from Infringement minus the Annual Cost of PixelShield
3. Percentage of infringement (substituted for the 5.8% assumption) at which the cost of licensing PixelShield equals the lost revenue from infringement: (Annual Cost of PixelShield) / (\$600 licensing fee x # photos protected).