

Excerpt from Adobe® Photoshop® CC Help

Digimarc copyright protection

Note: Digimarc plug-ins require a 32-bit operating system. They are unsupported in 64-bit versions of Windows and Mac OS.

Read a Digimarc watermark

1. 1 Choose Filter > Digimarc > Read Watermark. If the filter finds a watermark, a dialog box displays the Digimarc ID, creator information, and image attributes.
2. 2 Click OK, or for more information, click Web Lookup. The Digimarc website is displayed in your web browser, where contact details appear for the given creator ID.

Adding digital copyright information

You can add copyright information to Photoshop images and notify users that an image is copyright protected via a digital watermark that uses Digimarc ImageBridge technology. The watermark—a digital code added as noise to the image—is virtually imperceptible to the human eye. The Digimarc watermark is durable in both digital and printed forms, surviving typical image edits and file format conversions.

Embedding a digital watermark in an image lets viewers obtain information about the creator of the image. This feature is particularly valuable to image creators who license their work to others. Copying an image with an embedded watermark also copies the watermark and any information associated with it.

For more detailed information on embedding Digimarc digital watermarks, refer to the Digimarc website at www.digimarc.com.

Before adding a digital watermark

Keep in mind the following considerations before embedding a digital watermark in your image.

Colorvariation The image must contain some degree of variation or randomness in color to embed the digital watermark effectively and imperceptibly. The image cannot consist mostly or entirely of a single flat color.

Pixel dimensions The Digimarc technology requires a minimum number of pixels to work. Digimarc recommends the following minimum pixel dimensions for the image to be watermarked:

- 100 pixels by 100 pixels if you don't expect the image to be modified or compressed prior to its actual use.
- 256 pixels by 256 pixels if you expect the image to be cropped, rotated, compressed, or otherwise modified after

watermarking.

- 750 pixels by 750 pixels if you expect the image to appear ultimately in printed form at 300 dpi or greater.

There is no upper limit on pixel dimensions for watermarking.

Filecompression In general, a Digimarc watermark will survive lossy compression methods, such as JPEG, though it is advisable to favor image quality over file size (a JPEG compression setting of 4 or higher works best). In addition, the higher the Watermark Durability setting you choose when embedding the watermark, the better the chances that the digital watermark will survive compression.

Workflow Digital watermarking should be one of the very last tasks you perform on an image, except for file compression.

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Use the following recommended workflow:

- Make all necessary modifications to your image until you are satisfied with its final appearance (this includes resizing and color correction).
- Embed the Digimarc watermark.
- If needed, compress the image by saving it in JPEG or GIF format.
- If the image is intended for printed output, perform the color separation.
- Read the watermark and use the signal strength meter to verify that the image contains a watermark of sufficient strength for your purposes.
- Publish the digital watermarked image.

Embed a watermark

To embed a digital watermark, you must first register with Digimarc Corporation—which maintains a database of artists, designers, and photographers and their contact information—to get a unique Digimarc ID. You can then embed the Digimarc ID in your images, along with information such as the copyright year or a restricted-use identifier.

1. **1** Open the image that you want to watermark. You can embed only one digital watermark per image. The Embed Watermark filter won't work on an image that has been previously watermarked.

If you're working with a layered image, you should flatten the image before watermarking it; otherwise, the watermark will affect the active layer only.

***Note:** You can add a digital watermark to an indexed-color image by first converting the image to RGB mode, embedding the watermark, and then converting the image back to Indexed Color mode. However, the results may be inconsistent. To make sure that the watermark was embedded, run the Read Watermark filter.*

2. **2** Choose Filter > Digimarc > Embed Watermark.
3. **3** If you are using the filter for the first time, click the Personalize button. Get a Digimarc ID by clicking Info to launch your web browser and visit the Digimarc website at www.digimarc.com. Enter your PIN and ID number in the Digimarc ID text box, and click OK.

After you enter a Digimarc ID, the Personalize button becomes a Change button, allowing you to enter a new Digimarc ID.

4. **4** Enter a copyright year, transaction ID, or image ID for the image.
5. **5** Select any of the following image attributes:

RestrictedUse Limits the use of the image.
DoNotCopy Specifies that the image should not be copied.

AdultContent Labels the image contents as suitable for adults only. (Within Photoshop, this option does not limit access to adult-only images, but future versions of other applications may limit their display.)

6. **6** For Watermark Durability, drag the slider or enter a value, as described in the next section.
7. **7** Select Verify to automatically assess the watermark's durability after it is embedded.
8. **8** Click OK.

Using the Watermark Durability setting

The default Watermark Durability setting is designed to strike a balance between watermark durability and visibility in most images. However, you can adjust the Watermark Durability setting yourself to suit the needs of your images. Low values are less visible in an image but less durable, and may be damaged by applying filters or by performing some image editing, printing, and scanning operations. High values are more durable but may display some visible noise in the image.

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Your setting should depend on the intended use of the image and the goals you've set for your watermarks. For example, it may be quite acceptable to use a higher Watermark Durability setting with JPEG images posted on a website. The higher durability helps to ensure the persistence of the watermark, and the increased visibility often is not noticeable with medium-resolution JPEG images. Digimarc recommends experimenting with various settings as part of your testing process to determine which setting works best for the majority of your images.

Check the signal strength meter

The signal strength meter helps you determine whether a watermark is durable enough to survive the intended use of the image.

❖ Choose Filter > Digimarc > Read Watermark. The signal strength meter appears at the bottom of the dialog box. You can also display the meter automatically by selecting Verify while embedding the watermark.

The signal strength meter is available only for images containing digital watermarks that you yourself have embedded.

Digimarc recommends that you check the signal strength meter before publishing your images. For example, if you often compress watermarked images for inclusion in a website, check the meter before posting the images. You can also use the signal strength meter to gauge the effectiveness of different Watermark Durability settings that you are experimenting with.