Difference between JPEG and SVG

JPEG and **SVG** are types of image formats. JPEG is a raster image format that uses a lossy compression algorithm to compress an image, whereas SVG is a highly scalable, text-based image format that uses mathematical structures to represent an image. JPEG images are used in photography applications, while SVG is used when high-resolution images are required.

JPEG is a good choice for photographs and other images with lots of colors, while SVG is a better choice for simple images and graphics that need to be resized, such as logos and icons.

Read this article to find out more about JPEG and SVG image formats and how they are different from each other.

What is JPEG?

JPEG stands for **Joint Photographic Experts Group.** JPEG is a raster image format that takes the ".jpg" or ".jpeg" extension. It uses a type of lossy compression to reduce file size, which means that some image data is lost when the file is compressed. Despite this loss of data, JPEG images can still be high quality and are widely used because they can be easily shared and downloaded.

JPEG is a standard image format that was created in 1992. JPEG is the most common image format used by digital cameras and other image capturing devices. Also, JPEG is the most common image file format for transmitting and storing photos on the Internet.

Technically, the JPEG image format is a standard that determines how an image is converted into a stream of bytes and converted back into an image file. JPEG file format is mainly used for photographs of realistic scenes with smooth variations of tone and colors. JPEG is also used for web images where reducing the data amount is important for fast response. However, it is not suited for line drawings, textures, icons, etc.

What is SVG?

SVG stands for **Scalable Vector Graphics.** SVG is a vector image format that is used to display images on the web. Unlike JPEG, which is a raster image format (made up of pixels), SVG is made up of lines and shapes that can be scaled to any size without losing quality. It is a unique image file format because its image quality remains same while zooming. This makes SVG a good choice for images that need to be resized, such as logos and icons.

SVG images are made up of paths and shapes. They are editable and can be scaled to any size without loss of quality. SVG images take the extension ".svg". They are used in devices that are required to produce high-resolution images.

SVG images can be easily searched, indexed, and compressed. We may create SVG files using any vector graphics editor like InkScape, Adobe Illustrator, CorelDraw, etc.

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The following table highlights the important differences between JPEG and SVG image formats –

Key	JPEG	SVG
Stands for	JPEG stands for Joint Photographic Experts Group.	SVG stands for Scalable Vector Graphics.
Image type	JPEG is a raster image format.	SVG is a vector image format.
Image Quality	JPEG image quality decreases on zooming.	SVG image quality remains same on zooming.
Image size	JPEG image is generally smaller than PNG image of same image.	SVG image is generally larger than JPEG image of same image.
Editable	JPEG images are not editable.	SVG images are text-based and are easy to edit.
Extensions	JPEG images use ".jpeg" or ".jpg" extension.	SVG images use ".svg" extension.
Usage	JPEG images are used in photography.	SVG images are generally used in high pixel density image applications.

Conclusion

The most important point that you should note here is that JPEG is a raster image format while SVG is a vector file format. A JPEG image file is composed of a fixed set of pixels, whereas an SVG image is composed of a fixed set of shapes.