File Formats

After Effects can work with a wide range of file formats. Every day we deal with JPGs, TIFFs, PNGs, AI and EPS files as well as footage formats such as ProRes. But not all formats are created equal. So here's one big tip for you when it comes to performance:

Don't use PNGs.

Yes PNGs are popular. They're everywhere. Many people recommend you use PNGs instead of Tiff files, but don't. They're slow. I wasn't aware that PNG files were so much slower than other file formats until I started rendering some benchmarks.
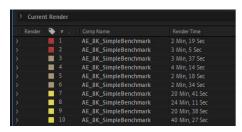
PNG files are so slow that I even checked in with Adobe to see if it's a bug. It's probably not. It's just how they are, and it caused by the compression algorithm they use.

The larger your resolution, the slower they get.

By the time we get to 8K resolution, a **PNG file takes about 20x longer** to save than a JPG or TIFF file. In the project I was using to test the rendering speeds of different file formats, rendering to a JPG sequence took AE about 2 mins 20 secs (140 seconds). Rendering exactly the same thing to a PNG sequence took **over 40 minutes**.

> *Yes that's right – just rendering to a PNG sequence instead of a JPG sequence increased the rendering time from 2 minutes to 40 minutes.*

A few months ago I decided to benchmark the loading and rendering of various file formats, because that's my idea of fun. I discovered that rendering to PNG files is MUCH slower than any other format. Starting with EXACTLY the same AE composition, I rendered to a whole range of different file formats with various settings (eg. different jpg compression levels, with and without alphas, 8 / 16 bit etc etc). Just about all file formats were within the same range – between 2 minutes and 4 minutes. But not PNGs. Oh no. They started at 20 minutes and went up to 40 minutes.

Just use TIFFs.

by Chris Zwar - June 18, 2020

source: https://www.provideocoalition.com/after-effects-performance-part-14-make-it-faster-for-free/