

Abstract

The new version 1.3.0 of PDF2Image delivers performance improvements, with speedups reaching over 3.1x and time savings of nearly 68% when processing large PDF documents.

Aggregating the total processing time across all five files, the overall speedup for Version 1.3.0 is approximately 2.54x (154%) on the PC and 2.78x (178%) on the laptop.

The test files used for this performance comparison were sourced from <https://freetestdata.com/document-files/pdf/>.

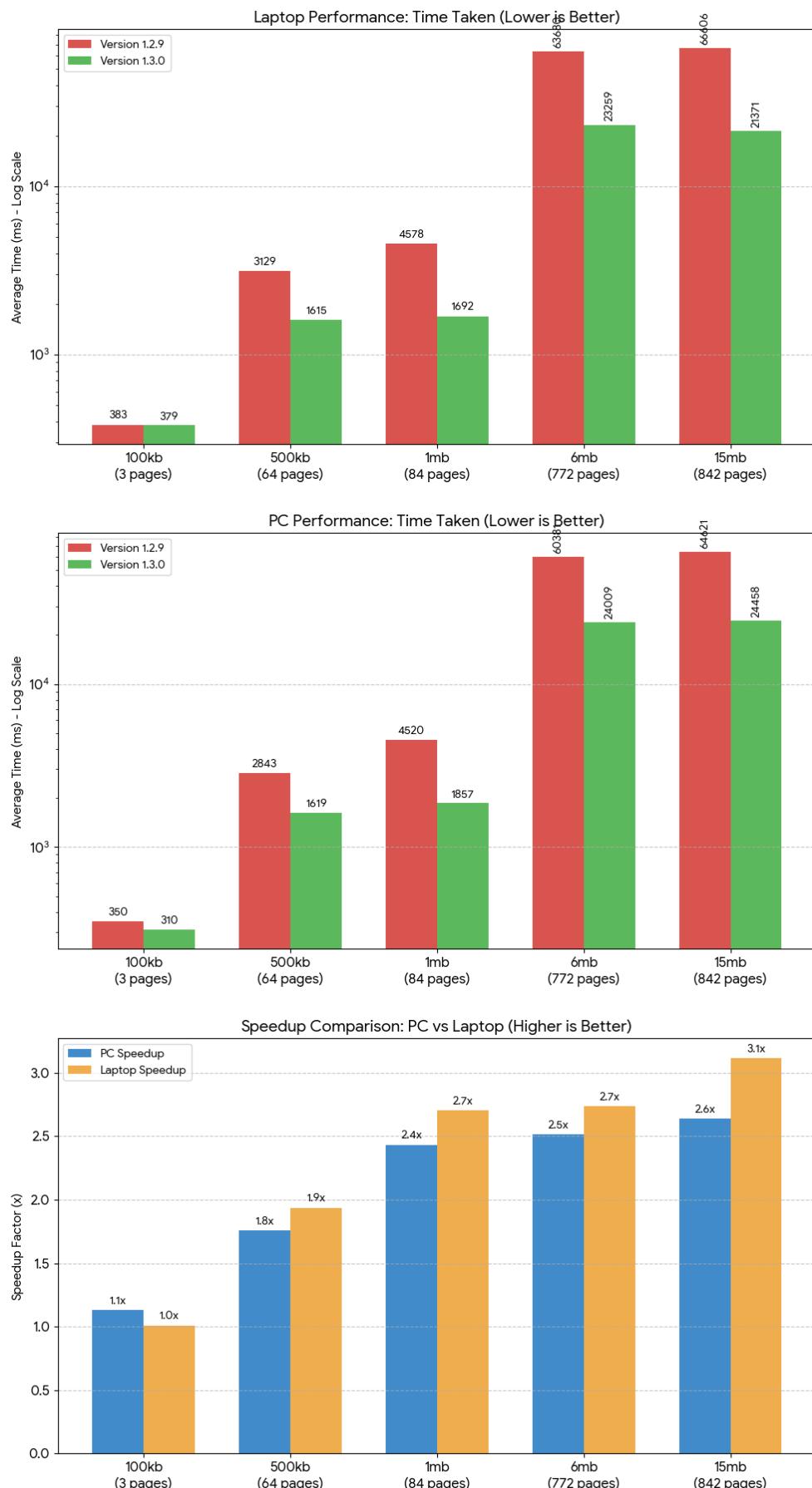
The PC tests were run on a system featuring an AMD Ryzen 5 5600x, 32GB 3200MHz RAM, and an AMD RX 6700XT GPU.

File Size	Pages	V1.2.9 Avg. Time (ms)	V1.3.0 Avg. Time (ms)	Speedup	Time Saved
100kb	3	350	310	1.13x	11.4%
500kb	64	2,843	1,619	1.76x	43.1%
1mb	84	4,520	1,857	2.43x	58.9%
6mb	772	60,381	24,009	2.51x	60.2%
15mb	842	64,621	24,458	2.64x	62.2%

The laptop tests were run on a system featuring an Intel i7-13705H, 16GB 6400MHz RAM, and an Integrated Iris Xe Graphics GPU.

File Size	Pages	V1.2.9 Avg. Time (ms)	V1.3.0 Avg. Time (ms)	Speedup	Time Saved
100kb	3	383	379	1.01x	1.0%
500kb	64	3,129	1,615	1.94x	48.4%
1mb	84	4,578	1,692	2.71x	63.0%
6mb	772	63,680	23,259	2.74x	63.5%
15mb	842	66,606	21,371	3.12x	67.9%

Visualizations



Tests from PC

AMD Ryzen 5 5600x - 32GB 3200MHz RAM - AMD RX 6700XT GPU

File size: 100kb (3 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	386	323	
Run 2	349	301	
Run 3	329	294	
Run 4	334	310	
Run 5	353	324	
Average	350	310	1.13x (+11.4%)

File size: 500kb (64 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	2796	1636	
Run 2	2849	1573	
Run 3	2726	1629	
Run 4	2885	1630	
Run 5	2961	1625	
Average	2843	1619	1.76x (+43.1%)

File size: 1mb (84 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	4229	1881	
Run 2	4559	1948	
Run 3	4693	1815	
Run 4	4519	1791	
Run 5	4601	1852	
Average	4520	1857	2.43x (+58.9%)

File size: 6mb (772 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	55483	23593	
Run 2	58836	23442	
Run 3	59647	24067	
Run 4	61902	24196	
Run 5	66038	24745	
Average	60381	24009	2.51x (+60.2%)

File size: 15mb (842 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	53863	24191	
Run 2	73146	24313	
Run 3	67021	24634	
Run 4	63059	24414	
Run 5	66020	24737	
Average	64621	24458	2.64x (62.2%)

Tests from laptop

Intel i7-13705H - 16GB 6400MHz RAM - Integrated Iris Xe Graphics GPU

File size: 100kb (3 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	377	330	
Run 2	433	521	
Run 3	371	328	
Run 4	362	358	
Run 5	371	359	
Average	383	379	1.01x (+1%)

File size: 500kb (64 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	3184	1639	
Run 2	3188	1570	
Run 3	2952	1544	
Run 4	3259	1625	
Run 5	3064	1699	
Average	3129	1615	1.94x (+48.4%)

File size: 1mb (84 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	4800	1747	
Run 2	4504	1680	
Run 3	4468	1662	
Run 4	4421	1676	
Run 5	4697	1694	
Average	4578	1692	2.72x (+63%)

File size: 6mb (772 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	57316	23036	
Run 2	61323	23451	
Run 3	65641	23334	
Run 4	66539	23136	
Run 5	67582	23336	
Average	63680	23259	2.74x (+63.5%)

File size: 15mb (842 pages)	Version 1.2.9	Version 1.3.0	Speed up
Run 1	54385	21009	
Run 2	73114	21613	
Run 3	66387	21376	
Run 4	60420	21439	
Run 5	78726	21419	
Average	66606	21371	3.12x (67.9%)