

What a reader waits for before page one

An ordinary PDF is read from the end. The table saying where every object lives is written after every object, so a reader has to hold the whole file before it can draw a single page — however few of them it means to look at.

Written first page first, the same document carries page one, what page one draws with, and a table stating where every other page begins and ends, all at the head of the file. Page one appears while the rest is still arriving, and page fifty is one stretch of bytes to ask for rather than a whole document to fetch.

The document measured here holds 200 pages, each under a heading of its own, with a list of those headings a reader can jump from.

The same document, measured twice

Written the ordinary way	163 061 bytes
Written first page first	40 138 bytes
No longer waited for	122 923 bytes

A reader shown the second file draws page one after 24 per cent of it has arrived. The document is the same one either way: a reader that knows nothing of any of this opens the file as it opens every other.

This very file is written first page first, so a reader that opened it has read one of the two documents being measured.