

PDF

From Wikipedia, the free encyclopedia

[Jump to navigation](#) [Jump to search](#)

For other uses, see [PDF \(disambiguation\)](#). **Portable Document Format (PDF)**, standardized as **ISO 32000**, is a [file format](#) developed by [Adobe](#) in 1992 to present [documents](#), including text formatting and images, in a manner independent of [application software](#), [hardware](#), and [operating systems](#).^{[2][3]} Based on the [PostScript](#) language, each PDF file encapsulates a complete description of a fixed-layout flat document, including the text, [fonts](#), [vector graphics](#), [raster images](#) and other information needed to display it. PDF has its roots in "The Camelot Project" initiated by Adobe co-founder [John Warnock](#) in 1991.^[4]

PDF was standardized as ISO 32000 in 2008.^[5] The last edition as ISO 32000-2:2020 was published in December 2020.

PDF files may contain a variety of content besides flat text and graphics including logical structuring elements, interactive elements such as annotations and form-fields, layers, [rich media](#) (including video content), three-dimensional objects using [U3D](#) or [PRC](#), and various other [data formats](#). The PDF specification also provides for encryption and [digital signatures](#), file attachments, and [metadata](#) to enable workflows requiring these features.

History

Main article: [History of PDF](#)

[Adobe Systems](#) made the PDF specification available free of charge in 1993. In the early years PDF was popular mainly in [desktop publishing workflows](#), and competed with a variety of formats such as [DjVu](#), [Envoy](#), Common Ground Digital Paper, Farallon Replica and even Adobe's own [PostScript](#) format.

PDF was a [proprietary format](#) controlled by Adobe until it was released as an [open standard](#) on July 1, 2008, and published by the [International Organization for Standardization](#) as ISO 32000-1:2008,^{[6][7]} at which time control of the specification passed to an ISO Committee of volunteer industry experts. In 2008, Adobe published a Public Patent License to ISO 32000-1 granting [royalty-free](#) rights for all patents owned by Adobe that are necessary to make, use, sell, and distribute PDF-compliant implementations.^[8]

PDF 1.7, the sixth edition of the PDF specification that became ISO 32000-1, includes some proprietary technologies defined only by Adobe, such as [Adobe XML Forms Architecture](#) (XFA) and [JavaScript](#) extension for Acrobat, which are referenced by ISO 32000-1 as [normative](#) and indispensable for the full implementation of the ISO 32000-1 specification.^[9] These proprietary technologies are not standardized and their specification is published only on Adobe's website.^{[10][11][12]} Many of them are also not supported by popular third-party implementations of PDF.

In December 2020, the second edition of PDF 2.0, ISO 32000-2:2020, was published, including clarifications, corrections and critical updates to normative references.^[13] ISO 32000-2 does not include any proprietary technologies as normative references.^[14]