

## The Advantages of PDF/A

PDF/A sets standards for the quality of properly archivable PDF documents, combining the universal strengths of the PDF format with an unambiguous, technically detailed reliability specification suited to the needs of organizations requiring solutions for long-term archiving.

### ■ Guaranteed to last

A PDF/A file is completely self-contained. It includes everything needed for accurate representation of the contents. PDF/A conformance ensures that no active content is present that might disrupt or impair reliable rendering of the page. It's PDF designed especially for long-term preservation.

### ■ More powerful and compact than TIFF or JPEG

Image-based formats store page content as pixels. PDF/A stores actual text and fonts, ensuring searchability. In scanned pages, text reconstructed using OCR can be integrated into PDF/A files as an invisible layer positioned to facilitate hit-highlighting in searches while maintaining the layout.

### ■ More universal

Source files generally require the corresponding application be available in order for files to be opened and viewed. With PDF/A, a single, multi-platform application is all that's needed for viewing electronic documents.

### ■ Support for digital signatures

PDF already supports embedded digital signatures as part of the core file format. PDF/A permits digital signatures with a few usage requirements. PDF/A documents may be signed without losing PDF/A compliance or any of its advantages.

### ■ More flexibility with the multi-part PDF/A standard

PDF/A exists in three parts offering maximum flexibility. PDF/A-1 is based on PDF 1.4, and works well for many simpler applications. PDF/A-2 adds support for transparency, PDF/A attachments and many other features. PDF/A-3 makes it possible to embed original data, such as XML, CAD and Office files, in PDF/A-conforming PDF files.

## The PDF/A Competence Center

The PDF/A Competence Center of the PDF Association focuses on assisting manufacturers, software vendors and consulting firms develop solutions using ISO 19005, the international standard for archive-quality PDF. The PDF/A Competence Center offers PDF Association members the following benefits:

- Direct contact to experienced PDF/A experts in the internal technical forums
- Quality assurance support for individual PDF/A solutions
- Reciprocal testing for PDF/A conformance
- Participation in the technical PDF/A Working Group
- Access to draft documents developed by ISO TC 171 SC 2 WG 5, the ISO Working Group for PDF/A

## Membership of the PDF Association

The PDF Association was founded in 2006 to promote the implementation of and compliance with international standards for PDF technology. The activities of the PDF Association include support and promotion of the PDF standard (ISO 32000) itself as well as the subset standards PDF/A, PDF/E, PDF/UA, PDF/VT, and PDF/X.

PDF Association staff and members work closely with the ISO and AIIIM organizations in developing future standards. If you'd like to have a say in the future development of PDF, please do not hesitate to get in touch.

Contact us if you would like more information about membership:



Association for Digital Document  
Standards e.V.  
– PDF Association –  
Neue Kantstraße 14  
14057 Berlin

Tel: +49 30 39 40 50-0 · Fax: +49 30 39 40 50-99  
www.pdfa.org · info@pdfa.org · Registered in: Berlin, District Court  
of Berlin-Charlottenburg, VR 26099 B · VAT ID: DE251189066

# PDF/A

## ISO 19005: A Series of Standards for Long-term Digital Archiving



Photo © 2010 Deviney | Dreamstime.com



www.pdfa.org

## The PDF/A Standard and its Objective

PDF/A is the ISO standard for archiving electronic documents using the PDF format. The first part, PDF/A-1, was published on October 1, 2005. The second and third parts, PDF/A-2 (2011) and PDF/A-3 (2012), enhance PDF/A with support for additional features in the PDF format, including options for combining several PDF/A files into one PDF/A collection or embedding the PDF's source files or other data, support for transparency, and much more.

The creation of the multi-part PDF/A standard required many years of cooperation between international delegates from software developers, industry associations and government agencies.

ISO 19005 defines “a file format based on PDF, known as PDF/A, which provides a mechanism for displaying electronic documents in such a way that the visual image is maintained over time, irrespective of the tools and systems used for their production, storage and reproduction”.

PDF/A does not define an archiving strategy; the standard simply details technical requirements for PDF electronic documents to ensure reliability decades or even centuries after the file's creation.

Since 2005 PDF/A has become well-established as the preferred format for archiving electronic documents. The PDF format, itself standardized in 2008 as ISO 32000-1, is used around the world in public and private sectors and, after HTML, remains the most popular format online. PDF will continue to be employed as a robust and flexible document format in a variety of areas for the foreseeable future.

PDF/A ensures reliable access to PDF documents, making PDF ideal for long-term archiving.

## PDF/A Applications

PDF/A can be used to archive any electronic document that may be printed, and any non-electronic document that may be scanned. The following examples show a variety of applications that benefit from PDF/A implementations.

■ **Incoming Mail** Regardless of how incoming mail arrives – either via traditional post, fax or e-mail – it must be archived. Paper documents should be scanned, and e-mails, including their attachments, should be converted into a suitable storage format with a uniform infrastructure such as PDF/A.

■ **Outgoing Mail** Most organizations prefer to archive outbound correspondence as well as inbound. Many converters for print-data streams are available on the market to assist in the PDF/A archiving process.

■ **Computer-aided Design (CAD)** Technical drawing files often require their own unique software. Converting these files to PDF/A ensures technical drawings can still be viewed or printed many years later with total fidelity to the original. Now, PDF/A-3 allows the original CAD file to be included with the archived PDF pages.

■ **Scientific Papers** Some universities already require dissertations be submitted in PDF/A format wherever possible.

■ **Archive Migration** Existing document archives often require an overhaul due to government regulations or changes in organizational policies. Many institutions have already migrated their extensive archives over to PDF/A to remain competitive and compliant with new regulations.

## Sectors

Long-term archiving is a critical theme in many business sectors, with the focus varying from industry to industry. Listed below are some examples of long-term archiving requirements in selected sectors. While not exhaustive, these examples illustrate how PDF/A can be applied in any organization requiring high reliability or under a mandate to maintain long-term archives.

■ **Banks and Insurance** Company credit and insurance records must often be kept for fifty years or more. Electronic archiving based on PDF/A has become increasingly popular in these industries, not only for new files, but also as a migration target for existing archives. Using a single standard for archiving promotes consistency – a valuable added benefit of PDF/A.

■ **Engineering** Long-term archiving is of great importance to engineering organizations, especially aerospace and civil engineering concerns. For example, the design specifications of bridges, aircraft or machinery are often required by law to be stored for up to 99 years. Some regulations specify that all document versions must be archived; PDF/A readily accommodates this requirement.

■ **Publishers** Over the last decade it has become commonplace to use PDF/X as an exchange format in prepress and production workflows. PDF/X conforming files can be saved simultaneously as PDF/A conforming files, a benefit to publishers who need to archive their products following print production.

■ **Public Administration** Government agencies were among the first organizations calling for a non-proprietary format for electronic document archiving. Typical government applications for PDF/A include legal filings and court documents, forms, zoning files and official notices.