

## What you need to know about PDF/A Creation and PDF/A Compliance\*

PDF/A is an ISO-standardized version of the Portable Document Format (PDF) specialized for the digital preservation of electronic documents. PDF/A is a subset of the PDF standard which excludes those PDF features that give rise to concerns about security and the ability to archive documents long term.

The PDF/A standard does not define an archiving strategy or the goals of an archiving system. It identifies a "profile" for electronic documents that ensures the documents can be reproduced exactly the same way in years to come. A key element to this reproducibility is the requirement for PDF/A documents to be 100% self-contained. All of the information necessary for displaying the document in the same manner every time is embedded in the file. This includes, but is not limited to, all content (text, raster images and vector graphics), fonts, and color information. A PDF/A document is not permitted to be reliant on information from external sources (e.g. font programs and hyperlinks).

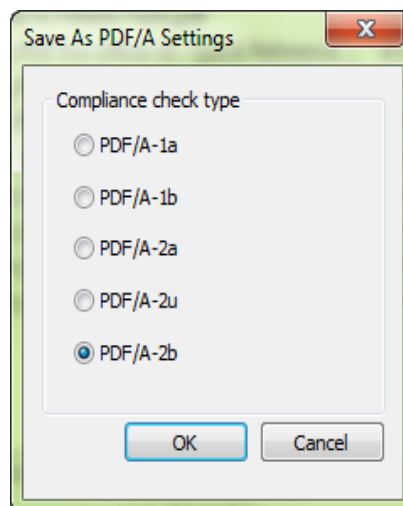
### Other key elements to PDF/A compatibility include:

- Audio and video content are forbidden.
- JavaScript and executable file launches are forbidden.
- All fonts must be embedded and also must be legally embeddable for unlimited, universal rendering. This also applies to the so-called PostScript standard fonts such as Times or Helvetica.
- Colorspaces specified in a device-independent manner.
- Encryption is forbidden.
- Use of standards-based metadata is mandated.
- External content references are forbidden.
- LZW and JPEG2000 image compressions are forbidden in PDF/A-1, but JPEG 2000 compression is allowed in PDF/A-2.
- Transparent objects and layers (Optional Content Groups) are forbidden in PDF/A-1, but they are supported in PDF/A-2.
- Provisions for digital signatures in accordance with the PAdES (PDF Advanced Electronic Signatures) standard are supported in PDF/A-2.
- Embedded files are forbidden in PDF/A-1, but PDF/A-2 offers the possibility to embed PDF/A files, allowing archiving of sets of documents in a single file.

### PDF/A Conformance levels and versions:

Within eCopy PDF Pro Office 6, you have the following options of PDF/A creation and conformance under:

File > Save As > PDF/A > Settings



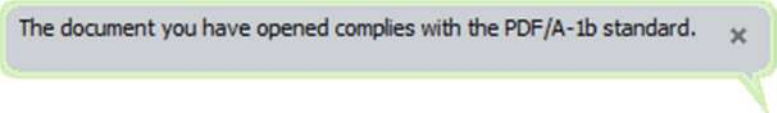
## Overview of each Conformance Level:

- **PDF/A-1a:**
  - Level A conformance is the superset of PDF/A-1b. Over and above the features offered by level B, level A offers the following features that are important for providing accessible content:
    - + Tagged PDF
    - + Structure tree (hierarchy)
    - + Language specification
    - + Unicode mappings
  - Accessibility means that content (text, images, and graphics) is also accessible for visually impaired users via, for example, screen reader software. In addition, accessibility makes it easier to reuse content than with conventional PDF, thanks to functions such as text export.
- **PDF/A-1b:**
  - Level B conformance is the minimum requirement for PDF/A compliance. The focus here is on *reliable rendered visual appearance*. **This is currently the most popular standard for PDF/A compliance.**
- **PDF/A-2a**
  - Layers, transparency and embedded files are preserved, satisfies all requirements in the specification
- **PDF/A-2u**
  - Layers, transparency and embedded files are preserved, level B conformance with the additional requirement that all text in the document have Unicode equivalents
- **PDF/A-2b**
  - Layers, transparency and embedded files are preserved, lower level of conformance, "encompassing the requirements of this part of ISO 19005 regarding the visual appearance of electronic documents, but not their structural or semantic properties.

We are able to create all levels and check all from directly within the eCopy PDF Pro Office 6 application, but if you are to use the printer driver from File > Print option, create your PDF from Internet Explorer or from the Create Assistant, the only options are to create PDF/A-1b, which is the most common PDF/A file type. If you would like to create one of the more complex PDF/A levels, then you would create your file from the File > Save As > PDF/A > Settings option.

## How do you know if you are working with a PDF/A file?

When you open a PDF/A compliant file in eCopy PDF PDF Pro Office 6 you will see the following popup message in the system tray message window:



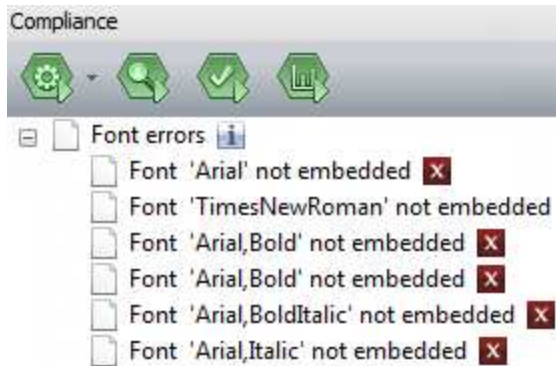
The document you have opened complies with the PDF/A-1b standard. x


## How do you create a PDF/A compliant file if this notification is not prompted upon opening your document?

The most common way to create a PDF/A file is through the File > Save As > PDF/A menu option. Once saved, the file will automatically be processed through the PDF/A Compliance Checker and will present the results in the left panel. If there are no errors found that require resolution, the result will be displayed this way:



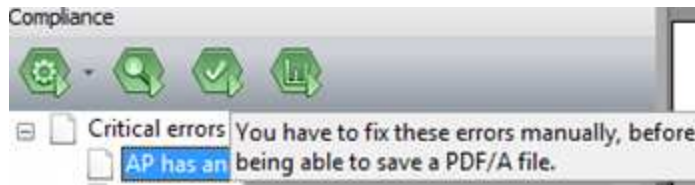
If there are errors found during the Compliance Check the report will be presented as follows:



To resolve the errors, you will select the Fix icon  to resolve all issues that can be resolved automatically. Once completed, if all errors were resolved you will see the following response:



If a critical error is found that cannot be resolved automatically and requires manual intervention, you will see the following response:



## Why is PDF/A support important to our customers?

Many legal and government entities are moving in the direction of requiring the PDF/A file format as their standard, so we can support this swing in the marketplace.

For example, The Administrative Office of the U.S. Courts has changed the technical filing standard associated with their Case Management / Electronic Case Files (CM/ECF) system. Since its inception, the system had required that electronic documents be filed in portable document format (PDF). Over the years, PDF has had many features added to it, and some of those features have created security risks. Formal security audits have pointed out the vulnerability. PDF/A eliminates those security risks and also enhances the ability to archive with the National Archives and Records Administration (NARA). The PDF/A level that they recommend filers use for the U.S. court filings are PDF/A-1a or PDF/A-1b, both are acceptable. PDF/A-1a requires structure in a document and is best to use for electronic documents. PDF/A-1b does not require structure in a document and is best to use for scanned documents or documents where the structure is unknown.

## Other institutions that have implemented the PDF/A standard:

- The US National Archives and Records Administration (NARA)
- The Swedish National Archives
- DeepBlue (University of Michigan's institutional repository)
- International Organization for Standards (ISO)
- The Federal Chamber of Architects and Engineering Consultants in Austria
- The Norwegian Government
- Potsdam University

\*Information in this FAQ has been gathered from multiple resources including:

<http://www.pacer.gov/announcements/general/pdfa.html>

<https://ecf.paeb.uscourts.gov/>

<http://bentley.umich.edu/uarphome/bestprac/pdfafaqs.php>