



PDFTRON PDF/A Manager™  
User Manual

Version 1.x









- Software developers can use PDF/A Manager SDK or PDFNet SDK API to add the PDF/A Export option to their existing PDF export filter.

#### 1.1.4 Operating Systems Supported

- Windows 7, 2008, Vista, XP, 2003, 2000, NT, 98
- Mac OSX
- Linux

#### 1.1.5 System Requirements

- At least 20 MB of free disk space.
- Memory requirement is heavily dependent on the nature of the document(s) being processed.

## 1.2 About This Manual

This manual is intended as a guide to the installation and use of PDF/A Manager. It is intended for system administrators, programmers and other users who are familiar with PDF documents, graphic file manipulation and general computer processes.

- [Section 1](#) introduces PDF/A Manager and describes the manual.
- [Section 2](#) explains how to install and uninstall PDF/A Manager.
- [Section 3](#) summarizes the command-line arguments available for PDF/A Manager and covers basic usage.
- [Section 4](#) covers PDF/A Manager reporting.
- [Section 5](#) contains an overview and basic usage of PDF/A Manager SDK.
- [Section 6](#) is where you will find all the support information you may require, such as how to report a problem with the software.

## 2. Installing and Uninstalling PDF/A Manager

### 2.1 PDF/A Manager Installation

PDF/A Manager is supplied as a download from a distributor or directly from [www.pdftron.com](http://www.pdftron.com). The release is packaged as a .zip file ('pdfa.zip' or 'pdfa\_sdk.zip'). To install the software, simply unzip the archive in the desired location while making sure to preserve the directory (folder) structure during the process.

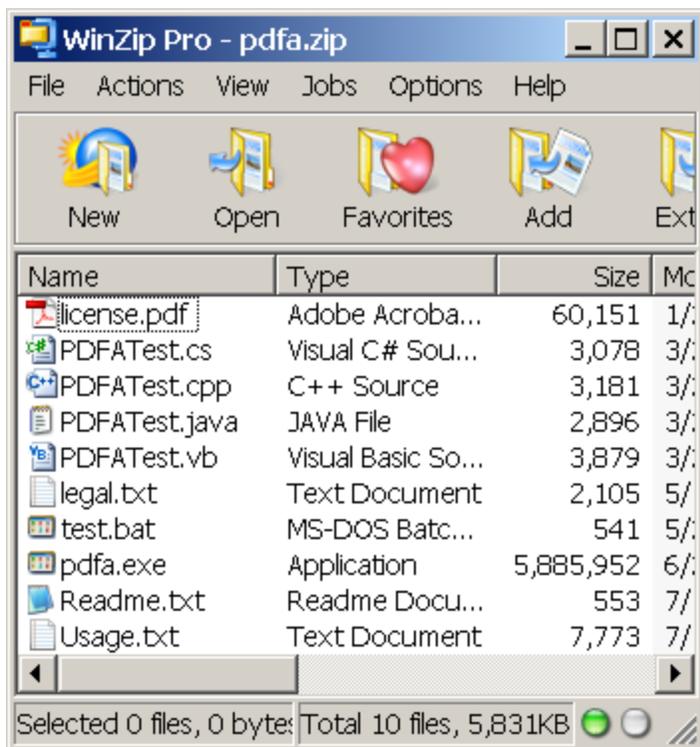


Figure 2.1  
Extracting PDF/A Manager Archive  
using WinZip

### 2.2 Product Registration

After purchasing a license of PDF/A Manager, you will receive additional registration and license information via email.

If you purchased the PDF/A Manager Command-line Application, you just need to copy the license file provided to you into the "pdfa" folder to register the software.

For PDF/A Manager SDK, you need to pass the license information during the call to PDFAINit() to successfully register the SDK and remove evaluation restrictions. For example:

```
PDFAINit("Joe Doe", "MyCompany", "sRLL4qr555sd63dnd");
```

The first parameter is your user name, the second parameter is your company name, and the last parameter is the license key supplied with your registration information.



### 3. Overview

PDFTron's PDF/A Manager is a command-line application designed to validate and convert generic PDF documents to PDF/A (ISO 19005-1) compliant format. This section covers basic usage and the command string syntax, used both in the PDF/A Manager Command-Line Application as well as in PDF/A Manager SDK.

#### 3.1 Basic Syntax

The basic command-line syntax is:

```
pdfa [options] file1 file2 folder1 file3 ...
```

#### 3.2 Command-Line Summary

Option	Parameter	Description
-x or --noxml	--noxml	Disable XML report generation.  By default, PDF/A Manager will generate an XML report (report.xml) in the output folder with all of the details of the validation and conversion results. The XML file can be viewed within most modern web-browsers.  If this parameter is specified, validation and conversion results will be reported as part of the console output.
-o or --output	e.g. -o myfolder -o c:\foo -o .././bar	The output directory. The folder can be relative to the current working folder. If the folder does not exist, PDF/A Manager will attempt to create the required path. If this parameter is not specified, all files will be saved relative to the current working folder.
--subfolders		Process all sub-directory for every directory specified in the argument list. By default, sub-directories are not processed.
-f or --fname		The explicit name for the converted file. The parameter is used only when converting one file at a time. The output file will be stored in the output folder.
-p or --pass	-p "my pass"	The password to process the input file. The password is required only in the conversion mode and when the input document is encrypted.
--suffix	--suffix "_PDF_A"	A string to append to all output filenames. This option is typically used to tag output filenames during multi-file or batch conversion. For example, if input file is "my.pdf" and suffix is "_pdfa" the output filename will be "my_pdfa.pdf".
-l or --level	-l B	PDF/A Conformance Level: [A or B]  Level A conforming files must adhere to all of the requirements of ISO 19005. A file meeting this conformance level is said to be a 'conforming PDF/A-1a file.'

		<p>Level B conforming files shall adhere to all of the requirements of ISO 19005 except those of 6.3.8 and 6.8. A file meeting this conformance level is said to be a 'conforming PDF/A-1b file'. The Level B conformance requirements are meant to support archiving by preserving exact rendered visual appearance of the document.</p> <p>Default Conformance Level is 'B'.</p>
-c or --convert	-c	Convert input PDF files to PDF/A compliant format. If this parameter is not specified, PDF/A manager will work in PDF/A validation mode without producing or creating any PDF output.
--nr		Do not revalidate after conversion. By default, PDF/A Manager will perform additional validation after conversion that can catch any omissions in the conversion process. Specifying this option skips this step.
-z or --linearize		Web-optimize (linearize) the converted PDF/A documents.
--extension	--extension ".mypdf"	The default file extension used to process PDF documents. The default extension is ".pdf".
--verb	--verb 3	<p>Set the verbosity level. The number argument is in the range 0-3 and it can be used to control the amount of information emitted during conversion.</p> <p>0 – silent 1 – normal 2 – debug</p>
-v or --version		Print the version information.
-h or --help		Print a listing of available options.

### 3.3 Basic Usage

This section covers the basic usage of PDF/A Manager, explaining all the available options and illustrating examples.

#### 3.3.1 How to save converted PDF/A files in a given folder?

By default, PDF/A Manager stores converted files in the current working folder. To specify another output location, use the '-o' (or --output) parameter. For example:

```
pdfa -o "c:\My Output" --convert 1.pdf 2.pdf 3.pdf
```

Note: If the specified path does not exist, PDF/A Manager will attempt to create the necessary folders.

#### 3.3.2 How can I control the output name for converted PDF/A files?

By default, PDF/A Manager will create a single output PDF/A document based on every input PDF file. The output filename is constructed by appending a suffix to the name of the input PDF file. For example, 'my.pdf' will be saved as 'my\_pdfa.pdf'. It is possible to change the suffix using --suffix option. For example:

```
pdfa -o OUT --convert --suffix "converted" "c:\mypdfdir"
```

#### 3.3.3 How do I run PDF/A Manager in validation mode?

To run PDF/A Manager in validation mode simply omit '-c' or '--convert' from the command line. For example,

```
pdfa --noxml my.pdf
```

#### 3.3.4 How do I convert/validate a password protected PDF?

PDF/A Manager will, without user intervention, decrypt and convert documents secured with a master/owner password. If the document is secured using a user (or 'file open') password, PDF/A Manager will prompt you to enter the password.

For unattended conversion, the password can also be specified directly on the command-line using the '-p' (or --password) option. For example:

```
pdfa -p secret -c secured.pdf
```

The above command line will convert PDF to PDF/A and will use the provided password ('secret') to open the secured document (i.e. 'secured.pdf').

Note: PDF/A Manager supports all standard security options available in PDF, including 40 and 128 bit RC4 encryption, Crypt filters, and 128 AES (Advanced Encryption Standard) encryption.













	white-space.
e_PDFa1_8_2	Generation number and 'obj' are not separated by a single white-space.
e_PDFa1_8_3	Object number not preceded by EOL marker
e_PDFa1_8_4	'endobj' not preceded by EOL marker
e_PDFa1_8_5	'obj' not followed by EOL marker
e_PDFa1_8_6	'endobj' not followed by EOL marker
e_PDFa1_10_1	Using LZW compression.
e_PDFa1_11_1	A file specification dictionary contains the EF key.
e_PDFa1_11_2	Contains the EmbeddedFiles key
e_PDFa1_12_1	Array contains more than 8191 elements
e_PDFa1_12_2	Dictionary contains more than 4095 elements
e_PDFa1_12_3	Name with more than 127 bytes
e_PDFa1_12_4	Contains an integer value outside of the allowed range
e_PDFa1_12_5	Exceeds the maximum number (8,388,607) of indirect objects in a PDF file.
e_PDFa1_12_6	The number of nested q/Q operators is greater than 28
e_PDFa1_13_1	Optional content (layers) not allowed.
e_PDFa2_2_1	DestOutputProfile-s in OutputIntents array do not match.
e_PDFa2_3_2	Not a valid ICC color profile.
e_PDFa2_3_3	The N entry does not match the number of color components in the embedded ICC profile.
e_PDFa2_3_3_1	Device-specific color space used, but no GTS_PDFa1 OutputIntent.
e_PDFa2_3_3_2	Device-specific color space, does not match OutputIntent.
e_PDFa2_3_4_1	Device-specific color space used in an alternate color space.
e_PDFa2_4_1	Image with Alternates key.
e_PDFa2_4_2	Image with OPI key.
e_PDFa2_4_3	Image with invalid rendering intent.
e_PDFa2_4_4	Image with Interpolate key set to true



e_PDFA4_3	Transparency used (Form XObject with transparency group).
e_PDFA4_4	Transparency used (Blend mode is not 'Normal').
e_PDFA4_5	Transparency used ('CA' value is not 1.0).
e_PDFA4_6	Transparency used ('ca' value is not 1.0).
e_PDFA5_2_1	Unknown annotation type.
e_PDFA5_2_2	FileAttachment annotation is not permitted.
e_PDFA5_2_3	Sound annotation is not permitted.
e_PDFA5_2_4	Movie annotation is not permitted.
e_PDFA5_2_5	Redact annotation is not permitted.
e_PDFA5_2_6	3D annotation is not permitted.
e_PDFA5_2_7	Caret annotation is not permitted.
e_PDFA5_2_8	Watermark annotation is not permitted.
e_PDFA5_2_9	Polygon annotation is not permitted.
e_PDFA5_2_10	PolyLine annotation is not permitted.
e_PDFA5_2_11	Screen annotation is not permitted.
e_PDFA5_3_1	An annotation dictionary contains the CA key with a value other than 1.0.
e_PDFA5_3_2_1	An annotation dictionary is missing F key.
e_PDFA5_3_2_2	An annotation's 'Print' flag is not set
e_PDFA5_3_2_3	An annotation's 'Hidden' flag is set.
e_PDFA5_3_2_4	An annotation's 'Invisible' flag is set.
e_PDFA5_3_2_5	An annotation's 'NoView' flag is set.
e_PDFA5_3_3_1	An annotation's C entry present but no OutputIntent present
e_PDFA5_3_3_2	An annotation's C entry present but OutputIntent has non-RGB destination profile
e_PDFA5_3_3_3	An annotation's IC entry present but no OutputIntent present
e_PDFA5_3_3_4	An annotation's IC entry present and OutputIntent has non-RGB destination profile
e_PDFA5_3_4_1	An annotation AP dictionary has entries other than the N entry.

e_PDFa5_3_4_2	An annotation AP dictionary does not contain N entry
e_PDFa5_3_4_3	AP has an N entry whose value is not a stream
e_PDFa6_1_1	Contains an action type that is not permitted.
e_PDFa6_1_2	Contains a non-predefined Named action.
e_PDFa6_2_1	The document catalog dictionary contains AA entry.
e_PDFa6_2_2	Contains the JavaScript key.
e_PDFa6_2_3	Invalid destination.
e_PDFa7_2_1	The document catalog does not contain Metadata stream.
e_PDFa7_2_2	The Metadata object stream contains Filter key.
e_PDFa7_2_3	The XMP Metadata stream is not valid.
e_PDFa7_2_4	XMP property not predefined and no extension schema present.
e_PDFa7_2_5	XMP not included in 'xpacket'.
e_PDFa7_3_1	Document information entry 'Title' not synchronized with XMP.
e_PDFa7_3_2	Document information entry 'Author' not synchronized with XMP.
e_PDFa7_3_3	Document information entry 'Subject' not synchronized with XMP.
e_PDFa7_3_4	Document information entry 'Keywords' not synchronized with XMP.
e_PDFa7_3_5	Document information entry 'Creator' not synchronized with XMP.
e_PDFa7_3_6	Document information entry 'Producer' not synchronized with XMP.
e_PDFa7_3_7	Document information entry 'CreationDate' not synchronized with XMP.
e_PDFa7_3_8	Document information entry 'ModDate' not synchronized with XMP.
e_PDFa7_3_9	Wrong value type for predefined XMP property.
e_PDFa7_5_1	'bytes' and 'encoding' attributes are allowed in the header of an XMP packet.
e_PDFa7_8_1	XMP Extension schema doesn't have a description.
e_PDFa7_8_2	XMP Extension schema is not valid. Required property 'namespaceURI' might be missing in PDF/A Schema value Type.
e_PDFa7_8_3	'pdfaExtension:schemas' not found.
e_PDFa7_8_4	'pdfaExtension:schemas' is using a wrong value type.



e_PDFA7_11_1	Missing PDF/A identifier.
e_PDFA7_11_2	Invalid PDF/A identifier namespace
e_PDFA7_11_3	Invalid PDF/A conformance level.
e_PDFA7_11_4	Invalid PDF/A part number.
e_PDFA7_11_5	Invalid PDF/A amendment identifier.
e_PDFA9_1	An interactive form field contains an action.
e_PDFA9_2	The NeedAppearances flag in the interactive form dictionary is set to true.

#### 4.2.2 PDF/A Level A Validation Errors

The following table is a non-exhaustive list of checks and conversions performed by PDF/A Manager for Level A Validation:

Error Code	Description
e_PDFA3_8_1	The font dictionary is missing 'ToUnicode' entry and additional font requirements for are not met.
e_PDFA8_2_2	The PDF is not marked as Tagged PDF.
e_PDFA8_3_3_1	Bad StructTreeRoot
e_PDFA8_3_3_2	Each structure element dictionary in the structure hierarchy must have a Type entry with the name value of StructElem.
e_PDFA8_3_4_1	A non-standard structure type does not map to a standard type.







```

If mode = PDF2IMAGE_ERROR Then
    Console.WriteLine("Error: {0}", msg)
ElseIf mode = PDF2IMAGE_MSG Then
    Console.Write("{0}", msg)
ElseIf mode = PDFA_OUT_FILENAME Then
    If user_data.ToInt32 <> 0 Then
        'add the next saved filename to the given ArrayList
        Dim gch As GCHandle = GCHandle.op_Explicit(user_data)
        Dim list As ArrayList = CType(gch.Target, ArrayList)
        list.Add(msg)
    End If
End If
Return 0
End Function      'MyCallback
    
```

Please note that, by default, PDF/A Manager SDK will also generate 'report.xml' outlining validation and conversion results for each file. To disable report generation simply include '--noxml' in the command-line string.

### 5.3 PDF/A Add-on module for PDFNet SDK

All of functionality available in PDF/A Manager SDK is available as an add-on module to PDFNet SDK (<http://www.pdftron.com/pdfnet>). PDFNet SDK is an amazingly comprehensive, high-quality PDF developer toolkit for working with PDF files at all levels. Using the PDFNet PDF library, developers can flexibly implement and create powerful PDF solutions and applications that can generate, manipulate, view, render and print PDF documents without any third-party software dependencies.

PDFNet SDK is available as a .NET component and as a cross-platform Java and C/C++ PDF library available on a wide range of platforms.

This section only illustrates the basic use of the PDFACompliance class in PDFNet SDK. To obtain the full sample code or PDFNet API Reference, you can simply download PDFNet SDK for your development platform from: <http://www.pdftron.com/pdfnet/downloads.html>.

```

// C# sample code (C/C++, JAVA, and VB6 samples are also available).

using System;
using pdftron;
using pdftron.PDF;
using pdftron.PDF.PDFA;

namespace PDFATestCS
{
    class Class1 {
        // Relative path to the folder containing test files.
        static string input_path = "../../../TestFiles/";
        static string output_path = "../../../TestFiles/Output/";

        static void Main(string[] args)
        {
            PDFNet.Initialize();
            PDFNet.SetColorManagement(true); // Required for PDFA validation.

            // Example 1: PDF/A Validation
        }
    }
}
    
```

```

try {
    string filename = "newsletter.pdf";
    PDFACompliance pdf_a = new PDFACompliance(false,
input_path+filename, null, PDFACompliance.Conformance.e_Level1B,
null, 10, false);
    PrintResults(pdf_a, filename);
    pdf_a.Dispose();
}
catch (pdftron.Common.PDFNetException e) {
    Console.WriteLine(e.Message);
}

// Example 2: PDF/A Conversion
try {
    string filename = "fish.pdf";
    PDFACompliance pdf_a = new PDFACompliance(true,
input_path+filename, null, PDFACompliance.Conformance.e_Level1B,
null, 10, false);
    filename = output_path + "pdfa.pdf";
    pdf_a.SaveAs(filename, true);
    pdf_a.Dispose();

    // Re-validate the document after the conversion...
    pdf_a = new PDFACompliance(false, filename, null,
PDFACompliance.Conformance.e_Level1B, null, 10, false);
    PrintResults(pdf_a, filename);
    pdf_a.Dispose();
}
catch (pdftron.Common.PDFNetException e) {
    Console.WriteLine(e.Message);
}
PDFNet.Terminate();
}

static void PrintResults(PDFACompliance pdf_a, String filename) {
    int err_cnt = pdf_a.GetErrorCount();
    if (err_cnt == 0)
        Console.WriteLine("{0}: OK.\n", filename);
    else {
        Console.WriteLine("{0} is NOT a valid PDF/A.", filename);
        for (int i=0; i<err_cnt; ++i) {
            PDFACompliance.ErrorCode c = pdf_a.GetError(i);
            Console.WriteLine(" - e_PDF/A{0}: {1}.",
                c,
                PDFACompliance.GetPDF/AErrorMessage(c));
        }
    }
}
}

```

## 6. Support

### 6.1 Reporting Problems

If you encounter a problem or question regarding PDFTron's PDF/A Manager, which is not addressed on PDFTron's website, please submit a problem report to PDFTron's Support group at <http://www.pdftron.com/support/reportproblem.html>.

When submitting a problem you will be asked to provide the following information:

- Contact details
- Product and Version of the product
- Detailed description of problem
- Problem file(s)
- Whether you have an AMS (Annual Maintenance Subscription)
- Any other information that may be related

### 6.2 Contact Information

To contact PDFTron directly, please use the contact information below:

Tel: 1-604-730-8989

Fax: 1-604-676-2477

Web site: [www.pdftron.com](http://www.pdftron.com)

Email Contacts:

General Business Inquiries: [info@pdftron.com](mailto:info@pdftron.com)

Sales & Licensing: [sales@pdftron.com](mailto:sales@pdftron.com)

Product Support: [support@pdftron.com](mailto:support@pdftron.com)

Professional Services: [services@pdftron.com](mailto:services@pdftron.com)

Website related questions: [webmaster@pdftron.com](mailto:webmaster@pdftron.com)

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