

How to Use This Sample Viewer

Note: This sample is a very basic viewer. Please try out the CompleteReader sample for a demonstration of a full featured viewer created with the SDK.

(You can fully customize the following UI interface in Tools library, except for basic viewing.)

Basic Viewing:

- Scroll to pan pages.
- Pinch or double tap to zoom.
- Pan or fling to turn pages under non-continuous page mode.
- Touch the client region to show the current page number.

Text Search and Selection:

- Single tap the top quarter of the client region to bring up the text search tool bar. Long press the text input widget to modify search options. Tap outside the tool bar to close it.
- Long press on text to select a word and move select widgets to change selection.

Page Navigation:

- Single tap the bottom quarter of the client region to bring up the page navigation tool bar, which also shows the file name. Tap outside the tool bar to close it.

Annotation Editing: (annotations available on page 2)

- Long press in an empty area to bring up a quick menu for annotation creation.
- Single tap or long press an annotation to select an annotation for editing.
- Single click or long press (and release) a link annotation to navigate.




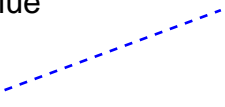

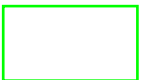
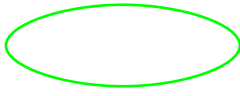



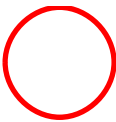



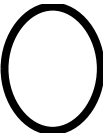
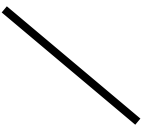




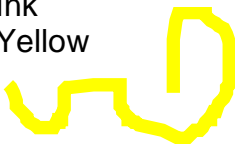
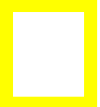
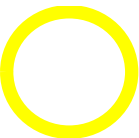
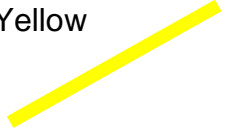





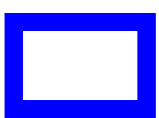
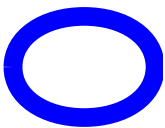
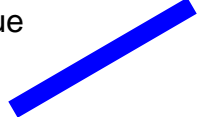




Form Filling: (forms available on page 3)

- Single tap or long press a form object to fill it. Text field, radio button, check box, list box, combo box are currently supported.

Misc:

- Click the Option Menu for more options, including file opening, file saving, and more.

Ink, Rectangles, Ellipses, Lines

Ink Thin dashed Blue 	Rectangle Thin dashed Blue 	Ellipse Thin dashed Blue 	Line Thin dashed Blue 
Ink Thin solid Green 	Rectangle Thin solid Green 	Ellipse Thin solid Green 	Line Thin solid Green 
Ink Red 	Rectangle Red 	Ellipse Red 	Line Red 
Ink Black 	Rectangle Black 	Ellipse Black 	Line Black 
Ink Cyan 	Rectangle Cyan 	Ellipse Cyan 	Line Cyan 
Ink Yellow 	Rectangle Yellow 	Ellipse Yellow 	Line Yellow 
Ink Magenta 	Rectangle Magenta 	Ellipse Magenta 	Line Magenta 
Ink Blue 	Rectangle Blue 	Ellipse Blue 	Line Blue 
Ink Thick solid Red 	Rectangle Thick solid Red 	Ellipse Thick solid Red 	Line Thick solid Red 

Grant Application

A. Title of Project

B1. Request Number

B2. Request Title

C1. Principal Investigator

C2. Degree(s)

C3. Social Security Number

C4. Position Title

C5. Department

C6. Subdivision

C7. Mailing Address

Address

City

State

Zip Code

C8. Email Address

C9. Phone Number (Area code and number)

C10. Fax Number (Area code and number)

D1. Human Subjects

☐ Yes ☐ No

D2. If Yes, Comp. Number

E1. Vertebrate Animals

☐ Yes ☐ No

E2. If Yes, Assurance Number

F. Support Period (MM/DD/YY)

From

Through

G. Initial Budget Costs

Direct Costs

Total Costs

H. Support Period Costs

Direct Costs

Total Costs

I. Applicant Organization

Address

City

State

Zip Code

J. Type of Organization

☐ Public

☐ Private

☐ Forprofit

J. Organization Code

K. Identification Number

L. District

M. Legal Statement

The legal statement goes here.

Principal Investigator

Any reference to company names and company logos in the sample forms included in this software is for demonstration purposes only and is not intended to refer to any actual organization.



PDFTron PDF2XPS™ User Manual

Version 1.x

PDFtron PDF2XPS™ Command-Line Application User Manual
Part number: PDFTRON-1-PDF2XPSCMD
Last Updated: February 15, 2010

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1. Introduction

1.1 An Introduction to PDFTron PDF2XPS

PDFTron's PDF2XPS is an easy-to-use, multi-platform software that provides users with a high-quality and efficient way to convert PDF to XPS or OpenXPS documents.

PDF2XPS enables high-quality conversion from PDF to XPS that maintains the original document quality and preserves hyperlinks, colors and fonts. The resulting self-contained and compact XPS file can be distributed, viewed, edited, archived, printed, and published. The conversion also offers a wide range of options to control the output file size and image quality.

Like other PDFTron products, PDF2XPS does not rely on any third party components. The technology is suitable for use in high-throughput server environments and is also available as a component for integration with third party applications.

1.1.1 Key Functions

- Fast, high-quality conversion from PDF (Portable Document Format) to XPS (XML Paper Specification) or OpenXPS that maintains the original document quality and layout and preserves hyperlinks, colors and fonts.
 - Font support: Type1, TrueType, Type3 and Type0/CID Fonts, font subsetting on all supported PDF font types.
 - Color: ICC, DeviceN, Separation, RGB, CMYK, Indexed, etc.
 - Support for encrypted PDF documents (40 and 128 bit RC4, 128 bit AES, Crypt filters).
 - Support for all kinds of patterns, functions, and compression schemes.
 - Support for all annotation types.
 - Support for soft, explicit, and color-key masks.
 - The conversion preserves image and data compression resulting in small and efficient XPS documents while fully maintaining the original image quality.
- The conversion process preserves the original document's meta-data as well as other non-graphical information such as bookmarks, logical structure, and articles to produce XPS documents that directly map to their PDF equivalents.
- Forms, annotations and other PDF structures without XPS equivalents can be optionally exported as private namespace XML elements for further manipulation and processing by XPS consumers.
- Thumbnail generation option for fast navigation through multi-page documents.
- Automatic repair of broken PDF documents.
- Support for all versions of the PDF Language Standard, including Acrobat 9 documents as well as ISO PDF (ISO 32000).
- Batch conversion.
- Wild card and subfolder processing.
- 100% conversion accuracy. Features in the PDF specification that don't have XPS equivalents (such as Coons and Tensor Product shadings) can be selectively rasterized to render the exact replica of the original document.
- Available as a command-line utility, as a .NET component, and as a C/C++/Java library on various platforms (including Windows, Mac OS X, and Linux)

1.1.2 Common Use Case Scenarios

- Developers may want to use PDF2XPS to quickly add XPS support to any application or workflow that currently supports PDF.
- Server-based, on-demand conversion of PDF documents to XPS files.
- Batch processing of large PDF collections with the same conversion options.
- Extending existing applications to take advantage of the new XPS Print API and XPS print path available in Windows 7 and Vista.

1.1.3 Operating Systems Supported

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

1.1.4 System Requirements

- At least 10 MB of free disk space.
- Memory requirement is dependent on source document being converted.

1.2 PDF To XPS SDK (Software Development Kit)

For developers who are looking for a software development component to integrate into their applications, PDFTron offers a PDF to XPS conversion API as part of PDFNet SDK.

PDFNet SDK is a 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 (i.e. Windows, Linux, Mac OS X, Solaris, etc).

For more details, please visit PDFTron's website at <http://www.pdftron.com> or contact a PDFTron representative via info@pdftron.com.

1.3 About This Manual

This manual is intended as a guide to the installation and use of PDF2XPS Command Line Utility. It is intended for users who are familiar with PDF and XPS documents, graphic image file creation, graphic file manipulation and general computer processes.

- [Section 1](#) introduces PDF2XPS and describes the manual.
- [Section 2](#) explains how to install and uninstall PDF2XPS.
- [Section 3](#) covers basic use of PDF2XPS.
- [Section 4](#) covers general PDF2XPS related questions
- [Section 5](#) 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 PDF2XPS

2.1 PDF2XPS Installation

PDF2XPS Command-line Application is supplied as a download from a distributor or directly from www.pdftron.com. The release is packaged as a .zip file (PDF2XPS.zip). To install the software, simply unzip the archive in the desired location and make sure to preserve the directory/folder structure during this process. To register the software, copy the license file provided to you into the "PDF2XPS" folder.

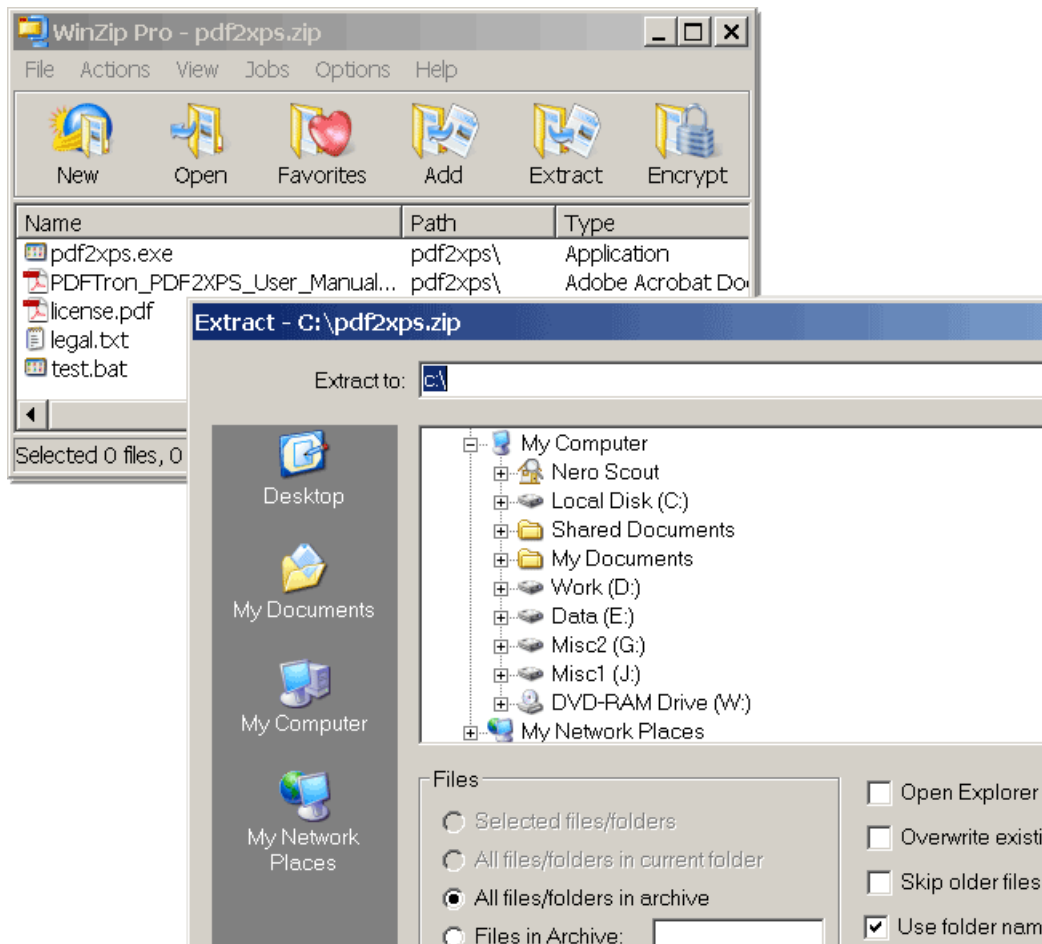


Figure 2.1 – Extracting PDF2XPS Archive using WinZip

2.2 Demo Version Installation

If you wish to evaluate the product, you can download the demo version of the product without any serial number or license key.

To do this, go to PDFTron's **Downloads** page at www.pdftron.com/downloads.html. Click on the appropriate product name/version. This will bring you to the link to the page to download the demo. Download the zip file (PDF2XPS.zip) and extract the archive in the desired location, while making sure to preserve the directory (folder) structure when extracting the archive. Download the zip file *pdf2xps.zip*. Extract the archive in the desired location (making sure to preserve the folder structure). This will provide you a working copy of the application along with various examples. The limitation of the evaluation version is that all output pages will have demo stamp.

2.3 Uninstalling PDF2XPS

To remove PDF2XPS from your computer, simply delete the “pdf2xps” folder.

3. Overview

PDFTron PDF2XPS is a command-line application designed to convert PDF documents to XPS files while presenting several options to control resolution and quality. This section covers the basic usage of PDF2XPS explaining all of the available options.

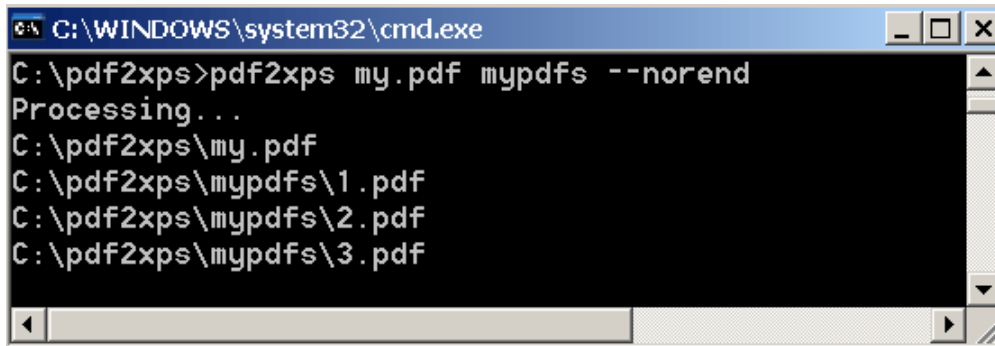


Figure 3.0 PDF2XPS Command-line Application.

3.1 Basic Syntax

The basic command-line syntax is:

```
pdf2xps [options] file1 file2 folder1 file3 ...
```

3.2 Command-Line Summary

The following is a list of available command-line options for PDF2XPS:

Option	Parameter	Description
-o or --output	-o myfolder -o c:\myfolder	The output folder used to store converted files. The default output folder is the current working folder.
--subfolders		Process all sub-directories for every directory specified in the argument list. By default, sub-directories are not processed.
--prefix	--prefix myprefix	The prefix for the output file. The output filename will be constructed by concatenating the prefix string and the appropriate extension (e.g. myprefix.xps or myprefix oxps). The prefix option should be used only for conversion of individual documents. By default, each input filename will be used as a prefix.
--openxps		Specifies the output format to be Open XPS rather than XPS.
-a or --pages	Convert page 1, 3, and 10: -a 1,3,10 Convert all even pages: -a even Convert pages in the range from 3-11 and page 50: --pages 3-11,50 Convert all odd pages and all pages in the range from 100 to the last page: -a odd,100-	Specifies the list of pages to convert. By default, all pages are converted.
--extension	--extension ".pdf"	The default file extension used to process PDF documents. The default is ".pdf".
-h or --help		Print a listing of available options.
-v or --version		Print the version information.
-d or --dpi	-d 300	The output resolution, from 1 to 1000, in Dots Per Inch (DPI) for rendering elements which cannot be directly converted to XPS. The higher the DPI, the larger the image. The default resolution is 92 DPI. Examples of PDF features without direct XPS equivalent include Coons and Tensor Product shadings, certain blend modes and some types of transparency groups. To achieve 100% conversion accuracy, PDF2XPS can selectively rasterize individual objects or the entire page. Users can disable rasterization of the entire page using the '--norender' option.

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The '--subfolders' option can be used to recursively process all subfolders. For example, the following line will convert all documents in 'myfolder1' and 'myfolder2' as well as all subfolders:

```
pdf2xps --subfolders myfolder1 myfolder2
```

By default, PDF2XPS will convert all files with the extension '.pdf'. To select different files based on the extension use the '--extension' parameter. For example, to convert all PDF documents with a custom extension '.blob', you could use the following line:

```
pdf2xps --extension .blob --subfolders myfolder1
```

The use of wild characters is also allowed. For example, to convert all PDF files starting with 'x' in the current folder use:

```
pdf2xps x*.pdf
```

3.3.5 How do I convert to OpenXPS?

By default, PDF2XPS will convert PDF files to the XPS format. You can specify the output format to be OpenXPS using the --openxps option. The following command-line would generate the OpenXPS File 1.xps:

```
pdf2xps --openxps 1.pdf
```

3.3.6 How do I convert a password protected PDF?

PDF2XPS will, without user intervention, convert documents secured with a master/owner password. If the document is secured using a user (or 'file open') password, PDF2XPS 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:

```
pdf2xps -p secret secured.pdf
```

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

Note: PDF2XPS supports all standard security options available in PDF, including 40 and 128 bit RC4 encryption, Crypt filters, and AES (Advanced Encryption Standard) encryption.

3.3.7 What quality can I expect from the output document?

Since PDF2XPS always attempts to maintain the original document appearance, the vast majority of output files will successfully preserve the appearance and quality of the original PDF documents. Occasionally, there will be PDF elements that have no equivalent in XPS. In these cases PDF2XPS will by default render the necessary elements at 92 dpi or at the resolution given by the --dpi parameter. For example:

```
pdf2xps --dpi 200 doc.pdf
```

would render those elements at 200 dots per inch.

This option will preserve resolution independent properties of input PDF documents (including fonts, paths, and shadings) as well as text selection and extraction capability in XPS processing software.

3.4 General Usage Examples

Example 1. The simplest command line: Convert PDF to XPS.

Notes:

- Converts 'my.pdf' to 'my.xps' located in the current working folder.

```
pdf2xps my.pdf
```

Example 2. Convert PDF to Open XPS.

Notes:

- The '-o' (or --output) parameter is used to specify the output folder. If this option was not specified, all images would be stored in the current working folder.
- The --openxps parameter specifies that the output should be an Open XPS file.
- The '--verb' option instructs PDF2XPS to output more feedback in the console window.

```
pdf2xps --openxps --verb 2 -o ex1 my.pdf
```

Example 3. Preserve maximum editability of source PDF document.

Notes:

- The --norender parameter is used to prevent selective rasterization of PDF pages that may not accurately map to XPS due to use of specific blend modes or other PDF features without a direct XPS equivalent. Individual graphical elements on the page (such as certain types of shadings may still be rasterized).
- The '-p' (or --pass) parameter is used to specify the password (i.e. 'my pass') required to open the encrypted document.

```
pdf2xps --norender -o --pass "my pass" outdir my.pdf
```

Example 4. Batch convert PDF to XPS.

Notes:

- The -a (or '--pages') option instructs PDF2XPS to convert only the first two pages in all PDF documents stored under 'dir1' and 'dir2' folders.
- The '--subfolders' option is used to recursively process all PDF documents stored in subfolders of dir1 and dir2.

```
pdf2xps -a 1-2 --subfolders dir1 dir2
```


To provide additional feedback, PDF2XPS returns exit codes after completing processing. The exit codes can be used to provide user feedback, for logging etc. This is particularly important for applications running in an unattended environment.

Exit Code	Description
0	All files converted successfully.
1	Unspecified error.
2	Document is secured. Need a valid password to open the document.
3	Bad license key
4	Failed to create the output directory
5	Bad input filename or path

The following illustrates a sample Windows batch script that processes exit codes:

4. Frequently Asked Questions

4.1 General FAQ

4.1.1 What is XPS?

"XPS" stands for "XML Paper Specification" and is a new document format as well as the native print spooler format in Microsoft®'s Windows Vista® and Windows® 7. The XPS document format consists of XML markup that defines the layout of a document and the visual appearance of each page along with rendering rules for distributing, archiving, rendering, processing and printing the documents. Just like PDF, the XPS document format enables users to view, print, and archive any type of documents without the original program that created them and without loss of fidelity.

To find out more about XPS, please visit Microsoft®'s website at:

<http://www.microsoft.com/whdc/xps/default.mspx>

4.1.2 Is PDF2XPS available as an SDK for integration with third party applications?

For developers who are looking for a software development component to integrate into their applications, PDFTron offers a PDF to XPS conversion API as part of PDFNet SDK.

PDFNet SDK is a 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 (i.e. Windows, Linux, Mac OS X, Solaris, etc).

For more details, please visit PDFTron's website at <http://www.pdftron.com> or contact a PDFTron representative via info@pdftron.com.

4.1.3 Does PDF2XPS have any dependencies on third party components/software?

PDF2XPS is a completely stand alone application and does not include any dependencies on third-party components or software.

4.2 Common Troubleshooting Issues

4.2.1 Why is a white space separating neighboring pictures?

In some cases, XPS viewers that support anti-aliased rendering produce line/space artifacts at neighboring picture elements (e.g. for image tiles or polygons sharing common edges). These artifacts are not a byproduct of PDF2XPS conversion, but are produced due to anti-aliased rendering in the XPS viewer. The same issue applies to the input PDF document however the current PDF viewers are typically better at handling this type of issues. The aliasing artifacts should not be visible during printing or high-resolution output.

4.2.2 Why are some pages rasterized?

Occasionally, there will be PDF elements that have no equivalent in XPS. In these cases PDF2XPS will by default render the necessary elements at 92 dpi or at the resolution given by the '—dpi' parameter. In other select cases, to generate the exact appearance of the original PDF document, an entire page may need to be rendered. In these cases rendering can be disabled using the '--norender' option. Disabling rendering will preserve resolution independent properties of input PDF documents (including fonts, paths, and shadings) as well as text selection and extraction capability in XPS processing software.

4.2.3 Why are some fonts in PDF not rendered consistently?

PDF format, unlike XPS, does not require mandatory font embedding. As a result PDF consumers, such as PDF2XPS and your favorite PDF viewer, need to find substitute fonts for missing fonts on the client system. Unfortunately, this means that there is no guarantee that file will render accurately on different systems or even in different PDF viewers. Default font substitution can be overridden using PDFNet SDK which offers additional options that are not available in the PDF2XPS Command-Line Utility. To avoid font substitution errors, simply make sure to create PDF documents with all fonts embedded.

5. Support

5.1 Reporting Problems

If you encounter a problem or question regarding PDFTron PDF2XPS, which is not addressed on PDFTron's website, please submit a problem report to PDFTron's Support group at <http://www.pdftron.com/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

5.2 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

Email Contacts:

General Business Inquiries: info@pdftron.com

Sales & Licensing: sales@pdftron.com

Product Support: support@pdftron.com

Professional Services: services@pdftron.com

Website related questions: webmaster@pdftron.com

Press & News: press@pdftron.com