

PDF-XChange Viewer, a further review

By Micheline Johnson

Last updated 2016-02-01. 2900 words.

PDF-XChange Viewer (PDFXCV) has already been reviewed by Alan German. This review looks at PDFXCV from a somewhat different viewpoint.

Browsers as PDF Viewers

Chrome, IE and Firefox have PDF viewers built-in, so they can view, save and print online PDFs. Firefox v19 ([2013-02-20](#)), for example, uses PDF.js, a JavaScript library that converts PDF files into HTML5.

Chrome and IE can even open off-line PDFs if you enter the full path and filename in the URL field, but this is not easy to do since there is no Open option in the Chrome “hamburger” menu, or the IE (v11) “gear” menu. I have not tested Firefox for this feature.

If you want more than view, save and print, then you probably need a stand-alone PDF viewer app.

What you need in a PDF viewer

1. The first priority in a PDF viewer is good security, updating and support. A history of few or zero vulnerabilities is desirable.
2. Minimal Bloat. Over the years, Adobe Reader has become bloated, slow and security prone. Foxit Reader is also becoming bloated.
3. Being able to view, save and print a PDF, is a basic requirement.
4. It is useful to be able to search an image PDF and extract textual content from it. Originally PDFs were generated from text documents, and were therefore searchable. Today, many if not most PDFs are just a collection of images, particularly those generated from copiers or scanners, and are therefore not searchable. Image based PDFs can be made searchable by means of built-in OCR.
5. Import and Export of images to/from the PDF is useful. In particular, it is useful to be able to export original size images from the PDF that are of higher resolution than can be obtained from screen capture. Adding stamps and importing graphical signature blocks is another useful feature.
6. Annotation, high-lighting and drawing tools are useful. Just saving a PDF is fine, but years later, there is no record of from where the PDF originated. Being able to annotate the source URL at the top of the document before saving, is a useful feature. Being able to highlight the section or feature that interested you when first downloading the PDF is also useful.
7. Extensive adjustable default settings is a desirable feature.

What you get in Tracker PDF-XChange Viewer (PDFXCV)

Overview

Tracker Software was incorporated in 1997 in the UK. They have offices in Canada and the UK, with additional development offices in the USA and Ukraine. Their corporate headquarters relocated to Vancouver Island in 2008. PDFXCV is described in detail at <http://www.tracker-software.com/product/pdf-xchange-viewer>. Its [version history](#) indicates that it was first released in 2007 and the latest update version 2.5.0312.1 was released 2015-02-09. A newer product, [PDF-XChange Editor](#), has more powerful PDF editing features, but this product is not free.

The [product page](#) of the free version of PDFXCV lists some 34 features, with 13 more features in the licensed version. Due to space limitations of this review, I will only focus on a few of these features.

PDFXCV free downloads are available from the Download Now box at the top-right of <http://www.tracker-software.com/product/pdf-xchange-viewer>, including

- ZIP installer (32/64 bit), 17 MB (includes EXE installer, plus XML file for the Shell Extension for viewing thumbnails in Windows Explorer.)
- Viewer Manual (PDF), 7 MB
- EXE installer (32/64 bit), 17 MB
- Portable version (ZIP), 8 MB
- and more

1. Viewer security, updating and support.

PDFXCV stops the execution of nefarious scripts from Virus's/trojans etc. with a feature called **Data Execution Prevention** (DEP). Installation of PDFXCV also installs Tracker Updater, pinned to the Start menu.

In the PDF security section of the **Secunia 2015 Vulnerability Review**, <http://secunia.com/resources/vulnerability-review/pdf-security/>, subtitled: “A look at vulnerabilities in the 5 most popular PDF readers - Adobe Reader, Foxit Reader, PDFXChange Viewer, Sumatra PDF and Nitro PDF Reader,” Secunia noted that

There were 43 known vulnerabilities in Adobe Reader, and that 32% of users left these unpatched.

There was 1 vulnerability in Foxit Reader.

There were no vulnerabilities in each of PDFXChange Viewer, Nitro PDF Reader and SumatraPDF.

The 209pp manual is available from the Download Now box or directly from <http://www.tracker-software.com/PDFVManual.pdf>.

There is an online manual at <http://help.tracker-software.com/EUM/default.aspx>.

There are support forums at <http://www.tracker-software.com/forum3/>.

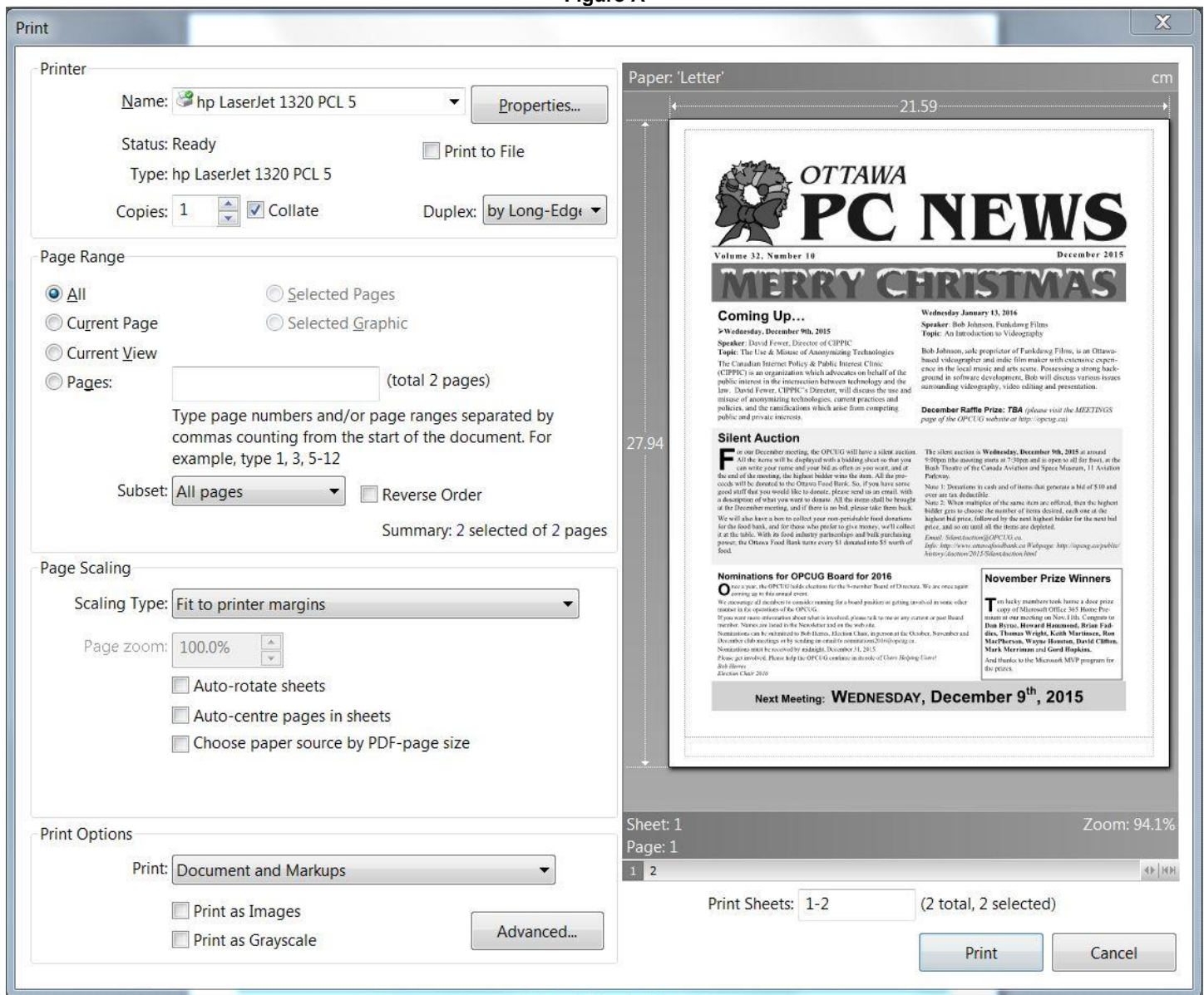
2. Minimal PDF Viewer Bloat

Adobe Reader download (v 2015.010.20056) is currently 81.57 MB. Foxit Reader download (v7.2.8.1124) is 38.2 MB. Tracker PDF-XChange Viewer download (v2.5.313.1) is 17.2 MB. Installed sizes of each are correspondingly larger.

3. View, Save and Print

The OPCUG December 2015 Newsletter (News1512.pdf) displayed perfectly on PDFXCV, is easy to save, and it printed perfectly on both colour and monochrome laser printers. Figure A shows the Print Dialog.

Figure A



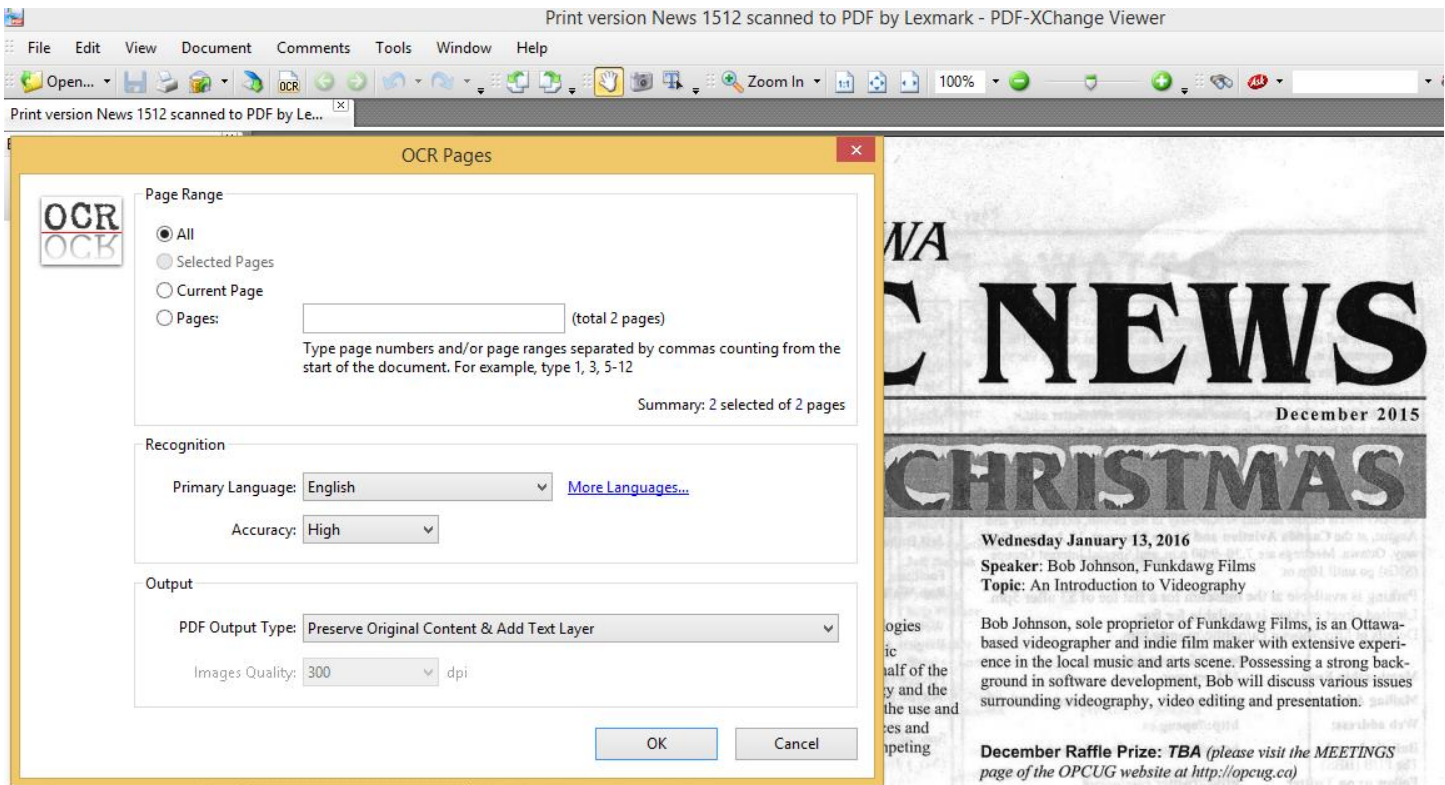
4. Searchability of both text and image PDFs

An [iFilter](#) is a plugin that allows Microsoft's search engines to index various file formats (as documents, email attachments, database records, audio metadata etc.) so that they become searchable. Without an appropriate iFilter, contents of a file cannot be parsed and indexed by the search engine. iFilters are included in products such as Adobe Reader, PDFXCV, LibreOffice, Microsoft Office and OpenOffice. Tracker Software claim that their super-fast iFilter, (supplied **FREE** with all PDF-XChange Viewer installs) extracts and searches text from pages, document info (title, authors, subject etc.), comments, and bookmarks etc - faster than any competing iFilter product available!

PDFXCV has another great searchability feature, that which adds a text layer to an image PDF, by means of built-in OCR code, allowing an image based PDF to be searched, and the text to be extracted. Figure B shows the OCR dialogue, allowing you to

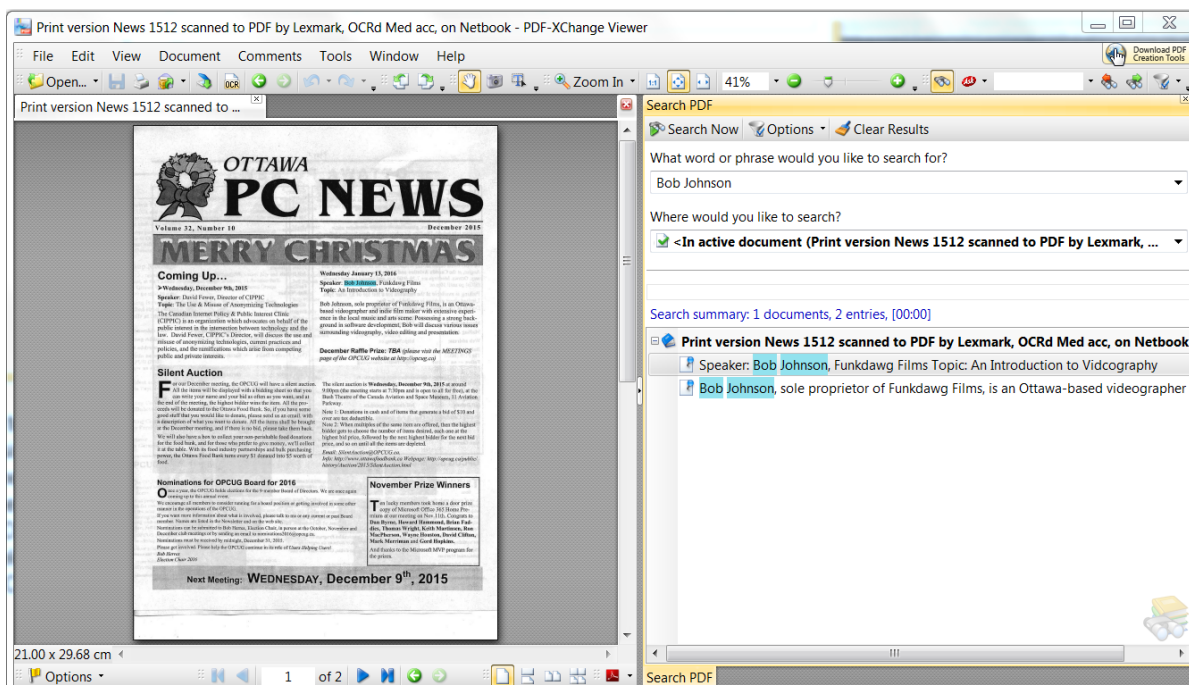
- Select which pages of the open image PDF to OCR.
- Indicate what the primary language is. Built-in languages are English, French, German and Spanish. Other languages can be downloaded¹.
- Choose the OCR accuracy (low, medium, high).
- Choose output type:
Preserve Original Content & Add Text Layer, or
Convert Page Content to Image only – Add Text as Layer.

Figure B



A test document was made by scanning to PDF the print version of the December 2015 issue of the OPCUG newsletter (News1512), using a Lexmark Genesis S815 scanner, thus producing an image PDF. This test document was then OCR'd with PDFXCv on two computers: a cheap Celeron N2805 based Netbook running Windows 8.1, and a 1st generation Core i-7 desktop running Windows 7, each at low, medium and high recognition accuracy. After OCRing this test image PDF, text became selectable and searchable. Search had no problem finding key words such as "Bob Johnson", see Figure C.

Figure C



PDFXCv took 100s, 85s and 153s on Low, Medium and High Accuracy settings respectively to OCR this test PDF on the Netbook. It took 30s, 22s and 40s on Low, Medium and High Accuracy settings respectively to OCR this test PDF on the Desktop. It seems that Medium Accuracy has been optimized in that this setting was faster than that for Low Accuracy, on both the netbook and on the i-7 desktop.

Extracted text included typical OCR errors, but in spite of this, accuracy is sufficient for search to work in nearly all instances. To get a measure of the accuracy of the OCR engine, I selected all the text on page 1 of the OCR'd test PDF, copied and pasted it into Word (which shows suspect words underlined in red), and counted the suspect words. I counted 115, 20 and 60 OCR errors respectively for Low, Medium and High Accuracy settings, out of a total of about 700 words. Again, the performance of Medium Accuracy is better than that of High Accuracy, which suggests that more work on improving the Medium Accuracy setting has been done than on the other two accuracy settings. It is therefore recommended that you use the Medium Accuracy setting.

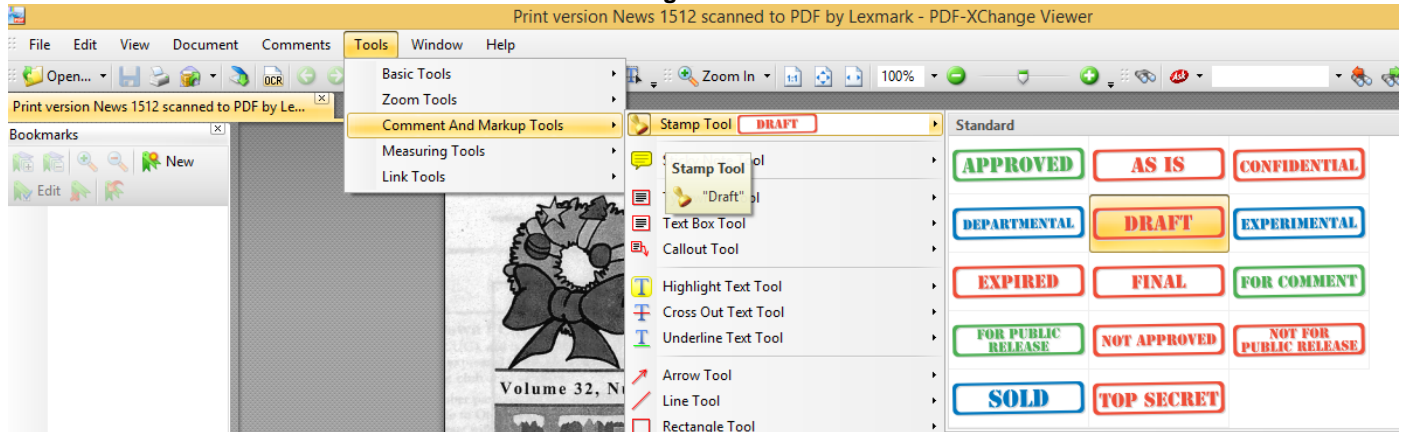
5. Import and Export of Images

Import

PDFXCVC can import into the active PDF certain graphical images such as APPROVED, CONFIDENTIAL, DRAFT, EXPIRED, FINAL, FOR COMMENT, NOT APPROVED, NOT FOR PUBLIC RELEASE, SOLD, TOP SECRET etc, which are built in. Additional images such as signature blocks, can be imported and applied. These images, known as stamps, can be added to the currently active PDF by going to

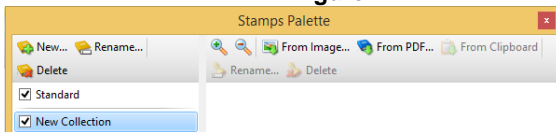
Tools drop down menu | Comment and Markup Tools | Stamp Tool
see Figure D below and manual p140.

Figure D



New stamps (such as your signature block) and new palettes can be added by going to
Tools drop down menu | Comment and Markup Tools | Show Stamps Palette | New
See Figure E below.

Figure E



The manual warns you that should you stamp your signature block onto a PDF, "we strongly recommend you use the 'Flatten Comments' option to ensure your signature is not easily interfered with in the final PDF once distributed."

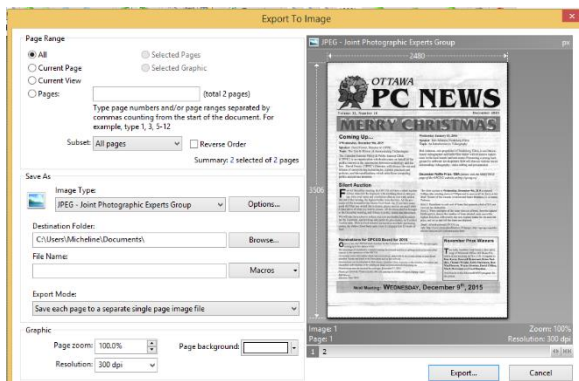
Export

PDFXCVC includes its own screen capture tool (as does Windows), see Snapshot Tool icon on the top toolbar. But a screen capture image is limited in resolution to that of your monitor. For example, when using the Windows snipping tool to capture page 40 of the manual, the image size was 666x954 pixels (93 kB). When p40 was exported using PDFXCVC Export to Image, at 300 dpi, the image size was 2480x3508 pixels (601 kB).

Thus if you want higher resolution, you can export the original image(s) of any or all pages in the PDF to almost any image format, by going to

File | Export | Export to Image
The Export to Image dialog is shown in Figure F below.

Figure F



Images from any or all of the PDF pages can be selected to be exported. The choice of image types these images are to be saved as, can be selected from BMP, PNG, GIF, PBM, PGM, PPM, JBIG2, JPEG2000, JPEG, WBMP, JNG, PCX, DCX, TGA, TIFF. Image resolution can be chosen from 72, 96, 100, 150, 300, 400, 600, 1200, and 2400 dpi.

6. Annotation, high-lighting and drawing tools

The Tools dropdown menu offers you:

- Basic Tools (Hand tool, Select tool and Snapshot tool),
- Zoom Tools (Zoom in and out, Magnifying Loop, and Pan and Zoom tools)
- Comment and Markup Tools,
- Measuring Tools (Distance, Perimeter and Area), and
- Link Tools (rectangle and quadrilateral)

Similar tools are available in Adobe Reader X and up².

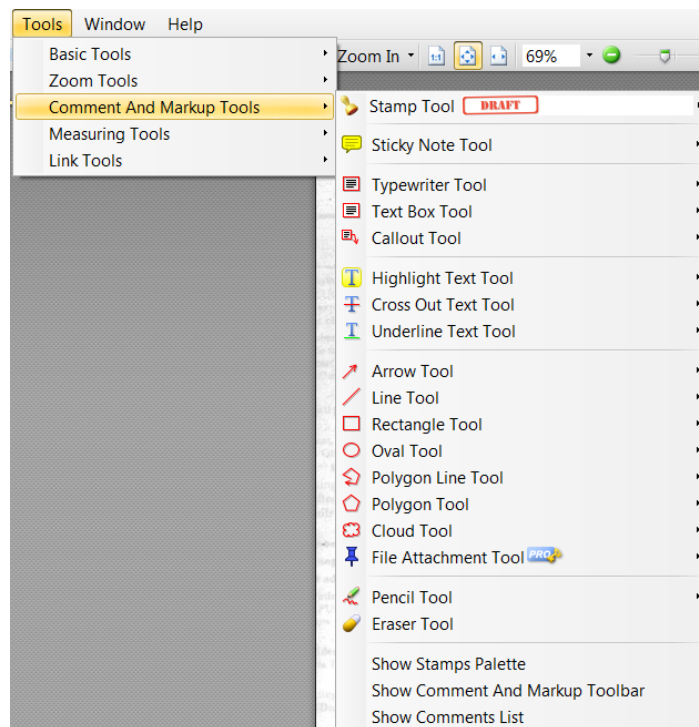
The Comment and Markup tools available in PDFXCV, see Figure G, include:

Stamp, Sticky Note, Typewriter, Text Box, Call Out, Highlight Text, Cross Out Text and Underline tools. There are a number of drawing tools (Arrow, Line, Rectangle, Oval, Polygon, Cloud and File Attachment).

The same menu gives access to:

- Show Stamps Palette
- Show Comments and Markup toolbar
- Show Comments List

Figure G



There is a Comment and Markup Toolbar (right-click on any toolbar and enable Comment and Markup Toolbar) shown below, which is useful when you are editing the PDF in this way.



In addition, you can toggle on or off a formatting toolbar by pressing Ctrl+E. This formatting toolbar will change depending on which Comment and Markup tool has been selected.

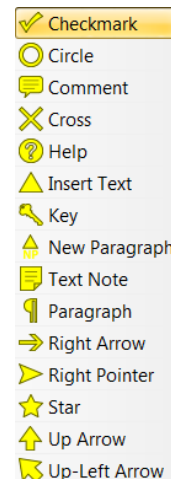
Sticky Note

Click on Sticky Note icon on the Comment and Markup Toolbar and press Ctrl+E to open the Sticky Note format tool.



The format tool allows you choose fill colour, note icon (see right), and opacity.

Click on the PDF text where you want the Sticky Note icon to appear. A box opens outside the PDF display where you can type your comment.



Text

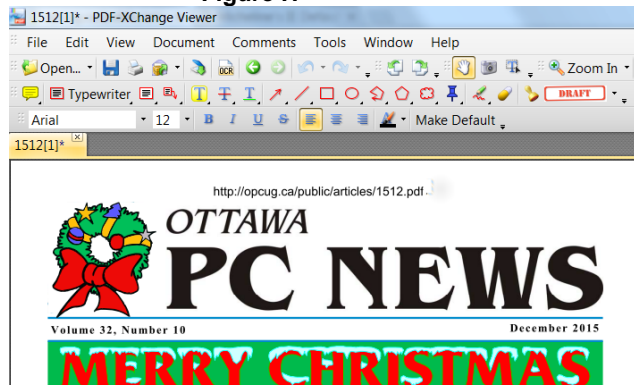
You can write or paste text anywhere in your displayed PDF by clicking on the Typewriter icon on the Comment and Markup Toolbar. Click on the screen where you want the text to start. The formatting toolbar



allows you to set the Font Type, Font Size, Font Colour etc. Make your choice and click the Make Default button to make your selection the default. To remove this toolbar, toggle it off with Ctrl+E.

For example, open News 1512 from the web into PDFXCV, then using the Typewriter Tool, paste the URL at the top of the PDF, as shown in Figure H. Save the modified PDF. Fig H shows the Comment and Markup Toolbar and the Formatting Toolbar both enabled.

Figure H



Text in a box

You can write or paste text in a box anywhere in your displayed PDF by clicking on the Text Box icon on the Comment and Markup Toolbar. To format the box, press Ctrl+E:



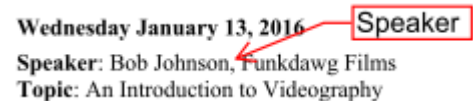
The icons in this box format tool are (left to right) fill colour, border colour, border style, border line thickness in points, opacity and blend mode (see manual p.138), respectively. To form the box, click where you want the box to appear, and drag to adjust the box size. Click in the box to enter the text.

Callout Tool

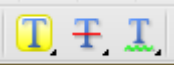
You can write or paste text in a callout box anywhere in your displayed PDF by clicking on the Callout icon on the Comment and Markup Toolbar. To format the text in the box, press Ctrl+E:



Move the cursor to where you want the point of the arrow to appear and drag the cursor to where you want the text box to appear. Enter your callout text and adjust the size of the box.



Highlight, Cross-out and Underline Tools



The icons on the Comment and Markup Toolbar allow you to highlight, cross-out or underline selected text. Ctrl+E opens a formatting bar, which allows you to select the colour and opacity of the highlight, cross-out and underline tools respectively. The underline format bar also includes an underline style icon (straight or squiggly line). The underline thickness is so thin that it is barely visible. The format bar should have included a line thickness (pts) icon.

Drawing Tools

The Comment and Markup Toolbar includes a multiplicity of Drawing tools (see right). These include Arrow, Line, Rectangle, Oval, Polygon Line, Polygon, and Cloud Tools respectively.



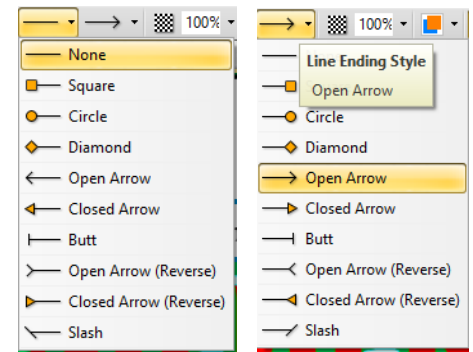
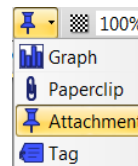
The Arrow tool is very versatile. Its format bar (Ctrl+E)



includes control of Fill colour, Arrow colour, Border style, Border width, Start style, End style, Opacity and Blend. The arrow start and end options are shown to the right. Click on the PDF where you want the arrow to start, and drag to the end point, which can be in any direction. With these options, you can choose to have the arrow at the start of the line, or at the end of the line, or both.

The Line tool has the same Start and End style options as for the Arrow tool (see right). The Rectangle, Oval, Polygon Line, Polygon tools Border style includes the cloud style.

The Attachment tool format bar offers a choice of attachment icon, see right. When you click on the PDF, it opens file explorer and lets you select the file to be attached. It then warns you that "This is a feature of PDF-XChange Viewer PRO. You may use it in the FREE version, but it will result in DEMO(!) labels on your PDF pages if you save the file."



The Pencil tool allows you freehand drawing on your PDF.

The Eraser tool erases only those parts that were drawn by the Pencil tool. Its Format toolbar allows eraser diameters from 5 pt to 100 pt. (spaced by multiples of two, ie 5, 10, 20, 50 and 100 pts).

The Stamp tool has already been covered under the heading Import and Export of Images, above.

7. Default Settings

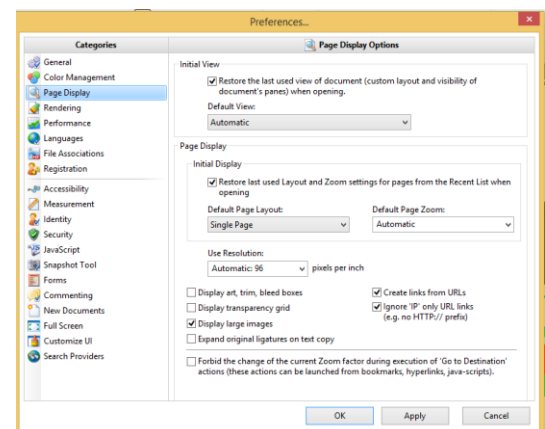
Default Settings are found at

Edit | Preferences

There are 20 preferences to choose from: General, Colour Management, Page Display, Rendering, Performance, Languages, File Associations, Registration, Accessibility, Measurement, Identity, Security, JavaScript, Snapshot Tool, Forms, Commenting, New Documents, Full screen, Customize UI, Search Providers.

An example of default Settings is shown in Figure I which is set to show the initial page display settings. By default, Initial View and Page Display are both set to "Restore last used Layout and Zoom settings for pages from the Recent

Figure I



List when opening.” This can be defeated by disabling these two settings. The opening page size will then be that set under Default Page Layout, which here is set to Single Page.

8. Windows Shell Extension

PDF-XChange Viewer now includes a Windows shell extension to display thumbnails of PDF files in Windows Explorer. When using thumbnail mode view in Windows Explorer, thumbnails of the first page in a document are shown instead of standard PDF document icons when the folder is set to view small, medium, large, or extra-large icons. In small and medium icon mode, these thumbnails are very low resolution. In large and extra-large icon modes, these thumbnails appear as shown at the right. The download file contains two installation files – one for the viewer itself and one for the Shell Extension for viewing thumbnails in Windows Explorer. Installation of this extension is optional, but you might miss it if you don't know it is there.



References

- [1] **PDF-XChange Viewer/Editor OCR Language Extensions**, Last update: Jan 21, 2016, <http://www.tracker-software.com/pdf-xchange-viewer-ocr>, PDF-XChange Viewer/Editor OCR Language Extensions can be used to add support for groups of languages or individual language support based on users needs and to reduce the size of required library files.
- [2] **How to Add Comments to a PDF with Acrobat Reader**, by Elizabeth Mott, Demand Media, no date, <http://smallbusiness.chron.com/add-comments-pdf-acrobat-reader-55336.html> Mott lists support in Adobe Reader X and up for: The Sticky Note and Highlight tools from the Annotations panel; and the Text Box, Text Callout, Line, Arrow, Oval or Rectangle, Cloud, Polygon, Polygon Line and Pencil tools from the Drawing Markups panel.