

The power of PDF "on the

The combination of Adobe Document Server and Adobe Reader allows users to instantly assemble their own dynamic custom PDFs.

by Bob Connolly

For most readers, the Portable Document Format (PDF) has been a godsend for delivering electronic files to a printer. The printing industry has gradually embraced the "all-in-one-container" file format that alleviated the problems of missing fonts, EPS files, etc. But PDF has also been gradually making inroads into the corporate world, where electronic documents are stored on servers and delivered via intranets, extranets and websites. For the most part, these "server-side" PDF files are downloadable forms for reporting expenses, shipping deliveries, training, and archival information.

Adobe Systems has a wide variety of server-side PDF software that it classifies as Enterprise Solutions. These products are not sold in stores—they can only be purchased directly from Adobe, which has a legion of sales staff whose only purpose is to sell this server-side software to financial institutions, drug companies, federal and local governments, and others with deep pockets.

Although you can learn more about this software on the Adobe website, the information is so general that it almost seems as if it's classified as top secret. No pricing is provided, and you need to fill out a request form to get more details—which are provided by a salesman, either through a telephone call or a personal meeting. So I decided to track down the secrets to this technology which Adobe is keeping so close to the vest.

Twice each year, a convention dedicated to PDF is held, called the PDF Conference. According to its website at www.pdfconference.com, this event is where you can learn just about anything that pertains to PDF, and where for almost a full week, specialists from all over the world gather together to teach their methods of creating and deploying PDF

technologies. It is sponsored by planet-pdf.com, Adobe, and several other vendors which specialize in server-side PDF.

A large portion of the program deals with the implementation of server-side PDF, so I decided to hop on a plane to Los Angeles to attend the November event. But beforehand, I enquired about obtaining a press pass, and after supplying my



At the November, 2003 PDF Conference, held in Los Angeles, California, the focus was on ways to implement new Adobe Acrobat technologies for server-side PDF creation and delivery.

fly"

GX credentials and samples of our company's interactive automotive brochures, the show manager invited me to present a "case study" to the attendees—a how-to session on how our company produced the 2004 Jaguar XJ interactive electronic eBrochure (for those of you who follow my articles, this was described in the July/August 2003 issue of Graphic Exchange).

I was surprised to find that the majority of people who were attending the event had no interest in using PDF for high end printing. It seemed that most print people had decided to attend the Seybold Seminars earlier in the year, whereas the electronic document producers of the world had decided that the PDF Convention was the place to be.

Most of the audience members weren't programmers or developers; the majority appeared to be from government agencies which were trying to figure out the best way to implement an Enterprise PDF server-side system into their corporate work-

flows. I felt a little overwhelmed by the amount of information that was being provided, but it was a good place to meet people who had experience with the possibilities and limitations of server-side PDF, and I met many programmers who made customized Acrobat JavaScript plug-ins. One of them was Leonard Rosenthol, a server-side PDF sage who seemed to know more about PDF than anyone on the planet, including even the engineers at Adobe.

According to Rosenthol, although there are several companies aside from Adobe which produce server-side PDF software, Adobe owns patents on certain functions that allow the free Adobe Reader to become a full-fledged web browser. This is one feature of the PDF standard that I believe will become very important to the Internet of the future; in fact, this was the main reason I was attending the event.

GOOGLE AND PDF

Google, the world's premier search engine, has recently changed the way it provides results for key word searches. Some of you may have noticed that quite a few PDF files now show up in Google searches, and there are also more results ending with .net and .org. I have also noticed that sites which use Flash, cascading menus, and dynamic databases aren't showing up at all.

Google seems to prefer material that's more information-oriented and less commercial. This may be the result of the company's new direction, wherein "ad-

words" and sponsored advertising have become an important component in its forthcoming IPO. Websites that want to sell products or services over the Internet will now need to pay for more referrals, since it seems Google has decided to return the Web back to the time when it was

Adobe owns patents on technologies that allow Adobe Reader to become a full-fledged web browser—an important point for the Internet of the future.

less dynamic, and more HTML link-oriented. Google's advanced search also allows you to obtain results found in PDFs.

But with all these PDF files cluttering up your desktop, there should be a better way to get the information into one concise container.

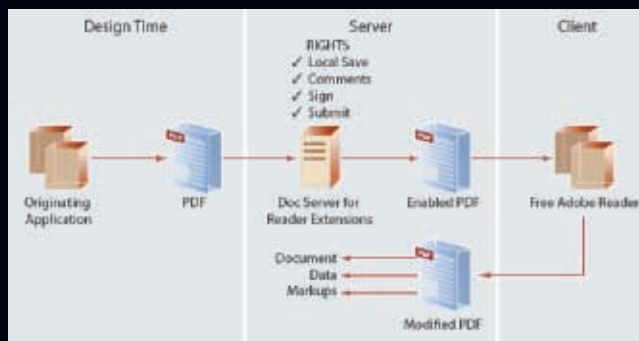
CREATE YOUR OWN CUSTOM PDF 'ON THE FLY'

Server-side PDF creation allows you to assemble your own PDF from a group of PDFs and then add dynamic content to the resulting file. Consider the possibilities for traditional print publications to reformat content from their archives and provide subscription or advertiser-supported electronic magazines (or e-zines) via their websites.

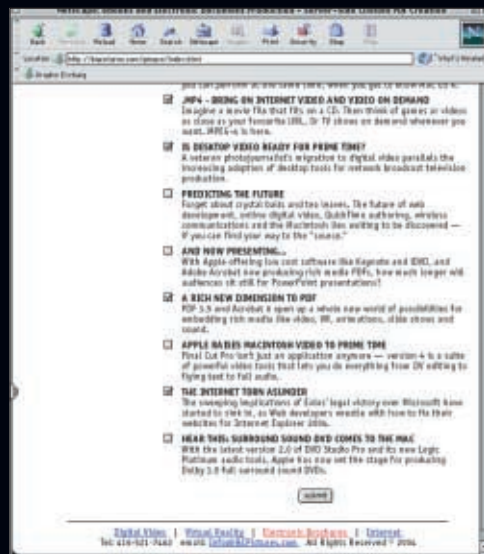
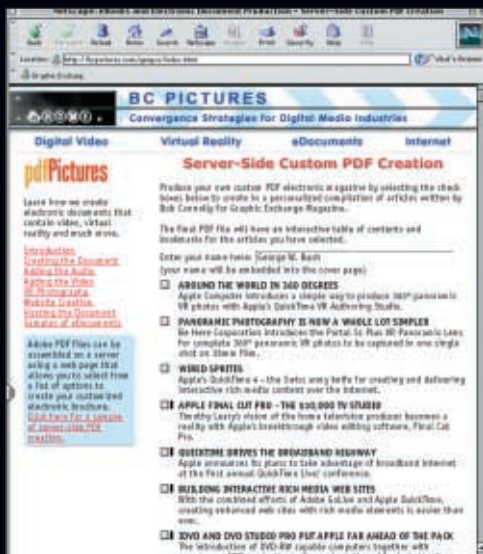
The production process works like this:

First, PDF files are created, using traditional desktop publishing methods, and uploaded to a folder on the server, either locally or through the Internet. These PDFs may be single pages or multiple page files and may contain pictures, links to websites, bookmarks, and embedded rich media such as video, Flash animations or virtual reality.

Then, a web page is created to provide a listing of available PDF files that are located on the server, along with short descriptions. Each listing has a check box that allows the user to select the PDFs that

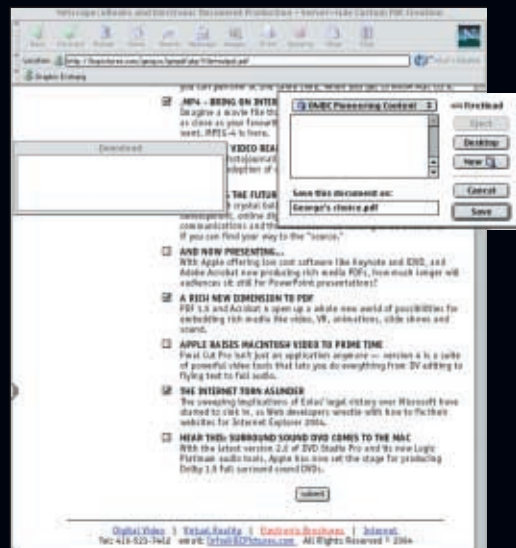


With Reader Extensions for Adobe Document Server, hidden features of Adobe Reader can be unlocked, making it possible to process a PDF file and allow dynamic information to flow into the document from a database without the use of a web browser. Forms can also be filled out, submitted and saved locally.



Here is a sample of a custom PDF assembly web page which offers a library of articles by the author from past issues of Graphic Exchange (to test it out, go to www.bcpictures.com/gengxo). First, the user enters his or her name, which personalizes the final document (above). Next, PDFs are selected simply by marking the checkboxes for the desired articles. Once the list is complete, the "Submit" button initiates the process of assembling the PDFs, and a file name and

download destination is designated. When the PDF is saved and opened in Adobe Reader (far right), it presents a personalized cover page, followed by a table of contents for the articles chosen by the user, who can then click on any one of them to go directly to that article. In addition, a special back page or interactive form may be added at the end. For the use of Reader Extensions for Adobe Document Server, Adobe charges US\$2,000 per document.



they want to include in the final file.

Entry "fields" are placed on the web page that allow users to insert their names and any additional information that needs to be "stamped" into the final PDF.

Once the "submit" button on the web page is activated, the server-side software:

- creates a cover page with the person's name embedded into a predetermined text field area (for instance, "This edition is customized for Jim");
- takes the first bookmark from each PDF file and creates an interactive table of contents to allow for chapter selection;
- combines the individually selected PDFs with any predesignated required files into one PDF file, including the bookmarks which were in the original PDFs;
- inserts or "stamps" page numbers, logos or dynamic data into predefined areas of the combined pages;
- and delivers the final document to the user's computer.

In addition, the PDF server has the

ability to force the PDF to download to the user's hard drive instead of loading into the browser.

Moreover, these server-side capabilities can be further enhanced with additional Adobe software that allows the digital magazine to function like a web page if an Internet connection is present.

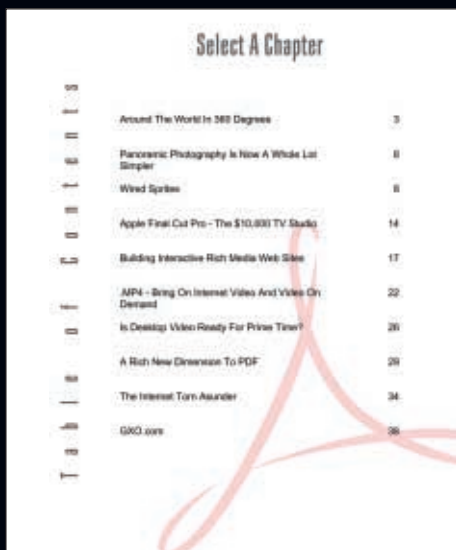
READER EXTENSIONS AND WEB SERVICES

Placing web links in PDF files is a great way to connect a PDF to a specific web page, but navigation becomes a bit erratic because the information is provided by two different sources. But it is possible to process and unlock a PDF to allow information to flow from a Web server directly into a PDF file without a browser. This software is called Reader Extensions for Adobe Content Server.

One of the biggest problems with print catalog production is that prices can quickly become out of date due to a variety of factors such as changes in inventory, competitive pricing, or currency fluctua-

tions. However, if an Internet connection is active, a PDF catalog can allow an item's price box to display the current selling price, or even notify the user that it is sold out.

Taken to its extreme, this price updating capability can be used to flow very large amounts of text into these text fields—at which point, the PDF file starts to function like a web page, and becomes a browser where dynamic content flows back and forth. If a PDF is made to launch in full screen mode, all the interactive navigation can be created inside the file; the portions of the file that require up-to-the-minute information—such as news



reports—can be requested as needed. That way, the downloaded PDF never becomes outdated.

BROADBAND AND RICH PDF

Recently, Hewlett-Packard and Compaq announced that they will be including Apple's iTunes on all new HP and Compaq computers. It looks like the music industry has finally realized that people want to download music and make their own CDs. However, to run iTunes, you need QuickTime, so the Windows Media versus QuickTime war should not be an issue if all new computers have QuickTime just for music downloads.

With all this QuickTime technology at our disposal, it makes it possible to create electronic documents that can become a viable solution for Video On Demand (VOD). Consider all the specialty channels which have huge libraries of video that sit unused on production company shelves.

Cooking shows, for example, could take advantage of server-side rich media PDFs for their online visitors, and sponsors could become involved with this service. Let's say that you want to learn all about different meals you can prepare on your barbecue, so you visit the Food Channel website and search for "barbecuing." This brings up a list of PDF files that are basically transcripts of the TV programs that they show. Segments of the episodes are broken down into chapters so that only the PDFs which contain "barbecuing" show up in the result. The show's

producers can insert or "embed" the five-minute barbecuing video segment into the PDF, along with some text recipes. Or users can select several PDFs related to different TV segments that demonstrate various barbecue techniques.

Essentially, users are creating their own customized TV show, using PDF as the delivery method. For sponsorship opportunities, producers can program the software to insert advertising or even TV commercials into the final PDF file. Users could choose just the text version, which would allow the PDF to be viewed using Adobe Reader 4 or higher. However, if embedded videos are selected to be included in the document, then Adobe Reader 6 and QuickTime would be required to view the segments of the TV show.

Another ideal use for this technology is in the travel industry. We are all familiar with glossy travel brochures that can run to over 100 pages. Usually they are divided into countries, and offer several hotel properties for each destination.

However, if these brochures are converted into PDF files, where each destination segment is a separate file and each hotel page is a separate file, too, then users can create their own eBrochures, using server-side PDF software. And if the hotel has a video, it can also be embedded right into the file.

A NEW INDUSTRY EMERGES

A window of opportunity is opening up for graphic designers, even those who have little familiarity with multimedia. The graph-

Designers need to understand that their print jobs can become part of a bigger production, where documents are delivered via the Internet, formatted by the population at large, and even viewed on a TV screen—using PDF.

ic design community now has a new avenue of revenue available to it, in addition to print. Designers need to understand that their print jobs can become part of a bigger production, where documents are delivered via the Internet, formatted by the population at large, and even viewed on a TV screen—using PDF.

The next PDF Conference will take place in Washington, D.C. in June. If you want to network with others who share this vision of PDF, this is the event you want to attend. Visit www.pdfconference.com for more information. 📺

Bob Connolly is a principal in BC Pictures, a new media production company creating content for TV, CD-ROM, DVD and Internet websites. He can be reached at 416-521-7462 or by e-mail at bob@bcpictures.com.