

# Forming the Future

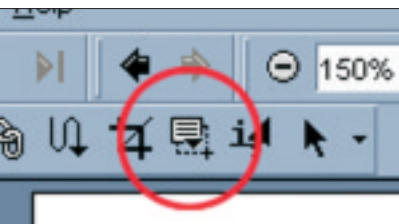
by Ryan Sutherland

## Harnessing variable and dynamic content in PDF forms

Since version 4.0 of Adobe Acrobat, users have been able to easily add form functions to their PDF files, but few have taken advantage of these features. Now, with version 5.0, it's time for those who haven't already to stop and take notice.

### HTML VERSUS PDF

Using *Acrobat 5's* form tool, all the familiar tools from HTML forms are readily available with an interface that is at the same time more intuitive and more powerful than its HTML counterpart.



The form tool in Adobe Acrobat (v4.0+)

Why use PDF forms instead of HTML? Well, PDF isn't necessarily the best choice for all applications, but there are many clear advantages. All the standard form types are available—text boxes, buttons, drop-down lists, radio and check boxes, etc., with more features and cus-

tomizable options than HTML has to offer. And, of course, this is all available alongside *Acrobat's* beautiful typography, vector graphics and convenient interface. Not only is it an elegant solution, it is also much easier to create working form objects in *Acrobat* than in any HTML editor (even Adobe's own *GoLive*).

But perhaps the most significant difference is that PDF forms

can be easily saved as a single file for later use. Many large forms have not been implemented in HTML because it's too cumbersome for users to try to fill out everything correctly in one sitting, and it's highly impractical to save HTML files locally. Saving files becomes especially important for sensitive documents where proofreading is essential, such as tax forms or credit applications. With *Acrobat's* powerful form capabilities, more and more paper forms are becoming available for electronic filing. And this need not apply to just government forms; the same strategic advantages can be applied to other commercial and personal applications, such as online vacation reservations, purchase orders, electronic surveys, and more.

Even these basic capabilities provide exciting opportunities for the creation and distribution of brochures and magazines, for which PDF downloads are already the preferred choice of many online customers. But PDF form features shouldn't be limited to their analog counterparts. Form content can be easily added to any existing PDF file, instantly creating offers for contests, mailing list subscriptions, discount coupons, and product order forms, as well as voting polls and customer profiling.

### AVOID GATLING-GUN DISTRIBUTION: USE DYNAMIC PDFS

But *Acrobat 5* has a lot more than this to offer when it comes to forms and relational content. First and foremost, forms do not have to look like forms. *Acrobat* provides such an array of appearance options that form content can be seamlessly woven into the document without disrupting the page design with clunky text boxes, button, and menus.

PDF forms also feature many interactive options, powered by



**Acrobat 5 now lets you easily add form features to existing PDFs, without sacrificing appearance or confusing users.**

Javascript actions that can be associated with buttons and menus. These can be custom scripted or drawn from the several built-in functions, providing for dazzling interactivity and powerful database integration based on industry standards—WebDistributed Authoring and Versioning (WebDAV), Open DataBase Connectivity (ODBC), and support for the eXtensible Markup Language (XML).

Furthermore, PDF forms extend beyond traditional “fill-out and submit” formats, using Acrobat’s FDF layer which dynamically shares form content with an online SQL database.

FDF (Form Data Format) is a file format built into Acrobat that stores user input and personalized information. It can be embedded within a PDF for single-user purposes, or saved separately as an \*.fdf file that links to a parent PDF document for multi-user applications. FDF allows for real-time data exchange with a webserver, making it much more powerful and easier to use than CGI forms. What this means is that the content of a page can change as the user is filling in in-



formation without having to submit the form or refresh the page. This allows for fluent integration of dynamic data and personalized content.

#### DO I NEED VERSION 5.0 TO CREATE PDF FORMS?

Not necessarily. The form tool is available in version 4.0 with all of the major form fields, dynamic FDF layers, and file saving capability.

Version 5.0 builds upon these features, adding more options, enhanced annotations and file attachments, as well as the ability to digitally sign files for security and authorization. Many third-party programs are available to help construct powerful PDF form solutions. Acrobat 5.0 ships with a demo version of LiquidForms by Cardiff Software, which provides many page templates and simplifies Javascript actions.

## CREATING CUSTOMIZED PDF POSTCARDS

1. Use an existing digital postcard or create one from your favourite photo.



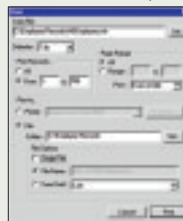
2. Construct a template PDF postcard by creating form fields for the address information and message.



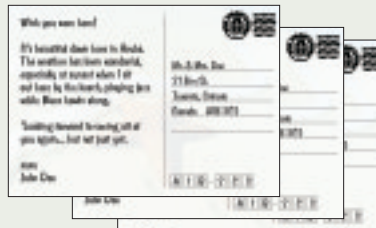
3. Create a delimited text file of addresses for receivers.



4. Use Variform PDF available from [www.pdfstore.com](http://www.pdfstore.com) to merge the PDF template postcard with the text file.



5. Presto! You've created customized PDF postcards for everyone on your list.



## USEFUL LINKS

For an excellent introduction for beginners creating PDFs using PHP: [www.zend.com/zend/spotlight/creatingpdfmay1.php](http://www.zend.com/zend/spotlight/creatingpdfmay1.php)

An intermediate-level tutorial for creating PDFs with PHP and MySQL: [www.phpbuilder.com/columns/perugini20001026.php3](http://www.phpbuilder.com/columns/perugini20001026.php3)

PDF Reports — Industrial strength server-side solutions for creating PDF reports, invoices, receipts: [www.interak.ro/products/PDFreports](http://www.interak.ro/products/PDFreports)

Office Courier by Movaris: A powerful corporate workflow solution using PDF electronic forms: [www.movaris.com](http://www.movaris.com)

This chart compares the features of Acrobat versions 4 and 5.

Form Features	Acrobat Reader	Acrobat 4.0	Acrobat 5.0
Submit forms	✓	✓	✓
Approve forms	✓	✓	✓
Retrieve and view forms	✓	✓	✓
Save forms for offline fill-in		✓	✓
Form field appearance control		✓	✓
Dynamic content		✓	✓
Form field spell check			✓
File attachments			✓
Sound attachments			✓
Pen and note annotations			✓
Text highlighting			✓
Digital Signing			✓

## AUTOMATICALLY GENERATING PDF FILES

PDF files not only communicate with databases using form content through Javascript and XML, but they can be *automatically* generated on the fly from web pages to create personalized invoices, receipts and other documents. This can be achieved through server-side applications built upon multi-threaded code libraries. Many such programs are readily available from third-party providers. For those who are not proficient programmers, PDFs can be generated through PHP scripting (see “Useful Links” for some suggested user tutorials).

PHP is an open-source replacement for Microsoft’s closed ASP (Active Server Pages) architecture. PHP was designed as a scripting language to facilitate the creation of a dynamic website, hence the name “Personal Home Page”. Some say that PHP is a recursive acronym for “PHP: Hypertext Processor”. In any case, PHP is widely supported by nearly all browsers and web-servers, and provides a user-friendly solution for powerful Internet applications involving dynamic content and very fast database integration.

For industrial-strength solutions, many companies have already deployed powerful applications harnessing the power of PDF.

Consider *Office Courier* by Movaris, which finally makes the idea of a paperless office a reality by using PDF to integrate cumbersome office documents with web-serving tools and electronic publishing. Another third-party program, *PDF Reports* by InterAKT, is a PHP/XML solution that allows on-the-fly PDF report generation from various data sources, improving production times and accuracy, while saving precious human resources.

As PDF continues to evolve as the hub of electronic workflow solutions, look forward to more automated functions, enhanced interactivity, and an interface that increasingly tends toward transparency. 🗺

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