

Adobe® Customer FAQ

Adobe Barcoded Paper Forms Solution

About the Adobe Barcoded Paper Forms Solution

Q: What is the Adobe Barcoded Paper Forms Solution?

A: This new Adobe solution will enable Adobe Portable Document Format (PDF) forms to be enhanced with dynamic 2D barcodes. These barcodes help reduce the costs, errors, and time to process fill-and-print paper forms. The Adobe solution enables you to eliminate manual data entry, which can be costly, error prone, and time-consuming.

The Adobe Barcoded Paper Forms Solution bridges the gap between paper and digital processes by enabling your organization to realize the benefits of electronic forms and workflows—even when a digital process form breaks from the electronic environment and reverts to paper. It enables you to efficiently capture paper-based form data with near-100 percent accuracy and export the information into your core systems.

An Adobe Process Management Document Service, the Adobe Barcoded Paper Forms Solution allows paper-based enterprise workflows to be integrated into electronic business processes within the Adobe Intelligent Document Platform.

Q: What is a 2D barcode?

A: A 2D barcode is a machine-readable symbol that stores information along the height as well as the width of the symbol. 2D barcodes allow you to fasten user-supplied information to a printed page. In a 2D barcode-enabled, fillable PDF form, the 2D barcode encodes user-supplied form information in real time during form fill-in. When the form is printed and faxed or mailed back to you, the Adobe Barcoded Paper Forms Solution is used to efficiently and automatically decode the barcode and send the extracted user-supplied form data to the next step of your organization's processing system. The data is near-100 percent accurate, and no human intervention is required other than mail handling.

The Adobe solution currently employs the industry-standard PDF 417 barcode format, which is a widely accepted 2D barcode format within government, financial services, and other forms-intensive markets. (The PDF here refers not to Adobe PDF, but to a barcode standard called Portable Data File 417.)

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Q: How is the Adobe solution better than my current forms-processing system?

A: Most organizations today either manually enter user-supplied information or they employ optical character recognition (OCR)–based forms-processing methods. Both of these approaches can be costly and error-prone, requiring frequent data validation and human intervention. The Adobe solution can replace these less efficient forms-processing alternatives for organizations that need to process high volumes of fill-and-print paper forms.

The Adobe Barcoded Paper Forms Solution can increase your forms-processing efficiency if your organization:

- Processes large volumes of paper-based forms.
- Participates in a heavily regulated industry, such as government or financial services, where signature requirements force form end users to submit information via paper.
- Seeks to eliminate manual rekeying of data to reduce costs and data errors.
- Needs to get form data into your systems quickly and wants to avoid the time to rekey data from paper forms.
- Wants to utilize a free, ubiquitous, cross-platform form fill-in client.
- Has large-scale legacy systems and is looking to move the data they contain from one legacy system to another.
- Has processes that require a “wet” or non-digital signature, notarized signature, or multiple signatures.

Q: What can I do with the Adobe Barcoded Paper Forms Solution that I can't do today?

- A:**
1. Because they are automatic and reliable, 2D barcodes eliminate the need for manual data entry and can lower the costs associated with processing fill-and-print paper forms. 2D barcodes should never deliver a false positive, eliminating the need to QA the extracted data. In addition, the Adobe solution is designed to handle a consumer fill-and-print paper forms workflow with successful decodes 99.9 percent of the time. A form end user simply fills out a 2D barcode-enabled PDF form with their free Adobe Reader®, prints it out, and mails or faxes it back to the organization.
 2. The Adobe Barcoded Paper Forms Solution utilizes the same exact data representation for paper forms as Adobe electronic forms technology. As a result, you can easily integrate data from your electronic and paper forms processes into the same back-end system using one data integration model.
 3. The Adobe Barcoded Paper Forms Solution is forward-compatible with Adobe forms technology in the sense that you can support fill-and-print paper forms and PDF-based electronic forms with a unified environment. On the front end, form end users use Adobe Reader to complete the same fillable PDF form to deliver information to your organization, whether they choose to submit their form electronically or to fax or mail you a printed version. On the back end, the extracted form data arrives at your legacy processing system in the same exact format, whether you receive the form electronically or as a paper document. As a result, the Adobe solution can be viewed as a bridge technology that will help you and your customers, constituents, employees, or partners gradually move to electronic forms processes.
 4. The Adobe solution is also backward compatible. If the barcode cannot be read automatically—for example, the barcode is torn or badly marred—or not all parties in the workflow are enabled with the Adobe solution, the data can still be read from the form in the traditional method and manually keyed.

5. With the Adobe Barcoded Paper Forms Solution, you can provide better, faster service to your customers and constituents. Forms can be filled out electronically, reducing data-entry errors. And because the form data can be extracted more quickly and with greater accuracy, you can access that data and respond to customer or citizen requests more quickly, thereby improving services and taking advantage of additional revenue opportunities. In addition, printed PDF forms with 2D barcodes support physical signatures (when required) and conventional methods of form delivery, such as mail and fax. You can extract and route data faster, and you provide a consistent user interface regardless of electronic or paper forms submission methods.

Q: Which Adobe products enable 2D barcodes?

A: Your organization will use Adobe Acrobat® 6.0.2 or a future version of Adobe Designer to design and add a barcode to a PDF form. When a user fills in the form using Adobe Reader, the barcode dynamically encodes the user-supplied information in real time.

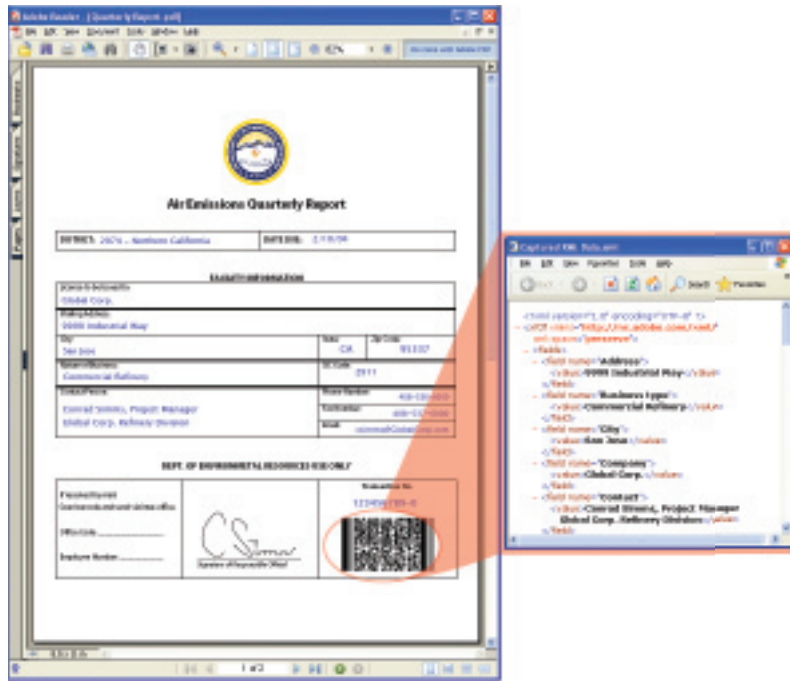
- *If you have an existing 2D barcode-capable scanning system:* You can use the Adobe Barcoded Paper Forms Solution to deliver fillable PDF forms that can be processed efficiently with your existing scanning infrastructure.
- *If you don't have an existing 2D barcode-enabled scanning system in place:* Adobe will offer a decoder that works with 2D scanning hardware to enable you to decode 2D barcodes and use the form's barcode information.

The Adobe 2D barcode solution has four key components: form authoring, form fill-in, form processing, and barcode usage rights. Starting in the second half of 2004, 2D barcode functionality will be supplied using the following tools:

- *Form authoring:* An authoring plug-in for Adobe Acrobat 6.0.2 Professional that allows form designers to incorporate 2D barcode capability into their forms. This functionality will be integrated into a future release of Adobe Designer.
- *Form fill-in:* A capability of Adobe Reader 6.0.2 that enables real-time encoding of user-supplied information into the 2D barcode on the form.
- *Form processing:* A licensed component that analyzes scanned form image, detects and decodes 2D barcode, extracts user-supplied information, and provides data to the next step in the enterprise workflow.
- *Barcode usage rights:* Adobe Reader Extensions Server 6.1 enables rights in PDF forms so users can locally save a copy of the completed form.

Q: Will it be possible to author forms with 2D barcodes using Adobe Designer 6.0?

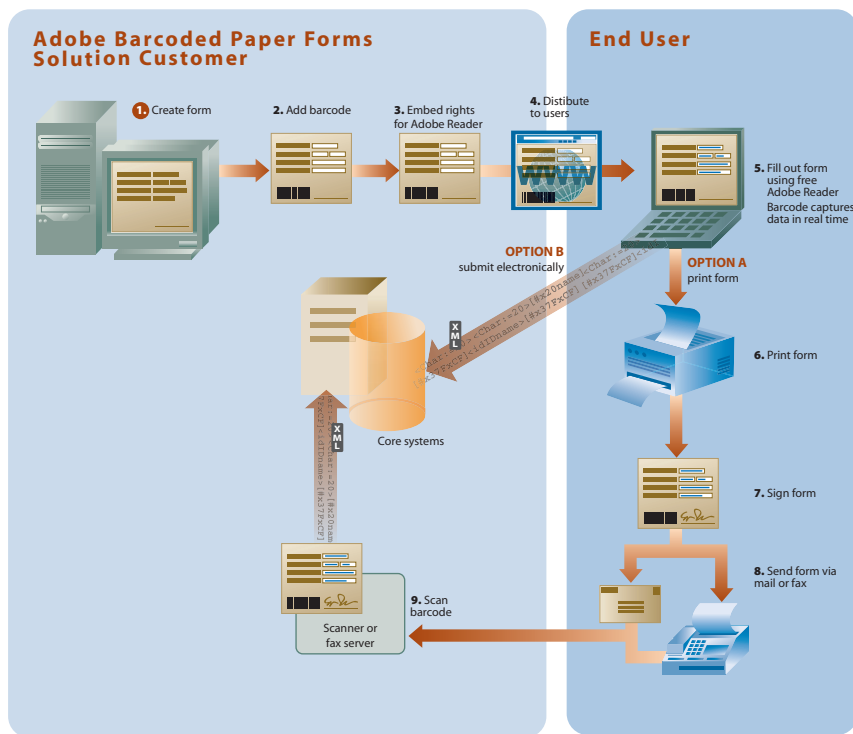
A: You can create the fillable form, but the 2D barcode must be added with the enhanced version of Adobe Acrobat 6.0.2 Professional. 2D barcode creation will be incorporated into Adobe Designer in late 2004.



Implementing the Adobe Solution

Q: How does the Adobe Barcoded Paper Forms Solution work?

- A:
1. With Acrobat Professional 6.0.2 and the authoring plug-in, you can design and publish 2D barcode-enabled, fillable PDF forms. You can then e-mail these forms directly to end users, publish them on a Web site, or distribute them on CD. In addition, you can assign special usage rights (such as saving a copy of the completed form locally) via Adobe Reader Extensions Server. Certain usage rights within Reader Extensions also allow updated 2D barcodes to be processed with an organization's existing third-party barcode decoding solutions.
 2. Using Adobe Reader 6.0.2, the form end user receives and fills in the form. The 2D barcode automatically is updated with the user-supplied information in real time. The end user then can print the form and mail or fax it back to your organization. (If the form is Reader Extensions rights-enabled, the end user can also save and complete the form offline.)
 3. When you receive the completed form (by paper or fax), you can use a wand scanner or a document scanner to scan the paper into an electronic image. The decoder locates the barcode on the scanned image, decodes the 2D barcode, and extracts the data in the user-specified format. The data can be specified in whatever format you need for your processing system, whether it's eXtensible Markup Language (XML) or simply tab-delimited characters. (Many vendors offer fax server solutions that produce electronic images from incoming fax transmissions, and the decoder can work on those images directly.) You can also use the authoring plug-in, Reader Extensions, and the form fill-in client in conjunction with third-party 2D barcode scanning software and hardware as part of an integrated data capture solution.
 4. After initial systems-integration work has been completed, decoded data is automatically forwarded to the appropriate enterprise processing application. The Adobe solution's barcode data can be encoded in a data format determined by the form author, including XML, making it easy for form-based data to move across multiple enterprise applications or to enable archived data to be visually presented months or years later, just as it was entered into the original PDF form.



Q: I have no barcode-reading capabilities in house. What components do I need?

- A:**
1. The *authoring plug-in* consists of Adobe Acrobat 6.0.2 Professional and the licensed component that enables 2D barcodes to be added to PDF forms. Adobe Reader Extensions Server also allows you to assign end-user usage rights, such as locally saving a copy of the completed form. A future version of the Adobe Designer will provide 2D barcode authoring capabilities.
 2. The *form fill-in client* is Adobe Reader 6.0.2.
 3. The *decoder* is a licensed component that captures the completed form as an image, locates the barcode, extracts the user-supplied data, and supplies it to the back-end processing system.
 4. A *document scanner* and image capture software (available from Adobe or third parties) are also required.

Q: I have already implemented 2D barcode processing for certain functions, but want to extend those capabilities to PDF forms. What components do I need?

- A:**
1. The *authoring plug-in* consists of Adobe Acrobat 6.0.2 Professional and the licensed component that enables 2D barcodes to be added to PDF forms.
 2. *Adobe Reader Extensions Server* allows you to assign end-user usage rights, such as locally saving a copy of the completed form. Reader Extensions is used in this scenario to assign a right to the form so that the user-supplied barcode data is encoded in such a way as to support third-party decoding solutions.
 3. The *form fill-in client* is Adobe Reader 6.0.2, which enables real-time encoding of user-supplied information into the form's 2D barcode.

Q: How can I ensure that my customers, constituents, employees, or partners are using the appropriate version of Adobe Reader to enable them to update the barcode?

A: Your form end users will need Adobe Reader 6.0.2 or later to support real-time updating of a form's 2D barcode during form fill-in. To ensure that your customers and constituents are using the appropriate version of Adobe Reader, you can direct them to the Adobe Web site where they can download the proper version of Adobe Reader for free.

Q: It will be important to stress the benefits of 2D barcodes to my form end users.

A: With support for 2D barcodes, you can process forms faster and more accurately than before. For instance, eligible taxpayers can have refunds processed sooner, loan applicants can be approved faster, and consumers can receive rebates more quickly.

Q: What happens if an end user doesn't have the right version of Adobe Reader?

A: If an end user opens a PDF form that incorporates a 2D barcode, Adobe Reader automatically will ask the user if he or she wants to download the Adobe Reader 6.0.2. If the end user accepts, the Adobe Reader update mechanism will point the user's browser to the appropriate download location for the free update. If the end user declines, he or she can still complete and print the form, but the 2D barcode will be grayed out. The form will then be processed in your exceptions-handling workflow using your traditional forms processing-methods.

Q: Regulations require us to maintain auditable archives of completed forms. If just the 2D barcode data is archived in a back-end application, how can I tie that data to the form it was entered into?

A: Many organizations will choose to use a document scanner that allows them to extract the form data as well as to archive the image of the signed document. This image can be stored in a document management system for regulatory or compliance purposes. In addition, the Adobe Barcoded Paper Forms Solution can also incorporate XML-based form field data; the extracted data can be reconnected with the original form template and presented at a later date.

Q: Can I purchase the Adobe 2D-enabled paper forms solution today?

A: Yes, the Barcoded Paper Forms Solution will be available commercially in the English language in early June 2004.

Q: How do I purchase this solution? How much does it cost?

A: For pricing and other details, contact your Adobe sales representative or one of our authorized systems integrators.

Q: How would I acquire compatible 2D scanning hardware?

A: Your Adobe sales representative or one of our authorized systems integrators can provide you with recommended solutions.