

Adobe® Web Output Pak

Generating Personalized Documents to Meet Customer Expectations

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Today's enterprises are discovering that documents can do much more than just communicate and inform. Compelling, high-quality documents—from printed 1-page invoices to Web-delivered 100-page user manuals—can actually drive business and generate revenue. Targeted marketing programs rely on brochures and other documentation created for highly specific audiences, and other customized documents can help build customer satisfaction and loyalty. The key to producing documents that drive business is a document-generation solution that takes content from multiple sources, dynamically generates documents, and then delivers documents over any device.

Leveraging the strengths of eXtensible Markup Language (XML), Adobe document-generation solutions work together with core enterprise applications to create effective documents that can be delivered in several formats, including Adobe Portable Document Format (PDF), print, fax, e-mail, and the Web. Enterprises that choose Adobe solutions for document generation can get materials to market faster because they do not have to print and physically deliver them, thereby lowering their costs, and improving their competitive advantage.

Adobe Web Output Pak software offers document-generation capabilities that enable organizations to provide customers with access to up-to-the-minute information via the Web. The documents are dynamically generated and delivered in Adobe PDF or HTML, providing end users with access to documents 24 hours a day, seven days a week.

Adobe Web Output Pak

With Adobe Web Output Pak, providing better customer service and reducing costs are no longer conflicting concepts. Static hardcopy bills, statements, and business-to-business communications can be transformed into interactive Web applications for a fraction of the printing and mailing costs typically associated with business documents.

Web Output Pak elevates document generation to the next level by providing both the tools necessary to create personalized documents and the run-time components required to generate the documents in a Web environment. Upon request, Web Output Pak combines data with a template, generates a complex, dynamic document, and sends it to Web browsers at any time. The document is delivered properly formatted, enabling the end user to easily view or print it in HTML or as an Adobe PDF file within a Web browser. In addition, document content can be personalized based on the data collected from users. For example, you can include a customized marketing message for users in specific regions or locales.

Enhancing a Wide Variety of Applications

To rise above the global competition, organizations must deliver unmatched levels of service. Web Output Pak can help you enhance business-critical applications—giving you a competitive advantage.

Customer Service Applications

Consider the example of a customer who calls your customer service department to inquire about a charge on an invoice — a document that can be as large as 70 to 80 pages. To find the item in question and help the customer quickly, a customer service representative requires access to a copy of the invoice containing the problematic item. With a browser-based application using Web Output Pak, the customer service representative can quickly re-generate the document and reference the same document as the customer. This capability can speed an organization's response time and help improve customer service.

Transactional Document Solutions

Web Output Pak can also improve business processes, in which documents such as receipts, terms and conditions, or acknowledgements are generated in response to the submission of a business transaction. For instance, banks and brokerage houses are legally required to distribute trade confirmation documents to retail customers. However, the standard purchase-and-sale systems that process trading activity typically fall short in delivering customer-friendly statements. Web Output Pak helps these institutions to ensure legal compliance while enabling them to provide improved, personalized documents generated in real time.

Customer-Facing Solutions

Web Output Pak can improve any customer-facing application that generates documents on demand. By giving customers access to documents with current information, organizations can benefit from the cost savings of self-service, while offering their customer base increased convenience and up-to-the-minute information.

Advantages of Using Web Output Pak

Through a combination of innovative technology and expert knowledge, Adobe provides solutions that can give your business an edge in today's competitive environment. Web Output Pak provides the following key advantages.

Reduce Costs Associated with Paper Delivery of Documents

A Web-based document delivery model reduces many of the costs associated with paper documents. Electronic document delivery models can generate a 50 to 60 percent reduction in cost over paper-based delivery. By eliminating the need for printing, paper storage, paper handling, and postage, you can achieve dramatic cost savings and a rapid return on investment.

Improve Customer Relationships

Your customer service is available 24 hours a day, seven days a week, with Web-based access to documents and up-to-the-minute data that users can analyze on their own time. Customer service representatives can easily access the same information presented to the customer, resulting in the ability to quickly retrieve accurate information and provide immediate service.

Increase customer retention by providing customers with personalized document content and delivery via the Web. Take advantage of increased Web site traffic to upsell your products and services with targeted marketing messages.

Accelerate Online Business Initiatives

Develop a multi-channel business strategy by integrating Web output processes with traditional print output processes and vice versa. This enables companies to establish an online presence quickly and remain competitive with other companies. Leverage your investment in existing data and legacy systems and build a new interface for consumers and business customers.

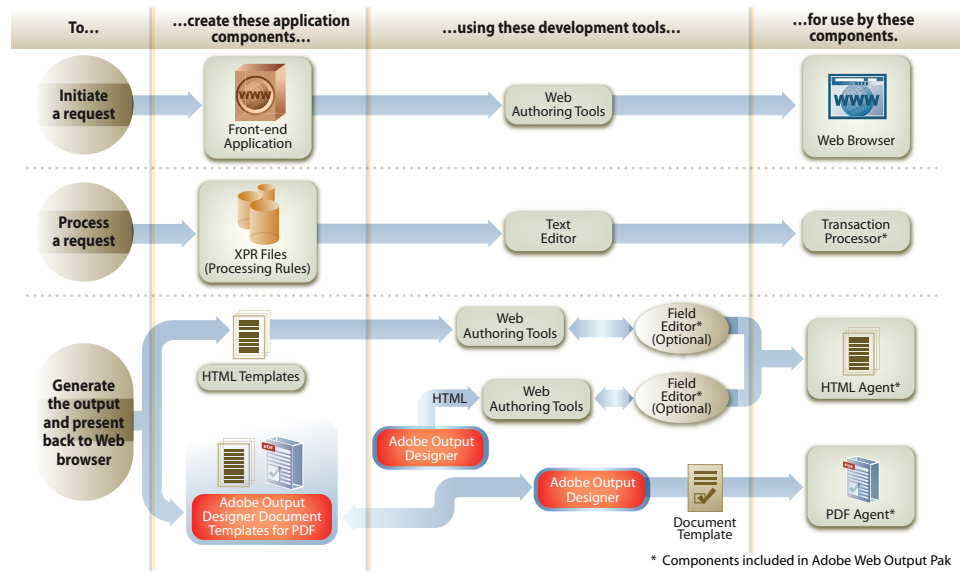
How Web Output Pak Works

Harnessing the Web to provide business documents to your customers is critical for today's organizations. Web Output Pak is an XML-based application that provides seamless integration with leading business applications, creating powerful tools tailored to meet unique business requirements. Web Output Pak works with your existing systems to extract data to produce personalized documents. The look-and-feel of the documents is controlled by the templates you create with Adobe Output Designer, an easy-to-use template designer. The resulting document will dynamically size to accommodate the amount of data it needs to present.

A Web Output Pak application consists of several components that come together to form your document-generation solution. These components support the different phases of a Web Output Pak application. The following table outlines each of the phases and the components required to successfully complete the associated operation.

Application Phase	Required Components
Initiate the request	Application front-end Web pages
Process the request	XPR (XML Processing Rules) file(s) to instruct the Transaction Processor how to process the request
Generate and display the output	Adobe Output Designer document templates for PDF or HTML templates

The following figure shows Web Output Pak development tools as well as the third-party tools used to create a Web Output Pak application. The components marked with an asterisk are included with Web Output Pak.



How Web Output Pak Works

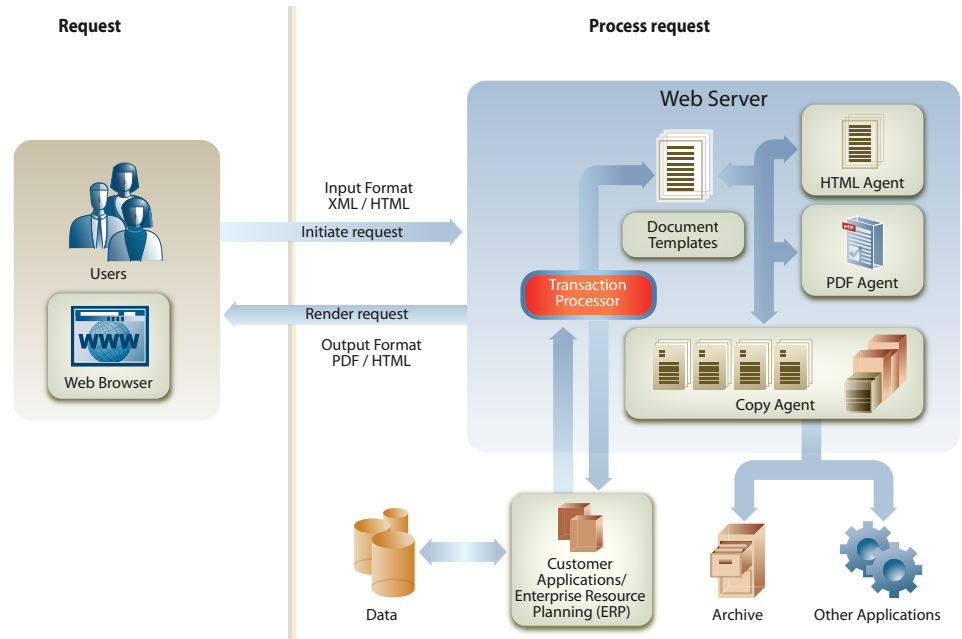
Web Output Pak works with your existing systems to extract data to produce personalized documents. The look-and-feel of the documents is controlled by the templates you create with Adobe Output Designer, an easy-to-use template designer.

The Document Output Process

The steps involved in processing a request from a Web browser and returning a document are illustrated below.

To begin, a user initiates a request for a document from a Web browser. The browser then posts the data to the Web server. The post contains both the data entered by the user and information specific to the request, including the name of the XPR (XML processing rules) file, which contains the rules for processing the request and the name and location of the Transaction Processor.

The Web server creates an instance of the Transaction Processor and passes the content of the request. To process the response, the Transaction Processor opens the XPR file and follows the steps specified for processing the request. It then sends the response back to the browser. When multiple requests occur simultaneously, a unique instance of the Transaction Processor processes each request. This ensures a fast response time to the Web browser.



Document Output Process with Web Output Pak There are three main steps involved in generating output from Web Output Pak:

1. A user initiates a request from a Web browser.
2. The Web server passes the content of the request to the Transaction Processor.
3. The Transaction Processor completes all steps for processing the request, and then sends the response back to the Web browser.
4. Returning the output back to Web browser.

The Adobe Web Output Pak Solution

Web Output Pak is a stand-alone product that generates documents for the Web in HTML and Adobe PDF. When used in combination with Adobe Output Designer, it provides the development tools and run-time components required to format data and deliver documents on the Web.

Development Tools

Adobe Output Designer is a WYSIWYG design tool used with Web Output Pak. It enables you to create document templates for output as either HTML or PDF. Output Designer provides a graphical user interface for creating the layout of the template. HTML templates created using Output Designer can also be used in conjunction with popular Web-authoring tools.

The Field Editor tool is a graphical text editor for adding markup language (JML) to an HTML template. The resulting tool set within Adobe Output Designer is a template used by the HTML Agent, which is the HTML output component of the Web Output Pak solution. The JML tags:

- Identify where the HTML Agent will place the data on the template.
- Set one or more field attributes.
- Identify repeating sections called subforms, which enable the HTML Agent to dynamically tailor the template to fit the data.

Run-Time Components

Web Output Pak includes four components for processing Web-based requests from a document-generation application:

- The Transaction Processor is responsible for interpreting and processing requests based on XML Processing Rules. An XPR file contains a series of commands that define the logical steps to be followed by the Transaction Processor. The Transaction Processor can call any of its built-in agents to create the response for a request. It can also call a custom agent to perform specialized activity related to the request, such as accessing a database, performing a calculation, or validating data.
- The HTML Agent merges a template with data from the request and/or from an existing database to generate an HTML page. The Transaction Processor sends the completed document to the Web browser as the response to the request. The browser displays the document.
- The PDF Agent merges a template, created with Output Designer, with data from the request and/or from an existing database to generate an Adobe PDF document. The Transaction Processor sends the completed document to the Web browser as the response to the request. The browser displays the document in the Adobe Reader® plug-in.
- The Copy Agent performs several operations that are useful when processing an application, including:
 - Copying data from one application to another. For example, a PDF file can be copied to a document management application for archiving.
 - Effecting data transformations between the supported data formats.
 - Streaming data from various files into one.
 - Sending data to other Adobe document-generation solutions for print, e-mail, or fax.

System Requirements

Supported Operating Systems

- Microsoft® Windows NT®, Windows® 2000 Server, and Windows Server™ 2003 Enterprise Edition with Microsoft Internet Information Services (IIS)
- Sun™ Solaris™ with Apache Web server

Supported Web Browsers

Web Output Pak supports most Web browsers and has been certified with:

- Microsoft Internet Explorer 5.0 or later
- Netscape® 4.7 or later

Key Features and Benefits

Adobe Web Output Pak provides powerful capabilities for dynamically generating customer-facing documents and delivering them in Adobe PDF or HTML. The features and benefits of Web Output Pak are summarized below.

Feature	Benefit
Delivers documents in real time.	Presents up-to-the-minute information based on a customer request. Transforms hardcopy bills, statements, and business-to-business communications into interactive Web applications.
Generates electronic documents in Adobe PDF for viewing or printing.	Produces high-fidelity versions of printed documents that are already familiar to your customers.
Generates documents in HTML.	Presents information typically available only as paper documents for viewing on the Web, granting users access to information 24 hours a day, seven days a week.
Allows data to dynamically controls the look-and-feel of the document.	Ensures that each document contains only the information relevant to the user by incorporating headers and trailers around the detail lines for Adobe PDF and HTML output. Provides intelligent pagination for multi-page documents.
Personalizes document content.	Incorporates personalized messaging in professional-looking documents. Provides the ability with every statement to present customers with targeted marketing messages to upsell additional products and services.
Uses open standards for a standard set of interfaces	Enables developers to rely on their existing skill set to build an application leading to rapid implementation and cost savings. Can be easily integrated into existing Web site infrastructures and security.
Accepts a wide variety of formats including: HTML, XML, plain text, legacy data, and DAT.	Supports industry-standard data formats and leverages your existing investments in Adobe Central Pro Output Server. Can easily access data in legacy and core business systems to integrate back-end infrastructure with the Web.
Uses XML Processing Rules to define the steps for processing the request and rendering results.	Provides the flexibility to customize the output processing steps to include error handling, processing of dynamic sub-forms, and sending the data to Central Pro Output Server for generating output to e-mail, fax, and print. Easily customizable to allow custom processes to be incorporated into the output generation.
Integrates seamlessly with Adobe Central Pro Output Server.	Dynamically generates documents for print, fax, and e-mail. Integrates Web output processes with traditional print processes and vice versa.
Performs calculations on a data stream including arithmetic, scientific, date/time, financial, logical, string, and other functions.	Allows you to customize server-side processing of data.
Provides a Computer Graphics Interface (CGI) script and a Component Object Model (COM) interface	Accesses the Transaction Processor using the CGI script or COM object. The COM interface enables you to develop custom applications using a variety of programming languages such as Microsoft® Active Server Pages (ASPs) and the Microsoft Visual Basic® development system.



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Adobe Systems Incorporated
345 Park Avenue
San Jose, CA 95110-2704
USA
www.adobe.com

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