

# Adobe® Enterprise Server and Design Tools

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*On June 8, 2004, Adobe announced a new generation of enterprise server and design tools that broaden the capabilities of the Adobe Process Management and Document Control and Security Document Services. These new offerings are the focus of this technical FAQ.*

## PRODUCT OVERVIEW

### **Q: What products are included in the next-generation of Adobe Enterprise Server and Design Tools?**

**A:** The following process management and document control and security products are included:

- **Adobe Designer** software has an easy-to-use graphical interface that enables users to quickly create and maintain form templates, define a form's business logic, make changes, and preview the form before it is deployed.
- **Adobe Form Manager** software provides a central repository for administrators to manage form publication and for end users to access enterprise forms via a Web-based portal.
- **Adobe Form Server** software enables organizations to intelligently capture information regardless of the user environment—online users are online or offline, internal or external—by using Portable Document Format (PDF) or HTML to streamline form-driven business processes through automation.
- **Adobe Reader® Extensions Server** software enables organizations to extend the functionality of Adobe Reader software by activating previously hidden functionality within the free, ubiquitous Adobe Reader. Any end user can interact with multiple applications via Intelligent Documents, thus extending business processes beyond the enterprise.
- **Adobe Document Security Server** software provides all of the digital signature and encryption capabilities of Adobe Acrobat® 6.0 software in a server environment.

In addition, Adobe preannounced the following products:

- **Adobe Policy Server** software is a new client/server enterprise document control solution that solves the challenges of managing the use of and access to electronic documents.
- **Adobe Barcoded Paper Forms** enables fillable Adobe PDF forms to be enhanced with dynamic 2D barcodes.

Additional products will continue to be released on the new platform over the next 18 months.

### **Q: How do these products relate to Adobe Document Services?**

**A:** The next-generation Adobe Enterprise Server and Design Tools help users automate and accelerate form-based business processes. They leverage eXtensible Markup Language (XML) and PDF to integrate documents into the IT environment—without sacrificing document integrity or open standards. Advanced document security and control features, such as digital signatures and data encryption, ensure a high level of data authenticity, integrity, and confidentiality.

**Q: How do the products interoperate?**

**A:** All of the products run on a common J2EE platform and are fully interoperable, both with each other and with Acrobat and Reader. Using Adobe Designer 6.0 or Acrobat 6.0, businesses can leverage the power of XML to create flexible, Intelligent Documents that contain both business logic and data. Organizations can then use the server products, which include powerful process management and security tools, to provide a complete solution for delivering, processing, and managing intelligent forms.

**Q: How does Adobe Workflow Server software interoperate with these Enterprise Server and Design Tools?**

**A:** Adobe Workflow Server is fully integrated with the new generation of Enterprise Server and Design Tools. Adobe Workflow Server and the other server products are built on an XML and PDF foundation. Adobe Form Manager 6.0 provides the end user experience that connects to the existing workflow server.

**Q: What databases and servers do these products support?**

**A:** Enterprise Server and Design Tools from Adobe can work with OLEDB database drivers, Oracle, MySQL, and IBM® DB2, as well as with XML schemas and sample XML data files. They can also make Web service calls. These products integrate with other products and applications via multiple application programming interfaces (APIs) and through clients for nonsupported platforms.

**Q: What are the building blocks of the Adobe Enterprise Server and Design Tools architecture?**

**A:** Adobe Enterprise Server and Design Tools are built on a common server architecture that offers robust support for enterprise infrastructures. Its process management and security services unlock the power and reach of data—whether from within an Intelligent Document or directly from native XML sources—without sacrificing document control or open standards. The architecture consists of:

- Enterprise JavaBeans
- JSP/Servlet Web applications
- Web services
- Java and .NET libraries

**Q: What platforms will the products support?**

**A:** Adobe Enterprise Server and Design Tools represent the first Adobe solution deployment in a J2EE development environment. Early releases will support IBM® WebSphere 5.0.2 and Microsoft® Windows® Server 2003, Linux® Red Hat Advanced Server 2.1, Sun™ Solaris™ 9, and IBM AIX® 5L. They will also support JBoss 3.2.2 as well as JBoss 3.0. Support for BEA WebLogic and SUSE is planned for future releases.

**Q: If my platform isn't listed, how can I find out if Adobe Enterprise Server and Design Tools support it?**

**A:** If your platform is not listed, Adobe does not support it at this time. Contact your Adobe sales representative for more information.

**Q: What open standards do the next-generation Adobe Enterprise Server and Design Tools support?**

**A:** Some or all of the Adobe Enterprise Server and Design Tools currently support the following open standards: ebXML, XML, J2EE, and Web Services.

**Q: Will my document generation products work with these new process management and document control and security offerings?**

**A:** Yes. Some of the document generation offerings can be integrated with the new process management and security offerings. For example, Adobe PDF documents generated by these servers can flow into Document Security Server 6.0 to be digitally signed or encrypted. They can also flow into Adobe Reader Extensions Server 6.1 to be enabled (have usage rights applied) for Reader. Finally, Adobe PDF forms generated by Adobe Form Server 6.0 can be passed to Adobe Document Server to be manipulated or assembled with other PDF documents.

## DEPLOYMENT

### Q: How do I deploy the new products?

A: Adobe Designer 6.0 is a desktop application that runs on Microsoft Windows and that can be installed directly on each form designer's desktop. The server products are all J2EE applications that must be deployed on a J2EE Java application server such as IBM WebSphere or JBoss.

### Q: Do I have to deploy the new Adobe Enterprise Server and Design Tools on top of an application server?

A: Yes. The first release of the Adobe Enterprise Server and Design Tools products runs on IBM WebSphere or JBoss. Future versions will run on BEA WebLogic.

### Q: Are Adobe Enterprise Server and Design Tools scalable to meet my expanding performance requirements?

A: Adobe Enterprise Server and Design Tools are fully scalable and enable you to leverage the strengths of the J2EE environment.

## FORM DESIGN

### Q: What makes Adobe Designer 6.0 a better solution for forms design than “build your own”?

A: Adobe Designer 6.0 provides unparalleled control of design layout and presentation over build-it-yourself Web solutions. It enables end users to draw the layout of the form and then easily add common objects for form intelligence. Because programming for precise form layout and print is very difficult and time consuming, it is much easier to use a packaged development tool that is customized for document and form design. Because Adobe Designer 6.0 uses industry standards, including XML, JavaScript, Web Services Description Language (WSDL), and Adobe PDF, organizations can ensure compatibility and integration points with other applications.

### Q: Can I import existing forms into Adobe Designer 6.0?

A: Yes. Customers can import .xft files created with previous versions of Adobe Form Designer software, Adobe PDF forms, Word files, and InfoPath forms. However, all these forms can be created differently, so some rework will be required. When you open an Adobe PDF file in Adobe Designer 6.0, it is converted into an XML form template. The text, images, and form fields are converted to XML form objects. The author can then change any part of the form in Adobe Designer 6.0. By converting the Adobe PDF layout to XML, the form layout, fields, and logic can be managed in Adobe Designer 6.0 without going back to the source document. Also, the XML form template can be used with Adobe Form Server 6.0 to be rendered in other formats, such as HTML.

### Q: What happens with older versions of forms designed with Adobe Form Designer using JavaScript?

A: Forms designed for Adobe PDF or Adobe Form Server with JavaScript scripting will be imported and will operate in the 6.0 version. Forms designed for Adobe Form Client with JavaScript scripting may require rework, as not all objects and events are supported.

### Q: What about other scripting languages from Adobe Form Designer 5.0?

A: VBScript and Default calc scripts will be imported as comments. Developers must rewrite these scripts in JavaScript.

### Q: Can I build a form that adheres to a corporate schema? Do I need to perform an XSLT transformation to get my data into the form?

A: You do not need to perform an XSLT transformation on the data. Using Adobe Form Designer 6.0, you can view the schema directly and drag it onto the chosen forms. Adobe Form Designer 6.0 will bind the form and business logic to your data.

### Q: How does XML interact with Adobe Designer 6.0?

A: Adobe Designer 6.0 creates XML form templates built on pure XML as defined in the publicly available specification XFA 2.1. Forms designed with Adobe Designer 6.0 can bind to XML schemas and sample XML data files in order to make form data adhere to a desired structure.

**Q: How does Adobe Designer 6.0 leverage Web services?**

**A:** Using Adobe Designer 6.0, form developers automatically bind form fields to WSDL files to allow users to exchange data with a Web service.

**Q: Does Adobe Designer 6.0 support Xforms?**

**A:** Forms you create using Adobe Designer 6.0 can be interoperable with Xforms for the purpose of exchanging data. Adobe Designer 6.0 supports World Wide Web Consortium (W3C) standard XML schemas. It can take an existing XML schema and link it to fields on a form. Users can drag and drop or link the fields on the form to schema elements for simplified data binding without any programming. Adobe Designer 6.0 also supports XML schemas that define the way data is written from the form in an XML-compliant format. This ensures that applications are interoperable and extensible and allows organizations to support industry-standard schemas, such as those used in finance, insurance, health care, and government.

**Q: Does Adobe Designer 6.0 support Active Scripting language?**

**A:** No. Active Scripting language is a Microsoft interface that allows you to plug in the scripting language engine. Adobe Designer 6.0 does not support Active Scripting language.

**Q: What level of support do Adobe Enterprise Server and Design Tools provide for accessibility?**

**A:** Adobe Designer 6.0 enables the creation of Adobe PDF forms that work with common screen reader software such as Jaws and WindowEyes. Using Adobe Form Server 6.0, users can render XML templates in accessible PDF or Accessible Hypertext Markup Language (aHTML), which changes the typical form format to a vertical column to make form reading easier for disabled users.

**ADDING RIGHTS TO PDF FILES**

**Q: How can end users interact with documents created by Adobe Enterprise Server and Design Tools? Do they need to have client software installed on their PC in order to view or access Intelligent Documents?**

**A:** Adobe Reader Extensions Server 6.1 enables organizations to easily and efficiently equip any third party to participate in business processes. Because Adobe Reader Extensions Server works with the free and ubiquitous Adobe Reader, third parties do not require any additional costly software or plug-ins. Adobe Reader Extensions Server 6.1 enables third-party users to:

- Capture data from forms
- Fill out forms offline
- Use digital signatures through integration with MSCAPI-based certificate stores and LDAP directories
- Review, modify, and add comments to documents

**Q: How do you add rights to PDF documents with Adobe Reader Extensions Server?**

**A:** Using a Web administration interface, rights can be added to single documents, which can then be posted onto a Web site. Alternatively, Adobe Reader Extensions Server can be integrated with automated document generation engines such as Adobe Document Server or Adobe Form Server, and rights can be added through programming to the API.

## FORM MANAGEMENT

### Q: What kind of file types can be stored in the form repository?

A: The form repository manages all Adobe PDF and XML form templates as well as non-native file types such as Microsoft Word, Excel, and more.

### Q: Is versioning and change monitoring included with Adobe Form Manager?

A: Yes. Adobe Form Manager 6.0 enables users to manage new versions of forms to prevent organizations from using multiple versions of the same form, while still allowing them to associate an outdated form with archived data.

### Q: Is Adobe Form Manager 6.0 a Web service, or will it have a Web services interface?

A: Adobe Form Manager 6.0 does not currently support Web services. It is scheduled to have this functionality in a future release. All of the Adobe Enterprise Server and Design Tools are planned to have a Web services interface.

### Q: Does Adobe Form Manager 6.0 integrate with other platforms?

A: The forms registry enables organizations to start an ebXML relationship with other businesses or platforms. It also enhances the value of the integration of Adobe Document Services with other applications. Business partners benefit because they do not need to write additional interfaces to adapt to various nonstandard elements.

### Q: What is the migration process?

A: Adobe Form Manager 6.0 supports multiple formats and provides a single point of access for all forms. Adobe has options available, including Adobe Professional Services, to help your organization migrate to the new platform. Refer to the Migration FAQ or ask your Adobe sales representative for details.

### Q: What is stored in the form registry?

A: The form registry stores forms and form instances, as well as metadata about forms such as descriptions, help, version number, and access permissions.

## ADOBE FORM SERVER 6.0

### Q: Can Adobe Form Server 6.0 render forms dynamically?

A: Yes. Depending on the user environment or preference, XML-based form templates created with Adobe Designer can be rendered dynamically through Adobe Form Server as PDF or HTML.

### Q: What application servers are supported for Adobe Form Server 6.0?

A: IBM WebSphere 5.1 and JBoss 3.3.2 are supported in this release. BEA WebLogic will be supported in a future release.

### Q: What platforms does Adobe Form Server 6.0 support?

A: Support for JavaScript ensures that form intelligence works across multiple client-side desktop platforms. The Simple Object Access Protocol (SOAP) API enables Adobe Form Server 6.0 to support Windows and J2EE platforms, as well as easy integration with new and existing infrastructures.

### Q: How does Adobe Form Server 6.0 support XML Data Packages (XDPs)?

A: The XDP contains the form data, form template, metadata, and schema in XML as well as the completed PDF file itself. Other nodes are available for further data transformations, such as XSLT. Recipients can maintain XML data for their own use that is not associated with the form, such as a timestamp, which they can add to the PDF file. Users can also:

- Modify XML templates programmatically
- Attach XML data that is not form data to the form as a node in the XDP
- Use XML tools or other tools that support XML to prepopulate fields, personalize the form with data, and more
- Access Adobe XMP metadata for the form in XML

**Q: Does Adobe Form Server 6.0 support third-party, arbitrary XML?**

**A:** Adobe Form Server 6.0 inherently supports third-party XML inside scripts at run time. Users can import, export, and link third-party XML schemas and data to documents. Users can also attach an XML schema to an XDP, allowing them to operate with partners that want to validate the data but do not necessarily have the XML schema.

**Q: Do Adobe Enterprise Server and Design Tools support multiple server use?**

**A:** Yes. Support for multiple servers enables organizations to take advantage of load balancing, networking, and redundancy, making better use of their server resources.

**Q: Does Adobe Form Server 6.0 support JDBC database connectivity?**

**A:** JDBC connectivity is not currently available. It is a high priority slated for an upcoming release. In the meantime, the Web application can execute JDBC calls to collect data and then pass that data as XML to Adobe Form Server to be merged into the form.

**Q: Does the IBM DB2 Content Manager integration (Adobe Form Server 5.1 for IBM) work with Adobe Form Server 6.0?**

**A:** IBM DB2 Content Manager currently works with Adobe Form Server 5.1. A new version is scheduled for release later this year that has direct integration with Adobe Form Server 6.0.

**Q: Does the Documentum enterprise content management integration (Adobe Form Server 5.1 for Documentum) work with Adobe Form Server 6.0?**

**A:** Documentum currently works with Adobe Form Server 5.1. A new version is scheduled for release later this year that has direct integration with Adobe Form Server 6.0.

**Q: When will the Adobe Form Server integrations with IBM DB2 Content Manager and Documentum be migrated to Adobe Form Server 6.0?**

**A:** Adobe currently plans an updated release for the integration with Content Manager near the end of the year. A similar update for Documentum is planned for early 2005.

## **DOCUMENT CONTROL AND SECURITY**

**Q: What types of encryption do Enterprise Server and Design Tools support?**

**A:** Adobe Enterprise Server and Design Tools support password-based encryption using 40-bit or 128-bit RC4 encryption. Or, users can take advantage of certificate-based (PKI) encryption that uses up to 2,048-bit RSA encryption.

**Q: How are documents encrypted and decrypted?**

**A:** Using APIs on the server, documents may be encrypted by either of the following methods:

- Shared password protection: All recipients use a single password to open the document. Authors can optionally add a password that restricts the modification of permissions assigned to the rights of the document.
- User-targeted encryption: Public key infrastructure (PKI) is used to assign unique access rights to each recipient, eliminating the need to create and distribute passwords to recipients.

When the recipient opens the file, either a password must be entered before the file is decrypted, or the file is decrypted automatically using the recipient's private key. There are four encryption/decryption paths: server to server, server to desktop, desktop to server, and desktop to desktop.

**Q: Can I use a hardware security module (HSM) to store my certificates and private keys?**

**A:** Yes. Adobe recommends the use of an HSM to store highly sensitive private keys and certificates. Adobe Enterprise Server and Design Tools use the industry-standard PKCS11 interface to communicate with HSMs.

**Q: Is an HSM required?**

**A:** No. Adobe recommends the use of an HSM, but it is not required. Organizations that do not use HSMs should store their highly sensitive private keys and certificates in encrypted files on their computers.

**Q: What types of digital signatures are supported?**

**A:** Adobe Enterprise Server and Design Tools support digital signatures based on PKCS1 and PKCS7.

**Q: How are digital signatures applied and verified?**

**A:** Using an API, users can digitally sign or certify electronic documents. When a user needs to verify a certified document, an API will automatically do three things:

- Validate the digital signature using trust points from third-party certificate authorities
- Verify the certificate used by the author to apply the digital signature by checking it against the certificate revocation list
- Report any unauthorized tampering with the document

**Q: Do I need a specific version of Adobe Acrobat to leverage the strengths of Adobe Document Security Server 6.0?**

**A:** No. Adobe Document Security Server 6.0 offers support for all versions of Adobe Acrobat. However, to take full advantage of the benefits it has to offer, Adobe recommends using Adobe Acrobat 6.0.

**DEVELOPERS**

**Q: How would I develop in your environment?**

**A:** If you wish to create a form, use Adobe Designer 6.0. On Adobe server products, you may use any Java development environment, such as Eclipse or WebSphere Application Developer. You may also use a plug-in that integrates Adobe Form Designer 6.0 with IBM WebSphere Studio Application Developer. This plug-in enables WebSphere developers to integrate form filling and processing directly into their Web applications.

**Q: If I create an application using the new products, how do I manage it?**

**A:** You can manage applications using an application server.

**Q: What scripting languages are supported? What's the development environment for scripting?**

**A:** Adobe Enterprise Server and Design Tools support JavaScript and FormCalc. Developers can use Adobe Designer 6.0 to create the scripting.

**Q: Do you provide built-in support for SOAP and WSDL?**

**A:** Adobe Form Server 6.0 supports SOAP. Adobe Designer 6.0 can bind to WSDL files and call them.

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