Adobe® XML Architecture

Q. **What is the Adobe XML architecture?**

A. The new XML architecture is an open framework that uses eXtensible Markup Language (XML) and Portable Document Format (PDF) for extending the value of enterprise applications and streamlining business processes inside and outside the firewall. It delivers full XML integration from server to client. Key components include intelligent forms, process automation, data integration, security, and publishing for archiving and printing.

Q. **What is the advantage of combining XML and PDF?**

A. XML is ideal for large enterprises and governments to enable data interchange between systems. PDF is the de facto standard for electronic documents and forms, especially in regulated industries and government settings, because it delivers documents securely and reliably. The combination of XML and PDF will enable organizations to put a human interface on XML to let people participate more directly in business processes.

Supporting online and offline workflows is another important advantage to the Adobe XML architecture. With many data capture solutions, a live server-side connection is required to build intelligence (calculations, business logic, security, etc.) into the process. Since XML data can include that intelligence, and can be built into PDF, the ability to carry the data with the document supports offline workflows inside and outside the firewall.

Q. **What's an example of a customer workflow that takes advantage of XML for data interoperability and PDF for presentation?**

A. Here's an example of an employee filling out and submitting an expense report for approval. The employee has just completed a business trip to a field office overseas and wants to fill out his expense report while he's on the plane. He downloads the form while he's still connected to his company's intranet. The form is prepopulated with information such as his name and employee number. While offline, he can still add his expenses, and the intelligence that is included with the form automatically totals them and makes the necessary currency conversions. When he's connected again he clicks "Submit" on the form and the XML data and business rules contained within the form drive the next step of the process. Based on the logic, the form is then routed to his manager for approval. The fields filled in by the employee are now uneditable when presented to the manager, who can view, comment on, or approve the expense report. When the manager submits the approved form, the XML data will be integrated into the back-end system and the form (with the data) will be automatically archived as a document of record.

Finally, once the data has been logged into the financial system, the business logic contained in the XML will initiate a process to extract the relevant information and merge it with a template to generate the reimbursement check, either in real time or as part of a batch process, as well as to generate a personalized approval notification to be sent to the employee via e-mail.

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Q. How do Adobe's server products support XML today?

A. Adobe's server products offer powerful support for XML by enabling XML form design for intelligent data capture solutions, business process automation with support for XML business logic, and dynamic generation of personalized documents from XML data.

Q. How does Adobe Acrobat® support XML today?

A. Adobe Acrobat 6.0 software currently supports XML in the following ways:

- With the eXtensible Metadata Platform (XMP), Adobe's XML schema for tagging information within a PDF file, users can embed meaningful information for searching, archiving, and integrating documents with content management systems.

- Users can create tagged Adobe PDF files that preserve document structure, to enable both the easy reuse of content and the ability to make documents more accessible to users with disabilities.

- Data streams from flat files (XFDF, FDF) can be imported and exported.

Q. What is the new support for XML?

A. Acrobat and Adobe Reader 6.0 software will support PDF forms that include arbitrary XML (often called user-defined XML) data. Additionally, Acrobat can create an XML file that includes PDF. This is important because it enables direct data exchange between business systems while also delivering a PDF document when human interaction is required in the process.

Q. How do Acrobat and Reader use arbitrary XML?

A. Acrobat and Reader are able to read in arbitrary XML to prepopulate a form with data, carry the data with the document as it moves through the enterprise workflow, add or modify data at various points in the workflow, and integrate the data—with changes—back into the core business applications and repositories.

Q. How can I create PDF forms that support arbitrary XML?

A. Over the coming months, Adobe will deliver a new tool for designing XML and PDF templates and forms that will enable form designers and developers to include user-defined XML.

Q. What are the resources Adobe is providing to developers?

A. Adobe is taking an open approach by publishing the Adobe XML architecture specification and making it publicly available. Adobe will offer a toolkit to provide easy access to PDF file content from common scripting languages and Java. Additionally, because XML is by definition an open standard, developers can use all standard XML tools with Adobe's XML architecture.

Q. How do I get started today with moving my document processes online?

A. Adobe delivers the broadest range of offerings for organizations that are at any stage of automating document processes. From moving paper online to fully integrated document process management solutions, the Adobe Acrobat and server product lines are the foundation of solutions that connect people, processes, and systems.

For example, the current Adobe Form Designer is a WYSIWYG design tool for creating intelligent XML templates, providing a simple way to develop and maintain sophisticated data capture solutions. Using Form Designer, you can create both HTML and Adobe PDF forms.

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