Lotus. software

IBM

Recognizing the Business Value of Workplace Forms

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The Session at a Glance

- What is Workplace Forms about and the Business Value

- Background

- Workplace Forms Product Set

- Integration

- Demo

- Q & A

IBM® Workplace Forms™ helps reduce the time, costs, and problems **inherent** to manual, paper-based forms processes.

Providing far more than simple electronic print and fill capabilities, IBM Workplace Forms aids in **streamlining** and **automating** end-to-end business processes that are initiated by forms.

The costs of using and processing paper forms in many organizations today is staggering

- A single paper form costs $30-$165 to use, enter, process and retain
- $22.5B is spent on pre-printed forms in the US alone
- 30% of pre-printed forms are wasted
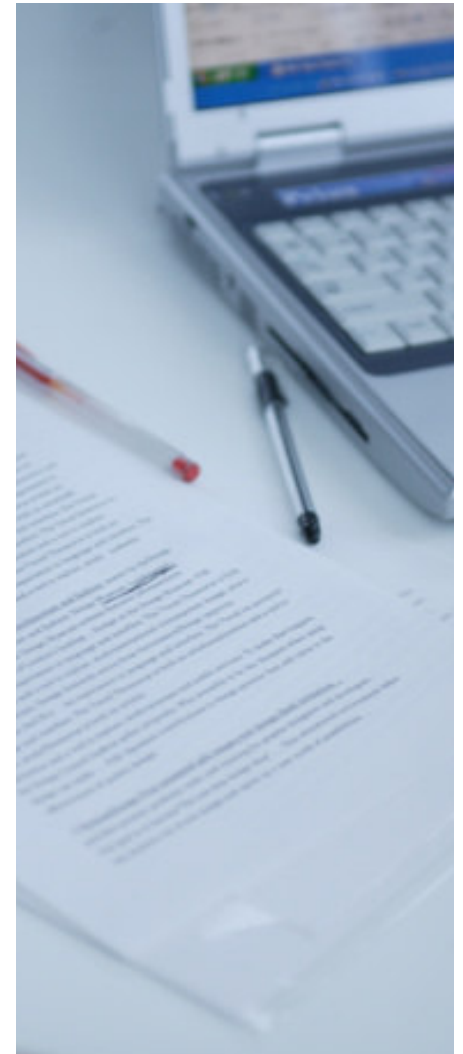
The "Real" Cost of Paper:

Typical 100 Person Office		
Paper	$30,000
Printing	$105,000
Copying	$135,000
Faxing	$20,000
Mailing	$27,000
Courier	$50,000
Storage	$70,000
Disposal	$10,000
	$447,000

Paper forms also create significant negative business impacts beyond basic processing costs

- **High degree of errors and rework**
  - ▸ Form users fill out forms incorrectly or illegibly
  - ▸ Data entry personnel re-key data into backend systems incorrectly
  - ▸ Optical Character Recognition (OCR) scanners read incorrectly
  - ▸ Mailing or faxing time lengthens business processes

- **Increased call center / Support costs**
  - ▸ Lack of 'wizards' or business logic in paper forms causes increased calls to support centers for clarification
  - ▸ Incomplete or illegible forms require outbound calls to resolve

- **Difficulty proving regulatory compliance**
  - ▸ Difficult to link forms, signatures, and attachments throughout an end-to-end business transaction

- **Decreased business flexibility**
  - ▸ Updating, printing, and distributing new paper forms is costly
  - ▸ Transition to new forms creates a window of increased errors and rework while both 'old' and 'new' forms must be accepted

IBM Workplace Forms simplifies forms for end users, saving them time and effort

✓ **Guided wizards** *make complex forms easier for end-users*

✓ **Error checking** *is provided at data entry*

✓ *Pixel-precise eForms may be completed* **online or offline**

✓ *Pre-populated* **data from backend systems** *reduces demands on end-users*

✓ *Global eForms in* **26 languages** *allows for greater reach to more end-users*

✓ **Rich client** *or* **zero-foot print** *eForms*

Clients are more satisfied when they can do business more easily and efficiently with your organization

Guided wizards make complex forms easier for end-users

Browser-based and rich client forms

IBM Workplace Forms Viewer
Embedded in a Web Browser
(Also runs stand-alone without browser)

IBM Workplace Forms Server
Browser-only rendition of XHTML

Background

- First XML Intelligent Document introduced in 1998 by PureEdge Solutions

- IBM acquired PureEdge Solutions effective August 1, 2005

- PureEdge technology becomes an integrated part of the IBM products as well as remain a standalone component

- Leadership within standards community (e.g., W3C, XML, & XForms)

- Over 5M users across numerous end user organizations including some of the largest enterprises in the world

- Customers have integrated PureEdge component technology ao. with IBM Lotus, DB2, Websphere, and Tivoli middleware

IBM Workplace Forms Products:

- **IBM Workplace Forms Viewer**

  - ▸ feature-rich desktop application used to view, fill, sign, submit, and route e-forms

  - ▸ able to function on the desktop or within a browser

  - ▸ Enables full connectivity with real-time integration using Web Services

  - ▸ Based on open standards to enable Viewer to operate in portal or stand-alone environments

- **IBM Workplace Forms Designer**

  - ▸ an easy-to-use WYSIWYG e-form design environment

  - ▸ supports the drag-and-drop creation of precision forms

  - ▸ leverages open standards to deliver forms-based solutions, based on XML and XForms

  - ▸ XFDL (eXtensible Forms Description Language)

IBM Workplace Forms Products:

- **IBM Workplace Forms Server**

  ▶ Webform Server

    ▪ delivers a true zero-footprint solution

  ▶ API

    ▪ enables the creation and delivery of XML forms applications

    ▪ provides a common, open interface to enable integration of e-forms data with server-side applications

    ▪ provides an extension mechanism, which enables application developers to extend the functionality of Viewer

  ▶ Deployment Server

    ▪ provides Viewer to external users quickly and efficiently within a browser

Workplace Forms – Supported Platforms

Workplace Forms Viewer 2.6
   Microsoft Windows 2000 sp2, sp3, sp4
   Microsoft Windows XP sp1, sp2

Workplace Forms Designer 2.6
   Microsoft Windows 2000 sp2, sp3, sp4
   Microsoft Windows XP sp1, sp2

Workplace Forms Server and API 2.6
   Microsoft Windows 2000 Server sp2, sp3, sp4
   Microsoft Windows 2003
   Microsoft Windows XP sp1, sp2
   IBM AIX V5.1 or V5.2 on IBM pSeries server
   Red Hat Linux 3.0 Enterprise Server
   SUSE Linux Enterprise 10 (32 bits) – v2.7
   Sun Solaris 2.7 or 2.8 on a Sparc processor

What is XForms?

- **First published by the W3C (World Wide Web Consortium) in 2003**
  - ▶ XForms is a W3C web standard for the creation of the "next generation of Web forms"
  - ▶ Dr. John Boyer, Senior Product Architect for IBM Workplace Forms, is currently co-chair of the XForms Standard
  - ▶ Workplace Forms supports version 1.0, with select features from version 1.1

- **A language for the "next generation of Web forms" - W3C**
  - ▶ Original intent was to improve HTML forms
  - ▶ Grew beyond this once they began to understand complexity of forms
  - ▶ Meant to be used as a conjunction with other languages (XHTML, XFDL, etc..)

- **Supported by numerous companies**
  - ▶ Including IBM, Novell, Oracle, Documentum, SAP, Sun…

- **XForms**
  - ▶ Not an acronym, that's the full name

XForms is an open standard

- **Builds on the syntax of XML data schemas**
- **Provides Rules and User Interface abstraction**
- **Enables a forms data processing model**

- **Ensures interoperability**
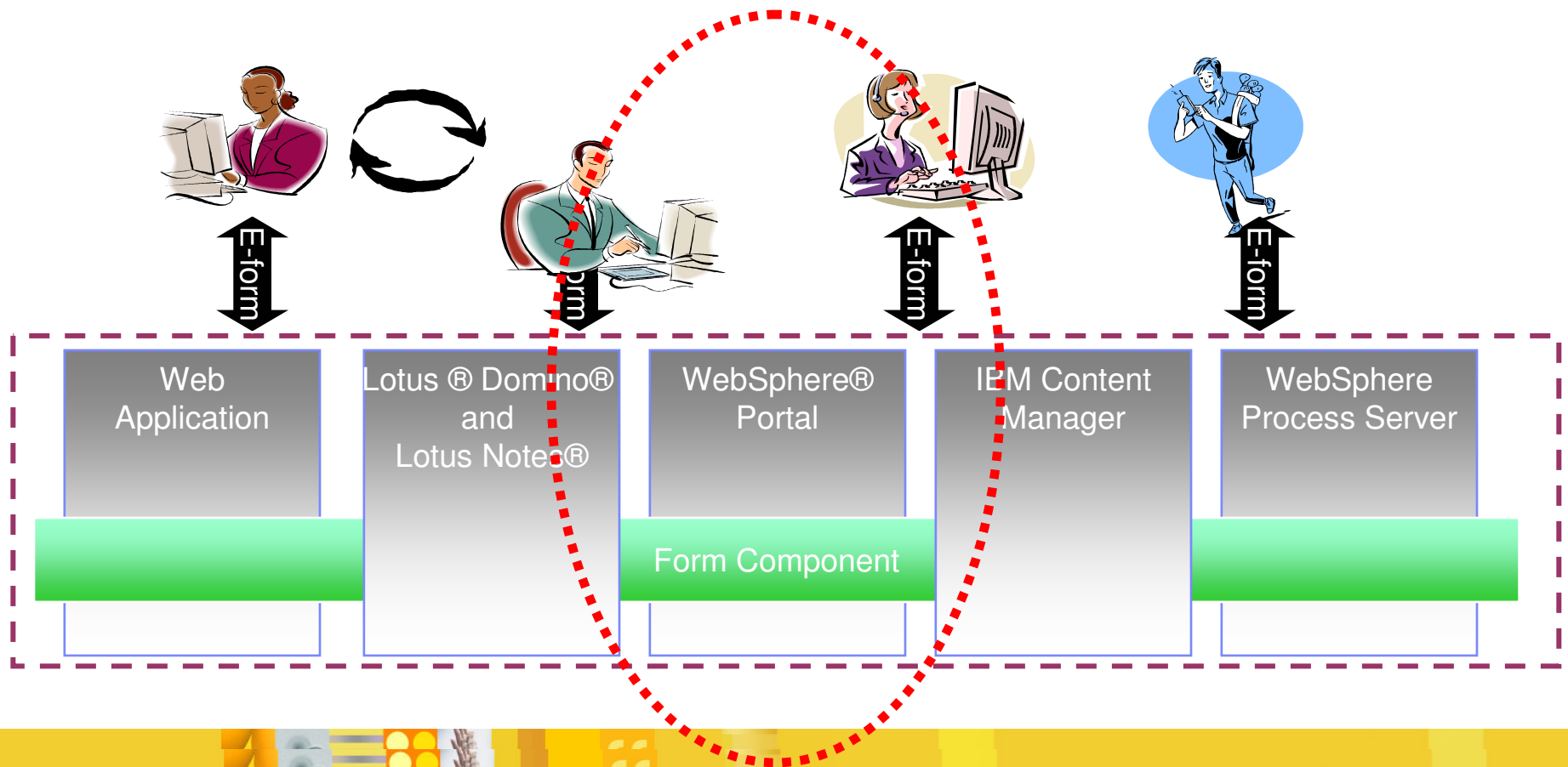- **Speeds time-to-market**
- **Reduces costs"**

Innovation :

Application Specific Implementation

Standardization :
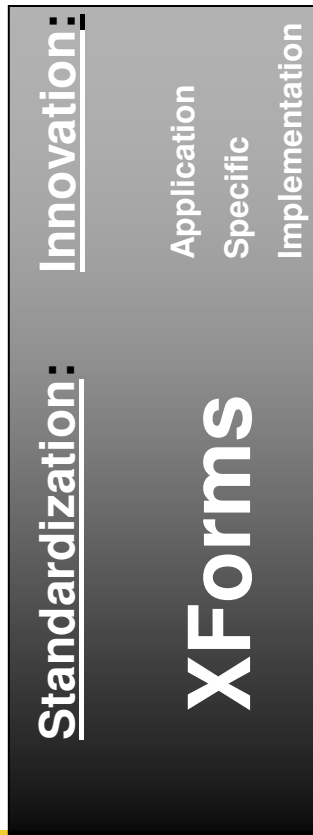
XForms

Forms-Based Application

Forms Application – Specific XForms Deployment
(Platforms, Rich/Thin Client, UI - use XHTML, WML, XFDL)

User Interface – XForms Intent-Based UI Description

Data Rules – XForms Processing Rules
Rules govern and describe the context, processing and usage of the form and its data

Data Syntax – XML Data Schemas
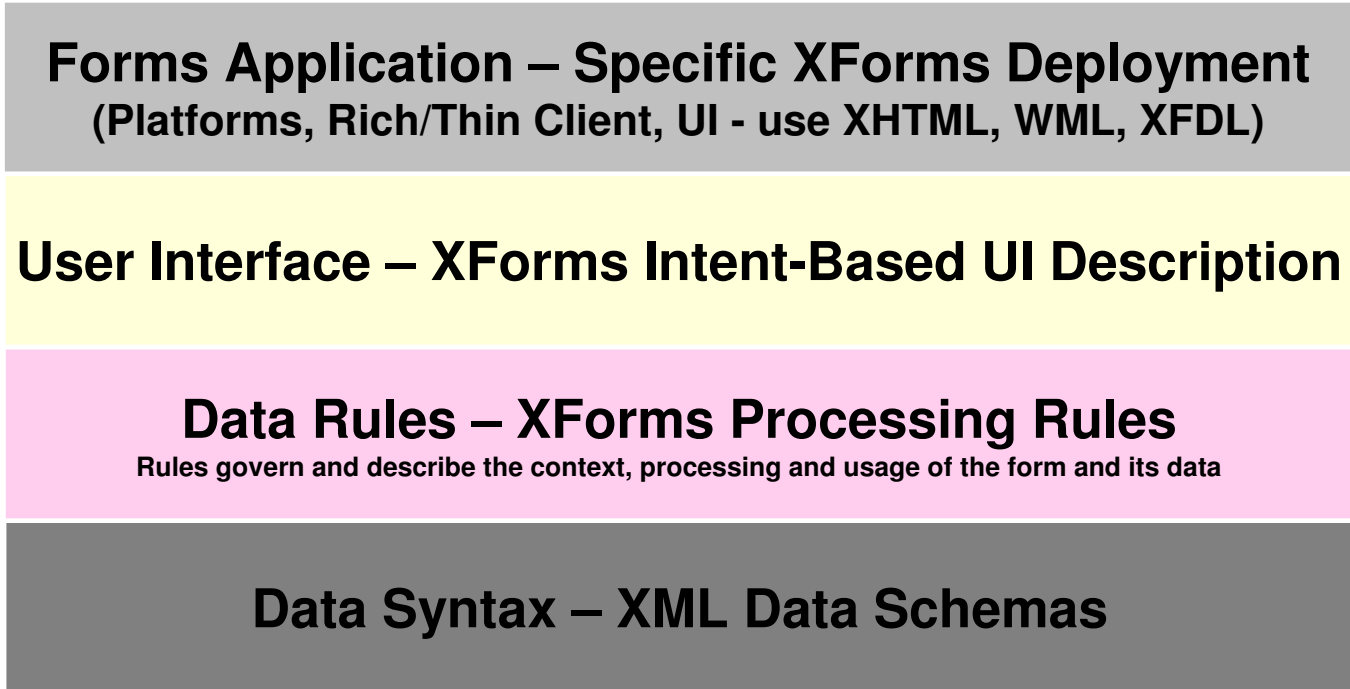
Adapts to your IT Environment

IBM Workplace Forms' open standards foundation helps make eForms a common front-end many different IBM software products

Integrating – Web Application and Forms Server

Integrating Workplace Forms – Portal and PDM

Workplace Forms – Building Better Records

Workplace Forms are *document centric* not data centric

Digital Signatures

- **Workplace Forms capture the entire context of a transaction**

Presentation

The look of the form

Colors, fonts, layout

The "fine print"

Data

Information entered by users

Information entered by programs

Electronic signatures

File attachments
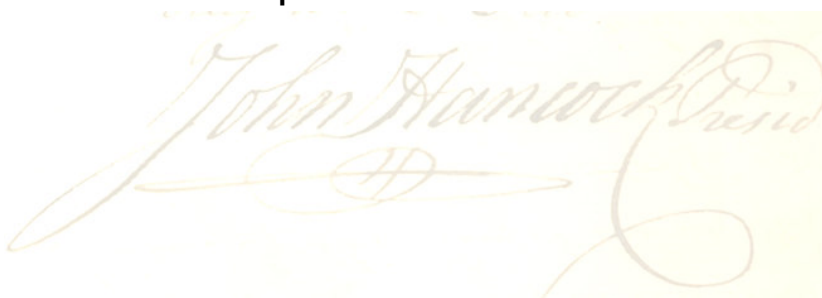
Logic

Business rules controlling form behavior

Calculations, validations
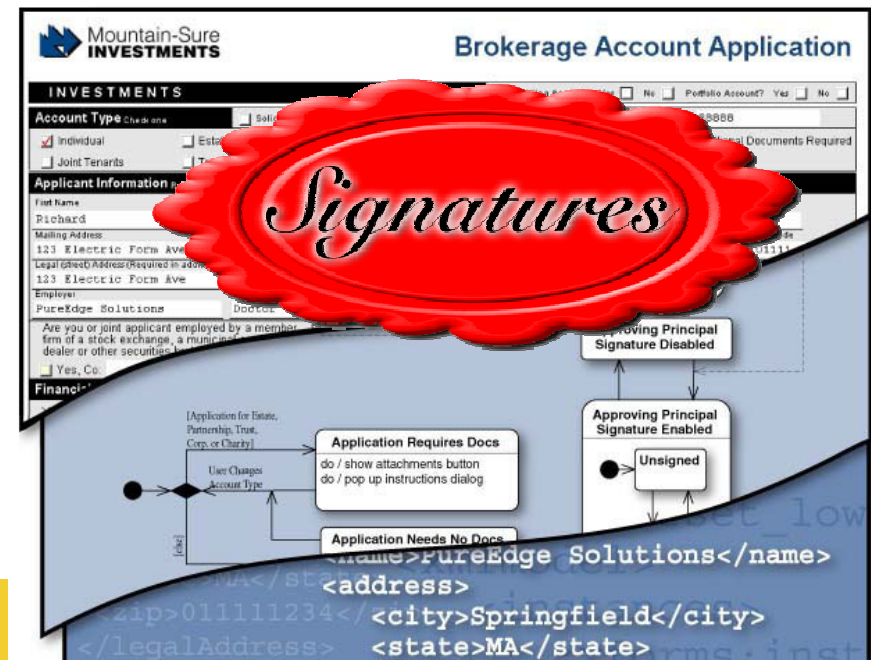
Digital signatures

- **Broad support for signature technology**

  - Entrust, RSA, Verisign, Microsoft, Netscape, WinTab 1.1., Silanis, etc.

- **Flexible signature options**

  - Different people can sign different parts of the form

  - **Presentation**, **Data** and **Logic** are included in each signature

  - Use Click-Wrap with or without authentication and reduces reliance on an expensive PKI implementation.

Workplace Designer

Role Based

- **<u>Workplace Forms Designer/Professional</u> - creates presentation layer**

- **<u>Business Analyst</u> - creates the business rules appropriate to the workflow/process as required - could also be Workplace Forms Designer**

- **<u>Data Analyst</u> - IT interface to get the XML Schemas necessary to integrate information with Back End systems**

Integrated Environment
- **All three of these resources can work within the Eclipse Project paradigm and leverage standard Eclipse plug-ins like CVS (for check-in/out for example).**
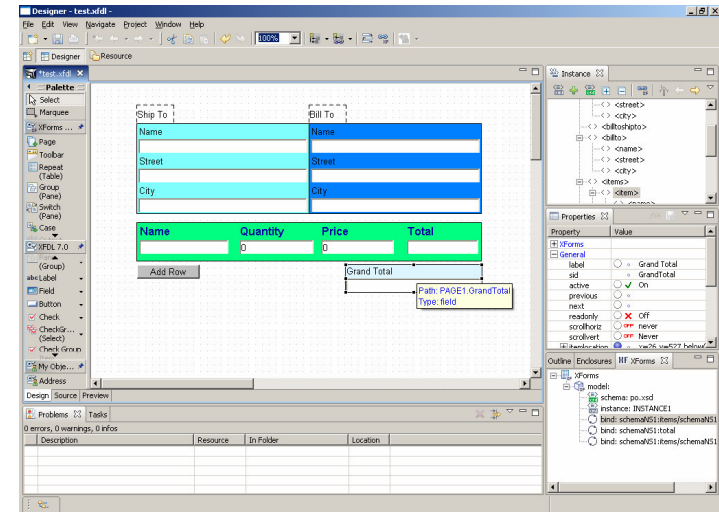
Example: A forms designer can layout a form while a data analyst extracts XML Schemas and makes them available for the forms designer to bind to fields and build logic on.

Team members can tailor their Eclipse Perspectives as required to optimize their environment

About Webform Server

How many legs does this elephant have?

About Webform Server

Webform Server overview

- **Webform Server is a zero footprint forms solution**
  - ▶ Forms are rendered directly in a web browser as DHTML
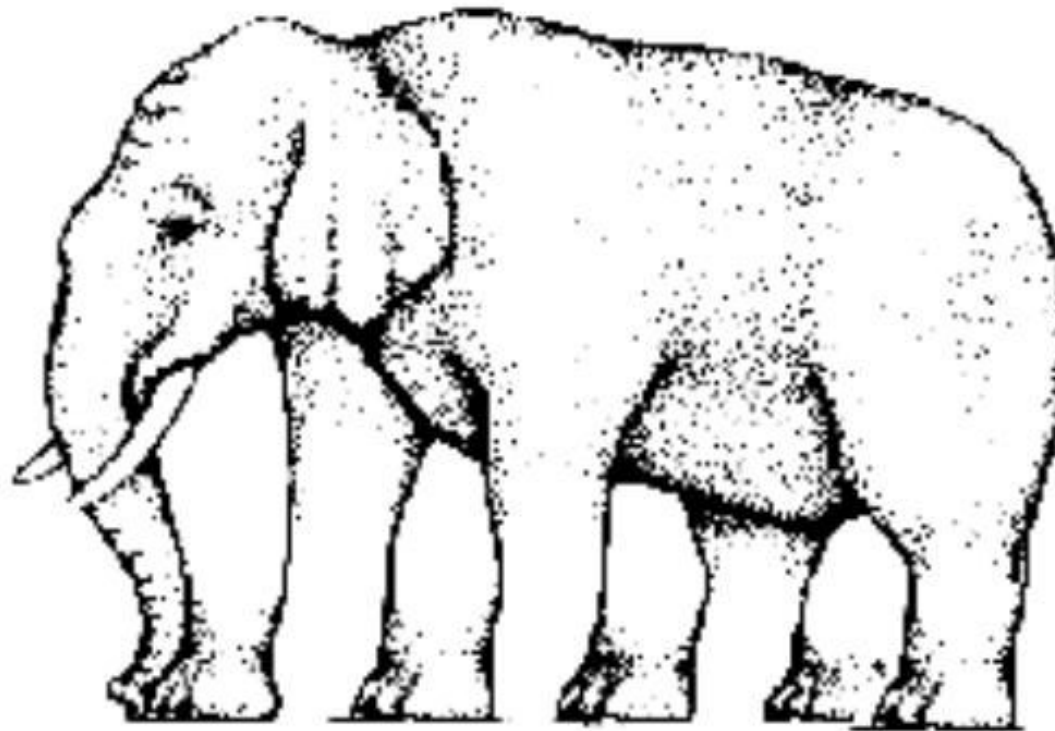   - Uses same XFDL files as Viewer
    - XFDL forms are converted to DHTML, then sent to user
    - DHTML is converted back to XFDL when user submits form

  - ▶ Forms looks almost exactly as they do in the Viewer
    - Most notable difference - the Webform Server toolbar

  - ▶ Removes the need to deploy and manage the Viewer
    - Forms are accessible to all users, including general public

Webform Server overview

- **Works as either a servlet or a portlet (JSR 168)**
  - ▸ Code a servlet/portlet that extends the Webform Server framework
  - ▸ Servlet/portlet processes the XFDL form
  - ▸ Translation of form to HTML is 'invisible' to the servlet/portlet application

- **Automatically detects Viewer**
  - ▸ If the end-user has the Viewer installed, it will serve XFDL – if not, HTML
  - ▸ You can force HTML if you prefer

- **Provides accessibility support**
  - ▸ Provides support for enhanced focus indicator (as in Viewer) and JAWS screen reader

Webform Server interface

"Hybrid" Viewer and Zero-Footprint Deployment

Internet/Intranet

Servers

Rich Client PC

Deploy IBM
Workplace Forms
Viewer

SSL

Web Server

Workplace Forms
Deployment
Server

Workflow Systems

Browsers with
WF Viewer

XFDL Form

DB2

Data Repositories

Client PC

HTML Form

SSL

Web Server

Customer Application

WF API | 3rd Party APIs

WF Webform Server
Servlet Class

Document Repositories

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Standard Browsers

**Corporate
Firewall/Proxy**

Designer PC

Workplace Forms
Designer

Intranet

Banking case study: MidFirst Bank

- **Business Challenge**
  - ▸ Wire Transfer request process needed to move large amounts of money between banks
  - ▸ Process needed to comply with government rules and regulations
  - ▸ Complex internal processes required multiple approvals
  - ▸ Existing process was a manual, paper-based system which was exceedingly slow and prone to human error

- **Workplace Forms Solution**
  - ▸ Wire Transfer Request online forms processing via Workplace Forms
  - ▸ 36 bank branches and over 2,000 employees using the solution

- **Benefits / Results Achieved**
  - ▸ Ensures the security and compliance of transactions
  - ▸ Decreased time required for transfers from teller to the Federal Reserve's FedLine System
  - ▸ Creates an audit trail for each transaction
  - ▸ Digital signature approvals for security and accountability

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U.S. Army

The new program will provide the Army with the means to "develop one single enterprise solution for automating functional business processes for the entire Army's use." - Jeanne Harman, chief, Army Publishing Division, Alexandria, Virginia

http://www-306.ibm.com/software/success/cssdb.nsf/CS/JKIN-6F3NYF?OpenDocument&Site=wp
http://www.army.mil/

Workplace Forms customers are achieving significant cost savings and operational efficiency

The Client	The Solution	The Return on Investment
U.S. AIR FORCE	Enterprise Workplace Forms deployment: 18,000 forms, serving 700,000 employees globally	ROI $50 Million annually. (Army is estimating $1 billion+ payback, serving 1.5 million users)
Securities & Exchange Commission (SEC)	Financial disclosure Workplace Forms solution serving 27,000+ publicly traded companies within US Markets	Estimated annual cost savings to taxpayers of $1.8 million
Woodmen of the World	Intuitive wizard based Workplace Forms solution guiding insurance agents through policy application process with real-time data validation	Policy application process time reduced from weeks to hours with electronic e-Pad integration
Nike	Collaborating with 2000 suppliers using online Workplace Forms	Estimated savings of 60,000 person hours in first six months from one e-form alone

Key Features of IBM Workplace Forms

➢ **Dynamic, intelligent, wizard-driven user interface**
  - ✓ Simplifies and enables the design of complex dynamic presentation within forms. Users are guided through completion of the form.

➢ **Support W3C Open Standards**
  - ✓ Workplace Forms is based on XForms 1.0

➢ **Off-line manipulation**
  - ✓ Improve productivity through off-line access to initiate, complete, or review forms and documents.

➢ **Zero-footprint (validated HTML) delivery option**
  - ✓ Extend reach of core processes to customers or business partners without sacrificing data quality, security or precise layout and printing.

➢ **Pixel-precise layout and printing**
  - ✓ Flexibility and detailed control of forms design. Comply with regulations and standards.

➢ **Integration with Back-end systems**
  - ✓ Flexibility through API using JAVA, .COM and .NET

Thank you!

IBM home page	**ibm.com**
Lotus software home page	**ibm.com**/lotus
IBM Workplace home page	**ibm.com**/software/workplace
Workplace Forms home page	**ibm.com**/software/workplace/forms

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Finding your way through the maze of software solutions for "web based forms"

How do I provide a mechanism for passing form contents to

Webform Server overview

- **Cross-platform fill experience**
  - ▶ Supports both Windows and Macintosh
    - ▪ IE 6.0, IE 7 for Windows XP sp2
    - ▪ Firefox 1.5 and 2 for Windows (and should work on Macintosh)
  - ▶ Provides a cross-platform front-end for forms applications
    - ▪ Can be used as a forms front-end for applications, just like Viewer

Webform Server interface

- **Browser forms appear almost exactly like Viewer forms, except:**
  - ▶ Some differences in form appearance due to nature of HTML widgets
  - ▶ Only 6 buttons are available on the toolbar

- **Intended to replicate look and feel of Viewer**
  - ▶ Maintains "sign what you see" philosophy
  - ▶ Forms signed in Webform Server will look the same when inspected in Viewer, and vice versa

Reach more form users with global eForms in 26 languages

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IBM Workplace Forms Roadmap

Mid 2006

IBM Workplace Forms 2.6

- **Eclipse**-based Designer
- **XForms** 1.0 Support
- **Web Forms Server**
    - Dynamic Fill (based on AJAX)
    - Mac support (Firefox)
- **Localization** to **
    - Designer: Group 1 *
    - Viewer: Groups 1, 2 & "Also" *
    - AIX 5.1-5.3 on P-Series

2007

IBM Workplace Forms Future

2007
- **Macintosh** viewer
- **Localization** to remaining G2 languages (Arabic **Bi-Di**)
- Ongoing **user-centered design**

Also
- **XForms-only Viewer** (IE Plug-in)
- **Multi-Platform Viewer** based on demand e.g. **Linux, devices**
- **Converge** Web Forms Server capability w/ Viewer (AJAX / Web 2.0)
    - e.g. Browser-based Digital Sig.
- Redaction
- Deepen **standards** support e.g. DSig, SVG, Industry-aligned

Integrations

*   *Language Groups*:
    Group 1 = Chinese (simplified & traditional), Japanese, Korean, French, German, Italian, Spanish & Portugese (Brazil).
    Group 2 = Arabic, Czech, Danish, Dutch, Finnish, Greek, Hungarian, Norwegian, Polish, Portuguese (Portugal), Russian, Swedish, Turkish.
    Also Romanian, Slovak, Slovenian & Croatian
** No Bi-Di support (Arabic) in 2006