



SharePoint 2010 Business Process, Workflow and Forms

June 11, 2010

IN COLLABORATION WITH
Microsoft[®]



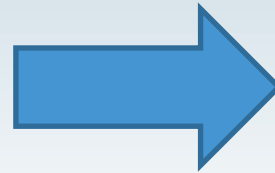
Microsoft®
SharePoint® 2010

Overview

Explicit vs. Tacit knowledge



Early 20th century activity

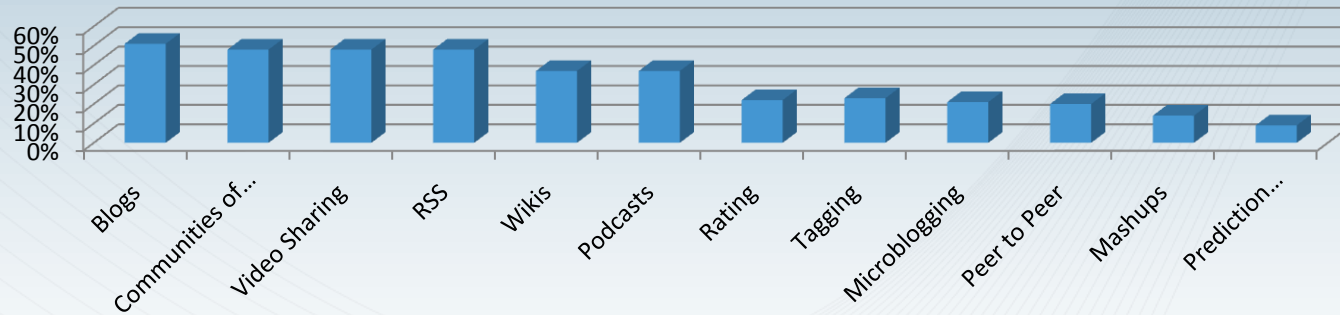


Early 21st century activity

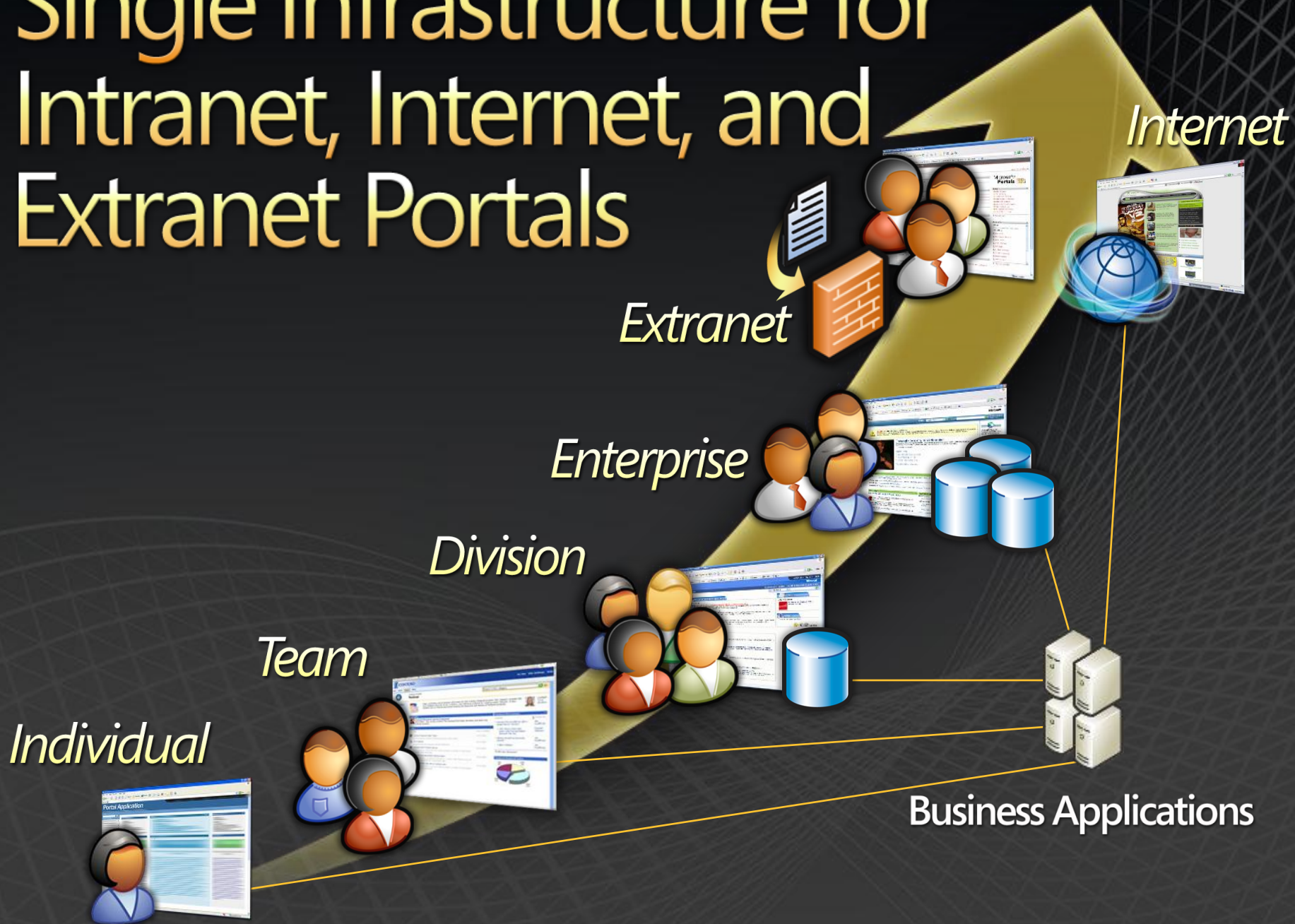
Web 2.0 Technology Usage

How companies are benefiting from Web 2.0: Kinsey & Company, September 2009

Usage for business purpose



Single Infrastructure for Intranet, Internet, and Extranet Portals



SharePoint 2010



Intranet



- *Enterprise Client Access License (CAL)*
- *Standard Client Access License (CAL)*

Internet / Extranet

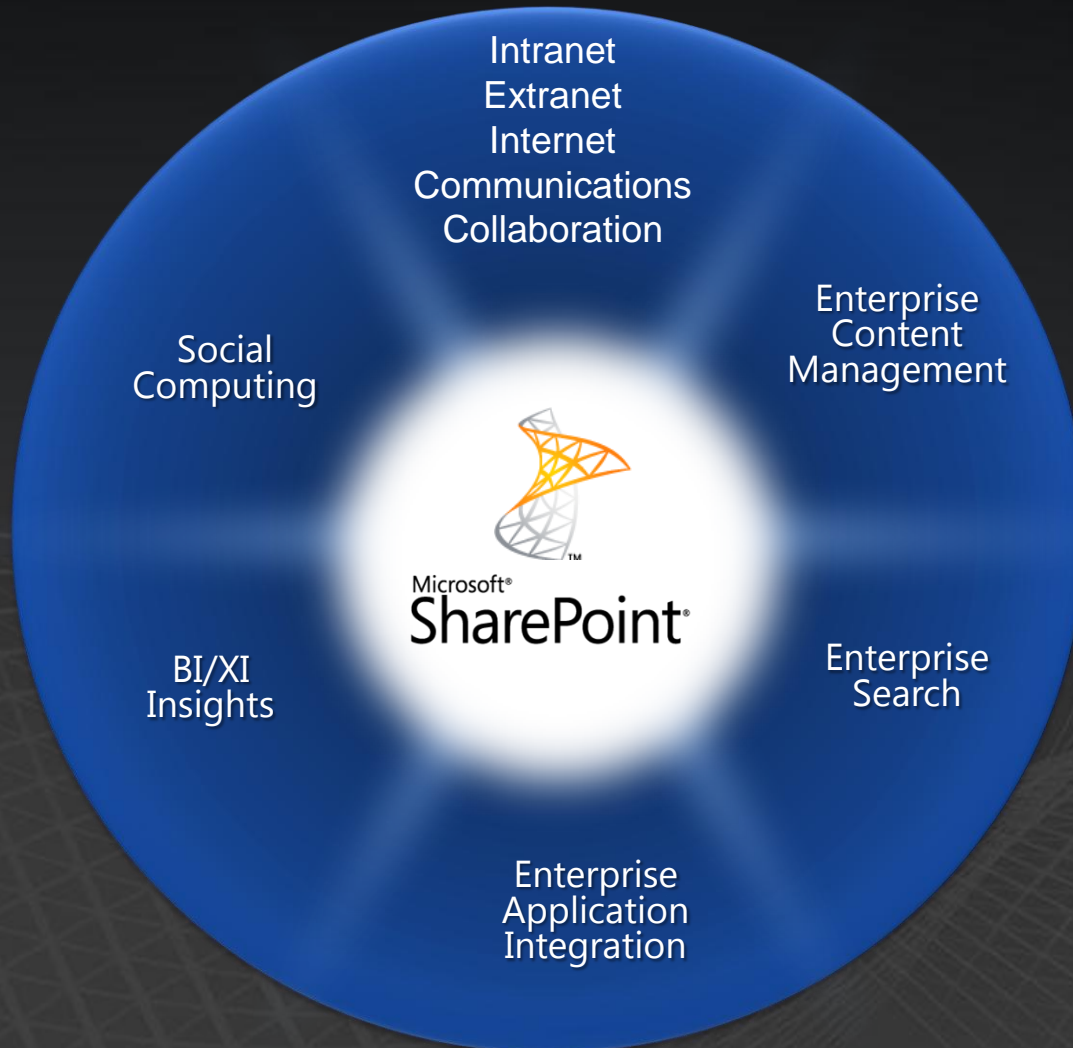


Enabling Technologies



Microsoft SharePoint 2010

Web Enabled Business Process Automation Platform



real estate risk

Start with a simple query, quickly find and explore

Top information from Woodgrove...new market view report to send to clients

> Save Search > Related Searches

Contact History



Net Worth



% Risk



Client Type



State



All (6452) Customers (2100) Experts (12) ... (10)

- Active (2051)
- Prospects (49)

Results: 4452

Order by: Recommend

Research

- Woodgrove Bank Advisory** Type: Report - Internal
All account managers are advised to review customer accounts to reduce holdings in residential and commercial **real estate** not meeting specified criteria. Risk to customers is considered ... (1 hour ago)
- Woodgrove Market View** Type: Report - External
This month's report analyzing risk in futures, bonds and **real estate** ... (1 hour ago)

Customers

Burk, Susan Type: Customer-Active; Madison, WI; Net worth: \$8.1M; Interactions: 32
Recommending reviewing **REIT risk** within the portfolio in light of recent ...

Lee, Oliver Type: Customer-Active; Leesburg, FL; Net worth: \$4.2M; Opportunities: Savings Account Investment; Advisor: ...

Set of Customers to explore

Finds customers beyond direct terms (REIT ~ real estate)

Experts to help, with availability and rating

View of information across different pivots, with drilldown

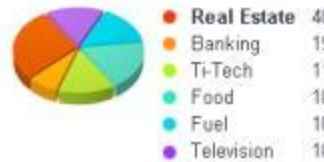
- Draft e-Mail
- Group Review
- Expert Review
- Schedule Meeting

Immediate actions on selected items

Top Holdings

- Woodgrove REIT Fund
- Nike
- BP
- Contoso Development
- Volupatem, Inc.
- A-One

Current Allocation



Contact History

- Email
12/14/2009 [Followup to allocation discussion](#): especially your comment on **real estate risk**, which I had ...
- Phone
01/12/2010 13:41m [1-212-999-1212](#): Call to Lee

Drilldown to single view with all clues about a customer: portfolio, holdings, communications, annual and quarterly customer plans, etc...

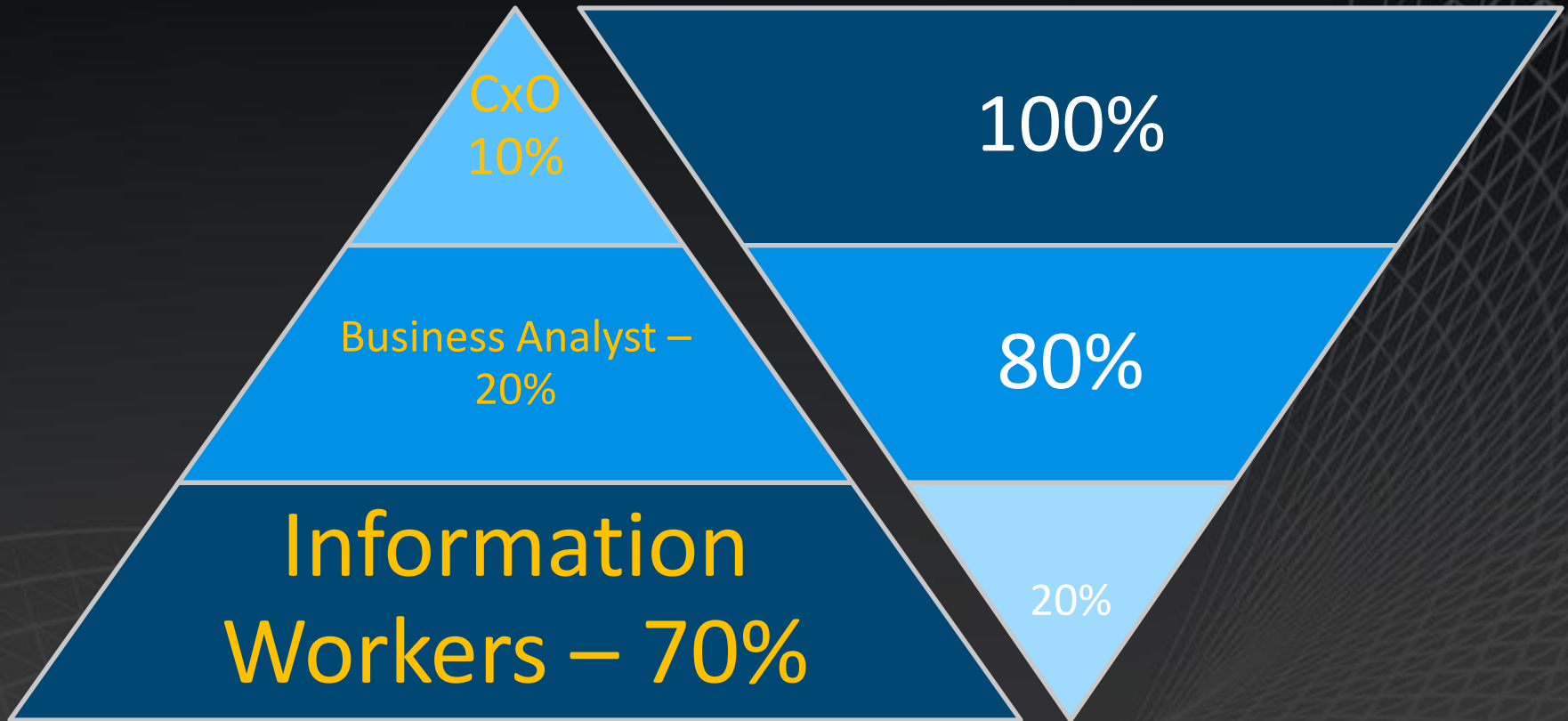
News and external opinion to monitor and send to clients

U.S. Bank Examiners Say Commercial Loans Biggest Risk
Losses on commercial **REIT real estate** loans pose the biggest risk to U.S. banks this year, troubling smaller lenders while unlikely to threaten the entire financial system, U.S. bank examiners concluded during a review. [more...](#)

Midwest Realtors | AnnaTrey1
... noticed that **REIT real estate risk** is not leveling the way the economists have predicted. [more...](#)

BI Hierarchy

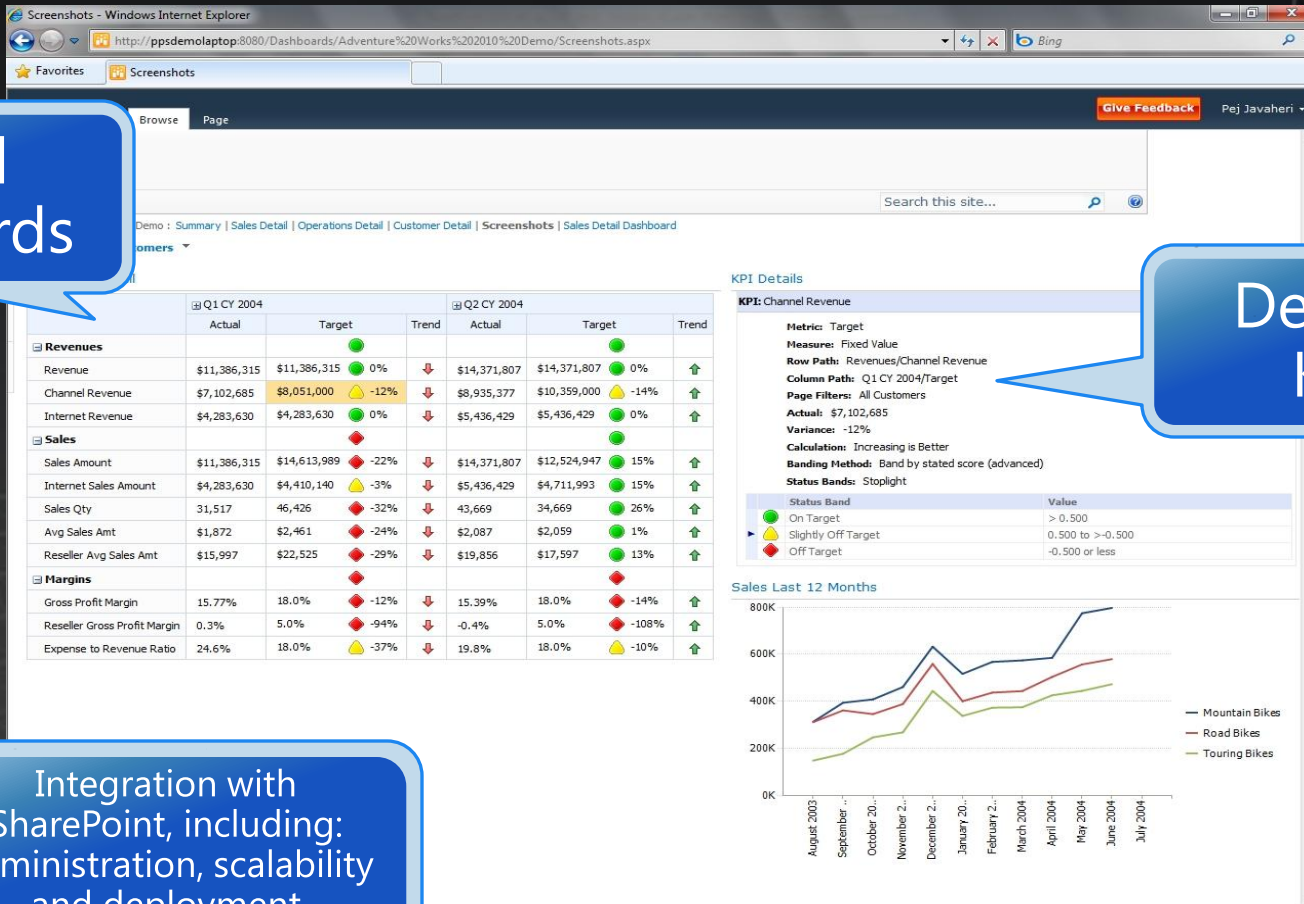
BI Deployment



SharePoint Insights

Enhanced business insight with PerformancePoint Services

Visual scorecards



Detailed KPIs

Integration with SharePoint, including: administration, scalability and deployment

SharePoint Composites

Pervasive external data with Business Connectivity Services



SharePoint lists

SharePoint Workspace with InfoPath Forms

Outlook Forms and Task panes

Order
OrderID
CustomerID
EmployeeID
OrderDate

Search results

Office Apps

- "Yet another application to learn, I don't have time".
- "Why do I need it, again?"
- It is a tool for managers to be on their case – once an opportunity is entered in the CRM system, they can be sure that they'll be pressured "Why haven't you closed that deal yet?"
 - "To keep track of my opportunities better... yeah right?"
 - "They (the management) are using it as control, to monitor my REAL performance".
- Customer data is kept in many different places in companies today, making it hard to get a Customer 360 degree view when needed.
- Structured (Line of Business) and unstructured (email, documents) data exist in disconnected islands, locking data into silos, making it hard to find the information, and rendering a common user experience impossible.

Type	Date	Time	Description
Email	7/14/2006	3:00 PM	Subject: Lorem ipsum dolor sit amet.
Call	7/16/2006	5:30 PM	Number: (740) 555-0100.
Email	7/14/2006	8:00 PM	Subject: Lorem ipsum dolor sit amet.
Instant Message	7/14/2006	10:00 AM	Subject: Hello Dr. Anderson.
Instant Message	7/14/2006	9:30 AM	Subject: Good morning Dr. Anderson.

According to John Goff, "Head Games," CFO Magazine, in July, 2004, Project failure rates for CRM implementations continue to challenge businesses: only 16 percent of CRM projects result in a positive ROI. Key to the failures of leading CRM solutions is end user adoption. As William Zarbock President of Castle CRM, a Wall Street based CRM consultancy said, "very (very) few salespeople actually like using CRM systems—which is blasphemy for someone who makes a living providing CRM products and services: If adoption hooks aren't built into the CRM system, your end-users won't use the system."

The Bottom Line: Disillusionment with packaged ISV CRM solutions is rife – user adoption is



The Standard CAL

Documents and people

Provides a collaboration platform across all types of content. Use the core capabilities of SharePoint manage content and business processes, find and share information and expertise, and simplify how people work together across organizational boundaries.

Portal
(Personalized Content
and MySites)

Document/Records
Mgmt.

Social Computing
(Enterprise Wikis, Ratings,
Folksonomy)

ECM, WCM,
Rich Media Mgmt.

Enterprise Search

Legal Holds,
In-place Records Mgmt.

The Enterprise CAL

Documents, people... and data

Enables advanced collaboration scenarios for end users to locate, create, and act on data and documents in disparate sources from within a familiar and unified infrastructure

Excel Services

PerformancePoint
Services

Advanced Charting

Visio Services

Access Services

InfoPath Forms Services

Client LOB Integration/
LOB Web Parts

Custom Reports

FAST Search Use Rights*

Portal

Doc/Records Mgmt.

Social Computing

ECM, WCM, RMM

Enterprise Search

Legal Holds, In-Place
Rec. Mgmt.

* Requires FAST Search Server 2010 for SharePoint

Introductions

- Erik Moll, Information Worker Solution Specialist, Microsoft
- Joe Seguin, Senior Consultant, Envision IT
- Peter Mackenzie, VP, Envision IT
- Peter Carson, President, Envision IT

Envision IT

Focused on complex SharePoint solutions, Envision IT is the “go-to” partner for Microsoft SharePoint, building integrated public web sites, Intranets, Extranets, and web applications that leverage your existing systems anywhere over the Internet.

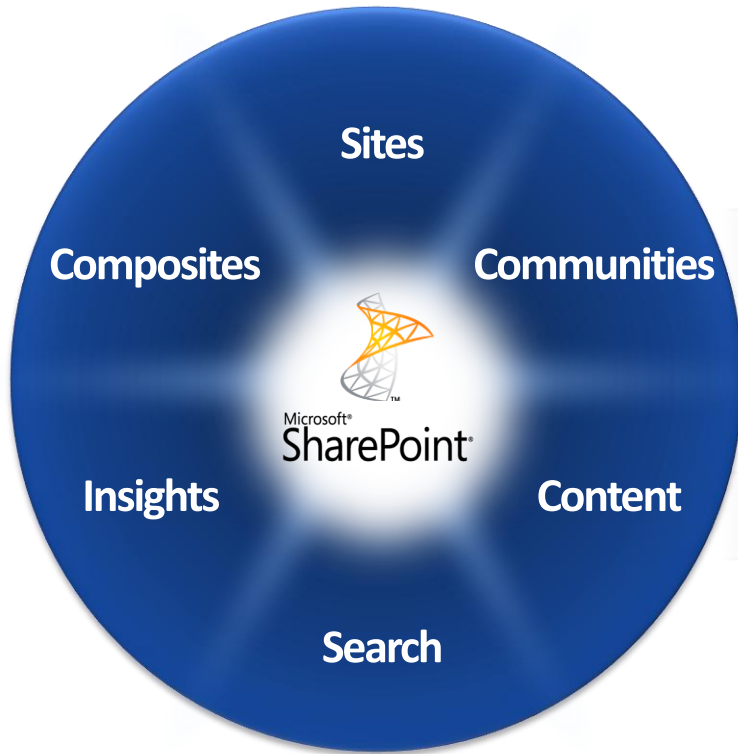


Our Focus

- Building solutions for intranets, collaboration portals, extranets and internets with SharePoint
- Extending SharePoint past out-of-the-box features
- Supporting our focus:
 - Custom .NET Development and Business Process Automation
 - Business Intelligence
 - Business Productivity Training

Microsoft SharePoint 2010

The Business Collaboration Platform for the Enterprise and the Web

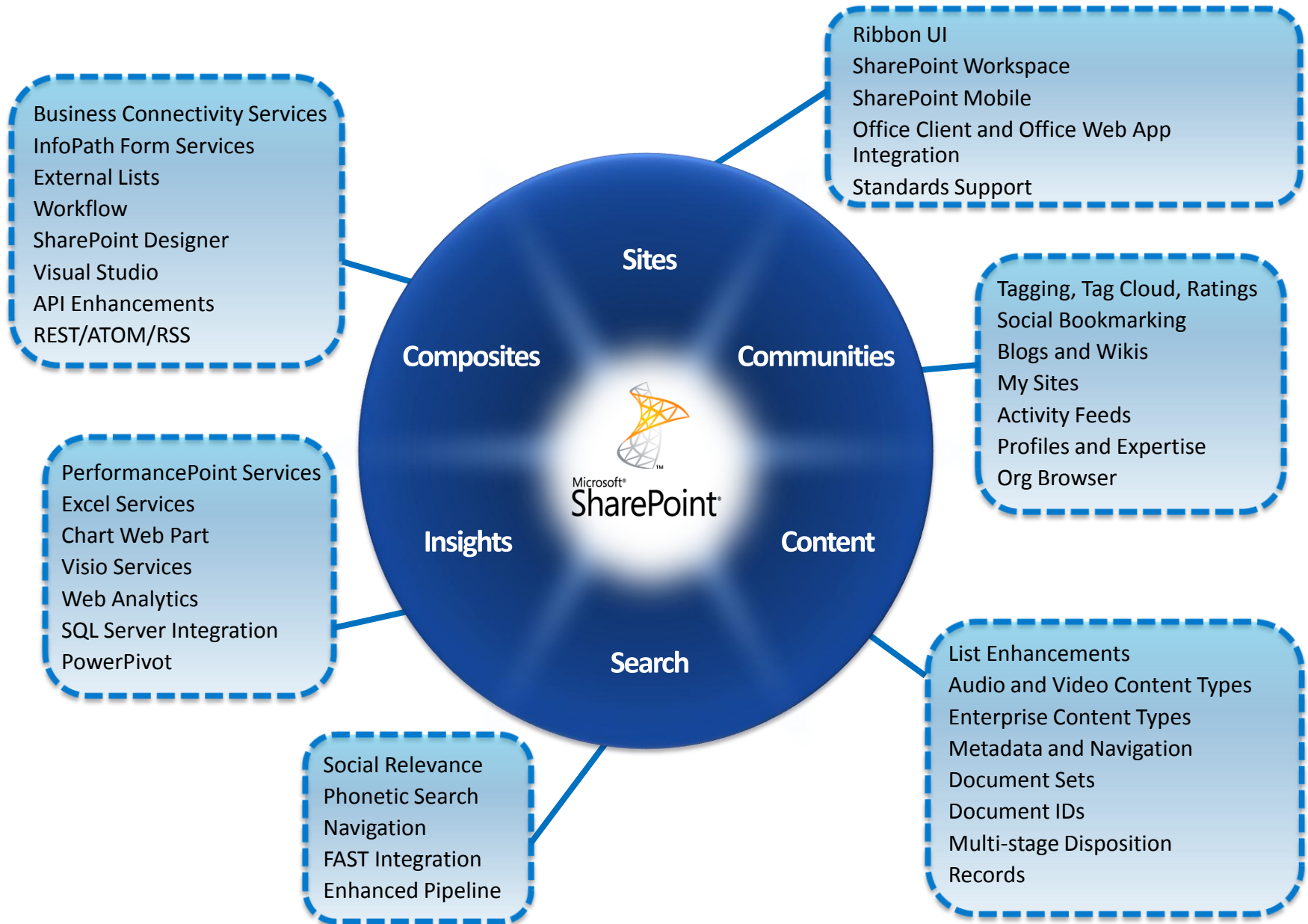


Connect and Empower People

Cut Costs with a Unified Infrastructure

Rapidly Respond to Business Needs

Microsoft SharePoint 2010



What is a Workflow?



Human Workflow

Participants are **people**
Flexible control flow, ad-hoc



System Workflow

Participants are **services, apps**
Prescriptive control flow,
transactional



Information Worker

- Document Review
- Signature Collection
- Records Retention
- Expense Reporting
- Application Processing
- Many others.....

Business to Business
• Supply Chain Mgmt...

Line of Business Apps
• Sales Automation...

Workflow Scenarios

Microsoft Visual Studio and
workflow SDK

SharePoint Designer
workflows

Out-of-the-Box
(via SharePoint GUI)

LOB
Integration

Purchase Order
Processing
Product lifecycle
management

Custom Tracking Apps
Service Requests
Asset Tracking

Custom Form Actions
Email Notification

Document Processes
Weekly Status Report

Application Task and
Issue Tracking

Routing & Approval
Review
Approval
Signature collection

Structured

Complexity

Ad Hoc

Types of Workflows

Attached directly to
a List



Can be associated
to many Lists or
Content Types



Site based – not
associated to a List or
Content Type



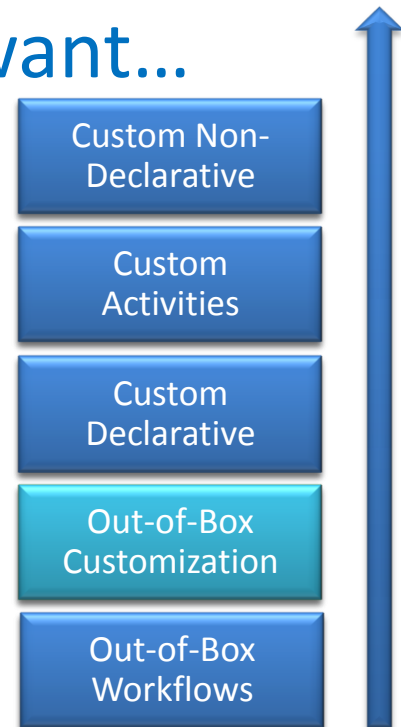
Built-In Human Workflows

- Approval, Collect Feedback, Signatures
- Track the process from start to finish
 - Workflow tasks assigned to people in stages
 - Specify due dates and other simple behaviors
- Showcase platform enhancements
 - Reusable declarative workflows
 - Rich/reach forms leveraging InfoPath
 - Visualization of running workflow
 - Task process design (more later)



Tailor to Meet Your Needs

- Simple IW customizations on the server
 - Adjust the association and initiation settings
 - Attach it to a list, library, or content type
- If it still doesn't do exactly what you want...
 - Open it up in SharePoint Designer!
 - Internal logic is fully customizable in the revamped workflow designer
 - Update look & feel, add rules to forms using InfoPath Designer



Integrated Workflow Designer

Workflow

Check for Errors | Publish | Publish Globally | Export to Visio | Advanced Properties | Delete | Move Up | Move Down | Condition | Action | Step | Else-If Branch | Parallel Block | Impersonation Step | Form Parameters | Local Variables | Association Columns

SharePoint Site

Navigation

- Sales
- Site Pages
- Master Pages
- Lists and Libraries
- Workflows
- Content Types
- Data Sources
- Entities
- Subsites
- All Files

Workflows

Globally Reusable Workflows

- Approval - SharePoint 14
- Collect Feedback - SharePoint
- Collect Signatures - SharePoint

List Workflow

Calen Meeting WF | Calen Meeting WF

Sales > Workflows > Calen Meeting WF > Calen Meeting WF

Step 1

If title field contains Meeting

- Log Meeting being held to the workflow history list

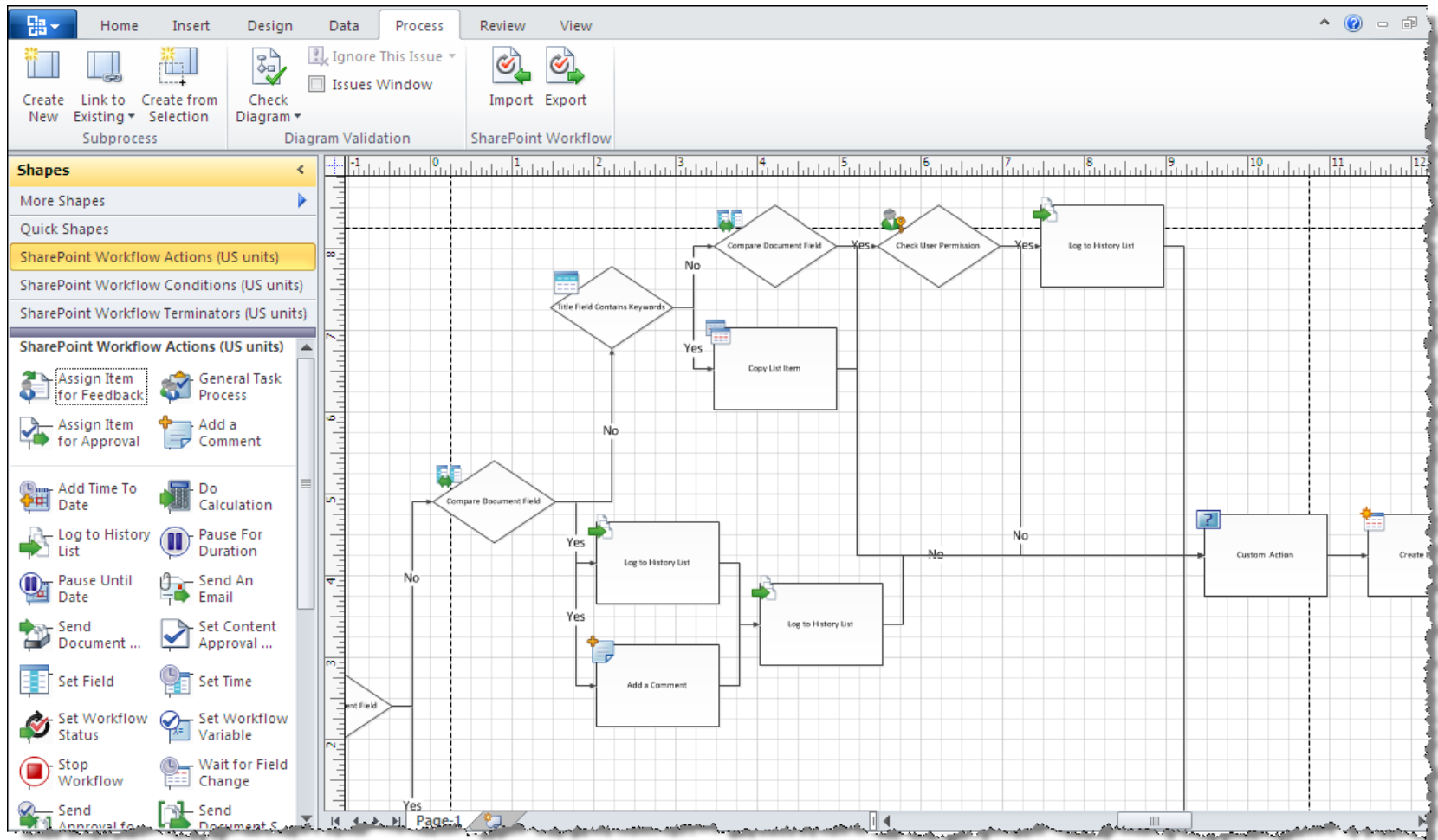
Else if title field contains Picnic

- Log Picnic planned to the workflow history list

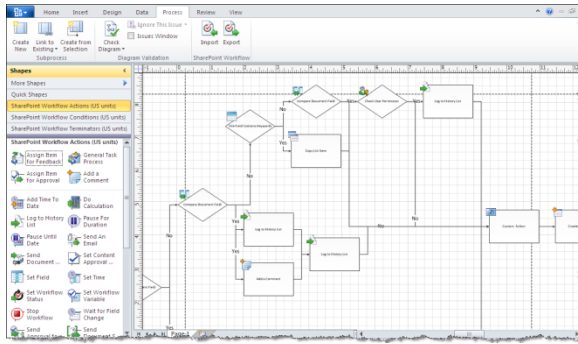
Else

- Log No budget for anything this year to the workflow history list

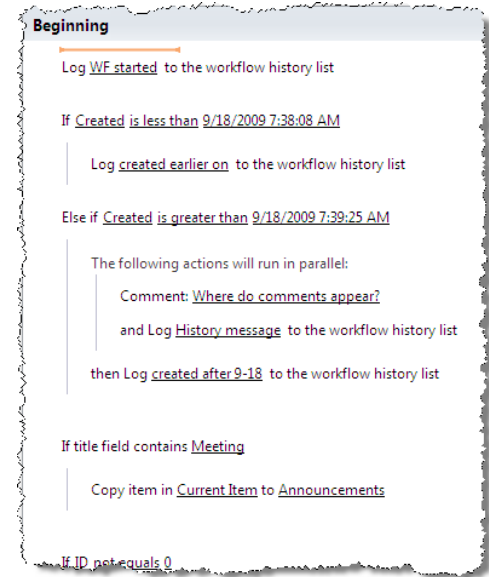
Business Analysts can start by creating Workflows in Visio



Easily transfer workflows from Visio to SPD and back

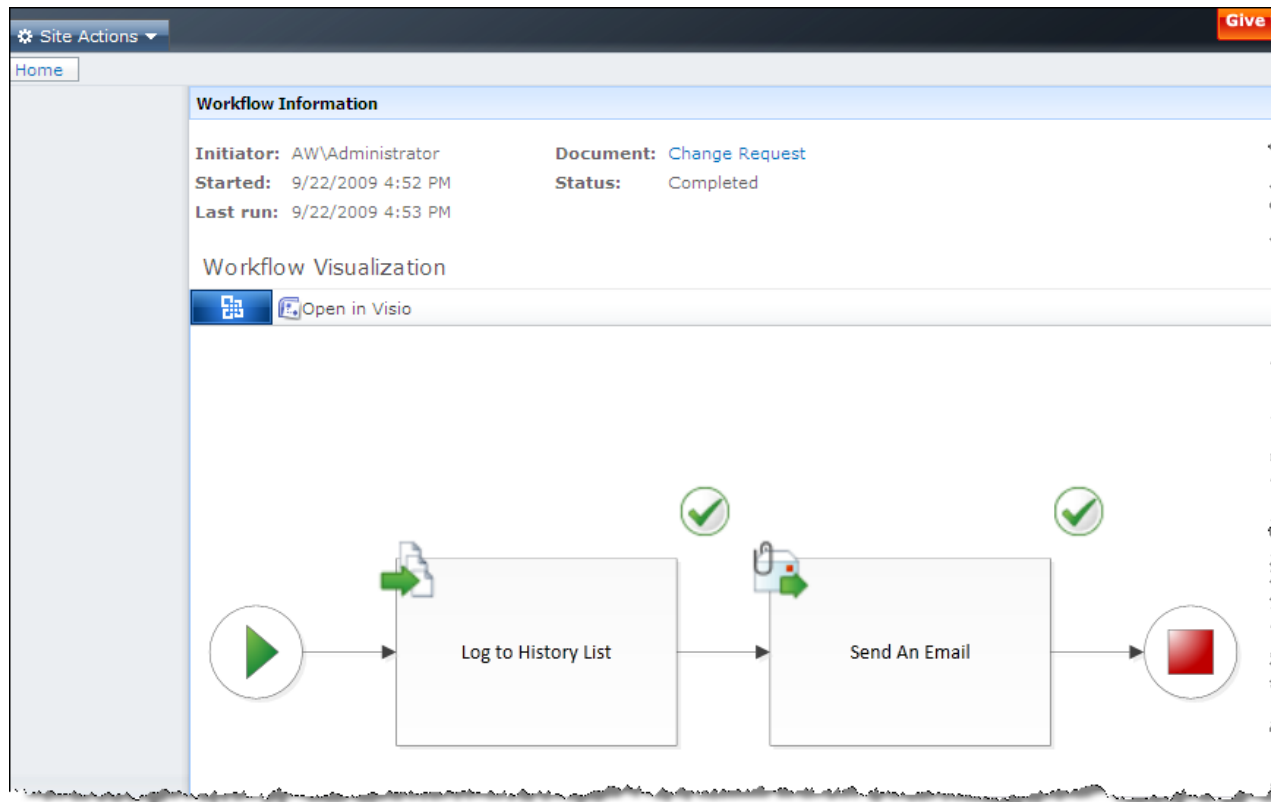


Visio Workflow Interchange



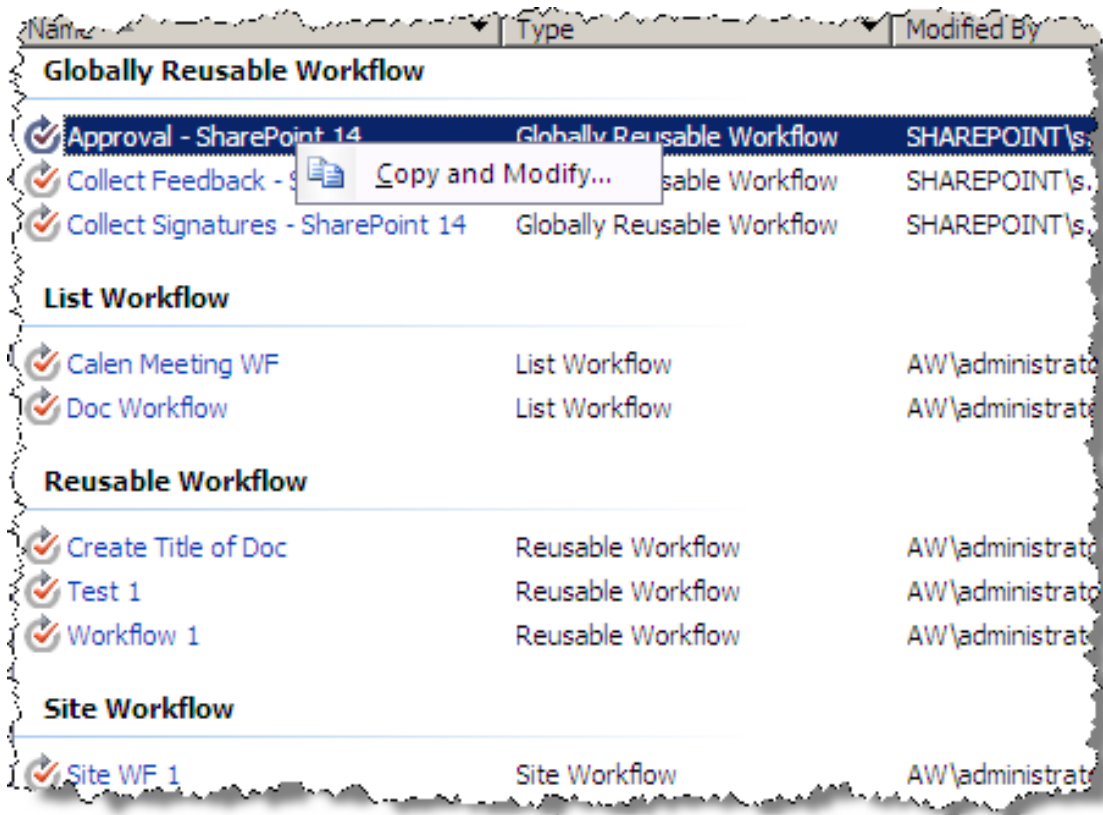
Workflow Visualization

- Silverlight driven visualization of status of your workflows



Extend out-of-box workflow

- Get a Jumpstart by building on top of the out-of-box workflows



The screenshot shows a SharePoint workflow library with a table of workflows. A context menu is open over the 'Approval - SharePoint 14' workflow, showing the 'Copy and Modify...' option. The table is organized into categories: Globally Reusable Workflow, List Workflow, Reusable Workflow, and Site Workflow.

Name	Type	Modified By
Globally Reusable Workflow		
Approval - SharePoint 14	Globally Reusable Workflow	SHAREPOINT\s...
Collect Feedback - s...	sable Workflow	SHAREPOINT\s...
Collect Signatures - SharePoint 14	Globally Reusable Workflow	SHAREPOINT\s...
List Workflow		
Calen Meeting WF	List Workflow	AW\administrato
Doc Workflow	List Workflow	AW\administrato
Reusable Workflow		
Create Title of Doc	Reusable Workflow	AW\administrato
Test 1	Reusable Workflow	AW\administrato
Workflow 1	Reusable Workflow	AW\administrato
Site Workflow		
Site WF 1	Site Workflow	AW\administrato

What is InfoPath?

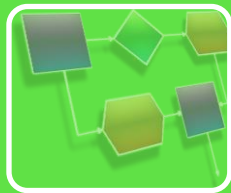


Form Designer & Filler

- Browser and Client forms



Visual Layout



Form Logic



Data Connection

Demonstration

Package Workflows as Solutions (WSPs) to extend further in Visual Studio

The image shows two overlapping windows from Microsoft Visual Studio 2010. The background window is the 'New Project' dialog, and the foreground window is the 'SharePoint Customization Wizard'.

New Project Dialog:

- Framework: .NET Framework 4.0
- Sort by: Default
- Search Installed Templates: [Search]
- Recent Templates: [Empty]
- Installed Templates:
 - Visual C#
 - Windows
 - Web
 - Office
 - SharePoint
 - Database
 - Reporting
 - Silverlight
 - Test
 - WCF
 - Workflow
 - Modeling Projects
 - Database Projects
 - Other Languages
 - Other Project Types
- Online Templates: [Empty]
- Name: WorkflowImportProject1
- Location: [Empty]
- Solution Name: WorkflowImportProject1

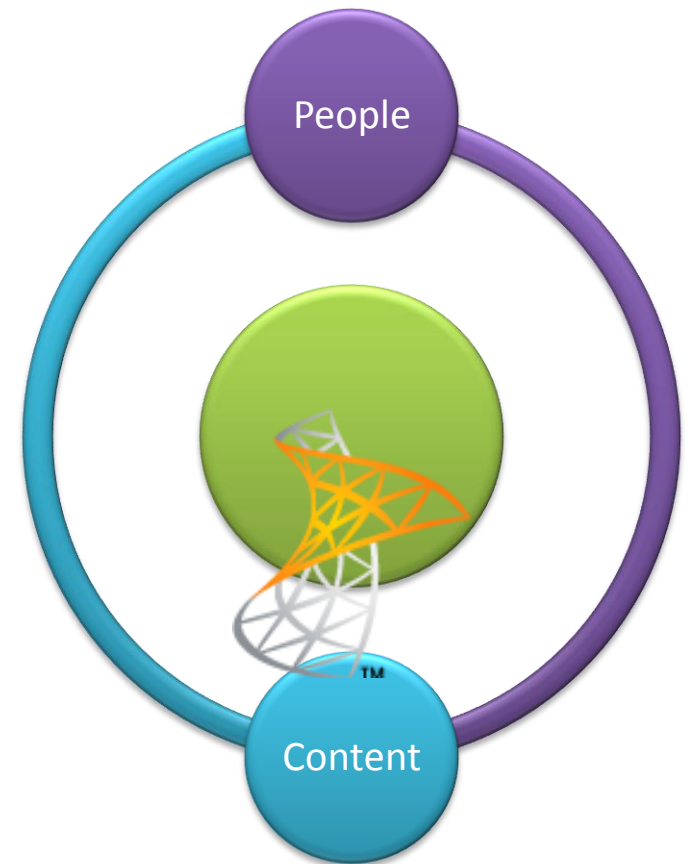
Template Name	Language
Event Receiver	Visual C#
Empty Project	Visual C#
Module	Visual C#
Business Data Catalog Model	Visual C#
Content Type	Visual C#
Sequential Workflow	Visual C#
List Definition	Visual C#
Import Reusable Workflow	Visual C#
Site Definition	Visual C#
Visual Web Part	Visual C#

SharePoint Customization Wizard:

- Title: Specify the site and security level for debugging
- What local site do you want to use for debugging?
http://server/ [Validate]
- What is the trust level for this SharePoint solution?
 - Deploy as a sandboxed solution
Clicking this option marks the solution as a sandboxed SharePoint solution, allowing any user to run or deploy the solution.
 - Deploy as a full-trust solution**
Clicking this option means that users must have SharePoint administrator privileges to run or deploy the solution.
Please see the Help topic "Sandboxed Solution Considerations" for more information.
- Navigation: < Previous, Next >, Finish, Cancel

The Connected Enterprise

- Collaboration happens on SharePoint
 - People at work
 - Data they make and use
- Workflows to manage it
- Two flavors
 - **System** – move data in and out of SharePoint
 - **Human** – support people with long-running processes



Human Workflow

- Managing how people work
 - Document approval & feedback
 - Collaborative reviews & discussions
 - Gathering signatures
- Business logic in action
 - Rules for SharePoint content
 - Applied automatically or on demand
 - “Glue” used to build common business apps



Example: Expense Reporting

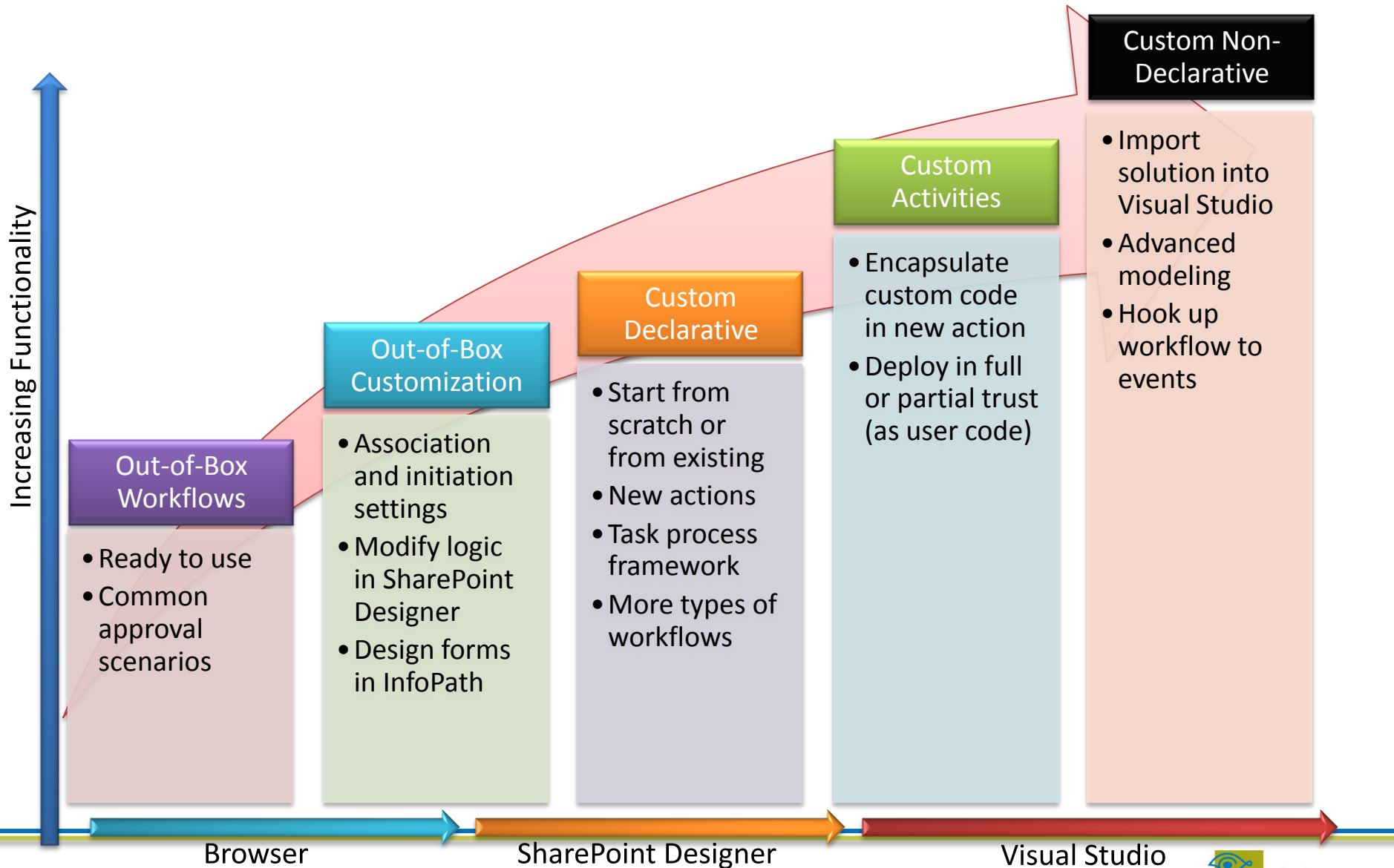
- Many variations depending on business
- But most tend to follow a similar archetype
- In our context, employees interacting with a document library on SharePoint

Report filled out and uploaded to server

Send to manager(s) for their approval

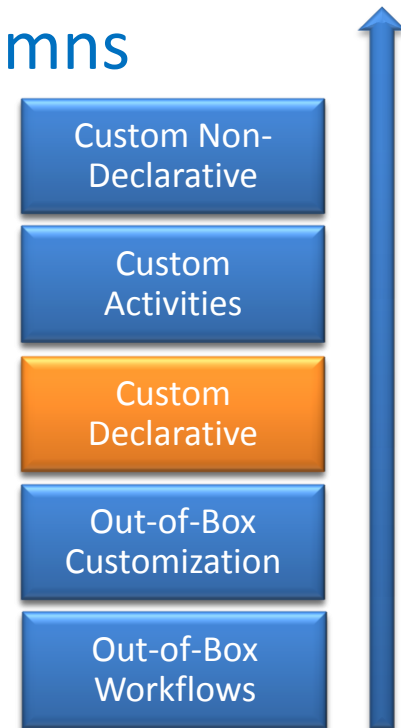
If successful, reimburse the expenses

Workflow Solution Spectrum



SPD's Rules-Based Designer

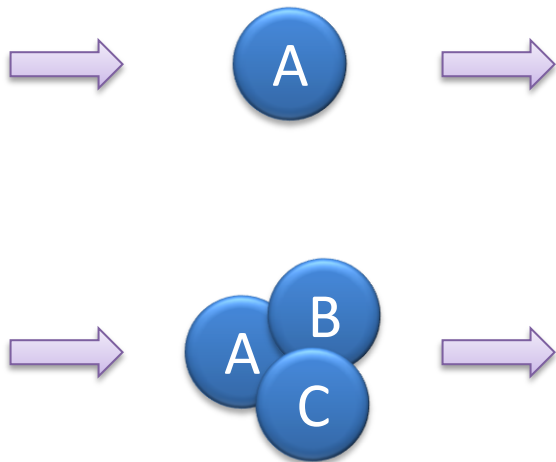
- Core tooling improvements
 - New workflow types: site, c-type, reusable
 - Constructs: nested logic, impersonation step
 - Enhanced data binding, on-demand columns
- Use new and improved actions
 - Manager, user profile lookups
 - Doc set and record management
 - Read/write to external lists
- Visio as a graphical designer
- Solution packaging for portability



Departmental Document Approval

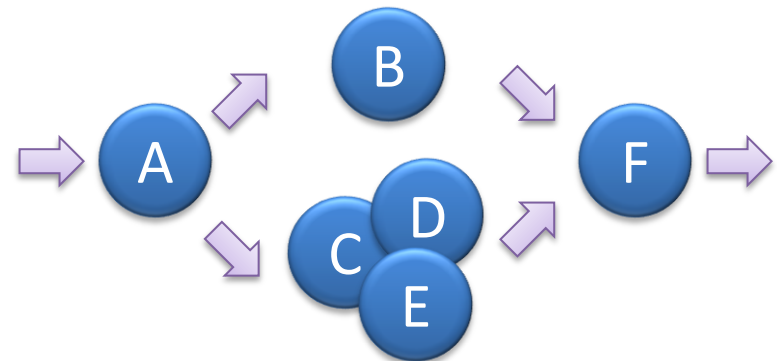
- SPD 2007

- Individual workflow tasks
- Scoped to user or group
- Stitch it together with data binding



- SPD 2010

- Tasks are part of a larger approval process
- Hierarchical assignments
- Automatic data binding for common lookups

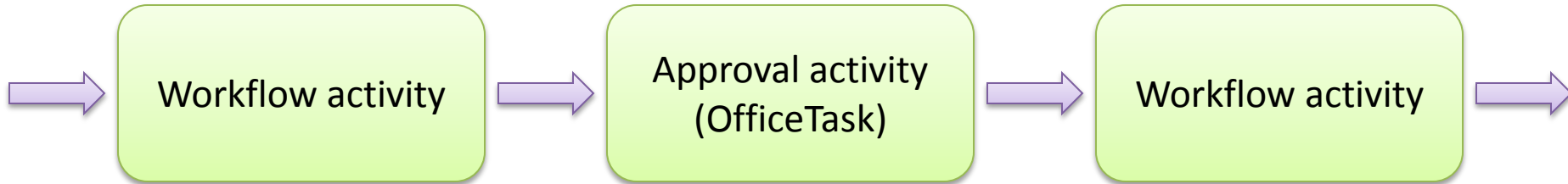


The Task Process Designer

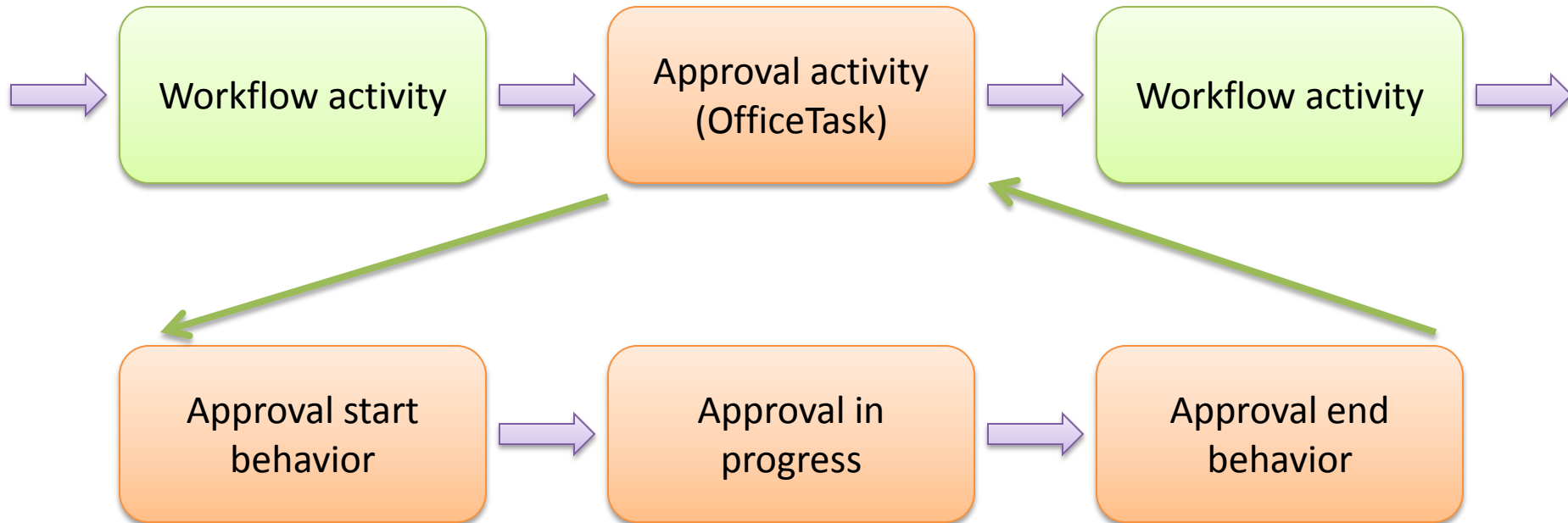
Foundation of the Out-of-Box Workflows

- View all task information at a glance
- Customize the whole process, or just what happens to individual tasks (or both)
- Easy to build in robust behaviors
 - “If 50% agree, auto-approve”
 - “If user is unavailable, escalate to manager”
 - “If this task wasn’t meant for me, let me reassign it to another user”

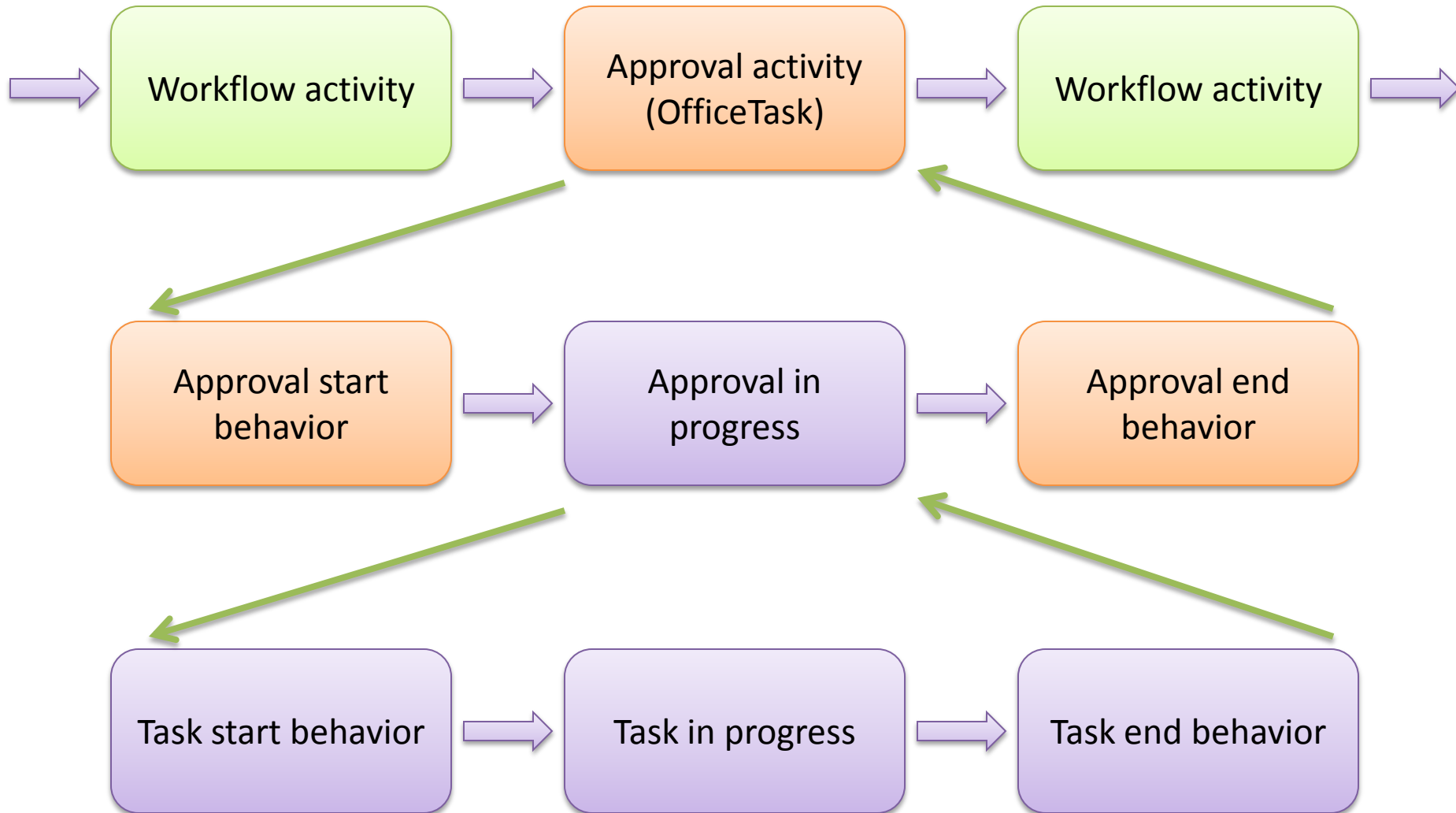
How It Works: The “OfficeTask”



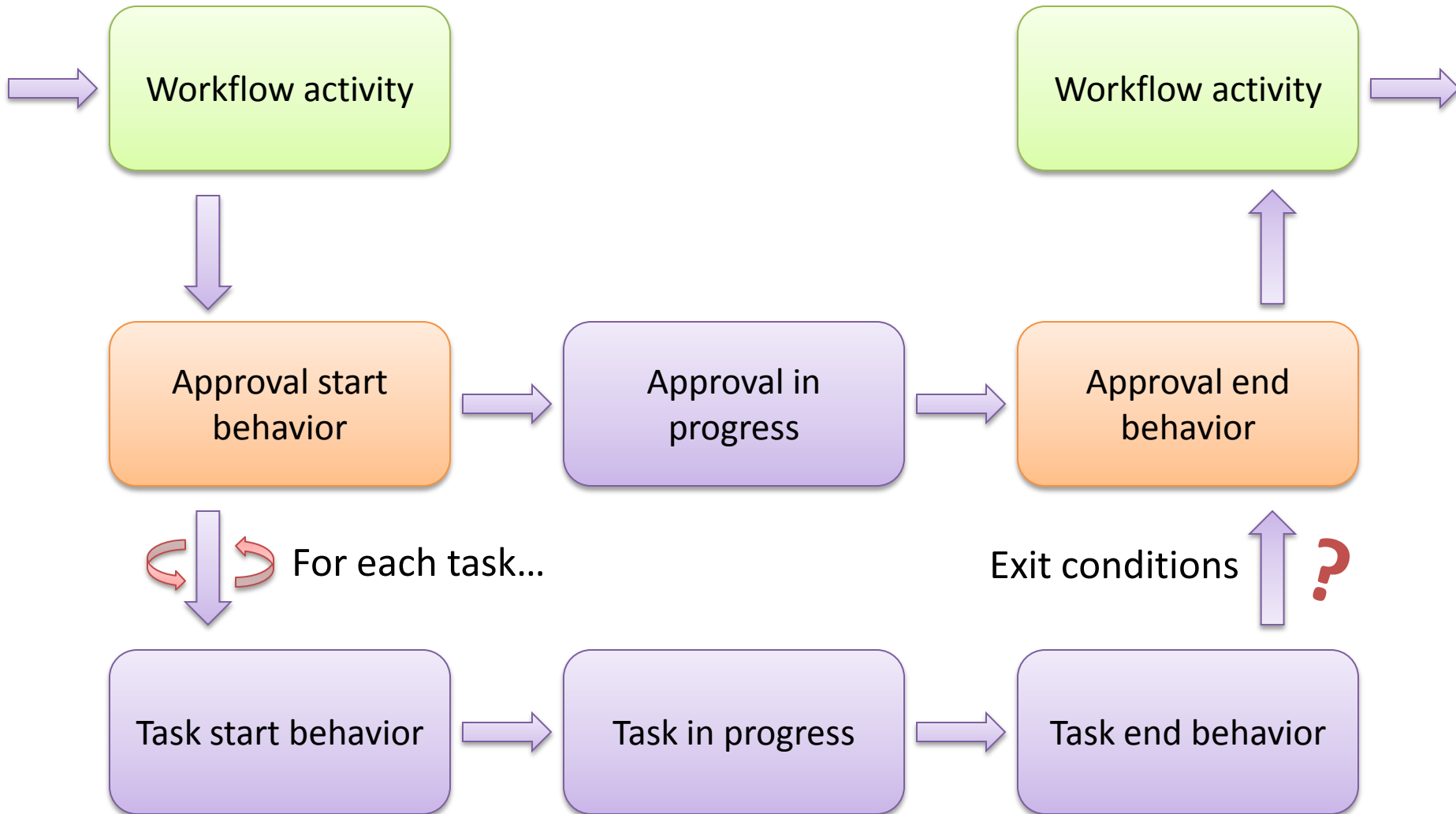
How It Works: The “OfficeTask”



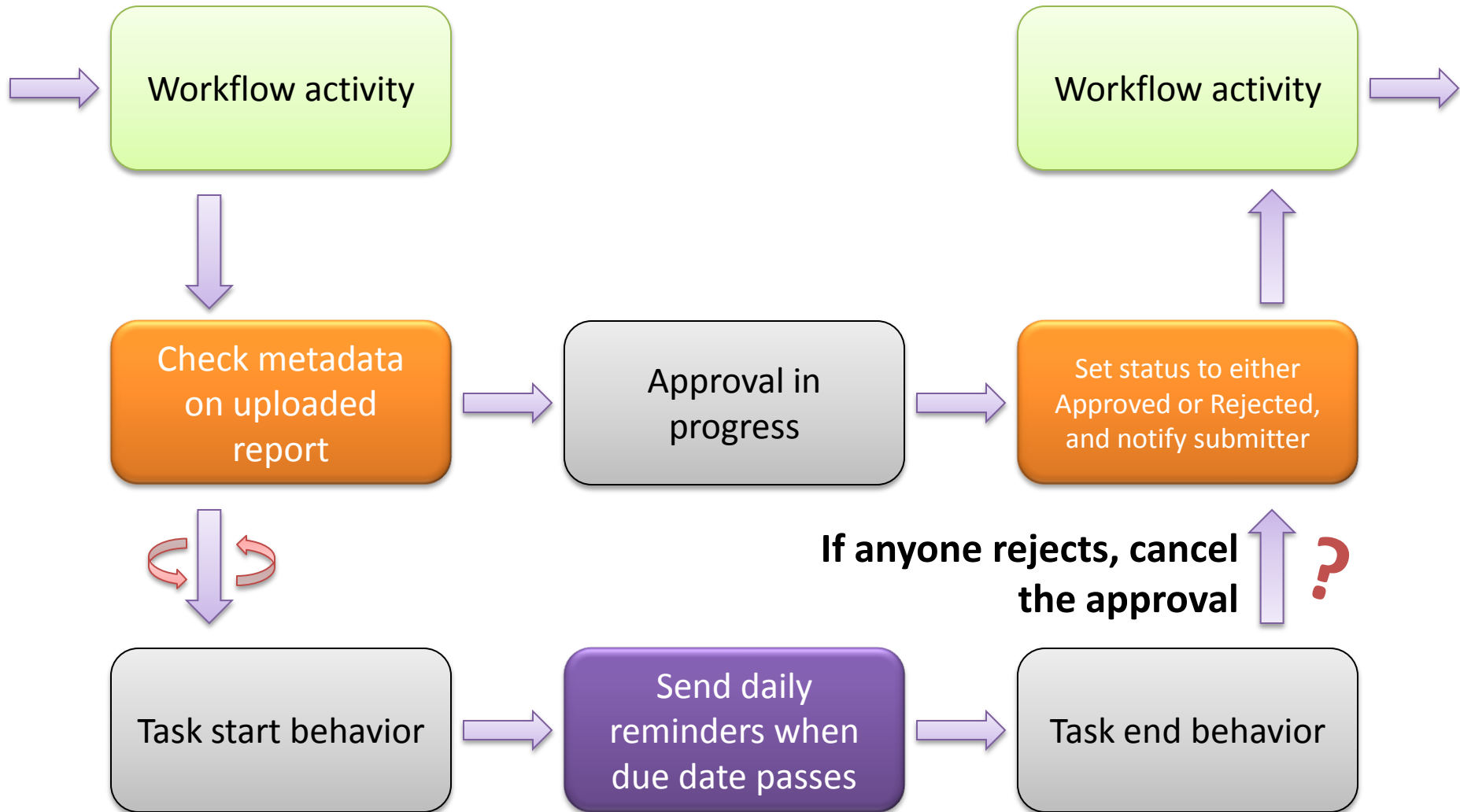
How It Works: The “OfficeTask”



How It Works: The "OfficeTask"

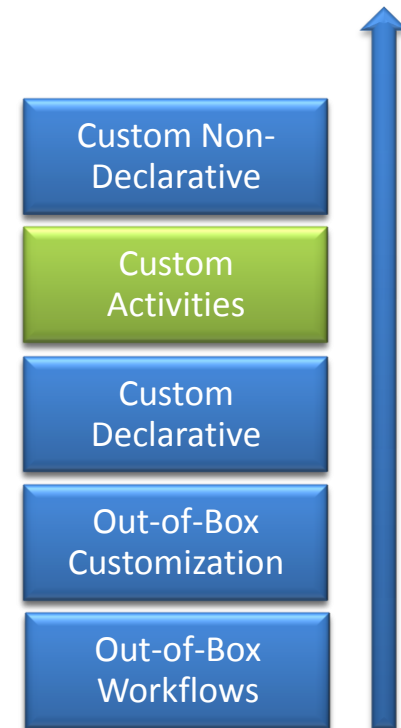


Example: Expense Reporting



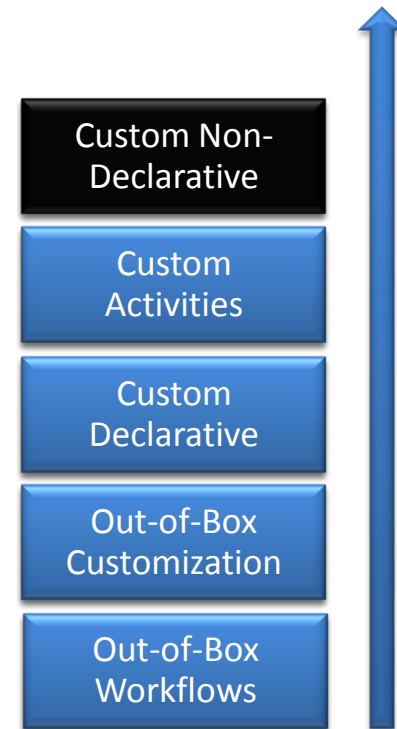
Extending the Platform

- Plug in your own custom activities
 - Fully trusted deployment model, or...
 - Sandboxed code in the user solution gallery
- Or build on top of existing activities
 - OfficeTask exposed in Visual Studio
 - An example: Document Set Approval
- Get the flexibility of custom code
- But leverage in existing workflows



Flexibility to Scale Up

- Import a workflow package to Visual Studio
 - Graphically design state machines, add looping
 - Custom forms and code-beside
 - Farm-wide deployment
- Handle workflow events
- Pluggable services that enable external channels to talk to your workflow



Data Quality

“[Companies] are losing more than \$8 million annually because of data quality issues. ... other organizations [when] observed provide evidence that the actual magnitude of the problem is typically far greater (often by orders of magnitude) than is perceived by business and IT leaders.”

Ted Friedman, Gartner Vice President

“Organizations Perceive Significant Cost Impact From Data Quality”

August, 2009

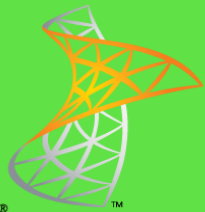
What is InfoPath?



Microsoft®
InfoPath® 2010

Form Designer & Filler

- Browser and Client forms with form logic & data connectivity



Microsoft®
SharePoint® Server

Forms for SharePoint

- Lists, External Lists, Form Libraries & Workflow forms



Microsoft®
Office

Forms integrated into Office

- SharePoint Workspace, Outlook, Word, PowerPoint, Excel

InfoPath - Forms for SharePoint & Office

Building applications using Office



Spectrum of applications - from customizing SharePoint list forms to building Office Business Applications



Beyond paper - secure, interactive, workflow-enabled applications



Complete application lifecycle - design, package and reuse



Web & Office client applications - in browsers and offline in SharePoint Workspace, InfoPath Filler or Outlook

Within reach of everybody



Rapid design - interactive, visually appealing forms with business logic connected to external system



“Fluent” User Experience - Easy to use InfoPath Designer and Filler. Browser forms with SharePoint UI

① Customizing SharePoint List Forms

Created By



- Information workers solve own problems, freeing up IT

How



- Layout form using pre-built tables
- Use rules to conditionally format, validate data & show/hide sections
- Bring in data from SharePoint Lists
- Take offline in SharePoint Workspace

Examples

- Project Contact List, Issue Tracking List, Feedback Form, Event Sign-up

Recruiting at Hemlock University

Interviewer	<input type="text" value="Oliver Kiel"/>	
Discipline	Development	
University/College	Hemlock University	Requested Discipline:
Date	10/12/2009	# Days

University/College Details

ADDRESS

Street:	8300 Norman Center Dr.	
City:	Bloomington	State/Province:
ZIP/Postal Code:	55437	Country:

② Creating Mashups with Form Web Parts

Created By



- Information Workers & IT

How



- Connect InfoPath Web Part to other Web Parts: Excel, Silverlight, List etc.
- Customize form in InfoPath
- Design web part page in browser or SharePoint Designer
- Package as reusable template (WSP)

Examples

- Mortgage Calculator (with Excel)
- Master-detail (with List)

The screenshot shows a SharePoint site titled "recruiting portal" in a Windows Internet Explorer browser. The page displays a list of recruiting trips with columns for Title, Interviewer, Date, # Days, and Requested Discipline. Below the list, there is a detailed view for "Recruiting at Hemlock University" showing fields for Interviewer (Oliver Kiel), Discipline (Development), University/College (Hemlock University), Date (10/12/2009), and # Days (2). A "University/College Details" section provides address information for Hemlock University in Bloomington, MN, USA. A weather widget for Hemlock, MN shows "Tomorrow's Weather" as Partly Sunny with a daily maximum temperature of 50 and a daily minimum of 34.

Select	Title	Interviewer	Date	# Days	Requested Discipline	Univer
<input type="checkbox"/>	Recruiting at Maple University	Nate Sun	9/8/2009	2	Development	Mapk
<input type="checkbox"/>	Recruiting at Madonna University		10/5/2009	2	Testing	Madr
<input type="checkbox"/>	Recruiting at Hemlock University	Oliver Kiel	10/12/2009	2	Development	Hemk
<input type="checkbox"/>	Recruiting at Cedar University	Jun Cao	10/26/2009	2	Development	Ceda

Recruiting at Hemlock University			
Interviewer	Oliver Kiel		
Discipline	Development		
University/College	Hemlock University	Requested Discipline:	Development
Date	10/12/2009	# Days	2

University/College Details

ADDRESS [MAP IT](#)

Street: 8300 Norman Center Dr.
City: Bloomington State/Province: MN
ZIP/Postal Code: 55437 Country: USA

NOTES

Tomorrow's Weather
Partly Sunny
Daily Maximum Temperature 50
Daily Minimum Temperature 34

InfoPath Drives Business



Recruiting at Hemlock University

Interviewer:

Discipli

Univers

Date

Unive

ADDRE

Street:

City:

ZIP/Postal Code: 55437 Country: USA

FROM

Customizing SharePoint
List Forms within
Minutes

Blue Yonder Airlines
Flight Crew Services

New Request

Designing Office
Business Applications

Microsoft®
SharePoint® Server

No request type selected. Select a request type above to enter the details.

Submit Cancel

Improved Digital Signatures



Signature Line Control










Digital signatures with
Cryptography Next Generation



Digital signatures with trusted
third party time-stamps

New Browser Forms Functionality

- New Controls:
 -  People Picker
 -  Rich Text
 -  Combo Box, Multiple-Selection List Box, Bulleted List, Numbered List, Plain List
 -  Picture Button, Picture
 -  Hyperlink, File Attachment
- Sandboxed Solutions
-  Filtering
-  REST Web Service

Browser Forms Performance

- Configuration:
 - 4 Web Frontends
 - 1 Backend
- Passport Application Base Form requires two requests
- # Requests per Second for Base form = **1200**
- # of Base Forms per Second = **600**
- # of Base Forms per Hour = **2.1 M**

PASSPORT APPLICATION

APPLICATION FOR Registration Passport Update Form

1. Name (First and Middle)
First Name

Last
User Last Name

2. Mail Passport to: street/rfd # or P.O. box **APT.#**
User mail address 123

City **State**
Select... Washington

Zip Code **Country/ in care of (if applicable)**
11111

3. Sex **4. Place of birth** **5. Date of birth** **6. Identification number**
 M F 12/30/1899 111-11-1111
e.g.: 11/11/1111 e.g.: 111-11-1111

7. HEIGHT **8. HAIR COLOR** **9. EYE COLOR** **10. HOME PHONE** **11. BUSINESS PHONE** **12. OCCUPATION**
User height User hair color User eye color (111) 111-1111 (111) 111-1111 User occupation

13. PERMANENT ADDRESS (DO NOT LIST P.O. BOX) Street/R.F.D.# **CITY** **STATE**
User permanent address Select... Washington

14. FATHER'S FULL NAME **BIRTHPLACE** **BIRTHDATE** **U.S. CITIZEN**
User father full name User father birthplace 12/30/1899 Yes No

15. MOTHER'S FULL MAIDEN NAME **BIRTHPLACE** **BIRTHDATE** **U.S. CITIZEN**
User mother full name User mother birthplace 12/30/1899 Yes No



16. HAVE YOU EVER BEEN MARRIED?
SPOUSE'S OR FORMER SPOUSE'S FULL NAME AT BIRTH **BIRTHPLACE** **BIRTHDATE**
User spouse full name User spouse birthpl: 12/30/1899

U.S. CITIZEN
 Yes No


DATE OF MOST RECENT MARRIAGE **WIDOWED/DIVORCED?**
12/30/1899 Yes Give Date No 12/30/1899

17. OTHER NAMES YOU HAVE USED
1. User first other name
2. User second other name

Browser Forms are Standards Compliant

-  XHTML 1.0 and strict CSS
- Web Content Accessibility Guidelines (WCAG) 2.0 AA
-  Web Accessibility Initiative - Accessible Rich Internet Applications (WAI-ARIA)

Forms Services Administration

- Seamless Integration into SharePoint Admin Experience
-  Windows PowerShell
- Backup, Restore and Upgrade
- SharePoint Maintenance Manager (SPMM) Rules

- Microsoft®
System Center - Rules and Monitors
Operations Manager 2007

Questions?

Contact Info

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