Using Workflow Technology to Automate Business Processes

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Southwest Region Advisor
DataBank ECM Solutions Specialist
Presentation Agenda

- WHAT IS ECM?
- CONTENT SOURCES & LIFECYCLE
- CAPTURE & INDEXING METHODS
- WORKFLOW
- REPURPOSING CONTENT
- CASE STUDIES
- IMPLEMENTATION STRATEGIES
Competitive Advantage is Evolving
The Age of the Customer

• Customers have access to more information that ever before

• Being customer obsessed is replacing traditional competitive barriers

• Superior customer service comes down to speed and accuracy
ECM & The Age of the Customer

- Documents & data *drive processes*
- Workflow enables organizations to *automate and manage processes*
- When users work more efficiently, they *can prioritize customer service*
EVOLUTION IN DOCUMENT MANAGEMENT

• Electronic Document Management
• Knowledge Management
• Workflow/Business Process Automation
• Enterprise Content Management
• Records Management
• Web Access & Business Portals
• Collaborative tools like SharePoint
“The technologies, tools, and methods used to capture, manage, store, preserve, and deliver content and documents related to key organizational processes across an enterprise.”

(Source: AIIM International)
ECM CATEGORIES

- **Document Management (20%)** for check-in/check-out, version control, library services and security for business documents.
- **Document Imaging or Image Processing (15%)** for capturing and managing images of paper documents.
- **Records Management (10%)** provides long term archiving, automating of retention and compliance.
- **Workflow (20%)** for automating a business process through the routing of content and assigning work tasks.

Source: Gartner
“While documents (content) support the work being performed, processes define the work that’s done.”

- Doug Reynolds, President, Agility Plus Solutions

• Business processes require people and content
• Integrating ECM with Workflow (BPM) connects the processes with the content and people
• Extends the value of the investment resulting in:
  • Improved company performance
  • Enhanced customer service
  • Increase in employee productivity
  • Significant cost savings

Source: AIIM
Manage Content with Workflow

- Manage Content as part of a business process
- Automate processes and preserve your “Business Rules”
- Incorporate Electronic Forms (HTML) to replace paper forms.
- Often the electronic form kicks off a business process.

- Approval processes
  - A “path” for the documents/forms to follow
CONTENT SOURCES

- Blueprints & Photos
- Paper Documents & Files
- Electronic Documents
- Mail
- Enterprise Applications
- Graphics, Video, & Audio
- Fax
- Web Pages
- XML & Meta Data
- Email
- Print Output
- Reports
- Forms
• ECM software allows data (structured information) to be associated with content (unstructured information)

• The data that is associated with the content is “Metadata”
Upfront Capture is Essential!

• Capture ALL file types right on location, with minimal human interaction
• Are we capturing ALL relevant documents/information?
• Are we capturing as early in the process as possible?
• Are we capturing electronic documents?
• Is there any manual data entry we could eliminate?
Accurate Indexing is Critical!

- Indexing should be automated wherever possible.
- Pull down values should be used to control values that are entered into a keyword.
- Data should be filled in from applications or databases wherever possible.
- You should use common keywords across departmental applications so you can link them later.

Source: AIIM
What are the purposes of Meta-data?

- Keywords should be used for these purposes:
  - Searching
  - Identification
  - Foldering, Organizing or Listing of Content
  - *Systems Work*
  - Records Management
ECM Classification examples

- Documents related to an AP Business Process:
  - Invoices
  - Purchase Orders
  - Purchase Requisitions
  - Credit Memos
  - Checks

- Keywords to add as meta-data to these documents:
  - Invoice #
  - PO #
  - Vendor #
  - Vendor Name
  - Amount
  - Date
  - Status
Concept of “INFORMATION AS AN ASSET”

- Apply systems and controls normally used for data to these records:
  - Storage optimization
  - Elimination of redundancies
  - Life cycle management
  - Value of metadata
  - Retention & Records management

- ECM enables an organization to manage the volume and diversity of unstructured content that represents 80% of information.

- True ECM is a repository for all corporate information; it enables users to locate any type of content using a single interface.
ECM Functionality

- Convert paper documents to digital images
- Distributed or offline capture
- Optical Character Recognition:
  - Document classification
  - Extract data from image
  - Full text rendition
- Full Text Search
- Document distribution
- Manage all content (electronic, email, web)
- Secure access
- Simultaneous access
- Authoring

- Collaboration
- Check/out – Check In
- Version Control
- Audit trail, document history & reporting for compliance
- **Automate business processes with workflow**
- Secure & Redundant storage
- Records Management & Retention
- Re-purposing content
- COLD/ERM
- Data Archiving
- Email Archiving

Source: AIIM
ECM Manages Information from Disparate Systems

- ECM is a central repository for all information assets.
- ECM can send & receive data with host system
  - Data can be used for indexing
  - Electronic documents to be stored in ECM
  - Data from workflow can be sent to ERP
- ECM ties content from all of these systems together into **one efficient system**.
- ECM can supply documents that link to transactions screens within host system.
Why ECM Workflow?

- Facilitates business transaction processing
- Optimizes business processes
- Connects the business process to the documents
- Promotes accountability
- Offers flexible deployment and access options
- Enforces consistent business practices
Speed Up the Process with Workflow!

• Speed up processes by automating low-value tasks and assisting decisions

• Speed up development time by limiting coding

• Speed things up even more by elevating solutions to the next level
Workflow Enables you to...

Hire faster!
Pay bills faster!
Resolve issues faster!

...and so much more.
WORKFLOW STRUCTURE

Life Cycle

Queues

Tasks (Manual & Automatic)

Rules & Actions
Concept of a “Workflow Lifecycle”

- Immediate Entry: Entry Queue
- Automated Evaluation: Qualified, Not Qualified
- Assisted Decisions: Exception Processing
- Predictable Outcomes: Executive Approval, Automated Approval, Denial

Automated Routing
Other Key Workflow Concepts....

- **System Work:** System work is an action that is completed by the system. This could be comprised of supporting document checks, updating document properties or updating LOB apps without manual works.

- **User Work:** User work requires interaction between the system and the user. In most cases, the user inputs information that is reviewed by the system to determine the next action to occur.

- **Transition:** A transition is a special type of action that moves a document from one queue to another. A transition can be called for by any document in any life cycle within the work process—not just for the “active” document. When necessary, transitions can act as triggers for other related processes.
The Power of Workflow is rules and actions.

❖ **Rules:** Tests that return true or false. Rules are usually phrased as a question such as "Is the claim amount > $ 5,000?" Rules allow decisions to be made about, or actions performed upon, a given document. System Work, User Work, and Timer Work are rule types.

❖ **Actions:** Discrete processes executed directly. Actions interact with users to receive or supply information, modify a document’s properties (metadata), modify the properties of a related documents. An Example is the “Display User Form.” This action presents the user with a form to make selections and enter information about a particular document or transaction.
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AP – AUTOMATING PROCESS STEPS

1. Compare Keyword Values
2. Call System Web Service
3. Send Auto-Notification
4. Validate Keyword Values
   - TRUE: Electronic Routing
   - FALSE: Next Step
5. Compare Keyword Values
Actions to Integrate & Customize

Call Web Service & Send Web Request

Allows a Workflow process to call out to a Web Service.

Enables external data received from a Web Service to be used as part of a Workflow process.

Provides interactivity and interoperability with disparate systems or workflow engines.

Run Unity Script (VB .NET, C# .NET)
It doesn’t matter how your documents get into your ECM...

Ad-hoc Scan/Import
Creating a Unity form
Import Processors
Capture Modules

Much, much more!

...Workflow will always be automatically triggered!
Automate & streamline your business process!

Use Workflow to automatically:

- Route Documents
- Match Documents
- Qualify Documents
- Identify Missing Documents
- Let you know when required docs come in!
- Update Keywords
- And so much more!

No human interaction required!
Apply Timers to ensure work is processed!

- Automation Options:
  - After “X” amount of time
  - At a certain time
  - Every “X” amount of time
Users Can Fill Electronic Forms to Begin a Workflow
Send out Email Notifications to Approvers or External Parties

Candidate JOHN MALLORY has applied for a SALES REPRESENTATIVE position.

Please make a hire decision regarding JOHN MALLORY. Use the Application for Employment and related documents provided in his work folder to review his application and supporting credentials.

If you hire candidate JOHN MALLORY, an Offer Letter will be generated.

If you reject candidate JOHN MALLORY, a Rejection Letter will be generated.

Please use the link provided below to make a decision using OnBase Workflow.


If you have any questions, please contact Human Resources. Do not reply to this message.
Users can select items to work in their queue
Load Balance Work Queues

- By Priority
- Allocated Percentage
- In Order
- Keyword Based
- Match Keyword to User Name
- Shortest Queue
- Rules Based
Incorporate an Approval Hierarchy into Your Workflow

OnBase (OnBase)

Path Rules for AP - Invoice Approval

<table>
<thead>
<tr>
<th>Priority</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Manual Assignment</td>
<td>Exceptions based Invoices</td>
</tr>
<tr>
<td>2</td>
<td>Priority Vendor</td>
<td>Priority approval processing for all Office Supply Warehouse invoices</td>
</tr>
<tr>
<td>3</td>
<td>PO Based Invoices</td>
<td>Path for all PO based invoices</td>
</tr>
<tr>
<td>4</td>
<td>Non-PO Based Invoices</td>
<td>Path for all non-PO based invoices</td>
</tr>
</tbody>
</table>

Level Rules for PO Based Invoices

<table>
<thead>
<tr>
<th>Level</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>&lt;Always use this level&gt;</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Invoice &gt;= $1000</td>
<td>Invoice amount is greater than or equal to $1000</td>
</tr>
<tr>
<td>3</td>
<td>Invoice &gt;= $5000</td>
<td>Invoice amount is greater than or equal to $5000</td>
</tr>
</tbody>
</table>

Approvers for Level 2 - Invoice >= $1000

<table>
<thead>
<tr>
<th>Type</th>
<th>Name</th>
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</thead>
</table>
| User | Rob Maddox  

2016 ARMA Houston Spring Conference
See all Related Documents to Make Better Decisions
Workflow can prompt user to enter data into ERP System
...or Enter Data into an Electronic Form
Create Custom Documents from Word Templates

9second FOODS

{Date}
{Placeholder}
{Name}
{Address}
{City}, {State} {Zip}

Dear {Name}:

On behalf of 9 Second Foods, it is my pleasure to extend the following offer of employment to you for the position of {Title} with an annualized salary of {Salary}. The conditions of employment, as discussed during your interview, are outlined below. Additionally, you will find information about 9 Second Food’s orientation and training.

You will be classified as an exempt employee. Your initial compensation package includes a weekly salary, full medical and dental coverage through the 9 Second Food’s employee benefit plan, and additional benefits as covered in the attached documentation.
Workflows Users Can Perform Ad Hoc Tasks
Incorporate Digital Signature Into Your Workflow Process
Create a Audit Trail of Workflow History for Reporting & Compliance

<table>
<thead>
<tr>
<th>Life Cycle</th>
<th>Queue</th>
<th>Entry User</th>
<th>Entry Date</th>
<th>Exit User</th>
<th>Exit Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP - Invoice App</td>
<td>Invoice Exceptions</td>
<td>Cindy Smith</td>
<td>9/12/2014 1:04 PM</td>
<td>Cindy Smith</td>
<td>4/29/2015 2:40 PM</td>
</tr>
<tr>
<td>AP - Invoice App</td>
<td>Invoice Entry Queue</td>
<td>Cindy Smith</td>
<td>9/12/2014 1:04 PM</td>
<td>Cindy Smith</td>
<td>4/29/2015 2:40 PM</td>
</tr>
<tr>
<td>AP - Invoice App</td>
<td>Purchasing Agent</td>
<td>Cindy Smith</td>
<td>9/12/2014 12:57 PM</td>
<td>Cindy Smith</td>
<td>9/12/2014 1:04 PM</td>
</tr>
<tr>
<td>AP - Invoice App</td>
<td>Invoice Exceptions</td>
<td>Cindy Smith</td>
<td>8/29/2014 8:40 AM</td>
<td>Cindy Smith</td>
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1934 E. Anaheim
Long Beach, CA 90813

Invoice No: 4330
View Workflow Items Real-Time with Dashboards

Dashboard Gallery

Invoices in Queue

Vendor Name | PO # | Invoice Amount | Status | Queue Name | Arrival Date (Year)
---|---|---|---|---|---
AMEREN-UE NATURAL GAS | | $762 | OPEN | Non PO/Utility Bills | 9/12/2014
AMEREN-UE NATURAL GAS | | $857 | OPEN | Non PO/Utility Bills | 9/12/2014
AMEREN-UE NATURAL GAS | | $1,025 | OPEN | Non PO/Utility Bills | 9/12/2014
AMEREN-UE NATURAL GAS | | $1,260 | OPEN | Non PO/Utility Bills | 9/12/2014

Total Invoice Amt by Vendor Name

- AMEREN-UE NATURAL GAS
- BOONE ELECTRIC CO
- COMPUTERS ARE US
- OFFICE SUPPLY WAREHOUSE
- PHONE SHOCK
- TARGET BUTTONS, INC

Non PO/Utility Bills

Invoice Exceptions

PO Invoice Review: 10

Invoice Exceptions Watermark

1
2
3
4

Total Invoice Amt

0
10K
20K

Invoices in Each Queue

Home | Dashboard Viewer | Eventcase | Create New Dashboard | Delete History | Properties Design | Full Screen | Clear All Filters | Parameters | Refresh | Share Dashboard | Send To | Copy to Clipboard | Print | Export Data

OnBase (OnBase)
Extend Access to External Parties with Web Portals
Visual Notifications Everywhere!
CONTENT-ENABLED HORIZONTAL SOLUTIONS

PROCURE -TO-PAY

BILLING & RECEIVABLES

FINANCE & ACCOUNTING

HUMAN RESOURCES

LEGAL & CONTRACTS
Typical Workflow Applications

- Accounts Payable (POs & Invoices)
- Purchase Requisition Approval
- Contracts Management (Legal)
- Human Resources
  - Interviewing, Onboarding, etc.
- Credentialing (Physician/Teacher)
- HIM Analysis and Coding
- Claims Processing
- Any formal approval process.

Example: Employee Leave of Absence Form Approval process...
# PROCESSES AND MORE PROCESSES…

<table>
<thead>
<tr>
<th>Accounting</th>
<th>Human Resources</th>
<th>Customer Service</th>
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ECM solutions can deliver content via:

- Internet / Intranet / Extranet(s)
- Web Portals
- E-Mail (perhaps with attachments)
- Fax (automatically)
- File System, CD/DVD Output
- Mobile Devices
- XML – for display and/or data transfers
- Instant messaging
- Web-casting and content streaming
- RSS
## Workflow/BPM Improves ROI

### INSURANCE INDUSTRY EXAMPLE ROI’s:

<table>
<thead>
<tr>
<th>Service</th>
<th>ROI (%)</th>
<th>Payback</th>
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<tbody>
<tr>
<td>Underwriting</td>
<td>300%</td>
<td>Less than 1 year</td>
</tr>
<tr>
<td>Online Reports</td>
<td>58%</td>
<td>Less than 2 years</td>
</tr>
<tr>
<td>Claims</td>
<td>120%</td>
<td>Less than 6 months</td>
</tr>
</tbody>
</table>
ECM CASE STUDY: Universal Forest Products

• A Decentralized Accounts Payable Process:
  ◦ 71 locations.
  ◦ Invoices lost or misplaced resulting overpayments or late fees.
  ◦ Invoices must be retain for 7 years (previously stored in on-premise trailer).
  ◦ There was a fire in their Canadian facility.
ECM CASE STUDY: Universal Forest Products

Business Problem in HR/Payroll:

- Needed to manage documents for 9,000 employees in 100 locations.
- 40 different documents they needed to store, track and access frequently for employee files.
- Time to locate paper document about 15 minutes.
- 21 employees accessing 10 documents per day (est. cost $4,000 per wk. or $200,000 per yr.).
ECM Return on Investment (ROI)

HR ROI:
- Retrieval Costs slashed to zero by converting documents to electronic format which gave employees instant & simultaneous access to documents

AP ROI:
- No more lost or misplaced invoices.
- Improved visibility for management regarding the AP process.
- Paper storage costs eliminated.
- Ensured physical protection of data.
- Substantial labor costs savings (71 AP employees freed for other tasks).
- Still Gaining ROI:

“We have really just scratched the surface of this solution”
Top 10 Texas City Deploys ECM in Municipal Court

- ECM system manages all case related documents (citations, complaints, warrants, filings & judgments).
- Most documents are electronic (generated by the case management system) and are auto imported into ECM.
- System facilitates “distributed” scan concept where each process worker can scan their own documents.
- Customer service reps capture documents from defendants at point of service teller windows.
- Citations are scanned on production scanner; remainder of external docs are scanned using desktop scanners.
- All internal court business processes including court dockets are automated using workflow.
- Judges/lawyers use only images & E forms in the courtrooms.
WORKFLOW STREAMLINES PROCESSES

• System incorporates workflow to automate the capture, data entry and distribution of citations to the appropriate areas of the court for processing.
• 25 workflow “life cycles” have been established to manage citations, complaints, warrants, subpoenas and payments.
• Workflow incorporates both the case management system and the documents stored in ECM into one integrated business process.
• Keywords (from index created at capture) are used to route documents into the right workflow queues according to “rules” pre-established for workflows.
Court Achieves Significant Gains

• Enhanced information sharing between attorneys, judges, court administrators & enforcement agencies.
• Improved filing accuracy along with ability to better manage and more easily retrieve case files.
• Reduced the administrative burden with regard to mandated retention and privacy restrictions.
• Increased employee productivity by reducing the amount of time spent with defendants on the phone and at the teller windows.
• Eliminated duplicate procedures and reallocate resources to priority areas, making better use of taxpayer dollars.
Implementation Considerations

Analysis:
- Management of information assets is a corporate responsibility
- ID a single information-intensive business problem that is mission critical to the organization
- Define business objectives
- Define business case (ROI)
- Evaluate ECM vendors
- Retain services of a knowledgeable VAR

Steps:
- Information Survey
- RFP
- Research solutions
- Evaluate your IT infrastructure
- Purchase hardware and software for ECM
- Pilot a project in a single department or business process
- Roll out
- Post Implementation

Source: AIIM
Record Management Resources: Professional Organizations

- ARMA International
  - http://www arma org/

- AIIM
  - http://www aiim org/

- Sedona Conference
  - http://www thesedonaconference org/

- MER
  - http://www merconference com
Thank You!

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