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**IMPLEMENTING DOCUMENT WORKFLOW PROCESSES**

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## Introduction

Workflow has been around since man has existed and done any sort of 'work'. Any process that takes place involves workflow. Whether that process is limited to a single individual or multiple people, a series of steps is completed to formulate the workflow process. This document will review the workflow specifically relating to document processes in a business environment and improvements that can be made to enhance the efficiency of these processes using document management technology.

Every business has some sort of document workflow process in use. Whether that document workflow consists of an invoice, order processing, email, snail mail, or other document; workflow of documents occurs every single day in every single business. Once the realization occurs regarding how often document workflow occurs each day, one begins to consider ways to improve and streamline the document workflow process so as to maximize time and cost savings.

## Workflow Definition

So what is workflow? Simply stated, workflow is the step-by-step procedure taken to complete a job.

As defined by dictionary.com<sup>1</sup>

–noun

The flow or amount of work to and from an office, department, or employee.

**Origin:**

1945–50; work + flow

Another definition found relating more to technology from Websters-Online.<sup>2</sup>

**Workflow** 1. The scheduling of independent jobs on a computer. See also time-sharing, WFL. 2. The set of relationships between all the activities in a project, from start to finish. Activities are related by different types of trigger relation. Activities may be triggered by external events or by other activities. 3. The movement of documents around an organization for purposes including sign-off, evaluation, performing activities in a process and co-writing. [Stef Joosten et.al. "An empirical study about the practice of **workflow** management", WA-12 report, 1994]. (1995-03-27). Source: [The Free On-line Dictionary of Computing](#).

## Where to Begin

To begin considering the possibilities of automated workflow using document management, a realization that a problem exists must be present. This usually manifests itself as some point of 'pain' in the physical process of dealing with paper. Some points of contention when dealing with paper may include:

1. Loss of documentation
2. Unable to quickly locate information for customer service responses
3. Meeting compliance requirements for audit or security
4. Rising costs of additional staff to process paper based workflows
5. Efficiency in managing the paper based workflow for tracking and status purposes
6. Movement of paper between a remote office and a corporate office

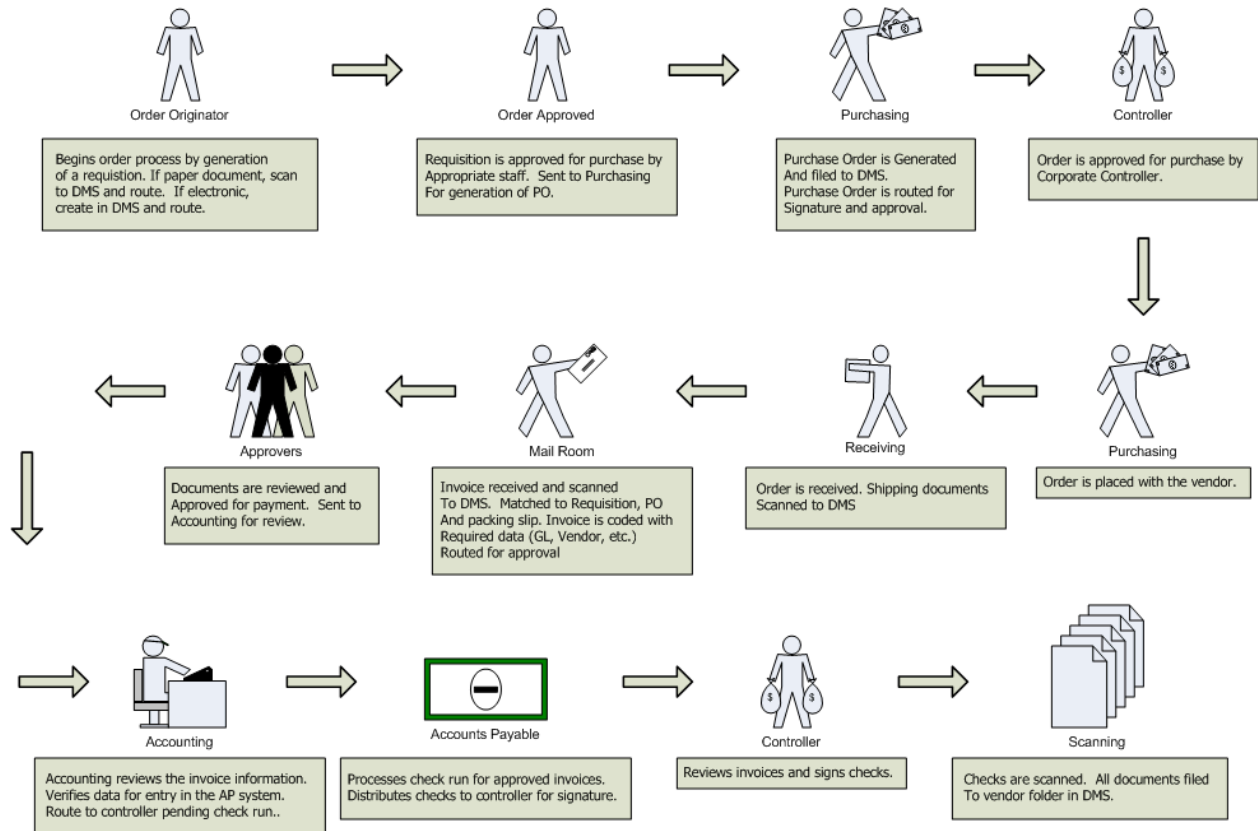
Once the decision has been made to improve workflow, the question becomes 'Where do I begin?' The obvious answer is at the beginning. The first thing to do is choose one document process to work with. Often times the biggest mistake a company makes is trying to improve all processes at one time. This seldom works and many times ends up with a failed attempt to automate any process.

After selecting the process to improve, begin by breaking the document process down into the actual physical steps. Take the business process and physically follow it from beginning to end. Spend time with each person involved along the way and find out what action items occur at each step, what the exceptions for each decision are and where the document goes once it leaves that step. The end result of this will be a clear understanding of what takes place for the entire process under review.

As the review is taking place, imagine the process being analyzed residing in an electronic workflow. Think about how the physical process will work electronically or if it will work electronically. For example, one step of the process may involve an outside entity applying a signature to the piece of paper. How will this work if the document is electronic? Make note of any potential pit falls of applying electronic technology to the workflow process. This list of 'requirements' will come in very handy when selecting a vendor/product for implementation.

A workflow diagram outlining the process is also very beneficial. This diagram will provide a visual representation of the workflow process and often aids in the understanding of the process as it moves from point to point. This drawing will also be very useful for the software vendor as a representation of the workflow process. Many easy to use software tools are available to aid in the creation of the workflow diagram including Microsoft Word, Microsoft PowerPoint, Microsoft Visio, and many others. It is not necessary to purchase a specialty

workflow diagramming tool to complete the drawing. Even a hand drawn diagram on a piece of paper or on a whiteboard is extremely useful. Below is a sample of a basic workflow diagram.



Generic AP Workflow

## Choosing the Best Technology

Now that the workflow process is understood and the requirements are gathered, it is time to begin the process of product selection. Begin by putting together a product feature list and specifying whether the feature listed is required or optional. This list can then be sent to various vendors for response to your needs. Base the list on the information gathered as the workflow process was analyzed and the workers interviewed. A sample layout of a requirements checklist is provided on the next page.

### *Document Workflow Requirements Checklist*

Requirements	Must Have	Feature Supported (Yes or No)
Supports Manual Routing	Yes	
Supports Rules Based Routing	Yes	
Reporting Capability to include WF Status	Yes	
Supports Change of Workflow Path via Management Console	Yes	
Supports routing to groups	Yes	
Supports routing to individuals	Yes	
Supports Variable Input	Yes	
Supports User Defined Input	Yes	
Supports branching logic	Yes	
Notification of Workflow Items via email	Yes	
Notification of Workflow Items via popup message	No	
Allows for definition of non business days	No	
Support for escalation messages	Yes	
Support for escalation movement to new user	Yes	
Supports linking multiple rules together at completion of rule	Yes	
Can build custom workflow reports and save the reports to multiple output such as PDF, XML, CSV, etc.	No	
Ability to automatically route at the time a document is filed into the system	Yes	
Other		
Other		
Other		

Ensure that the selection process includes gathering of the following information from the vendors as you request information.

1. System hardware requirements.

This information is important to ensure that the correct computing infrastructure is in place to run the software efficiently. Without proper hardware, the software may not run at optimum performance thereby negating any time savings anticipated from implementation of an electronic process.

2. Requirements for any specialty hardware such as signature pads, scanners, or web servers.
3. Cost for software maintenance and technical support.
4. Availability of technical support.
5. Reference accounts for similar size companies.
6. How is the data backed up?
7. Training programs offered.
8. Availability of professional services for integration and custom processes.
9. Is the software proprietary or is it built on an open architecture.
10. Is a software development kit or application programming interface (API) available to allow for integration to existing software products?

Vendor/product selection should not be based solely on cost. The product should meet the critical functional requirements and have the flexibility to grow with your business. Ease of use and speed of deployment are also key factors to look for when selecting a product. Avoid products that require excessive customization and programming services to make the basic functions of the workflow process work. This step alone can cause major delays and cost overruns. The majority of items on your requirements list should be available 'out of the box'. Customer service and support availability are also extremely important elements of the total solution. The product selected may perform well but without service and support, undo frustration may arise when the need for help is warranted.

## Quantifying the Results

When you make the transition to automating document workflows in your business you should be able to measure improvement in your processes. An obvious starting point is the time it takes to completely process documents from start to finish. If you perform a simple time study on a process before and after implementing your electronic document workflow solution, you can compare the average process time from start to finish. If the system you choose provides a management console for monitoring and managing the documents processed by each of your groups and workers, you will also be able to quantify performance of individuals, giving you the

ability to adjust workloads and enable people to improve their performance. There are other benefits of automating your document workflow processes which are more qualitative and more difficult to measure. One good example is the “missing document.” This is a frequent issue with paper-based and even with electronic documents that are not stored in a controlled repository. A document is handed to a person or emailed as an attachment to a person for that person to review and approve. That email or document is subsequently lost or accidentally deleted. Now there are many problems that can arise. Who will know that the document is missing? Will the person who sent it know to follow up and request the approval? If so, will that person be able to re-create the lost document? Studies have shown that the average cost to re-create a lost document is \$250. And what if this document was a customer order or an important equipment requisition? These “missing document” episodes happen every day in most businesses and they create a tremendous toll, both financially and in damaged customer service and competitiveness.

## Conclusion

There is really no reason for businesses to continue using out-dated and inefficient workflow processing methods given today’s availability of affordable and easy to use software technology. The trick is getting started and having a plan. The best way to get started is to pick a single workflow process. Analyze this process at each step and create a diagram to document the process. You can do this for multiple processes, but you should be weary of getting too bogged down in the analysis stage and creating a risk of never actually getting around to the implementation stage. With this documented process workflow, you can now enter into discussions with potential document workflow software vendors to find the solution that is best for you. This approach will put you on a solid path toward continuous improvement of your business workflow processes to make your organization more efficient and more competitive.

## References

### <sup>1</sup>American Psychological Association (APA):

workflow. (n.d.). *Dictionary.com Unabridged (v 1.1)*. Retrieved October 29, 2008, from Dictionary.com website: <http://dictionary.reference.com/browse/workflow>

### <sup>1</sup>Chicago Manual Style (CMS):

workflow. Dictionary.com. *Dictionary.com Unabridged (v 1.1)*. Random House, Inc. <http://dictionary.reference.com/browse/workflow> (accessed: October 29, 2008).

### <sup>1</sup>Modern Language Association (MLA):

"workflow." *Dictionary.com Unabridged (v 1.1)*. Random House, Inc. 29 Oct. 2008. <Dictionary.com <http://dictionary.reference.com/browse/workflow>>.

### <sup>2</sup>Websters Online Dictionary