Electronic Forms Processing (eForms):

Collaboration and workflow solutions for digital content and document management

A White Paper

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What is eForms Processing?

Organizations and the groups within them depend on the efficient movement of information to run their businesses effectively. Inefficient business processes and the manual collection of data can lead to reduced productivity and costly delays. Because business information moves quickly, business users find that their paper trail needs to move just as rapidly. To optimize the processing of information in an enterprise, organizations need the tools to efficiently automate their existing processes and react quickly to changes in the environment. This is a primary objective of an electronic forms (eForm) processing solution.

Electronic forms (eForms) processing enables organizations to easily collect information through online forms and process the requests in accordance with defined business procedures. It eliminates the need for data entry workers keying in data from paper forms and operators no longer need to decipher handwriting.

A complete eForms solution will manage the entire lifecycle of a form and the processes involved. The objective is to ease and speed the collection of the data and automate the processing of that information. An effective solution presents users with forms that are familiar to them. It allows them to fill out and submit the information electronically. This provides better control and tracking, and accelerates the delivery and processing of higher quality information.

Process Director's eForms component is designed to improve and centralize the gathering and processing of form based information. It is built upon the successful Process Director base providing integrated document management, workflow automation, collaboration, document imaging, and knowledge management.

Automated Forms Processing vs. eForms

There are two main types of form processing with the fundamental difference being how the data is obtained. In the first approach, sometimes referred to as "automated forms processing", the user fills in a paper form which is then later scanned and converted to a digital format. In the second approach, called eForm processing, the user fills out a form "online" in an electronic format (e.g. html, PDF). Products such as Process Director support both types of forms processing; however, the intent of this white paper is to highlight the features, benefits, and advantages of the second approach: eForms processing.

What Types of Processes Benefit with eForms?

The typical global enterprise uses an average of 400 complex business forms amenable to automation[1]. An eForms solution is not necessarily meant to introduce new forms and processes; its most important role is in its ability to handle your existing forms and processes. Any group, organization or process

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[1] GISTICS, KMWorld June 2004

where data collection is involved can benefit from an eForms solution. Process Director can take existing forms, those that users are already familiar with, and allow them to be viewed and completed electronically. This online submission occurs directly from within a user's browser.

Processes that can benefit from an electronic forms processing solution include:

> *Internal Change Requests (IT Change Control)*
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> *Purchase Order Submission*
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> *Employee and HR (hiring, salary, vacation, leave requests)*
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> *Expense Reports*
>
> *Requisition Processes*
>
> *Web Based Form Submissions (support, help desk, etc.)*

Can you think of others? What types of forms or manual processes does your group or company use regularly?

Importance of Workflow Automation

Workflow automation is one of the most important components to an eForm system. Electronic forms processing without workflow is simple data collection. Forms are filled in so the information can be processed, not just sit somewhere. The workflow engine that is embedded within Process Director performs this processing. The handling of a completed form may involve the interaction of multiple people and external systems. It is common to route forms for a review and approval process, and after approval some action is taken.

Workflow automation enables an organization to route eForms and other requests in accordance with their defined business procedures. Process Director routes this information as part of a "*workflow package*" allowing multiple forms, documents, and other digital content to be included in the information being processed. This *package* can be routed to users for data collection, review and approval. Process Director enables you to increase efficiency by combining multiple content types (e.g. eForms, documents) for a more complete automation of your complex business processes.
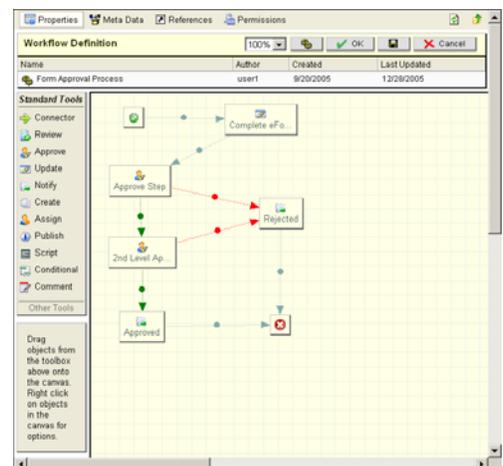
eForm Benefits

If you are reading this white paper, you are probably aware of the many advantages an eForms solution provides. An eForm solution can unite users and systems, improving the overall business process. It enables you to speed the collection of high quality information and deliver it to the right place at the

right time. With business forms costing an average of $75K to manage throughout their lifecycle, a primary benefit of an eForms solution is cost savings[2].

Below are some of the additional benefits provided by the Process Director's eForms solution:

➢ *Reduce Costly Paper Handling and Manual Routing*

Paper based forms are costly to print, store, distribute, mail, and process. Automation of the form processing ensures there is no disconnect from the form and the business process required for that form.

➢ *Tracking, Auditing, and Process Awareness*

Instant access to current and prior activity, including completed forms and processes, ensures that authorized users have immediate access to the information they need to assist in daily decision-making processes. Having visibility into the forms entire lifecycle reduces cost, improves quality, and speeds vital business information.

➢ *Accelerate the Delivery of Form-Based Information*

The workflow engine automatically routes completed forms to the appropriate users for review/approval and can interact with external systems. The routing provides automated email notifications and personalized task lists for users that must review or approve a form.

➢ *Reduce Errors and Improve Accuracy*

Pre-population of form fields from external sources and *form segment isolation* enable users to input only the data required of them. Fewer areas to type reduce errors and form field validation ensures accuracy.

➢ *Speed Collection of Quality Information*

Presenting users with eForms that appear like their paper-based predecessors eases participation in the form completion process and improves the quality of the information collected. Integrated form help, field pre-population and instant validation improve the end user experience and reduce expensive support calls.

An important business benefit of Process Director is its ease of use and rapid deployment. Presenting users with forms they are already familiar with and driving the process automation through their email eliminates the need for costly training. Context sensitive forms, embedded help, and form segment isolation further ease in the simplicity, acceptance and deployment of Process Director's eForms solution.

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[2] GISTICS, KMWorld June 2004

eForm Lifecycle

Process Director manages the entire electronic forms (eForm) lifecycle. The lifecycle of an electronic form consists of six stages. Different users are involved at each stage in this lifecycle. Process Director has geared the entire lifecycle for the business users -- it does not require developers or IT. The eForm Builder and the workflow processing are easy to use and accomplished with no programming. The following sections describe how Process Director addresses the unique requirements of each stage of the eForm lifecycle.

Create   Manage   Deploy   Collect   Process   Archive
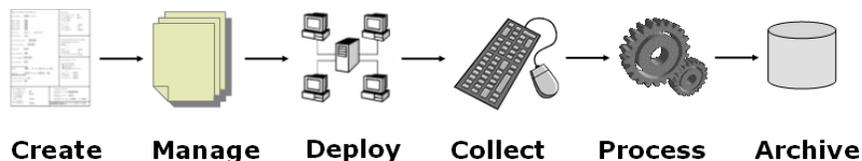
Create

The first stage in the electronic forms lifecycle is the creation of the eForm. Process Director provides an eForm Builder that natively supports MS Word forms, making it easy for business users and non-programmers. Many users will find that their existing paper based forms originate from an MS Word file. The creation stage is more than just building an eForm. A typical eForm will undergo a series of reviews and an approval process to ensure that the appropriate information is being submitted on the eForm.

Manage

Process Director provides the repository for your eForm management. This allows forms to be stored centrally on a server giving authorized users the ability to view, submit, or modify eForms. A complete version history is maintained for all eForms, showing every time a user modifies them. This allows previous versions of an eForm to be restored when needed. The eForm management allows secure central storage, remote access, folder based organization, and search capabilities -- all seamlessly integrated with the eForm Builder.

Distribute / Deploy

Once an eForm has been created and approved for use it must be distributed so that the appropriate users can locate and fill in the forms. Process Director provides the ability to easily publish eForms, making them available to everyone inside or outside your organization. The integrated document management features ensure everyone has the most up-to-date and approved versions of your eForms. Permissions control who has access to eForms, presenting users with just the forms they are allowed to fill out and submit.

Capture / Collect

Using a standard web browser, users can access electronic forms without the requirement of costly client software, ActiveX controls or Java applets to download. All forms are network accessible and are easy to submit, speeding the data collection process. Process Director provides *form segment isolation*, which highlights the portion of the form the user is required to fill out and can disable or hide other

portions of the form. Integrated form help, pre-population and field validation ensure that users enter the appropriate information as well as streamlining and improving the user experience. All form data is stored in the industry standard XML separately from the actual eForm, allowing for external processing and interaction with other systems.

Process

A form should never be disconnected from its workflow processing. After an eForm is completed by a user it will undergo some type of processing. A completed eForm may be routed for a review and approval process, and upon approval a user may be notified or some interaction with another system may occur. This processing is performed by Process Director's workflow engine, allowing your organization to establish rules and routing requirements for completed forms. When a completed form is routed to various users, permissions control what data on the form is visible to them. This keeps sensitive data from those users that do not need access to all the information on the form.

Archive

After a form has been completed, the data and process information should be archived for later retrieval. This allows you to track progress, report on, and audit all of your form related events. Process Director provides the repository that stores this information allowing you to produce completed forms and workflow processes on demand. This information can be located by user, by data on the form, or by workflow process. Electronic signatures are maintained for all user activity within a workflow process ensuring non-repudiation of any reviews, approvals or rejections that occurred.

Technology Behind eForms Processing

Process Director provides all the components to manage the entire eForms lifecycle. The product is structured in three layers. *Layer 1* provides the content and document management features necessary to securely store, modify and access your eForms and completed form data. *Layer 2* provides the business process automation which addresses your routing and workflow requirements. *Layer 3* provides the delivery and retrieval of form and process information. All layers of Process Director are seamlessly integrated to provide a single and complete eForms offering.

Process Director provides a flexible infrastructure to gather and store information more accurately and quicker. The product supports JavaScript and VBScript for advanced business logic processing, as well as other industry standards such as SOAP, XML and ODBC. Integrated support for your LDAP server or Active Directory enables Process Director to perform advanced functions such as automatically routing requests to a user's manger.

What to Look for in an eForm Solution

The first step in searching for an eForm solution is to understand your environment. Identify the problems you want to solve, the timeframe you need the solution deployed, and the skill set you have to

work on the problem. Paper- intensive or manual processes are good candidates for eForms automation. You should expect an ROI within months with a good eForm solution.

Process Director provides this type of return. It provides eForms processing that requires no development, can be deployed rapidly, and has a low total cost of ownership. Combined with the base Process Director features, the eForms component enables more effective team collaboration and document management for your organization.

Summary

Automating the use and processing of online forms is an opportunity for any organization to see one of the greatest returns on investment for a software application. Process Director is the fastest, easiest and most cost-effective way for an organization to move from a paper based forms process to an automated eForms solution.

From PCs to PDAs, employees to customers, eForm processing will increase employee productivity, collaboration and knowledge sharing among team members. Whether you are looking for a company-wide or departmental business form processing, Process Director can take your critical paper-based processes and automate the workflow, reducing operational costs and accelerating productivity for all your forms based processes.