

## **Xerox DocuShare CPX Enhanced Workflow for Developers**

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The seamless flow of content is a key part of effectively automating any document-centric business process. From managing insurance claims to processing complex loan applications, automated content workflow boosts organizational productivity by accelerating and automating transactional processes and making content more available, usable, and actionable for business decision-making.

While the benefits are many, accurately building intricate workflows demands skill, deep subject matter expertise, and the right set of tools for both the developers and users of the workflow. Given the complexity of many business processes, workflow development can be a daunting and costly undertaking, requiring thorough analysis and often extensive customization that can limit or even prohibit customer investment and adoption.

Support for workflow is part of the Xerox DocuShare heritage. The DocuShare Enterprise Content Management (ECM) solution offers embedded routing and approval tools that let every user initiate or participate in regular content workflows as a part of their daily activities. Now, DocuShare CPX takes the power of DocuShare to a new standard of performance with built-in tools for enhanced workflow capabilities.

Part of the market-leading Xerox DocuShare product family, DocuShare CPX enhanced workflow provides a flexible, complete environment in which to develop document-centric business solutions. Solution developers will find advanced functionality that supports a wide range of workflow requirements while greatly reducing dependence on extensive and often challenging custom code development.

## **DocuShare Workflow Engine Drives Performance**

The new enhanced workflow functionality is delivered by the DocuShare CPX Workflow Engine and accessed through the DocuShare Developer's Environment (DSDE). Workflow tasks can be designated through the traditional routing and approval application, through new CPX content rules, or through the Workflow Design Studio graphical development environment. Regardless of how and where they are defined, the DocuShare Workflow Engine monitors all workflow task triggers and executes pre-defined content management actions. The Workflow Engine also provides fault-tolerance and scalability through advanced features such as caching, thread-pooling, persistence, and support for load-balancing and clustering.

## Content Rules Accelerate Design

One of the most important new features of DocuShare CPX enhanced workflow is a set of pre-defined content rules for initiating or accessing previously defined workflows. Content rules are created by end users through an intuitive authoring wizard in the user interface, and can be easily applied to any content collection or any individual content object. Content rules are initiated by event triggers, which include a range of document-centric events that occur in typical business workflows, and which drive predetermined actions to automate specific content management aspects of an overall business process.

Activating a content rule involves a simple but powerful multi-step process. A designated event can be associated with many types of content or documents that enter the workflow. It can be conditioned by any of several additional requirements such as modification of time or date, or approval by a specific user. These events then trigger actions to be performed on the content, such as 'create a collection', 'delete a collection', 'route a document', etc.—again, content rules provide a broad list of pre-defined actions that typically affect content connected with workflows. Options such as changing specific content properties can also be applied to an action, as well as the ability to have specific document properties modified upon completing the primary action of any given content rule.

New actions can be quickly added to the content rules action list by authorized system integration specialists. And, individual content rules can be easily chained together to drive multiple steps of more complex content-related actions as a series of events in a workflow. For example, complex rules can be created where actions such as 'change owner', 'change permission', 'move a file' and a custom action are chained together to perform a more intricate workflow step.

## Improved Graphical Development with Workflow Design Studio

Along with the default actions in content rules, new enhancements to Workflow Design Studio provide a graphical environment for building more customized workflows that address the specific nuances of a particular business process. The new Studio version closely maps to the standard DocuShare vocabulary, allowing workflow designers to immediately leverage their existing knowledge of the DocuShare product without the distraction of coding integration (or "call-back" code). Studio's drag-and-drop environment enables a clean visual representation of a complete enterprise workflow, simplifying both the development and modification of customized workflows.

System integrators can quickly design custom workflows in Studio by inserting predefined, DocuShare-specific workflow task objects from the graphical design palette. Software developers can both take advantage

### DocuShare CPX Enhanced Workflow for Developers Standard Event Triggers

- Document locked or checked out
- Document unlocked
- Metadata edited
- New version added
- Ownership changed
- Permissions changed
- Location changed
- Something added
- Document approved or disapproved
- Specified time reached

### DocuShare CPX Enhanced Workflow for Developers Standard Actions

- Execute Studio-designed workflow\*
- Create collection
- Route document
- Delete content
- Change metadata
- Add or change location
- Create new document version
- Create placeholder document
- Email content
- Email change notification
- Export to external location
- Convert document file format
- Add rendition

\* High value-add for system integration specialists to expand the standard actions list with customized actions

of the default functions for standardized tasks, and create more elaborate Java-based custom task objects—Studio’s graphical design environment flexibly incorporates both. Using these enhanced tools streamlines the implementation of content-centric workflow processes, allowing integrators and developers to apply more project resources on true value-added activities. **actions that are custom-created in Design Studio can be readily made available for users to invoke through the content rules authoring wizard.**

Workflows created using Studio’s graphical tools can be output to XML for easier editing and debugging or to accelerate the replication and re-use of custom code. Once workflows are complete, Studio deploys them as Java Archive (.jar) files that can be deployed into a DocuShare CPX installation.

## Rounding out the Workflow Capabilities





















Additional powerful workflow-related features of DocuShare CPX now include:

- **Workflow Manager**, allowing privileged users the ability to view and generate reports for actively running workflow tasks. Using Workflow Manager, an administrator can initiate, stop, or delete workflow tasks, list running workflows, and see when they were started and by whom.
- **Integrated Email Agent**, providing a smooth mechanism through which both registered users and unregistered process participants can submit content into DocuShare CPX. Content is submitted as an email attachment sent to a specific address that is configured to connect to CPX. The attachment and its associated metadata are automatically captured without needing to retain the entire email message.
- **Notifications and routing approvals**, attaching directly to basic DocuShare workflow functionality. These core capabilities, also available in earlier versions of DocuShare and DocuShare CPX, continue to support the approval and notification requirements of any business workflow.

## Workflow-related: Auditable Activity History

Another important new feature of DocuShare CPX is the activity history. With this function, DocuShare CPX tracks all activity across the complete life of a document or user, including the history of all actions performed as well as ownership and associated user permissions. This reliable, on-demand, and detailed accounting protects any business subject to strict compliance requirements or audits.

Several aspects in activity history are of particular note. All user activity is tracked, including the simple viewing or download of a document. Emailing or exporting a document is also tracked, as this is information that can

	DSXorTask
	DSEventualTask
	DSNotificationTask
	DSEmailDocumentsTask
	DSCopyDocumentTask
	DSGetPropertiesTask
	DSSetPropertiesTask
	DSCreateCollectionTask
	DSCreatePlaceholderDocumentTask
	DSExportDocumentsTask
	DSMoveDocumentTask
	DSVersionDocumentTask
	DSRemoveFromCollectionTask
	DSRouteForApprovalTask
	DSLCKContentTask
	DSUnlockContentTask
	DSChangeOwnerTask
	DSChangeAclTask
	DSInvokeConverterTask
	DSEscalateTask

Workflow Design Studio’s graphical palette offers pre-defined task objects for quick design of custom workflows.

be critical to a digital 'paper' trail. When a user is deleted, a confirmation page shows all documents that the removed user had owned, readily exposing content that may need a new owner assigned. Finally, because an activity history database for a high number of users and documents can quickly grow quite large, developers retain complete control over the database configuration, setting size limits if necessary and archiving content once the designated limit is exceeded.

## **Who should consider content-centric workflows and auditable activity history?**

Any document-centric business can benefit from automating content as part of its transactional workflows. Industries that may particularly benefit include:

- **HR**—for management of employee records across their employment history, and efficient processing of candidate applications and resumes throughout the hiring cycle
- **Legal**—for on-demand access to copious litigation documents, streamlining the discovery process, and easily sharing information among attorneys, across offices and externally with clients
- **Manufacturing**—for effective project management and document-centric workflows across the supply chain
- **Insurance**—for streamlined, error-proof processing and decisioning on new policy applications
- **Medical**—for quickly incorporating new patient data and records, permitting faster, pervasive availability of information for all medical staff

## Would You Like to Learn More?

For more information on DocuShare CPX enhanced workflow, please call **1.800.735.7749** or visit **[docushare.xerox.com](http://docushare.xerox.com)**.

## About DocuShare CPX

Xerox DocuShare CPX, a highly intuitive and secure Enterprise Content Management (ECM) application, enables document intensive organizations to dynamically capture, manage, retrieve and distribute information easily, regardless of skill level or location. Part of the Xerox DocuShare family of ECM products, DocuShare CPX customers can significantly improve productivity, streamline business processes, and reduce the time and cost of managing routine business documents and information. Leading the industry in speed of deployment and ease of administration and use, DocuShare CPX significantly reduces installation and complexity, and flexibly extends into an existing infrastructure, resulting in lower total cost of ownership and faster return on investments. Tightly integrated with Xerox Document Centre and WorkCentre Pro, DocuShare CPX can manage both hard copy and electronic content with unsurpassed ease and convenience.

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