

powerEvents

Enhance Vault Workflows with Intelligent Action Handlers

Whatever the industry, manufacturing production errors that lead to defects, cost money and waste time. Improvements in engineering workflows and processes can have a significant impact on reducing errors, controlling costs, and improving quality while enforcing compliance with standard operating procedures for production and regulatory requirements.

We can help bring automation to your engineering workflows and processes to eliminate manual errors for good. With powerEvents, Vault's business logic can be tailored to meet the unique needs of a customer's workflow and processes requirements. Although this can be done through the Vault API, access is limited to programmers and too complex for many Vault administrators. To provide Vault administrators with an alternative, coolOrange introduced powerEvents, a software tool for enhancing Vault workflows using simple Microsoft PowerShell scripts. Actions such as adding files, folders, items, or changing the state of an object can be enhanced beyond the standard Vault configuration options. The actions or events provided by Vault and supported by powerEvents can prevent an action from happening through restriction rules, or can execute custom business logic before or after an action is performed. powerEvents enhancements are created using Windows PowerShell scripts, which is a very popular scripting language among system administrators.

Unlimited Possibilities!

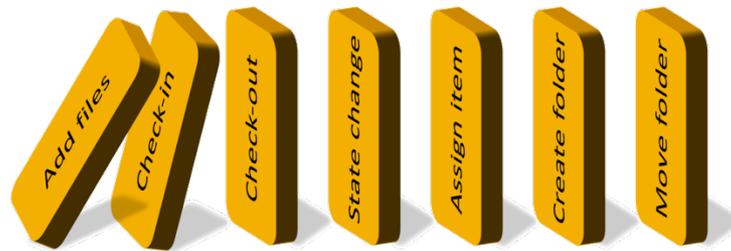
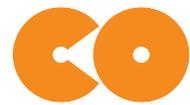
With powerEvents the possibilities are endless since custom scripts can be created to allow almost any complex logic into the normal workflow of Vault in ways that are not built into Vault's native logic.

Typical scenarios of lifecycle transitions enhancements include:

- Checking, filling or emptying property values
- Queueing jobs in an intelligent way

Also common is to performing custom logic on actions, such as:

- Link files with folders on file creation
- Triggering a job on file/item creation or update
- Update BOM information on item change
- Many more possibilities!



Examples of Real Business Use Cases

Four Eyes Principle

Using Vault's release mechanism is a must, but when the designer is also allowed to be the approver and release a new design, errors will happen, there is just no way around it. Errors can be avoided by applying a small lifecycle enhancement to validate that the person who sends the file for approval cannot be the same person that approves it. With powerEvents, you can enhance the Vault lifecycle by verifying that the Vault user releasing the file/item is not the same user that requested approval.

Validate Legacy Files

Over time companies may change title-blocks, styles, or other design standards. Going back into Vault to apply design changes to legacy files can be a significant effort. With powerEvents, you can apply lifecycle transition checks to verify if the assembly to be released contains files older than a certain date (legacy files). When this situation occurs, new or revised assemblies will require the designer's attention in order to be released. In combination with powerJobs, a coolOrange product, updating to the new design standard can be automated to save time for the designer and avoid manual updating errors.

Prevent Lifecycle Transition While Jobs are Pending

A job that is triggered on a lifecycle transition, for instance on release, is part of the lifecycle transition itself. If that job does not successfully execute, the lifecycle transition cannot be completed. With powerEvents, you can add an additional check on a lifecycle transition to verify whether there are pending or error jobs for a file, item or change order. This way, the user will not be able to move forward in the process if the previous process step was not completed properly.



Empty or Fill user Defined Properties on Lifecycle Transition

powerEvents allows you to add unique logic into a PowerShell script to ensure that processes adhere to your business rules. For example, when creating a new revision of a file or item, powerEvents can empty or reset some properties to be set manually before the next release process. Or, when releasing a file or item, automatically fill in some properties such as, current user, date or computed values.

Check Against ERP

When releasing files or items it is critical that the design is accurate. An outdated or wrong part number in a model or item can lead to an incorrect bill of material and costly production errors. In combination with powerGate, a coolOrange integration product, powerEvents can check whether the part number and other properties are valid in the ERP system. If not, the associated lifecycle transition will be stopped to allow for correction.

Queue Jobs in a Smart Way

Vault provides the option to queue jobs on lifecycle transition for a file, item or change order subject to lifecycle transition, but all the jobs queued will have the same priority. powerEvents, on the other hand, lets you queue jobs based on priority. For example, when releasing a huge assembly, a PDF job for drawings can be queued with a high priority, whereas other jobs, such as for DWG, STEP can be queued with a lower priority on lifecycle transition. powerEvents lets you queue the right job, at the right time, with the appropriate priority, resulting in higher efficiency.

Queue Jobs on File/Item Creation or Update

powerEvents lets you queue specific jobs for the Job Processor to either automate specific actions or apply additional quality checks when a file or item is created or updated in Vault. Delegating the validation or clean-up job to the Job Processor utilizes system resources more efficiently.

Return on Investment

Although the cost of preventable errors is unique to each manufacturer, the nominal one-time cost of implementing custom business logic, in combination with the annual software subscription cost is very low when compared with the advantages powerEvents provides to:

- Automate critical actions
- Enforce best practice standards
- Improve the quality of engineering data over time

About

coolOrange provides software tools and services to help CAD engineers efficiently load data into Vault with the bcpToolkit, enhance workflow processes using



powerJobs, implement restrictions and validations on lifecycle events using powerEvents, and connect Vault to ERP systems with powerGate.

Benefits

- Enforcing CAD standards to ensure correct behaviors
- Reducing cycle times, controlling costs, and improving quality
- Improve collaboration between product design and manufacturing

Key Features

- Add intelligence to file/item/change order lifecycle state changes.
- Queue jobs intelligently.
- Add greater control to lifecycle transitions.
- Improves information quality.
- Perform an action on check-in/check-out operation.

Technical Requirements

- Windows PowerShell 4 or higher (Windows 8.1 or higher)
- Vault Workgroup or Professional 2017 or higher
- .Net Framework 4.5 or higher